钻削工具

螺纹工具

铣削工具

其它工具

YG-1 CO., LTD.

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PHONE : +82-32-526-0909, FAX : +82-32-526-4373
Http://www.yg1.kr
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YG1YA111014001

YA12
ASIA

CATALOGUE
2012 / 2013

YG CUTTING TOOLS

YA12
ASIA
2012 / 2013

Registered
ISO 9001:2008 / ISO 14001:2004

Seal of Excellence
kotra

CUTTING TOOLS

钻削工具 / 螺纹工具 / 铣削工具 / 其它工具

www.yg1.kr

YG-1 CO., LTD.

标记的说明 / GUIDE LINE TO ICONS

工具材质 / Tool Material

- CBN — 立方氮化硼 Cubic Boron Nitride
- NG HM — 纳米级硬质合金 Nano Grain Carbide
- MG HM — 微粒硬质合金材料 Micro Grain Carbide
- YPM — YG-1超细粉末高速钢 YG-1 Premium Powder Metallurgy HSS
- PREMIUM HSS-PM — 超细粉末高速钢 Premium Powder Metallurgy HSS
- HSS PM — 粉末高速钢 Powder Metallurgy HSS
- PREMIUM HSS-Co — 含钴高速钢 Premium Cobalt HSS
- HSS Co8 — 含钴8%的高速钢 8% Cobalt HSS
- HSS EX — 高钒高速钢 High Vanadium HSS
- HSS-E — 含钴5%的高速钢 5% Cobalt HSS
- HSS — 高速钢 High Speed Steel

刀具标准 / Standard of Tools

- DIN 338 — DIN 标准号 Number of DIN Standard

柄形 / The Type of Shank

- PLAIN / DIN 6535HA — 直柄 Plain shank (with DIN Standard)
- FLAT / DIN 6535HB — 槽柄 Flat shank (with DIN Standard)
- 1 ~ 5 — 削平柄 Range of Morse Taper Shank

螺旋角 / Helix Angle

- 30° / 30° — 铣刀 End Mills
- N 30° / N ≈ 30° — 钻头 Drills
- R40° / L20° — 丝锥 Taps
- LH7° / LH45° — 绞刀 Reamers

钻顶角 / Point Angle

- 120° / 135°

尺寸公差 / Tolerance of Dimension

- h6 / h8 — 外径公差 Tolerance of Outside Diameter
- h6 / h8 — 柄部公差 Tolerance of Shank Diameter

半径公差 / Tolerance of Radius

- R ±0.005 / R ±0.01 — 球头半径公差 Tolerance of Ball Radius ±0.005, ±0.01 mm
- R ±0.010 / R ±0.015 — 圆角公差 Tolerance of Corner Radius ±0.005, ±0.015 mm

外缘类型 / The Type of Periphery

- NR — 粗加工用，粗齿 Roughing, Coarse Pitch
- HR — 粗加工用，细齿 Roughing, Fine Pitch
- WR — 粗加工铝用 Roughing for Aluminium
- NF — 粗&精加工用 Roughing & Finishing type
- N — 精加工用 Finish type
- W — 精加工铝用 Finish type for Aluminium

标记的说明 / GUIDE LINE TO ICONS

切削工件 / Working Material

- GS — 易加工钢 Steels with good machinability Rm<850N/mm²
- VG — 热处理和不导热钢 Heat treated and heat-resistant steels Rm<850N/mm² ≤Rm≤1,200N/mm²
- HR — 高合金钢 High alloyed steels Rm>1,200N/mm²
- VA — 不锈钢 Stainless steels
- NW — 低合金钢 Carbon steels with low contents of alloys Rm<700N/mm²
- Ti — 钛合金 Titanium alloys
- Ni — 镍合金 Nickel alloys
- GV — 具有8-10%延展性材料 Any material with alleast 8~10% elongation
- Al — 铝及铝合金 Aluminum & Aluminum alloys
- GG — 灰铸铁 Grey Cast Iron
- Ms — 黄铜 Brass
- MU — 多功能 Multi-Purpose

螺纹角 / Thread Angle

- 60° / 55°

铰刀的外径公差 O.D. Tolerance of Reamer

- H7 — DIN 1420 for H7, 铰孔 DIN 1420 for H7, Reamed Hole

刃数 / No. of Flute

- 1 / 2 / 3 — 1,2,3 刃 1,2,3 Flutes
- 4-6 — 4~6 刃 4~6 Flutes
- 3&4 — 3&4 刃 3&4 Flutes

倒角长度遵循DIN2197 Chamfer Lead Acc. to DIN2197

- I / III / I / II / III — 成套手用丝锥 Set of Hand Taps
- LONG — 螺母用长倒角丝锥 Long Chamfer Lead for Nut Tap
- C — 形式C (倒角长度2-3牙) Form C (Chamfer Lead 2~3 Thread)
- B — 形式B (螺尖形，倒角长度4-5牙 Form B (with Gun-nose and Chamfer Lead 4~5 Thread)

表面处理 / Surface Treatment

- Bright — 白色 Bright Finish
- NI — 氮化 Nitrided
- TiCN — 氮碳化钛涂层 Titanium Carbon Nitride Coating
- Hardslick — TiALN +WC/C涂层 TiAlN+WC/C Coating
- Homo — 氧化处理 Steam Homo
- TiN — 氮化钛涂层 Titanium Nitride Coating
- TiAlN — 氮化铝钛涂层 Titanium Aluminum Nitride Coating
- BLUE — 蓝色涂层 Blue-Coating

螺纹等级 / Class of Thread

- 6HX
- 6H Mod.
- 2B
- 6GX
- 6H
- 2BX

倒角 / Chamfer Angle

- 15° / 45° — 铰刀 Reamers

切削条件 / Cutting Condition

- P / P / P — 刀具的切削条件 Cutting Condition of Tool See the Page 000

CBN End Mill

V7 Mill

X5070 End Mill

D-Power End Mill

Multi-1 Drill

Dream Drill

Tank-Power End Mill

HSS End Mill

i-Xmill

i-Dream Drill

Spade Drill Inserts

Combo Tap

YG

CUTTING TOOLS

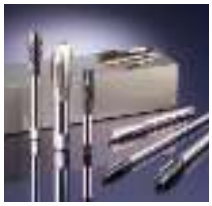
DRILLING TOOLS

	产品 PRODUCTS	规格 DESCRIPTION	页 PAGE
	i-梦幻钻，硬质合金刀片 **i-DREAM DRILLS, CARBIDE INSERT**	应用于加工普通钢和不锈钢 Available for General Steels and for Stainless Steels	**31**
	整体硬质合金梦幻钻头-普通 (带油孔和不带油孔) **SOLID CARBIDE DREAM DRILLS - GENERAL (with & without Coolant Holes)**	普通用途通常是HRc30 ~ HRc50 General Purpose usually HRc30 to HRc50	**45**
	整体硬质合金梦幻钻头-软材质用 (不带油孔) **SOLID CARBIDE DREAM DRILLS - SOFT (without Coolant Holes)**	用于中等硬度钢 for Steels, up to Medium Hardness	**63**
	整体硬质合金梦幻钻头-不锈钢 (带油孔) **SOLID CARBIDE DREAM DRILLS - INOX (with Coolant Holes)**	像硬度在HRc35以下的不锈钢，镍合金和钛等硬质材料 Tough Materials like Stainless Steels, Nickel Alloys and Titanium up to HRc35	**73**
	整体硬质合金梦幻钻头-MQL类型 (带油孔) **SOLID CARBIDE DREAM DRILLS - MQL TYPE (with Coolant Holes)**	用最少量的润滑剂，钻深孔 (10D,15D 和 20D) Minimum Quantity Lubrication. Drilling Deep Holes (10D, 15D & 20D)	**85**
	高硬度钢用的整体硬质合金梦幻钻头 **SOLID CARBIDE DREAM DRILLS for HIGH HARDENED STEELS**	HRc50 ~ HRc70的高硬度钢 High Hardened Steels HRc50 to HRc70	**91**
	普通整体硬质合金钻头， 普通长度 和 超短型 **GENERAL SOLID CARBIDE DRILLS, JOBBER & STUB LENGTH**	普通用途,DIN338 和 DIN6539 General Purpose, DIN338 & DIN6539	**97**
	整体硬质合金定心钻头 **SOLID CARBIDE NC-SPOTTING DRILLS**	定中心和倒角 Centering and Chamfering	**107**
	粉末高速钢 MULTI-1 钻头 **HSS-PM MULTI-1 DRILLS**	多用途钻头尤其适用于不锈钢 Multi Purpose Drilling Particularly for Stainless Steels	**113**

DRILLING TOOLS

	产品 PRODUCTS	规格 DESCRIPTION	页 PAGE
	高级的高速钢HPD直柄钻 **PREMIUM HSS HPD STRAIGHT SHANK DRILLS**	普通钢和不锈钢 General Steels and Stainless Steels	**121**
	高速钢 GOLD-P钻头 **HSS GOLD-P DRILLS**	GOLD-P涂层 (HSS & 含钴 8%) Gold-P Coating (HSS & 8% Cobalt)	**139**
	HSS-E蜗型槽钻头 **HSS-E WORM PATTERN DRILLS**	钻深孔 Drilling Deep Holes	**149**
	高速钢 直柄钻头 **HSS STRAIGHT SHANK DRILLS**	普通用途 (HSS & HSS-E & 含钴 8%) General Purpose (HSS & HSS-E & 8% Cobalt)	**165**
	高速钢 锥柄钻头 **HSS MORSE TAPER SHANK DRILLS**	普通用途 (HSS & HSS-E & 含钴 8%) General Purpose (HSS & HSS-E & 8% Cobalt)	**203**
	含钴量8%的高速钢定心钻头 **HSS (8% Cobalt) NC-SPOTTING DRILLS**	孔的定中心和倒角 Centering and Chamfering of Holes	**227**
	HSS-EX中心钻 **HSS-EX CENTER DRILLS**	普通用途 General Purpose	**233**
	硬质合金 & 粉末高速钢铲钻 **CARBIDE & HSS-PM SPADE DRILLS**	硬质合金材质可以得到更长的刀具寿命，高速钢材质用于普通加工已经大尺寸的加工相对于其他类型的钻孔工具，铲钻具有更高的加工效率. Carbide for Long Tool Life, and HSS-PM for General Machines and Large Diameters. Higher Productivity than Other Drilling Tools	**239**

THREADING TOOLS

	产品 PRODUCTS	规格 DESCRIPTION	页 PAGE
	高速钢COMBO丝锥 (先端，螺旋槽COMBO丝锥) **HSS COMBO TAPS** **(Spiral Point & Spiral Flute)**	多用途丝锥是YG-1的专利. (HSS-EX) Multi Purpose Tapping, YG-1's Patent (HSS-EX)	**345**
	高速钢先端丝锥 **HSS SPIRAL POINT TAPS**	通孔加工 (HSS-EX & HSS-PM) Tapping Through Holes, (HSS-EX & HSS-PM)	**357**
	高速钢螺旋槽丝锥 **HSS SPIRAL FLUTE TAPS**	盲孔加工 (HSS-EX & HSS-PM) Tapping Blind Holes, (HSS-EX & HSS-PM)	**385**
	高速钢直槽丝锥 **HSS STRAIGHT FLUTE TAPS**	铸铁，低碳钢和黄铜的浅孔加工 (HSS-EX & HSS-PM) Tapping Shallow Holes of Cast Iron, Mild Steels and Brass (HSS-EX & HSS-PM)	**425**
	高速钢长柄丝锥 **HSS LONG SHANK TAP**	用于加工深孔 for Tapping Deep Holes	**433**
	高速钢挤压丝锥 **HSS FLUTELESS TAP**	用于软材料的丝锥 (HSS-EX & HSS-PM) Tapping by Forming Soft Materials (HSS-EX & HSS-PM)	**453**
	高速钢嵌套螺纹用丝锥 **HSS SCREW THREAD INSERT TAPS**	在软材质上加工STI 螺纹 (HSS-EX) Tapping STI Threads of Soft Materials (HSS-EX)	**463**
	高速钢手用丝锥 **HSS HAND TAPS**	普通加工 General Tapping	**469**
	高速钢管用丝锥 **HSS PIPE TAPS**	惠氏管用螺纹加工 (HSS & HSS-EX) Tapping Whitworth Pipe threads (HSS & HSS-EX)	**479**

THREADING TOOLS

	产品 PRODUCTS	规格 DESCRIPTION	页 PAGE
	整体硬质合金丝锥 **SOLID CARBIDE TAPS**	加工铸铁和高硅铝，产量大，生产效率高 Tapping Cast Iron and High Silicon Aluminium, Mass Production, High Productivity	**489**
	SKS21丝锥(手用丝锥，管用丝锥) **SKS21 TAP (HAND, PIPE TAP)**	实现高强度加工，易装配 To Achieve High Strength. Easy Assembling.	**495**
	整体硬质合金螺纹铣刀 (带油孔和不带油孔) **SOLID CARBIDE THREAD MILLS (with & without Coolant Holes)**	在大多数及大尺寸的材料上可以高品质的螺纹铣加工，可以带有倒角 Threading Most of Materials and Big Sizes in High Quality, Available with Chamfer	**513**

MILLING TOOLS

	产品 PRODUCTS	规格 DESCRIPTION	页 PAGE
	CBN 铣刀 **CBN END MILLS**	CBN(立方氮化硼) CBN(Cubic Boron Nitride) -对HRc70以下的高硬度钢进行镜面加工 Machining High Hardened Steels up to HRc70, Mirror Finish	**563**
	i-Xmills硬质合金嵌入式刀片 **i-Xmills, CARBIDE INSERT END MILLS**	用于HRc65以下的普通钢和硬度钢 Available for General Steels and for Hardened Steels up to HRc65	**569**
	X5070 NANO整体硬质合金立铣刀 **X5070 NANO SOLID CARBIDE END MILLS**	HRc45 ~ HRc70的高硬度钢，高速加工，干式切削 High Hardened Steels HRc45 to HRc70, High Speed Machining, Dry Cutting	**581**
	X-POWER整体硬质合金立铣刀 **X-POWER SOLID CARBIDE END MILLS**	硬度为HRc65以下工具钢到高硬度钢 Medium Steels to High Hardened Steels up to HRc65	**619**
	JET-POWER整体硬质合金&粉末高速钢铣刀 **JET-POWER SOLID CARBIDE & HSS-PM END MILLS**	不锈钢，镍合金和钛等特殊材质 Exotic materials like Stainless Steels, Nickel alloys and Titanium	**692**

MILLING TOOLS

	产品 PRODUCTS	规格 DESCRIPTION	页 PAGE
	V7 不锈钢用整体硬质合金立铣刀 **V7 INOX SOLID CARBIDE END MILLS**	可对不锈钢进行重切削和平稳加工，材料硬度可达HRc40 Stainless Steels in Heavy and Silent Cutting Materials up to HRc40 变化的导程设计是YG-1的专利 Designed as Variable Leads, YG-1's Patent	**711**
	V7 钢用整体硬质合金立铣刀 **V7 STEEL SOLID CARBIDE END MILLS**	可对钢进行重切削和平稳加工，材料硬度可达HRc40 Steels in Heavy and Silent Cutting Materials up to HRc40 不均一的导程设计 Designed as Unequal Leads	**727**
	ALU-POWER整体硬质合金&粉末高速钢铣刀 **ALU-POWER SOLID CARBIDE & HSS-PM END MILLS**	铝合金和无声切削 Aluminium Alloys and Silent Cutting	**737**
	CRX S 整体硬质合金铣刀 **CRX S SOLID CARBIDE END MILLS**	铜加工用DLC 涂层硬质合金铣刀 DLC Coating Carbide End Mills for Copper	**755**
	D-POWER 金刚石涂层整体硬质合金立铣刀 **D-POWER DIAMOND COATED SOLID CARBIDE END MILLS**	D-POWER用于加工石墨 D-Power for Graphites 经济型用于加工低硅铝和铜合金 Economy type for Low Silicon Aluminium and Copper Alloys	**769**
	K-2整体硬质合金立铣刀 **K-2 SOLID CARBIDE END MILLS**	有涂层，普通用途 General Purpose as Coating 传统的或高速切削，湿式或干式切削 Conventional or High Speed Milling, Wet or Dry Cutting.	**811**
	普通的整体硬质合金立铣刀 **GENERAL SOLID CARBIDE END MILLS**	未涂层的普通用途产品，可根据客户要求进行涂层 General Purposes, Non-coated, Any Coating Available	**881**
	TANK-POWER 粉末高速钢铣刀 **TANK-POWER HSS-PM END MILLS**	有很好的韧性，可用于不锈钢，镍合金，钛等特殊材料的普通加工，粗磨&精磨 Very Good Toughness, Good for Exotic Materials like Stainless Steels, Nikel Alloys, Titanium and General Application, Rough & Finish	**909**
	普通高速钢铣刀 **GENERAL HSS END MILLS**	未涂层的普通用途产品，可根据客户要求进行涂层 General Purposes, Non-coated, Any Coating Available	**927**

MILLING TOOLS

	产品 PRODUCTS	规格 DESCRIPTION	页 PAGE
	高速钢盘铣刀 **HSS MILLING CUTTERS**	一般加工使用，有燕尾铣刀，键槽铣刀，T型槽刀，侧铣刀(HSSCo8%)圆角铣刀套式铣刀等类型 General Works. Available Dovetail, Woodruff Keyseat, T-slot, Side Milling Cutters and HSS (8% Cobalt) Corner Rounding, Shell End Mills	**987**

OTHER TOOLS

	产品 PRODUCTS	规格 DESCRIPTION	页 PAGE
	高速钢铰刀 **HSS REAMERS**	高速钢手用铰刀 HSS-E 夹持式铰刀 HSS Hand Reamers HSS-E Chucking Reamers	**1027**
	高速钢沉孔刀 **HSS COUNTERSINKS**	修边，倒角，锥形扩孔 (HSS&HSS-E&含钴8%) Deburring, Chamfering, Countersinking (HSS & HSS-E & 8% Cobalt)	**1039**
	HSS-E锪刀 **HSS-E COUNTERBORES**	普通用途 General Purpose	**1045**
	硬质合金旋转锉 **CARBIDE ROTARY BURRS**	普通钢和有色金属(柄部直径3mm和6mm) General Steels and Nonferrous Metals etc.(3mm & 6mm Shank Diameter)	**1049**
	特殊刀具 **SPECIAL CUTTING TOOLS**	根据客户提供的图纸，可以制作应用于汽车，医疗，动力发生器，太空和风动力工业的刀具. The Custom Tools Depending on your Drawing for Automobile, Medical, Power Generator, Aerospace and Wind Power Industries	**1067**
	工具刀柄 **TOOL HOLDERS**	根据DIN，MAS & ISO等国际标准 According to International Standards such as DIN, MAS and ISO	**1071**

i-梦幻钻头 - 普通 / i-DREAM DRILL - GENERAL

工具/TOOL

刀杆/HOLDER	ZH14505020
刀片/INSERT	YB1A1450 / Ø14.5

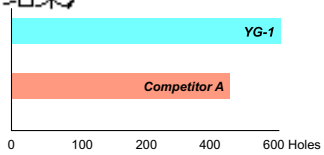
工件-结构钢 WORKPIECE - Structural Steels

ASTM	A36
DIN	St37-2
JIS	SS400

切削条件/CONDITIONS

切削速度 Cutting Speed	80 m/min
进给/Feed	0.24 mm/rev.
进给速度/Feedrate	421 mm/min.
转速/RPM	1,756 rev./min.
钻孔/Drilling	48.0 mm
冷却液/Coolant	内部 / Internal
机器类型 Machine type	立式加工中心 Vertical Machining Center

结果/RESULT



YG-1 (总钻孔600 孔)
YG-1 (Total Drilling 600 Holes)

竞争社 (总钻孔470 孔)
Competitor A (Total Drilling 470 Holes)

i-梦幻钻头 - 不锈钢 / i-DREAM DRILL - INOX

工具/TOOL

刀杆/HOLDER	ZH14005020
刀片/INSERT	YB2C1400 / Ø14.0

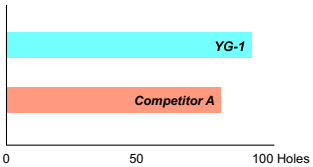
工件-不锈钢 WORKPIECE - Stainless Steels

AISI	304
DIN	X5CrNi189
JIS	SUS304

切削条件/CONDITIONS

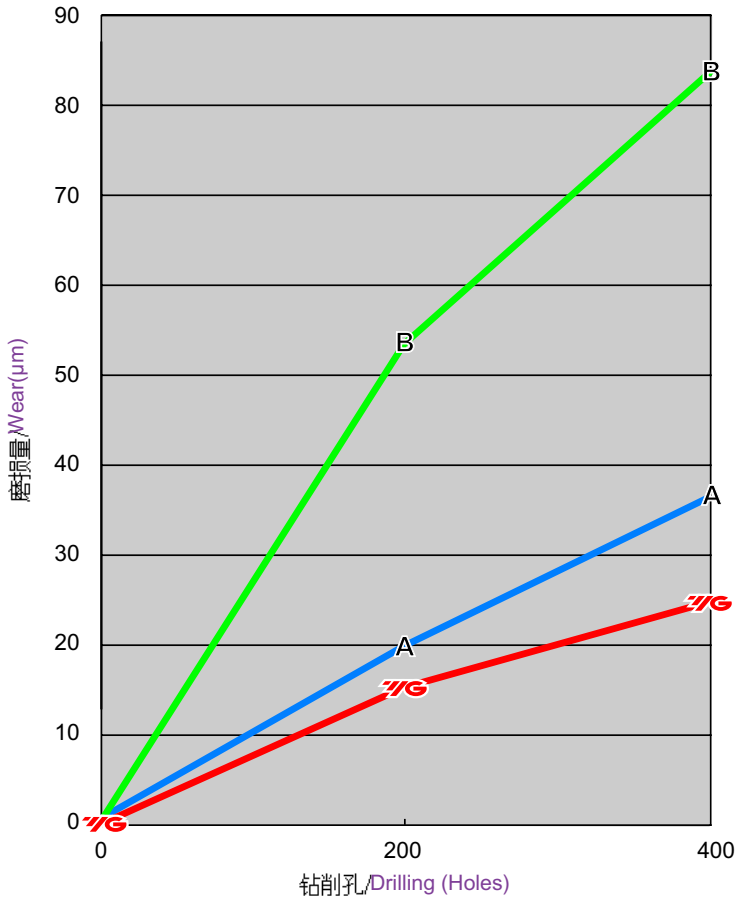
切削速度 Cutting Speed	55 m/min
进给/Feed	0.15 mm/rev.
进给速度/Feedrate	188 mm/min.
转速/RPM	1,250 rev./min.
钻孔/Drilling	50.0 mm
冷却液/Coolant	内部/Internal
机器类型 Machine type	立式加工中心 Vertical Machining Center

结果/RESULT



YG-1 (总钻孔100 孔)
YG-1 (Total Drilling 100 Holes)

竞争社 (总钻孔80 孔)
Competitor A (Total Drilling 80 Holes)



切削条件/CUTTING CONDITION

工具/**Tools** : DH452060(DREAM DRILLS-INOX)
规格/**Size** : Ø6 x Ø6 x 44 x 82
工件/**Work Material** :
- JIS:SUS304
- DIN:X5CrNi1810 (X4CrNi18-10)
- WR:1.4301

转速/**R.P.M** : 3,700 rev./min.
进给/**Feed** : 0.07 mm/rev.
钻孔深度/**Drilling Depth** : 24 mm
冷却液/**Coolant** : 湿切/Wet Cut

YG-1 (总钻孔400 孔) / **YG-1 (Total Drilling 400 Holes)**

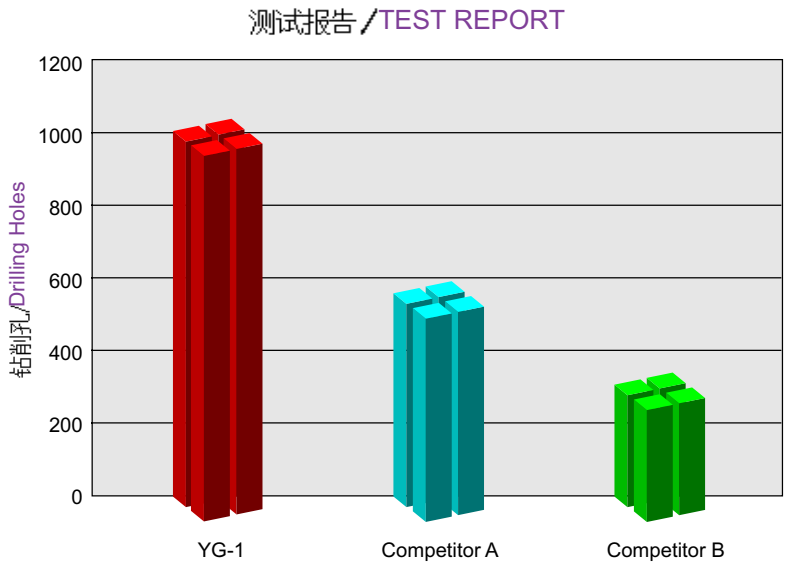
竞争社 A (总钻孔400 孔) / **Competitor A (Total Drilling 400 Holes)**

竞争社 B (总钻孔400 孔) / **Competitor B (Total Drilling 400 Holes)**

MQL梦幻钻头的特点
FEATURES OF DREAM DRILLS MQL TYPE

- 槽形和钻顶形状适合深孔加工时的排屑
  Flute Shape and Point Shape allowing better chip evacuation in deep hole drilling
- 出色的图层和表面处理，具有优良的排屑功能
  Excellent Coating and Surface Treatment for better performance and chip evacuation

和竞争社钻头的对比测试结果
TEST RESULT AGAINST COMPETITOR's DRILLS



切削条件/CUTTING CONDITION

- 工具：硬质合金 MQL 钻头 (20×D)
  Tools : Carbide MQL Drill (20×D)
- 规格/**Size** : Ø6×Ø6×138×193
- 工件/**Work Material** : • JIS:S45C(HRc25)
  • DIN:C45
  • WR:1.0503
- 转速/**R.P.M** : 3,528 rev./min.
- 进给/**Feed** : 0.19 mm/rev
- 钻孔深度/**Drilling Depth** : 80mm
- 冷却液：湿切 (MQL 技术)
  Coolant : Oil Mist (MQL Techniques)

YG-1 (钻孔后1,000 孔)/YG-1 (After Drilling 1,000 Holes)

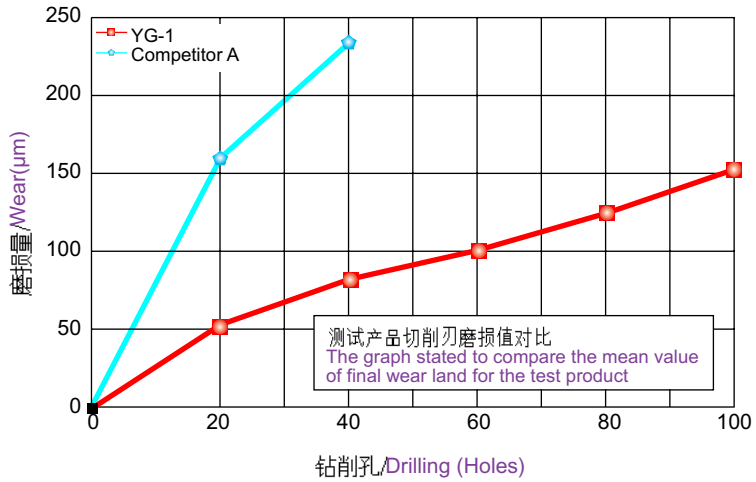
竞争社 A (钻孔后546 孔)/Competitor A (After Drilling 546 Holes)

高硬度钢用梦幻钻头特征
FEATURES OF DREAM DRILLS FOR HIGH HARDENED STEELS

- 低螺旋角，刀具刚性最大化
  Low Helix Angle to maximize tools' rigidity.
- 特殊的横刃修磨，改善排屑
  Special Point Thinning to improve chip evacuation.
- 出色的图层和表面处理，具有优良的排屑功能
  Excellent Coating and Surface Treatment for improved surface and better chip evacuation.

和竞争社钻头的对比测试
TEST RESULT AGAINST COMPETITOR's DRILLS

测试报告 /TEST REPORT

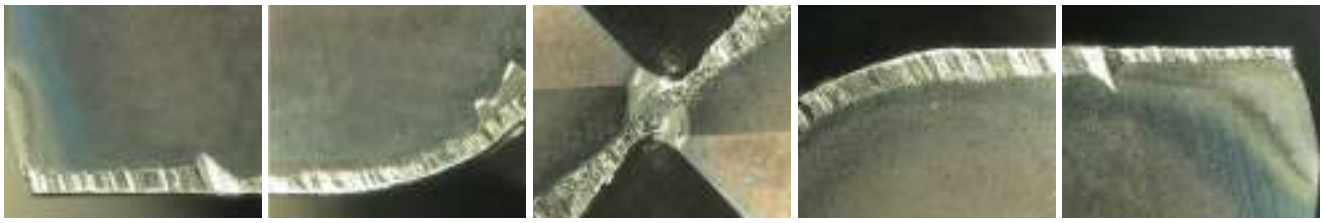


切削条件/CUTTING CONDITION

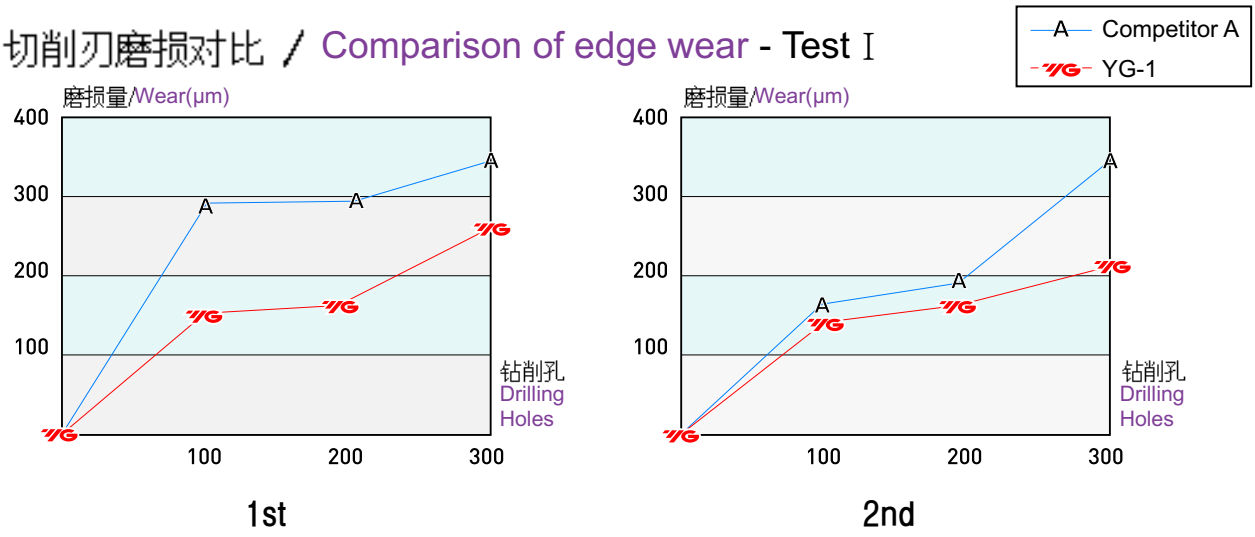
- 工具/**Tools** : Dream Drill
  for High Hardened Steels
- 规格/**Size** : Ø10×Ø10×63×111
- 工件/**Work Material** : • JIS:SKD11(HRc60)
  • DIN:X155CrV-Mo12-1
  • WR:1.2379
- 转速/**R.P.M** : 380 rev./min.
- 进给/**Feed** : 0.04 mm/rev
- 钻孔深度/**Drilling Depth** : 25mm (2.5D)
- 冷却液/**Coolant** : 湿切/Wet Cut

YG-1 (钻孔后100 孔)/YG-1 (After Drilling 100 Holes)

竞争社 A (钻孔后40 孔)/ Competitor A (After Drilling 40 Holes)



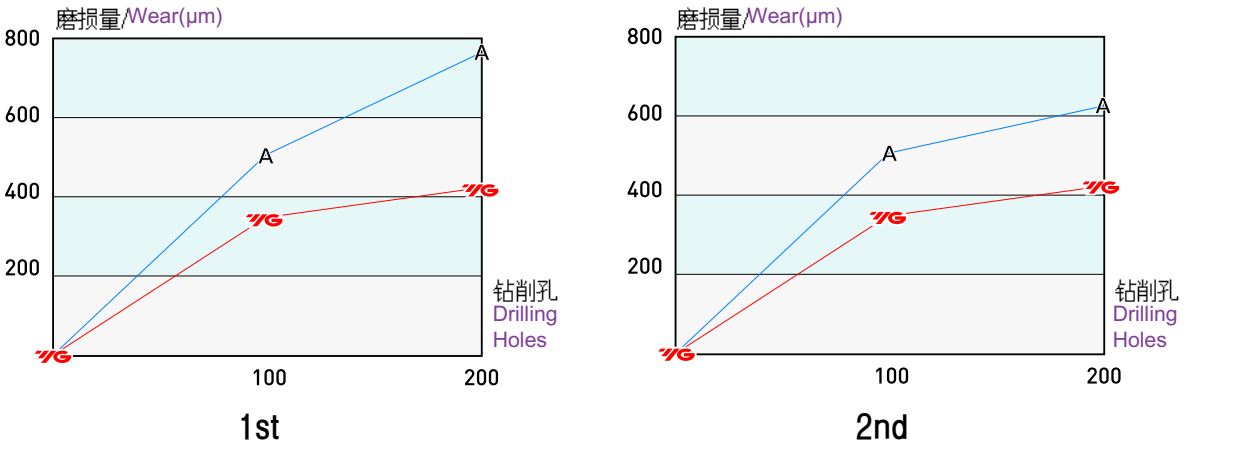
切削刃磨损对比 / Comparison of edge wear - Test Ⅰ



切削条件/CUTTING CONDITION

- 工件/Work Material :
  - JIS:SUS316
  - DIN:X3CrNiMo17-13-3
  - WR:1.4436
- 钻孔深度/Drilling Depth : 24 mm
- 总钻孔(孔)/Total Drilling(hole) : 300 Holes
- 转速/R.P.M : 600 rev./min.
- 进给/Feed : 110 mm/min.

切削刃磨损对比 / Comparison of edge wear - Test Ⅱ



切削条件/CUTTING CONDITION

- 工件/Work Material :
  - JIS:SKD11
  - DIN:X155CrVMo12-1
  - WR:1.4436
- 钻孔深度/Drilling Depth : 24 mm
- 总钻孔(孔)/Total Drilling(hole) : 200 Holes
- 转速/R.P.M : 600 rev./min.
- 进给/Feed : 110 mm/min.

YG-1

Competitor A

COMBO
- 螺旋/SPIRAL FLUTE

切削条件/CUTTING CONDITION

- 工具/Tools : Combo Spiral Flute Tap
- 规格/Size : M8×1.25
- 工件/Work Material : • JIS:S45C(HRc35)
  • DIN:C45
  • WR:1.0503
- 螺纹深度 / Tapping Depth : 20mm
- 冷却液 : 水溶性切削液
  Coolant : Water Soluble Oil
- Vc (螺纹速度/Tapping Speed) : 10.0m/min

YG-1 (总共攻丝204个孔)
YG-1(Total Tapping 204 Holes)

工件表面粗糙度
Surface Roughness of Work Piece

204 Holes ▶

竞争社 A (总共攻丝159个孔)
Competitor A (Total Tapping 159 Holes)

工件表面粗糙度
Surface Roughness of Work Piece

159 Holes ▶

竞争社 B (总共攻丝204个孔)
Competitor B (Total Tapping 204 Holes)

工件表面粗糙度
Surface Roughness of Work Piece

204 Holes ▶

COMBO
- 先端丝锥/SPIRAL POINT

切削条件/CUTTING CONDITION

- 工具/Tools : Combo Spiral Point Tap
- 规格/Size : M2×0.4
- 工件/Work Material : • JIS:S45C(HRc35)
  • DIN:C45
  • WR:1.0503
- 螺纹深度 / Tapping Depth : 6mm
- 冷却液 : 攻丝油
  Coolant : Tapping Oil
- Vc (螺纹速度/Tapping Speed) : 10.0m/min

YG-1 (总共攻丝450个孔)
YG-1(Total Tapping 450 Holes)

竞争社 A (总共攻丝318个孔)
Competitor A (Total Tapping 318 Holes)

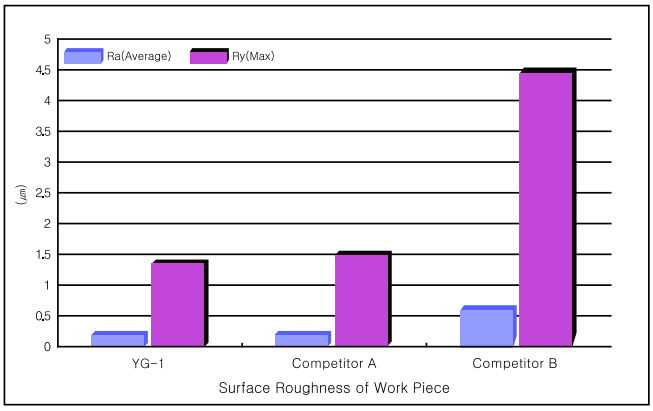
攻318孔后刀具破损
Tool was broken after 318 holes tapping

竞争社 B (总共攻丝103个孔)
Competitor B (Total Tapping 103 Holes)

攻103孔后刀具破损
Tool was broken after 103 holes tapping

TEST Ⅰ (加工总长/Total Milling Length : 240m)

▶ 工件表面粗糙度/Surface Roughness of Work Piece



切削条件 (Ø1mm)
CUTTING CONDITION

工具/Tools : 2Flute, CBN Ball Nose End mill
规格/Size : Ø1 × Ø4 × 0.6 × 50
工件/Work Material : • JIS:SKD11(HRc60)
• DIN:X155CrV-Mo12-1
• WR:1.2379
切削速度/Cutting Speed : 94.25 m/min.
转速/R.P.M : 30,000 rev./min.
进给/Feed : 1,500 mm/min.
钻孔深度/Milling Depth : 0.01 mm
冷却液/Coolant : 油雾/Oil Mist
机器/Machine : 加工中心/Machining Center

▶ 最大磨损/Maximum Wear (μm)

YG-1 (19.611μm)

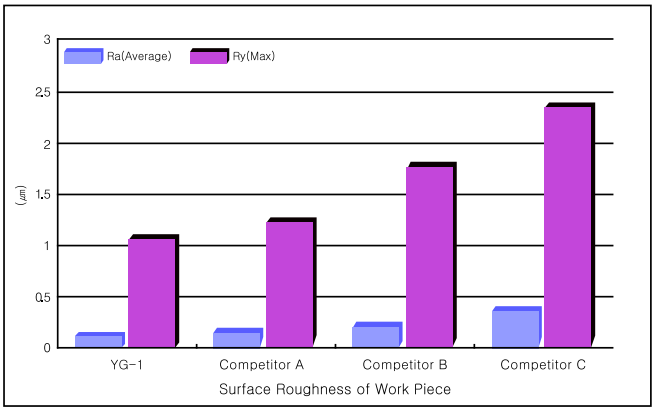
竞争社 A (32.249μm)
Competitor A

竞争社 B
Competitor B

铣100米后刀具破损
Tool was broken after 100 meter milling

TEST Ⅱ (加工总长/Total Milling Length : 750m)

▶ 工件表面粗糙度/Surface Roughness of Work Piece



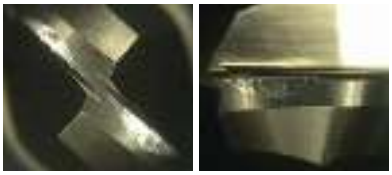
切削条件 (Ø2mm)
CUTTING CONDITION

工具/Tools : 2Flute, CBN Ball Nose End mill
规格/Size : Ø2 × Ø4 × 1.8 × 50
工件/Work Material : • JIS:SKD11(HRc60)
• DIN:X155CrV-Mo12-1
• WR:1.2379
切削速度/Cutting Speed : 188.50 m/min.
转速/R.P.M : 30,000 rev./min.
进给/Feed : 2,000 mm/min.
钻孔深度/Milling Depth : 0.01 mm
冷却液/Coolant : 油雾/Oil Mist
机器/Machine : 加工中心/Machining Center

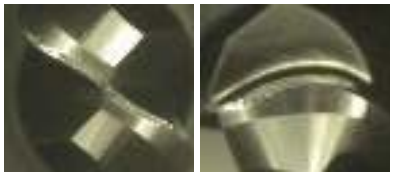
▶ 最大磨损/Maximum Wear (μm)

YG-1
(57.630μm)

竞争社 A
Competitor A
(100.314μm)



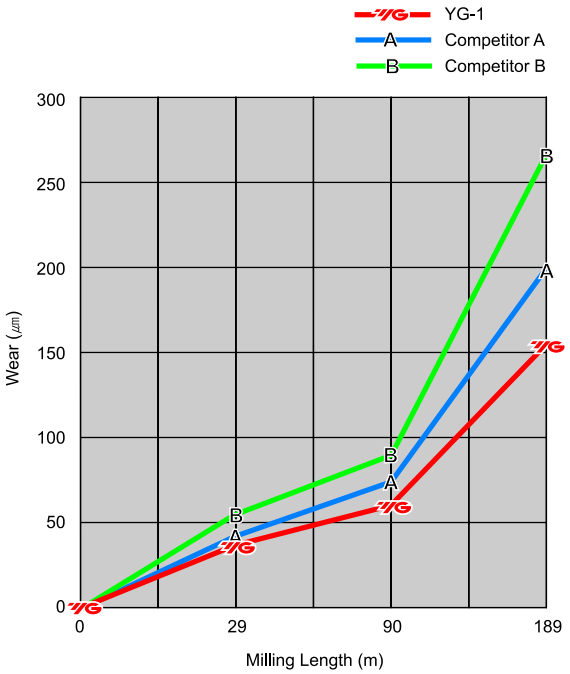
竞争社 B
Competitor B
(71.471μm)



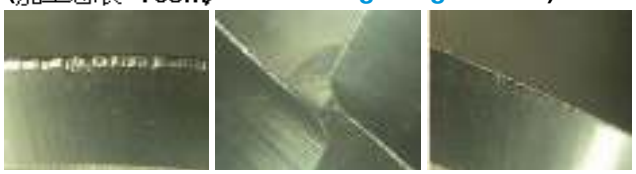
竞争社 C
Competitor C
(170.200μm)

CASE STUDY ◆ i-Xmill (Reference page : p.569 ~ p.579)

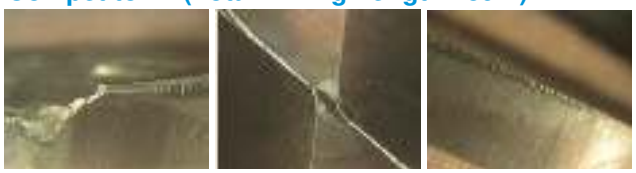
i-Xmill -球头/BALL



YG-1 *i-Xmill*
(加工总长 189m/Total Milling Length 189m)



竞争社 A (加工总长 189m)
Competitor A (Total Milling Length 189m)



竞争社 B (加工总长 189m)
Competitor B (Total Milling Length 189m)

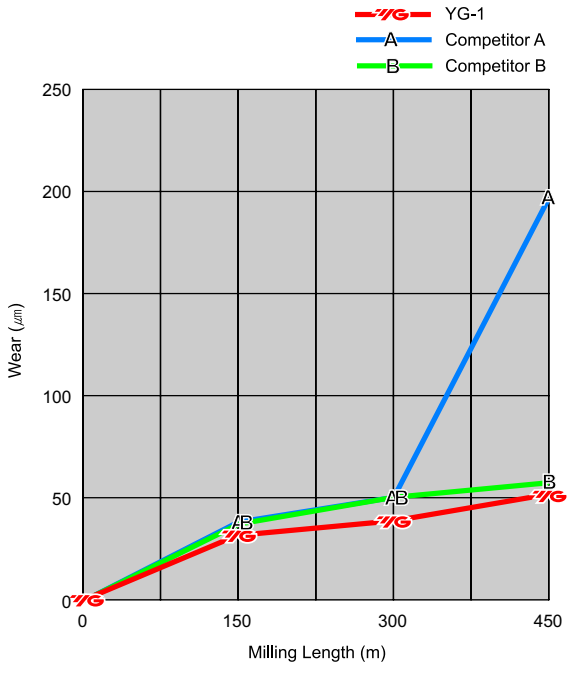
切削条件/CUTTING CONDITION

工具/**Tools** : i -Xmill Ball (XMB120C160)
规格/**Size** : Ø16×R8.0
工件/**Work Material** : JIS : SKD61 (HRc50) ,
DIN : X40GrMoV51(1.2344), AISI : H13
切削速度/**Cutting Speed** : 80.42 m/min.

转速/**R.P.M** : 1,600 rev./min.
进给/**Feed** : 390 mm/min.
每齿进给/**Feed per tooth** : 0.12 mm/tooth
切削办法/**Milling Method** : 侧铣/Side Cutting
钻孔深度/**Milling Depth** :
轴向/Axial : 0.8 mm, 径向/Radial : 1.6 mm

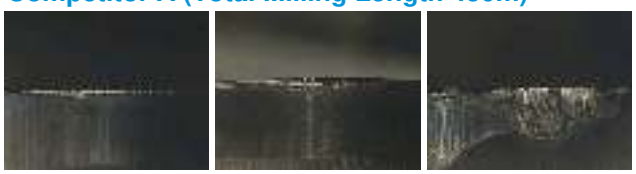
冷却液/**Coolant** : 油雾/Oil Mist
悬伸/**Overhang** :
YG-1, Competitor B : 48 mm
Competitor A : 56 mm
机器/**Machine** :
加工中心/Machining Center

i-Xmill -圆鼻铣刀/CORNER RADIUS

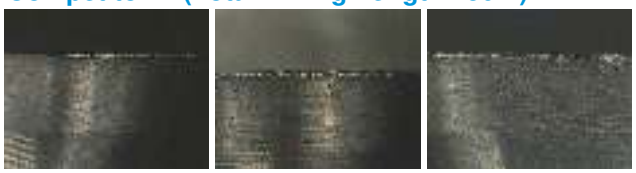


YG-1 *i-Xmill*
(加工总长 450m/Total Milling Length 450m)

竞争社 A (加工总长 450m)
Competitor A (Total Milling Length 450m)



竞争社 B (加工总长 450m)
Competitor B (Total Milling Length 450m)



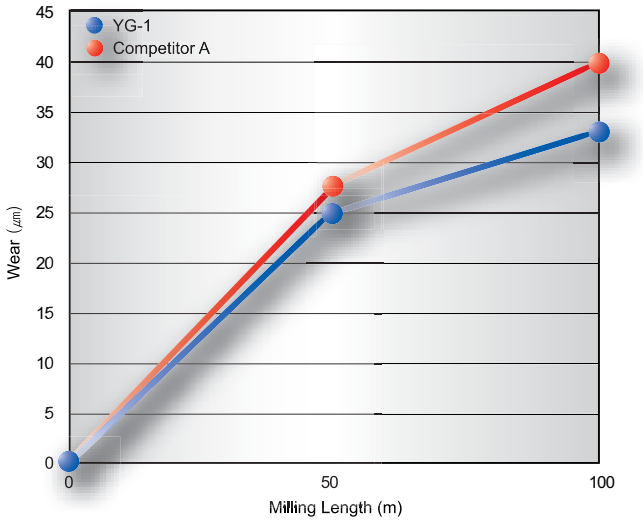
切削条件/CUTTING CONDITION

工具/**Tools** : i-Xmill Corner Radius (XMR110A16020)
规格/**Size** : Ø16 x R2.0
工件/**Work Material** : KS : KP4M (Mold steels HRc35)
DIN : 40CrMnNiMo8-6-4(1.2738), AISI : P20+Ni
切削速度/**Cutting Speed** : 280 m/min.

转速/**R.P.M** : 5,570 rev./min.
进给/**Feed** : 2,230 mm/min.
每齿进给/**Feed per tooth** :
0.2 mm/tooth
切削办法/**Milling Method** :
侧铣/Side Cutting

钻孔深度/**Milling Depth** :
轴向/Axial : 3.0 mm,
径向/Radial : 0.2 mm
冷却液/**Coolant** : 油雾/Oil Mist
悬伸/**Overhang** : 70mm
机器 : 加工中心
Machine : Machining Center

硬质合金 6刃 45度螺旋角 高硬度用铣刀
Carbide 6FL. 45° Helix End Mill for Hardened Steel



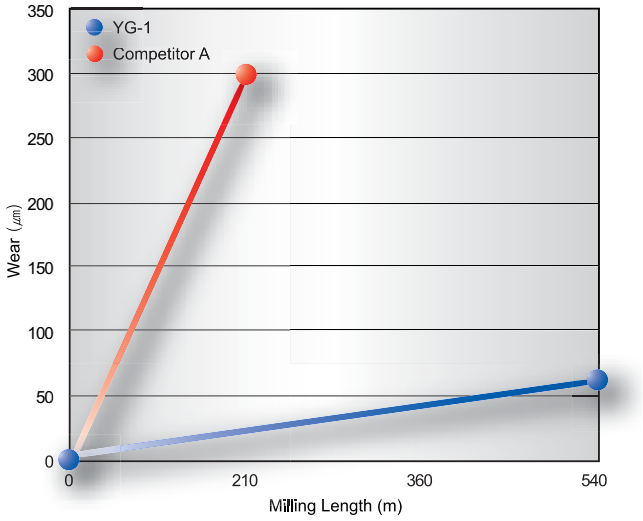
切削条件/CUTTING CONDITION

工具/Tools : 6Flute, X5070 45° Helix
规格/Size : Ø16×Ø16×40×110
工件/Work Material : • JIS:SKD61(HRc50)
• DIN:X40CrMoV5-1(1.2344)
• AISI:H13
切削速度/Cutting Speed : 96.5 m/min.
转速/R.P.M : 1,920 rev./min.
进给/Feed : 912 mm/min.
切削办法 : 向下及侧铣
Milling Method : Down & Side Cutting
钻孔深度/Milling Depth : 轴向/Axial : 24 mm
径向/Radial : 0.96 mm
冷却液/Coolant : 干切/Dry Cut
悬伸/Overhang : 52 mm
机器/Machine : 加工中心/Machining Center

YG-1
(加工总长 100m)
(Total Milling Length 100m)

竞争社 A/Competitor A
(加工总长 100m)
(Total Milling Length 100m)

硬质合金4刃球头高硬度用铣刀 - 中心交接式
Carbide 4FL. Center Match Ball End Mill for Hardened Steel



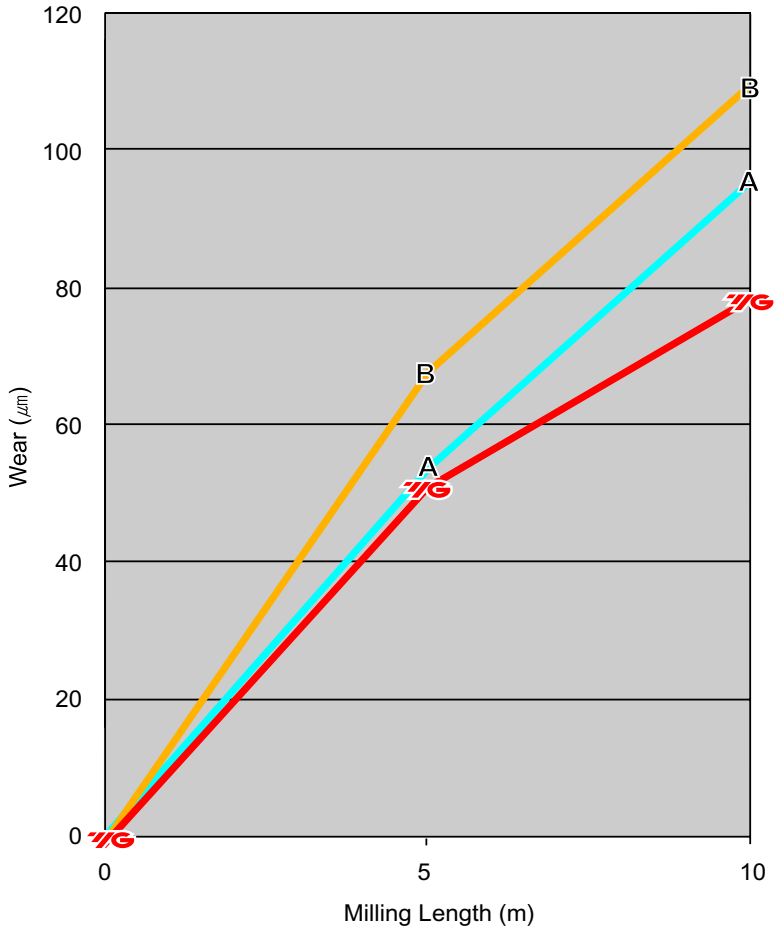
切削条件/CUTTING CONDITION

工具/Tools : 4Flute, X5070 Ball Nose
规格/Size : Ø10×Ø10×18×100
工件/Work Material : • JIS:SKD11(HRc60)
• DIN:X155CrVMo12-1(1.2379)
• AISI:D2
切削速度/Cutting Speed : 210.486 m/min.
转速/R.P.M : 6,700 rev./min.
进给/Feed : 2,800 mm/min.
切削办法/Milling Method : 侧铣/Side Cutting
钻孔深度/Milling Depth : 轴向/Axial : 0.2 mm
径向/Radial : 0.5 mm
冷却液/Coolant : 油雾/Oil Mist
悬伸/Overhang : 32 mm
机器/Machine : 加工中心/Machining Center

YG-1
(加工总长 540m)
(Total Milling Length 540m)

竞争社 A/Competitor A
(加工总长 210m)
(Total Milling Length 210m)

CASE STUDY ◆ V7 STEELS END MILLS (Reference page : p.727 ~ p.736)



切削条件/CUTTING CONDITION

工具/**Tools** : V7 STEELS, 4Flute
规格/**Size** : Ø12×Ø12×26×83
工件/**Work Material** :
- JIS : SKD61 (HRc30)
- DIN : X40GrMoV51(1.2344)
- AISI : H13

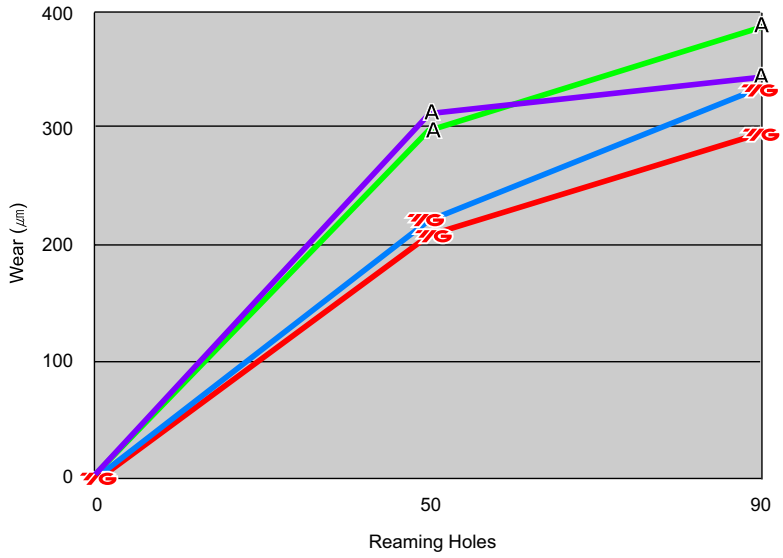
切削速度/**Cutting Speed** : 139 m/min.
转速/**R.P.M** : 3,688 rev./min.
进给/**Feed** : 689.7 mm/min.
切削办法 : 向下及侧铣
Milling Method : Down & Side Cutting
钻孔深度/**Milling Depth** : 轴向/Axial : 18 mm
径向/Radial : 6 mm
冷却液/**Coolant** : 湿切/Wet Cut
悬伸/**Overhang** : 40 mm
机器/**Machine** : 加工中心/Machining Center

YG-1
(加工总长 10m)
(Total Milling Length 10m)

竞争社 A/**Competitor A**
(加工总长 10m)
(Total Milling Length 10m)

竞争社 B/**Competitor B**
(加工总长 10m)
(Total Milling Length 10m)

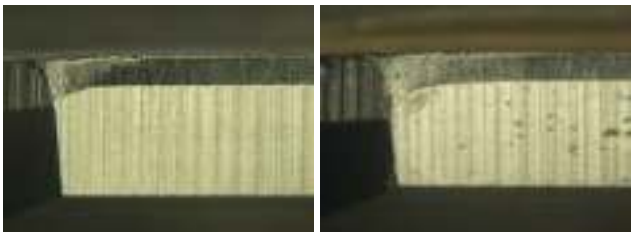
TEST I



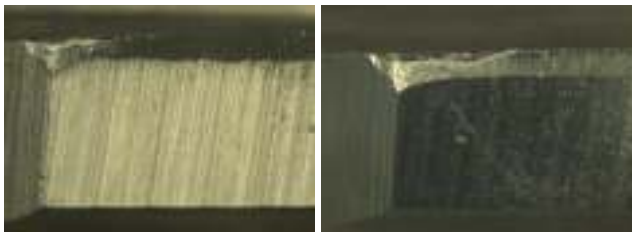
切削条件/CUTTING CONDITION

工具/Tools: Straight Flute Chucking Reamer, Ø8.0
工件/Work Material : • JIS:S45C(HRc25)
• DIN:C45
• WR:1.0503
转速/R.P.M : 477 rev./min.
进给/Feed : 57 mm/min.
预加工孔/Prepared hole : Ø7.8
铰孔深度/Reaming Depth :16 mm

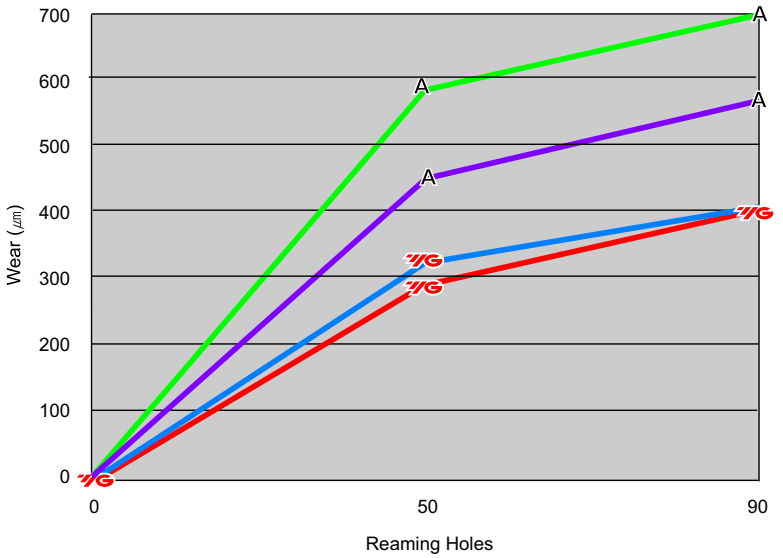
YG-1



竞争社 A/Competitor A



TEST II



切削条件/CUTTING CONDITION

工具/Tools: Spiral Flute Chucking Reamer, Ø12.0
工件/Work Material : • JIS:S45C(HRc25)
• DIN:C45
• WR:1.0503
转速/R.P.M : 318 rev./min.
进给/Feed : 48 mm/min.
预加工孔/Prepared hole : Ø11.8
铰孔深度/Reaming Depth : 24 mm

YG-1

竞争社 A/Competitor A

钻削工具
DRILLING TOOLS

i-梦幻钻，硬质合金刀片	i-DREAM DRILLS, CARBIDE INSERT
整体硬质合金梦幻钻-普通 (不带油孔和带油孔)	SOLID CARBIDE DREAM DRILLS - GENERAL (with & without coolant Holes)
整体硬质合金梦幻钻头-软材质用(不带油孔)	SOLID CARBIDE DREAM DRILLS - SOFT (without Coolant Holes)
整体硬质合金梦幻钻头-不锈钢用 (带油孔)	SOLID CARBIDE DREAM DRILLS - INOX(with coolant Holes)
整体硬质合金梦幻钻头-MQL型 (带油孔)	SOLID CARBIDE DREAM DRILLS - MQL TYPE(with coolant Holes)
高硬度钢用的整体硬质合金梦幻钻头	SOLID CARBIDE DREAM DRILLS FOR HIGH HARDENED STEELS
普通整体硬质合金钻头，普通长度&超短型	GENERAL SOLID CARBIDE DRILLS, JOBBER & STUB LENGTH
整体硬质合金定心钻头	SOLID CARBIDE NC-SPOTTING DRILLS
粉末高速钢 MULTI-1钻头	HSS-PM MULTI-1 DRILLS
高级的高速钢HPD直柄钻头	PREMIUM HSS HPD STRAIGHT SHANK DRILLS
高速钢GOLD-P钻头	HSS GOLD-P DRILLS
HSS-E蜗型槽钻头	HSS-E WORM PATTERN DRILLS
高速钢直柄钻头	HSS STRAIGHT SHANK DRILLS
高速钢锥柄钻头	HSS MORSE TAPER SHANK DRILLS
含钴量8%的高速钢定心钻头	HSS (8% Cobalt) NC SPOTTING DRILLS
HSS-EX中心钻	HSS-EX CENTER DRILLS
硬质合金&粉末高速钢铲钻	CARBIDE & HSS-PM SPADE DRILLS
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YG-1 CO., LTD.

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整体硬质合金梦幻钻头-普通 (带油孔和不带油孔) 普通用途通常是HRc30 ~ HRc50	**SOLID CARBIDE DREAM DRILLS - GENERAL** **(with & without Coolant Holes)** General Purpose usually HRc30 to HRc50	DREAM DRILLS -GENERAL
整体硬质合金梦幻钻头-软材质用 (不带油孔) 用于中等硬度钢	**SOLID CARBIDE DREAM DRILLS - SOFT** **(without Coolant Holes)** for Steels, up to Medium Hardness	DREAM DRILLS -SOFT
整体硬质合金梦幻钻头-不锈钢(带油孔) 像硬度在HRc35以下的不锈钢，镍合金和钛等硬质材料	**SOLID CARBIDE DREAM DRILLS - INOX** **(with Coolant Holes)** Tough Materials like Stainless Steels, Nickel Alloys and Titanium up to HRc35.	DREAM DRILLS -INOX
整体硬质合金梦幻钻头-MQL类型(带油孔) 用最少量的润滑剂，钻深孔(10D,15D 和 20D)	**SOLID CARBIDE DREAM DRILLS - MQL TYPE** **(with Coolant Holes)** Minimum Quantity Lubrication. Drilling Deep Holes, 10D, 15D & 20D	DREAM DRILLS -MQL TYPE
高硬度钢用的整体硬质合金梦幻钻头 HRc50 ~ HRc70的高硬度钢	**SOLID CARBIDE DREAM DRILLS for HIGH HARDENED STEELS** High Hardened Steels, HRc50~HRc70	DREAM DRILLS for HARDENED STEELS
普通整体硬质合金钻头，普通长度 和 超短型 普通用途,DIN338 和 DIN6539	**GENERAL SOLID CARBIDE DRILLS** **(JOBBER & STUB LENGTH)** General Purpose, DIN338 & DIN6539	GENERAL CARBIDE DRILLS
整体硬质合金定心钻头 定中心和倒角	**SOLID CARBIDE NC-SPOTTING DRILLS** Centering and Chamfering	NC-SPOTTING DRILLS
粉末高速钢 MULTI-1 钻头 多用途钻头尤其适用于不锈钢	**HSS-PM MULTI-1 DRILLS** Multi Purpose Drilling. Particularly for Stainless Steels	MULTI-1 DRILLS
高级的高速钢HPD直柄钻 普通钢和不锈钢	**PREMIUM HSS HPD STRAIGHT SHANK DRILLS** General Steels and Stainless Steels	HPD DRILLS
高速钢GOLD-P钻头 Gold-P涂层，HSS & 含钴8%	**HSS GOLD-P DRILLS** Gold-P Coating, HSS & 8% Cobalt	GOLD-P DRILLS
HSS-E蜗型槽钻头 钻深孔	**HSS-E WORM PATTERN DRILLS** Drilling Deep Holes	WORM PATTERN DRILLS
高速钢直柄钻头 普通用途(HSS & HSS-E & 含钴8%)	**HSS STRAIGHT SHANK DRILLS** General Purpose (HSS & HSS-E & 8% Cobalt)	STRAIGHT SHANK DRILLS
高速钢锥柄钻头 普通用途(HSS & HSS-E & 含钴8%)	**HSS MORSE TAPER SHANK DRILLS** General Purpose (HSS & HSS-E & 8% Cobalt)	TAPER SHANK DRILLS
含钴8%的高速钢定心钻头 定中心和倒角	**HSS(8% Cobalt) NC SPOTTING DRILLS** Centering and Chamfering of Holes	NC-SPOTTING DRILLS
高速钢中心钻 普通用途	**HSS-EX CENTER DRILLS** General Purpose	CENTER DRILLS
硬质合金&粉末高速钢铲钻 硬质合金材质可以得到更长的刀具寿命，粉末高速钢材质用于普通加工已经大尺寸的加工相对于其他类型的钻孔工具，铲钻具有更高的加工效率.	**CARBIDE & HSS-PM SPADE DRILLS** Carbide for Long Tool Life, and HSS PM for General Machines and Large Diameters. Higher Productivity than Other Drilling Tools	SPADE DRILLS
技术参数	**TECHNICAL DATA**	TECHNICAL DATA

DRILL **APPLICATION TABLE**

	项目	型号	规格	尺寸		页
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				MIN	MAX	
i-Dream Drills	Y＊1A		Insert for General Purpose	Ø12.0 (#A)	Ø31.75 (#J)	**34~39**
	Y＊2C		Insert for Stainless Steels	Ø12.0 (#A)	Ø31.75 (#J)	**34~39**
Spade Drills	S14** (SM4**)		HSS M4 Insert	Ø17.86 (#1)	Ø114.3 (#8)	**242~247 268~270**
	S11** (SM1**)		Super HSS T15 Insert	Ø9.5 (#Y)	Ø65.09 (#4)	**248~252 271~274**
	S15** (SM5**)		Primium HSS M48 Insert	Ø9.5 (#Y)	Ø35 (#2)	**253~255 275~277**
	S16** (SM6**)		Carbide K10 Insert	Ø9.5 (#Y)	Ø35 (#2)	**256~258 278~280**
	S17** (SM7**)		Carbide K20 Insert	Ø9.5 (#Y)	Ø47.63 (#3)	**259~262 281~284**
	S18** (SM8**)		Carbide P40 Insert	Ø9.5 (#Y)	Ø47.63 (#3)	**263~266 285~288**

◎ : 优(Excellent)
○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
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DRILL **APPLICATION TABLE**

	项目	型号	长度	尺寸		页
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	ITEM	MODEL	LENGTH	SIZE MIN	SIZE MAX	PAGE
整体硬质合金梦幻钻-普通 (不带油孔) SOLID CARBIDE DREAM DRILLS - GENERAL (without coolant hole)	DH404		STUB (3xD)	D3.0	D20.0	**48**
	DH423		SHORT (3xD)	D3.0	D20.0	**50**
	DH424		LONG (5xD)	D1.0	D20.0	**52**
整体硬质合金梦幻钻-普通 (带油孔) SOLID CARBIDE DREAM DRILLS - GENERAL (with coolant hole)	DH406		SHORT (3xD)	D3.0	D20.0	**55**
	DH408		LONG (5xD)	D1.0	D20.0	**57**
	DH421		EXTRA LONG (8xD)	D3.0	D14.0	**60**
整体硬质合金梦幻钻头-软材质用 (不带油孔) SOLID CARBIDE DREAM DRILLS - SOFT (without coolant hole)	DPPA01		REGULAR	D1.0	D20.0	**66**
	DPPA02		LONG	D3.0	D20.0	**69**
整体硬质合金梦幻钻头-不锈钢用 (带油孔) SOLID CARBIDE DREAM DRILLS - INOX (with coolant hole)	DH451		SHORT (3xD)	D3.0	D20.0	**76**
	DH452		LONG (5xD)	D1.5	D20.0	**79**
	DH453		EXTRA LONG (8xD)	D3.0	D14.0	**82**
整体硬质合金梦幻钻头-MQL型 (带油孔) SOLID CARBIDE DREAM DRILLS - MQL TYPE (with coolant hole)	DH510		EXTRA LONG (10xD)	D3.0	D14.0	**88**
	DH515		EXTRA LONG (15xD)	D3.0	D12.0	**89**
	DH520		EXTRA LONG (20xD)	D3.0	D12.0	**89**
高硬度钢用的整体硬质合金梦幻钻头 SOLID CARBIDE DREAM DRILLS for HIGH HARDENED STEELS	DH500			D2.6	D14.0	**94**
普通整体硬质合金钻头 GENERAL SOLID CARBIDE DRILLS	D5405		STUB	D1.0	D13.0	**100**
	D5407		JOBBER	D1.0	D13.0	**102**
	D5401		REGULAR	D1.0	D13.0	**104**
整体硬质合金定心钻 SOLID CARBIDE NC-SPOTTING DRILLS	D5306 D5307			D6.0	D20.0	**110**
	D5315 D5318			D3.0	D20.0	**111**
粉末高速钢MULTI-1钻头 HSS-PM MULTI-1 DRILLS	CDRA03		STUB	D1.0	D13.0	**116**
	CDRA04		JOBBER	D2.0	D13.0	**118**
高速钢HPD 直柄钻 HSS HPD STRAIGHT SHANK DRILLS	D4541		STUB	D2.0	D13.0	**124**
	D4542		JOBBER	D2.0	D32.0	**128**
	DJ543		STUB	D2.0	D13.0	**133**
	DJ544		JOBBER	D2.0	D20.0	**135**

◎ : 优(Excellent)
○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		铸铁	铝	不锈钢	钛	低碳钢	铜	青铜
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
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DRILL **APPLICATION TABLE**

	项目	型号	长度	尺寸		页
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高速钢GOLD-P钻头 HSS GOLD-P DRILLS	D1GP103		REGULAR	D1.0	D13.0	**142**
	D2GP191		REGULAR	D1.0	D13.0	**144**
高速钢蜗型槽钻头 HSS WORM PATTERN DRILLS	DL505		JOBBER	D2.0	D13.0	**152**
	DL504		LONG	D2.0	D13.0	**154**
	DL600		EXTRA LONG	D2.0	D13.0	**155**
	DL608		LONG	D13.0	D30.0	**156**
	DL609		EXTRA LONG	D13.0	D31.0	**157**
	DL610		EXTRA LONG	D13.0	D30.0	**158**
	DL126		EXTRA LONG	D2.0	D13.0	**159**
	DL507		EXTRA LONG	D2.0	D13.0	**161**
高速钢直柄钻头 HSS STRAIGHT SHANK DRILLS	D2107		STUB	D1.0	D31.0	**168**
	D1107		STUB	D1.0	D13.0	**171**
	D2105		JOBBER	D1.0	D20.0	**173**
	D1105		JOBBER	D0.3	D20.0	**176**
	D2104		LONG	D2.0	D12.0	**180**
	D1121		EXTRA LONG	D2.0	D13.0	**182**
	DL109		JOBBER	D1.5	D13.0	**183**
	D1100		JOBBER	D1.5	D13.0	**184**
	D1106		JOBBER	D1.5	D13.0	**186**
	D1101		REGULAR	D1.0	D13.0	**188**
	D2101		REGULAR	D2.0	D13.0	**190**
	D1102		LONG	D2.0	D13.0	**192**
	D1123		REGULAR	D1.0	D13.0	**198**

◎ : 优(Excellent)
○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		铸铁	铝	不锈钢	钛	低碳钢	铜	青铜
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
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DRILL **APPLICATION TABLE**

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高速钢锥柄钻头 HSS MORSE TAPER SHANK DRILLS	D1201		REGULAR	D13.0	D60.0	**206**
	D1203		LONG	D14.0	D23.0	**208**
	D1202		LONG	D14.0	32.0	**209**
	D1204		LONG	D14.5	D50.0	**210**
	D1208		LONG	D14.5	D50.0	**211**
	D1207		LONG	D14.5	D50.0	**212**
	D1205		JOBBER	D13.0	D60.0	**213**
	D1206		LONG	D13.0	D30.0	**215**
	D1209		EXTRA LONG	D13.0	D50.0	**216**
	D1210		EXTRA LONG	D13.0	D50.0	**217**
	D2201		REGULAR	D13.0	D60.0	**218**
	D2203		LONG	D14.0	D23.0	**220**
	D2202		LONG	D14.0	D32.0	**221**
	D2204		LONG	D14.5	D50.0	**222**
	D2208		LONG	D14.5	D50.0	**223**
	D2207		LONG	D14.5	D50.0	**224**
	DN221		SHORT	D13.0	D32.0	**225**
高速钢定心钻 HSS NC-SPOTTING DRILLS	D2306 D2307			D3.0	D20.0	**230**
高速钢中心钻 HSS CENTER DRILLS	DV304		LONG	D1.0	D5.0	**236**
	DV305		LONG	D1.5	D5.0	**236**
	DV301			D1.0	D5.0	**237**

◎ : 优(Excellent)
○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		铸铁	铝	不锈钢	钛	低碳钢	铜	青铜
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
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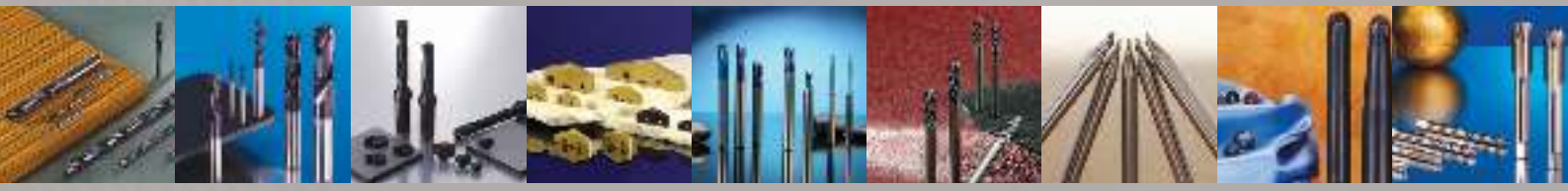
CUTTING TOOLS



CARBIDE INSERT

YG

Being the best through innovation

i-Dream Drills

用于普通钢和不锈钢

Available for General Steels and for Stainless Steels

SELECTION GUIDE

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YA2C / YB2C		不锈钢用的 i-梦幻钻 / i-Dream Drill INOX	
YB1A / YC1A		一般i-梦幻钻 / i-Dream Drill General	35
YB2C / YC2C		不锈钢用的 i-梦幻钻 / i-Dream Drill INOX	
YC1A / YD1A		一般i-梦幻钻 / i-Dream Drill General	36
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		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS	40

与开裂式顶尖钻，铲钻和梦幻钻进行对照
Comparison with Split Point Drill, Spade Drill & Dream Drill

◎ : 优(Excellent)
○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
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i-Dream Drills

YA1A / YA2C
YB1A / YB2C

i-梦幻钻 刀片 & 刀柄
i-DREAM DRILL INSERTS & HOLDERS

- i-梦幻钻刀片 优点
  Features of i-Dresm Drill Inserts

▶ 牢固精确的底座可以使产品重复使用而不影响精度.
Secure and accurate seating resulting in accurate repeatability and concentricity.

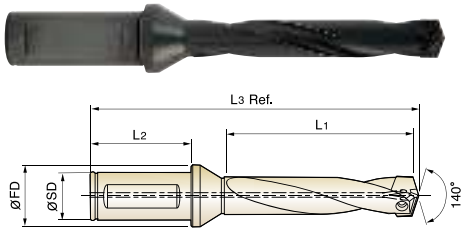
一般i-梦幻钻 / i-Dream Drill General
▶ 适用于大多数钢材/ For most steels materials

不锈钢用的 i-梦幻钻 / i-Dream Drill INOX :
▶ 适用于比较坚韧的材质和不锈钢
For tough,ductile materials and stainless steels
▶ 具有轻而锋利的切削刃/ Light,sharp cutting edge
▶ 有软切削作用/ Soft cutting action
▶ 可以减少切削力/ Minimize cutting forces
▶ 减少积屑瘤/ Reduce built-up edge

切削条件 /cutting conditions:p.40~41

- i-梦幻钻刀柄 优点
  Features of i-Dresm Drill Holders

▶ 特殊的合金钢材质使产品在高温下仍能保持其硬度和韧性
Special Alloy Steels that maintains its hardness and toughness under high temperatures.
▶ 新开发的表面处理方式可以提高产品的耐磨性并减少腐蚀
Innovative surface treatment that improves wear resistance and reduces corrosion.
▶ 高性能的沟槽设计使排屑最大化和阻碍最小化
High Performance flute design allowing maximum chip evacuation and minimum interference.



Series Range (mm)	Insert EDP No. General (TiAlN)	Insert EDP No. INOX (TiCN)	Insert O.D. h7 dec.	Insert O.D. h7 frac.	Insert O.D. h7 mm	Drilling Depth	Holder EDP No.	Shank Dia. SD	Shank Length L2	Flange Dia. FD	Flute Length L1	Overall Length L3 Ref.	Clamping Screw No.
A Ø12.00 to Ø13.99	YA1A1200	YA2C1200	0.4724		12.00	3D	ZH12003020	20	50	25	52	121	TX1213T08
	YA1A1210	YA2C1210	0.4764		12.10	5D	ZH12005020				77	146	
	YA1A1220	YA2C1220	0.4803		12.20	7D	ZH12007020				101	170	
	YA1A1230	YA2C1230	0.4844	31/64	12.30								
	YA1A1250	YA2C1250	0.4921		12.50								
	YA1A1260	YA2C1260	0.4961		12.60	3D	ZH12503020				54	122	
	YA1A1270	YA2C1270	0.5000	1/2	12.70	5D	ZH12505020	20	50	25	80	148	
	YA1A1280	YA2C1280	0.5039		12.80	7D	ZH12507020				106	174	
	YA1A1290	YA2C1290	0.5079		12.90								
	YA1A1300	YA2C1300	0.5118		13.00	3D	ZH13003020				56	124	
	YA1A1310	YA2C1310	0.5156	33/64	13.10	5D	ZH13005020	20	50	25	83	151	
	YA1A1320	YA2C1320	0.5197		13.20	7D	ZH13007020				110	178	
	YA1A1349	YA2C1349	0.5312	17/32	13.49								
	YA1A1350	YA2C1350	0.5315		13.50								
	YA1A1360	YA2C1360	0.5354		13.60	3D	ZH13503020				57	125	
	YA1A1370	YA2C1370	0.5394		13.70	5D	ZH13505020	20	50	25	85	153	
	YA1A1380	YA2C1380	0.5433		13.80	7D	ZH13507020				113	181	
	YA1A1389	YA2C1389	0.5469	35/64	13.89								
B Ø14.00 to Ø15.99	YB1A1400	YB2C1400	0.5512		14.00								TX1415T08
	YB1A1410	YB2C1410	0.5551		14.10	3D	ZH14003020				59	126	
	YB1A1420	YB2C1420	0.5591		14.20	5D	ZH14005020	20	50	25	88	155	
	YB1A1429	YB2C1429	0.5625	9/16	14.29	7D	ZH14007020				117	184	
	YB1A1430	YB2C1430	0.5630		14.30								
	YB1A1440	YB2C1440	0.5669		14.40								

涂层：TiN,TiCN,TiAlN & Hardslick可根据客户需求进行加工. / **Coating :** TiN, TiCN, TiAlN & Hardslick are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

	普通钢易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
	Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
	~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
Y*1A	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎		◎	◎		
Y*2C	○	○		○				○		○		◎			○	○

i-Dream Drills

YB1A / YB2C
YC1A / YC2C

i-梦幻钻 刀片 & 刀柄
i-DREAM DRILL INSERTS & HOLDERS

- i-梦幻钻刀片 优点
  Features of i-Dresm Drill Inserts

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▶ 适用于大多数钢材/ For most steels materials

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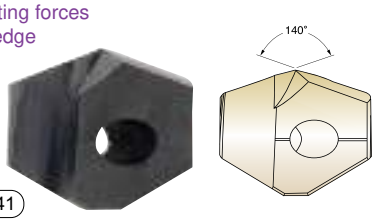
For tough,ductile materials and stainless steels
▶ 具有轻而锋利的切削刃/ Light,sharp cutting edge
▶ 有软切削作用/ Soft cutting action
▶ 可以减少切削力/ Minimize cutting forces
▶ 减少积屑瘤/ Reduce built-up edge



切削条件 /cutting conditions:p.40~41

- i-梦幻钻刀柄 优点
  Features of i-Dresm Drill Holders

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▶ 高性能的沟槽设计使排屑最大化和阻碍最小化
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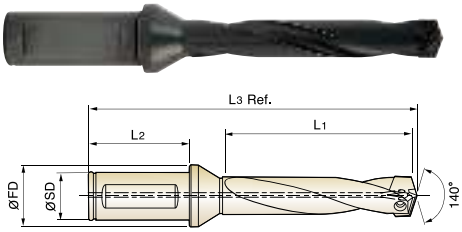

Series Range (mm)	Insert EDP No. General (TiAlN)	Insert EDP No. INOX (TiCN)	Insert O.D. h7 dec.	Insert O.D. h7 frac.	Insert O.D. h7 mm	Drilling Depth	Holder EDP No.	Shank Dia. SD	Shank Length L2	Flange Dia. FD	Flute Length L1	Overall Length L3 Ref.	Clamping Screw No.
B Ø14.00 to Ø15.99	YB1A1450	YB2C1450	0.5709		14.50	3D	ZH14503020	20	50	25	61	128	TX1415T08
	YB1A1460	YB2C1460	0.5748		14.60	5D	ZH14505020				91	158	
	YB1A1468	YB2C1468	0.5781	37/64	14.68	7D	ZH14507020				121	188	
	YB1A1480	YB2C1480	0.5827		14.80								
	YB1A1500	YB2C1500	0.5906		15.00								
	YB1A1508	YB2C1508	0.5938	19/32	15.08	3D	ZH15003020	20	50	25	63	130	
	YB1A1510	YB2C1510	0.5945		15.10	5D	ZH15005020				94	161	
	YB1A1520	YB2C1520	0.5984		15.20	7D	ZH15007020				125	192	
	YB1A1530	YB2C1530	0.6024		15.30								
	YB1A1548	YB2C1548	0.6094	39/64	15.48								
	YB1A1550	YB2C1550	0.6102		15.50								
	YB1A1560	YB2C1560	0.6142		15.60	3D	ZH15503020	20	50	25	65	131	
	YB1A1570	YB2C1570	0.6181		15.70	5D	ZH15505020				97	163	
	YB1A1580	YB2C1580	0.6220		15.80	7D	ZH15507020				128	194	
	YB1A1587	YB2C1587	0.6250	5/8	15.87								
C Ø16.00 to Ø17.99	YC1A1600	YC2C1600	0.6299		16.00								TX1617T08
	YC1A1609	YC2C1609	0.6335		16.09	3D	ZH16003020	20	50	25	65	131	
	YC1A1620	YC2C1620	0.6378		16.20	5D	ZH16005020				98	164	
	YC1A1627	YC2C1627	0.6406	41/64	16.27	7D	ZH16007020				131	197	
	YC1A1630	YC2C1630	0.6417		16.30								
	YC1A1650	YC2C1650	0.6496		16.50	3D	ZH16503020	20	50	25	67	133	
	YC1A1667	YC2C1667	0.6562	21/32	16.67	5D	ZH16505020				101	167	
	YC1A1680	YC2C1680	0.6614		16.80	7D	ZH16507020				134	200	

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	普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
	Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
	~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
Y*1A	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎		◎	◎		
Y*2C	○	○		○				○		○		◎			○	○

i-Dream Drills

YC1A / YC2C
YD1A / YD2C

i-梦幻钻 刀片 & 刀柄
i-DREAM DRILL INSERTS & HOLDERS

- i-梦幻钻刀片 优点
  Features of i-Dresm Drill Inserts

▶ 牢固精确的底座可以使产品重复使用而不影响精度.
Secure and accurate seating resulting in accurate repeatability and concentricity.

一般i-梦幻钻 / i-Dream Drill General
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For tough,ductile materials and stainless steels
▶ 具有轻而锋利的切削刃/ Light,sharp cutting edge
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▶ 减少积屑瘤/ Reduce built-up edge

切削条件 /cutting conditions:p.40~41

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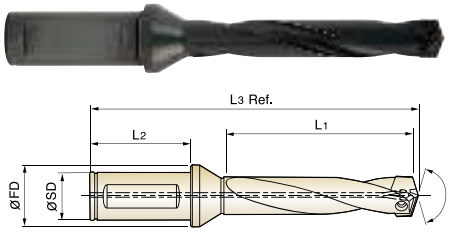

Series Range	Insert EDP No.		Insert O.D.			Drilling Depth	Holder EDP No.	Shank Dia.	Shank Length	Flange Dia.	Flute Length	Overall Length	Clamping Screw No.
	General (TiAlN)	INOX (TiCN)	h7 dec.	h7 frac.	h7 mm			SD	L2	FD	L1	L3 Ref.	
(mm)													
C Ø16.00 to Ø17.99	YC1A1700	YC2C1700	0.6693		17.00	3D	ZH17003020	20	50	25	69	134	TX1617T08
	YC1A1707	YC2C1707	0.6919	43/64	17.07	5D	ZH17005020				104	169	
	YC1A1746	YC2C1746	0.6875	11/16	17.46	7D	ZH17007020				139	204	
	YC1A1750	YC2C1750	0.6890		17.50	3D	ZH17503020	20	50	25	70	135	
	YC1A1780	YC2C1780	0.7008		17.80	5D	ZH17505020				106	171	
	YC1A1786	YC2C1786	0.7031	45/64	17.86	7D	ZH17507020				142	207	
D Ø18.00 to Ø19.99	YD1A1800	YD2C1800	0.7087		18.00	3D	ZH18003025	25	56	32	72	149	TX1819T15
	YD1A1826	YD2C1826	0.7188	23/32	18.26	5D	ZH18005025				109	186	
						7D	ZH18007025				146	223	
	YD1A1850	YD2C1850	0.7283		18.50	3D	ZH18503025	25	56	32	74	150	
	YD1A1865	YD2C1865	0.7344	47/64	18.65	5D	ZH18505025				112	188	
	YD1A1880	YD2C1880	0.7402		18.80	7D	ZH18507025				150	226	
	YD1A1900	YD2C1900	0.7480		19.00	3D	ZH19003025	25	56	32	76	152	
	YD1A1905	YD2C1905	0.7500	3/4	19.05	5D	ZH19005025				115	191	
	YD1A1927	YD2C1927	0.7587		19.27	7D	ZH19007025				154	230	
	YD1A1945	YD2C1945	0.7656	49/64	19.45								
	YD1A1950	YD2C1950	0.7677		19.50	3D	ZH19503025	25	56	32	77	153	
	YD1A1980	YD2C1980	0.7795		19.80	5D	ZH19505025				117	193	
	YD1A1984	YD2C1984	0.7812	25/32	19.84	7D	ZH19507025				157	233	

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	普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
	Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
	~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
Y*1A	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎		◎	◎		
Y*2C	○	○		○				○		○		◎			○	○

i-Dream Drills

YE1A / YE2C
YF1A / YF2C

i-梦幻钻 刀片 & 刀柄
i-DREAM DRILL INSERTS & HOLDERS

- i-梦幻钻刀片 优点
  Features of i-Dresm Drill Inserts

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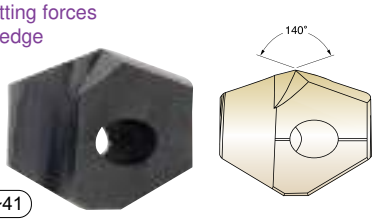
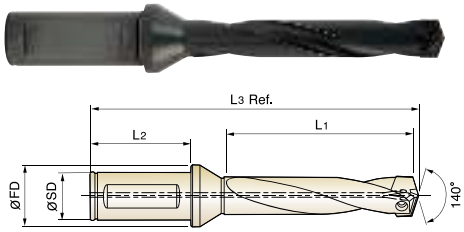
▶ 具有轻而锋利的切削刃/ Light,sharp cutting edge
▶ 有软切削作用/ Soft cutting action
▶ 可以减少切削力/ Minimize cutting forces
▶ 减少积屑瘤/ Reduce built-up edge



切削条件 /cutting conditions:p.40~41

- i-梦幻钻刀柄 优点
  Features of i-Dresm Drill Holders

▶ 特殊的合金钢材质使产品在高温下仍能保持其硬度和韧性
Special Alloy Steels that maintains its hardness and toughness under high temperatures.
▶ 新开发的表面处理方式可以提高产品的耐磨性并减少腐蚀
Innovative surface treatment that improves wear resistance and reduces corrosion.
▶ 高性能的沟槽设计使排屑最大化和阻碍最小化
High Performance flute design allowing maximum chip evacuation and minimum interference.



Series Range (mm)	Insert EDP No. General (TiAlN)	Insert EDP No. INOX (TiCN)	Insert O.D. h7 dec.	Insert O.D. h7 frac.	Insert O.D. h7 mm	Drilling Depth	Holder EDP No.	Shank Dia. SD	Shank Length L2	Flange Dia. FD	Flute Length L1	Overall Length L3 Ref.	Clamping Screw No.
E Ø20.00 to Ø21.99	YE1A2000	YE2C2000	0.7874		20.00	3D	ZH20003025	25	56	32	77	152	TX2021T20
						5D	ZH20005025				118	193	
	YE1A2024	YE2C2024	0.7969	51/64	20.24	7D	ZH20007025				159	234	
	YE1A2050	YE2C2050	0.8071		20.50	3D	ZH20503025				79	154	
	YE1A2064	YE2C2064	0.8125	13/16	20.64	5D	ZH20505025	25	56	32	121	196	
	YE1A2070	YE2C2070	0.8150		20.70	7D	ZH20507025				163	238	
	YE1A2100	YE2C2100	0.8268		21.00	3D	ZH21003025				81	156	
	YE1A2103	YE2C2103	0.8281	53/64	21.03	5D	ZH21005025	25	56	32	124	199	
	YE1A2143	YE2C2143	0.8438	27/32	21.43	7D	ZH21007025				167	242	
	YE1A2150	YE2C2150	0.8465		21.50	3D	ZH21503025				83	157	
	YE1A2170	YE2C2170	0.8543		21.70	5D	ZH21505025	25	56	32	126	200	
	YE1A2183	YE2C2183	0.8594	55/64	21.83	7D	ZH21507025				170	244	
F Ø22.00 to Ø23.99	YF1A2200	YF2C2200	0.8661		22.00	3D	ZH22003025	25	56	32	85	159	TX2223T20
						5D	ZH22005025				129	203	
	YF1A2223	YF2C2223	0.8750	7/8	22.23	7D	ZH22007025				174	248	
	YF1A2250	YF2C2250	0.8858		22.50	3D	ZH22503025				86	159	
	YF1A2262	YF2C2262	0.8906	57/64	22.62	5D	ZH22505025	25	56	32	132	205	
	YF1A2270	YF2C2270	0.8937		22.70	7D	ZH22507025				178	251	
	YF1A2300	YF2C2300	0.9055		23.00	3D	ZH23003025				88	161	
	YF1A2302	YF2C2302	0.9062	29/32	23.02	5D	ZH23005025	25	56	32	135	208	
	YF1A2342	YF2C2342	0.9219	59/64	23.42	7D	ZH23007025				182	255	
	YF1A2350	YF2C2350	0.9252		23.50	3D	ZH23503025				90	163	
	YF1A2370	YF2C2370	0.9331		23.70	5D	ZH23505025	25	56	32	137	210	
	YF1A2381	YF2C2381	0.9375	15/16	23.81	7D	ZH23507025				185	258	

涂层：TiN,TiCN,TiAlN & Hardslick可根据客户需求进行加工. / **Coating :** TiN, TiCN, TiAlN & Hardslick are available on your request.

◎：优(Excellent) ○：良(Good)

	普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
	Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
	~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
Y*1A	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎		◎	◎		
Y*2C	○	○		○				○		○		◎			○	○

i-Dream Drills

YG1A / YG2C
YH1A / YH2C

i-梦幻钻 刀片 & 刀柄
i-DREAM DRILL INSERTS & HOLDERS

- i-梦幻钻刀片 优点
  Features of i-Dresm Drill Inserts

▶ 牢固精确的底座可以使产品重复使用而不影响精度.
Secure and accurate seating resulting in accurate repeatability and concentricity.

一般i-梦幻钻 / i-Dream Drill General
▶ 适用于大多数钢材/ For most steels materials

不锈钢用的 i-梦幻钻 / i-Dream Drill INOX :
▶ 适用于比较坚韧的材质和不锈钢
For tough,ductile materials and stainless steels
▶ 具有轻而锋利的切削刃/ Light,sharp cutting edge
▶ 有软切削作用/ Soft cutting action
▶ 可以减少切削力/ Minimize cutting forces
▶ 减少积屑瘤/ Reduce built-up edge

切削条件 /cutting conditions:p.40~41

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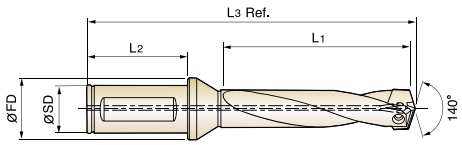

Series Range (mm)	Insert EDP No. General (TiAlN)	Insert EDP No. INOX (TiCN)	Insert O.D. h7 dec.	Insert O.D. h7 frac.	Insert O.D. h7 mm	Drilling Depth	Holder EDP No.	Shank Dia. SD	Shank Length L2	Flange Dia. FD	Flute Length L1	Overall Length L3 Ref.	Clamping Screw No.
G Ø24.00 to Ø25.99	YG1A2400	YG2C2400	0.9449		24.00	3D	ZH24003032	32	60	37	91	172	TX2425T20
	YG1A2421	YG2C2421	0.9531	61/64	24.21	5D	ZH24005032				140	221	
						7D	ZH24007032				189	270	
	YG1A2450	YG2C2450	0.9646		24.50	3D	ZH24503032				93	173	
	YG1A2461	YG2C2461	0.9688	31/32	24.61	5D	ZH24505032	32	60	37	143	223	
	YG1A2470	YG2C2470	0.9724		24.70	7D	ZH24507032				193	273	
	YG1A2500	YG2C2500	0.9843	63/64	25.00	3D	ZH25003032				95	175	
	YG1A2540	YG2C2540	1.0000	1	25.40	5D	ZH25005032	32	60	37	146	226	
						7D	ZH25007032				197	277	
	YG1A2550	YG2C2550	1.0039		25.50	3D	ZH25503032				97	177	
	YG1A2567	YG2C2567	1.0106		25.67	5D	ZH25505032	32	60	37	148	228	
	YG1A2570	YG2C2570	1.0118		25.70	7D	ZH25507032				200	280	
	YG1A2580	YG2C2580	1.0156	1*1/64	25.80								
H Ø26.00 to Ø27.99	YH1A2600	YH2C2600	1.0236		26.00	3D	ZH26003032				98	177	TX2627T25
	YH1A2619	YH2C2619	1.0312	1*1/32	26.19	5D	ZH26005032	32	60	37	150	229	
						7D	ZH26007032				202	281	
	YH1A2650	YH2C2650	1.0433		26.50	3D	ZH26503032				99	178	
	YH1A2659	YH2C2659	1.0469	1*3/64	26.59	5D	ZH26505032	32	60	37	152	231	
	YH1A2699	YH2C2699	1.0625	1*1/16	26.99	7D	ZH26507032				205	284	
	YH1A2700	YH2C2700	1.0630		27.00	3D	ZH27003032				101	180	
						5D	ZH27005032	32	60	37	155	234	
						7D	ZH27007032				209	288	
	YH1A2750	YH2C2750	1.0827		27.50	3D	ZH27503032				103	181	
	YH1A2778	YH2C2778	1.0938	1*3/32	27.78	5D	ZH27505032	32	60	37	159	237	
						7D	ZH27507032				214	292	

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	普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
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	~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
Y*1A	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎		◎	◎		
Y*2C	○	○		○				○		○		◎			○	○

i-Dream Drills

YI1A / YI2C
YJ1A / YJ2C

i-梦幻钻 刀片 & 刀柄
i-DREAM DRILL INSERTS & HOLDERS

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▶ 具有轻而锋利的切削刃/ Light,sharp cutting edge
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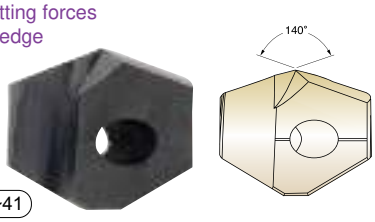

切削条件 /cutting conditions:p.40~41

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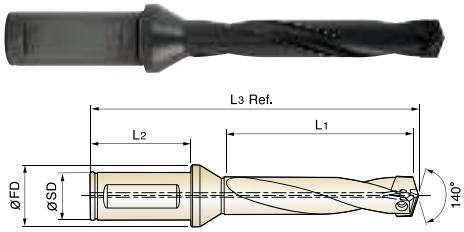

Series Range (mm)	Insert EDP No. General (TiAlN)	Insert EDP No. INOX (TiCN)	Insert O.D. h7 dec.	Insert O.D. h7 frac.	Insert O.D. h7 mm	Drilling Depth	Holder EDP No.	Shank Dia. SD	Shank Length L2	Flange Dia. FD	Flute Length L1	Overall Length L3 Ref.	Clamping Screw No.
I Ø28.00 to Ø29.99	YI1A2800	YI2C2800	1.1024		28.00	3D	ZH28003032	32	60	37	105	183	TX2829T25
						5D	ZH28005032				161	239	
	YI1A2818	YI2C2818	1.1094	1*7/64	28.18	7D	ZH28007032				217	295	
	YI1A2850	YI2C2850	1.1220		28.50	3D	ZH28503032	32	60	37	106	184	
						5D	ZH28505032				163	241	
	YI1A2858	YI2C2858	1.1250	1*1/8	28.58	7D	ZH28507032				220	298	
	YI1A2900	YI2C2900	1.1417		29.00	3D	ZH29003032	32	60	37	109	186	
						5D	ZH29005032				168	245	
	YI1A2937	YI2C2937	1.1562	1*5/32	29.37	7D	ZH29007032				226	303	
	YI1A2950	YI2C2950	1.1614		29.50	3D	ZH29503032	32	60	37	110	187	
						5D	ZH29505032				170	247	
	YI1A2977	YI2C2977	1.1719	1*11/64	29.77	7D	ZH29507032				229	306	
J Ø30.00 to Ø31.99	YJ1A3000	YJ2C3000	1.1811		30.00	3D	ZH30003032	32	60	37	112	189	TX3031T25
						5D	ZH30005032				172	249	
	YJ1A3016	YJ2C3016	1.1875	1*3/16	30.16	7D	ZH30007032				232	309	
	YJ1A3050	YJ2C3050	1.2008		30.50	3D	ZH30503032	32	60	37	114	190	
	YJ1A3056	YJ2C3056	1.2031	1*11/64	30.56	5D	ZH30505032				176	252	
	YJ1A3096	YJ2C3096	1.2188	1*7/32	30.96	7D	ZH30507032				238	314	
	YJ1A3100	YJ2C3100	1.2205		31.00	3D	ZH31003032	32	60	37	115	191	
						5D	ZH31005032				177	253	
						7D	ZH31007032				239	315	
	YJ1A3150	YJ2C3150	1.2402		31.50	3D	ZH31503032	32	60	37	118	194	
						5D	ZH31505032				182	258	
	YJ1A3175	YJ2C3175	1.2500	1*1/4	31.75	7D	ZH31507032				246	322	

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	普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
	Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
	~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
Y*1A	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎		◎	◎		
Y*2C	○	○		○				○		○		◎			○	○

METRIC

Material			Tensile Strength	Hardness		Cutting Speed	Feed [mm/rev]				
			[N/mm²]	HB	HRc	Vc [M/min]	Ø12.0 ~Ø14.9	Ø15.0 ~Ø17.9	Ø18.0 ~Ø21.9	Ø22.0 ~Ø26.9	Ø27.0 ~Ø31.9
Non-alloyed steels, Cast steels Free-machining steels	9SMn28, 9SMnPb28, 10SPb20 etc	Y□1A / Y□2C	~500	100~150		95~120	0.16~0.28	0.21~0.35	0.27~0.40	0.34~0.52	0.37~0.55
			500~850	150~250	~24	80~105	0.14~0.24	0.21~0.35	0.27~0.40	0.34~0.52	0.37~0.55
Low-alloyed steels, Cast steels(<5%) Carbon steels	C15, C22, 20Mn5, Ck45, C45 etc		~450	85~125		90~115	0.14~0.25	0.20~0.33	0.25~0.39	0.31~0.47	0.34~0.50
			450~755	125~225	~19	70~90	0.12~0.20	0.17~0.28	0.22~0.32	0.30~0.46	0.33~0.49
			755~900	225~265	19~27	60~80	0.12~0.20	0.17~0.28	0.22~0.32	0.30~0.46	0.33~0.49
			900~1200	265~350	27~37	55~70	0.10~0.16	0.15~0.25	0.21~0.30	0.25~0.38	0.29~0.43
Alloyed steels	45CrMo4, 42CrMo4, 16MnCr5, Ck75, 35CrMo4, 16MnCr5 etc		~600	125~175	~7	80~100	0.14~0.24	0.17~0.28	0.22~0.32	0.30~0.46	0.34~0.50
			600~800	175~235	7~22	70~90	0.12~0.20	0.17~0.28	0.22~0.32	0.30~0.46	0.34~0.50
			800~950	235~280	22~29	60~80	0.12~0.20	0.15~0.25	0.22~0.32	0.30~0.46	0.34~0.50
			950~1110	280~330	29~35	55~70	0.10~0.16	0.13~0.21	0.21~0.30	0.25~0.38	0.29~0.43
			1110~1230	330~360	35~39	45~60	0.08~0.12	0.13~0.21	0.21~0.30	0.25~0.38	0.29~0.43
High-alloyed steels	36CrNiMo4, 41CrAlMo7 etc		600~1020	225~300	19~32	45~60	0.12~0.20	0.15~0.25	0.21~0.30	0.20~0.31	0.24~0.35
			1020~1200	300~355	32~38	40~55	0.10~0.16	0.11~0.18	0.21~0.30	0.20~0.31	0.24~0.35
			1200~1330	355~390	38~42	40~50	0.08~0.12	0.09~0.14	0.18~0.26	0.19~0.29	0.23~0.34
Structural steels	St33, St37-2, St44-2, St52, St60 etc		350~500	100~150		75~95	0.14~0.24	0.21~0.35	0.27~0.39	0.29~0.44	0.32~0.47
			500~850	150~250	~24	60~75	0.12~0.20	0.20~0.33	0.22~0.32	0.25~0.38	0.29~0.43
			850~1200	250~355	24~38	50~65	0.10~0.16	0.17~0.28	0.21~0.30	0.21~0.32	0.26~0.38
Tool steels	102Cr6, 105WCr6, C75W etc		500~705	150~210	~16	50~65	0.10~0.16	0.13~0.21	0.18~0.26	0.20~0.31	0.24~0.35
			705~950	210~280	16~29	40~50	0.10~0.16	0.13~0.21	0.18~0.26	0.20~0.31	0.24~0.35
Grey cast iron	Pearlitic, Ferritic		500~700	150~210	~16	100~125	0.15~0.26	0.20~0.37	0.27~0.42	0.36~0.51	0.40~0.55
	Pearlitic		700~850	210~250	16~24	75~95	0.11~0.20	0.16~0.29	0.20~0.30	0.25~0.35	0.29~0.40
Cast iron nodular	Ferritic		540	165	4	95~120	0.13~0.22	0.17~0.31	0.21~0.32	0.28~0.40	0.32~0.44
	Pearlitic		850	250	24	75~95	0.11~0.20	0.14~0.26	0.19~0.29	0.25~0.35	0.29~0.40
Malleable cast iron	Ferritic		450	125		100~125	0.13~0.22	0.17~0.31	0.21~0.32	0.28~0.40	0.32~0.44
	Pearlitic		780	230	21	75~95	0.11~0.18	0.14~0.26	0.19~0.29	0.25~0.35	0.29~0.40
Aluminum alloys (Wrought)	not heat treatable			65		250~330	0.30~0.40	0.35~0.45	0.40~0.50	0.45~0.55	0.50~0.60
	hardened			150		200~250	0.30~0.40	0.35~0.45	0.40~0.50	0.45~0.55	0.50~0.60
Aluminum alloys (Cast)	≤12% Si, not heat treatable			75		200~50	0.25~0.35	0.30~0.40	0.35~0.45	0.40~0.50	0.45~0.55
	≤12% Si, hardened			90		150~220	0.25~0.35	0.30~0.40	0.35~0.45	0.40~0.50	0.45~0.55
	>12% Si, not heat treatable			130		100~200	0.20~0.30	0.25~0.35	0.30~0.40	0.35~0.45	0.40~0.50
Copper alloys	Free machining(Pb>1%)			110		115~145	0.16~0.28	0.23~0.36	0.29~0.36	0.37~0.45	0.41~0.48
	Brass			90		145~185	0.17~0.29	0.24~0.37	0.30~0.38	0.38~0.46	0.42~0.49
	Electrolitic copper			100		95~120	0.06~0.09	0.09~0.13	0.11~0.13	0.15~0.18	0.19~0.22
Non ferrous material	Duroplastics										
	Fiber plastics										
	Hard rubber										
Stainless steels	Austenitic and Austenitic/ferritic	Y□2C	450~610	135~185	~9	45~60	0.10~0.16	0.12~0.18	0.14~0.20	0.15~0.26	0.18~0.28
			610~930	185~275	9~28	30~45	0.08~0.14	0.09~0.15	0.10~0.16	0.12~0.20	0.14~0.22

RPM = revolution per minute (rev/min)
M/min = surface meter per minute(M/min)
DIA. = diameter of drill (mm)
mm/rev = feed rate(mm/rev)

*Formulas :

$$\text{M/min} = \frac{(\text{RPM}) \cdot \pi \cdot (\text{DIA.})}{1000}$$

$$\text{mm/min} = (\text{RPM}) \cdot (\text{mm/rev})$$

$$\text{RPM} = \frac{(\text{M/min}) \cdot 1000}{(\pi) \cdot (\text{DIA.})}$$

▶ 表中推荐的速度，进给率和其它参数只可用来参考
推荐降低速度和进给量(速度降低20%和进给降低10%)
▶ 建议在使用5xD,7xD的刀柄时把进给率降低到85% ,70%
▶ 在使用7xD刀柄时，建议用等于或大于140度顶尖的钻头钻一个直径2/3以上的定位中心孔
定位中心孔的使用提高孔的定位，圆度和表面粗糙度

▶ The recommendations for speeds, feeds and other parameters presented in this chart are nominal recommendations and should be considered only as good starting points.
Speed and feed reductions (20% reduction in speed and 10% reduction in feed) are recommended.
▶ Recommend you to reduce the feed rate to 85%,70% when you use 5xD,7xD holders.
▶ For use of 7xD holder, we recommend to drill a centering pre-hole with equal to or larger than 140 ° point angle to min. 2/3 cutting diameter.
The use of the centering pre-hole improves hole location , roundness and surface finish.

INCH

Material			Tensile Strength	Hardness		Cutting Speed	Feed [IPR]				
			MPa	HB	HRc	Vc [SFM]	Ø31/64 ~Ø37/64	Ø19/32 ~Ø45/64	Ø23/32 ~Ø55/64	Ø7/8 ~Ø1-1/16	Ø1-3/32 ~Ø1-1/4
Non-alloyed steels, Cast steels Free-machining steels	9SMn28, 9SMnPb28, 10SPb20 etc	YG□1A / YG□2C	~500	100~150		312~394	0.006~0.011	0.008~0.014	0.011~0.016	0.013~0.020	0.015~0.022
			500~850	150~250	~24	262~344	0.006~0.009	0.008~0.014	0.011~0.016	0.013~0.020	0.015~0.022
Low-alloyed steels, Cast steels(<5%) Carbon steels	C15, C22, 20Mn5, Ck45, C45 etc		~450	85~125		295~377	0.006~0.010	0.008~0.013	0.010~0.015	0.012~0.019	0.013~0.020
			450~755	125~225	~19	230~295	0.005~0.008	0.007~0.011	0.009~0.013	0.012~0.018	0.013~0.019
			755~900	225~265	19~27	197~262	0.005~0.008	0.007~0.011	0.009~0.013	0.012~0.018	0.013~0.019
			900~1200	265~350	27~37	180~230	0.004~0.006	0.006~0.010	0.008~0.012	0.010~0.015	0.011~0.017
Alloyed steels	45CrMo4, 42CrMo4, 16MnCr5, Ck75, 35CrMo4, 16MnCr5 etc		~600	125~175	~7	262~328	0.006~0.009	0.007~0.011	0.009~0.013	0.012~0.018	0.013~0.020
			600~800	175~235	7~22	230~295	0.005~0.008	0.007~0.011	0.009~0.013	0.012~0.018	0.013~0.020
			800~950	235~280	22~29	197~262	0.005~0.008	0.006~0.010	0.009~0.013	0.012~0.018	0.013~0.020
			950~1110	280~330	29~35	180~230	0.004~0.006	0.005~0.008	0.008~0.012	0.010~0.015	0.011~0.017
			1110~1230	330~360	35~39	148~197	0.003~0.005	0.005~0.008	0.008~0.012	0.010~0.015	0.011~0.017
High-alloyed steels	36CrNiMo4, 41CrAlMo7 etc		600~1020	225~300	19~32	148~197	0.005~0.008	0.006~0.010	0.008~0.012	0.008~0.012	0.009~0.014
			1020~1200	300~355	32~38	131~180	0.004~0.006	0.004~0.007	0.008~0.012	0.008~0.012	0.009~0.014
			1200~1330	355~390	38~42	131~164	0.003~0.005	0.004~0.006	0.007~0.010	0.007~0.011	0.009~0.013
Structural steels	St33, St37-2, St44-2, St52, St60 etc		350~500	100~150		246~312	0.006~0.009	0.008~0.014	0.011~0.015	0.011~0.017	0.013~0.019
			500~850	150~250	~24	197~246	0.005~0.008	0.008~0.013	0.009~0.013	0.010~0.015	0.011~0.017
			850~1200	250~355	24~38	164~213	0.004~0.006	0.007~0.011	0.008~0.012	0.008~0.013	0.010~0.015
Tool steels	102Cr6, 105WCr6, C75W etc		500~705	150~210	~16	164~213	0.004~0.006	0.005~0.008	0.007~0.010	0.008~0.012	0.009~0.014
			705~950	210~280	16~29	131~164	0.004~0.006	0.005~0.008	0.007~0.010	0.008~0.012	0.009~0.014
Grey cast iron	Pearlitic, Ferritic		500~700	150~210	~16	328~410	0.006~0.010	0.008~0.015	0.011~0.017	0.014~0.020	0.016~0.022
	Pearlitic		700~850	210~250	16~24	246~312	0.004~0.008	0.006~0.011	0.008~0.012	0.010~0.014	0.011~0.016
Cast iron nodular	Ferritic		540	165	4	312~394	0.005~0.009	0.007~0.012	0.008~0.013	0.011~0.016	0.013~0.017
	Pearlitic		850	250	24	246~312	0.004~0.008	0.006~0.010	0.007~0.011	0.010~0.014	0.011~0.016
Malleable cast iron	Ferritic		450	125		328~410	0.005~0.009	0.007~0.012	0.008~0.013	0.011~0.016	0.013~0.017
	Pearlitic		780	230	21	246~312	0.004~0.007	0.006~0.010	0.007~0.011	0.010~0.014	0.011~0.016
Aluminum alloys (Wrought)	not heat treatable			65		820~1083	0.0118~0.0157	0.0138~0.0177	0.0157~0.0197	0.0177~0.0217	0.0197~0.0236
	hardened			150		656~820	0.0118~0.0157	0.0138~0.0177	0.0157~0.0197	0.0177~0.0217	0.0197~0.0236
Aluminum alloys (Cast)	≤12% Si, not heat treatable			75		656~820	0.0098~0.0138	0.0118~0.0157	0.0138~0.0177	0.0157~0.0197	0.0177~0.0217
	≤12% Si, hardened			90		492~722	0.0098~0.0138	0.0118~0.0157	0.0138~0.0177	0.0157~0.0197	0.0177~0.0217
	>12% Si, not heat treatable			130		328~656	0.0079~0.0118	0.0098~0.0138	0.0118~0.0157	0.0138~0.0177	0.0157~0.0197
Copper alloys	Free machining(Pb>1%)			110		377~476	0.006~0.011	0.009~0.014	0.011~0.014	0.015~0.018	0.016~0.019
	Brass			90		476~607	0.007~0.011	0.009~0.015	0.012~0.015	0.015~0.018	0.017~0.019
	Electrolitic copper			100		312~394	0.002~0.004	0.004~0.005	0.004~0.005	0.006~0.007	0.007~0.009
Non ferrous material	Duroplastics										
	Fiber plastics										
	Hard rubber										
Stainless steels	Austenitic and Austenitic/ferritic	YG□2C	450~610	135~185	~9	145~197	0.004~0.006	0.005~0.007	0.006~0.008	0.006~0.011	0.007~0.011
			610~930	185~275	9~28	89~145	0.003~0.005	0.004~0.006	0.004~0.006	0.005~0.008	0.006~0.009

RPM = revolution per minute (rev/min)
SFM = surface feet per minute (ft/min)
DIA. = diameter of drill (inch)
IPR = feed rate (inch/rev)
IPM = inch per minute penetration rate

*Formulas :

$$SFM = \frac{(RPM) \cdot \pi \cdot (DIA.)}{12}$$

$$IPM = (RPM) \cdot (IPR)$$

$$RPM = \frac{(SFM) \cdot 12}{(\pi) \cdot (DIA.)}$$

▶ 表中推荐的速度，进给率和其它参数只可用来参考
推荐降低速度和进给量(速度降低20%和进给降低10%)
▶ 建议在使用5xD,7xD的刀柄时把进给率降低到85% ,70%
▶ 在使用7xD刀柄时，建议用等于或大于140度顶尖的钻头钻一个直径2/3以上的定位中心孔
定位中心孔的使用提高孔的定位，圆度和表面粗糙度

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The use of the centering pre-hole improves hole location , roundness and surface finish.

i-Dream Drills

i-梦幻钻的装配
ASSEMBLY OF i-DREAM DRILLS

确定刀片及刀架的清洁
Make sure to clean the insert and insert seat.

将钻头刀片滑至夹具的夹缝中并按下刀片至夹缝底部
Slide the drill insert into the slot of the holder and press down the insert to touch the bottom of the slot.

确定刀片按压至夹缝底部后用抓具扣紧螺丝使其进一步融合
After confirming the insert is pressed down to the bottom of the slot, tighten the screw using anti-seize compound.

WRENCH TYPE	PRODUCT No.	T-HANDLE No.	SERIES (SIZE)
WING TYPE	TWWT08	—	A (Ø12.00~Ø13.99)
			B (Ø14.00~Ø15.99)
			C (Ø16.00~Ø17.99)
TORX BIT TYPE	TWBT15	TWH600	D (Ø18.00~Ø19.99)
	TWBT20		E, F, G (Ø20.00~Ø25.99)
	TWBT25		H, I, J (Ø26.00~Ø31.99)

用翼形或T形扳手
Use the wing type or T-type wrench.

▶ 根据指示，需要使用合适的扳手和螺钉
Need to use appropriate wrenches and screws as indicated.
▶ 适当的拧紧螺钉是很重要的
It's important to tighten up the screw properly.

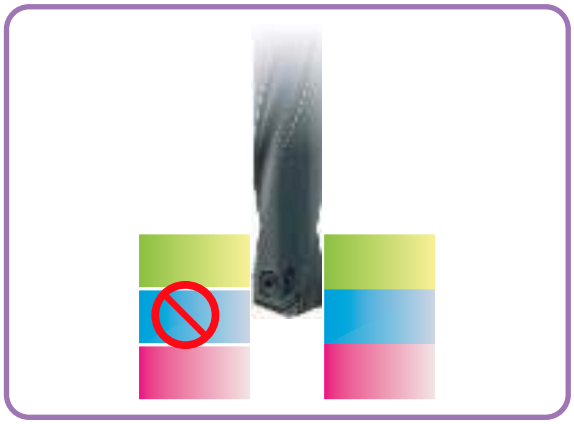
注意-不推荐使用
CAUTION-NOT RECOMMENDABLE APPLICATION

交叉孔比钻头刀片的钻边长度大

Intersecting cross hole is bigger than the drill insert's Margin Length.

倾斜进入的材料和超过7度的出口(如果钻7度的孔或者在倾斜面下钻孔，可减少30-50%的进给)

Material with slanting entrance and exit over 7 degree. (If drilling 7 degree or under slanting surface, reduce the feed about 30-50 %)

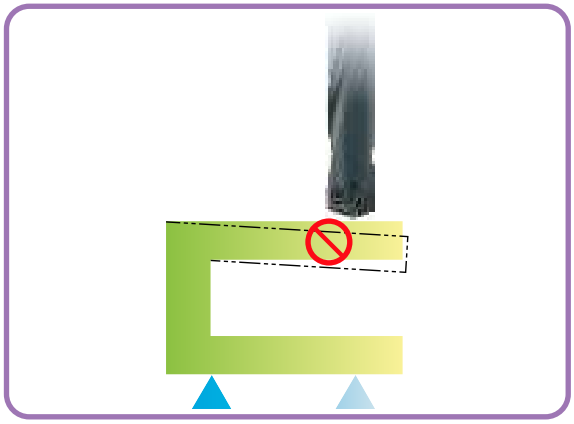


对于钻一堆整齐的薄板，薄板之间的间隙减小到最低

For drilling stacked plates, minimize the space between the plates.

整齐的薄板间隔可导致刀片破损或铁屑不易排除

The space stacked plates can cause insert breakage or poor chip control.

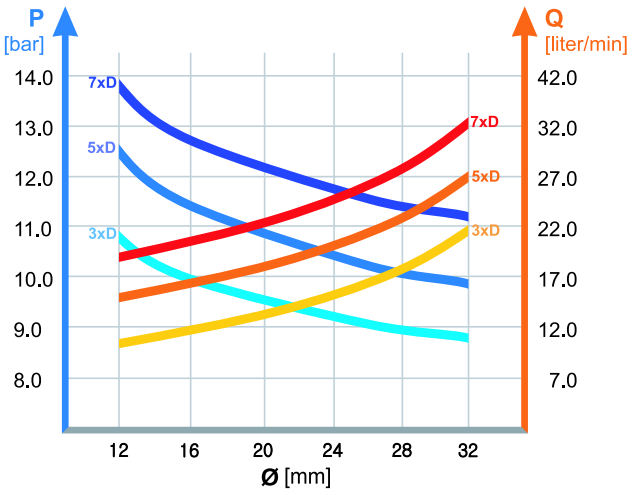


在钻削前材料需要进行安全固定

The material needs to be fixtured securely before drilling.

i-Dream Drills

在立式钻孔中，推荐使用的油压和流速
RECOMMENDED COOLANT PRESSURE AND FLOW RATE ON VERTICAL DRILLING



- 推荐使用6-8%的混合乳化液
  Recommended emulsion mix is 6% - 8%.
- 钻孔加工不锈钢和高强度钢时，推荐使用10%的混合乳化液
  For Drilling in Stainless and High Strength steels, a mix of 10% is recommended.
- 对于水平钻孔，油压和流速降低30%是可能的
  For horizontal drilling, 30% reduction on the coolant pressure and flow rate is possible.
- 干式钻孔可以用于1-2xD钻削，但是不推荐使用
  Dry drilling is possible for 1-2xD drilling. But not recommended.

问题解答
TROUBLE SHOOTING

1) 巨大磨损/快速磨损
降低切削速度
增加进给量
Heavy flank wear / Fast flank wear
- Reduce cutting speed
- Increase feed

2) 切削刃崩刃
减少进给量
检测主轴和刀夹刚性
工作件的强性夹持
Chipping on cutting edge
- Reduce feed
- Check the rigidity of spindle and chuck
- Rigid clamping of workpiece

3) 刃边积瘤
增加切削速度
使用涂层刀片
Build up on cutting edge
- Increase cutting speed
- Use a coated insert

4) 在转角处崩刃或破损
减少进给量
增强工件夹持刚性
Chipping or break down on outer corner
- Reduce feed
- Rigid clamping of workpiece

5) 刀具刃带磨损
增强工件夹持刚性
降低切削速度
增加油流量
Wear of land margin
- Rigid clamping of workpiece
- Reduce cutting speed
- Increase coolant flow

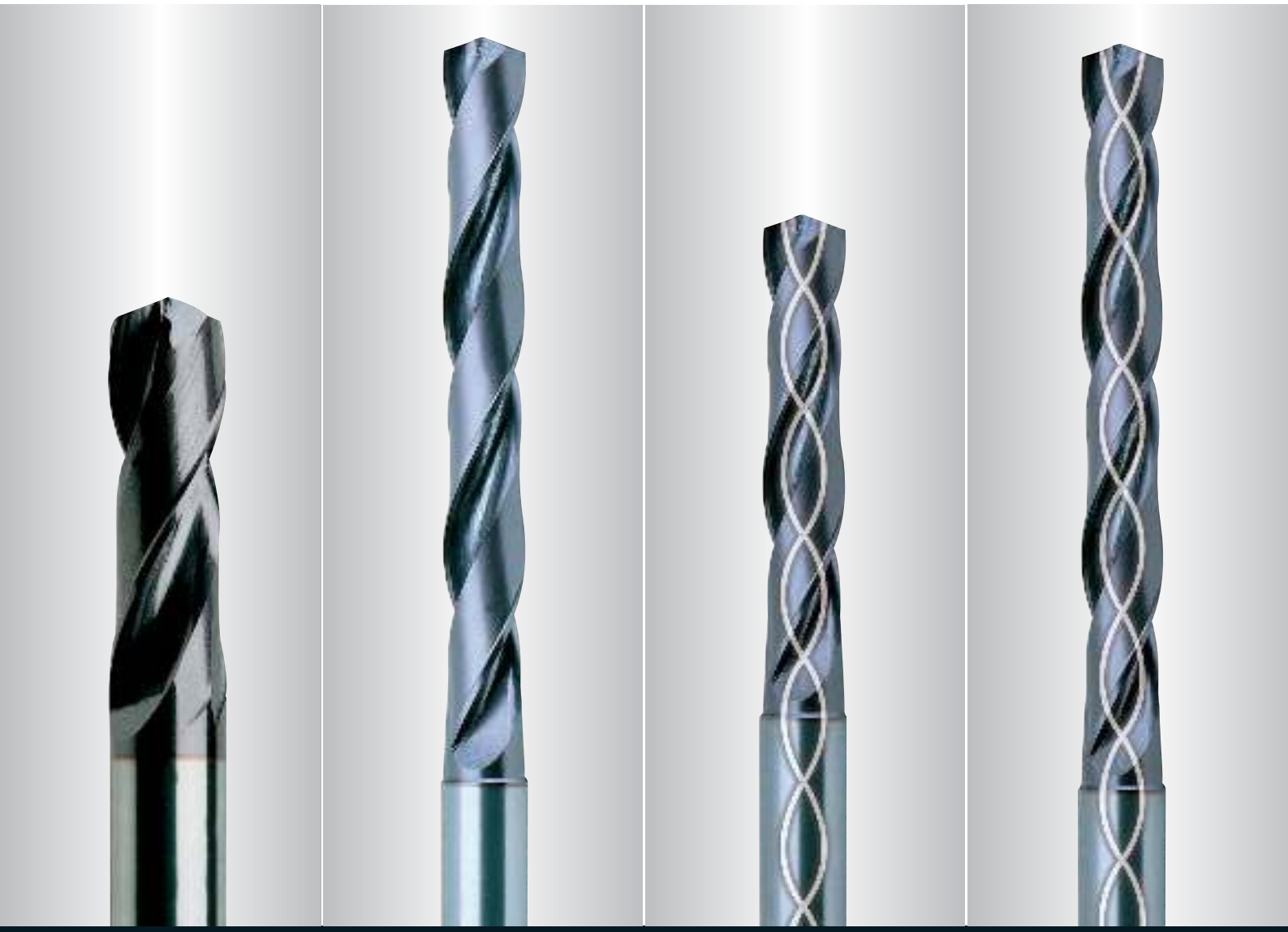
6) 孔位置度不良
增强工件夹持刚性
在进入和退出时降低速度
Unsatisfactory positioning of the hole
- Rigid clamping of workpiece
- Reduce feed during entrance or exit

7) 刀体损伤
增强工件夹持刚性
减少进给量
增加油流量
Scratching on holder
- Rigid clamping of workpiece
- Reduce feed
- Increase coolant flow

8) 令人不满意的表面粗糙度
增强工件夹持刚性
增加油流量和油压力
Unsatisfactory surface finish
- Rigid clamping of workpiece
- Increase coolant flow and pressure

CARBIDE

Being the best through innovation



DREAM DRILLS -GENERAL

- 带油孔和不带油孔
普通用途通常是HRc30 到 HRc50

WITH & WITHOUT COOLANT HOLES
General Purpose usually HRc30 to HRc50

整体硬质合金梦幻钻头-普通(带油孔和不带油孔)

普通用途通常是HRc30 到 HRc50

项目 ITEM	型号 MODEL	规格 DESCRIPTION		尺寸 SIZE 最小 MIN	尺寸 SIZE 最大 MAX	页 PAGE
3XD DH404		硬质合金梦幻钻头 CARBIDE, DREAM DRILLS	超短 STUB	D3.0	D20.0	48
3XD DH423		硬质合金梦幻钻头 CARBIDE, DREAM DRILLS	短 SHORT	D3.0	D20.0	50
5XD DH424		硬质合金梦幻钻头 CARBIDE, DREAM DRILLS	长 LONG	D1.0	D20.0	52
3XD DH406		油孔硬质合金梦幻钻头 CARBIDE, DREAM DRILLS with COOLANT HOLES	短 SHORT	D3.0	D20.0	55
5XD DH408		油孔硬质合金梦幻钻头 CARBIDE, DREAM DRILLS with COOLANT HOLES	长 LONG	D1.0	D20.0	57
8XD DH421		油孔硬质合金梦幻钻头 CARBIDE, DREAM DRILLS with COOLANT HOLES	超长 EXTRA LONG	D3.0	D14.0	60
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS				62

SOLID CARBIDE DREAM DRILLS - GENERAL (with & without Coolant Holes)

General Purpose usually HRc30 to HRc50

◎ : 优(Excellent)
○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		铸铁	铝	不锈钢	钛	低碳钢	铜	青铜
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
○	◎	◎			○		○				
○	◎	◎			○		○				
○	◎	◎			○		○				
○	◎	◎			○		○				
○	◎	◎			○		○				
○	◎	◎			○		○				

DREAM DRILLS -GENERAL

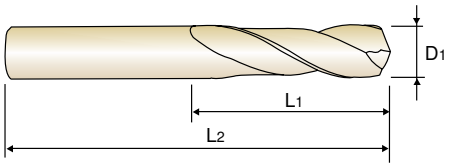
DH404 SERIES

硬质合金，梦幻钻头
CARBIDE, DREAM DRILLS

超短
STUB

▶ 应用：用于加工一般钢件，铸钢，铸铁，冷硬铸铁，可锻铸铁，非铁重金属，非铁轻金属，耐磨塑料等材料。
▶ 优点：自定心功能-可免除定点钻
出色的定位-不需要导套
特殊的设计-不需要铰孔-良好的排屑性能-强力钻削

▶ **Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.
▶ **Advantage** : Self centering - center drilling is not required.
Excellent positioning - bush is not necessary.
Special Design - reaming is not required.
- good chip removal
- powerful drilling



DIN 6539 | MG | h6 | h7 | 140° P.62

$D_1=D_2$
3 × D

단위(Unit) : mm

型号 EDP No. TiAlN	刃径 Drill Diameter D_1	刃长 Flute Length L_1	全长 Overall Length L_2	型号 EDP No. TiAlN	刃径 Drill Diameter D_1	刃长 Flute Length L_1	全长 Overall Length L_2
DH404030	3.0	16	46	DH404057	5.7	28	66
DH404031	3.1	18	49	DH404058	5.8	28	66
DH404032	3.2	18	49	DH404059	5.9	28	66
DH404033	3.3	18	49	DH404060	6.0	28	66
DH404034	3.4	20	52	DH404061	6.1	31	70
DH404035	3.5	20	52	DH404062	6.2	31	70
DH404036	3.6	20	52	DH404063	6.3	31	70
DH404037	3.7	20	52	DH404064	6.4	31	70
DH404038	3.8	22	55	DH404065	6.5	31	70
DH404039	3.9	22	55	DH404066	6.6	31	70
DH404040	4.0	22	55	DH404067	6.7	31	70
DH404041	4.1	22	55	DH404068	6.8	34	74
DH404042	4.2	22	55	DH404069	6.9	34	74
DH404043	4.3	24	58	DH404070	7.0	34	74
DH404044	4.4	24	58	DH404071	7.1	34	74
DH404045	4.5	24	58	DH404072	7.2	34	74
DH404046	4.6	24	58	DH404073	7.3	34	74
DH404047	4.7	24	58	DH404074	7.4	34	74
DH404048	4.8	26	62	DH404075	7.5	34	74
DH404049	4.9	26	62	DH404076	7.6	37	79
DH404050	5.0	26	62	DH404077	7.7	37	79
DH404051	5.1	26	62	DH404078	7.8	37	79
DH404052	5.2	26	62	DH404079	7.9	37	79
DH404053	5.3	26	62	DH404080	8.0	37	79
DH404054	5.4	28	66	DH404081	8.1	37	79
DH404055	5.5	28	66	DH404082	8.2	37	79
DH404056	5.6	28	66	DH404083	8.3	37	79

▶ 其他的刀柄类型可以按照你的要求. / Other shank types are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
○	◎	◎			○		○				

DREAM DRILLS -GENERAL

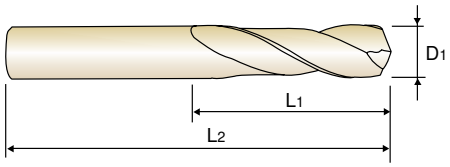
DH404 SERIES

硬质合金, 梦幻钻头
CARBIDE, DREAM DRILLS

超短
STUB

▶应用：用于加工一般钢件, 铸钢, 铸铁, 冷硬铸铁, 可锻铸铁, 非铁重金属, 非铁轻金属, 耐磨塑料等材料.
▶优点：自定心功能-可免除定点钻
出色的定位-不需要导套
特殊的设计-不需要铰孔-良好的排屑性能-强力钻削

▶**Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.
▶**Advantage** : Self centering - center drilling is not required.
Excellent positioning - bush is not necessary.
Special Design - reaming is not required.
- good chip removal
- powerful drilling



DIN 6539 | MG | h6 | h7 | 140° | P.62

$D_1=D_2$
3 × D

단위(Unit) : mm

型号 EDP No. TiAlN	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No. TiAlN	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
DH404084	8.4	37	79	DH404110	11.0	47	95
DH404085	8.5	37	79	DH404115	11.5	47	95
DH404086	8.6	40	84	DH404120	12.0	51	102
DH404087	8.7	40	84	DH404130	13.0	51	102
DH404088	8.8	40	84	DH404135	13.5	54	107
DH404089	8.9	40	84	DH404140	14.0	54	107
DH404090	9.0	40	84	DH404145	14.5	56	111
DH404091	9.1	40	84	DH404150	15.0	56	111
DH404092	9.2	40	84	DH404155	15.5	58	115
DH404093	9.3	40	84	DH404160	16.0	58	115
DH404094	9.4	40	84	DH404165	16.5	60	119
DH404095	9.5	40	84	DH404170	17.0	60	119
DH404096	9.6	43	89	DH404175	17.5	62	123
DH404097	9.7	43	89	DH404180	18.0	62	123
DH404098	9.8	43	89	DH404185	18.5	64	127
DH404099	9.9	43	89	DH404190	19.0	64	127
DH404100	10.0	43	89	DH404195	19.5	66	131
DH404102	10.2	43	89	DH404200	20.0	66	131
DH404105	10.5	43	89				

▶ 其他的刀柄类型可以按照你的要求. / Other shank types are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
○	◎	◎			○		○				

DREAM DRILLS -GENERAL

DH423 SERIES

硬质合金, 梦幻钻头
CARBIDE, DREAM DRILLS

短
SHORT

▶ 应用：用于加工一般钢件, 铸钢, 铸铁, 冷硬铸铁, 可锻铸铁, 非铁重金属, 非铁轻金属, 耐磨塑料等材料.
▶ 优点：自定心功能-可免除定点钻
出色的定位-不需要导套
特殊的设计-不需要铰孔-良好的排屑性能-强力钻削

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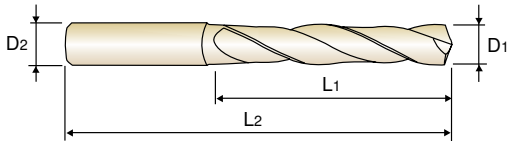
Excellent positioning - bush is not necessary.
Special Design - reaming is not required.
- good chip removal
- powerful drilling



DIN 6537 | MG | h6 | m7 | 140° | P.62

3 × D

단위(Unit) : mm

型号 EDP No. TiAlN	刃径 Drill Diameter D1	柄径 Shank Diameter D2	刃长 Flute Length L1	全长 Overall Length L2
DH423030	3.0	6	20	62
DH423031	3.1	6	20	62
DH423032	3.2	6	20	62
DH423033	3.3	6	20	62
DH423034	3.4	6	20	62
DH423035	3.5	6	20	62
DH423036	3.6	6	20	62
DH423037	3.7	6	20	62
DH423038	3.8	6	24	66
DH423039	3.9	6	24	66
DH423040	4.0	6	24	66
DH423041	4.1	6	24	66
DH423042	4.2	6	24	66
DH423043	4.3	6	24	66
DH423044	4.4	6	24	66
DH423045	4.5	6	24	66
DH423046	4.6	6	24	66
DH423047	4.7	6	24	66
DH423048	4.8	6	28	66
DH423049	4.9	6	28	66
DH423050	5.0	6	28	66
DH423051	5.1	6	28	66
DH423052	5.2	6	28	66
DH423053	5.3	6	28	66
DH423054	5.4	6	28	66
DH423055	5.5	6	28	66
DH423056	5.6	6	28	66
DH423057	5.7	6	28	66
DH423058	5.8	6	28	66

型号 EDP No. TiAlN	刃径 Drill Diameter D1	柄径 Shank Diameter D2	刃长 Flute Length L1	全长 Overall Length L2
DH423059	5.9	6	28	66
DH423060	6.0	6	28	66
DH423061	6.1	8	34	79
DH423062	6.2	8	34	79
DH423063	6.3	8	34	79
DH423064	6.4	8	34	79
DH423065	6.5	8	34	79
DH423066	6.6	8	34	79
DH423067	6.7	8	34	79
DH423068	6.8	8	34	79
DH423069	6.9	8	34	79
DH423070	7.0	8	34	79
DH423071	7.1	8	41	79
DH423072	7.2	8	41	79
DH423073	7.3	8	41	79
DH423074	7.4	8	41	79
DH423075	7.5	8	41	79
DH423076	7.6	8	41	79
DH423077	7.7	8	41	79
DH423078	7.8	8	41	79
DH423079	7.9	8	41	79
DH423080	8.0	8	41	79
DH423081	8.1	10	47	89
DH423082	8.2	10	47	89
DH423083	8.3	10	47	89
DH423084	8.4	10	47	89
DH423085	8.5	10	47	89
DH423086	8.6	10	47	89
DH423087	8.7	10	47	89

▶ 其他的刀柄类型可以按照你的要求. / Other shank types are available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
○	◎	◎			○		○				

DREAM DRILLS -GENERAL

DH423 SERIES

硬质合金, 梦幻钻头
CARBIDE, DREAM DRILLS

短
SHORT

▶应用：用于加工一般钢件, 铸钢, 铸铁, 冷硬铸铁, 可锻铸铁, 非铁重金属, 非铁轻金属, 耐磨塑料等材料.
▶优点：自定心功能-可免除定点钻
出色的定位-不需要导套
特殊的设计-不需要铰孔-良好的排屑性能-强力钻削

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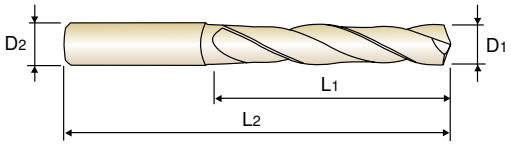
Excellent positioning - bush is not necessary.
Special Design - reaming is not required.
- good chip removal
- powerful drilling



DIN 6537 | MG | h6 | m7 | 140° | P.62

3 × D

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH423088	8.8	10	47	89
DH423089	8.9	10	47	89
DH423090	9.0	10	47	89
DH423091	9.1	10	47	89
DH423092	9.2	10	47	89
DH423093	9.3	10	47	89
DH423094	9.4	10	47	89
DH423095	9.5	10	47	89
DH423096	9.6	10	47	89
DH423097	9.7	10	47	89
DH423098	9.8	10	47	89
DH423099	9.9	10	47	89
DH423100	10.0	10	47	89
DH423101	10.1	12	55	102
DH423102	10.2	12	55	102
DH423103	10.3	12	55	102
DH423104	10.4	12	55	102
DH423105	10.5	12	55	102
DH423106	10.6	12	55	102
DH423107	10.7	12	55	102
DH423108	10.8	12	55	102
DH423109	10.9	12	55	102
DH423110	11.0	12	55	102
DH423111	11.1	12	55	102
DH423112	11.2	12	55	102
DH423113	11.3	12	55	102
DH423114	11.4	12	55	102
DH423115	11.5	12	55	102
DH423116	11.6	12	55	102

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH423117	11.7	12	55	102
DH423118	11.8	12	55	102
DH423119	11.9	12	55	102
DH423120	12.0	12	55	102
DH423123	12.3	14	60	107
DH423125	12.5	14	60	107
DH423128	12.8	14	60	107
DH423130	13.0	14	60	107
DH423135	13.5	14	60	107
DH423138	13.8	14	60	107
DH423140	14.0	14	60	107
DH423145	14.5	16	65	115
DH423148	14.8	16	65	115
DH423150	15.0	16	65	115
DH423155	15.5	16	65	115
DH423158	15.8	16	65	115
DH423160	16.0	16	65	115
DH423165	16.5	18	73	123
DH423168	16.8	18	73	123
DH423170	17.0	18	73	123
DH423175	17.5	18	73	123
DH423178	17.8	18	73	123
DH423180	18.0	18	73	123
DH423185	18.5	20	79	131
DH423190	19.0	20	79	131
DH423195	19.5	20	79	131
DH423198	19.8	20	79	131
DH423200	20.0	20	79	131

▶ 其他的刀柄类型可以按照你的要求. / Other shank types are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
○	◎	◎			○		○				

DREAM DRILLS -GENERAL

DH424 SERIES

硬质合金, 梦幻钻头
CARBIDE, DREAM DRILLS

长
LONG

▶ 应用 : 用于加工一般钢件, 铸钢, 铸铁, 冷硬铸铁, 可锻铸铁, 非铁重金属, 非铁轻金属, 耐磨塑料等材料
▶ 优点 : 自定心功能-可免除定点钻
出色的定位-不需要导套
特殊的设计-不需要铰孔-良好的排屑性能-强力钻削

▶ **Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.
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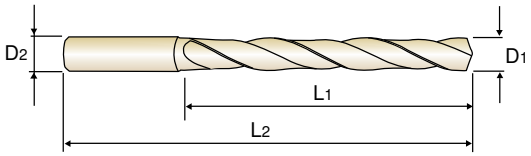

DIN 6537 | MG | h6 | m7 | 140° P.62

5 × D

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length	型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D_1	D_2	L_1	L_2	TiAlN	D_1	D_2	L_1	L_2
DH424010	1.0	3	8	55	DH424036	3.6	6	28	66
DH424011	1.1	3	12	55	DH424037	3.7	6	28	66
DH424012	1.2	3	12	55	DH424038	3.8	6	36	74
DH424013	1.3	3	12	55	DH424039	3.9	6	36	74
DH424014	1.4	3	12	55	DH424040	4.0	6	36	74
DH424015	1.5	3	16	55	DH424041	4.1	6	36	74
DH424016	1.6	3	16	55	DH424042	4.2	6	36	74
DH424017	1.7	3	16	55	DH424043	4.3	6	36	74
DH424018	1.8	3	16	55	DH424044	4.4	6	36	74
DH424019	1.9	3	16	55	DH424045	4.5	6	36	74
DH424020	2.0	4	21	57	DH424046	4.6	6	36	74
DH424021	2.1	4	21	57	DH424047	4.7	6	36	74
DH424022	2.2	4	21	57	DH424048	4.8	6	44	82
DH424023	2.3	4	21	57	DH424049	4.9	6	44	82
DH424024	2.4	4	21	57	DH424050	5.0	6	44	82
DH424025	2.5	4	21	57	DH424051	5.1	6	44	82
DH424026	2.6	4	21	57	DH424052	5.2	6	44	82
DH424027	2.7	4	21	57	DH424053	5.3	6	44	82
DH424028	2.8	4	21	57	DH424054	5.4	6	44	82
DH424029	2.9	4	21	57	DH424055	5.5	6	44	82
DH424030	3.0	6	28	66	DH424056	5.6	6	44	82
DH424031	3.1	6	28	66	DH424057	5.7	6	44	82
DH424032	3.2	6	28	66	DH424058	5.8	6	44	82
DH424033	3.3	6	28	66	DH424059	5.9	6	44	82
DH424034	3.4	6	28	66	DH424060	6.0	6	44	82
DH424035	3.5	6	28	66	DH424061	6.1	8	53	91

▶ 其他的刀柄类型可以按照你的要求. / Other shank types are available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
○	◎	◎			○		○				

DREAM DRILLS -GENERAL

DH424 SERIES

硬质合金, 梦幻钻头
CARBIDE, DREAM DRILLS

长
LONG

▶应用：用于加工一般钢件, 铸钢, 铸铁, 冷硬铸铁, 可锻铸铁, 非铁重金属, 非铁轻金属, 耐磨塑料等材料
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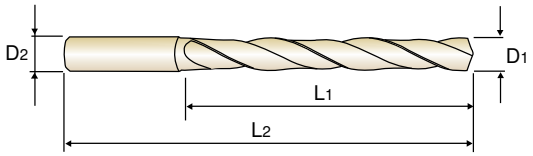


DIN 6537 | MG | h6 | m7 | 140° | P.62

5 × D

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH424062	6.2	8	53	91
DH424063	6.3	8	53	91
DH424064	6.4	8	53	91
DH424065	6.5	8	53	91
DH424066	6.6	8	53	91
DH424067	6.7	8	53	91
DH424068	6.8	8	53	91
DH424069	6.9	8	53	91
DH424070	7.0	8	53	91
DH424071	7.1	8	53	91
DH424072	7.2	8	53	91
DH424073	7.3	8	53	91
DH424074	7.4	8	53	91
DH424075	7.5	8	53	91
DH424076	7.6	8	53	91
DH424077	7.7	8	53	91
DH424078	7.8	8	53	91
DH424079	7.9	8	53	91
DH424080	8.0	8	53	91
DH424081	8.1	10	61	103
DH424082	8.2	10	61	103
DH424083	8.3	10	61	103
DH424084	8.4	10	61	103
DH424085	8.5	10	61	103
DH424086	8.6	10	61	103
DH424087	8.7	10	61	103

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH424088	8.8	10	61	103
DH424089	8.9	10	61	103
DH424090	9.0	10	61	103
DH424091	9.1	10	61	103
DH424092	9.2	10	61	103
DH424093	9.3	10	61	103
DH424094	9.4	10	61	103
DH424095	9.5	10	61	103
DH424096	9.6	10	61	103
DH424097	9.7	10	61	103
DH424098	9.8	10	61	103
DH424099	9.9	10	61	103
DH424100	10.0	10	61	103
DH424101	10.1	12	71	118
DH424102	10.2	12	71	118
DH424103	10.3	12	71	118
DH424104	10.4	12	71	118
DH424105	10.5	12	71	118
DH424106	10.6	12	71	118
DH424107	10.7	12	71	118
DH424108	10.8	12	71	118
DH424109	10.9	12	71	118
DH424110	11.0	12	71	118
DH424111	11.1	12	71	118
DH424112	11.2	12	71	118
DH424113	11.3	12	71	118

▶ 其他的刀柄类型可以按照你的要求. / Other shank types are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
○	◎	◎			○		○				

DREAM DRILLS -GENERAL

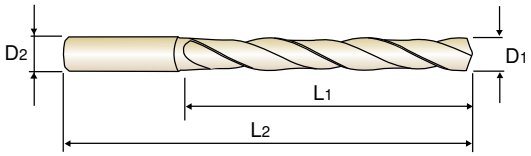
DH424 SERIES

硬质合金, 梦幻钻头
CARBIDE, DREAM DRILLS

长
LONG

▶ 应用：用于加工一般钢件, 铸钢, 铸铁, 冷硬铸铁, 可锻铸铁, 非铁重金属, 非铁轻金属, 耐磨塑料等材料
▶ 优点：自定心功能-可免除定点钻
出色的定位-不需要导套
特殊的设计-不需要铰孔-良好的排屑性能-强力钻削

▶ **Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.
▶ **Advantage** : Self centering - center drilling is not required.
Excellent positioning - bush is not necessary.
Special Design - reaming is not required.
- good chip removal
- powerful drilling



DIN 6537 | MG | h6 | m7 | 140° P.62

5 × D

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH424114	11.4	12	71	118
DH424115	11.5	12	71	118
DH424116	11.6	12	71	118
DH424117	11.7	12	71	118
DH424118	11.8	12	71	118
DH424119	11.9	12	71	118
DH424120	12.0	12	71	118
DH424123	12.3	14	77	124
DH424125	12.5	14	77	124
DH424128	12.8	14	77	124
DH424130	13.0	14	77	124
DH424135	13.5	14	77	124
DH424138	13.8	14	77	124
DH424140	14.0	14	77	124
DH424145	14.5	16	83	133
DH424148	14.8	16	83	133

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH424150	15.0	16	83	133
DH424155	15.5	16	83	133
DH424158	15.8	16	83	133
DH424160	16.0	16	83	133
DH424165	16.5	18	93	143
DH424168	16.8	18	93	143
DH424170	17.0	18	93	143
DH424175	17.5	18	93	143
DH424178	17.8	18	93	143
DH424180	18.0	18	93	143
DH424185	18.5	20	101	153
DH424190	19.0	20	101	153
DH424195	19.5	20	101	153
DH424198	19.8	20	101	153
DH424200	20.0	20	101	153

▶ 其他的刀柄类型可以按照你的要求 / Other shank types are available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
○	◎	◎			○		○				

DREAM DRILLS -GENERAL

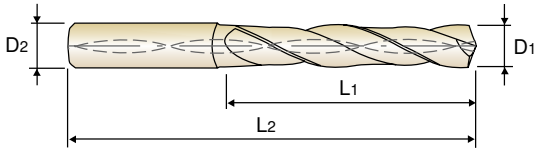
DH406 SERIES

油孔硬质合金梦幻钻头
CARBIDE, DREAM DRILLS with COOLANT HOLES

短 *SHORT*

▶应用：用于加工一般钢件，铸钢，铸铁，冷硬铸铁，可锻铸铁，非铁重金属，非铁轻金属，耐磨塑料等材料.
▶优点：自定心功能-可免除定点钻
出色的定位-不需要导套
特殊的设计-不需要铰孔-良好的排屑性能-强力钻削

▶**Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.
▶**Advantage** : Self centering - center drilling is not required.
Excellent positioning - bush is not necessary.
Special Design - reaming is not required.
- good chip removal
- powerful drilling



DIN 6537 | MG | h6 | m7 | 140° | P.62

3 × D

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH406030	3.0	6	20	62
DH406031	3.1	6	20	62
DH406032	3.2	6	20	62
DH406033	3.3	6	20	62
DH406034	3.4	6	20	62
DH406035	3.5	6	20	62
DH406036	3.6	6	20	62
DH406037	3.7	6	20	62
DH406038	3.8	6	24	66
DH406039	3.9	6	24	66
DH406040	4.0	6	24	66
DH406041	4.1	6	24	66
DH406042	4.2	6	24	66
DH406043	4.3	6	24	66
DH406044	4.4	6	24	66
DH406045	4.5	6	24	66
DH406046	4.6	6	24	66
DH406047	4.7	6	24	66
DH406048	4.8	6	28	66
DH406049	4.9	6	28	66
DH406050	5.0	6	28	66
DH406051	5.1	6	28	66
DH406052	5.2	6	28	66
DH406053	5.3	6	28	66
DH406054	5.4	6	28	66
DH406055	5.5	6	28	66
DH406056	5.6	6	28	66

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH406057	5.7	6	28	66
DH406058	5.8	6	28	66
DH406059	5.9	6	28	66
DH406060	6.0	6	28	66
DH406061	6.1	8	34	79
DH406062	6.2	8	34	79
DH406063	6.3	8	34	79
DH406064	6.4	8	34	79
DH406065	6.5	8	34	79
DH406066	6.6	8	34	79
DH406067	6.7	8	34	79
DH406068	6.8	8	34	79
DH406069	6.9	8	34	79
DH406070	7.0	8	34	79
DH406071	7.1	8	41	79
DH406072	7.2	8	41	79
DH406073	7.3	8	41	79
DH406074	7.4	8	41	79
DH406075	7.5	8	41	79
DH406076	7.6	8	41	79
DH406077	7.7	8	41	79
DH406078	7.8	8	41	79
DH406079	7.9	8	41	79
DH406080	8.0	8	41	79
DH406081	8.1	10	47	89
DH406082	8.2	10	47	89
DH406083	8.3	10	47	89

▶ 其他的刀柄类型可以按照你的要求. / Other shank types are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
○	◎	◎			○		○				

DREAM DRILLS -GENERAL

DH406 SERIES

油孔硬质合金梦幻钻头

短

CARBIDE, DREAM DRILLS with COOLANT HOLES

SHORT

▶ 应用：用于加工一般钢件, 铸钢, 铸铁, 冷硬铸铁, 可锻铸铁, 非铁重金属, 非铁轻金属, 耐磨塑料等材料.

▶ 优点：自定心功能-可免除定点钻
出色的定位-不需要导套
特殊的设计-不需要铰孔-良好的排屑性能-强力钻削

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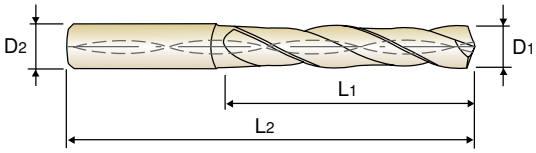
- good chip removal
- powerful drilling



DIN 6537 | MG | h6 | m7 | 140° P.62

3 × D

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length	型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2	TiAlN	D1	D2	L1	L2
DH406084	8.4	10	47	89	DH406111	11.1	12	55	102
DH406085	8.5	10	47	89	DH406112	11.2	12	55	102
DH406086	8.6	10	47	89	DH406113	11.3	12	55	102
DH406087	8.7	10	47	89	DH406114	11.4	12	55	102
DH406088	8.8	10	47	89	DH406115	11.5	12	55	102
DH406089	8.9	10	47	89	DH406116	11.6	12	55	102
DH406090	9.0	10	47	89	DH406117	11.7	12	55	102
DH406091	9.1	10	47	89	DH406118	11.8	12	55	102
DH406092	9.2	10	47	89	DH406119	11.9	12	55	102
DH406093	9.3	10	47	89	DH406120	12.0	12	55	102
DH406094	9.4	10	47	89	DH406125	12.5	14	60	107
DH406095	9.5	10	47	89	DH406130	13.0	14	60	107
DH406096	9.6	10	47	89	DH406135	13.5	14	60	107
DH406097	9.7	10	47	89	DH406140	14.0	14	60	107
DH406098	9.8	10	47	89	DH406145	14.5	16	65	115
DH406099	9.9	10	47	89	DH406150	15.0	16	65	115
DH406100	10.0	10	47	89	DH406155	15.5	16	65	115
DH406101	10.1	12	55	102	DH406160	16.0	16	65	115
DH406102	10.2	12	55	102	DH406165	16.5	18	73	123
DH406103	10.3	12	55	102	DH406170	17.0	18	73	123
DH406104	10.4	12	55	102	DH406175	17.5	18	73	123
DH406105	10.5	12	55	102	DH406180	18.0	18	73	123
DH406106	10.6	12	55	102	DH406185	18.5	20	79	131
DH406107	10.7	12	55	102	DH406190	19.0	20	79	131
DH406108	10.8	12	55	102	DH406195	19.5	20	79	131
DH406109	10.9	12	55	102	DH406200	20.0	20	79	131
DH406110	11.0	12	55	102					

▶ 其他的刀柄类型可以按照你的要求. / Other shank types are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
○	◎	◎			○		○				

DREAM DRILLS -GENERAL

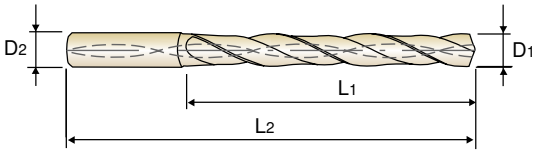
DH408 SERIES

油孔硬质合金梦幻钻头
CARBIDE, DREAM DRILLS with COOLANT HOLES

长 *LONG*

▶应用：用于加工一般钢件，铸钢，铸铁，冷硬铸铁，可锻铸铁，非铁重金属，非铁轻金属，耐磨塑料等材料.
▶优点：自定心功能-可免除定点钻
出色的定位-不需要导套
特殊的设计-不需要铰孔-良好的排屑性能-强力钻削

▶**Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.
▶**Advantage** : Self centering - center drilling is not required.
Excellent positioning - bush is not necessary.
Special Design - reaming is not required.
- good chip removal
- powerful drilling



DIN 6537 | MG | h6 | m7 | 140° | P.62

5 × D

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH408010	1.0	3	8	55
DH408011	1.1	3	12	55
DH408012	1.2	3	12	55
DH408013	1.3	3	12	55
DH408014	1.4	3	12	55
DH408015	1.5	3	16	55
DH408016	1.6	3	16	55
DH408017	1.7	3	16	55
DH408018	1.8	3	16	55
DH408019	1.9	3	16	55
DH408020	2.0	4	21	57
DH408021	2.1	4	21	57
DH408022	2.2	4	21	57
DH408023	2.3	4	21	57
DH408024	2.4	4	21	57
DH408025	2.5	4	21	57
DH408026	2.6	4	21	57
DH408027	2.7	4	21	57
DH408028	2.8	4	21	57
DH408029	2.9	4	21	57
DH408030	3.0	6	28	66
DH408031	3.1	6	28	66
DH408032	3.2	6	28	66
DH408033	3.3	6	28	66
DH408034	3.4	6	28	66
DH408035	3.5	6	28	66

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH408036	3.6	6	28	66
DH408037	3.7	6	28	66
DH408038	3.8	6	36	74
DH408039	3.9	6	36	74
DH408040	4.0	6	36	74
DH408041	4.1	6	36	74
DH408042	4.2	6	36	74
DH408043	4.3	6	36	74
DH408044	4.4	6	36	74
DH408045	4.5	6	36	74
DH408046	4.6	6	36	74
DH408047	4.7	6	36	74
DH408048	4.8	6	44	82
DH408049	4.9	6	44	82
DH408050	5.0	6	44	82
DH408051	5.1	6	44	82
DH408052	5.2	6	44	82
DH408053	5.3	6	44	82
DH408054	5.4	6	44	82
DH408055	5.5	6	44	82
DH408056	5.6	6	44	82
DH408057	5.7	6	44	82
DH408058	5.8	6	44	82
DH408059	5.9	6	44	82
DH408060	6.0	6	44	82
DH408061	6.1	8	53	91

▶ 其他的刀柄类型可以按照你的要求. / Other shank types are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
○	◎	◎			○		○				

DREAM DRILLS -GENERAL

DH408 SERIES

油孔硬质合金梦幻钻头

长 **LONG**

CARBIDE, DREAM DRILLS with COOLANT HOLES

▶ 应用：用于加工一般钢件, 铸钢, 铸铁, 冷硬铸铁, 可锻铸铁, 非铁重金属, 非铁轻金属, 耐磨塑料等材料.
▶ 优点：自定心功能-可免除定点钻
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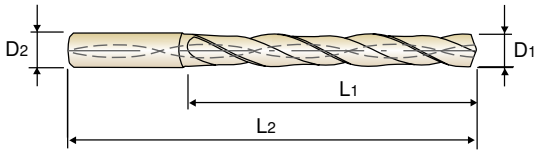
- powerful drilling



DIN 6537 | MG | h6 | m7 | 140° P.62

5 × D

단위(Unit) : mm

型号 EDP No. TiAlN	刃径 Drill Diameter D1	柄径 Shank Diameter D2	刃长 Flute Length L1	全长 Overall Length L2
DH408062	6.2	8	53	91
DH408063	6.3	8	53	91
DH408064	6.4	8	53	91
DH408065	6.5	8	53	91
DH408066	6.6	8	53	91
DH408067	6.7	8	53	91
DH408068	6.8	8	53	91
DH408069	6.9	8	53	91
DH408070	7.0	8	53	91
DH408071	7.1	8	53	91
DH408072	7.2	8	53	91
DH408073	7.3	8	53	91
DH408074	7.4	8	53	91
DH408075	7.5	8	53	91
DH408076	7.6	8	53	91
DH408077	7.7	8	53	91
DH408078	7.8	8	53	91
DH408079	7.9	8	53	91
DH408080	8.0	8	53	91
DH408081	8.1	10	61	103
DH408082	8.2	10	61	103
DH408083	8.3	10	61	103
DH408084	8.4	10	61	103
DH408085	8.5	10	61	103
DH408086	8.6	10	61	103
DH408087	8.7	10	61	103

型号 EDP No. TiAlN	刃径 Drill Diameter D1	柄径 Shank Diameter D2	刃长 Flute Length L1	全长 Overall Length L2
DH408088	8.8	10	61	103
DH408089	8.9	10	61	103
DH408090	9.0	10	61	103
DH408091	9.1	10	61	103
DH408092	9.2	10	61	103
DH408093	9.3	10	61	103
DH408094	9.4	10	61	103
DH408095	9.5	10	61	103
DH408096	9.6	10	61	103
DH408097	9.7	10	61	103
DH408098	9.8	10	61	103
DH408099	9.9	10	61	103
DH408100	10.0	10	61	103
DH408101	10.1	12	71	118
DH408102	10.2	12	71	118
DH408103	10.3	12	71	118
DH408104	10.4	12	71	118
DH408105	10.5	12	71	118
DH408106	10.6	12	71	118
DH408107	10.7	12	71	118
DH408108	10.8	12	71	118
DH408109	10.9	12	71	118
DH408110	11.0	12	71	118
DH408111	11.1	12	71	118
DH408112	11.2	12	71	118
DH408113	11.3	12	71	118

▶ 其他的刀柄类型可以按照你的要求. / Other shank types are available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
○	◎	◎			○		○				

DREAM DRILLS -GENERAL

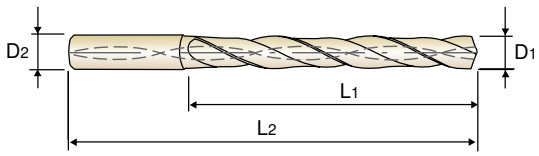
DH408 SERIES

油孔硬质合金梦幻钻头
CARBIDE, DREAM DRILLS with COOLANT HOLES

长 LONG

▶应用：用于加工一般钢件，铸钢，铸铁，冷硬铸铁，可锻铸铁，非铁重金属，非铁轻金属，耐磨塑料等材料.
▶优点：自定心功能-可免除定点钻
出色的定位-不需要导套
特殊的设计-不需要铰孔-良好的排屑性能-强力钻削

▶**Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.
▶**Advantage** : Self centering - center drilling is not required.
Excellent positioning - bush is not necessary.
Special Design - reaming is not required.
- good chip removal
- powerful drilling



DIN 6537 | MG | h6 | m7 | 140° | P.62

5 × D

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH408114	11.4	12	71	118
DH408115	11.5	12	71	118
DH408116	11.6	12	71	118
DH408117	11.7	12	71	118
DH408118	11.8	12	71	118
DH408119	11.9	12	71	118
DH408120	12.0	12	71	118
DH408125	12.5	14	77	124
DH408130	13.0	14	77	124
DH408135	13.5	14	77	124
DH408140	14.0	14	77	124
DH408145	14.5	16	83	133

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH408150	15.0	16	83	133
DH408155	15.5	16	83	133
DH408160	16.0	16	83	133
DH408165	16.5	18	93	143
DH408170	17.0	18	93	143
DH408175	17.5	18	93	143
DH408180	18.0	18	93	143
DH408185	18.5	20	101	153
DH408190	19.0	20	101	153
DH408195	19.5	20	101	153
DH408200	20.0	20	101	153

▶ 其他的刀柄类型可以按照你的要求. / Other shank types are available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
○	◎	◎			○		○				

DREAM DRILLS -GENERAL

DH421 SERIES

油孔硬质合金梦幻钻头

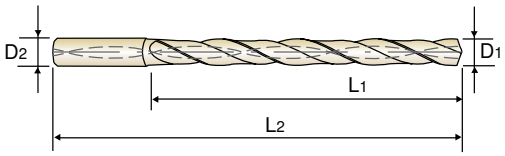
超长

CARBIDE, DREAM DRILLS with COOLANT HOLES

EXTRA LONG

▶ 应用：用于加工一般钢件，铸钢，铸铁，冷硬铸铁，可锻铸铁，非铁重金属，非铁轻金属，耐磨塑料等材料。
▶ 优点：自定心功能-可免除定点钻
出色的定位-不需要导套
特殊的设计-不需要铰孔-良好的排屑性能-强力钻削

▶ **Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.
▶ **Advantage** : Self centering - center drilling is not required.
Excellent positioning - bush is not necessary.
Special Design - reaming is not required.
- good chip removal
- powerful drilling



DIN 6537 | MG | h6 | m7 | 140° P.62

8 × D

단위(Unit) : mm

型号 EDP No. TiAlN	刃径 Drill Diameter D1	柄径 Shank Diameter D2	刃长 Flute Length L1	全长 Overall Length L2
DH421030	3.0	6	34	72
DH421031	3.1	6	34	72
DH421032	3.2	6	34	72
DH421033	3.3	6	34	72
DH421034	3.4	6	34	72
DH421035	3.5	6	34	72
DH421036	3.6	6	34	72
DH421037	3.7	6	34	72
DH421038	3.8	6	43	81
DH421039	3.9	6	43	81
DH421040	4.0	6	43	81
DH421041	4.1	6	43	81
DH421042	4.2	6	43	81
DH421043	4.3	6	43	81
DH421044	4.4	6	43	81
DH421045	4.5	6	43	81
DH421046	4.6	6	43	81
DH421047	4.7	6	43	81
DH421048	4.8	6	57	95
DH421049	4.9	6	57	95
DH421050	5.0	6	57	95
DH421051	5.1	6	57	95
DH421052	5.2	6	57	95
DH421053	5.3	6	57	95
DH421054	5.4	6	57	95

型号 EDP No. TiAlN	刃径 Drill Diameter D1	柄径 Shank Diameter D2	刃长 Flute Length L1	全长 Overall Length L2
DH421055	5.5	6	57	95
DH421056	5.6	6	57	95
DH421057	5.7	6	57	95
DH421058	5.8	6	57	95
DH421059	5.9	6	57	95
DH421060	6.0	6	57	95
DH421061	6.1	8	76	114
DH421062	6.2	8	76	114
DH421063	6.3	8	76	114
DH421064	6.4	8	76	114
DH421065	6.5	8	76	114
DH421066	6.6	8	76	114
DH421067	6.7	8	76	114
DH421068	6.8	8	76	114
DH421069	6.9	8	76	114
DH421070	7.0	8	76	114
DH421071	7.1	8	76	114
DH421072	7.2	8	76	114
DH421073	7.3	8	76	114
DH421074	7.4	8	76	114
DH421075	7.5	8	76	114
DH421076	7.6	8	76	114
DH421077	7.7	8	76	114
DH421078	7.8	8	76	114
DH421079	7.9	8	76	114

▶ 其他的刀柄类型可以按照你的要求. / Other shank types are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
○	◎	◎			○		○				

DREAM DRILLS -GENERAL

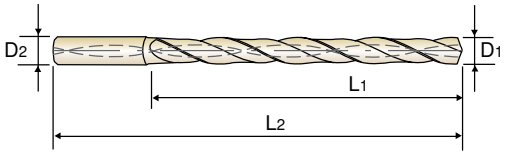
DH421 SERIES

油孔硬质合金梦幻钻头
CARBIDE, DREAM DRILLS with COOLANT HOLES

超长
EXTRA LONG

▶应用：用于加工一般钢件，铸钢，铸铁，冷硬铸铁，可锻铸铁，非铁重金属，非铁轻金属，耐磨塑料等材料.
▶优点：自定心功能-可免除定点钻
出色的定位-不需要导套
特殊的设计-不需要铰孔-良好的排屑性能-强力钻削

▶**Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.
▶**Advantage** : Self centering - center drilling is not required.
Excellent positioning - bush is not necessary.
Special Design - reaming is not required.
- good chip removal
- powerful drilling



DIN 6537 | MG | h6 | m7 | 140° | P.62

8 × D

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH421080	8.0	8	76	114
DH421081	8.1	10	95	142
DH421082	8.2	10	95	142
DH421083	8.3	10	95	142
DH421084	8.4	10	95	142
DH421085	8.5	10	95	142
DH421086	8.6	10	95	142
DH421087	8.7	10	95	142
DH421088	8.8	10	95	142
DH421089	8.9	10	95	142
DH421090	9.0	10	95	142
DH421091	9.1	10	95	142
DH421092	9.2	10	95	142
DH421093	9.3	10	95	142
DH421094	9.4	10	95	142
DH421095	9.5	10	95	142
DH421096	9.6	10	95	142
DH421097	9.7	10	95	142
DH421098	9.8	10	95	142
DH421099	9.9	10	95	142
DH421100	10.0	10	95	142
DH421101	10.1	12	114	162
DH421102	10.2	12	114	162

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH421103	10.3	12	114	162
DH421104	10.4	12	114	162
DH421105	10.5	12	114	162
DH421106	10.6	12	114	162
DH421107	10.7	12	114	162
DH421108	10.8	12	114	162
DH421109	10.9	12	114	162
DH421110	11.0	12	114	162
DH421111	11.1	12	114	162
DH421112	11.2	12	114	162
DH421113	11.3	12	114	162
DH421114	11.4	12	114	162
DH421115	11.5	12	114	162
DH421116	11.6	12	114	162
DH421117	11.7	12	114	162
DH421118	11.8	12	114	162
DH421119	11.9	12	114	162
DH421120	12.0	12	114	162
DH421125	12.5	14	133	178
DH421130	13.0	14	133	178
DH421135	13.5	14	133	178
DH421140	14.0	14	133	178

▶ 其他的刀柄类型可以按照你的要求. / Other shank types are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
○	◎	◎			○		○				

DREAM DRILLS -GENERAL

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金梦幻钻头, TiAlN涂层
CARBIDE, DREAM DRILLS, TiAlN COATED

DH404, DH423, DH424 SERIES

单位(Unit) : mm

被加工材料 WORK MATERIAL	普通钢 NON-ALLOY STEELS		合金钢 ALLOY STEELS		软灰铸铁 SOFT GREY CAST IRON		硬灰铸铁 HARD GREY CAST IRON	
STRENGTH	< 700 N/mm²		< 1000 N/mm²		< HB240, GG25		< HB300, GG40	
DIAMETER	N	S	N	S	N	S	N	S
1.0	13000	0.04	11250	0.04	21300	0.04	14200	0.04
2.0	13000	0.06	11250	0.06	21300	0.06	14200	0.06
3.0	13000	0.13	11000	0.13	21000	0.13	14000	0.13
4.0	9500	0.14	8400	0.14	16000	0.14	10500	0.14
5.0	7600	0.15	6700	0.15	13000	0.15	8300	0.15
6.0	6400	0.17	5600	0.17	11000	0.17	6900	0.17
7.0	5500	0.19	4800	0.19	9100	0.19	5900	0.19
8.0	4800	0.21	4200	0.21	8000	0.21	5200	0.21
9.0	4200	0.23	3700	0.23	7100	0.23	4600	0.23
10.0	3800	0.25	3350	0.25	6400	0.25	4150	0.25
12.0	3200	0.27	2800	0.27	5300	0.27	3450	0.27
14.0	2750	0.29	2400	0.29	4550	0.29	3000	0.29
16.0	2400	0.31	2100	0.31	4000	0.31	2600	0.31
18.0	2100	0.33	1850	0.33	3550	0.33	2300	0.33
20.0	1900	0.35	1650	0.35	3200	0.35	2100	0.35

▶ 荐于按照下面减少进给速度 / Recommend to reduce the feed rate as following

N = R.P.M
S = Feed per Revolution (mm/rev.)

Feed 100% : DH404(3×D), DH423(3×D)
Feed 85% : DH424(5×D)

油孔硬质合金梦幻钻头 DIN6537, TiAlN涂层
CARBIDE, DREAM DRILLS with COOLANT HOLES DIN6537, TiAlN COATED

DH406, DH408, DH421 SERIES

单位(Unit) : mm

被加工材料 WORK MATERIAL	普通钢 NON-ALLOY STEELS		合金钢 ALLOY STEELS		软灰铸铁 SOFT GREY CAST IRON		硬灰铸铁 HARD GREY CAST IRON	
STRENGTH	< 700 N/mm²		< 1000 N/mm²		< HB240, GG25		< HB300, GG40	
DIAMETER	N	S	N	S	N	S	N	S
1.0	16250	0.05	14800	0.05	26600	0.05	17300	0.05
2.0	16250	0.07	14800	0.07	26600	0.07	17300	0.07
3.0	16000	0.16	14500	0.16	26000	0.16	17000	0.16
4.0	12000	0.17	11000	0.17	20000	0.17	13000	0.17
5.0	9550	0.18	8600	0.18	16000	0.18	10000	0.18
6.0	8000	0.20	7200	0.20	13000	0.20	8500	0.20
7.0	6800	0.22	6100	0.22	11500	0.22	7300	0.22
8.0	6000	0.24	5400	0.24	9900	0.24	6400	0.24
9.0	5300	0.27	4800	0.27	8800	0.27	5700	0.27
10.0	4800	0.30	4300	0.30	8000	0.30	5100	0.30
12.0	4000	0.33	3600	0.33	6600	0.33	4250	0.33
14.0	3400	0.36	3050	0.36	5700	0.36	3650	0.36
16.0	3000	0.39	2700	0.39	5000	0.39	3200	0.39
18.0	2650	0.42	2400	0.42	4400	0.42	2850	0.42
20.0	2400	0.45	2150	0.45	4000	0.45	2550	0.45

▶ 荐于按照下面减少进给速度 / Recommend to reduce the feed rate as following

N = R.P.M
S = Feed per Revolution (mm/rev.)

Feed 100% : DH406(3×D)
Feed 85% : DH408(5×D)
Feed 70% : DH421(8×D)

CARBIDE

YG

Being the best through innovation

DREAM DRILLS -SOFT

- 不带油孔
  用于中等硬度钢

WITHOUT COOLANT HOLES
for Steels, up to Medium Hardness

整体硬质合金梦幻钻头-软材质用 (不带油孔)
用于中等硬度钢

项目	型号	规格		尺寸 最小	尺寸 最大	页
ITEM	MODEL	DESCRIPTION		SIZE MIN	SIZE MAX	PAGE
DPPA01		硬质合金梦幻钻头-软材质用 CARBIDE, DREAM DRILLS - SOFT	常规 *REGULAR*	D1.0	D20.0	66
DPPA02		硬质合金梦幻钻头-软材质用 CARBIDE, DREAM DRILLS - SOFT	长 *LONG*	D3.0	D20.0	69
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS				71

SOLID CARBIDE DREAM DRILLS - SOFT (without Coolant Holes)

for Steels, up to Medium Hardness

◎ : 优(Excellent)
○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		铸铁	铝	不锈钢	钛	低碳钢	铜	青铜
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○		○		◎		
◎	◎	○			○		○		◎		

DREAM DRILLS -SOFT

DPPA01 SERIES

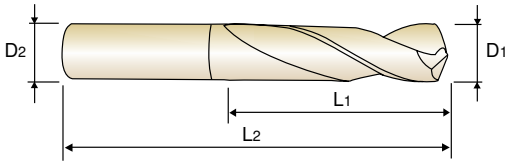
硬质合金, 梦幻钻头-软材质用
CARBIDE, DREAM DRILLS-SOFT

常规
REGULAR

▶ 应用：可以在普通钢, 碳钢, 合金钢, 铸铁及球墨铸铁
▶ 优点：自定心功能 -可免除定点钻
出色的定位 -不需要导套
特殊的设计 -良好的排屑性能
-强力钻削

▶ **Application** : Drilling steels in general, carbon steels, alloy steels, cast iron, ductile cast iron.
▶ **Advantage** : Self centering - center drilling is not required.
Excellent positioning - bush is not necessary.
Special Design - good chip removal
- powerful drilling

up to 1.5mm Ø1.6~Ø1.9 over 1.9mm



MG 30° h6 h7 140° P.71

단위(Unit) : mm

型号 EDP No. TiAlN	刃径 Drill Diameter D1	柄径 Shank Diameter D2	刃长 Flute Length L1	全长 Overall Length L2
DPPA01010	1.0	3	8	38
DPPA01011	1.1	3	9	42
DPPA01012	1.2	3	10	42
DPPA01013	1.3	3	10	42
DPPA01014	1.4	3	11	42
DPPA01015	1.5	3	11	42
DPPA01016	1.6	3	12	42
DPPA01017	1.7	3	12	42
DPPA01018	1.8	3	13	42
DPPA01019	1.9	3	13	42
DPPA01020	2.0	3	17	50
DPPA01021	2.1	3	17	50
DPPA01022	2.2	3	17	50
DPPA01023	2.3	3	17	50
DPPA01024	2.4	3	17	50
DPPA01025	2.5	3	17	50
DPPA01026	2.6	3	17	50
DPPA01027	2.7	3	17	50
DPPA01028	2.8	3	17	50
DPPA01029	2.9	3	17	50
DPPA01030	3.0	4	20	55
DPPA01031	3.1	4	20	55

型号 EDP No. TiAlN	刃径 Drill Diameter D1	柄径 Shank Diameter D2	刃长 Flute Length L1	全长 Overall Length L2
DPPA01032	3.2	4	20	55
DPPA01033	3.3	4	20	55
DPPA01034	3.4	4	20	55
DPPA01035	3.5	4	20	55
DPPA01036	3.6	4	25	55
DPPA01037	3.7	4	25	55
DPPA01038	3.8	4	25	55
DPPA01039	3.9	4	25	55
DPPA01040	4.0	4	25	55
DPPA01041	4.1	4	25	55
DPPA01042	4.2	5	32	62
DPPA01043	4.3	5	32	62
DPPA01044	4.4	5	32	62
DPPA01045	4.5	5	32	62
DPPA01046	4.6	5	32	62
DPPA01047	4.7	5	32	62
DPPA01048	4.8	5	32	62
DPPA01049	4.9	5	32	62
DPPA01050	5.0	5	32	62
DPPA01051	5.1	5	32	62
DPPA01052	5.2	6	36	66
DPPA01053	5.3	6	36	66

▶ 其他的刀柄类型可以按照你的要求. / Other shank types are available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels ~HB225	合金钢 Alloy Steels HB225~325	预硬钢 Prehardened Steels HRc30~45	硬化钢 Hardened Steels HRc45~55	硬化钢 Hardened Steels HRc55~	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
◎	◎	○			○		○		◎		

DREAM DRILLS -SOFT

DPPA01 SERIES

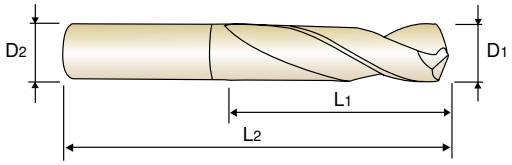
硬质合金，梦幻钻头—软材质用
CARBIDE, DREAM DRILLS-SOFT

常规 *REGULAR*

▶ 应用：可以在普通钢，碳钢，合金钢，铸铁及球墨铸铁
▶ 优点：自定心功能 -可免除定点钻
出色的定位 -不需要导套
特殊的设计 -良好的排屑性能
-强力钻削

▶ **Application** : Drilling steels in general, carbon steels, alloy steels, cast iron, ductile cast iron.
▶ **Advantage** : Self centering - center drilling is not required.
Excellent positioning - bush is not necessary.
Special Design - good chip removal
- powerful drilling

up to 1.5mm Ø1.6~Ø1.9 over 1.9mm



MG | 30° | h6 | h7 | 140° P.71

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DPPA01054	5.4	6	36	66
DPPA01055	5.5	6	36	66
DPPA01056	5.6	6	36	66
DPPA01057	5.7	6	36	66
DPPA01058	5.8	6	36	66
DPPA01059	5.9	6	36	66
DPPA01060	6.0	6	36	66
DPPA01061	6.1	6	36	66
DPPA01062	6.2	7	42	74
DPPA01063	6.3	7	42	74
DPPA01064	6.4	7	42	74
DPPA01065	6.5	7	42	74
DPPA01066	6.6	7	42	74
DPPA01067	6.7	7	42	74
DPPA01068	6.8	7	42	74
DPPA01069	6.9	7	42	74
DPPA01070	7.0	7	42	74
DPPA01071	7.1	7	42	74
DPPA01072	7.2	8	46	79
DPPA01073	7.3	8	46	79
DPPA01074	7.4	8	46	79
DPPA01075	7.5	8	46	79

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DPPA01076	7.6	8	46	79
DPPA01077	7.7	8	46	79
DPPA01078	7.8	8	46	79
DPPA01079	7.9	8	46	79
DPPA01080	8.0	8	46	79
DPPA01081	8.1	8	46	79
DPPA01082	8.2	9	50	84
DPPA01083	8.3	9	50	84
DPPA01084	8.4	9	50	84
DPPA01085	8.5	9	50	84
DPPA01086	8.6	9	50	84
DPPA01087	8.7	9	50	84
DPPA01088	8.8	9	50	84
DPPA01089	8.9	9	50	84
DPPA01090	9.0	9	50	84
DPPA01091	9.1	9	50	84
DPPA01092	9.2	10	53	89
DPPA01093	9.3	10	53	89
DPPA01094	9.4	10	53	89
DPPA01095	9.5	10	53	89
DPPA01096	9.6	10	53	89
DPPA01097	9.7	10	53	89

▶ 其他的刀柄类型可以按照你的要求. / Other shank types are available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○		○		◎		

DREAM DRILLS -SOFT

DPPA01 SERIES

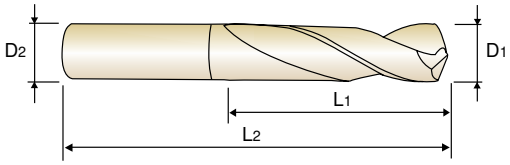
硬质合金, 梦幻钻头-软材质用
CARBIDE, DREAM DRILLS-SOFT

常规
REGULAR

▶ 应用：可以在普通钢, 碳钢, 合金钢, 铸铁及球墨铸铁
▶ 优点：自定心功能 -可免除定点钻
出色的定位 -不需要导套
特殊的设计 -良好的排屑性能
-强力钻削

▶ **Application** : Drilling steels in general, carbon steels, alloy steels, cast iron, ductile cast iron.
▶ **Advantage** : Self centering - center drilling is not required.
Excellent positioning - bush is not necessary.
Special Design - good chip removal
- powerful drilling

up to 1.5mm Ø1.6~Ø1.9 over 1.9mm



MG 30° h6 h7 140° P.71

단위(Unit) : mm

型号 EDP No. TiAlN	刃径 Drill Diameter D1	柄径 Shank Diameter D2	刃长 Flute Length L1	全长 Overall Length L2
DPPA01098	9.8	10	53	89
DPPA01099	9.9	10	53	89
DPPA01100	10.0	10	53	89
DPPA01101	10.1	10	53	89
DPPA01102	10.2	11	55	95
DPPA01103	10.3	11	55	95
DPPA01104	10.4	11	55	95
DPPA01105	10.5	11	55	95
DPPA01106	10.6	11	55	95
DPPA01107	10.7	11	55	95
DPPA01108	10.8	11	55	95
DPPA01109	10.9	11	55	95
DPPA01110	11.0	11	55	95
DPPA01111	11.1	11	55	95
DPPA01112	11.2	12	62	102
DPPA01113	11.3	12	62	102
DPPA01114	11.4	12	62	102
DPPA01115	11.5	12	62	102
DPPA01116	11.6	12	62	102
DPPA01117	11.7	12	62	102

型号 EDP No. TiAlN	刃径 Drill Diameter D1	柄径 Shank Diameter D2	刃长 Flute Length L1	全长 Overall Length L2
DPPA01118	11.8	12	62	102
DPPA01119	11.9	12	62	102
DPPA01120	12.0	12	62	102
DPPA01125	12.5	13	62	102
DPPA01130	13.0	13	62	102
DPPA01135	13.5	14	64	107
DPPA01140	14.0	14	64	107
DPPA01145	14.5	15	67	111
DPPA01150	15.0	15	67	111
DPPA01155	15.5	16	69	115
DPPA01160	16.0	16	69	115
DPPA01165	16.5	17	71	119
DPPA01170	17.0	17	71	119
DPPA01175	17.5	18	74	123
DPPA01180	18.0	18	74	123
DPPA01185	18.5	19	76	127
DPPA01190	19.0	19	76	127
DPPA01195	19.5	20	80	131
DPPA01200	20.0	20	80	131

▶ 其他的刀柄类型可以按照你的要求. / Other shank types are available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels ~HB225	合金钢 Alloy Steels HB225~325	预硬钢 Prehardened Steels HRc30~45	硬化钢 Hardened Steels HRc45~55	硬化钢 Hardened Steels HRc55~	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
◎	◎	○			○		○		◎		

DREAM DRILLS -SOFT

DPPA02 SERIES

硬质合金, 梦幻钻头-软材质用
CARBIDE, DREAM DRILLS-SOFT

长 *LONG*

▶ 应用 : 可以在普通钢, 碳钢, 合金钢, 铸铁及球墨铸铁
▶ 优点 : 自定心功能 -可免除定点钻
出色的定位 -不需要导套
特殊的设计 -良好的排屑性能
-强力钻削

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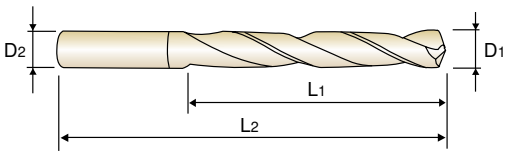
up to 1.5mm Ø1.6~Ø1.9 over 1.9mm



MG | 30° | h6 | h7 | 140° P.71

단위(Unit) : mm

型号 EDP No. TiAlN	刃径 Drill Diameter D1	柄径 Shank Diameter D2	刃长 Flute Length L1	全长 Overall Length L2
DPPA02030	3.0	4	45	80
DPPA02031	3.1	4	45	80
DPPA02032	3.2	4	45	80
DPPA02033	3.3	4	45	80
DPPA02034	3.4	4	45	80
DPPA02035	3.5	4	45	80
DPPA02036	3.6	4	45	80
DPPA02037	3.7	4	45	80
DPPA02038	3.8	4	45	80
DPPA02039	3.9	4	45	80
DPPA02040	4.0	4	45	80
DPPA02041	4.1	4	45	80
DPPA02042	4.2	5	45	80
DPPA02043	4.3	5	45	80
DPPA02044	4.4	5	45	80
DPPA02045	4.5	5	45	80
DPPA02046	4.6	5	45	80
DPPA02047	4.7	5	45	80
DPPA02048	4.8	5	45	80
DPPA02049	4.9	5	45	80
DPPA02050	5.0	5	45	80
DPPA02051	5.1	5	45	80
DPPA02052	5.2	6	50	83
DPPA02053	5.3	6	50	83
DPPA02054	5.4	6	50	83
DPPA02055	5.5	6	50	83
DPPA02056	5.6	6	50	83

型号 EDP No. TiAlN	刃径 Drill Diameter D1	柄径 Shank Diameter D2	刃长 Flute Length L1	全长 Overall Length L2
DPPA02057	5.7	6	50	83
DPPA02058	5.8	6	50	83
DPPA02059	5.9	6	50	83
DPPA02060	6.0	6	50	83
DPPA02061	6.1	6	50	83
DPPA02062	6.2	7	53	85
DPPA02063	6.3	7	53	85
DPPA02064	6.4	7	53	85
DPPA02065	6.5	7	53	85
DPPA02066	6.6	7	53	85
DPPA02067	6.7	7	53	85
DPPA02068	6.8	7	53	85
DPPA02069	6.9	7	53	85
DPPA02070	7.0	7	53	85
DPPA02071	7.1	7	53	85
DPPA02072	7.2	8	58	90
DPPA02073	7.3	8	58	90
DPPA02074	7.4	8	58	90
DPPA02075	7.5	8	58	90
DPPA02076	7.6	8	58	90
DPPA02077	7.7	8	58	90
DPPA02078	7.8	8	58	90
DPPA02079	7.9	8	58	90
DPPA02080	8.0	8	58	90
DPPA02081	8.1	8	58	90
DPPA02082	8.2	9	64	98
DPPA02083	8.3	9	64	98

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~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○		○		◎		

DREAM DRILLS -SOFT

DPPA02 SERIES

硬质合金, 梦幻钻头-软材质用
CARBIDE, DREAM DRILLS-SOFT

长
LONG

▶ 应用：可以在普通钢, 碳钢, 合金钢, 铸铁及球墨铸铁
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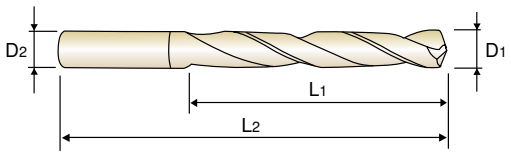

MG 30° h6 h7 140° P.71

단위(Unit) : mm

型号 EDP No. TiAlN	刃径 Drill Diameter D1	柄径 Shank Diameter D2	刃长 Flute Length L1	全长 Overall Length L2
DPPA02084	8.4	9	64	98
DPPA02085	8.5	9	64	98
DPPA02086	8.6	9	64	98
DPPA02087	8.7	9	64	98
DPPA02088	8.8	9	64	98
DPPA02089	8.9	9	64	98
DPPA02090	9.0	9	64	98
DPPA02091	9.1	9	64	98
DPPA02092	9.2	10	68	105
DPPA02093	9.3	10	68	105
DPPA02094	9.4	10	68	105
DPPA02095	9.5	10	68	105
DPPA02096	9.6	10	68	105
DPPA02097	9.7	10	68	105
DPPA02098	9.8	10	68	105
DPPA02099	9.9	10	68	105
DPPA02100	10.0	10	68	105
DPPA02101	10.1	10	68	105
DPPA02102	10.2	11	73	110
DPPA02103	10.3	11	73	110
DPPA02104	10.4	11	73	110
DPPA02105	10.5	11	73	110
DPPA02106	10.6	11	73	110
DPPA02107	10.7	11	73	110
DPPA02108	10.8	11	73	110
DPPA02109	10.9	11	73	110
DPPA02110	11.0	11	73	110

型号 EDP No. TiAlN	刃径 Drill Diameter D1	柄径 Shank Diameter D2	刃长 Flute Length L1	全长 Overall Length L2
DPPA02111	11.1	11	73	110
DPPA02112	11.2	12	80	120
DPPA02113	11.3	12	80	120
DPPA02114	11.4	12	80	120
DPPA02115	11.5	12	80	120
DPPA02116	11.6	12	80	120
DPPA02117	11.7	12	80	120
DPPA02118	11.8	12	80	120
DPPA02119	11.9	12	80	120
DPPA02120	12.0	12	80	120
DPPA02125	12.5	13	90	137
DPPA02130	13.0	13	90	137
DPPA02135	13.5	14	96	147
DPPA02140	14.0	14	96	147
DPPA02145	14.5	15	100	153
DPPA02150	15.0	15	100	153
DPPA02155	15.5	16	112	160
DPPA02160	16.0	16	112	160
DPPA02165	16.5	17	112	160
DPPA02170	17.0	17	112	160
DPPA02175	17.5	18	112	160
DPPA02180	18.0	18	112	160
DPPA02185	18.5	19	112	160
DPPA02190	19.0	19	112	160
DPPA02195	19.5	20	112	160
DPPA02200	20.0	20	112	160

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~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○		○		◎		

DREAM DRILLS -SOFT

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金，梦幻钻头-软材质用，TiAlN涂层
CARBIDE, DREAM DRILLS-SOFT, TiAlN COATED

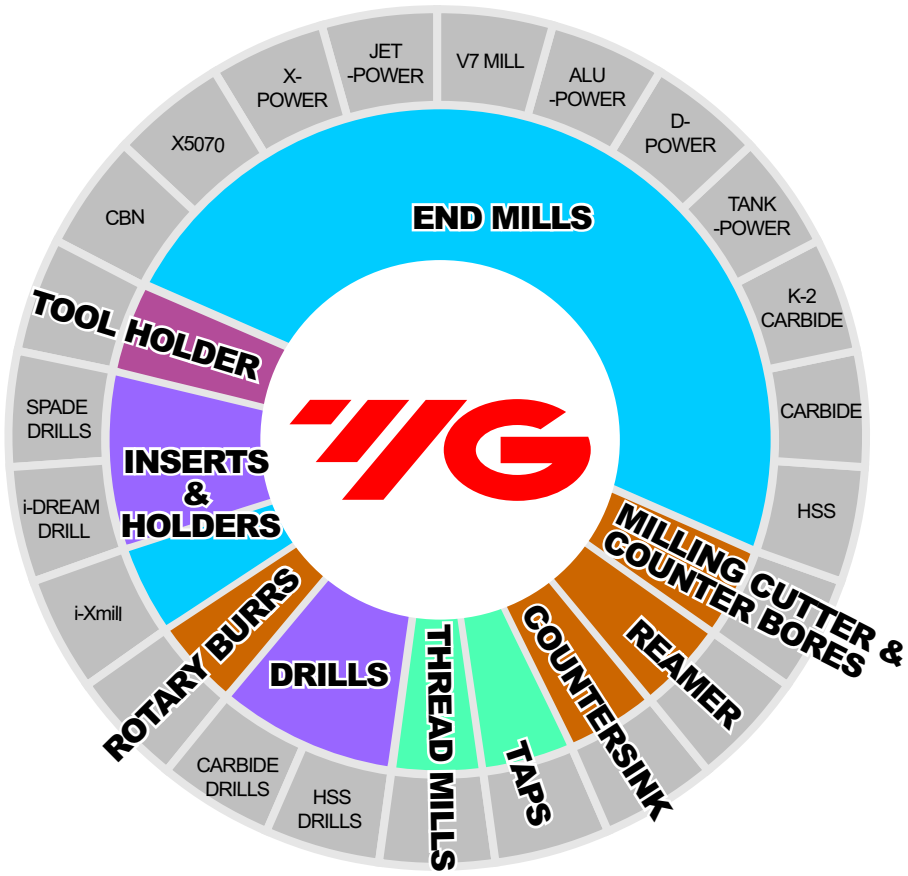
DPPA01, DPPA02 SERIES

单位(Unit) : mm

被加工材料	低碳钢，合金钢		碳钢，合金钢		特殊合金钢		合金钢		铸铁		球墨铸铁	
WORK MATERIAL	LOW CARBON STEEL ALLOY STEEL		CARBON STEEL ALLOY STEEL		SPECIAL ALLOY STEEL		ALLOY STEEL		CAST IRON		DUCTILE CAST IRON	
STRENGTH	< 700 N/mm²		< 1000 N/mm²				30~40HRc		< 350 N/mm²		< 500 N/mm²	
DIAMETER	N	S	N	S	N	S	N	S	N	S	N	S
1.0	11000	0.03	9500	0.03	9000	0.02	7600	0.02	12000	0.02	10000	0.02
2.0	11000	0.06	9500	0.06	9000	0.06	7600	0.06	12000	0.06	10000	0.06
3.0	8000	0.09	7200	0.09	6000	0.09	5000	0.09	8000	0.09	6900	0.09
4.0	6300	0.10	5600	0.10	4750	0.10	3800	0.10	6300	0.10	5200	0.10
5.0	5000	0.12	4500	0.12	3800	0.12	3000	0.12	5000	0.12	4100	0.12
6.0	4200	0.14	3700	0.14	3200	0.14	2550	0.14	4200	0.14	3450	0.14
8.0	3200	0.16	2800	0.16	2400	0.16	1900	0.16	3200	0.16	2600	0.16
10.0	2550	0.18	2300	0.18	1900	0.18	1550	0.18	2600	0.18	2100	0.18
12.0	2100	0.20	1800	0.20	1600	0.20	1300	0.20	2200	0.20	1750	0.20
14.0	1800	0.22	1600	0.22	1350	0.22	1100	0.22	1800	0.22	1500	0.22
16.0	1600	0.25	1400	0.25	1200	0.25	950	0.25	1600	0.25	1300	0.25
18.0	1400	0.28	1250	0.28	1050	0.28	850	0.28	1400	0.28	1200	0.28
20.0	1300	0.30	1150	0.30	960	0.30	760	0.30	1300	0.30	1050	0.30

Feed 100% : DPPA01
Feed 85% : DPPA02

N = R.P.M
S = Feed per Revolution (mm/rev.)



Challenge toward a Global Leader-

YG-1 Leads the World Market.

CARBIDE

YG

Being the best through innovation

DREAM DRILLS -INOX

- 带油孔

像硬度在HRc35以下的不锈钢，镍合金和钛等硬质材料

WITH COOLANT HOLES

Tough Materials like Stainless Steels, Nickel Alloys and Titanium up to HRc35.

整体硬质合金梦幻钻头-不锈钢(带油孔)
像硬度在HRc35以下的不锈钢，镍合金和钛等硬质材料

项目 ITEM	型号 MODEL	规格 DESCRIPTION		尺寸 SIZE 最小 MIN	尺寸 SIZE 最大 MAX	页 PAGE
3XD DH451		不锈钢用油孔硬质合金钻头 CARBIDE, DREAM DRILLS - INOX with COOLANT HOLES	短 SHORT	D3.0	D20.0	76
5XD DH452		不锈钢用油孔硬质合金钻头 CARBIDE, DREAM DRILLS - INOX with COOLANT HOLES	长 LONG	D1.5	D20.0	79
8XD DH453		不锈钢用油孔硬质合金钻头 CARBIDE, DREAM DRILLS - INOX with COOLANT HOLES	超长 EXTRA LONG	D3.0	D14.0	82
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS				84

SOLID CARBIDE DREAM DRILLS - INOX (with Coolant Holes)

Tough Materials like Stainless Steels, Nickel Alloys and Titanium up to HRc35.

◎ : 优(Excellent)
○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		铸铁	铝	不锈钢	钛	低碳钢	铜	青铜
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○				○	◎	○	○		
◎	◎	○				○	◎	○	○		
◎	◎	○				○	◎	○	○		

DREAM DRILLS -INOX

DH451 SERIES

不锈钢用油孔硬质合金钻头

短

CARBIDE, DREAM DRILLS - INOX with COOLANT HOLES

SHORT

- 应用：沟槽的特殊几何形状使其适合加工不锈钢
- 更好的表面处理方式使其具有优秀的排屑性能
- 横刃修成R型使产品有较强的自定心能力和螺旋切削性
- 使用TiAlN涂层使被加工材料得到良好的表面粗糙度并且延长了钻头的使用寿命

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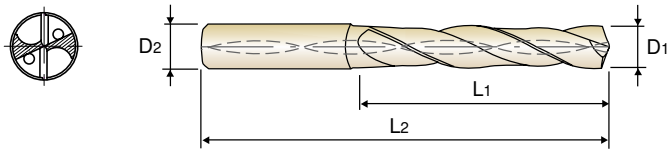

DIN 6537 | MG | h6 | m7 | 140° P.84

3 × D

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D_1	D_2	L_1	L_2
DH451030	3.0	6	20	62
DH451031	3.1	6	20	62
DH451032	3.2	6	20	62
DH451033	3.3	6	20	62
DH451034	3.4	6	20	62
DH451035	3.5	6	20	62
DH451036	3.6	6	20	62
DH451037	3.7	6	20	62
DH451038	3.8	6	24	66
DH451039	3.9	6	24	66
DH451040	4.0	6	24	66
DH451041	4.1	6	24	66
DH451042	4.2	6	24	66
DH451043	4.3	6	24	66
DH451044	4.4	6	24	66
DH451045	4.5	6	24	66
DH451046	4.6	6	24	66
DH451047	4.7	6	24	66
DH451048	4.8	6	28	66
DH451049	4.9	6	28	66

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D_1	D_2	L_1	L_2
DH451050	5.0	6	28	66
DH451051	5.1	6	28	66
DH451052	5.2	6	28	66
DH451053	5.3	6	28	66
DH451054	5.4	6	28	66
DH451055	5.5	6	28	66
DH451056	5.6	6	28	66
DH451057	5.7	6	28	66
DH451058	5.8	6	28	66
DH451059	5.9	6	28	66
DH451060	6.0	6	28	66
DH451061	6.1	8	34	79
DH451062	6.2	8	34	79
DH451063	6.3	8	34	79
DH451064	6.4	8	34	79
DH451065	6.5	8	34	79
DH451066	6.6	8	34	79
DH451067	6.7	8	34	79
DH451068	6.8	8	34	79
DH451069	6.9	8	34	79

- 其他的刀柄类型可以按照你的要求. / Other shank types are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○				○	◎	○	○		

DREAM DRILLS -INOX

DH451 SERIES

不锈钢用油孔硬质合金钻头
CARBIDE, DREAM DRILLS - INOX with COOLANT HOLES

短 SHORT

- 应用：沟槽的特殊几何形状使其适合加工不锈钢
- 更好的表面处理方式使其具有优秀的排屑性能
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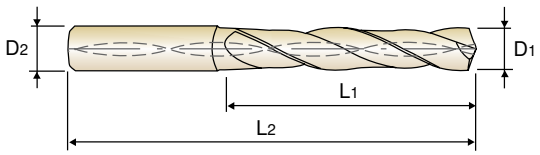

DIN 6537 | MG | h6 | m7 | 140° | P.84

3 × D

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH451070	7.0	8	34	79
DH451071	7.1	8	41	79
DH451072	7.2	8	41	79
DH451073	7.3	8	41	79
DH451074	7.4	8	41	79
DH451075	7.5	8	41	79
DH451076	7.6	8	41	79
DH451077	7.7	8	41	79
DH451078	7.8	8	41	79
DH451079	7.9	8	41	79
DH451080	8.0	8	41	79
DH451081	8.1	10	47	89
DH451082	8.2	10	47	89
DH451083	8.3	10	47	89
DH451084	8.4	10	47	89
DH451085	8.5	10	47	89
DH451086	8.6	10	47	89
DH451087	8.7	10	47	89
DH451088	8.8	10	47	89
DH451089	8.9	10	47	89

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH451090	9.0	10	47	89
DH451091	9.1	10	47	89
DH451092	9.2	10	47	89
DH451093	9.3	10	47	89
DH451094	9.4	10	47	89
DH451095	9.5	10	47	89
DH451096	9.6	10	47	89
DH451097	9.7	10	47	89
DH451098	9.8	10	47	89
DH451099	9.9	10	47	89
DH451100	10.0	10	47	89
DH451101	10.1	12	55	102
DH451102	10.2	12	55	102
DH451103	10.3	12	55	102
DH451104	10.4	12	55	102
DH451105	10.5	12	55	102
DH451106	10.6	12	55	102
DH451107	10.7	12	55	102
DH451108	10.8	12	55	102
DH451109	10.9	12	55	102

- 其他的刀柄类型可以按照你的要求. / Other shank types are available on your request.

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○				○	◎	○	○		

DREAM DRILLS -INOX

DH451 SERIES

不锈钢用油孔硬质合金钻头

短

CARBIDE, DREAM DRILLS - INOX with COOLANT HOLES

SHORT

- 应用：沟槽的特殊几何形状使其适合加工不锈钢
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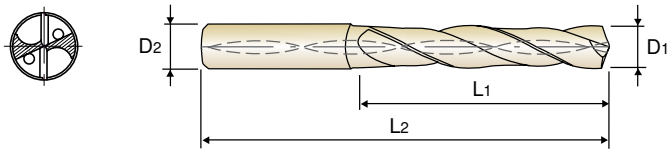

DIN 6537 | MG | h6 | m7 | 140° P.84

3 × D

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D_1	D_2	L_1	L_2
DH451110	11.0	12	55	102
DH451111	11.1	12	55	102
DH451112	11.2	12	55	102
DH451113	11.3	12	55	102
DH451114	11.4	12	55	102
DH451115	11.5	12	55	102
DH451116	11.6	12	55	102
DH451117	11.7	12	55	102
DH451118	11.8	12	55	102
DH451119	11.9	12	55	102
DH451120	12.0	12	55	102
DH451125	12.5	14	60	107
DH451130	13.0	14	60	107
DH451135	13.5	14	60	107

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D_1	D_2	L_1	L_2
DH451140	14.0	14	60	107
DH451145	14.5	16	65	115
DH451150	15.0	16	65	115
DH451155	15.5	16	65	115
DH451160	16.0	16	65	115
DH451165	16.5	18	73	123
DH451170	17.0	18	73	123
DH451175	17.5	18	73	123
DH451180	18.0	18	73	123
DH451185	18.5	20	79	131
DH451190	19.0	20	79	131
DH451195	19.5	20	79	131
DH451200	20.0	20	79	131

- 其他的刀柄类型可以按照你的要求. / Other shank types are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○				○	◎	○	○		

DREAM DRILLS -INOX

DH452 SERIES

不锈钢用油孔硬质合金钻头
CARBIDE, DREAM DRILLS - INOX with COOLANT HOLES

长 LONG

- 应用：沟槽的特殊几何形状使其适合加工不锈钢
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DIN 6537 | MG | h6 | m7 | 140° | P.84

5 × D

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH452015	1.5	3	16	55
DH452016	1.6	3	16	55
DH452017	1.7	3	16	55
DH452018	1.8	3	16	55
DH452019	1.9	3	16	55
DH452020	2.0	4	21	57
DH452021	2.1	4	21	57
DH452022	2.2	4	21	57
DH452023	2.3	4	21	57
DH452024	2.4	4	21	57
DH452025	2.5	4	21	57
DH452026	2.6	4	21	57
DH452027	2.7	4	21	57
DH452028	2.8	4	21	57
DH452029	2.9	4	21	57
DH452030	3.0	6	28	66
DH452031	3.1	6	28	66
DH452032	3.2	6	28	66
DH452033	3.3	6	28	66
DH452034	3.4	6	28	66
DH452035	3.5	6	28	66
DH452036	3.6	6	28	66

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH452037	3.7	6	28	66
DH452038	3.8	6	36	74
DH452039	3.9	6	36	74
DH452040	4.0	6	36	74
DH452041	4.1	6	36	74
DH452042	4.2	6	36	74
DH452043	4.3	6	36	74
DH452044	4.4	6	36	74
DH452045	4.5	6	36	74
DH452046	4.6	6	36	74
DH452047	4.7	6	36	74
DH452048	4.8	6	44	82
DH452049	4.9	6	44	82
DH452050	5.0	6	44	82
DH452051	5.1	6	44	82
DH452052	5.2	6	44	82
DH452053	5.3	6	44	82
DH452054	5.4	6	44	82
DH452055	5.5	6	44	82
DH452056	5.6	6	44	82
DH452057	5.7	6	44	82
DH452058	5.8	6	44	82

- 其他的刀柄类型可以按照你的要求. / Other shank types are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○				○	◎	○	○		

DREAM DRILLS -INOX

DH452 SERIES

不锈钢用油孔硬质合金钻头

长 LONG

CARBIDE, DREAM DRILLS - INOX with COOLANT HOLES

- 应用：沟槽的特殊几何形状使其适合加工不锈钢
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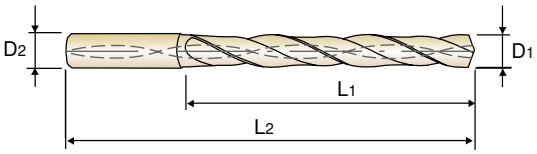

DIN 6537 | MG | h6 | m7 | 140° P.84

5 × D

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH452059	5.9	6	44	82
DH452060	6.0	6	44	82
DH452061	6.1	8	53	91
DH452062	6.2	8	53	91
DH452063	6.3	8	53	91
DH452064	6.4	8	53	91
DH452065	6.5	8	53	91
DH452066	6.6	8	53	91
DH452067	6.7	8	53	91
DH452068	6.8	8	53	91
DH452069	6.9	8	53	91
DH452070	7.0	8	53	91
DH452071	7.1	8	53	91
DH452072	7.2	8	53	91
DH452073	7.3	8	53	91
DH452074	7.4	8	53	91
DH452075	7.5	8	53	91
DH452076	7.6	8	53	91
DH452077	7.7	8	53	91
DH452078	7.8	8	53	91
DH452079	7.9	8	53	91
DH452080	8.0	8	53	91

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH452081	8.1	10	61	103
DH452082	8.2	10	61	103
DH452083	8.3	10	61	103
DH452084	8.4	10	61	103
DH452085	8.5	10	61	103
DH452086	8.6	10	61	103
DH452087	8.7	10	61	103
DH452088	8.8	10	61	103
DH452089	8.9	10	61	103
DH452090	9.0	10	61	103
DH452091	9.1	10	61	103
DH452092	9.2	10	61	103
DH452093	9.3	10	61	103
DH452094	9.4	10	61	103
DH452095	9.5	10	61	103
DH452096	9.6	10	61	103
DH452097	9.7	10	61	103
DH452098	9.8	10	61	103
DH452099	9.9	10	61	103
DH452100	10.0	10	61	103
DH452101	10.1	12	71	118
DH452102	10.2	12	71	118

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◎ : 优(Excellent)　○ : 良(Good)

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~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○				○	◎	○	○		

DREAM DRILLS -INOX

DH452 SERIES

不锈钢用油孔硬质合金钻头
CARBIDE, DREAM DRILLS - INOX with COOLANT HOLES

长 LONG

- 应用：沟槽的特殊几何形状使其适合加工不锈钢
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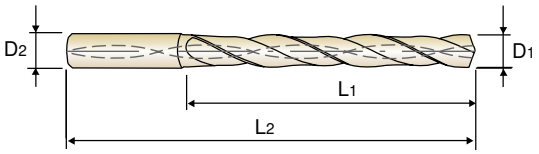


DIN 6537 | MG | h6 | m7 | 140° | P.84

5 × D

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH452103	10.3	12	71	118
DH452104	10.4	12	71	118
DH452105	10.5	12	71	118
DH452106	10.6	12	71	118
DH452107	10.7	12	71	118
DH452108	10.8	12	71	118
DH452109	10.9	12	71	118
DH452110	11.0	12	71	118
DH452111	11.1	12	71	118
DH452112	11.2	12	71	118
DH452113	11.3	12	71	118
DH452114	11.4	12	71	118
DH452115	11.5	12	71	118
DH452116	11.6	12	71	118
DH452117	11.7	12	71	118
DH452118	11.8	12	71	118
DH452119	11.9	12	71	118

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH452120	12.0	12	71	118
DH452125	12.5	14	77	124
DH452130	13.0	14	77	124
DH452135	13.5	14	77	124
DH452140	14.0	14	77	124
DH452145	14.5	16	83	133
DH452150	15.0	16	83	133
DH452155	15.5	16	83	133
DH452160	16.0	16	83	133
DH452165	16.5	18	93	143
DH452170	17.0	18	93	143
DH452175	17.5	18	93	143
DH452180	18.0	18	93	143
DH452185	18.5	20	101	153
DH452190	19.0	20	101	153
DH452195	19.5	20	101	153
DH452200	20.0	20	101	153

- 其他的刀柄类型可以按照你的要求. / Other shank types are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○				○	◎	○	○		

DREAM DRILLS -INOX

DH453 SERIES

不锈钢用油孔硬质合金钻头

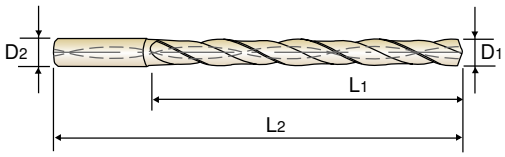
超长

CARBIDE, DREAM DRILLS - INOX with COOLANT HOLES

EXTRA LONG

- 应用：沟槽的特殊几何形状使其适合加工不锈钢
- 更好的表面处理方式使其具有优秀的排屑性能
- 横刃修成R型使产品有较强的自定心能力和螺旋切削性
- 使用TiAlN涂层使被加工材料得到良好的表面粗糙度并且延长了钻头的使用寿命

- The tool has the special flute shape and geometry for suitable machining of stainless steels.
- Excellent chip evacuation due to better surface treatment.
- Point R-thinning makes superior centering and chip curling.
- Applied TiAlN coating achieves, the better surface finish of materials to be cut and the longer tool life.



DIN 6537 | MG | h6 | m7 | 140° P.84

8 × D

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH453030	3.0	6	34	72
DH453031	3.1	6	34	72
DH453032	3.2	6	34	72
DH453033	3.3	6	34	72
DH453034	3.4	6	34	72
DH453035	3.5	6	34	72
DH453036	3.6	6	34	72
DH453037	3.7	6	34	72
DH453038	3.8	6	43	81
DH453039	3.9	6	43	81
DH453040	4.0	6	43	81
DH453041	4.1	6	43	81
DH453042	4.2	6	43	81
DH453043	4.3	6	43	81
DH453044	4.4	6	43	81
DH453045	4.5	6	43	81
DH453046	4.6	6	43	81
DH453047	4.7	6	43	81
DH453048	4.8	6	57	95
DH453049	4.9	6	57	95
DH453050	5.0	6	57	95
DH453051	5.1	6	57	95
DH453052	5.2	6	57	95
DH453053	5.3	6	57	95
DH453054	5.4	6	57	95
DH453055	5.5	6	57	95
DH453056	5.6	6	57	95

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH453057	5.7	6	57	95
DH453058	5.8	6	57	95
DH453059	5.9	6	57	95
DH453060	6.0	6	57	95
DH453061	6.1	8	76	114
DH453062	6.2	8	76	114
DH453063	6.3	8	76	114
DH453064	6.4	8	76	114
DH453065	6.5	8	76	114
DH453066	6.6	8	76	114
DH453067	6.7	8	76	114
DH453068	6.8	8	76	114
DH453069	6.9	8	76	114
DH453070	7.0	8	76	114
DH453071	7.1	8	76	114
DH453072	7.2	8	76	114
DH453073	7.3	8	76	114
DH453074	7.4	8	76	114
DH453075	7.5	8	76	114
DH453076	7.6	8	76	114
DH453077	7.7	8	76	114
DH453078	7.8	8	76	114
DH453079	7.9	8	76	114
DH453080	8.0	8	76	114
DH453081	8.1	10	95	142
DH453082	8.2	10	95	142
DH453083	8.3	10	95	142

- 其他的刀柄类型可以按照你的要求. / Other shank types are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○				○	◎	○	○		

DREAM DRILLS -INOX

DH453 SERIES

不锈钢用油孔硬质合金钻头

超长

CARBIDE, DREAM DRILLS - INOX with COOLANT HOLES

EXTRA LONG

- 应用：沟槽的特殊几何形状使其适合加工不锈钢
- 更好的表面处理方式使其具有优秀的排屑性能
- 横刃修成P型使产品有较强的自定心能力和螺旋切削性
- 使用TiAlN涂层使被加工材料得到良好的表面粗糙度并且延长了钻头的使用寿命

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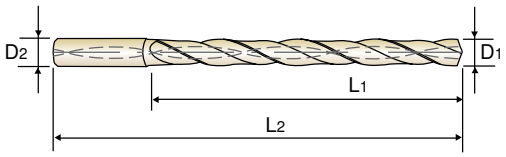
- Applied TiAlN coating achieves, the better surface finish of materials to be cut and the longer tool life.



DIN 6537 | MG | h6 | m7 | 140° | P.84

8 × D

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH453084	8.4	10	95	142
DH453085	8.5	10	95	142
DH453086	8.6	10	95	142
DH453087	8.7	10	95	142
DH453088	8.8	10	95	142
DH453089	8.9	10	95	142
DH453090	9.0	10	95	142
DH453091	9.1	10	95	142
DH453092	9.2	10	95	142
DH453093	9.3	10	95	142
DH453094	9.4	10	95	142
DH453095	9.5	10	95	142
DH453096	9.6	10	95	142
DH453097	9.7	10	95	142
DH453098	9.8	10	95	142
DH453099	9.9	10	95	142
DH453100	10.0	10	95	142
DH453101	10.1	12	114	162
DH453102	10.2	12	114	162
DH453103	10.3	12	114	162
DH453104	10.4	12	114	162

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH453105	10.5	12	114	162
DH453106	10.6	12	114	162
DH453107	10.7	12	114	162
DH453108	10.8	12	114	162
DH453109	10.9	12	114	162
DH453110	11.0	12	114	162
DH453111	11.1	12	114	162
DH453112	11.2	12	114	162
DH453113	11.3	12	114	162
DH453114	11.4	12	114	162
DH453115	11.5	12	114	162
DH453116	11.6	12	114	162
DH453117	11.7	12	114	162
DH453118	11.8	12	114	162
DH453119	11.9	12	114	162
DH453120	12.0	12	114	162
DH453125	12.5	14	133	178
DH453130	13.0	14	133	178
DH453135	13.5	14	133	178
DH453140	14.0	14	133	178

- 其他的刀柄类型可以按照你的要求. / Other shank types are available on your request.

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○				○	◎	○	○		

DREAM DRILLS -INOX

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

不锈钢用油孔硬质合金钻头, TiAlN涂层
CARBIDE, DREAM DRILLS - INOX with COOLANT HOLES, TiAlN COATED

DH451, DH452, DH453 SERIES

单位(Unit) : mm

被加工材料	不锈钢		不锈钢		铝		铝		钛, 钛合金		碳钢, 合金钢		钛, 有色金属	
WORK MATERIAL	STAINLESS STEELS		STAINLESS STEELS		ALUMINUM		ALUMINUM		TITANIUM Ti ALLOYS		CARBON STEELS ALLOY STEELS		TITANIUM NON FRERROUS	
STRENGTH	< 800 N/mm²		> 800 N/mm²		< 10% Si		> 10% Si							
DIAMETER	N	S	N	S	N	S	N	S	N	S	N	S	N	S
1.5	9000	0.03	5400	0.02	43000	0.05	32000	0.04	7500	0.01	18000	0.03	25500	0.03
2.5	7000	0.04	4200	0.03	25500	0.08	19500	0.06	4500	0.02	10800	0.05	15500	0.05
3.0	7400	0.04	4700	0.02	23000	0.12	18500	0.10	5300	0.03	13000	0.04	16000	0.08
4.0	5600	0.05	3600	0.03	17500	0.18	13900	0.15	4000	0.04	10000	0.05	11900	0.10
5.0	4400	0.05	2800	0.03	14000	0.20	11000	0.18	3200	0.05	8000	0.05	9500	0.12
6.0	3700	0.06	2400	0.04	11700	0.25	9300	0.25	2650	0.06	6600	0.06	8000	0.15
8.0	2800	0.08	1800	0.06	8800	0.30	7000	0.30	2000	0.07	5000	0.08	6000	0.18
10.0	2200	0.10	1400	0.08	7000	0.40	5600	0.35	1600	0.08	4000	0.10	4800	0.22
12.0	1900	0.12	1200	0.10	5800	0.50	4600	0.40	1300	0.10	3300	0.12	4000	0.26
14.0	1600	0.15	1000	0.12	5000	0.60	4000	0.50	1100	0.12	2800	0.15	3400	0.30
16.0	1400	0.20	900	0.15	4380	0.80	3500	0.60	1000	0.14	2500	0.20	3000	0.40
18.0	1250	0.22	800	0.17	3900	1.00	3100	0.70	900	0.16	2200	0.22	2650	0.45
20.0	1120	0.24	720	0.19	3500	1.20	2800	0.80	800	0.18	2000	0.24	2400	0.50

▶ 荐于按照下面减少进给速度 / Recommend to reduce the feed rate as following

N = R.P.M
S = Feed per Revolution (mm/rev.)

Feed 100% : DH451(3xD), DH452(5XD)
Feed 85% : DH453(8xD)

CARBIDE

Being the best through innovation

DREAM DRILLS -MQL TYPE

- (带油孔)
  用最少量的润滑剂，钻深孔(10D,15D 和 20D)

WITH COOLANT HOLES
Minimum Quantity Lubrication. Drilling Deep Holes, 10D, 15D & 20D

整体硬质合金梦幻钻头-MQL类型(带油孔)
用最少量的润滑剂，钻深孔(10D,15D 和 20D)

项目 ITEM	型号 MODEL	规格 DESCRIPTION		尺寸 SIZE 最小 MIN	尺寸 SIZE 最大 MAX	页 PAGE
10XD DH510		油孔硬质合金 梦幻钻头 -MQL类型 CARBIDE, DREAM DRILLS MQL TYPE with COOLANT HOLES	超长 *EXTRA LONG*	D3.0	D14.0	**88**
15XD DH515		油孔硬质合金 梦幻钻头 -MQL类型 CARBIDE, DREAM DRILLS MQL TYPE with COOLANT HOLES	超长 *EXTRA LONG*	D3.0	D12.0	**89**
20XD DH520		油孔硬质合金 梦幻钻头 -MQL类型 CARBIDE, DREAM DRILLS MQL TYPE with COOLANT HOLES	超长 *EXTRA LONG*	D3.0	D12.0	**89**
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS				**90**

SOLID CARBIDE DREAM DRILLS - MQL TYPE (with Coolant Holes)

Minimum Quantity Lubrication. Drilling Deep Holes, 10D, 15D & 20D

◎ : 优(Excellent)
○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		铸铁	铝	不锈钢	钛	低碳钢	铜	青铜
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○				○		
◎	◎	○			○				○		
◎	◎	○			○				○		

DREAM DRILLS -MQL TYPE

DH510 SERIES

油孔硬质合金 梦幻钻头 -MQL类型

超长

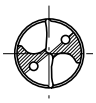
CARBIDE, DREAM DRILLS MQL TYPE with COOLANT HOLES *EXTRA LONG*

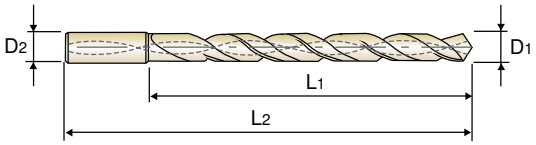
▶ 应用：用于加工一般钢件，铸钢，铸铁，冷硬铸铁，可锻铸铁，非铁重金属，非铁轻金属，耐磨塑料等材料.

▶ 优点：可以一次性加工长达产品直径10倍深的孔(少量的润滑油)
适合加工MQL(少量的润滑油)
出色的定位-不需要导套
特殊的设计-良好的排屑性能
强力钻削

▶ **Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.

▶ **Advantage** : Non step drilling up to 10 times of drill diameter.
Available for processing MQL(Minimum Quantity Lubrication).
Excellent positioning - Bush is not necessary.
Special design - Good chip removal
Powerful drilling





MG | N 30° | h6 | h7 | 140° P.90

10 × D

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length	型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2	TiAlN	D1	D2	L1	L2
DH510030	3.0	3	39	90	DH510080	8.0	8	104	161
DH510033	3.3	4	46	97	DH510085	8.5	9	111	169
DH510035	3.5	4	46	97	DH510090	9.0	9	117	175
DH510040	4.0	4	52	103	DH510095	9.5	10	124	182
DH510042	4.2	5	59	112	DH510100	10.0	10	130	188
DH510045	4.5	5	59	112	DH510105	10.5	11	137	201
DH510050	5.0	5	65	118	DH510110	11.0	11	143	207
DH510055	5.5	6	72	127	DH510115	11.5	12	150	215
DH510060	6.0	6	78	133	DH510120	12.0	12	156	221
DH510065	6.5	7	85	141	DH510125	12.5	13	163	229
DH510068	6.8	7	91	147	DH510130	13.0	13	169	235
DH510070	7.0	7	91	147	DH510135	13.5	14	176	243
DH510075	7.5	8	98	155	DH510140	14.0	14	182	249

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○				○		

DREAM DRILLS -MQL TYPE

DH515 SERIES
DH520 SERIES

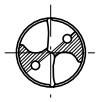
油孔硬质合金 梦幻钻头 -MQL类型

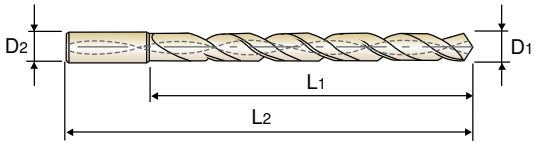
超长

CARBIDE, DREAM DRILLS MQL TYPE with COOLANT HOLES *EXTRA LONG*

▶应用：用于加工一般钢件，铸钢，铸铁，冷硬铸铁，可锻铸铁，非铁重金属，非铁轻金属，耐磨塑料等材料.
▶优点：可以一次性加工长达产品直径15倍(20倍)深的孔
适合加工MQL(少量的润滑油)
出色的定位-不需要导套
特殊的设计-良好的排屑性能
强力钻削

▶**Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.
▶**Advantage** : Non step drilling up to 15 times (20 times) of drill diameter.
Available for processing MQL(Minimum Quantity Lubrication).
Excellent positioning - Bush is not necessary.
Special design - Good chip removal
Powerful drilling





MG | N 30° | h6 | h7 | 140° | P.90

15 × D (DH515) | 20 × D (DH520)

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH515030	3.0	3	54	105
DH515035	3.5	4	63	114
DH515040	4.0	4	72	123
DH515045	4.5	5	81	134
DH515050	5.0	5	90	143
DH515055	5.5	6	99	154
DH515060	6.0	6	108	163
DH515070	7.0	7	126	182
DH515080	8.0	8	144	201
DH515090	9.0	9	162	220
DH515100	10.0	10	180	238
DH515110	11.0	11	198	262
DH515120	12.0	12	216	281

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH520030	3.0	3	69	120
DH520035	3.5	4	81	132
DH520040	4.0	4	92	143
DH520045	4.5	5	104	157
DH520050	5.0	5	115	168
DH520055	5.5	6	127	182
DH520060	6.0	6	138	193
DH520070	7.0	7	161	217
DH520080	8.0	8	184	241
DH520090	9.0	9	207	265
DH520100	10.0	10	230	288
DH520120	12.0	12	276	341

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○				○		

DREAM DRILLS -MQL TYPE

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

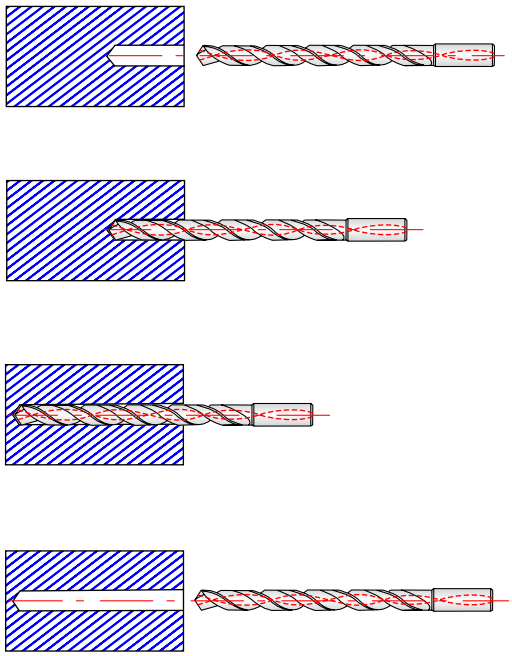
MQL油孔硬质合金钻头, TiAlN涂层
CARBIDE, DREAM DRILL MQL TYPE with COOLANT HOLES, TiAlN COATED

DH510, DH515, DH520 SERIES

单位(Unit) : mm

被加工材料	碳钢, 合金钢		铸铁		球墨铸铁	
WORK MATERIAL	CARBON STEELS ALLOY STEELS		CAST IRON		DUCTILE CAST IRON	
STRENGTH	~ 1060 N/mm²		250 ~ 350 N/mm²		400 ~ 500 N/mm²	
DRILLING SPEED	63 ~ 125 m/min		63 ~ 125 m/min		60 ~ 80 m/min	
DIAMETER	N	S	N	S	N	S
3.0	7500	0.06~0.12	7500	0.06~0.12	7500	0.06~0.12
4.0	6400	0.08~0.16	6400	0.08~0.16	5600	0.08~0.16
5.0	5800	0.10~0.20	5800	0.10~0.20	4500	0.10~0.20
6.0	4800	0.12~0.24	4800	0.12~0.24	3800	0.12~0.24
8.0	3600	0.16~0.28	3600	0.16~0.28	2800	0.16~0.28
10.0	2900	0.20~0.35	2900	0.20~0.35	2300	0.20~0.35
12.0	2400	0.24~0.42	2400	0.24~0.42	1900	0.24~0.42
14.0	2050	0.28~0.46	2050	0.28~0.46	1600	0.28~0.46

N = R.P.M
S = Feed per Revolution (mm/rev.)



1. 导钻应该在3xD和5xD深度之间做在直径基础上+0.1mm的孔
Guide Drilling should be done as Diameter+0.1mm between 3xD and 5xD depth.

2. 对于主要钻孔，应在导钻孔上使用低速进行
(钻速300,进给400mm/min)
For Main Drilling, proceed with low RPM at Guide Drilling segment.
(RPM 300, FEED 400mm/min)

3. 在加工完导孔时，把进给降到0，同时根据提供的切削条件表增加钻速
(参考以上)
Just before the end of Guide Drilling segment, reduce feed to zero and increase the RPM according to Recommended Cutting Condition chart (See above).

4. 然后，在没有阶梯孔的情况下增加进给进行主孔加工
After then, proceed main drilling by increasing feed without step drilling.

5. 当钻完后从导孔的起始点出来时，请把钻速降到300，进给为1000mm/min.
When coming out from Guide Drilling start point after drilling, RPM should be reduced as 300 and feed should be 1000 mm/min.

6. 当从导孔段完全出来时，进给应降到50%.
When coming out from Guide Drilling segment to the outside, the feed should be decreased as 50%.

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DREAM DRILLS

- For HIGH HARDENED STEELS

- HRc50 ~ HRc70的高硬度钢

HIGH HARDENED STEELS, HRc50~HRc70

高硬度钢用的整体硬质合金梦幻钻头
HRc70的高硬度钢

项目	型号	规格	尺寸		页
			最小	最大	
ITEM	MODEL	DESCRIPTION	SIZE		PAGE
			MIN	MAX	
DH500		高硬度钢 (HRc50~HRc70) 用硬质合金钻头 CARBIDE, DREAM DRILLS for HIGH HARDENED STEELS	D2.6	D14.0	94
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS			95

SOLID CARBIDE DREAM DRILLS for HIGH HARDENED STEELS

High Hardened Steels, HRc50~HRc70

◎ : 优(Excellent)
○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		铸铁	铝	不锈钢	钛	低碳钢	铜	青铜
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
			◎	◎							

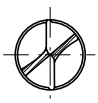
DREAM DRILLS for HIGH HARDENED STEELS

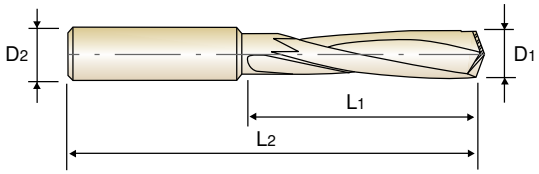
DH500 SERIES

高硬度钢(HRc50~HRc70)用硬质合金钻头
CARBIDE, DREAM DRILLS for HIGH HARDENED STEELS (HRC50~HRC70)

▶应用：适用于高硬度钢【淬火钢，回火钢(HRc70以下)】
▶优点：特殊的设计
特别的横刃修磨使切削负担最小化
更好的排削性能
强有力的钻削力

▶**Application** : Drilling for High Hardened Steels[Quenched Steels, Tempered Steels (Under HRc 70)
▶**Advantage** : Special Design
Minimum of cutting load through special thinning
Good chip removal
Powerful Drilling





MG | 15° | h6 | h7 | 140° P.95

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH500026	2.6	3	14	44
DH500030	3.0	3	16	46
DH500033	3.3	4	18	48
DH500034	3.4	4	20	50
DH500035	3.5	4	20	50
DH500040	4.0	4	22	52
DH500042	4.2	6	25	65
DH500043	4.3	6	28	68
DH500044	4.4	6	28	68
DH500045	4.5	6	28	68
DH500050	5.0	6	32	72
DH500051	5.1	6	32	72
DH500052	5.2	6	32	72
DH500055	5.5	6	35	75
DH500060	6.0	6	35	75
DH500065	6.5	8	40	80
DH500068	6.8	8	45	85
DH500069	6.9	8	45	85

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
DH500070	7.0	8	45	85
DH500075	7.5	8	45	85
DH500080	8.0	8	50	98
DH500085	8.5	10	50	98
DH500086	8.6	10	57	105
DH500088	8.8	10	57	105
DH500090	9.0	10	57	105
DH500095	9.5	10	57	105
DH500100	10.0	10	63	111
DH500102	10.2	12	63	111
DH500103	10.3	12	63	111
DH500105	10.5	12	63	111
DH500108	10.8	12	71	119
DH500110	11.0	12	71	119
DH500115	11.5	12	71	119
DH500120	12.0	12	71	119
DH500140	14.0	14	77	125

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
			◎	◎							

DREAM DRILLS for HIGH HARDENED STEELS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

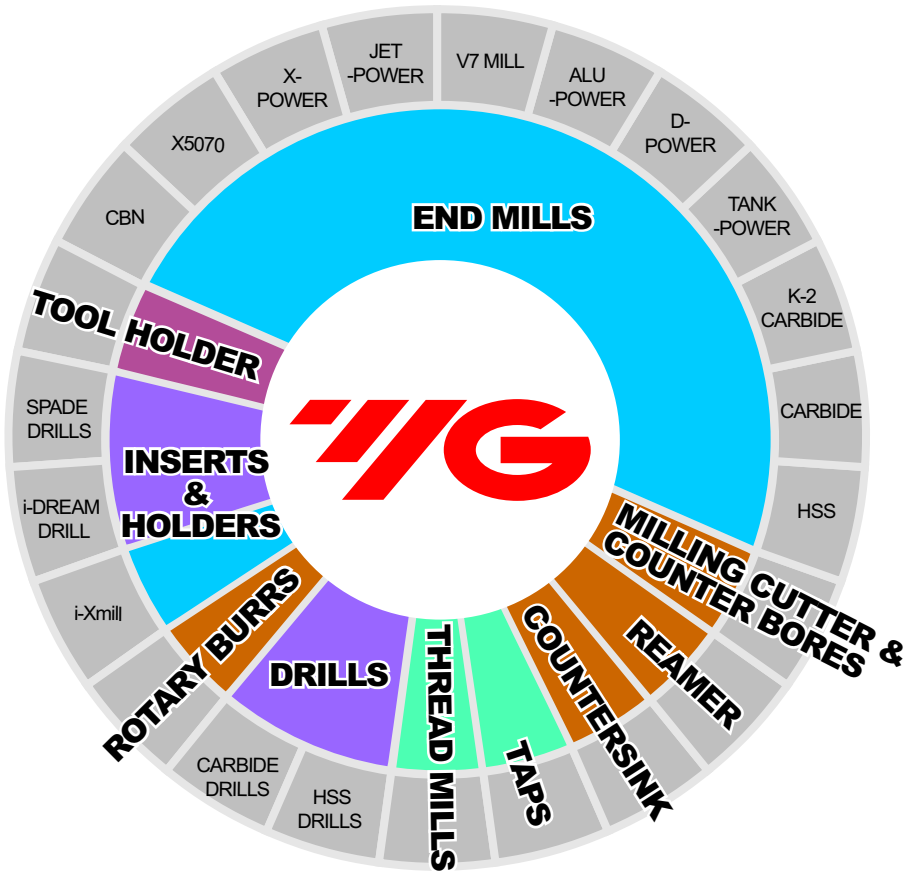
高硬度钢(HRc50~HRc70)用硬质合金钻头, TiAlN涂层
CARBIDE, DREAM DRILLS for HIGH HARDENED STEELS (HRc50~HRc70), TiAlN COATED

DH500 SERIES

单位(Unit) : mm

被加工材料 WORK MATERIAL	硬化钢 HARDENED STEELS					
	HRc 50~55		HRc 55~60		HRc 60~70	
DRILLING SPEED	14 ~ 22 m/min		10 ~ 16 m/min		8 ~ 13 m/min	
DIAMETER	N	S	N	S	N	S
3.0	1900	0.04	1330	0.04	1250	0.04
4.0	1430	0.04	1000	0.04	950	0.04
5.0	1150	0.04	800	0.04	750	0.04
6.0	960	0.04	670	0.04	630	0.04
8.0	720	0.04	500	0.04	480	0.04
10.0	570	0.04	400	0.04	380	0.04
12.0	480	0.04	330	0.04	320	0.04
14.0	438	0.04	282	0.04	272	0.04

N = R.P.M
S = Feed per Revolution (mm/rev.)



Challenge toward a Global Leader-

YG-1 Leads the World Market.

CARBIDE

YG

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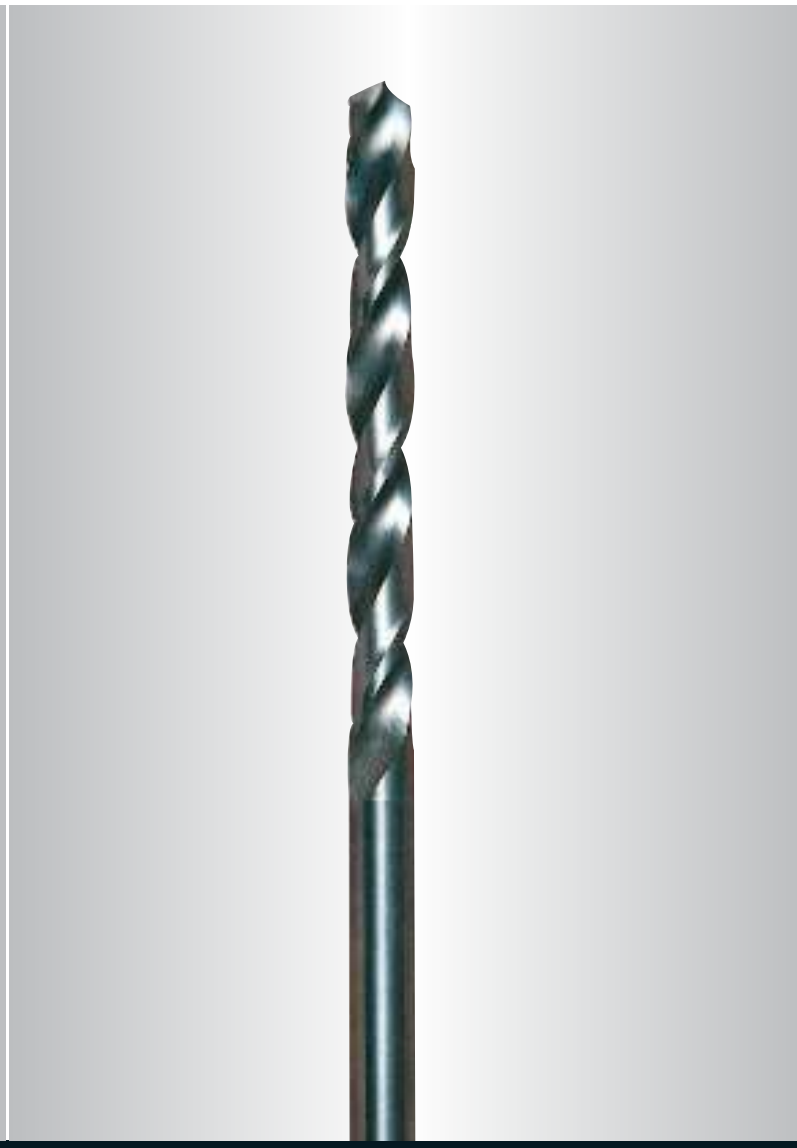


GENERAL CARBIDE DRILLS

- 普通长度 和 超短型
普通用途,DIN338 和 DIN6539

JOBBER & STUB LENGTH
General Purpose, DIN338 & DIN6539

普通整体硬质合金钻头
用于加工普通材料，铸钢，铸铁，有色金属材料

项目 ITEM	型号 MODEL	规格 DESCRIPTION		尺寸 SIZE 最小 MIN	尺寸 SIZE 最大 MAX	页 PAGE
D5405		硬质合金钻头 CARBIDE DRILLS	超短 STUB	D1.0	D13.0	100
D5407		硬质合金钻头 CARBIDE DRILLS	细长 JOBBER	D1.0	D13.0	102
D5401		硬质合金钻头 CARBIDE DRILLS	常规 REGULAR	D1.0	D13.0	104
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS				106

GENERAL SOLID CARBIDE DRILLS

For General materials, Cast steels, Cast iron, Non-ferrous materials

◎ : 优(Excellent)
○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		铸铁	铝	不锈钢	钛	低碳钢	铜	青铜
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	◎		
◎	◎				○	○	○	○	◎		
◎	◎				○	○	○	○	◎		

GENERAL CARBIDE DRILLS

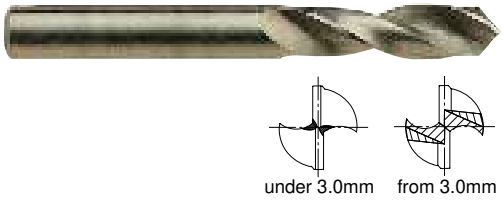
D5405 SERIES

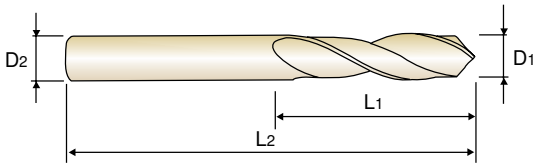
硬质合金钻头
CARBIDE DRILLS

超短
STUB

▶ 应用：用于加工一般的钢件，铸钢，铸铁，冷硬铸铁，可锻铸铁，非铁重金属，非铁轻金属，耐磨塑料等材料

▶ **Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.





DIN 6539 | MG | N 30° | h6 | h7 | 118° | P.106

$D_1=D_2$

단위(Unit) : mm

型号 EDP No. TiAlN	刃径 Drill Diameter D_1	刃长 Flute Length L_1	全长 Overall Length L_2	型号 EDP No. TiAlN	刃径 Drill Diameter D_1	刃长 Flute Length L_1	全长 Overall Length L_2
D5405010	1.0	6	26	D5405035	3.5	20	52
D5405011	1.1	7	28	D5405036	3.6	20	52
D5405012	1.2	8	30	D5405037	3.7	20	52
D5405013	1.3	8	30	D5405038	3.8	20	52
D5405014	1.4	9	32	D5405039	3.9	22	55
D5405015	1.5	9	32	D5405040	4.0	22	55
D5405016	1.6	10	34	D5405041	4.1	22	55
D5405017	1.7	10	34	D5405042	4.2	22	55
D5405018	1.8	11	36	D5405043	4.3	24	58
D5405019	1.9	11	36	D5405044	4.4	24	58
D5405020	2.0	12	38	D5405045	4.5	24	58
D5405021	2.1	12	38	D5405046	4.6	24	58
D5405022	2.2	13	40	D5405047	4.7	24	58
D5405023	2.3	13	40	D5405048	4.8	26	62
D5405024	2.4	14	43	D5405049	4.9	26	62
D5405025	2.5	14	43	D5405050	5.0	26	62
D5405026	2.6	14	43	D5405051	5.1	26	62
D5405027	2.7	16	46	D5405052	5.2	26	62
D5405028	2.8	16	46	D5405053	5.3	26	62
D5405029	2.9	16	46	D5405054	5.4	28	66
D5405030	3.0	16	46	D5405055	5.5	28	66
D5405031	3.1	18	49	D5405056	5.6	28	66
D5405032	3.2	18	49	D5405057	5.7	28	66
D5405033	3.3	18	49	D5405058	5.8	28	66
D5405034	3.4	20	52	D5405059	5.9	28	66

▶ TiN (D6405),TiCN (DG405),TiAlN (DH405)可根据客户需求进行加工.
TiN(D6405), TiCN(DG405) and TiAlN(DH405) are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels ~HB225	合金钢 Alloy Steels HB225~325	预硬钢 Prehardened Steels HRc30~45	硬化钢 Hardened Steels HRc45~55	硬化钢 Hardened Steels HRc55~	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
◎	◎				○	○	○	○	◎		

GENERAL CARBIDE DRILLS

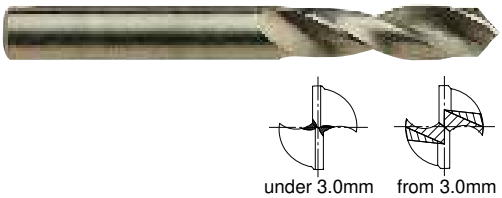
D5405 SERIES

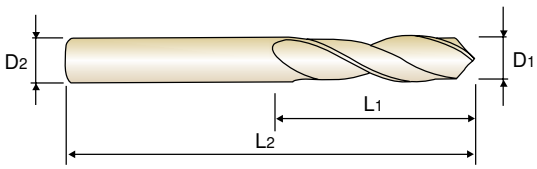
硬质合金钻头
CARBIDE DRILLS

超短
STUB

▶ 应用：用于加工一般的钢件，铸钢，铸铁，冷硬铸铁，可锻铸铁，非铁重金属，非铁轻金属，耐磨塑料等材料

▶ **Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.





DIN 6539 | MG | N 30° | h6 | h7 | 118° P.106

$D_1=D_2$

단위(Unit) : mm

型号 / EDP No. / TiAlN	刃径 / Drill Diameter D_1	刃长 / Flute Length L_1	全长 / Overall Length L_2
D5405060	6.0	28	66
D5405061	6.1	31	70
D5405062	6.2	31	70
D5405063	6.3	31	70
D5405064	6.4	31	70
D5405065	6.5	31	70
D5405066	6.6	31	70
D5405067	6.7	31	70
D5405068	6.8	34	74
D5405069	6.9	34	74
D5405070	7.0	34	74
D5405071	7.1	34	74
D5405072	7.2	34	74
D5405073	7.3	34	74
D5405074	7.4	34	74
D5405075	7.5	34	74
D5405076	7.6	37	79
D5405077	7.7	37	79
D5405078	7.8	37	79
D5405079	7.9	37	79
D5405080	8.0	37	79
D5405081	8.1	37	79
D5405082	8.2	37	79
D5405083	8.3	37	79

型号 / EDP No. / TiAlN	刃径 / Drill Diameter D_1	刃长 / Flute Length L_1	全长 / Overall Length L_2
D5405084	8.4	37	79
D5405085	8.5	37	79
D5405086	8.6	40	84
D5405087	8.7	40	84
D5405088	8.8	40	84
D5405089	8.9	40	84
D5405090	9.0	40	84
D5405091	9.1	40	84
D5405092	9.2	40	84
D5405093	9.3	40	84
D5405094	9.4	40	84
D5405095	9.5	40	84
D5405096	9.6	43	89
D5405097	9.7	43	89
D5405098	9.8	43	89
D5405099	9.9	43	89
D5405100	10.0	43	89
D5405102	10.2	43	89
D5405105	10.5	43	89
D5405110	11.0	47	95
D5405115	11.5	47	95
D5405120	12.0	51	102
D5405130	13.0	51	102

▶ TiN (D6405),TiCN (DG405) ,TiAlN (DH405)可根据客户需求进行加工.
TiN(D6405), TiCN(DG405) and TiAlN(DH405) are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	◎		

GENERAL CARBIDE DRILLS

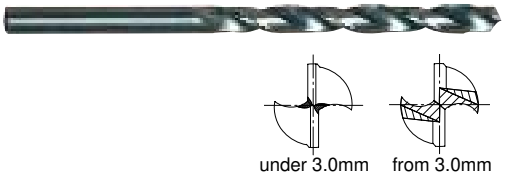
D5407 SERIES

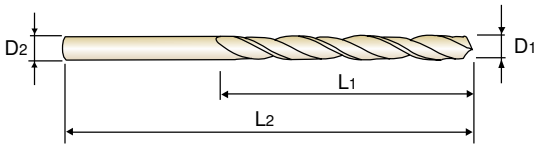
硬质合金钻头
CARBIDE DRILLS

细长
JOBBER

▶ 应用：用于加工一般的钢件，铸钢，铸铁，冷硬铸铁，可锻铸铁，非铁重金属，非铁轻金属，耐磨塑料等材料

▶ **Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.





DIN 338 | MG | N 30° | h6 | h7 | 118° P.106

$D_1=D_2$

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length	型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D_1	L_1	L_2	TiAlN	D_1	L_1	L_2
D5407010	1.0	12	34	D5407032	3.2	36	65
D5407011	1.1	14	36	D5407033	3.3	36	65
D5407012	1.2	16	38	D5407034	3.4	39	70
D5407013	1.3	16	38	D5407035	3.5	39	70
D5407014	1.4	18	40	D5407036	3.6	39	70
D5407015	1.5	18	40	D5407037	3.7	39	70
D5407016	1.6	20	43	D5407038	3.8	43	75
D5407017	1.7	20	43	D5407039	3.9	43	75
D5407018	1.8	22	46	D5407040	4.0	43	75
D5407019	1.9	22	46	D5407041	4.1	43	75
D5407020	2.0	24	49	D5407042	4.2	43	75
D5407021	2.1	24	49	D5407043	4.3	47	80
D5407022	2.2	27	53	D5407044	4.4	47	80
D5407023	2.3	27	53	D5407045	4.5	47	80
D5407024	2.4	30	57	D5407046	4.6	47	80
D5407025	2.5	30	57	D5407047	4.7	47	80
D5407026	2.6	30	57	D5407048	4.8	52	86
D5407027	2.7	33	61	D5407049	4.9	52	86
D5407028	2.8	33	61	D5407050	5.0	52	86
D5407029	2.9	33	61	D5407051	5.1	52	86
D5407030	3.0	33	61	D5407052	5.2	52	86
D5407031	3.1	36	65	D5407053	5.3	52	86

▶ TiN (D6407),TiCN (DG407),TiAlN (DH407)可根据客户需求进行加工.
TiN(D6407), TiCN(DG407) and TiAlN(DH407) are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	◎		

GENERAL CARBIDE DRILLS

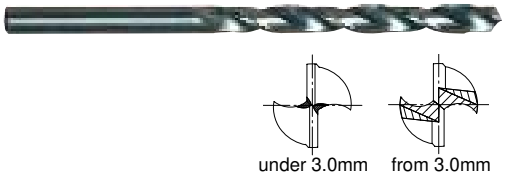
D5407 SERIES

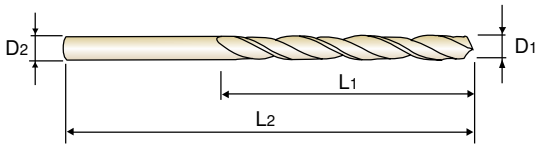
硬质合金钻头
CARBIDE DRILLS

细长
JOBBER

▶ 应用：用于加工一般的钢件，铸钢，铸铁，冷硬铸铁，可锻铸铁，非铁重金属，非铁轻金属，耐磨塑料等材料

▶ **Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.





DIN 338 | MG | N 30° | h6 | h7 | 118° P.106

$D_1=D_2$

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length	型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D_1	L_1	L_2	TiAlN	D_1	L_1	L_2
D5407054	5.4	57	93	D5407070	7.0	69	109
D5407055	5.5	57	93	D5407075	7.5	69	109
D5407056	5.6	57	93	D5407080	8.0	75	117
D5407057	5.7	57	93	D5407085	8.5	75	117
D5407058	5.8	57	93	D5407090	9.0	81	125
D5407059	5.9	57	93	D5407095	9.5	81	125
D5407060	6.0	57	93	D5407100	10.0	87	133
D5407061	6.1	63	101	D5407102	10.2	87	133
D5407062	6.2	63	101	D5407105	10.5	87	133
D5407063	6.3	63	101	D5407110	11.0	94	142
D5407064	6.4	63	101	D5407115	11.5	94	142
D5407065	6.5	63	101	D5407120	12.0	101	151
D5407068	6.8	69	109	D5407130	13.0	101	151

▶ TiN (D6407), TiCN (DG407), TiAlN (DH407)可根据客户需求进行加工.
TiN(D6407), TiCN(DG407) and TiAlN(DH407) are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		铸铁	铝	不锈钢	钛	低碳钢	铜	青铜
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	◎		

GENERAL CARBIDE DRILLS

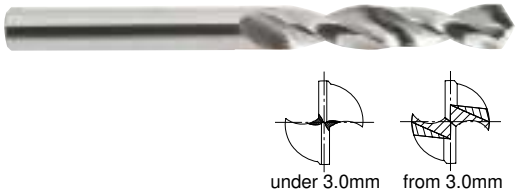
D5401 SERIES

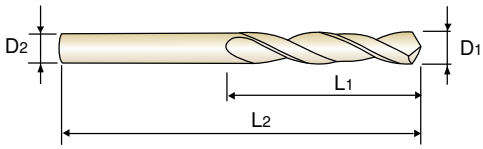
硬质合金钻头
CARBIDE DRILLS

常规
REGULAR

▶ 应用：用于加工一般的钢件，铸钢，铸铁，冷硬铸铁，可锻铸铁，非铁重金属，非铁轻金属，耐磨塑料等材料

▶ **Application** : Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, nonferrous heavy metal, non-ferrous light metal, abrasive plastic.





MG | N 30° | h6 | h7 | 118° | P.106

$D_1=D_2$

단위(Unit) : mm

型号 EDP No. TiAlN	刃径 Drill Diameter D_1	刃长 Flute Length L_1	全长 Overall Length L_2	型号 EDP No. TiAlN	刃径 Drill Diameter D_1	刃长 Flute Length L_1	全长 Overall Length L_2
D5401010	1.0	10	32	D5401041	4.1	34	60
D5401011	1.1	10	32	D5401042	4.2	34	60
D5401012	1.2	10	32	D5401043	4.3	34	60
D5401013	1.3	10	32	D5401044	4.4	34	60
D5401014	1.4	10	32	D5401045	4.5	34	60
D5401015	1.5	13	35	D5401046	4.6	38	65
D5401016	1.6	13	35	D5401047	4.7	38	65
D5401017	1.7	13	35	D5401048	4.8	38	65
D5401018	1.8	13	35	D5401049	4.9	38	65
D5401019	1.9	13	35	D5401050	5.0	38	65
D5401020	2.0	18	40	D5401051	5.1	38	65
D5401021	2.1	18	40	D5401052	5.2	38	65
D5401022	2.2	18	40	D5401053	5.3	38	65
D5401023	2.3	18	40	D5401054	5.4	38	65
D5401024	2.4	18	40	D5401055	5.5	38	65
D5401025	2.5	22	45	D5401056	5.6	40	75
D5401026	2.6	22	45	D5401057	5.7	40	75
D5401027	2.7	22	45	D5401058	5.8	40	75
D5401028	2.8	22	45	D5401059	5.9	40	75
D5401029	2.9	22	45	D5401060	6.0	40	75
D5401030	3.0	25	50	D5401061	6.1	40	75
D5401031	3.1	25	50	D5401062	6.2	40	75
D5401032	3.2	25	50	D5401063	6.3	40	75
D5401033	3.3	28	50	D5401064	6.4	40	75
D5401034	3.4	28	50	D5401065	6.5	40	75
D5401035	3.5	28	50	D5401066	6.6	46	80
D5401036	3.6	30	55	D5401067	6.7	46	80
D5401037	3.7	30	55	D5401068	6.8	46	80
D5401038	3.8	30	55	D5401069	6.9	46	80
D5401039	3.9	30	55	D5401070	7.0	46	80
D5401040	4.0	30	55	D5401071	7.1	46	80

▶ TiN (D6401), TiCN (DG401), TiAlN (H4401) 可根据客户需求进行加工.
TiN(D6401), TiCN(DG401) and TiAlN(H4401) are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	◎		

GENERAL CARBIDE DRILLS

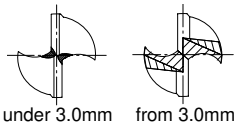
D5401 SERIES

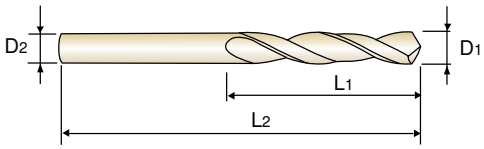
硬质合金钻头 CARBIDE DRILLS

常规 REGULAR

▶ 应用：用于加工一般的钢件，铸钢，铸铁，冷硬铸铁，可锻铸铁，非铁重金属，非铁轻金属，耐磨塑料等材料

▶ **Application** : Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, nonferrous heavy metal, non-ferrous light metal, abrasive plastic.





MG | N 30° | h6 | h7 | 118° | P.106

$D_1=D_2$

単位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length	型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D_1	L_1	L_2	TiAlN	D_1	L_1	L_2
D5401072	7.2	46	80	D5401102	10.2	60	115
D5401073	7.3	46	80	D5401103	10.3	60	115
D5401074	7.4	46	80	D5401104	10.4	60	115
D5401075	7.5	46	80	D5401105	10.5	60	115
D5401076	7.6	50	85	D5401106	10.6	60	115
D5401077	7.7	50	85	D5401107	10.7	60	115
D5401078	7.8	50	85	D5401108	10.8	60	115
D5401079	7.9	50	85	D5401109	10.9	60	115
D5401080	8.0	50	85	D5401110	11.0	60	115
D5401081	8.1	50	85	D5401111	11.1	65	120
D5401082	8.2	50	85	D5401112	11.2	65	120
D5401083	8.3	50	85	D5401113	11.3	65	120
D5401084	8.4	50	85	D5401114	11.4	65	120
D5401085	8.5	50	85	D5401115	11.5	65	120
D5401086	8.6	50	95	D5401116	11.6	65	120
D5401087	8.7	50	95	D5401117	11.7	65	120
D5401088	8.8	50	95	D5401118	11.8	65	120
D5401089	8.9	50	95	D5401119	11.9	65	120
D5401090	9.0	50	95	D5401120	12.0	65	120
D5401091	9.1	50	95	D5401121	12.1	65	125
D5401092	9.2	50	95	D5401122	12.2	65	125
D5401093	9.3	50	95	D5401123	12.3	65	125
D5401094	9.4	50	95	D5401124	12.4	65	125
D5401095	9.5	50	95	D5401125	12.5	65	125
D5401096	9.6	50	100	D5401126	12.6	65	125
D5401097	9.7	50	100	D5401127	12.7	65	125
D5401098	9.8	50	100	D5401128	12.8	65	125
D5401099	9.9	50	100	D5401129	12.9	65	125
D5401100	10.0	50	100	D5401130	13.0	65	125
D5401101	10.1	60	115				

▶ TiN (D6401), TiCN (DG401), TiAlN (H4401) 可根据客户需求进行加工.
TiN(D6401), TiCN(DG401) and TiAlN(H4401) are available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	◎		

GENERAL CARBIDE DRILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金钻头, DIN6539, DIN338
CARBIDE DRILLS, DIN6539, DIN338

D5405, D5407, D5401 SERIES

单位(Unit) : mm

被加工材料	普通钢		合金钢		软灰铸铁		硬灰铸铁		不锈钢		铝硅合金 Si＜10%		铝硅合金 Si＞10%		钛, 镍合金钢	
WORK MATERIAL	NON-ALLOY STEELS		ALLOY STEELS		SOFT GREY CAST IRON		HARD GREY CAST IRON		STAINLESS STEELS		Al-Si ALLOYS, Si<10%		Al-Si ALLOYS, Si>10%		Ti, Ni ALLOY STEELS	
STRENGTH	< 700 N/mm²		< 1000 N/mm²		< HB240, GG25		< HB300, GG40									
DIAMETER	N	S	N	S	N	S	N	S	N	S	N	S	N	S	N	S
1.0	23000	0.03	17200	0.03	32000	0.04	23000	0.04	12000	0.04	54000	0.05	42000	0.05	11800	0.02
2.0	11500	0.04	8600	0.04	16000	0.05	11500	0.05	6000	0.03	27000	0.06	21000	0.06	5900	0.03
3.0	7800	0.05	5750	0.05	10500	0.06	7600	0.06	4000	0.04	18000	0.07	14000	0.07	3900	0.04
4.0	5800	0.06	4300	0.06	7800	0.07	5700	0.07	3000	0.05	13000	0.08	10500	0.08	2950	0.05
5.0	4700	0.07	3450	0.07	6200	0.08	4550	0.08	2400	0.06	10500	0.09	8500	0.09	2350	0.06
6.0	3900	0.08	2850	0.08	5200	0.09	3800	0.09	2000	0.07	8800	0.11	7100	0.11	1950	0.07
7.0	3350	0.09	2450	0.09	4500	0.10	3250	0.10	1700	0.08	7600	0.13	6100	0.13	1700	0.08
8.0	2900	0.10	2150	0.10	3900	0.12	2850	0.12	1500	0.09	6600	0.15	5350	0.15	1450	0.09
9.0	2600	0.11	1900	0.11	3450	0.14	2550	0.14	1350	0.10	5900	0.17	4750	0.17	1300	0.10
10.0	2350	0.12	1700	0.12	3100	0.16	2300	0.16	1200	0.11	5300	0.19	4250	0.19	1200	0.11
11.0	2150	0.13	1600	0.13	2850	0.18	2100	0.18	1100	0.12	4850	0.21	3900	0.21	1050	0.12
12.0	1950	0.14	1450	0.14	2600	0.20	1900	0.20	1000	0.13	4450	0.23	3550	0.23	980	0.13
13.0	1800	0.16	1350	0.16	2400	0.20	1750	0.20	950	0.13	4100	0.25	3300	0.25	905	0.13

N = R.P.M
S = Feed per Revolution (mm/rev.)

CARBIDE

Being the best through innovation

NC-SPOTTING DRILLS

- 定中心和倒角
  CENTERING and CHAMFERING

整体硬质合金定心钻头
用于加工普通材料，铸钢，铸铁，有色金属材料

项目	型号	规格	尺寸		页
			最小	最大	
ITEM	MODEL	DESCRIPTION	SIZE MIN	SIZE MAX	PAGE
D5306 D5307		硬质合金定心钻头 CARBIDE, NC-SPOTTING DRILLS	D6.0	D20.0	110
D5315 D5318		硬质合金定心钻头 CARBIDE, NC-SPOTTING DRILLS	D3.0	D20.0	111
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS			112

SOLID CARBIDE NC-SPOTTING DRILLS

For General materials, Cast steels, Cast iron, Non-ferrous materials

◎ : 优(Excellent)
○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		铸铁	铝	不锈钢	钛	低碳钢	铜	青铜
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	◎			○	○	○	○	○		
◎	◎	◎			○	○	○	○	○		

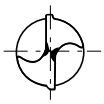
NC-SPOTTING DRILLS

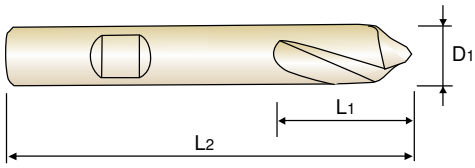
D5306 SERIES
D5307 SERIES

硬质合金定心钻头
CARBIDE, NC-SPOTTING DRILLS

▶ 应用：用于NC/CNC机床上的高精密中心孔加工，大的产品直径允许在中心孔加工后继续进行倒角工作

▶ **Application** : For more precise centering work on NC/CNC Machines. The large diameter of the tool permits chamfering work after centering continuously.





MG | DIN 6535HB | h6 | h6 | 90° | 120° P.112

NC-Spotting drills 90°

NC-Spotting drills 120°

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length	型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	L1	L2	TiAlN	D1	L1	L2
D5306060	6.0	13	50	D5307060	6.0	13	50
D5306080	8.0	23	60	D5307080	8.0	23	60
D5306100	10.0	24	70	D5307100	10.0	24	70
D5306120	12.0	24	70	D5307120	12.0	24	70
D5306160	16.0	29	75	D5307160	16.0	29	75
D5306200	20.0	35	100	D5307200	20.0	35	100

▶ TiN (D6306,D6307), TiCN (DG306,DG307), TiAlN (DH306,307)可根据客户需求进行加工
TiN(D6306,D6307), TiCN(DG306,DG307) and TiAlN(DH306,DH307) are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	◎			○	○	○	○	○		

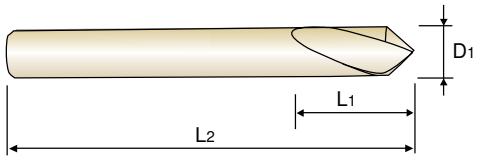
NC-SPOTTING DRILLS

D5315 SERIES
D5318 SERIES

硬质合金定心钻头
CARBIDE, NC-SPOTTING DRILLS

▶ 应用：用于NC/CNC机床上的高精密中心孔加工，大的产品直径允许在中心孔加工后继续进行倒角工作

▶ **Application** : For more precise centering work on NC/CNC Machines. The large diameter of the tool permits chamfering work after centering continuously.



MG | h6 | h6 | 90° | 120° P.112

NC-Spotting drills 90°

型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	L1	L2
D5315030	3.0	10	50
D5315040	4.0	10	50
D5315050	5.0	10	60
D5315060	6.0	13	70
D5315080	8.0	23	80
D5315100	10.0	24	90
D5315120	12.0	24	90
D5315160	16.0	29	90
D5315200	20.0	35	100

NC-Spotting drills 120°

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	L1	L2
D5318030	3.0	10	50
D5318040	4.0	10	50
D5318050	5.0	10	60
D5318060	6.0	13	70
D5318080	8.0	23	80
D5318100	10.0	24	90
D5318120	12.0	24	90
D5318160	16.0	29	90
D5318200	20.0	35	100

▶ TiN (D6315,D6318), TiCN (DG315,DG318), TiAlN (DH315,318)可根据客户需求进行加工
TiN(D6315,D6318), TiCN(DG315,DG318) and TiAlN(DH315,DH318) are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	◎			○	○	○	○	○		

NC-SPOTTING DRILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金定心钻头 90°, 120°
CARBIDE NC - SPOTTING DRILLS 90°, 120°

D5306, D5307, D5315, D5318 SERIES

单位(Unit) : mm

被加工材料	普通钢		合金钢		软灰铸铁		硬灰铸铁		不锈钢		铝硅合金 Si<10%		铝硅合金 Si>10%		钛, 镍合金钢	
WORK MATERIAL	NON-ALLOY STEELS		ALLOY STEELS		SOFT GREY CAST IRON		HARD GREY CAST IRON		STAINLESS STEELS		Al-Si ALLOYS, Si<10%		Al-Si ALLOYS, Si>10%		Ti, Ni ALLOY STEELS	
STRENGTH	< 700 N/mm²		< 1000 N/mm²		< HB240, GG25		< HB300, GG40									
DIAMETER	N	S	N	S	N	S	N	S	N	S	N	S	N	S	N	S
6.0	3900	0.08	2850	0.08	5200	0.09	3800	0.09	2000	0.07	8800	0.11	7100	0.11	1950	0.07
8.0	2900	0.10	2150	0.10	3900	0.12	2850	0.12	1500	0.09	6600	0.15	5350	0.15	1450	0.09
10.0	2350	0.12	1700	0.12	3100	0.16	2300	0.16	1200	0.11	5300	0.19	4250	0.19	1200	0.11
12.0	1950	0.14	1450	0.14	2600	0.20	1900	0.20	1000	0.13	4450	0.23	3550	0.23	980	0.13
16.0	1450	0.17	1100	0.17	1950	0.24	1450	0.24	755	0.17	3300	0.27	2650	0.27	735	0.17
20.0	1150	0.19	850	0.19	1550	0.28	1150	0.28	590	0.20	2650	0.31	2150	0.31	590	0.20

N = R.P.M
S = Feed per Revolution (mm/rev.)

HSS

YG

Being the best through innovation

MULTI-1 DRILLS

- 粉末高速钢 MULTI-1 钻头
  多用途钻头尤其适用于不锈钢

HSS-PM MULTI-1 DRILLS
Multi Purpose Drilling. Particularly for Stainless Steels

粉末高速钢MULTI-1钻头

粉末高速钢钻头进行广泛应用
碳素钢，合金钢，不锈钢等

项目	型号	规格		尺寸		页
ITEM	MODEL	DESCRIPTION		SIZE MIN	SIZE MAX	PAGE
CDRA03		粉末高速钢 MULTI-1钻头 PREMIUM HSS-PM MULTI-1 DRILLS	超短 *STUB*	D1.0	D13.0	116
CDRA04		粉末高速钢 MULTI-1钻头 PREMIUM HSS-PM MULTI-1 DRILLS	细长 *JOBBER*	D2.0	D13.0	118
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS				120

PREMIUM HSS-PM MULTI-1 DRILLS

Premium HSS-PM Drills for wide range of applications
- Carbon Steels, Alloy Steels, Stainless steels, etc

◎ : 优(Excellent)
○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		铸铁	铝	不锈钢	钛	低碳钢	铜	青铜
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○		◎		
◎	◎	○			○	○	○		◎		

MULTI-1 DRILLS

CDRA03 SERIES

粉末高速钢 MULTI-1钻头

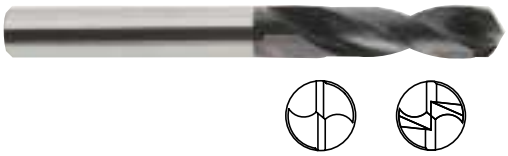
超短

PREMIUM HSS-PM MULTI-1 DRILLS

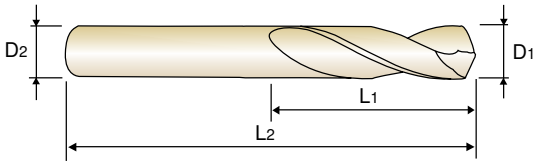
STUB

▶应用：适用于结构钢，碳素钢，合金钢，预硬化钢，模具钢，不锈钢，淬火钢(HRc30~45)，铸铁，铝合金，非铁金属合金
▶优点：钻顶的形状使产品具有极佳的自定心能力.
沟槽的设计使产品的排削性能更高.
使用粉末高速钢制作使产品具有更优良的韧性.

▶**Application** : Structural steels, Carbon steels, Alloy steels, Pre-hardened steels, Mold steels, stainless steels, Hardened steels(HRc30~45), Cast iron, Aluminum alloys, Nonferrous alloys.
▶**Advantage** : Point shape to maximize self-centering.
Flute design for the best chip evacuation.
Premium powder materials with excellent toughness.



up to 1.4mm over 1.4mm



PREMIUM HSS-PM | N 30° | h6 | h7 | 118° | 135° | P.120

up to 1.9mm over 1.9mm

단위(Unit) : mm

型号 EDP No. TiAlN	刃径 Drill Diameter D1	柄径 Shank Diameter D2	刃长 Flute Length L1	全长 Overall Length L2
CDRA03010	1.0	3	6	38
CDRA03011	1.1	3	7	39
CDRA03012	1.2	3	8	40
CDRA03013	1.3	3	8	40
CDRA03014	1.4	3	9	41
CDRA03015	1.5	3	9	41
CDRA03016	1.6	3	10	42
CDRA03017	1.7	3	10	42
CDRA03018	1.8	3	11	43
CDRA03019	1.9	3	11	43
CDRA03020	2.0	3	12	44
CDRA03021	2.1	3	12	44
CDRA03022	2.2	3	13	45
CDRA03023	2.3	3	13	45
CDRA03024	2.4	3	14	46
CDRA03025	2.5	3	14	46
CDRA03026	2.6	3	14	46
CDRA03027	2.7	3	16	48
CDRA03028	2.8	3	16	48
CDRA03029	2.9	3	16	48
CDRA03030	3.0	3	16	48
CDRA03031	3.1	4	18	50
CDRA03032	3.2	4	18	50
CDRA03033	3.3	4	18	50
CDRA03034	3.4	4	20	52
CDRA03035	3.5	4	20	52
CDRA03036	3.6	4	20	52
CDRA03037	3.7	4	20	52
CDRA03038	3.8	4	22	54
CDRA03039	3.9	4	22	54
CDRA03040	4.0	4	22	54

型号 EDP No. TiAlN	刃径 Drill Diameter D1	柄径 Shank Diameter D2	刃长 Flute Length L1	全长 Overall Length L2
CDRA03041	4.1	6	22	66
CDRA03042	4.2	6	22	66
CDRA03043	4.3	6	24	68
CDRA03044	4.4	6	24	68
CDRA03045	4.5	6	24	68
CDRA03046	4.6	6	24	68
CDRA03047	4.7	6	24	68
CDRA03048	4.8	6	26	70
CDRA03049	4.9	6	26	70
CDRA03050	5.0	6	26	70
CDRA03051	5.1	6	26	70
CDRA03052	5.2	6	26	70
CDRA03053	5.3	6	26	70
CDRA03054	5.4	6	28	72
CDRA03055	5.5	6	28	72
CDRA03056	5.6	6	28	72
CDRA03057	5.7	6	28	72
CDRA03058	5.8	6	28	72
CDRA03059	5.9	6	28	72
CDRA03060	6.0	6	28	72
CDRA03061	6.1	8	31	75
CDRA03062	6.2	8	31	75
CDRA03063	6.3	8	31	75
CDRA03064	6.4	8	31	75
CDRA03065	6.5	8	31	75
CDRA03066	6.6	8	31	75
CDRA03067	6.7	8	31	75
CDRA03068	6.8	8	34	78
CDRA03069	6.9	8	34	78
CDRA03070	7.0	8	34	78
CDRA03071	7.1	8	34	78

◎：优(Excellent) ○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○		◎		

MULTI-1 DRILLS

CDRA03 SERIES

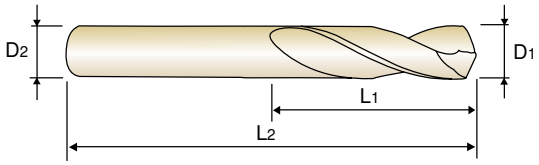
粉末高速钢 MULTI-1钻头
PREMIUM HSS-PM MULTI-1 DRILLS

超短
STUB

▶应用：适用于结构钢，碳素钢，合金钢，预硬化钢，模具钢，不锈钢，淬火钢(HRc30~45)，铸铁，铝合金，非铁金属合金
▶优点：钻顶的形状使产品具有极佳的自定心能力.
沟槽的设计使产品的排削性能更高.
使用粉末高速钢制作使产品具有更优良的韧性.

▶**Application** : Structural steels, Carbon steels, Alloy steels, Pre-hardened steels, Mold steels, stainless steels, Hardened steels(HRc30~45), Cast iron, Aluminum alloys, Nonferrous alloys.
▶**Advantage** : Point shape to maximize self-centering.
Flute design for the best chip evacuation.
Premium powder materials with excellent toughness.

up to 1.4mm over 1.4mm



PREMIUM HSS-PM | N 30° | h6 | h7 | 118° | 135° | P.120

up to 1.9mm over 1.9mm

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
CDRA03072	7.2	8	34	78
CDRA03073	7.3	8	34	78
CDRA03074	7.4	8	34	78
CDRA03075	7.5	8	34	78
CDRA03076	7.6	8	37	81
CDRA03077	7.7	8	37	81
CDRA03078	7.8	8	37	81
CDRA03079	7.9	8	37	81
CDRA03080	8.0	8	37	81
CDRA03081	8.1	10	37	87
CDRA03082	8.2	10	37	87
CDRA03083	8.3	10	37	87
CDRA03084	8.4	10	37	87
CDRA03085	8.5	10	37	87
CDRA03086	8.6	10	40	90
CDRA03087	8.7	10	40	90
CDRA03088	8.8	10	40	90
CDRA03089	8.9	10	40	90
CDRA03090	9.0	10	40	90
CDRA03091	9.1	10	40	90
CDRA03092	9.2	10	40	90
CDRA03093	9.3	10	40	90
CDRA03094	9.4	10	40	90
CDRA03095	9.5	10	40	90
CDRA03096	9.6	10	43	93
CDRA03097	9.7	10	43	93
CDRA03098	9.8	10	43	93
CDRA03099	9.9	10	43	93
CDRA03100	10.0	10	43	93
CDRA03101	10.1	12	43	100

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
CDRA03102	10.2	12	43	100
CDRA03103	10.3	12	43	100
CDRA03104	10.4	12	43	100
CDRA03105	10.5	12	43	100
CDRA03106	10.6	12	43	100
CDRA03107	10.7	12	47	104
CDRA03108	10.8	12	47	104
CDRA03109	10.9	12	47	104
CDRA03110	11.0	12	47	104
CDRA03111	11.1	12	47	104
CDRA03112	11.2	12	47	104
CDRA03113	11.3	12	47	104
CDRA03114	11.4	12	47	104
CDRA03115	11.5	12	47	104
CDRA03116	11.6	12	47	104
CDRA03117	11.7	12	47	104
CDRA03118	11.8	12	47	104
CDRA03119	11.9	12	51	108
CDRA03120	12.0	12	51	108
CDRA03121	12.1	12	51	108
CDRA03122	12.2	12	51	108
CDRA03123	12.3	12	51	108
CDRA03124	12.4	12	51	108
CDRA03125	12.5	12	51	108
CDRA03126	12.6	12	51	108
CDRA03127	12.7	12	51	108
CDRA03128	12.8	12	51	108
CDRA03129	12.9	12	51	108
CDRA03130	13.0	12	51	108

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○		◎		

MULTI-1 DRILLS

CDRA04 SERIES

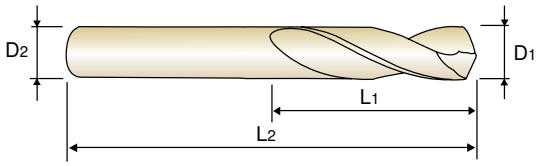
粉末高速钢 MULTI-1钻头

细长 JOBBER

PREMIUM HSS-PM MULTI-1 DRILLS

▶应用：适用于结构钢，碳素钢，合金钢，预硬化钢，模具钢，不锈钢，淬火钢(HRc30~45)，铸铁，铝合金，非铁金属合金
▶优点：钻顶的形状使产品具有极佳的自定心能力.
沟槽的设计使产品的排削性能更高.
使用粉末高速钢制作使产品具有更优良的韧性.

▶**Application** : Structural steels, Carbon steels, Alloy steels, Pre-hardened steels, Mold steels, stainless steels, Hardened steels(HRc30~45), Cast iron, Aluminum alloys, Nonferrous alloys.
▶**Advantage** : Point shape to maximize self-centering.
Flute design for the best chip evacuation.
Premium powder materials with excellent toughness.



PREMIUM HSS-PM | N 30° | h6 | h7 | 135° P.120

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
CDRA04020	2.0	3	24	56
CDRA04021	2.1	3	24	56
CDRA04022	2.2	3	25	56
CDRA04023	2.3	3	25	56
CDRA04024	2.4	3	30	61
CDRA04025	2.5	3	30	61
CDRA04026	2.6	3	30	61
CDRA04027	2.7	3	33	64
CDRA04028	2.8	3	33	64
CDRA04029	2.9	3	33	64
CDRA04030	3.0	3	33	64
CDRA04031	3.1	4	36	68
CDRA04032	3.2	4	36	68
CDRA04033	3.3	4	36	68
CDRA04034	3.4	4	39	71
CDRA04035	3.5	4	39	71
CDRA04036	3.6	4	39	71
CDRA04037	3.7	4	39	71
CDRA04038	3.8	4	43	75
CDRA04039	3.9	4	43	75
CDRA04040	4.0	4	43	75
CDRA04041	4.1	6	43	85
CDRA04042	4.2	6	43	85
CDRA04043	4.3	6	47	89
CDRA04044	4.4	6	47	89
CDRA04045	4.5	6	47	89
CDRA04046	4.6	6	47	89
CDRA04047	4.7	6	47	89

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
CDRA04048	4.8	6	52	94
CDRA04049	4.9	6	52	94
CDRA04050	5.0	6	52	94
CDRA04051	5.1	6	52	94
CDRA04052	5.2	6	52	94
CDRA04053	5.3	6	52	94
CDRA04054	5.4	6	57	99
CDRA04055	5.5	6	57	99
CDRA04056	5.6	6	57	99
CDRA04057	5.7	6	57	99
CDRA04058	5.8	6	57	99
CDRA04059	5.9	6	57	99
CDRA04060	6.0	6	57	99
CDRA04061	6.1	8	63	107
CDRA04062	6.2	8	63	107
CDRA04063	6.3	8	63	107
CDRA04064	6.4	8	63	107
CDRA04065	6.5	8	63	107
CDRA04066	6.6	8	63	107
CDRA04067	6.7	8	63	107
CDRA04068	6.8	8	69	113
CDRA04069	6.9	8	69	113
CDRA04070	7.0	8	69	113
CDRA04071	7.1	8	69	113
CDRA04072	7.2	8	69	113
CDRA04073	7.3	8	69	113
CDRA04074	7.4	8	69	113
CDRA04075	7.5	8	69	113

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○		◎		

MULTI-1 DRILLS

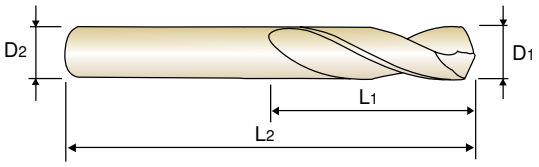
CDRA04 SERIES

粉末高速钢 MULTI-1钻头
PREMIUM HSS-PM MULTI-1 DRILLS

细长
JOBBER

▶应用：适用于结构钢，碳素钢，合金钢，预硬化钢，模具钢，不锈钢，淬火钢(HRc30~45)，铸铁，铝合金，非铁金属合金
▶优点：钻顶的形状使产品具有极佳的自定心能力.
沟槽的设计使产品的排削性能更高.
使用粉末高速钢制作使产品具有更优良的韧性.

▶Application : Structural steels, Carbon steels, Alloy steels, Pre-hardened steels, Mold steels, stainless steels, Hardened steels(HRc30~45), Cast iron, Aluminum alloys, Nonferrous alloys.
▶Advantage : Point shape to maximize self-centering.
Flute design for the best chip evacuation.
Premium powder materials with excellent toughness.



PREMIUM HSS-PM | N 30° | h6 | h7 | 135° | P.120

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
CDRA04076	7.6	8	75	119
CDRA04077	7.7	8	75	119
CDRA04078	7.8	8	75	119
CDRA04079	7.9	8	75	119
CDRA04080	8.0	8	75	119
CDRA04081	8.1	10	75	125
CDRA04082	8.2	10	75	125
CDRA04083	8.3	10	75	125
CDRA04084	8.4	10	75	125
CDRA04085	8.5	10	75	125
CDRA04086	8.6	10	81	131
CDRA04087	8.7	10	81	131
CDRA04088	8.8	10	81	131
CDRA04089	8.9	10	81	131
CDRA04090	9.0	10	81	131
CDRA04091	9.1	10	81	131
CDRA04092	9.2	10	81	131
CDRA04093	9.3	10	81	131
CDRA04094	9.4	10	81	131
CDRA04095	9.5	10	81	131
CDRA04096	9.6	10	87	137
CDRA04097	9.7	10	87	137
CDRA04098	9.8	10	87	137
CDRA04099	9.9	10	87	137
CDRA04100	10.0	10	87	137
CDRA04101	10.1	12	87	144
CDRA04102	10.2	12	87	144
CDRA04103	10.3	12	87	144

型号 EDP No.	刃径 Drill Diameter	柄径 Shank Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	D2	L1	L2
CDRA04104	10.4	12	87	144
CDRA04105	10.5	12	87	144
CDRA04106	10.6	12	87	144
CDRA04107	10.7	12	94	151
CDRA04108	10.8	12	94	151
CDRA04109	10.9	12	94	151
CDRA04110	11.0	12	94	151
CDRA04111	11.1	12	94	151
CDRA04112	11.2	12	94	151
CDRA04113	11.3	12	94	151
CDRA04114	11.4	12	94	151
CDRA04115	11.5	12	94	151
CDRA04116	11.6	12	94	151
CDRA04117	11.7	12	94	151
CDRA04118	11.8	12	94	151
CDRA04119	11.9	12	101	158
CDRA04120	12.0	12	101	158
CDRA04121	12.1	12	101	158
CDRA04122	12.2	12	101	158
CDRA04123	12.3	12	101	158
CDRA04124	12.4	12	101	158
CDRA04125	12.5	12	101	158
CDRA04126	12.6	12	101	158
CDRA04127	12.7	12	101	158
CDRA04128	12.8	12	101	158
CDRA04129	12.9	12	101	158
CDRA04130	13.0	12	101	158

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○		◎		

MULTI-1 DRILLS 推荐的切削条件 RECOMMENDED CUTTING CONDITIONS

粉末高速钢 MULTI-1钻头, TiAlN涂层
PREMIUM HSS-PM MULTI-1 DRILLS, TiAlN COATED

CDRA03 SERIES

单位(Unit) : mm

被加工材料	碳钢		合金钢 预硬钢		铸铁		铝合金 有色金属合金		型模钢, 硬化钢 (HRc30~45) 不锈钢 (SUS304, 200)		不锈钢 (SUS420, 440)	
WORK MATERIAL	CARBON STEELS		ALLOY STEELS PRE-HARDENED STEELS		CAST IRON		ALUMINUM ALLOYS NONFRERROUS ALLOYS		MOLD STEELS, HARDENED STEELS (HRc30~45) STAINLESS STEELS (SUS304, 200)		STAINLESS STEELS (SUS420, 440)	
DIAMETER	N	S	N	S	N	S	N	S	N	S	N	S
2.0	5800	0.06	4700	0.05	6500	0.08	10500	0.17	2600	0.04	3100	0.08
3.0	4300	0.12	3500	0.09	4900	0.14	10500	0.27	1800	0.05	2100	0.09
4.0	3200	0.15	2600	0.13	3600	0.18	8000	0.33	1300	0.07	1600	0.11
5.0	2600	0.18	2100	0.16	2900	0.21	6500	0.39	1050	0.09	1250	0.17
6.0	2100	0.20	1700	0.18	2400	0.25	5200	0.46	900	0.10	1050	0.19
8.0	1600	0.24	1300	0.20	1800	0.29	4200	0.51	650	0.14	800	0.26
10.0	1300	0.27	1000	0.24	1500	0.32	3400	0.61	550	0.17	630	0.33
12.0	1100	0.29	850	0.26	1200	0.36	2700	0.73	450	0.20	530	0.39

N = R.P.M
S = Feed per Revolution (mm/rev.)

粉末高速钢 MULTI-1钻头, TiAlN涂层
PREMIUM HSS-PM MULTI-1 DRILLS, TiAlN COATED

CDRA04 SERIES

单位(Unit) : mm

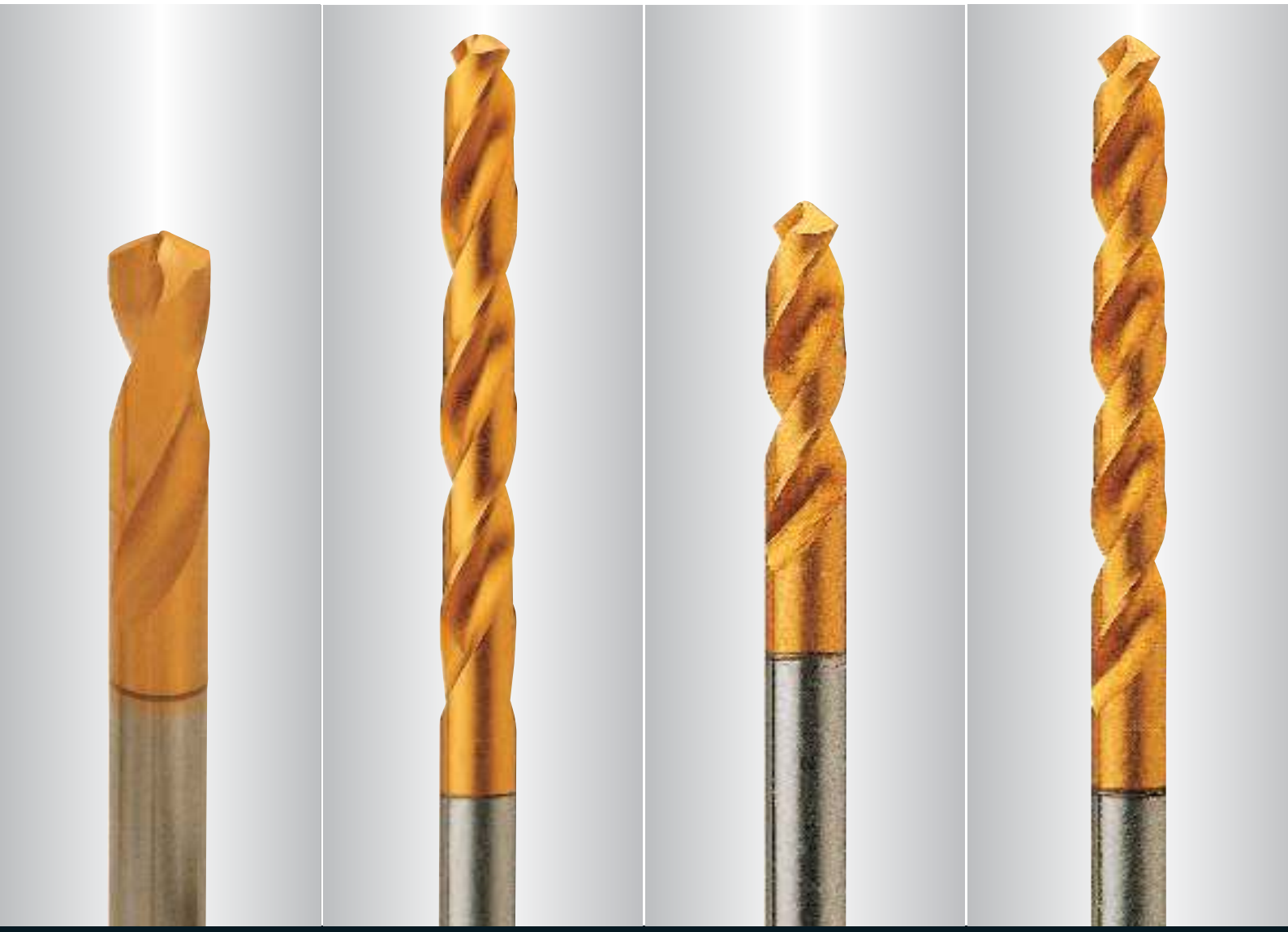
被加工材料	碳钢		合金钢 预硬钢		铸铁		铝合金 有色金属合金		型模钢, 硬化钢 (HRc30~45) 不锈钢 (SUS304, 200)		不锈钢 (SUS420, 440)	
WORK MATERIAL	CARBON STEELS		ALLOY STEELS PRE-HARDENED STEELS		CAST IRON		ALUMINUM ALLOYS NONFRERROUS ALLOYS		MOLD STEELS, HARDENED STEELS (HRc30~45) STAINLESS STEELS (SUS304, 200)		STAINLESS STEELS (SUS420, 440)	
DIAMETER	N	S	N	S	N	S	N	S	N	S	N	S
2.0	5800	0.05	4700	0.04	6500	0.07	10500	0.14	2600	0.03	3100	0.07
3.0	4300	0.10	3500	0.08	4900	0.12	10500	0.23	1800	0.04	2100	0.08
4.0	3200	0.13	2600	0.11	3600	0.15	8000	0.28	1300	0.06	1600	0.09
5.0	2600	0.15	2100	0.14	2900	0.18	6500	0.33	1050	0.08	1250	0.14
6.0	2100	0.17	1700	0.15	2400	0.21	5200	0.39	900	0.09	1050	0.16
8.0	1600	0.20	1300	0.17	1800	0.25	4200	0.43	650	0.12	800	0.22
10.0	1300	0.23	1000	0.20	1500	0.27	3400	0.52	550	0.14	630	0.28
12.0	1100	0.25	850	0.22	1200	0.31	2700	0.62	450	0.17	530	0.33

N = R.P.M
S = Feed per Revolution (mm/rev.)

HSS

YG

Being the best through innovation



HPD DRILLS

高级的高速钢HPD直柄钻
普通钢和不锈钢

PREMIUM HSS HPD STRAIGHT SHANK DRILLS
General Steels and Stainless Steels

HPD-高性能钻头

HPD 钻头可以在普通钢上进行高精度钻孔.
HPD 不锈钢用钻头可以在不锈钢上进行高精度钻孔

项目 ITEM	型号 MODEL	规格 DESCRIPTION		尺寸 SIZE 最小 MIN	尺寸 SIZE 最大 MAX	页 PAGE
D4541		含钴优质高速钢，钢用HPD麻花钻头 PREMIUM HSS COBALT, HPD TWIST DRILLS for STEELS	超短 *STUB*	D2.0	D13.0	124
D4542		含钴优质高速钢，钢用HPD麻花钻头 PREMIUM HSS COBALT, HPD TWIST DRILLS for STEELS	细长 *JOBBER*	D2.0	D32.0	128
DJ543		HSS-EX, 不锈钢用HPD-SUS麻花钻头 HSS-EX, HPD-SUS DRILLS for STAINLESS STEELS	超短 *STUB*	D2.0	D13.0	133
DJ544		HSS-EX, 不锈钢用HPD-SUS麻花钻头 HSS-EX, HPD-SUS DRILLS for STAINLESS STEELS	细长 *JOBBER*	D2.0	D20.0	135
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS				138

HPD - HIGH PERFORMANCE DRILLS

HPD Drills for High precision drilling in general steels.
HPD-SUS Drills for High precision drilling in Stainless steels

◎ : 优(Excellent)
○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		铸铁	铝	不锈钢	钛	低碳钢	铜	青铜
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○	○			
◎	◎	○			○	○	○	○			
◎						○	◎	○	○	○	
◎						○	◎	○	○	○	

HPD DRILLS

D4541 SERIES

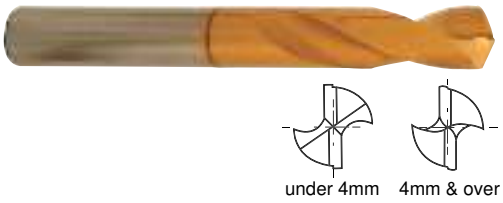
含钴优质高速钢，钢用HPD麻花钻头

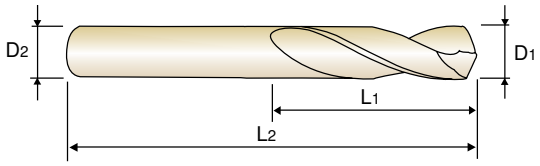
超短 STUB

PREMIUM HSS COBALT, HPD TWIST DRILLS for STEELS

▶ 应用：用于NC/CNC机床上的精密孔加工，可加工高硬度高韧性材料，合金工具钢，镍铬合金，镍钼合金，铸铁，铸铝等.
▶ 优点：横刃修磨成P型，提高了排屑性能，具有自定心功能，减少了切削力，提高了加工的精度.
强化型钻芯和短刃，增强了刚性 减少了加工时的振动和偏心
优质含钴高速钢加超级TiN涂层，适用于更高的转速和进给速度，提高了钻头的使用寿命.
加工表面光洁度好，加工效率高.

▶ **Application** : Designed for accurate drilling on NC/CNC machines. Drilling hard and tough materials, alloyed tool steels, inconel, nimonic, cast iron, aluminum die casting, etc.
▶ **Advantage** : Helical thinning - good chip removal, self-centering, reducing thrust and improving accuracy.
Reinforced web and stub length - increasing rigidity, reducing vibration and deflection.
Premium Cobalt HSS with superior TiN coating - higher speed and feed, longer tool life
High quality & good surface finish, high productivity





PREMIUM HSS-Co | N 25° | h7 | h8 | 130° | P.138

$D_1 = D_2$

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length	型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length
TiN	D_1	L_1	L_2	TiN	D_1	L_1	L_2
D4541020	2.0	12	44	D4541032	3.2	18	50
D4541920	2.05	12	44	D4541932	3.25	18	50
D4541021	2.1	12	44	D4541033	3.3	18	50
D4541921	2.15	13	45	D4541933	3.35	18	50
D4541022	2.2	13	45	D4541034	3.4	20	52
D4541922	2.25	13	45	D4541934	3.45	20	52
D4541023	2.3	13	45	D4541035	3.5	20	52
D4541923	2.35	13	45	D4541935	3.55	20	52
D4541024	2.4	14	46	D4541036	3.6	20	52
D4541924	2.45	14	46	D4541936	3.65	20	52
D4541025	2.5	14	46	D4541037	3.7	20	52
D4541925	2.55	14	46	D4541937	3.75	20	52
D4541026	2.6	14	46	D4541038	3.8	22	54
D4541926	2.65	14	46	D4541938	3.85	22	54
D4541027	2.7	16	48	D4541039	3.9	22	54
D4541927	2.75	16	48	D4541939	3.95	22	54
D4541028	2.8	16	48	D4541040	4.0	22	54
D4541928	2.85	16	48	D4541940	4.05	22	66
D4541029	2.9	16	48	D4541041	4.1	22	66
D4541929	2.95	16	48	D4541941	4.15	22	66
D4541030	3.0	16	48	D4541042	4.2	22	66
D4541930	3.05	18	50	D4541942	4.25	22	66
D4541031	3.1	18	50	D4541043	4.3	24	68
D4541931	3.15	18	50	D4541943	4.35	24	68

▶ TiCN (D7541), TiAlN (DQ541)可根据客户需求进行加工
TiCN(D7541), TiAlN(DQ541) are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		铸铁	铝	不锈钢	钛	低碳钢	铜	青铜
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○	○			

HPD DRILLS

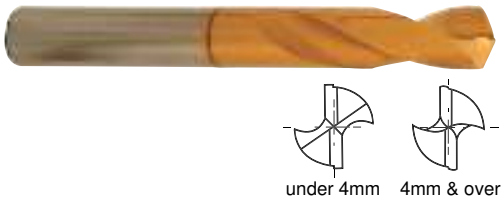
D4541 SERIES

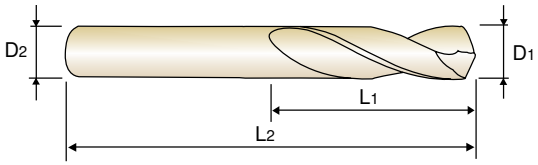
含钴优质高速钢，钢用HPD麻花钻头
PREMIUM HSS COBALT, HPD TWIST DRILLS for STEELS

超短 **STUB**

▶应用：用于NC/CNC机床上的精密孔加工，可加工高硬度高韧性材料，合金工具钢，镍铬合金，镍钼合金，铸铁，铸铝等.
▶优点：横刃修磨成R型，提高了排屑性能，具有自定心功能，减少了切削力，提高了加工的精度.
强化型钻芯和短刃，增强了刚性 减少了加工时的振动和偏心
优质含钴高速钢加超级TiN涂层，适用于更高的转速和进给速度，提高了钻头的使用寿命.
加工表面光洁度好，加工效率高.

▶**Application** : Designed for accurate drilling on NC/CNC machines. Drilling hard and tough materials, alloyed tool steels, inconel, nimonic, cast iron, aluminum die casting, etc.
▶**Advantage** : Helical thinning - good chip removal, self-centering, reducing thrust and improving accuracy.
Reinforced web and stub length - increasing rigidity, reducing vibration and deflection.
Premium Cobalt HSS with superior TiN coating - higher speed and feed, longer tool life
High quality & good surface finish, high productivity





PREMIUM HSS-Co | N 25° | h7 | h8 | 130° | P.138

$D_1 = D_2$

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length	型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length
TiN	D_1	L_1	L_2	TiN	D_1	L_1	L_2
D4541044	4.4	24	68	D4541056	5.6	28	72
D4541944	4.45	24	68	D4541956	5.65	28	72
D4541045	4.5	24	68	D4541057	5.7	28	72
D4541945	4.55	24	68	D4541957	5.75	28	72
D4541046	4.6	24	68	D4541058	5.8	28	72
D4541946	4.65	24	68	D4541958	5.85	28	72
D4541047	4.7	24	68	D4541059	5.9	28	72
D4541947	4.75	24	68	D4541959	5.95	28	72
D4541048	4.8	26	70	D4541060	6.0	28	72
D4541948	4.85	26	70	D4541061	6.1	31	75
D4541049	4.9	26	70	D4541062	6.2	31	75
D4541949	4.95	26	70	D4541063	6.3	31	75
D4541050	5.0	26	70	D4541064	6.4	31	75
D4541950	5.05	26	70	D4541065	6.5	31	75
D4541051	5.1	26	70	D4541965	6.55	31	75
D4541951	5.15	26	70	D4541066	6.6	31	75
D4541052	5.2	26	70	D4541966	6.65	31	75
D4541952	5.25	26	70	D4541067	6.7	31	75
D4541053	5.3	26	70	D4541068	6.8	34	78
D4541953	5.35	28	72	D4541069	6.9	34	78
D4541054	5.4	28	72	D4541070	7.0	34	78
D4541954	5.45	28	72	D4541071	7.1	34	78
D4541055	5.5	28	72	D4541072	7.2	34	78
D4541955	5.55	28	72	D4541073	7.3	34	78

▶ TiCN (D7541), TiAlN (DQ541) 可根据客户需求进行加工
TiCN(D7541), TiAlN(DQ541) are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○	○			

HPD DRILLS

D4541 SERIES

含钴优质高速钢，钢用HPD麻花钻头

超短 STUB

PREMIUM HSS COBALT, HPD TWIST DRILLS for STEELS

▶ 应用：用于NC/CNC机床上的精密孔加工，可加工高硬度高韧性材料，合金工具钢，镍铬合金，镍钼合金，铸铁，铸铝等.
▶ 优点：横刃修磨成P型，提高了排屑性能，具有自定心功能，减少了切削力，提高了加工的精度.
强化型钻芯和短刃，增强了刚性 减少了加工时的振动和偏心
优质含钴高速钢加超级TiN涂层，适用于更高的转速和进给速度，提高了钻头的使用寿命.
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▶ **Advantage** : Helical thinning - good chip removal, self-centering, reducing thrust and improving accuracy.
Reinforced web and stub length - increasing rigidity, reducing vibration and deflection.
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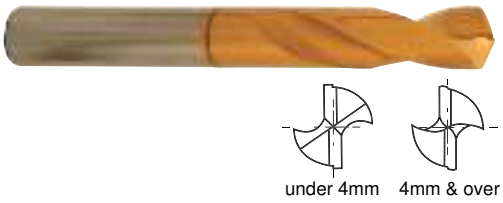
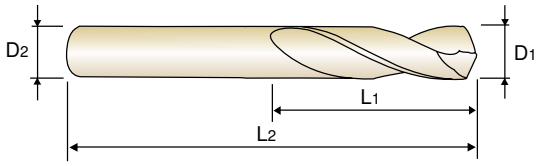
High quality & good surface finish, high productivity





PREMIUM HSS-Co | N 25° | h7 | h8 | 130° P.138

$D_1 = D_2$

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length	型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length
TiN	D_1	L_1	L_2	TiN	D_1	L_1	L_2
D4541973	7.35	34	78	D4541092	9.2	40	90
D4541074	7.4	34	78	D4541992	9.25	40	90
D4541075	7.5	34	78	D4541093	9.3	40	90
D4541975	7.55	37	81	D4541993	9.35	40	90
D4541076	7.6	37	81	D4541094	9.4	40	90
D4541976	7.65	37	81	D4541994	9.45	40	90
D4541077	7.7	37	81	D4541095	9.5	40	90
D4541078	7.8	37	81	D4541995	9.55	43	93
D4541079	7.9	37	81	D4541096	9.6	43	93
D4541080	8.0	37	81	D4541996	9.65	43	93
D4541081	8.1	37	87	D4541097	9.7	43	93
D4541082	8.2	37	87	D4541098	9.8	43	93
D4541083	8.3	37	87	D4541099	9.9	43	93
D4541983	8.35	37	87	D4541999	9.95	43	93
D4541084	8.4	37	87	D4541100	10.0	43	93
D4541085	8.5	37	87	D4541101	10.1	43	100
D4541985	8.55	40	90	D4541102	10.2	43	100
D4541086	8.6	40	90	D4541802	10.25	43	100
D4541986	8.65	40	90	D4541103	10.3	43	100
D4541087	8.7	40	90	D4541803	10.35	43	100
D4541088	8.8	40	90	D4541104	10.4	43	100
D4541089	8.9	40	90	D4541105	10.5	43	100
D4541090	9.0	40	90	D4541805	10.55	43	100
D4541091	9.1	40	90	D4541106	10.6	43	100

▶ TiCN (D7541), TiAlN (DQ541) 可根据客户需求进行加工
TiCN(D7541), TiAlN(DQ541) are available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○	○			

HPD DRILLS

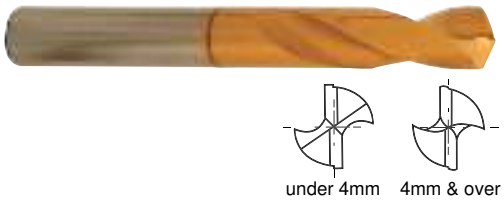
D4541 SERIES

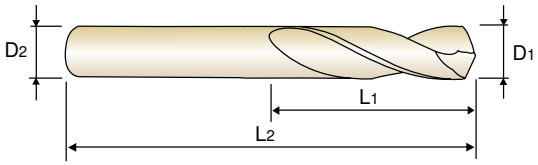
含钴优质高速钢，钢用HPD麻花钻头
PREMIUM HSS COBALT, HPD TWIST DRILLS for STEELS

超短 STUB

▶应用：用于NC/CNC机床上的精密孔加工，可加工高硬度高韧性材料，合金工具钢，镍铬合金，镍钼合金，铸铁，铸铝等.
▶优点：横刃修磨成R型，提高了排屑性能，具有自定心功能，减少了切削力，提高了加工的精度.
强化型钻芯和短刃，增强了刚性 减少了加工时的振动和偏心
优质含钴高速钢加超级TiN涂层，适用于更高的转速和进给速度，提高了钻头的使用寿命.
加工表面光洁度好，加工效率高.

▶**Application** : Designed for accurate drilling on NC/CNC machines. Drilling hard and tough materials, alloyed tool steels, inconel, nimonic, cast iron, aluminum die casting, etc.
▶**Advantage** : Helical thinning - good chip removal, self-centering, reducing thrust and improving accuracy.
Reinforced web and stub length - increasing rigidity, reducing vibration and deflection.
Premium Cobalt HSS with superior TiN coating - higher speed and feed, longer tool life
High quality & good surface finish, high productivity





PREMIUM HSS-Co | N 25° | h7 | h8 | 130° | P.138

$D_1 = D_2$

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length	型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length
TiN	D_1	L_1	L_2	TiN	D_1	L_1	L_2
D4541806	10.65	47	104	D4541117	11.7	47	104
D4541107	10.7	47	104	D4541118	11.8	47	104
D4541108	10.8	47	104	D4541119	11.9	51	108
D4541109	10.9	47	104	D4541120	12.0	51	108
D4541809	10.95	47	104	D4541121	12.1	51	108
D4541110	11.0	47	104	D4541122	12.2	51	108
D4541111	11.1	47	104	D4541123	12.3	51	108
D4541112	11.2	47	104	D4541124	12.4	51	108
D4541812	11.25	47	104	D4541125	12.5	51	108
D4541113	11.3	47	104	D4541126	12.6	51	108
D4541813	11.35	47	104	D4541127	12.7	51	108
D4541114	11.4	47	104	D4541128	12.8	51	108
D4541115	11.5	47	104	D4541129	12.9	51	108
D4541815	11.55	47	104	D4541130	13.0	51	108
D4541116	11.6	47	104				

▶ TiCN (D7541), TiAlN (DQ541) 可根据客户需求进行加工
TiCN(D7541), TiAlN(DQ541) are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○	○			

HPD DRILLS

D4542 SERIES

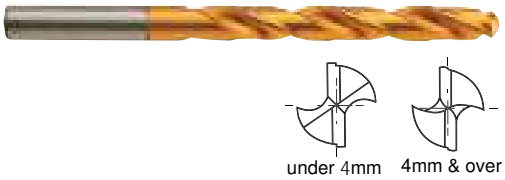
含钴优质高速钢，钢用HPD麻花钻头

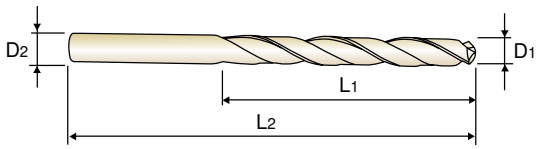
PREMIUM HSS COBALT, HPD TWIST DRILLS for STEELS

细长 JOBBER

▶ 应用：用于4-5倍孔径的高速钻削，适用于低碳钢，铸铁，铝，合金工具钢等材料.
▶ 优点：横刃修磨成P型，提高了排屑性能，具有自定心功能，减少了切削力，提高了加工的精度.
强化型钻芯和细长，增强了刚性，适合于4-5倍孔径的钻削.
优质含钴高速钢加超级TiN涂层，适用于更高的转速和进给速度，提高了钻头的使用寿命.
加工表面光洁度好，加工效率高.

▶ **Application** : Designed for high speed non-step 4D ~ 5D drilling.
Drilling mild steels, cast iron, aluminum, alloyed tool steels, etc.
▶ **Advantage** : Helical thinning - good chip removal, self-centering, reducing thrust and improving accuracy.
Reinforced web and jobbers length - increasing rigidity and suitable for 4D~5D drilling
Premium Cobalt HSS with superior TiN coating - higher speed and feed, longer tool life
High quality & good surface finish, high productivity.





PREMIUM HSS-Co | N 30° | h7 | h6 | h8 | 130°

up to 13mm over 13mm

P.138

$D_1 = D_2$

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length	型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length
TiN	D_1	L_1	L_2	TiN	D_1	L_1	L_2
D4542020	2.0	124	56	D4542932	3.25	36	68
D4542920	2.05	24	56	D4542033	3.3	36	68
D4542021	2.1	24	56	D4542933	3.35	36	68
D4542921	2.15	27	59	D4542034	3.4	39	71
D4542022	2.2	27	59	D4542934	3.45	39	71
D4542922	2.25	27	59	D4542035	3.5	39	71
D4542023	2.3	27	59	D4542935	3.55	39	71
D4542923	2.35	27	59	D4542036	3.6	39	71
D4542024	2.4	30	62	D4542936	3.65	39	71
D4542924	2.45	30	62	D4542037	3.7	39	71
D4542025	2.5	30	62	D4542937	3.75	39	71
D4542925	2.55	30	62	D4542038	3.8	43	75
D4542026	2.6	30	62	D4542938	3.85	43	75
D4542926	2.65	30	62	D4542039	3.9	43	75
D4542027	2.7	33	65	D4542939	3.95	43	75
D4542927	2.75	33	65	D4542040	4.0	43	75
D4542028	2.8	33	65	D4542940	4.05	43	87
D4542928	2.85	33	65	D4542041	4.1	43	87
D4542029	2.9	33	65	D4542941	4.15	43	87
D4542929	2.95	33	65	D4542042	4.2	43	87
D4542030	3.0	33	65	D4542942	4.25	43	87
D4542930	3.05	36	68	D4542043	4.3	47	91
D4542031	3.1	36	68	D4542943	4.35	47	91
D4542931	3.15	36	68	D4542044	4.4	47	91
D4542032	3.2	36	68	D4542944	4.45	47	91

▶ TiCN (D7542), TiAlN (DQ542) 可根据客户需求进行加工
TiCN(D7542), TiAlN(DQ542) are available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		铸铁	铝	不锈钢	钛	低碳钢	铜	青铜
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○	○			

HPD DRILLS

D4542 SERIES

含钴优质高速钢，钢用HPD麻花钻头

PREMIUM HSS COBALT, HPD TWIST DRILLS for STEELS

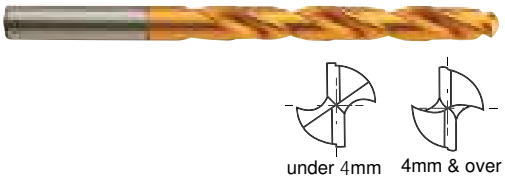
细长 *JOBBER*

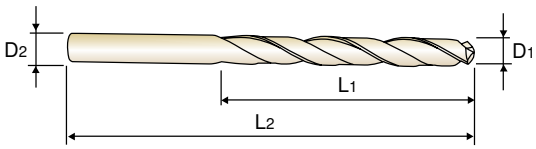
▶应用：用于4-5倍孔径的高速钻削，适用于低碳钢，铸铁，铝，合金工具钢等材料.

▶优点：横刃修磨成R型，提高了排屑性能，具有自定心功能，减少了切削力，提高了加工的精度.
强化型钻芯和细长，增强了刚性，适合于4-5倍孔径的钻削.
优质含钴高速钢加超级TiN涂层，适用于更高的转速和进给速度，提高了钻头的使用寿命.
加工表面光洁度好，加工效率高.

▶**Application** : Designed for high speed non-step 4D ~ 5D drilling. Drilling mild steels, cast iron, aluminum, alloyed tool steels, etc.

▶**Advantage** : Helical thinning - good chip removal, self-centering, reducing thrust and improving accuracy.
Reinforced web and jobbers length - increasing rigidity and suitable for 4D~5D drilling
Premium Cobalt HSS with superior TiN coating - higher speed and feed, longer tool life
High quality & good surface finish, high productivity.





PREMIUM HSS-Co | N 30° | h7 | h6 | h8 | 130° | P.138

up to 13mm over 13mm

$D_1 = D_2$

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length	型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length
TiN	D_1	L_1	L_2	TiN	D_1	L_1	L_2
D4542045	4.5	47	91	D4542957	5.75	57	101
D4542945	4.55	47	91	D4542058	5.8	57	101
D4542046	4.6	47	91	D4542958	5.85	57	101
D4542946	4.65	47	91	D4542059	5.9	57	101
D4542047	4.7	47	91	D4542959	5.95	57	101
D4542947	4.75	47	91	D4542060	6.0	57	101
D4542048	4.8	52	96	D4542960	6.05	63	107
D4542948	4.85	52	96	D4542061	6.1	63	107
D4542049	4.9	52	96	D4542961	6.15	63	107
D4542949	4.95	52	96	D4542062	6.2	63	107
D4542050	5.0	52	96	D4542962	6.25	63	107
D4542950	5.05	52	96	D4542063	6.3	63	107
D4542051	5.1	52	96	D4542963	6.35	63	107
D4542951	5.15	52	96	D4542064	6.4	63	107
D4542052	5.2	52	96	D4542964	6.45	63	107
D4542952	5.25	52	96	D4542065	6.5	63	107
D4542053	5.3	52	96	D4542965	6.55	63	107
D4542953	5.35	57	101	D4542066	6.6	63	107
D4542054	5.4	57	101	D4542966	6.65	63	107
D4542954	5.45	57	101	D4542067	6.7	63	107
D4542055	5.5	57	101	D4542967	6.75	69	113
D4542955	5.55	57	101	D4542068	6.8	69	113
D4542056	5.6	57	101	D4542968	6.85	69	113
D4542956	5.65	57	101	D4542069	6.9	69	113
D4542057	5.7	57	101	D4542969	6.95	69	113

▶ TiCN (D7542), TiAlN (DQ542) 可根据客户需求进行加工
TiCN(D7542), TiAlN(DQ542) are available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○	○			

HPD DRILLS

D4542 SERIES

含钴优质高速钢，钢用HPD麻花钻头

PREMIUM HSS COBALT, HPD TWIST DRILLS for STEELS

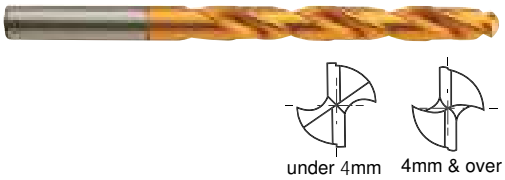
细长 JOBBER

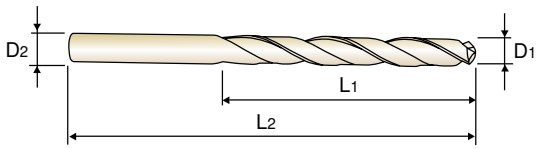
▶ 应用：用于4-5倍孔径的高速钻削，适用于低碳钢，铸铁，铝，合金工具钢等材料.

▶ 优点：横刃修磨成P型，提高了排屑性能，具有自定心功能，减少了切削力，提高了加工的精度.
强化型钻芯和细长，增强了刚性，适合于4-5倍孔径的钻削.
优质含钴高速钢加超级TiN涂层，适用于更高的转速和进给速度，提高了钻头的使用寿命.
加工表面光洁度好，加工效率高.

▶ **Application** : Designed for high speed non-step 4D ~ 5D drilling.
Drilling mild steels, cast iron, aluminum, alloyed tool steels, etc.

▶ **Advantage** : Helical thinning - good chip removal, self-centering, reducing thrust and improving accuracy.
Reinforced web and jobbers length - increasing rigidity and suitable for 4D~5D drilling
Premium Cobalt HSS with superior TiN coating - higher speed and feed, longer tool life
High quality & good surface finish, high productivity.





PREMIUM HSS-Co | N 30° | h7 | h6 | h8 | 130°

up to 13mm over 13mm

P.138

$D_1 = D_2$

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length	型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length
TiN	D_1	L_1	L_2	TiN	D_1	L_1	L_2
D4542070	7.0	69	113	D4542982	8.25	75	125
D4542970	7.05	69	113	D4542083	8.3	75	125
D4542071	7.1	69	113	D4542983	8.35	75	125
D4542971	7.15	69	113	D4542084	8.4	75	125
D4542072	7.2	69	113	D4542984	8.45	75	125
D4542972	7.25	69	113	D4542085	8.5	75	125
D4542073	7.3	69	113	D4542985	8.55	81	131
D4542973	7.35	69	113	D4542086	8.6	81	131
D4542074	7.4	69	113	D4542986	8.65	81	131
D4542974	7.45	69	113	D4542087	8.7	81	131
D4542075	7.5	69	113	D4542987	8.75	81	131
D4542975	7.55	75	119	D4542088	8.8	81	131
D4542076	7.6	75	119	D4542988	8.85	81	131
D4542976	7.65	75	119	D4542089	8.9	81	131
D4542077	7.7	75	119	D4542989	8.95	81	131
D4542977	7.75	75	119	D4542090	9.0	81	131
D4542078	7.8	75	119	D4542990	9.05	81	131
D4542978	7.85	75	119	D4542091	9.1	81	131
D4542079	7.9	75	119	D4542991	9.15	81	131
D4542979	7.95	75	119	D4542092	9.2	81	131
D4542080	8.0	75	119	D4542992	9.25	81	131
D4542980	8.05	75	125	D4542093	9.3	81	131
D4542081	8.1	75	125	D4542993	9.35	81	131
D4542981	8.15	75	125	D4542094	9.4	81	131
D4542082	8.2	75	125	D4542994	9.45	81	131

▶ TiCN (D7542), TiAlN (DQ542) 可根据客户需求进行加工
TiCN(D7542), TiAlN(DQ542) are available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		铸铁	铝	不锈钢	钛	低碳钢	铜	青铜
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○	○			

HPD DRILLS

D4542 SERIES

含钴优质高速钢，钢用HPD麻花钻头

PREMIUM HSS COBALT, HPD TWIST DRILLS for STEELS

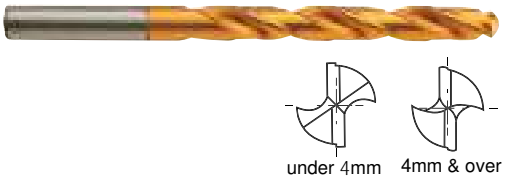
细长 *JOBBER*

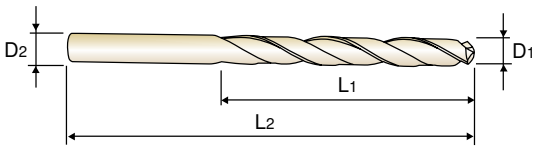
▶应用：用于4-5倍孔径的高速钻削，适用于低碳钢，铸铁，铝，合金工具钢等材料.

▶优点：横刃修磨成R型，提高了排屑性能，具有自定心功能，减少了切削力，提高了加工的精度.
强化型钻芯和细长，增强了刚性，适合于4-5倍孔径的钻削.
优质含钴高速钢加超级TiN涂层，适用于更高的转速和进给速度，提高了钻头的使用寿命.
加工表面光洁度好，加工效率高.

▶**Application** : Designed for high speed non-step 4D ~ 5D drilling. Drilling mild steels, cast iron, aluminum, alloyed tool steels, etc.

▶**Advantage** : Helical thinning - good chip removal, self-centering, reducing thrust and improving accuracy.
Reinforced web and jobbers length - increasing rigidity and suitable for 4D~5D drilling
Premium Cobalt HSS with superior TiN coating - higher speed and feed, longer tool life
High quality & good surface finish, high productivity.





PREMIUM HSS-Co | N 30° | h7 | h6 | h8 | 130° | P.138

up to 13mm over 13mm

$D_1 = D_2$

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length	型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length
TiN	D_1	L_1	L_2	TiN	D_1	L_1	L_2
D4542095	9.5	81	131	D4542807	10.75	94	151
D4542995	9.55	87	137	D4542108	10.8	94	151
D4542096	9.6	87	137	D4542808	10.85	94	151
D4542996	9.65	87	137	D4542109	10.9	94	151
D4542097	9.7	87	137	D4542809	10.95	94	151
D4542997	9.75	87	137	D4542110	11.0	94	151
D4542098	9.8	87	137	D4542810	11.05	94	151
D4542998	9.85	87	137	D4542111	11.1	94	151
D4542099	9.9	87	137	D4542811	11.15	94	151
D4542999	9.95	87	137	D4542112	11.2	94	151
D4542100	10.0	87	137	D4542812	11.25	94	151
D4542800	10.05	87	144	D4542113	11.3	94	151
D4542101	10.1	87	144	D4542813	11.35	94	151
D4542801	10.15	87	144	D4542114	11.4	94	151
D4542102	10.2	87	144	D4542814	11.45	94	151
D4542802	10.25	87	144	D4542115	11.5	94	151
D4542103	10.3	87	144	D4542815	11.55	94	151
D4542803	10.35	87	144	D4542116	11.6	94	151
D4542104	10.4	87	144	D4542816	11.65	94	151
D4542804	10.45	87	144	D4542117	11.7	94	151
D4542105	10.5	87	144	D4542817	11.75	94	151
D4542805	10.55	87	144	D4542118	11.8	94	151
D4542106	10.6	87	144	D4542818	11.85	101	158
D4542806	10.65	94	151	D4542119	11.9	101	158
D4542107	10.7	94	151	D4542819	11.95	101	158

▶ TiCN (D7542), TiAlN (DQ542) 可根据客户需求进行加工
TiCN(D7542), TiAlN(DQ542) are available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○	○			

HPD DRILLS

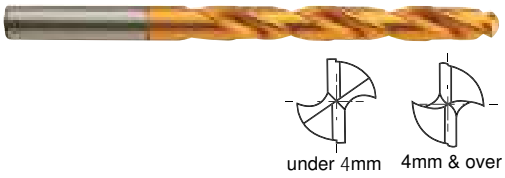
D4542 SERIES

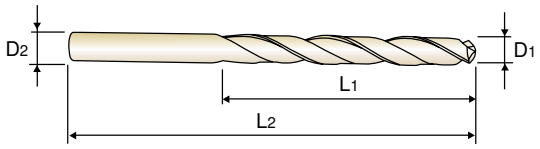
含钴优质高速钢，钢用HPD麻花钻头
PREMIUM HSS COBALT, HPD TWIST DRILLS for STEELS

细长 JOBBER

▶ 应用：用于4-5倍孔径的高速钻削，适用于低碳钢，铸铁，铝，合金工具钢等材料.
▶ 优点：横刃修磨成P型，提高了排屑性能，具有自定心功能，减少了切削力，提高了加工的精度.
强化型钻芯和细长，增强了刚性，适合于4-5倍孔径的钻削.
优质含钴高速钢加超级TiN涂层，适用于更高的转速和进给速度，提高了钻头的使用寿命.
加工表面光洁度好，加工效率高.

▶ **Application** : Designed for high speed non-step 4D ~ 5D drilling.
Drilling mild steels, cast iron, aluminum, alloyed tool steels, etc.
▶ **Advantage** : Helical thinning - good chip removal, self-centering, reducing thrust and improving accuracy.
Reinforced web and jobbers length - increasing rigidity and suitable for 4D~5D drilling
Premium Cobalt HSS with superior TiN coating - higher speed and feed, longer tool life
High quality & good surface finish, high productivity.





PREMIUM HSS-Co | N 30° | h7 | h6 | h8 | 130° | P.138

up to 13mm over 13mm

$D_1 = D_2$

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length	型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length
TiN	D_1	L_1	L_2	TiN	D_1	L_1	L_2
D4542120	12.0	101	158	D4542190	19.0	118	194
D4542121	12.1	101	158	D4542195	19.5	125	201
D4542122	12.2	101	158	D4542196	19.6	125	201
D4542123	12.3	101	158	D4542200	20.0	125	201
D4542124	12.4	101	158	D4542205	20.5	128	204
D4542125	12.5	101	158	D4542210	21.0	128	204
D4542126	12.6	101	158	D4542211	21.1	128	204
D4542127	12.7	101	158	D4542215	21.5	132	208
D4542128	12.8	101	158	D4542220	22.0	132	208
D4542129	12.9	101	158	D4542225	22.5	136	212
D4542130	13.0	101	158	D4542230	23.0	136	212
D4542135	13.5	90	150	D4542235	23.5	136	212
D4542140	14.0	90	150	D4542240	24.0	140	220
D4542141	14.1	95	155	D4542245	24.5	140	220
D4542145	14.5	95	155	D4542250	25.0	140	220
D4542150	15.0	95	161	D4542255	25.5	145	225
D4542155	15.5	100	166	D4542260	26.0	145	225
D4542156	15.6	100	166	D4542265	26.5	145	225
D4542160	16.0	100	166	D4542270	27.0	150	230
D4542165	16.5	106	172	D4542280	28.0	150	230
D4542170	17.0	106	172	D4542290	29.0	155	235
D4542175	17.5	112	178	D4542300	30.0	155	235
D4542176	17.6	112	178	D4542310	31.0	160	240
D4542180	18.0	112	178	D4542320	32.0	165	245
D4542185	18.5	118	184				

▶ TiCN (D7542), TiAlN (DQ542) 可根据客户需求进行加工
TiCN(D7542), TiAlN(DQ542) are available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○	○			

HPD DRILLS

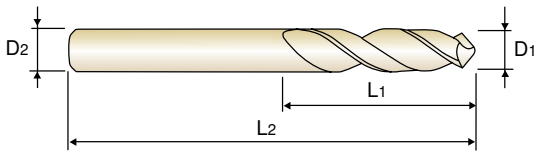
DJ543 SERIES

HSS-EX, 不锈钢用HPD-SUS麻花钻头
HSS-EX, HPD-SUS TWIST DRILLS for STAINLESS STEELS

超短 STUB

▶应用：适用于不锈钢，低碳钢，铝，铝合金，铸铝，铜，铜合金等材料
▶优点：高螺旋角及锋利的切削力，避免了积屑瘤的产生，适用于高性能钻孔.
宽槽和短刃增强了排屑性能,减少了加工时的振动和摆动.
高轨高速钢材料加超级TiN涂层，适用于更高的转速和进给速度，提高了钻头的使用寿命.
加工表面光洁度好，加工效率高.

▶**Application** : Designed for drilling stainless steels, mild steels, aluminum, aluminum alloys, aluminum die casting, copper, copper alloys, etc.
▶**Advantage** : High helix-sharp cutting edges to avoid built-up and to be suitable for high performance drilling
Wide flute and stub length-increasing chip removal and reducing vibration and deflecton.
High vanadium HSS-EX material with superior TiN coating - higher speed and feed, longer tool life
High quality & good surface finish, high productivity.



for STAINLESS STEELS

HSS EX | W 38° | h7 | h8 | 130° | 120° | P.138

up to 4mm over 4mm

$D_1=D_2$

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length	型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length
TiN	D_1	L_1	L_2	TiN	D_1	L_1	L_2
DJ543020	2.0	12	44	DJ543048	4.8	26	70
DJ543021	2.1	12	44	DJ543049	4.9	26	70
DJ543022	2.2	13	45	DJ543050	5.0	26	70
DJ543023	2.3	13	45	DJ543051	5.1	26	70
DJ543024	2.4	14	46	DJ543052	5.2	26	70
DJ543025	2.5	14	46	DJ543053	5.3	26	70
DJ543026	2.6	14	46	DJ543054	5.4	28	72
DJ543027	2.7	16	48	DJ543055	5.5	28	72
DJ543028	2.8	16	48	DJ543056	5.6	28	72
DJ543029	2.9	16	48	DJ543057	5.7	28	72
DJ543030	3.0	16	48	DJ543058	5.8	28	72
DJ543031	3.1	18	50	DJ543059	5.9	28	72
DJ543032	3.2	18	50	DJ543060	6.0	28	72
DJ543033	3.3	18	50	DJ543061	6.1	31	75
DJ543034	3.4	20	52	DJ543062	6.2	31	75
DJ543035	3.5	20	52	DJ543063	6.3	31	75
DJ543036	3.6	20	52	DJ543064	6.4	31	75
DJ543037	3.7	20	52	DJ543065	6.5	31	75
DJ543038	3.8	22	54	DJ543066	6.6	31	75
DJ543039	3.9	22	54	DJ543067	6.7	31	75
DJ543040	4.0	22	54	DJ543068	6.8	34	78
DJ543041	4.1	22	66	DJ543069	6.9	34	78
DJ543042	4.2	22	66	DJ543070	7.0	34	78
DJ543043	4.3	24	68	DJ543071	7.1	34	78
DJ543044	4.4	24	68	DJ543072	7.2	34	78
DJ543045	4.5	24	68	DJ543073	7.3	34	78
DJ543046	4.6	24	68	DJ543074	7.4	34	78
DJ543047	4.7	24	68	DJ543075	7.5	34	78

▶ TiCN (DW543), TiAlN (DY543) 可根据客户需求进行加工
TiCN(DW543), TiAlN(DY543) are available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎						○	◎	○	○	○	

HPD DRILLS

DJ543 SERIES

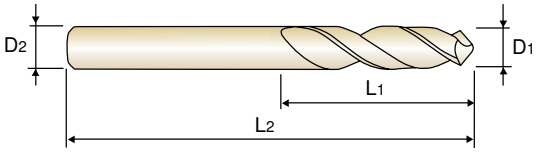
HSS-EX, 不锈钢用HPD-SUS麻花钻头
HSS-EX, HPD-SUS TWIST DRILLS for STAINLESS STEELS

超短 STUB

▶ 应用：适用于不锈钢，低碳钢，铝，铝合金，铸铝，铜，铜合金等材料
▶ 优点：高螺旋角及锋利的切削力，避免了积屑瘤的产生，适用于高性能钻孔.
宽槽和短刃增强了排屑性能,减少了加工时的振动和摆动
高钒高速钢材料加超级TiN涂层，适用于更高的转速和进给速度，提高了钻头的使用寿命.
加工表面光洁度好，加工效率高.

▶ **Application** : Designed for drilling stainless steels, mild steels, aluminum, aluminum alloys, aluminum die casting, copper, copper alloys, etc.
▶ **Advantage** : High helix-sharp cutting edges to avoid built-up and to be suitable for high performance drilling
Wide flute and stub length-increasing chip removal and reducing vibration and deflecton.
High vanadium HSS-EX material with superior TiN coating - higher speed and feed, longer tool life
High quality & good surface finish, high productivity.

four facet



for STAINLESS STEELS

HSS EX | W 38° | h7 | h8 | 130° | 120° | P.138

up to 4mm over 4mm

$D_1 = D_2$

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length	型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length
TiN	D_1	L_1	L_2	TiN	D_1	L_1	L_2
DJ543076	7.6	37	81	DJ543104	10.4	43	100
DJ543077	7.7	37	81	DJ543105	10.5	43	100
DJ543078	7.8	37	81	DJ543106	10.6	43	100
DJ543079	7.9	37	81	DJ543107	10.7	47	104
DJ543080	8.0	37	81	DJ543108	10.8	47	104
DJ543081	8.1	37	87	DJ543109	10.9	47	104
DJ543082	8.2	37	87	DJ543110	11.0	47	104
DJ543083	8.3	37	87	DJ543111	11.1	47	104
DJ543084	8.4	37	87	DJ543112	11.2	47	104
DJ543085	8.5	37	87	DJ543113	11.3	47	104
DJ543086	8.6	40	90	DJ543114	11.4	47	104
DJ543087	8.7	40	90	DJ543115	11.5	47	104
DJ543088	8.8	40	90	DJ543116	11.6	47	104
DJ543089	8.9	40	90	DJ543117	11.7	47	104
DJ543090	9.0	40	90	DJ543118	11.8	47	104
DJ543091	9.1	40	90	DJ543119	11.9	51	108
DJ543092	9.2	40	90	DJ543120	12.0	51	108
DJ543093	9.3	40	90	DJ543121	12.1	51	108
DJ543094	9.4	40	90	DJ543122	12.2	51	108
DJ543095	9.5	40	90	DJ543123	12.3	51	108
DJ543096	9.6	43	93	DJ543124	12.4	51	108
DJ543097	9.7	43	93	DJ543125	12.5	51	108
DJ543098	9.8	43	93	DJ543126	12.6	51	108
DJ543099	9.9	43	93	DJ543127	12.7	51	108
DJ543100	10.0	43	93	DJ543128	12.8	51	108
DJ543101	10.1	43	100	DJ543129	12.9	51	108
DJ543102	10.2	43	100	DJ543130	13.0	51	108
DJ543103	10.3	43	100				

▶ TiCN (DW543), TiAlN (DY543)可根据客户需求进行加工
TiCN(DW543), TiAlN(DY543) are available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		铸铁	铝	不锈钢	钛	低碳钢	铜	青铜
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎						○	◎	○	○	○	

HPD DRILLS

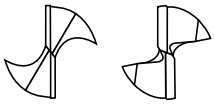
DJ544 SERIES

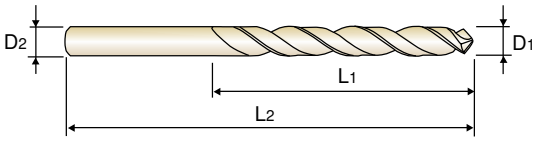
HSS-EX, 不锈钢用HPD-SUS麻花钻头
HSS-EX, HPD-SUS TWIST DRILLS for STAINLESS STEELS

细长 JOBBER

▶应用：用于4-5倍孔径的钻削，适用于不锈钢，铝，铝合金，铸铝，铜，铜合金等材料
▶优点：高螺旋角及锋利的切削力，避免了积屑瘤的产生，适用于高性能钻孔.
加强的钻腹和合适的长度，增强了钻头的刚性，适合4D-5D深的孔的加工.
高钒高速钢材料加超级TiN涂层，适用于更高的转速和进给速度，提高了钻头的使用寿命.
加工表面光洁度好，加工效率高.

▶**Application** : Designed for 4D ~ 5D drilling stainless steels, mild steels, aluminum, aluminum alloys, aluminum die casting, copper, copper alloys, etc.
▶**Advantage** : High helix-sharp cutting edges to avoid built-up and to be suitable for high performance drilling
Reinforced web and jobbers length-increasing rigidity and suitable for 4D ~ 5D drilling.
High vanadium HSS-EX material with superior TiN coating - higher speed and feed, longer toole life
High quality & good surface finish, high productivity.





for STAINLESS STEELS

HSS EX | W 38° | h7 | h8 | 130° | 120° | P.138

up to 4mm over 4mm

$D_1=D_2$

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length	型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length
TiN	D_1	L_1	L_2	TiN	D_1	L_1	L_2
DJ544020	2.0	24	56	DJ544044	4.4	47	91
DJ544021	2.1	24	56	DJ544045	4.5	47	91
DJ544022	2.2	27	59	DJ544046	4.6	47	91
DJ544023	2.3	27	59	DJ544047	4.7	47	91
DJ544024	2.4	30	62	DJ544048	4.8	52	96
DJ544025	2.5	30	62	DJ544049	4.9	52	96
DJ544026	2.6	30	62	DJ544050	5.0	52	96
DJ544027	2.7	33	65	DJ544051	5.1	52	96
DJ544028	2.8	33	65	DJ544052	5.2	52	96
DJ544029	2.9	33	65	DJ544053	5.3	52	96
DJ544030	3.0	33	65	DJ544054	5.4	57	101
DJ544031	3.1	36	68	DJ544055	5.5	57	101
DJ544032	3.2	36	68	DJ544056	5.6	57	101
DJ544033	3.3	36	68	DJ544057	5.7	57	101
DJ544034	3.4	39	71	DJ544058	5.8	57	101
DJ544035	3.5	39	71	DJ544059	5.9	57	101
DJ544036	3.6	39	71	DJ544060	6.0	57	101
DJ544037	3.7	39	71	DJ544061	6.1	63	107
DJ544038	3.8	43	75	DJ544062	6.2	63	107
DJ544039	3.9	43	75	DJ544063	6.3	63	107
DJ544040	4.0	43	75	DJ544064	6.4	63	107
DJ544041	4.1	43	87	DJ544065	6.5	63	107
DJ544042	4.2	43	87	DJ544066	6.6	63	107
DJ544043	4.3	47	91	DJ544067	6.7	63	107

▶ TiCN (DW544), TiAlN (DY544)可根据客户需求进行加工
TiCN(DW544), TiAlN(DY544) are available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎						○	◎	○	○	○	

HPD DRILLS

DJ544 SERIES

HSS-EX, 不锈钢用HPD-SUS麻花钻头

细长 JOBBER

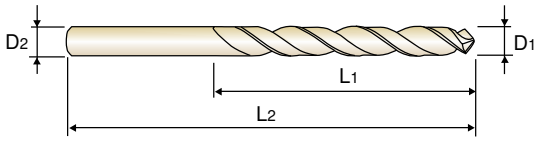
HSS-EX, HPD-SUS TWIST DRILLS for STAINLESS STEELS

▶ 应用：用于4-5倍孔径的钻削，适用于不锈钢，铝，铝合金，铸铝，铜，铜合金等材料

▶ 优点：高螺旋角及锋利的切削力，避免了积屑瘤的产生，适用于高性能钻孔.
加强的钻腹和合适的长度，增强了钻头的刚性，适合4D-5D深的孔的加工.
高钒高速钢材料加超级TiN涂层，适用于更高的转速和进给速度，提高了钻头的使用寿命.
加工表面光洁度好，加工效率高.

▶ **Application** : Designed for 4D ~ 5D drilling stainless steels, mild steels, aluminum, aluminum alloys, aluminum die casting, copper, copper alloys, etc.

▶ **Advantage** : High helix-sharp cutting edges to avoid built-up and to be suitable for high performance drilling
Reinforced web and jobbers length-increasing rigidity and suitable for 4D ~ 5D drilling.
High vanadium HSS-EX material with superior TiN coating - higher speed and feed, longer toole life
High quality & good surface finish, high productivity.



for STAINLESS STEELS

HSS EX | W 38° | h7 | h8 | 130° | 120° | P.138

up to 4mm over 4mm

$D_1 = D_2$

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length	型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length
TiN	D_1	L_1	L_2	TiN	D_1	L_1	L_2
DJ544068	6.8	69	113	DJ544092	9.2	81	131
DJ544069	6.9	69	113	DJ544093	9.3	81	131
DJ544070	7.0	69	113	DJ544094	9.4	81	131
DJ544071	7.1	69	113	DJ544095	9.5	81	131
DJ544072	7.2	69	113	DJ544096	9.6	87	137
DJ544073	7.3	69	113	DJ544097	9.7	87	137
DJ544074	7.4	69	113	DJ544098	9.8	87	137
DJ544075	7.5	69	113	DJ544099	9.9	87	137
DJ544076	7.6	75	119	DJ544100	10.0	87	137
DJ544077	7.7	75	119	DJ544101	10.1	87	144
DJ544078	7.8	75	119	DJ544102	10.2	87	144
DJ544079	7.9	75	119	DJ544103	10.3	87	144
DJ544080	8.0	75	119	DJ544104	10.4	87	144
DJ544081	8.1	75	125	DJ544105	10.5	87	144
DJ544082	8.2	75	125	DJ544106	10.6	87	144
DJ544083	8.3	75	125	DJ544107	10.7	94	151
DJ544084	8.4	75	125	DJ544108	10.8	94	151
DJ544085	8.5	75	125	DJ544109	10.9	94	151
DJ544086	8.6	81	131	DJ544110	11.0	94	151
DJ544087	8.7	81	131	DJ544111	11.1	94	151
DJ544088	8.8	81	131	DJ544112	11.2	94	151
DJ544089	8.9	81	131	DJ544113	11.3	94	151
DJ544090	9.0	81	131	DJ544114	11.4	94	151
DJ544091	9.1	81	131	DJ544115	11.5	94	151

▶ TiCN (DW544), TiAlN (DY544)可根据客户需求进行加工
TiCN(DW544), TiAlN(DY544) are available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎						○	◎	○	○	○	

HPD DRILLS

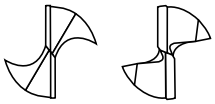
DJ544 SERIES

HSS-EX, 不锈钢用HPD-SUS麻花钻头
HSS-EX, HPD-SUS TWIST DRILLS for STAINLESS STEELS

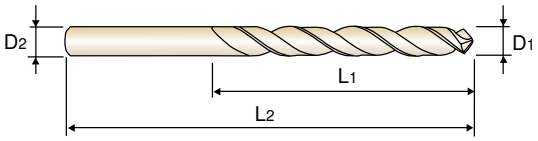
细长 JOBBER

▶应用：用于4-5倍孔径的钻削，适用于不锈钢，铝，铝合金，铸铝，铜，铜合金等材料
▶优点：高螺旋角及锋利的切削力，避免了积屑瘤的产生，适用于高性能钻孔.
加强的钻腹和合适的长度，增强了钻头的刚性，适合4D-5D深的孔的加工.
高钒高速钢材料加超级TiN涂层，适用于更高的转速和进给速度，提高了钻头的使用寿命.
加工表面光洁度好，加工效率高.

▶**Application** : Designed for 4D ~ 5D drilling stainless steels, mild steels, aluminum, aluminum alloys, aluminum die casting, copper, copper alloys, etc.
▶**Advantage** : High helix-sharp cutting edges to avoid built-up and to be suitable for high performance drilling
Reinforced web and jobbers length-increasing rigidity and suitable for 4D ~ 5D drilling.
High vanadium HSS-EX material with superior TiN coating - higher speed and feed, longer toole life
High quality & good surface finish, high productivity.



for STAINLESS STEELS



HSS EX | W 38° | h7 | h8 | 130° | 120° | P.138

up to 4mm over 4mm

$D_1=D_2$

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length	型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length
TiN	D_1	L_1	L_2	TiN	D_1	L_1	L_2
DJ544116	11.6	94	151	DJ544141	14.1	109	169
DJ544117	11.7	94	151	DJ544145	14.5	109	169
DJ544118	11.8	94	151	DJ544150	15.0	109	169
DJ544119	11.9	101	158	DJ544155	15.5	112	172
DJ544120	12.0	101	158	DJ544156	15.6	112	172
DJ544121	12.1	101	158	DJ544160	16.0	112	172
DJ544122	12.2	101	158	DJ544165	16.5	115	181
DJ544123	12.3	101	158	DJ544170	17.0	115	181
DJ544124	12.4	101	158	DJ544175	17.5	118	184
DJ544125	12.5	101	158	DJ544176	17.6	118	184
DJ544126	12.6	101	158	DJ544180	18.0	118	184
DJ544127	12.7	101	158	DJ544185	18.5	122	188
DJ544128	12.8	101	158	DJ544190	19.0	122	188
DJ544129	12.9	101	158	DJ544195	19.5	125	191
DJ544130	13.0	101	158	DJ544196	19.6	125	191
DJ544135	13.5	106	166	DJ544200	20.0	125	191
DJ544140	14.0	106	166				

▶ TiCN (DW544), TiAlN (DY544) 可根据客户需求进行加工
TiCN(DW544), TiAlN(DY544) are available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎						○	◎	○	○	○	

HPD DRILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

含钴优质高速钢，钢用高功率麻花钻头，TiN涂层
PREMIUM HSS COBALT, HPD TWIST DRILLS, TiN COATED

D4541, D4542 SERIES

在使用D4542系列HPD钻头时请减少15~20%的进给率
Please decrease the feed rate (15~20%) in D4542 SERIES HPD drills.

单位(Unit) : mm

被加工材料	碳钢		合金钢		工具钢，合金钢		铸铁，工具钢		铝合金，镁合金	
WORK MATERIAL	CARBON STEELS		ALLOY STEELS (SCM-SNC-SNCM)		TOOL STEELS ALLOY STEELS (SKD11)		CAST IRON TOOL STEELS		ALUMINUM ALLOYS MAGNESIUM ALLOYS	
DIAMETER	N	S	N	S	N	S	N	S	N	S
2.0	4200	0.08	3600	0.08	1750	0.08	5800	0.11	10500	0.16
3.0	2900	0.13	2500	0.13	1170	0.13	4000	0.14	10500	0.25
4.0	2100	0.14	1900	0.14	880	0.14	3000	0.17	8000	0.30
5.0	1700	0.16	1500	0.16	700	0.16	2400	0.20	6500	0.36
6.0	1300	0.17	1300	0.17	580	0.17	2100	0.23	5200	0.42
8.0	1000	0.21	950	0.21	440	0.21	1500	0.26	4200	0.47
10.0	850	0.25	750	0.25	350	0.25	1100	0.32	3400	0.56
12.0	700	0.30	650	0.30	290	0.30	1000	0.38	2700	0.67
14.0	550	0.35	500	0.35	250	0.35	850	0.40	2400	0.72
16.0	520	0.38	470	0.38	220	0.38	750	0.42	2100	0.77
18.0	450	0.44	420	0.44	195	0.44	700	0.45	1900	0.80
20.0	400	0.45	350	0.45	175	0.45	600	0.51	1600	0.87
22.0	370	0.50	340	0.50	160	0.50	550	0.52	1500	0.95
24.0	350	0.54	300	0.54	145	0.54	500	0.58	1400	1.00
26.0	320	0.58	280	0.58	135	0.58	450	0.60	1300	1.05
28.0	300	0.62	260	0.62	125	0.62	420	0.63	1200	1.10
30.0	280	0.66	240	0.66	115	0.66	400	0.74	1100	1.15
32.0	260	0.70	230	0.70	110	0.70	380	0.74	950	1.20

N = R.P.M
S = Feed per Revolution (mm/rev.)

HSS-EX，不锈钢用HPD-SUS麻花钻头，TiN涂层
HSS-EX, HPD-SUS TWIST DRILLS, TiN COATED

DJ543, DJ544 SERIES

在使用DJ544系列HPD-SUS钻头时请减少15~20%的进给率
Please decrease the feed rate (15~20%) in DJ544 SERIES HPD-SUS drills.

单位(Unit) : mm

被加工材料	不锈钢		不锈钢		铝，铝合金		塑料，铜，铜合金		软钢，低碳钢	
WORK MATERIAL	STAINLESS STEELS (SUS304, 200)		STAINLESS STEELS (SUS420, 440)		ALUMINUM & ALUMINIUM ALLOYS		PLASTICS COPPER COPPER ALLOYS		MILD STEELS LOW CARBON STEELS	
DIAMETER	N	S	N	S	N	S	N	S	N	S
2.0	2600	0.03	3100	0.07	11000	0.09	5600	0.06	6300	0.08
3.0	1800	0.04	2100	0.08	7350	0.13	3750	0.08	4200	0.13
4.0	1300	0.06	1600	0.10	7050	0.18	2800	0.10	3200	0.14
5.0	1050	0.08	1250	0.15	5500	0.22	2250	0.13	2500	0.16
6.0	900	0.09	1050	0.18	4600	0.26	1850	0.15	2100	0.18
8.0	650	0.12	800	0.24	3500	0.34	1350	0.20	1550	0.22
10.0	550	0.15	630	0.30	2800	0.40	1100	0.25	1250	0.26
12.0	450	0.18	530	0.36	2300	0.50	950	0.30	1050	0.32
14.0	400	0.33	450	0.44	2050	0.55	800	0.33	900	0.36
16.0	350	0.36	390	0.48	1750	0.62	700	0.35	790	0.40
18.0	300	0.39	350	0.50	1600	0.70	620	0.40	700	0.45
20.0	260	0.43	320	0.53	1450	0.75	560	0.40	620	0.47

N = R.P.M
S = Feed per Revolution (mm/rev.)

HSS

YG

Being the best through innovation

GOLD-P DRILLS

- Gold-P涂层，HSS & 含钴8%

GOLD-P COATING, HSS & 8% COBALT

GOLD-P钻头(GOLD-P涂层)
与全TiN涂层有着同样的价格竞争力和性能

项目 ITEM	型号 MODEL	规格 DESCRIPTION		尺寸 SIZE 最小 MIN	尺寸 SIZE 最大 MAX	页 PAGE
D1GP103		HSS, 直柄GOLD-P涂层钻头 (JIS) HSS, STRAIGHT SHANK DRILLS GOLD-P COATED	常规 *REGULAR*	D1.0	D13.0	**142**
D2GP191		HSSCo8, 直柄GOLD-P涂层钻头 (JIS) HSSCo8, STRAIGHT SHANK DRILLS GOLD-P COATED	常规 *REGULAR*	D1.0	D13.0	**144**
GOLD-P DRILL SETS	1.0mm ~ 10.0mm ×0.5mm STEP SET1(19PCS) 	1.0mm ~ 13.0mm ×0.5mm STEP SET2(25PCS) 				**146**

GOLD-P DRILLS (GOLD-P COATED)

Competitive price and same performance as full TiN coating

◎ : 优(Excellent)
○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		铸铁	铝	不锈钢	钛	低碳钢	铜	青铜
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	◎		
◎	◎				○	○	○	○	◎		

GOLD-P DRILLS

D1GP103 SERIES

HSS，直柄GOLD-P涂层钻头(JIS)

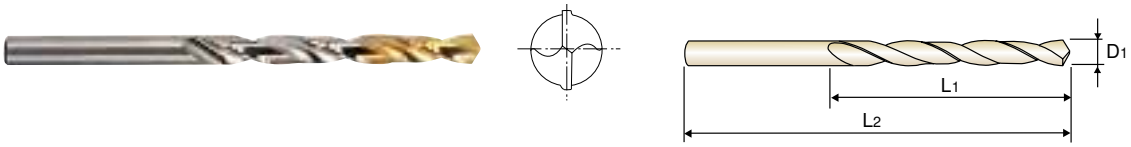
常规

HSS, STRAIGHT SHANK DRILLS GOLD-P COATED (JIS)

REGULAR

- ▶ 刃形：右螺旋形设计
- ▶ 钻顶角：118°，一般钻顶
- ▶ 表面处理：光亮体但在实际作业的前端处使用TiN涂层.
- ▶ 应用：适用于钢，铸铁合金和非合金，灰铸铁，石墨和可锻造铸铁的加工

- ▶ **Flute Geometry** : Right hand spiral
- ▶ **Point Angle** : 118°, Normal point
- ▶ **Surface treatment** : Bright body TiN coating on working part
- ▶ **Application** : Drilling in steel, cast steel alloyed and Non-alloyed, gray cast iron, graphite, malleable cast iron



HSS | N ≈ 30° | h8 | 118° | P.147

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D1GP103010	1.0	18	40
D1GP103011	1.1	20	42
D1GP103012	1.2	20	42
D1GP103013	1.3	22	45
D1GP103014	1.4	23	48
D1GP103015	1.5	23	48
D1GP103016	1.6	25	50
D1GP103017	1.7	25	50
D1GP103018	1.8	28	52
D1GP103019	1.9	28	52
D1GP103020	2.0	29	55
D1GP103021	2.1	29	55
D1GP103022	2.2	33	58
D1GP103023	2.3	33	58
D1GP103024	2.4	35	61
D1GP103025	2.5	35	61
D1GP103026	2.6	37	64
D1GP103027	2.7	37	64
D1GP103028	2.8	39	67
D1GP103029	2.9	42	71
D1GP103030	3.0	42	71
D1GP103031	3.1	42	71
D1GP103032	3.2	42	71
D1GP103033	3.3	45	73
D1GP103034	3.4	45	73
D1GP103035	3.5	45	73
D1GP103036	3.6	48	76
D1GP103037	3.7	48	76
D1GP103038	3.8	48	76
D1GP103039	3.9	51	79
D1GP103040	4.0	54	83

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D1GP103041	4.1	54	83
D1GP103042	4.2	54	83
D1GP103043	4.3	54	83
D1GP103044	4.4	56	86
D1GP103045	4.5	56	86
D1GP103046	4.6	56	86
D1GP103047	4.7	59	89
D1GP103048	4.8	59	89
D1GP103049	4.9	62	92
D1GP103050	5.0	62	92
D1GP103051	5.1	62	92
D1GP103052	5.2	64	95
D1GP103053	5.3	64	95
D1GP103054	5.4	64	95
D1GP103055	5.5	64	95
D1GP103056	5.6	67	98
D1GP103057	5.7	67	98
D1GP103058	5.8	67	98
D1GP103059	5.9	67	98
D1GP103060	6.0	70	102
D1GP103061	6.1	70	102
D1GP103062	6.2	70	102
D1GP103063	6.3	70	102
D1GP103064	6.4	73	105
D1GP103065	6.5	73	105
D1GP103066	6.6	73	105
D1GP103067	6.7	73	105
D1GP103068	6.8	73	105
D1GP103069	6.9	73	105
D1GP103070	7.0	73	105
D1GP103071	7.1	75	108

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	◎		

GOLD-P DRILLS

D1GP103 SERIES

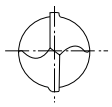
HSS, 直柄GOLD-P涂层钻头(JIS)

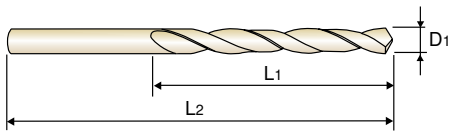
常规 REGULAR

HSS, STRAIGHT SHANK DRILLS GOLD-P COATED (JIS)

- ▶刃形：右螺旋形设计
- ▶钻顶角：118°，一般钻顶
- ▶表面处理：光亮体但在实际作业的前端处使用TiN涂层.
- ▶应用：适用于钢，铸铁合金和非合金，灰铸铁，石墨和可锻造铸铁的加工

- ▶**Flute Geometry** : Right hand spiral
- ▶**Point Angle** : 118°, Normal point
- ▶**Surface treatment**: Bright body TiN coating on working part
- ▶**Application** : Drilling in steel, cast steel alloyed and Non-alloyed, gray cast iron, graphite, malleable cast iron





HSS | N ≈30° | h8 | 118° P.147

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D1GP103072	7.2	75	108	D1GP103102	10.2	98	133
D1GP103073	7.3	75	108	D1GP103103	10.3	98	133
D1GP103074	7.4	78	111	D1GP103104	10.4	98	133
D1GP103075	7.5	78	111	D1GP103105	10.5	100	137
D1GP103076	7.6	78	111	D1GP103106	10.6	100	137
D1GP103077	7.7	81	114	D1GP103107	10.7	100	137
D1GP103078	7.8	81	114	D1GP103108	10.8	103	140
D1GP103079	7.9	81	114	D1GP103109	10.9	103	140
D1GP103080	8.0	81	114	D1GP103110	11.0	103	140
D1GP103081	8.1	84	117	D1GP103111	11.1	103	140
D1GP103082	8.2	84	117	D1GP103112	11.2	106	143
D1GP103083	8.3	84	117	D1GP103113	11.3	106	143
D1GP103084	8.4	87	121	D1GP103114	11.4	106	143
D1GP103085	8.5	87	121	D1GP103115	11.5	106	143
D1GP103086	8.6	87	121	D1GP103116	11.6	109	146
D1GP103087	8.7	87	121	D1GP103117	11.7	109	146
D1GP103088	8.8	89	124	D1GP103118	11.8	109	146
D1GP103089	8.9	89	124	D1GP103119	11.9	109	146
D1GP103090	9.0	89	124	D1GP103120	12.0	111	149
D1GP103091	9.1	89	124	D1GP103121	12.1	111	149
D1GP103092	9.2	92	127	D1GP103122	12.2	111	149
D1GP103093	9.3	92	127	D1GP103123	12.3	111	149
D1GP103094	9.4	92	127	D1GP103124	12.4	114	152
D1GP103095	9.5	92	127	D1GP103125	12.5	114	152
D1GP103096	9.6	95	130	D1GP103126	12.6	114	152
D1GP103097	9.7	95	130	D1GP103127	12.7	114	152
D1GP103098	9.8	95	130	D1GP103128	12.8	114	152
D1GP103099	9.9	95	130	D1GP103129	12.9	114	152
D1GP103100	10.0	95	130	D1GP103130	13.0	114	152
D1GP103101	10.1	98	133				

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	◎		

GOLD-P DRILLS

D2GP191 SERIES

HSSCo8, 直柄GOLD-P涂层钻头(JIS)

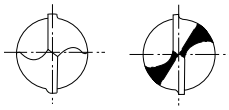
常规

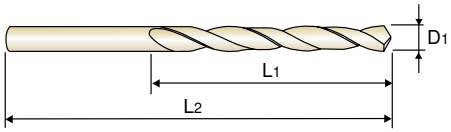
HSSCo8, STRAIGHT SHANK DRILLS GOLD-P COATED (JIS)

REGULAR

- 刃形：右螺旋形设计
- 钻顶角：135°，小于1.6mm：一般钻顶，大于1.6mm：静点
- 表面处理：光亮体但在实际作业的前端处使用TiN涂层
- 应用：适用于不锈钢和类钛合金和镍铬合金等难加工材料的钻削.

- **Flute Geometry** : Right hand spiral
- **Point Angle** : 135°, under 1.6mm:Normal point, from 1.6mm:Split point
- **Surface treatment** : Bright body TiN coating on working part
- **Application** : Drilling in stainless steels, materials of difficult machinability such as titanium alloy and inconel.





HSS Co8 | N 33° | h8 | 135° P.147

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D2GP191010	1.0	18	40
D2GP191011	1.1	20	42
D2GP191012	1.2	20	42
D2GP191013	1.3	22	45
D2GP191014	1.4	23	48
D2GP191015	1.5	23	48
D2GP191016	1.6	25	50
D2GP191017	1.7	25	50
D2GP191018	1.8	28	52
D2GP191019	1.9	28	52
D2GP191020	2.0	29	55
D2GP191021	2.1	29	55
D2GP191022	2.2	33	58
D2GP191023	2.3	33	58
D2GP191024	2.4	35	61
D2GP191025	2.5	35	61
D2GP191026	2.6	37	64
D2GP191027	2.7	37	64
D2GP191028	2.8	39	67
D2GP191029	2.9	42	71
D2GP191030	3.0	42	71
D2GP191031	3.1	42	71
D2GP191032	3.2	42	71
D2GP191033	3.3	45	73
D2GP191034	3.4	45	73
D2GP191035	3.5	45	73
D2GP191036	3.6	48	76
D2GP191037	3.7	48	76
D2GP191038	3.8	48	76
D2GP191039	3.9	51	79
D2GP191040	4.0	54	83

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D2GP191041	4.1	54	83
D2GP191042	4.2	54	83
D2GP191043	4.3	54	83
D2GP191044	4.4	56	86
D2GP191045	4.5	56	86
D2GP191046	4.6	56	86
D2GP191047	4.7	59	89
D2GP191048	4.8	59	89
D2GP191049	4.9	62	92
D2GP191050	5.0	62	92
D2GP191051	5.1	62	92
D2GP191052	5.2	64	95
D2GP191053	5.3	64	95
D2GP191054	5.4	64	95
D2GP191055	5.5	64	95
D2GP191056	5.6	67	98
D2GP191057	5.7	67	98
D2GP191058	5.8	67	98
D2GP191059	5.9	67	98
D2GP191060	6.0	70	102
D2GP191061	6.1	70	102
D2GP191062	6.2	70	102
D2GP191063	6.3	70	102
D2GP191064	6.4	73	105
D2GP191065	6.5	73	105
D2GP191066	6.6	73	105
D2GP191067	6.7	73	105
D2GP191068	6.8	73	105
D2GP191069	6.9	73	105
D2GP191070	7.0	73	105
D2GP191071	7.1	75	108

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	◎		

GOLD-P DRILLS

D2GP191 SERIES

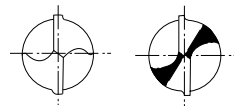
HSSCo8, 直柄GOLD-P涂层钻头 (JIS)

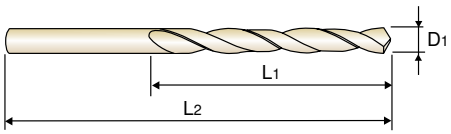
常规 REGULAR

HSSCo8, STRAIGHT SHANK DRILLS GOLD-P COATED (JIS)

- ▶ 刃形：右螺旋形设计
- ▶ 钻顶角：135°，小于1.6mm：一般钻顶，大于1.6mm：静点
- ▶ 表面处理：光亮体但在实际作业的前端处使用TiN涂层
- ▶ 应用：适用于不锈钢和类钛合金和镍铬合金等难加工材料的钻削.

- ▶ **Flute Geometry** : Right hand spiral
- ▶ **Point Angle** : 135°, under 1.6mm:Normal point, from 1.6mm:Split point
- ▶ **Surface treatment** : Bright body TiN coating on working part
- ▶ **Application** : Drilling in stainless steels, materials of difficult machinability such as titanium alloy and inconel.





HSS Co8 | N 33° | h8 | 135° P.147

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D2GP191072	7.2	75	108	D2GP191102	10.2	98	133
D2GP191073	7.3	75	108	D2GP191103	10.3	98	133
D2GP191074	7.4	78	111	D2GP191104	10.4	98	133
D2GP191075	7.5	78	111	D2GP191105	10.5	100	137
D2GP191076	7.6	78	111	D2GP191106	10.6	100	137
D2GP191077	7.7	81	114	D2GP191107	10.7	100	137
D2GP191078	7.8	81	114	D2GP191108	10.8	103	140
D2GP191079	7.9	81	114	D2GP191109	10.9	103	140
D2GP191080	8.0	81	114	D2GP191110	11.0	103	140
D2GP191081	8.1	84	117	D2GP191111	11.1	103	140
D2GP191082	8.2	84	117	D2GP191112	11.2	106	143
D2GP191083	8.3	84	117	D2GP191113	11.3	106	143
D2GP191084	8.4	87	121	D2GP191114	11.4	106	143
D2GP191085	8.5	87	121	D2GP191115	11.5	106	143
D2GP191086	8.6	87	121	D2GP191116	11.6	109	146
D2GP191087	8.7	87	121	D2GP191117	11.7	109	146
D2GP191088	8.8	89	124	D2GP191118	11.8	109	146
D2GP191089	8.9	89	124	D2GP191119	11.9	109	146
D2GP191090	9.0	89	124	D2GP191120	12.0	111	149
D2GP191091	9.1	89	124	D2GP191121	12.1	111	149
D2GP191092	9.2	92	127	D2GP191122	12.2	111	149
D2GP191093	9.3	92	127	D2GP191123	12.3	111	149
D2GP191094	9.4	92	127	D2GP191124	12.4	114	152
D2GP191095	9.5	92	127	D2GP191125	12.5	114	152
D2GP191096	9.6	95	130	D2GP191126	12.6	114	152
D2GP191097	9.7	95	130	D2GP191127	12.7	114	152
D2GP191098	9.8	95	130	D2GP191128	12.8	114	152
D2GP191099	9.9	95	130	D2GP191129	12.9	114	152
D2GP191100	10.0	95	130	D2GP191130	13.0	114	152
D2GP191101	10.1	98	133				

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	◎		

GOLD-P DRILLS

成套GOLD-P涂层钻头
GOLD-P COATED DRILL SETS

JIS 钻头刀片普通长度 GOLD-P钻头
JIS DRILL SETS REGULAR LENGTH Gold-P coated Drills

SET号 SET NO.	规格 DESCRIPTON	尺寸 SIZE	数量 Q'TY
D1GP103SET1	高速钢直柄，普通钻尖 HSS Straight Shank, Normal Point	1.0-10.0x0.5mm step	19 pcs
D1GP103SET2	高速钢直柄，普通钻尖 HSS Straight Shank, Normal Point	1.0-13.0x0.5mm step	25 pcs
D2GP191SET1	含钴高速钢直柄，分离式钻尖 (Ø1.0 & Ø1.5 : 普通钻尖) HSSCo8 Straight Shank, Split Point (Ø1.0 & Ø1.5 : NORMAL point)	1.0-10.0x0.5mm step	19 pcs
D2GP191SET2	含钴高速钢直柄，分离式钻尖 (Ø1.0 & Ø1.5 : 普通钻尖) HSSCo8 Straight Shank, Split Point (Ø1.0 & Ø1.5 : NORMAL point)	1.0-13.0x0.5mm step	25 pcs

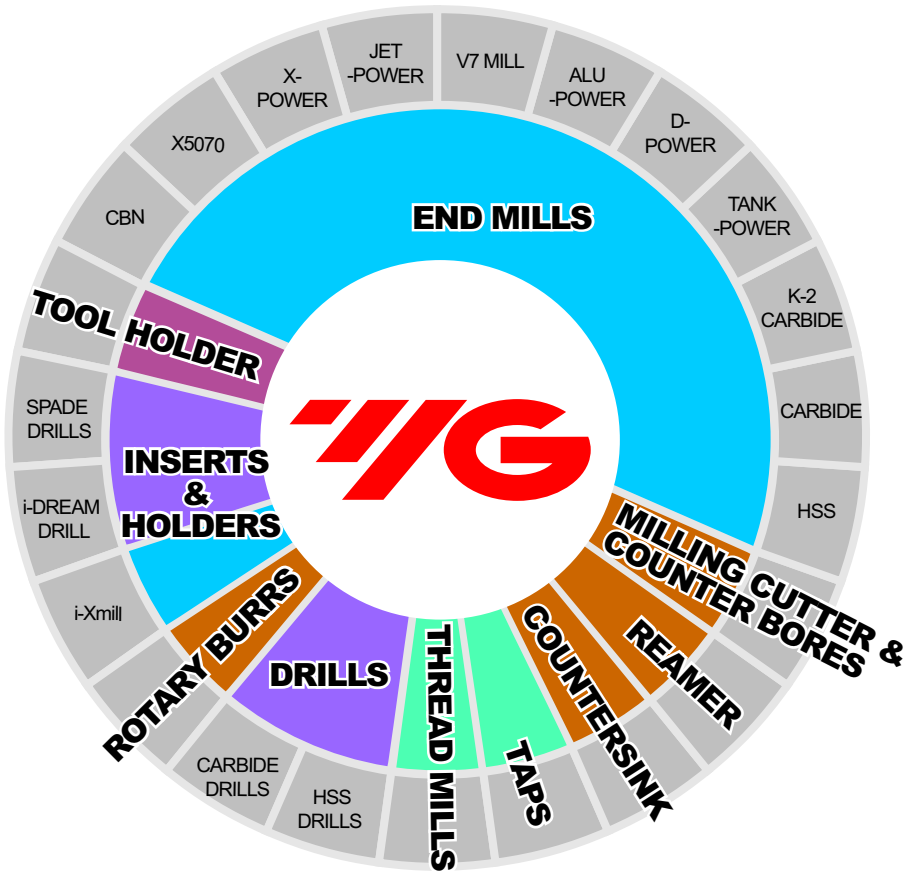
GOLD-P钻头
GOLD-P COATED DRILLS

D1GP103, D2GP191 SERIES

单位(Unit) : mm

被加工材料	碳钢		碳钢		合金钢		不锈钢		钛合金		铝合金, 锌合金		镁合金	
WORK MATERIAL	CARBON STEELS		CARBON STEELS		ALLOY STEELS		STAINLESS STEELS		TITANIUM ALLOYS		ALUMINUM ALLOYS, ZINC ALLOYS		MAGNESIUM ALLOYS	
HARDNESS			~ HRc23		~ HRc23 ~ 34		HRc23							
STRENGTH	~ 570 N/mm²		~ 830 N/mm²		810 ~ 1110 N/mm²		~ 830 N/mm²		~ 410 N/mm²					
DIAMETER	N	S	N	S	N	S	N	S	N	S	N	S	N	S
1.0	14000	0.02	12500	0.02	7700	0.02	7000	0.02	8050	0.02	30000	0.02	11500	0.03
2.0	7000	0.06	6100	0.06	3850	0.06	3500	0.06	4050	0.06	15000	0.06	5800	0.09
3.0	4650	0.10	4100	0.08	2550	0.08	2350	0.08	2700	0.08	9900	0.10	3850	0.13
4.0	3500	0.11	3050	0.11	1950	0.10	1750	0.10	2000	0.09	7450	0.11	2900	0.15
5.0	2800	0.12	2450	0.11	1550	0.10	1400	0.10	1600	0.10	5950	0.12	2300	0.17
6.0	2350	0.14	2050	0.13	1300	0.12	1150	0.12	1350	0.12	4950	0.14	1950	0.19
7.0	2000	0.16	1750	0.15	1100	0.14	1000	0.14	1150	0.14	4250	0.16	1650	0.22
8.0	1750	0.18	1550	0.18	960	0.15	875	0.15	1000	0.15	3700	0.18	1450	0.24
9.0	1550	0.20	1350	0.22	855	0.18	780	0.18	895	0.17	3300	0.20	1280	0.27
10.0	1400	0.21	1250	0.22	770	0.18	700	0.18	805	0.18	3000	0.23	1150	0.29
11.0	1250	0.22	1100	0.22	700	0.18	650	0.18	730	0.18	2700	0.23	1050	0.30
12.0	1150	0.23	1000	0.22	650	0.20	585	0.20	670	0.20	2480	0.23	960	0.31
13.0	1050	0.23	950	0.22	595	0.20	540	0.20	620	0.20	2300	0.23	890	0.31

N = R.P.M
S = Feed per Revolution (mm/rev.)



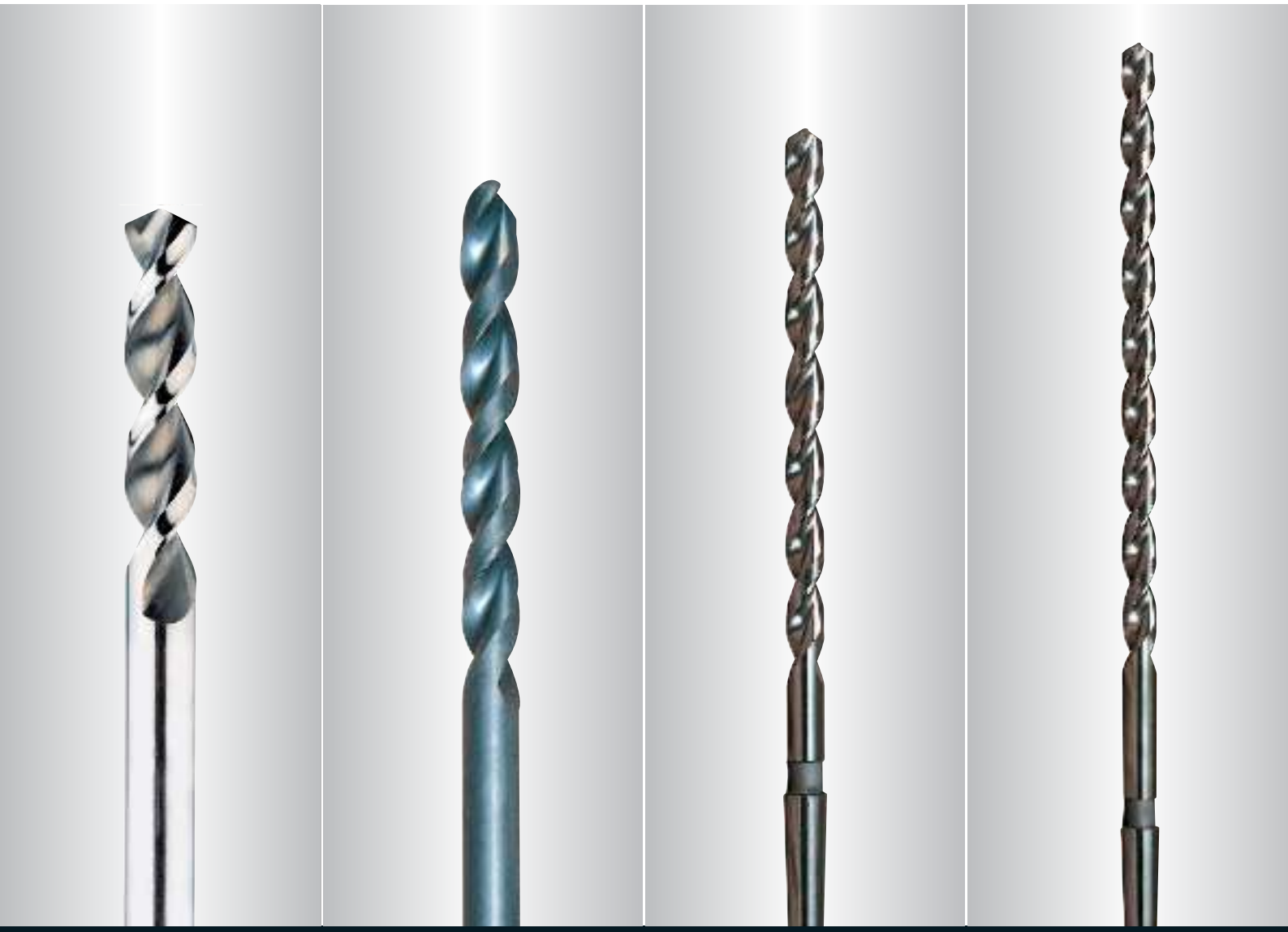
Challenge toward a Global Leader-

YG-1 Leads the World Market.

HSS

YG

Being the best through innovation



WORM PATTERN DRILLS

- 钻深孔

Drilling Deep Holes

DH100, DH50-蜗式钻头
DH100-为了在普通钢上深孔

项目 ITEM	型号 MODEL	规格 DESCRIPTION		尺寸 SIZE 最小 MIN	尺寸 SIZE 最大 MAX	页 PAGE
DH100 DL505		HSS-E, 深孔用直柄麻花钻头 HSS-E, STRAIGHT SHANK DRILLS for DEEP HOLES, FORM C	细长 JOBBER	D2.0	D13.0	152
DH100 DL504		HSS-E, 深孔用直柄麻花钻头 HSS-E, STRAIGHT SHANK DRILLS for DEEP HOLES, FORM C	长 LONG	D2.0	D13.0	154
DH100 DL600		HSS-E, 深孔用直柄麻花钻头 HSS-E, STRAIGHT SHANK DRILLS for DEEP HOLES, FORM C	超长 EXTRA LONG	D2.0	D13.0	155
DH100 DL608		HSS-E, 莫氏锥柄深孔用麻花钻头 HSS-E, TAPER SHANK DRILLS for DEEP HOLES, FORM C	长 LONG	D13.0	D30.0	156
DH100 DL609		HSS-E, 莫氏锥柄深孔用麻花钻头 HSS-E, TAPER SHANK DRILLS for DEEP HOLES, FORM C	超长 EXTRA LONG	D13.0	D31.0	157
DH100 DL610		HSS-E, 莫氏锥柄深孔用麻花钻头 HSS-E, TAPER SHANK DRILLS for DEEP HOLES, FORM C	超长 EXTRA LONG	D13.0	D30.0	158
DH100 DL126		HSS-E, 深孔用直柄麻花钻头 HSS-E, STRAIGHT SHANK DRILLS for DEEP HOLES, FORM C	超长 EXTRA LONG	D2.0	D13.0	159

DH50-为了在铝上加工深孔

DH50 DL507		HSS-E, 铝加工深孔用直柄麻花钻头 HSS-E, STRAIGHT SHANK DRILLS for ALUMINUM DEEP HOLES, FORM C	EXTRA LONG	D2.0	D13.0	161
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS				163

DH100, DH50-WORM PATTERN DRILLS

DH100-For Deep hole drilling in general steels

◎ : 优(Excellent)
○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		铸铁	铝	不锈钢	钛	低碳钢	铜	青铜
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○			○		
◎	◎				○	○			○		
◎	◎				○	○			○		
◎	◎				○	○			○		
◎	◎				○	○			○		
◎	◎				○	○			○		
◎	◎				○				○		

DH50-For Deep hole drilling in aluminum

◎	◎				○	◎			○		

WORM PATTERN DRILLS

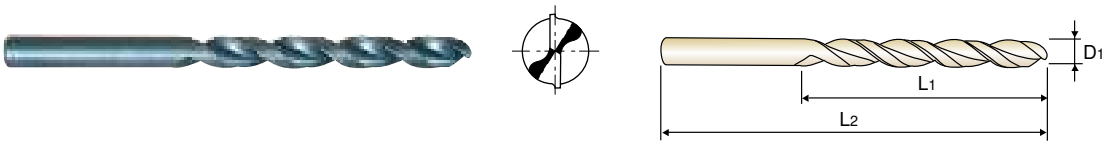
DL505 SERIES

HSS-E, 深孔用直柄麻花钻头
HSS-E, STRAIGHT SHANK TWIST DRILLS for DEEP HOLES

细长 JOBBER

▶表面处理 ：氧化发黑处理
▶应用 ：适用于非合金钢，合金钢，灰铸铁，可锻铸铁，特殊铝和镁合金的深孔钻削.

▶ **Surface treatment** : Steam Tempered(Black Oxide Finish)
▶ **Application** : Drilling deep holes in non alloy steels, alloy steels, grey cast iron, malleable cast iron, special aluminum or magnesium alloys.



DIN 338 | HSS-E | 38° | h8 | 130°

P.163

▶ DH100
worm pattern drills

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
DL505020	2.0	24	49	DL505047	4.7	47	80
DL505021	2.1	24	49	DL505048	4.8	52	86
DL505022	2.2	27	53	DL505049	4.9	52	86
DL505023	2.3	27	53	DL505050	5.0	52	86
DL505024	2.4	30	57	DL505051	5.1	52	86
DL505025	2.5	30	57	DL505052	5.2	52	86
DL505026	2.6	30	57	DL505053	5.3	52	86
DL505027	2.7	33	61	DL505054	5.4	57	93
DL505028	2.8	33	61	DL505055	5.5	57	93
DL505029	2.9	33	61	DL505056	5.6	57	93
DL505030	3.0	33	61	DL505057	5.7	57	93
DL505031	3.1	36	65	DL505058	5.8	57	93
DL505032	3.2	36	65	DL505059	5.9	57	93
DL505033	3.3	36	65	DL505060	6.0	57	93
DL505034	3.4	39	70	DL505061	6.1	63	101
DL505035	3.5	39	70	DL505062	6.2	63	101
DL505036	3.6	39	70	DL505063	6.3	63	101
DL505037	3.7	39	70	DL505064	6.4	63	101
DL505038	3.8	43	75	DL505065	6.5	63	101
DL505039	3.9	43	75	DL505066	6.6	63	101
DL505040	4.0	43	75	DL505067	6.7	63	101
DL505041	4.1	43	75	DL505068	6.8	69	109
DL505042	4.2	43	75	DL505069	6.9	69	109
DL505043	4.3	47	80	DL505070	7.0	69	109
DL505044	4.4	47	80	DL505071	7.1	69	109
DL505045	4.5	47	80	DL505072	7.2	69	109
DL505046	4.6	47	80	DL505073	7.3	69	109

▶ TiN (DN505), TiCN (DX505), TiAlN (DT505)可根据客户需求进行加工.
TiN(DN505), TiCN(DX505) and TiAlN(DT505) are available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels ~HB225	合金钢 Alloy Steels HB225~325	预硬钢 Prehardened Steels HRc30~45	硬化钢 Hardened Steels HRc45~55	硬化钢 Hardened Steels HRc55~	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
◎	◎				○	○			○		

WORM PATTERN DRILLS

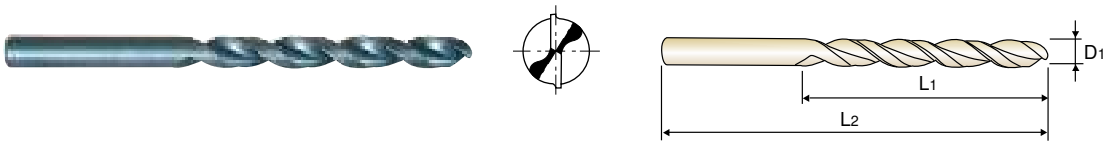
DL505 SERIES

HSS-E, 深孔用直柄麻花钻头
HSS-E, STRAIGHT SHANK TWIST DRILLS for DEEP HOLES

细长 JOBBER

▶表面处理：氧化发黑处理
▶应用　　：适用于非合金钢，合金钢，灰铸铁，可锻铸铁，特殊铝和镁合金的深孔钻削.

▶**Surface treatment** : Steam Tempered(Black Oxide Finish)
▶**Application** : Drilling deep holes in non alloy steels, alloy steels, grey cast iron, malleable cast iron, special aluminum or magnesium alloys.



DIN 338 | HSS-E | 38° | h8 | 130° P.163

▶ DH100 worm pattern drills

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
DL505074	7.4	69	109	DL505094	9.4	81	125
DL505075	7.5	69	109	DL505095	9.5	81	125
DL505076	7.6	75	117	DL505096	9.6	87	133
DL505077	7.7	75	117	DL505097	9.7	87	133
DL505078	7.8	75	117	DL505098	9.8	87	133
DL505079	7.9	75	117	DL505099	9.9	87	133
DL505080	8.0	75	117	DL505100	10.0	87	133
DL505081	8.1	75	117	DL505101	10.1	87	133
DL505082	8.2	75	117	DL505102	10.2	87	133
DL505083	8.3	75	117	DL505105	10.5	87	133
DL505084	8.4	75	117	DL505108	10.8	94	142
DL505085	8.5	75	117	DL505110	11.0	94	142
DL505086	8.6	81	125	DL505112	11.2	94	142
DL505087	8.7	81	125	DL505115	11.5	94	142
DL505088	8.8	81	125	DL505118	11.8	94	142
DL505089	8.9	81	125	DL505120	12.0	101	151
DL505090	9.0	81	125	DL505122	12.2	101	151
DL505091	9.1	81	125	DL505125	12.5	101	151
DL505092	9.2	81	125	DL505128	12.8	101	151
DL505093	9.3	81	125	DL505130	13.0	101	151

▶ TiN (DN505), TiCN (DX505), TiAlN (DT505) 可根据客户需求进行加工.
TiN(DN505), TiCN(DX505) and TiAlN(DT505) are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○			○		

WORM PATTERN DRILLS

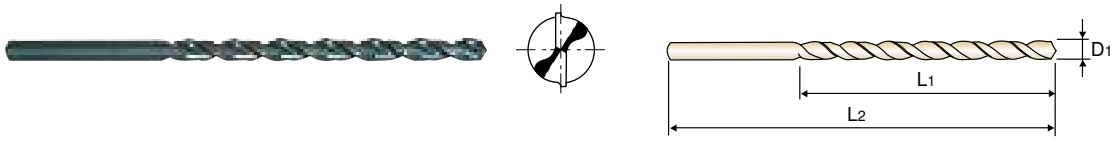
DL504 SERIES

HSS-E, 深孔用直柄麻花钻头
HSS-E, STRAIGHT SHANK TWIST DRILLS for DEEP HOLES

长 LONG

▶表面处理 ：氧化发黑处理
▶应用 ：适用于非合金钢，合金钢，灰铸铁，可锻铸铁，特殊铝和镁合金的深孔钻削.

▶ **Surface treatment** : Steam Tempered(Black Oxide Finish)
▶ **Application** : Drilling deep holes in non alloy steels, alloy steels, grey cast iron, malleable cast iron, special aluminum or magnesium alloys.



DIN 340 | HSS-E | 38° | h8 | 130°

P.163

▶ DH100
worm pattern drills

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
DL504020	2.0	56	85	DL504052	5.2	87	132
DL504021	2.1	56	85	DL504055	5.5	91	139
DL504022	2.2	59	90	DL504058	5.8	91	139
DL504023	2.3	59	90	DL504060	6.0	91	139
DL504024	2.4	62	95	DL504062	6.2	97	148
DL504025	2.5	62	95	DL504065	6.5	97	148
DL504026	2.6	62	95	DL504068	6.8	102	156
DL504027	2.7	66	100	DL504070	7.0	102	156
DL504028	2.8	66	100	DL504072	7.2	102	156
DL504029	2.9	66	100	DL504075	7.5	102	156
DL504030	3.0	66	100	DL504078	7.8	109	165
DL504031	3.1	69	106	DL504080	8.0	109	165
DL504032	3.2	69	106	DL504082	8.2	109	165
DL504033	3.3	69	106	DL504085	8.5	109	165
DL504034	3.4	73	112	DL504090	9.0	115	175
DL504035	3.5	73	112	DL504095	9.5	115	175
DL504036	3.6	73	112	DL504098	9.8	121	184
DL504037	3.7	73	112	DL504100	10.0	121	184
DL504038	3.8	78	119	DL504105	10.5	121	184
DL504039	3.9	78	119	DL504110	11.0	128	195
DL504040	4.0	78	119	DL504115	11.5	128	195
DL504042	4.2	78	119	DL504120	12.0	134	205
DL504045	4.5	82	126	DL504125	12.5	134	205
DL504048	4.8	87	132	DL504130	13.0	134	205
DL504050	5.0	87	132				

▶ TiN (DN504), TiCN (DX504), TiAlN (DT504)可根据客户需求进行加工.
TiN(DN504), TiCN(DX504) and TiAlN(DT504) are available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels ~HB225	合金钢 Alloy Steels HB225~325	预硬钢 Prehardened Steels HRc30~45	硬化钢 Hardened Steels HRc45~55	硬化钢 Hardened Steels HRc55~	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
◎	◎				○	○			○		

WORM PATTERN DRILLS

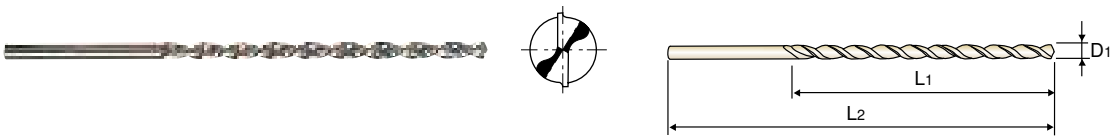
DL600 SERIES

HSS-E, 深孔用直柄麻花钻头
HSS-E, STRAIGHT SHANK TWIST DRILLS for DEEP HOLES

超长 EXTRA LONG

▶应用：适用于非合金钢，合金钢，灰铸铁，可锻铸铁，特殊铝和镁合金的深孔钻削

▶**Application** : Drilling deep holes in non alloy steels, alloy steels, grey cast iron, malleable cast iron, special aluminum or magnesium alloys.



DIN 1869/1 | HSS-E | 38° | h8 | 130° P.163

▶ DH100
worm pattern drills

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
DL600020	2.0	85	125	DL600070	7.0	155	225
DL600922	2.25	90	135	DL600972	7.25	155	225
DL600025	2.5	95	140	DL600075	7.5	155	225
DL600927	2.75	100	150	DL600977	7.75	165	240
DL600030	3.0	100	150	DL600080	8.0	165	240
DL600932	3.25	105	155	DL600982	8.25	165	240
DL600035	3.5	115	165	DL600085	8.5	165	240
DL600937	3.75	115	165	DL600987	8.75	175	250
DL600040	4.0	120	175	DL600090	9.0	175	250
DL600942	4.25	120	175	DL600992	9.25	175	250
DL600045	4.5	125	185	DL600095	9.5	175	250
DL600947	4.75	125	185	DL600997	9.75	185	265
DL600050	5.0	135	195	DL600100	10.0	185	265
DL600952	5.25	135	195	DL600105	10.5	185	265
DL600055	5.5	140	205	DL600110	11.0	195	280
DL600957	5.75	140	205	DL600115	11.5	195	280
DL600060	6.0	140	205	DL600120	12.0	205	295
DL600962	6.25	150	215	DL600125	12.5	205	295
DL600065	6.5	150	215	DL600130	13.0	205	295
DL600967	6.75	155	225				

▶ TiN (DN600), TiCN (DX600), TiAlN (DT600) 可根据客户需求进行加工.
TiN(DN600), TiCN(DX600) and TiAlN(DT600) are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○			○		

WORM PATTERN DRILLS

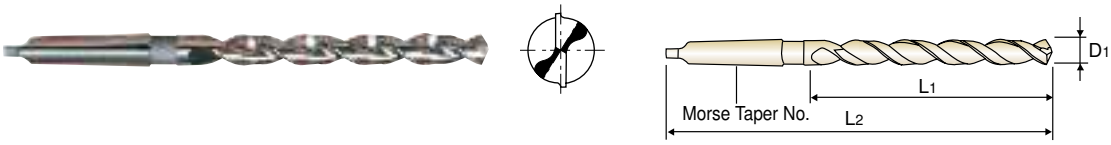
DL608 SERIES

HSS-E, 莫氏锥柄深孔用麻花钻头
HSS-E, MORSE TAPER SHANK TWIST DRILLS for DEEP HOLES

长 LONG

▶ 应用：适用于非合金钢，合金钢，灰铸铁，可锻铸铁，特殊铝和镁合金的深孔钻削.

▶ **Application** : Drilling deep holes in non alloy steels, alloy steels, grey cast iron, malleable cast iron, special aluminum or magnesium alloys.



DIN 341 | HSS-E | 38° | 1 ~ 3 | h8 | 130° | P.163

▶ DH100 worm pattern drills

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
DL608130	13.0	134	215	1
DL608135	13.5	142	223	1
DL608140	14.0	142	223	1
DL608145	14.5	147	245	2
DL608150	15.0	147	245	2
DL608155	15.5	153	251	2
DL608160	16.0	153	251	2
DL608165	16.5	159	257	2
DL608170	17.0	159	257	2
DL608175	17.5	165	263	2
DL608180	18.0	165	263	2
DL608185	18.5	171	269	2
DL608190	19.0	171	269	2

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
DL608195	19.5	177	275	2
DL608200	20.0	177	275	2
DL608210	21.0	184	282	2
DL608220	22.0	191	289	2
DL608230	23.0	198	296	2
DL608240	24.0	206	327	3
DL608250	25.0	206	327	3
DL608260	26.0	214	335	3
DL608270	27.0	222	343	3
DL608280	28.0	222	343	3
DL608290	29.0	230	351	3
DL608300	30.0	230	351	3

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels ~HB225	合金钢 Alloy Steels HB225~325	预硬钢 Prehardened Steels HRc30~45	硬化钢 Hardened Steels HRc45~55	硬化钢 Hardened Steels HRc55~	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
◎	◎				○	○			○		

WORM PATTERN DRILLS

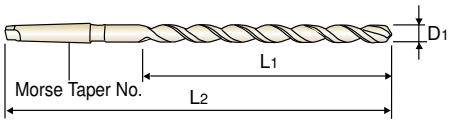
DL609 SERIES

HSS-E, 莫氏锥柄深孔用麻花钻头
超长

HSS-E, MORSE TAPER SHANK TWIST DRILLS for DEEP HOLES
EXTRA LONG

▶应用：设计用于深孔加工或深定位孔加工，适用于非合金钢，合金钢，灰铸铁，可锻铸铁，特殊铝和镁合金的深孔钻削.

▶**Application** : Designed for drilling deep holes or deeply located holes.
Drilling deep holes in non alloy steels, alloy steels, grey cast iron, malleable cast iron, special aluminum or magnesium alloys.



DIN 1870/1 | HSS-E | 38° | 1~3 | h8 | 130°

P.163

▶ DH100 worm pattern drills

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
DL609130	13.0	205	310	1
DL609135	13.5	220	325	1
DL609140	14.0	220	325	1
DL609145	14.5	220	340	2
DL609150	15.0	220	340	2
DL609155	15.5	230	355	2
DL609160	16.0	230	355	2
DL609165	16.5	230	355	2
DL609170	17.0	230	355	2
DL609175	17.5	245	370	2
DL609180	18.0	245	370	2
DL609185	18.5	245	370	2
DL609190	19.0	245	370	2
DL609195	19.5	260	385	2
DL609200	20.0	260	385	2
DL609205	20.5	260	385	2
DL609210	21.0	260	385	2
DL609215	21.5	270	405	2

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
DL609220	22.0	270	405	2
DL609225	22.5	270	405	2
DL609230	23.0	270	405	2
DL609235	23.5	270	425	3
DL609240	24.0	290	440	3
DL609245	24.5	290	440	3
DL609250	25.0	290	440	3
DL609255	25.5	290	440	3
DL609260	26.0	290	440	3
DL609265	26.5	290	440	3
DL609270	27.0	305	460	3
DL609275	27.5	305	460	3
DL609280	28.0	305	460	3
DL609285	28.5	305	460	3
DL609290	29.0	305	460	3
DL609295	29.5	305	460	3
DL609300	30.0	305	460	3
DL609310	31.0	320	480	3

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○			○		

WORM PATTERN DRILLS

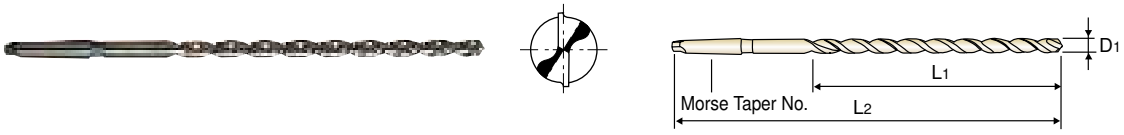
DL610 SERIES

HSS-E, 莫氏锥柄深孔用麻花钻头
超长

HSS-E, MORSE TAPER SHANK TWIST DRILLS for DEEP HOLES
EXTRA LONG

▶ 应用：设计用于深孔加工或深定位孔加工，适用于非合金钢，合金钢，灰铸铁，可锻铸铁，特殊铝和镁合金的深孔钻削.

▶ **Application** : Designed for drilling deep holes or deeply located holes.
Drilling deep holes in non alloy steels, alloy steels, grey cast iron, malleable cast iron, special aluminum or magnesium alloys.



DIN 1870/2 | HSS-E | 38° | 1 ~ 3 | h8 | 130° P.163

▶ DH100 worm pattern drills

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
DL610130	13.0	260	395	1
DL610135	13.5	275	410	1
DL610140	14.0	275	410	1
DL610145	14.5	275	425	2
DL610150	15.0	275	425	2
DL610155	15.5	295	445	2
DL610160	16.0	295	445	2
DL610165	16.5	295	445	2
DL610170	17.0	295	445	2
DL610175	17.5	310	465	2
DL610180	18.0	310	465	2
DL610185	18.5	310	465	2
DL610190	19.0	310	465	2
DL610195	19.5	325	490	2
DL610200	20.0	325	490	2
DL610205	20.5	325	490	2
DL610210	21.0	325	490	2
DL610215	21.5	345	515	2

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
DL610220	22.0	345	515	2
DL610225	22.5	345	515	2
DL610230	23.0	345	515	2
DL610235	23.5	345	535	3
DL610240	24.0	365	555	3
DL610245	24.5	365	555	3
DL610250	25.0	365	555	3
DL610255	25.5	365	555	3
DL610260	26.0	365	555	3
DL610265	26.5	365	555	3
DL610270	27.0	385	580	3
DL610275	27.5	385	580	3
DL610280	28.0	385	580	3
DL610285	28.5	385	580	3
DL610290	29.0	385	580	3
DL610295	29.5	385	580	3
DL610300	30.0	385	580	3

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels ~HB225	合金钢 Alloy Steels HB225~325	预硬钢 Prehardened Steels HRc30~45	硬化钢 Hardened Steels HRc45~55	硬化钢 Hardened Steels HRc55~	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
◎	◎				○	○			○		

WORM PATTERN DRILLS

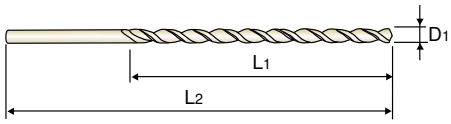
DL126 SERIES

HSS-E, 深孔用直柄麻花钻头
HSS-E, STRAIGHT SHANK TWIST DRILLS for DEEP HOLES

超长 *EXTRA LONG*

▶应用：适用于非合金钢，合金钢，灰铸铁，可锻铸铁，和镁合金的深孔钻削

▶**Application** : Drilling deep holes in non alloy steels, alloy steels, grey cast iron, malleable cast iron or magnesium alloys.



HSS-E | 38° | h8 | 130° | P.163

▶ DH100
worm pattern drills

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
DL126220	2.0	75	100
DL126225	2.5	75	100
DL126230	3.0	75	100
DL126235	3.5	75	100
DL126240	4.0	75	100
DL126245	4.5	75	100
DL126250	5.0	75	100
DL126255	5.5	75	100
DL126320	2.0	100	150
DL126325	2.5	100	150
DL126330	3.0	100	150
DL126335	3.5	100	150
DL126340	4.0	100	150
DL126345	4.5	100	150
DL126350	5.0	100	150
DL126355	5.5	100	150
DL126360	6.0	100	150
DL126365	6.5	100	150
DL126370	7.0	100	150
DL126375	7.5	100	150
DL126380	8.0	100	150
DL126385	8.5	100	150
DL126390	9.0	100	150

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
DL126420	2.0	150	200
DL126425	2.5	150	200
DL126430	3.0	150	200
DL126435	3.5	150	200
DL126440	4.0	150	200
DL126445	4.5	150	200
DL126450	5.0	150	200
DL126455	5.5	150	200
DL126460	6.0	150	200
DL126465	6.5	150	200
DL126470	7.0	150	200
DL126475	7.5	150	200
DL126480	8.0	150	200
DL126485	8.5	150	200
DL126490	9.0	150	200
DL126495	9.5	150	200
DL126700	10.0	150	200
DL126705	10.5	150	200
DL126710	11.0	150	200
DL126715	11.5	150	200
DL126720	12.0	150	200

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○				○		

WORM PATTERN DRILLS

DL126 SERIES

HSS-E, 深孔用直柄麻花钻头

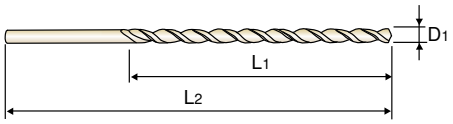
超长

HSS-E, STRAIGHT SHANK TWIST DRILLS for DEEP HOLES

EXTRA LONG

▶ 应用：适用于非合金钢，合金钢，灰铸铁，可锻铸铁，和镁合金的深孔钻削

▶ **Application** : Drilling deep holes in non alloy steels, alloy steels, grey cast iron, malleable cast iron or magnesium alloys.



HSS-E | 38° | h8 | 130° | P.163

▶ DH100 worm pattern drills

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
DL126540	4.0	200	250
DL126545	4.5	200	250
DL126550	5.0	200	250
DL126555	5.5	200	250
DL126560	6.0	200	250
DL126565	6.5	200	250
DL126570	7.0	200	250
DL126575	7.5	200	250
DL126580	8.0	200	250
DL126585	8.5	200	250
DL126590	9.0	200	250
DL126595	9.5	200	250
DL126800	10.0	200	250
DL126805	10.5	200	250
DL126810	11.0	200	250
DL126815	11.5	200	250
DL126820	12.0	200	250
DL126825	12.5	200	250
DL126830	13.0	200	250

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
DL126655	5.5	200	300
DL126660	6.0	200	300
DL126665	6.5	200	300
DL126670	7.0	200	300
DL126675	7.5	200	300
DL126680	8.0	200	300
DL126685	8.5	200	300
DL126690	9.0	200	300
DL126695	9.5	200	300
DL126900	10.0	200	300
DL126905	10.5	200	300
DL126910	11.0	200	300
DL126915	11.5	200	300
DL126920	12.0	200	300
DL126925	12.5	200	300
DL126930	13.0	200	300

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels ~HB225	合金钢 Alloy Steels HB225~325	预硬钢 Prehardened Steels HRc30~45	硬化钢 Hardened Steels HRc45~55	硬化钢 Hardened Steels HRc55~	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
◎	◎				○				○		

WORM PATTERN DRILLS

DL507 SERIES

HSS-E, 铝加工深孔用直柄麻花钻头

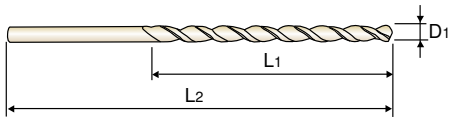
超长

HSS-E, STRAIGHT SHANK TWIST DRILLS for ALUMINUM DEEP HOLES

EXTRA LONG

▶应用：适用于铝，铝合金，含硅铝合金，锌，精炼铜，木材及其它软质合成材料的加工

▶**Application** : Drilling deep holes in aluminum and its alloys, silumin, zinc, refined copper, wood and other soft synthetic materials.



HSS-E | W 38° | h8 | 118° P.163

▶ DH50 worm pattern drills

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
DL507120	2.0	40	75
DL507121	2.1	40	75
DL507220	2.0	50	100
DL507221	2.1	50	100
DL507225	2.5	50	100
DL507227	2.7	50	100
DL507230	3.0	50	100
DL507233	3.3	50	100
DL507235	3.5	50	100
DL507320	2.0	75	150
DL507321	2.1	75	150
DL507325	2.5	75	150
DL507327	2.7	75	150
DL507330	3.0	75	150
DL507333	3.3	75	150
DL507335	3.5	75	150
DL507340	4.0	75	150
DL507342	4.2	75	150
DL507345	4.5	75	150
DL507350	5.0	75	150
DL507353	5.3	75	150
DL507355	5.5	75	150
DL507360	6.0	75	150

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
DL507430	3.0	100	200
DL507433	3.3	100	200
DL507435	3.5	100	200
DL507440	4.0	100	200
DL507442	4.2	100	200
DL507445	4.5	100	200
DL507450	5.0	100	200
DL507453	5.3	100	200
DL507455	5.5	100	200
DL507460	6.0	100	200
DL507465	6.5	100	200
DL507468	6.8	100	200
DL507470	7.0	100	200
DL507475	7.5	100	200
DL507480	8.0	100	200
DL507485	8.5	100	200
DL507488	8.8	100	200
DL507490	9.0	100	200
DL507495	9.5	100	200
DL507700	10.0	100	200
DL507540	4.0	150	250
DL507542	4.2	150	250
DL507545	4.5	150	250
DL507550	5.0	150	250
DL507553	5.3	150	250

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	◎			○		

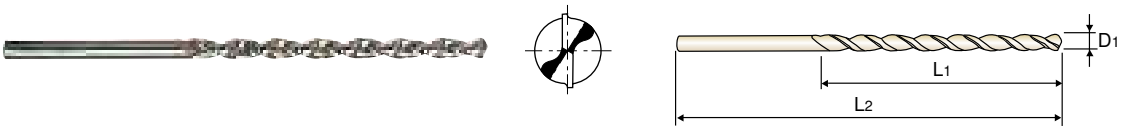
WORM PATTERN DRILLS

DL507 SERIES

HSS-E, 铝加工深孔用直柄麻花钻头 超长
HSS-E, STRAIGHT SHANK TWIST DRILLS for ALUMINUM DEEP HOLES *EXTRA LONG*

▶应用：适用于铝，铝合金，含硅铝合金，锌，精炼铜，木材及其它软质合成材料的加工

▶**Application** : Drilling deep holes in aluminum and its alloys, silumin, zinc, refined copper, wood and other soft synthetic materials.



HSS-E | W 38° | h8 | 118° P.163

▶ DH50 worm pattern drills

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
DL507555	5.5	150	250
DL507560	6.0	150	250
DL507565	6.5	150	250
DL507568	6.8	150	250
DL507570	7.0	150	250
DL507575	7.5	150	250
DL507580	8.0	150	250
DL507585	8.5	150	250
DL507588	8.8	150	250
DL507590	9.0	150	250
DL507595	9.5	150	250
DL507800	10.0	150	250
DL507803	10.3	150	250
DL507805	10.5	150	250
DL507810	11.0	150	250
DL507815	11.5	150	250
DL507820	12.0	150	250
DL507825	12.5	150	250
DL507830	13.0	150	250

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
DL507650	5.0	180	300
DL507653	5.3	180	300
DL507655	5.5	180	300
DL507660	6.0	180	300
DL507665	6.5	180	300
DL507668	6.8	180	300
DL507670	7.0	180	300
DL507675	7.5	180	300
DL507680	8.0	180	300
DL507685	8.5	180	300
DL507688	8.8	180	300
DL507690	9.0	180	300
DL507695	9.5	180	300
DL507900	10.0	180	300
DL507903	10.3	180	300
DL507905	10.5	180	300
DL507910	11.0	180	300
DL507915	11.5	180	300
DL507920	12.0	180	300
DL507925	12.5	180	300
DL507930	13.0	180	300

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels ~HB225	合金钢 Alloy Steels HB225~325	预硬钢 Prehardened Steels HRc30~45	硬化钢 Hardened Steels HRc45~55	硬化钢 Hardened Steels HRc55~	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
◎	◎				○	◎			○		

WORM PATTERN DRILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

HSS-E, DH100蜗式钻头, DIN1897, DIN338, DIN340, DIN1869, DIN341, DIN1870
HSS-E, DH100 TYPE WORM PATTERN DRILLS, DIN1897, DIN338, DIN340, DIN1869, DIN341, DIN1870

DL505, DL504, DL600, DL608, DL609, DL610, DL126 SERIES

单位(Unit) : mm

被加工材料	碳钢, 合金钢		工具钢, 硬化钢		软灰铸铁		硬灰铸铁	
WORK MATERIAL	CARBON STEELS ALLOY STEELS		TOOL STEELS HARDENED STEELS		SOFT GREY CAST IRON		HARD GREY CAST IRON	
HARDNESS	HRc15 ~ 30		HRc20 ~ 40					
STRENGTH	700 ~ 1000 N/mm²		800 ~ 1200 N/mm²					
DIAMETER	N	S	N	S	N	S	N	S
2.0	2630	0.03	2100	0.025	4200	0.06	1680	0.05
2.5	2100	0.04	1680	0.03	3300	0.08	1310	0.06
3.0	1680	0.05	1310	0.04	2630	0.10	1050	0.08
4.0	1310	0.06	1050	0.05	2100	0.13	840	0.10
5.0	1050	0.06	840	0.05	1680	0.13	660	0.10
6.0	840	0.08	660	0.06	1310	0.16	530	0.13
8.0	660	0.10	530	0.08	1050	0.20	420	0.17
10.0	530	0.13	420	0.10	840	0.25	330	0.21
13.0	420	0.13	330	0.10	660	0.25	260	0.21
16.0	330	0.15	260	0.13	530	0.30	210	0.25
20.0	260	0.20	210	0.15	420	0.40	170	0.30
25.0	210	0.25	170	0.20	330	0.50	130	0.50
30.0	170	0.25	130	0.20	260	0.50	110	0.50

N = R.P.M
S = Feed per Revolution (mm/rev.)

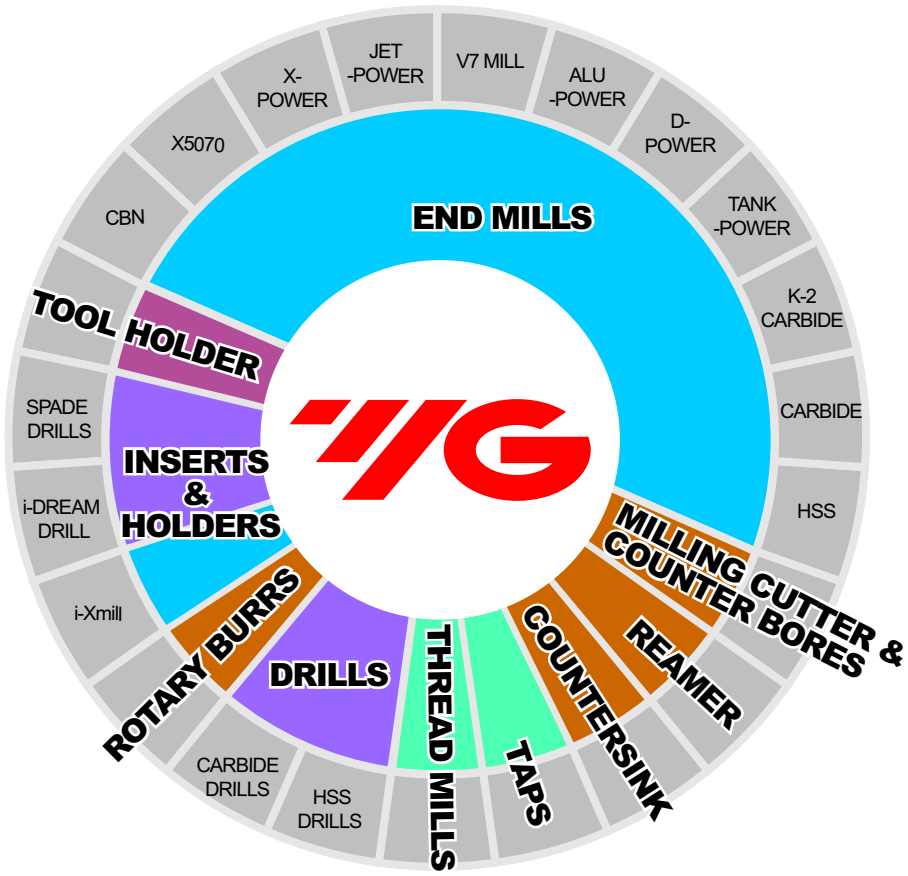
HSS-E, DH50蜗式钻头
HSS-E, DH50 TYPE WORM PATTERN DRILLS

DL507 SERIES

单位(Unit) : mm

被加工材料	碳钢, 合金钢		软灰铸铁		铝合金	
WORK MATERIAL	CARBON STEELS ALLOY STEELS		SOFT GREY CAST IRON		ALUMINUM ALLOY	
HARDNESS	HRc15 ~ 30					
STRENGTH	700 ~ 1000 N/mm²					
DIAMETER	N	S	N	S	N	S
2.0	2630	0.03	4200	0.06	8700	0.04
2.5	2100	0.04	3300	0.08	6950	0.05
3.0	1680	0.05	2630	0.10	5800	0.06
4.0	1310	0.06	2100	0.13	4300	0.08
5.0	1050	0.06	1680	0.13	3500	0.10
6.0	840	0.08	1310	0.16	2900	0.12
8.0	660	0.10	1050	0.20	2200	0.16
10.0	530	0.13	840	0.25	1750	0.20
13.0	420	0.13	660	0.25	1350	0.26

N = R.P.M
S = Feed per Revolution (mm/rev.)

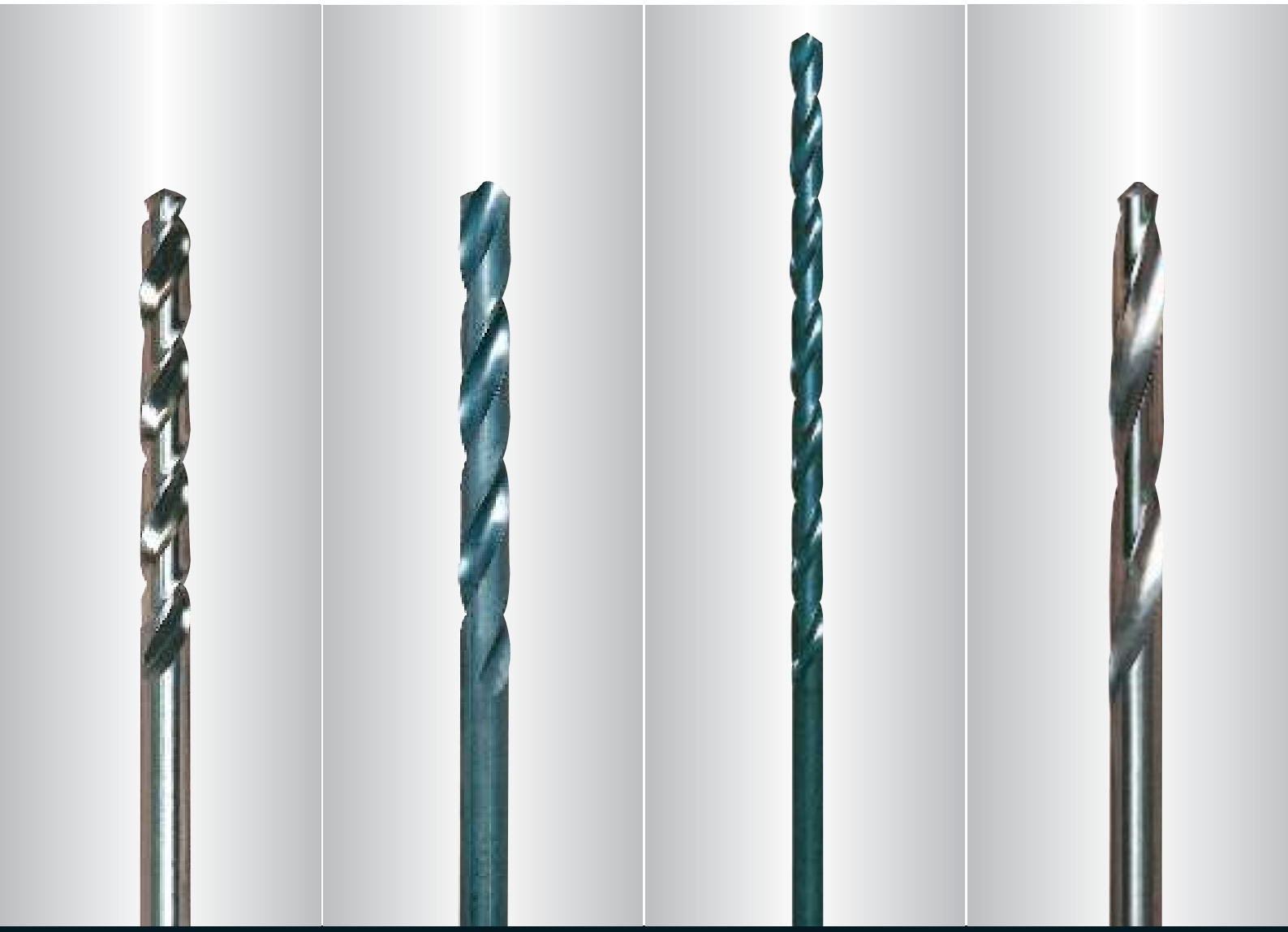


Challenge toward a Global Leader-

YG-1 Leads the World Market.

HSS

Being the best through innovation

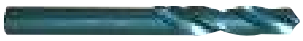


STRAIGHT SHANK DRILLS

- 普通用途(HSS & HSS-E & 含钴8%)

General Purpose (HSS & HSS-E & 8% Cobalt)

直柄钻头
高速钢钻头为了加工软质材料&含钴高速钢加工硬质材料

项目 ITEM	型号 MODEL	规格 DESCRIPTION		尺寸 SIZE 最小 MIN	尺寸 SIZE 最大 MAX	页 PAGE
D2107		HSSCo8，直柄麻花钻头 HSSCo8, STRAIGHT SHANK TWIST DRILLS	超短 *STUB*	D1.0	D31.0	168
D1107		HSS，直柄麻花钻头 HSS, STRAIGHT SHANK TWIST DRILLS	超短 *STUB*	D1.0	D13.0	171
D2105		HSSCo8，直柄麻花钻头 HSSCo8, STRAIGHT SHANK TWIST DRILLS	细长 *JOBBER*	D1.0	D20.0	173
D1105		HSS，直柄麻花钻头 HSS, STRAIGHT SHANK TWIST DRILLS	细长 *JOBBER*	D0.3	D20.0	176
D2104		HSSCo8，直柄麻花钻头 HSSCo8, STRAIGHT SHANK TWIST DRILLS	细长 *JOBBER*	D2.0	D12.0	180
D1121		HSS，直柄麻花钻头 HSS, STRAIGHT SHANK TWIST DRILLS	细长 *JOBBER*	D2.0	D13.0	182
DL109		HSS-E，重加工用直柄麻花钻头 HSS-E, STRAIGHT SHANK TWIST DRILLS for HEAVY DUTY	细长 *JOBBER*	D1.5	D13.0	183
D1100		HSS，黄铜/青铜用直柄麻花钻头 HSS, STRAIGHT SHANK TWIST DRILLS for BRASS / BRONZE	细长 *JOBBER*	D1.5	D13.0	184
D1106		HSS，铝用直柄麻花钻头 HSS, STRAIGHT SHANK TWIST DRILLS for ALUMINUM	细长 *JOBBER*	D1.5	D13.0	186
D1101		HSS，直柄麻花钻头 HSS, STRAIGHT SHANK TWIST DRILLS	常规 *REGULAR*	D1.0	D13.0	188
D2101		HSSCo8，直柄麻花钻头 HSSCo8, STRAIGHT SHANK TWIST DRILLS	常规 *REGULAR*	D2.0	D13.0	190
D1102		HSS，直柄钻头 HSS, STRAIGHT SHANK DRILLS	长 *LONG*	D2.0	D13.0	192
D1123		HSS，直柄钻头 HSS, STRAIGHT SHANK DRILLS	常规 *REGULAR*	D1.0	D13.0	198
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS				200

STRAIGHT SHANK TWIST DRILLS

HSS Drills for soft materials & HSS cobalt Drills for tough materials

◎ : 优(Excellent)
○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		铸铁	铝	不锈钢	钛	低碳钢	铜	青铜
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	○		
◎	◎				○	○	○	○	○		
◎	◎				○	○	◎	○	○		
◎	◎				○	○	○	○	○		
◎	◎				○	○	◎	○	○		
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STRAIGHT SHANK DRILLS

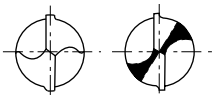
D2107 SERIES

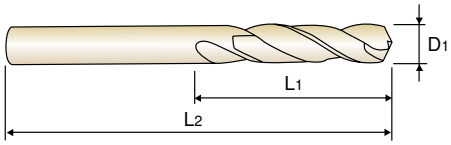
HSSCo8, 直柄麻花钻头
HSSCo8, STRAIGHT SHANK TWIST DRILLS

超短 STUB

▶表面处理 ：着色(金黄色)
▶应用 ：适用于使用手提式电钻机加工较薄的材料.
特制的麻花钻头适合于自动车床和六角车床使用.

▶ **Surface treatment** : Coloring(Gold color)
▶ **Application** : Suitable for drilling thin materials with portable electric drills.
Special twist drills for automatic and turret lathes





DIN 1897 | HSS Co8 | N 33° | h8 | 135° P.200

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D2107010	1.0	6	26	D2107034	3.4	20	52
D2107011	1.1	7	28	D2107035	3.5	20	52
D2107012	1.2	8	30	D2107036	3.6	20	52
D2107912	1.25	8	30	D2107037	3.7	20	52
D2107013	1.3	8	30	D2107937	3.75	20	52
D2107014	1.4	9	32	D2107038	3.8	22	55
D2107015	1.5	9	32	D2107039	3.9	22	55
D2107016	1.6	10	34	D2107040	4.0	22	55
D2107017	1.7	10	34	D2107041	4.1	22	55
D2107917	1.75	11	36	D2107042	4.2	22	55
D2107018	1.8	11	36	D2107942	4.25	22	55
D2107019	1.9	11	36	D2107043	4.3	24	58
D2107020	2.0	12	38	D2107044	4.4	24	58
D2107021	2.1	12	38	D2107045	4.5	24	58
D2107022	2.2	13	40	D2107046	4.6	24	58
D2107925	2.55	13	40	D2107946	4.65	24	58
D2107023	2.3	13	40	D2107047	4.7	24	58
D2107024	2.4	14	43	D2107947	4.75	24	58
D2107025	2.5	14	43	D2107048	4.8	26	62
D2107026	2.6	14	43	D2107049	4.9	26	62
D2107027	2.7	16	46	D2107050	5.0	26	62
D2107927	2.75	16	46	D2107051	5.1	26	62
D2107028	2.8	16	46	D2107052	5.2	26	62
D2107029	2.9	16	46	D2107952	5.25	26	62
D2107030	3.0	16	46	D2107053	5.3	26	62
D2107031	3.1	18	49	D2107054	5.4	28	66
D2107032	3.2	18	49	D2107055	5.5	28	66
D2107932	3.25	18	49	D2107955	5.55	28	66
D2107033	3.3	18	49	D2107056	5.6	28	66

▶ HSS-E(DL107)可根据客户需求进行加工./ HSS-E(DL107) is available on your request.
▶ TiN(D4107),TiCN(D7107),TiAlN(DQ107)可根据客户需求进行加工./ TiN(D4107), TiCN(D7107) and TiAlN(DQ107) are available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	○		

STRAIGHT SHANK DRILLS

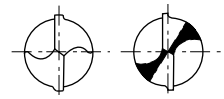
D2107 SERIES

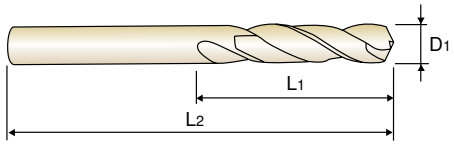
HSSCo8, 直柄麻花钻头
HSSCo8, STRAIGHT SHANK TWIST DRILLS

超短
STUB

▶表面处理：着色(金黄色)
▶应用　　：适用于使用手提式电钻机加工较薄的材料.
特制的麻花钻头适合于自动车床和六角车床使用.

▶**Surface treatment**: Coloring(Gold color)
▶**Application** : Suitable for drilling thin materials with portable electric drills.
Special twist drills for automatic and turret lathes





DIN 1897 | HSS Co8 | N 33° | h8 | 135° P.200

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D2107057	5.7	28	66	D2107080	8.0	37	79
D2107957	5.75	28	66	D2107081	8.1	37	79
D2107058	5.8	28	66	D2107082	8.2	37	79
D2107059	5.9	28	66	D2107982	8.25	37	79
D2107060	6.0	28	66	D2107083	8.3	37	79
D2107061	6.1	31	70	D2107084	8.4	37	79
D2107062	6.2	31	70	D2107085	8.5	37	79
D2107962	6.25	31	70	D2107086	8.6	40	84
D2107063	6.3	31	70	D2107087	8.7	40	84
D2107064	6.4	31	70	D2107987	8.75	40	84
D2107065	6.5	31	70	D2107088	8.8	40	84
D2107066	6.6	31	70	D2107089	8.9	40	84
D2107067	6.7	31	70	D2107090	9.0	40	84
D2107967	6.75	34	74	D2107091	9.1	40	84
D2107068	6.8	34	74	D2107092	9.2	40	84
D2107069	6.9	34	74	D2107992	9.25	40	84
D2107070	7.0	34	74	D2107093	9.3	40	84
D2107071	7.1	34	74	D2107993	9.35	40	84
D2107072	7.2	34	74	D2107094	9.4	40	84
D2107972	7.25	34	74	D2107095	9.5	40	84
D2107073	7.3	34	74	D2107096	9.6	43	89
D2107074	7.4	34	74	D2107097	9.7	43	89
D2107974	7.45	34	74	D2107997	9.75	43	89
D2107075	7.5	34	74	D2107098	9.8	43	89
D2107076	7.6	37	79	D2107099	9.9	43	89
D2107077	7.7	37	79	D2107100	10.0	43	89
D2107977	7.75	37	79	D2107102	10.2	43	89
D2107078	7.8	37	79	D2107802	10.25	43	89
D2107079	7.9	37	79	D2107105	10.5	43	89

▶ HSS-E(DL107)可根据客户需求进行加工./ HSS-E(DL107) is available on your request.
▶ TiN(D4107),TiCN(D7107),TiAlN(DQ107)可根据客户需求进行加工./ TiN(D4107), TiCN(D7107) and TiAlN(DQ107) are available on your request.

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	○		

STRAIGHT SHANK DRILLS

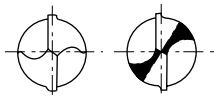
D2107 SERIES

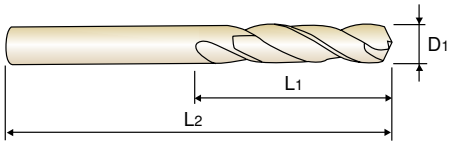
HSSCo8, 直柄麻花钻头
HSSCo8, STRAIGHT SHANK TWIST DRILLS

超短 STUB

▶表面处理 ：着色(金黄色)
▶应用 ：适用于使用手提式电钻机加工较薄的材料.
特制的麻花钻头适合于自动车床和六角车床使用.

▶ **Surface treatment** : Coloring(Gold color)
▶ **Application** : Suitable for drilling thin materials with portable electric drills.
Special twist drills for automatic and turret lathes





DIN 1897 | HSS Co8 | N 33° | h8 | 135° P.200

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D2107807	10.75	47	95	D2107872	17.25	62	123
D2107110	11.0	47	95	D2107175	17.5	62	123
D2107812	11.25	47	95	D2107877	17.75	62	123
D2107115	11.5	47	95	D2107180	18.0	62	123
D2107817	11.75	47	95	D2107882	18.25	64	127
D2107118	11.8	47	95	D2107185	18.5	64	127
D2107120	12.0	51	102	D2107887	18.75	64	127
D2107822	12.25	51	102	D2107190	19.0	64	127
D2107125	12.5	51	102	D2107892	19.25	66	131
D2107827	12.75	51	102	D2107195	19.5	66	131
D2107130	13.0	51	102	D2107897	19.75	66	131
D2107832	13.25	54	107	D2107200	20.0	66	131
D2107135	13.5	54	107	D2107205	20.5	68	136
D2107837	13.75	54	107	D2107210	21.0	68	136
D2107138	13.8	54	107	D2107215	21.5	70	141
D2107140	14.0	54	107	D2107220	22.0	70	141
D2107842	14.25	56	111	D2107225	22.5	72	146
D2107145	14.5	56	111	D2107230	23.0	72	146
D2107847	14.75	56	111	D2107235	23.5	72	146
D2107150	15.0	56	111	D2107240	24.0	75	151
D2107852	15.25	58	115	D2107245	24.5	75	151
D2107155	15.5	58	115	D2107250	25.0	75	151
D2107857	15.75	58	115	D2107260	26.0	78	156
D2107160	16.0	58	115	D2107270	27.0	81	162
D2107862	16.25	60	119	D2107280	28.0	81	162
D2107165	16.5	60	119	D2107290	29.0	84	168
D2107867	16.75	60	119	D2107300	30.0	84	168
D2107170	17.0	60	119	D2107310	31.0	87	174

▶ HSS-E(DL107)可根据客户需求进行加工./ HSS-E(DL107) is available on your request.
▶ TiN(D4107),TiCN(D7107),TiAlN(DQ107)可根据客户需求进行加工./ TiN(D4107), TiCN(D7107) and TiAlN(DQ107) are available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels ~HB225	合金钢 Alloy Steels HB225~325	预硬钢 Prehardened Steels HRc30~45	硬化钢 Hardened Steels HRc45~55	硬化钢 Hardened Steels HRc55~	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
◎	◎				○	○	○	○	○		

STRAIGHT SHANK DRILLS

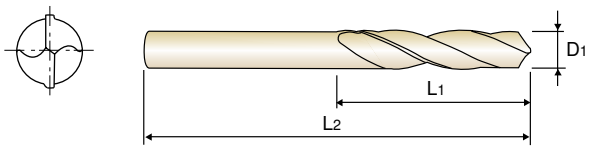
D1107 SERIES

HSS, 直柄麻花钻头
HSS, STRAIGHT SHANK TWIST DRILLS

超短
STUB

▶表面处理：氧化发黑处理，2mm以下无着色
▶应用　　：适用于使用手提式电钻机加工较薄的材料.
特制的麻花钻头适合于自动车床和六角车床使用.

▶**Surface treatment**: Steam Homo (Black Oxide Finish)
Bright Finish under 2mm
▶**Application** : Suitable for drilling thin materials with portable electric drills.
Special twist drills for automatic and turret lathes.



DIN 1897 | HSS | N 20~30° | h8 | 118° | P.200

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
* D1107010	1.0	6	26
* D1107011	1.1	7	28
* D1107012	1.2	8	30
* D1107912	1.25	8	30
* D1107013	1.3	8	30
* D1107014	1.4	9	32
* D1107015	1.5	9	32
* D1107016	1.6	9	34
* D1107017	1.7	10	34
* D1107917	1.75	11	36
* D1107018	1.8	11	36
* D1107019	1.9	11	36
D1107020	2.0	12	38
D1107021	2.1	12	38
D1107022	2.2	13	40
D1107922	2.25	13	40
D1107023	2.3	13	40
D1107024	2.4	14	43
D1107025	2.5	14	43
D1107026	2.6	14	43
D1107027	2.7	16	46
D1107927	2.75	16	46
D1107028	2.8	16	46
D1107029	2.9	16	46
D1107030	3.0	16	46
D1107031	3.1	18	49
D1107032	3.2	18	49
D1107932	3.25	18	49
D1107033	3.3	18	49
D1107034	3.4	20	52
D1107035	3.5	20	52

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D1107036	3.6	20	52
D1107037	3.7	20	52
D1107937	3.75	20	52
D1107038	3.8	22	55
D1107039	3.9	22	55
D1107040	4.0	22	55
D1107041	4.1	22	55
D1107042	4.2	22	55
D1107942	4.25	22	55
D1107043	4.3	24	58
D1107044	4.4	24	58
D1107045	4.5	24	58
D1107046	4.6	24	58
D1107047	4.7	24	58
D1107947	4.75	24	58
D1107048	4.8	26	62
D1107049	4.9	26	62
D1107050	5.0	26	62
D1107051	5.1	26	62
D1107052	5.2	26	62
D1107952	5.25	26	62
D1107053	5.3	26	62
D1107054	5.4	28	66
D1107055	5.5	28	66
D1107056	5.6	28	66
D1107057	5.7	28	66
D1107957	5.75	28	66
D1107058	5.8	28	66
D1107059	5.9	28	66
D1107060	6.0	28	66
D1107061	6.1	31	70

* 光亮色 / Bright Finish

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	○		

STRAIGHT SHANK DRILLS

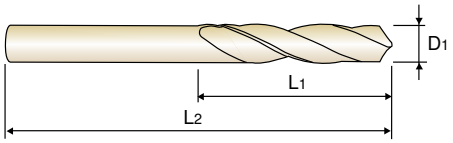
D1107 SERIES

HSS, 直柄麻花钻头
HSS, STRAIGHT SHANK TWIST DRILLS

超短 STUB

▶表面处理 ：着色(氧化发黑处理)
▶应用 ：适用于使用手提式电钻机加工较薄的材料.
特制的麻花钻头适合于自动车床和六角车床使用.

▶**Surface treatment**: Steam Homo (Black Oxide Finish)
▶**Application** : Suitable for drilling thin materials with portable electric drills.
Special twist drills for automatic and turret lathes.



DIN 1897 | HSS | N 20~30° | h8 | 118° P.200

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D1107062	6.2	31	70	D1107087	8.7	40	84
D1107962	6.25	31	70	D1107987	8.75	40	84
D1107063	6.3	31	70	D1107088	8.8	40	84
D1107064	6.4	31	70	D1107089	8.9	40	84
D1107065	6.5	31	70	D1107090	9.0	40	84
D1107066	6.6	31	70	D1107091	9.1	40	84
D1107067	6.7	31	70	D1107092	9.2	40	84
D1107967	6.75	34	74	D1107992	9.25	40	84
D1107068	6.8	34	74	D1107093	9.3	40	84
D1107069	6.9	34	74	D1107094	9.4	40	84
D1107070	7.0	34	74	D1107095	9.5	40	84
D1107071	7.1	34	74	D1107096	9.6	43	89
D1107072	7.2	34	74	D1107097	9.7	43	89
D1107972	7.25	34	74	D1107997	9.75	43	89
D1107073	7.3	34	74	D1107098	9.8	43	89
D1107074	7.4	34	74	D1107099	9.9	43	89
D1107075	7.5	34	74	D1107100	10.0	43	89
D1107076	7.6	37	79	D1107802	10.25	43	89
D1107077	7.7	37	79	D1107105	10.5	43	89
D1107977	7.75	37	79	D1107807	10.75	47	95
D1107078	7.8	37	79	D1107110	11.0	47	95
D1107079	7.9	37	79	D1107812	11.25	47	95
D1107080	8.0	37	79	D1107115	11.5	47	95
D1107081	8.1	37	79	D1107817	11.75	47	95
D1107082	8.2	37	79	D1107120	12.0	51	102
D1107982	8.25	37	79	D1107822	12.25	51	102
D1107083	8.3	37	79	D1107125	12.5	51	102
D1107084	8.4	37	79	D1107827	12.75	51	102
D1107085	8.5	37	79	D1107130	13.0	51	102
D1107086	8.6	40	84				

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	○		

STRAIGHT SHANK DRILLS

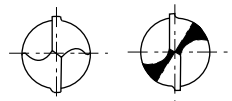
D2105 SERIES

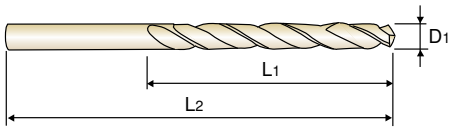
HSSCo8, 直柄麻花钻头
HSSCo8, STRAIGHT SHANK TWIST DRILLS

细长
JOBBER

▶表面处理：着色(金黄色)
▶应用　　：适用于加工不锈钢, 及钛, 镍铬合金等难加工材料.

▶**Surface treatment**: Coloring(Gold color)
▶**Application** : Drilling stainless steels and difficult - to - cut materials such as titanium and inconel.





DIN 338 | HSS Co8 | N 33° | h8 | 135° P.200

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D2105010	1.0	12	34	D2105031	3.1	36	65
D2105011	1.1	14	36	D2105032	3.2	36	65
D2105012	1.2	16	38	D2105932	3.25	36	65
D2105912	1.25	16	38	D2105033	3.3	36	65
D2105013	1.3	16	38	D2105034	3.4	39	70
D2105014	1.4	18	40	D2105035	3.5	39	70
D2105015	1.5	18	40	D2105036	3.6	39	70
D2105016	1.6	20	43	D2105037	3.7	39	70
D2105017	1.7	20	43	D2105937	3.75	39	70
D2105917	1.75	22	46	D2105038	3.8	43	75
D2105018	1.8	22	46	D2105039	3.9	43	75
D2105019	1.9	22	46	D2105040	4.0	43	75
D2105020	2.0	24	49	D2105041	4.1	43	75
D2105021	2.1	24	49	D2105042	4.2	43	75
D2105022	2.2	27	53	D2105942	4.25	43	75
D2105922	2.25	27	53	D2105043	4.3	47	80
D2105023	2.3	27	53	D2105044	4.4	47	80
D2105024	2.4	30	57	D2105045	4.5	47	80
D2105025	2.5	30	57	D2105046	4.6	47	80
D2105026	2.6	30	57	D2105047	4.7	47	80
D2105027	2.7	33	61	D2105947	4.75	47	80
D2105927	2.75	33	61	D2105048	4.8	52	86
D2105028	2.8	33	61	D2105049	4.9	52	86
D2105029	2.9	33	61	D2105050	5.0	52	86
D2105030	3.0	33	61	D2105051	5.1	52	86

▶ TiN (D4105),TiCN (D7105) ,TiAlN (DQ105) 可根据客户需求进行加工.
TiN(D4105), TiCN(D7105) and TiAlN(DQ105) are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	◎	○	○		

STRAIGHT SHANK DRILLS

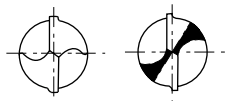
D2105 SERIES

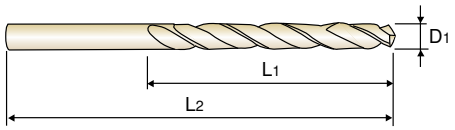
HSSCo8, 直柄麻花钻头
HSSCo8, STRAIGHT SHANK TWIST DRILLS

细长 JOBBER

▶表面处理 ：着色(金黄色)
▶应用 ：适用于加工不锈钢，及钛，镍铬合金等难加工材料.

▶ **Surface treatment** : Coloring(Gold color)
▶ **Application** : Drilling stainless steels and difficult - to - cut materials such as titanium and inconel.





DIN 338 | HSS Co8 | N 33° | h8 | 135° P.200

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D2105052	5.2	52	86	D2105972	7.25	69	109
D2105952	5.25	52	86	D2105073	7.3	69	109
D2105053	5.3	52	86	D2105074	7.4	69	109
D2105054	5.4	57	93	D2105075	7.5	69	109
D2105055	5.5	57	93	D2105076	7.6	75	117
D2105056	5.6	57	93	D2105077	7.7	75	117
D2105057	5.7	57	93	D2105977	7.75	75	117
D2105957	5.75	57	93	D2105078	7.8	75	117
D2105058	5.8	57	93	D2105079	7.9	75	117
D2105059	5.9	57	93	D2105080	8.0	75	117
D2105060	6.0	57	93	D2105081	8.1	75	117
D2105061	6.1	63	101	D2105082	8.2	75	117
D2105062	6.2	63	101	D2105982	8.25	75	117
D2105962	6.25	63	101	D2105083	8.3	75	117
D2105063	6.3	63	101	D2105084	8.4	75	117
D2105064	6.4	63	101	D2105085	8.5	75	117
D2105065	6.5	63	101	D2105086	8.6	81	125
D2105066	6.6	63	101	D2105087	8.7	81	125
D2105067	6.7	63	101	D2105987	8.75	81	125
D2105967	6.75	69	109	D2105088	8.8	81	125
D2105068	6.8	69	109	D2105089	8.9	81	125
D2105069	6.9	69	109	D2105090	9.0	81	125
D2105070	7.0	69	109	D2105091	9.1	81	125
D2105071	7.1	69	109	D2105092	9.2	81	125
D2105072	7.2	69	109	D2105992	9.25	81	125

▶ TiN (D4105),TiCN (D7105),TiAlN (DQ105)可根据客户需求进行加工.
TiN(D4105), TiCN(D7105) and TiAlN(DQ105) are available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels ~HB225	合金钢 Alloy Steels HB225~325	预硬钢 Prehardened Steels HRc30~45	硬化钢 Hardened Steels HRc45~55	硬化钢 Hardened Steels HRc55~	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
◎	◎				○	○	◎	○	○		

STRAIGHT SHANK DRILLS

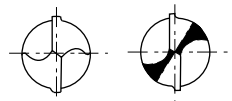
D2105 SERIES

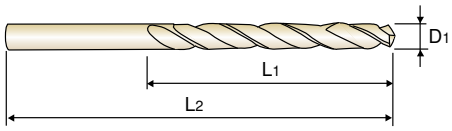
HSSCo8, 直柄麻花钻头
HSSCo8, STRAIGHT SHANK TWIST DRILLS

细长
JOBBER

▶表面处理：着色(金黄色)
▶应用　　：适用于加工不锈钢, 及钛, 镍铬合金等难加工材料.

▶**Surface treatment**: Coloring(Gold color)
▶**Application** : Drilling stainless steels and difficult - to - cut materials such as titanium and inconel.





DIN 338 | HSS Co8 | N 33° | h8 | 135° | P.200

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D2105093	9.3	81	125	D2105130	13.0	101	151
D2105094	9.4	81	125	D2105135	13.5	108	160
D2105095	9.5	81	125	D2105140	14.0	108	160
D2105096	9.6	87	133	D2105145	14.5	114	169
D2105097	9.7	87	133	D2105150	15.0	114	169
D2105997	9.75	87	133	D2105155	15.5	120	178
D2105098	9.8	87	133	D2105160	16.0	120	178
D2105099	9.9	87	133	D2105165	16.5	125	184
D2105100	10.0	87	133	D2105170	17.0	125	184
D2105102	10.2	87	133	D2105175	17.5	130	191
D2105105	10.5	87	133	D2105180	18.0	130	191
D2105110	11.0	94	142	D2105185	18.5	135	198
D2105115	11.5	94	142	D2105190	19.0	135	198
D2105120	12.0	101	151	D2105195	19.5	140	205
D2105125	12.5	101	151	D2105200	20.0	140	205

▶ TiN (D4105),TiCN (D7105),TiAlN (DQ105) 可根据客户需求进行加工.
TiN(D4105), TiCN(D7105) and TiAlN(DQ105) are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	◎	○	○		

STRAIGHT SHANK DRILLS

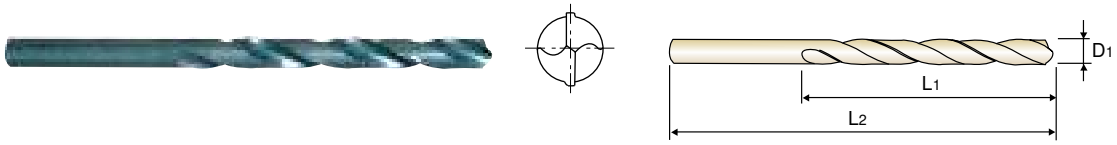
D1105 SERIES

HSS, 直柄麻花钻头
HSS, STRAIGHT SHANK TWIST DRILLS

细长 JOBBER

▶表面处理 ：氧化发黑处理，2mm以下无着色
▶应用 ：适用于钢，铸铁合金及非合金，灰铸铁，可锻造铸铁和石墨的加工.

▶**Surface treatment** : Steam Homo (Black Oxide Finish) Bright Finish under 2mm
▶**Application** : Drilling steels, cast steels alloyed and non-alloyed, grey cast iron, malleable cast iron and graphite.



DIN 338 | HSS | N 20~30° | h8 | 118° P.200

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
✱ D1105003G	0.3	3	19
✱ D1105004G	0.4	5	20
✱ D1105005G	0.5	6	22
✱ D1105006G	0.6	7	24
✱ D1105007G	0.7	9	28
✱ D1105008G	0.8	10	30
✱ D1105009G	0.9	11	32
✱ D1105010	1.0	12	34
✱ D1105910	1.05	12	34
✱ D1105011	1.1	14	36
✱ D1105911	1.15	14	36
✱ D1105012	1.2	16	38
✱ D1105912	1.25	16	38
✱ D1105013	1.3	16	38
✱ D1105913	1.35	18	40
✱ D1105014	1.4	18	40
✱ D1105914	1.45	18	40
✱ D1105015	1.5	18	40
✱ D1105915	1.55	20	43
✱ D1105016	1.6	20	43
✱ D1105916	1.65	20	43
✱ D1105017	1.7	20	43
✱ D1105917	1.75	22	46
✱ D1105018	1.8	22	46
✱ D1105918	1.85	22	46
✱ D1105019	1.9	22	46
D1105919	1.95	24	49
D1105020	2.0	24	49
D1105920	2.05	24	49
D1105021	2.1	24	49

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D1105921	2.15	27	53
D1105022	2.2	27	53
D1105922	2.25	27	53
D1105023	2.3	27	53
D1105923	2.35	27	53
D1105024	2.4	30	57
D1105924	2.45	30	57
D1105025	2.5	30	57
D1105925	2.55	30	57
D1105026	2.6	30	57
D1105926	2.65	30	57
D1105027	2.7	33	61
D1105927	2.75	33	61
D1105028	2.8	33	61
D1105928	2.85	33	61
D1105029	2.9	33	61
D1105929	2.95	33	61
D1105030	3.0	33	61
D1105930	3.05	36	65
D1105031	3.1	36	65
D1105931	3.15	36	65
D1105032	3.2	36	65
D1105932	3.25	36	65
D1105033	3.3	36	65
D1105933	3.35	36	65
D1105034	3.4	39	70
D1105934	3.45	39	70
D1105035	3.5	39	70
D1105935	3.55	39	70
D1105036	3.6	39	70

✱ 光亮色 / Bright Finish

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels ~HB225	合金钢 Alloy Steels HB225~325	预硬钢 Prehardened Steels HRc30~45	硬化钢 Hardened Steels HRc45~55	硬化钢 Hardened Steels HRc55~	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
◎	◎				○	○	○	○	○		

STRAIGHT SHANK DRILLS

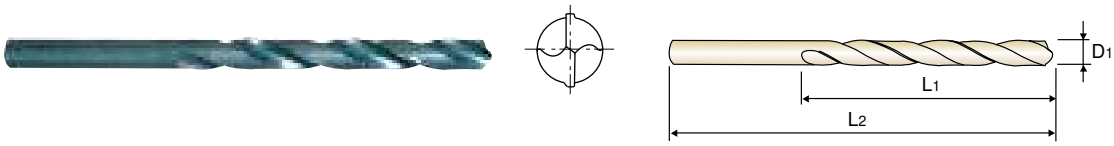
D1105 SERIES

HSS, 直柄麻花钻头
HSS, STRAIGHT SHANK TWIST DRILLS

细长
JOBBER

▶表面处理：氧化发黑处理
▶应用　　：适用于钢，铸铁合金及非合金，灰铸铁，可锻造铸铁和石墨的加工.

▶**Surface treatment** : Steam Homo (Black Oxide Finish)
▶**Application** : Drilling steels, cast steels alloyed and non-alloyed, grey cast iron, malleable cast iron and graphite.



DIN 338 | HSS | N 20~30° | h8 | 118° | P.200

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D1105936	3.65	39	70	D1105951	5.15	52	86
D1105037	3.7	39	70	D1105052	5.2	52	86
D1105937	3.75	39	70	D1105952	5.25	52	86
D1105038	3.8	43	75	D1105053	5.3	52	86
D1105938	3.85	43	75	D1105953	5.35	57	93
D1105039	3.9	43	75	D1105054	5.4	57	93
D1105939	3.95	43	75	D1105954	5.45	57	93
D1105040	4.0	43	75	D1105055	5.5	57	93
D1105940	4.05	43	75	D1105955	5.55	57	93
D1105041	4.1	43	75	D1105056	5.6	57	93
D1105941	4.15	43	75	D1105956	5.65	57	93
D1105042	4.2	43	75	D1105057	5.7	57	93
D1105942	4.25	43	75	D1105957	5.75	57	93
D1105043	4.3	47	80	D1105058	5.8	57	93
D1105943	4.35	47	80	D1105958	5.85	57	93
D1105044	4.4	47	80	D1105059	5.9	57	93
D1105944	4.45	47	80	D1105959	5.95	57	93
D1105045	4.5	47	80	D1105060	6.0	57	93
D1105945	4.55	47	80	D1105960	6.05	63	101
D1105046	4.6	47	80	D1105061	6.1	63	101
D1105946	4.65	47	80	D1105961	6.15	63	101
D1105047	4.7	47	80	D1105062	6.2	63	101
D1105947	4.75	47	80	D1105962	6.25	63	101
D1105048	4.8	52	86	D1105063	6.3	63	101
D1105948	4.85	52	86	D1105963	6.35	63	101
D1105049	4.9	52	86	D1105064	6.4	63	101
D1105949	4.95	52	86	D1105964	6.45	63	101
D1105050	5.0	52	86	D1105065	6.5	63	101
D1105950	5.05	52	86	D1105965	6.55	63	101
D1105051	5.1	52	86	D1105066	6.6	63	101

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	○		

STRAIGHT SHANK DRILLS

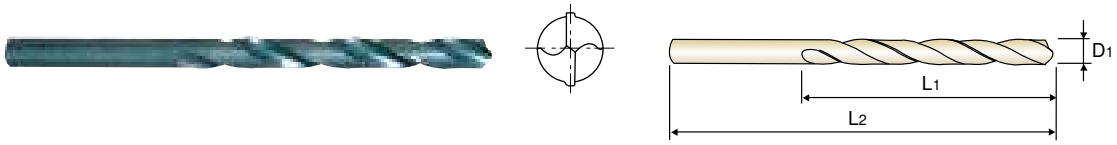
D1105 SERIES

HSS, 直柄麻花钻头
HSS, STRAIGHT SHANK TWIST DRILLS

细长 JOBBER

▶表面处理 ：氧化发黑处理
▶应用 ：适用于钢，铸铁合金及非合金，灰铸铁，可锻造铸铁和石墨的加工.

▶**Surface treatment** : Steam Homo (Black Oxide Finish)
▶**Application** : Drilling steels, cast steels alloyed and non-alloyed, grey cast iron, malleable cast iron and graphite.



DIN 338 | HSS | N 20~30° | h8 | 118° P.200

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D1105966	6.65	63	101	D1105982	8.25	75	117
D1105067	6.7	63	101	D1105083	8.3	75	117
D1105967	6.75	69	109	D1105084	8.4	75	117
D1105068	6.8	69	109	D1105085	8.5	75	117
D1105968	6.85	69	109	D1105086	8.6	81	125
D1105069	6.9	69	109	D1105087	8.7	81	125
D1105969	6.95	69	109	D1105987	8.75	81	125
D1105070	7.0	69	109	D1105088	8.8	81	125
D1105970	7.05	69	109	D1105089	8.9	81	125
D1105071	7.1	69	109	D1105090	9.0	81	125
D1105971	7.15	69	109	D1105091	9.1	81	125
D1105072	7.2	69	109	D1105092	9.2	81	125
D1105972	7.25	69	109	D1105992	9.25	81	125
D1105073	7.3	69	109	D1105093	9.3	81	125
D1105973	7.35	69	109	D1105094	9.4	81	125
D1105074	7.4	69	109	D1105095	9.5	81	125
D1105974	7.45	69	109	D1105096	9.6	87	133
D1105075	7.5	69	109	D1105097	9.7	87	133
D1105975	7.55	75	117	D1105997	9.75	87	133
D1105076	7.6	75	117	D1105098	9.8	87	133
D1105976	7.65	75	117	D1105099	9.9	87	133
D1105077	7.7	75	117	D1105100	10.0	87	133
D1105977	7.75	75	117	D1105101	10.1	87	133
D1105078	7.8	75	117	D1105102	10.2	87	133
D1105978	7.85	75	117	D1105802	10.25	87	133
D1105079	7.9	75	117	D1105103	10.3	87	133
D1105979	7.95	75	117	D1105104	10.4	87	133
D1105080	8.0	75	117	D1105105	10.5	87	133
D1105081	8.1	75	117	D1105106	10.6	87	133
D1105082	8.2	75	117	D1105107	10.7	94	142

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	○		

STRAIGHT SHANK DRILLS

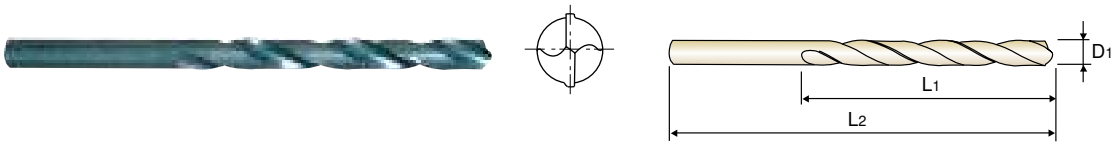
D1105 SERIES

HSS, 直柄麻花钻头
HSS, STRAIGHT SHANK TWIST DRILLS

细长
JOBBER

▶表面处理：氧化发黑处理
▶应用　　：适用于钢，铸铁合金及非合金，灰铸铁，可锻造铸铁和石墨的加工.

▶**Surface treatment** : Steam Homo (Black Oxide Finish)
▶**Application** : Drilling steels, cast steels alloyed and non-alloyed, grey cast iron, malleable cast iron and graphite.



DIN 338 | HSS | N 20~30° | h8 | 118° | P.200

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D1105807	10.75	94	142	D1105832	13.25	108	160
D1105108	10.8	94	142	D1105135	13.5	108	160
D1105109	10.9	94	142	D1105837	13.75	108	160
D1105110	11.0	94	142	D1105140	14.0	108	160
D1105111	11.1	94	142	D1105842	14.25	114	169
D1105112	11.2	94	142	D1105145	14.5	114	169
D1105812	11.25	94	142	D1105847	14.75	114	169
D1105113	11.3	94	142	D1105150	15.0	114	169
D1105114	11.4	94	142	D1105852	15.25	120	178
D1105115	11.5	94	142	D1105155	15.5	120	178
D1105116	11.6	94	142	D1105857	15.75	120	178
D1105117	11.7	94	142	D1105160	16.0	120	178
D1105817	11.75	94	142	D1105862	16.25	125	184
D1105118	11.8	94	142	D1105165	16.5	125	184
D1105119	11.9	101	151	D1105867	16.75	125	184
D1105120	12.0	101	151	D1105170	17.0	125	184
D1105121	12.1	101	151	D1105872	17.25	130	191
D1105122	12.2	101	151	D1105175	17.5	130	191
D1105822	12.25	101	151	D1105877	17.75	130	191
D1105123	12.3	101	151	D1105180	18.0	130	191
D1105124	12.4	101	151	D1105882	18.25	135	198
D1105125	12.5	101	151	D1105185	18.5	135	198
D1105126	12.6	101	151	D1105887	18.75	135	198
D1105127	12.7	101	151	D1105190	19.0	135	198
D1105827	12.75	101	151	D1105892	19.25	140	205
D1105128	12.8	101	151	D1105195	19.5	140	205
D1105129	12.9	101	151	D1105897	19.75	140	205
D1105130	13.0	101	151	D1105200	20.0	140	205

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	○		

STRAIGHT SHANK DRILLS

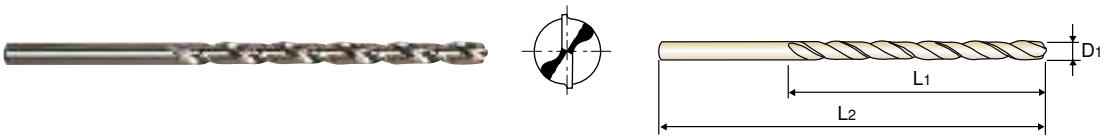
D2104 SERIES

HSSCo8, 直柄麻花钻头
HSSCo8, STRAIGHT SHANK TWIST DRILLS

长 LONG

▶表面处理 ：着色(金黄色)
▶应用 ： 适用于不锈钢的深孔加工及钛和镍铬合金等难加工材料.

▶ **Surface treatment** : Coloring(Gold color)
▶ **Application** : Drilling deep holes in stainless steels and difficult - to - cut materials such as titanium and inconel.



DIN 340 | HSS Co8 | N 33° | h8 | 135° P.200

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D2104020	2.0	56	85	D2104047	4.7	82	126
D2104021	2.1	56	85	D2104048	4.8	87	132
D2104022	2.2	59	90	D2104049	4.9	87	132
D2104023	2.3	59	90	D2104050	5.0	87	132
D2104024	2.4	62	95	D2104051	5.1	87	132
D2104025	2.5	62	95	D2104052	5.2	87	132
D2104026	2.6	62	95	D2104053	5.3	87	132
D2104027	2.7	66	100	D2104054	5.4	91	139
D2104028	2.8	66	100	D2104055	5.5	91	139
D2104029	2.9	66	100	D2104056	5.6	91	139
D2104030	3.0	66	100	D2104057	5.7	91	139
D2104031	3.1	69	106	D2104058	5.8	91	139
D2104032	3.2	69	106	D2104059	5.9	91	139
D2104033	3.3	69	106	D2104060	6.0	91	139
D2104034	3.4	73	112	D2104061	6.1	97	148
D2104035	3.5	73	112	D2104062	6.2	97	148
D2104036	3.6	73	112	D2104063	6.3	97	148
D2104037	3.7	73	112	D2104064	6.4	97	148
D2104038	3.8	78	119	D2104065	6.5	97	148
D2104039	3.9	78	119	D2104066	6.6	97	148
D2104040	4.0	78	119	D2104067	6.7	97	148
D2104041	4.1	78	119	D2104068	6.8	102	156
D2104042	4.2	78	119	D2104069	6.9	102	156
D2104043	4.3	82	126	D2104070	7.0	102	156
D2104044	4.4	82	126	D2104071	7.1	102	156
D2104045	4.5	82	126	D2104072	7.2	102	156
D2104046	4.6	82	126	D2104073	7.3	102	156

▶ HSS-E(DL104)可根据客户需求进行加工
HSS-E(DL104) is available on your request.
▶ TiN (D4104),TiCN (D7104),TiAlN (DQ104)可根据客户需求进行加工.
TiN(D4104), TiCN(D7104) and TiAlN(DQ104) are available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	◎	○	○		

STRAIGHT SHANK DRILLS

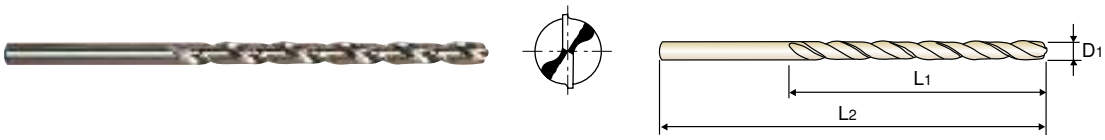
D2104 SERIES

HSSCo8, 直柄麻花钻头
HSSCo8, STRAIGHT SHANK TWIST DRILLS

长 *LONG*

▶表面处理：着色(金黄色)
▶应用　　：适用于不锈钢的深孔加工及钛和镍铬合金等难加工材料.

▶**Surface treatment** : Coloring(Gold color)
▶**Application** : Drilling deep holes in stainless steels and difficult - to - cut materials such as titanium and inconel.



DIN 340 | HSS Co8 | N 33° | h8 | 135° | P.200

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D2104074	7.4	102	156	D2104092	9.2	115	175
D2104075	7.5	102	156	D2104093	9.3	115	175
D2104076	7.6	109	165	D2104094	9.4	115	175
D2104077	7.7	109	165	D2104095	9.5	115	175
D2104078	7.8	109	165	D2104096	9.6	121	184
D2104079	7.9	109	165	D2104097	9.7	121	184
D2104080	8.0	109	165	D2104098	9.8	121	184
D2104081	8.1	109	165	D2104099	9.9	121	184
D2104082	8.2	109	165	D2104100	10.0	121	184
D2104083	8.3	109	165	D2104102	10.2	121	184
D2104084	8.4	109	165	D2104105	10.5	121	184
D2104085	8.5	109	165	D2104108	10.8	128	195
D2104086	8.6	115	175	D2104110	11.0	128	195
D2104087	8.7	115	175	D2104112	11.2	128	195
D2104088	8.8	115	175	D2104115	11.5	128	195
D2104089	8.9	115	175	D2104118	11.8	128	195
D2104090	9.0	115	175	D2104120	12.0	134	205
D2104091	9.1	115	175				

▶ HSS-E(DL104)可根据客户需求进行加工.
HSS-E(DL104) is available on your request.
▶ TiN(D4104),TiCN(D7104),TiAlN(DQ104)可根据客户需求进行加工.
TiN(D4104), TiCN(D7104) and TiAlN(DQ104) are available on your request.

◎：优(Excellent)　○：良(Good)

碳钢	合金钢	预硬钢	硬化钢		铸铁	铝	不锈钢	钛	低碳钢	铜	青铜
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	◎	○	○		

STRAIGHT SHANK DRILLS

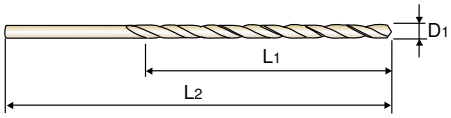
D1121 SERIES

HSS, 直柄麻花钻头
HSS, STRAIGHT SHANK TWIST DRILLS

超长
EXTRA LONG

▶表面处理 ：氧化发黑处理
▶应用 ：设计用于进行深孔和深定位孔的钻削，主要加工钢，铸铁合金及非合金，灰铸铁，可锻铸铁和石墨.

▶**Surface treatment** : Steam Homo (Black Oxide Finish)
▶**Application** : Designed for drilling deep holes or deeply located holes
Drilling steels, cast steels alloyed and non-alloyed, grey cast iron, malleable cast iron and graphite.



DIN 1869/1 | HSS | N 20~30° | h8 | 118° P.200

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D1121020	2.0	85	125	D1121070	7.0	155	225
D1121922	2.25	90	135	D1121972	7.25	155	225
D1121025	2.5	95	140	D1121075	7.5	155	225
D1121927	2.75	100	150	D1121977	7.75	165	240
D1121030	3.0	100	150	D1121080	8.0	165	240
D1121932	3.25	105	155	D1121982	8.25	165	240
D1121035	3.5	115	165	D1121085	8.5	165	240
D1121937	3.75	115	165	D1121987	8.75	175	250
D1121040	4.0	120	175	D1121090	9.0	175	250
D1121942	4.25	120	175	D1121992	9.25	175	250
D1121045	4.5	125	185	D1121095	9.5	175	250
D1121947	4.75	125	185	D1121997	9.75	185	265
D1121050	5.0	135	195	D1121100	10.0	185	265
D1121952	5.25	135	195	D1121105	10.5	185	265
D1121055	5.5	140	205	D1121110	11.0	195	280
D1121957	5.75	140	205	D1121115	11.5	195	280
D1121060	6.0	140	205	D1121120	12.0	205	295
D1121962	6.25	150	215	D1121125	12.5	205	295
D1121065	6.5	150	215	D1121130	13.0	205	295
D1121967	6.75	155	225				

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	○		

STRAIGHT SHANK DRILLS

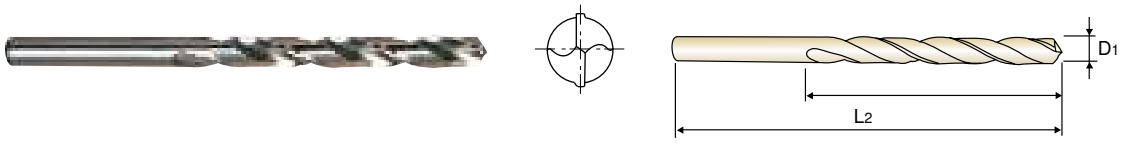
DL109 SERIES

HSS-E，重加工用直柄麻花钻头
HSS-E, STRAIGHT SHANK TWIST DRILLS for HEAVY DUTY

细长 JOBBER

▶应用：主要加工钢，铸铁合金及非合金，灰铸铁，可锻铸铁和石墨.

▶**Application** : Drilling steels, cast steels alloyed and non-alloyed, grey cast iron, malleable cast iron and graphite.



DIN 338 | HSS-E | N 20~30° | h8 | 118° | P.201

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
DL109015	1.5	18	40
DL109917	1.75	22	46
DL109020	2.0	24	49
DL109922	2.25	27	53
DL109025	2.5	30	57
DL109927	2.75	33	61
DL109030	3.0	33	61
DL109932	3.25	36	65
DL109035	3.5	39	70
DL109937	3.75	39	70
DL109040	4.0	43	75
DL109942	4.25	43	75
DL109045	4.5	47	80
DL109947	4.75	47	80
DL109050	5.0	52	86
DL109952	5.25	52	86
DL109055	5.5	57	93
DL109957	5.75	57	93
DL109060	6.0	57	93
DL109962	6.25	63	101
DL109065	6.5	63	101

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
DL109967	6.75	69	109
DL109070	7.0	69	109
DL109972	7.25	69	109
DL109075	7.5	69	109
DL109977	7.75	75	117
DL109080	8.0	75	117
DL109982	8.25	75	117
DL109085	8.5	75	117
DL109987	8.75	81	125
DL109090	9.0	81	125
DL109992	9.25	81	125
DL109095	9.5	81	125
DL109997	9.75	87	133
DL109100	10.0	87	133
DL109105	10.5	87	133
DL109110	11.0	94	142
DL109115	11.5	94	142
DL109120	12.0	101	151
DL109125	12.5	101	151
DL109130	13.0	101	151

▶ TiN (DN109), TiCN (DX109), TiAlN (DT109) 可根据客户需求进行加工.
TiN(DN109), TiCN(DX109) and TiAlN(DT109) are available on your request.

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	○		

STRAIGHT SHANK DRILLS

D1100 SERIES

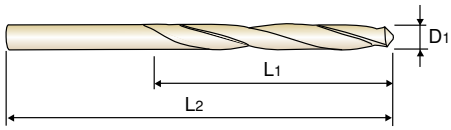
HSS, 铜用直柄麻花钻头

细长 JOBBER

HSS, STRAIGHT SHANK TWIST DRILLS for BRASS / BRONZE

▶应用：适用于钻削硬度大, 易碎的及生成的铁屑比较短的材料, 如：黄铜, 青铜, 磷青铜, 镁合金等材料

▶**Application** : Drilling hard, brittle and short-chip materials. i.e., brass, bronze, phosphor bronze and magnesium alloys.



DIN 338 | HSS | N 15~20° | h8 | 118° P.202

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D1100015	1.5	18	40	D1100043	4.3	47	80
D1100016	1.6	20	43	D1100044	4.4	47	80
D1100017	1.7	20	43	D1100045	4.5	47	80
D1100018	1.8	22	46	D1100046	4.6	47	80
D1100019	1.9	22	46	D1100047	4.7	47	80
D1100020	2.0	24	49	D1100048	4.8	52	86
D1100021	2.1	24	49	D1100049	4.9	52	86
D1100022	2.2	27	53	D1100050	5.0	52	86
D1100023	2.3	27	53	D1100051	5.1	52	86
D1100024	2.4	30	57	D1100052	5.2	52	86
D1100025	2.5	30	57	D1100053	5.3	52	86
D1100026	2.6	30	57	D1100054	5.4	57	93
D1100027	2.7	33	61	D1100055	5.5	57	93
D1100028	2.8	33	61	D1100056	5.6	57	93
D1100029	2.9	33	61	D1100057	5.7	57	93
D1100030	3.0	33	61	D1100058	5.8	57	93
D1100031	3.1	36	65	D1100059	5.9	57	93
D1100032	3.2	36	65	D1100060	6.0	57	93
D1100033	3.3	36	65	D1100061	6.1	63	101
D1100034	3.4	39	70	D1100062	6.2	63	101
D1100035	3.5	39	70	D1100063	6.3	63	101
D1100036	3.6	39	70	D1100064	6.4	63	101
D1100037	3.7	39	70	D1100065	6.5	63	101
D1100038	3.8	43	75	D1100066	6.6	63	101
D1100039	3.9	43	75	D1100067	6.7	63	101
D1100040	4.0	43	75	D1100068	6.8	69	109
D1100041	4.1	43	75	D1100069	6.9	69	109
D1100042	4.2	43	75	D1100070	7.0	69	109

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
											◎

STRAIGHT SHANK DRILLS

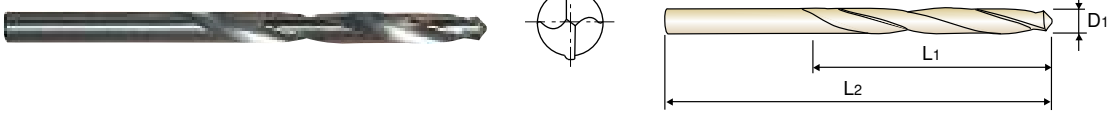
D1100 SERIES

HSS, 铜用直柄麻花钻头
HSS, STRAIGHT SHANK TWIST DRILLS for BRASS / BRONZE

细长 JOBBER

▶应用：适用于钻削硬度大，易碎的及生成的铁屑比较短的材料，如：黄铜，青铜，磷青铜，镁合金等材料

▶**Application** : Drilling hard, brittle and short-chip materials. i.e., brass, bronze, phosphor bronze and magnesium alloys.



DIN 338 | HSS | N 15~20° | h8 | 118° | P.202

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D1100071	7.1	69	109	D1100089	8.9	81	125
D1100072	7.2	69	109	D1100090	9.0	81	125
D1100073	7.3	69	109	D1100091	9.1	81	125
D1100074	7.4	69	109	D1100092	9.2	81	125
D1100075	7.5	69	109	D1100093	9.3	81	125
D1100076	7.6	75	117	D1100094	9.4	81	125
D1100077	7.7	75	117	D1100095	9.5	81	125
D1100078	7.8	75	117	D1100096	9.6	87	133
D1100079	7.9	75	117	D1100097	9.7	87	133
D1100080	8.0	75	117	D1100098	9.8	87	133
D1100081	8.1	75	117	D1100099	9.9	87	133
D1100082	8.2	75	117	D1100100	10.0	87	133
D1100083	8.3	75	117	D1100105	10.5	87	133
D1100084	8.4	75	117	D1100110	11.0	94	142
D1100085	8.5	75	117	D1100115	11.5	94	142
D1100086	8.6	81	125	D1100120	12.0	101	151
D1100087	8.7	81	125	D1100125	12.5	101	151
D1100088	8.8	81	125	D1100130	13.0	101	151

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
											◎

STRAIGHT SHANK DRILLS

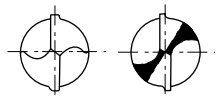
D1106 SERIES

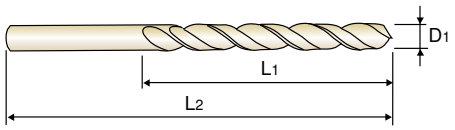
HSS, 铝用直柄麻花钻头
HSS, STRAIGHT SHANK TWIST DRILLS for ALUMINUM

细长 JOBBER

▶ 应用：适用于钻削硬度大，易碎的及生成的铁屑比较短的材料，如：黄铜，青铜，磷青铜，镁合金，铝等材料

▶ **Application** : Drilling hard, brittle and short-chip materials. i.e., brass, bronze, phosphor bronze and magnesium alloys, Aluminum





DIN 338 | HSS | W 38° | h8 | 135° P.202

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D1106015	1.5	18	40	D1106043	4.3	47	80
D1106016	1.6	20	43	D1106044	4.4	47	80
D1106017	1.7	20	43	D1106045	4.5	47	80
D1106018	1.8	22	46	D1106046	4.6	47	80
D1106019	1.9	22	46	D1106047	4.7	47	80
D1106020	2.0	24	49	D1106048	4.8	52	86
D1106021	2.1	24	49	D1106049	4.9	52	86
D1106022	2.2	27	53	D1106050	5.0	52	86
D1106023	2.3	27	53	D1106051	5.1	52	86
D1106024	2.4	30	57	D1106052	5.2	52	86
D1106025	2.5	30	57	D1106053	5.3	52	86
D1106026	2.6	30	57	D1106054	5.4	57	93
D1106027	2.7	33	61	D1106055	5.5	57	93
D1106028	2.8	33	61	D1106056	5.6	57	93
D1106029	2.9	33	61	D1106057	5.7	57	93
D1106030	3.0	33	61	D1106058	5.8	57	93
D1106031	3.1	36	65	D1106059	5.9	57	93
D1106032	3.2	36	65	D1106060	6.0	57	93
D1106033	3.3	36	65	D1106061	6.1	63	101
D1106034	3.4	39	70	D1106062	6.2	63	101
D1106035	3.5	39	70	D1106063	6.3	63	101
D1106036	3.6	39	70	D1106064	6.4	63	101
D1106037	3.7	39	70	D1106065	6.5	63	101
D1106038	3.8	43	75	D1106066	6.6	63	101
D1106039	3.9	43	75	D1106067	6.7	63	101
D1106040	4.0	43	75	D1106068	6.8	69	109
D1106041	4.1	43	75	D1106069	6.9	69	109
D1106042	4.2	43	75	D1106070	7.0	69	109

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
						◎					○

STRAIGHT SHANK DRILLS

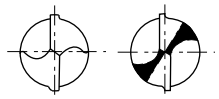
D1106 SERIES

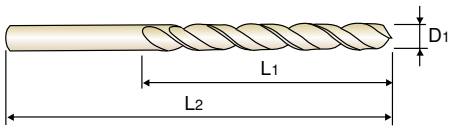
HSS, 铝用直柄麻花钻头
HSS, STRAIGHT SHANK TWIST DRILLS for ALUMINUM

细长 JOBBER

▶应用：适用于钻削硬度大，易碎的及生成的铁屑比较短的材料，如：黄铜，青铜，磷青铜，镁合金，铝等材料

▶**Application** : Drilling hard, brittle and short-chip materials. i.e., brass, bronze, phosphor bronze and magnesium alloys, Aluminum





DIN 338 | HSS | W 38° | h8 | 135° P.202

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D1106071	7.1	69	109	D1106089	8.9	81	125
D1106072	7.2	69	109	D1106090	9.0	81	125
D1106073	7.3	69	109	D1106091	9.1	81	125
D1106074	7.4	69	109	D1106092	9.2	81	125
D1106075	7.5	69	109	D1106093	9.3	81	125
D1106076	7.6	75	117	D1106094	9.4	81	125
D1106077	7.7	75	117	D1106095	9.5	81	125
D1106078	7.8	75	117	D1106096	9.6	87	133
D1106079	7.9	75	117	D1106097	9.7	87	133
D1106080	8.0	75	117	D1106098	9.8	87	133
D1106081	8.1	75	117	D1106099	9.9	87	133
D1106082	8.2	75	117	D1106100	10.0	87	133
D1106083	8.3	75	117	D1106105	10.5	87	133
D1106084	8.4	75	117	D1106110	11.0	94	142
D1106085	8.5	75	117	D1106115	11.5	94	142
D1106086	8.6	81	125	D1106120	12.0	101	151
D1106087	8.7	81	125	D1106125	12.5	101	151
D1106088	8.8	81	125	D1106130	13.0	101	151

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
						◎					○

STRAIGHT SHANK DRILLS

D1101 SERIES

HSS, 直柄麻花钻头

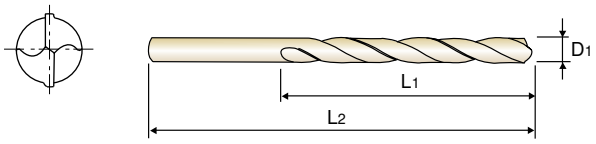
常规

HSS, STRAIGHT SHANK TWIST DRILLS

REGULAR

▶表面处理 ：氧化发黑处理，2mm以下无着色
▶应用 ：适用于钢，铸钢合金和非合金钢，灰铸铁，可锻铸铁的深孔钻削和石墨的加工.

▶**Surface treatment**: Steam Homo (Black Oxide Finish) Bright Finish under 2mm
▶**Application** : Drilling in steel, cast steel alloyed and non-alloyed, grey castiron, malleable cast iron, graphite.



HSS | N 20~30° | h8 | 118° | P.200

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
✱ D1101010	1.0	18	40	D1101041	4.1	54	83
✱ D1101011	1.1	20	42	D1101042	4.2	54	83
✱ D1101012	1.2	20	42	D1101043	4.3	54	83
✱ D1101013	1.3	22	45	D1101044	4.4	56	83
✱ D1101014	1.4	23	48	D1101045	4.5	56	86
✱ D1101015	1.5	23	48	D1101046	4.6	56	86
✱ D1101016	1.6	25	50	D1101047	4.7	59	89
✱ D1101017	1.7	25	50	D1101048	4.8	59	89
✱ D1101018	1.8	28	52	D1101049	4.9	62	92
✱ D1101019	1.9	28	52	D1101050	5.0	62	92
✱ D1101020	2.0	29	55	D1101051	5.1	62	92
✱ D1101021	2.1	29	55	D1101052	5.2	64	95
D1101022	2.2	33	58	D1101053	5.3	64	95
D1101023	2.3	33	58	D1101054	5.4	64	95
D1101024	2.4	35	61	D1101055	5.5	64	95
D1101025	2.5	35	61	D1101056	5.6	67	98
D1101026	2.6	37	64	D1101057	5.7	67	98
D1101027	2.7	37	64	D1101058	5.8	67	98
D1101028	2.8	39	67	D1101059	5.9	67	98
D1101029	2.9	42	71	D1101060	6.0	70	102
D1101030	3.0	42	71	D1101061	6.1	70	102
D1101031	3.1	42	71	D1101062	6.2	70	102
D1101032	3.2	42	71	D1101063	6.3	70	102
D1101033	3.3	45	73	D1101064	6.4	73	105
D1101034	3.4	45	73	D1101065	6.5	73	105
D1101035	3.5	45	73	D1101066	6.6	73	105
D1101036	3.6	48	76	D1101067	6.7	73	105
D1101037	3.7	48	76	D1101068	6.8	73	105
D1101038	3.8	48	76	D1101069	6.9	73	105
D1101039	3.9	51	79	D1101070	7.0	73	105
D1101040	4.0	54	83	D1101071	7.1	75	108

✱ 光亮色 /Bright Finish

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	○				○	○	○	○	○		

STRAIGHT SHANK DRILLS

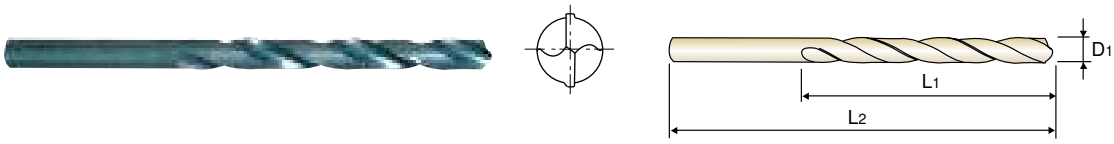
D1101 SERIES

HSS, 直柄麻花钻头
HSS, STRAIGHT SHANK TWIST DRILLS

常规
REGULAR

▶表面处理：氧化发黑处理
▶应用　　：适用于钢，铸钢合金和非合金钢，灰铸铁，可锻铸铁的深孔钻削和石墨的加工.

▶**Surface treatment**: Steam Homo (Black Oxide Finish)
▶**Application** : Drilling in steel, cast steel alloyed and non-alloyed, grey castiron, malleable cast iron, graphite.



HSS | N 20~30° | h8 | 118° P.200

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D1101072	7.2	75	108	D1101102	10.2	98	133
D1101073	7.3	75	108	D1101103	10.3	98	133
D1101074	7.4	78	111	D1101104	10.4	98	133
D1101075	7.5	78	111	D1101105	10.5	100	137
D1101076	7.6	78	111	D1101106	10.6	100	137
D1101077	7.7	81	114	D1101107	10.7	100	137
D1101078	7.8	81	114	D1101108	10.8	103	140
D1101079	7.9	81	114	D1101109	10.9	103	140
D1101080	8.0	81	114	D1101110	11.0	103	140
D1101081	8.1	84	117	D1101111	11.1	103	140
D1101082	8.2	84	117	D1101112	11.2	106	143
D1101083	8.3	84	117	D1101113	11.3	106	143
D1101084	8.4	87	121	D1101114	11.4	106	143
D1101085	8.5	87	121	D1101115	11.5	106	143
D1101086	8.6	87	121	D1101116	11.6	109	146
D1101087	8.7	87	121	D1101117	11.7	109	146
D1101088	8.8	89	124	D1101118	11.8	109	146
D1101089	8.9	89	124	D1101119	11.9	109	146
D1101090	9.0	89	124	D1101120	12.0	111	149
D1101091	9.1	89	124	D1101121	12.1	111	149
D1101092	9.2	92	127	D1101122	12.2	111	149
D1101093	9.3	92	127	D1101123	12.3	111	149
D1101094	9.4	92	127	D1101124	12.4	114	152
D1101095	9.5	92	127	D1101125	12.5	114	152
D1101096	9.6	95	130	D1101126	12.6	114	152
D1101097	9.7	95	130	D1101127	12.7	114	152
D1101098	9.8	95	130	D1101128	12.8	114	152
D1101099	9.9	95	130	D1101129	12.9	114	152
D1101100	10.0	95	130	D1101130	13.0	114	152
D1101101	10.1	98	133				

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	○				○	○	○	○	○		

STRAIGHT SHANK DRILLS

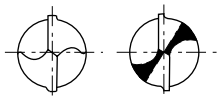
D2101 SERIES

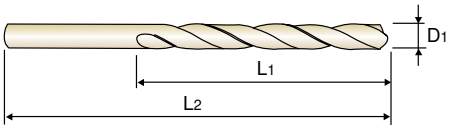
HSSCo8, 直柄麻花钻头
HSSCo8, STRAIGHT SHANK TWIST DRILLS

常规
REGULAR

▶表面处理 ：着色(金黄色)
▶应用 ：适用于不锈钢，钛和镍铬合金等难加工材料.

▶ **Surface treatment** : Coloring(Gold Color)
▶ **Application** : Drilling in stainless steels, materials of difficult machining such as titanium and inconel.





HSS Co8 | N 33° | h8 | 135° P.200

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D2101020	2.0	29	55
D2101021	2.1	29	55
D2101022	2.2	33	58
D2101023	2.3	33	58
D2101024	2.4	35	61
D2101025	2.5	35	61
D2101026	2.6	37	64
D2101027	2.7	37	64
D2101028	2.8	39	67
D2101029	2.9	42	71
D2101030	3.0	42	71
D2101031	3.1	42	71
D2101032	3.2	42	71
D2101033	3.3	45	73
D2101034	3.4	45	73
D2101035	3.5	45	73
D2101036	3.6	48	76
D2101037	3.7	48	76
D2101038	3.8	48	76
D2101039	3.9	51	79
D2101040	4.0	54	83
D2101041	4.1	54	83
D2101042	4.2	54	83
D2101043	4.3	54	83
D2101044	4.4	56	86
D2101045	4.5	56	86
D2101046	4.6	56	86
D2101047	4.7	59	89
D2101048	4.8	59	89

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D2101049	4.9	62	92
D2101050	5.0	62	92
D2101051	5.1	62	92
D2101052	5.2	64	95
D2101053	5.3	64	95
D2101054	5.4	64	95
D2101055	5.5	64	95
D2101056	5.6	67	98
D2101057	5.7	67	98
D2101058	5.8	67	98
D2101059	5.9	67	98
D2101060	6.0	70	102
D2101061	6.1	70	102
D2101062	6.2	70	102
D2101063	6.3	70	102
D2101064	6.4	73	105
D2101065	6.5	73	105
D2101066	6.6	73	105
D2101067	6.7	73	105
D2101068	6.8	73	105
D2101069	6.9	73	105
D2101070	7.0	73	105
D2101071	7.1	75	108
D2101072	7.2	75	108
D2101073	7.3	75	108
D2101074	7.4	78	111
D2101075	7.5	78	111
D2101076	7.6	78	111
D2101077	7.7	81	114

▶ TiN (D4101),TiCN (D7101) ,TiAlN (DQ101)可根据客户需求进行加工.
The TiN(D4101), TiCN(D7101) or TiAlN(DQ101) is available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	◎		

STRAIGHT SHANK DRILLS

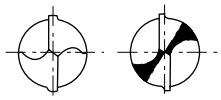
D2101 SERIES

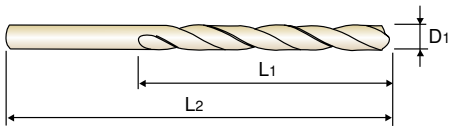
HSSCo8, 直柄麻花钻头
HSSCo8, STRAIGHT SHANK TWIST DRILLS

常规
REGULAR

▶表面处理：着色(金黄色)
▶应用　　：适用于不锈钢, 钛和镍铬合金等难加工材料.

▶**Surface treatment** : Coloring(Gold Color)
▶**Application** : Drilling in stainless steels, materials of difficult machining such as titanium and inconel.





HSS Co8 | N 33° | h8 | 135° P.200

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D2101078	7.8	81	114	D2101105	10.5	100	137
D2101079	7.9	81	114	D2101106	10.6	100	137
D2101080	8.0	81	114	D2101107	10.7	100	137
D2101081	8.1	84	117	D2101108	10.8	103	140
D2101082	8.2	84	117	D2101109	10.9	103	140
D2101083	8.3	84	117	D2101110	11.0	103	140
D2101084	8.4	87	121	D2101111	11.1	103	140
D2101085	8.5	87	121	D2101112	11.2	106	143
D2101086	8.6	87	121	D2101113	11.3	106	143
D2101087	8.7	87	121	D2101114	11.4	106	143
D2101088	8.8	89	124	D2101115	11.5	106	143
D2101089	8.9	89	124	D2101116	11.6	109	146
D2101090	9.0	89	124	D2101117	11.7	109	146
D2101091	9.1	89	124	D2101118	11.8	109	146
D2101092	9.2	92	127	D2101119	11.9	109	146
D2101093	9.3	92	127	D2101120	12.0	111	149
D2101094	9.4	92	127	D2101121	12.1	111	149
D2101095	9.5	92	127	D2101122	12.2	111	149
D2101096	9.6	95	130	D2101123	12.3	111	149
D2101097	9.7	95	130	D2101124	12.4	114	152
D2101098	9.8	95	130	D2101125	12.5	114	152
D2101099	9.9	95	130	D2101126	12.6	114	152
D2101100	10.0	95	130	D2101127	12.7	114	152
D2101101	10.1	98	133	D2101128	12.8	114	152
D2101102	10.2	98	133	D2101129	12.9	114	152
D2101103	10.3	98	133	D2101130	13.0	114	152
D2101104	10.4	98	133				

▶ TiN (D4101), TiCN (D7101), TiAlN (DQ101) 可根据客户需求进行加工.
The TiN(D4101), TiCN(D7101) or TiAlN(DQ101) is available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	◎		

STRAIGHT SHANK DRILLS

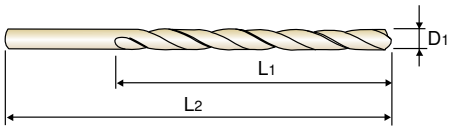
D1102 SERIES

HSS, 直柄钻头
HSS, STRAIGHT SHANK DRILLS

长 LONG

▶表面处理 ：氧化发黑处理
▶应用 ：设计用于深孔加工或深定位孔加工，适用于钢，铸钢合金和非合金钢，灰铸铁，可锻铸铁的深孔钻削和石墨的加工.

▶**Surface treatment**: Steam Homo (Black Oxide Finish)
▶**Application** : Designed for drilling deep holes or deeply located holes. Drills in steel, cast steel alloyed and un-alloyed, grey cast rion, malleable cast rion graphite.



HSS | N 20~30° | h8 | 118° | P.200

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D1102220	2.0	75	100	D1102320	2.0	100	150
D1102221	2.1	75	100	D1102321	2.1	100	150
D1102222	2.2	75	100	D1102322	2.2	100	150
D1102223	2.3	75	100	D1102323	2.3	100	150
D1102224	2.4	75	100	D1102324	2.4	100	150
D1102225	2.5	75	100	D1102325	2.5	100	150
D1102226	2.6	75	100	D1102326	2.6	100	150
D1102228	2.8	75	100	D1102327	2.7	100	150
D1102230	3.0	75	100	D1102328	2.8	100	150
D1102231	3.1	75	100	D1102329	2.9	100	150
D1102232	3.2	75	100	D1102330	3.0	100	150
D1102233	3.3	75	100	D1102331	3.1	100	150
D1102234	3.4	75	100	D1102332	3.2	100	150
D1102235	3.5	75	100	D1102333	3.3	100	150
D1102236	3.6	75	100	D1102334	3.4	100	150
D1102237	3.7	75	100	D1102335	3.5	100	150
D1102238	3.8	75	100	D1102336	3.6	100	150
D1102240	4.0	75	100	D1102337	3.7	100	150
D1102241	4.1	75	100	D1102338	3.8	100	150
D1102242	4.2	75	100	D1102339	3.9	100	150
D1102243	4.3	75	100	D1102340	4.0	100	150
D1102244	4.4	75	100	D1102341	4.1	100	150
D1102245	4.5	75	100	D1102342	4.2	100	150
D1102246	4.6	75	100	D1102343	4.3	100	150
D1102248	4.8	75	100	D1102344	4.4	100	150
D1102250	5.0	75	100	D1102345	4.5	100	150
D1102252	5.2	75	100	D1102346	4.6	100	150
D1102254	5.4	75	100	D1102347	4.7	100	150
D1102255	5.5	75	100	D1102348	4.8	100	150

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	○				○				○		

STRAIGHT SHANK DRILLS

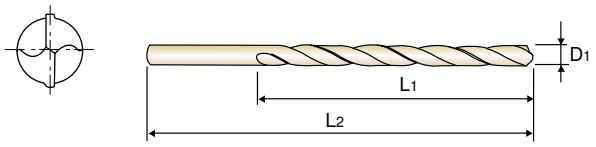
D1102 SERIES

HSS, 直柄钻头
HSS, STRAIGHT SHANK DRILLS

长
LONG

▶表面处理：氧化发黑处理
▶应用　：设计用于深孔加工或深定位孔加工，适用于钢，铸钢合金和非合金钢，灰铸铁，可锻铸铁的深孔钻削和石墨的加工.

▶**Surface treatment**: Steam Homo (Black Oxide Finish)
▶**Application** : Designed for drilling deep holes or deeply located holes. Drills in steel, cast steel alloyed and un-alloyed, grey cast rion, malleable cast rion graphite.



HSS | N 20~30° | h8 | 118° | P.200

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D1102349	4.9	100	150	D1102378	7.8	100	150
D1102350	5.0	100	150	D1102379	7.9	100	150
D1102351	5.1	100	150	D1102380	8.0	100	150
D1102352	5.2	100	150	D1102382	8.2	100	150
D1102353	5.3	100	150	D1102384	8.4	100	150
D1102354	5.4	100	150	D1102385	8.5	100	150
D1102355	5.5	100	150	D1102386	8.6	100	150
D1102356	5.6	100	150	D1102388	8.8	100	150
D1102357	5.7	100	150	D1102390	9.0	100	150
D1102358	5.8	100	150	D1102392	9.2	100	150
D1102359	5.9	100	150	D1102394	9.4	100	150
D1102360	6.0	100	150	D1102395	9.5	100	150
D1102361	6.1	100	150	D1102396	9.6	100	150
D1102362	6.2	100	150	D1102398	9.8	100	150
D1102363	6.3	100	150	D1102600	10.0	100	150
D1102364	6.4	100	150	D1102602	10.2	100	150
D1102365	6.5	100	150	D1102604	10.4	100	150
D1102366	6.6	100	150	D1102605	10.5	100	150
D1102367	6.7	100	150	D1102606	10.6	100	150
D1102368	6.8	100	150	D1102608	10.8	100	150
D1102369	6.9	100	150	D1102610	11.0	100	150
D1102370	7.0	100	150	* D1102420	2.0	150	200
D1102371	7.1	100	150	* D1102422	2.2	150	200
D1102372	7.2	100	150	* D1102424	2.4	150	200
D1102373	7.3	100	150	* D1102425	2.5	150	200
D1102374	7.4	100	150	* D1102427	2.7	150	200
D1102375	7.5	100	150	* D1102428	2.8	150	200
D1102376	7.6	100	150	* D1102429	2.9	150	200
D1102377	7.7	100	150	* D1102430	3.0	150	200

* 光亮色 / Bright Finish

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	○				○				○		

STRAIGHT SHANK DRILLS

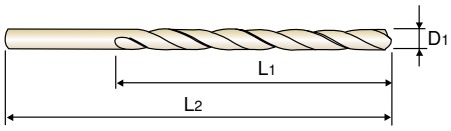
D1102 SERIES

HSS, 直柄钻头
HSS, STRAIGHT SHANK DRILLS

长 LONG

▶表面处理 ：氧化发黑处理
▶应用 ：设计用于深孔加工或深定位孔加工，适用于钢，铸钢合金和非合金钢，灰铸铁，可锻铸铁的深孔钻削和石墨的加工.

▶**Surface treatment**: Steam Homo (Black Oxide Finish)
▶**Application** : Designed for drilling deep holes or deeply located holes. Drills in steel, cast steel alloyed and un-alloyed, grey cast rion, malleable cast rion graphite.



HSS | N 20~30° | h8 | 118° P.200

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
✷ D1102432	3.2	150	200	D1102462	6.2	150	200
✷ D1102434	3.4	150	200	D1102463	6.3	150	200
✷ D1102435	3.5	150	200	D1102464	6.4	150	200
✷ D1102436	3.6	150	200	D1102465	6.5	150	200
✷ D1102437	3.7	150	200	D1102466	6.6	150	200
✷ D1102438	3.8	150	200	D1102467	6.7	150	200
✷ D1102439	3.9	150	200	D1102468	6.8	150	200
D1102440	4.0	150	200	D1102469	6.9	150	200
D1102441	4.1	150	200	D1102470	7.0	150	200
D1102442	4.2	150	200	D1102471	7.1	150	200
D1102443	4.3	150	200	D1102472	7.2	150	200
D1102444	4.4	150	200	D1102473	7.3	150	200
D1102445	4.5	150	200	D1102474	7.4	150	200
D1102446	4.6	150	200	D1102475	7.5	150	200
D1102447	4.7	150	200	D1102476	7.6	150	200
D1102448	4.8	150	200	D1102477	7.7	150	200
D1102449	4.9	150	200	D1102478	7.8	150	200
D1102450	5.0	150	200	D1102479	7.9	150	200
D1102451	5.1	150	200	D1102480	8.0	150	200
D1102452	5.2	150	200	D1102481	8.1	150	200
D1102453	5.3	150	200	D1102482	8.2	150	200
D1102454	5.4	150	200	D1102483	8.3	150	200
D1102455	5.5	150	200	D1102484	8.4	150	200
D1102456	5.6	150	200	D1102485	8.5	150	200
D1102457	5.7	150	200	D1102486	8.6	150	200
D1102458	5.8	150	200	D1102487	8.7	150	200
D1102459	5.9	150	200	D1102488	8.8	150	200
D1102460	6.0	150	200	D1102489	8.9	150	200
D1102461	6.1	150	200	D1102490	9.0	150	200

✷ 光亮色 /Bright Finish

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	○				○				○		

STRAIGHT SHANK DRILLS

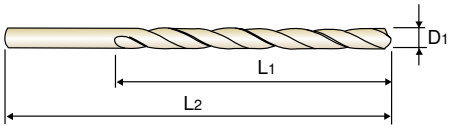
D1102 SERIES

HSS, 直柄钻头
HSS, STRAIGHT SHANK DRILLS

长
LONG

▶表面处理：氧化发黑处理
▶应用　　：设计用于深孔加工或深定位孔加工，适用于钢，铸钢合金和非合金钢，灰铸铁，可锻铸铁的深孔钻削和石墨的加工.

▶**Surface treatment**: Steam Homo (Black Oxide Finish)
▶**Application** : Designed for drilling deep holes or deeply located holes. Drills in steel, cast steel alloyed and un-alloyed, grey cast rion, malleable cast rion graphite.



P.200

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D1102491	9.1	150	200	D1102540	4.0	200	250
D1102492	9.2	150	200	D1102544	4.4	200	250
D1102493	9.3	150	200	D1102545	4.5	200	250
D1102494	9.4	150	200	D1102546	4.6	200	250
D1102495	9.5	150	200	D1102548	4.8	200	250
D1102496	9.6	150	200	D1102550	5.0	200	250
D1102497	9.7	150	200	D1102551	5.1	200	250
D1102498	9.8	150	200	D1102552	5.2	200	250
D1102499	9.9	150	200	D1102553	5.3	200	250
D1102700	10.0	150	200	D1102554	5.4	200	250
D1102702	10.2	150	200	D1102555	5.5	200	250
D1102704	10.4	150	200	D1102556	5.6	200	250
D1102705	10.5	150	200	D1102558	5.8	200	250
D1102706	10.6	150	200	D1102560	6.0	200	250
D1102708	10.8	150	200	D1102561	6.1	200	250
D1102710	11.0	150	200	D1102562	6.2	200	250
D1102712	11.2	150	200	D1102563	6.3	200	250
D1102714	11.4	150	200	D1102564	6.4	200	250
D1102715	11.5	150	200	D1102565	6.5	200	250
D1102716	11.6	150	200	D1102566	6.6	200	250
D1102718	11.8	150	200	D1102567	6.7	200	250
D1102720	12.0	150	200	D1102568	6.8	200	250
D1102722	12.2	150	200	D1102569	6.9	200	250
D1102724	12.4	150	200	D1102570	7.0	200	250
D1102725	12.5	150	200	D1102571	7.1	200	250
D1102726	12.6	150	200	D1102572	7.2	200	250
D1102728	12.8	150	200	D1102573	7.3	200	250
D1102730	13.0	150	200	D1102574	7.4	200	250
* D1102536	3.6	200	250	D1102575	7.5	200	250

* 光亮色 / Bright Finish

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	○				○				○		

STRAIGHT SHANK DRILLS

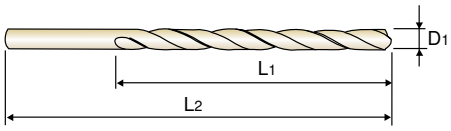
D1102 SERIES

HSS, 直柄钻头
HSS, STRAIGHT SHANK DRILLS

长 LONG

▶表面处理 ：氧化发黑处理
▶应用 ：设计用于深孔加工或深定位孔加工，适用于钢，铸钢合金和非合金钢，灰铸铁，可锻铸铁的深孔钻削和石墨的加工.

▶**Surface treatment**: Steam Homo (Black Oxide Finish)
▶**Application** : Designed for drilling deep holes or deeply located holes. Drills in steel, cast steel alloyed and un-alloyed, grey cast rion, malleable cast rion graphite.



HSS | N 20~30° | h8 | 118° | P.200

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D1102576	7.6	200	250	D1102805	10.5	200	250
D1102577	7.7	200	250	D1102806	10.6	200	250
D1102578	7.8	200	250	D1102807	10.7	200	250
D1102579	7.9	200	250	D1102808	10.8	200	250
D1102580	8.0	200	250	D1102809	10.9	200	250
D1102581	8.1	200	250	D1102810	11.0	200	250
D1102582	8.2	200	250	D1102811	11.1	200	250
D1102583	8.3	200	250	D1102812	11.2	200	250
D1102584	8.4	200	250	D1102813	11.3	200	250
D1102585	8.5	200	250	D1102814	11.4	200	250
D1102586	8.6	200	250	D1102815	11.5	200	250
D1102587	8.7	200	250	D1102816	11.6	200	250
D1102588	8.8	200	250	D1102817	11.7	200	250
D1102589	8.9	200	250	D1102818	11.8	200	250
D1102590	9.0	200	250	D1102819	11.9	200	250
D1102591	9.1	200	250	D1102820	12.0	200	250
D1102592	9.2	200	250	D1102821	12.1	200	250
D1102593	9.3	200	250	D1102822	12.2	200	250
D1102594	9.4	200	250	D1102823	12.3	200	250
D1102595	9.5	200	250	D1102824	12.4	200	250
D1102596	9.6	200	250	D1102825	12.5	200	250
D1102597	9.7	200	250	D1102826	12.6	200	250
D1102598	9.8	200	250	D1102827	12.7	200	250
D1102599	9.9	200	250	D1102828	12.8	200	250
D1102800	10.0	200	250	D1102829	12.9	200	250
D1102801	10.1	200	250	D1102830	13.0	200	250
D1102802	10.2	200	250	D1102654	5.4	200	300
D1102803	10.3	200	250	D1102655	5.5	200	300
D1102804	10.4	200	250	D1102656	5.6	200	300

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	○				○				○		

STRAIGHT SHANK DRILLS

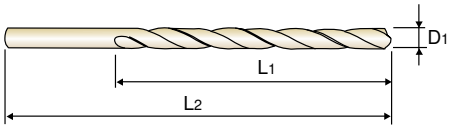
D1102 SERIES

HSS, 直柄钻头
HSS, STRAIGHT SHANK DRILLS

长
LONG

▶表面处理：氧化发黑处理
▶应用　　：设计用于深孔加工或深定位孔加工，适用于钢，铸钢合金和非合金钢，灰铸铁，可锻铸铁的深孔钻削和石墨的加工.

▶**Surface treatment**: Steam Homo (Black Oxide Finish)
▶**Application** : Designed for drilling deep holes or deeply located holes. Drills in steel, cast steel alloyed and un-alloyed, grey cast rion, malleable cast rion graphite.



HSS | N 20~30° | h8 | 118° P.200

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D1102660	6.0	200	300
D1102662	6.2	200	300
D1102664	6.4	200	300
D1102665	6.5	200	300
D1102666	6.6	200	300
D1102670	7.0	200	300
D1102672	7.2	200	300
D1102674	7.4	200	300
D1102675	7.5	200	300
D1102676	7.6	200	300
D1102678	7.8	200	300
D1102680	8.0	200	300
D1102682	8.2	200	300
D1102684	8.4	200	300
D1102685	8.5	200	300
D1102686	8.6	200	300
D1102688	8.8	200	300
D1102690	9.0	200	300
D1102692	9.2	200	300
D1102694	9.4	200	300
D1102695	9.5	200	300
D1102696	9.6	200	300
D1102698	9.8	200	300
D1102900	10.0	200	300
D1102901	10.1	200	300
D1102902	10.2	200	300
D1102903	10.3	200	300
D1102904	10.4	200	300

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D1102905	10.5	200	300
D1102906	10.6	200	300
D1102907	10.7	200	300
D1102908	10.8	200	300
D1102909	10.9	200	300
D1102910	11.0	200	300
D1102911	11.1	200	300
D1102912	11.2	200	300
D1102913	11.3	200	300
D1102914	11.4	200	300
D1102915	11.5	200	300
D1102916	11.6	200	300
D1102917	11.7	200	300
D1102918	11.8	200	300
D1102919	11.9	200	300
D1102920	12.0	200	300
D1102921	12.1	200	300
D1102922	12.2	200	300
D1102923	12.3	200	300
D1102924	12.4	200	300
D1102925	12.5	200	300
D1102926	12.6	200	300
D1102927	12.7	200	300
D1102928	12.8	200	300
D1102929	12.9	200	300
D1102930	13.0	200	300
D1102A20	12.0	250	350
D1102A30	13.0	250	350

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	○				○				○		

STRAIGHT SHANK DRILLS

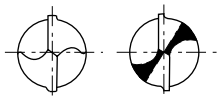
D1123 SERIES

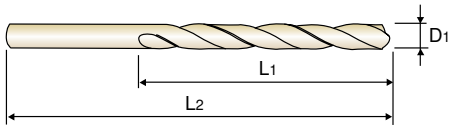
HSS, 直柄钻头
HSS, STRAIGHT SHANK DRILLS

常规
REGULAR

▶表面处理 ：光亮色
▶应用 ：适用于钢，铸钢合金和非合金钢，灰铸铁，可锻铸铁的深孔钻削和石墨的加工.

▶**Surface treatment**: Bright Finish
▶**Application** : Drilling in steel, cast steel alloyed and non-alloyed, grey castiron, malleable cast iron, graphite.





HSS | N 20~30° | h8 | 118° P.200

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D1123010	1.0	18	40	D1123041	4.1	54	83
D1123011	1.1	20	42	D1123042	4.2	54	83
D1123012	1.2	20	42	D1123043	4.3	54	83
D1123013	1.3	22	45	D1123044	4.4	56	86
D1123014	1.4	23	48	D1123045	4.5	56	86
D1123015	1.5	23	48	D1123046	4.6	56	86
D1123016	1.6	25	50	D1123047	4.7	59	89
D1123017	1.7	25	50	D1123048	4.8	59	89
D1123018	1.8	28	52	D1123049	4.9	62	92
D1123019	1.9	28	52	D1123050	5.0	62	92
D1123020	2.0	29	55	D1123051	5.1	62	92
D1123021	2.1	29	55	D1123052	5.2	64	95
D1123022	2.2	33	58	D1123053	5.3	64	95
D1123023	2.3	33	58	D1123054	5.4	64	95
D1123024	2.4	35	61	D1123055	5.5	64	95
D1123025	2.5	35	61	D1123056	5.6	67	98
D1123026	2.6	37	64	D1123057	5.7	67	98
D1123027	2.7	37	64	D1123058	5.8	67	98
D1123028	2.8	39	67	D1123059	5.9	67	98
D1123029	2.9	42	71	D1123060	6.0	70	102
D1123030	3.0	42	71	D1123061	6.1	70	102
D1123031	3.1	42	71	D1123062	6.2	70	102
D1123032	3.2	42	71	D1123063	6.3	70	102
D1123033	3.3	45	73	D1123064	6.4	73	105
D1123034	3.4	45	73	D1123065	6.5	73	105
D1123035	3.5	45	73	D1123066	6.6	73	105
D1123036	3.6	48	76	D1123067	6.7	73	105
D1123037	3.7	48	76	D1123068	6.8	73	105
D1123038	3.8	48	76	D1123069	6.9	73	105
D1123039	3.9	51	79	D1123070	7.0	73	105
D1123040	4.0	54	83	D1123071	7.1	75	108

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	○		

STRAIGHT SHANK DRILLS

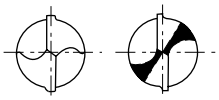
D1123 SERIES

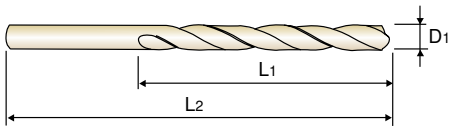
HSS, 直柄钻头
HSS, STRAIGHT SHANK DRILLS

常规
REGULAR

▶表面处理：光亮色
▶应用　　：适用于钢，铸钢合金和非合金钢，灰铸铁，可锻铸铁的深孔钻削和石墨的加工.

▶**Surface treatment**: Bright Finish
▶**Application** : Drilling in steel, cast steel alloyed and non-alloyed, grey castiron, malleable cast iron, graphite.





HSS | N 20~30° | h8 | 118° P.200

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2
D1123072	7.2	75	108	D1123102	10.2	98	133
D1123073	7.3	75	108	D1123103	10.3	98	133
D1123074	7.4	78	111	D1123104	10.4	98	133
D1123075	7.5	78	111	D1123105	10.5	100	137
D1123076	7.6	78	111	D1123106	10.6	100	137
D1123077	7.7	81	114	D1123107	10.7	100	137
D1123078	7.8	81	114	D1123108	10.8	103	140
D1123079	7.9	81	114	D1123109	10.9	103	140
D1123080	8.0	81	114	D1123110	11.0	103	140
D1123081	8.1	84	117	D1123111	11.1	103	140
D1123082	8.2	84	117	D1123112	11.2	106	143
D1123083	8.3	84	117	D1123113	11.3	106	143
D1123084	8.4	87	121	D1123114	11.4	106	143
D1123085	8.5	87	121	D1123115	11.5	106	143
D1123086	8.6	87	121	D1123116	11.6	109	146
D1123087	8.7	87	121	D1123117	11.7	109	146
D1123088	8.8	89	124	D1123118	11.8	109	146
D1123089	8.9	89	124	D1123119	11.9	109	146
D1123090	9.0	89	124	D1123120	12.0	111	149
D1123091	9.1	89	124	D1123121	12.1	111	149
D1123092	9.2	92	127	D1123122	12.2	111	149
D1123093	9.3	92	127	D1123123	12.3	111	149
D1123094	9.4	92	127	D1123124	12.4	114	152
D1123095	9.5	92	127	D1123125	12.5	114	152
D1123096	9.6	95	130	D1123126	12.6	114	152
D1123097	9.7	95	130	D1123127	12.7	114	152
D1123098	9.8	95	130	D1123128	12.8	114	152
D1123099	9.9	95	130	D1123129	12.9	114	152
D1123100	10.0	95	130	D1123130	13.0	114	152
D1123101	10.1	98	133				

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	○		

STRAIGHT SHANK DRILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

高速钢钻头&含钴8%的高速钢钻头, DIN1897, DIN338, DIN340, DIN1869
HSS & HSS 8% COBALT DRILLS, DIN1897, DIN338, DIN340, DIN1869

D1107, D2107, D1105, D2105, D2104, D1121, D1101, D2101, D1102, D1123 SERIES

单位(Unit) : mm

被加工材料	碳钢		碳钢		碳钢		合金钢		合金钢		不锈钢		钛合金	
WORK MATERIAL	CARBON STEELS		CARBON STEELS		CARBON STEELS		ALLOY STEELS		ALLOY STEELS		STAINLESS STEELS		TITANIUM ALLOYS	
HARDNESS			~ HRc23		~ HRc23 ~ 28		HRc23 ~ 34		HRc34 ~ 38		HRc23			
STRENGTH	~ 570 N/mm²		~ 830 N/mm²		830 ~ 950 N/mm²		830 ~ 1110 N/mm²		1110 ~ 1260 N/mm²		830 N/mm²		410 N/mm²	
DIAMETER	N	S	N	S	N	S	N	S	N	S	N	S	N	S
2.5	3380	0.025	2550	0.025	1900	0.015	2380	0.020	1400	0.015	2550	0.025	1400	0.020
3.0	2700	0.050	2000	0.050	1500	0.025	1880	0.050	1100	0.020	2000	0.050	1100	0.025
5.0	1700	0.063	1280	0.063	960	0.038	1190	0.063	700	0.025	1280	0.063	700	0.038
8.0	1050	0.130	780	0.130	590	0.076	730	0.130	430	0.038	780	0.130	430	0.076
11.0	750	0.150	560	0.150	425	0.076	520	0.180	310	0.050	560	0.150	430	0.076
19.0	440	0.230	330	0.230	255	0.130	300	0.230	180	0.050	330	0.230	180	0.130
31.0	260	0.280	195	0.280	145	0.180	180	0.180	107	0.076	195	0.280	107	0.180

被加工材料	工具钢		铸铁		铝合金		镁合金		锌合金		塑料	
WORK MATERIAL	TOOL STEELS		CAST IRON		ALUMINUM ALLOYS		MAGNESIUM ALLOYS		ZINC ALLOYS		PLASTICS	
HARDNESS			~ HRc21									
STRENGTH	~ 270 N/mm²		~ 800 N/mm²									
DIAMETER	N	S	N	S	N	S	N	S	N	S	N	S
2.5	3180	0.042	2250	0.025	6400	0.038	8600	0.038	6400	0.038	3380	0.025
3.0	2500	0.050	2000	0.050	5000	0.063	6800	0.063	5000	0.063	2700	0.050
5.0	1590	0.063	1280	0.063	3200	0.076	4300	0.076	3200	0.076	1700	0.063
8.0	970	0.130	780	0.130	2000	0.180	2600	0.180	2000	0.180	1050	0.130
11.0	700	0.180	560	0.150	1400	0.200	1900	0.200	1400	0.200	750	0.150
19.0	440	0.230	330	0.230	820	0.300	1100	0.300	820	0.300	440	0.230
31.0	240	0.300	195	0.280	490	0.380	660	0.380	490	0.380	260	0.280

N = R.P.M
S = Feed per Revolution (mm/rev.)

i-DREAM DRILLS
DREAM DRILLS -GENERAL
DREAM DRILLS -SOFT
DREAM DRILLS -INOX
DREAM DRILLS -MQL TYPE
DREAM DRILLS for HARDENED STEELS
GENERAL CARBIDE DRILLS
NC-SPOTTING DRILLS
MULTI-1 DRILLS
HPD DRILLS
GOLD-P DRILLS
WORM PATTERN DRILLS
STRAIGHT SHANK DRILLS
TAPER SHANK DRILLS
NC-SPOTTING DRILLS
CENTER DRILLS
SPADE DRILLS
TECHNICAL DATA

STRAIGHT SHANK DRILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

HSS-E, 重加工用麻花钻头, DIN338
HSS-E, TWIST DRILLS for HEAVY DUTY, DIN338

DL109 SERIES

单位(Unit) : mm

被加工材料	碳钢		碳钢		碳钢		合金钢		合金钢		不锈钢		铸铁	
WORK MATERIAL	CARBON STEELS		CARBON STEELS		CARBON STEELS		ALLOY STEELS		ALLOY STEELS		STAINLESS STEELS		CAST IRON	
HARDNESS			~ HRc23		~ HRc23 ~ 28		HRc23 ~ 34		HRc34 ~ 38		HRc23		HRc21	
STRENGTH	~ 570 N/mm²		~ 830 N/mm²		830 ~ 950 N/mm²		830 ~ 1110 N/mm²		1110 ~ 1260 N/mm²		830 N/mm²		800 N/mm²	
DIAMETER	N	S	N	S	N	S	N	S	N	S	N	S	N	S
2.0	5000	0.03	3750	0.03	2850	0.02	3500	0.02	2070	0.02	5000	0.03	5000	0.03
3.0	3750	0.04	2810	0.04	2150	0.02	2625	0.04	1560	0.02	3750	0.04	3750	0.04
4.0	2500	0.06	1870	0.06	1450	0.03	1750	0.06	1050	0.02	2500	0.06	2500	0.06
5.0	2085	0.07	1560	0.07	1205	0.04	1460	0.07	870	0.03	2085	0.07	2085	0.07
6.0	1670	0.08	1250	0.08	960	0.05	1170	0.09	690	0.03	1670	0.08	1670	0.08
7.0	1460	0.10	1095	0.10	840	0.06	1025	0.11	605	0.03	1460	0.10	1460	0.10
8.0	1250	0.13	940	0.13	720	0.08	880	0.13	520	0.04	1250	0.13	1250	0.13
9.0	1125	0.14	845	0.14	645	0.08	790	0.15	465	0.04	1125	0.14	1125	0.14
10.0	1000	0.14	750	0.14	570	0.08	700	0.16	410	0.05	1000	0.14	1000	0.14
11.0	925	0.15	685	0.15	525	0.08	640	0.18	380	0.05	925	0.15	925	0.15
12.0	850	0.16	620	0.16	480	0.08	580	0.19	350	0.05	850	0.16	850	0.16
13.0	785	0.17	575	0.17	445	0.09	540	0.20	325	0.05	785	0.17	785	0.17

N = R.P.M
S = Feed per Revolution (mm/rev.)

STRAIGHT SHANK DRILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

高速钢，铜加工用麻花钻头，DIN338
HSS, TWIST DRILLS for BRASS/BRONZE, DIN 338

D1100 SERIES

单位(Unit) : mm

被加工材料	黄铜		青铜	
WORK MATERIAL	BRASS		BRONZE	
DIAMETER	n	S	n	S
2.0	8750	0.080	5688	0.052
3.0	5850	0.100	3803	0.065
4.0	4400	0.120	2860	0.078
5.0	3500	0.140	2275	0.091
6.0	2900	0.160	1885	0.104
7.0	2500	0.180	1625	0.117
8.0	2200	0.200	1430	0.130
9.0	1950	0.220	1268	0.143
10.0	1750	0.250	1138	0.163
11.0	1600	0.270	1040	0.176
12.0	1450	0.290	943	0.189
13.0	1350	0.320	878	0.208

N = R.P.M
S = Feed per Revolution (mm/rev.)

高速钢，铝加工用麻花钻头，DIN338
HSS, TWIST DRILLS for ALUMINUM, DIN338

D1106 SERIES

单位(Unit) : mm

被加工材料	长屑铝合金		短屑铝合金	
WORK MATERIAL	LONG CHIP ALUMINUM ALLOYS		SHORT CHIP ALUMINUM ALLOYS	
DIAMETER	N	S	N	S
2.0	7950	0.08	5550	0.06
3.0	5300	0.10	3700	0.07
4.0	4000	0.12	2800	0.08
5.0	3200	0.14	2230	0.09
6.0	2650	0.16	1850	0.10
7.0	2250	0.18	1600	0.11
8.0	2000	0.20	1400	0.12
9.0	1750	0.22	1250	0.14
10.0	1600	0.25	1100	0.16
11.0	1450	0.28	1000	0.18
12.0	1330	0.32	930	0.20
13.0	1220	0.35	860	0.22

N = R.P.M
S = Feed per Revolution (mm/rev.)

HSS

YG

Being the best through innovation

MORSE TAPER SHANK DRILLS

- 普通用途(HSS & HSS-E & 含钴8%)

General Purpose, HSS & HSS-E & 8% Cobalt

莫氏锥柄钻头
莫氏锥柄钻头能够广泛使用

项目 ITEM	型号 MODEL	规格 DESCRIPTION		尺寸 SIZE 最小 MIN	尺寸 SIZE 最大 MAX	页 PAGE
D1201		HSS, 莫氏锥柄麻花钻头 HSS, MORSE TAPER SHANK DRILLS	常规 REGULAR	D13.0	D60.0	206
D1203		HSS, 莫氏锥柄麻花钻头 HSS, MORSE TAPER SHANK DRILLS, 300mm	长 LONG	D14.0	D23.0	208
D1202		HSS, 莫氏锥柄麻花钻头 HSS, MORSE TAPER SHANK DRILLS, 350mm	长 LONG	D14.0	D32.0	209
D1204		HSS, 莫氏锥柄麻花钻头 HSS, MORSE TAPER SHANK DRILLS, 400mm	长 LONG	D14.5	D50.0	210
D1208		HSS, 莫氏锥柄麻花钻头 HSS, MORSE TAPER SHANK DRILLS, 450mm	长 LONG	D14.5	D50.0	211
D1207		HSS, 莫氏锥柄麻花钻头 HSS, MORSE TAPER SHANK DRILLS, 500mm	长 LONG	D14.5	D50.0	212
D1205		HSS, 莫氏锥柄麻花钻头 HSS, TAPER SHANK TWIST DRILLS	细长 JOBBER	D13.0	D60.0	213
D1206		HSS, 莫氏锥柄麻花钻头 HSS, TAPER SHANK TWIST DRILLS	长 LONG	D13.0	D30.0	215
D1209		HSS, 莫氏锥柄麻花钻头 HSS, TAPER SHANK TWIST DRILLS	超长 EXTRA LONG	D13.0	D50.0	216
D1210		HSS, 莫氏锥柄麻花钻头 HSS, TAPER SHANK TWIST DRILLS	超长 EXTRA LONG	D13.0	D50.0	217
D2201		HSSCo8, 莫氏锥柄麻花钻头 HSS Co8, MORSE TAPER SHANK DRILLS	常规 REGULAR	D13.0	D60.0	218
D2203		HSSCo8, 莫氏锥柄麻花钻头 HSS Co8, MORSE TAPER SHANK DRILLS, 300mm	长 LONG	D14.0	D23.0	220
D2202		HSSCo8, 莫氏锥柄麻花钻头 HSS Co8, MORSE TAPER SHANK DRILLS, 350mm	长 LONG	D14.0	D32.0	221
D2204		HSSCo8, 莫氏锥柄麻花钻头 HSS Co8, MORSE TAPER SHANK DRILLS, 400mm	长 LONG	D14.5	D50.0	222
D2208		HSSCo8, 莫氏锥柄麻花钻头 HSS Co8, MORSE TAPER SHANK DRILLS, 450mm	长 LONG	D14.5	D50.0	223
D2207		HSSCo8, 莫氏锥柄麻花钻头 HSS Co8, MORSE TAPER SHANK DRILLS, 500mm	长 LONG	D14.5	D50.0	224
DN221		HSS-E, 莫氏锥柄麻花钻 HSS-E, TAPER SHANK TWIST DRILLS	短 SHORT	D13.0	D32.0	225
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS				226

MORSE TAPER SHANK DRILLS

Morse Taper Shank Twist Drills for wide applications

◎ : 优(Excellent)
○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		铸铁	铝	不锈钢	钛	低碳钢	铜	青铜
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○		○		
◎	◎	○			○	○	○		○		
◎	◎	○			○	○	○		○		
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MORSE TAPER SHANK DRILLS

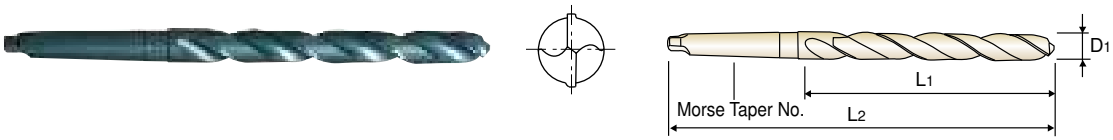
D1201 SERIES

HSS, 莫氏锥柄麻花钻头
HSS, MORSE TAPER SHANK DRILLS

常规
REGULAR

▶表面处理 ：氧化发黑处理
▶应用 ：适用于钢，铸钢合金和非合金钢，灰铸铁，可锻铸铁，石墨的加工.

▶**Surface treatment** : Steam Homo (Black Oxide Finish)
▶**Application** : Drilling into steel, cast steel alloyed and non-alloyed, grey cast iron, melleable cast iron, graphite



HSS | N 30° | 1 ~ 5 | h8 | 118° | P.226

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D1201130	13.0	115	198	1
D1201132	13.2	118	202	1
D1201135	13.5	118	202	1
D1201138	13.8	122	205	1
D1201140	14.0	122	205	1
D1201145	14.5	122	222	2
D1201150	15.0	125	225	2
D1201155	15.5	128	228	2
D1201160	16.0	130	230	2
D1201165	16.5	132	232	2
D1201170	17.0	135	235	2
D1201175	17.5	140	240	2
D1201180	18.0	140	240	2
D1201185	18.5	145	245	2
D1201190	19.0	145	245	2
D1201195	19.5	150	250	2
D1201200	20.0	150	250	2
D1201205	20.5	155	255	2

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D1201210	21.0	155	255	2
D1201215	21.5	160	260	2
D1201220	22.0	160	260	2
D1201225	22.5	165	265	2
D1201230	23.0	165	265	2
D1201235	23.5	165	285	3
D1201240	24.0	165	285	3
D1201245	24.5	165	285	3
D1201250	25.0	165	285	3
D1201255	25.5	165	285	3
D1201260	26.0	165	285	3
D1201265	26.5	170	290	3
D1201270	27.0	170	290	3
D1201275	27.5	175	295	3
D1201280	28.0	175	295	3
D1201285	28.5	180	300	3
D1201290	29.0	180	300	3
D1201295	29.5	185	305	3

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○		○		

MORSE TAPER SHANK DRILLS

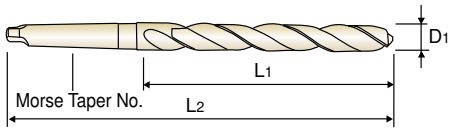
D1201 SERIES

HSS, 莫氏锥柄麻花钻头
HSS, MORSE TAPER SHANK DRILLS

常规
REGULAR

▶表面处理：氧化发黑处理
▶应用　　：适用于钢，铸钢合金和非合金钢，灰铸铁，可锻铸铁，石墨的加工.

▶**Surface treatment** : Steam Homo (Black Oxide Finish)
▶**Application** : Drilling into steel, cast steel alloyed and non-alloyed, grey cast iron, melleable cast iron, graphite



HSS | N 30° | 1~5 | h8 | 118° | P.226

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D1201300	30.0	185	305	3
D1201305	30.5	190	310	3
D1201310	31.0	190	310	3
D1201315	31.5	195	315	3
D1201320	32.0	195	315	3
D1201330	33.0	200	345	4
D1201340	34.0	205	350	4
D1201350	35.0	205	350	4
D1201360	36.0	210	355	4
D1201370	37.0	210	355	4
D1201380	38.0	215	360	4
D1201390	39.0	215	360	4
D1201400	40.0	220	365	4
D1201410	41.0	220	365	4
D1201420	42.0	225	370	4
D1201430	43.0	225	370	4
D1201440	44.0	230	375	4

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D1201450	45.0	230	375	4
D1201460	46.0	235	380	4
D1201470	47.0	235	380	4
D1201480	48.0	240	385	4
D1201490	49.0	240	385	4
D1201500	50.0	245	390	4
D1201510	51.0	245	425	5
D1201520	52.0	250	430	5
D1201530	53.0	250	430	5
D1201540	54.0	255	435	5
D1201550	55.0	255	435	5
D1201560	56.0	260	440	5
D1201570	57.0	260	440	5
D1201580	58.0	265	445	5
D1201590	59.0	265	445	5
D1201600	60.0	270	450	5

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels ~HB225	合金钢 Alloy Steels HB225~325	预硬钢 Prehardened Steels HRc30~45	硬化钢 Hardened Steels HRc45~55	硬化钢 Hardened Steels HRc55~	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
◎	◎	○			○	○	○		○		

MORSE TAPER SHANK DRILLS

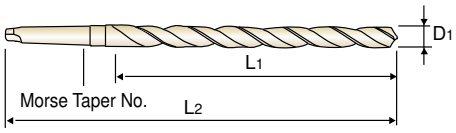
D1203 SERIES

HSS, 莫氏锥柄麻花钻头
HSS, MORSE TAPER SHANK DRILLS

长 LONG

▶表面处理 ：氧化发黑处理
▶应用 ：设计用于深孔加工或深定位孔加工.
适用于钢，铸钢合金和非合金钢，灰铸铁，可锻铸铁，球状石墨铸铁，烧结铁，铝和铝合金的深孔和深定位孔的钻削.

▶**Surface treatment** : Steam Homo (Black Oxide Finish)
▶**Application** : Designed for drilling deep hole or deeply located hole.
Drilling into steel, cast steel alloyed and unalloyed, grey cast iron, malleable cast iron, Spheroidal graphite cast iron, sintered iron, aluminium and aluminium alloy.



HSS | N 30° | 1~2 | h8 | 118° P.226

Overall Length : 300mm

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D1203140	14.0	200	300	1
D1203145	14.5	175	300	2
D1203150	15.0	175	300	2
D1203155	15.5	175	300	2
D1203160	16.0	175	300	2
D1203165	16.5	175	300	2
D1203170	17.0	175	300	2
D1203175	17.5	175	300	2
D1203180	18.0	175	300	2
D1203185	18.5	175	300	2

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D1203190	19.0	175	300	2
D1203195	19.5	175	300	2
D1203200	20.0	175	300	2
D1203205	20.5	175	300	2
D1203210	21.0	175	300	2
D1203215	21.5	175	300	2
D1203220	22.0	175	300	2
D1203225	22.5	175	300	2
D1203230	23.0	175	300	2

◎：优(Excellent) ○：良(Good)

碳钢 Carbon Steels ~HB225	合金钢 Alloy Steels HB225~325	预硬钢 Prehardened Steels HRc30~45	硬化钢 Hardened Steels HRc45~55	硬化钢 Hardened Steels HRc55~	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
◎	◎	○			○	○	○		○		

MORSE TAPER SHANK DRILLS

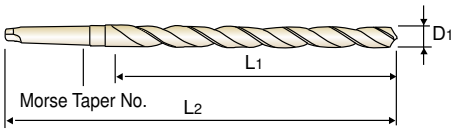
D1202 SERIES

HSS, 莫氏锥柄麻花钻头
HSS, MORSE TAPER SHANK DRILLS

长
LONG

▶表面处理 ：氧化发黑处理
▶应用 ：设计用于深孔加工或深定位孔加工.
适用于钢，铸钢合金和非合金钢，灰铸铁，可锻铸铁，球状石墨铸铁，烧结铁，铝和铝合金的深孔和深定位孔的钻削.

▶**Surface treatment** : Steam Homo (Black Oxide Finish)
▶**Application** : Designed for drilling deep hole or deeply located hole.
Drilling into steel, cast steel alloyed and unalloyed, grey cast iron, malleable cast iron, Spheroidal graphite cast iron, sintered iron, aluminium and aluminium alloy.



HSS | N 30° | 1~3 | h8 | 118° | P.226

Overall Length : 350mm

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D1202140	14.0	225	350	1
D1202145	14.5	225	350	2
D1202150	15.0	225	350	2
D1202155	15.5	225	350	2
D1202160	16.0	225	350	2
D1202165	16.5	225	350	2
D1202170	17.0	225	350	2
D1202175	17.5	225	350	2
D1202180	18.0	225	350	2
D1202185	18.5	225	350	2
D1202190	19.0	225	350	2
D1202195	19.5	225	350	2
D1202200	20.0	225	350	2
D1202205	20.5	225	350	2
D1202210	21.0	225	350	2
D1202215	21.5	225	350	2
D1202220	22.0	225	350	2
D1202225	22.5	225	350	2
D1202230	23.0	225	350	2

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D1202235	23.5	200	350	3
D1202240	24.0	200	350	3
D1202245	24.5	200	350	3
D1202250	25.0	200	350	3
D1202255	25.5	200	350	3
D1202260	26.0	200	350	3
D1202265	26.5	200	350	3
D1202270	27.0	200	350	3
D1202275	27.5	200	350	3
D1202280	28.0	200	350	3
D1202285	28.5	200	350	3
D1202290	29.0	200	350	3
D1202295	29.5	200	350	3
D1202300	30.0	200	350	3
D1202305	30.5	200	350	3
D1202310	31.0	200	350	3
D1202315	31.5	200	350	3
D1202320	32.0	200	350	3

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels ~HB225	合金钢 Alloy Steels HB225~325	预硬钢 Prehardened Steels HRc30~45	硬化钢 Hardened Steels HRc45~55	硬化钢 Hardened Steels HRc55~	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
◎	◎	○			○	○	○		○		

MORSE TAPER SHANK DRILLS

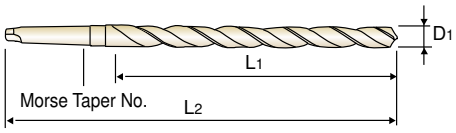
D1204 SERIES

HSS, 莫氏锥柄麻花钻头
HSS, MORSE TAPER SHANK DRILLS

长 LONG

▶表面处理 ：氧化发黑处理
▶应用 ：设计用于深孔加工或深定位孔加工.
适用于钢，铸钢合金和非合金钢，灰铸铁，可锻铸铁，球状石墨铸铁，烧结铁，铝和铝合金的深孔和深定位孔的钻削.

▶**Surface treatment** : Steam Homo (Black Oxide Finish)
▶**Application** : Designed for drilling deep hole or deeply located hole.
Drilling into steel, cast steel alloyed and unalloyed, grey cast iron, malleable cast iron, Spheroidal graphite cast iron, sintered iron, aluminium and aluminium alloy.



HSS | N 30° | 2~4 | h8 | 118° P.226

Overall Length : 400mm

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D1204145	14.5	250	400	2
D1204150	15.0	250	400	2
D1204155	15.5	250	400	2
D1204160	16.0	250	400	2
D1204165	16.5	250	400	2
D1204170	17.0	250	400	2
D1204175	17.5	250	400	2
D1204180	18.0	250	400	2
D1204185	18.5	250	400	2
D1204190	19.0	250	400	2
D1204195	19.5	250	400	2
D1204200	20.0	250	400	2
D1204205	20.5	250	400	2
D1204210	21.0	250	400	2
D1204215	21.5	250	400	2
D1204220	22.0	250	400	2
D1204225	22.5	250	400	2
D1204230	23.0	250	400	2
D1204235	23.5	250	400	3
D1204240	24.0	250	400	3
D1204245	24.5	250	400	3
D1204250	25.0	250	400	3
D1204255	25.5	250	400	3
D1204260	26.0	250	400	3
D1204265	26.5	250	400	3
D1204270	27.0	250	400	3
D1204275	27.5	250	400	3

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D1204280	28.0	250	400	3
D1204285	28.5	250	400	3
D1204290	29.0	250	400	3
D1204295	29.5	250	400	3
D1204300	30.0	250	400	3
D1204305	30.5	250	400	3
D1204310	31.0	250	400	3
D1204315	31.5	250	400	3
D1204320	32.0	250	400	3
D1204330	33.0	250	400	4
D1204340	34.0	250	400	4
D1204350	35.0	250	400	4
D1204360	36.0	250	400	4
D1204370	37.0	250	400	4
D1204380	38.0	250	400	4
D1204390	39.0	250	400	4
D1204400	40.0	250	400	4
D1204410	41.0	250	400	4
D1204420	42.0	250	400	4
D1204430	43.0	250	400	4
D1204440	44.0	250	400	4
D1204450	45.0	250	400	4
D1204460	46.0	250	400	4
D1204470	47.0	250	400	4
D1204480	48.0	250	400	4
D1204490	49.0	250	400	4
D1204500	50.0	250	400	4

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels ~HB225	合金钢 Alloy Steels HB225~325	预硬钢 Prehardened Steels HRc30~45	硬化钢 Hardened Steels HRc45~55	硬化钢 Hardened Steels HRc55~	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
◎	◎	○			○	○	○		○		

MORSE TAPER SHANK DRILLS

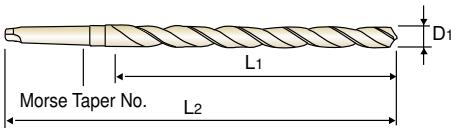
D1208 SERIES

HSS, 莫氏锥柄麻花钻头
HSS, MORSE TAPER SHANK DRILLS

长
LONG

▶表面处理：氧化发黑处理
▶应用　　：设计用于深孔加工或深定位孔加工.
适用于钢，铸钢合金和非合金钢，灰铸铁，可锻铸铁，球状石墨铸铁，烧结铁，铝和铝合金的深孔和深定位孔的钻削.

▶**Surface treatment** : Steam Homo (Black Oxide Finish)
▶**Application** : Designed for drilling deep hole or deeply located hole.
Drilling into steel, cast steel alloyed and unalloyed, grey cast iron, malleable cast iron, Spheroidal graphite cast iron, sintered iron, aluminium and aluminium alloy.



HSS | N 30° | 2~4 | h8 | 118° | P.226

Overall Length : 450mm

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D1208145	14.5	300	450	2
D1208150	15.0	300	450	2
D1208155	15.5	300	450	2
D1208160	16.0	300	450	2
D1208165	16.5	300	450	2
D1208170	17.0	300	450	2
D1208175	17.5	300	450	2
D1208180	18.0	300	450	2
D1208185	18.5	300	450	2
D1208190	19.0	300	450	2
D1208195	19.5	300	450	2
D1208200	20.0	300	450	2
D1208205	20.5	300	450	2
D1208210	21.0	300	450	2
D1208215	21.5	300	450	2
D1208220	22.0	300	450	2
D1208225	22.5	300	450	2
D1208230	23.0	300	450	2
D1208235	23.5	300	450	3
D1208240	24.0	300	450	3
D1208245	24.5	300	450	3
D1208250	25.0	300	450	3
D1208255	25.5	300	450	3
D1208260	26.0	300	450	3
D1208265	26.5	300	450	3
D1208270	27.0	300	450	3
D1208275	27.5	300	450	3

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D1208280	28.0	300	450	3
D1208285	28.5	300	450	3
D1208290	29.0	300	450	3
D1208295	29.5	300	450	3
D1208300	30.0	300	450	3
D1208305	30.5	300	450	3
D1208310	31.0	300	450	3
D1208315	31.5	300	450	3
D1208320	32.0	300	450	3
D1208330	33.0	300	450	4
D1208340	34.0	300	450	4
D1208350	35.0	300	450	4
D1208360	36.0	300	450	4
D1208370	37.0	300	450	4
D1208380	38.0	300	450	4
D1208390	39.0	300	450	4
D1208400	40.0	300	450	4
D1208410	41.0	300	450	4
D1208420	42.0	300	450	4
D1208430	43.0	300	450	4
D1208440	44.0	300	450	4
D1208450	45.0	300	450	4
D1208460	46.0	300	450	4
D1208470	47.0	300	450	4
D1208480	48.0	300	450	4
D1208490	49.0	300	450	4
D1208500	50.0	300	450	4

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○		○		

MORSE TAPER SHANK DRILLS

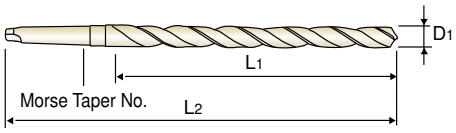
D1207 SERIES

HSS, 莫氏锥柄麻花钻头
HSS, MORSE TAPER SHANK DRILLS

长 LONG

▶表面处理 ：氧化发黑处理
▶应用 ：设计用于深孔加工或深定位孔加工.
适用于钢，铸钢合金和非合金钢，灰铸铁，可锻铸铁，球状石墨铸铁，烧结铁，铝和铝合金的深孔和深定位孔的钻削.

▶**Surface treatment** : Steam Homo (Black Oxide Finish)
▶**Application** : Designed for drilling deep hole or deeply located hole.
Drilling into steel, cast steel alloyed and unalloyed, grey cast iron, malleable cast iron, Spheroidal graphite cast iron, sintered iron, aluminium and aluminium alloy.



HSS | N 30° | 2~4 | h8 | 118° | P.226

Overall Length : 500mm

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D1207145	14.5	350	500	2
D1207150	15.0	350	500	2
D1207155	15.5	350	500	2
D1207160	16.0	350	500	2
D1207165	16.5	350	500	2
D1207170	17.0	350	500	2
D1207175	17.5	350	500	2
D1207180	18.0	350	500	2
D1207185	18.5	350	500	2
D1207190	19.0	350	500	2
D1207195	19.5	350	500	2
D1207200	20.0	350	500	2
D1207205	20.5	350	500	2
D1207210	21.0	350	500	2
D1207215	21.5	350	500	2
D1207220	22.0	350	500	2
D1207225	22.5	350	500	2
D1207230	23.0	350	500	2
D1207235	23.5	350	500	3
D1207240	24.0	350	500	3
D1207245	24.5	350	500	3
D1207250	25.0	350	500	3
D1207255	25.5	350	500	3
D1207260	26.0	350	500	3
D1207265	26.5	350	500	3
D1207270	27.0	350	500	3
D1207275	27.5	350	500	3

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D1207280	28.0	350	500	3
D1207285	28.5	350	500	3
D1207290	29.0	350	500	3
D1207295	29.5	350	500	3
D1207300	30.0	350	500	3
D1207305	30.5	350	500	3
D1207310	31.0	350	500	3
D1207315	31.5	350	500	3
D1207320	32.0	350	500	3
D1207330	33.0	350	500	4
D1207340	34.0	350	500	4
D1207350	35.0	350	500	4
D1207360	36.0	350	500	4
D1207370	37.0	350	500	4
D1207380	38.0	350	500	4
D1207390	39.0	350	500	4
D1207400	40.0	350	500	4
D1207410	41.0	350	500	4
D1207420	42.0	350	500	4
D1207430	43.0	350	500	4
D1207440	44.0	350	500	4
D1207450	45.0	350	500	4
D1207460	46.0	350	500	4
D1207470	47.0	350	500	4
D1207480	48.0	350	500	4
D1207490	49.0	350	500	4
D1207500	50.0	350	500	4

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○		○		

MORSE TAPER SHANK DRILLS

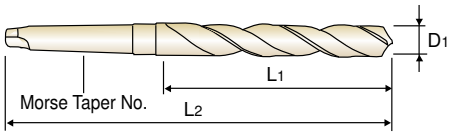
D1205 SERIES

HSS, 莫氏锥柄麻花钻头
HSS, MORSE TAPER SHANK TWIST DRILLS

细长
JOBBER

▶表面处理：氧化发黑处理
▶应用　　：适用于钢，铸钢合金及非合金，灰铸铁，可锻铸铁和石墨的加工

▶**Surface treatment** : Steam Homo (Black Oxide Finish)
▶**Application** : Drilling steels, cast steels alloyed and non-alloyed, grey cast iron, malleable cast iron, graphite.



DIN 345 | HSS | N 30° | 1~5 | h8 | 118° | P.226

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D1205130	13.0	101	182	1
D1205132	13.2	101	182	1
D120513A	13.25	108	189	1
D1205135	13.5	108	189	1
D120513B	13.75	108	189	1
D1205138	13.8	108	189	1
D1205140	14.0	108	189	1
D120514A	14.25	114	212	2
D1205145	14.5	114	212	2
D120514B	14.75	114	212	2
D1205150	15.0	114	212	2
D120515A	15.25	120	218	2
D1205155	15.5	120	218	2
D120515B	15.75	120	218	2
D1205160	16.0	120	218	2
D120516A	16.25	125	223	2
D1205165	16.5	125	223	2
D120516B	16.75	125	223	2
D1205170	17.0	125	223	2
D120517A	17.25	130	228	2
D1205175	17.5	130	228	2
D120517B	17.75	130	228	2
D1205180	18.0	130	228	2
D120518A	18.25	135	233	2
D1205185	18.5	135	233	2
D120518B	18.75	135	233	2
D1205190	19.0	135	233	2
D120519A	19.25	140	238	2
D1205195	19.5	140	238	2
D120519B	19.75	140	238	2
D1205200	20.0	140	238	2
D120520A	20.25	145	243	2

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D1205205	20.5	145	243	2
D120520B	20.75	145	243	2
D1205210	21.0	145	243	2
D120521A	21.25	150	248	2
D1205215	21.5	150	248	2
D120521B	21.75	150	248	2
D1205220	22.0	150	248	2
D120522A	22.25	150	248	2
D1205225	22.5	155	253	2
D120522B	22.75	155	253	2
D1205230	23.0	155	253	2
D120523A	23.25	155	276	3
D1205235	23.5	155	276	3
D120523B	23.75	160	281	3
D1205240	24.0	160	281	3
D120524A	24.25	160	281	3
D1205245	24.5	160	281	3
D120524B	24.75	160	281	3
D1205250	25.0	160	281	3
D120525A	25.25	165	286	3
D1205255	25.5	165	286	3
D120525B	25.75	165	286	3
D1205260	26.0	165	286	3
D120526A	26.25	165	286	3
D1205265	26.5	165	286	3
D120526B	26.75	170	291	3
D1205270	27.0	170	291	3
D120527A	27.25	170	291	3
D1205275	27.5	170	291	3
D120527B	27.75	170	291	3
D1205280	28.0	170	291	3
D120528A	28.25	175	296	3

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○		○		

MORSE TAPER SHANK DRILLS

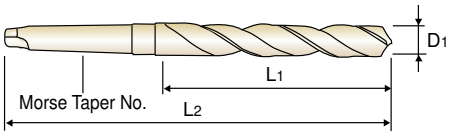
D1205 SERIES

HSS, 莫氏锥柄麻花钻头
HSS, MORSE TAPER SHANK TWIST DRILLS

细长 *JOBBER*

▶表面处理 ：氧化发黑处理
▶应用 ：适用于钢，铸钢合金及非合金，灰铸铁，可锻铸铁和石墨的加工

▶**Surface treatment** : Steam Homo (Black Oxide Finish)
▶**Application** : Drilling steels, cast steels alloyed and non-alloyed, grey cas tiron, malleable cast iron, graphite.



DIN 345 | HSS | N 30° | 1~5 | h8 | 118° P.226

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D1205285	28.5	175	296	3
D120528B	28.75	175	296	3
D1205290	29.0	175	296	3
D120529A	29.25	175	296	3
D1205295	29.5	175	296	3
D120529B	29.75	175	296	3
D1205300	30.0	175	296	3
D120530A	30.25	180	301	3
D1205305	30.5	180	301	3
D120530B	30.75	180	301	3
D1205310	31.0	180	301	3
D120531A	31.25	180	301	3
D1205315	31.5	180	301	3
D120531B	31.75	185	306	3
D1205320	32.0	185	334	4
D1205325	32.5	185	334	4
D1205330	33.0	185	334	4
D1205335	33.5	185	334	4
D1205340	34.0	190	339	4
D1205345	34.5	190	339	4
D1205350	35.0	190	339	4
D1205355	35.5	190	339	4
D1205360	36.0	195	344	4
D1205365	36.5	195	344	4
D1205370	37.0	195	344	4
D1205375	37.5	195	344	4
D1205380	38.0	200	349	4
D1205385	38.5	200	349	4
D1205390	39.0	200	349	4
D1205395	39.5	200	349	4
D1205400	40.0	200	349	4

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D1205405	40.5	205	354	4
D1205410	41.0	205	354	4
D1205415	41.5	205	354	4
D1205420	42.0	205	354	4
D1205425	42.5	205	354	4
D1205430	43.0	210	359	4
D1205435	43.5	210	359	4
D1205440	44.0	210	359	4
D1205445	44.5	210	359	4
D1205450	45.0	210	359	4
D1205455	45.5	215	364	4
D1205460	46.0	215	364	4
D1205465	46.5	215	364	4
D1205470	47.0	215	364	4
D1205475	47.5	215	364	4
D1205480	48.0	220	369	4
D1205485	48.5	220	369	4
D1205490	49.0	220	369	4
D1205495	49.5	220	369	4
D1205500	50.0	220	369	4
D1205505	50.5	225	374	4
D1205510	51.0	225	412	5
D1205520	52.0	225	412	5
D1205530	53.0	225	412	5
D1205540	54.0	230	417	5
D1205550	55.0	230	417	5
D1205560	56.0	230	417	5
D1205570	57.0	235	422	5
D1205580	58.0	235	422	5
D1205590	59.0	235	422	5
D1205600	60.0	235	422	5

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○		○		

MORSE TAPER SHANK DRILLS

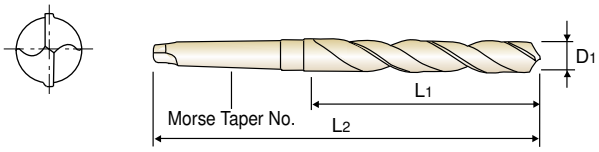
D1206 SERIES

HSS, 莫氏锥柄麻花钻头
HSS, MORSE TAPER SHANK TWIST DRILLS

长 LONG

▶表面处理：氧化发黑处理
▶应用　：适用于钢，铸钢合金和非合金钢，灰铸铁，可锻铸铁及石墨的深孔钻削

▶**Surface treatment** : Steam Homo (Black Oxide Finish)
▶**Application** : Drilling deep holes in steels, cast steels alloyed and non-alloyed, grey cast iron, malleable cast iron, graphite.



DIN 341 | HSS | N 30° | 1~3 | h8 | 118° | P.226

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D1206130	13.0	134	215	1
D1206135	13.5	142	223	1
D1206140	14.0	142	223	1
D1206145	14.5	147	245	2
D1206150	15.0	147	245	2
D1206155	15.5	153	251	2
D1206160	16.0	153	251	2
D1206165	16.5	159	257	2
D1206170	17.0	159	257	2
D1206175	17.5	165	263	2
D1206180	18.0	165	263	2
D1206185	18.5	171	269	2
D1206190	19.0	171	269	2

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D1206195	19.5	177	275	2
D1206200	20.0	177	275	2
D1206210	21.0	184	282	2
D1206220	22.0	191	289	2
D1206230	23.0	198	296	2
D1206240	24.0	206	327	3
D1206250	25.0	206	327	3
D1206260	26.0	214	335	3
D1206270	27.0	222	343	3
D1206280	28.0	222	343	3
D1206290	29.0	230	351	3
D1206300	30.0	230	351	3

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○		○		

MORSE TAPER SHANK DRILLS

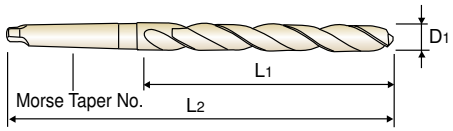
D1209 SERIES

HSS, 莫氏锥柄麻花钻头
HSS, MORSE TAPER SHANK TWIST DRILLS

细长 *JOBBER*

▶表面处理 ：氧化发黑处理
▶应用 ：适用于钢，铸钢合金和非合金钢，灰铸铁，可锻铸铁及石墨的深孔钻削

▶**Surface treatment** : Steam Homo (Black Oxide Finish)
▶**Application** : Drilling deep holes in steels, cast steels alloyed and non-alloyed, grey cast iron, malleable cast iron, graphite.



DIN 1870/1 | HSS | N 30° | 1~4 | h8 | 118° P.226

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D1209130	13.0	205	310	1
D1209135	13.5	220	325	1
D1209140	14.0	220	325	1
D1209145	14.5	220	340	2
D1209150	15.0	220	340	2
D1209155	15.5	230	355	2
D1209160	16.0	230	355	2
D1209165	16.5	230	355	2
D1209170	17.0	230	355	2
D1209175	17.5	245	370	2
D1209180	18.0	245	370	2
D1209185	18.5	245	370	2
D1209190	19.0	245	370	2
D1209195	19.5	260	385	2
D1209200	20.0	260	385	2
D1209205	20.5	260	385	2
D1209210	21.0	260	385	2
D1209215	21.5	270	405	2
D1209220	22.0	270	405	2
D1209225	22.5	270	405	2
D1209230	23.0	270	405	2
D1209235	23.5	270	425	3
D1209240	24.0	290	440	3
D1209245	24.5	290	440	3
D1209250	25.0	290	440	3
D1209255	25.5	290	440	3
D1209260	26.0	290	440	3
D1209265	26.5	290	440	3

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D1209270	27.0	305	460	3
D1209275	27.5	305	460	3
D1209280	28.0	305	460	3
D1209285	28.5	305	460	3
D1209290	29.0	305	460	3
D1209295	29.5	305	460	3
D1209300	30.0	305	460	3
D1209305	30.5	320	480	3
D1209310	31.0	320	480	3
D1209320	32.0	320	505	4
D1209330	33.0	320	505	4
D1209340	34.0	340	530	4
D1209350	35.0	340	530	4
D1209360	36.0	340	530	4
D1209370	37.0	340	530	4
D1209380	38.0	360	555	4
D1209390	39.0	360	555	4
D1209400	40.0	360	555	4
D1209410	41.0	360	555	4
D1209420	42.0	360	555	4
D1209430	43.0	385	585	4
D1209440	44.0	385	585	4
D1209450	45.0	385	585	4
D1209460	46.0	385	585	4
D1209470	47.0	385	585	4
D1209480	48.0	405	605	4
D1209490	49.0	405	605	4
D1209500	50.0	405	605	4

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○		○		

MORSE TAPER SHANK DRILLS

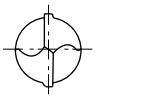
D1210 SERIES

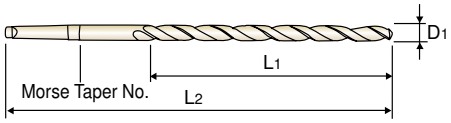
HSS, 莫氏锥柄麻花钻头
HSS, MORSE TAPER SHANK TWIST DRILLS

超长
EXTRA LONG

▶表面处理：氧化发黑处理
▶应用　：设计用于进行深孔和深定位孔的钻削，主要加工钢，铸铁合金及非合金，灰铸铁，可锻铸铁，球状石墨铸铁，可锻铸铁，铝和铝合金.

▶**Surface treatment** : Steam Homo (Black Oxide Finish)
▶**Application** : Designed for drilling deep holes or deeply located holes. Drilling into steels, cast steels alloyed and non-alloyed, grey cast iron, malleable cast iron, Spheriodal graphite cast iron, sintered iron, aluminum and aluminum alloys.





DIN 1870/2 | HSS | N 30° | 1~4 | h8 | 118° P.226

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D1210130	13.0	260	395	1
D1210135	13.5	275	410	1
D1210140	14.0	275	410	1
D1210145	14.5	275	425	2
D1210150	15.0	275	425	2
D1210155	15.5	295	445	2
D1210160	16.0	295	445	2
D1210165	16.5	295	445	2
D1210170	17.0	295	445	2
D1210175	17.5	310	465	2
D1210180	18.0	310	465	2
D1210185	18.5	310	465	2
D1210190	19.0	310	465	2
D1210195	19.5	325	490	2
D1210200	20.0	325	490	2
D1210205	20.5	325	490	2
D1210210	21.0	325	490	2
D1210215	21.5	345	515	2
D1210220	22.0	345	515	2
D1210225	22.5	345	515	2
D1210230	23.0	345	515	2
D1210235	23.5	345	535	3
D1210240	24.0	365	555	3
D1210245	24.5	365	555	3
D1210250	25.0	365	555	3
D1210255	25.5	365	555	3
D1210260	26.0	365	555	3
D1210265	26.5	365	555	3

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D1210270	27.0	385	580	3
D1210275	27.5	385	580	3
D1210280	28.0	385	580	3
D1210285	28.5	385	580	3
D1210290	29.0	385	580	3
D1210295	29.5	385	580	3
D1210300	30.0	385	580	3
D1210310	31.0	410	610	3
D1210320	32.0	410	635	4
D1210330	33.0	410	635	4
D1210340	34.0	430	665	4
D1210350	35.0	430	665	4
D1210360	36.0	430	665	4
D1210370	37.0	430	665	4
D1210380	38.0	460	695	4
D1210390	39.0	460	695	4
D1210400	40.0	460	695	4
D1210410	41.0	460	695	4
D1210420	42.0	460	695	4
D1210430	43.0	490	735	4
D1210440	44.0	490	735	4
D1210450	45.0	490	735	4
D1210460	46.0	490	735	4
D1210470	47.0	490	735	4
D1210480	48.0	510	765	4
D1210490	49.0	510	765	4
D1210500	50.0	510	765	4

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○		○		

MORSE TAPER SHANK DRILLS

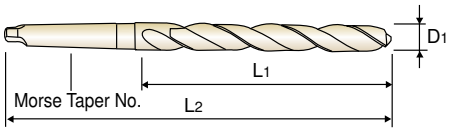
D2201 SERIES

HSSCo8, 莫氏锥柄麻花钻头
HSSCo8, MORSE TAPER SHANK DRILLS

常规
REGULAR

▶表面处理 ：氧化发黑处理
▶应用 ：适用于钢，铸铁合金，非合金灰铸件，可锻造铸件和石墨等材料的加工 含8%钴高速钢材料，大大优越于一般高速钢.

▶**Surface treatment** : Steam Homo (Black Oxide Finish)
▶**Application** : Cobalt 8% high speed steel-higher speed and feed, longer service life than HSS.
Drilling in steel, cast steel alloyed and unalloyed grey cast iron, malleable cast iron, graphite.



HSS Co8 | N 30° | 1~5 | h8 | 118° | P.226

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D2201130	13.0	115	198	1
D2201132	13.2	118	202	1
D2201135	13.5	118	202	1
D2201138	13.8	122	205	1
D2201140	14.0	122	205	1
D2201145	14.5	122	222	2
D2201150	15.0	125	225	2
D2201155	15.5	128	228	2
D2201160	16.0	130	230	2
D2201165	16.5	132	232	2
D2201170	17.0	135	235	2
D2201175	17.5	140	240	2
D2201180	18.0	140	240	2
D2201185	18.5	145	245	2
D2201190	19.0	145	245	2
D2201195	19.5	150	250	2
D2201200	20.0	150	250	2
D2201205	20.5	155	255	2

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D2201210	21.0	155	255	2
D2201215	21.5	160	260	2
D2201220	22.0	160	260	2
D2201225	22.5	165	265	2
D2201230	23.0	165	265	2
D2201235	23.5	165	285	3
D2201240	24.0	165	285	3
D2201245	24.5	165	285	3
D2201250	25.0	165	285	3
D2201255	25.5	165	285	3
D2201260	26.0	165	285	3
D2201265	26.5	170	290	3
D2201270	27.0	170	290	3
D2201275	27.5	175	295	3
D2201280	28.0	175	295	3
D2201285	28.5	180	300	3
D2201290	29.0	180	300	3
D2201295	29.5	185	305	3

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels ~HB225	合金钢 Alloy Steels HB225~325	预硬钢 Prehardened Steels HRc30~45	硬化钢 Hardened Steels HRc45~55	硬化钢 Hardened Steels HRc55~	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
◎	◎	○			○	○	○		○		

MORSE TAPER SHANK DRILLS

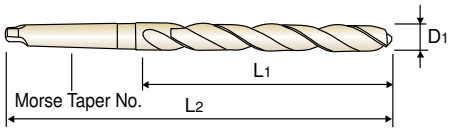
D2201 SERIES

HSSCo8, 莫氏锥柄麻花钻头
HSSCo8, MORSE TAPER SHANK DRILLS

常规
REGULAR

▶表面处理：氧化发黑处理
▶应用　　：适用于钢，铸铁合金，非合金灰铸件，可锻造铸件和石墨等材料的加工 含8%钴高速钢材料，大大优越于一般高速钢.

▶**Surface treatment** : Steam Homo (Black Oxide Finish)
▶**Application** : Cobalt 8% high speed steel-higher speed and feed, longer service life than HSS.
Drilling in steel, cast steel alloyed and unalloyed grey cast iron, malleable cast iron, graphite.



HSS Co8 | N 30° | 1~5 | h8 | 118° P.226

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D2201300	30.0	185	305	3
D2201305	30.5	190	310	3
D2201310	31.0	190	310	3
D2201315	31.5	195	315	3
D2201320	32.0	195	315	3
D2201330	33.0	200	345	4
D2201340	34.0	205	350	4
D2201350	35.0	205	350	4
D2201360	36.0	210	355	4
D2201370	37.0	210	355	4
D2201380	38.0	215	360	4
D2201390	39.0	215	360	4
D2201400	40.0	220	365	4
D2201410	41.0	220	365	4
D2201420	42.0	225	370	4
D2201430	43.0	225	370	4
D2201440	44.0	230	375	4

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D2201450	45.0	230	375	4
D2201460	46.0	235	380	4
D2201470	47.0	235	380	4
D2201480	48.0	240	385	4
D2201490	49.0	240	385	4
D2201500	50.0	245	390	4
D2201510	51.0	245	425	5
D2201520	52.0	250	430	5
D2201530	53.0	250	430	5
D2201540	54.0	255	435	5
D2201550	55.0	255	435	5
D2201560	56.0	260	440	5
D2201570	57.0	260	440	5
D2201580	58.0	265	445	5
D2201590	59.0	265	445	5
D2201600	60.0	270	450	5

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels ~HB225	合金钢 Alloy Steels HB225~325	预硬钢 Prehardened Steels HRc30~45	硬化钢 Hardened Steels HRc45~55	硬化钢 Hardened Steels HRc55~	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
◎	◎	○			○	○	○		○		

MORSE TAPER SHANK DRILLS

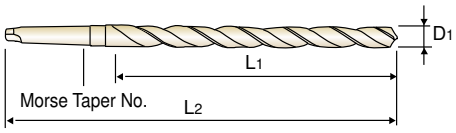
D2203 SERIES

HSSCo8, 莫氏锥柄麻花钻头
HSSCo8, MORSE TAPER SHANK DRILLS

长 LONG

▶表面处理 ：氧化发黑处理
▶应用 ：设计用于深孔加工或深定位孔加工.
适用于钢，铸钢合金和非合金钢，灰铸铁，可锻铸铁，球状石墨铸铁，烧结铁，铝和铝合金的深孔和深定位孔的钻削.

▶**Surface treatment** : Steam Homo (Black Oxide Finish)
▶**Application** : Designed for drilling deep hole or deeply located hole.
Drilling into steel, cast steel, alloyed and unalloyed, grey cast iron, malleable cast iron, Spheroidal graphite cast iron, sintered iron, aluminium and aluminium alloy.



HSS Co8 | N 30° | 1~2 | h8 | 118° P.226

Overall Length : 300mm

단위(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D2203140	14.0	200	300	1
D2203145	14.5	175	300	2
D2203150	15.0	175	300	2
D2203155	15.5	175	300	2
D2203160	16.0	175	300	2
D2203165	16.5	175	300	2
D2203170	17.0	175	300	2
D2203175	17.5	175	300	2
D2203180	18.0	175	300	2
D2203185	18.5	175	300	2

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D2203190	19.0	175	300	2
D2203195	19.5	175	300	2
D2203200	20.0	175	300	2
D2203205	20.5	175	300	2
D2203210	21.0	175	300	2
D2203215	21.5	175	300	2
D2203220	22.0	175	300	2
D2203225	22.5	175	300	2
D2203230	23.0	175	300	2

◎：优(Excellent) ○：良(Good)

碳钢 Carbon Steels ~HB225	合金钢 Alloy Steels HB225~325	预硬钢 Prehardened Steels HRc30~45	硬化钢 Hardened Steels HRc45~55	硬化钢 Hardened Steels HRc55~	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
◎	◎	○			○	○	○		○		

MORSE TAPER SHANK DRILLS

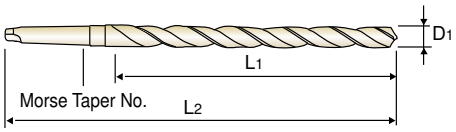
D2202 SERIES

HSSCo8, 莫氏锥柄麻花钻头
HSSCo8, MORSE TAPER SHANK DRILLS

长
LONG

▶表面处理：氧化发黑处理
▶应用　　：设计用于深孔加工或深定位孔加工.
适用于钢，铸钢合金和非合金钢，灰铸铁，可锻铸铁，球状石墨铸铁，烧结铁，铝和铝合金的深孔和深定位孔的钻削.

▶**Surface treatment** : Steam Homo (Black Oxide Finish)
▶**Application** : Designed for drilling deep hole or deeply located hole.
Drilling into steel, cast steel, alloyed and unalloyed, grey cast iron, malleable cast iron, Spheroidal graphite cast iron, sintered iron, aluminium and aluminium alloy.



HSS Co8 | N 30° | 1~3 | h8 | 118° P.226

Overall Length : 350mm

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D2202140	14.0	225	350	1
D2202145	14.5	225	350	2
D2202150	15.0	225	350	2
D2202155	15.5	225	350	2
D2202160	16.0	225	350	2
D2202165	16.5	225	350	2
D2202170	17.0	225	350	2
D2202175	17.5	225	350	2
D2202180	18.0	225	350	2
D2202185	18.5	225	350	2
D2202190	19.0	225	350	2
D2202195	19.5	225	350	2
D2202200	20.0	225	350	2
D2202205	20.5	225	350	2
D2202210	21.0	225	350	2
D2202215	21.5	225	350	2
D2202220	22.0	225	350	2
D2202225	22.5	225	350	2
D2202230	23.0	225	350	2

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D2202235	23.5	200	350	3
D2202240	24.0	200	350	3
D2202245	24.5	200	350	3
D2202250	25.0	200	350	3
D2202255	25.5	200	350	3
D2202260	26.0	200	350	3
D2202265	26.5	200	350	3
D2202270	27.0	200	350	3
D2202275	27.5	200	350	3
D2202280	28.0	200	350	3
D2202285	28.5	200	350	3
D2202290	29.0	200	350	3
D2202295	29.5	200	350	3
D2202300	30.0	200	350	3
D2202305	30.5	200	350	3
D2202310	31.0	200	350	3
D2202315	31.5	200	350	3
D2202320	32.0	200	350	3

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○		○		

MORSE TAPER SHANK DRILLS

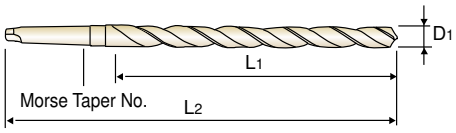
D2204 SERIES

HSSCo8, 莫氏锥柄麻花钻头
HSSCo8, MORSE TAPER SHANK DRILLS

长 LONG

▶表面处理 ：氧化发黑处理
▶应用 ：设计用于深孔加工或深定位孔加工.
适用于钢，铸钢合金和非合金钢，灰铸铁，可锻铸铁，球状石墨铸铁，烧结铁，铝和铝合金的深孔和深定位孔的钻削.

▶**Surface treatment** : Steam Homo (Black Oxide Finish)
▶**Application** : Designed for drilling deep hole or deeply located hole.
Drilling into steel, cast steel, alloyed and unalloyed, grey cast iron, malleable cast iron, Spheroidal graphite cast iron, sintered iron, aluminium and aluminium alloy.



HSS Co8 | N 30° | 2~4 | h8 | 118° P.226

Overall Length : 400mm

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D2204145	14.5	250	400	2
D2204150	15.0	250	400	2
D2204155	15.5	250	400	2
D2204160	16.0	250	400	2
D2204165	16.5	250	400	2
D2204170	17.0	250	400	2
D2204175	17.5	250	400	2
D2204180	18.0	250	400	2
D2204185	18.5	250	400	2
D2204190	19.0	250	400	2
D2204195	19.5	250	400	2
D2204200	20.0	250	400	2
D2204205	20.5	250	400	2
D2204210	21.0	250	400	2
D2204215	21.5	250	400	2
D2204220	22.0	250	400	2
D2204225	22.5	250	400	2
D2204230	23.0	250	400	2
D2204235	23.5	250	400	3
D2204240	24.0	250	400	3
D2204245	24.5	250	400	3
D2204250	25.0	250	400	3
D2204255	25.5	250	400	3
D2204260	26.0	250	400	3
D2204265	26.5	250	400	3
D2204270	27.0	250	400	3
D2204275	27.5	250	400	3

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D2204280	28.0	250	400	3
D2204285	28.5	250	400	3
D2204290	29.0	250	400	3
D2204295	29.5	250	400	3
D2204300	30.0	250	400	3
D2204305	30.5	250	400	3
D2204310	31.0	250	400	3
D2204315	31.5	250	400	3
D2204320	32.0	250	400	3
D2204330	33.0	250	400	4
D2204340	34.0	250	400	4
D2204350	35.0	250	400	4
D2204360	36.0	250	400	4
D2204370	37.0	250	400	4
D2204380	38.0	250	400	4
D2204390	39.0	250	400	4
D2204400	40.0	250	400	4
D2204410	41.0	250	400	4
D2204420	42.0	250	400	4
D2204430	43.0	250	400	4
D2204440	44.0	250	400	4
D2204450	45.0	250	400	4
D2204460	46.0	250	400	4
D2204470	47.0	250	400	4
D2204480	48.0	250	400	4
D2204490	49.0	250	400	4
D2204500	50.0	250	400	4

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○		○		

MORSE TAPER SHANK DRILLS

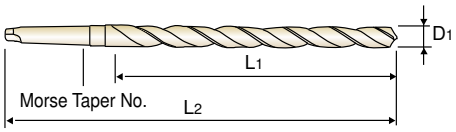
D2208 SERIES

HSSCo8, 莫氏锥柄麻花钻头
HSSCo8, MORSE TAPER SHANK DRILLS

长
LONG

▶表面处理：氧化发黑处理
▶应用　　：设计用于深孔加工或深定位孔加工.
适用于钢，铸钢合金和非合金钢，灰铸铁，可锻铸铁，球状石墨铸铁，烧结铁，铝和铝合金的深孔和深定位孔的钻削.

▶**Surface treatment** : Steam Homo (Black Oxide Finish)
▶**Application** : Designed for drilling deep hole or deeply located hole.
Drilling into steel, cast steel, alloyed and unalloyed, grey cast iron, malleable cast iron, Spheroidal graphite cast iron, sintered iron, aluminium and aluminium alloy.



HSS Co8 | N 30° | 2~4 | h8 | 118° P.226

Overall Length : 450mm

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D2208145	14.5	300	450	2
D2208150	15.0	300	450	2
D2208155	15.5	300	450	2
D2208160	16.0	300	450	2
D2208165	16.5	300	450	2
D2208170	17.0	300	450	2
D2208175	17.5	300	450	2
D2208180	18.0	300	450	2
D2208185	18.5	300	450	2
D2208190	19.0	300	450	2
D2208195	19.5	300	450	2
D2208200	20.0	300	450	2
D2208205	20.5	300	450	2
D2208210	21.0	300	450	2
D2208215	21.5	300	450	2
D2208220	22.0	300	450	2
D2208225	22.5	300	450	2
D2208230	23.0	300	450	2
D2208235	23.5	300	450	3
D2208240	24.0	300	450	3
D2208245	24.5	300	450	3
D2208250	25.0	300	450	3
D2208255	25.5	300	450	3
D2208260	26.0	300	450	3
D2208265	26.5	300	450	3
D2208270	27.0	300	450	3
D2208275	27.5	300	450	3

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D2208280	28.0	300	450	3
D2208285	28.5	300	450	3
D2208290	29.0	300	450	3
D2208295	29.5	300	450	3
D2208300	30.0	300	450	3
D2208305	30.5	300	450	3
D2208310	31.0	300	450	3
D2208315	31.5	300	450	3
D2208320	32.0	300	450	3
D2208330	33.0	300	450	4
D2208340	34.0	300	450	4
D2208350	35.0	300	450	4
D2208360	36.0	300	450	4
D2208370	37.0	300	450	4
D2208380	38.0	300	450	4
D2208390	39.0	300	450	4
D2208400	40.0	300	450	4
D2208410	41.0	300	450	4
D2208420	42.0	300	450	4
D2208430	43.0	300	450	4
D2208440	44.0	300	450	4
D2208450	45.0	300	450	4
D2208460	46.0	300	450	4
D2208470	47.0	300	450	4
D2208480	48.0	300	450	4
D2208490	49.0	300	450	4
D2208500	50.0	300	450	4

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○		○		

MORSE TAPER SHANK DRILLS

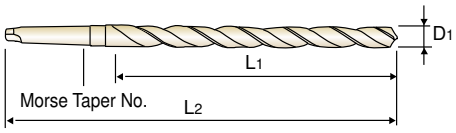
D2207 SERIES

HSSCo8, 莫氏锥柄麻花钻头
HSSCo8, MORSE TAPER SHANK DRILLS

长 LONG

▶表面处理 ：氧化发黑处理
▶应用 ：设计用于深孔加工或深定位孔加工.
适用于钢，铸钢合金和非合金钢，灰铸铁，可锻铸铁，球状石墨铸铁，烧结铁，铝和铝合金的深孔和深定位孔的钻削.

▶**Surface treatment** : Steam Homo (Black Oxide Finish)
▶**Application** : Designed for drilling deep hole or deeply located hole.
Drilling into steel, cast steel, alloyed and unalloyed, grey cast iron, malleable cast iron, Spheroidal graphite cast iron, sintered iron, aluminium and aluminium alloy.



HSS Co8 | N 30° | 2~4 | h8 | 118° P.226

Overall Length : 500mm

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D2207145	14.5	350	500	2
D2207150	15.0	350	500	2
D2207155	15.5	350	500	2
D2207160	16.0	350	500	2
D2207165	16.5	350	500	2
D2207170	17.0	350	500	2
D2207175	17.5	350	500	2
D2207180	18.0	350	500	2
D2207185	18.5	350	500	2
D2207190	19.0	350	500	2
D2207195	19.5	350	500	2
D2207200	20.0	350	500	2
D2207205	20.5	350	500	2
D2207210	21.0	350	500	2
D2207215	21.5	350	500	2
D2207220	22.0	350	500	2
D2207225	22.5	350	500	2
D2207230	23.0	350	500	2
D2207235	23.5	350	500	3
D2207240	24.0	350	500	3
D2207245	24.5	350	500	3
D2207250	25.0	350	500	3
D2207255	25.5	350	500	3
D2207260	26.0	350	500	3
D2207265	26.5	350	500	3
D2207270	27.0	350	500	3
D2207275	27.5	350	500	3

型号 EDP No.	刃径 Drill Diameter D1	刃长 Flute Length L1	全长 Overall Length L2	莫氏锥度号 No.of Morse Taper
D2207280	28.0	350	500	3
D2207285	28.5	350	500	3
D2207290	29.0	350	500	3
D2207295	29.5	350	500	3
D2207300	30.0	350	500	3
D2207305	30.5	350	500	3
D2207310	31.0	350	500	3
D2207315	31.5	350	500	3
D2207320	32.0	350	500	3
D2207330	33.0	350	500	4
D2207340	34.0	350	500	4
D2207350	35.0	350	500	4
D2207360	36.0	350	500	4
D2207370	37.0	350	500	4
D2207380	38.0	350	500	4
D2207390	39.0	350	500	4
D2207400	40.0	350	500	4
D2207410	41.0	350	500	4
D2207420	42.0	350	500	4
D2207430	43.0	350	500	4
D2207440	44.0	350	500	4
D2207450	45.0	350	500	4
D2207460	46.0	350	500	4
D2207470	47.0	350	500	4
D2207480	48.0	350	500	4
D2207490	49.0	350	500	4
D2207500	50.0	350	500	4

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○		○		

MORSE TAPER SHANK DRILLS

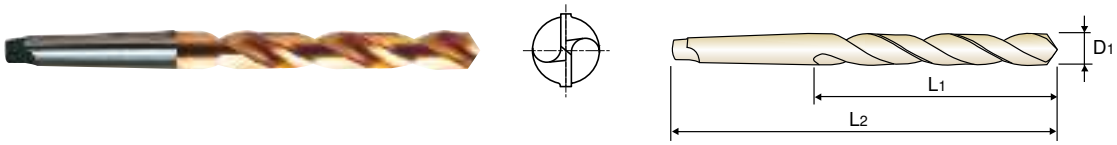
DN221 SERIES

HSS-E, 莫氏锥柄麻花钻
HSS-E, MORSE TAPER SHANK TWIST DRILLS

短 *SHORT*

▶应用：短长度设计适合在碳钢，不锈钢，铝等多种材料上进行高速钻削

▶**Application** : Short length - designed for high speed drilling in wide rarge of materials like carbon steels, stainless steels and aluminum.



HSS-E | N 30° | 1~3 | h8 | 135° | P.226

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length	莫氏锥度号 No.of Morse Taper
TiN	D1	L1	L2	
DN221130	13.0	65.5	146.5	1
DN221135	13.5	69.5	150.5	1
DN221140	14.0	69.5	150.5	1
DN221145	14.5	73	171	2
DN221150	15.0	73	171	2
DN221155	15.5	77	175	2
DN221160	16.0	77	175	2
DN221165	16.5	80.5	178.5	2
DN221170	17.0	80.5	178.5	2
DN221175	17.5	83.5	181.5	2
DN221180	18.0	83.5	181.5	2
DN221185	18.5	86.5	184.5	2
DN221190	19.0	86.5	184.5	2
DN221195	19.5	90	188	2
DN221200	20.0	90	188	2
DN221205	20.5	93	191	2
DN221210	21.0	93	191	2
DN221215	21.5	95.5	193.5	2
DN221220	22.0	95.5	193.5	2
DN221225	22.5	99.5	197.5	2

型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length	莫氏锥度号 No.of Morse Taper
TiN	D1	L1	L2	
DN221230	23.0	99.5	197.5	2
DN221235	23.5	102.5	223.5	3
DN221240	24.0	102.5	223.5	3
DN221245	24.5	102.5	223.5	3
DN221250	25.0	102.5	223.5	3
DN221255	25.5	105	226	3
DN221260	26.0	105	226	3
DN221265	26.5	105	226	3
DN221270	27.0	108.5	229.5	3
DN221275	27.5	108.5	229.5	3
DN221280	28.0	108.5	229.5	3
DN221285	28.5	111	232	3
DN221290	29.0	111	232	3
DN221295	29.5	111	232	3
DN221300	30.0	111	232	3
DN221305	30.5	114	235	3
DN221310	31.0	114	235	3
DN221315	31.5	114	235	3
DN221320	32.0	114	235	3

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○		○		

MORSE TAPER SHANK DRILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

HSS-E, 莫氏锥柄麻花钻, TiN涂层
HSS-E, MORSE TAPER SHANK TWIST DRILLS, TiN COATED

DN221 SERIES

单位(Unit) : mm

被加工材料	碳钢		合金钢		工具钢, 合金钢		铸铁, 工具钢		铝合金, 镁合金	
WORK MATERIAL	CARBON STEELS		ALLOY STEELS		TOOL STEELS, ALLOY STEELS		CAST IRON TOOL STEELS		ALUMINUM ALLOYS MAGNESIUM ALLOYS	
DIAMETER	N	S	N	S	N	S	N	S	N	S
14.0	455	0.25	415	0.25	200	0.25	1980	0.29	1980	0.51
16.0	430	0.27	390	0.27	175	0.27	1730	0.30	1730	0.55
18.0	370	0.31	350	0.31	155	0.31	1570	0.33	1570	0.57
20.0	330	0.33	290	0.33	140	0.33	1320	0.36	1320	0.62
22.0	305	0.36	280	0.36	132	0.36	1240	0.37	1240	0.68
24.0	290	0.37	250	0.37	125	0.37	1150	0.42	1150	0.72
26.0	265	0.40	230	0.40	105	0.40	1070	0.43	1070	0.75
28.0	250	0.43	215	0.43	100	0.43	990	0.45	990	0.79
30.0	230	0.45	200	0.45	88	0.45	910	0.53	910	0.83
32.0	215	0.49	190	0.49	88	0.49	785	0.53	785	0.86

N = R.P.M
S = Feed per Revolution (mm/rev.)

HSS钻头 DIN345, DIN341, DIN1870
HSS DRILLS DIN345, DIN341, DIN1870

D1205, D1206, D1209, D1210, D1201, D1203, D1202, D1204, D1208
D1207, D2201, D2203, D2202, D2204, D2208, D2207 SERIES

单位(Unit) : mm

被加工材料	碳钢		碳钢		碳钢		合金钢		合金钢		不锈钢		钛合金	
WORK MATERIAL	CARBON STEELS		CARBON STEELS		CARBON STEELS		ALLOY STEELS		ALLOY STEELS		STAINLESS STEELS		TITANIUM ALLOYS	
HARDNESS			~ HRc23		~ HRc23 ~ 28		HRc23 ~ 34		HRc34 ~ 38		HRc23			
STRENGTH	~ 570 N/mm²		~ 830 N/mm²		830 ~ 950 N/mm²		830 ~ 1110 N/mm²		1110 ~ 1260 N/mm²		830 N/mm²		410 N/mm²	
DIAMETER	N	S	N	S	N	S	N	S	N	S	N	S	N	S
13.0	645	0.17	480	0.17	370	0.09	440	0.20	265	0.05	480	0.17	265	0.09
19.0	440	0.23	330	0.23	255	0.13	300	0.23	180	0.05	330	0.23	180	0.13
32.0	260	0.28	195	0.28	145	0.18	180	0.18	107	0.08	195	0.28	107	0.18
50.0	165	0.33	125	0.33	93	0.20	115	0.20	68	0.08	125	0.33	68	0.20
60.0	140	0.40	105	0.40	78	0.23	95	0.23	57	0.10	105	0.40	57	0.23

被加工材料	工具钢		铸铁		铝合金		镁合金		锌合金		塑料	
WORK MATERIAL	TOOL STEELS		CAST IRON		ALUMINUM ALLOYS		MAGNESIUM ALLOYS		ZINC ALLOYS		PLASTICS	
HARDNESS			~ HRc21									
STRENGTH	~ 270 N/mm²		~ 800 N/mm²									
DIAMETER	N	S	N	S	N	S	N	S	N	S	N	S
13.0	645	0.17	480	0.17	1200	0.26	1600	0.26	1200	0.26	645	0.17
19.0	440	0.23	330	0.23	820	0.30	1100	0.30	820	0.30	440	0.23
32.0	240	0.30	195	0.28	490	0.38	660	0.38	490	0.38	260	0.28
50.0	150	0.43	125	0.33	310	0.46	415	0.46	310	0.46	165	0.33
60.0	125	0.48	105	0.40	260	0.50	345	0.50	260	0.50	140	0.40

N = R.P.M
S = Feed per Revolution (mm/rev.)

HSS

Being the best through innovation

NC-SPOTTING DRILLS

- 含钴8%的高速钢
  定中心和倒角

HSS(8% COBALT)
Centering and Chamfering of Holes

含钴量8%的高速钢定心钻头
孔的定中心和倒角

项目	型号	规格	尺寸		页
			最小	最大	
ITEM	MODEL	DESCRIPTION	SIZE		PAGE
			MIN	MAX	
D2306 D2307		HSSCo8, 定心钻头 HSSCo8, NC-SPOTTING DRILLS	D3.0	D20.0	230
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS			231

HSS(8% Cobalt) NC-SPOTTING DRILLS

Centering and Chamfering of Holes

◎ : 优(Excellent)
○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		铸铁	铝	不锈钢	钛	低碳钢	铜	青铜
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎					○	○		○		○

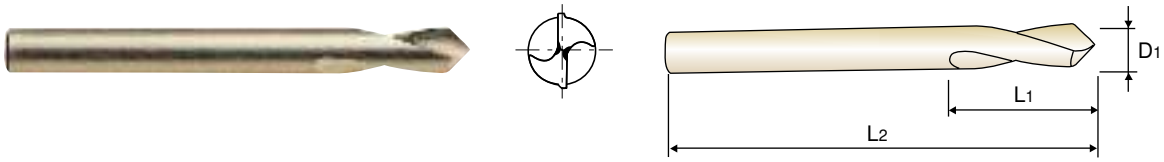
NC-SPOTTING DRILLS

D2306 SERIES
D2307 SERIES

HSSCo8, 定心钻头
HSSCo8, NC-SPOTTING DRILLS

▶ 应用：用于NC/CNC机床上的高精密中心孔加工，大的产品直径允许在中心孔加工后继续进行倒角工作.

▶ **Application** : For more precise centering work on NC/CNC Machines.
The large diameter of the tool permits chamfering work after centering continuously.



NC | HSS Co8 | h6 | h6 | 90° | 120° | P.207

定心钻头 90°
NC-Spotting Drills 90°

型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	L1	L2
D2306030	3.0	12	46
D2306040	4.0	12	55
D2306050	5.0	15	60
D2306060	6.0	20	66
D2306080	8.0	25	79
D2306100	10.0	25	89
D2306120	12.0	30	102
D2306160	16.0	35	115
D2306200	20.0	40	131

定心钻头 120°
NC-Spotting Drills 120°

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter	刃长 Flute Length	全长 Overall Length
TiAlN	D1	L1	L2
D2307030	3.0	12	46
D2307040	4.0	12	55
D2307050	5.0	15	60
D2307060	6.0	20	66
D2307080	8.0	25	79
D2307100	10.0	25	89
D2307120	12.0	30	102
D2307160	16.0	35	115
D2307200	20.0	40	131

▶ TiN (D4306, D4307),TiCN (D7306, D7307),TiAlN (DQ306, DQ307)可根据客户需求进行加工.
TiN(D4306, D4307), TiCN(D7306, D7307) and TiAlN(DQ306, DQ307) are available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎					○	○		○		○

NC-SPOTTING DRILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

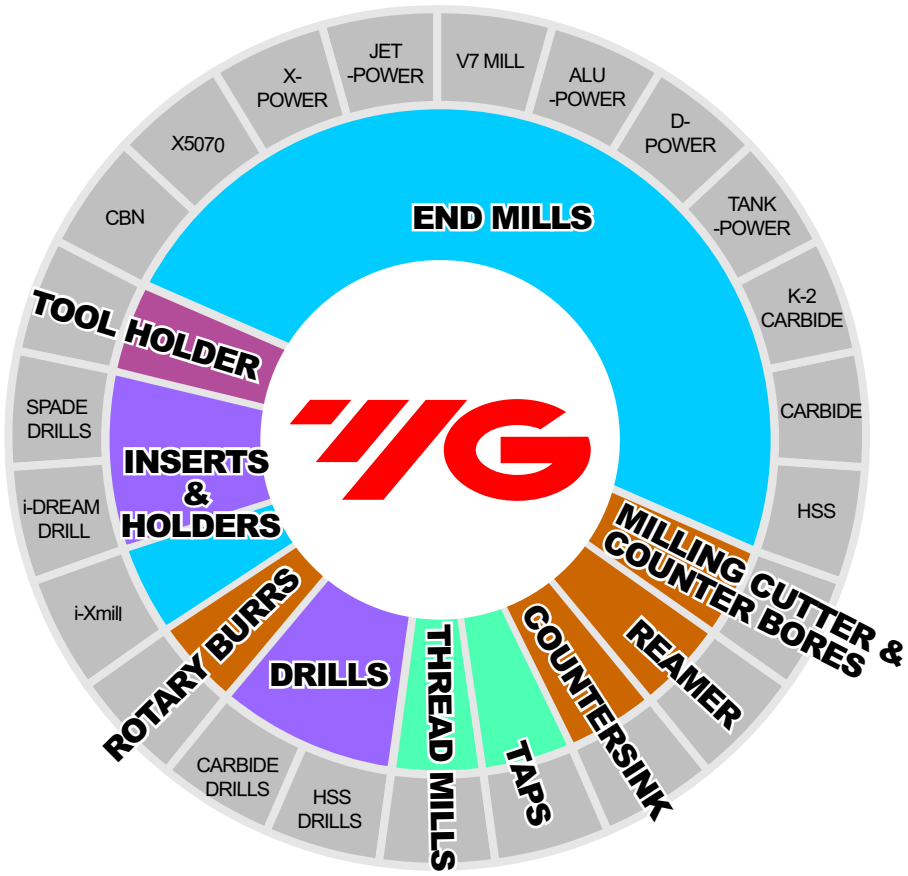
HSSCo8, 定心钻头 90°, 120°
HSSCo8, NC-SPOTTING DRILLS 90°, 120°

D2306, D2307 SERIES

单位(Unit) : mm

被加工材料 WORK MATERIAL	碳钢 CARBON STEELS		合金钢 ALLOY STEELS		合金钢, 工具钢, 硬化钢 ALLOY STEELS, TOOL STEELS, HARDENED STEELS		不锈钢 STAINLESS STEELS		铝, 铝合金 ALUMINUM, ALUMINUM ALLOYS	
DIAMETER	N	S	N	S	N	S	N	S	N	S
3.0	2460	0.06	2110	0.06	1080	0.06	940	0.06	7040	0.14
4.0	1850	0.07	1580	0.07	800	0.07	700	0.07	5280	0.15
5.0	1510	0.08	1300	0.08	670	0.08	580	0.08	4400	0.17
6.0	1170	0.09	1030	0.09	540	0.09	460	0.09	3520	0.19
8.0	880	0.11	790	0.11	400	0.11	350	0.11	2640	0.22
10.0	700	0.12	630	0.12	320	0.12	290	0.12	2110	0.25
12.0	590	0.14	530	0.14	260	0.14	240	0.14	1760	0.28
16.0	460	0.20	400	0.20	200	0.20	180	0.20	1320	0.33
20.0	350	0.24	320	0.24	150	0.24	140	0.24	1060	0.45

N = R.P.M
S = Feed per Revolution (mm/rev.)



Challenge toward a Global Leader-

YG-1 Leads the World Market.

HSS

Being the best through innovation

CENTER DRILLS

- 普通用途

General Purpose (HSS-EX)

HSS-EX, 中心钻
普通用途

项目	型号	规格		尺寸 最小	尺寸 最大	页
ITEM	MODEL	DESCRIPTION		SIZE MIN	SIZE MAX	PAGE
DV304		HSS-EX, 中心钻 HSS-EX, CENTER DRILLS, 100mm	长 *LONG*	D1.0	D5.0	**236**
DV305		HSS-EX, 中心钻 HSS-EX, CENTER DRILLS, 150mm	长 *LONG*	D1.5	D5.0	**236**
DV301		HSS-EX, 中心钻 HSS-EX, CENTER DRILLS		D1.0	D5.0	**237**

HSS-EX CENTER DRILLS

General Purpose

◎ : 优(Excellent)
○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		铸铁	铝	不锈钢	钛	低碳钢	铜	青铜
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	○	○	○
◎	◎				○	○	○	○	○	○	○
◎	◎				○	○	○	○	○	○	○

CENTER DRILLS

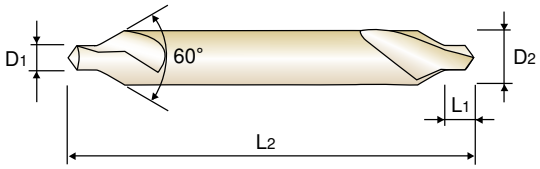
DV304 SERIES
DV305 SERIES

HSS-EX, 中心钻
HSS-EX, CENTER DRILLS

长
LONG

▶ 应用：适用于一般材料的定心孔加工和倒角加工. 采用含钴高速钢材料和YG1独特的设计技术，具有卓越的加工性能

▶ **Application** : Center Drills suitable for center drilling and chamfering in general materials.
Excellent performance with High Vanadium HSS-EX and YG-1's unique design technology.



HSS EX | h8 | k12 | 120°

DV304 : 100mm

型号 EDP No.	刃径 Drill Diameter D1	柄径 Shank Diameter D2	刃长 Pilot Length L1	全长 Overall Length L2
DV304010	1.0	4.0	1.0	100
DV304012	1.2	5.0	1.2	100
DV304015	1.5	5.0	1.5	100
DV304020	2.0	6.0	2.0	100
DV304025	2.5	8.0	2.5	100
DV304030	3.0	8.0	3.0	100
DV304032	3.2	8.0	3.0	100
DV304040	4.0	10.0	4.5	100
DV304050	5.0	12.0	5.5	100

DV305 : 150mm

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	柄径 Shank Diameter D2	刃长 Pilot Length L1	全长 Overall Length L2
DV305015	1.5	5.0	1.9	150
DV305020	2.0	6.0	2.5	150
DV305025	2.5	8.0	3.1	150
DV305030	3.0	10.0	3.7	150
DV305040	4.0	10.0	5.0	150
DV305050	5.0	12.0	6.3	150

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	○	○	○

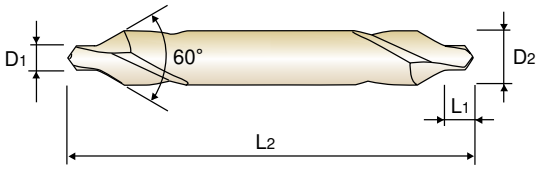
CENTER DRILLS

DV301 SERIES

HSS-EX, 中心钻
HSS-EX, CENTER DRILLS

▶应用：适用于一般材料的定心孔加工和倒角加工. 采用含钴高速钢材料和YG1独特的设计技术, 具有卓越的加工性能

▶**Application** : Center Drills suitable for center drilling and chamfering in general materials.
Excellent performance with High Vanadium HSS-EX and YG-1's unique design technology.



HSS EX | h8 | k12 | 120°

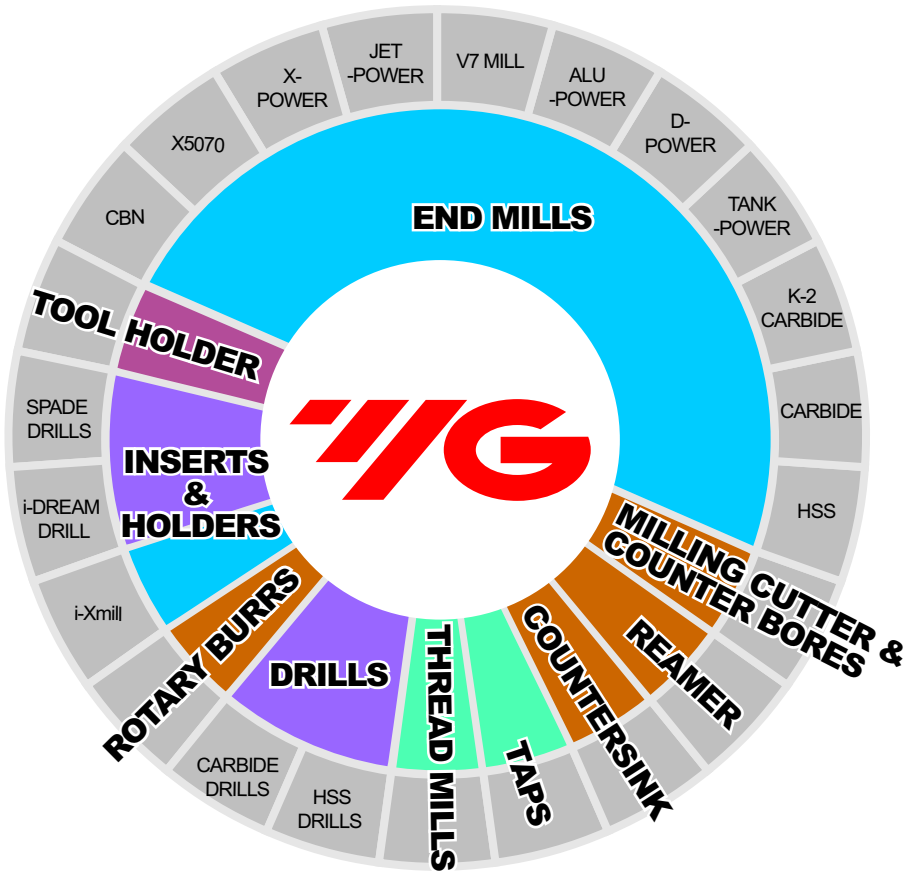
FORM A (60°)

单位(Unit) : mm

型号 EDP No.	刃径 Drill Diameter D1	柄径 Shank Diameter D2	刃长 Pilot Length L1	全长 Overall Length L2
DV301010	1.0	4.0	4.0	35
DV301015	1.5	5.0	5.0	40
DV301020	2.0	6.0	6.0	45
DV301025	2.5	7.7	7.7	50
DV301030	3.0	7.7	7.7	55
DV301040	4.0	10.0	10.0	65
DV301050	5.0	11.0	11.0	78

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	低碳钢 Mild Steels	铜 Copper	青铜 Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							



Challenge toward a Global Leader-

YG-1 Leads the World Market.

INSERTS & HOLDERS

Being the best through innovation

SPADE DRILLS

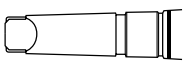
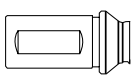
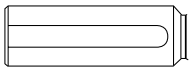
- 硬质合金材质可以得到更长的刀具寿命，粉末高速钢材质用于普通加工以及大尺寸的加工
  相对于其他类型的钻孔工具，铲钻具有更高的加工效率.

Carbide for Long Tool Life, and HSS-PM for General Machines and Large Diameters. Higher Productivity than Other Drilling Tools

SPADE DRILL INSERTS

项目	型号	规格	尺寸		页
			最小	最大	
ITEM	MODEL	DESCRIPTION	SIZE		PAGE
			MIN	MAX	
SERIES 1~8		铲钻刀片-HSS M4 SPADE DRILL INSERTS - HSS M4	Ø17.86 (#1)	Ø114.3 (#8)	242
SERIES Y,Z,0,1~4		铲钻刀片-SUPER HSS T15 SPADE DRILL INSERTS - SUPER HSS T15	Ø9.5 (#Y)	Ø65.09 (#4)	248
SERIES Y,Z,0,1,2		铲钻刀片-PREMIUM HSS M48 SPADE DRILL INSERTS - PREMIUM HSS M48	Ø9.5 (#Y)	Ø35 (#2)	253
SERIES Y,Z,0,1,2		铸铁用铲钻刀片-硬质合金 (K10) SPADE DRILL INSERTS for CAST IRON - CARBIDE(K10)	Ø9.5 (#Y)	Ø35 (#2)	256
SERIES Y,Z,0,1~3		铲钻刀片-硬质合金 (K20) SPADE DRILL INSERTS - CARBIDE(K20)	Ø9.5 (#Y)	Ø47.63 (#3)	259
SERIES Y,Z,0,1~3		铲钻刀片-CARBIDE(P40) SPADE DRILL INSERTS - CARBIDE(P40)	Ø9.5 (#Y)	Ø47.63 (#3)	263
SERIES 1~3		SM-POINT 铲钻刀片-HSS M4 SM-POINT SPADE DRILL INSERTS - HSS M4	Ø17.86 (#1)	Ø47.63 (#3)	268
SERIES Y,Z,0,1~3		SM-POINT 铲钻刀片-SUPER HSS T15 SM-POINT SPADE DRILL INSERTS - SUPER HSS T15	Ø9.5 (#Y)	Ø47.63 (#3)	271
SERIES Y,Z,0,1,2		SM-POINT 铲钻刀片-PREMIUM HSS M48 SM-POINT SPADE DRILL INSERTS - PREMIUM HSS M48	Ø9.5 (#Y)	Ø35 (#2)	275
SERIES Y,Z,0,1,2		SM-POINT铸铁用铲钻刀片-硬质合金 (K10) SM-POINT SPADE DRILL INSERTS for CAST IRON - CARBIDE(K10)	Ø9.5 (#Y)	Ø35 (#2)	278
SERIES Y,Z,0,1~3		SM-POINT 铲钻刀片-CARBIDE(K20) SM-POINT SPADE DRILL INSERTS - CARBIDE(K20)	Ø9.5 (#Y)	Ø47.63 (#3)	281
SERIES Y,Z,0,1~3		SM-POINT 铲钻刀片-CARBIDE(P40) SM-POINT SPADE DRILL INSERTS - CARBIDE(P40)	Ø9.5 (#Y)	Ø47.63 (#3)	285

SPADE DRILL HOLDERS

TAPER SHANK		锥柄刀杆 TAPER SHANK HOLDERS - INCH/METRIC	289
FLANGED SHANK		凸缘直柄刀杆 FLANGED STRAIGHT SHANK HOLDERS - INCH/METRIC	297
STRAIGHT SHANK		直柄刀杆 STRAIGHT SHANK HOLDERS - INCH	304

◎ : 优(Excellent)
○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
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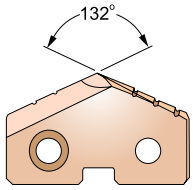
SPADE DRILLS

SERIES 1,2

铲钻刀片-HSS M4
SPADE DRILL INSERTS - HSS M4

- 用于钢和铸铁的普通用途
- 在设备上能够简单地更换刀片可以减少调试时间.
- 各种非标准尺寸均可进行生产.

- For general use in steels and cast irons.
- Set up time can be reduced due to changing inserts easily on the machine.
- Any non-standard size available.



切削条件 /cutting conditions : p.309

系列 Series	直径 Diameter			厚度 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	HSS (M4) TiN	HSS (M4) TiCN	HSS (M4) TiAlN
1 17.53 (.690″) to 24.38 (.960″)	45/64″	17.86	.7031″	4.0 (5/32″)	S1405045	S1410045	S1415045
		18.00	.7087″		S1455180	S1460180	S1465180
	23/32″	18.26	.7188″		S1405046	S1410046	S1415046
		18.50	.7283″		S1455185	S1460185	S1465185
	47/64″	18.65	.7344″		S1405047	S1410047	S1415047
		19.00	.7480″		S1455190	S1460190	S1465190
	3/4″	19.05	.7500″		S1405048	S1410048	S1415048
	49/64″	19.45	.7656″		S1405049	S1410049	S1415049
		19.50	.7677″		S1455195	S1460195	S1465195
	25/32″	19.84	.7813″		S1405050	S1410050	S1415050
		20.00	.7874″		S1455200	S1460200	S1465200
	51/64″	20.24	.7969″		S1405051	S1410051	S1415051
		20.50	.8071″		S1455205	S1460205	S1465205
	13/16″	20.64	.8125″		S1405052	S1410052	S1415052
		21.00	.8268″		S1455210	S1460210	S1465210
	27/32″	21.43	.8438″		S1405054	S1410054	S1415054
	55/64″	21.83	.8594″		S1405055	S1410055	S1415055
		22.00	.8661″		S1455220	S1460220	S1465220
	7/8″	22.23	.8750″		S1405056	S1410056	S1415056
	57/64″	22.62	.8906″		S1405057	S1410057	S1415057
		23.00	.9055″		S1455230	S1460230	S1465230
	29/32″	23.02	.9063″		S1405058	S1410058	S1415058
	59/64″	23.42	.9219″		S1405059	S1410059	S1415059
	15/16″	23.81	.9375″		S1405060	S1410060	S1415060
		24.00	.9449″		S1455240	S1460240	S1465240
2 24.41 (.961″) to 35.05 (1.380″)	31/32″	24.61	.9688″	4.8 (3/16″)	S1405062	S1410062	S1415062
	63/64″	25.00	.9843″		S1455250	S1460250	S1465250
	1″	25.40	1.0000″		S1405100	S1410100	S1415100
	1-1/64″	25.80	1.0156″		S1405101	S1410101	S1415101
		26.00	1.0236″		S1455260	S1460260	S1465260
	1-1/32″	26.19	1.0313″		S1405102	S1410102	S1415102
	1-3/64″	26.59	1.0469″		S1405103	S1410103	S1415103
	1-1/16″	26.99	1.0625″		S1405104	S1410104	S1415104
		27.00	1.0630″		S1455270	S1460270	S1465270

◎ : 优(Excellent)　○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
○	○	○	○		○		○	○			◎	◎	○	◎	◎

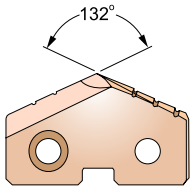
SPADE DRILLS

SERIES 2,3

铲钻刀片-HSS M4
SPADE DRILL INSERTS - HSS M4

- ▶ 用于钢和铸铁的普通用途
- ▶ 在设备上能够简单地更换刀片可以减少调试时间.
- ▶ 各种非标准尺寸均可进行生产.

- ▶ For general use in steels and cast irons.
- ▶ Set up time can be reduced due to changing inserts easily on the machine.
- ▶ Any non-standard size available.



切削条件 /cutting conditions : p.309

系列 Series	直径 Diameter			厚度 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	HSS (M4) TiN	HSS (M4) TiCN	HSS (M4) TiAlN
2 24.41 (.961″) to 35.05 (1.380″)	1-3/32″	27.78	1.0938″	4.8 (3/16″)	S1405106	S1410106	S1415106
		28.00	1.1024″		S1455280	S1460280	S1465280
	1-7/64″	28.18	1.1094″		S1405107	S1410107	S1415107
	1-1/8″	28.58	1.1250″		S1405108	S1410108	S1415108
		29.00	1.1417″		S1455290	S1460290	S1465290
	1-5/32″	29.37	1.1563″		S1405110	S1410110	S1415110
		30.00	1.1811″		S1455300	S1460300	S1465300
	1-3/16″	30.16	1.1875″		S1405112	S1410112	S1415112
	1-7/32″	30.96	1.2188″		S1405114	S1410114	S1415114
		31.00	1.2205″		S1455310	S1460310	S1465310
	1-1/4″	31.75	1.2500″		S1405116	S1410116	S1415116
		32.00	1.2598″		S1455320	S1460320	S1465320
	1-9/32″	32.54	1.2813″		S1405118	S1410118	S1415118
		33.00	1.2992″		S1455330	S1460330	S1465330
	1-5/16″	33.34	1.3125″		S1405120	S1410120	S1415120
		34.00	1.3386″		S1455340	S1460340	S1465340
	1-11/32″	34.13	1.3438″		S1405122	S1410122	S1415122
	1-3/8″	34.93	1.3750″		S1405124	S1410124	S1415124
		35.00	1.3780″		S1455350	S1460350	S1465350
3 34.37 (1.353″) to 47.80 (1.882″)	1-13/32″	35.72	1.4063″	6.4 (1/4″)	S1405126	S1410126	S1415126
		36.00	1.4173″		S1455360	S1460360	S1465360
	1-7/16″	36.51	1.4375″		S1405128	S1410128	S1415128
		37.00	1.4567″		S1455370	S1460370	S1465370
	1-15/32″	37.31	1.4688″		S1405130	S1410130	S1415130
		38.00	1.4961″		S1455380	S1460380	S1465380
	1-1/2″	38.10	1.5000″		S1405132	S1410132	S1415132
	1-17/32″	38.89	1.5313″		S1405134	S1410134	S1415134
		39.00	1.5354″		S1455390	S1460390	S1465390
	1-9/16″	39.69	1.5625″		S1405136	S1410136	S1415136
		40.00	1.5748″		S1455400	S1460400	S1465400
	1-19/32″	40.48	1.5938″		S1405138	S1410138	S1415138
		41.00	1.6142″		S1455410	S1460410	S1465410
	1-5/8″	41.28	1.6250″		S1405140	S1410140	S1415140
		42.00	1.6535″		S1455420	S1460420	S1465420

◎ : 优(Excellent)　○ : 良(Good)

普通钢易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
○	○	○	○		○		○	○			◎	◎	○	◎	◎

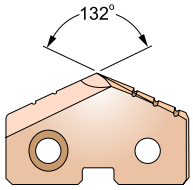
SPADE DRILLS

SERIES 3,4

铲钻刀片-HSS M4
SPADE DRILL INSERTS - HSS M4

- 用于钢和铸铁的普通用途
- 在设备上能够简单地更换刀片可以减少调试时间.
- 各种非标准尺寸均可进行生产.

- For general use in steels and cast irons.
- Set up time can be reduced due to changing inserts easily on the machine.
- Any non-standard size available.



切削条件 /cutting conditions : p.309

系列 Series	直径 Diameter			厚度 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	HSS (M4) TiN	HSS (M4) TiCN	HSS (M4) TiAlN
3 34.37 (1.353″) to 47.80 (1.882″)	1-21/32″	42.07	1.6563″	6.4 (1/4″)	S1405142	S1410142	S1415142
	1-11/16″	42.86	1.6875″		S1405144	S1410144	S1415144
		43.00	1.6929″		S1455430	S1460430	S1465430
	1-23/32″	43.66	1.7188″		S1405146	S1410146	S1415146
		44.00	1.7323″		S1455440	S1460440	S1465440
	1-3/4″	44.45	1.7500″		S1405148	S1410148	S1415148
		45.00	1.7717″		S1455450	S1460450	S1465450
	1-25/32″	45.24	1.7813″		S1405150	S1410150	S1415150
		46.00	1.8110″		S1455460	S1460460	S1465460
	1-13/16″	46.04	1.8125″		S1405152	S1410152	S1415152
	1-27/32″	46.83	1.8438″		S1405154	S1410154	S1415154
		47.00	1.8504″		S1455470	S1460470	S1465470
	1-7/8″	47.63	1.8750″		S1405156	S1410156	S1415156
4 46.99 (1.850″) to 65.28 (2.570″)		48.00	1.8898″	7.9 (5/16″)	S1455480	S1460480	S1465480
	1-29/32″	48.42	1.9063″		S1405158	S1410158	S1415158
		49.00	1.9291″		S1455490	S1460490	S1465490
	1-15/16″	49.21	1.9375″		S1405160	S1410160	S1415160
		50.00	1.9685″		S1455500	S1460500	S1465500
	1-31/32″	50.01	1.9688″		S1405162	S1410162	S1415162
	2″	50.80	2.0000″		S1405200	S1410200	S1415200
		51.00	2.0079″		S1455510	S1460510	S1465510
	2-1/32″	51.59	2.0313″		S1405202	S1410202	S1415202
	2-3/64″	52.00	2.0472″		S1455520	S1460520	S1465520
	2-1/16″	52.39	2.0625″		S1405204	S1410204	S1415204
		53.00	2.0866″		S1455530	S1460530	S1465530
	2-3/32″	53.18	2.0938″		S1405206	S1410206	S1415206
	2-1/8″	53.98	2.1250″		S1405208	S1410208	S1415208
		54.00	2.1260″		S1455540	S1460540	S1465540
	2-5/32″	54.79	2.1563″		S1405210	S1410210	S1415210
		55.00	2.1654″		S1455550	S1460550	S1465550
	2-3/16″	55.56	2.1875″		S1405212	S1410212	S1415212
		56.00	2.2047″		S1455560	S1460560	S1465560
	2-7/32″	56.36	2.2188″		S1405214	S1410214	S1415214
		57.00	2.2441″		S1455570	S1460570	S1465570

◎ : 优(Excellent)　○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
○	○	○	○		○		○	○			◎	◎	○	◎	◎

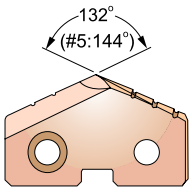
SPADE DRILLS

SERIES 4,5

铲钻刀片-HSS M4
SPADE DRILL INSERTS - HSS M4

- 用于钢和铸铁的普通用途
- 在设备上能够简单地更换刀片可以减少调试时间.
- 各种非标准尺寸均可进行生产.

- For general use in steels and cast irons.
- Set up time can be reduced due to changing inserts easily on the machine.
- Any non-standard size available.



切削条件 /cutting conditions : p.309

系列 Series	直径 Diameter			厚度 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	HSS (M4) TiN	HSS (M4) TiCN	HSS (M4) TiAlN
4 46.99 (1.850″) to 65.28 (2.570″)	2-1/4″	57.15	2.2500″	7.9 (5/16″)	S1405216	S1410216	S1415216
	2-9/32″	57.94	2.2813″		S1405218	S1410218	S1415218
		58.00	2.2835″		S1455580	S1460580	S1465580
	2-5/16″	58.74	2.3125″		S1405220	S1410220	S1415220
		59.00	2.3228″		S1455590	S1460590	S1465590
	2-11/32″	59.53	2.3438″		S1405222	S1410222	S1415222
		60.00	2.3622″		S1455600	S1460600	S1465600
	2-3/8″	60.33	2.3750″		S1405224	S1410224	S1415224
		61.00	2.4016″		S1455610	S1460610	S1465610
	2-13/32″	61.12	2.4063″		S1405226	S1410226	S1415226
	2-7/16″	61.91	2.4375″		S1405228	S1410228	S1415228
		62.00	2.4409″		S1455620	S1460620	S1465620
	2-15/32″	62.71	2.4688″		S1405230	S1410230	S1415230
		63.00	2.4803″		S1455630	S1460630	S1465630
	2-1/2″	63.50	2.5000″		S1405232	S1410232	S1415232
		64.00	2.5197″		S1455640	S1460640	S1465640
	2-17/32″	64.29	2.5313″		S1405234	S1410234	S1415234
		65.00	2.5591″		S1455650	S1460650	S1465650
	2-9/16″	65.09	2.5625″		S1405236	S1410236	S1415236
5 62.38 (2.456″) to 76.20 (3.000″)	2-1/2″	63.50	2.5000″	11.1 (7/16″)	S14052D2	S14102D2	S14152D2
		64.00	2.5197″		S145564A	S146064A	S146564A
	2-17/32″	64.29	2.5313″		S14052D4	S14102D4	S14152D4
	2-9/16″	65.09	2.5625″		S14052D6	S14102D6	S14152D6
	2-19/32″	65.88	2.5938″		S1405238	S1410238	S1415238
		66.00	2.5984″		S1455660	S1460660	S1465660
	2-5/8″	66.68	2.6250″		S1405240	S1410240	S1415240
	2-21/32″	67.47	2.6563″		S1405242	S1410242	S1415242
		68.00	2.6772″		S1455680	S1460680	S1465680
	2-11/16″	68.26	2.6875″		S1405244	S1410244	S1415244
	2-23/32″	69.05	2.7188″		S1405246	S1410246	S1415246
	2-3/4″	69.85	2.7500″		S1405248	S1410248	S1415248
		70.00	2.7559″		S1455700	S1460700	S1465700
	2-25/32″	70.64	2.7813″		S1405250	S1410250	S1415250
	2-13/16″	71.44	2.8125″		S1405252	S1410252	S1415252

◎ : 优(Excellent) ○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
○	○	○	○		○		○	○			◎	◎	○	◎	◎

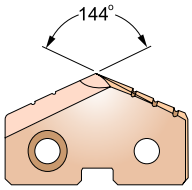
SPADE DRILLS

SERIES 5,6,7

铲钻刀片-HSS M4
SPADE DRILL INSERTS - HSS M4

- 用于钢和铸铁的普通用途
- 在设备上能够简单地更换刀片可以减少调试时间.
- 各种非标准尺寸均可进行生产.

- For general use in steels and cast irons.
- Set up time can be reduced due to changing inserts easily on the machine.
- Any non-standard size available.



切削条件 /cutting conditions : p.309

系列 Series	直径 Diameter			厚度 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	HSS (M4) TiN	HSS (M4) TiCN	HSS (M4) TiAlN
5 62.38 (2.456″) to 76.20 (3.000″)		72.00	2.8346″	11.1 (7/16″)	S1455720	S1460720	S1465720
	2-27/32″	72.23	2.8438″		S1405254	S1410254	S1415254
	2-7/8″	73.03	2.8750″		S1405256	S1410256	S1415256
	2-29/32″	73.82	2.9063″		S1405258	S1410258	S1415258
		74.00	2.9134″		S1455740	S1460740	S1465740
	2-15/16″	74.61	2.9375″		S1405260	S1410260	S1415260
	2-31/32″	75.41	2.9688″		S1405262	S1410262	S1415262
		76.00	2.9921″		S1455760	S1460760	S1465760
	3″	76.20	3.0000″		S1405300	S1410300	S1415300
6 76.23 (3.001″) to 89.08 (3.507″)	3-1/32″	76.99	3.0313″	11.1 (7/16″)	S1405302	S1410302	S1415302
	3-1/16″	77.79	3.0625″		S1405304	S1410304	S1415304
		78.00	3.0709″		S1455780	S1460780	S1465780
	3-3/32″	78.58	3.0938″		S1405306	S1410306	S1415306
	3-1/8″	79.38	3.1250″		S1405308	S1410308	S1415308
		80.00	3.1496″		S1455800	S1460800	S1465800
	3-5/32″	80.17	3.1563″		S1405310	S1410310	S1415310
	3-3/16″	80.96	3.1875″		S1405312	S1410312	S1415312
	3-7/32″	81.76	3.2188″		S1405314	S1410314	S1415314
		82.00	3.2283″		S1455820	S1460820	S1465820
	3-1/4″	82.55	3.2500″		S1405316	S1410316	S1415316
	3-9/32″	83.34	3.2813″		S1405318	S1410318	S1415318
		84.00	3.3071″		S1455840	S1460840	S1465840
	3-5/16″	84.14	3.3125″		S1405320	S1410320	S1415320
	3-11/32″	84.93	3.3438″		S1405322	S1410322	S1415322
	3-3/8″	85.73	3.3750″		S1405324	S1410324	S1415324
		86.00	3.3858″		S1455860	S1460860	S1465860
	3-13/32″	86.52	3.4063″		S1405326	S1410326	S1415326
	3-7/16″	87.31	3.4375″		S1405328	S1410328	S1415328
		88.00	3.4646″		S1455880	S1460880	S1465880
	3-15/32″	88.11	3.4688″		S1405330	S1410330	S1415330
	3-1/2″	88.90	3.5000″		S1405332	S1410332	S1415332
7	3-17/32″	89.69	3.5313″	11.1 (7/16″)	S1405334	S1410334	S1415334
		90.00	3.5433″		S1455900	S1460900	S1465900
	3-9/16″	90.49	3.5625″		S1405336	S1410336	S1415336

◎ : 优(Excellent)　○ : 良(Good)

普通钢易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
○	○	○	○		○		○	○			◎	◎	○	◎	◎

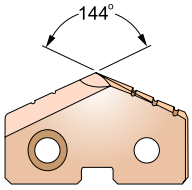
SPADE DRILLS

SERIES 7,8

铲钻刀片-HSS M4
SPADE DRILL INSERTS - HSS M4

- 用于钢和铸铁的普通用途
- 在设备上能够简单地更换刀片可以减少调试时间.
- 各种非标准尺寸均可进行生产.

- For general use in steels and cast irons.
- Set up time can be reduced due to changing inserts easily on the machine.
- Any non-standard size available.



切削条件 /cutting conditions : p.309

系列 Series	直径 Diameter			厚度 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	HSS (M4) TiN	HSS (M4) TiCN	HSS (M4) TiAlN
7 87.76 (3.455″) to 101.60 (4.000″)	3-19/32″	91.28	3.5938″	11.1 (7/16″)	S1405338	S1410338	S1415338
		92.00	3.6221″		S1455920	S1460920	S1465920
	3-5/8″	92.08	3.6250″		S1405340	S1410340	S1415340
	3-21/32″	92.87	3.6563″		S1405342	S1410342	S1415342
	3-11/16″	93.66	3.6875″		S1405344	S1410344	S1415344
		94.00	3.7008″		S1455940	S1460940	S1465940
	3-23/32″	94.46	3.7188″		S1405346	S1410346	S1415346
	3-3/4″	95.25	3.7500″		S1405348	S1410348	S1415348
		96.00	3.7795″		S1455960	S1460960	S1465960
	3-25/32″	96.04	3.7813″		S1405350	S1410350	S1415350
	3-13/16″	96.84	3.8125″		S1405352	S1410352	S1415352
	3-27/32″	97.63	3.8438″		S1405354	S1410354	S1415354
		98.00	3.8583″		S1455980	S1460980	S1465980
	3-7/8″	98.43	3.8750″		S1405356	S1410356	S1415356
	3-29/32″	99.22	3.9063″		S1405358	S1410358	S1415358
		100.00	3.9370″		S1455A00	S1460A00	S1465A00
	3-15/16″	100.01	3.9375″		S1405360	S1410360	S1415360
	3-31/32″	100.81	3.9688″		S1405362	S1410362	S1415362
	4″	101.60	4.0000″		S1405400	S1410400	S1415400
8 101.63 (4.001″) to 114.48 (4.507″)	4-1/64″	102.00	4.0157″	11.1 (7/16″)	S1455A20	S1460A20	S1465A20
	4-1/16″	103.19	4.0625″		S1405404	S1410404	S1415404
	4-3/32″	104.00	4.0945″		S1455A40	S1460A40	S1465A40
	4-1/8″	104.78	4.1250″		S1405408	S1410408	S1415408
		106.00	4.1732″		S1455A60	S1460A60	S1465A60
	4-3/16″	106.36	4.1875″		S1405412	S1410412	S1415412
	4-1/4″	107.95	4.2500″		S1405416	S1410416	S1415416
		108.00	4.2520″		S1455A80	S1460A80	S1465A80
	4-5/16″	109.54	4.3125″		S1405420	S1410420	S1415420
		110.00	4.3307″		S1455B00	S1460B00	S1465B00
	4-3/8″	111.13	4.3750″		S1405424	S1410424	S1415424
		112.00	4.4094″		S1455B20	S1460B20	S1465B20
	4-7/16″	112.71	4.4375″		S1405428	S1410428	S1415428
		114.00	4.4882″		S1455B40	S1460B40	S1465B40
	4-1/2″	114.30	4.5000″		S1405432	S1410432	S1415432

◎ : 优(Excellent) ○ : 良(Good)

普通钢易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
○	○	○	○		○		○	○			◎	◎	○	◎	◎

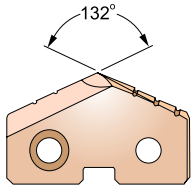
SPADE DRILLS

SERIES Y,Z,0

铲钻刀片-SUPER HSS T15
SPADE DRILL INSERTS - SUPER HSS T15

- 用于高镍合金和硬度超过280布氏的材质
- 在设备上能够简单地更换刀片可以减少调试时间.
- 各种非标准尺寸均可进行生产.

- For use in high nickel alloys and materials over 280 Brinell.
- Set up time can be reduced due to changing inserts easily on the machine.
- Any non-standard size available.



切削条件 /cutting conditions : p.309

系列 Series	直径 Diameter			厚度 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	SUPER HSS (T15) TiN	TiCN	TiAlN
Y 9.50 (.374″) to 11.07 (.436″)		9.50	.3740″	2.4 (3/32″)	S1155095	S1160095	S1165095
	3/8″	9.53	.3750″		S1105024	S1110024	S1115024
		9.80	.3860″		S1155098	S1160098	S1165098
	25/64″	9.92	.3906″		S1105025	S1110025	S1115025
		10.00	.3937″		S1155100	S1160100	S1165100
		10.20	.4016″		S1155102	S1160102	S1165102
	13/32″	10.32	.4063″		S1105026	S1110026	S1115026
		10.50	.4134″		S1155105	S1160105	S1165105
	27/64″	10.72	.4219″		S1105027	S1110027	S1115027
		10.80	.4252″		S1155108	S1160108	S1165108
		11.00	.4331″		S1155110	S1160110	S1165110
Z 11.11(.437″) to 12.95(.510″)	7/16″	11.11	.4375″	2.4 (3/32″)	S1105028	S1110028	S1115028
		11.50	.4528″		S1155115	S1160115	S1165115
	29/64″	11.51	.4531″		S1105029	S1110029	S1115029
	15/32″	11.91	.4688″		S1105030	S1110030	S1115030
		12.00	.4724″		S1155120	S1160120	S1165120
	31/64″	12.30	.4844″		S1105031	S1110031	S1115031
		12.50	.4921″		S1155125	S1160125	S1165125
	1/2″	12.70	.5000″		S1105032	S1110032	S1115032
O 12.98 (.511″) to 17.65 (.695″)		13.00	.5118″	3.2 (1/8″)	S1155130	S1160130	S1165130
	33/64″	13.10	.5156″		S1105033	S1110033	S1115033
	17/32″	13.49	.5313″		S1105034	S1110034	S1115034
		13.50	.5315″		S1155135	S1160135	S1165135
	35/64″	13.89	.5469″		S1105035	S1110035	S1115035
		14.00	.5512″		S1155140	S1160140	S1165140
	9/16″	14.29	.5625″		S1105036	S1110036	S1115036
		14.50	.5709″		S1155145	S1160145	S1165145
	37/64″	14.68	.5781″		S1105037	S1110037	S1115037
		15.00	.5906″		S1155150	S1160150	S1165150
	19/32″	15.08	.5938″		S1105038	S1110038	S1115038
	39/64″	15.48	.6094″		S1105039	S1110039	S1115039
		15.50	.6102″		S1155155	S1160155	S1165155
	5/8″	15.88	.6250″		S1105040	S1110040	S1115040
		16.00	.6299″		S1155160	S1160160	S1165160

◎ : 优(Excellent)　○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
◎	◎	◎	◎	○	○	○	◎	◎	○	○	○	○	◎	○	○

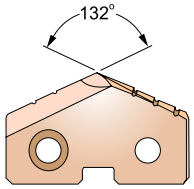
SPADE DRILLS

SERIES 0,1

铲钻刀片-SUPER HSS T15
SPADE DRILL INSERTS - SUPER HSS T15

- 用于高镍合金和硬度超过280布氏的材质
- 在设备上能够简单地更换刀片可以减少调试时间.
- 各种非标准尺寸均可进行生产.

- For use in high nickel alloys and materials over 280 Brinell.
- Set up time can be reduced due to changing inserts easily on the machine.
- Any non-standard size available.



切削条件 /cutting conditions : p.309

系列 Series	直径 Diameter			厚度 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	SUPER HSS (T15) TiN	TiCN	TiAlN
0 12.98(.511″) to 17.65(.695″)	41/64″	16.27	.6406″	3.2 (1/8″)	S1105041	S1110041	S1115041
		16.50	.6496″		S1155165	S1160165	S1165165
	21/32″	16.67	.6563″		S1105042	S1110042	S1115042
		17.00	.6693″		S1155170	S1160170	S1165170
	43/64″	17.07	.6719″		S1105043	S1110043	S1115043
	11/16″	17.46	.6875″		S1105044	S1110044	S1115044
		17.50	.6890″		S1155175	S1160175	S1165175
1 17.53 (.690″) to 24.38 (.960″)	45/64″	17.86	.7031″	4.0 (5/32″)	S1105045	S1110045	S1115045
		18.00	.7087″		S1155180	S1160180	S1165180
	23/32″	18.26	.7188″		S1105046	S1110046	S1115046
		18.50	.7283″		S1155185	S1160185	S1165185
	47/64″	18.65	.7344″		S1105047	S1110047	S1115047
		19.00	.7480″		S1155190	S1160190	S1165190
	3/4″	19.05	.7500″		S1105048	S1110048	S1115048
	49/64″	19.45	.7656″		S1105049	S1110049	S1115049
		19.50	.7677″		S1155195	S1160195	S1165195
	25/32″	19.84	.7813″		S1105050	S1110050	S1115050
		20.00	.7874″		S1155200	S1160200	S1165200
	51/64″	20.24	.7969″		S1105051	S1110051	S1115051
		20.50	.8071″		S1155205	S1160205	S1165205
	13/16″	20.64	.8125″		S1105052	S1110052	S1115052
		21.00	.8268″		S1155210	S1160210	S1165210
	27/32″	21.43	.8438″		S1105054	S1110054	S1115054
	55/64″	21.83	.8594″		S1105055	S1110055	S1115055
		22.00	.8661″		S1155220	S1160220	S1165220
	7/8″	22.23	.8750″		S1105056	S1110056	S1115056
	57/64″	22.62	.8906″		S1105057	S1110057	S1115057
		23.00	.9055″		S1155230	S1160230	S1165230
	29/32″	23.02	.9063″		S1105058	S1110058	S1115058
	59/64″	23.42	.9219″		S1105059	S1110059	S1115059
	15/16″	23.81	.9375″		S1105060	S1110060	S1115060
		24.00	.9449″		S1155240	S1160240	S1165240

◎ : 优(Excellent)　○ : 良(Good)

普通钢易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
◎	◎	◎	◎	○	○	○	◎	◎	○	○	○	○	◎	○	○

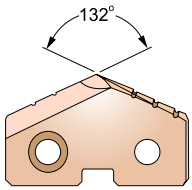
SPADE DRILLS

SERIES 2,3

铲钻刀片-SUPER HSS T15
SPADE DRILL INSERTS - SUPER HSS T15

- 用于高镍合金和硬度超过280布氏的材质
- 在设备上能够简单地更换刀片可以减少调试时间.
- 各种非标准尺寸均可进行生产.

- For use in high nickel alloys and materials over 280 Brinell.
- Set up time can be reduced due to changing inserts easily on the machine.
- Any non-standard size available.



切削条件 /cutting conditions : p.309

系列 Series	直径 Diameter			厚度 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	SUPER HSS (T15) TiN	TiCN	TiAlN
2 24.41 (.961″) to 35.05 (1.380″)	31/32″	24.61	.9688″	4.8 (3/16″)	S1105062	S1110062	S1115062
	63/64″	25.00	.9843″		S1155250	S1160250	S1165250
	1″	25.40	1.0000″		S1105100	S1110100	S1115100
	1-1/64″	25.80	1.0156″		S1105101	S1110101	S1115101
		26.00	1.0236″		S1155260	S1160260	S1165260
	1-1/32″	26.19	1.0313″		S1105102	S1110102	S1115102
	1-3/64″	26.59	1.0469″		S1105103	S1110103	S1115103
	1-1/16″	26.99	1.0625″		S1105104	S1110104	S1115104
		27.00	1.0630″		S1155270	S1160270	S1165270
	1-3/32″	27.78	1.0938″		S1105106	S1110106	S1115106
		28.00	1.1024″		S1155280	S1160280	S1165280
	1-7/64″	28.18	1.1094″		S1105107	S1110107	S1115107
	1-1/8″	28.58	1.1250″		S1105108	S1110108	S1115108
		29.00	1.1417″		S1155290	S1160290	S1165290
	1-5/32″	29.37	1.1563″		S1105110	S1110110	S1115110
		30.00	1.1811″		S1155300	S1160300	S1165300
	1-3/16″	30.16	1.1875″		S1105112	S1110112	S1115112
	1-7/32″	30.96	1.2188″		S1105114	S1110114	S1115114
		31.00	1.2205″		S1155310	S1160310	S1165310
	1-1/4″	31.75	1.2500″		S1105116	S1110116	S1115116
		32.00	1.2598″		S1155320	S1160320	S1165320
	1-9/32″	32.54	1.2813″		S1105118	S1110118	S1115118
	1-5/16″	33.00	1.2992″		S1155330	S1160330	S1165330
		33.34	1.3125″		S1105120	S1110120	S1115120
		34.00	1.3386″		S1155340	S1160340	S1165340
	1-11/32″	34.13	1.3438″		S1105122	S1110122	S1115122
	1-3/8″	34.93	1.3750″		S1105124	S1110124	S1115124
		35.00	1.3780″		S1155350	S1160350	S1165350
3 34.37(1.353″) to 47.80(1.882″)	1-13/32″	35.72	1.4063″	6.4 (1/4″)	S1105126	S1110126	S1115126
		36.00	1.4173″		S1155360	S1160360	S1165360
	1-7/16″	36.51	1.4375″		S1105128	S1110128	S1115128
		37.00	1.4567″		S1155370	S1160370	S1165370
	1-15/32″	37.31	1.4688″		S1105130	S1110130	S1115130
		38.00	1.4961″		S1155380	S1160380	S1165380

◎ : 优(Excellent)　○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
◎	◎	◎	◎	○	○	○	◎	◎	○	○	○	○	◎	○	○

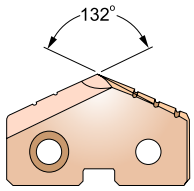
SPADE DRILLS

SERIES 3,4

铲钻刀片-SUPER HSS T15
SPADE DRILL INSERTS - SUPER HSS T15

- 用于高镍合金和硬度超过280布氏的材质
- 在设备上能够简单地更换刀片可以减少调试时间.
- 各种非标准尺寸均可进行生产.

- For use in high nickel alloys and materials over 280 Brinell.
- Set up time can be reduced due to changing inserts easily on the machine.
- Any non-standard size available.



切削条件 /cutting conditions : p.309

系列 Series	直径 Diameter			厚度 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	SUPER HSS (T15) TiN	TiCN	TiAlN
3 34.37 (1.353″) to 47.80 (1.882″)	1-1/2″	38.10	1.5000″	6.4 (1/4″)	S1105132	S1110132	S1115132
	1-17/32″	38.89	1.5313″		S1105134	S1110134	S1115134
		39.00	1.5354″		S1155390	S1160390	S1165390
	1-9/16″	39.69	1.5625″		S1105136	S1110136	S1115136
		40.00	1.5748″		S1155400	S1160400	S1165400
	1-19/32″	40.48	1.5938″		S1105138	S1110138	S1115138
		41.00	1.6142″		S1155410	S1160410	S1165410
	1-5/8″	41.28	1.6250″		S1105140	S1110140	S1115140
		42.00	1.6535″		S1155420	S1160420	S1165420
	1-21/32″	42.07	1.6563″		S1105142	S1110142	S1115142
	1-11/16″	42.86	1.6875″		S1105144	S1110144	S1115144
		43.00	1.6929″		S1155430	S1160430	S1165430
	1-23/32″	43.66	1.7188″		S1105146	S1110146	S1115146
		44.00	1.7323″		S1155440	S1160440	S1165440
	1-3/4″	44.45	1.7500″		S1105148	S1110148	S1115148
		45.00	1.7717″		S1155450	S1160450	S1165450
	1-25/32″	45.24	1.7813″		S1105150	S1110150	S1115150
		46.00	1.8110″		S1155460	S1160460	S1165460
	1-13/16″	46.04	1.8125″		S1105152	S1110152	S1115152
	1-27/32″	46.83	1.8438″		S1105154	S1110154	S1115154
		47.00	1.8504″		S1155470	S1160470	S1165470
	1-7/8″	47.63	1.8750″		S1105156	S1110156	S1115156
4 46.99 (1.850″) to 65.28 (2.570″)		48.00	1.8898″	7.9 (5/16″)	S1155480	S1160480	S1165480
	1-29/32″	48.42	1.9063″		S1105158	S1110158	S1115158
		49.00	1.9291″		S1155490	S1160490	S1165490
	1-15/16″	49.21	1.9375″		S1105160	S1110160	S1115160
		50.00	1.9685″		S1155500	S1160500	S1165500
	1-31/32″	50.01	1.9688″		S1105162	S1110162	S1115162
	2″	50.80	2.0000″		S1105200	S1110200	S1115200
		51.00	2.0079″		S1155510	S1160510	S1165510
	2-1/32″	51.59	2.0313″		S1105202	S1110202	S1115202
	2-3/64″	52.00	2.0472″		S1155520	S1160520	S1165520
	2-1/16″	52.39	2.0625″		S1105204	S1110204	S1115204
		53.00	2.0866″		S1155530	S1160530	S1165530

◎ : 优(Excellent)　○ : 良(Good)

普通钢易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
◎	◎	◎	◎	○	○	○	◎	◎	○	○	○	○	◎	○	○

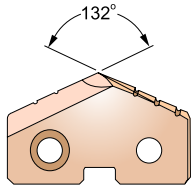
SPADE DRILLS

SERIES 4

铲钻刀片-SUPER HSS T15
SPADE DRILL INSERTS - SUPER HSS T15

- 用于高镍合金和硬度超过280布氏的材质
- 在设备上能够简单地更换刀片可以减少调试时间.
- 各种非标准尺寸均可进行生产.

- For use in high nickel alloys and materials over 280 Brinell.
- Set up time can be reduced due to changing inserts easily on the machine.
- Any non-standard size available.



切削条件 /cutting conditions : p.309

系列 Series	直径 Diameter			厚度 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	SUPER HSS (T15) TiN	TiCN	TiAlN
4 46.99 (1.850″) to 65.28 (2.570″)	2-3/32″	53.18	2.0938″	7.9 (5/16″)	S1105206	S1110206	S1115206
	2-1/8″	53.98	2.1250″		S1105208	S1110208	S1115208
		54.00	2.1260″		S1155540	S1160540	S1165540
	2-5/32″	54.79	2.1563″		S1105210	S1110210	S1115210
		55.00	2.1654″		S1155550	S1160550	S1165550
	2-3/16″	55.56	2.1875″		S1105212	S1110212	S1115212
		56.00	2.2047″		S1155560	S1160560	S1165560
	2-7/32″	56.36	2.2188″		S1105214	S1110214	S1115214
		57.00	2.2441″		S1155570	S1160570	S1165570
	2-1/4″	57.15	2.2500″		S1105216	S1110216	S1115216
	2-9/32″	57.94	2.2813″		S1105218	S1110218	S1115218
		58.00	2.2835″		S1155580	S1160580	S1165580
	2-5/16″	58.74	2.3125″		S1105220	S1110220	S1115220
		59.00	2.3228″		S1155590	S1160590	S1165590
	2-11/32″	59.53	2.3438″		S1105222	S1110222	S1115222
		60.00	2.3622″		S1155600	S1160600	S1165600
	2-3/8″	60.33	2.3750″		S1105224	S1110224	S1115224
		61.00	2.4016″		S1155610	S1160610	S1165610
	2-13/32″	61.12	2.4063″		S1105226	S1110226	S1115226
	2-7/16″	61.91	2.4375″		S1105228	S1110228	S1115228
		62.00	2.4409″		S1155620	S1160620	S1165620
	2-15/32″	62.71	2.4688″		S1105230	S1110230	S1115230
		63.00	2.4803″		S1155630	S1160630	S1165630
	2-1/2″	63.50	2.5000″		S1105232	S1110232	S1115232
		64.00	2.5197″		S1155640	S1160640	S1165640
	2-17/32″	64.29	2.5313″		S1105234	S1110234	S1115234
		65.00	2.5591″		S1155650	S1160650	S1165650
	2-9/16″	65.09	2.5625″		S1105236	S1110236	S1115236

◎ : 优(Excellent)　○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
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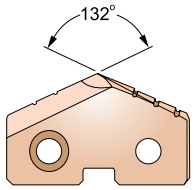
SPADE DRILLS

SERIES Y,Z,0

铲钻刀片-PREMIUM HSS M48
SPADE DRILL INSERTS - PREMIUM HSS M48

- 用于高温合金和硬度在350-500布氏之间的材质
- 在设备上能够简单地更换刀片可以减少调试时间.
- 各种非标准尺寸均可进行生产.

- For use in high temperature alloys and materials with 350~500 Brinell.
- Set up time can be reduced due to changing inserts easily on the machine.
- Any non-standard size available.



切削条件 /cutting conditions : p.309

系列 Series	直径 Diameter			厚度 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	PREMIUM HSS (M48) TiN	TiCN	TiAlN
Y 9.50 (.374″) to 11.07 (.436″)		9.50	.3740″	2.4 (3/32″)	S1555095	S1560095	S1565095
	3/8″	9.53	.3750″		S1505024	S1510024	S1515024
		9.80	.3860″		S1555098	S1560098	S1565098
	25/64″	9.92	.3906″		S1505025	S1510025	S1515025
		10.00	.3937″		S1555100	S1560100	S1565100
		10.20	.4016″		S1555102	S1560102	S1565102
	13/32″	10.32	.4063″		S1505026	S1510026	S1515026
		10.50	.4134″		S1555105	S1560105	S1565105
	27/64″	10.72	.4219″		S1505027	S1510027	S1515027
		10.80	.4252″		S1555108	S1560108	S1565108
		11.00	.4331″		S1555110	S1560110	S1565110
Z 11.11(.437″) to 12.95(.510″)	7/16″	11.11	.4375″	2.4 (3/32″)	S1505028	S1510028	S1515028
		11.50	.4528″		S1555115	S1560115	S1565115
	29/64″	11.51	.4531″		S1505029	S1510029	S1515029
	15/32″	11.91	.4688″		S1505030	S1510030	S1515030
		12.00	.4724″		S1555120	S1560120	S1565120
	31/64″	12.30	.4844″		S1505031	S1510031	S1515031
		12.50	.4921″		S1555125	S1560125	S1565125
	1/2″	12.70	.5000″		S1505032	S1510032	S1515032
0 12.98 (.511″) to 17.65 (.695″)		13.00	.5118″	3.2 (1/8″)	S1555130	S1560130	S1565130
	33/64″	13.10	.5156″		S1505033	S1510033	S1515033
	17/32″	13.49	.5313″		S1505034	S1510034	S1515034
		13.50	.5315″		S1555135	S1560135	S1565135
	35/64″	13.89	.5469″		S1505035	S1510035	S1515035
		14.00	.5512″		S1555140	S1560140	S1565140
	9/16″	14.29	.5625″		S1505036	S1510036	S1515036
		14.50	.5709″		S1555145	S1560145	S1565145
	37/64″	14.68	.5781″		S1505037	S1510037	S1515037
		15.00	.5906″		S1555150	S1560150	S1565150
	19/32″	15.08	.5938″		S1505038	S1510038	S1515038
	39/64″	15.48	.6094″		S1505039	S1510039	S1515039
		15.50	.6102″		S1555155	S1560155	S1565155
	5/8″	15.88	.6250″		S1505040	S1510040	S1515040
		16.00	.6299″		S1555160	S1560160	S1565160

◎ : 优(Excellent) ○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
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SPADE DRILLS

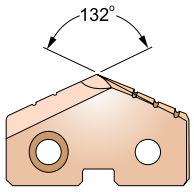
SERIES 0,1

铲钻刀片-PREMIUM HSS M48

SPADE DRILL INSERTS - PREMIUM HSS M48

- 用于高温合金和硬度在350-500布氏之间的材质
- 在设备上能够简单地更换刀片可以减少调试时间.
- 各种非标准尺寸均可进行生产.

- For use in high temperature alloys and materials with 350~500 Brinell.
- Set up time can be reduced due to changing inserts easily on the machine.
- Any non-standard size available.



切削条件 /cutting conditions : p.309

系列 Series	直径 Diameter			厚度 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	PREMIUM HSS (M48) TiN	TiCN	TiAlN
0 12.98[.511″] to 17.65[.695″]	41/64″	16.27	.6406″	3.2 [1/8″]	S1505041	S1510041	S1515041
		16.50	.6496″		S1555165	S1560165	S1565165
	21/32″	16.67	.6563″		S1505042	S1510042	S1515042
		17.00	.6693″		S1555170	S1560170	S1565170
	43/64″	17.07	.6719″		S1505043	S1510043	S1515043
	11/16″	17.46	.6875″		S1505044	S1510044	S1515044
		17.50	.6890″		S1555175	S1560175	S1565175
1 17.53 [.690″] to 24.38 [.960″]	45/64″	17.86	.7031″	4.0 [5/32″]	S1505045	S1510045	S1515045
		18.00	.7087″		S1555180	S1560180	S1565180
	23/32″	18.26	.7188″		S1505046	S1510046	S1515046
		18.50	.7283″		S1555185	S1560185	S1565185
	47/64″	18.65	.7344″		S1505047	S1510047	S1515047
		19.00	.7480″		S1555190	S1560190	S1565190
	3/4″	19.05	.7500″		S1505048	S1510048	S1515048
	49/64″	19.45	.7656″		S1505049	S1510049	S1515049
		19.50	.7677″		S1555195	S1560195	S1565195
	25/32″	19.84	.7813″		S1505050	S1510050	S1515050
		20.00	.7874″		S1555200	S1560200	S1565200
	51/64″	20.24	.7969″		S1505051	S1510051	S1515051
		20.50	.8071″		S1555205	S1560205	S1565205
	13/16″	20.64	.8125″		S1505052	S1510052	S1515052
		21.00	.8268″		S1555210	S1560210	S1565210
	27/32″	21.43	.8438″		S1505054	S1510054	S1515054
	55/64″	21.83	.8594″		S1505055	S1510055	S1515055
		22.00	.8661″		S1555220	S1560220	S1565220
	7/8″	22.23	.8750″		S1505056	S1510056	S1515056
	57/64″	22.62	.8906″		S1505057	S1510057	S1515057
		23.00	.9055″		S1555230	S1560230	S1565230
	29/32″	23.02	.9063″		S1505058	S1510058	S1515058
	59/64″	23.42	.9219″		S1505059	S1510059	S1515059
	15/16″	23.81	.9375″		S1505060	S1510060	S1515060
		24.00	.9449″		S1555240	S1560240	S1565240

◎ : 优(Excellent)　○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
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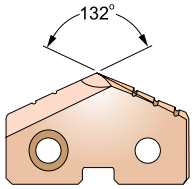
SPADE DRILLS

SERIES 2

铲钻刀片-PREMIUM HSS M48
SPADE DRILL INSERTS - PREMIUM HSS M48

- 用于高温合金和硬度在350-500布氏之间的材质
- 在设备上能够简单地更换刀片可以减少调试时间.
- 各种非标准尺寸均可进行生产.

- For use in high temperature alloys and materials with 350~500 Brinell.
- Set up time can be reduced due to changing inserts easily on the machine.
- Any non-standard size available.



切削条件 /cutting conditions : p.309

系列 Series	直径 Diameter			厚度 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	PREMIUM HSS (M48) TiN	TiCN	TiAlN
2 24.41 (.961″) to 35.05 (1.380″)	31/32″	24.61	.9688″	4.8 (3/16″)	S1505062	S1510062	S1515062
	63/64″	25.00	.9843″		S1555250	S1560250	S1565250
	1″	25.40	1.0000″		S1505100	S1510100	S1515100
	1-1/64″	25.80	1.0156″		S1505101	S1510101	S1515101
		26.00	1.0236″		S1555260	S1560260	S1565260
	1-1/32″	26.19	1.0313″		S1505102	S1510102	S1515102
	1-3/64″	26.59	1.0469″		S1505103	S1510103	S1515103
	1-1/16”	26.99	1.0625″		S1505104	S1510104	S1515104
		27.00	1.0630″		S1555270	S1560270	S1565270
	1-3/32″	27.78	1.0938″		S1505106	S1510106	S1515106
		28.00	1.1024″		S1555280	S1560280	S1565280
	1-7/64″	28.18	1.1094″		S1505107	S1510107	S1515107
	1-1/8″	28.58	1.1250″		S1505108	S1510108	S1515108
		29.00	1.1417″		S1555290	S1560290	S1565290
	1-5/32″	29.37	1.1563″		S1505110	S1510110	S1515110
		30.00	1.1811″		S1555300	S1560300	S1565300
	1-3/16″	30.16	1.1875″		S1505112	S1510112	S1515112
	1-7/32″	30.96	1.2188″		S1505114	S1510114	S1515114
		31.00	1.2205″		S1555310	S1560310	S1565310
	1-1/4″	31.75	1.2500″		S1505116	S1510116	S1515116
		32.00	1.2598″		S1555320	S1560320	S1565320
	1-9/32″	32.54	1.2813″		S1505118	S1510118	S1515118
		33.00	1.2992″		S1555330	S1560330	S1565330
	1-5/16″	33.34	1.3125″		S1505120	S1510120	S1515120
		34.00	1.3386″		S1555340	S1560340	S1565340
	1-11/32″	34.13	1.3438″		S1505122	S1510122	S1515122
	1-3/8″	34.93	1.3750″		S1505124	S1510124	S1515124
		35.00	1.3780″		S1555350	S1560350	S1565350

◎ : 优(Excellent)　○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	○	○	◎	○	○

SPADE DRILLS

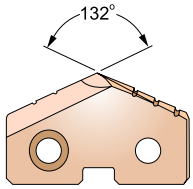
SERIES Y,Z,0

铸铁用管钻刀片-硬质合金(K10)

SPADE DRILL INSERTS FOR CAST IRON - CARBIDE(K10)

- 在超过220布氏的灰铸铁，可断成短碎片的可锻铸铁，硅铝和铜合金上有很高的性能
- 在设备上能够简单地更换刀片可以减少调试时间.
- 各种非标准尺寸均可进行生产.

- High performance on Gray cast iron over 220 Brinell, malleable cast iron with short chips, silicon aluminum and copper alloys.
- Set up time can be reduced due to changing inserts easily on the machine.
- Any non-standard size available.



切削条件 /cutting conditions : p.310

系列 Series	直径 Diameter			厚度 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	CARBIDE (K10) TiN	TiCN	TiAlN
Y 9.50 (.374″) to 11.07 (.436″)		9.50	.3740″	2.4 (3/32″)	S1655095	S1660095	S1665095
	3/8″	9.53	.3750″		S1605024	S1610024	S1615024
		9.80	.3860″		S1655098	S1660098	S1665098
	25/64″	9.92	.3906″		S1605025	S1610025	S1615025
		10.00	.3937″		S1655100	S1660100	S1665100
		10.20	.4016″		S1655102	S1660102	S1665102
	13/32″	10.32	.4063″		S1605026	S1610026	S1615026
		10.50	.4134″		S1655105	S1660105	S1665105
	27/64″	10.72	.4219″		S1605027	S1610027	S1615027
		10.80	.4252″		S1655108	S1660108	S1665108
		11.00	.4331″		S1655110	S1660110	S1665110
Z 11.11(.437″) to 12.95(.510″)	7/16″	11.11	.4375″	2.4 (3/32″)	S1605028	S1610028	S1615028
		11.50	.4528″		S1655115	S1660115	S1665115
	29/64″	11.51	.4531″		S1605029	S1610029	S1615029
	15/32″	11.91	.4688″		S1605030	S1610030	S1615030
		12.00	.4724″		S1655120	S1660120	S1665120
	31/64″	12.30	.4844″		S1605031	S1610031	S1615031
		12.50	.4921″		S1655125	S1660125	S1665125
	1/2″	12.70	.5000″		S1605032	S1610032	S1615032
0 12.98 (.511″) to 17.65 (.695″)		13.00	.5118″	3.2 (1/8″)	S1655130	S1660130	S1665130
	33/64″	13.10	.5156″		S1605033	S1610033	S1615033
	17/32″	13.49	.5313″		S1605034	S1610034	S1615034
		13.50	.5315″		S1655135	S1660135	S1665135
	35/64″	13.89	.5469″		S1605035	S1610035	S1615035
		14.00	.5512″		S1655140	S1660140	S1665140
	9/16″	14.29	.5625″		S1605036	S1610036	S1615036
		14.50	.5709″		S1655145	S1660145	S1665145
	37/64″	14.68	.5781″		S1605037	S1610037	S1615037
		15.00	.5906″		S1655150	S1660150	S1665150
	19/32″	15.08	.5938″		S1605038	S1610038	S1615038
	39/64″	15.48	.6094″		S1605039	S1610039	S1615039
		15.50	.6102″		S1655155	S1660155	S1665155
	5/8″	15.88	.6250″		S1605040	S1610040	S1615040
		16.00	.6299″		S1655160	S1660160	S1665160

◎ : 优(Excellent)　○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
												◎	◎		

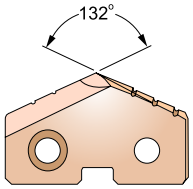
SPADE DRILLS

SERIES 0,1

铸铁用铲钻刀片-硬质合金(K10)
SPADE DRILL INSERTS FOR CAST IRON - CARBIDE(K10)

- 在超过220布氏的灰铸铁，可断成短碎片的可锻铸铁，硅铝和铜合金上有很高的性能
- 在设备上能够简单地更换刀片可以减少调试时间.
- 各种非标准尺寸均可进行生产.

- High performance on Gray cast iron over 220 Brinell, malleable cast iron with short chips, silicon aluminum and copper alloys.
- Set up time can be reduced due to changing inserts easily on the machine.
- Any non-standard size available.



切削条件 /cutting conditions : p.310

系列 Series	直径 Diameter			厚度 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	CARBIDE (K10) TiN	TiCN	TiAlN
0 12.98(.511″) to 17.65(.695″)	41/64″	16.27	.6406″	3.2 (1/8″)	S1605041	S1610041	S1615041
		16.50	.6496″		S1655165	S1660165	S1665165
	21/32″	16.67	.6563″		S1605042	S1610042	S1615042
		17.00	.6693″		S1655170	S1660170	S1665170
	43/64″	17.07	.6719″		S1605043	S1610043	S1615043
	11/16″	17.46	.6875″		S1605044	S1610044	S1615044
		17.50	.6890″		S1655175	S1660175	S1665175
1 17.53 (.690″) to 24.38 (.960″)	45/64″	17.86	.7031″	4.0 (5/32″)	S1605045	S1610045	S1615045
		18.00	.7087″		S1655180	S1660180	S1665180
	23/32	18.26	.7188″		S1605046	S1610046	S1615046
		18.50	.7283″		S1655185	S1660185	S1665185
	47/64″	18.65	.7344″		S1605047	S1610047	S1615047
		19.00	.7480″		S1655190	S1660190	S1665190
	3/4″	19.05	.7500″		S1605048	S1610048	S1615048
	49/64″	19.45	.7656″		S1605049	S1610049	S1615049
		19.50	.7677″		S1655195	S1660195	S1665195
	25/32″	19.84	.7813″		S1605050	S1610050	S1615050
		20.00	.7874″		S1655200	S1660200	S1665200
	51/64″	20.24	.7969″		S1605051	S1610051	S1615051
		20.50	.8071″		S1655205	S1660205	S1665205
	13/16″	20.64	.8125″		S1605052	S1610052	S1615052
		21.00	.8268″		S1655210	S1660210	S1665210
	27/32″	21.43	.8438″		S1605054	S1610054	S1615054
	55/64″	21.83	.8594″		S1605055	S1610055	S1615055
		22.00	.8661″		S1655220	S1660220	S1665220
	7/8″	22.23	.8750″		S1605056	S1610056	S1615056
	57/64″	22.62	.8906″		S1605057	S1610057	S1615057
		23.00	.9055″		S1655230	S1660230	S1665230
	29/32″	23.02	.9063″		S1605058	S1610058	S1615058
	59/64″	23.42	.9219″		S1605059	S1610059	S1615059
	15/16″	23.81	.9375″		S1605060	S1610060	S1615060
		24.00	.9449″		S1655240	S1660240	S1665240

◎ : 优(Excellent)　○ : 良(Good)

普通钢易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
												◎	◎		

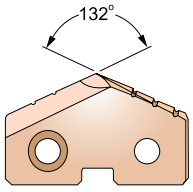
SPADE DRILLS

SERIES 2

铸铁用管钻刀片-硬质合金(K10)
SPADE DRILL INSERTS FOR CAST IRON - CARBIDE(K10)

- 在超过220布氏的灰铸铁，可断成短碎片的可锻铸铁，硅铝和铜合金上有很高的性能
- 在设备上能够简单地更换刀片可以减少调试时间.
- 各种非标准尺寸均可进行生产.

- High performance on Gray cast iron over 220 Brinell, malleable cast iron with short chips, silicon aluminum and copper alloys.
- Set up time can be reduced due to changing inserts easily on the machine.
- Any non-standard size available.



切削条件 /cutting conditions : p.310

系列 Series	直径 Diameter			厚度 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	CARBIDE (K10) TiN	TiCN	TiAlN
2 24.41 (.961″) to 35.05 (1.380″)	31/32″	24.61	.9688″	4.8 (3/16″)	S1605062	S1610062	S1615062
	63/64″	25.00	.9843″		S1655250	S1660250	S1665250
	1″	25.40	1.0000″		S1605100	S1610100	S1615100
	1-1/64″	25.80	1.0156″		S1605101	S1610101	S1615101
		26.00	1.0236″		S1655260	S1660260	S1665260
	1-1/32″	26.19	1.0313″		S1605102	S1610102	S1615102
	1-3/64″	26.59	1.0469″		S1605103	S1610103	S1615103
	1-1/16″	26.99	1.0625″		S1605104	S1610104	S1615104
		27.00	1.0630″		S1655270	S1660270	S1665270
	1-3/32″	27.78	1.0938″		S1605106	S1610106	S1615106
		28.00	1.1024″		S1655280	S1660280	S1665280
	1-7/64″	28.18	1.1094″		S1605107	S1610107	S1615107
	1-1/8″	28.58	1.1250″		S1605108	S1610108	S1615108
		29.00	1.1417″		S1655290	S1660290	S1665290
	1-5/32″	29.37	1.1563″		S1605110	S1610110	S1615110
		30.00	1.1811″		S1655300	S1660300	S1665300
	1-3/16″	30.16	1.1875″		S1605112	S1610112	S1615112
	1-7/32″	30.96	1.2188″		S1605114	S1610114	S1615114
		31.00	1.2205″		S1655310	S1660310	S1665310
	1-1/4″	31.75	1.2500″		S1605116	S1610116	S1615116
		32.00	1.2598″		S1655320	S1660320	S1665320
	1-9/32″	32.54	1.2813″		S1605118	S1610118	S1615118
		33.00	1.2992″		S1655330	S1660330	S1665330
	1-5/16″	33.34	1.3125″		S1605120	S1610120	S1615120
		34.00	1.3386″		S1655340	S1660340	S1665340
	1-11/32″	34.13	1.3438″		S1605122	S1610122	S1615122
	1-3/8″	34.93	1.3750″		S1605124	S1610124	S1615124
		35.00	1.3780″		S1655350	S1660350	S1665350

◎ : 优(Excellent)　○ : 良(Good)

普通钢易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
												◎	◎		

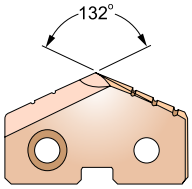
SPADE DRILLS

SERIES Y,Z,0

铲钻刀片-硬质合金(K20)
SPADE DRILL INSERTS - CARBIDE(K20)

- 用于220布氏以下的灰铸铁，有色金属，铜，黄铜和铝
- 在设备上能够简单地更换刀片可以减少调试时间.
- 各种非标准尺寸均可进行生产.

- For use in Gray cast iron up to 220 Brinell, nonferrous metals, copper, brass and aluminum.
- Set up time can be reduced due to changing inserts easily on the machine.
- Any non-standard size available.



切削条件 /cutting conditions : p.310

系列 Series	直径 Diameter			厚度 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	CARBIDE (K20) TiN	TiCN	TiAlN
Y 9.50 (.374″) to 11.07 (.436″)		9.50	.3740″	2.4 (3/32″)	S1755095	S1760095	S1765095
	3/8″	9.53	.3750″		S1705024	S1710024	S1715024
		9.80	.3860″		S1755098	S1760098	S1765098
	25/64″	9.92	.3906″		S1705025	S1710025	S1715025
		10.00	.3937″		S1755100	S1760100	S1765100
		10.20	.4016″		S1755102	S1760102	S1765102
	13/32″	10.32	.4063″		S1705026	S1710026	S1715026
		10.50	.4134″		S1755105	S1760105	S1765105
	27/64″	10.72	.4219″		S1705027	S1710027	S1715027
		10.80	.4252″		S1755108	S1760108	S1765108
		11.00	.4331″		S1755110	S1760110	S1765110
Z 11.11(.437″) to 12.95(.510″)	7/16″	11.11	.4375″	2.4 (3/32″)	S1705028	S1710028	S1715028
		11.50	.4528″		S1755115	S1760115	S1765115
	29/64″	11.51	.4531″		S1705029	S1710029	S1715029
	15/32″	11.91	.4688″		S1705030	S1710030	S1715030
		12.00	.4724″		S1755120	S1760120	S1765120
	31/64″	12.30	.4844″		S1705031	S1710031	S1715031
		12.50	.4921″		S1755125	S1760125	S1765125
	1/2″	12.70	.5000″		S1705032	S1710032	S1715032
0 12.98 (.511″) to 17.65 (.695″)		13.00	.5118″	3.2 (1/8″)	S1755130	S1760130	S1765130
	33/64″	13.10	.5156″		S1705033	S1710033	S1715033
	17/32″	13.49	.5313″		S1705034	S1710034	S1715034
		13.50	.5315″		S1755135	S1760135	S1765135
	35/64″	13.89	.5469″		S1705035	S1710035	S1715035
		14.00	.5512″		S1755140	S1760140	S1765140
	9/16″	14.29	.5625″		S1705036	S1710036	S1715036
		14.50	.5709″		S1755145	S1760145	S1765145
	37/64″	14.68	.5781″		S1705037	S1710037	S1715037
		15.00	.5906″		S1755150	S1760150	S1765150
	19/32″	15.08	.5938″		S1705038	S1710038	S1715038
	39/64″	15.48	.6094″		S1705039	S1710039	S1715039
		15.50	.6102″		S1755155	S1760155	S1765155
	5/8″	15.88	.6250″		S1705040	S1710040	S1715040
		16.00	.6299″		S1755160	S1760160	S1765160

◎ : 优(Excellent)　○ : 良(Good)

普通钢易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
○	○	○	○	○	◎	◎	○	○	○	○	◎	○	○	◎	◎

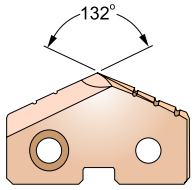
SPADE DRILLS

SERIES 0,1

铲钻刀片-硬质合金(K20)
SPADE DRILL INSERTS - CARBIDE(K20)

- 用于220布氏以下的灰铸铁，有色金属，铜，黄铜和铝
- 在设备上能够简单地更换刀片可以减少调试时间.
- 各种非标准尺寸均可进行生产.

- For use in Gray cast iron up to 220 Brinell, nonferrous metals, copper, brass and aluminum.
- Set up time can be reduced due to changing inserts easily on the machine.
- Any non-standard size available.



切削条件 /cutting conditions : p.310

系列 Series	直径 Diameter			厚度 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	CARBIDE (K20) TiN	TiCN	TiAlN
0 12.98[.511″] to 17.65[.695″]	41/64″	16.27	.6406″	3.2 [1/8″]	S1705041	S1710041	S1715041
		16.50	.6496″		S1755165	S1760165	S1765165
	21/32″	16.67	.6563″		S1705042	S1710042	S1715042
		17.00	.6693″		S1755170	S1760170	S1765170
	43/64″	17.07	.6719″		S1705043	S1710043	S1715043
	11/16″	17.46	.6875″		S1705044	S1710044	S1715044
		17.50	.6890″		S1755175	S1760175	S1765175
1 17.53 [.690″] to 24.38 [.960″]	45/64″	17.86	.7031″	4.0 [5/32″]	S1705045	S1710045	S1715045
		18.00	.7087″		S1755180	S1760180	S1765180
	23/32″	18.26	.7188″		S1705046	S1710046	S1715046
		18.50	.7283″		S1755185	S1760185	S1765185
	47/64″	18.65	.7344″		S1705047	S1710047	S1715047
		19.00	.7480″		S1755190	S1760190	S1765190
	3/4″	19.05	.7500″		S1705048	S1710048	S1715048
	49/64″	19.45	.7656″		S1705049	S1710049	S1715049
		19.50	.7677″		S1755195	S1760195	S1765195
	25/32″	19.84	.7813″		S1705050	S1710050	S1715050
		20.00	.7874″		S1755200	S1760200	S1765200
	51/64″	20.24	.7969″		S1705051	S1710051	S1715051
		20.50	.8071″		S1755205	S1760205	S1765205
	13/16″	20.64	.8125″		S1705052	S1710052	S1715052
		21.00	.8268″		S1755210	S1760210	S1765210
	27/32″	21.43	.8438″		S1705054	S1710054	S1715054
	55/64″	21.83	.8594″		S1705055	S1710055	S1715055
		22.00	.8661″		S1755220	S1760220	S1765220
	7/8″	22.23	.8750″		S1705056	S1710056	S1715056
	57/64″	22.62	.8906″		S1705057	S1710057	S1715057
		23.00	.9055″		S1755230	S1760230	S1765230
	29/32″	23.02	.9063″		S1705058	S1710058	S1715058
	59/64″	23.42	.9219″		S1705059	S1710059	S1715059
	15/16″	23.81	.9375″		S1705060	S1710060	S1715060
		24.00	.9449″		S1755240	S1760240	S1765240

◎ : 优(Excellent)　○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
○	○	○	○	○	◎	◎	○	○	○	○	◎	○	○	◎	◎

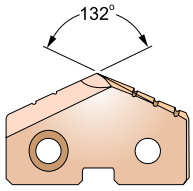
SPADE DRILLS

SERIES 2

铲钻刀片-硬质合金(K20)
SPADE DRILL INSERTS - CARBIDE(K20)

- 用于220布氏以下的灰铸铁，有色金属，铜，黄铜和铝
- 在设备上能够简单地更换刀片可以减少调试时间.
- 各种非标准尺寸均可进行生产.

- For use in Gray cast iron up to 220 Brinell, nonferrous metals, copper, brass and aluminum.
- Set up time can be reduced due to changing inserts easily on the machine.
- Any non-standard size available.



切削条件 /cutting conditions : p.310

系列 Series	直径 Diameter			厚度 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	CARBIDE (K20) TiN	TiCN	TiAlN
2 24.41 (.961″) to 35.05 (1.380″)	31/32″	24.61	.9688″	4.8 (3/16″)	S1705062	S1710062	S1715062
	63/64″	25.00	.9843″		S1755250	S1760250	S1765250
	1″	25.40	1.0000″		S1705100	S1710100	S1715100
	1-1/64″	25.80	1.0156″		S1705101	S1710101	S1715101
		26.00	1.0236″		S1755260	S1760260	S1765260
	1-1/32″	26.19	1.0313″		S1705102	S1710102	S1715102
	1-3/64″	26.59	1.0469″		S1705103	S1710103	S1715103
	1-1/16″	26.99	1.0625″		S1705104	S1710104	S1715104
		27.00	1.0630″		S1755270	S1760270	S1765270
	1-3/32″	27.78	1.0938″		S1705106	S1710106	S1715106
		28.00	1.1024″		S1755280	S1760280	S1765280
	1-7/64″	28.18	1.1094″		S1705107	S1710107	S1715107
	1-1/8″	28.58	1.1250″		S1705108	S1710108	S1715108
		29.00	1.1417″		S1755290	S1760290	S1765290
	1-5/32″	29.37	1.1563″		S1705110	S1710110	S1715110
		30.00	1.1811″		S1755300	S1760300	S1765300
	1-3/16″	30.16	1.1875″		S1705112	S1710112	S1715112
	1-7/32″	30.96	1.2188″		S1705114	S1710114	S1715114
		31.00	1.2205″		S1755310	S1760310	S1765310
	1-1/4″	31.75	1.2500″		S1705116	S1710116	S1715116
		32.00	1.2598″		S1755320	S1760320	S1765320
	1-9/32″	32.54	1.2813″		S1705118	S1710118	S1715118
		33.00	1.2992″		S1755330	S1760330	S1765330
	1-5/16″	33.34	1.3125″		S1705120	S1710120	S1715120
		34.00	1.3386″		S1755340	S1760340	S1765340
	1-11/32″	34.13	1.3438″		S1705122	S1710122	S1715122
	1-3/8″	34.93	1.3750″		S1705124	S1710124	S1715124
		35.00	1.3780″		S1755350	S1760350	S1765350

◎：优(Excellent)　○：良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
○	○	○	○	○	◎	◎	○	○	○	○	◎	○	○	◎	◎

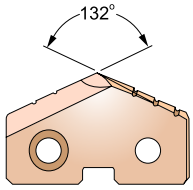
SPADE DRILLS

SERIES 3

铲钻刀片-硬质合金(K20)
SPADE DRILL INSERTS - CARBIDE(K20)

- 用于220布氏以下的灰铸铁，有色金属，铜，黄铜和铝
- 在设备上能够简单地更换刀片可以减少调试时间.
- 各种非标准尺寸均可进行生产.

- For use in Gray cast iron up to 220 Brinell, nonferrous metals, copper, brass and aluminum.
- Set up time can be reduced due to changing inserts easily on the machine.
- Any non-standard size available.



切削条件 /cutting conditions : p.310

系列 Series	直径 Diameter			厚度 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	CARBIDE (K20) TiN	TiCN	TiAlN
3 34.37 (1.353″) to 47.80 (1.882″)	1-13/32″	35.72	1.4063″	6.4 (1/4″)	S1705126	S1710126	S1715126
		36.00	1.4173″		S1755360	S1760360	S1765360
	1-7/16″	36.51	1.4375″		S1705128	S1710128	S1715128
		37.00	1.4567″		S1755370	S1760370	S1765370
	1-15/32″	37.31	1.4688″		S1705130	S1710130	S1715130
		38.00	1.4961″		S1755380	S1760380	S1765380
	1-1/2″	38.10	1.5000″		S1705132	S1710132	S1715132
	1-17/32″	38.89	1.5313″		S1705134	S1710134	S1715134
		39.00	1.5354″		S1755390	S1760390	S1765390
	1-9/16″	39.69	1.5625″		S1705136	S1710136	S1715136
		40.00	1.5748″		S1755400	S1760400	S1765400
	1-19/32″	40.48	1.5938″		S1705138	S1710138	S1715138
		41.00	1.6142″		S1755410	S1760410	S1765410
	1-5/8″	41.28	1.6250″		S1705140	S1710140	S1715140
		42.00	1.6535″		S1755420	S1760420	S1765420
	1-21/32″	42.07	1.6563″		S1705142	S1710142	S1715142
	1-11/16″	42.86	1.6875″		S1705144	S1710144	S1715144
		43.00	1.6929″		S1755430	S1760430	S1765430
	1-23/32″	43.66	1.7188″		S1705146	S1710146	S1715146
		44.00	1.7323″		S1755440	S1760440	S1765440
	1-3/4″	44.45	1.7500″		S1705148	S1710148	S1715148
		45.00	1.7717″		S1755450	S1760450	S1765450
	1-25/32″	45.24	1.7813″		S1705150	S1710150	S1715150
		46.00	1.8110″		S1755460	S1760460	S1765460
	1-13/16″	46.04	1.8125″		S1705152	S1710152	S1715152
	1-27/32″	46.83	1.8438″		S1705154	S1710154	S1715154
		47.00	1.8504″		S1755470	S1760470	S1765470
	1-7/8″	47.63	1.8750″		S1705156	S1710156	S1715156

◎ : 优(Excellent)　○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
○	○	○	○	○	◎	◎	○	○	○	○	◎	○	○	◎	◎

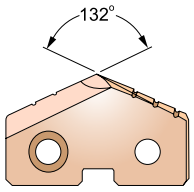
SPADE DRILLS

SERIES Y,Z,0

铲钻刀片-CARBIDE(P40)
SPADE DRILL INSERTS - CARBIDE(P40)

- 用于碳素钢和合金钢的普通用途
- 在设备上能够简单地更换刀片可以减少调试时间.
- 各种非标准尺寸均可进行生产.

- For general use in carbon steels and alloy steels.
- Set up time can be reduced due to changing inserts easily on the machine.
- Any non-standard size available.



切削条件 /cutting conditions : p.310

系列 Series	直径 Diameter			厚度 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	CARBIDE (P40) TiN	TiCN	TiAlN
Y 9.50 (.374″) to 11.07 (.436″)		9.50	.3740″	2.4 (3/32″)	S1855095	S1860095	S1865095
	3/8″	9.53	.3750″		S1805024	S1810024	S1815024
		9.80	.3860″		S1855098	S1860098	S1865098
	25/64″	9.92	.3906″		S1805025	S1810025	S1815025
		10.00	.3937″		S1855100	S1860100	S1865100
		10.20	.4016″		S1855102	S1860102	S1865102
	13/32″	10.32	.4063″		S1805026	S1810026	S1815026
		10.50	.4134″		S1855105	S1860105	S1865105
	27/64″	10.72	.4219″		S1805027	S1810027	S1815027
		10.80	.4252″		S1855108	S1860108	S1865108
		11.00	.4331″		S1855110	S1860110	S1865110
Z 11.11(.437″) to 12.95(.510″)	7/16″	11.11	.4375″	2.4 (3/32″)	S1805028	S1810028	S1815028
		11.50	.4528″		S1855115	S1860115	S1865115
	29/64″	11.51	.4531″		S1805029	S1810029	S1815029
	15/32″	11.91	.4688″		S1805030	S1810030	S1815030
		12.00	.4724″		S1855120	S1860120	S1865120
	31/64″	12.30	.4844″		S1805031	S1810031	S1815031
		12.50	.4921″		S1855125	S1860125	S1865125
	1/2″	12.70	.5000″		S1805032	S1810032	S1815032
0 12.98 (.511″) to 17.65 (.695″)		13.00	.5118″	3.2 (1/8″)	S1855130	S1860130	S1865130
	33/64″	13.10	.5156″		S1805033	S1810033	S1815033
	17/32″	13.49	.5313″		S1805034	S1810034	S1815034
		13.50	.5315″		S1855135	S1860135	S1865135
	35/64″	13.89	.5469″		S1805035	S1810035	S1815035
		14.00	.5512″		S1855140	S1860140	S1865140
	9/16″	14.29	.5625″		S1805036	S1810036	S1815036
		14.50	.5709″		S1855145	S1860145	S1865145
	37/64″	14.68	.5781″		S1805037	S1810037	S1815037
		15.00	.5906″		S1855150	S1860150	S1865150
	19/32″	15.08	.5938″		S1805038	S1810038	S1815038
	39/64″	15.48	.6094″		S1805039	S1810039	S1815039
		15.50	.6102″		S1855155	S1860155	S1865155
	5/8″	15.88	.6250″		S1805040	S1810040	S1815040
		16.00	.6299″		S1855160	S1860160	S1865160

◎ : 优(Excellent) ○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	○	○	○	○	○

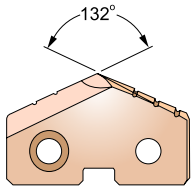
SPADE DRILLS

SERIES 0,1

铲钻刀片-CARBIDE(P40)
SPADE DRILL INSERTS - CARBIDE(P40)

- 用于碳素钢和合金钢的普通用途
- 在设备上能够简单地更换刀片可以减少调试时间.
- 各种非标准尺寸均可进行生产.

- For general use in carbon steels and alloy steels.
- Set up time can be reduced due to changing inserts easily on the machine.
- Any non-standard size available.



切削条件 /cutting conditions :p.310

系列 Series	直径 Diameter			厚度 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	CARBIDE (P40) TiN	TiCN	TiAlN
0 12.98[.511″] to 17.65[.695″]	41/64″	16.27	.6406″	3.2 [1/8″]	S1805041	S1810041	S1815041
		16.50	.6496″		S1855165	S1860165	S1865165
	21/32″	16.67	.6563″		S1805042	S1810042	S1815042
		17.00	.6693″		S1855170	S1860170	S1865170
	43/64″	17.07	.6719″		S1805043	S1810043	S1815043
	11/16″	17.46	.6875″		S1805044	S1810044	S1815044
		17.50	.6890″		S1855175	S1860175	S1865175
1 17.53 [.690″] to 24.38 [.960″]	45/64″	17.86	.7031″	4.0 [5/32″]	S1805045	S1810045	S1815045
		18.00	.7087″		S1855180	S1860180	S1865180
	23/32″	18.26	.7188″		S1805046	S1810046	S1815046
		18.50	.7283″		S1855185	S1860185	S1865185
	47/64″	18.65	.7344″		S1805047	S1810047	S1815047
		19.00	.7480″		S1855190	S1860190	S1865190
	3/4″	19.05	.7500″		S1805048	S1810048	S1815048
	49/64″	19.45	.7656″		S1805049	S1810049	S1815049
		19.50	.7677″		S1855195	S1860195	S1865195
	25/32″	19.84	.7813″		S1805050	S1810050	S1815050
		20.00	.7874″		S1855200	S1860200	S1865200
	51/64″	20.24	.7969″		S1805051	S1810051	S1815051
		20.50	.8071″		S1855205	S1860205	S1865205
	13/16″	20.64	.8125″		S1805052	S1810052	S1815052
		21.00	.8268″		S1855210	S1860210	S1865210
	27/32″	21.43	.8438″		S1805054	S1810054	S1815054
	55/64″	21.83	.8594″		S1805055	S1810055	S1815055
		22.00	.8661″		S1855220	S1860220	S1865220
	7/8″	22.23	.8750″		S1805056	S1810056	S1815056
	57/64″	22.62	.8906″		S1805057	S1810057	S1815057
		23.00	.9055″		S1855230	S1860230	S1865230
	29/32″	23.02	.9063″		S1805058	S1810058	S1815058
	59/64″	23.42	.9219″		S1805059	S1810059	S1815059
	15/16″	23.81	.9375″		S1805060	S1810060	S1815060
		24.00	.9449″		S1855240	S1860240	S1865240

◎ : 优(Excellent)　○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	○	○	○	○	○

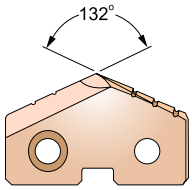
SPADE DRILLS

SERIES 2

铲钻刀片-CARBIDE(P40)
SPADE DRILL INSERTS - CARBIDE(P40)

- 用于碳素钢和合金钢的普通用途
- 在设备上能够简单地更换刀片可以减少调试时间.
- 各种非标准尺寸均可进行生产.

- For general use in carbon steels and alloy steels.
- Set up time can be reduced due to changing inserts easily on the machine.
- Any non-standard size available.



切削条件 /cutting conditions : p.310

系列 Series	直径 Diameter			厚度 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	CARBIDE (P40) TiN	TiCN	TiAlN
2 24.41 (.961″) to 35.05 (1.380″)	31/32″	24.61	.9688″	4.8 (3/16″)	S1805062	S1810062	S1815062
	63/64″	25.00	.9843″		S1855250	S1860250	S1865250
	1″	25.40	1.0000″		S1805100	S1810100	S1815100
	1-1/64″	25.80	1.0156″		S1805101	S1810101	S1815101
		26.00	1.0236″		S1855260	S1860260	S1865260
	1-1/32″	26.19	1.0313″		S1805102	S1810102	S1815102
	1-3/64″	26.59	1.0469″		S1805103	S1810103	S1815103
	1-1/16″	26.99	1.0625″		S1805104	S1810104	S1815104
		27.00	1.0630″		S1855270	S1860270	S1865270
	1-3/32″	27.78	1.0938″		S1805106	S1810106	S1815106
		28.00	1.1024″		S1855280	S1860280	S1865280
	1-7/64″	28.18	1.1094″		S1805107	S1810107	S1815107
	1-1/8″	28.58	1.1250″		S1805108	S1810108	S1815108
		29.00	1.1417″		S1855290	S1860290	S1865290
	1-5/32″	29.37	1.1563″		S1805110	S1810110	S1815110
		30.00	1.1811″		S1855300	S1860300	S1865300
	1-3/16″	30.16	1.1875″		S1805112	S1810112	S1815112
	1-7/32″	30.96	1.2188″		S1805114	S1810114	S1815114
		31.00	1.2205″		S1855310	S1860310	S1865310
	1-1/4″	31.75	1.2500″		S1805116	S1810116	S1815116
		32.00	1.2598″		S1855320	S1860320	S1865320
	1-9/32″	32.54	1.2813″		S1805118	S1810118	S1815118
		33.00	1.2992″		S1855330	S1860330	S1865330
	1-5/16″	33.34	1.3125″		S1805120	S1810120	S1815120
		34.00	1.3386″		S1855340	S1860340	S1865340
	1-11/32″	34.13	1.3438″		S1805122	S1810122	S1815122
	1-3/8″	34.93	1.3750″		S1805124	S1810124	S1815124
		35.00	1.3780″		S1855350	S1860350	S1865350

◎ : 优(Excellent)　○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	○	○	○	○	○

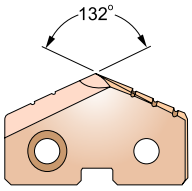
SPADE DRILLS

SERIES 3

铲钻刀片-CARBIDE(P40)
SPADE DRILL INSERTS - CARBIDE(P40)

- 用于碳素钢和合金钢的普通用途
- 在设备上能够简单地更换刀片可以减少调试时间.
- 各种非标准尺寸均可进行生产.

- For general use in carbon steels and alloy steels.
- Set up time can be reduced due to changing inserts easily on the machine.
- Any non-standard size available.



切削条件 /cutting conditions : p.310

系列 Series	直径 Diameter			厚度 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	CARBIDE (P40) TiN	TiCN	TiAlN
3 34.37 (1.353″) to 47.80 (1.882″)	1-13/32″	35.72	1.4063″	6.4 (1/4″)	S1805126	S1810126	S1815126
		36.00	1.4173″		S1855360	S1860360	S1865360
	1-7/16″	36.51	1.4375″		S1805128	S1810128	S1815128
		37.00	1.4567″		S1855370	S1860370	S1865370
	1-15/32″	37.31	1.4688″		S1805130	S1810130	S1815130
		38.00	1.4961″		S1855380	S1860380	S1865380
	1-1/2″	38.10	1.5000″		S1805132	S1810132	S1815132
	1-17/32″	38.89	1.5313″		S1805134	S1810134	S1815134
		39.00	1.5354″		S1855390	S1860390	S1865390
	1-9/16″	39.69	1.5625″		S1805136	S1810136	S1815136
		40.00	1.5748″		S1855400	S1860400	S1865400
	1-19/32″	40.48	1.5938″		S1805138	S1810138	S1815138
		41.00	1.6142″		S1855410	S1860410	S1865410
	1-5/8″	41.28	1.6250″		S1805140	S1810140	S1815140
		42.00	1.6535″		S1855420	S1860420	S1865420
	1-21/32″	42.07	1.6563″		S1805142	S1810142	S1815142
	1-11/16″	42.86	1.6875″		S1805144	S1810144	S1815144
		43.00	1.6929″		S1855430	S1860430	S1865430
	1-23/32″	43.66	1.7188″		S1805146	S1810146	S1815146
		44.00	1.7323″		S1855440	S1860440	S1865440
	1-3/4″	44.45	1.7500″		S1805148	S1810148	S1815148
		45.00	1.7717″		S1855450	S1860450	S1865450
	1-25/32″	45.24	1.7813″		S1805150	S1810150	S1815150
		46.00	1.8110″		S1855460	S1860460	S1865460
	1-13/16″	46.04	1.8125″		S1805152	S1810152	S1815152
	1-27/32″	46.83	1.8438″		S1805154	S1810154	S1815154
		47.00	1.8504″		S1855470	S1860470	S1865470
	1-7/8″	47.63	1.8750″		S1805156	S1810156	S1815156

◎ : 优(Excellent)　○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	○	○	○	○	○

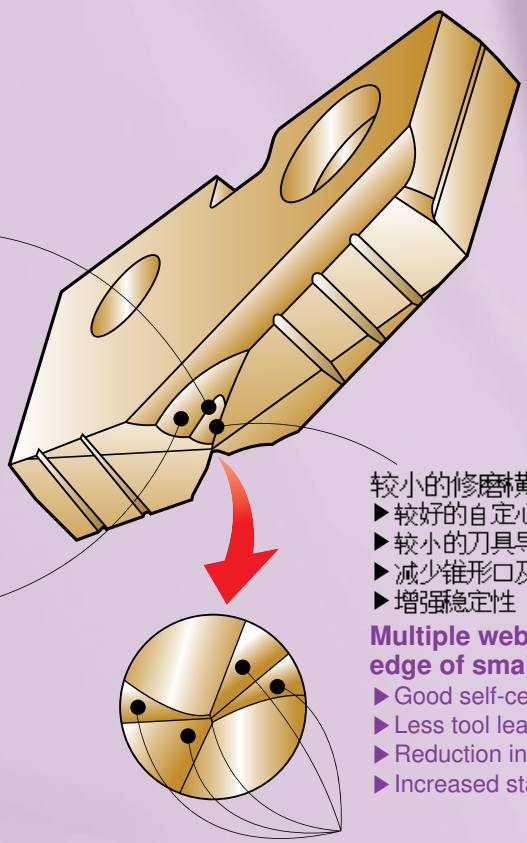
Special features of SM-Point Spade Drill

新的 "混合式钻尖" 结合标准钻顶角的特征并增加了 "修磨横刃"

新的钻顶增加了稳定性，减少了推力，提高了定心力并且允许更高的加工速度和进给

This new "Hybrid Point" combines the strength of the standard point with additional "Web Thinning".

This new point increases stability, reduces thrust, improves centering and allows increased speeds and feeds.



在宽大的横刃底面有多种横刃方式
▶根据从钻顶到切削刃的距离，在切削速度，切削质量和切削负载不同情况下最适宜的横刃.

Multiple thinning form at the bottom of the large thinning.

▶The optimum thinning for the difference from the cutting speed, the cutting quantity and the cutting load according to the distance from the drill point to the cutting edge.

较小的修磨横刃的刃口具有多种修磨横刃
▶较好的自定心力
▶较小的刀具导向移动
▶减少锥形口及推力
▶增强稳定性

Multiple web thinning with the cutting edge of small web thinning.

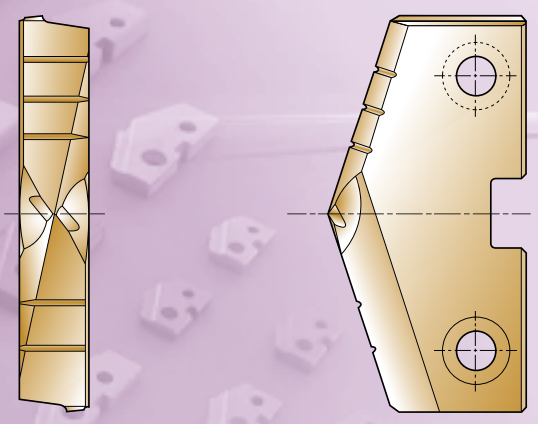
▶Good self-centering
▶Less tool lead off
▶Reduction in bell mouthing, thrust
▶Increased stability

弧形的后刀面
▶较宽的排屑槽

Radius back face

▶Wide chip space

具有四个面的钻顶角 / **Four-facet point**
▶自定心 / Self-centering
▶较小的推力 / Less thrust force



SPADE DRILLS

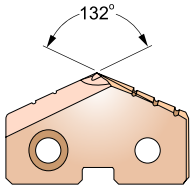
SERIES 1

SM-POINT 铲钻刀片-HSS M4

SM-POINT SPADE DRILL INSERTS - HSS M4

- 用于钢和铸铁的普通用途
- 通过新开发的钻顶设计增强稳定性和孔的垂直性
- 较小的推力和卓越的自定心功能
- 各种非标准尺寸均可进行生产.

- For general use in steels and cast irons.
- Improved stability and hole straightness by newly developed thinning design.
- Less thrust force and excellent self-centering.
- Any non-standard size available.



切削条件 /cutting conditions : p.309

系列 Series	直径 Diameter			厚的 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	HSS (M4) TiN	TiCN	TiAlN
1 17.53 (.690″) to 24.38 (.960″)	45/64″	17.86	.7031"	4.0 (5/32″)	SM405045	SM410045	SM415045
		18.00	.7087"		SM455180	SM460180	SM465180
	23/32″	18.26	.7188"		SM405046	SM410046	SM415046
		18.50	.7283"		SM455185	SM460185	SM465185
	47/64″	18.65	.7344"		SM405047	SM410047	SM415047
		19.00	.7480"		SM455190	SM460190	SM465190
	3/4″	19.05	.7500"		SM405048	SM410048	SM415048
	49/64″	19.45	.7656"		SM405049	SM410049	SM415049
		19.50	.7677"		SM455195	SM460195	SM465195
	25/32″	19.84	.7812"		SM405050	SM410050	SM415050
		20.00	.7874"		SM455200	SM460200	SM465200
	51/64″	20.24	.7969"		SM405051	SM410051	SM415051
		20.50	.8071"		SM455205	SM460205	SM465205
	13/16″	20.64	.8125"		SM405052	SM410052	SM415052
		21.00	.8268"		SM455210	SM460210	SM465210
	27/32″	21.43	.8438"		SM405054	SM410054	SM415054
	55/64″	21.83	.8594"		SM405055	SM410055	SM415055
		22.00	.8661"		SM455220	SM460220	SM465220
	7/8″	22.23	.8750"		SM405056	SM410056	SM415056
	57/64″	22.62	.8906"		SM405057	SM410057	SM415057
		23.00	.9055"		SM455230	SM460230	SM465230
	29/32″	23.02	.9062"		SM405058	SM410058	SM415058
	59/64″	23.42	.9219"		SM405059	SM410059	SM415059
	15/16″	23.81	.9375"		SM405060	SM410060	SM415060
		24.00	.9449"		SM455240	SM460240	SM465240

◎ : 优(Excellent)　○ : 良(Good)

普通钢易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
○	○	○	○		○		○	○			◎	◎	○	◎	◎

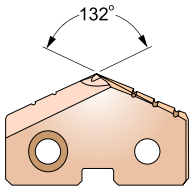
SPADE DRILLS

SERIES 2

SM-POINT 铲钻刀片-HSS M4
SM-POINT SPADE DRILL INSERTS - HSS M4

- 用于钢和铸铁的普通用途
- 通过新开发的钻顶设计增强稳定性和孔的垂直性
- 较小的推力和卓越的自定心功能
- 各种非标准尺寸均可进行生产.

- For general use in steels and cast irons.
- Improved stability and hole straightness by newly developed thinning design.
- Less thrust force and excellent self-centering.
- Any non-standard size available.



切削条件 /cutting conditions : p.309

系列 Series	直径 Diameter			厚的 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	HSS (M4) TiN	HSS (M4) TiCN	HSS (M4) TiAlN
2 24.41 (.961″) to 35.05 (1.380″)	31/32″	24.61	.9688"	4.8 (3/16″)	SM405062	SM410062	SM415062
	63/64″	25.00	.9843"		SM455250	SM460250	SM465250
	1″	25.40	1.0000"		SM405100	SM410100	SM415100
	1-1/64″	25.80	1.0156"		SM405101	SM410101	SM415101
		26.00	1.0236"		SM455260	SM460260	SM465260
	1-1/32″	26.19	1.0312"		SM405102	SM410102	SM415102
	1-3/64″	26.59	1.0469"		SM405103	SM410103	SM415103
	1-1/16″	26.99	1.0625"		SM405104	SM410104	SM415104
		27.00	1.0630"		SM455270	SM460270	SM465270
	1-3/32″	27.78	1.0938"		SM405106	SM410106	SM415106
		28.00	1.1024"		SM455280	SM460280	SM465280
	1-7/64″	28.18	1.1094"		SM405107	SM410107	SM415107
	1-1/8″	28.58	1.1250"		SM405108	SM410108	SM415108
		29.00	1.1417"		SM455290	SM460290	SM465290
	1-5/32″	29.37	1.1562"		SM405110	SM410110	SM415110
		30.00	1.1811"		SM455300	SM460300	SM465300
	1-3/16″	30.16	1.1875"		SM405112	SM410112	SM415112
	1-7/32″	30.96	1.2188"		SM405114	SM410114	SM415114
		31.00	1.2205"		SM455310	SM460310	SM465310
	1-1/4″	31.75	1.2500"		SM405116	SM410116	SM415116
		32.00	1.2598"		SM455320	SM460320	SM465320
	1-9/32″	32.54	1.2812"		SM405118	SM410118	SM415118
		33.00	1.2992"		SM455330	SM460330	SM465330
	1-5/16″	33.34	1.3125"		SM405120	SM410120	SM415120
		34.00	1.3386"		SM455340	SM460340	SM465340
	1-11/32″	34.13	1.3438"		SM405122	SM410122	SM415122
	1-3/8″	34.93	1.3750"		SM405124	SM410124	SM415124
		35.00	1.3780"		SM455350	SM460350	SM465350

◎ : 优(Excellent)　○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
○	○	○	○		○		○	○			◎	◎	○	◎	◎

SPADE DRILLS

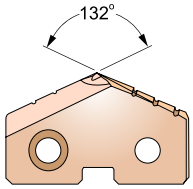
SERIES 3

SM-POINT 铲钻刀片-HSS M4

SM-POINT SPADE DRILL INSERTS - HSS M4

- 用于钢和铸铁的普通用途
- 通过新开发的钻顶设计增强稳定性和孔的垂直性
- 较小的推力和卓越的自定心功能
- 各种非标准尺寸均可进行生产.

- For general use in steels and cast irons.
- Improved stability and hole straightness by newly developed thinning design.
- Less thrust force and excellent self-centering.
- Any non-standard size available.



切削条件 /cutting conditions : p.309

系列 Series	直径 Diameter			厚的 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	HSS (M4) TiN	HSS (M4) TiCN	HSS (M4) TiAlN
3 34.37 (1.353″) to 47.80 (1.882″)	1-13/32″	35.72	1.4062"	6.4 (1/4″)	SM405126	SM410126	SM415126
		36.00	1.4173"		SM455360	SM460360	SM465360
	1-7/16″	36.51	1.4375"		SM405128	SM410128	SM415128
		37.00	1.4567"		SM455370	SM460370	SM465370
	1-15/32″	37.31	1.4688"		SM405130	SM410130	SM415130
		38.00	1.4961"		SM455380	SM460380	SM465380
	1-1/2″	38.10	1.5000"		SM405132	SM410132	SM415132
	1-17/32″	38.89	1.5312"		SM405134	SM410134	SM415134
		39.00	1.5354"		SM455390	SM460390	SM465390
	1-9/16″	39.69	1.5625"		SM405136	SM410136	SM415136
		40.00	1.5748"		SM455400	SM460400	SM465400
	1-19/32″	40.48	1.5938"		SM405138	SM410138	SM415138
		41.00	1.6142"		SM455410	SM460410	SM465410
	1-5/8″	41.28	1.6250"		SM405140	SM410140	SM415140
		42.00	1.6535"		SM455420	SM460420	SM465420
	1-21/32″	42.07	1.6562"		SM405142	SM410142	SM415142
	1-11/16″	42.86	1.6875"		SM405144	SM410144	SM415144
		43.00	1.6929"		SM455430	SM460430	SM465430
	1-23/32″	43.66	1.7188"		SM405146	SM410146	SM415146
		44.00	1.7323"		SM455440	SM460440	SM465440
	1-3/4″	44.45	1.7500"		SM405148	SM410148	SM415148
		45.00	1.7717"		SM455450	SM460450	SM465450
	1-25/32″	45.24	1.7812"		SM405150	SM410150	SM415150
		46.00	1.8110"		SM455460	SM460460	SM465460
	1-13/16″	46.04	1.8125"		SM405152	SM410152	SM415152
	1-27/32″	46.83	1.8438"		SM405154	SM410154	SM415154
		47.00	1.8504"		SM455470	SM460470	SM465470
	1-7/8″	47.63	1.8750"		SM405156	SM410156	SM415156

◎ : 优(Excellent)　○ : 良(Good)

普通钢易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
○	○	○	○		○		○	○			◎	◎	○	◎	◎

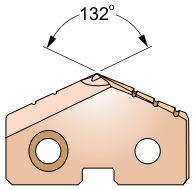
SPADE DRILLS

SERIES Y,Z,0

SM-POINT 铲钻刀片-SUPER HSS T15
SM-POINT SPADE DRILL INSERTS - SUPER HSS T15

- 用于高镍合金和硬度超过280布氏的材质
- 通过新开发的钻顶设计增强稳定性和孔的垂直性
- 较小的推力和卓越的自定心功能
- 各种非标准尺寸均可进行生产.

- For use in high nickel alloys and materials over 280 Brinell.
- Improved stability and hole straightness by newly developed thinning design.
- Less thrust force and excellent self-centering.
- Any non-standard size available.



切削条件 /cutting conditions : p.309

系列 Series	直径 Diameter			厚的 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	SUPER HSS (T15) TiN	TiCN	TiAlN
Y 9.50 (.374″) to 11.07 (.436″)		9.50	.3740"	2.4 (3/32″)	SM155095	SM160095	SM165095
	3/8″	9.53	.3750"		SM105024	SM110024	SM115024
		9.80	.3858"		SM155098	SM160098	SM165098
	25/64″	9.92	.3906"		SM105025	SM110025	SM115025
		10.00	.3937"		SM155100	SM160100	SM165100
		10.20	.4016"		SM155102	SM160102	SM165102
	13/32″	10.32	.4062"		SM105026	SM110026	SM115026
		10.50	.4134"		SM155105	SM160105	SM165105
	27/64″	10.72	.4219"		SM105027	SM110027	SM115027
		10.80	.4252"		SM155108	SM160108	SM165108
		11.00	.4331"		SM155110	SM160110	SM165110
Z 11.11(.437″) to 12.95(.510″)	7/16″	11.11	.4375"	2.4 (3/32″)	SM105028	SM110028	SM115028
		11.50	.4528"		SM155115	SM160115	SM165115
	29/64″	11.51	.4531"		SM105029	SM110029	SM115029
	15/32″	11.91	.4688"		SM105030	SM110030	SM115030
		12.00	.4724"		SM155120	SM160120	SM165120
	31/64″	12.30	.4844"		SM105031	SM110031	SM115031
		12.50	.4921"		SM155125	SM160125	SM165125
	1/2″	12.70	.5000"		SM105032	SM110032	SM115032
0 12.98 (.511″) to 17.65 (.695″)		13.00	.5118"	3.2 (1/8″)	SM155130	SM160130	SM165130
	33/64″	13.10	.5156"		SM105033	SM110033	SM115033
	17/32″	13.49	.5312"		SM105034	SM110034	SM115034
		13.50	.5315"		SM155135	SM160135	SM165135
	35/64″	13.89	.5469"		SM105035	SM110035	SM115035
		14.00	.5512"		SM155140	SM160140	SM165140
	9/16″	14.29	.5625"		SM105036	SM110036	SM115036
		14.50	.5709"		SM155145	SM160145	SM165145
	37/64″	14.68	.5781"		SM105037	SM110037	SM115037
		15.00	.5906"		SM155150	SM160150	SM165150
	19/32″	15.08	.5938"		SM105038	SM110038	SM115038
	39/64″	15.48	.6094"		SM105039	SM110039	SM115039
		15.50	.6102"		SM155155	SM160155	SM165155
	5/8″	15.88	.6250"		SM105040	SM110040	SM115040
		16.00	.6299"		SM155160	SM160160	SM165160

◎ : 优(Excellent)　○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
◎	◎	◎	◎	○	○	○	◎	◎	○	○	○	○	◎	○	○

SPADE DRILLS

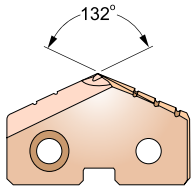
SERIES 0,1

SM-POINT 铲钻刀片-SUPER HSS T15

SM-POINT SPADE DRILL INSERTS - SUPER HSS T15

- 用于高镍合金和硬度超过280布氏的材质
- 通过新开发的钻顶设计增强稳定性和孔的垂直性
- 较小的推力和卓越的自定心功能
- 各种非标准尺寸均可进行生产.

- For use in high nickel alloys and materials over 280 Brinell.
- Improved stability and hole straightness by newly developed thinning design.
- Less thrust force and excellent self-centering.
- Any non-standard size available.



切削条件 /cutting conditions : p.309

系列 Series	直径 Diameter			厚的 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	SUPER HSS (T15) TiN	TiCN	TiAlN
0 12.98[.511″] to 17.65[.695″]	41/64″	16.27	.6406"	3.2 [1/8″]	SM105041	SM110041	SM115041
		16.50	.6496"		SM155165	SM160165	SM165165
	21/32″	16.67	.6562"		SM105042	SM110042	SM115042
		17.00	.6693"		SM155170	SM160170	SM165170
	43/64″	17.07	.6719"		SM105043	SM110043	SM115043
	11/16″	17.46	.6875"		SM105044	SM110044	SM115044
		17.50	.6890"		SM155175	SM160175	SM165175
1 17.53 [.690″] to 24.38 [.960″]	45/64″	17.86	.7031"	4.0 [5/32″]	SM105045	SM110045	SM115045
		18.00	.7087"		SM155180	SM160180	SM165180
	23/32″	18.26	.7188"		SM105046	SM110046	SM115046
		18.50	.7283"		SM155185	SM160185	SM165185
	47/64″	18.65	.7344"		SM105047	SM110047	SM115047
		19.00	.7480"		SM155190	SM160190	SM165190
	3/4″	19.05	.7500"		SM105048	SM110048	SM115048
	49/64″	19.45	.7656"		SM105049	SM110049	SM115049
		19.50	.7677"		SM155195	SM160195	SM165195
	25/32″	19.84	.7812"		SM105050	SM110050	SM115050
		20.00	.7874"		SM155200	SM160200	SM165200
	51/64″	20.24	.7969"		SM105051	SM110051	SM115051
		20.50	.8071"		SM155205	SM160205	SM165205
	13/16″	20.64	.8125"		SM105052	SM110052	SM115052
		21.00	.8268"		SM155210	SM160210	SM165210
	27/32″	21.43	.8438"		SM105054	SM110054	SM115054
	55/64″	21.83	.8594"		SM105055	SM110055	SM115055
		22.00	.8661"		SM155220	SM160220	SM165220
	7/8″	22.23	.8750"		SM105056	SM110056	SM115056
	57/64″	22.62	.8906"		SM105057	SM110057	SM115057
		23.00	.9055"		SM155230	SM160230	SM165230
	29/32″	23.02	.9062"		SM105058	SM110058	SM115058
	59/64″	23.42	.9219"		SM105059	SM110059	SM115059
	15/16″	23.81	.9375"		SM105060	SM110060	SM115060
		24.00	.9449"		SM155240	SM160240	SM165240

◎ : 优(Excellent)　○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
◎	◎	◎	◎	○	○	○	◎	◎	○	○	○	○	◎	○	○

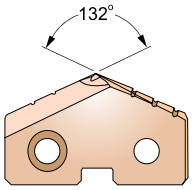
SPADE DRILLS

SERIES 2

SM-POINT 铲钻刀片-SUPER HSS T15
SM-POINT SPADE DRILL INSERTS - SUPER HSS T15

- 用于高镍合金和硬度超过280布氏的材质
- 通过新开发的钻顶设计增强稳定性和孔的垂直性
- 较小的推力和卓越的自定心功能
- 各种非标准尺寸均可进行生产.

- For use in high nickel alloys and materials over 280 Brinell.
- Improved stability and hole straightness by newly developed thinning design.
- Less thrust force and excellent self-centering.
- Any non-standard size available.



切削条件 /cutting conditions : p.309

系列 Series	直径 Diameter			厚的 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	SUPER HSS (T15) TiN	TiCN	TiAlN
2 24.41 (.961″) to 35.05 (1.380″)	31/32″	24.61	.9688"	4.8 (3/16″)	SM105062	SM110062	SM115062
	63/64″	25.00	.9843"		SM155250	SM160250	SM165250
	1″	25.40	1.0000"		SM105100	SM110100	SM115100
	1-1/64″	25.80	1.0156"		SM105101	SM110101	SM115101
		26.00	1.0236"		SM155260	SM160260	SM165260
	1-1/32″	26.19	1.0312"		SM105102	SM110102	SM115102
	1-3/64″	26.59	1.0469"		SM105103	SM110103	SM115103
	1-1/16″	26.99	1.0625"		SM105104	SM110104	SM115104
		27.00	1.0630"		SM155270	SM160270	SM165270
	1-3/32″	27.78	1.0938"		SM105106	SM110106	SM115106
		28.00	1.1024"		SM155280	SM160280	SM165280
	1-7/64″	28.18	1.1094"		SM105107	SM110107	SM115107
	1-1/8″	28.58	1.1250"		SM105108	SM110108	SM115108
		29.00	1.1417"		SM155290	SM160290	SM165290
	1-5/32″	29.37	1.1562"		SM105110	SM110110	SM115110
		30.00	1.1811"		SM155300	SM160300	SM165300
	1-3/16″	30.16	1.1875"		SM105112	SM110112	SM115112
	1-7/32″	30.96	1.2188"		SM105114	SM110114	SM115114
		31.00	1.2205"		SM155310	SM160310	SM165310
	1-1/4″	31.75	1.2500"		SM105116	SM110116	SM115116
		32.00	1.2598"		SM155320	SM160320	SM165320
	1-9/32″	32.54	1.2812"		SM105118	SM110118	SM115118
		33.00	1.2992"		SM155330	SM160330	SM165330
	1-5/16″	33.34	1.3125"		SM105120	SM110120	SM115120
		34.00	1.3386"		SM155340	SM160340	SM165340
	1-11/32″	34.13	1.3438"		SM105122	SM110122	SM115122
	1-3/8″	34.93	1.3750"		SM105124	SM110124	SM115124
		35.00	1.3780"		SM155350	SM160350	SM165350

◎ : 优(Excellent)　○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
◎	◎	◎	◎	○	○	○	◎	◎	○	○	○	○	◎	○	○

SPADE DRILLS

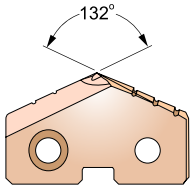
SERIES 3

SM-POINT 铲钻刀片-SUPER HSS T15

SM-POINT SPADE DRILL INSERTS - SUPER HSS T15

- 用于高镍合金和硬度超过280布氏的材质
- 通过新开发的钻顶设计增强稳定性和孔的垂直性
- 较小的推力和卓越的自定心功能
- 各种非标准尺寸均可进行生产.

- For use in high nickel alloys and materials over 280 Brinell.
- Improved stability and hole straightness by newly developed thinning design.
- Less thrust force and excellent self-centering.
- Any non-standard size available.



切削条件 /cutting conditions : p.309

系列 Series	直径 Diameter			厚的 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	SUPER HSS (T15) TiN	TiCN	TiAlN
3 34.37 (1.353″) to 47.80 (1.882″)	1-13/32″	35.72	1.4062"	6.4 (1/4″)	SM105126	SM110126	SM115126
		36.00	1.4173"		SM155360	SM160360	SM165360
	1-7/16″	36.51	1.4375"		SM105128	SM110128	SM115128
		37.00	1.4567"		SM155370	SM160370	SM165370
	1-15/32″	37.31	1.4688"		SM105130	SM110130	SM115130
		38.00	1.4961"		SM155380	SM160380	SM165380
	1-1/2″	38.10	1.5000"		SM105132	SM110132	SM115132
	1-17/32″	38.89	1.5312"		SM105134	SM110134	SM115134
		39.00	1.5354"		SM155390	SM160390	SM165390
	1-9/16″	39.69	1.5625"		SM105136	SM110136	SM115136
		40.00	1.5748"		SM155400	SM160400	SM165400
	1-19/32″	40.48	1.5938"		SM105138	SM110138	SM115138
		41.00	1.6142"		SM155410	SM160410	SM165410
	1-5/8″	41.28	1.6250"		SM105140	SM110140	SM115140
		42.00	1.6535"		SM155420	SM160420	SM165420
	1-21/32″	42.07	1.6562"		SM105142	SM110142	SM115142
	1-11/16″	42.86	1.6875"		SM105144	SM110144	SM115144
		43.00	1.6929"		SM155430	SM660430	SM165430
	1-23/32″	43.66	1.7188"		SM105146	SM110146	SM115146
		44.00	1.7323"		SM155440	SM160440	SM165440
	1-3/4″	44.45	1.7500"		SM105148	SM110148	SM115148
		45.00	1.7717"		SM155450	SM160450	SM165450
	1-25/32″	45.24	1.7812"		SM105150	SM110150	SM115150
		46.00	1.8110"		SM155460	SM160460	SM165460
	1-13/16″	46.04	1.8125"		SM105152	SM110152	SM115152
	1-27/32″	46.83	1.8438"		SM105154	SM110154	SM115154
		47.00	1.8504"		SM155470	SM160470	SM165470
	1-7/8″	47.63	1.8750"		SM105156	SM110156	SM115156

◎ : 优(Excellent)　○ : 良(Good)

普通钢易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
◎	◎	◎	◎	○	○	○	◎	◎	○	○	○	○	◎	○	○

SPADE DRILLS

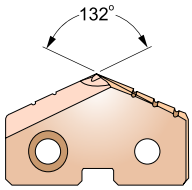
SERIES Y,Z,0

SM-POINT 铲钻刀片-PREMIUM HSS M48

SM-POINT SPADE DRILL INSERTS - PREMIUM HSS M48

- 用于高温合金和硬度在350-500布氏之间的材质
- 通过新开发的钻顶设计增强稳定性和孔的垂直性
- 较小的推力和卓越的自定心功能
- 各种非标准尺寸均可进行生产.

- For use in high temperature alloys and materials with 350~500 Brinell.
- Improved stability and hole straightness by newly developed thinning design.
- Less thrust force and excellent self-centering.
- Any non-standard size available.



切削条件 /cutting conditions : p.309

系列 Series	直径 Diameter			厚的 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	PREMIUM HSS (M48) TiN	TiCN	TiAlN
Y 9.50 (.374″) to 11.07 (.436″)		9.50	.3740"	2.4 (3/32″)	SM555095	SM560095	SM565095
	3/8″	9.53	.3750"		SM505024	SM510024	SM515024
		9.80	.3858"		SM555098	SM560098	SM565098
	25/64″	9.92	.3906"		SM505025	SM510025	SM515025
		10.00	.3937"		SM555100	SM560100	SM565100
		10.20	.4016"		SM555102	SM560102	SM565102
	13/32″	10.32	.4062"		SM505026	SM510026	SM515026
		10.50	.4134"		SM555105	SM560105	SM565105
	27/64″	10.72	.4219"		SM505027	SM510027	SM515027
		10.80	.4252"		SM555108	SM560108	SM565108
		11.00	.4331"		SM555110	SM560110	SM565110
Z 11.11(.437″) to 12.95(.510″)	7/16″	11.11	.4375"	2.4 (3/32″)	SM505028	SM510028	SM515028
		11.50	.4528"		SM555115	SM560115	SM565115
	29/64″	11.51	.4531"		SM505029	SM510029	SM515029
	15/32″	11.91	.4688"		SM505030	SM510030	SM515030
		12.00	.4724"		SM555120	SM560120	SM565120
	31/64″	12.30	.4844"		SM505031	SM510031	SM515031
		12.50	.4921"		SM555125	SM560125	SM565125
	1/2″	12.70	.5000"		SM505032	SM510032	SM515032
0 12.98 (.511″) to 17.65 (.695″)		13.00	.5118"	3.2 (1/8″)	SM555130	SM560130	SM565130
	33/64″	13.10	.5156"		SM505033	SM510033	SM515033
	17/32″	13.49	.5312"		SM505034	SM510034	SM515034
		13.50	.5315"		SM555135	SM560135	SM565135
	35/64″	13.89	.5469"		SM505035	SM510035	SM515035
		14.00	.5512"		SM555140	SM560140	SM565140
	9/16″	14.29	.5625"		SM505036	SM510036	SM515036
		14.50	.5709"		SM555145	SM560145	SM565145
	37/64″	14.68	.5781"		SM505037	SM510037	SM515037
		15.00	.5906"		SM555150	SM560150	SM565150
	19/32″	15.08	.5938"		SM505038	SM510038	SM515038
	39/64″	15.48	.6094"		SM505039	SM510039	SM515039
		15.50	.6102"		SM555155	SM560155	SM565155
	5/8″	15.88	.6250"		SM505040	SM510040	SM515040
		16.00	.6299"		SM555160	SM560160	SM565160

◎ : 优(Excellent) ○ : 良(Good)

普通钢易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	○	○	◎	○	○

SPADE DRILLS

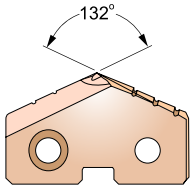
SERIES 0,1

SM-POINT 铲钻刀片-PREMIUM HSS M48

SM-POINT SPADE DRILL INSERTS - PREMIUM HSS M48

- 用于高温合金和硬度在350-500布氏之间的材质
- 通过新开发的钻顶设计增强稳定性和孔的垂直性
- 较小的推力和卓越的自定心功能
- 各种非标准尺寸均可进行生产.

- For use in high temperature alloys and materials with 350~500 Brinell.
- Improved stability and hole straightness by newly developed thinning design.
- Less thrust force and excellent self-centering.
- Any non-standard size available.



切削条件 /cutting conditions : p.309

系列 Series	直径 Diameter			厚的 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	PREMIUM HSS (M48) TiN	TiCN	TiAlN
0 12.98[.511″] to 17.65[.695″]	41/64″	16.27	.6406"	3.2 [1/8″]	SM505041	SM510041	SM515041
		16.50	.6496"		SM555165	SM560165	SM565165
	21/32″	16.67	.6562"		SM505042	SM510042	SM515042
		17.00	.6693"		SM555170	SM560170	SM565170
	43/64″	17.07	.6719"		SM505043	SM510043	SM515043
	11/16″	17.46	.6875"		SM505044	SM510044	SM515044
		17.50	.6890"		SM555175	SM560175	SM565175
1 17.53 [.690″] to 24.38 [.960″]	45/64″	17.86	.7031"	4.0 [5/32″]	SM505045	SM510045	SM515045
		18.00	.7087"		SM555180	SM560180	SM565180
	23/32″	18.26	.7188"		SM505046	SM510046	SM515046
		18.50	.7283"		SM555185	SM560185	SM565185
	47/64″	18.65	.7344"		SM505047	SM510047	SM515047
		19.00	.7480"		SM555190	SM560190	SM565190
	3/4″	19.05	.7500"		SM505048	SM510048	SM515048
	49/64″	19.45	.7656"		SM505049	SM510049	SM515049
		19.50	.7677"		SM555195	SM560195	SM565195
	25/32″	19.84	.7812"		SM505050	SM510050	SM515050
		20.00	.7874"		SM555200	SM560200	SM565200
	51/64″	20.24	.7969"		SM505051	SM510051	SM515051
		20.50	.8071"		SM555205	SM560205	SM565205
	13/16″	20.64	.8125"		SM505052	SM510052	SM515052
		21.00	.8268"		SM555210	SM560210	SM565210
	27/32″	21.43	.8438"		SM505054	SM510054	SM515054
	55/64″	21.83	.8594"		SM505055	SM510055	SM565055
		22.00	.8661"		SM555220	SM560220	SM565220
	7/8″	22.23	.8750"		SM505056	SM510056	SM515056
	57/64″	22.62	.8906"		SM505057	SM510057	SM515057
		23.00	.9055"		SM555230	SM560230	SM565230
	29/32″	23.02	.9062"		SM505058	SM510058	SM515058
	59/64″	23.42	.9219"		SM505059	SM510059	SM515059
	15/16″	23.81	.9375"		SM505060	SM510060	SM515060
		24.00	.9449"		SM555240	SM560240	SM565240

◎ : 优(Excellent)　○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	○	○	◎	○	○

SPADE DRILLS

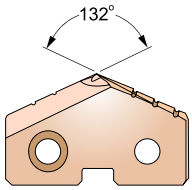
SERIES 2

SM-POINT 铲钻刀片-PREMIUM HSS M48

SM-POINT SPADE DRILL INSERTS - PREMIUM HSS M48

- 用于高温合金和硬度在350-500布氏之间的材质
- 通过新开发的钻顶设计增强稳定性和孔的垂直性
- 较小的推力和卓越的自定心功能
- 各种非标准尺寸均可进行生产.

- For use in high temperature alloys and materials with 350~500 Brinell.
- Improved stability and hole straightness by newly developed thinning design.
- Less thrust force and excellent self-centering.
- Any non-standard size available.



切削条件 /cutting conditions : p.309

系列 Series	直径 Diameter			厚的 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	PREMIUM HSS (M48) TiN	TiCN	TiAlN
2 24.41 (.961″) to 35.05 (1.380″)	31/32″	24.61	.9688"	4.8 (3/16″)	SM505062	SM510062	SM515062
	63/64″	25.00	.9843"		SM555250	SM560250	SM565250
	1″	25.40	1.0000"		SM505100	SM510100	SM515100
	1-1/64″	25.80	1.0156"		SM505101	SM510101	SM515101
		26.00	1.0236"		SM555260	SM560260	SM565260
	1-1/32″	26.19	1.0312"		SM505102	SM510102	SM515102
	1-3/64″	26.59	1.0469"		SM505103	SM510103	SM515103
	1-1/16″	26.99	1.0625"		SM505104	SM510104	SM515104
		27.00	1.0630"		SM555270	SM560270	SM565270
	1-3/32″	27.78	1.0938"		SM505106	SM510106	SM515106
		28.00	1.1024"		SM555280	SM560280	SM565280
	1-7/64″	28.18	1.1094"		SM505107	SM510107	SM515107
	1-1/8″	28.58	1.1250"		SM505108	SM510108	SM515108
		29.00	1.1417"		SM555290	SM560290	SM565290
	1-5/32″	29.37	1.1562"		SM505110	SM510110	SM515110
		30.00	1.1811"		SM555300	SM560300	SM565300
	1-3/16″	30.16	1.1875"		SM505112	SM510112	SM515112
	1-7/32″	30.96	1.2188"		SM505114	SM510114	SM515114
		31.00	1.2205"		SM555310	SM560310	SM565310
	1-1/4″	31.75	1.2500"		SM505116	SM510116	SM515116
		32.00	1.2598"		SM555320	SM560320	SM565320
	1-9/32″	32.54	1.2812"		SM505118	SM510118	SM515118
		33.00	1.2992"		SM555330	SM560330	SM565330
	1-5/16″	33.34	1.3125"		SM505120	SM510120	SM515120
		34.00	1.3386"		SM555340	SM560340	SM565340
	1-11/32″	34.13	1.3438"		SM505122	SM510122	SM515122
	1-3/8″	34.93	1.3750"		SM505124	SM510124	SM515124
		35.00	1.3780"		SM555350	SM560350	SM565350

◎ : 优(Excellent)　○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	○	○	◎	○	○

SPADE DRILLS

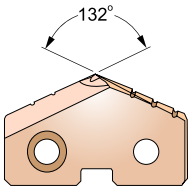
SERIES Y,Z,0

SM-POINT铸铁用锌钻刀片-硬质合金(K10)

SM-POINT SPADE DRILL INSERTS FOR CAST IRON - CARBIDE(K10)

- 在超过220布氏的灰铸铁，可断成短碎片的可锻铸铁，硅铝和铜合金上有很高的性能
- 通过新开发的钻顶设计增强稳定性和孔的垂直性
- 较小的推力和卓越的自定心功能
- 各种非标准尺寸均可进行生产.

- High performance on Gray cast iron over 220 Brinell, malleable cast iron with short chips, silicon aluminum and copper alloys.
- Improved stability and hole straightness by newly developed thinning design.
- Less thrust force and excellent self-centering.
- Any non-standard size available.



切削条件 /cutting conditions : p.310

系列 Series	直径 Diameter			厚的 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	CARBIDE (K10) TiN	TiCN	TiAlN
Y 9.50 (.374″) to 11.07 (.436″)		9.50	.3740"	2.4 (3/32″)	SM655095	SM660095	SM665095
	3/8″	9.53	.3750"		SM605024	SM610024	SM615024
		9.80	.3858"		SM655098	SM660098	SM665098
	25/64″	9.92	.3906"		SM605025	SM610025	SM615025
		10.00	.3937"		SM655100	SM660100	SM665100
		10.20	.4016"		SM655102	SM660102	SM665102
	13/32″	10.32	.4062"		SM605026	SM610026	SM615026
		10.50	.4134"		SM655105	SM660105	SM665105
	27/64″	10.72	.4219"		SM605027	SM610027	SM615027
		10.80	.4252"		SM655108	SM660108	SM665108
		11.00	.4331"		SM655110	SM660110	SM665110
Z 11.11(.437″) to 12.95(.510″)	7/16″	11.11	.4375"	2.4 (3/32″)	SM605028	SM610028	SM615028
		11.50	.4528"		SM655115	SM660115	SM665115
	29/64″	11.51	.4531"		SM605029	SM610029	SM615029
	15/32″	11.91	.4688"		SM605030	SM610030	SM615030
		12.00	.4724"		SM655120	SM660120	SM665120
	31/64″	12.30	.4844"		SM605031	SM610031	SM615031
		12.50	.4921"		SM655125	SM660125	SM665125
	1/2″	12.70	.5000"		SM605032	SM610032	SM615032
0 12.98 (.511″) to 17.65 (.695″)		13.00	.5118"	3.2 (1/8″)	SM655130	SM660130	SM665130
	33/64″	13.10	.5156"		SM605033	SM610033	SM615033
	17/32″	13.49	.5312"		SM605034	SM610034	SM615034
		13.50	.5315"		SM655135	SM660135	SM665135
	35/64″	13.89	.5469"		SM605035	SM610035	SM615035
		14.00	.5512"		SM655140	SM660140	SM665140
	9/16″	14.29	.5625"		SM605036	SM610036	SM615036
		14.50	.5709"		SM655145	SM660145	SM665145
	37/64″	14.68	.5781"		SM605037	SM610037	SM615037
		15.00	.5906"		SM655150	SM660150	SM665150
	19/32″	15.08	.5938"		SM605038	SM610038	SM615038
	39/64″	15.48	.6094"		SM605039	SM610039	SM615039
		15.50	.6102"		SM655155	SM660155	SM665155
	5/8″	15.88	.6250"		SM605040	SM610040	SM615040
		16.00	.6299"		SM655160	SM660160	SM665160

◎ : 优(Excellent)　○ : 良(Good)

普通钢易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
												◎	◎		

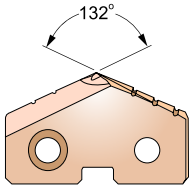
SPADE DRILLS

SERIES 0,1

SM-POINT铸铁用铲钻刀片-硬质合金(K10)
SM-POINT SPADE DRILL INSERTS FOR CAST IRON - CARBIDE(K10)

- 在超过220布氏的灰铸铁，可断成短碎片的可锻铸铁，硅铝和铜合金上有很高的性能
- 通过新开发的钻顶设计增强稳定性和孔的垂直性
- 较小的推力和卓越的自定心功能
- 各种非标准尺寸均可进行生产.

- High performance on Gray cast iron over 220 Brinell, malleable cast iron with short chips, silicon aluminum and copper alloys.
- Improved stability and hole straightness by newly developed thinning design.
- Less thrust force and excellent self-centering.
- Any non-standard size available.



切削条件 /cutting conditions : p.310

系列 Series	直径 Diameter			厚的 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	CARBIDE (K10) TiN	TiCN	TiAlN
0 12.98(.511″) to 17.65(.695″)	41/64″	16.27	.6406"	3.2 (1/8″)	SM605041	SM610041	SM615041
		16.50	.6496"		SM655165	SM660165	SM665165
	21/32″	16.67	.6562"		SM605042	SM610042	SM615042
		17.00	.6693"		SM655170	SM660170	SM665170
	43/64″	17.07	.6719"		SM605043	SM610043	SM615043
	11/16″	17.46	.6875"		SM605044	SM610044	SM615044
		17.50	.6890"		SM655175	SM660175	SM665175
1 17.53 (.690″) to 24.38 (.960″)	45/64″	17.86	.7031"	4.0 (5/32″)	SM605045	SM610045	SM615045
		18.00	.7087"		SM655180	SM660180	SM665180
	23/32″	18.26	.7188"		SM605046	SM610046	SM615046
		18.50	.7283"		SM655185	SM660185	SM665185
	47/64″	18.65	.7344"		SM605047	SM610047	SM615047
		19.00	.7480"		SM655190	SM660190	SM665190
	3/4″	19.05	.7500"		SM605048	SM610048	SM615048
	49/64″	19.45	.7656"		SM605049	SM610049	SM615049
		19.50	.7677"		SM655195	SM660195	SM665195
	25/32″	19.84	.7812"		SM605050	SM610050	SM615050
		20.00	.7874"		SM655200	SM660200	SM665200
	51/64″	20.24	.7969"		SM605051	SM610051	SM615051
		20.50	.8071"		SM655205	SM660205	SM665205
	13/16″	20.64	.8125"		SM605052	SM610052	SM615052
		21.00	.8268"		SM655210	SM660210	SM665210
	27/32″	21.43	.8438"		SM605054	SM610054	SM615054
	55/64″	21.83	.8594"		SM605055	SM610055	SM615055
		22.00	.8661"		SM655220	SM660220	SM665220
	7/8″	22.23	.8750"		SM605056	SM610056	SM615056
	57/64″	22.62	.8906"		SM605057	SM610057	SM615057
		23.00	.9055"		SM655230	SM660230	SM665230
	29/32″	23.02	.9062"		SM605058	SM610058	SM615058
	59/64″	23.42	.9219"		SM605059	SM610059	SM615059
	15/16″	23.81	.9375"		SM605060	SM610060	SM615060
		24.00	.9449"		SM655240	SM660240	SM665240

◎ : 优(Excellent)　○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
												◎	◎		

SPADE DRILLS

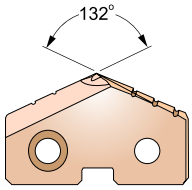
SERIES 2

SM-POINT铸铁用钻刀片-硬质合金(K10)

SM-POINT SPADE DRILL INSERTS FOR CAST IRON - CARBIDE(K10)

- 在超过220布氏的灰铸铁，可断成短碎片的可锻铸铁，硅铝和铜合金上有很高的性能
- 通过新开发的钻顶设计增强稳定性和孔的垂直性
- 较小的推力和卓越的自定心功能
- 各种非标准尺寸均可进行生产.

- High performance on Gray cast iron over 220 Brinell, malleable cast iron with short chips, silicon aluminum and copper alloys.
- Improved stability and hole straightness by newly developed thinning design.
- Less thrust force and excellent self-centering.
- Any non-standard size available.



切削条件 /cutting conditions : p.310

系列 Series	直径 Diameter			厚的 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	CARBIDE (K10) TiN	TiCN	TiAlN
2 24.41 (.961″) to 35.05 (1.380″)	31/32″	24.61	.9688"	4.8 (3/16″)	SM605062	SM610062	SM615062
	63/64″	25.00	.9843"		SM655250	SM660250	SM665250
	1″	25.40	1.0000"		SM605100	SM610100	SM615100
	1-1/64″	25.80	1.0156"		SM605101	SM610101	SM615101
		26.00	1.0236"		SM655260	SM660260	SM665260
	1-1/32″	26.19	1.0312"		SM605102	SM610102	SM615102
	1-3/64″	26.59	1.0469"		SM605103	SM610103	SM615103
	1-1/16″	26.99	1.0625"		SM605104	SM610104	SM615104
		27.00	1.0630"		SM655270	SM660270	SM665270
	1-3/32″	27.78	1.0938"		SM605106	SM610106	SM615106
		28.00	1.1024"		SM655280	SM660280	SM665280
	1-7/64″	28.18	1.1094"		SM605107	SM610107	SM615107
	1-1/8″	28.58	1.1250"		SM605108	SM610108	SM615108
		29.00	1.1417"		SM655290	SM660290	SM665290
	1-5/32″	29.37	1.1562"		SM605110	SM610110	SM615110
		30.00	1.1811"		SM655300	SM660300	SM665300
	1-3/16″	30.16	1.1875"		SM605112	SM610112	SM615112
	1-7/32″	30.96	1.2188"		SM605114	SM610114	SM615114
		31.00	1.2205"		SM655310	SM660310	SM665310
	1-1/4″	31.75	1.2500"		SM605116	SM610116	SM615116
		32.00	1.2598"		SM655320	SM660320	SM665320
	1-9/32″	32.54	1.2812"		SM605118	SM610118	SM615118
		33.00	1.2992"		SM655330	SM660330	SM665330
	1-5/16″	33.34	1.3125"		SM605120	SM610120	SM615120
		34.00	1.3386"		SM655340	SM660340	SM665340
	1-11/32″	34.13	1.3438"		SM605122	SM610122	SM615122
	1-3/8″	34.93	1.3750"		SM605124	SM610124	SM615124
		35.00	1.3780"		SM655350	SM660350	SM665350

◎ : 优(Excellent)　○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
												◎	◎		

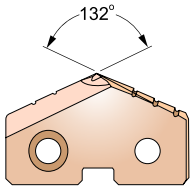
SPADE DRILLS

SERIES Y,Z,0

SM-POINT 铲钻刀片-CARBIDE(K20)
SM-POINT SPADE DRILL INSERTS - CARBIDE(K20)

- 用于220布氏以下的灰铸铁，有色金属，铜，黄铜和铝
- 通过新开发的钻顶设计增强稳定性和孔的垂直性
- 较小的推力和卓越的自定心功能
- 各种非标准尺寸均可进行生产.

- For use in Gray cast iron up to 220 Brinell, nonferrous metals, copper, brass and aluminum.
- Improved stability and hole straightness by newly developed thinning design.
- Less thrust force and excellent self-centering.
- Any non-standard size available.



切削条件 /cutting conditions : p.310

系列 Series	直径 Diameter			厚的 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	CARBIDE (K20) TiN	TiCN	TiAlN
Y 9.50 (.374″) to 11.07 (.436″)		9.50	.3740"	2.4 (3/32″)	SM755095	SM760095	SM765095
	3/8″	9.53	.3750"		SM705024	SM710024	SM715024
		9.80	.3858"		SM755098	SM760098	SM765098
	25/64″	9.92	.3906"		SM705025	SM710025	SM715025
		10.00	.3937"		SM755100	SM760100	SM765100
		10.20	.4016"		SM755102	SM760102	SM765102
	13/32″	10.32	.4062"		SM705026	SM710026	SM715026
		10.50	.4134"		SM755105	SM760105	SM765105
	27/64″	10.72	.4219"		SM705027	SM710027	SM715027
		10.80	.4252"		SM755108	SM760108	SM765108
		11.00	.4331"		SM755110	SM760110	SM765110
Z 11.11(.437″) to 12.95(.510″)	7/16″	11.11	.4375"	2.4 (3/32″)	SM705028	SM710028	SM715028
		11.50	.4528"		SM755115	SM760115	SM765115
	29/64″	11.51	.4531"		SM705029	SM710029	SM715029
	15/32″	11.91	.4688"		SM705030	SM710030	SM715030
		12.00	.4724"		SM755120	SM760120	SM765120
	31/64″	12.30	.4844"		SM705031	SM710031	SM715031
		12.50	.4921"		SM755125	SM760125	SM765125
	1/2″	12.70	.5000"		SM705032	SM710032	SM715032
0 12.98 (.511″) to 17.65 (.695″)		13.00	.5118"	3.2 (1/8″)	SM755130	SM760130	SM765130
	33/64″	13.10	.5156"		SM705033	SM710033	SM715033
	17/32″	13.49	.5312"		SM705034	SM710034	SM715034
		13.50	.5315"		SM755135	SM760135	SM765135
	35/64″	13.89	.5469"		SM705035	SM710035	SM715035
		14.00	.5512"		SM755140	SM760140	SM765140
	9/16″	14.29	.5625"		SM705036	SM710036	SM715036
		14.50	.5709"		SM755145	SM760145	SM765145
	37/64″	14.68	.5781"		SM705037	SM710037	SM715037
		15.00	.5906"		SM755150	SM760150	SM765150
	19/32″	15.08	.5938"		SM705038	SM710038	SM715038
	39/64″	15.48	.6094"		SM705039	SM710039	SM715039
		15.50	.6102"		SM755155	SM760155	SM765155
	5/8″	15.88	.6250"		SM705040	SM710040	SM715040
		16.00	.6299"		SM755160	SM760160	SM765160

◎ : 优(Excellent)　○ : 良(Good)

普通钢易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
○	○	○	○	○	◎	◎	○	○	○	○	◎	○	○	◎	◎

SPADE DRILLS

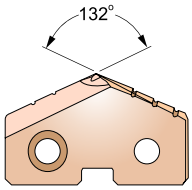
SERIES 0,1

SM-POINT 铲钻刀片-CARBIDE(K20)

SM-POINT SPADE DRILL INSERTS - CARBIDE(K20)

- 用于220布氏以下的灰铸铁，有色金属，铜，黄铜和铝
- 通过新开发的钻顶设计增强稳定性和孔的垂直性
- 较小的推力和卓越的自定心功能
- 各种非标准尺寸均可进行生产.

- For use in Gray cast iron up to 220 Brinell, nonferrous metals, copper, brass and aluminum.
- Improved stability and hole straightness by newly developed thinning design.
- Less thrust force and excellent self-centering.
- Any non-standard size available.



切削条件 /cutting conditions : p.310

系列 Series	直径 Diameter			厚的 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	CARBIDE (K20) TiN	TiCN	TiAlN
0 12.98[.511″] to 17.65[.695″]	41/64″	16.27	.6406"	3.2 [1/8″]	SM705041	SM710041	SM715041
		16.50	.6496"		SM755165	SM760165	SM765165
	21/32″	16.67	.6562"		SM705042	SM710042	SM715042
		17.00	.6693"		SM755170	SM760170	SM765170
	43/64″	17.07	.6719"		SM705043	SM710043	SM715043
	11/16″	17.46	.6875"		SM705044	SM710044	SM715044
		17.50	.6890"		SM755175	SM760175	SM765175
1 17.53 [.690″] to 24.38 [.960″]	45/64″	17.86	.7031"	4.0 [5/32″]	SM705045	SM710045	SM715045
		18.00	.7087"		SM755180	SM760180	SM765180
	23/32″	18.26	.7188"		SM705046	SM710046	SM715046
		18.50	.7283"		SM755185	SM760185	SM765185
	47/64″	18.65	.7344"		SM705047	SM710047	SM715047
		19.00	.7480"		SM755190	SM760190	SM765190
	3/4″	19.05	.7500"		SM705048	SM710048	SM715048
	49/64″	19.45	.7656"		SM705049	SM710049	SM715049
		19.50	.7677"		SM755195	SM760195	SM765195
	25/32″	19.84	.7812"		SM705050	SM710050	SM715050
		20.00	.7874"		SM755200	SM760200	SM765200
	51/64″	20.24	.7969"		SM705051	SM710051	SM715051
		20.50	.8071"		SM755205	SM760205	SM765205
	13/16″	20.64	.8125"		SM705052	SM710052	SM715052
		21.00	.8268"		SM755210	SM760210	SM765210
	27/32″	21.43	.8438"		SM705054	SM710054	SM715054
	55/64″	21.83	.8594"		SM705055	SM710055	SM715055
		22.00	.8661"		SM755220	SM760220	SM765220
	7/8″	22.23	.8750"		SM705056	SM710056	SM715056
	57/64″	22.62	.8906"		SM705057	SM710057	SM715057
		23.00	.9055"		SM755230	SM760230	SM765230
	29/32″	23.02	.9062"		SM705058	SM710058	SM715058
	59/64″	23.42	.9219"		SM705059	SM710059	SM715059
	15/16″	23.81	.9375"		SM705060	SM710060	SM715060
		24.00	.9449"		SM755240	SM760240	SM765240

◎ : 优(Excellent)　○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
○	○	○	○	○	◎	◎	○	○	○	○	◎	○	○	◎	◎

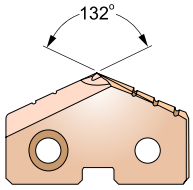
SPADE DRILLS

SERIES 2

SM-POINT 铲钻刀片-CARBIDE(K20)
SM-POINT SPADE DRILL INSERTS - CARBIDE(K20)

- 用于220布氏以下的灰铸铁，有色金属，铜，黄铜和铝
- 通过新开发的钻顶设计增强稳定性和孔的垂直性
- 较小的推力和卓越的自定心功能
- 各种非标准尺寸均可进行生产.

- For use in Gray cast iron up to 220 Brinell, nonferrous metals, copper, brass and aluminum.
- Improved stability and hole straightness by newly developed thinning design.
- Less thrust force and excellent self-centering.
- Any non-standard size available.



切削条件 /cutting conditions : p.310

系列 Series	直径 Diameter			厚的 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	CARBIDE (K20) TiN	TiCN	TiAlN
2 24.41 (.961″) to 35.05 (1.380″)	31/32″	24.61	.9688"	4.8 (3/16″)	SM705062	SM710062	SM715062
	63/64″	25.00	.9843"		SM755250	SM760250	SM765250
	1″	25.40	1.0000"		SM705100	SM710100	SM715100
	1-1/64″	25.80	1.0156"		SM705101	SM710101	SM715101
		26.00	1.0236"		SM755260	SM760260	SM765260
	1-1/32″	26.19	1.0312"		SM705102	SM710102	SM715102
	1-3/64″	26.59	1.0469"		SM705103	SM710103	SM715103
	1-1/16″	26.99	1.0625"		SM705104	SM710104	SM715104
		27.00	1.0630"		SM755270	SM760270	SM765270
	1-3/32″	27.78	1.0938"		SM705106	SM710106	SM715106
		28.00	1.1024"		SM755280	SM760280	SM765280
	1-7/64″	28.18	1.1094"		SM705107	SM710107	SM715107
	1-1/8″	28.58	1.1250"		SM705108	SM710108	SM715108
		29.00	1.1417"		SM755290	SM760290	SM765290
	1-5/32″	29.37	1.1562"		SM705110	SM710110	SM715110
		30.00	1.1811"		SM755300	SM760300	SM765300
	1-3/16″	30.16	1.1875"		SM705112	SM710112	SM715112
	1-7/32″	30.96	1.2188"		SM705114	SM710114	SM715114
		31.00	1.2205"		SM755310	SM760310	SM765310
	1-1/4″	31.75	1.2500"		SM705116	SM710116	SM715116
		32.00	1.2598"		SM755320	SM760320	SM765320
	1-9/32″	32.54	1.2812"		SM705118	SM710118	SM715118
		33.00	1.2992"		SM755330	SM760330	SM765330
	1-5/16″	33.34	1.3125"		SM705120	SM710120	SM715120
		34.00	1.3386"		SM755340	SM760340	SM765340
	1-11/32″	34.13	1.3438"		SM705122	SM710122	SM715122
	1-3/8″	34.93	1.3750"		SM705124	SM710124	SM715124
		35.00	1.3780"		SM755350	SM760350	SM765350

◎ : 优(Excellent)　○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
○	○	○	○	○	◎	◎	○	○	○	○	◎	○	○	◎	◎

SPADE DRILLS

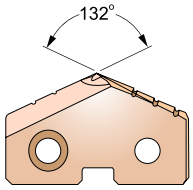
SERIES 3

SM-POINT 铲钻刀片-CARBIDE(K20)

SM-POINT SPADE DRILL INSERTS - CARBIDE(K20)

- 用于220布氏以下的灰铸铁，有色金属，铜，黄铜和铝
- 通过新开发的钻顶设计增强稳定性和孔的垂直性
- 较小的推力和卓越的自定心功能
- 各种非标准尺寸均可进行生产.

- For use in Gray cast iron up to 220 Brinell, nonferrous metals, copper, brass and aluminum.
- Improved stability and hole straightness by newly developed thinning design.
- Less thrust force and excellent self-centering.
- Any non-standard size available.



切削条件 /cutting conditions : p.310

系列 Series	直径 Diameter			厚的 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	CARBIDE (K20) TiN	TiCN	TiAlN
3 34.37 (1.353″) to 47.80 (1.882″)	1-13/32″	35.72	1.4062"	6.4 (1/4″)	SM705126	SM710126	SM715126
		36.00	1.4173"		SM755360	SM760360	SM765360
	1-7/16″	36.51	1.4375"		SM705128	SM710128	SM715128
		37.00	1.4567"		SM755370	SM760370	SM765370
	1-15/32″	37.31	1.4688"		SM705130	SM710130	SM715130
		38.00	1.4961"		SM755380	SM760380	SM765380
	1-1/2″	38.10	1.5000"		SM705132	SM710132	SM715132
	1-17/32″	38.89	1.5312"		SM705134	SM710134	SM715134
		39.00	1.5354"		SM755390	SM760390	SM765390
	1-9/16″	39.69	1.5625"		SM705136	SM710136	SM715136
		40.00	1.5748"		SM755400	SM760400	SM765400
	1-19/32″	40.48	1.5938"		SM705138	SM710138	SM715138
		41.00	1.6142"		SM755410	SM760410	SM765410
	1-5/8″	41.28	1.6250"		SM705140	SM710140	SM715140
		42.00	1.6535"		SM755420	SM760420	SM765420
	1-21/32″	42.07	1.6562"		SM705142	SM710142	SM715142
	1-11/16″	42.86	1.6875"		SM705144	SM710144	SM715144
		43.00	1.6929"		SM755430	SM760430	SM765430
	1-23/32″	43.66	1.7188"		SM705146	SM710146	SM715146
		44.00	1.7323"		SM755440	SM760440	SM765440
	1-3/4″	44.45	1.7500"		SM705148	SM710148	SM715148
		45.00	1.7717"		SM755450	SM760450	SM765450
	1-25/32″	45.24	1.7812"		SM705150	SM710150	SM715150
		46.00	1.8110"		SM755460	SM760460	SM765460
	1-13/16″	46.04	1.8125"		SM705152	SM710152	SM715152
	1-27/32″	46.83	1.8438"		SM705154	SM710154	SM715154
		47.00	1.8504"		SM755470	SM760470	SM765470
	1-7/8″	47.63	1.8750"		SM705156	SM710156	SM715156

◎ : 优(Excellent)　○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
○	○	○	○	○	◎	◎	○	○	○	○	◎	○	○	◎	◎

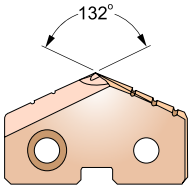
SPADE DRILLS

SERIES Y,Z,0

SM-POINT 铲钻刀片-CARBIDE(P40)
SM-POINT SPADE DRILL INSERTS - CARBIDE(P40)

- 用于碳素钢和合金钢的普通用途
- 通过新开发的钻顶设计增强稳定性和孔的垂直性
- 较小的推力和卓越的自定心功能
- 各种非标准尺寸均可进行生产.

- For general use in carbon steels and alloys steels.
- Improved stability and hole straightness by newly developed thinning design.
- Less thrust force and excellent self-centering.
- Any non-standard size available.



切削条件 /cutting conditions : p.310

系列 Series	直径 Diameter			厚的 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	CARBIDE (P40) TiN	TiCN	TiAlN
Y 9.50 (.374″) to 11.07 (.436″)		9.50	.3740"	2.4 (3/32″)	SM855095	SM860095	SM865095
	3/8″	9.53	.3750"		SM805024	SM810024	SM815024
		9.80	.3858"		SM855098	SM860098	SM865098
	25/64″	9.92	.3906"		SM805025	SM810025	SM815025
		10.00	.3937"		SM855100	SM860100	SM865100
		10.20	.4016"		SM855102	SM860102	SM865102
	13/32″	10.32	.4062"		SM805026	SM810026	SM815026
		10.50	.4134"		SM855105	SM860105	SM865105
	27/64″	10.72	.4219"		SM805027	SM810027	SM815027
		10.80	.4252"		SM855108	SM860108	SM865108
		11.00	.4331"		SM855110	SM860110	SM865110
Z 11.11(.437″) to 12.95(.510″)	7/16″	11.11	.4375"	2.4 (3/32″)	SM805028	SM810028	SM815028
		11.50	.4528"		SM855115	SM860115	SM865115
	29/64″	11.51	.4531"		SM805029	SM810029	SM815029
	15/32″	11.91	.4688"		SM805030	SM810030	SM815030
		12.00	.4724"		SM855120	SM860120	SM865120
	31/64″	12.30	.4844"		SM805031	SM810031	SM815031
		12.50	.4921"		SM855125	SM860125	SM865125
	1/2″	12.70	.5000"		SM805032	SM810032	SM815032
0 12.98 (.511″) to 17.65 (.695″)		13.00	.5118"	3.2 (1/8″)	SM855130	SM860130	SM865130
	33/64″	13.10	.5156"		SM805033	SM810033	SM815033
	17/32″	13.49	.5312"		SM805034	SM810034	SM815034
		13.50	.5315"		SM855135	SM860135	SM865135
	35/64″	13.89	.5469"		SM805035	SM810035	SM815035
		14.00	.5512"		SM855140	SM860140	SM865140
	9/16″	14.29	.5625"		SM805036	SM810036	SM815036
		14.50	.5709"		SM855145	SM860145	SM865145
	37/64″	14.68	.5781"		SM805037	SM810037	SM815037
		15.00	.5906"		SM855150	SM860150	SM865150
	19/32″	15.08	.5938"		SM805038	SM810038	SM815038
	39/64″	15.48	.6094"		SM805039	SM810039	SM815039
		15.50	.6102"		SM855155	SM860155	SM865155
	5/8″	15.88	.6250"		SM805040	SM810040	SM815040
		16.00	.6299"		SM855160	SM860160	SM865160

◎ : 优(Excellent)　○ : 良(Good)

普通钢易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	○	○	○	○	○

SPADE DRILLS

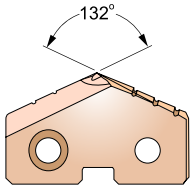
SERIES 0,1

SM-POINT 铲钻刀片-CARBIDE(P40)

SM-POINT SPADE DRILL INSERTS - CARBIDE(P40)

- 用于碳素钢和合金钢的普通用途
- 通过新开发的钻顶设计增强稳定性和孔的垂直性
- 较小的推力和卓越的自定心功能
- 各种非标准尺寸均可进行生产.

- For general use in carbon steels and alloys steels.
- Improved stability and hole straightness by newly developed thinning design.
- Less thrust force and excellent self-centering.
- Any non-standard size available.



切削条件 /cutting conditions : p.310

系列 Series	直径 Diameter			厚的 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	CARBIDE (P40) TiN	TiCN	TiAlN
0 12.98[.511″] to 17.65[.695″]	41/64″	16.27	.6406"	3.2 [1/8″]	SM805041	SM810041	SM815041
		16.50	.6496"		SM855165	SM860165	SM865165
	21/32″	16.67	.6562"		SM805042	SM810042	SM815042
		17.00	.6693"		SM855170	SM860170	SM865170
	43/64″	17.07	.6719"		SM805043	SM810043	SM815043
	11/16″	17.46	.6875"		SM805044	SM810044	SM815044
		17.50	.6890"		SM855175	SM860175	SM815175
1 17.53 [.690″] to 24.38 [.960″]	45/64″	17.86	.7031"	4.0 [5/32″]	SM805045	SM810045	SM815045
		18.00	.7087"		SM855180	SM860180	SM865180
	23/32″	18.26	.7188"		SM805046	SM810046	SM815046
		18.50	.7283"		SM855185	SM860185	SM865185
	47/64″	18.65	.7344"		SM805047	SM810047	SM815047
		19.00	.7480"		SM855190	SM860190	SM865190
	3/4″	19.05	.7500"		SM805048	SM810048	SM815048
	49/64″	19.45	.7656"		SM805049	SM810049	SM815049
		19.50	.7677"		SM855195	SM860195	SM865195
	25/32″	19.84	.7812"		SM805050	SM810050	SM815050
		20.00	.7874"		SM855200	SM860200	SM865200
	51/64″	20.24	.7969"		SM805051	SM810051	SM815051
		20.50	.8071"		SM855205	SM860205	SM865205
	13/16″	20.64	.8125"		SM805052	SM810052	SM815052
		21.00	.8268"		SM855210	SM860210	SM865210
	27/32″	21.43	.8438"		SM805054	SM810054	SM815054
	55/64″	21.83	.8594"		SM805055	SM810055	SM815055
		22.00	.8661"		SM855220	SM860220	SM865220
	7/8″	22.23	.8750"		SM805056	SM810056	SM815056
	57/64″	22.62	.8906"		SM805057	SM810057	SM815057
		23.00	.9055"		SM855230	SM860230	SM865230
	29/32″	23.02	.9062"		SM805058	SM810058	SM815058
	59/64″	23.42	.9219"		SM805059	SM810059	SM815059
	15/16″	23.81	.9375"		SM805060	SM810060	SM815060
		24.00	.9449"		SM855240	SM860240	SM865240

◎ : 优(Excellent)　○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	○	○	○	○	○

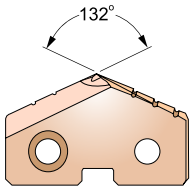
SPADE DRILLS

SERIES 2

SM-POINT 铲钻刀片-CARBIDE(P40)
SM-POINT SPADE DRILL INSERTS - CARBIDE(P40)

- 用于碳素钢和合金钢的普通用途
- 通过新开发的钻顶设计增强稳定性和孔的垂直性
- 较小的推力和卓越的自定心功能
- 各种非标准尺寸均可进行生产.

- For general use in carbon steels and alloys steels.
- Improved stability and hole straightness by newly developed thinning design.
- Less thrust force and excellent self-centering.
- Any non-standard size available.



切削条件 /cutting conditions : p.310

系列 Series	直径 Diameter			厚的 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	CARBIDE (P40) TiN	TiCN	TiAlN
2 24.41 (.961″) to 35.05 (1.380″)	31/32″	24.61	.9688"	4.8 (3/16″)	SM805062	SM810062	SM815062
	63/64″	25.00	.9843"		SM855250	SM860250	SM865250
	1″	25.40	1.0000"		SM805100	SM810100	SM815100
	1-1/64″	25.80	1.0156"		SM805101	SM810101	SM815101
		26.00	1.0236"		SM855260	SM860260	SM865260
	1-1/32″	26.19	1.0312"		SM805102	SM810102	SM815102
	1-3/64″	26.59	1.0469"		SM805103	SM810103	SM815103
	1-1/16″	26.99	1.0625"		SM805104	SM810104	SM815104
		27.00	1.0630"		SM855270	SM860270	SM865270
	1-3/32″	27.78	1.0938"		SM805106	SM810106	SM815106
		28.00	1.1024"		SM855280	SM860280	SM865280
	1-7/64″	28.18	1.1094"		SM805107	SM810107	SM815107
	1-1/8″	28.58	1.1250"		SM805108	SM810108	SM815108
		29.00	1.1417"		SM855290	SM860290	SM865290
	1-5/32″	29.37	1.1562"		SM805110	SM810110	SM815110
		30.00	1.1811"		SM855300	SM860300	SM865300
	1-3/16″	30.16	1.1875"		SM805112	SM810112	SM815112
	1-7/32″	30.96	1.2188"		SM805114	SM810114	SM815114
		31.00	1.2205"		SM855310	SM860310	SM865310
	1-1/4″	31.75	1.2500"		SM805116	SM810116	SM815116
		32.00	1.2598"		SM855320	SM860320	SM865320
	1-9/32″	32.54	1.2812"		SM805118	SM810118	SM815118
		33.00	1.2992"		SM855330	SM860330	SM865330
	1-5/16″	33.34	1.3125"		SM805120	SM810120	SM815120
		34.00	1.3386"		SM855340	SM860340	SM865340
	1-11/32″	34.13	1.3438"		SM805122	SM810122	SM815122
	1-3/8″	34.93	1.3750"		SM805124	SM810124	SM815124
		35.00	1.3780"		SM855350	SM860350	SM865350

◎ : 优(Excellent)　○ : 良(Good)

普通钢 易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	○	○	○	○	○

SPADE DRILLS

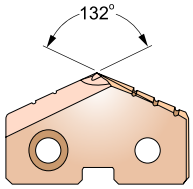
SERIES 3

SM-POINT 铲钻刀片-CARBIDE(P40)

SM-POINT SPADE DRILL INSERTS - CARBIDE(P40)

- 用于碳素钢和合金钢的普通用途
- 通过新开发的钻顶设计增强稳定性和孔的垂直性
- 较小的推力和卓越的自定心功能
- 各种非标准尺寸均可进行生产.

- For general use in carbon steels and alloys steels.
- Improved stability and hole straightness by newly developed thinning design.
- Less thrust force and excellent self-centering.
- Any non-standard size available.



切削条件 /cutting conditions : p.310

系列 Series	直径 Diameter			厚的 Thick	型号 EDP No.		
Min. to Max. (mm/inch)	Inch (inch)	Metric (mm)	Decimal (inch)	Metric (mm/inch)	CARBIDE (P40) TiN	TiCN	TiAlN
3 34.37 (1.353″) to 47.80 (1.882″)	1-13/32″	35.72	1.4062"	6.4 (1/4″)	SM805126	SM810126	SM815126
		36.00	1.4173"		SM855360	SM860360	SM865360
	1-7/16″	36.51	1.4375"		SM805128	SM810128	SM815128
		37.00	1.4567"		SM855370	SM860370	SM865370
	1-15/32″	37.31	1.4688"		SM805130	SM810130	SM815130
		38.00	1.4961"		SM855380	SM860380	SM865380
	1-1/2″	38.10	1.5000"		SM805132	SM810132	SM815132
	1-17/32″	38.89	1.5312"		SM805134	SM810134	SM815134
		39.00	1.5354"		SM855390	SM860390	SM865390
	1-9/16″	39.69	1.5625"		SM805136	SM810136	SM815136
		40.00	1.5748"		SM855400	SM860400	SM865400
	1-19/32″	40.48	1.5938"		SM805138	SM810138	SM815138
		41.00	1.6142"		SM855410	SM860410	SM865410
	1-5/8″	41.28	1.6250"		SM805140	SM810140	SM815140
		42.00	1.6535"		SM855420	SM860420	SM865420
	1-21/32″	42.07	1.6562"		SM805142	SM810142	SM815142
	1-11/16″	42.86	1.6875"		SM805144	SM810144	SM815144
		43.00	1.6929"		SM855430	SM860430	SM865430
	1-23/32″	43.66	1.7188"		SM805146	SM810146	SM815146
		44.00	1.7323"		SM855440	SM860440	SM865440
	1-3/4″	44.45	1.7500"		SM805148	SM810148	SM815148
		45.00	1.7717"		SM855450	SM860450	SM865450
	1-25/32″	45.24	1.7812"		SM805150	SM810150	SM815150
		46.00	1.8110"		SM855460	SM860460	SM865460
	1-13/16″	46.04	1.8125"		SM805152	SM810152	SM815152
	1-27/32″	46.83	1.8438"		SM805154	SM810154	SM815154
		47.00	1.8504"		SM855470	SM860470	SM865470
	1-7/8″	47.63	1.8750"		SM805156	SM810156	SM815156

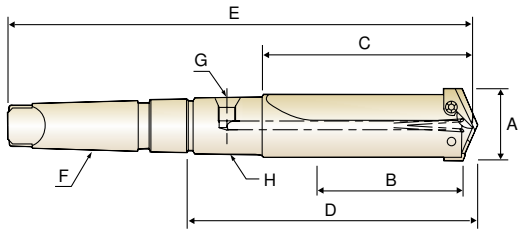
◎ : 优(Excellent)　○ : 良(Good)

普通钢易切削钢	碳钢		合金钢		高合金钢		结构钢		工具钢		不锈钢	铸铁		铝	铜合金
Non-alloyed Steels, Free Machining Steels	Carbon Steels		Alloy Steels		High Alloyed steels		Structural Steels		Tool Steels		Stainless Steels	Cast Iron		Aluminum	Copper Alloys
~HRc24 (~HB250)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc28 (~HB275)	HRc28~ (HB275~)	~HRc37 (~HB350)	HRc37~ (HB350~)	~HRc24 (~HB250)	HRc24~ (HB250~)	~HRc13 (~HB200)	HRc13~ (HB200~)	~HRc28 (~HB275)	~HRc19 (~HB220)	HRc19~ (HB220~)	~HRc8 (~HB180)	~HB110
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	○	○	○	○	○

SPADE DRILLS

KTB SERIES

锥柄刀杆
TAPER SHANK HOLDERS



短刃-直槽 (英制) SHORT LENGTH - Straight Flute (Inch)

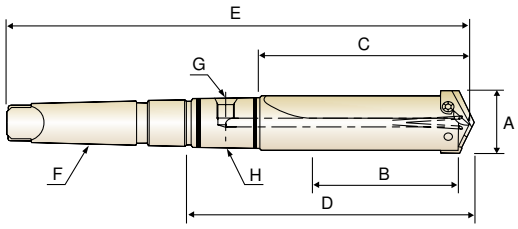
系列	型号	钻头刀片范围	钻的最大深度	主要长度	参考长度	全长	莫氏锥度	管用丝锥	旋转冷却油适配器
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	MT	Pipe Tap	RCA
		A	B	C	D	E	F	G	H
Y	KTB024027620	3/8″ ~ 27/64″	1-1/4″	2-1/32″	3-15/32″	6-5/16″	#2	1/16″	PR110048
Z	KTB028032620	7/16″ ~ 1/2″	1-1/4″	2-1/32″	3-15/32″	6-5/16″	#2	1/16″	PR110048
0	KTB033044630	33/64″ ~ 11/16″	1-3/8″	2-3/16″	3-41/64″	6-15/32″	#2	1/16″	PR110048
0.5	KTB039044630	39/64″ ~ 11/16″	1-3/8″	2-3/16″	3-41/64″	6-15/32″	#2	1/16″	PR110048
1	KTB045060910	45/64″ ~ 15/16″	2-3/4″	3-7/8″	5-39/64″	9-5/32″	#3	1/8″	PR110100
	KTB045060A10	45/64″ ~ 15/16″	2-3/4″	3-7/8″	5-43/64″	10-5/32″	#4	1/8″	PR110100
1.5	KTB055060910	55/64″ ~ 15/16″	2-3/4″	3-7/8″	5-39/64″	9-5/32″	#3	1/8″	PR110100
	KTB055060A10	55/64″ ~ 15/16″	2-3/4″	3-7/8″	5-43/64″	10-5/32″	#4	1/8″	PR110100
2	KTB062124950	31/32″ ~ 1-3/8″	3-3/8″	4-1/2″	6-15/64″	9-25/32″	#3	1/8″	PR110100
	KTB062124A50	31/32″ ~ 1-3/8″	3-3/8″	4-1/2″	6-19/64″	10-25/32″	#4	1/8″	PR110100
2.5	KTB112124950	1-3/16″ ~ 1-3/8″	3-3/8″	4-1/2″	6-15/64″	9-25/32″	#3	1/8″	PR110100
	KTB112124B04	1-3/16″ ~ 1-3/8″	3-3/8″	4-1/2″	6-37/64″	11-1/16″	#4	1/4″	PR110116
3	KTB126156C36	1-13/32″ ~ 1-7/8″	4-3/4″	6″	8-1/8″	12-9/16″	#4	1/4″	PR110116
	KTB126156D52	1-13/32″ ~ 1-7/8″	4-3/4″	6″	8-1/8″	13-13/16″	#5	1/4″	PR110148
4	KTB158236D04	1-29/32″ ~ 2-9/16″	5-1/8″	6-1/2″	8-5/8″	13-1/16″	#4	1/4″	PR110116
	KTB158236E20	1-29/32″ ~ 2-9/16″	5-1/8″	6-1/2″	8-5/8″	14-5/16″	#5	1/4″	PR110148
5	KTB232332G60	2-1/2″ ~ 3-1/2″	6-3/4″	8-1/2″	11-5/16″	16-15/16″	#5	1/2″	PR110216
7	KTB334432H20	3-17/32″ ~ 4-1/2″	6-3/4″	8-7/8″	11-11/16″	17-5/16″	#5	1/2″	PR110216

▶ 你也可通过RCA(旋转冷却油适配器)采用内冷(请看308页)
You can also apply **RCA**(**R**otary **C**oolant **A**dapter) for internal cooling. (See page 308)

SPADE DRILLS

KTG SERIES
KTC SERIES

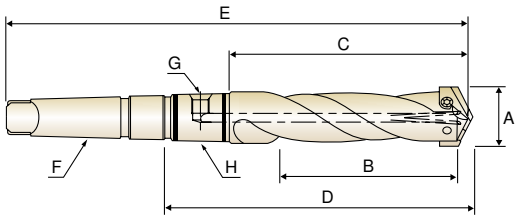
锥柄刀杆
TAPER SHANK HOLDERS



普长刃-直槽(英制) INTERMEDIATE LENGTH - Straight Flute (Inch)

系列	型号	钻头刀片范围	钻的最大深度	主要长度	参考长度	全长	莫氏锥度	管用丝锥	旋转冷却油适配器
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	MT	Pipe Tap	RCA
		A	B	C	D	E	F	G	H
1	KTG045060B10	45/64″~15/16″	4-3/4″	5-7/8″	7-39/64″	11-5/32″	#3	1/8″	PR110100
1.5	KTG055060B10	55/64″~15/16″	4-3/4″	5-7/8″	7-39/64″	11-5/32″	#3	1/8″	PR110100
2	KTG062124C50	31/32″~1-3/8″	5-3/8″	6-1/2″	8-19/64″	12-25/32″	#4	1/8″	PR110100
2.5	KTG112124D04	1-3/16″~1-3/8″	5-3/8″	6-1/2″	8-37/64″	13-1/16″	#4	1/4″	PR110116
3	KTG126156E20	1-13/32″~1-7/8″	6-1/2″	7-3/4″	9-7/8″	14-5/16″	#4	1/4″	PR110116

▶ 你也可通过RCA(旋转冷却油适配器)采用内冷(请看308页)
You can also apply **RCA**(**R**otary **C**oolant **A**dapter) for internal cooling. (See page 308)



普长刃-螺旋槽(英制) INTERMEDIATE LENGTH - Spiral Flute (Inch)

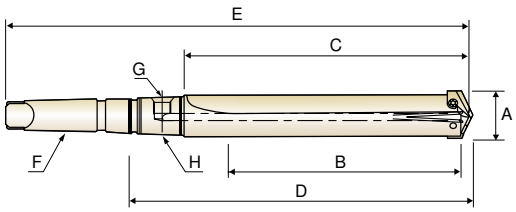
系列	型号	钻头刀片范围	钻的最大深度	主要长度	参考长度	全长	莫氏锥度	管用丝锥	旋转冷却油适配器
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	MT	Pipe Tap	RCA
		A	B	C	D	E	F	G	H
1	KTC045060B10	45/64″~15/16″	4-3/4″	5-7/8″	7-39/64″	11-5/32″	#3	1/8″	PR110100
1.5	KTC055060B10	55/64″~15/16″	4-3/4″	5-7/8″	7-39/64″	11-5/32″	#3	1/8″	PR110100
2	KTC062124C50	31/32″~1-3/8″	5-3/8″	6-1/2″	8-19/64″	12-25/32″	#4	1/8″	PR110100
2.5	KTC112124D04	1-3/16″~1-3/8″	5-3/8″	6-1/2″	8-37/64″	13-1/16″	#4	1/4″	PR110116

▶ 你也可通过RCA(旋转冷却油适配器)采用内冷(请看308页)
You can also apply **RCA**(**R**otary **C**oolant **A**dapter) for internal cooling. (See page 308)

SPADE DRILLS

KTH SERIES

锥柄刀杆
TAPER SHANK HOLDERS



标长刃-直槽(英制) STANDARD LENGTH - Straight Flute (Inch)

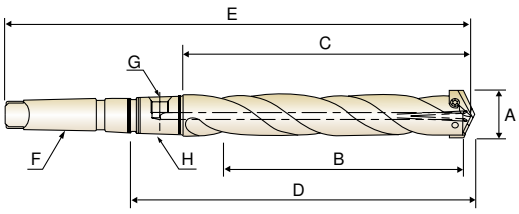
系列	型号	钻头刀片范围	钻的最大深度	主要长度	参考长度	全长	莫氏锥度	管用丝锥	旋转冷却油适配器
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	MT	Pipe Tap	RCA
		A	B	C	D	E	F	G	H
Y	KTH024027728	3/8″~27/64″	2-3/8″	3-5/32″	4-19/32″	7-7/16″	#2	1/16″	PR110048
Z	KTH028032728	7/16″~1/2″	2-3/8″	3-5/32″	4-19/32″	7-7/16″	#2	1/16″	PR110048
0	KTH033044738	33/64″~11/16″	2-1/2″	3-5/16″	4-49/64″	7-19/32″	#2	1/16″	PR110048
0.5	KTH039044738	39/64″~11/16″	2-1/2″	3-5/16″	4-49/64″	7-19/32″	#2	1/16″	PR110048
1	KTH045060D10	45/64″~15/16″	6-3/4″	7-7/8″	9-39/64″	13-5/32″	#3	1/8″	PR110100
	KTH045060E10	45/64″~15/16″	6-3/4″	7-7/8″	9-43/64″	14-5/32″	#4	1/8″	PR110100
1.5	KTH055060D10	55/64″~15/16″	6-3/4″	7-7/8″	9-39/64″	13-5/32″	#3	1/8″	PR110100
	KTH055060E10	55/64″~15/16″	6-3/4″	7-7/8″	9-43/64″	14-5/32″	#4	1/8″	PR110100
2	KTH062124D50	31/32″~1-3/8″	7-3/8″	8-1/2″	10-15/64″	13-25/32″	#3	1/8″	PR110100
	KTH062124E50	31/32″~1-3/8″	7-3/8″	8-1/2″	10-19/64″	14-25/32″	#4	1/8″	PR110100
2.5	KTH112124D50	1-3/16″~1-3/8″	7-3/8″	8-1/2″	10-15/64″	13-25/32″	#3	1/8″	PR110100
	KTH112124F04	1-3/16″~1-3/8″	7-3/8″	8-1/2″	10-37/64″	15-1/16″	#4	1/4″	PR110116
3	KTH126156G04	1-13/32″~1-7/8″	8-1/4″	9-1/2″	11-5/8″	16-1/16″	#4	1/4″	PR110116
	KTH126156H20	1-13/32″~1-7/8″	8-1/4″	9-1/2″	11-5/8″	17-5/16″	#5	1/4″	PR110148
4	KTH158236H04	1-29/32″~2-9/16″	9-1/8″	10-1/2″	12-5/8″	17-1/16″	#4	1/4″	PR110116
	KTH158236I20	1-29/32″~2-9/16″	9-1/8″	10-1/2″	12-5/8″	18-5/16″	#5	1/4″	PR110148
5	KTH232332K60	2-1/2″~3-1/2″	10-3/4″	12-1/2″	15-5/16″	20-15/16″	#5	1/2″	PR110216
7	KTH334432L20	3-17/32″~4-1/2″	10-3/4″	12-7/8″	15-11/16″	21-5/16″	#5	1/2″	PR110216

▶ 你也可通过RCA(旋转冷却油适配器)采用内冷(请看308页)
You can also apply **RCA**(**R**otary **C**oolant **A**dapter) for internal cooling. (See page 308)

SPADE DRILLS

KTD SERIES

锥柄刀杆
TAPER SHANK HOLDERS



标长刃-螺旋槽(英制) STANDARD LENGTH - Spiral Flute (Inch)

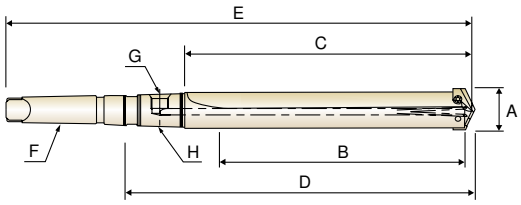
系列	型号	钻头刀片范围	钻的最大深度	主要长度	参考长度	全长	莫氏锥度	管用丝锥	旋转冷却油适配器
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	MT	Pipe Tap	RCA
		A	B	C	D	E	F	G	H
Y	KTD024027728	3/8″~27/64″	2-3/8″	3-5/32″	4-19/32″	7-7/16″	#2	1/16″	PR110048
Z	KTD028032728	7/16″~1/2″	2-3/8″	3-5/32″	4-19/32″	7-7/16″	#2	1/16″	PR110048
0	KTD033044738	33/64″~11/16″	2-1/2″	3-5/16″	4-49/64″	7-19/32″	#2	1/16″	PR110048
0.5	KTD039044738	39/64″~11/16″	2-1/2″	3-5/16″	4-49/64″	7-19/32″	#2	1/16″	PR110048
1	KTD045060D10	45/64″~15/16″	6-3/4″	7-7/8″	9-39/64″	13-5/32″	#3	1/8″	PR110100
	KTD045060E10	45/64″~15/16″	6-3/4″	7-7/8″	9-43/64″	14-5/32″	#4	1/8″	PR110100
1.5	KTD055060D10	55/64″~15/16″	6-3/4″	7-7/8″	9-39/64″	13-5/32″	#3	1/8″	PR110100
	KTD055060E10	55/64″~15/16″	6-3/4″	7-7/8″	9-43/64″	14-5/32″	#4	1/8″	PR110100
2	KTD062124D50	31/32″~1-3/8″	7-3/8″	8-1/2″	10-15/64″	13-25/32″	#3	1/8″	PR110100
	KTD062124E50	31/32″~1-3/8″	7-3/8″	8-1/2″	10-19/64″	14-25/32″	#4	1/8″	PR110100
2.5	KTD112124D50	1-3/16″~1-3/8″	7-3/8″	8-1/2″	10-15/64″	13-25/32″	#3	1/8″	PR110100
	KTD112124F04	1-3/16″~1-3/8″	7-3/8″	8-1/2″	10-37/64″	15-1/16″	#4	1/4″	PR110116

▶ 你也可通过RCA(旋转冷却油适配器)采用内冷(请看308页)
You can also apply **RCA**(**R**otary **C**oolant **A**dapter) for internal cooling. (See page 308)

SPADE DRILLS

KTF SERIES
KTE SERIES

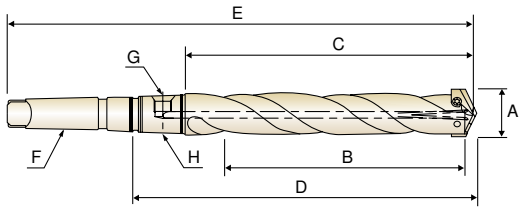
锥柄刀杆
TAPER SHANK HOLDERS



加长刃-直槽(英制) EXTENDED LENGTH - Straight Flute (Inch)

系列	型号	钻头刀片范围	钻的最大深度	主要长度	参考长度	全长	莫氏锥度	管用丝锥	旋转冷却油适配器
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	MT	Pipe Tap	RCA
		A	B	C	D	E	F	G	H
Y	KTF024027928	3/8″~27/64″	4-3/8″	5-5/32″	6-19/32″	9-7/16″	#2	1/16″	PR110048
Z	KTF028032928	7/16″~1/2″	4-3/8″	5-5/32″	6-19/32″	9-7/16″	#2	1/16″	PR110048
0	KTF033044938	33/64″~11/16″	4-1/2″	5-5/16″	6-49/64″	9-19/32″	#2	1/16″	PR110048
0.5	KTF039044938	39/64″~11/16″	4-1/2″	5-5/16″	6-49/64″	9-19/32″	#2	1/16″	PR110048
1	KTF045060H10	45/64″~15/16″	10-3/4″	11-7/8″	13-39/64″	17-5/32″	#3	1/8″	PR110100
1.5	KTF055060H10	55/64″~15/16″	10-3/4″	11-7/8″	13-39/64″	17-5/32″	#3	1/8″	PR110100
2	KTF062124I50	31/32″~1-3/8″	11-3/8″	12-1/2″	14-15/64″	18-25/32″	#4	1/8″	PR110100
2.5	KTF112124J04	1-3/16″~1-3/8″	11-3/8″	12-1/2″	14-37/64″	19-1/16″	#4	1/4″	PR110116
3	KTF126156L36	1-13/32″~1-7/8″	13-3/4″	15″	17-1/8″	21-9/16″	#4	1/4″	PR110116
4	KTF158236P52	1-29/32″~2-9/16″	16-5/8″	18″	20-1/8″	25-13/16″	#5	1/4″	PR110148
5	KTF232332S28	2-1/2″~3-1/2″	18-1/4″	20″	22-13/16″	28-7/16″	#5	1/2″	PR110216
7	KTF334432W28	3-17/32″~4-1/2″	21-7/8″	24″	26-13/16″	32-7/16″	#5	1/2″	PR110216

▶ 你也可通过RCA(旋转冷却油适配器)采用内冷(请看308页)
You can also apply **RCA**(**R**otary **C**oolant **A**dapter) for internal cooling. (See page 308)



加长刃-螺旋槽(英制) EXTENDED LENGTH - Spiral Flute (Inch)

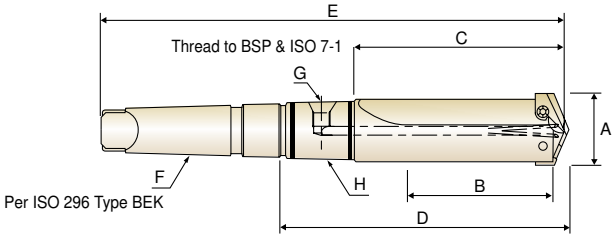
系列	型号	钻头刀片范围	钻的最大深度	主要长度	参考长度	全长	莫氏锥度	管用丝锥	旋转冷却油适配器
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	MT	Pipe Tap	RCA
		A	B	C	D	E	F	G	H
Y	KTE024027928	3/8″~27/64″	4-3/8″	5-5/32″	6-19/32″	9-7/16″	#2	1/16″	PR110048
Z	KTE028032928	7/16″~1/2″	4-3/8″	5-5/32″	6-19/32″	9-7/16″	#2	1/16″	PR110048
0	KTE033044938	33/64″~11/16″	4-1/2″	5-5/16″	6-49/64″	9-19/32″	#2	1/16″	PR110048
0.5	KTE039044938	39/64″~11/16″	4-1/2″	5-5/16″	6-49/64″	9-19/32″	#2	1/16″	PR110048
1	KTE045060H10	45/64″~15/16″	10-3/4″	11-7/8″	13-39/64″	17-5/32″	#3	1/8″	PR110100
1.5	KTE055060H10	55/64″~15/16″	10-3/4″	11-7/8″	13-39/64″	17-5/32″	#3	1/8″	PR110100
2	KTE062124I50	31/32″~1-3/8″	11-3/8″	12-1/2″	14-15/64″	18-25/32″	#4	1/8″	PR110100
2.5	KTE112124J04	1-3/16″~1-3/8″	11-3/8″	12-1/2″	14-37/64″	19-1/16″	#4	1/4″	PR110116

▶ 你也可通过RCA(旋转冷却油适配器)采用内冷(请看308页)
You can also apply **RCA**(**R**otary **C**oolant **A**dapter) for internal cooling. (See page 308)

SPADE DRILLS

KTA SERIES
KTB SERIES

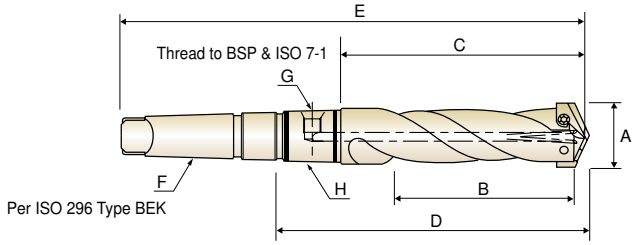
锥柄刀杆
TAPER SHANK HOLDERS



短刃-直槽(公制) SHORT LENGTH - Straight Flute (Meric)

系列	型号	钻头刀片范围	钻的最大深度	主要长度	参考长度	全长	莫氏锥度	管用丝锥	旋转冷却油适配器
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	MT	Pipe Tap	RCA
		A	B	C	D	E	F	G	H
Y	KTA095110160	9.5 ~ 11.0	31.7	51.5	88.0	160.3	#2	1/16″	PR120190
Z	KTA115125160	11.5 ~ 12.5	31.7	51.5	88.0	160.3	#2	1/16″	PR120190
0	KTA130175164	13.0 ~ 17.5	34.9	55.5	92.4	164.3	#2	1/16″	PR120190
0.5	KTA155175164	15.5 ~ 17.5	34.9	55.5	92.4	164.3	#2	1/16″	PR120190
1	KTA180240232	18.0 ~ 24.0	69.8	98.4	142.5	232.5	#3	1/8″	PR120254
1.5	KTA220240232	22.0 ~ 24.0	69.8	98.4	142.5	232.5	#3	1/8″	PR120254
2	KTA250350273	25.0 ~ 35.0	85.7	114.3	160.4	273.8	#4	1/8″	PR120254
2.5	KTA300350281	30.0 ~ 35.0	85.7	114.3	167.6	281.0	#4	1/4″	PR120317
3	KTA360470319	36.0 ~ 47.0	120.6	152.4	206.4	319.1	#4	1/4″	PR120317
4	KTA480650363	48.0 ~ 65.0	130.1	165.1	219.1	363.5	#5	1/4″	PR120444
5	KTA640880430	64.0 ~ 88.0	171.1	215.9	287.3	430.2	#5	1/2″	PR120571
7	KTA900MAX439	90.0 ~ 114.0	171.1	225.4	296.8	439.7	#5	1/2″	PR120571

▶ 你也可通过RCA(旋转冷却油适配器)采用内冷(请看308页)
You can also apply **RCA**(**R**otary **C**oolant **A**dapter) for internal cooling. (See page 308)



普长刃-螺旋槽(公制) INTERMEDIATE LENGTH - Spiral Flute (Metric)

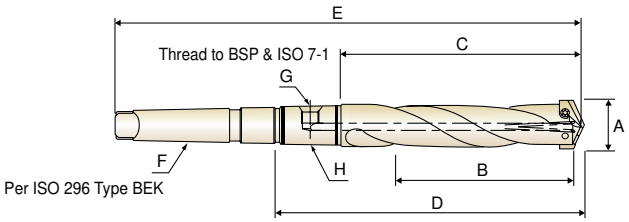
系列	型号	钻头刀片范围	钻的最大深度	主要长度	参考长度	全长	莫氏锥度	管用丝锥	旋转冷却油适配器
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	MT	Pipe Tap	RCA
		A	B	C	D	E	F	G	H
1	KTB180240283	18.0 ~ 24.0	120.7	149.2	193.3	283.3	#3	1/8″	PR120254
1.5	KTB220240283	22.0 ~ 24.0	120.7	149.2	193.3	283.3	#3	1/8″	PR120254
2	KTB250350324	25.0 ~ 35.0	136.5	165.1	211.2	324.6	#4	1/8″	PR120254
2.5	KTB300350331	30.0 ~ 35.0	136.5	165.1	218.4	331.8	#4	1/4″	PR120317
3	KTB360470363	36.0 ~ 47.0	165.1	196.9	250.9	363.6	#4	1/4″	PR120317

▶ 你也可通过RCA(旋转冷却油适配器)采用内冷(请看308页)
You can also apply **RCA**(**R**otary **C**oolant **A**dapter) for internal cooling. (See page 308)

SPADE DRILLS

KTC SERIES

锥柄刀杆
TAPER SHANK HOLDERS



标长刃-螺旋槽(公制) STANDARD LENGTH - Spiral Flute (Metric)

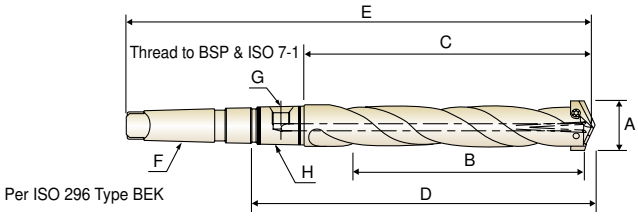
系列	型号	钻头刀片范围	钻的最大深度	主要长度	参考长度	全长	莫氏锥度	管用丝锥	旋转冷却油适配器
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	MT	Pipe Tap	RCA
		A	B	C	D	E	F	G	H
Y	KTC095110188	9.5 ~ 11.0	60.3	80.2	116.7	188.9	#2	1/16″	PR120190
Z	KTC115125188	11.5 ~ 12.5	60.3	80.2	116.7	188.9	#2	1/16″	PR120190
0	KTC130175192	13.0 ~ 17.5	63.5	84.1	121.0	192.9	#2	1/16″	PR120190
0.5	KTC155175192	15.5 ~ 17.5	63.5	84.1	121.0	192.9	#2	1/16″	PR120190
1	KTC180240334	18.0 ~ 24.0	171.5	200.0	244.1	334.2	#3	1/8″	PR120254
1.5	KTC220240334	22.0 ~ 24.0	171.5	200.0	244.1	334.2	#3	1/8″	PR120254
2	KTC250350375	25.0 ~ 35.0	187.3	215.9	262.0	375.4	#4	1/8″	PR120254
2.5	KTC300350382	30.0 ~ 35.0	187.3	215.9	269.2	382.6	#4	1/4″	PR120317
3	KTC360470408	36.0 ~ 47.0	209.5	241.3	295.3	408.0	#4	1/4″	PR120317
4	KTC480650465	48.0 ~ 65.0	231.8	266.7	320.7	465.1	#5	1/4″	PR120444
5	KTC640880531	64.0 ~ 88.0	273.1	317.5	388.9	531.8	#5	1/2″	PR120571
7	KTC900MAX541	90.0 ~ 114.0	273.1	327.0	398.5	541.3	#5	1/2″	PR120571

▶ 你也可通过RCA(旋转冷却油适配器)采用内冷(请看308页)
You can also apply **RCA**(**R**otary **C**oolant **A**dapter) for internal cooling. (See page 308)

SPADE DRILLS

KTD SERIES
KTE SERIES

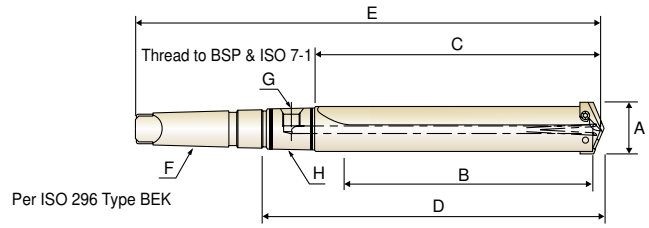
锥柄刀杆
TAPER SHANK HOLDERS



加长刃-螺旋槽(公制) EXTENDED LENGTH - Spiral Flute (Metric)

系列	型号	钻头刀片范围	钻的最大深度	主要长度	参考长度	全长	莫氏锥度	管用丝锥	旋转冷却油适配器
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	MT	Pipe Tap	RCA
		A	B	C	D	E	F	G	H
Y	KTD095110239	9.5 ~ 11.0	111.1	130.9	167.4	239.7	#2	1/16″	PR120190
Z	KTD115125239	11.5 ~ 12.5	111.1	130.9	167.4	239.7	#2	1/16″	PR120190
0	KTD130175243	13.0 ~ 17.5	114.3	135.0	171.8	243.7	#2	1/16″	PR120190
0.5	KTD155175243	15.5 ~ 17.5	114.3	135.0	171.8	243.7	#2	1/16″	PR120190
1	KTD180240435	18.0 ~ 24.0	273.1	301.6	345.7	435.8	#3	1/8″	PR120254
1.5	KTD220240435	22.0 ~ 24.0	273.1	301.6	345.7	435.8	#3	1/8″	PR120254
2	KTD250350477	25.0 ~ 35.0	289.0	317.5	363.6	477.0	#4	1/8″	PR120254
2.5	KTD300350484	30.0 ~ 35.0	289.0	317.5	370.8	484.2	#4	1/4″	PR120317

▶ 你也可通过RCA(旋转冷却油适配器)采用内冷(请看308页)
You can also apply **RCA**(**R**otary **C**oolant **A**dapter) for internal cooling. (See page 308)

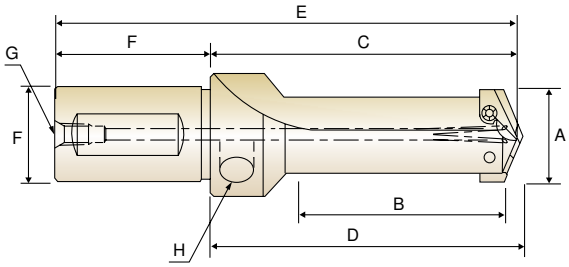


加长刃-直槽(公制) EXTENDED LENGTH - Straight Flute (Metric)

系列	型号	钻头刀片范围	钻的最大深度	主要长度	参考长度	全长	莫氏锥度	管用丝锥	旋转冷却油适配器
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	MT	Pipe Tap	RCA
		A	B	C	D	E	F	G	H
3	KTE360470547	36.0 ~ 47.0	349.3	381.0	435.0	547.7	#4	1/4″	PR120317
4	KTE480650655	48.0 ~ 65.0	422.3	457.2	511.2	655.6	#5	1/4″	PR120444
5	KTE640880722	64.0 ~ 88.0	463.6	508.0	579.4	722.3	#5	1/2″	PR120571
7	KTE900MAX823	90.0 ~ 114.0	555.6	609.6	681.1	823.9	#5	1/2″	PR120571

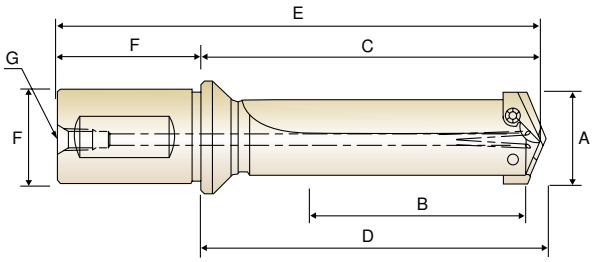
▶ 你也可通过RCA(旋转冷却油适配器)采用内冷(请看308页)
You can also apply **RCA**(**R**otary **C**oolant **A**dapter) for internal cooling. (See page 308)

凸缘直柄刀杆
FLANGED STRAIGHT SHANK HOLDERS



超短刃-直槽(英制) STUB LENGTH - Straight Flute (Inch)

系列	型号	钻头插入范围	钻的最大深度	主要长度	参考长度	全长	柄 直径	柄 长度	管用丝锥 后面	管用丝锥 侧面
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	Shank Dia.	Shank Length	Pipe Tap Rear	Pipe Tap Side
		A	B	C	D	E	F		G	H
Y	KSA024027348	3/8″~27/64″	3/4″	1-7/8″	1-31/32″	3-3/4″	5/8″	1-7/8″	1/16″	1/8″
Z	KSA028032343	7/16″~1/2″	3/4″	1-51/64″	1-57/64″	3-43/64″	5/8″	1-7/8″	1/16″	1/8″
0	KSA033044358	33/64″~11/16″	7/8″	1/7/8″	1-63/64″	3-29/32″	3/4″	2-1/32″	1/8″	1/8″
0.5	KSA039044358	39/64″~11/16″	7/8″	1-7/8″	1-63/64″	3-29/32″	3/4″	2-1/32″	1/8″	1/8″
1	KSA045060517	45/64″~15/16″	1-7/8″	2-63/64″	3-1/8″	5-17/64″	1″	2-9/32″	1/8″	1/8″
1.5	KSA055060549	55/64″~15/16″	2-1/4″	3-31/64″	3-5/8″	5-49/64″	1″	2-9/32″	1/8″	1/8″
2	KSA062124549	31/32″~1-3/8″	2-1/4″	3-31/64″	3-5/8″	5-49/64″	1-1/4″	2-9/32″	1/4″	1/8″
2.5	KSA112124709	1-3/16″~1-3/8″	3-5/8″	4-55/64″	5″	7-9/64″	1-1/4″	2-9/32″	1/4″	1/8″
3	KSA126156739	1-13/32″~1-7/8″	3″	4-59/64″	5-7/64″	7-39/64″	1-1/2″	2-11/16″	1/4″	1/4″



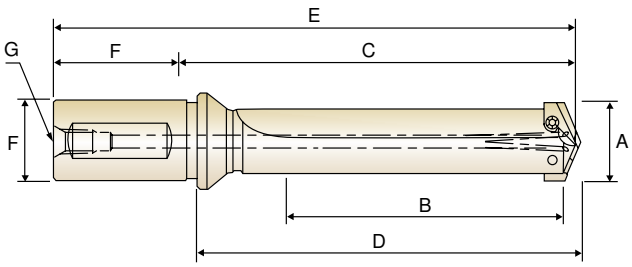
短刃- 直槽(英制) SHORT LENGTH - Straight Flute (Inch)

系列	型号	钻头插入范围	钻的最大深度	主要长度	参考长度	全长	柄 直径	柄 长度	管用丝锥
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	Shank Dia.	Shank Length	Pipe Tap
		A	B	C	D	E	F		G
Y	KSB024027428	3/8″~27/64″	1-1/4″	2-13/32″	2-1/2″	4-7/16″	3/4″	2-1/32″	1/8″
Z	KSB028032428	7/16″~1/2″	1-1/4″	2-13/32″	2-1/2″	4-7/16″	3/4″	2-1/32″	1/8″
0	KSB033044434	33/64″~11/16″	1-3/8″	2-1/2″	2-39/64″	4-17/32″	3/4″	2-1/32″	1/8″
0.5	KSB039044434	39/64″~11/16″	1-3/8″	2-1/2″	2-39/64″	4-17/32″	3/4″	2-1/32″	1/8″
1	KSB045060632	45/64″~15/16″	2-5/8″	4-7/32″	4-23/64″	6-1/2″	1″	2-9/32″	1/8″
1.5	KSB055060632	55/64″~15/16	2-5/8″	4-7/32″	4-23/64″	6-1/2″	1″	2-9/32″	1/8″
2	KSB062124722	31/32″~1-3/8″	3-3/8″	5-1/16″	5-13/64″	7-11/32″	1-1/4″	2-9/32″	1/4″
2.5	KSB112124722	1-3/16″~1-3/8″	3-3/8″	5-1/16″	5-13/64″	7-11/32″	1-1/4″	2-9/32″	1/4″
3	KSB126156932	1-13/32″~1-7/8″	4-3/4″	6-13/16″	7″	9-1/2″	1-1/2″	2-11/16″	1/4″
4	KSB158236948	1-29/32″~2-9/16″	5-1/8″	7-1/16″	7-1/4″	9-3/4″	1-1/2″	2-11/16″	1/4″

SPADE DRILLS

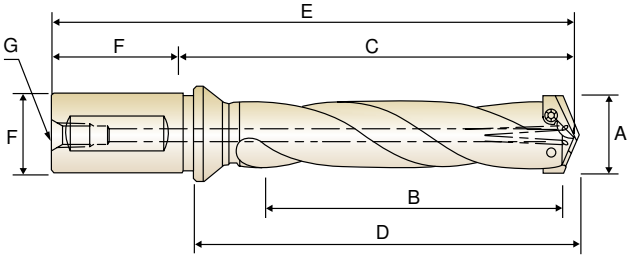
KSG SERIES
KSC SERIES

凸缘直柄刀杆
FLANGED STRAIGHT SHANK HOLDERS



普长刃-直槽(英制) INTERMEDIATE LENGTH - Straight Flute (Inch)

系列	型号	钻头插入范围	钻的最大深度	主要长度	参考长度	全长	柄 直径	柄 长度	管用丝锥
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	Shank Dia.	Shank Length	Pipe Tap
		A	B	C	D	E	F		G
1	KSG045060824	45/64″~15/16″	4-5/8″	6-3/32″	6-15/64″	8-3/8″	1″	2-9/32″	1/8″
1.5	KSG055060824	55/64″~15/16″	4-5/8″	6-3/32″	6-15/64″	8-3/8″	1″	2-9/32″	1/8″
2	KSG062124922	31/32″~1-3/8″	5-3/8″	7-1/16″	7-13/64″	9-11/32″	1-1/4″	2-9/32″	1/4″
2.5	KSG112124922	1-3/16″~1-3/8″	5-3/8″	7-1/16″	7-13/64″	9-11/32″	1-1/4″	2-9/32″	1/4″
3	KSG126156B16	1-13/32″~1-7/8″	6-1/2″	8-9/16″	8-3/4″	11-1/4″	1-1/2″	2-11/32″	1/4″



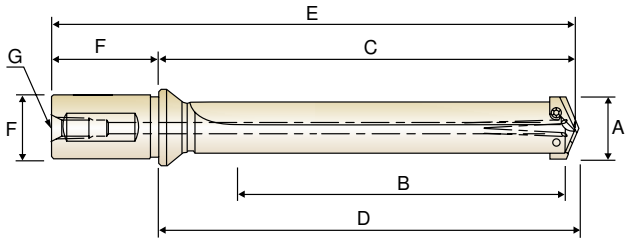
普长刃-螺旋槽(英制) INTERMEDIATE LENGTH - Spiral Flute (Inch)

系列	型号	钻头插入范围	钻的最大深度	主要长度	参考长度	全长	柄 直径	柄 长度	管用丝锥
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	Shank Dia.	Shank Length	Pipe Tap
		A	B	C	D	E	F		G
1	KSC045060824	45/64″~15/16″	4-5/8″	6-3/32″	6-15/64″	8-3/8″	1″	2-9/32″	1/8″
1.5	KSC055060824	55/64″~15/16″	4-5/8″	6-3/32″	6-15/64″	8-3/8″	1″	2-9/32″	1/8″
2	KSC062124922	31/32″~1-3/8″	5-3/8″	7-1/16″	7-13/64″	9-11/32″	1-1/4″	2-9/32″	1/4″
2.5	KSC112124922	1-3/16″~1-3/8″	5-3/8″	7-1/16″	7-13/64″	9-11/32″	1-1/4″	2-9/32″	1/4″
3	KSC126156B16	1-13/32″~1-7/8″	6-1/2″	8-9/16″	8-3/4″	11-1/4″	1-1/2″	2-11/32″	1/4″

SPADE DRILLS

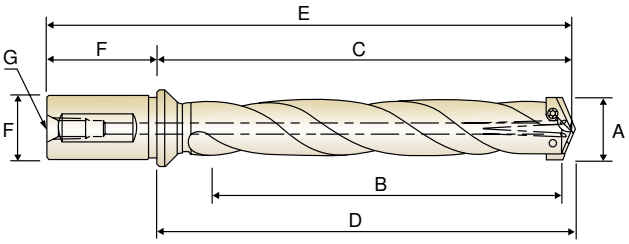
KSH SERIES
KSD SERIES

凸缘直柄刀杆
FLANGED STRAIGHT SHANK HOLDERS



标长刃-直槽(英制) STANDARD LENGTH - Straight Flute (Inch)

系列	型号	钻头插入范围	钻的最大深度	主要长度	参考长度	全长	柄 直径 / 长度		管用丝锥
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	Shank Dia.	Shank Length	Pipe Tap
		A	B	C	D	E	F		G
Y	KSH024027536	3/8″~27/64″	2-3/8″	3-17/32″	3-5/8″	5-9/16″	3/4″	2-1/32″	1/8″
Z	KSH028032536	7/16″~1/2″	2-3/8″	3-17/32″	3-5/8″	5-9/16″	3/4″	2-1/32″	1/8″
0	KSH033044542	33/64″~11/16″	2-1/2″	3-5/8″	3-47/64″	5-21/32″	3/4″	2-1/32″	1/8″
0.5	KSH039044542	39/64″~11/16″	2-1/2″	3-5/8″	3-47/64″	5-21/32″	3/4″	2-1/32″	1/8″
1	KSH045060A24	45/64″~15/16″	6-5/8″	8-3/32″	8-15/64″	10-3/8″	1″	2-9/32″	1/8″
1.5	KSH055060A24	55/64″~15/16″	6-5/8″	8-3/32″	8-15/64″	10-3/8″	1″	2-9/32″	1/8″
2	KSH062124B22	31/32″~1-3/8″	7-3/8″	9-1/16″	9-13/64″	11-11/32″	1-1/4″	2-9/32″	1/4″
2.5	KSH112124B22	1-3/16″~1-3/8″	7-3/8″	9-1/16″	9-13/64″	11-11/32″	1-1/4″	2-9/32″	1/4″
3	KSH126156D00	1-13/32″~1-7/8″	8-1/4″	10-5/16″	10-1/2″	13″	1-1/2″	2-11/16″	1/4″
4	KSH158236D48	1-29/32″~2-9/16″	9-1/8″	11-1/16″	11-1/4″	13-3/4″	1-1/2″	2-11/16″	1/4″



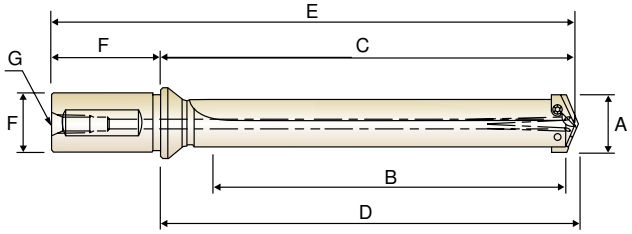
标长刃-螺旋槽(英制) STANDARD LENGTH - Spiral Flute (Inch)

系列	型号	钻头插入范围	钻的最大深度	主要长度	参考长度	全长	柄 直径 / 长度		管用丝锥
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	Shank Dia.	Shank Length	Pipe Tap
		A	B	C	D	E	F		G
Y	KSD024027536	3/8″~27/64″	2-3/8″	3-17/32″	3-5/8″	5-9/16″	3/4″	2-1/32″	1/8″
Z	KSD028032536	7/16″~1/2″	2-3/8″	3-17/32″	3-5/8″	5-9/16″	3/4″	2-1/32″	1/8″
0	KSD033044542	33/64″~11/16″	2-1/2″	3-5/8″	3-47/64″	5-21/32″	3/4″	2-1/32″	1/8″
0.5	KSD039044542	39/64″~11/16″	2-1/2″	3-5/8″	3-47/64″	5-21/32″	3/4″	2-1/32″	1/8″
1	KSD045060A24	45/64″~15/16″	6-5/8″	8-3/32″	8-15/64″	10-3/8″	1″	2-9/32″	1/8″
1.5	KSD055060A24	55/64″~15/16″	6-5/8″	8-3/32″	8-15/64″	10-3/8″	1″	2-9/32″	1/8″
2	KSD062124B22	31/32″~1-3/8″	7-3/8″	9-1/16″	9-13/64″	11-11/32″	1-1/4″	2-9/32″	1/4″
2.5	KSD112124B22	1-3/16″~1-3/8″	7-3/8″	9-1/16″	9-13/64″	11-11/32″	1-1/4″	2-9/32″	1/4″
3	KSD126156D00	1-13/32″~1-7/8″	8-1/4″	10-5/16″	10-1/2″	13″	1-1/2″	2-11/16″	1/4″
4	KSD158236D48	1-29/32″~2-9/16″	9-1/8″	11-1/16″	11-1/4″	13-3/4″	1-1/2″	2-11/16″	1/4″

SPADE DRILLS

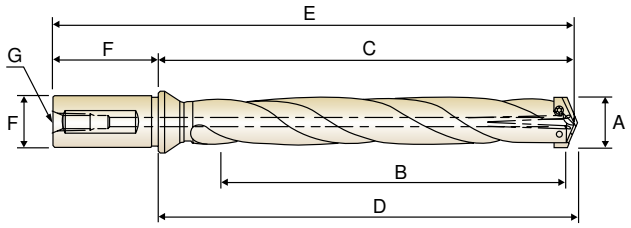
KSF SERIES
KSE SERIES

凸缘直柄刀杆
FLANGED STRAIGHT SHANK HOLDERS



加长刃-直槽(英制) EXTENDED LENGTH - Straight Flute (Inch)

系列	型号	钻头插入范围	钻的最大深度	主要长度	参考长度	全长	柄 直径	柄 长度	管用丝锥
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	Shank Dia.	Shank Length	Pipe Tap
		A	B	C	D	E	F		G
Y	KSF024027736	3/8″~27/64″	4-3/8″	5-17/32″	5-5/8″	7-9/16″	3/4″	2-1/32″	1/8″
Z	KSF028032736	7/16″~1/2″	4-3/8″	5-17/32″	5-5/8″	7-9/16″	3/4″	2-1/32″	1/8″
0	KSF033044742	33/64″~11/16″	4-1/2″	5-5/8″	5-47/64″	7-21/32″	3/4″	2-1/32″	1/8″
0.5	KSF039044742	39/64″~11/16″	4-1/2″	5-5/8″	5-47/64″	7-21/32″	3/4″	2-1/32″	1/8″
1	KSF045060E24	45/64″~15/16″	10-5/8″	12-3/32″	12-15/64″	14-3/8″	1″	2-9/32″	1/8″
1.5	KSF055060E24	55/64″~15/16″	10-5/8″	12-3/32″	12-15/64″	14-3/8″	1″	2-9/32″	1/8″
2	KSF062124F22	31/32″~1-3/8″	11-3/8″	13-1/16″	13-13/64″	15-11/32″	1-1/4″	2-9/32″	1/4″
2.5	KSF112124F22	1-3/16″~1-3/8″	11-3/8″	13-1/16″	13-13/64″	15-11/32″	1-1/4″	2-9/32″	1/4″



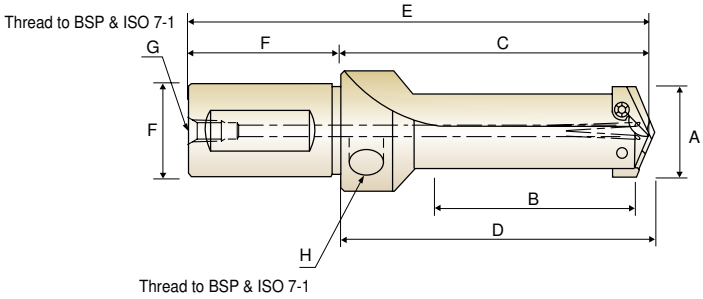
加长刃-螺旋槽(英制) EXTENDED LENGTH - Spiral Flute (Inch)

系列	型号	钻头插入范围	钻的最大深度	主要长度	参考长度	全长	柄 直径	柄 长度	管用丝锥
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	Shank Dia.	Shank Length	Pipe Tap
		A	B	C	D	E	F		G
Y	KSE024027736	3/8″~27/64″	4-3/8″	5-17/32″	5-5/8″	7-9/16″	3/4″	2-1/32″	1/8″
Z	KSE028032736	7/16″~1/2″	4-3/8″	5-17/32″	5-5/8″	7-9/16″	3/4″	2-1/32″	1/8″
0	KSE033044742	33/64″~11/16″	4-1/2″	5-5/8″	5-47/64″	7-21/32″	3/4″	2-1/32″	1/8″
0.5	KSE039044742	39/64″~11/16″	4-1/2″	5-5/8″	5-47/64″	7-21/32″	3/4″	2-1/32″	1/8″
1	KSE045060E24	45/64″~15/16″	10-5/8″	12-3/32″	12-15/64″	14-3/8″	1″	2-9/32″	1/8″
1.5	KSE055060E24	55/64″~15/16″	10-5/8″	12-3/32″	12-15/64″	14-3/8″	1″	2-9/32″	1/8″
2	KSE062124F22	31/32″~1-3/8″	11-3/8″	13-1/16″	13-13/64″	15-11/32″	1-1/4″	2-9/32″	1/4″
2.5	KSE112124F22	1-3/16″~1-3/8″	11-3/8″	13-1/16″	13-13/64″	15-11/32″	1-1/4″	2-9/32″	1/4″

SPADE DRILLS

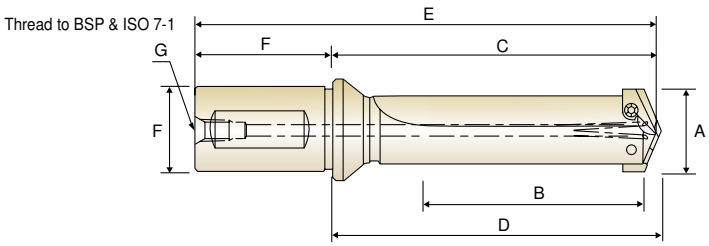
KSA SERIES
KSB SERIES

凸缘直柄刀杆
FLANGED STRAIGHT SHANK HOLDERS



超短刃-直槽(公制) STUB LENGTH - Straight Flute (Metric)

系列	型号	钻头插入范围	钻的最大深度	主要长度	参考长度	全长	柄 直径	柄 长度	管用丝锥 后面	管用丝锥 侧面
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	Shank Dia.	Shank Length	Pipe Tap Rear	Pipe Tap Side
		A	B	C	D	E	F		G	H
Y	KSA095110090	9.5 ~ 11.0	19.1	47.6	50.0	89.5	16.0	41.9	1/16″	1/8″
Z	KSA115125090	11.5 ~ 12.5	19.1	47.6	50.0	89.5	16.0	41.9	1/16″	1/8″
0	KSA130175090	13.0 ~ 17.5	22.2	47.6	50.4	89.5	20.0	41.9	1/8″	1/8″
0.5	KSA155175090	15.5 ~ 17.5	22.2	47.6	50.4	89.5	20.0	41.9	1/8″	1/8″
1	KSA180240129	18.0 ~ 24.0	47.6	75.8	79.4	128.9	25.0	53.1	1/8″	1/8″
1.5	KSA220240142	22.0 ~ 24.0	57.2	88.5	92.1	141.6	25.0	53.1	1/8″	1/8″
2	KSA250350146	25.0 ~ 35.0	57.2	88.5	92.1	146.4	32.0	57.9	1/4″	1/8″



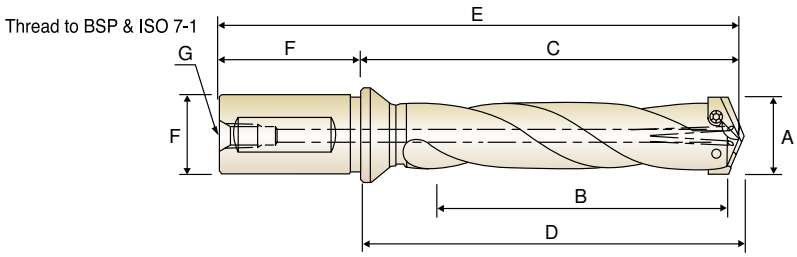
短刃-直槽(公制) SHORT LENGTH - Straight Flute (Metric)

系列	型号	钻头插入范围	钻的最大深度	主要长度	参考长度	全长	柄 直径	柄 长度	管用丝锥
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	Shank Dia.	Shank Length	Pipe Tap
		A	B	C	D	E	F		G
Y	KSB095110103	9.5 ~ 11.0	31.8	61.1	63.5	103.0	20.0	41.9	1/8″
Z	KSB115125103	11.5 ~ 12.5	31.8	61.1	63.5	103.0	20.0	41.9	1/8″
0	KSB130175105	13.0 ~ 17.5	34.9	63.5	66.3	105.4	20.0	41.9	1/8″
0.5	KSB155175105	15.5 ~ 17.5	34.9	63.5	66.3	105.4	20.0	41.9	1/8″
1	KSB180240160	18.0 ~ 24.0	66.7	107.2	110.7	160.2	25.0	53.1	1/8″
1.5	KSB220240160	22.0 ~ 24.0	66.7	107.2	110.7	160.2	25.0	53.1	1/8″
2	KSB250350187	25.0 ~ 35.0	85.7	128.6	132.2	186.5	32.0	57.9	1/4″
2.5	KSB300350187	30.0 ~ 35.0	85.7	128.6	132.2	186.5	32.0	57.9	1/4″
3	KSB360470243	36.0 ~ 47.0	120.7	173.0	177.8	243.1	40.0	70.1	1/4″
4	KSB480650250	48.0 ~ 65.0	130.2	179.4	184.2	249.5	40.0	70.1	1/4″

SPADE DRILLS

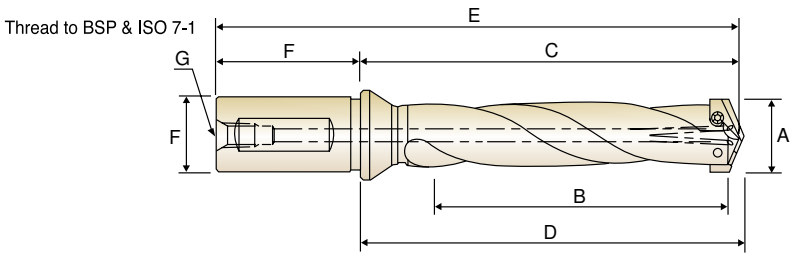
KSC SERIES
KSD SERIES

凸缘直柄刀杆
FLANGED STRAIGHT SHANK HOLDERS



普长刃-螺旋槽(公制) INTERMEDIATE LENGTH - Spiral Flute (Metric)

系列	型号	钻头插入范围	钻的最大深度	主要长度	参考长度	全长	柄 直径	柄 长度	管用丝锥
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	Shank Dia.	Shank Length	Pipe Tap
		A	B	C	D	E	F		G
1	KSC180240208	18.0 ~ 24.0	117.5	154.8	158.4	207.9	25.0	53.1	1/8″
1.5	KSC220240208	22.0 ~ 24.0	117.5	154.8	158.4	207.9	25.0	53.1	1/8″
2	KSC250350237	25.0 ~ 35.0	136.5	179.4	183.0	237.3	32.0	57.9	1/4″
2.5	KSC300350237	30.0 ~ 35.0	136.5	179.4	183.0	237.3	32.0	57.9	1/4″
3	KSC360470288A	36.0 ~ 47.0	165.1	217.5	222.3	287.6	40.0	70.1	1/4″



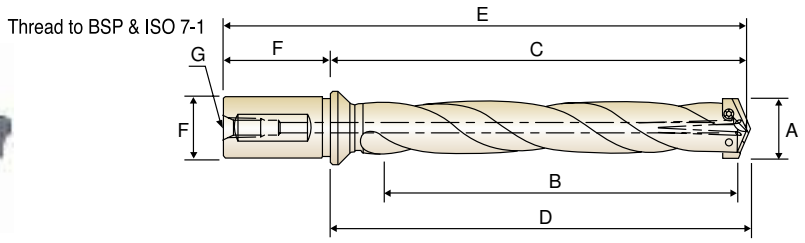
标长刃-螺旋槽(公制) STANDARD LENGTH - Spiral Flute (Metric)

系列	型号	钻头插入范围	钻的最大深度	主要长度	参考长度	全长	柄 直径	柄 长度	管用丝锥
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	Shank Dia.	Shank Length	Pipe Tap
		A	B	C	D	E	F		G
Y	KSD095110132	9.5 ~ 11.0	60.3	89.7	92.1	131.6	20.0	41.9	1/8″
Z	KSD115125132	11.5 ~ 12.5	60.3	89.7	92.1	131.6	20.0	41.9	1/8″
0	KSD130175134	13.0 ~ 17.5	63.5	92.1	94.9	134.0	20.0	41.9	1/8″
0.5	KSD155175134	15.5 ~ 17.5	63.5	92.1	94.9	134.0	20.0	41.9	1/8″
1	KSD180240259	18.0 ~ 24.0	168.3	205.6	209.2	258.7	25.0	53.1	1/8″
1.5	KSD220240259	22.0 ~ 24.0	168.3	205.6	209.2	258.7	25.0	53.1	1/8″
2	KSD250350288	25.0 ~ 35.0	187.3	230.2	233.8	288.1	32.0	57.9	1/4″
2.5	KSD300350288	30.0 ~ 35.0	187.3	230.2	233.8	288.1	32.0	57.9	1/4″
3	KSD360470332A	36.0 ~ 47.0	209.6	261.9	266.7	332.0	40.0	70.1	1/4″
4	KSD480650351A	48.0 ~ 65.0	231.8	281.0	285.8	351.1	40.0	70.1	1/4″

SPADE DRILLS

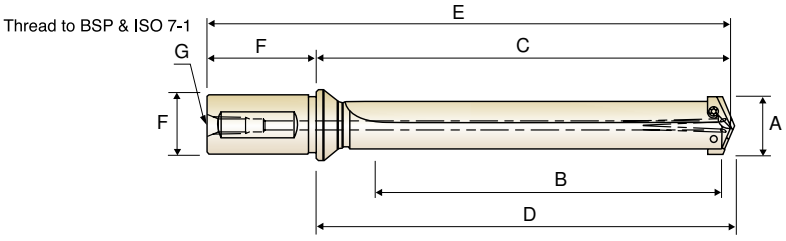
KSE SERIES
KSF SERIES

凸缘直柄刀杆
FLANGED STRAIGHT SHANK HOLDERS



加长刃-螺旋槽(公制) EXTENDED LENGTH - Spiral Flute (Metric)

系列	型号	钻头插入范围	钻的最大深度	主要长度	参考长度	全长	柄 直径	柄 长度	管用丝锥
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	Shank Dia.	Shank Length	Pipe Tap
		A	B	C	D	E	F		G
Y	KSE095110182	9.5 ~ 11.0	111.1	140.5	142.9	182.4	20.0	41.9	1/8″
Z	KSE115125182	11.5 ~ 12.5	111.1	140.5	142.9	182.4	20.0	41.9	1/8″
0	KSE130175185	13.0 ~ 17.5	114.3	142.9	145.7	184.8	20.0	41.9	1/8″
0.5	KSE155175185	15.5 ~ 17.5	114.3	142.9	145.7	184.8	20.0	41.9	1/8″
1	KSE180240360	18.0 ~ 24.0	269.9	307.2	310.8	360.3	25.0	53.1	1/8″
1.5	KSE220240360	22.0 ~ 24.0	269.9	307.2	310.8	360.3	25.0	53.1	1/8″
2	KSE250350390	25.0 ~ 35.0	288.9	331.8	335.4	389.7	32.0	57.9	1/4″
2.5	KSE300350390	30.0 ~ 35.0	288.9	331.8	335.4	389.7	32.0	57.9	1/4″



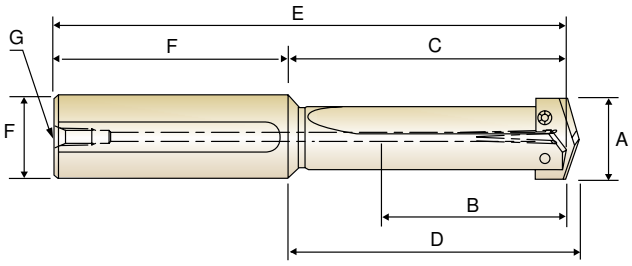
加长刃-直槽(公制) EXTENDED LENGTH - Straight Flute (Metric)

系列	型号	钻头插入范围	钻的最大深度	主要长度	参考长度	全长	柄 直径	柄 长度	管用丝锥
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	Shank Dia.	Shank Length	Pipe Tap
		A	B	C	D	E	F		G
3	KSF360470471A	36.0 ~ 47.0	349.3	401.6	406.4	471.7	40.0	70.1	1/4″
4	KSF480650541A	48.0 ~ 65.0	422.3	471.5	476.3	541.6	40.0	70.1	1/4″

SPADE DRILLS

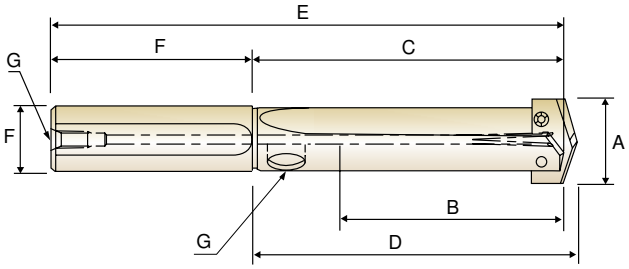
KSB SERIES

直柄刀杆
STRAIGHT SHANK HOLDERS



短刃-直槽(英制) SHORT LENGTH - Straight Flute (Inch)

系列	型号	钻头插入范围	钻的最大深度	主要长度	参考长度	全长	柄 直径	柄 长度	管用丝锥
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	Shank Dia.	Shank Length	Pipe Tap
		A	B	C	D	E	F		G
Y	KSB024027426	3/8″~27/64″	1-1/4″	2-1/32″	2-1/8″	4-13/32″	3/4″	2-3/8″	1/8″
Z	KSB028032426	7/16″~1/2″	1-1/4″	2-1/32″	2-1/8″	4-13/32″	3/4″	2-3/8″	1/8″
0	KSB033044436	33/64″~11/16″	1-3/8″	2-3/16″	2-19/64″	4-9/16″	3/4″	2-3/8″	1/8″
0.5	KSB039044436	39/64″~11/16″	1-3/8″	2-3/16″	2-19/64″	4-9/16″	3/4″	2-3/8″	1/8″



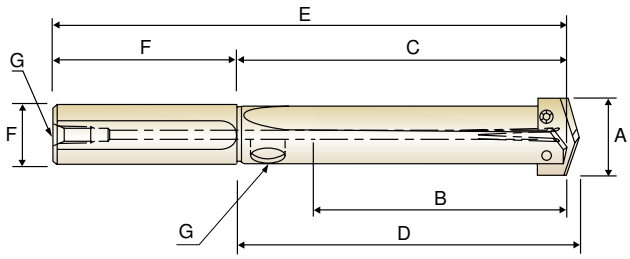
短刃-直槽(英制) SHORT LENGTH - Straight Flute (Inch)

系列	型号	钻头插入范围	钻的最大深度	主要长度	参考长度	全长	柄 直径	柄 长度	管用丝锥
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	Shank Dia.	Shank Length	Pipe Tap
		A	B	C	D	E	F		G
1	KSB045060656	45/64″~15/16″	2-5/8″	3-7/8″	4-1/64″	6-7/8″	3/4″	3″	1/8″
	KSB04506065A	45/64″~15/16″	2-5/8″	3-7/8″	4-1/64″	6-7/8″	1″	3″	1/8″
1.5	KSB055060656	55/64″~15/16″	2-5/8″	3-7/8″	4-1/64″	6-7/8″	3/4″	3″	1/8″
	KSB05506065A	55/64″~15/16″	2-5/8″	3-7/8″	4-1/64″	6-7/8″	1″	3″	1/8″
2	KSB062124800	31/32″~1-3/8″	3-3/8″	4-1/2″	4-41/64″	8″	1″	3-1/2″	1/8″
	KSB06212480A	31/32″~1-3/8″	3-3/8″	4-1/2″	4-41/64″	8″	1-1/4″	3-1/2″	1/8″
2.5	KSB112124800	1-3/16″~1-3/8″	3-3/8″	4-1/2″	4-41/64″	8″	1″	3-1/2″	1/8″
	KSB11212480A	1-3/16″~1-3/8″	3-3/8″	4-1/2″	4-41/64″	8″	1-1/4″	3-1/2″	1/8″
3	KSB126156A00	1-13/32″~1-7/8″	4-3/4″	6″	6-3/16″	10″	1-1/4″	4″	1/4″
	KSB126156A0A	1-13/32″~1-7/8″	4-3/4″	6″	6-3/16″	10″	1-1/2″	4″	1/4″
4	KSB158236A32	1-29/32″~2-9/16″	5-1/8″	6-1/2″	6-11/16″	10-1/2″	1-1/2″	4″	1/4″
	KSB158236A3A	1-29/32″~2-9/16″	5-1/8″	6-1/2″	6-11/16″	10-1/2″	1-3/4″	4″	1/4″
5	KSB232332C32	2-1/2″~3-1/2″	6-3/4″	8-1/2″	8-3/4″	12-1/2″	2″	4″	1/2″
7	KSB334432D56	3-17/32″~4-1/2″	6-3/4″	8-7/8″	9-1/8″	13-7/8″	3″	5″	1/2″

SPADE DRILLS

KSG SERIES

直柄刀杆
STRAIGHT SHANK HOLDERS



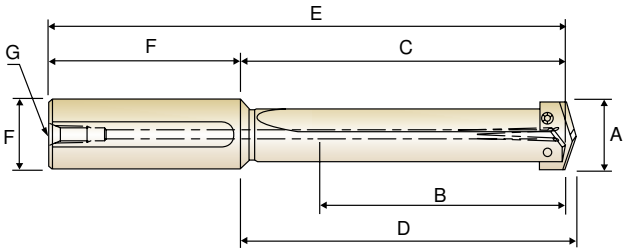
普长刃-直槽(英制) INTERMEDIATE LENGTH - Straight Flute (Inch)

系列	型号	钻头插入范围	钻的最大深度	主要长度	参考长度	全长	柄 直径 | 长度		管用丝锥
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	Shank Dia.	Shank Length	Pipe Tap
		A	B	C	D	E	F		G
1	KSG045060856	45/64″~15/16″	4-5/8″	5-7/8″	6-1/64″	8-7/8″	1″	3″	1/8″
1.5	KSG055060856	55/64″~15/16″	4-5/8″	5-7/8″	6-1/64″	8-7/8″	1″	3″	1/8″
2	KSG062124A00	31/32″~1-3/8″	5-3/8″	6-1/2″	6-41/64″	10″	1-1/4″	3-1/2″	1/8″
2.5	KSG112124A00	1-3/16″~1-3/8″	5-3/8″	6-1/2″	6-41/64″	10″	1-1/4″	3-1/2″	1/8″
3	KSG126156B48	1-13/32″~1-7/8″	6-1/2″	7-3/4″	7-15/16″	11-3/4″	1-1/2″	4″	1/4″

SPADE DRILLS

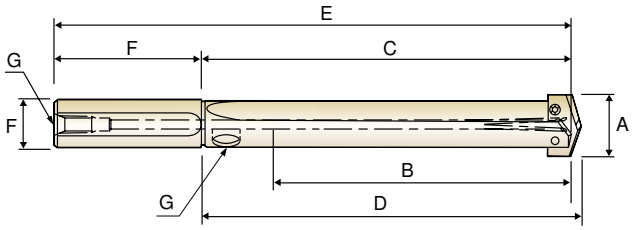
KSH SERIES

直柄刀杆
STRAIGHT SHANK HOLDERS



标长刃-直槽(英制) STANDARD LENGTH - Straight Flute (Inch)

系列	型号	钻头插入范围	钻的最大深度	主要长度	参考长度	全长	柄 直径	柄 长度	管用丝锥
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	Shank Dia.	Shank Length	Pipe Tap
		A	B	C	D	E	F		G
Y	KSH024027534	3/8″~27/64″	2-3/8″	3-5/32″	3-1/4″	5-17/32″	3/4″	2-3/8″	1/8″
Z	KSH028032534	7/16″~1/2″	2-3/8″	3-5/32″	3-1/4″	5-17/32″	3/4″	2-3/8″	1/8″
0	KSH033044544	33/64″~11/16″	2-1/2″	3-5/16″	3-27/64″	5-11/16″	3/4″	2-3/8″	1/8″
0.5	KSH039044544	39/64″~11/16″	2-1/2″	3-5/16″	3-27/64″	5-11/16″	3/4″	2-3/8″	1/8″



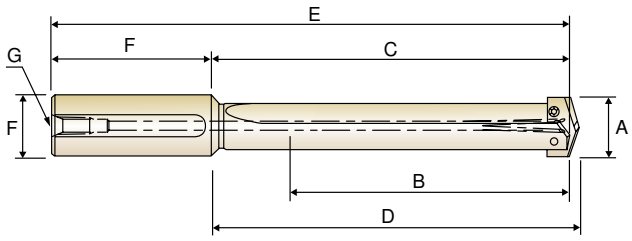
标长刃-直槽(英制) STANDARD LENGTH - Straight Flute (Inch)

系列	型号	钻头插入范围	钻的最大深度	主要长度	参考长度	全长	柄 直径	柄 长度	管用丝锥
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	Shank Dia.	Shank Length	Pipe Tap
		A	B	C	D	E	F		G
1	KSH045060A56	45/64″~15/16″	6-5/8″	7-7/8″	8-1/64″	10-7/8″	3/4″	3″	1/8″
	KSH045060A5A	45/64″~15/16″	6-5/8″	7-7/8″	8-1/64″	10-7/8″	1″	3″	1/8″
1.5	KSH055060A56	55/64″~15/16″	6-5/8″	7-7/8″	8-1/64″	10-7/8″	3/4″	3″	1/8″
	KSH055060A5A	55/64″~15/16″	6-5/8″	7-7/8″	8-1/64″	10-7/8″	1″	3″	1/8″
2	KSH062124C00	31/32″~1-3/8″	7-3/8″	8-1/2″	8-41/64″	12″	1″	3-1/2″	1/8″
	KSH062124C0A	31/32″~1-3/8″	7-3/8″	8-1/2″	8-41/64″	12″	1-1/4″	3-1/2″	1/8″
2.5	KSH112124C00	1-3/16″~1-3/8″	7-3/8″	8-1/2″	8-41/64″	12″	1″	3-1/2″	1/8″
	KSH112124C0A	1-3/16″~1-3/8″	7-3/8″	8-1/2″	8-41/64″	12″	1-1/4″	3-1/2″	1/8″
3	KSH126156D32	1-13/32″~1-7/8″	8-1/4″	9-1/2″	9-11/16″	13-1/2″	1-1/4″	4″	1/4″
	KSH126156D3A	1-13/32″~1-7/8″	8-1/4″	9-1/2″	9-11/16″	13-1/2″	1-1/2″	4″	1/4″
4	KSH158236E32	1-29/32″~2-9/16″	9-1/8″	10-1/2″	10-11/16″	14-1/2″	1-1/2″	4″	1/4″
	KSH158236E3A	1-29/32″~2-9/16″	9-1/8″	10-1/2″	10-11/16″	14-1/2″	1-3/4″	4″	1/4″
5	KSH232332G32	2-1/2″~3-1/2″	10-3/4″	12-1/2″	12-3/4″	16-1/2″	2″	4″	1/2″
7	KSH334432H56	3-17/32″~4-1/2″	10-3/4″	12-7/8″	13-1/8″	17-7/8″	3″	5″	1/2″

SPADE DRILLS

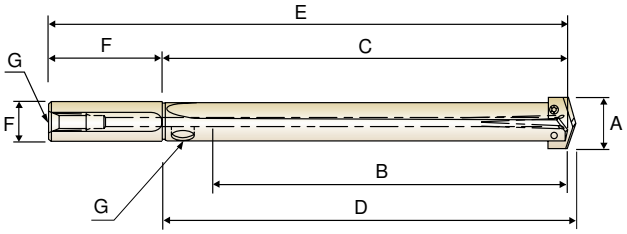
KSF SERIES

直柄刀杆
STRAIGHT SHANK HOLDERS



加长刃-直槽(英制) EXTENDED LENGTH - Straight Flute (Inch)

系列	型号	钻头插入范围	钻的最大深度	主要长度	参考长度	全长	柄 直径	柄 长度	管用丝锥
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	Shank Dia.	Shank Length	Pipe Tap
		A	B	C	D	E	F		G
Y	KSF024027734	3/8″~27/64″	4-3/8″	5-5/32″	5-1/4″	7-17/32″	3/4″	2-3/8″	1/8″
Z	KSF028032734	7/16″~1/2″	4-3/8″	5-5/32″	5-1/4″	7-17/32″	3/4″	2-3/8″	1/8″
0	KSF033044744	33/64″~11/16″	4-1/2″	5-5/16″	5-27/64″	7-11/16″	3/4″	2-3/8″	1/8″
0.5	KSF039044744	39/64″~11/16″	4-1/2″	5-5/16″	5-27/64″	7-11/16″	3/4″	2-3/8″	1/8″

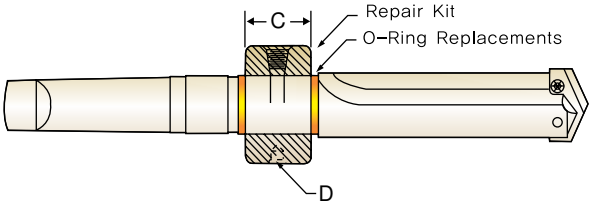


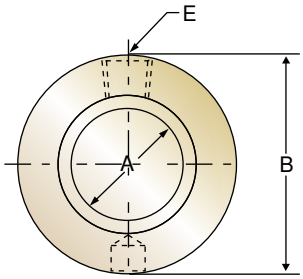
加长刃-直槽(英制) EXTENDED LENGTH - Straight Flute (Inch)

系列	型号	钻头插入范围	钻的最大深度	主要长度	参考长度	全长	柄 直径	柄 长度	管用丝锥
Series	EDP No.	Drill Insert Range	Max. Drill Depth	Body Length	Ref. Length	Overall Length	Shank Dia.	Shank Length	Pipe Tap
		A	B	C	D	E	F		G
1	KSF045060E56	45/64″~15/16″	10-5/8″	11-7/8″	12-1/64″	14-7/8″	1″	3″	1/8″
1.5	KSF055060E56	55/64″~15/16″	10-5/8″	11-7/8″	12-1/64″	14-7/8″	1″	3″	1/8″
2	KSF062124G00	31/32″~1-3/8″	11-3/8″	12-1/2″	12-41/64″	16″	1-1/4″	3-1/2″	1/8″
2.5	KSF112124G00	1-3/16″~1-3/8″	11-3/8″	12-1/2″	12-41/64″	16″	1-1/4″	3-1/2″	1/8″
3	KSF126156J00	1-13/32″~1-7/8″	13-3/4″	15″	15-3/16″	19″	1-1/4″	4″	1/4″
4	KSF158236M00	1-29/32″~2-9/16″	16-5/8″	18″	18-3/16″	22″	1-1/2″	4″	1/4″
5	KSF232332000	2-1/2″~3-1/2″	18-1/4″	20″	20-1/4″	24″	2″	4″	1/2″
7	KSF334432T00	3-17/32″~4-1/2″	21-7/8″	24″	24-1/4″	29″	3″	5″	1/2″

SPADE DRILLS 推荐的切削条件 RECOMMENDED CUTTING CONDITIONS

刀柄附件 HOLDER ACCESSORIES





Inch

项目 Item No.	内部直径 I.D. A	外部直径 O.D. B	长 Length C	传动杆螺纹 Thread for Driving Rod D	管用丝锥 Pipe Tap E	旋转式冷却适配器 项目 RCA Repair Kit Item No.	O型垫圈 项目 RCA O-Ring Replacements Item No.
PR110048	3/4″	1-3/4″	7/8″	5/16″-NC	◈1/8″	PR210048	PR310048
PR110100	1″	2-1/8″	1-1/8″	5/16″-NC	◈1/8″	PR210100	PR310100
PR110116	1-1/4″	2-1/2″	1-3/8″	3/8″-NC	◈1/4″	PR210116	PR310116
PR110148	1-3/4″	3″	1-3/8″	3/8″-NC	◈1/4″	PR210148	PR310148
PR110216	2-1/4″	3-3/4″	1-3/4″	1/2″-NC	◈1/2″	PR210216	PR310216

Metric

项目 Item No.	内部直径 I.D. A	外部直径 O.D. B	长 Length C	传动杆螺纹 Thread for Driving Rod D	管用丝锥 Pipe Tap E	旋转式冷却适配器 项目 RCA Repair Kit Item No.	O型垫圈 项目 RCA O-Ring Replacements Item No.
PR120190	19.05	44.45	22.23	M8 ×1.25	◈1/8″	PR220190	PR320190
PR120254	25.40	53.97	28.57	M8 ×1.25	◈1/8″	PR220254	PR320254
PR120317	31.75	63.50	34.92	M10×1.5	◈1/4″	PR220317	PR320317
PR120444	44.45	76.20	34.92	M10×1.5	◈1/4″	PR220444	PR320444
PR120571	57.15	95.27	44.45	M12×1.75	◈1/2″	PR220571	PR320571

◈ Thread to BSP & ISO 7-1

TORX螺纹 / TORX SCREWS

刀柄系列 Holder Series	项目 Item No.	TORX 手动扳手 TORX Hand Driver	钻孔范围 Drill Range Used With	
			Inch	Metric
Y	J07Y0010	J05Y0070	3/8″ ~ 27/64″	9.5 mm ~ 11.0 mm
Z	J07Z0110		7/16″ ~ 1/2″	11.5 mm ~ 12.5 mm
0	J0800210	J0500080	33/64″ ~ 11/16″	13.0 mm ~ 17.5 mm
0.5	J0805310		39/64″ ~ 11/16″	15.5 mm ~ 17.5 mm
1	J0910410	J0510090	45/64″ ~ 15/16″	18.0 mm ~ 24.0 mm
1.5	J0915510		55/64″ ~ 15/16″	22.0 mm ~ 24.0 mm
2	J1520610	J0520150	31/32″ ~ 1-3/8″	25.0 mm ~ 35.0 mm
2.5	J1525710		1-3/16″ ~ 1-3/8″	30.0 mm ~ 35.0 mm
3,4	J2030810	J0530200	1-13/32″ ~ 2-9/16″	36.0 mm ~ 65.0 mm
5 ~ 8	J2550910	J0550250	2-1/2″ ~ 4-1/2″	64.0 mm ~ 114.0 mm

** 注意：替换用螺钉成包出售(每包10个)
Note : Replacement screws sold in packages(10 screws per package)

SPADE DRILLS 推荐的切削条件 RECOMMENDED CUTTING CONDITIONS

铲钻刀片 (公制) - 高速钢
DRILL INSERT (METRIC) - HSS

Material	Material Hardness (Bhn)	Material Hardness (HRc)	* HSS Grade	Speed (M/min) TiN	Speed (M/min) TiCN	Speed (M/min) TiAlN	Feed (mm/rev) Ø9.5~12.5	Ø13~17.5	Ø18~24	Ø25~35	Ø36~47	Ø48~65	Ø66~114
Free machining Steels 9SMn36, 9SMnPb28 10SPb20 etc	100 - 150		HSS	63	79	84	0.16	0.23	0.31	0.40	0.48	0.55	0.67
	150 - 200	- 13	HSS	58	70	81	0.16	0.23	0.31	0.40	0.48	0.55	0.67
	200 - 250	13 - 24	HSS	51	66	72	0.14	0.23	0.31	0.38	0.48	0.57	0.69
Low Carbon Steels C10, C15, C22, C25 etc	85 - 125		HSS	54	67	75	0.15	0.22	0.28	0.37	0.46	0.56	0.67
	125 - 175	- 7	HSS	51	63	72	0.15	0.22	0.28	0.37	0.46	0.56	0.67
	175 - 225	7 - 20	HSS	49	58	69	0.13	0.19	0.24	0.34	0.43	0.50	0.57
	225 - 275	20 - 28	HSS	45	56	66	0.13	0.19	0.24	0.34	0.43	0.50	0.57
Medium Carbon Steels C35, C40, C45 etc	125 - 175	- 7	HSS	52	63	75	0.14	0.22	0.28	0.35	0.45	0.55	0.65
	175 - 225	7 - 20	HSS	48	59	69	0.13	0.19	0.23	0.34	0.43	0.50	0.58
	225 - 275	20 - 28	HSS	45	56	63	0.13	0.19	0.23	0.34	0.43	0.50	0.58
	275 - 325	28 - 34	SH, PH	42	52	58	0.10	0.17	0.21	0.28	0.38	0.45	0.55
Structural Steels St33, St37-2, St44-2 St52, St60 etc	100 - 150		HSS	44	56	63	0.14	0.23	0.29	0.35	0.44	0.50	0.63
	150 - 250	- 24	HSS	39	47	55	0.13	0.22	0.24	0.28	0.38	0.46	0.59
	250 - 350	24 - 37	SH, PH	32	41	45	0.10	0.20	0.22	0.24	0.34	0.40	0.48
Cast Iron / S,G Iron GG10, 20 ,25, 35, 40 GGG50, 70 GTW35, GTS70 etc	120 - 150		HSS	52	64	75	0.16	0.30	0.40	0.49	0.59	0.69	0.75
	150 - 200	- 13	HSS	48	58	70	0.14	0.26	0.35	0.45	0.56	0.64	0.68
	200 - 220	13 - 19	HSS	42	53	58	0.14	0.23	0.30	0.41	0.46	0.52	0.60
	220 - 260	19 - 26	SH, PH	35	44	52	0.13	0.17	0.23	0.30	0.35	0.43	0.50
	260 - 320	26 - 34	SH, PH	29	35	41	0.10	0.15	0.16	0.23	0.28	0.35	0.40
Alloy Steels 45CrMo4, 42CrMo4 16MnCr5, Ck75 35CrMo4, 16MnCr5 etc	125 - 175	- 7	HSS	48	58	63	0.15	0.20	0.24	0.36	0.43	0.47	0.53
	175 - 225	7 - 20	HSS	45	56	58	0.13	0.20	0.24	0.36	0.42	0.46	0.55
	225 - 275	20 - 28	HSS	41	50	56	0.13	0.16	0.23	0.35	0.41	0.44	0.55
	275 - 325	28 - 34	SH, PH	39	47	53	0.09	0.15	0.22	0.28	0.38	0.41	0.50
	325 - 375	34 - 40	SH, PH	36	43	46	0.08	0.15	0.21	0.27	0.38	0.40	0.51
Tool Steels 102Cr6, 105WCr6, C75W etc	150 - 200	- 13	SH	25	34	36	0.09	0.15	0.19	0.25	0.28	0.36	0.41
	200 - 250	13 - 24	SH, PH	19	27	29	0.09	0.15	0.19	0.25	0.28	0.36	0.41
High Temp. Alloys Hastelloy B,Inconel etc	140 - 220	- 19	SH, PH	9	11	12	0.08	0.17	0.20	0.24	0.30	0.37	0.39
	220 - 310	19 - 33	PH	8	9	11	0.08	0.14	0.18	0.19	0.25	0.29	0.34
High Strength Alloys 36CrNiMo4, 34CrNiMo8 40NiCrMo73 etc	225 - 300	- 32	SH, PH	25	34	35	0.13	0.18	0.23	0.24	0.36	0.43	0.50
	300 - 350	32 - 37	SH, PH	19	26	27	0.10	0.18	0.23	0.24	0.36	0.43	0.50
	350 - 400	37 - 43	PH	16	21	22	0.08	0.15	0.20	0.22	0.30	0.48	0.46
Aluminum AlCuSiMn, AlMgSi0.5, AlZnMgCu1.5 etc	30		HSS	187	229	244	0.19	0.33	0.41	0.50	0.54	0.64	0.62
	180	- 8	HSS	92	137	137	0.19	0.33	0.41	0.46	0.54	0.64	0.62
Stainless Steels X7Cr13, X10CrA118, X5CrNi189, X5CrNiMo18 10 etc	135 - 185	- 9	HSS	24	29	34	0.14	0.20	0.23	0.26	0.36	0.41	0.50
	185 - 275	9 - 28	HSS	20	23	29	0.12	0.18	0.20	0.24	0.30	0.36	0.46

RPM= revolution per minute (rev/min)
M/min= surface meter per minute(M/min)
DIA= diameter of drill (mm)
mm/rev = feed rate(mm/rev)

*** Formulas :**

$$M/min = \frac{(RPM) \cdot (\pi) \cdot (DIA.)}{1000}$$

$$mm/min = (RPM) \cdot (mm/rev)$$

$$RPM = \frac{(M/min) \cdot (1000)}{(\pi) \cdot (DIA.)}$$

* **HSS Grade : HSS** = HSS M4, **SH** = Super HSS T15, **PH** = Premium HSS M48

表中推荐的速度，进给率和其它参数只可用来参考
推荐降低速度和进给量(速度降低20%和进给降低10%)

The recommendations for speeds, feeds and other parameters presented in this chart are nominal recommendations and should be considered only as good starting points.
Speed and feed reductions (20% reduction in speed and 10% reduction in feed) are recommended.

SPADE DRILLS 推荐的切削条件 RECOMMENDED CUTTING CONDITIONS

铲钻刀片 (公制) - 硬质合金
DRILL INSERT (METRIC) - CARBIDE

Material	Material Hardness (Bhn)	Material Hardness (HRc)	CARBIDE Grade	Speed (M/min) TiN	Speed (M/min) TiCN	Speed (M/min) TiAlN	Feed (mm/rev) Ø 9.5 ~12.5	Feed (mm/rev) Ø 13 ~17.5	Feed (mm/rev) Ø 18 ~24	Feed (mm/rev) Ø 25 ~35	Feed (mm/rev) Ø 36 ~47
Free machining Steels 9SMn36, 9SMnPb28 10SPb20 etc	100 - 150		P40	101	113	125	0.18	0.28	0.36	0.44	0.50
	150 - 200	- 13	P40	88	99	110	0.16	0.26	0.33	0.39	0.45
	200 - 250	13 - 24	P40	82	88	101	0.14	0.23	0.31	0.41	0.42
Low Carbon Steels C10, C15, C22, C25 etc	85 - 125		P40	94	110	119	0.20	0.24	0.31	0.42	0.46
	125 - 175	- 7	P40	82	88	107	0.18	0.24	0.31	0.39	0.43
	175 - 225	7 - 20	P40	76	82	96	0.15	0.22	0.29	0.36	0.40
	225 - 275	20 - 28	P40	62	73	84	0.13	0.22	0.29	0.36	0.40
Medium Carbon Steels C35, C40, C45 etc	125 - 175	- 7	P40	82	88	102	0.17	0.24	0.31	0.37	0.42
	175 - 225	7 - 20	P40	75	84	93	0.15	0.22	0.28	0.36	0.40
	225 - 275	20 - 28	P40	66	70	84	0.15	0.22	0.28	0.36	0.40
	275 - 325	28 - 34	P40	56	64	67	0.13	0.19	0.26	0.33	0.37
Structural Steels St33, St37-2, St44-2 St52, St60 etc	100 - 150		P40	75	82	91	0.19	0.26	0.34	0.39	0.43
	150 - 250	- 24	P40	62	70	75	0.15	0.24	0.29	0.33	0.37
	250 - 350	24 - 37	P40	55	64	73	0.13	0.23	0.27	0.29	0.33
Cast Iron / S,G Iron GG10, 20 ,25, 35, 40 GGG50, 70 GTW35, GTS70 etc	120 - 150		K20,K10	98	125	137	0.18	0.30	0.37	0.46	0.56
	150 - 200	- 13	K20,K10	95	101	125	0.17	0.26	0.32	0.42	0.53
	200 - 220	13 - 19	K20,K10	75	91	111	0.14	0.23	0.30	0.38	0.45
	220 - 260	19 - 26	K20,K10	66	81	93	0.13	0.15	0.28	0.33	0.37
	260 - 320	26 - 34	K20,K10	56	70	79	0.13	0.18	0.23	0.28	0.33
Alloy Steels 45CrMo4, 42CrMo4 16MnCr5, Ck75 35CrMo4, 16MnCr5 etc	125 - 175	- 7	P40	79	85	98	0.18	0.25	0.32	0.40	0.45
	175 - 225	7 - 20	P40	73	81	88	0.15	0.23	0.29	0.38	0.42
	225 - 275	20 - 28	P40	66	73	81	0.15	0.21	0.28	0.37	0.41
	275 - 325	28 - 34	P40	62	70	78	0.12	0.20	0.27	0.33	0.40
	325 - 375	34 - 40	P40	53	58	64	0.10	0.18	0.23	0.30	0.38
Tool Steels 102Cr6, 105WCr6, C75W etc	150 - 200	- 13	P40	50	56	67	0.09	0.18	0.22	0.28	0.31
	200 - 250	13 - 24	P40	37	46	50	0.09	0.18	0.22	0.28	0.31
High Temp. Alloys Hastelloy B,Inconel etc	140 - 220	- 19	K20	26	27	30	0.10	0.17	0.23	0.27	0.33
	220 - 310	19 - 33	K20	20	23	24	0.10	0.14	0.20	0.24	0.30
High Strength Alloys 36CrNiMo4, 34CrNiMo8 40NiCrMo73 etc	225 - 300	- 32	P40	49	55	62	0.15	0.23	0.25	0.29	0.38
	300 - 350	32 - 37	P40	43	49	55	0.12	0.20	0.23	0.27	0.35
	350 - 400	37 - 43	P40	38	43	47	0.10	0.18	0.20	0.24	0.30
Aluminum AlCuSiMn, AlMgSi0.5, AlZnMgCu1.5 etc	30		K20	366	396	427	0.24	0.38	0.45	0.50	0.53
	180	- 8	K20	244	290	291	0.22	0.33	0.40	0.45	0.48
Stainless Steels X7Cr13, X10CrA118, X5CrNi189, X5CrNiMo18 10 etc	135 - 185	- 9	K20	50	55	62	0.19	0.19	0.21	0.24	0.30
	185 - 275	9 - 28	K20	38	44	46	0.15	0.17	0.20	0.21	0.25

RPM= revolution per minute (rev/min)
M/min= surface meter per minute(M/min)
DIA= diameter of drill (mm)
mm/rev = feed rate(mm/rev)

*** Formulas :**

$$M/min = \frac{(RPM) \cdot (\pi) \cdot (DIA.)}{1000}$$

$$mm/min = (RPM) \cdot (mm/rev)$$

$$RPM = \frac{(M/min) \cdot (1000)}{(\pi) \cdot (DIA.)}$$

表中推荐的速度，进给率和其它参数只可用来参考
推荐降低速度和进给量(速度降低20%和进给降低10%)

The recommendations for speeds, feeds and other parameters presented in this chart are nominal recommendations and should be considered only as good starting points.
Speed and feed reductions (20% reduction in speed and 10% reduction in feed) are recommended.

DRILLS

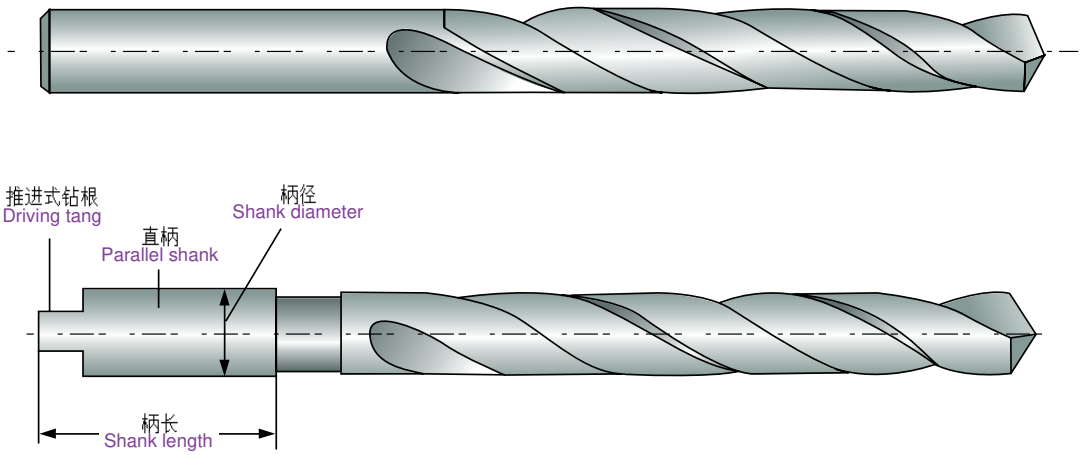
YG

Being the best through innovation

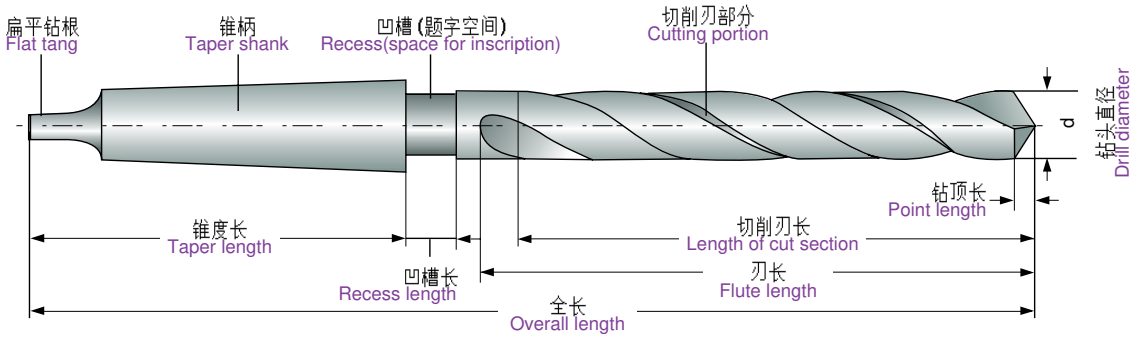
TECHNICAL DATA

i-DREAM DRILLS
DREAM DRILLS -GENERAL
DREAM DRILLS -SOFT
DREAM DRILLS -INOX
DREAM DRILLS -ALU
DREAM DRILLS -MQL TYPE
DREAM DRILLS for HARDENED STEELS
GENERAL CARBIDE DRILLS
NC-SPOTTING DRILLS
MULTI-1 DRILLS
HPD DRILLS
GOLD-P DRILLS
WORM PATTERN DRILLS
STRAIGHT SHANK DRILLS
TAPER SHANK DRILLS
NC-SPOTTING DRILLS
CENTER DRILLS
SPADE DRILLS
TECHNICAL DATA

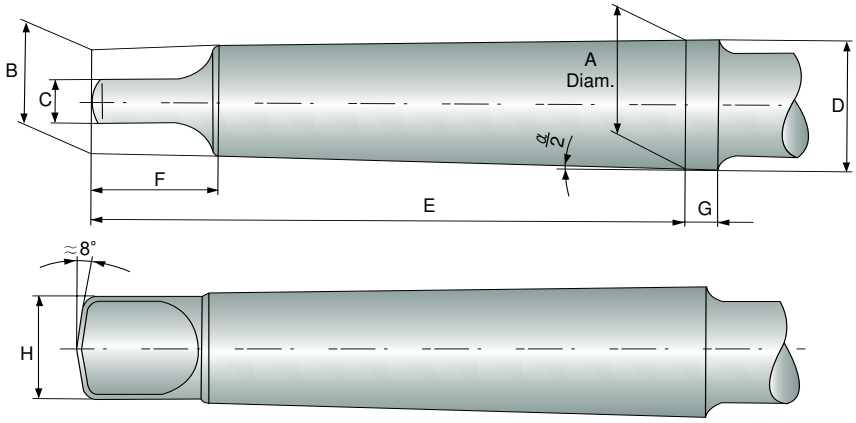
1 直柄麻花钻
Twist Drill with parallel shank



2 锥柄麻花钻
Twist Drill with taper shank

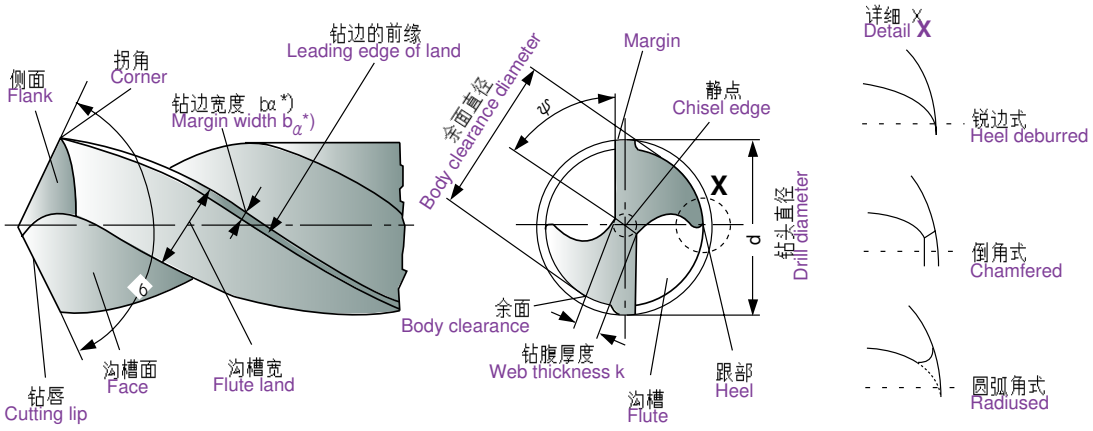


锥柄钻头的普通尺寸(JIS)
General dimensions of morse taper shanks(JIS)



Morse Taper Shank Morsekegelschaft	A mm	B mm	C(h13) mm	D mm	E mm	F(max.) mm	G mm	H(max.) mm	$\alpha/2$
No.1	12.065	9	5.2	12.2	62	13.5	3.5	8.7	1°25′43″
No.2	17.780	14	6.3	18.0	75	16	5	13.5	1°25′50″
No.3	23.825	19.1	7.9	24.1	94	20	5	18.5	1°26′16″
No.4	31.267	25.2	11.9	31.6	117.5	24	6.5	24.5	1°29′15″
No.5	44.399	36.5	15.9	44.7	149.5	29	6.5	35.7	1°30′26″
No.6	63.348	52.4	19	63.8	210	40	8	51	1°29′36″

切削刃部分
Cutting portion



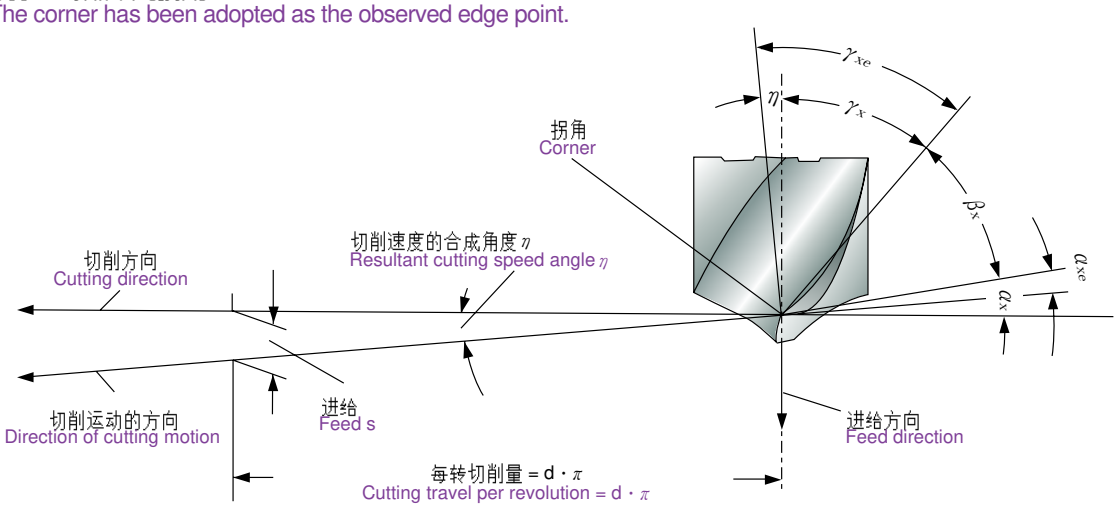
σ= 钻顶角角度 / Point angle (sigma)

ψ = 静点角度 (psi) / Chisel edge angle (psi)

* 在切削技术的上下文中，刃宽bα是沟槽宽度b fαn除去间隙面宽度所得的，参照 6581
In the context of cutting technology, land width b_α is the body clearance land width which is to be by $b_{f\alpha n}$, see DIN 6581.

切削刃角度
Angle at the cutting edges

观察边缘点采用拐角.
The corner has been adopted as the observed edge point.



α_x = 旁隙角(α) / Side clearance angle (alpha)
α_{xe} = 有效旁隙角 / Effective side clearance angle
β_x = 旁楔角(β) / Side wedge angle (beta)
γ_x = 前倾角(γ) / Front rake angle (gamma)
γ_{xe} = 加工前倾角 / Working front rake angle
η = 切削速度的合成角度(η) / Resultant cutting speed angle (eta)

间隙角α，楔角β及倾斜角γ在垂直面里测量，参考 DIN 6581，
金属切削技术的定义；刀具切削刃的几何参数
Clearance angle α, wedge angle β and rake angle γ are measured in the tool orthogonal plane. For details, see DIN 6581, definitions of metal-cutting technology; geometry at the tool edge.

再研磨麻花钻
Resharpening Twist Drills

(1) 钻头的磨损是不规则的 应该在严重磨损之前进行再研磨.
Drills are worn off irregularly. It should be sharpened prior to developing into excessive wear.

(2) 再研磨 / Resharpening

① 正确的钻顶角加工来适合您的运用(图8)
Grind the correct point angle to suit your application.(figure 8)

② 确定两个钻唇的角度一样 如果钻顶角度为130°, 相对于中心轴每个钻唇应该为65°钻顶角必须在中心, 如, 横刃的钻唇长度必须相等
Check that both cutting lips have the same angle. On a 130° point, each lip should be 65° toward the axis. The point must be on center, i.e., the chisel edge must produce cutting lips of equal length.(figure 8)

③ 一次间隙角和二次间隙角的加工(图9)
Grind Primary relief and Secondary clearance.(figure 9)

④ WEB THINNING的加工(图10)
Grind web thinning. (figure 10)

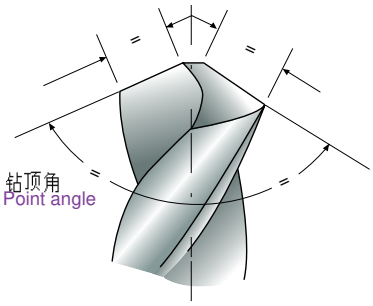


图 8
Figure 8

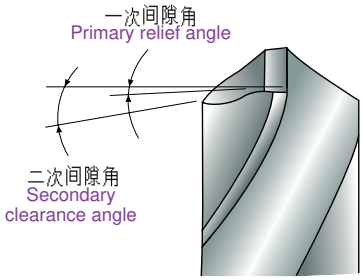


图 9
Figure 9

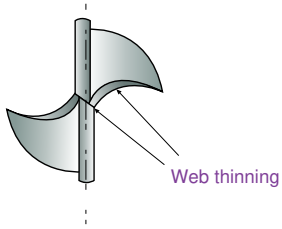
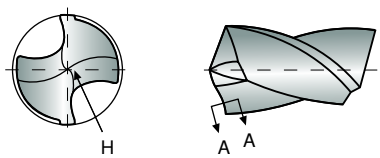
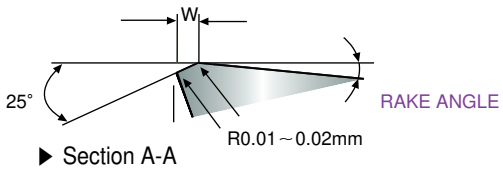


图 10
Figure 10

(3) 梦幻钻的衍磨指南
Honing Guide of DREAM DRILLS

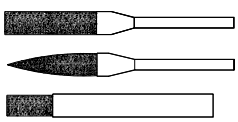
■ 衍磨尺寸
Dimension of Honing





▶ Section A-A

■ 刮刀
Scraper



for Roughing (#140)

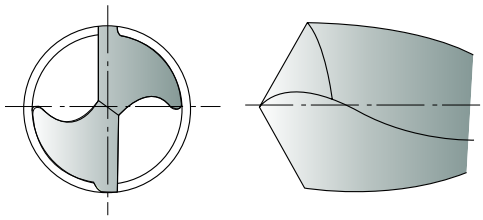
for Finishing (#230～#400)

Work Material	Alloy Steels	Mild Steels	Cast Iron
W(mm)	0.15～0.2	0.1～0.15	0.03

▶ 在库生产的尺寸W是0.1~0.15
The dimension W of stocked products is 0.1～0.15.

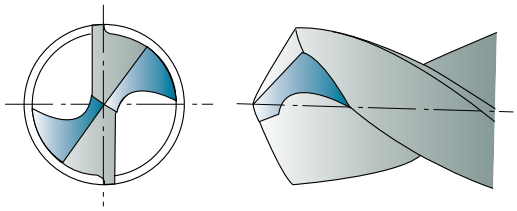
WEB THINNING
Web thinning

(1) 没有THINNING
Without thinning



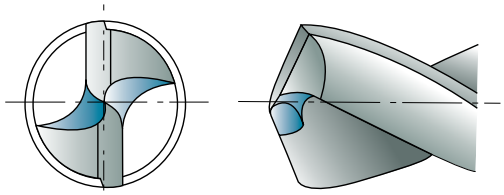
适合于普通用途的钻头
由于薄的钻腹厚度，WEB THINNING不需要
没有WEB THINNING主要用于低碳钢，合金钢，铸铁，不锈钢，钛，镍铬合金等材料以及常规的切削条件
Suitable for drill of general purpose.
Thanks to thin web thickness, web thinning is not need.
This without web thinning type is applied to design of drills for mild steels, alloy steels, cast iron, stainless steels, titanium, inconel, etc. and conventional cutting conditons.

(2) C型THINNING(DIN1412 FORM C,SPLIT POINT)
Type C thinning (DIN1412 FORM C, SPLIT POINT)



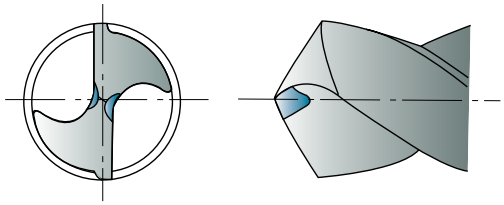
因为裂口式钻顶角能够很好的设定中心，并且容易切断铁屑，排出铁屑
适合于加工高硬度材料的钻头，如：特种钢，钛合金，不锈钢，镍锰合金，铌锰合金等
Because Split point enables good centering when drilling and breaks the chips, chip removals are easy.
Suitable for drill design in high hardened tough materials, i.e, heat treated steels, titanium alloys, stainless steels, incoroy inconel, nimonic, etc.

(3) R型THINNING(螺旋状THINNING)
Type R thinning (HELICAL THINNING)



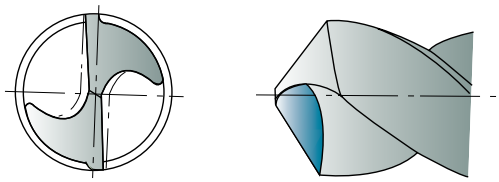
螺旋状THINNING能够保证频繁地断屑和排屑
切削刃不同方向的受力及螺旋状THINNING部分可以使铁屑卷曲，断裂并通过沟槽排出.
另外，螺旋状THINNING使排屑空间通到中心位置，能顺利排出铁屑并且能很好的设定中心.
Helical thinning ensures to frequent chip breaking and removal. The different direction force of cutting edges and helical thinning parts enable that chips curl, break and remove through the flutes. In addition, helical thinning makes the chip room up to center, remove the chisel and enables good centering

(4) A型THINNING(DIN1412 FORM A)
Type A thinning (DIN1412 FORM A)



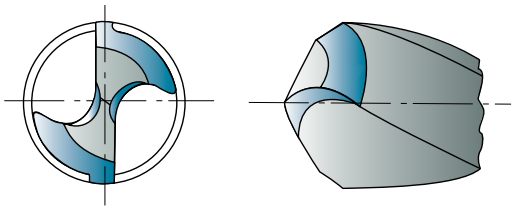
A型THINNING使静点变薄，铁屑很好的排出且有良好的定心效果.
这种类型是加工THINNING的最容易的类型 具有窄的钻腹和宽的沟槽的钻头，可以保证其刚性和铁屑平滑的排出.
A type thinnings makes thin chisel, good chip removal and favorable centering.
This type is the easiest type to grind the thinning. In narrow web and wide fluted drills, keeping of the rigidity and smooth chip removal are possible.

(5) B型THINNING(DIN1412 FORM B)
Type B thinning (DIN1412 FORM B)



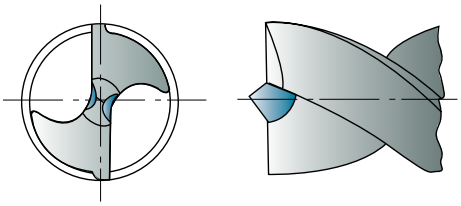
对于铸铁，铝，塑料等低切削阻力和容易排屑的加工材料来说，B型THINNING比较合适.
特别当钻头用来加工高硬度钢时，这种类型可以适用于减少前角以防止钻唇崩刃.
In case of work materials with low cutting resistance and good chip removal, i.e., cast iron, aluminum, plastic etc., B type thinning is suitable.
Especially when drills for high hardended steels are designed, this type is applied to decrease rake angle and avoid chipping of cutting lips.

(6) D型THINNING(DIN1412 FORM D)
Type D thinning (DIN1412 FORM D)



灰铸铁THINNING:倾斜的外部刃口加强了切削刃.
用于中高硬度的灰铸铁和用于研磨剂
Grey cast iron thinning; bevelling of external edges strengthens the cutting edge.
Used for medium to high grey cast iron hardness and for abrasives.

(7) E型THINNING(DIN1412 FORM E)
Type E thinning (DIN1412 FORM E)



中心钻小块THINNING确保最理想的中心孔，并且不会在通孔上留下毛刺
因为小块THINNING和切削刃都很脆，这种刀具适合于加工薄钢板
Center drill bit thinning; ensures optimal center drilling and does not leave burs in through holes.
As the bit and cutting edges are delicate, this bit should be used far drilling thin sheet metal.

8 高速钢麻花钻的表面处理
Surface Finishes for high speed steels Twist Drills

(1) 光亮色 / Bright Finish

光亮色的钻头没有经过任何表面处理和切削条件
特别是光亮的钻头用在加工有色金属
Drills with a bright finish are without surface treatment and ground condition.
Especially bright finished drills are used in machining of non ferrous materials.

(2) 着色(金黄色) / Coloring (Gold color)

着色是在刀具表面形成一层很薄的氧化膜层
它经常应用于含钴高速钢麻花钻
The coloring is a thin oxide layer formed on the tool surfaces.
This is often applied to cobalt high speed steels twist drills.

(3) 蒸汽处理(黑色氧化膜层) / Steam Tempered (black oxide finish)

在刀具表面形成的1~2㎛的黑色氧化层.
蒸汽处理钻头是蒸汽回火操作的结果. 因为氧化层在刀具表面保留着许多冷却液，帮助铁屑流动以吸收热量。
蒸汽处理的钻头推荐于铁金属的应用.
This is a black oxide layer 1-2㎛ formed on the tool surfaces.
Steam Tempered treated drill is the result of a steam tempering operation. Because the oxide layer retains some coolant on the tool surface, and aids chip flow, helps to dissipate heat, steam homo treated drills are recommended for ferrous applications.

9 涂层
Coating

涂层刀具的使用可降低生产成本
例如
- 避免由于刀具过早的磨损而造成设备的停工
- 更高的切削性能可减少实际的加工时间
- 可再生的刀具寿命
- 可提高结构表面质量

The use of coated cutting tools reduce production costs.
For example
- Avoidance of machine downtime due to premature tool wear.
- Higher cutting capabilities to reduce actual machining times.
- Reproducible tool life.
- Improvement of component surface quality.

(1) TiN 涂层(氮化钛涂层) / TiN (Titanium Nitride) coating

与未涂层钻头相比，氮化钛涂层能有效提高刀具的切削性能. TIN涂层具有较好的综合性能从而广泛得到应用. 如，在相同的切削条件下，能有效抵抗研磨剂，结合剂及化学物品的侵蚀.
Titanium Nitride gives the tool a higher performance in comparison to traditional non-coated drills.
TiN coating, with good all-around properties, is recommended for the general application, i.e., attack by abrasive, adhesive and chemical wear in equal proportions.

(2) TiCN 涂层 / TiCN (Titanium Carbon Nitride) coating

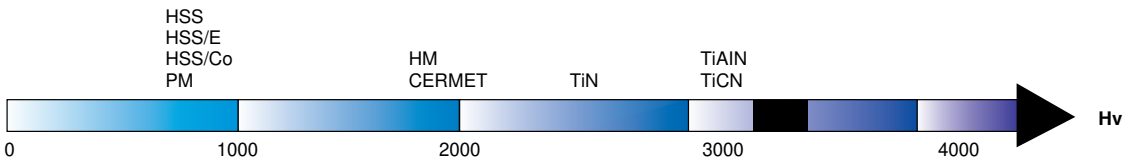
TICN涂层在高速钻削，大切削热加工时被广泛使用. 例如，在高硬度钢或低碳钢上高速和高进给钻孔时.
TiCN coating should be employed when severe thermodynamic stress is expected, for example when drilling in high hardened steels or in mild steels with high speed and feed.

(3) TiAlN 涂层 / TiAlN (Titanium Alumium Nitride) coating

在钛氮中增加铝可以增加刀具的硬度及最大程度的防止高温下氧化
TiAlN 涂层应用于连续无阶梯进给，干式切削或高速切削时在切削刃产生剧烈热应力下钻孔.
The addition of Aluminum to the Titanium Nitride produces an increase in hardness and an exceptional increase in resistance to oxidation at high temperature.
TiAlN coating is applied to drilling with severe thermal stress on cutting edges when continuous non-step feed, dry cutting or high speed cutting.

(4) 涂层特征 / Properties of coating

特征 Properties	TiN	TiCN	TiAlN
涂层颜色 Coating color	gold - yellow	blue - grey	violet - grey
硬度(Hv 0.05) Hardness (Hv 0.05)	2300	3000	3000
涂层厚度(㎛) Coating thickness(㎛)	1~4	1~4	1~5
最大加工温度(°C) Max. working temperature (°C)	600	400	800
钢的相对摩擦系数(干式) Coefficient of friction against steels(dry)	0.4	0.4	0.4



(5) 涂层的选择 / Selection of coating

被加工材料 Work-material	高速钢麻花钻 HSS TWIST DRILLS	硬质合金钻头 CARBIDE DRILLS
非合金钢 Unalloyed steels	TiCN, TiAlN	TiCN, TiAlN
钢<1000N/mm² Steels < 1000 N/mm²	TiCN, TiAlN	TiCN, TiAlN
钢>1000N/mm² Steels > 1000 N/mm²	TiCN, TiAlN	TiCN, TiAlN
不锈钢 Stainless steels	TiCN, TiAlN	TiCN, TiAlN
铸铁 Cast iron	TiCN, TiAlN	TiAlN
锻造铝合金 Al-wrought alloys	TiN	TiN
铸铁铝合金 Al-cast alloys	TiCN	TiCN
纯铜 Copper (pure)	CrN	CrN
黄铜 Brass	TiCN	TiCN
青铜 Bronze	TiCN	TiCN

10 攻丝前钻头的尺寸 Drill sizes before Tapping

(1) 公制-ISO 粗牙螺纹 Metric - ISO threads coarse pitch

Nominal diameter	Drill diameter	Nominal diameter	Drill diameter	Nominal diameter	Drill diameter	Nominal diameter	Drill diameter
		M3	2.5	**M11**	9.5	**M30**	26.5
M1	0.75	**M3.5**	2.9	**M12**	10.2	**M33**	29.5
M1.2	0.95	**M4**	3.3	**M14**	12.0	**M36**	32.0
M1.4	1.1	**M5**	4.2	**M16**	14.0	**M39**	35.0
M1.6	1.25	**M6**	5.0	**M18**	15.5	**M42**	37.5
M1.8	1.45	**M7**	6.0	**M20**	17.5	**M45**	40.5
M2	1.6	**M8**	6.8	**M22**	19.5	**M48**	43.0
M2.2	1.75	**M9**	7.8	**M24**	21.0	**M52**	47.0
M2.5	2.05	**M10**	8.5	**M27**	24.0	**M56**	50.5

(2) 公制 ISO 细牙螺纹 Metric ISO threads fine pitch

Nominal diameter	Tap Pitch	Drill diameter
2.5	0.35	2.15
3	0.35	2.65
3.5	0.35	3.15
4	0.5	3.5
4.5	0.5	4
5	0.5	4.5
5.5	0.5	5
6	0.75	5.2

Nominal diameter	Tap Pitch	Drill diameter
7	0.75	6.2
8	0.75	7.2
8	1	7
9	0.75	8.2
9	1	8
10	0.75	9.2
10	1	9
10	1.25	8.8

Nominal diameter	Tap Pitch	Drill diameter
11	0.75	10.2
11	1	10
12	1	11
12	1.25	10.8
12	1.5	10.5
14	1	13
14	1.25	12.8
14	1.5	12.5
15	1	14
15	1.5	13.5
16	1	15
16	1.5	14.5
17	1	16
17	1.5	15.5
18	1	17
18	1.5	16.5
18	2	16
20	1	19
20	1.5	18.5
20	2	18
22	1	21
22	1.5	20.5
22	2	20
24	1	23
24	1.5	22.5
24	2	22
25	1	24
25	1.5	23.5
25	2	23
26	1.5	24.5
27	1	26
27	1.5	25.5
27	2	25
28	1	27
28	1.5	26.5
28	2	26

Nominal diameter	Tap Pitch	Drill diameter
30	1	29
30	1.5	28.5
30	2	28
30	3	27
32	1.5	30.5
32	2	30
33	1.5	31.5
33	2	31
33	3	30
35	1.5	33.5
36	1.5	34.5
36	2	34
36	3	33
38	1.5	36.5
39	1.5	37.5
39	2	37
39	3	36
40	1.5	38.5
40	2	38
40	3	37
42	1.5	40.5
42	2	40
42	3	39
45	1.5	43.5
45	2	43
45	3	42
48	1.5	46.5
48	2	46
48	3	45
50	1.5	48.5
50	2	48
50	3	47
52	1.5	50.5
52	2	50
52	3	49

(3) 惠氏管螺纹(BSP)
WITHWORTH pipe threads (BSP)

Nominal size	Drill diameter	Nominal size	Drill diameter
inches	mm	inches	mm
G1/8	8.8	G1 * 1/4	39.5
G1/4	11.8	G1 * 3/8	42.0
G3/8	15.25	G1 * 1/2	45.0
G1/2	19.0	G1 * 3/4	51.0
G5/8	21.0	G2	57.0
G3/4	24.5	G2 * 1/4	63.0
G7/8	28.25	G2 * 1/2	73.0
G1	30.75	G2 * 3/4	79.0
G11/8	35.5	G3	85.0

(4) 美国统一标准粗牙螺纹
American unified coarse threads

UNC	Drill diameter		UNC	Drill diameter	
	inches	mm		inches	mm
No. 1	53	1.51	7/16	U	9.35
No. 2	50	1.78	1/2	27/64	10.71
No. 3	47	1.99	9/16	31/64	12.30
No. 4	43	2.26	5/8	17/32	13.49
No. 5	38	2.58	3/4	21/32	16.67
No. 6	36	2.71	7/8	49/64	19.44
No. 8	29	3.45	1	7/8	22.22
No. 10	25	3.8	1 * 1/8	63/64	25.00
No. 12	16	4.5	1 * 1/4	1 * 7/64	28.18
1/4	7	5.11	1 * 3/8	1 * 7/32	30.95
5/16	F	6.53	1 * 1/2	1 * 11/32	34.13
3/8	5/16	7.94			

(5) 美国统一标准细牙螺纹
American unified fine threads

NF	Drill diameter		NF	Drill diameter	
	inches	mm		inches	mm
No. 0	3/64	1.19	3/8	Q	8.43
No. 1	53	1.51	7/16	25/64	9.92
No. 2	50	1.78	1/2	29/64	11.51
No. 3	45	2.08	9/16	33/64	13.10
No. 4	42	2.37	5/8	37/64	14.86
No. 5	37	2.64	3/4	11/16	17.46
No. 6	33	2.87	7/8	13/16	20.64
No. 8	29	3.45	1	59/64	23.42
No. 10	21	4.04	1 * 1/8	1 * 3/64	26.59
No. 12	14	4.62	1 * 1/4	1 * 11/32	29.76
1/4	3	5.41	1 * 3/8	1 * 19/32	32.94
5/16	1	6.91	1 * 1/2	1 * 27/64	36.11

ISO 公差
ISO Tolerance

㎛=1/1000mm

Diameter (mm)	1 - 3 from to	3 - 6 over to	6 - 10 over to	10 - 18 over to	18 - 30 over to	30 - 50 over to
公差范围 ㎛ / Tolerance range in ㎛						
h6	0 - 6	0 - 8	0 - 9	0 - 11	0 - 13	0 - 16
h7	0 - 10	0 - 12	0 - 15	0 - 18	0 - 21	0 - 25
h8	0 - 14	0 - 18	0 - 22	0 - 27	0 - 33	0 - 39
m7	+ 12 + 2	+ 16 + 4	+ 21 + 6	+ 25 + 7	+ 29 + 8	+ 34 + 9

12 钻孔时的问题答疑 Trouble Shooting in Drilling

发生的问题 Occurrence of trouble	问题原因 Cause of trouble	对策 Countermeasures
钻头钻不动 Drill will not enter work	1.钻头太钝 2.间隙角太小 3.钻腹太厚 1. Drill is dull. 2. Lip relief too small. 3. Too thick a web.	1.对钻唇间隙角进行充分地加工 2.钻腹加工得小一些 3.选择钻腹比较窄的钻头 1. Grind lip relief sufficiently. 2. Grind web thinning. 3. Choose a drill with narrow web.
钻边崩刃 Margin chipping	1.钻套尺寸过大 1.Oversized jig bushing.	1.为钻头的尺寸选择合适的钻套 1. Choose the suitable jig bushing for drill diameter
钻唇破损 Cutting lip breaks	1.间隙角过大 2.进给过大 1. Lip relief too much. 2. Feed too heavy.	1.对钻唇间隙角进行充分地加工 2.降低进给率 1. Grind lip relief sufficiently. 2. Decrease feed rate.
钻根(TANG)破损 Tang breaks Bruch der	1.锥柄和容屑槽结合不完整 2.容屑槽严重破损 1. Imperfect fit between taper shank and socket. 2. Burred or Badly worn sockets.	1.清理孔里的污泥或铁屑 2.把磨损的孔换成新的 1. Clean the dirt or chips in sockets. 2. Change the worn sockets to new ones.
黄铜加工时时钻头破碎 Drill breaks in brass	1.钻头不适合 2.铁屑堵塞沟槽 1. Unsuitable drill 2. Flutes clogged with chips	1.为被加工材料选择合适的钻头 1. Choose the suitable drill for work material.
钻头中心部位崩刃 Chipping of drill center	1.间隙角过大 2.进给过大 1. Lip relief too much. 2. Feed too heavy.	1.对钻唇间隙角进行充分地加工 2.降低进给率 1. Grind lip relief sufficiently. 2. Decrease feed rate.
孔过大 Hole oversize	1.切削刃的角度或长度不均一 2.主轴松了 1. Unequal angle or length of cutting edges. 2. Loosen spindle.	1.对钻顶角进行再研磨，选择合适的钻头 2.充分地夹紧主轴 1. Resharpening point, choose correct drills. 2. Tighten spindle sufficiently.
拐角破碎 Outer corners broken down.	1.切削速度过高 2.被加工材料中存在硬点 3.铁屑堵塞沟槽 4.钻头已过度磨损 1. Cutting speed too high. 2. Hard spots in work material. 3. Flutes clogged with chips. 4. Too wear of drills.	1.对钻头顶角进行研磨以适合被加工材料 2.降低进给率 3.再过分磨损前早一点再研磨 1. Grind point to suit work material. 2. Decrease the feed rates. 3. Resharpening early beforce too wear.

钻孔时的问题答疑
Trouble Shooting in Drilling

发生的问题 Occurrence of trouble	问题原因 Cause of trouble	对策 Countermeasures
铁屑大小不一致 **Large chip of one flute and small chip of other flute**	1.研磨点不合适 2.只有一个刃的钻唇进行所有的切削 1. Improperly ground point. 2. Only one lip doing all the cutting	1. 合适的研磨点 2. 研磨点使用同样的顶角角度和钻唇长度 3. 使用钻唇高度差比较小的钻头 1. Properly grind point. 2. Grind point with same point angle and length of lip 3. Grind with small lip height.
钻孔粗糙 **Hole rough**	1.研磨点不合适 2.冷却油供应不足 3.进给过大 4.固定设备刚性不好 1. Improperly ground point. 2. Unenough coolant supply 3. Too much feed. 4. Fixture not rigid.	1. 合适的研磨点 2. 提供足够的冷却油 3. 降低进给率 4. 加紧固定设备或进行更换 1. Properly grind point. 2. Supply coolant enough. 3. Decrease the feed rate. 4. Tighten the fixture or replace.

梦幻钻特征
Characteristic of DREAM DRILLS

- 通过特殊设计和高质量，YG-1梦幻钻适合于高速，高精确的钻孔
  YG-1's Dream Drill Series are suitable for high speed and accurate drilling operations by special design and high quality.

- 在加工钢，铸铁，工具钢，合金钢和不锈钢时有很好的性能
  Good performance for Steels, Cast Irons, Tool steels, Alloy steels and Stainless steels.

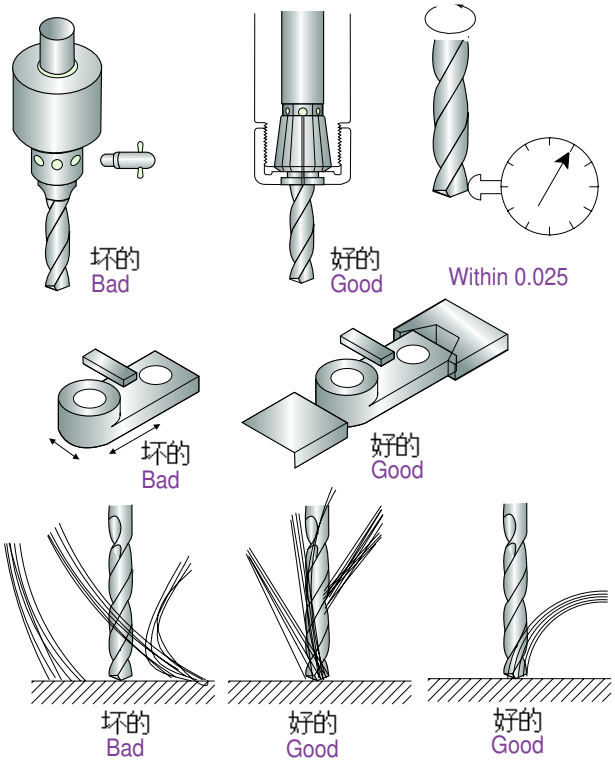
- 通过在顶角的切削刃上进行特殊设计和在前缘上追加断屑槽可以达到快速排屑和卓越的断屑
  Rapid chip evacuation and excellent chip breaking can be achived by special designed cutting edges on point and chip breakers on leading edges.

- 高精确性和稳定性
  High accuracy and stability.

- TiAlN涂层能够延长刀具寿命
  Longer tool life with TiAlN coating.

- 自定心
  Self-centering

14 梦幻钻使用
Use of DREAM DRILLS



▶ 正确地使用弹力夹头进行夹紧
Chucking with spring collet correctly.

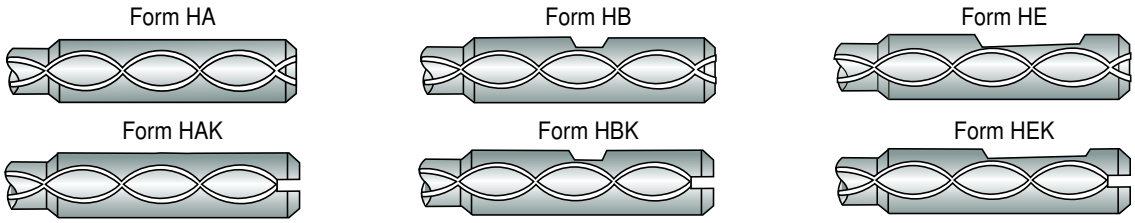
▶ 钻唇的径向跳动不应超过0.025mm
Radial run out at cutting lip must not exceed 0.025 mm.

▶ 工件的锁紧夹具
Tighten clamp of work piece.

▶ 为孔的入口提供充足的冷却油
Supply coolant enoughly to the entrance of hole.

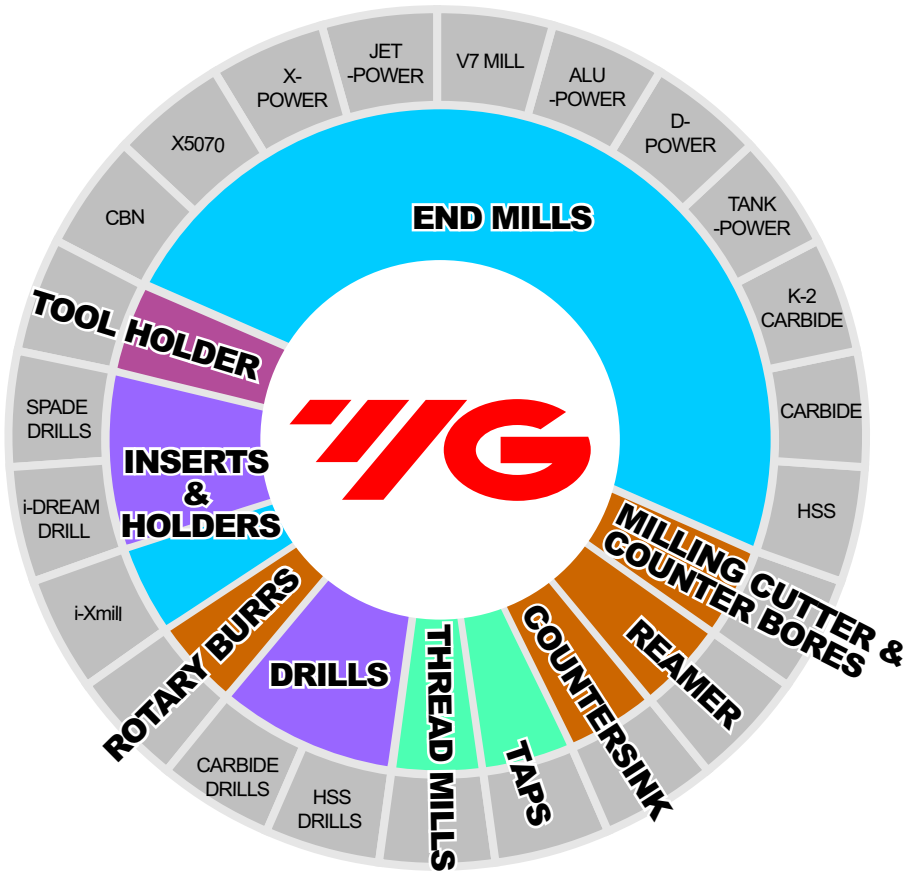
▶ 当使用带油孔的梦幻钻时，可以提供高压冷却油
When using Dream Drills with Coolant holes, Supply high pressure coolant.

15 带油孔的梦幻钻柄部形态
Shank Type DREAM DRILLS with Coolant Holes



▶ 在库生产的柄部形态是FORM HA
Shank Type of stocked products is Form HA.

▶ 如果您需要其他柄部形态，我们可以提供.
If you need other Shank Type, we can supply them.



Challenge toward a Global Leader-

YG-1 Leads the World Market.

螺纹工具
THREADING TOOLS

■ HSS THREADING TOOLS

COMBO丝锥(先端COMBO丝锥，螺旋槽COMBO丝锥)	COMBO TAPS (Spiral Point & Spiral Flute)
先端丝锥	SPIRAL POINT TAPS
螺旋槽丝锥	SPIRAL FLUTE TAPS
直槽丝锥	STRAIGHT FLUTE TAPS
长柄丝锥	LONG SHANK TAP
挤压丝锥	FLUTELESS TAP
嵌套螺纹用丝锥	SCREW THREAD INSERT TAPS
手用丝锥	HAND TAPS
管用丝锥	PIPE TAPS

■ CARBIDE THREADING TOOLS

整体硬质合金丝锥	SOLID CARBIDE TAPS
整体硬质合金螺纹铣刀 (带油孔和不带油孔)	SOLID CARBIDE THREAD MILLS (with & without Coolant Holes)

■ SKS21

SKS21手用丝锥	SKS21 HAND TAP
SKS21管用丝锥	SKS21 PIPE TAP

YG-1 CO., LTD.

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螺纹工具 THREADING TOOLS

高速钢机用丝锥
HSS MACHINE TAPS

高速钢手用丝锥 HSS HAND TAPS

高速钢管用丝锥 HSS PIPE TAPS

整体硬质合金机用丝锥 SOLID CARBIDE MACHINE TAPS

SKS21丝锥
SKS21 TAPS

整体硬质合金螺纹铣刀 SOLID CARBIDE THREAD MILLS

技术参数 TECHNICAL DATA

YG-1 CO., LTD.

Contents / THREADING TOOLS

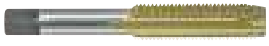
COMBO丝锥 (先端COMBO丝锥，螺旋槽COMBO丝锥) 多用途丝锥是YG-1的专利，HSS-EX	**COMBO TAPS** (Spiral Point & Spiral Flute) Multi Purpose Tapping, YG-1's Patent, HSS-EX	COMBO TAPS
先端丝锥 通孔加工，HSS-EX & HSS-PM	**SPIRAL POINT TAPS** Tapping Through Holes, HSS-EX & HSS-PM	SPIRAL POINT TAPS
螺旋槽丝锥 盲孔加工，HSS-EX & HSS-PM	**SPIRAL FLUTE TAPS** Tapping Blind Holes, HSS-EX & HSS-PM	SPIRAL FLUTE TAPS
直槽丝锥 铸铁，低碳钢和黄铜的浅孔加工. (HSS-EX & HSS-PM)	**STRAIGHT FLUTE TAPS** Tapping Shallow Holes of Cast Iron, Mild Steels and Brass. (HSS-EX & HSS-PM)	STRAIGHT FLUTE TAPS
长柄丝锥 用于加工深孔，HSS-EX	**LONG SHANK TAP** for Tapping Deep Holes, HSS-EX	LONG SHANK TAPS
挤压丝锥 用于软材料的丝锥，HSS-EX & HSS-PM	**FLUTELESS TAP** Tapping by Forming Soft Materials, HSS-EX & HSS-PM	FLUTELRSS TAPS
嵌套螺纹用丝锥 在软材质上加工STI螺纹，HSS & HSS-EX	**SCREW THREAD INSERT TAPS** Tapping STI Threads of Soft Materials, HSS & HSS-EX	SCREW THREAD INSERT TAPS
手用丝锥 普通加工，HSS	**HAND TAPS** General Tapping, HSS	HAND TAPS
管用丝锥 惠氏管用螺纹加工，HSS & HSS-EX	**PIPE TAPS** Tapping Whitworth Pipe threads, HSS & HSS-EX	PIPE TAPS
整体硬质合金丝锥 加工铸铁和高硅铝，产量大，生产效率高	**SOLID CARBIDE TAPS** Tapping Cast Iron and High Silicon Aluminium, Mass Production, High Productivity	CARBIDE TAPS
SKS21手用丝锥 可达到高强度，易装配	**SKS21 HAND TAP** to Achieve High Strength. Easy Assembling.	SKS21 HAND TAPS
SKS21管用丝锥 可达到高强度，易装配	**SKS21 PIPE TAP** to Achieve High Strength. Easy Assembling.	SKS21 PIPE TAPS
整体硬质合金螺纹铣刀(带油孔和不带油孔的) 在大多数及大尺寸的材料上可以高品质的螺纹铣加工，可以带有倒角	**SOLID CARBIDE THREAD MILLS**(with & without Coolant Holes) Threading Most of Materials and Big Sizes in High Quality, Available with Chamfer	THREAD MILLS
技术参数	**TECHNICAL DATA**	TECHNICAL DATA

COMBO TAPS

● SPIRAL POINT TAP ● SPIRAL FLUTE TAP

项目 / EDP No.	型号 / MODEL	刀具材质 / Tool Material	标准 / Standard	工件材质 / Work Material	尺寸 / Dimensions	丝锥公差 / Tolerance	倒角 / Chamfer	表面处理 / Surface Treatment	页 / PAGE
● **T2829**		HSS-EX	M	**MU**	I-GP	YH	5.0P	Bright	**347**
● **T2849**		HSS-EX	UNC/F	**MU**	I-GP	YH	5.0P	Bright	**350**
● **T2809**		HSS-EX	M	**MU**	I-SP	YH	2.5P	Bright	**352**
● **T2839**		HSS-EX	UNC/F	**MU**	I-SP	YH	2.5P	Bright	**355**

SPIRAL POINT TAPS

项目 / EDP No.	型号 / MODEL	刀具材质 / Tool Material	标准 / Standard	工件材质 / Work Material	尺寸 / Dimensions	丝锥公差 / Tolerance	倒角 / Chamfer	表面处理 / Surface Treatment	页 / PAGE
T1022		HSS-EX	M	**GS**	I-GP	YH	5.0P	Homo	**359**
T1272		HSS-EX	UNC/F	**GS**	I-GP	JIS II	5.0P	Homo	**363**
T1282		HSS-EX	W	**GS**	I-GP	JIS II	5.0P	Homo	**365**
T1042		HSS-EX	M	**GS**	J-GP	YH	5.0P	Homo	**366**
T1142		HSS-EX	UNC/F	**GS**	J-GP	JIS II	5.0P	Homo	**370**
T1262		HSS-EX	W	**GS**	J-GP	JIS II	5.0P	Homo	**372**
T3022		HSS-EX	M	**GS**	I-GPtin	YH	5.0P	TiN	**373**
T3042		HSS-EX	M	**GS**	I-GPtin	YH	5.0P	TiN	**374**
T1023		HSS-EX	M	**VA**	I-GPsus	YH	4.0P	Homo	**375**
T1043		HSS-EX	M	**VA**	J-GPsus	YH	4.0P	Homo	**377**
T2021		HSS-EX	M	**Al**	I-GPal	YH	5.0P	Bright	**379**
T2041		HSS-EX	M	**Al**	J-GPal	YH	5.0P	Bright	**381**
TW201		HSS-EX	M	**HR**	I-GPtan	YH	5.0P	TiAlN	**383**
TL231		HSS-PM	M	**Ni**	I-GPPMni	YH	4.0P	Homo	**384**

SPIRAL FLUTE TAPS

项目 EDP No.	型号 MODEL	刀具材质 Tool Material	标准 Standard	工件材质 Work Material	尺寸 Dimensions	丝锥公差 Tolerance	倒角 Chamfer	表面处理 Surface Treatment	页 PAGE
T1121		HSS-EX	M	**GS**	I-SP	YH	2.5P	Homo	**387**
T1152		HSS-EX	UNC/F	**GS**	I-SP	JIS II	2.5P	Homo	**391**
T1251		HSS-EX	W	**GS**	I-SP	JIS II	2.5P	Homo	**393**
T1132		HSS-EX	M	**GS**	J-SP	YH	2.5P	Homo	**394**
T1232		HSS-EX	UNC/F	**GS**	J-SP	JIS II	2.5P	Homo	**398**
T1162		HSS-EX	W	**GS**	J-SP	JIS II	2.5P	Homo	**400**
T1112		HSS-EX	M	**GS**	S-SP	YH	2.5P	Homo	**401**
T1172		HSS-EX	UNC/F	**GS**	S-SP	JIS II	2.5P	Homo	**404**
T1182		HSS-EX	W	**GS**	S-SP	JIS II	2.5P	Homo	**406**
T3121		HSS-EX	M	**GS**	I-SPtin	YH	2.5P	TiN	**407**
T3132		HSS-EX	M	**GS**	J-SPtin	YH	2.5P	TiN	**408**
T3112		HSS-EX	M	**GS**	S-SPtin	YH	2.5P	TiN	**409**
T1151		HSS-EX	M	**GV**	I-SPss	YH	2.5P	Homo	**410**
T1131		HSS-EX	M	**GV**	J-SPss	YH	2.5P	Homo	**411**
T1191		HSS-EX	M	**VA**	I-SPsus	YH	2.5P	Homo	**412**
T1133		HSS-EX	M	**VA**	J-SPsus	YH	2.5P	Homo	**414**
T1113		HSS-EX	M	**VA**	S-SPsus	YH	2.5P	Homo	**416**
T2120		HSS-EX	M	**Al**	I-SPal	YH	2.5P	Bright	**417**
T2131		HSS-EX	M	**Al**	J-SPal	YH	2.5P	Bright	**419**
T2111		HSS-EX	M	**Al**	S-SPal	YH	2.5P	Bright	**421**
TZ181		HSS-PM	M	**Ti**	I-SPPMti	YH	3.0P	TiAlN	**422**
TR641		HSS-PM	M	**Ni**	I-SPPMni	YH	3.0P	Bright	**423**

STRAIGHT FLUTE TAPS

项目 EDP No.	型号 MODEL	刀具材质 Tool Material	标准 Standard	工件材质 Work Material	尺寸 Dimensions	丝锥公差 Tolerance	倒角 Chamfer	表面处理 Surface Treatment	页 PAGE
T3492 T3491		HSS-EX	M	**GS**	I-STtin	YH	1.5P / 5.0P	TiN	**427**
T1402 T1401		HSS-EX	M	**VA**	I-STsus	YH	1.5P / 5.0P	Homo	**428**
TM482 TM481		HSS-PM	M	**HR**	I-STPM	YH	2.5P / 5.0P	Bright	**429**
T4471 T4461		HSS-EX	M	**GG**	I-STci	YH	1.5P / 5.0P	Nitrided & Homo	**430**
T4442 T4432		HSS-EX	W	**GG**	I-STci	YH	1.5P / 5.0P	Nitrided & Homo	**432**

LONG SHANK TAPS

项目 EDP No.	型号 MODEL	刀具材质 Tool Material	标准 Standard	工件材质 Work Material	尺寸 Dimensions	丝锥公差 Tolerance	倒角 Chamfer	表面处理 Surface Treatment	页 PAGE
T1203		HSS-EX	M	**GS**	GPLS	YH	5.0P	Homo	**435**
T1204		HSS-EX	M	**GS**	GPLS	YH	5.0P	Homo	**436**
T1205		HSS-EX	M	**GS**	GPLS	YH	5.0P	Homo	**437**
T1206		HSS-EX	M	**GS**	GPLS	YH	5.0P	Homo	**438**
T1230 T1240		HSS-EX	W	**GS**	GPLS	JIS II	5.0P	Homo	**439**
T1250 T1260		HSS-EX	W	**GS**	GPLS	JIS II	5.0P	Homo	**440**
T1103		HSS-EX	M	**GS**	SPLS	YH	2.5P	Homo	**441**
T1104		HSS-EX	M	**GS**	SPLS	YH	2.5P	Homo	**442**
T1105		HSS-EX	M	**GS**	SPLS	YH	2.5P	Homo	**443**
T1106		HSS-EX	M	**GS**	SPLS	YH	2.5P	Homo	**444**
T1130 T1140		HSS-EX	W	**GS**	SPLS	JIS II	2.5P	Homo	**445**
T1150 T1160		HSS-EX	W	**GS**	SPLS	JIS II	2.5P	Homo	**446**
T1323 T1303		HSS-EX	M	**GS**	STLS	YH	1.5P / 5.0P	Homo	**447**
T1324 T1304		HSS-EX	M	**GS**	STLS	YH	1.5P / 5.0P	Homo	**448**
T1325 T1305		HSS-EX	M	**GS**	STLS	YH	1.5P / 5.0P	Homo	**449**
T1326 T1306		HSS-EX	M	**GS**	STLS	YH	1.5P / 5.0P	Homo	**450**
T1331/T1330 T1341/T1340		HSS-EX	W	**GS**	STLS	JIS II	1.5P / 5.0P	Homo	**451**
T1351/T1350 T1361/T1360		HSS-EX	W	**GS**	STLS	JIS II	1.5P / 5.0P	Homo	**452**

FLUTELESS TAPS

项目 EDP No.	型号 MODEL	刀具材质 Tool Material	标准 Standard	工件材质 Work Material	尺寸 Dimensions	丝锥公差 Tolerance	倒角 Chamfer	表面处理 Surface Treatment	页 PAGE
T1791 T1781		HSS-EX	M	**GV**	FLST	GH	2.0P / 4.0P	Homo	**455**
T1771 T1761		HSS-EX	M	**GV**	FLOst	GH	2.0P / 4.0P	Homo	**456**
T2731 T2701		HSS-EX	M	**GV**	FL	GH	2.0P / 4.0P	Bright	**457**
T2732 T2702		HSS-EX	UNC	**GV**	FL	GH	2.0P / 4.0P	Bright	**458**
T2759 T2749		HSS-EX	M	**GV**	J-FL	GH	2.0P / 4.0P	Bright	**459**
T2751 T2741		HSS-EX	M	**GV**	FLO	GH	2.0P / 4.0P	Bright	**460**
T3731 T3701		HSS-EX	M	**GV**	FLtin	GH	2.0P / 4.0P	TiN	**461**
T3751 T3741		HSS-EX	M	**GV**	FLOtin	GH	2.0P / 4.0P	TiN	**462**

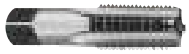
SCREW THREAD INSERT TAPS

项目 EDP No.	型号 MODEL	刀具材质 Tool Material	标准 Standard	工件材质 Work Material	尺寸 Dimensions	丝锥公差 Tolerance	倒角 Chamfer	表面处理 Surface Treatment	页 PAGE
T7399		HSS	M	**Al**	STI	JIS 1b	1.5P / 5.0P	Bright	**465**
T7322		HSS	UNC/F	**Al**	STI	JIS 1b	1.5P / 5.0P	Bright	**466**
T2197		HSS-EX	M	**Al**	SP-STI	JIS 1b	2.5P	Bright	**467**
T2198		HSS-EX	UNC/F	**Al**	SP-STI	JIS 1b	2.5P	Bright	**468**

HAND TAPS

项目 EDP No.	型号 MODEL	刀具材质 Tool Material	标准 Standard	工件材质 Work Material	尺寸 Dimensions	丝锥公差 Tolerance	倒角 Chamfer	表面处理 Surface Treatment	页 PAGE
T7099		HSS	M	**GS**	HT	JIS II	1.5P / 5.0P / 9.0P	Bright	**471**
T7199		HSS	UNC/F	**GS**	HT	JIS II	1.5P / 5.0P / 9.0P	Bright	**475**
T7299		HSS	W	**GS**	HT	JIS II	1.5P / 5.0P / 9.0P	Bright	**477**

PIPE TAPS

项目 EDP No.	型号 MODEL	刀具材质 Tool Material	标准 Standard	工件材质 Work Material	尺寸 Dimensions	丝锥公差 Tolerance	倒角 Chamfer	表面处理 Surface Treatment	页 PAGE
T7532 T2532		HSS HSS-EX	PT	**GS**	PT	JIS II	2.5P	Bright	**481**
T2518		HSS-EX	SP-PT	**GS**	PT	JIS II	2.5P	Bright	**482**
T7552 T2552		HSS HSS-EX	PS	**GS**	PS	JIS II	3.5P	Bright	**483**
T2538		HSS-EX	SP-PS	**GS**	PS	JIS II	3.0P	Bright	**484**
T7562 T2562		HSS HSS-EX	PF	**GS**	PF	JIS II	3.5P	Bright	**485**
T2539		HSS-EX	SP-PF	**GS**	PF	JIS II	3.0P	Bright	**486**
T2527		HSS-EX	NPT	**GS**	NPT	ANSI G	3.0P	Bright	**487**
T2537		HSS-EX	NPTF	**GS**	NPTF	ANSI G	3.0P	Bright	**488**

CARBIDE TAPS

项目 EDP No.	型号 MODEL	刀具材质 Tool Material	标准 Standard	工件材质 Work Material	尺寸 Dimensions	丝锥公差 Tolerance	倒角 Chamfer	表面处理 Surface Treatment	页 PAGE
T0202 T0102		CARBIDE	M	**Al**	SPCal	YH	1.5 / 2.5P	Bright	**491**
T0164 T0154		CARBIDE	W	**Al**	SPCal	YH	1.5 / 2.5P	Bright	**492**
T0451 T0441		CARBIDE	M	**GG**	STCci	YH	1.5P / 3.0P	Bright	**493**
T0462 T0452		CARBIDE	W	**GG**	STCci	YH	1.5P / 3.0P	Bright	**494**

SKS21 HAND TAPS

项目 EDP No.	型号 MODEL	刀具材质 Tool Material	标准 Standard	工件材质 Work Material	尺寸 Dimensions	丝锥公差 Tolerance	倒角 Chamfer	表面处理 Surface Treatment	页 PAGE
TSK11 (TS923)		SKS21	M	**GS**	HT	JIS III	1.5P / 5.0P / 9.0P	Bright	**497**
TSK12 (TS943)		SKS21	UNC/F	**GS**	HT	JIS III	1.5P / 5.0P / 9.0P	Bright	**500**
TSK13 (TS933)		SKS21	W	**GS**	HT	JIS III	1.5P / 5.0P / 9.0P	Bright	**502**
TSK21		SKS21	M-LH	**GS**	HT	JIS III	1.5P / 5.0P / 9.0P	Bright	**503**
TSK23		SKS21	W-LH	**GS**	HT	JIS III	1.5P / 5.0P / 9.0P	Bright	**504**

SKS21 PIPE TAPS

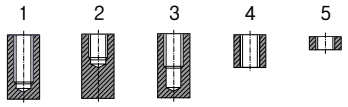
项目 EDP No.	型号 MODEL	刀具材质 Tool Material	标准 Standard	工件材质 Work Material	尺寸 Dimensions	丝锥公差 Tolerance	倒角 Chamfer	表面处理 Surface Treatment	页 PAGE
TSK34		SKS21	PT	**GS**	PT	JIS	3.0P	Bright	**507**
TSK35		SKS21	PS	**GS**	PS	JIS	3.0P	Bright	**508**
TSK36		SKS21	PF	**GS**	PF	JIS	3.0P	Bright	**509**
TSK37		SKS21	NPT	**GS**	NPT	ANSI	3.0P	Bright	**510**
TSK38		SKS21	NPS	**GS**	NPS	ANSI	3.0P	Bright	**511**

SOLID CARBIDE THREAD MILL

项目 ITEM	型号 MODEL	规格 DESCRIPTION	页 PAGE
L1111 **L1211**		整体硬质合金内螺纹的ISO公制螺纹铣刀-DIN 13 SOLID CARBIDE THREAD MILL for ISO METRIC INTERNAL THREAD - DIN 13	**515**
L1112 **L1212**		整体硬质合金内螺纹的ISO公制细牙螺纹铣刀-DIN 13 SOLID CARBIDE THREAD MILL for ISO METRIC-FINE INTERNAL THREAD - DIN 13	**516**
L1113 **L1213**		整体硬质合金内螺纹的英制螺纹铣刀-ANSI B 1.1 SOLID CARBIDE THREAD MILL for UNC INTERNAL THREAD - ANSI B 1.1	**517**
L1114 **L1214**		整体硬质合金内螺纹的英制细牙螺纹铣刀-ANSI B 1.1 SOLID CARBIDE THREAD MILL for UNF INTERNAL THREAD - ANSI B 1.1	**518**
L4111 **L4211**		带有内冷却油孔的整体硬质合金内螺纹的ISO公制螺纹铣刀-DIN 13 SOLID CARBIDE THREAD MILL WITH COOLANT HOLE for ISO METRIC INTERNAL THREAD - DIN 13	**519**
L4112 **L4212**		带有内冷却油孔的整体硬质合金内螺纹的ISO公制细牙螺纹铣刀-DIN13 SOLID CARBIDE THREAD MILL WITH COOLANT HOLE for ISO METRIC-FINE INTERNAL THREAD - DIN 13	**520**
L4171 **L4271**		带有内冷却油孔和倒角的整体硬质合金内螺纹的ISO公制螺纹铣刀-DIN 13 SOLID CARBIDE THREAD MILL WITH COOLANT HOLE & CHAMFER for ISO METRIC INTERNAL THREAD - DIN 13	**521**
L4172 **L4272**		带有内冷却油孔和倒角的整体硬质合金内螺纹的ISO公制细牙螺纹铣刀-DIN 13 SOLID CARBIDE THREAD MILL WITH COOLANT HOLE & CHAMFER for ISO METRIC-FINE INTERNAL THREAD - DIN 13	**522**
L4173 **L4273**		带有内冷却油孔和倒角的整体硬质合金内螺纹的英制螺纹铣刀-ANSI B 1.1 SOLID CARBIDE THREAD MILL WITH COOLANT HOLE & CHAMFER for UNC INTERNAL THREAD - ANSI B 1.1	**523**
L4174 **L4274**		带有内冷却油孔和倒角的整体硬质合金内螺纹的英制细牙螺纹铣刀-ANSI B 1.1 SOLID CARBIDE THREAD MILL WITH COOLANT HOLE & CHAMFER for UNF INTERNAL THREAD - ANSI B 1.1	**524**
L4176 **L4276**		带有内冷却油孔和倒角的整体硬质合金NPT螺纹铣刀-ANSI B 1.20.1 SOLID CARBIDE THREAD MILL WITH COOLANT HOLE & CHAMFER for NPT THREAD - ANSI B 1.20.1	**525**

机用丝锥 推荐表
MACHINE TAPS RECOMMENDATION TABLE

使用 / USE
◎ = 优 / EXCELLENT
○ = 良 / GOOD

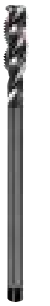


MATERIAL GROUPS		MU	MU	GS	GS	GS	GS
		I-GP	I-SP	I-GP	J-GP	I-GPtin	J-GPtin
M	项目 / EDP No. 页 / Page	T2829 (p.347)	T2809 (p.352)	T1022 (p.359)	T1042 (p.366)	T3022 (p.373)	T3042 (p.374)
UNC/F	项目 / EDP No. 页 / Page	T2849 (p.350)	T2839 (p.355)	T1272 (p.363)	T1142 (p.370)		
W	项目 / EDP No. 页 / Page			T1282 (p.365)	T1262 (p.372)		
M-LH W-LH	项目 / EDP No. 页 / Page						
PIPE TAPS	项目 / EDP No. 页 / Page						
表面处理 / 涂层 SURFACE TREATMENT / COATING		Bright	Bright	Homo	Homo	TiN	TiN
螺旋角 SPIRAL FLUTE ANGLE							
倒角导程ACC, DIN2197 CHAMFER LEAD ACC. DIN 2197		5.0P	2.5P	5.0P	5.0P	5.0P	5.0P
孔型 HOLE TYPE		4-5	1-2-3	4-5	4-5	4-5	4-5

冷却液 COOLANT

A = 切削油 Cutting Oil
T = 乳化油 Oil Emulsion
X = 切削油/乳化油 Cutting Oil/Oil Emulsion
S = 干式 Dry
Z = 干式/乳化油 Dry/Oil Emulsion

LIST OF MATERIALS							
低碳钢 / Low Carbon Steel	~ C0.25	◎	◎	◎	◎	○	○
中碳钢 / Meduim Carbon Steel	C0.25 ~ C0.45	◎	◎	○	○	○	○
高碳钢 / High Carbon Steel	C0.45 ~	◎	◎			◎	◎
合金钢 / Alloy Steel	SCM	◎	◎			○	○
硬化钢 / Hardened Steel	HRc25 ~ 45	◎	◎				
不锈钢 / Stainless Steel	SUS	◎	◎	○	○	◎	◎
工具钢 / Tool Steel	SKD	◎	◎	○	○	○	○
铸钢 / Cast Steel	SC	◎	◎	○	○	○	○
铸铁 / Cast Iron	FC	◎	◎				
高强度铸铁 / High Tension Cast Iron	FCD	◎	◎			○	○
铜 / Copper	Cu	◎	◎			○	○
黄铜 / Brass	Bs	◎	◎			○	○
铸铜 / Brass Casting	PB	◎	◎			○	○
铝轧 / Aluminum Rolled	AL	◎	◎			○	○
铸铝 / Aluminum Alloy Casting	AC,ADC	◎	◎			○	○
铸镁 / Magnesium Casting	MC	◎	◎			○	○
铸锌 / Zinc Alloy Casting	ZDC	◎	◎			○	○
钛合金 / Ti Alloy		○	○				
镍合金 / Ni Alloy		○	○				
热固性塑料 / Thermosetting plastic		○	○				
热塑性塑料 / thermoplastic		○	○	○	○	○	○

GS	GS	GS	GS	GS	GS	GS	GS	GS	GS	GS	GS	GS	GS	GS
I-SP	J-SP	S-SP	I-SPtin	J-SPtin	S-SPtin	I-STtin	GPLS	SPLS	STLS	HT	PT	SP-PT	PS	SP-PS
T1121 (p.387)	T1132 (p.394)	T1112 (p.401)	T3121 (p.407)	T3132 (p.408)	T3112 (p.409)	T3492 T3491 (p.427)	T1203~6 (p.435)	T1103~6 (p.441)	T1323~6 T1303~6 (p.447)	T7099 (p.471)				
T1152 (p.391)	T1232 (p.398)	T1172 (p.404)								T7199 (p.475)				
T1251 (p.393)	T1162 (p.400)	T1182 (p.406)					T1230~60 (p.439)	T1130~60 (p.445)	T1331~61 T1330~60 (p.451)	T7299 (p.477)				
											T7532 T2532 (p.481)	T2518 (p.482)	T7552 T2552 (p.483)	T2538 (p.484)
Homo	Homo	Homo	TiN	TiN	TiN	TiN	Homo	Homo	Homo	Bright	Bright	Bright	Bright	Bright
2.5P	2.5P	2.5P	2.5P	2.5P	2.5P	1.5P 5.0P	5.0P	2.5P	1.5P 5.0P	1.5P 5.0P 9.0P	2.5P	2.5P	3.5P	3.0P
1-2-3	1-2-3	1-2-3	1-2-3	1-2-3	1-2-3	1-2-3 4-5	4-5	1-2-3	1-2-3 4-5	1-2-3 4-5	1-2-3 4-5	1-2-3	1-2-3 4-5	1-2-3
														
◎	◎	◎	◎	◎	◎	○	◎	◎	○	○	○	◎	○	◎
○	○	○	○	○	○	○	○	○		○	◎	○	○	◎
○	○	○	◎	◎	◎	○		○		○	○	○	○	○
			○	○	○	○			○	○	◎	○	○	◎
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○	○	○	○	○	○		○	○	○					
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										○	○		○	
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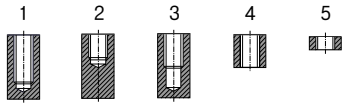
			○	○	○	○				○	○		○	○
			○	○	○	○				○	○		○	○
			○	○	○	○				○	○	○	○	○
			○	○	○	○				○	○		○	○
			○	○	○					○				
○	○	○	○	○	○		○	○			○			○

机用丝锥 推荐表
MACHINE TAPS RECOMMENDATION TABLE

使用 / USE
◎ = 优 / EXCELLENT
○ = 良 / GOOD



MATERIAL GROUPS		GS PF	GS SP-PF	GS NPT	GS NPTF	GS HT (SKS21)	GS PT (SKS21)
M	项目 / EDP No. 页 / Page					TSK11 (p.497)	
UNC/F	项目 / EDP No. 页 / Page					TSK12 (p.500)	
W	项目 / EDP No. 页 / Page					TSK13 (p.502)	
M-LH W-LH	项目 / EDP No. 页 / Page					TSK21 (p.503) TSK23 (p.504)	
PIPE TAPS	项目 / EDP No. 页 / Page	T7562 T2562 (p.485)	T2539 (p.486)	T2527 (p.487)	T2537 (p.488)		TSK34 (p.507)
表面处理 / 涂层 SURFACE TREATMENT / COATING		Bright	Bright	Bright	Bright	Bright	Bright
螺旋角 SPIRAL FLUTE ANGLE							
倒角导程ACC, DIN2197 CHAMFER LEAD ACC. DIN 2197		3.5P	3.0P	3.0P	3.0P	1.5P 5.0P 9.0P	3.0P
孔型 HOLE TYPE		1-2-3 4-5	1-2-3	1-2-3 4-5	1-2-3 4-5	1-2-3 4-5	1-2-3 4-5

冷却液 COOLANT

A = 切削油 Cutting Oil
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Z = 干式/乳化油 Dry/Oil Emulsion

LIST OF MATERIALS							
低碳钢 / Low Carbon Steel	~ C0.25	○	◎	○	○	○	○
中碳钢 / Meduim Carbon Steel	C0.25 ~ C0.45	○	◎	◎	◎	○	○
高碳钢 / High Carbon Steel	C0.45 ~	○	○	○	○	○	○
合金钢 / Alloy Steel	SCM	○	◎	◎	◎		
硬化钢 / Hardened Steel	HRc25 ~ 45	○		○	○		
不锈钢 / Stainless Steel	SUS						
工具钢 / Tool Steel	SKD			○	○		
铸钢 / Cast Steel	SC	○	◎	○	○	○	○
铸铁 / Cast Iron	FC	○		○	○	○	○
高强度铸铁 / High Tension Cast Iron	FCD	○	○	○	○	○	○
铜 / Copper	Cu		○	○	○		
黄铜 / Brass	Bs	○	○	○	○	○	○
铸铜 / Brass Casting	PB	○	○			○	
铝轧 / Aluminum Rolled	AL	○	○	○	○	○	○
铸铝 / Aluminum Alloy Casting	AC,ADC	○	○	○	○		
铸镁 / Magnesium Casting	MC	○	○	○	○		
铸锌 / Zinc Alloy Casting	ZDC	○	○	○	○		
钛合金 / Ti Alloy							
镍合金 / Ni Alloy							
热固性塑料 / Thermosetting plastic						○	
热塑性塑料 / thermoplastic			○	○	○		○

GS	GS	GS	GS	VA	VA	VA	VA	VA	VA	Al	Al	Al	Al	Al
PS (SKS21)	PF (SKS21)	NPT (SKS21)	NPS (SKS21)	I-GPsus	J-GPsus	I-SPsus	J-SPsus	S-SPsus	I-STsus	I-GPal	J-GPal	I-SPal	J-SPal	S-SPal
				T1023 (p.375)	T1043 (p.377)	T1191 (p.412)	T1133 (p.414)	T1113 (p.416)	T1402 T1401 (p.428)	T2021 (p.379)	T2041 (p.381)	T2120 (p.417)	T2131 (p.419)	T2111 (p.421)
TSK35 (p.508)	TSK36 (p.509)	TSK37 (p.510)	TSK38 (p.511)											
Bright	Bright	Bright	Bright	Homo	Homo	Homo	Homo	Homo	Homo	Bright	Bright	Bright	Bright	Bright
3.0P	3.0P	3.0P	3.0P	4.0P	4.0P	2.5P	2.5P	2.5P	1.5P 5.0P	5.0P	5.0P	2.5P	2.5P	2.5P
1-2-3 4-5	1-2-3 4-5	1-2-3 4-5	1-2-3 4-5	4-5	4-5	1-2-3	1-2-3	1-2-3	1-2-3 4-5	4-5	4-5	1-2-3	1-2-3	1-2-3
○	○	○	○							○	○	○	○	○
○	○	○	○							◎	◎	○	○	○
○	○	○	○							◎	◎			
										◎	◎	○	○	○
				◎	◎	◎	◎	◎	◎		◎			
○	○	○	○									○	○	○
○	○	○	○								◎			
○	○	○	○											
				◎	◎	◎	◎	◎	○	○	○	○	○	○
○	○	○	○							○	○	○	○	○
○	○		○							○	○	○	○	○
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○	○	○	○	◎	◎	◎	◎	◎				○	○	○

机用丝锥 推荐表
MACHINE TAPS RECOMMENDATION TABLE

使用 / USE
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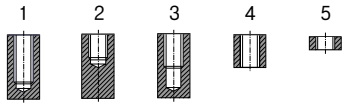

MATERIAL GROUPS		Al	Al	Al	HR	HR	Ni
		STI	SP-STI	SPCal	I-GPtan	I-STPM	I-GPPMni
M	项目 / EDP No. 页 / Page	T7399 (p.465)	T2197 (p.467)	T0202 T0102 (p.491)	TW201 (p.383)	TM482 TM481 (p.429)	TL231 (p.384)
UNC/F	项目 / EDP No. 页 / Page	T7322 (p.466)	T2198 (p.468)				
W	项目 / EDP No. 页 / Page			T0164 T0154 (p.492)			
M-LH W-LH	项目 / EDP No. 页 / Page						
PIPE TAPS	项目 / EDP No. 页 / Page						
表面处理 / 涂层 SURFACE TREATMENT / COATING		Bright	Bright	Bright	TiAlN	Bright	Homo
螺旋角 SPIRAL FLUTE ANGLE							
倒角导程ACC, DIN2197 CHAMFER LEAD ACC. DIN 2197		1.5P 5.0P	2.5P	1.5P 2.5P	5.0P	2.5P 5.0P	4.0P
孔型 HOLE TYPE		1-2-3 4-5	1-2-3	1-2-3	4-5	1-2-3 4-5	4-5

冷却液 COOLANT

A = 切削油 Cutting Oil
T = 乳化油 Oil Emulsion
X = 切削油/乳化油 Cutting Oil/Oil Emulsion
S = 干式 Dry
Z = 干式/乳化油 Dry/Oil Emulsion

LIST OF MATERIALS							
低碳钢 / Low Carbon Steel	~ C0.25				○		
中碳钢 / Meduim Carbon Steel	C0.25 ~ C0.45				◎		
高碳钢 / High Carbon Steel	C0.45 ~				◎	○	◎
合金钢 / Alloy Steel	SCM				○		◎
硬化钢 / Hardened Steel	HRc25 ~ 45					◎	◎
不锈钢 / Stainless Steel	SUS				○		
工具钢 / Tool Steel	SKD				○	◎	◎
铸钢 / Cast Steel	SC				○		
铸铁 / Cast Iron	FC			○			
高强度铸铁 / High Tension Cast Iron	FCD			◎		○	○
铜 / Copper	Cu			◎	○		
黄铜 / Brass	Bs			◎	○		
铸铜 / Brass Casting	PB			○	○		
铝轧 / Aluminum Rolled	AL	◎	◎	◎	○		
铸铝 / Aluminum Alloy Casting	AC,ADC	◎	◎	◎	○		
铸镁 / Magnesium Casting	MC				○		
铸锌 / Zinc Alloy Casting	ZDC	◎	◎	◎	○		
钛合金 / Ti Alloy							
镍合金 / Ni Alloy							◎
热固性塑料 / Thermosetting plastic				○			
热塑性塑料 / thermoplastic				◎	○		

Ni	Ti	GV	GV	GV	GV	GV	GV	GV	GV	GV	GG	GG		
I-SPPMni	I-SPPMti	I-SPss	J-SPss	FLST	FLOst	FL	J-FL	FLO	FLtin	FLOtin	I-STci	STCci		
TR641 (p.423)	TZ181 (p.422)	T1151 (p.410)	T1131 (p.411)	T1791 T1781 (p.455)	T1771 T1761 (p.456)	T2731 T2701 (p.457)	T2759 T2749 (p.459)	T2751 T2741 (p.460)	T3731 T3701 (p.461)	T3751 T3741 (p.462)	T4471 T4461 (p.430)	T0451 T0441 (p.493)		
						T2732 T2702 (p.458)								
											T4442 T4432 (p.432)	T0462 T0452 (p.494)		
Bright	TiAlN	Homo	Homo	Homo	Homo	Bright	Bright	Bright	TiN	TiN	Nitrided &Homo	Bright		
3.0P	3.0P	2.5P	2.5P	2.0P 4.0P	2.0P 4.0P	2.0P 4.0P	2.0P 4.0P	2.0P 4.0P	2.0P 4.0P	2.0P 4.0P	1.5P 5.0P	1.5P 3.0P		
4-5	1-2-3	1-2-3	1-2-3	1-2-3 4-5	1-2-3 4-5	1-2-3 4-5	1-2-3 4-5	1-2-3 4-5	1-2-3 4-5	1-2-3 4-5	1-2-3 4-5	1-2-3 4-5		
		◎	◎	◎	◎				◎	◎				
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	○	○	○											

切削速度表 / CUTTING SPEED TABLE
切削速度mm / Cutting Speeds m/min. into revolutions per minute

TOOL R.P.M.(rev/min)

Tool Dia.	Cutting Speed (m/min)															
	1	2	3	4	5	6	8	10	12	15	20	25	30	40	50	60
1	318	637	955	1274	1592	1910	2548	3185	3822	4777	6396	7962	9554	12739	15924	19108
2	159	318	478	637	796	955	1274	1592	1911	2388	3185	3981	4777	6369	7962	9554
3	106	212	318	425	531	637	849	1062	1274	1592	2123	2654	3185	4246	5308	6369
4	80	159	239	318	398	478	637	796	955	1194	1592	1990	2389	3185	3981	4777
5	64	127	191	255	318	382	510	637	764	955	1274	1592	1911	2548	3185	3822
6	53	106	159	212	265	318	425	531	637	796	1062	1327	1592	2123	2653	3185
8	40	80	119	159	199	239	318	398	478	597	796	955	1194	1592	1990	2388
10	31	64	96	127	159	191	255	318	382	478	637	796	955	1274	1592	1911
12	26	53	80	106	133	159	212	265	318	398	531	663	796	1062	1327	1592
14	23	45	68	91	114	136	182	227	273	341	455	569	682	910	1137	1365
16	20	40	60	80	100	119	159	199	239	299	398	498	597	796	995	1194
18	18	35	53	71	88	106	142	177	212	265	354	442	531	708	885	1062
20	16	32	48	64	80	96	127	159	191	239	318	398	478	637	796	955
25	13	25	38	51	64	76	102	127	153	191	255	318	382	510	637	764
30	11	21	32	42	53	64	85	106	127	159	212	265	318	425	531	637
35	9	18	27	36	45	55	73	91	109	136	182	227	273	364	455	546
40	8	16	24	32	40	48	64	80	96	119	159	199	239	118	398	478

RPM = rev/min
V = m/min
D = Dia.(mm)

$$V = \frac{RPM \cdot \pi \cdot D}{1000}$$

$$RPM = \frac{1000 \cdot V}{\pi \cdot D}$$

我们使用的高速钢具有很好的耐磨性和韧性. 因此, 我们通常对我们的刀具进行光亮色处理, 不进行任何表面处理. 在加工特定的材料时, 不同的表面处理具有不同的优势.
The High Speed Steels we use grant a good wear resistance and toughness. Therefore we normally deliver our taps with bright, untreated surface. In machining certain materials, various surface treatments are of advantage.

蒸汽氧化处理 / STEAM HOMO

蒸汽处理是一种Fe_3O_4的氧化处理, 它能够减少刀具与工件之间的摩擦力, 防止冷焊.
The Steam Tempered is a Fe_3O_4-oxyd-coating which reduces the friction between tool and workpiece and prevents cold welding.

氮化处理 / NITRIDED

我们推荐这种表面处理方式是为了加工像灰铸铁, 含硅量超过10%的铝合金等高耐磨性材料.
We recommend this surface treatment for machining materials which effect a hard wear / abrasion, such as grey cast iron, alu-alloys with high Si-percentage more than 10%.

这些高价值的表面处理方式适合于很多的应用. 我们在我们自己的公司进行这些表面处理.
These are surface finishes of good value and suitable for many application. We do these surface treatments within our own company.
更多的表面加工是各种不同的涂层.
Further surface finishes are the various coatings.

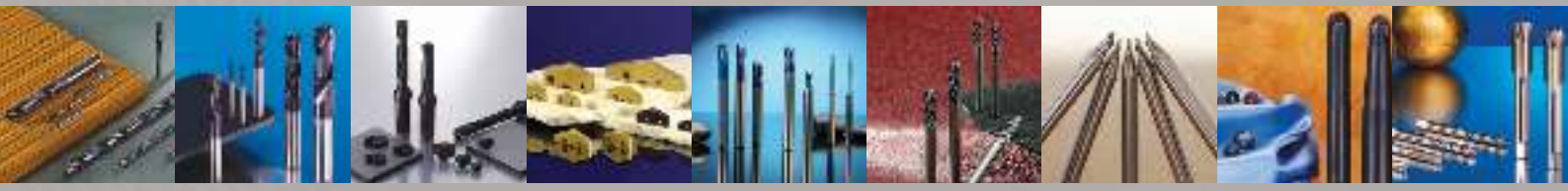
TiN涂层 - TiN / TiN-COATING - TiN

TiN涂层有着大约HV2300的硬度, 它的耐高温性可达到600℃左右. 这是一种普通应用下的极好地多方面涂层.
颜色 : 金色
相对于钢的摩擦系数: 0.4
The TiN-coating has a hardness of approx. **2,300 HV** and is temperature-resistant up to approx. **600**℃. This is an excellent all-round coating for normal applications.
Colour : **Golden** Coefficient of friction against steel : 0.4

TiAlN涂层 - TiAlN / TiAlN-COATING - TiAlN

这是加工像灰铸铁, 高硅铝, 强光纤塑料等耐磨性材料或在冷却不充分或速度≥600m/min的高温下加工的一种特殊涂层. TiAlN 涂层有着大约HV3,000的硬度, 它的耐高温性可达到 800℃左右.
颜色 : 灰蓝色
相对于钢的摩擦系数 : 0.4
This is a special coating for machining abrasive materials such as : grey cast iron, alu-alloys with silicon, fiber reinforced plastics, etc., or machining under high temperatures, which means with insufficient cooling, or high speeds ≥ 600m/min. The TiAlN has a hardness of approx. **3,000 HV** and is temperature resistant up to approx. **800**℃.
Colour : **Violet-Grey** Coefficient of friction against steel : 0.4

CUTTING TOOLS



HSS

Being the best through innovation

COMBO TAPS

- COMBO丝锥 (先端COMBO丝锥, 螺旋槽COMBO丝锥)
多用途丝锥是YG-1的专利, HSS-EX

Spiral Point, Spiral Flute Type
Multi Purpose tapping, YG-1's Patent, HSS-EX

COMBO丝锥(先端COMBO丝锥，螺旋槽COMBO丝锥)
COMBO TAPS (Spiral point & Spiral Flute)
多用途丝锥是YG-1的专利，HSS-EX / Multi Purpose Tapping, YG-1's Patent, HSS-EX

COMBO TAPS

● SPIRAL POINT TAP ● SPIRAL FLUTE TAP

项目 EDP No.	型号 MODEL	刀具材质 Tool Material	标准 Standard	工件材质 Work Material	尺寸 Dimensions	丝锥公差 Tolerance	倒角 Chamfer	表面处理 Surface Treatment	页 PAGE
● **T2829**		HSS-EX	M	**MU**	I-GP	YH	5.0P	Bright	**347**
● **T2849**		HSS-EX	UNC/F	**MU**	I-GP	YH	5.0P	Bright	**350**
● **T2809**		HSS-EX	M	**MU**	I-SP	YH	2.5P	Bright	**352**
● **T2839**		HSS-EX	UNC/F	**MU**	I-SP	YH	2.5P	Bright	**355**

COMBO TAPS

Combo TAP

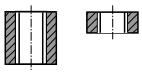
T2829 SERIES

M 多用涂先端丝锥
SPIRAL POINT TAPS for MULTI PURPOSE

▶ 对于应用广泛，和准确的螺纹形状，刀具寿命长来自于特殊的丝锥几何参数. YG-1公司拥有的专利.

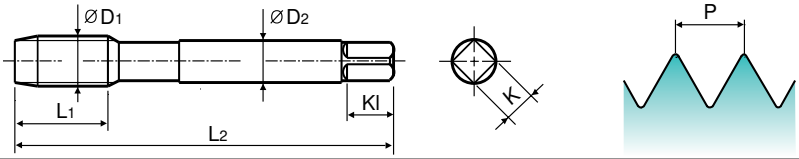
▶ For using multi-purpose, and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

Hole type



Material groups **MU** | HSS-EX | I-GP | YH | 5.0P | Bright

▶ Tap Limits : P.530
▶ up to M8 : Male Center
▶ Tapping Speeds : P.532



단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M2 x	0.4	T2829132	YH2	40.0	9.5	3.0	2.5	5.0	2
M2.2 x	0.45	T2829152	YH2	42.0	9.5	3.0	2.5	5.0	2
M2.3 x	0.4	T2829192	YH2	42.0	9.5	3.0	2.5	5.0	2
M2.5 x	0.45	T2829172	YH2	44.0	9.5	3.0	2.5	5.0	2
M2.6 x	0.45	T2829492	YH2	44.0	9.5	3.0	2.5	5.0	2
M3 x	0.5	T2829202-C	YH2	46.0	11.0	4.0	3.2	6.0	3
M3 x	0.35	T2829212-C	YH2	46.0	11.0	4.0	3.2	6.0	3
M3.5 x	0.6	T2829222-C	YH2	48.0	13.0	4.0	3.2	6.0	3
M3.5 x	0.35	T2829232-C	YH2	48.0	13.0	4.0	3.2	6.0	3
M4 x	0.7	T2829242-C	YH2	52.0	13.0	5.0	4.0	7.0	3
M4 x	0.5	T2829252-C	YH2	52.0	13.0	5.0	4.0	7.0	3
M4.5 x	0.75	T2829262-C	YH2	55.0	13.0	5.0	4.0	7.0	3
M4.5 x	0.5	T2829272-C	YH2	55.0	13.0	5.0	4.0	7.0	3
M5 x	0.8	T2829282-C	YH2	60.0	16.0	5.5	4.5	7.0	3
M5 x	0.5	T2829292-C	YH2	60.0	16.0	5.5	4.5	7.0	3
M5.5 x	0.5	T2829302-C	YH2	60.0	16.0	5.5	4.5	7.0	3
M6 x	1.0	T2829312-C	YH2	62.0	19.0	6.0	4.5	7.0	3
M6 x	0.75	T2829322-C	YH2	62.0	19.0	6.0	4.5	7.0	3
M6 x	0.5	T2829332-C	YH2	62.0	19.0	6.0	4.5	7.0	3
M7 x	1.0	T2829342-C	YH2	65.0	19.0	6.2	5.0	8.0	3
M7 x	0.75	T2829352-C	YH2	65.0	19.0	6.2	5.0	8.0	3
M8 x	1.25	T2829363-C	YH3	70.0	22.0	6.2	5.0	8.0	3
M8 x	1.0	T2829373-C	YH3	70.0	22.0	6.2	5.0	8.0	3
M8 x	0.75	T2829383-C	YH3	70.0	22.0	6.2	5.0	8.0	3
M9 x	1.25	T2829393-C	YH3	72.0	22.0	7.0	5.5	8.0	3
M9 x	1.0	T2829403-C	YH3	72.0	22.0	7.0	5.5	8.0	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
◎	◎	◎	◎	◎	◎	◎	○	○	○	○

COMBO TAPS
SPIRAL POINT TAPS
SPIRAL FLUTE TAPS
STRAIGHT FLUTE TAPS
LONG SHANK TAPS
FLUTELRSS TAPS
SCREW THREAD INSERT TAPS
HAND TAPS
PIPE TAPS
CARBIDE TAPS
SKS21 HAND TAPS
SKS21 PIPE TAPS
THREAD MILLS
TECHNICAL DATA

COMBO TAPS

Combo TAP

T2829 SERIES

M 多用涂先端丝锥
SPIRAL POINT TAPS for MULTI PURPOSE

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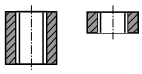
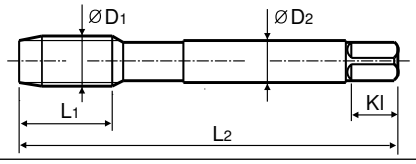
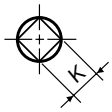
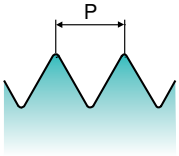


Material groups **MU** | HSS-EX | I-GP | YH | 5.0P | Bright

▶ Tap Limits : P.530
▶ up to M8 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M9	x 0.75	T2829413-C	YH3	72.0	22.0	7.0	5.5	8.0	3
M10	x 1.5	T2829423-C	YH3	75.0	24.0	7.0	5.5	8.0	3
M10	x 1.25	T2829433-C	YH3	75.0	24.0	7.0	5.5	8.0	3
M10	x 1.0	T2829443-C	YH3	75.0	24.0	7.0	5.5	8.0	3
M10	x 0.75	T2829453-C	YH3	75.0	24.0	7.0	5.5	8.0	3
M11	x 1.5	T2829463-C	YH3	80.0	25.0	8.0	6.0	9.0	3
M11	x 1.0	T2829473-C	YH3	80.0	25.0	8.0	6.0	9.0	3
M11	x 0.75	T2829483-C	YH3	80.0	25.0	8.0	6.0	9.0	3
M12	x 1.75	T2829504-C	YH4	82.0	29.0	8.5	6.5	9.0	3
M12	x 1.5	T2829513-C	YH3	82.0	29.0	8.5	6.5	9.0	3
M12	x 1.25	T2829523-C	YH3	82.0	29.0	8.5	6.5	9.0	3
M12	x 1.0	T2829533-C	YH3	82.0	29.0	8.5	6.5	9.0	3
M14	x 2.0	T2829544	YH4	88.0	30.0	10.5	8.0	11.0	3
M14	x 1.5	T2829553	YH3	88.0	30.0	10.5	8.0	11.0	3
M14	x 1.25	T2829563	YH3	88.0	30.0	10.5	8.0	11.0	3
M14	x 1.0	T2829573	YH3	88.0	30.0	10.5	8.0	11.0	3
M15	x 1.5	T2829583	YH3	90.0	30.0	10.5	8.0	11.0	3
M15	x 1.0	T2829593	YH3	90.0	30.0	10.5	8.0	11.0	3
M16	x 2.0	T2829604	YH4	95.0	32.0	12.5	10.0	13.0	3
M16	x 1.5	T2829613	YH3	95.0	32.0	12.5	10.0	13.0	3
M16	x 1.0	T2829623	YH3	95.0	32.0	12.5	10.0	13.0	3
M18	x 2.5	T2829654	YH4	100.0	37.0	14.0	11.0	14.0	3
M18	x 2.0	T2829664	YH4	100.0	37.0	14.0	11.0	14.0	3
M18	x 1.5	T2829674	YH4	100.0	37.0	14.0	11.0	14.0	3
M18	x 1.0	T2829683	YH3	100.0	37.0	14.0	11.0	14.0	3
M20	x 2.5	T2829704	YH4	105.0	37.0	15.0	12.0	15.0	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
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◎	◎	◎	◎	◎	◎	◎	○	○	○	○

COMBO TAPS

Combo TAP

T2829 SERIES

M 多用涂先端丝锥
SPIRAL POINT TAPS for MULTI PURPOSE

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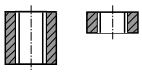
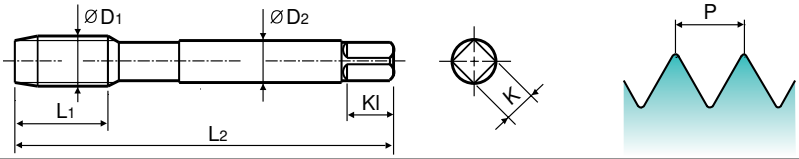


Material groups **MU** | HSS-EX | I-GP | YH | 5.0P | Bright

▶ Tap Limits : P.530
▶ up to M8 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M20 x	2.0	T2829714	YH4	105.0	37.0	15.0	12.0	15.0	3
M20 x	1.5	T2829724	YH4	105.0	37.0	15.0	12.0	15.0	3
M20 x	1.0	T2829733	YH3	105.0	37.0	15.0	12.0	15.0	3
M22 x	2.5	T2829744	YH4	115.0	38.0	17.0	13.0	16.0	3
M22 x	2.0	T2829754	YH4	115.0	38.0	17.0	13.0	16.0	3
M22 x	1.5	T2829764	YH4	115.0	38.0	17.0	13.0	16.0	3
M22 x	1.0	T2829773	YH3	115.0	38.0	17.0	13.0	16.0	3
M24 x	3.0	T2829784	YH4	120.0	45.0	19.0	15.0	18.0	3
M24 x	2.0	T2829794	YH4	120.0	45.0	19.0	15.0	18.0	3
M24 x	1.5	T2829804	YH4	120.0	45.0	19.0	15.0	18.0	3
M24 x	1.0	T2829813	YH3	120.0	45.0	19.0	15.0	18.0	3
M25 x	2.0	T2829824	YH4	125.0	45.0	19.0	15.0	18.0	3
M25 x	1.5	T2829834	YH4	125.0	45.0	19.0	15.0	18.0	3
M26 x	2.0	T2829N44	YH4	125.0	45.0	20.0	15.0	18.0	4
M26 x	1.5	T2829854	YH4	125.0	45.0	20.0	15.0	18.0	4
M26 x	1.0	T2829N53	YH3	125.0	45.0	20.0	15.0	18.0	4
M27 x	3.0	T2829864	YH4	130.0	45.0	20.0	15.0	18.0	4
M27 x	2.0	T2829874	YH4	130.0	45.0	20.0	15.0	18.0	4
M27 x	1.5	T2829884	YH4	130.0	45.0	20.0	15.0	18.0	4
M28 x	2.0	T2829904	YH4	130.0	45.0	21.0	17.0	20.0	4
M28 x	1.5	T2829914	YH4	130.0	45.0	21.0	17.0	20.0	4
M30 x	3.5	T2829945	YH5	135.0	48.0	23.0	17.0	20.0	4
M30 x	3.0	T2829954	YH4	135.0	48.0	23.0	17.0	20.0	4
M30 x	2.0	T2829964	YH4	135.0	48.0	23.0	17.0	20.0	4
M30 x	1.5	T2829974	YH4	135.0	48.0	23.0	17.0	20.0	4
M30 x	1.0	T2829983	YH3	135.0	48.0	23.0	17.0	20.0	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
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◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
◎	◎	◎	◎	◎	◎	◎	○	○	○	○

COMBO TAPS

Combo TAP

T2849 SERIES

UNC/F 多用涂先端丝锥 SPIRAL POINT TAPS for MULTI PURPOSE

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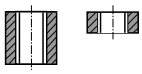

Material groups **MU** | HSS-EX | I-GP | YH | 5.0P | Bright

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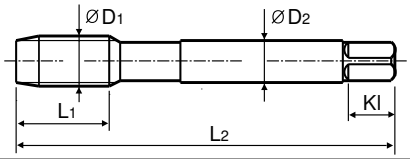
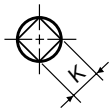
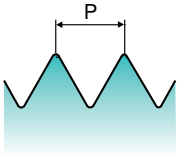






单位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
#2	- 56 UNC	T2849081	YH1	42.0	9.5	3.0	2.5	5.0	2
#2	- 64 UNF	T2849101	YH1	42.0	9.5	3.0	2.5	5.0	2
#3	- 48 UNC	T2849121	YH1	44.0	9.5	3.0	2.5	5.0	2
#3	- 56 UNF	T2849141	YH1	44.0	9.5	3.0	2.5	5.0	2
#4	- 40 UNC	T2849162	YH2	44.0	9.5	3.0	2.5	5.0	2
#4	- 48 UNF	T2849182	YH2	44.0	9.5	3.0	2.5	5.0	2
#5	- 40 UNC	T2849202-C	YH2	46.0	11.0	4.0	3.2	6.0	3
#5	- 44 UNF	T2849222-C	YH2	46.0	11.0	4.0	3.2	6.0	3
#6	- 32 UNC	T2849242-C	YH2	48.0	13.0	4.0	3.2	6.0	3
#6	- 40 UNF	T2849262-C	YH2	48.0	13.0	4.0	3.2	6.0	3
#8	- 32 UNC	T2849282-C	YH2	52.0	13.0	5.0	4.0	7.0	3
#8	- 36 UNF	T2849302-C	YH2	52.0	13.0	5.0	4.0	7.0	3
#10	- 24 UNC	T2849322-C	YH2	60.0	16.0	5.5	4.5	7.0	3
#10	- 32 UNF	T2849342-C	YH2	60.0	16.0	5.5	4.5	7.0	3
#12	- 24 UNC	T2849362-C	YH2	60.0	16.0	5.5	4.5	7.0	3
#12	- 28 UNF	T2849382-C	YH2	60.0	16.0	5.5	4.5	7.0	3
1/4	- 20 UNC	T2849402-C	YH2	62.0	19.0	6.0	4.5	7.0	3
1/4	- 28 UNF	T2849422-C	YH2	62.0	19.0	6.0	4.5	7.0	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
◎	◎	◎	◎	◎	◎	◎	○	○	○	○

COMBO TAPS

Combo TAP

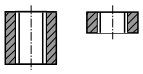
T2849 SERIES

UNC/F 多用涂先端丝锥
SPIRAL POINT TAPS for MULTI PURPOSE

▶ 对于应用广泛，和准确的螺纹形状，刀具寿命长来自于特殊的丝锥几何参数. YG-1公司拥有的专利.

▶ For using multi-purpose, and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

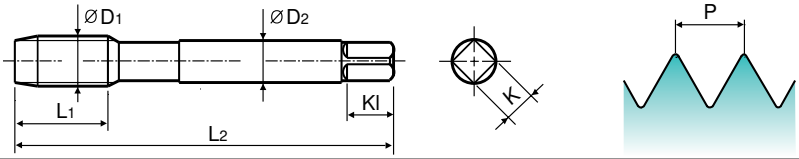
Hole type



Material groups **MU**

HSS-EX | I-GP | YH | 5.0P | Bright

▶ Tap Limits : P.530
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532



단위(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
5/16-	18 UNC	T2849443-C	YH3	70.0	22.0	6.1	5.0	8.0	3
5/16-	24 UNF	T2849462-C	YH2	70.0	22.0	6.1	5.0	8.0	3
3/8 -	16 UNC	T2849483-C	YH3	75.0	24.0	7.0	5.5	8.0	3
3/8 -	24 UNF	T2849502-C	YH2	75.0	24.0	7.0	5.5	8.0	3
7/16-	14 UNC	T2849523-C	YH3	80.0	25.0	8.0	6.0	9.0	3
7/16-	20 UNF	T2849543-C	YH3	80.0	25.0	8.0	6.0	9.0	3
1/2 -	13 UNC	T2849563-C	YH3	85.0	29.0	9.0	7.0	10.0	3
1/2 -	20 UNF	T2849583-C	YH3	85.0	29.0	9.0	7.0	10.0	3
9/16-	12 UNC	T2849603	YH3	90.0	30.0	10.5	8.0	11.0	3
9/16-	18 UNF	T2849623	YH3	90.0	30.0	10.5	8.0	11.0	3
5/8 -	11 UNC	T2849643	YH3	95.0	32.0	12.0	9.0	12.0	3
5/8 -	18 UNF	T2849663	YH3	95.0	32.0	12.0	9.0	12.0	3
3/4 -	10 UNC	T2849703	YH3	105.0	37.0	14.0	11.0	14.0	3
3/4 -	16 UNF	T2849723	YH3	105.0	37.0	14.0	11.0	14.0	3
7/8 -	9 UNC	T2849744	YH4	115.0	38.0	17.0	13.0	16.0	3
7/8 -	14 UNF	T2849763	YH3	115.0	38.0	17.0	13.0	16.0	3
1" -	8 UNC	T2849784	YH4	125.0	45.0	20.0	15.0	18.0	3
1" -	12 UNF	T2849803	YH3	125.0	45.0	20.0	15.0	18.0	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
◎	◎	◎	◎	◎	◎	◎	○	○	○	○

COMBO TAPS

Combo TAP

T2809 SERIES

M 多用涂先端丝锥
SPIRAL FLUTE TAPS for MULTI PURPOSE

▶ 对于使用多用途, 正确的螺纹刀具寿命长因特殊丝锥参数.
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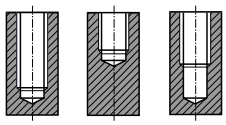
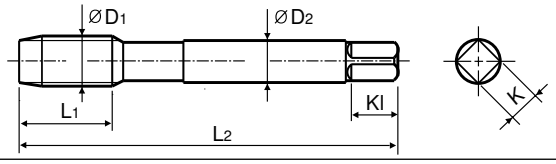
▶ For using multi-purpose, and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

Hole type



Material groups **MU** | HSS-EX | I-SP | YH | 2.5P | Bright

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532



단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M2 x	0.4	T2809131	YH1	40.0	9.5	3.0	2.5	5.0	2
M2.2 x	0.45	T2809151	YH1	42.0	9.5	3.0	2.5	5.0	2
M2.3 x	0.4	T2809191	YH1	42.0	9.5	3.0	2.5	5.0	2
M2.5 x	0.45	T2809171	YH1	44.0	9.5	3.0	2.5	5.0	2
M2.6 x	0.45	T2809491	YH1	44.0	9.5	3.0	2.5	5.0	2
M3 x	0.5	T2809202-C	YH2	46.0	11.0	4.0	3.2	6.0	3
M3 x	0.35	T2809211-C	YH1	46.0	11.0	4.0	3.2	6.0	3
M3.5 x	0.6	T2809222-C	YH2	48.0	13.0	4.0	3.2	6.0	3
M3.5 x	0.35	T2809231-C	YH1	48.0	13.0	4.0	3.2	6.0	3
M4 x	0.7	T2809242-C	YH2	52.0	13.0	5.0	4.0	7.0	3
M4 x	0.5	T2809252-C	YH2	52.0	13.0	5.0	4.0	7.0	3
M4.5 x	0.75	T2809262-C	YH2	55.0	13.0	5.0	4.0	7.0	3
M4.5 x	0.5	T2809271-C	YH1	55.0	13.0	5.0	4.0	7.0	3
M5 x	0.8	T2809282-C	YH2	60.0	16.0	5.5	4.5	7.0	3
M5 x	0.5	T2809292-C	YH2	60.0	16.0	5.5	4.5	7.0	3
M5.5 x	0.5	T2809301-C	YH1	60.0	16.0	5.5	4.5	7.0	3
M6 x	1.0	T2809312-C	YH2	62.0	19.0	6.0	4.5	7.0	3
M6 x	0.75	T2809322-C	YH2	62.0	19.0	6.0	4.5	7.0	3
M6 x	0.5	T2809332-C	YH2	62.0	19.0	6.0	4.5	7.0	3
M7 x	1.0	T2809342-C	YH2	65.0	19.0	6.2	5.0	8.0	3
M7 x	0.75	T2809352-C	YH2	65.0	19.0	6.2	5.0	8.0	3
M8 x	1.25	T2809362-C	YH2	70.0	22.0	6.2	5.0	8.0	3
M8 x	1.0	T2809372-C	YH2	70.0	22.0	6.2	5.0	8.0	3
M8 x	0.75	T2809382-C	YH2	70.0	22.0	6.2	5.0	8.0	3
M9 x	1.25	T2809392-C	YH2	72.0	22.0	7.0	5.5	8.0	3
M9 x	1.0	T2809402-C	YH2	72.0	22.0	7.0	5.5	8.0	3

◎ : 优(Excellent) ○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
◎	◎	◎	◎	◎	◎	◎	○	○	○	○

COMBO TAPS

Combo TAP

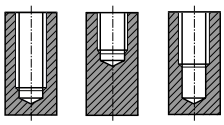
T2809 SERIES

M 多用涂先端丝锥
SPIRAL FLUTE TAPS for MULTI PURPOSE

▶ 对于使用多用途，正确的螺纹刀具寿命长因特殊丝锥参数.
YG-1公司拥有的专利.

▶ For using multi-purpose, and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

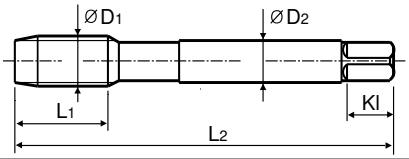
Hole type

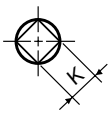


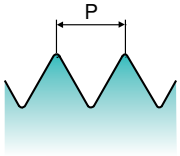
Material groups **MU**

HSS-EX | I-SP | YH | 2.5P | Bright

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







단위(Unit) : mm

尺寸 SIZE ØD1		牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M9	x	0.75	T2809412-C	YH2	72.0	22.0	7.0	5.5	8.0	3
M10	x	1.5	T2809422-C	YH2	75.0	24.0	7.0	5.5	8.0	3
M10	x	1.25	T2809432-C	YH2	75.0	24.0	7.0	5.5	8.0	3
M10	x	1.0	T2809442-C	YH2	75.0	24.0	7.0	5.5	8.0	3
M10	x	0.75	T2809452-C	YH2	75.0	24.0	7.0	5.5	8.0	3
M11	x	1.5	T2809462-C	YH2	80.0	25.0	8.0	6.0	9.0	3
M11	x	1.0	T2809472-C	YH2	80.0	25.0	8.0	6.0	9.0	3
M11	x	0.75	T2809482-C	YH2	80.0	25.0	8.0	6.0	9.0	3
M12	x	1.75	T2809502-C	YH2	82.0	29.0	8.5	6.5	9.0	3
M12	x	1.5	T2809512-C	YH2	82.0	29.0	8.5	6.5	9.0	3
M12	x	1.25	T2809522-C	YH2	82.0	29.0	8.5	6.5	9.0	3
M12	x	1.0	T2809532-C	YH2	82.0	29.0	8.5	6.5	9.0	3
M14	x	2.0	T2809542	YH2	88.0	30.0	10.5	8.0	11.0	3
M14	x	1.5	T2809552	YH2	88.0	30.0	10.5	8.0	11.0	3
M14	x	1.25	T2809562	YH2	88.0	30.0	10.5	8.0	11.0	3
M14	x	1.0	T2809572	YH2	88.0	30.0	10.5	8.0	11.0	3
M15	x	1.5	T2809582	YH2	90.0	30.0	10.5	8.0	11.0	3
M15	x	1.0	T2809592	YH2	90.0	30.0	10.5	8.0	11.0	3
M16	x	2.0	T2809602	YH2	95.0	32.0	12.5	10.0	13.0	3
M16	x	1.5	T2809612	YH2	95.0	32.0	12.5	10.0	13.0	3
M16	x	1.0	T2809622	YH2	95.0	32.0	12.5	10.0	13.0	3
M18	x	2.5	T2809653	YH3	100.0	37.0	14.0	11.0	14.0	4
M18	x	2.0	T2809663	YH3	100.0	37.0	14.0	11.0	14.0	4
M18	x	1.5	T2809672	YH2	100.0	37.0	14.0	11.0	14.0	4
M18	x	1.0	T2809682	YH2	100.0	37.0	14.0	11.0	14.0	4
M20	x	2.5	T2809703	YH3	105.0	37.0	15.0	12.0	15.0	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
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◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
◎	◎	◎	◎	◎	◎	◎	○	○	○	○

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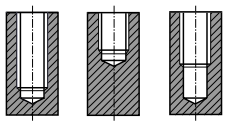
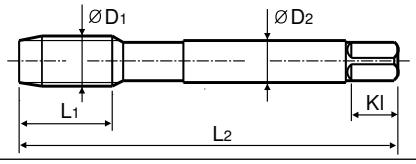
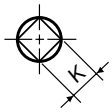


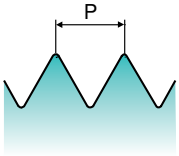
Material groups **MU**

HSS-EX | I-SP | YH | 2.5P | Bright

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1		牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M20	x	2.0	T2809713	YH3	105.0	37.0	15.0	12.0	15.0	4
M20	x	1.5	T2809723	YH3	105.0	37.0	15.0	12.0	15.0	4
M20	x	1.0	T2809732	YH2	105.0	37.0	15.0	12.0	15.0	4
M22	x	2.5	T2809743	YH3	115.0	38.0	17.0	13.0	16.0	4
M22	x	2.0	T2809753	YH3	115.0	38.0	17.0	13.0	16.0	4
M22	x	1.5	T2809763	YH3	115.0	38.0	17.0	13.0	16.0	4
M22	x	1.0	T2809772	YH2	115.0	38.0	17.0	13.0	16.0	4
M24	x	3.0	T2809783	YH3	120.0	45.0	19.0	15.0	18.0	4
M24	x	2.0	T2809793	YH3	120.0	45.0	19.0	15.0	18.0	4
M24	x	1.5	T2809803	YH3	120.0	45.0	19.0	15.0	18.0	4
M24	x	1.0	T2809812	YH2	120.0	45.0	19.0	15.0	18.0	4
M25	x	2.0	T2809823	YH3	125.0	45.0	19.0	15.0	18.0	4
M25	x	1.5	T2809833	YH3	125.0	45.0	19.0	15.0	18.0	4
M26	x	2.0	T2809N43	YH3	125.0	45.0	20.0	15.0	18.0	4
M26	x	1.5	T2809853	YH3	125.0	45.0	20.0	15.0	18.0	4
M26	x	1.0	T2809N52	YH2	125.0	45.0	20.0	15.0	18.0	4
M27	x	3.0	T2809863	YH3	130.0	45.0	20.0	15.0	18.0	4
M27	x	2.0	T2809873	YH3	130.0	45.0	20.0	15.0	18.0	4
M27	x	1.5	T2809883	YH3	130.0	45.0	20.0	15.0	18.0	4
M28	x	2.0	T2809903	YH3	130.0	45.0	21.0	17.0	20.0	4
M28	x	1.5	T2809913	YH3	130.0	45.0	21.0	17.0	20.0	4
M30	x	3.5	T2809944	YH4	135.0	48.0	23.0	17.0	20.0	4
M30	x	3.0	T2809953	YH3	135.0	48.0	23.0	17.0	20.0	4
M30	x	2.0	T2809963	YH3	135.0	48.0	23.0	17.0	20.0	4
M30	x	1.5	T2809973	YH3	135.0	48.0	23.0	17.0	20.0	4
M30	x	1.0	T2809982	YH2	135.0	48.0	23.0	17.0	20.0	4

◎ : 优(Excellent) ○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
◎	◎	◎	◎	◎	◎	◎	○	○	○	○

COMBO TAPS

Combo TAP

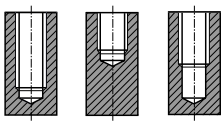
T2839 SERIES

UNC/F 多用涂先端丝锥
SPIRAL FLUTE TAPS for MULTI PURPOSE

▶ 对于使用多用途, 正确的螺纹刀具寿命长因特殊丝锥参数.
YG-1公司拥有的专利.

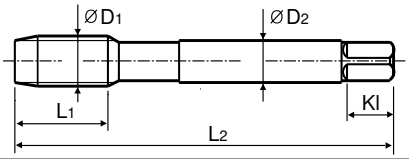
▶ For using multi-purpose, and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

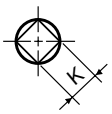
Hole type

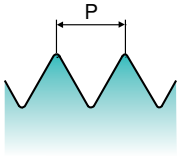


Material groups **MU** | HSS-EX | I-SP | YH | 2.5P | Bright

▶ Tap Limits : P.530
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
#2	56 UNC	T2839081	YH1	42.0	9.5	3.0	2.5	5.0	2
#2	64 UNF	T2839101	YH1	42.0	9.5	3.0	2.5	5.0	2
#3	48 UNC	T2839121	YH1	44.0	9.5	3.0	2.5	5.0	2
#3	56 UNF	T2839141	YH1	44.0	9.5	3.0	2.5	5.0	2
#4	40 UNC	T2839161	YH1	44.0	9.5	3.0	2.5	5.0	3
#4	48 UNF	T2839181	YH1	44.0	9.5	3.0	2.5	5.0	3
#5	40 UNC	T2839201-C	YH1	46.0	11.0	4.0	3.2	6.0	3
#5	44 UNF	T2839221-C	YH1	46.0	11.0	4.0	3.2	6.0	3
#6	32 UNC	T2839242-C	YH2	48.0	13.0	4.0	3.2	6.0	3
#6	40 UNF	T2839261-C	YH1	48.0	13.0	4.0	3.2	6.0	3
#8	32 UNC	T2839282-C	YH2	52.0	13.0	5.0	4.0	7.0	3
#8	36 UNF	T2839302-C	YH2	52.0	13.0	5.0	4.0	7.0	3
#10	24 UNC	T2839322-C	YH2	60.0	16.0	5.5	4.5	7.0	3
#10	32 UNF	T2839342-C	YH2	60.0	16.0	5.5	4.5	7.0	3
#12	24 UNC	T2839362-C	YH2	60.0	16.0	5.5	4.5	7.0	3
#12	28 UNF	T2839382-C	YH2	60.0	16.0	5.5	4.5	7.0	3
1/4	20 UNC	T2839402-C	YH2	62.0	19.0	6.0	4.5	7.0	3
1/4	28 UNF	T2839422-C	YH2	62.0	19.0	6.0	4.5	7.0	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
◎	◎	◎	◎	◎	◎	◎	○	○	○	○

COMBO TAPS

Combo TAP

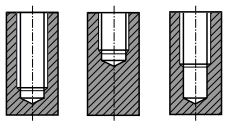
T2839 SERIES

UNC/F 多用涂先端丝锥
SPIRAL FLUTE TAPS for MULTI PURPOSE

▶ 对于使用多用途, 正确的螺纹刀具寿命长因特殊丝锥参数.
YG-1公司拥有的专利.

▶ For using multi-purpose, and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.

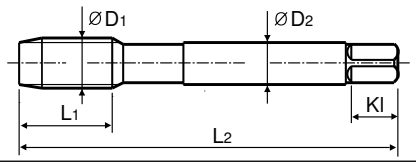
Hole type

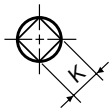


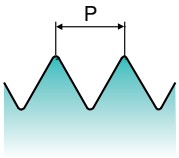
Material groups **MU**

HSS-EX | I-SP | YH | 2.5P | Bright

▶ Tap Limits : P.530
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
5/16-	18 UNC	T2839442-C	YH2	70.0	22.0	6.1	5.0	8.0	3
5/16-	24 UNF	T2839462-C	YH2	70.0	22.0	6.1	5.0	8.0	3
3/8 -	16 UNC	T2839482-C	YH2	75.0	24.0	7.0	5.5	8.0	3
3/8 -	24 UNF	T2839502-C	YH2	75.0	24.0	7.0	5.5	8.0	3
7/16-	14 UNC	T2839523-C	YH3	80.0	25.0	8.0	6.0	9.0	3
7/16-	20 UNF	T2839542-C	YH2	80.0	25.0	8.0	6.0	9.0	3
1/2 -	13 UNC	T2839563-C	YH3	85.0	29.0	9.0	7.0	10.0	3
1/2 -	20 UNF	T2839582-C	YH2	85.0	29.0	9.0	7.0	10.0	3
9/16-	12 UNC	T2839603	YH3	90.0	30.0	10.5	8.0	11.0	3
9/16-	18 UNF	T2839622	YH2	90.0	30.0	10.5	8.0	11.0	3
5/8 -	11 UNC	T2839643	YH3	95.0	32.0	12.0	9.0	12.0	3
5/8 -	18 UNF	T2839662	YH2	95.0	32.0	12.0	9.0	12.0	3
3/4 -	10 UNC	T2839703	YH3	105.0	37.0	14.0	11.0	14.0	4
3/4 -	16 UNF	T2839723	YH3	105.0	37.0	14.0	11.0	14.0	4
7/8 -	9 UNC	T2839743	YH3	115.0	38.0	17.0	13.0	16.0	4
7/8 -	14 UNF	T2839763	YH3	115.0	38.0	17.0	13.0	16.0	4
1" -	8 UNC	T2839783	YH3	125.0	45.0	20.0	15.0	18.0	4
1" -	12 UNF	T2839803	YH3	125.0	45.0	20.0	15.0	18.0	4

◎ : 优(Excellent) ○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
◎	◎	◎	◎	◎	◎	◎	○	○	○	○

HSS

Being the best through innovation

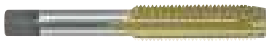
SPIRAL POINT TAPS

- 通孔加工 (HSS-EX & HSS-PM)

TAPPING THROUGH HOLES (HSS-EX & HSS-PM)

先端丝锥 / SPIRAL POINT TAPS
通孔加工, HSS-EX & HSS-PM / Tapping Through Holes, HSS-EX & HSS-PM

SPIRAL POINT TAPS

项目 EDP No.	型号 MODEL	刀具材质 Tool Material	标准 Standard	工件材质 Work Material	尺寸 Dimensions	丝锥公差 Tolerance	倒角 Chamfer	表面处理 Surface Treatment	页 PAGE
T1022		HSS-EX	M	**GS**	I-GP	YH	5.0P	Homo	**359**
T1272		HSS-EX	UNC/F	**GS**	I-GP	JIS II	5.0P	Homo	**363**
T1282		HSS-EX	W	**GS**	I-GP	JIS II	5.0P	Homo	**365**
T1042		HSS-EX	M	**GS**	J-GP	YH	5.0P	Homo	**366**
T1142		HSS-EX	UNC/F	**GS**	J-GP	JIS II	5.0P	Homo	**370**
T1262		HSS-EX	W	**GS**	J-GP	JIS II	5.0P	Homo	**372**
T3022		HSS-EX	M	**GS**	I-GPtin	YH	5.0P	TiN	**373**
T3042		HSS-EX	M	**GS**	I-GPtin	YH	5.0P	TiN	**374**
T1023		HSS-EX	M	**VA**	I-GPsus	YH	4.0P	Homo	**375**
T1043		HSS-EX	M	**VA**	I-GPsus	YH	4.0P	Homo	**377**
T2021		HSS-EX	M	**Al**	I-GPal	YH	5.0P	Bright	**379**
T2041		HSS-EX	M	**Al**	I-GPal	YH	5.0P	Bright	**381**
TW201		HSS-EX	M	**HR**	I-GPtan	YH	5.0P	TiAlN	**383**
TL231		HSS-PM	M	**Ni**	I-GPPMni	YH	4.0P	Homo	**384**

SPIRAL POINT TAPS

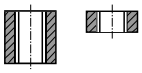
T1022 SERIES

M 普通先端丝锥
SPIRAL POINT TAPS for GENERAL PURPOSE

▶适用于碳钢和合金钢的通孔加工，优异的排屑.

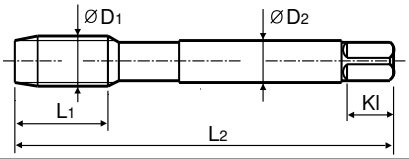
▶ Suitable for tapping Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

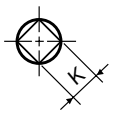
Hole type

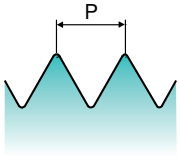


Material groups **GS** | HSS-EX | I-GP | YH | 5.0P | Homo

▶ Tap Limits : P.530
▶ up to M8 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M2 ×	0.4	T1022132	YH2	40	7.5	3	2.5	5	2
M2.2 ×	0.45	T1022152	YH2	42	8.5	3	2.5	5	2
M2.3 ×	0.4	T1022192	YH2	42	8.5	3	2.5	5	2
M2.5 ×	0.45	T1022172	YH2	44	8.5	3	2.5	5	2
M2.6 ×	0.45	T1022492	YH2	44	8.5	3	2.5	5	2
M3 ×	0.5	T1022202	YH2	46	11	4	3.2	6	3
M3 ×	0.35	T1022212	YH2	46	9.5	4	3.2	6	3
M3.5 ×	0.6	T1022222	YH2	48	13	4	3.2	6	3
M3.5 ×	0.35	T1022232	YH2	48	9.5	4	3.2	6	3
M4 ×	0.7	T1022242	YH2	52	13	5	4	7	3
M4 ×	0.5	T1022252	YH2	52	13	5	4	7	3
M4.5 ×	0.75	T1022262	YH2	55	13	5	4	7	3
M4.5 ×	0.5	T1022272	YH2	55	13	5	4	7	3
M5 ×	0.8	T1022282	YH2	60	16	5.5	4.5	7	3
M5 ×	0.5	T1022292	YH2	60	13	5.5	4.5	7	3
M5.5 ×	0.5	T1022302	YH2	60	16	5.5	4.5	7	3
M6 ×	1	T1022312	YH2	62	19	6	4.5	7	3
M6 ×	0.75	T1022322	YH2	62	19	6	4.5	7	3
M6 ×	0.5	T1022332	YH2	60	13	6	4.5	7	3
M7 ×	1	T1022342	YH2	65	19	6.2	5	8	3
M7 ×	0.75	T1022352	YH2	65	19	6.2	5	8	3
M8 ×	1.25	T1022363	YH3	70	22	6.2	5	8	3

◎：优(Excellent)　○：良(Good)

低碳钢 Low Carbon Steel ~ C0.25	中碳钢 Meduim Carbon Steel C0.25 ~ C0.45	高碳钢 High Carbon Steel C0.45 ~	合金钢 Alloy Steel SCM	硬化钢 Hardened Steel HRc25 ~ 45	不锈钢 Stainless Steel SUS	工具钢 Tool Steel SKD	铸钢 Cast Steel SC	铸铁 Cast Iron FC	高强度铸铁 High Tension Cast Iron FCD
◎	○				○	○	○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
										○

COMBO TAPS
SPIRAL POINT TAPS
SPIRAL FLUTE TAPS
STRAIGHT FLUTE TAPS
LONG SHANK TAPS
FLUTELRSS TAPS
SCREW THREAD INSERT TAPS
HAND TAPS
PIPE TAPS
CARBIDE TAPS
SKS21 HAND TAPS
SKS21 PIPE TAPS
THREAD MILLS
TECHNICAL DATA

SPIRAL POINT TAPS

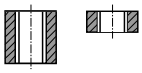
T1022 SERIES

M 普通先端丝锥
SPIRAL POINT TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的通孔加工, 优异的排屑.

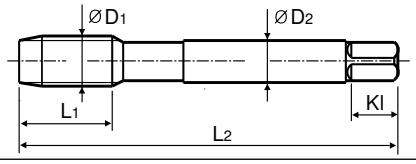
▶ Suitable for tapping Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

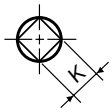
Hole type

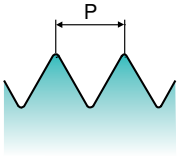


Material groups **GS** | HSS-EX | I-GP | YH | 5.0P | Homo

▶ Tap Limits : P.530
▶ up to M8 : Male Center
▶ Tapping Speeds : P.532







단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M8	× 1	T1022373	YH3	70	22	6.2	5	8	3
M8	× 0.75	T1022383	YH3	70	22	6.2	5	8	3
M9	× 1.25	T1022393	YH3	72	22	7	5.5	8	3
M9	× 1	T1022403	YH3	72	22	7	5.5	8	3
M9	× 0.75	T1022413	YH3	72	22	7	5.5	8	3
M10	× 1.5	T1022423	YH3	75	24	7	5.5	8	3
M10	× 1.25	T1022433	YH3	75	24	7	5.5	8	3
M10	× 1	T1022443	YH3	75	24	7	5.5	8	3
M10	× 0.75	T1022453	YH3	75	22	7	5.5	8	3
M11	× 1.5	T1022463	YH3	80	25	8	6	9	3
M11	× 1	T1022473	YH3	80	25	8	6	9	3
M11	× 0.75	T1022483	YH3	80	25	8	6	9	3
M12	× 1.75	T1022504	YH4	82	29	8.5	6.5	9	3
M12	× 1.5	T1022513	YH3	82	29	8.5	6.5	9	3
M12	× 1.25	T1022523	YH3	82	29	8.5	6.5	9	3
M12	× 1	T1022533	YH3	82	29	8.5	6.5	9	3
M14	× 2	T1022544	YH4	88	30	10.5	8	11	3
M14	× 1.5	T1022553	YH3	88	30	10.5	8	11	3
M14	× 1.25	T1022563	YH3	88	30	10.5	8	11	3
M14	× 1	T1022573	YH3	88	30	10.5	8	11	3
M15	× 1.5	T1022583	YH3	90	30	10.5	8	11	3
M15	× 1	T1022593	YH3	90	30	10.5	8	11	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○				○	○	○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
										○

SPIRAL POINT TAPS

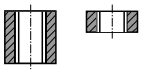
T1022 SERIES

M 普通先端丝锥
SPIRAL POINT TAPS for GENERAL PURPOSE

▶适用于碳钢和合金钢的通孔加工，优异的排屑.

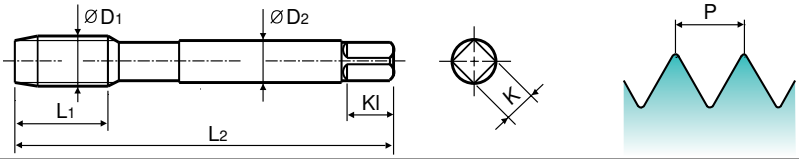
▶ Suitable for tapping Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

Hole type



Material groups **GS** | HSS-EX | I-GP | YH | 5.0P | Homo

▶ Tap Limits : P.530
▶ up to M8 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M16 ×	2	T1022604	YH4	95	32	12.5	10	13	3
M16 ×	1.5	T1022613	YH3	95	32	12.5	10	13	3
M16 ×	1	T1022623	YH3	95	32	12.5	10	13	3
M18 ×	2.5	T1022654	YH4	100	37	14	11	14	3
M18 ×	2	T1022664	YH4	100	37	14	11	14	3
M18 ×	1.5	T1022674	YH4	100	37	14	11	14	3
M18 ×	1	T1022683	YH3	95	30	14	11	14	3
M20 ×	2.5	T1022704	YH4	105	37	15	12	15	3
M20 ×	2	T1022714	YH4	105	37	15	12	15	3
M20 ×	1.5	T1022724	YH4	105	37	15	12	15	3
M20 ×	1	T1022733	YH3	95	30	15	12	15	3
M22 ×	2.5	T1022744	YH4	115	38	17	13	16	3
M22 ×	2	T1022754	YH4	115	38	17	13	16	3
M22 ×	1.5	T1022764	YH4	115	38	17	13	16	3
M22 ×	1	T1022773	YH3	95	30	17	13	16	3
M24 ×	3	T1022784	YH4	120	45	19	15	18	3
M24 ×	2	T1022794	YH4	120	45	19	15	18	3
M24 ×	1.5	T1022804	YH4	120	45	19	15	18	3
M24 ×	1	T1022813	YH3	95	30	19	15	18	3
M25 ×	2	T1022824	YH4	125	45	19	15	18	3
M25 ×	1.5	T1022834	YH4	125	45	19	15	18	3
M26 ×	2	T1022N44	YH4	125	45	20	15	18	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○				○	○	○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
										○

SPIRAL POINT TAPS

T1022 SERIES

M 普通先端丝锥
SPIRAL POINT TAPS for GENERAL PURPOSE

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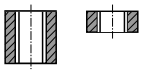
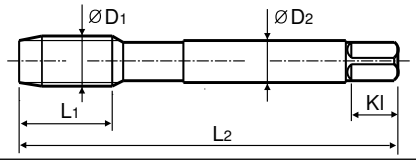
▶ Suitable for tapping Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

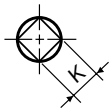
Hole type

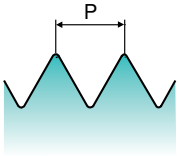


Material groups **GS** | HSS-EX | I-GP | YH | 5.0P | Homo

▶ Tap Limits : P.530
▶ up to M8 : Male Center
▶ Tapping Speeds : P.532







단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M26	× 1.5	T1022854	YH4	125	45	20	15	18	4
M26	× 1	T1022N53	YH3	95	30	20	15	18	4
M27	× 3	T1022864	YH4	130	45	20	15	18	4
M27	× 2	T1022874	YH4	130	45	20	15	18	4
M27	× 1.5	T1022884	YH4	130	45	20	15	18	4
M28	× 2	T1022904	YH4	130	45	21	17	20	4
M28	× 1.5	T1022914	YH4	130	45	21	17	20	4
M30	× 3.5	T1022945	YH5	135	48	23	17	20	4
M30	× 3	T1022954	YH4	135	48	23	17	20	4
M30	× 2	T1022964	YH4	135	45	23	17	20	4
M30	× 1.5	T1022974	YH4	135	45	23	17	20	4
M30	× 1	T1022982	YH2	105	30	23	17	20	4
M33	× 3.5	T1022A45	YH5	145	51	25	19	22	4
M33	× 3	T1022A54	YH4	145	51	25	19	22	4
M33	× 2	T1022A63	YH3	145	45	25	19	22	4
M33	× 1.5	T1022A74	YH4	145	45	25	19	22	4
M36	× 4	T1022B35	YH5	155	57	28	21	24	4
M36	× 3	T1022B44	YH4	155	57	28	21	24	4
M36	× 2	T1022B53	YH3	155	45	28	21	24	4
M36	× 1.5	T1022B64	YH4	155	45	28	21	24	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○				○	○	○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
										○

SPIRAL POINT TAPS

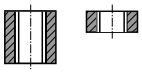
T1272 SERIES

UNC/F 普通先端丝锥
SPIRAL POINT TAPS for GENERAL PURPOSE

▶适用于碳钢和合金钢的通孔加工，优异的排屑.

▶ Suitable for tapping Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

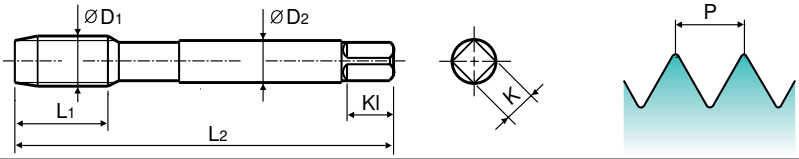
Hole type



Material groups **GS**

HSS-EX | I-GP | JIS II | 5.0P | Homo

▶ Tap Limits : JIS II
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
#4	40 UNC	T1272162	JIS II	44	8.5	3	2.5	5	2
#4	48 UNF	T1272182	JIS II	44	8.5	3	2.5	5	2
#5	40 UNC	T1272202	JIS II	46	11	4	3.2	6	3
#5	44 UNF	T1272222	JIS II	46	11	4	3.2	6	3
#6	32 UNC	T1272242	JIS II	48	13	4	3.2	6	3
#6	40 UNF	T1272262	JIS II	48	13	4	3.2	6	3
#8	32 UNC	T1272282	JIS II	52	13	5	4	7	3
#8	36 UNF	T1272302	JIS II	52	13	5	4	7	3
#10	24 UNC	T1272322	JIS II	60	16	5.5	4.5	7	3
#10	32 UNF	T1272342	JIS II	60	16	5.5	4.5	7	3
#12	24 UNC	T1272362	JIS II	60	16	5.5	4.5	7	3
#12	28 UNF	T1272382	JIS II	60	16	5.5	4.5	7	3
1/4	20 UNC	T1272402	JIS II	62	19	6	4.5	7	3
1/4	28 UNF	T1272422	JIS II	62	19	6	4.5	7	3
5/16	18 UNC	T1272442	JIS II	70	22	6.1	5	8	3
5/16	24 UNF	T1272462	JIS II	70	22	6.1	5	8	3

◎：优(Excellent)　○：良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○				○	○	○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
										○

SPIRAL POINT TAPS

T1272 SERIES

UNC/F 普通先端丝锥 SPIRAL POINT TAPS for GENERAL PURPOSE

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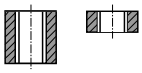
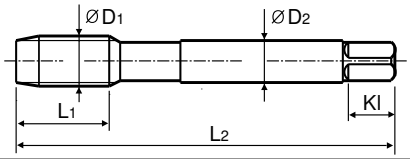
▶ Suitable for tapping Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

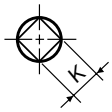
Hole type

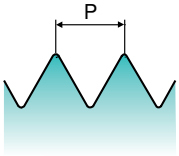


Material groups **GS** | HSS-EX | I-GP | JIS II | 5.0P | Homo

▶ Tap Limits : JIS II
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
3/8 -	16 UNC	T1272482	JIS II	75	24	7	5.5	8	3
3/8 -	24 UNF	T1272502	JIS II	75	24	7	5.5	8	3
7/16-	14 UNC	T1272522	JIS II	80	25	8	6	9	3
7/16-	20 UNF	T1272542	JIS II	80	25	8	6	9	3
1/2 -	13 UNC	T1272562	JIS II	85	29	9	7	10	3
1/2 -	20 UNF	T1272582	JIS II	85	29	9	7	10	3
9/16-	12 UNC	T1272602	JIS II	90	30	10.5	8	11	3
9/16-	18 UNF	T1272622	JIS II	90	30	10.5	8	11	3
5/8 -	11 UNC	T1272642	JIS II	95	32	12	9	12	3
5/8 -	18 UNF	T1272662	JIS II	95	32	12	9	12	3
3/4 -	10 UNC	T1272702	JIS II	105	37	14	11	14	3
3/4 -	16 UNF	T1272722	JIS II	105	37	14	11	14	3
7/8 -	9 UNC	T1272742	JIS II	115	38	17	13	16	3
7/8 -	14 UNF	T1272762	JIS II	115	38	17	13	16	3
1″ -	8 UNC	T1272782	JIS II	125	45	20	15	18	3
1″ -	12 UNF	T1272802	JIS II	125	45	20	15	18	3

◎ : 优(Excellent) ○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○				○	○	○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
										○

SPIRAL POINT TAPS

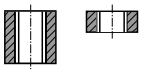
T1282 SERIES

W 普通先端丝锥
SPIRAL POINT TAPS for GENERAL PURPOSE

▶适用于碳钢和合金钢的通孔加工，优异的排屑.

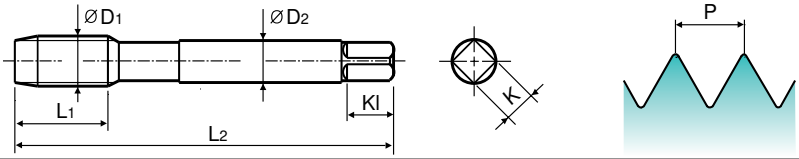
▶ Suitable for tapping Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

Hole type



Material groups **GS** | HSS-EX | I-GP | JIS II | 5.0P | Homo

▶ Tap Limits : JIS II
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
W1/8	- 40	T1282202	JIS II	46	11	4	3.2	6	3
W3/16	- 24	T1282322	JIS II	60	16	5.5	4.5	7	3
W1/4	- 20	T1282402	JIS II	62	19	6	4.5	7	3
W5/16	- 18	T1282442	JIS II	70	22	6.1	5	8	3
W3/8	- 16	T1282482	JIS II	75	24	7	5.5	8	3
W7/16	- 14	T1282522	JIS II	80	25	8	6	9	3
W1/2	- 12	T1282562	JIS II	85	29	9	7	10	3
W9/16	- 12	T1282602	JIS II	90	30	10.5	8	11	3
W5/8	- 11	T1282642	JIS II	95	32	12	9	12	3
W3/4	- 10	T1282702	JIS II	105	37	14	11	14	3
W7/8	- 9	T1282742	JIS II	115	38	17	13	16	3
W1″	- 8	T1282782	JIS II	125	45	20	15	18	3

◎：优(Excellent)　○：良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○				○	○	○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
										○

SPIRAL POINT TAPS

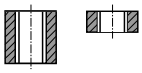
T1042 SERIES

M 普通先端丝锥
SPIRAL POINT TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的通孔加工, 优异的排屑.

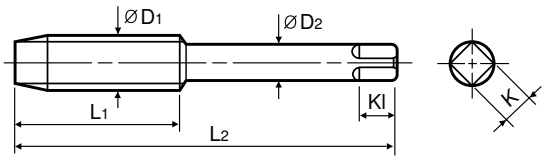
▶ Suitable for tapping Throug holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

Hole type



Material groups **GS** | HSS-EX | J-GP | YH | 5.0P | Homo

▶ Tap Limits : P.530
▶ up to M8 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M2	× 0.4	T1042132	YH2	40	15	3	2.5	5	2
M2.2	× 0.45	T1042152	YH2	42	15	3	2.5	5	2
M2.3	× 0.4	T1042192	YH2	42	15	3	2.5	5	2
M2.5	× 0.45	T1042172	YH2	44	16	3	2.5	5	2
M2.6	× 0.45	T1042492	YH2	44	16	3	2.5	5	2
M3	× 0.5	T1042202	YH2	46	18	4	3.2	6	3
M3	× 0.35	T1042212	YH2	46	18	4	3.2	6	3
M3.5	× 0.6	T1042222	YH2	48	18	4	3.2	6	3
M3.5	× 0.35	T1042232	YH2	48	18	4	3.2	6	3
M4	× 0.7	T1042242	YH2	52	20	5	4	7	3
M4	× 0.5	T1042252	YH2	52	20	5	4	7	3
M4.5	× 0.75	T1042262	YH2	55	20	5	4	7	3
M4.5	× 0.5	T1042272	YH2	55	20	5	4	7	3
M5	× 0.8	T1042282	YH2	60	22	5.5	4.5	7	3
M5	× 0.5	T1042292	YH2	60	22	5.5	4.5	7	3
M5.5	× 0.5	T1042302	YH2	60	22	5.5	4.5	7	3
M6	× 1	T1042312	YH2	62	24	6	4.5	7	3
M6	× 0.75	T1042322	YH2	62	24	6	4.5	7	3
M6	× 0.5	T1042332	YH2	60	22	6	4.5	7	3
M7	× 1	T1042342	YH2	65	26	6.2	5	8	3
M7	× 0.75	T1042352	YH2	65	26	6.2	5	8	3
M8	× 1.25	T1042363	YH3	70	30	6.2	5	8	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○				○	○	○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
										○

SPIRAL POINT TAPS

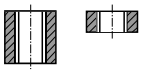
T1042 SERIES

M 普通先端丝锥
SPIRAL POINT TAPS for GENERAL PURPOSE

▶适用于碳钢和合金钢的通孔加工，优异的排屑.

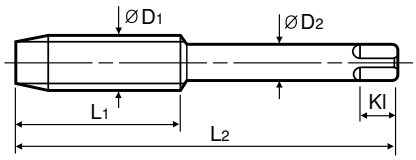
▶ Suitable for tapping Throug holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

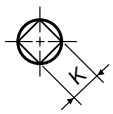
Hole type

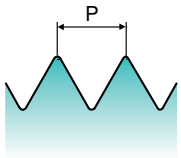


Material groups **GS** | HSS-EX | J-GP | YH | 5.0P | Homo

▶ Tap Limits : P.530
▶ up to M8 : Male Center
▶ Tapping Speeds : P.532







단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M8 ×	1	T1042373	YH3	70	15	3	2.5	5	3
M8 ×	0.75	T1042383	YH3	65	26	3	2.5	5	3
M9 ×	1.25	T1042393	YH3	72	30	7	5.5	5	3
M9 ×	1	T1042403	YH3	70	30	7	5.5	5	3
M9 ×	0.75	T1042413	YH3	65	26	7	5.5	5	3
M10 ×	1.5	T1042423	YH3	75	32	7	5.5	5	3
M10 ×	1.25	T1042433	YH3	75	32	7	5.5	5	3
M10 ×	1	T1042443	YH3	70	30	7	5.5	5	3
M10 ×	0.75	T1042453	YH3	65	26	7	5.5	5	3
M11 ×	1.5	T1042463	YH3	80	38	8	6	9	3
M11 ×	1	T1042474	YH4	70	30	8	6	9	3
M11 ×	0.75	T1042483	YH3	65	26	8	6	9	3
M12 ×	1.75	T1042504	YH4	82	38	8.5	6.5	9	3
M12 ×	1.5	T1042513	YH3	82	38	8.5	6.5	9	3
M12 ×	1.25	T1042523	YH3	80	38	8.5	6.5	9	3
M12 ×	1	T1042533	YH3	70	30	8.5	6.5	9	3
M14 ×	2	T1042544	YH4	88	42	10.5	8	11	3
M14 ×	1.5	T1042553	YH3	88	42	10.5	8	11	3
M14 ×	1.25	T1042563	YH3	80	38	10.5	8	11	3
M14 ×	1	T1042573	YH3	70	30	10.5	8	11	3
M15 ×	1.5	T1042583	YH3	90	42	10.5	8	11	3
M15 ×	1	T1042593	YH3	70	30	10.5	8	11	3

◎：优(Excellent)　○：良(Good)

低碳钢 Low Carbon Steel ~ C0.25	中碳钢 Meduim Carbon Steel C0.25 ~ C0.45	高碳钢 High Carbon Steel C0.45 ~	合金钢 Alloy Steel SCM	硬化钢 Hardened Steel HRc25 ~ 45	不锈钢 Stainless Steel SUS	工具钢 Tool Steel SKD	铸钢 Cast Steel SC	铸铁 Cast Iron FC	高强度铸铁 High Tension Cast Iron FCD
◎	○				○	○	○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
										○

SPIRAL POINT TAPS

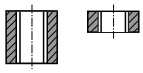
T1042 SERIES

M 普通先端丝锥
SPIRAL POINT TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的通孔加工, 优异的排屑.

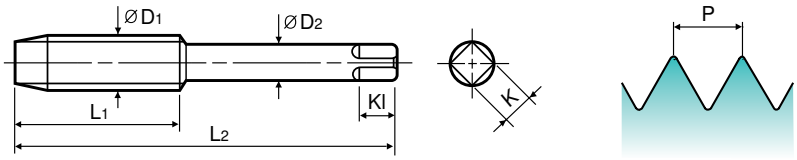
▶ Suitable for tapping Throug holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

Hole type



Material groups **GS** | HSS-EX | J-GP | YH | 5.0P | Homo

▶ Tap Limits : P.530
▶ up to M8 : Male Center
▶ Tapping Speeds : P.532



単位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M16	× 2	T1042604	YH4	95	45	12.5	10	13	3
M16	× 1.5	T1042613	YH3	95	45	12.5	10	13	3
M16	× 1	T1042623	YH3	75	30	12.5	10	13	3
M18	× 2.5	T1042654	YH4	100	37	14	11	14	3
M18	× 2	T1042664	YH4	95	45	14	11	14	3
M18	× 1.5	T1042674	YH4	95	45	14	11	14	3
M18	× 1	T1042683	YH3	80	30	14	11	14	3
M20	× 2.5	T1042704	YH4	105	50	15	12	15	3
M20	× 2	T1042714	YH4	95	45	15	12	15	3
M20	× 1.5	T1042724	YH4	95	45	15	12	15	3
M20	× 1	T1042733	YH3	80	30	15	12	15	3
M22	× 2.5	T1042744	YH4	115	55	17	13	16	3
M22	× 2	T1042754	YH4	95	45	17	13	16	3
M22	× 1.5	T1042764	YH4	95	45	17	13	16	3
M22	× 1	T1042773	YH3	85	30	17	13	16	3
M24	× 3	T1042784	YH4	120	58	19	15	18	3
M24	× 2	T1042794	YH4	95	45	19	15	18	3
M24	× 1.5	T1042804	YH4	95	45	19	15	18	3
M24	× 1	T1042813	YH3	90	30	19	15	18	3
M25	× 2	T1042824	YH4	95	45	19	15	18	3
M25	× 1.5	T1042834	YH4	95	45	19	15	18	3
M26	× 2	T1042N44	YH4	95	45	20	15	18	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○				○	○	○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
										○

SPIRAL POINT TAPS

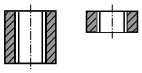
T1042 SERIES

M 普通先端丝锥
SPIRAL POINT TAPS for GENERAL PURPOSE

▶适用于碳钢和合金钢的通孔加工，优异的排屑.

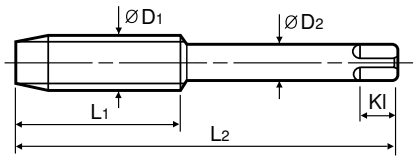
▶ Suitable for tapping Throug holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

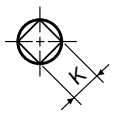
Hole type

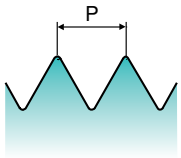


Material groups **GS** | HSS-EX | J-GP | YH | 5.0P | Homo

▶ Tap Limits : P.530
▶ up to M8 : Male Center
▶ Tapping Speeds : P.532







단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M26 ×	1.5	T1042854	YH4	95	45	20	15	18	4
M26 ×	1	T1042N53	YH3	95	30	20	15	18	4
M27 ×	3	T1042864	YH4	130	62	20	15	18	4
M27 ×	2	T1042874	YH4	95	45	20	15	18	4
M27 ×	1.5	T1042884	YH4	95	45	20	15	18	4
M28 ×	2	T1042904	YH4	105	45	21	17	20	4
M28 ×	1.5	T1042914	YH4	105	45	21	17	20	4
M30 ×	3.5	T1042945	YH5	135	65	23	17	20	4
M30 ×	3	T1042954	YH4	135	65	23	17	20	4
M30 ×	2	T1042964	YH4	105	45	23	17	20	4
M30 ×	1.5	T1042974	YH4	105	45	23	17	20	4
M30 ×	1	T1042982	YH2	105	30	23	17	20	4
M33 ×	3.5	T1042A45	YH5	145	70	25	19	22	4
M33 ×	3	T1042A54	YH4	145	70	25	19	22	4
M33 ×	2	T1042A63	YH3	110	45	25	19	22	4
M33 ×	1.5	T1042A74	YH4	110	45	25	19	22	4
M36 ×	4	T1042B35	YH5	155	75	28	21	24	4
M36 ×	3	T1042B44	YH4	155	75	28	21	24	4
M36 ×	2	T1042B53	YH3	110	45	28	21	24	4
M36 ×	1.5	T1042B64	YH4	110	45	28	21	24	4

◎：优(Excellent)　○：良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○				○	○	○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
										○

SPIRAL POINT TAPS

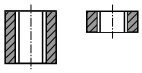
T1142 SERIES

UNC/F 普通先端丝锥 SPIRAL POINT TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的通孔加工, 优异的排屑.

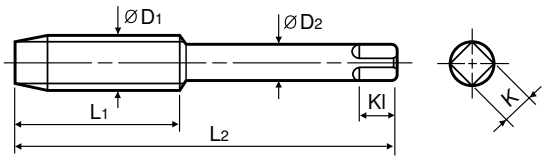
▶ Suitable for tapping Throug holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

Hole type



Material groups **GS** | HSS-EX | J-GP | JIS II | 5.0P | Homo

▶ Tap Limits : JIS II
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532



단위(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
#4	40 UNC	T1142162	JIS II	44	16	3	2.5	5	3
#4	48 UNF	T1142182	JIS II	44	16	3	2.5	5	3
#5	40 UNC	T1142202	JIS II	46	18	4	3.2	6	3
#5	44 UNF	T1142222	JIS II	46	18	4	3.2	6	3
#6	32 UNC	T1142242	JIS II	48	18	4	3.2	6	3
#6	40 UNF	T1142262	JIS II	48	18	4	3.2	6	3
#8	32 UNC	T1142282	JIS II	52	20	5	4	7	3
#8	36 UNF	T1142302	JIS II	52	20	5	4	7	3
#10	24 UNC	T1142322	JIS II	60	22	5.5	4.5	7	3
#10	32 UNF	T1142342	JIS II	60	22	5.5	4.5	7	3
#12	24 UNC	T1142362	JIS II	60	22	5.5	4.5	7	3
#12	28 UNF	T1142382	JIS II	60	22	5.5	4.5	7	3
1/4	20 UNC	T1142402	JIS II	62	24	6	4.5	7	3
1/4	28 UNF	T1142422	JIS II	62	24	6	4.5	7	3
5/16	18 UNC	T1142442	JIS II	70	30	6.1	5	8	3
5/16	24 UNF	T1142462	JIS II	70	30	6.1	5	8	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○				○	○	○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
										○

SPIRAL POINT TAPS

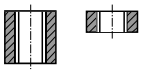
T1142 SERIES

UNC/F 普通先端丝锥
SPIRAL POINT TAPS for GENERAL PURPOSE

▶适用于碳钢和合金钢的通孔加工，优异的排屑.

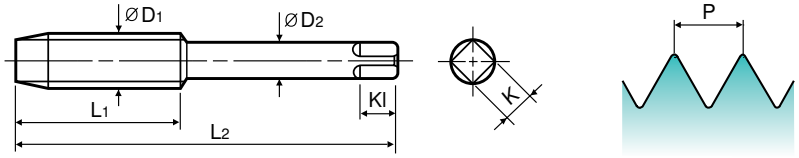
▶ Suitable for tapping Throug holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

Hole type



Material groups **GS** | HSS-EX | J-GP | JIS II | 5.0P | Homo

▶ Tap Limits : JIS II
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
3/8 -	16 UNC	T1142482	JIS II	75	35	7	5.5	8	3
3/8 -	24 UNF	T1142502	JIS II	75	32	7	5.5	8	3
7/16-	14 UNC	T1142522	JIS II	80	38	8	6	9	3
7/16-	20 UNF	T1142542	JIS II	80	38	8	6	9	3
1/2 -	13 UNC	T1142562	JIS II	85	42	9	7	10	3
1/2 -	20 UNF	T1142582	JIS II	85	42	9	7	10	3
9/16-	12 UNC	T1142602	JIS II	90	42	10.5	8	11	3
9/16-	18 UNF	T1142622	JIS II	90	42	10.5	8	11	3
5/8 -	11 UNC	T1142642	JIS II	95	45	12	9	12	3
5/8 -	18 UNF	T1142662	JIS II	95	45	12	9	12	3
3/4 -	10 UNC	T1142702	JIS II	105	50	14	11	14	3
3/4 -	16 UNF	T1142722	JIS II	95	45	14	11	14	3
7/8 -	9 UNC	T1142742	JIS II	115	55	17	13	16	3
7/8 -	14 UNF	T1142762	JIS II	95	45	17	13	16	3
1″ -	8 UNC	T1142782	JIS II	125	60	20	15	18	3
1″ -	12 UNF	T1142802	JIS II	95	45	20	15	18	3

◎：优(Excellent)　○：良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○				○	○	○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
										○

SPIRAL POINT TAPS

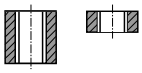
T1262 SERIES

W 普通先端丝锥
SPIRAL POINT TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的通孔加工, 优异的排屑.

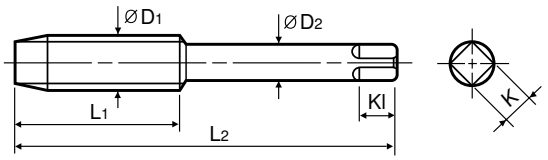
▶ Suitable for tapping Throug holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

Hole type



Material groups **GS** | HSS-EX | J-GP | JIS II | 5.0P | Homo

▶ Tap Limits : JIS II
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532



단위(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
W1/8	- 40	T1262202	JIS II	46	18	4	3.2	6	3
W3/16	- 24	T1262322	JIS II	60	22	5.5	4.5	7	3
W1/4	- 20	T1262402	JIS II	62	24	6	4.5	7	3
W5/16	- 18	T1262442	JIS II	70	30	6.1	5	8	3
W3/8	- 16	T1262482	JIS II	75	35	7	5.5	8	3
W7/16	- 14	T1262522	JIS II	80	38	8	6	9	3
W1/2	- 12	T1262562	JIS II	85	42	9	7	10	3
W9/16	- 12	T1262602	JIS II	90	42	10.5	8	11	3
W5/8	- 11	T1262642	JIS II	95	45	12	9	12	3
W3/4	- 10	T1262702	JIS II	105	50	14	11	14	3
W7/8	- 9	T1262742	JIS II	115	55	17	13	16	3
W1″	- 8	T1262782	JIS II	125	60	20	15	18	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○				○	○	○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
										○

SPIRAL POINT TAPS

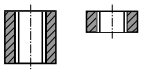
T3022 SERIES

M 先端丝锥 SPIRAL POINT TAPS

▶适用于碳钢和合金钢的通孔加工，具有高效，寿命长，能够快速攻丝.

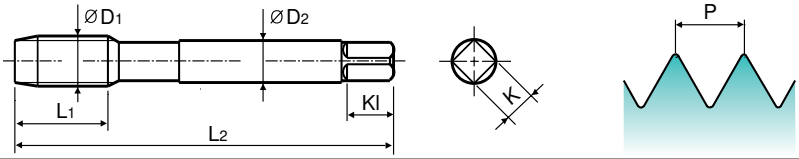
▶ Suitable for tapping Through holes in Carbon Steels and Alloy Steels. Capable of efficient, long life, high speed tapping.

Hole type



Material groups **GS** | HSS-EX | I-GPtin | YH | 5.0P | TiN

▶ Tap Limits : P.530
▶ up to M8 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1		牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M3	×	0.5	T3022202	YH2	46	11	4	3.2	6	3
M3.5	×	0.6	T3022222	YH2	48	13	4	3.2	6	3
M4	×	0.7	T3022242	YH2	52	13	5	4	7	3
M5	×	0.8	T3022282	YH2	60	16	5.5	4.5	7	3
M6	×	1	T3022312	YH2	62	19	6	4.5	7	3
M8	×	1.25	T3022363	YH3	70	22	6.2	5	8	3
M10	×	1.5	T3022423	YH3	75	24	7	5.5	8	3
M10	×	1.25	T3022433	YH3	75	24	7	5.5	8	3
M12	×	1.75	T3022504	YH4	82	29	8.5	6.5	9	3
M12	×	1.5	T3022513	YH3	82	29	8.5	6.5	9	3
M12	×	1.25	T3022523	YH3	82	29	8.5	6.5	9	3
M14	×	2	T3022544	YH4	88	30	10.5	8	11	3
M14	×	1.5	T3022553	YH3	88	30	10.5	8	11	3
M16	×	2	T3022604	YH4	95	32	12.5	10	13	3
M16	×	1.5	T3022613	YH3	95	32	12.5	10	13	3
M18	×	2.5	T3022654	YH4	100	37	14	11	14	3
M18	×	1.5	T3022674	YH4	100	37	14	11	14	3
M20	×	2.5	T3022704	YH4	105	37	15	12	15	3
M20	×	1.5	T3022724	YH4	105	37	15	12	15	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○	◎	○		◎	○	○		○

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
○	○	○	○	○	○	○				○

SPIRAL POINT TAPS

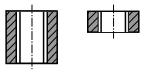
T3042 SERIES

M 先端丝锥 SPIRAL POINT TAPS

▶ 适用于碳钢和合金钢的通孔加工，具有高效，寿命长，能够快速攻丝。

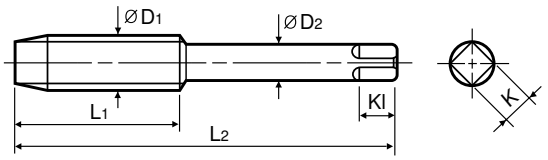
▶ Suitable for tapping Through holes in Carbon Steels and Alloy Steels. Capable of efficient, long life, high speed tapping.

Hole type



Material groups **GS** | HSS-EX | J-GPtin | YH | 5.0P | TiN

▶ Tap Limits : P.530
▶ up to M8 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1		牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M3	×	0.5	T3042202	YH2	46	18	4	3.2	6	3
M3.5	×	0.6	T3042222	YH2	48	18	4	3.2	6	3
M4	×	0.7	T3042242	YH2	52	20	5	4	7	3
M5	×	0.8	T3042282	YH2	60	22	5.5	4.5	7	3
M6	×	1	T3042312	YH2	62	24	6	4.5	7	3
M8	×	1.25	T3042363	YH2	70	30	6.2	5	8	3
M10	×	1.5	T3042423	YH3	75	32	7	5.5	8	3
M10	×	1.25	T3042433	YH3	75	32	7	5.5	8	3
M12	×	1.75	T3042504	YH4	82	38	8.5	6.5	9	3
M12	×	1.5	T3042513	YH3	82	38	8.5	6.5	9	3
M12	×	1.25	T3042523	YH3	80	38	8.5	6.5	9	3
M14	×	2	T3042544	YH4	88	42	10.5	8	11	3
M14	×	1.5	T3042553	YH3	88	42	10.5	8	11	3
M16	×	2	T3042604	YH4	95	45	12.5	10	13	3
M16	×	1.5	T3042613	YH3	95	45	12.5	10	13	3
M18	×	2.5	T3042654	YH4	100	48	14	11	14	3
M18	×	1.5	T3042674	YH4	95	45	14	11	14	3
M20	×	2.5	T3042704	YH4	105	50	15	12	15	3
M20	×	1.5	T3042724	YH4	95	45	15	12	15	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○	◎	○		◎	○	○		○

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
○	○	○	○	○	○	○				○

SPIRAL POINT TAPS

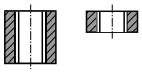
T1023 SERIES

M 不锈钢用先端丝锥
SPIRAL POINT TAPS for STAINLESS STEELS

▶ 适用于不锈钢，铬钢，铬钼钢和其他逐硬化具有韧性材料的通孔加工.

▶ Suitable for tapping Through holes in Stainless Steels, Chrome steels, Chrome Molybdenum Steels and other ductile materials with great tendency to work harden

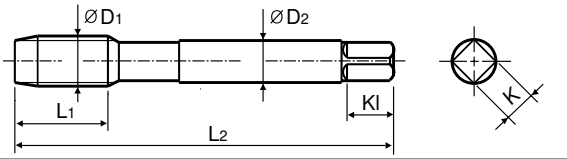
Hole type



Material groups **VA**

HSS-EX | I-GPsus | YH | 4.0P | Homo

▶ Tap Limits : P.530
▶ up to M8 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M2	× 0.4	T1023131	YH1	40	7.5	3	2.5	5	2
M2.2	× 0.45	T1023151	YH1	42	8.5	3	2.5	5	2
M2.3	× 0.4	T1023191	YH1	42	8.5	3	2.5	5	2
M2.5	× 0.45	T1023172	YH2	44	8.5	3	2.5	5	2
M2.6	× 0.45	T1023492	YH2	44	8.5	3	2.5	5	2
M3	× 0.5	T1023202	YH2	46	11	4	3.2	6	3
M3.5	× 0.6	T1023222	YH2	48	13	4	3.2	6	3
M4	× 0.7	T1023242	YH2	52	13	5	4	7	3
M5	× 0.8	T1023282	YH2	60	16	5.5	4.5	7	3
M6	× 1	T1023312	YH2	62	19	6	4.5	7	3
M8	× 1.25	T1023363	YH3	70	22	6.2	5	8	3
M10	× 1.5	T1023423	YH3	75	24	7	5.5	8	3
M10	× 1.25	T1023433	YH3	75	24	7	5.5	8	3
M12	× 1.75	T1023504	YH4	82	29	8.5	6.5	9	3
M12	× 1.5	T1023513	YH3	82	29	8.5	6.5	9	3
M12	× 1.25	T1023523	YH3	82	29	8.5	6.5	9	3
M12	× 1	T1023533	YH3	82	29	8.5	6.5	9	3
M14	× 2	T1023544	YH4	88	30	10.5	8	11	3

◎：优(Excellent)　○：良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
					◎				

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
◎										◎

SPIRAL POINT TAPS

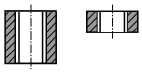
T1023 SERIES

M 不锈钢用先端丝锥
SPIRAL POINT TAPS for STAINLESS STEELS

▶ 适用于不锈钢，铬钢，铬钼钢和其他逐硬化具有韧性材料的通孔加工.

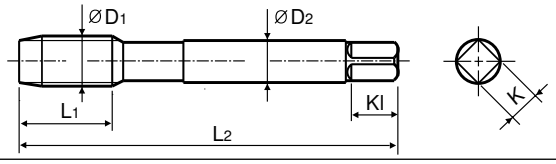
▶ Suitable for tapping Through holes in Stainless Steels, Chrome steels, Chrome Molybdenum Steels and other ductile materials with great tendency to work harden

Hole type



Material groups **VA** | HSS-EX | I-GPsus | YH | 4.0P | Homo

▶ Tap Limits : P.530
▶ up to M8 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M14	× 1.5	T1023553	YH3	88	30	10.5	8	11	3
M16	× 2	T1023604	YH4	95	32	12.5	10	13	3
M16	× 1.5	T1023613	YH3	95	32	12.5	10	13	3
M18	× 2.5	T1023654	YH4	100	37	14	11	14	3
M18	× 1.5	T1023674	YH4	100	37	14	11	14	3
M20	× 2.5	T1023704	YH4	105	37	15	12	15	3
M20	× 1.5	T1023724	YH4	105	37	15	12	15	3
M22	× 2.5	T1023744	YH4	115	38	17	13	16	3
M22	× 1.5	T1023764	YH4	115	38	17	13	16	3
M24	× 3	T1023784	YH4	120	45	19	15	18	3
M24	× 1.5	T1023804	YH4	120	45	19	15	18	3
M25	× 1.5	T1023834	YH4	125	45	19	15	18	3
M26	× 1.5	T1023854	YH4	125	45	20	15	18	4
M27	× 3	T1023864	YH4	130	45	20	15	18	4
M27	× 1.5	T1023884	YH4	130	45	20	15	18	4
M28	× 1.5	T1023914	YH4	130	45	21	17	20	4
M30	× 3.5	T1023945	YH5	135	48	23	17	20	4
M30	× 1.5	T1023974	YH4	135	45	23	17	20	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
					◎				

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
◎										◎

SPIRAL POINT TAPS

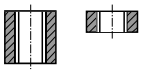
T1043 SERIES

M 不锈钢用先端丝锥
SPIRAL POINT TAPS for STAINLESS STEELS

▶ 适用于不锈钢，铬钢，铬钼钢和其他逐硬化具有韧性材料的通孔加工.

▶ Suitable for tapping Through holes in Stainless Steels, Chrome steels, Chrome Molybdenum Steels and other ductile materials with great tendency to work harden

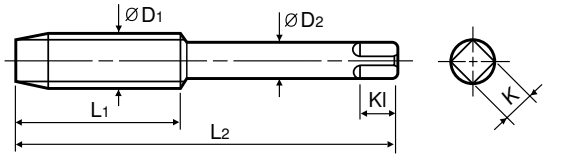
Hole type



Material groups **VA**

HSS-EX | J-GPsus | YH | 4.0P | Homo

▶ Tap Limits : P.530
▶ up to M8 : Male Center
▶ Tapping Speeds : P.532



단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M2	× 0.4	T1043131	YH1	40	15	3	2.5	5	2
M2.2	× 0.45	T1043151	YH1	42	15	3	2.5	5	2
M2.3	× 0.4	T1043191	YH1	42	15	3	2.5	5	2
M2.5	× 0.45	T1043172	YH2	44	16	3	2.5	5	2
M2.6	× 0.45	T1043492	YH2	44	16	3	2.5	5	2
M3	× 0.5	T1043202	YH2	46	18	4	3.2	6	3
M3.5	× 0.6	T1043222	YH2	48	18	4	3.2	6	3
M4	× 0.7	T1043242	YH2	52	20	5	4	7	3
M5	× 0.8	T1043282	YH2	60	22	5.5	4.5	7	3
M6	× 1	T1043312	YH2	62	24	6	4.5	7	3
M8	× 1.25	T1043363	YH3	70	30	6.2	5	8	3
M10	× 1.5	T1043423	YH3	75	32	7	5.5	8	3
M10	× 1.25	T1043433	YH3	75	32	7	5.5	8	3
M12	× 1.75	T1043504	YH4	82	38	8.5	6.5	9	3
M12	× 1.5	T1043513	YH3	82	38	8.5	6.5	9	3
M12	× 1.25	T1043523	YH3	80	38	8.5	6.5	9	3
M12	× 1	T1043533	YH3	70	30	8.5	6.5	9	3
M14	× 2	T1043544	YH4	88	42	10.5	8	11	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
					◎				

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
◎										◎

COMBO TAPS
SPIRAL POINT TAPS
SPIRAL FLUTE TAPS
STRAIGHT FLUTE TAPS
LONG SHANK TAPS
FLUTELRSS TAPS
SCREW THREAD INSERT TAPS
HAND TAPS
PIPE TAPS
CARBIDE TAPS
SKS21 HAND TAPS
SKS21 PIPE TAPS
THREAD MILLS
TECHNICAL DATA

SPIRAL POINT TAPS

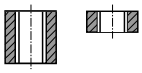
T1043 SERIES

M 不锈钢用先端丝锥
SPIRAL POINT TAPS for STAINLESS STEELS

▶ 适用于不锈钢，铬钢，铬钼钢和其他逐硬化具有韧性材料的通孔加工.

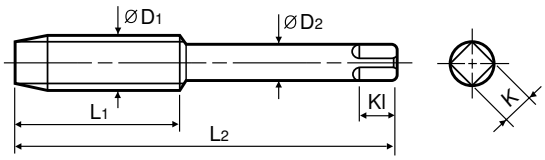
▶ Suitable for tapping Through holes in Stainless Steels, Chrome steels, Chrome Molybdenum Steels and other ductile materials with great tendency to work harden

Hole type



Material groups **VA** | HSS-EX | J-GPsus | YH | 4.0P | Homo

▶ Tap Limits : P.530
▶ up to M8 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M14	× 1.5	T1043553	YH3	88	42	10.5	8	11	3
M16	× 2	T1043604	YH4	95	45	12.5	10	13	3
M16	× 1.5	T1043613	YH3	95	45	12.5	10	13	3
M18	× 2.5	T1043654	YH4	100	48	14	11	13	3
M18	× 1.5	T1043674	YH4	95	45	14	11	13	3
M20	× 2.5	T1043704	YH4	105	50	15	12	15	3
M20	× 1.5	T1043724	YH4	95	45	15	12	15	3
M22	× 2.5	T1043744	YH4	115	55	17	13	16	3
M22	× 1.5	T1043764	YH4	95	45	17	13	16	3
M24	× 3	T1043784	YH4	120	58	19	15	18	3
M24	× 1.5	T1043804	YH4	95	45	19	15	18	3
M25	× 1.5	T1043834	YH4	95	45	19	15	18	3
M26	× 1.5	T1043854	YH4	95	45	20	15	18	4
M27	× 3	T1043864	YH4	130	62	20	15	18	4
M27	× 1.5	T1043884	YH4	95	45	20	15	18	4
M28	× 1.5	T1043914	YH4	105	45	21	17	20	4
M30	× 3.5	T1043945	YH5	135	65	23	17	20	4
M30	× 1.5	T1043974	YH4	105	45	23	17	20	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
					◎				

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
◎										◎

SPIRAL POINT TAPS

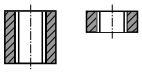
T2021 SERIES

M 有色金属用先端丝锥
SPIRAL POINT TAPS for NON-FERROUS METALS

▶适用于铝，镁，锌，铜及有色金属的通孔加工.

▶ Suitable for tapping Through holes in Aluminum, Magnesium, Zinc, Copper as well as Non-Ferrous metal alloys.

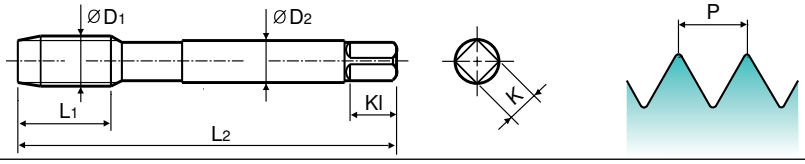
Hole type



Material groups **Al**

HSS-EX | I-GPal | YH | 5.0P | Bright

▶ Tap Limits : P.530
▶ up to M8 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M2	× 0.4	T2021132	YH2	40	7.5	3	2.5	5	2
M2.2	× 0.45	T2021152	YH2	42	8.5	3	2.5	5	2
M2.3	× 0.4	T2021192	YH2	42	8.5	3	2.5	5	2
M2.5	× 0.45	T2021172	YH2	44	8.5	3	2.5	5	2
M2.6	× 0.45	T2021492	YH2	44	8.5	3	2.5	5	2
M3	× 0.5	T2021202	YH2	46	11	4	3.2	6	3
M3.5	× 0.6	T2021222	YH2	48	13	4	3.2	6	3
M4	× 0.7	T2021242	YH2	52	13	5	4	7	3
M5	× 0.8	T2021282	YH2	60	16	5.5	4.5	7	3
M6	× 1	T2021312	YH2	62	19	6	4.5	7	3
M8	× 1.25	T2021363	YH3	70	22	6.2	5	8	3
M10	× 1.5	T2021423	YH3	75	24	7	5.5	8	3
M10	× 1.25	T2021433	YH3	75	24	7	5.5	8	3
M12	× 1.75	T2021504	YH4	82	29	8.5	6.5	9	3
M12	× 1.5	T2021513	YH3	82	29	8.5	6.5	9	3
M12	× 1.25	T2021523	YH3	82	29	8.5	6.5	9	3
M12	× 1	T2021533	YH3	82	29	8.5	6.5	9	3
M14	× 2	T2021544	YH4	88	30	10.5	8	11	3

◎：优(Excellent)　○：良(Good)

低碳钢 Low Carbon Steel ~ C0.25	中碳钢 Meduim Carbon Steel C0.25 ~ C0.45	高碳钢 High Carbon Steel C0.45 ~	合金钢 Alloy Steel SCM	硬化钢 Hardened Steel HRc25 ~ 45	不锈钢 Stainless Steel SUS	工具钢 Tool Steel SKD	铸钢 Cast Steel SC	铸铁 Cast Iron FC	高强度铸铁 High Tension Cast Iron FCD
○	◎	◎	◎						

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
○	○	○	◎	◎	○	○				

COMBO TAPS
SPIRAL POINT TAPS
SPIRAL FLUTE TAPS
STRAIGHT FLUTE TAPS
LONG SHANK TAPS
FLUTELRSS TAPS
SCREW THREAD INSERT TAPS
HAND TAPS
PIPE TAPS
CARBIDE TAPS
SKS21 HAND TAPS
SKS21 PIPE TAPS
THREAD MILLS
TECHNICAL DATA

SPIRAL POINT TAPS

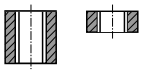
T2021 SERIES

M 有色金属用先端丝锥
SPIRAL POINT TAPS for NON-FERROUS METALS

▶ 适用于铝，镁，锌，铜及有色金属的通孔加工.

▶ Suitable for tapping Through holes in Aluminum, Magnesium, Zinc, Copper as well as Non-Ferrous metal alloys.

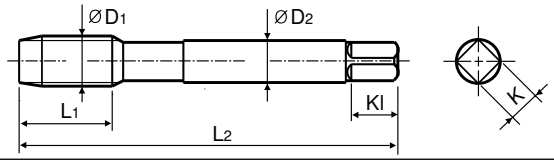
Hole type



Material groups **Al**

HSS-EX | I-GPal | YH | 5.0P | Bright

▶ Tap Limits : P.530
▶ up to M8 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M14	× 1.5	T2021553	YH3	88	30	10.5	8	11	3
M16	× 2	T2021604	YH4	95	32	12.5	10	13	3
M16	× 1.5	T2021613	YH3	95	32	12.5	10	13	3
M18	× 2.5	T2021654	YH4	100	37	14	11	14	3
M18	× 1.5	T2021674	YH4	100	37	14	11	14	3
M20	× 2.5	T2021704	YH4	105	37	15	12	15	3
M20	× 1.5	T2021724	YH4	105	37	15	12	15	3
M22	× 2.5	T2021744	YH4	115	38	17	13	16	3
M22	× 1.5	T2021764	YH4	115	38	17	13	16	3
M24	× 3	T2021784	YH4	120	45	19	15	18	3
M24	× 1.5	T2021804	YH4	120	45	19	15	18	3
M25	× 1.5	T2021834	YH4	125	45	19	15	18	3
M26	× 1.5	T2021854	YH4	125	45	20	15	18	4
M27	× 3	T2021864	YH4	130	45	20	15	18	4
M27	× 1.5	T2021884	YH4	130	45	20	15	18	4
M28	× 1.5	T2021914	YH4	130	45	21	17	20	4
M30	× 3.5	T2021945	YH5	135	48	23	17	20	4
M30	× 1.5	T2021974	YH4	135	45	23	17	20	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	◎	◎	◎						

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
○	○	○	◎	◎	○	○				

SPIRAL POINT TAPS

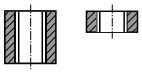
T2041 SERIES

M 有色金属用先端丝锥
SPIRAL POINT TAPS for NON-FERROUS METALS

▶适用于铝，镁，锌，铜及有色金属的通孔加工.

▶ Suitable for tapping Through holes in Aluminum, Magnesium, Zinc, Copper as well as Non-Ferrous metal alloys.

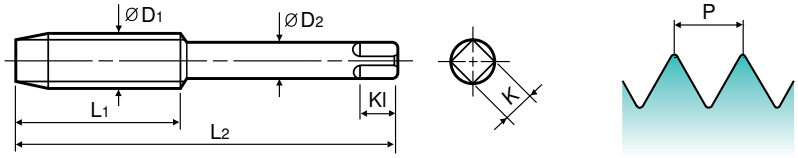
Hole type



Material groups **Al**

HSS-EX | J-GPal | YH | 5.0P | Bright

▶ Tap Limits : P.530
▶ up to M8 : Male Center
▶ Tapping Speeds : P.532



단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M2	× 0.4	T2041132	YH2	40	15	3	2.5	5	2
M2.2	× 0.45	T2041152	YH2	42	15	3	2.5	5	2
M2.3	× 0.4	T2041192	YH2	42	15	3	2.5	5	2
M2.5	× 0.45	T2041172	YH2	44	16	3	2.5	5	2
M2.6	× 0.45	T2041492	YH2	44	16	3	2.5	5	2
M3	× 0.5	T2041202	YH2	46	18	4	3.2	6	3
M3.5	× 0.6	T2041222	YH2	48	18	4	3.2	6	3
M4	× 0.7	T2041242	YH2	52	20	5	4	7	3
M5	× 0.8	T2041282	YH2	60	22	5.5	4.5	7	3
M6	× 1	T2041312	YH2	62	24	6	4.5	7	3
M8	× 1.25	T2041363	YH3	70	30	6.2	5	8	3
M10	× 1.5	T2041423	YH3	75	32	7	5.5	8	3
M10	× 1.25	T2041433	YH3	75	32	7	5.5	8	3
M12	× 1.75	T2041504	YH4	82	38	8.5	6.5	9	3
M12	× 1.5	T2041513	YH3	82	38	8.5	6.5	9	3
M12	× 1.25	T2041523	YH3	80	38	8.5	6.5	9	3
M12	× 1	T2041533	YH3	70	30	8.5	6.5	9	3
M14	× 2	T2041544	YH4	88	42	10.5	8	11	3

◎：优(Excellent)　○：良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	◎	◎	◎		◎			◎	

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
○	○	○	◎	◎	○	○				

SPIRAL POINT TAPS

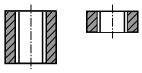
T2041 SERIES

M 有色金属用先端丝锥
SPIRAL POINT TAPS for NON-FERROUS METALS

▶ 适用于铝，镁，锌，铜及有色金属的通孔加工.

▶ Suitable for tapping Through holes in Aluminum, Magnesium, Zinc, Copper as well as Non-Ferrous metal alloys.

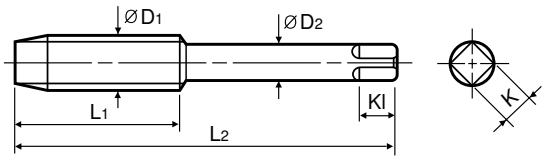
Hole type



Material groups **Al**

HSS-EX | J-GPal | YH | 5.0P | Bright

▶ Tap Limits : P.530
▶ up to M8 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M14	× 1.5	T2041553	YH3	88	42	10.5	8	11	3
M16	× 2	T2041604	YH4	95	45	12.5	10	13	3
M16	× 1.5	T2041613	YH3	95	45	12.5	10	13	3
M18	× 2.5	T2041654	YH4	100	48	14	11	14	3
M18	× 1.5	T2041674	YH4	95	45	14	11	14	3
M20	× 2.5	T2041704	YH4	105	50	15	12	15	3
M20	× 1.5	T2041724	YH4	95	45	15	12	15	3
M22	× 2.5	T2041744	YH4	115	55	17	13	16	3
M22	× 1.5	T2041764	YH4	95	45	17	13	16	3
M24	× 3	T2041784	YH4	120	58	19	15	18	3
M24	× 1.5	T2041804	YH4	95	45	19	15	18	3
M25	× 1.5	T2041834	YH4	95	45	19	15	18	3
M26	× 1.5	T2041854	YH4	95	45	20	15	18	4
M27	× 3	T2041864	YH4	130	62	20	15	18	4
M27	× 1.5	T2041884	YH4	95	45	20	15	18	4
M28	× 1.5	T2041914	YH4	105	45	21	17	20	4
M30	× 3.5	T2041945	YH5	135	65	23	17	20	4
M30	× 1.5	T2041974	YH4	105	45	23	17	20	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	◎	◎	◎		◎			◎	

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
○	○	○	◎	◎	○	○				

SPIRAL POINT TAPS

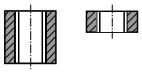
TW201 SERIES

M 难加工材料用先端丝锥
SPIRAL POINT TAPS for HARD TO MACHINE MATERIALS

▶适用于高碳钢，合金钢，热钢和模具钢等硬度再HRc35~45的高硬度钢的通孔加工.

▶ Suitable for tapping Through holes in High Strength Steels with hardness ranging between 35~45 Rockwell "C"(HRc 35~45), such as forgings of high carbon steels and alloy steels, thermal steels and mold steels.

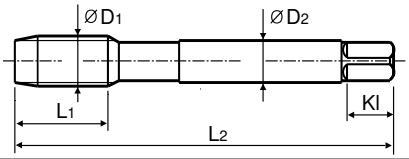
Hole type

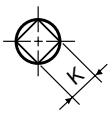


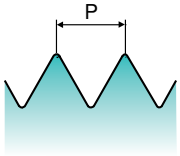
Material groups **HR**

HSS-EX | I-GPtan | YH | 5.0P | TiAlN

▶ Tap Limits : P.530
▶ up to M8 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1		牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M3	×	0.5	TW201203	YH3	46	11	4	3.2	6	3
M3.5	×	0.6	TW201223	YH3	48	13	4	3.2	6	3
M4	×	0.7	TW201243	YH3	52	13	5	4	7	3
M5	×	0.8	TW201283	YH3	60	16	5.5	4.5	7	3
M6	×	1	TW201313	YH3	62	19	6	4.5	7	3
M8	×	1.25	TW201363	YH3	70	22	6.2	5	8	3
M10	×	1.5	TW201423	YH3	75	24	7	5.5	8	3
M10	×	1.25	TW201433	YH3	75	24	7	5.5	8	3
M12	×	1.75	TW201503	YH3	82	29	8.5	6.5	9	3
M12	×	1.5	TW201513	YH3	82	29	8.5	6.5	9	3
M12	×	1.25	TW201524	YH4	82	82	8.5	6.5	9	3
M14	×	2	TW201544	YH4	88	88	10.5	8	11	3
M14	×	1.5	TW201553	YH3	88	88	10.5	8	11	3
M16	×	2	TW201604	YH4	95	95	12.5	10	13	3
M16	×	1.5	TW201613	YH3	95	95	12.5	10	13	3
M18	×	2.5	TW201654	YH4	100	100	14	11	14	3
M18	×	1.5	TW201674	YH4	100	100	14	11	14	3
M20	×	2.5	TW201704	YH4	105	105	15	12	15	3
M20	×	1.5	TW201724	YH4	105	105	15	12	15	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	◎	◎	○		○	○	○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
○	○	○	○	○	○	○				○

COMBO TAPS
SPIRAL POINT TAPS
SPIRAL FLUTE TAPS
STRAIGHT FLUTE TAPS
LONG SHANK TAPS
FLUTELRSS TAPS
SCREW THREAD INSERT TAPS
HAND TAPS
PIPE TAPS
CARBIDE TAPS
SKS21 HAND TAPS
SKS21 PIPE TAPS
THREAD MILLS
TECHNICAL DATA

SPIRAL POINT TAPS

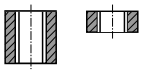
TL231 SERIES

M 镍合金用先端丝锥
SPIRAL POINT TAPS for NICKEL BASE ALLOYS

▶ 适用于镍合金，铬镍铁合金781和耐热合金钢的通孔加工.

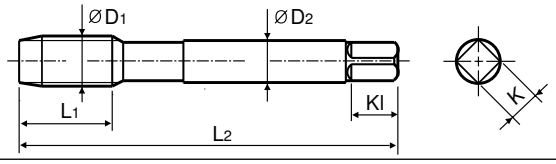
▶ Suitable for tapping Through holes in Nikel Alloys, Inconel 781 and Heat Resistant Alloy Steels.

Hole type



Material groups **Ni** | HSS-PM | I-GPPMni | YH | 4.0P | Homo

▶ Tap Limits : P.530
▶ up to M8 : Male Center
▶ Tapping Speeds : P.532



단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M3	× 0.5	TL231203	YH3	46	11	4	3.2	6	3
M4	× 0.7	TL231243	YH3	52	13	5	4	7	3
M5	× 0.8	TL231283	YH3	60	16	5.5	4.5	7	3
M6	× 1	TL231313	YH3	62	19	6	4.5	7	3
M8	× 1.25	TL231363	YH3	70	22	6.2	5	8	3
M10	× 1.5	TL231423	YH3	75	24	7	5.5	8	3
M12	× 1.75	TL231504	YH4	82	29	8.5	6.5	9	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
		◎	◎	◎		◎			○

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	Thermosetting plastic	thermoplastic
								◎		

HSS

Being the best through innovation

SPIRAL FLUTE TAPS

- 盲孔加工 (HSS-EX & HSS-PM)

  TAPPING BLIND HOLES (HSS-EX & HSS-PM)

螺旋槽丝锥 / SPIRAL FLUTE TAPS
盲孔加工, HSS-EX & HSS-PM / Tapping Blind Holes, HSS-EX & HSS-PM

SPIRAL FLUTE TAPS

项目 EDP No.	型号 MODEL	刀具材质 Tool Material	标准 Standard	工件材质 Work Material	尺寸 Dimensions	丝锥公差 Tolerance	倒角 Chamfer	表面处理 Surface Treatment	页 PAGE
T1121		HSS-EX	M	**GS**	I-SP	YH	2.5P	Homo	**387**
T1152		HSS-EX	UNC/F	**GS**	I-SP	JIS II	2.5P	Homo	**391**
T1251		HSS-EX	W	**GS**	I-SP	JIS II	2.5P	Homo	**393**
T1132		HSS-EX	M	**GS**	J-SP	YH	2.5P	Homo	**394**
T1232		HSS-EX	UNC/F	**GS**	J-SP	JIS II	2.5P	Homo	**398**
T1162		HSS-EX	W	**GS**	J-SP	JIS II	2.5P	Homo	**400**
T1112		HSS-EX	M	**GS**	S-SP	YH	2.5P	Homo	**401**
T1172		HSS-EX	UNC/F	**GS**	S-SP	JIS II	2.5P	Homo	**404**
T1182		HSS-EX	W	**GS**	S-SP	JIS II	2.5P	Homo	**406**
T3121		HSS-EX	M	**GS**	I-SPtin	YH	2.5P	TiN	**407**
T3132		HSS-EX	M	**GS**	J-SPtin	YH	2.5P	TiN	**408**
T3112		HSS-EX	M	**GS**	S-SPtin	YH	2.5P	TiN	**409**
T1151		HSS-EX	M	**GV**	I-SPss	YH	2.5P	Homo	**410**
T1131		HSS-EX	M	**GV**	J-SPss	YH	2.5P	Homo	**411**
T1191		HSS-EX	M	**VA**	I-SPsus	YH	2.5P	Homo	**412**
T1133		HSS-EX	M	**VA**	J-SPsus	YH	2.5P	Homo	**414**
T1113		HSS-EX	M	**VA**	S-SPsus	YH	2.5P	Homo	**416**
T2120		HSS-EX	M	**Al**	I-SPal	YH	2.5P	Bright	**417**
T2131		HSS-EX	M	**Al**	J-SPal	YH	2.5P	Bright	**419**
T2111		HSS-EX	M	**Al**	S-SPal	YH	2.5P	Bright	**421**
TZ181		HSS-PM	M	**Ti**	I-SPPMti	YH	3.0P	TiAlN	**422**
TR641		HSS-PM	M	**Ni**	I-SPPMni	YH	3.0P	Bright	**423**

SPIRAL FLUTE TAPS

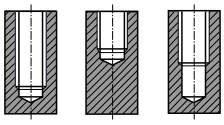
T1121 SERIES

M 普通螺旋槽丝锥
SPIRAL FLUTE TAPS for GENERAL PURPOSE

▶适用于碳钢和合金钢的盲孔加工，优异的排屑.

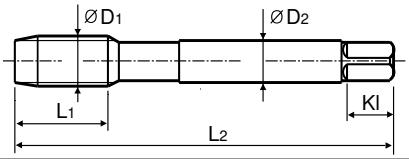
▶ Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

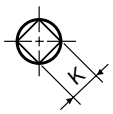
Hole type

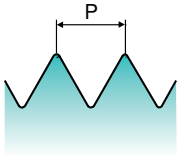


Material groups **GS** | HSS-EX | I-SP | YH | 2.5P | Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M2	0.4	T1121131	YH1	40	7.5	3	2.5	5	2
M2.2	0.45	T1121151	YH1	42	8.5	3	2.5	5	2
M2.3	0.4	T1121191	YH1	42	8.5	3	2.5	5	2
M2.5	0.45	T1121171	YH1	44	8.5	3	2.5	5	2
M2.6	0.45	T1121491	YH1	44	8.5	3	2.5	5	2
M3	0.5	T1121202	YH2	46	11	4	3.2	6	3
M3	0.35	T1121211	YH1	46	9.5	4	3.2	6	3
M3.5	0.6	T1121222	YH2	48	13	4	3.2	6	3
M3.5	0.35	T1121231	YH1	48	9.5	4	3.2	6	3
M4	0.7	T1121242	YH2	52	13	5	4	7	3
M4	0.5	T1121251	YH1	52	13	5	4	7	3
M4.5	0.75	T1121262	YH2	55	13	5	4	7	3
M4.5	0.5	T1121271	YH1	55	13	5	4	7	3
M5	0.8	T1121282	YH2	60	16	5.5	4.5	7	3
M5	0.5	T1121291	YH1	60	13	5.5	4.5	7	3
M5.5	0.5	T1121301	YH1	60	16	5.5	4.5	7	3
M6	1	T1121312	YH2	62	19	6	4.5	7	3
M6	0.75	T1121322	YH2	62	19	6	4.5	7	3
M6	0.5	T1121331	YH1	60	13	6	4.5	7	3
M7	1	T1121342	YH2	65	19	6.2	5	8	3
M7	0.75	T1121352	YH2	65	19	6.2	5	8	3
M8	1.25	T1121362	YH2	70	22	6.2	5	8	3

◎：优(Excellent)　○：良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	○			○	○	○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
										○

COMBO TAPS
SPIRAL POINT TAPS
SPIRAL FLUTE TAPS
STRAIGHT FLUTE TAPS
LONG SHANK TAPS
FLUTELRSS TAPS
SCREW THREAD INSERT TAPS
HAND TAPS
PIPE TAPS
CARBIDE TAPS
SKS21 HAND TAPS
SKS21 PIPE TAPS
THREAD MILLS
TECHNICAL DATA

SPIRAL FLUTE TAPS

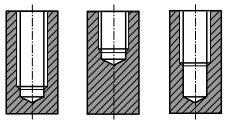
T1121 SERIES

M 普通螺旋槽丝锥
SPIRAL FLUTE TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的盲孔加工, 优异的排屑.

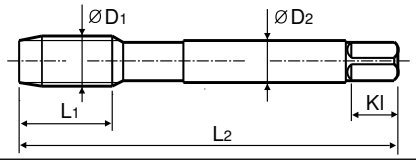
▶ Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

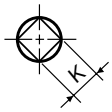
Hole type

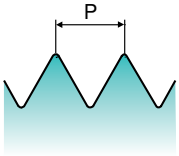


Material groups **GS** | HSS-EX | I-SP | YH | 2.5P | Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M8 ×	1	T1121372	YH2	70	22	6.2	5	8	3
M8 ×	0.75	T1121382	YH2	70	22	6.2	5	8	3
M9 ×	1.25	T1121392	YH2	72	22	7	5.5	8	3
M9 ×	1	T1121402	YH2	72	22	7	5.5	8	3
M9 ×	0.75	T1121412	YH2	72	22	7	5.5	8	3
M10 ×	1.5	T1121422	YH2	75	24	7	5.5	8	3
M10 ×	1.25	T1121432	YH2	75	24	7	5.5	8	3
M10 ×	1	T1121442	YH2	75	24	7	5.5	8	3
M10 ×	0.75	T1121452	YH2	75	22	7	5.5	8	3
M11 ×	1.5	T1121462	YH2	80	25	8	6	9	3
M11 ×	1	T1121472	YH2	80	25	8	6	9	3
M11 ×	0.75	T1121482	YH2	80	25	8	6	9	3
M12 ×	1.75	T1121502	YH2	82	29	8.5	6.5	9	3
M12 ×	1.5	T1121512	YH2	82	29	8.5	6.5	9	3
M12 ×	1.25	T1121522	YH2	82	29	8.5	6.5	9	3
M12 ×	1	T1121532	YH2	82	29	8.5	6.5	9	3
M14 ×	2	T1121542	YH2	88	30	10.5	8	11	3
M14 ×	1.5	T1121552	YH2	88	30	10.5	8	11	3
M14 ×	1.25	T1121562	YH2	88	30	10.5	8	11	3
M14 ×	1	T1121572	YH2	88	30	10.5	8	11	3
M15 ×	1.5	T1121582	YH2	90	30	10.5	8	11	3
M15 ×	1	T1121592	YH2	90	30	10.5	8	11	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	○			○	○	○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
										○

SPIRAL FLUTE TAPS

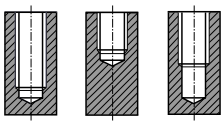
T1121 SERIES

M 普通螺旋槽丝锥
SPIRAL FLUTE TAPS for GENERAL PURPOSE

▶适用于碳钢和合金钢的盲孔加工，优异的排屑.

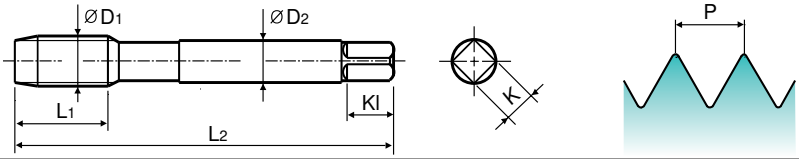
▶ Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

Hole type



Material groups **GS** | HSS-EX | I-SP | YH | 2.5P | Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M16 ×	2	T1121602	YH2	95	32	12.5	10	13	3
M16 ×	1.5	T1121612	YH2	95	32	12.5	10	13	3
M16 ×	1	T1121622	YH2	95	32	12.5	10	13	3
M18 ×	2.5	T1121653	YH3	100	37	14	11	14	4
M18 ×	2	T1121663	YH3	100	37	14	11	14	4
M18 ×	1.5	T1121672	YH2	100	37	14	11	14	4
M18 ×	1	T1121682	YH2	95	30	14	11	14	4
M20 ×	2.5	T1121703	YH3	105	37	15	12	15	4
M20 ×	2	T1121713	YH3	105	37	15	12	15	4
M20 ×	1.5	T1121723	YH3	105	37	15	12	15	4
M20 ×	1	T1121732	YH2	95	30	15	12	15	4
M22 ×	2.5	T1121743	YH3	115	38	17	13	16	4
M22 ×	2	T1121753	YH3	115	38	17	13	16	4
M22 ×	1.5	T1121763	YH3	115	38	17	13	16	4
M22 ×	1	T1121772	YH2	95	30	17	13	16	4
M24 ×	3	T1121783	YH3	120	45	19	15	18	4
M24 ×	2	T1121793	YH3	120	45	19	15	18	4
M24 ×	1.5	T1121803	YH3	120	45	19	15	18	4
M24 ×	1	T1121812	YH2	95	30	19	15	18	4
M25 ×	2	T1121823	YH3	125	45	19	15	18	4
M25 ×	1.5	T1121833	YH3	125	45	19	15	18	4
M26 ×	2	T1121N43	YH3	125	45	20	15	18	4

◎：优(Excellent)　○：良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	○			○	○	○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
										○

SPIRAL FLUTE TAPS

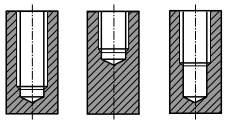
T1121 SERIES

M 普通螺旋槽丝锥
SPIRAL FLUTE TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的盲孔加工, 优异的排屑.

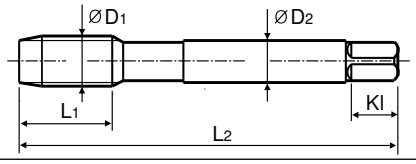
▶ Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

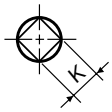
Hole type

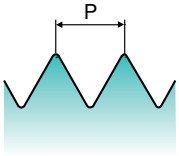


Material groups **GS** | HSS-EX | I-SP | YH | 2.5P | Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M26	× 1.5	T1121853	YH3	125	45	20	15	18	4
M26	× 1	T1121N52	YH2	95	30	20	15	18	4
M27	× 3	T1121863	YH3	130	45	20	15	18	4
M27	× 2	T1121873	YH3	130	45	20	15	18	4
M27	× 1.5	T1121883	YH3	130	45	20	15	18	4
M28	× 2	T1121903	YH3	130	45	21	17	20	4
M28	× 1.5	T1121913	YH3	130	45	21	17	20	4
M30	× 3.5	T1121944	YH4	135	48	23	17	20	4
M30	× 3	T1121953	YH3	135	48	23	17	20	4
M30	× 2	T1121963	YH3	135	45	23	17	20	4
M30	× 1.5	T1121973	YH3	135	45	23	17	20	4
M30	× 1	T1121982	YH2	105	30	23	17	20	4
M33	× 3.5	T1121A44	YH4	145	51	25	19	22	4
M33	× 3	T1121A53	YH3	145	51	25	19	22	4
M33	× 2	T1121A63	YH3	145	45	25	19	22	4
M33	× 1.5	T1121A73	YH3	145	45	25	19	22	4
M36	× 4	T1121B34	YH4	155	57	28	21	24	4
M36	× 3	T1121B43	YH3	155	57	28	21	24	4
M36	× 2	T1121B53	YH3	155	45	28	21	24	4
M36	× 1.5	T1121B63	YH3	155	45	28	21	24	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	○			○	○	○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
										○

SPIRAL FLUTE TAPS

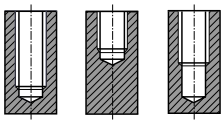
T1152 SERIES

UNC/F 普通螺旋槽丝锥
SPIRAL FLUTE TAPS for GENERAL PURPOSE

▶适用于碳钢和合金钢的盲孔加工，优异的排屑.

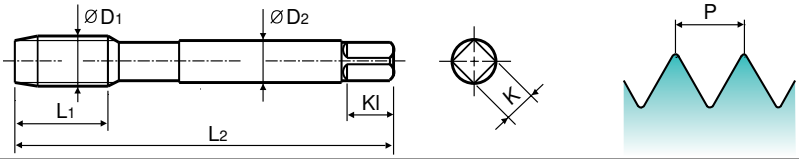
▶ Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

Hole type



Material groups **GS** | HSS-EX | I-SP | JIS II | 2.5P | Homo

▶ Tap Limits : JIS II
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
#4	40 UNC	T1152162	JIS II	44	8.5	3	2.5	5	3
#4	48 UNF	T1152182	JIS II	44	8.5	3	2.5	5	3
#5	40 UNC	T1152202	JIS II	46	11	4	3.2	6	3
#5	44 UNF	T1152222	JIS II	46	11	4	3.2	6	3
#6	32 UNC	T1152242	JIS II	48	13	4	3.2	6	3
#6	40 UNF	T1152262	JIS II	48	13	4	3.2	6	3
#8	32 UNC	T1152282	JIS II	52	13	5	4	7	3
#8	36 UNF	T1152302	JIS II	52	13	5	4	7	3
#10	24 UNC	T1152322	JIS II	60	16	5.5	4.5	7	3
#10	32 UNF	T1152342	JIS II	60	16	5.5	4.5	7	3
#12	24 UNC	T1152362	JIS II	60	16	5.5	4.5	7	3
#12	28 UNF	T1152382	JIS II	60	16	5.5	4.5	7	3
1/4	20 UNC	T1152402	JIS II	62	19	6	4.5	7	3
1/4	28 UNF	T1152422	JIS II	62	19	6	4.5	7	3
5/16	18 UNC	T1152442	JIS II	70	22	6.1	5	8	3
5/16	24 UNF	T1152462	JIS II	70	22	6.1	5	8	3

◎：优(Excellent)　○：良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	○			○	○	○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
										○

SPIRAL FLUTE TAPS

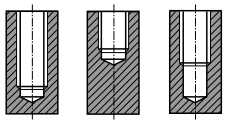
T1152 SERIES

UNC/F 普通螺旋槽丝锥 SPIRAL FLUTE TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的盲孔加工, 优异的排屑.

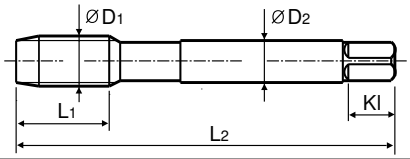
▶ Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

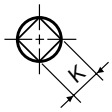
Hole type

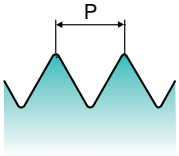


Material groups **GS** | HSS-EX | I-SP | JIS II | 2.5P | Homo

▶ Tap Limits : JIS II
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
3/8	16 UNC	T1152482	JIS II	75	24	7	5.5	8	3
3/8	24 UNF	T1152502	JIS II	75	24	7	5.5	8	3
7/16	14 UNC	T1152522	JIS II	80	25	8	6	9	3
7/16	20 UNF	T1152542	JIS II	80	25	8	6	9	3
1/2	13 UNC	T1152562	JIS II	85	29	9	7	10	3
1/2	20 UNF	T1152582	JIS II	85	29	9	7	10	3
9/16	12 UNC	T1152602	JIS II	90	30	10.5	8	11	3
9/16	18 UNF	T1152622	JIS II	90	30	10.5	8	11	3
5/8	11 UNC	T1152642	JIS II	95	32	12	9	12	3
5/8	18 UNF	T1152662	JIS II	95	32	12	9	12	3
3/4	10 UNC	T1152702	JIS II	105	37	14	11	14	4
3/4	16 UNF	T1152722	JIS II	105	37	14	11	14	4
7/8	9 UNC	T1152742	JIS II	115	38	17	13	16	4
7/8	14 UNF	T1152762	JIS II	115	38	17	13	16	4
1″	8 UNC	T1152782	JIS II	125	45	20	15	18	4
1″	12 UNF	T1152802	JIS II	125	45	20	15	18	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	○			○	○	○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
										○

SPIRAL FLUTE TAPS

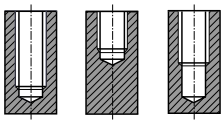
T1251 SERIES

W 普通螺旋槽丝锥
SPIRAL FLUTE TAPS for GENERAL PURPOSE

▶适用于碳钢和合金钢的盲孔加工，优异的排屑.

▶ Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

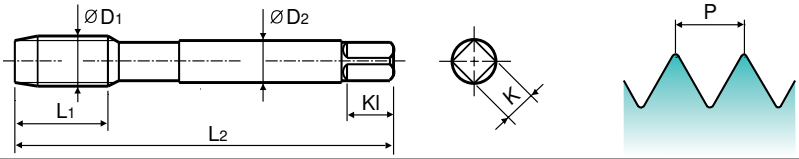
Hole type



Material groups **GS**

HSS-EX | I-SP | JIS II | 2.5P | Homo

▶ Tap Limits : JIS II
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
W1/8	- 40	T1251202	JIS II	46	11	4	3.2	6	3
W3/16	- 24	T1251322	JIS II	60	16	5.5	4.5	7	3
W1/4	- 20	T1251402	JIS II	62	19	6	4.5	7	3
W5/16	- 18	T1251442	JIS II	70	22	6.1	5	8	3
W3/8	- 16	T1251482	JIS II	75	24	7	5.5	8	3
W7/16	- 14	T1251522	JIS II	80	25	8	6	9	3
W1/2	- 12	T1251562	JIS II	85	29	9	7	10	3
W9/16	- 12	T1251602	JIS II	90	30	10.5	8	11	3
W5/8	- 11	T1251642	JIS II	95	32	12	9	12	3
W3/4	- 10	T1251702	JIS II	105	37	14	11	14	4
W7/8	- 9	T1251742	JIS II	115	38	17	13	16	4
W1″	- 8	T1251782	JIS II	125	45	20	15	18	4

◎：优(Excellent)　○：良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	○			○	○	○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
										○

SPIRAL FLUTE TAPS

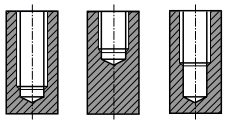
T1132 SERIES

M 普通螺旋槽丝锥
SPIRAL FLUTE TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的盲孔加工, 优异的排屑.

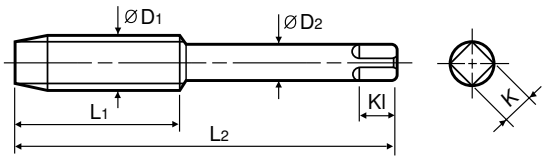
▶ Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

Hole type



Material groups **GS** | HSS-EX | J-SP | YH | 2.5P | Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M2	0.4	T1132131	YH1	40	15	3	2.5	5	2
M2.2	0.45	T1132151	YH1	42	15	3	2.5	5	2
M2.3	0.4	T1132191	YH1	42	15	3	2.5	5	2
M2.5	0.45	T1132171	YH1	44	16	3	2.5	5	2
M2.6	0.45	T1132491	YH1	44	16	3	2.5	5	2
M3	0.5	T1132202	YH2	46	18	4	3.2	6	3
M3	0.35	T1132211	YH1	46	18	4	3.2	6	3
M3.5	0.6	T1132222	YH2	48	18	4	3.2	6	3
M3.5	0.35	T1132231	YH1	48	18	4	3.2	6	3
M4	0.7	T1132242	YH2	52	20	5	4	7	3
M4	0.5	T1132251	YH1	52	20	5	4	7	3
M4.5	0.75	T1132262	YH2	55	20	5	4	7	3
M4.5	0.5	T1132271	YH1	55	20	5	4	7	3
M5	0.8	T1132282	YH2	60	22	5.5	4.5	7	3
M5	0.5	T1132291	YH1	60	22	5.5	4.5	7	3
M5.5	0.5	T1132301	YH1	60	22	5.5	4.5	7	3
M6	1	T1132312	YH2	62	24	6	4.5	7	3
M6	0.75	T1132322	YH2	62	24	6	4.5	7	3
M6	0.5	T1132331	YH1	60	22	6	4.5	7	3
M7	1	T1132342	YH2	65	26	6.2	5	8	3
M7	0.75	T1132352	YH2	65	26	6.2	5	8	3
M8	1.25	T1132362	YH2	70	30	6.2	5	8	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	○			○	○	○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
										○

SPIRAL FLUTE TAPS

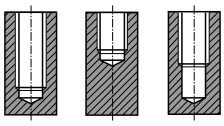
T1132 SERIES

M 普通螺旋槽丝锥
SPIRAL FLUTE TAPS for GENERAL PURPOSE

▶适用于碳钢和合金钢的盲孔加工，优异的排屑.

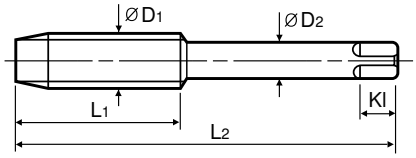
▶ Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

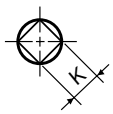
Hole type

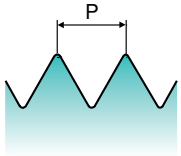


Material groups **GS** | HSS-EX | J-SP | YH | 2.5P | Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M8 ×	1	T1132372	YH2	70	15	3	2.5	5	3
M8 ×	0.75	T1132382	YH2	65	26	3	2.5	5	3
M9 ×	1.25	T1132392	YH2	72	30	7	5.5	5	3
M9 ×	1	T1132402	YH2	70	30	7	5.5	5	3
M9 ×	0.75	T1132412	YH2	65	26	7	5.5	5	3
M10 ×	1.5	T1132422	YH2	75	32	7	5.5	5	3
M10 ×	1.25	T1132432	YH2	75	32	7	5.5	5	3
M10 ×	1	T1132442	YH2	70	30	7	5.5	5	3
M10 ×	0.75	T1132452	YH2	65	26	7	5.5	5	3
M11 ×	1.5	T1132462	YH2	80	38	8	6	9	3
M11 ×	1	T1132472	YH2	70	30	8	6	9	3
M11 ×	0.75	T1132482	YH2	65	26	8	6	9	3
M12 ×	1.75	T1132502	YH2	82	38	8.5	6.5	9	3
M12 ×	1.5	T1132512	YH2	82	38	8.5	6.5	9	3
M12 ×	1.25	T1132522	YH2	80	38	8.5	6.5	9	3
M12 ×	1	T1132532	YH2	70	30	8.5	6.5	9	3
M14 ×	2	T1132542	YH2	88	42	10.5	8	11	3
M14 ×	1.5	T1132552	YH2	88	42	10.5	8	11	3
M14 ×	1.25	T1132562	YH2	80	38	10.5	8	11	3
M14 ×	1	T1132572	YH2	70	30	10.5	8	11	3
M15 ×	1.5	T1132582	YH2	90	42	10.5	8	11	3
M15 ×	1	T1132592	YH2	70	30	10.5	8	11	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	○			○	○	○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
										○

COMBO TAPS
SPIRAL POINT TAPS
SPIRAL FLUTE TAPS
STRAIGHT FLUTE TAPS
LONG SHANK TAPS
FLUTELRSS TAPS
SCREW THREAD INSERT TAPS
HAND TAPS
PIPE TAPS
CARBIDE TAPS
SKS21 HAND TAPS
SKS21 PIPE TAPS
THREAD MILLS
TECHNICAL DATA

SPIRAL FLUTE TAPS

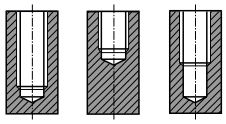
T1132 SERIES

M 普通螺旋槽丝锥
SPIRAL FLUTE TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的盲孔加工, 优异的排屑.

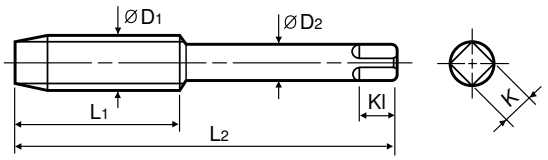
▶ Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

Hole type



Material groups **GS** | HSS-EX | J-SP | YH | 2.5P | Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532



단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M16	× 2	T1132602	YH2	95	45	12.5	10	13	3
M16	× 1.5	T1132612	YH2	95	45	12.5	10	13	3
M16	× 1	T1132622	YH2	75	30	12.5	10	13	3
M18	× 2.5	T1132653	YH3	100	37	14	11	14	3
M18	× 2	T1132663	YH3	95	45	14	11	14	3
M18	× 1.5	T1132672	YH2	95	45	14	11	14	3
M18	× 1	T1132682	YH2	80	30	14	11	14	3
M20	× 2.5	T1132703	YH3	105	50	15	12	15	3
M20	× 2	T1132713	YH3	95	45	15	12	15	3
M20	× 1.5	T1132723	YH3	95	45	15	12	15	3
M20	× 1	T1132732	YH2	80	30	15	12	15	3
M22	× 2.5	T1132743	YH3	115	55	17	13	16	3
M22	× 2	T1132753	YH3	95	45	17	13	16	3
M22	× 1.5	T1132763	YH3	95	45	17	13	16	3
M22	× 1	T1132772	YH2	85	30	17	13	16	3
M24	× 3	T1132783	YH3	120	58	19	15	18	4
M24	× 2	T1132793	YH3	95	45	19	15	18	4
M24	× 1.5	T1132803	YH3	95	45	19	15	18	4
M24	× 1	T1132812	YH2	90	30	19	15	18	4
M25	× 2	T1132823	YH3	95	45	19	15	18	4
M25	× 1.5	T1132833	YH3	95	45	19	15	18	4
M26	× 2	T1132N43	YH3	95	45	20	15	18	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	○			○	○	○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
										○

SPIRAL FLUTE TAPS

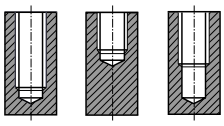
T1132 SERIES

M 普通螺旋槽丝锥
SPIRAL FLUTE TAPS for GENERAL PURPOSE

▶适用于碳钢和合金钢的盲孔加工，优异的排屑.

▶ Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

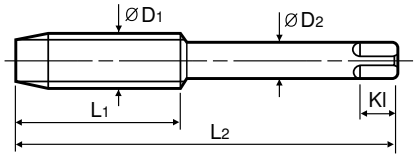
Hole type

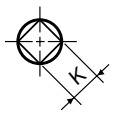


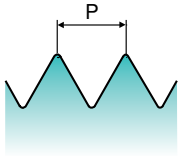
Material groups **GS**

HSS-EX | J-SP | YH | 2.5P | Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M26 ×	1.5	T1132853	YH3	95	45	20	15	18	4
M26 ×	1	T1132N52	YH2	95	30	20	15	18	4
M27 ×	3	T1132863	YH3	130	62	20	15	18	4
M27 ×	2	T1132873	YH3	95	45	20	15	18	4
M27 ×	1.5	T1132883	YH3	95	45	20	15	18	4
M28 ×	2	T1132903	YH3	105	45	21	17	20	4
M28 ×	1.5	T1132913	YH3	105	45	21	17	20	4
M30 ×	3.5	T1132944	YH4	135	65	23	17	20	4
M30 ×	3	T1132953	YH3	135	65	23	17	20	4
M30 ×	2	T1132963	YH3	105	45	23	17	20	4
M30 ×	1.5	T1132973	YH3	105	45	23	17	20	4
M30 ×	1	T1132982	YH2	105	30	23	17	20	4
M33 ×	3.5	T1132A44	YH4	145	70	25	19	22	4
M33 ×	3	T1132A53	YH3	145	70	25	19	22	4
M33 ×	2	T1132A63	YH3	110	45	25	19	22	4
M33 ×	1.5	T1132A73	YH3	110	45	25	19	22	4
M36 ×	4	T1132B34	YH4	155	75	28	21	24	4
M36 ×	3	T1132B43	YH3	155	75	28	21	24	4
M36 ×	2	T1132B53	YH3	110	45	28	21	24	4
M36 ×	1.5	T1132B63	YH3	110	45	28	21	24	4

◎：优(Excellent)　○：良(Good)

低碳钢 Low Carbon Steel ~ C0.25	中碳钢 Meduim Carbon Steel C0.25 ~ C0.45	高碳钢 High Carbon Steel C0.45 ~	合金钢 Alloy Steel SCM	硬化钢 Hardened Steel HRc25 ~ 45	不锈钢 Stainless Steel SUS	工具钢 Tool Steel SKD	铸钢 Cast Steel SC	铸铁 Cast Iron FC	高强度铸铁 High Tension Cast Iron FCD
◎	○	○			○	○	○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
										○

COMBO TAPS
SPIRAL POINT TAPS
SPIRAL FLUTE TAPS
STRAIGHT FLUTE TAPS
LONG SHANK TAPS
FLUTELRSS TAPS
SCREW THREAD INSERT TAPS
HAND TAPS
PIPE TAPS
CARBIDE TAPS
SKS21 HAND TAPS
SKS21 PIPE TAPS
THREAD MILLS
TECHNICAL DATA

SPIRAL FLUTE TAPS

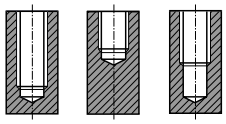
T1232 SERIES

UNC/F 普通螺旋槽丝锥 SPIRAL FLUTE TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的盲孔加工, 优异的排屑.

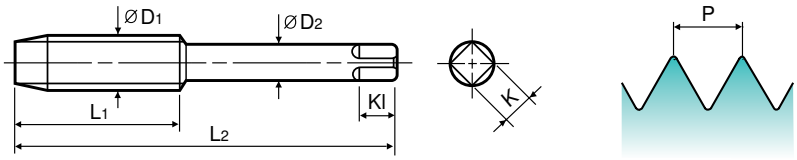
▶ Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

Hole type



Material groups **GS** | HSS-EX | J-SP | JIS II | 2.5P | Homo

▶ Tap Limits : JIS II
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532



단위(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
#4	40 UNC	T1232162	JIS II	44	16	3	2.5	5	3
#4	48 UNF	T1232182	JIS II	44	16	3	2.5	5	3
#5	40 UNC	T1232202	JIS II	46	18	4	3.2	6	3
#5	44 UNF	T1232222	JIS II	46	18	4	3.2	6	3
#6	32 UNC	T1232242	JIS II	48	18	4	3.2	6	3
#6	40 UNF	T1232262	JIS II	48	18	4	3.2	6	3
#8	32 UNC	T1232282	JIS II	52	20	5	4	7	3
#8	36 UNF	T1232302	JIS II	52	20	5	4	7	3
#10	24 UNC	T1232322	JIS II	60	22	5.5	4.5	7	3
#10	32 UNF	T1232342	JIS II	60	22	5.5	4.5	7	3
#12	24 UNC	T1232362	JIS II	60	22	5.5	4.5	7	3
#12	28 UNF	T1232382	JIS II	60	22	5.5	4.5	7	3
1/4	20 UNC	T1232402	JIS II	62	24	6	4.5	7	3
1/4	28 UNF	T1232422	JIS II	62	24	6	4.5	7	3
5/16	18 UNC	T1232442	JIS II	70	30	6.1	5	8	3
5/16	24 UNF	T1232462	JIS II	70	30	6.1	5	8	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	○			○	○	○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
										○

SPIRAL FLUTE TAPS

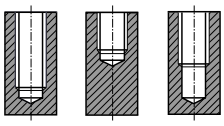
T1232 SERIES

UNC/F 普通螺旋槽丝锥 SPIRAL FLUTE TAPS for GENERAL PURPOSE

▶适用于碳钢和合金钢的盲孔加工，优异的排屑.

▶ Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

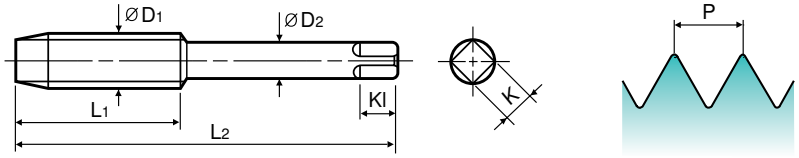
Hole type



Material groups **GS**

HSS-EX | J-SP | JIS II | 2.5P | Homo

▶ Tap Limits : JIS II
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
3/8 -	16 UNC	T1232482	JIS II	75	35	7	5.5	8	3
3/8 -	24 UNF	T1232502	JIS II	75	32	7	5.5	8	3
7/16-	14 UNC	T1232522	JIS II	80	38	8	6	9	3
7/16-	20 UNF	T1232542	JIS II	80	38	8	6	9	3
1/2 -	13 UNC	T1232562	JIS II	85	42	9	7	10	3
1/2 -	20 UNF	T1232582	JIS II	85	42	9	7	10	3
9/16-	12 UNC	T1232602	JIS II	90	42	10.5	8	11	3
9/16-	18 UNF	T1232622	JIS II	90	42	10.5	8	11	3
5/8 -	11 UNC	T1232642	JIS II	95	45	12	9	12	3
5/8 -	18 UNF	T1232662	JIS II	95	45	12	9	12	3
3/4 -	10 UNC	T1232702	JIS II	105	50	14	11	14	3
3/4 -	16 UNF	T1232722	JIS II	95	45	14	11	14	3
7/8 -	9 UNC	T1232742	JIS II	115	55	17	13	16	3
7/8 -	14 UNF	T1232762	JIS II	95	45	17	13	16	3
1″ -	8 UNC	T1232782	JIS II	125	60	20	15	18	3
1″ -	12 UNF	T1232802	JIS II	95	45	20	15	18	3

◎：优(Excellent)　○：良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	○			○	○	○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
										○

SPIRAL FLUTE TAPS

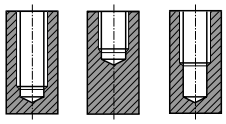
T1162 SERIES

W 普通螺旋槽丝锥
SPIRAL FLUTE TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的盲孔加工, 优异的排屑.

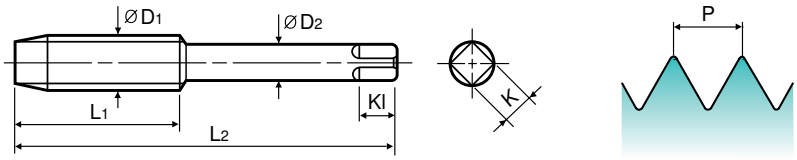
▶ Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

Hole type



Material groups **GS** | HSS-EX | J-SP | JIS II | 2.5P | Homo

▶ Tap Limits : JIS II
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532



단위(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
W1/8	- 40	T1162202	JIS II	46	18	4	3.2	6	3
W3/16	- 24	T1162322	JIS II	60	22	5.5	4.5	7	3
W1/4	- 20	T1162402	JIS II	62	24	6	4.5	7	3
W5/16	- 18	T1162442	JIS II	70	30	6.1	5	8	3
W3/8	- 16	T1162482	JIS II	75	35	7	5.5	8	3
W7/16	- 14	T1162522	JIS II	80	38	8	6	9	3
W1/2	- 12	T1162562	JIS II	85	42	9	7	10	3
W9/16	- 12	T1162602	JIS II	90	42	10.5	8	11	3
W5/8	- 11	T1162642	JIS II	95	45	12	9	12	3
W3/4	- 10	T1162702	JIS II	105	50	14	11	14	4
W7/8	- 9	T1162742	JIS II	115	55	17	13	16	4
W1″	- 8	T1162782	JIS II	125	60	20	15	18	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	○			○	○	○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
										○

SPIRAL FLUTE TAPS

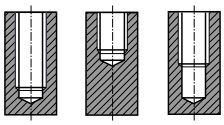
T1112 SERIES

M 深孔螺旋槽丝锥(普通)
SPIRAL FLUTE TAPS for DEEP HOLES(for GENERAL PURPOSE)

▶适用于碳钢和合金钢的盲孔深加工，优异的排屑.

▶ Suitable for tapping deep Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

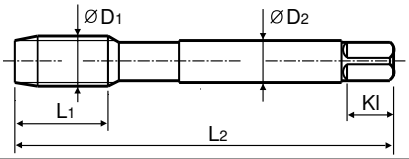
Hole type

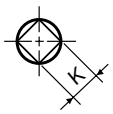


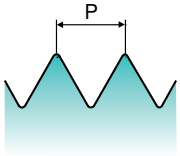
Material groups **GS**

HSS-EX | S-SP | YH | 2.5P | Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M2	× 0.4	T1112131	YH1	40	4	3	2.5	5	2
M2.2	× 0.45	T1112151	YH1	42	4.5	3	2.5	5	2
M2.3	× 0.4	T1112191	YH1	42	4	3	2.5	5	2
M2.5	× 0.45	T1112171	YH1	44	4.5	3	2.5	5	2
M2.6	× 0.45	T1112491	YH1	44	4.5	3	2.5	5	2
M3	× 0.5	T1112202	YH2	46	5	4	3.2	6	3
M3	× 0.35	T1112211	YH1	46	3.5	4	3.2	6	3
M3.5	× 0.6	T1112222	YH2	48	6	4	3.2	6	3
M3.5	× 0.35	T1112231	YH1	48	3.5	4	3.2	6	3
M4	× 0.7	T1112242	YH2	52	7	5	4	7	3
M4	× 0.5	T1112251	YH1	52	5	5	4	7	3
M4.5	× 0.75	T1112262	YH2	55	7.5	5	4	7	3
M4.5	× 0.5	T1112271	YH1	55	5	5	4	7	3
M5	× 0.8	T1112282	YH2	55	8	5.5	4.5	7	3
M5	× 0.5	T1112291	YH1	60	5	5.5	4.5	7	3
M5.5	× 0.5	T1112301	YH1	60	5	5.5	4.5	7	3
M6	× 1	T1112312	YH2	60	10	6	4.5	7	3
M6	× 0.75	T1112322	YH2	62	7.5	6	4.5	7	3
M6	× 0.5	T1112331	YH1	62	5	6	4.5	7	3
M7	× 1	T1112342	YH2	65	10	6.2	5	8	3

◎：优(Excellent)　○：良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	○			○	○	○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
										○

SPIRAL FLUTE TAPS

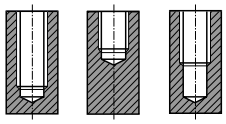
T1112 SERIES

M 深孔螺旋槽丝锥(普通)
SPIRAL FLUTE TAPS for DEEP HOLES(for GENERAL PURPOSE)

▶适用于碳钢和合金钢的盲孔深加工，优异的排屑.

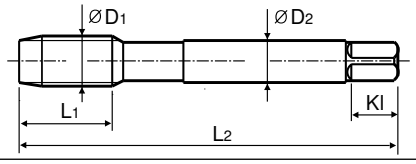
▶ Suitable for tapping deep Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

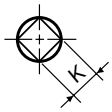
Hole type

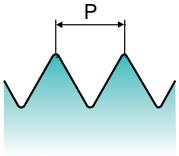


Material groups **GS** | HSS-EX | S-SP | YH | 2.5P | Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1		牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M7	×	0.75	T1112352	YH2	65	7.5	6.2	5	8	3
M8	×	1.25	T1112362	YH2	70	12.5	6.2	5	8	3
M8	×	1	T1112372	YH2	70	10	6.2	5	8	3
M8	×	0.75	T1112382	YH2	70	7.5	6.2	5	8	3
M9	×	1.25	T1112392	YH2	72	12.5	7	5.5	8	3
M9	×	1	T1112402	YH2	72	10	7	5.5	8	3
M9	×	0.75	T1112412	YH2	72	7.5	7	5.5	8	3
M10	×	1.5	T1112422	YH2	75	15	7	5.5	8	3
M10	×	1.25	T1112432	YH2	75	12.5	7	5.5	8	3
M10	×	1	T1112442	YH2	75	10	7	5.5	8	3
M10	×	0.75	T1112452	YH2	75	7.5	7	5.5	8	3
M11	×	1.5	T1112462	YH2	75	15	8	6	9	3
M11	×	1	T1112472	YH2	80	10	8	6	9	3
M11	×	0.75	T1112482	YH2	80	7.5	8	6	9	3
M12	×	1.75	T1112502	YH2	80	17.5	8.5	6.5	9	3
M12	×	1.5	T1112512	YH2	82	15	8.5	6.5	9	3
M12	×	1.25	T1112522	YH2	82	12.5	8.5	6.5	9	3
M12	×	1	T1112532	YH2	82	10	10.5	6.5	9	3
M14	×	2	T1112542	YH2	82	20	10.5	8	11	3
M14	×	1.5	T1112552	YH2	88	15	10.5	8	11	3

◎：优(Excellent)　○：良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	○			○	○	○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
										○

SPIRAL FLUTE TAPS

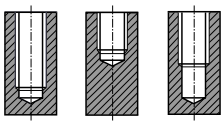
T1112 SERIES

M 深孔螺旋槽丝锥(普通)
SPIRAL FLUTE TAPS for DEEP HOLES(for GENERAL PURPOSE)

▶适用于碳钢和合金钢的盲孔深加工，优异的排屑.

▶ Suitable for tapping deep Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

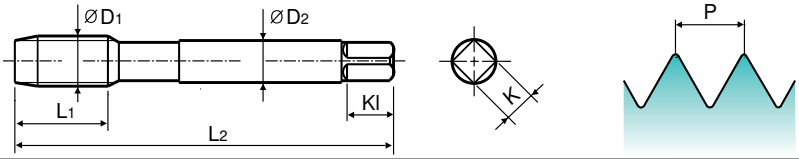
Hole type



Material groups **GS**

HSS-EX | S-SP | YH | 2.5P | Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M14 ×	1.25	T1112562	YH2	88	12.5	10.5	8	11	3
M14 ×	1	T1112572	YH2	88	10	10.5	8	11	3
M15 ×	1.5	T1112582	YH2	90	15	10.5	8	11	3
M15 ×	1	T1112592	YH2	90	10	12.5	8	11	3
M16 ×	2	T1112602	YH2	90	20	12.5	10	13	3
M16 ×	1.5	T1112612	YH2	95	15	12.5	10	13	3
M16 ×	1	T1112622	YH2	95	10	14	10	13	3
M18 ×	2.5	T1112653	YH3	95	25	14	11	14	4
M18 ×	2	T1112663	YH3	100	20	14	11	14	4
M18 ×	1.5	T1112672	YH2	100	15	14	11	14	4
M18 ×	1	T1112682	YH2	95	10	15	11	14	4
M20 ×	2.5	T1112703	YH2	95	25	15	12	15	4
M20 ×	2	T1112713	YH3	105	20	15	12	15	4
M20 ×	1.5	T1112723	YH3	105	15	15	12	15	4
M20 ×	1	T1112732	YH2	95	10	17	12	15	4
M22 ×	2.5	T1112743	YH2	95	25	17	13	16	4
M22 ×	2	T1112753	YH3	115	20	17	13	16	4
M22 ×	1.5	T1112763	YH3	115	15	17	13	16	4
M22 ×	1	T1112772	YH2	95	10	17	13	16	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	○			○	○	○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
										○

COMBO TAPS
SPIRAL POINT TAPS
SPIRAL FLUTE TAPS
STRAIGHT FLUTE TAPS
LONG SHANK TAPS
FLUTELRSS TAPS
SCREW THREAD INSERT TAPS
HAND TAPS
PIPE TAPS
CARBIDE TAPS
SKS21 HAND TAPS
SKS21 PIPE TAPS
THREAD MILLS
TECHNICAL DATA

SPIRAL FLUTE TAPS

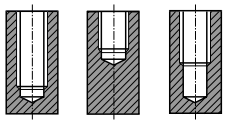
T1172 SERIES

UNC/F 深孔螺旋槽丝锥(普通)
SPIRAL FLUTE TAPS for DEEP HOLES(for GENERAL PURPOSE)

▶ 适用于碳钢和合金钢的盲孔深加工，优异的排屑.

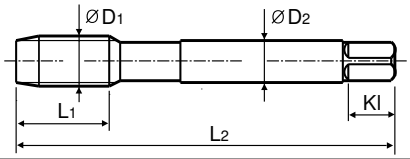
▶ Suitable for tapping deep Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

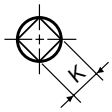
Hole type

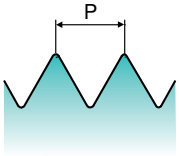


Material groups **GS** | HSS-EX | S-SP | JIS II | 2.5P | Homo

▶ Tap Limits : JIS II
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
#4	- 40 UNC	T1172162	JIS II	44	6	3	2.5	5	3
#4	- 48 UNF	T1172182	JIS II	44	6	3	2.5	5	3
#5	- 40 UNC	T1172202	JIS II	46	6	4	3.2	6	3
#5	- 44 UNF	T1172222	JIS II	46	6	4	3.2	6	3
#6	- 32 UNC	T1172242	JIS II	48	7	4	3.2	6	3
#6	- 40 UNF	T1172262	JIS II	48	7	4	3.2	6	3
#8	- 32 UNC	T1172282	JIS II	52	7	5	4	7	3
#8	- 36 UNF	T1172302	JIS II	52	7	5	4	7	3
#10	- 24 UNC	T1172322	JIS II	60	10	5.5	4.5	7	3
#10	- 32 UNF	T1172342	JIS II	60	7	5.5	4.5	7	3
#12	- 24 UNC	T1172362	JIS II	60	10	5.5	4.5	7	3
#12	- 28 UNF	T1172382	JIS II	60	9	5.5	4.5	7	3
1/4	- 20 UNC	T1172402	JIS II	62	12	6	4.5	7	3
1/4	- 28 UNF	T1172422	JIS II	62	9	6	4.5	7	3
5/16	- 18 UNC	T1172442	JIS II	70	14	6.1	5	8	3
5/16	- 24 UNF	T1172462	JIS II	70	10	6.1	5	8	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	○			○	○	○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
										○

SPIRAL FLUTE TAPS

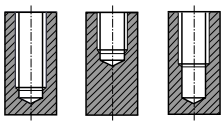
T1172 SERIES

UNC/F 深孔螺旋槽丝锥(普通)
SPIRAL FLUTE TAPS for DEEP HOLES(for GENERAL PURPOSE)

▶适用于碳钢和合金钢的盲孔深加工，优异的排屑.

▶ Suitable for tapping deep Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

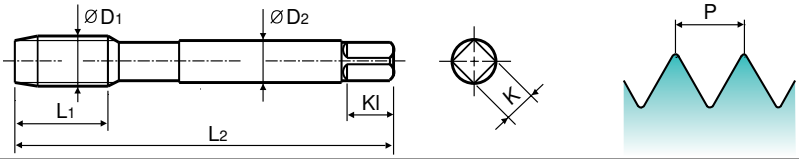
Hole type



Material groups **GS**

HSS-EX | S-SP | JIS II | 2.5P | Homo

▶ Tap Limits : JIS II
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532



단위(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
3/8 -	16 UNC	T1172482	JIS II	75	15	7	5.5	8	3
3/8 -	24 UNF	T1172502	JIS II	75	10	7	5.5	8	3
7/16 -	14 UNC	T1172522	JIS II	80	18	8	6	9	3
7/16 -	20 UNF	T1172542	JIS II	80	12	8	6	9	3
1/2 -	13 UNC	T1172562	JIS II	85	19	9	7	10	3
1/2 -	20 UNF	T1172582	JIS II	85	12	9	7	10	3
9/16 -	12 UNC	T1172602	JIS II	90	21	10.5	8	11	3
9/16 -	18 UNF	T1172622	JIS II	90	14	10.5	8	11	3
5/8 -	11 UNC	T1172642	JIS II	95	23	12	9	12	3
5/8 -	18 UNF	T1172662	JIS II	95	14	12	9	12	3
3/4 -	10 UNC	T1172702	JIS II	105	25	14	11	14	4
3/4 -	16 UNF	T1172722	JIS II	105	15	14	11	14	4
7/8 -	9 UNC	T1172742	JIS II	115	28	17	13	16	4
7/8 -	14 UNF	T1172762	JIS II	115	18	17	13	16	4
1″ -	8 UNC	T1172782	JIS II	125	31	20	15	18	4
1″ -	12 UNF	T1172802	JIS II	125	21	20	15	18	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel ~ C0.25	中碳钢 Meduim Carbon Steel C0.25 ~ C0.45	高碳钢 High Carbon Steel C0.45 ~	合金钢 Alloy Steel SCM	硬化钢 Hardened Steel HRc25 ~ 45	不锈钢 Stainless Steel SUS	工具钢 Tool Steel SKD	铸钢 Cast Steel SC	铸铁 Cast Iron FC	高强度铸铁 High Tension Cast Iron FCD
◎	○	○			○	○	○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
										○

SPIRAL FLUTE TAPS

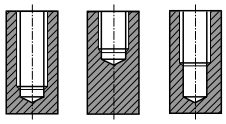
T1182 SERIES

W 深孔螺旋槽丝锥(普通)
SPIRAL FLUTE TAPS for DEEP HOLES(for GENERAL PURPOSE)

▶ 适用于碳钢和合金钢的盲孔深加工，优异的排屑.

▶ Suitable for tapping deep Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

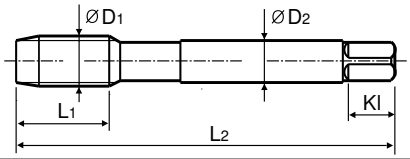
Hole type

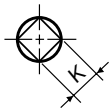


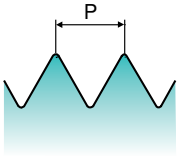
Material groups **GS**

HSS-EX | S-SP | JIS II | 2.5P | Homo

▶ Tap Limits : JIS II
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
W1/8	- 40	T1182202	JIS II	46	6	4	3.2	6	3
W3/16	- 24	T1182322	JIS II	60	10	5.5	4.5	7	3
W1/4	- 20	T1182402	JIS II	62	12	6	4.5	7	3
W5/16	- 18	T1182442	JIS II	70	14	6.1	5	8	3
W3/8	- 16	T1182482	JIS II	75	15	7	5.5	8	3
W7/16	- 14	T1182522	JIS II	80	18	8	6	9	3
W1/2	- 12	T1182562	JIS II	85	19	9	7	10	3
W9/16	- 12	T1182602	JIS II	90	21	10.5	8	11	3
W5/8	- 11	T1182642	JIS II	95	23	12	9	12	3
W3/4	- 10	T1182702	JIS II	105	25	14	11	14	4
W7/8	- 9	T1182742	JIS II	115	28	17	13	16	4
W1″	- 8	T1182782	JIS II	125	31	20	15	18	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	○			○	○	○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
										○

SPIRAL FLUTE TAPS

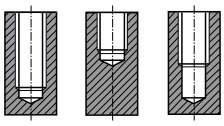
T3121 SERIES

M 螺旋槽丝锥 SPIRAL FLUTE TAPS

▶适用于碳钢和合金钢，有效长时间的高速盲孔加工. 寿命长和快速攻丝.

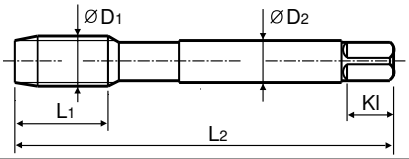
▶ Suitable for tapping Blind holes in Carbon Steels and Alloy Steels. Long tool life and high speed tapping.

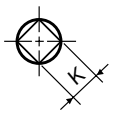
Hole type

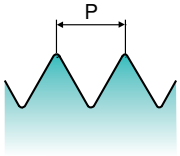


Material groups **GS** | HSS-EX | I-SPtin | YH | 2.5P | TiN

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M3	0.5	T3121202	YH2	46	11	4	3.2	6	3
M3.5	0.6	T3121222	YH2	48	13	4	3.2	6	3
M4	0.7	T3121242	YH2	52	13	5	4	7	3
M5	0.8	T3121282	YH2	60	16	5.5	4.5	7	3
M6	1	T3121312	YH2	62	19	6	4.5	7	3
M8	1.25	T3121362	YH2	70	22	6.2	5	8	3
M10	1.5	T3121422	YH2	75	24	7	5.5	8	3
M10	1.25	T3121432	YH2	75	24	7	5.5	8	3
M12	1.75	T3121502	YH2	82	29	8.5	6.5	9	3
M12	1.5	T3121512	YH2	82	29	8.5	6.5	9	3
M12	1.25	T3121522	YH2	82	29	8.5	6.5	9	3
M14	2	T3121542	YH2	88	30	10.5	8	11	3
M14	1.5	T3121552	YH2	88	30	10.5	8	11	3
M16	2	T3121602	YH2	95	32	12.5	10	13	3
M16	1.5	T3121612	YH2	95	32	12.5	10	13	3
M18	2.5	T3121653	YH3	100	37	14	11	14	4
M18	1.5	T3121672	YH2	100	37	14	11	14	4
M20	2.5	T3121703	YH3	105	37	15	12	15	4
M20	1.5	T3121722	YH2	105	37	15	12	15	4

◎：优(Excellent)　○：良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	◎	○		○	○	○		○

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
○	○	○	○	○	○	○			○	○

SPIRAL FLUTE TAPS

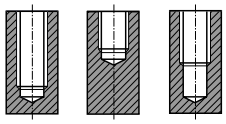
T3132 SERIES

M 螺旋槽丝锥 SPIRAL FLUTE TAPS

▶适用于碳钢和合金钢的通孔加工，具有高效，寿命长，能够快速攻丝.

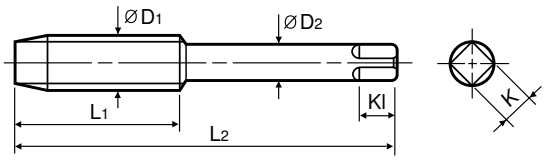
▶ Suitable for tapping Blind holes in Carbon Steels and Alloy Steels. Capable of efficient, long life, high speed tapping.

Hole type



Material groups **GS** | HSS-EX | J-SPtin | YH | 2.5P | TiN

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1		牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M3	×	0.5	T3132202	YH2	46	18	4	3.2	6	3
M3.5	×	0.6	T3132222	YH2	48	18	4	3.2	6	3
M4	×	0.7	T3132242	YH2	52	20	5	4	7	3
M5	×	0.8	T3132282	YH2	60	22	5.5	4.5	7	3
M6	×	1	T3132312	YH2	62	24	6	4.5	7	3
M8	×	1.25	T3132362	YH2	70	30	6.2	5	8	3
M10	×	1.5	T3132422	YH2	75	32	7	5.5	8	3
M10	×	1.25	T3132432	YH2	75	32	7	5.5	8	3
M12	×	1.75	T3132502	YH2	82	38	8.5	6.5	9	3
M12	×	1.5	T3132512	YH2	82	38	8.5	6.5	9	3
M12	×	1.25	T3132522	YH2	80	38	8.5	6.5	9	3
M14	×	2	T3132542	YH2	88	42	10.5	8	11	3
M14	×	1.5	T3132552	YH2	88	42	10.5	8	11	3
M16	×	2	T3132602	YH2	95	45	12.5	10	13	3
M16	×	1.5	T3132612	YH2	95	45	12.5	10	13	3
M18	×	2.5	T3132653	YH3	100	48	14	11	14	4
M18	×	1.5	T3132672	YH2	95	45	14	11	14	4
M20	×	2.5	T3132703	YH3	105	50	15	12	15	4
M20	×	1.5	T3132722	YH2	95	45	15	12	15	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	◎	○		○	○	○		○

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
○	○	○	○	○	○	○			○	○

SPIRAL FLUTE TAPS

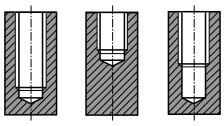
T3112 SERIES

M 深孔螺旋槽丝锥
SPIRAL FLUTE TAPS for DEEP HOLES

▶适用于碳钢和合金钢的通孔加工，具有高效，寿命长，能够快速攻丝.

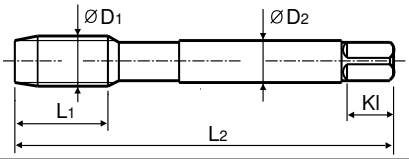
▶ Suitable for tapping deep Blind holes in Carbon Steels and Alloy Steels. Capable of efficient, long life, high speed tapping.

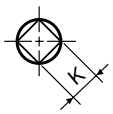
Hole type

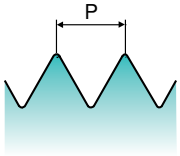


Material groups **GS** | HSS-EX | S-SPtin | YH | 2.5P | TiN

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M3	× 0.5	T3112202	YH2	46	5	4	3.2	6	3
M4	× 0.7	T3112242	YH2	52	7	5	4	7	3
M5	× 0.8	T3112282	YH2	60	8	5.5	4.5	7	3
M6	× 1	T3112312	YH2	62	10	6	4.5	7	3
M8	× 1.25	T3112362	YH2	70	12.5	6.2	5	8	3
M10	× 1.5	T3112422	YH2	75	15	7	5.5	8	3
M10	× 1.25	T3112432	YH2	75	12.5	7	5.5	8	3
M12	× 1.75	T3112502	YH2	82	17.5	8.5	6.5	9	3
M12	× 1.5	T3112512	YH2	82	15	8.5	6.5	9	3
M12	× 1.25	T3112522	YH2	82	12.5	8.5	6.5	9	3
M14	× 2	T3112542	YH2	88	20	10.5	8	11	3
M14	× 1.5	T3112552	YH2	88	15	10.5	8	11	3
M16	× 2	T3112602	YH2	95	20	12.5	10	13	3
M16	× 1.5	T3112612	YH2	95	15	12.5	10	13	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	◎	○		○	○	○		○

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
○	○	○	○	○	○	○			○	○

SPIRAL FLUTE TAPS

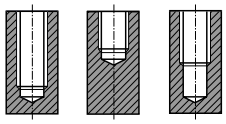
T1151 SERIES

M 软钢用螺旋槽丝锥
SPIRAL FLUTE TAPS for SOFT STRUCTURAL STEELS

▶适用于类似SS41，S25C等软钢及低碳钢的盲孔加工

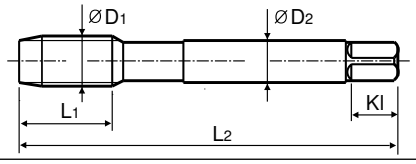
▶ Suitable for tapping Blind holes in Soft Structural Steels such as SS41, S25C and other low carbon Steels.

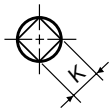
Hole type

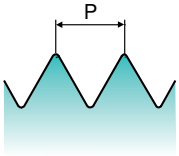


Material groups **GV** | HSS-EX | I-SPss | YH | 2.5P | Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M3	× 0.5	T1151202	YH2	46	11	4	3.2	6	3
M3.5	× 0.6	T1151222	YH2	48	13	4	3.2	6	3
M4	× 0.7	T1151242	YH2	52	13	5	4	7	3
M5	× 0.8	T1151282	YH2	60	16	5.5	4.5	7	3
M6	× 1	T1151312	YH2	62	19	6	4.5	7	3
M8	× 1.25	T1151362	YH2	70	22	6.2	5	8	3
M10	× 1.5	T1151422	YH2	75	24	7	5.5	8	3
M10	× 1.25	T1151432	YH2	75	24	7	5.5	8	3
M12	× 1.75	T1151502	YH2	82	29	8.5	6.5	9	3
M12	× 1.5	T1151512	YH2	82	29	8.5	6.5	9	3
M12	× 1.25	T1151522	YH2	82	29	8.5	6.5	9	3
M14	× 2	T1151542	YH2	88	30	10.5	8	11	3
M14	× 1.5	T1151552	YH2	88	30	10.5	8	11	3
M16	× 2	T1151602	YH2	95	32	12.5	10	13	3
M16	× 1.5	T1151612	YH2	95	32	12.5	10	13	3
M18	× 2.5	T1151653	YH3	100	37	14	11	14	4
M18	× 1.5	T1151672	YH2	100	37	14	11	14	4
M20	× 2.5	T1151703	YH3	105	37	15	12	15	4
M20	× 1.5	T1151723	YH3	105	37	15	12	15	4
M22	× 2.5	T1151743	YH3	115	38	17	13	16	4
M22	× 1.5	T1151763	YH3	115	38	17	13	16	4
M24	× 3	T1151783	YH3	120	45	19	15	18	4
M24	× 1.5	T1151803	YH3	120	45	19	15	18	4

◎：优(Excellent)　○：良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	◎		○				◎		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
										○

SPIRAL FLUTE TAPS

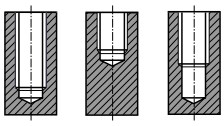
T1131 SERIES

M 软钢用螺旋槽丝锥
SPIRAL FLUTE TAPS for SOFT STRUCTURAL STEELS

▶适用于类似SS41，S25C等软钢及低碳钢的盲孔加工

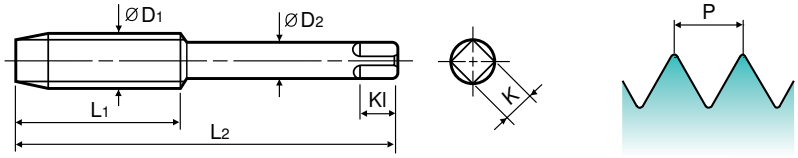
▶ Suitable for tapping Blind holes in Soft Structural Steels such as SS41, S25C and other low carbon Steels.

Hole type



Material groups **GV** | HSS-EX | J-SPss | YH | 2.5P | Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532



단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M3	0.5	T1131202	YH2	46	11	18	3.2	6	3
M3.5	0.6	T1131222	YH2	48	13	18	3.2	6	3
M4	0.7	T1131242	YH2	52	13	20	4	7	3
M5	0.8	T1131282	YH2	60	16	22	4.5	7	3
M6	1	T1131312	YH2	62	19	24	4.5	7	3
M8	1.25	T1131362	YH2	70	22	30	5	8	3
M10	1.5	T1131422	YH2	75	24	32	5.5	8	3
M10	1.25	T1131432	YH2	75	24	32	5.5	8	3
M12	1.75	T1131502	YH2	82	29	38	6.5	9	3
M12	1.5	T1131512	YH2	82	29	38	6.5	9	3
M12	1.25	T1131522	YH2	80	29	38	6.5	9	3
M14	2	T1131542	YH2	88	30	42	8	11	3
M14	1.5	T1131552	YH2	88	30	42	8	11	3
M16	2	T1131602	YH2	95	32	45	10	13	3
M16	1.5	T1131612	YH2	95	32	45	10	13	3
M18	2.5	T1131653	YH3	100	37	48	11	14	4
M18	1.5	T1131672	YH2	95	37	45	11	14	4
M20	2.5	T1131703	YH3	105	37	50	12	15	4
M20	1.5	T1131723	YH3	95	37	45	12	15	4
M22	2.5	T1131743	YH3	115	38	55	13	16	4
M22	1.5	T1131763	YH3	95	38	45	13	16	4
M24	3	T1131783	YH3	120	45	58	15	18	4
M24	1.5	T1131803	YH3	95	45	45	15	18	4

◎：优(Excellent)　○：良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	◎		○				◎		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
										○

SPIRAL FLUTE TAPS

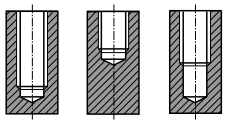
T1191 SERIES

M 不锈钢用螺旋槽丝锥
SPIRAL FLUTE TAPS for STAINLESS STEELS

▶ 适用于不锈钢，铬钢，铬钼钢和其他逐硬化具有韧性材料的盲孔加工

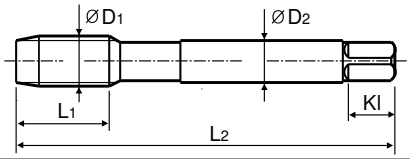
▶ Suitable for tapping Blind holes in Stainless Steel, Chrome Steel, Chrome Molybdenum Steel and other ductile materials.

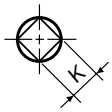
Hole type

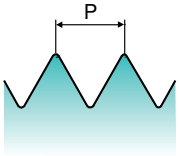


Material groups **VA** | HSS-EX | I-SPsus | YH | 2.5P | Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M2	0.4	T1191131	YH1	40	7.5	3	2.5	5	2
M2.2	0.45	T1191151	YH1	42	8.5	3	2.5	5	2
M2.3	0.4	T1191191	YH1	42	8.5	3	2.5	5	2
M2.5	0.45	T1191172	YH2	44	8.5	3	2.5	5	2
M2.6	0.45	T1191492	YH2	44	8.5	3	2.5	5	2
M3	0.5	T1191202	YH2	46	11	4	3.2	6	3
M3.5	0.6	T1191222	YH2	48	13	4	3.2	6	3
M4	0.7	T1191242	YH2	52	13	5	4	7	3
M5	0.8	T1191282	YH2	60	16	5.5	4.5	7	3
M6	1	T1191312	YH2	62	19	6	4.5	7	3
M8	1.25	T1191363	YH3	70	22	6.2	5	8	3
M10	1.5	T1191423	YH3	75	24	7	5.5	8	3
M10	1.25	T1191433	YH3	75	24	7	5.5	8	3
M12	1.75	T1191503	YH3	82	29	8.5	6.5	9	3
M12	1.5	T1191513	YH3	82	29	8.5	6.5	9	3
M12	1.25	T1191523	YH3	82	29	8.5	6.5	9	3
M12	1	T1191532	YH2	82	29	8.5	6.5	9	3
M14	2	T1191543	YH3	88	30	10.5	8	11	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
					◎				

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
◎										◎

SPIRAL FLUTE TAPS

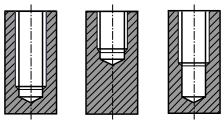
T1191 SERIES

M 不锈钢用螺旋槽丝锥
SPIRAL FLUTE TAPS for STAINLESS STEELS

▶ 适用于不锈钢，铬钢，铬钼钢和其他逐硬化具有韧性材料的盲孔加工

▶ Suitable for tapping Blind holes in Stainless Steel, Chrome Steel, Chrome Molybdenum Steel and other ductile materials.

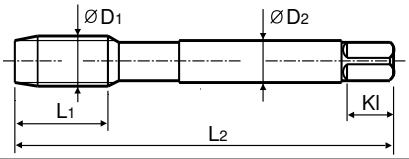
Hole type

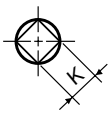


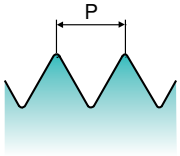
Material groups **VA**

HSS-EX | I-SPsus | YH | 2.5P | Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M14 ×	1.5	T1191553	YH3	88	30	10.5	8	11	3
M16 ×	2	T1191603	YH3	95	32	12.5	10	13	3
M16 ×	1.5	T1191613	YH3	95	32	12.5	10	13	3
M18 ×	2.5	T1191653	YH3	100	37	14	11	14	4
M18 ×	1.5	T1191673	YH3	100	37	14	11	14	4
M20 ×	2.5	T1191703	YH3	105	37	15	12	15	4
M20 ×	1.5	T1191723	YH3	105	37	15	12	15	4
M22 ×	2.5	T1191744	YH4	115	38	17	13	16	4
M22 ×	1.5	T1191763	YH3	115	38	17	13	16	4
M24 ×	3	T1191784	YH4	120	45	19	15	18	4
M24 ×	1.5	T1191803	YH3	120	45	19	15	18	4
M25 ×	1.5	T1191833	YH3	125	45	19	15	18	4
M26 ×	1.5	T1191853	YH3	125	45	20	15	18	4
M27 ×	3	T1191864	YH4	130	45	20	15	18	4
M27 ×	1.5	T1191883	YH3	130	45	20	15	18	4
M28 ×	1.5	T1191913	YH3	130	45	21	17	20	4
M30 ×	3.5	T1191944	YH4	135	48	23	17	20	4
M30 ×	1.5	T1191973	YH3	135	45	23	17	20	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
					◎				

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
◎										◎

COMBO TAPS
SPIRAL POINT TAPS
SPIRAL FLUTE TAPS
STRAIGHT FLUTE TAPS
LONG SHANK TAPS
FLUTELRSS TAPS
SCREW THREAD INSERT TAPS
HAND TAPS
PIPE TAPS
CARBIDE TAPS
SKS21 HAND TAPS
SKS21 PIPE TAPS
THREAD MILLS
TECHNICAL DATA

SPIRAL FLUTE TAPS

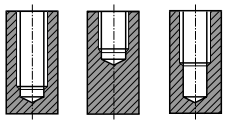
T1133 SERIES

M 不锈钢用螺旋槽丝锥
SPIRAL FLUTE TAPS for STAINLESS STEELS

▶ 适用于不锈钢，铬钢，铬钼钢和其他逐硬化具有韧性材料的盲孔加工

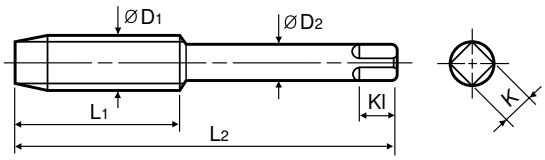
▶ Suitable for tapping Blind holes in Stainless Steels, Chrome Steels, Chrome Molybdenum Steels and other ductile materials with great tendency to work harden.

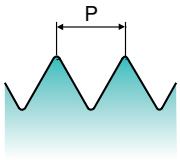
Hole type



Material groups **VA** | HSS-EX | J-SPsus | YH | 2.5P | Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532





单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M2	0.4	T1133131	YH1	40	15	3	2.5	5	2
M2.2	0.45	T1133151	YH1	42	15	3	2.5	5	2
M2.3	0.4	T1133191	YH1	42	15	3	2.5	5	2
M2.5	0.45	T1133172	YH2	44	16	3	2.5	5	2
M2.6	0.45	T1133492	YH2	44	16	3	2.5	5	2
M3	0.5	T1133202	YH2	46	18	4	3.2	6	3
M3.5	0.6	T1133222	YH2	48	18	4	3.2	6	3
M4	0.7	T1133242	YH2	52	20	5	4	7	3
M5	0.8	T1133282	YH2	60	22	5.5	4.5	7	3
M6	1	T1133312	YH2	62	24	6	4.5	7	3
M8	1.25	T1133363	YH3	70	30	6.2	5	8	3
M10	1.5	T1133423	YH3	75	32	7	5.5	8	3
M10	1.25	T1133433	YH3	75	32	7	5.5	8	3
M12	1.75	T1133503	YH3	82	38	8.5	6.5	9	3
M12	1.5	T1133513	YH3	82	38	8.5	6.5	9	3
M12	1.25	T1133523	YH3	80	38	8.5	6.5	9	3
M12	1	T1133532	YH2	70	30	8.5	6.5	9	3
M14	2	T1133543	YH3	88	42	10.5	8	11	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
					◎				

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
◎										◎

SPIRAL FLUTE TAPS

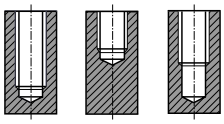
T1133 SERIES

M 不锈钢用螺旋槽丝锥
SPIRAL FLUTE TAPS for STAINLESS STEELS

▶ 适用于不锈钢，铬钢，铬钼钢和其他逐硬化具有韧性材料的盲孔加工

▶ Suitable for tapping Blind holes in Stainless Steels, Chrome Steels, Chrome Molybdenum Steels and other ductile materials with great tendency to work harden.

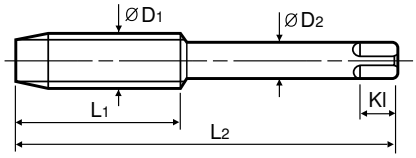
Hole type

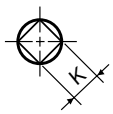


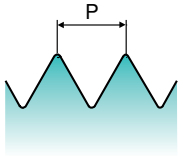
Material groups **VA**

HSS-EX | J-SPsus | YH | 2.5P | Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M14 ×	1.5	T1133553	YH3	88	42	10.5	8	11	3
M16 ×	2	T1133603	YH3	95	45	12.5	10	13	3
M16 ×	1.5	T1133613	YH3	95	45	12.5	10	13	3
M18 ×	2.5	T1133653	YH3	100	48	14	11	14	4
M18 ×	1.5	T1133673	YH3	95	45	14	11	14	4
M20 ×	2.5	T1133703	YH3	105	50	15	12	15	4
M20 ×	1.5	T1133723	YH3	95	45	15	12	15	4
M22 ×	2.5	T1133744	YH4	115	55	17	13	16	4
M22 ×	1.5	T1133763	YH3	95	45	17	13	16	4
M24 ×	3	T1133784	YH4	120	58	19	15	18	4
M24 ×	1.5	T1133803	YH3	95	45	19	15	18	4
M25 ×	1.5	T1133833	YH3	95	45	19	15	18	4
M26 ×	1.5	T1133853	YH3	95	45	20	15	18	4
M27 ×	3	T1133864	YH4	130	62	20	15	18	4
M27 ×	1.5	T1133883	YH3	95	45	20	15	18	4
M28 ×	1.5	T1133913	YH3	105	45	21	17	20	4
M30 ×	3.5	T1133944	YH4	135	65	23	17	20	4
M30 ×	1.5	T1133973	YH3	105	45	23	17	20	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
					◎				

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
◎										◎

SPIRAL FLUTE TAPS

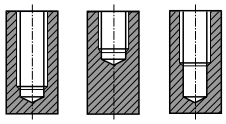
T1113 SERIES

M 深孔螺旋槽丝锥(不锈钢)
SPIRAL FLUTE TAPS for DEEP HOLES(for STAINLESS STEELS)

▶ 适用于不锈钢，铬钢，铬钼钢和其他逐硬化具有韧性材料的盲孔加工

▶ Suitable for tapping deep Blind holes in Stainless Steels, Chrome Steels, Chrome Molybdenum Steels and other ductile materials with great tendency to work harden.

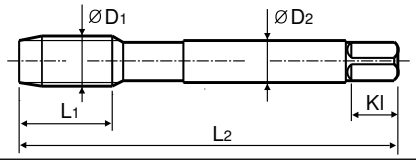
Hole type

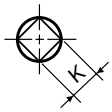


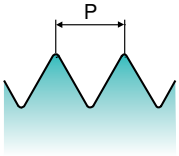
Material groups **VA**

HSS-EX | S-SPsus | YH | 2.5P | Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M2 ×	0.4	T1113131	YH1	40	4	3	2.5	5	2
M2.2 ×	0.45	T1113151	YH1	42	4.5	3	2.5	5	2
M2.3 ×	0.4	T1113191	YH1	42	4	3	2.5	5	2
M2.5 ×	0.45	T1113172	YH2	44	4.5	3	2.5	5	2
M2.6 ×	0.45	T1113492	YH2	44	4.5	3	2.5	5	2
M3 ×	0.5	T1113202	YH2	46	5	4	3.2	6	3
M3.5 ×	0.6	T1113222	YH2	48	6	4	3.2	6	3
M4 ×	0.7	T1113242	YH2	52	7	5	4	7	3
M5 ×	0.8	T1113282	YH2	60	8	5.5	4.5	7	3
M6 ×	1	T1113312	YH2	62	10	6	4.5	7	3
M8 ×	1.25	T1113363	YH3	70	12.5	6.2	5	8	3
M10 ×	1.5	T1113423	YH3	75	15	7	5.5	8	3
M10 ×	1.25	T1113433	YH3	75	12.5	7	5.5	8	3
M12 ×	1.75	T1113503	YH3	82	17.5	8.5	6.5	9	3
M12 ×	1.5	T1113513	YH3	82	15	8.5	6.5	9	3
M12 ×	1.25	T1113523	YH3	82	12.5	8.5	6.5	9	3
M12 ×	1	T1113532	YH2	82	10	8.5	6.5	9	3
M14 ×	2	T1113543	YH3	88	20	10.5	8	11	3
M14 ×	1.5	T1113553	YH3	88	15	10.5	8	11	3
M16 ×	2	T1113603	YH3	95	20	12.5	10	13	3
M16 ×	1.5	T1113613	YH3	95	15	12.5	10	13	3
M18 ×	2.5	T1113653	YH3	100	25	14	11	14	4
M18 ×	1.5	T1113673	YH3	100	15	14	11	14	4
M20 ×	2.5	T1113703	YH3	105	25	15	12	15	4
M20 ×	1.5	T1113723	YH3	105	15	15	12	15	4
M22 ×	2.5	T1113744	YH4	115	25	17	13	16	4
M22 ×	1.5	T1113763	YH3	115	15	17	13	16	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
					◎				

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
◎										◎

SPIRAL FLUTE TAPS

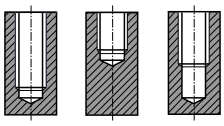
T2120 SERIES

M 有色金属用螺旋槽丝锥
SPIRAL FLUTE TAPS for NON-FERROUS METALS

▶适用于铝，镁，锌，铜及有色金属的盲孔加工.

▶ Suitable for tapping Blind holes in Aluminum, Magnesium, Zinc, Copper as well as Non-Ferrous metal alloys.

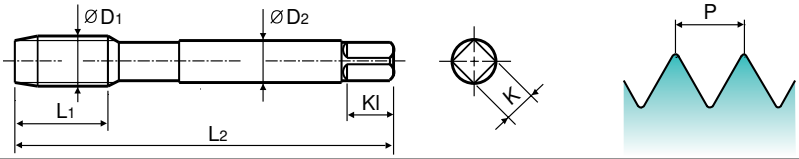
Hole type



Material groups **Al**

HSS-EX | I-SPal | YH | 2.5P | Bright

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532



単位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M2	× 0.4	T2120131	YH1	40	7.5	3	2.5	5	2
M2.2	× 0.45	T2120151	YH1	42	8.5	3	2.5	5	2
M2.3	× 0.4	T2120191	YH1	42	8.5	3	2.5	5	2
M2.5	× 0.45	T2120171	YH1	44	8.5	3	2.5	5	2
M2.6	× 0.45	T2120491	YH1	44	8.5	3	2.5	5	2
M3	× 0.5	T2120202	YH2	46	11	4	3.2	6	3
M3.5	× 0.6	T2120222	YH2	48	13	4	3.2	6	3
M4	× 0.7	T2120242	YH2	52	13	5	4	7	3
M5	× 0.8	T2120282	YH2	60	16	5.5	4.5	7	3
M6	× 1	T2120312	YH2	62	19	6	4.5	7	3
M8	× 1.25	T2120363	YH3	70	22	6.2	5	8	3
M10	× 1.5	T2120423	YH3	75	24	7	5.5	8	3
M10	× 1.25	T2120433	YH3	75	24	7	5.5	8	3
M12	× 1.75	T2120503	YH3	82	29	8.5	6.5	9	3
M12	× 1.5	T2120513	YH3	82	29	8.5	6.5	9	3
M12	× 1.25	T2120523	YH3	82	29	8.5	6.5	9	3
M12	× 1	T2120532	YH2	82	29	8.5	6.5	9	3
M14	× 2	T2120543	YH3	88	30	10.5	8	11	3

◎：优(Excellent)　○：良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○		○				○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
○	○	○	◎							○

SPIRAL FLUTE TAPS

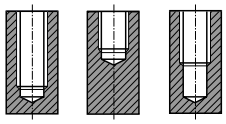
T2120 SERIES

M 有色金属用螺旋槽丝锥
SPIRAL FLUTE TAPS for NON-FERROUS METALS

▶ 适用于铝，镁，锌，铜及有色金属的盲孔加工.

▶ Suitable for tapping Blind holes in Aluminum, Magnesium, Zinc, Copper as well as Non-Ferrous metal alloys.

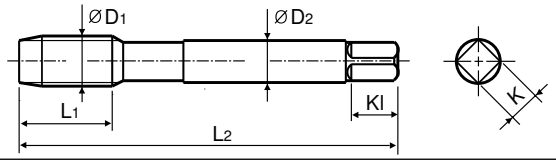
Hole type



Material groups **Al**

HSS-EX | I-SPal | YH | 2.5P | Bright

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M14	× 1.5	T2120553	YH3	88	30	10.5	8	11	3
M16	× 2	T2120603	YH3	95	32	12.5	10	13	3
M16	× 1.5	T2120613	YH3	95	32	12.5	10	13	3
M18	× 2.5	T2120653	YH3	100	37	14	11	14	4
M18	× 1.5	T2120673	YH3	100	37	14	11	14	4
M20	× 2.5	T2120703	YH3	105	37	15	12	15	4
M20	× 1.5	T2120723	YH3	105	37	15	12	15	4
M22	× 2.5	T2120744	YH4	115	38	17	13	16	4
M22	× 1.5	T2120763	YH3	115	38	17	13	16	4
M24	× 3	T2120784	YH4	120	45	19	15	18	4
M24	× 1.5	T2120803	YH3	120	45	19	15	18	4
M25	× 1.5	T2120833	YH3	125	45	19	15	18	4
M26	× 1.5	T2120853	YH3	125	45	20	15	18	4
M27	× 3	T2120864	YH4	130	45	20	15	18	4
M27	× 1.5	T2120883	YH3	130	45	20	15	18	4
M28	× 1.5	T2120913	YH3	130	45	21	17	20	4
M30	× 3.5	T2120944	YH4	135	48	23	17	20	4
M30	× 1.5	T2120973	YH3	135	45	23	17	20	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○		○				○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
○	○	○	◎							○

SPIRAL FLUTE TAPS

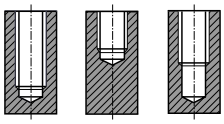
T2131 SERIES

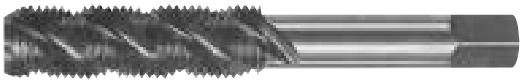
M 有色金属用螺旋槽丝锥
SPIRAL FLUTE TAPS for NON-FERROUS METALS

▶适用于铝，镁，锌，铜及有色金属的盲孔加工.

▶ Suitable for tapping Blind holes in Aluminum, Magnesium, Zinc, Copper as well as Non-Ferrous metal alloys.

Hole type

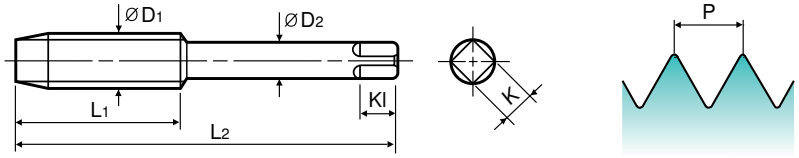




Material groups **Al**

HSS-EX | J-SPal | YH | 2.5P | Bright

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532



단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M2	× 0.4	T2131131	YH1	40	15	3	2.5	5	2
M2.2	× 0.45	T2131151	YH1	42	15	3	2.5	5	2
M2.3	× 0.4	T2131191	YH1	42	15	3	2.5	5	2
M2.5	× 0.45	T2131171	YH1	44	16	3	2.5	5	2
M2.6	× 0.45	T2131491	YH1	44	16	3	2.5	5	2
M3	× 0.5	T2131202	YH2	46	18	4	3.2	6	3
M3.5	× 0.6	T2131222	YH2	48	18	4	3.2	6	3
M4	× 0.7	T2131242	YH2	52	20	5	4	7	3
M5	× 0.8	T2131282	YH2	60	22	5.5	4.5	7	3
M6	× 1	T2131312	YH2	62	24	6	4.5	7	3
M8	× 1.25	T2131363	YH3	70	30	6.2	5	8	3
M10	× 1.5	T2131423	YH3	75	32	7	5.5	8	3
M10	× 1.25	T2131433	YH3	75	32	7	5.5	8	3
M12	× 1.75	T2131503	YH3	82	38	8.5	6.5	9	3
M12	× 1.5	T2131513	YH3	82	38	8.5	6.5	9	3
M12	× 1.25	T2131523	YH3	80	38	8.5	6.5	9	3
M12	× 1	T2131532	YH2	70	30	8.5	6.5	9	3
M14	× 2	T2131543	YH3	88	42	10.5	8	11	3

◎：优(Excellent)　○：良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○		○				○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
○	○	○	◎							○

SPIRAL FLUTE TAPS

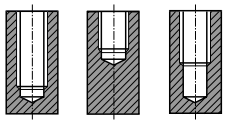
T2131 SERIES

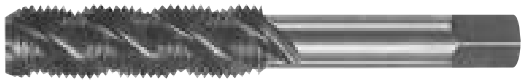
M 有色金属用螺旋槽丝锥
SPIRAL FLUTE TAPS for NON-FERROUS METALS

▶适用于铝，镁，锌，铜及有色金属的盲孔加工.

▶ Suitable for tapping Blind holes in Aluminum, Magnesium, Zinc, Copper as well as Non-Ferrous metal alloys.

Hole type

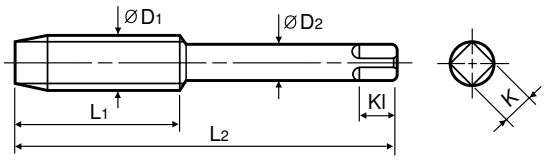




Material groups **Al**

HSS-EX | J-SPal | YH | 2.5P | Bright

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M14	× 1.5	T2131553	YH3	88	42	10.5	8	11	3
M16	× 2	T2131603	YH3	95	45	12.5	10	13	3
M16	× 1.5	T2131613	YH3	95	45	12.5	10	13	3
M18	× 2.5	T2131653	YH3	100	48	14	11	14	4
M18	× 1.5	T2131673	YH3	95	45	14	11	14	4
M20	× 2.5	T2131703	YH3	105	50	15	12	15	4
M20	× 1.5	T2131723	YH3	95	45	15	12	15	4
M22	× 2.5	T2131744	YH4	115	55	17	13	16	4
M22	× 1.5	T2131763	YH3	95	45	17	13	16	4
M24	× 3	T2131784	YH4	120	58	19	15	18	4
M24	× 1.5	T2131803	YH3	95	45	19	15	18	4
M25	× 1.5	T2131833	YH3	95	45	19	15	18	4
M26	× 1.5	T2131853	YH3	95	45	20	15	18	4
M27	× 3	T2131864	YH4	130	62	20	15	18	4
M27	× 1.5	T2131883	YH3	95	45	20	15	18	4
M28	× 1.5	T2131913	YH3	105	45	21	17	20	4
M30	× 3.5	T2131944	YH4	135	65	23	17	20	4
M30	× 1.5	T2131973	YH3	105	45	23	17	20	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○		○				○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
○	○	○	◎							○

SPIRAL FLUTE TAPS

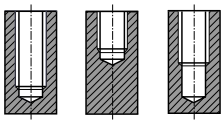
T2111 SERIES

M 深孔螺旋槽丝锥(有色金属)
SPIRAL FLUTE TAPS for DEEP HOLES(for NON-FERROUS METALS)

▶适用于铝，镁，锌，铜及有色金属的盲孔加工.

▶ Suitable for tapping deep Blind holes in Aluminum, Magnesium Zinc, Copper as well as Non-Ferrous metal alloys.

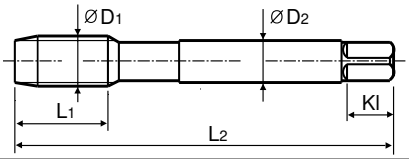
Hole type

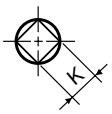


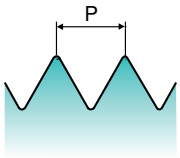
Material groups **Al**

HSS-EX | S-SPal | YH | 2.5P | Bright

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M2 ×	0.4	T2111131	YH1	40	4	3	2.5	5	2
M2.2 ×	0.45	T2111151	YH1	42	4.5	3	2.5	5	2
M2.3 ×	0.4	T2111191	YH1	42	4	3	2.5	5	2
M2.5 ×	0.45	T2111171	YH1	44	4.5	3	2.5	5	2
M2.6 ×	0.45	T2111491	YH1	44	4.5	3	2.5	5	2
M3 ×	0.5	T2111202	YH2	46	5	4	3.2	6	3
M3.5 ×	0.6	T2111222	YH2	48	6	4	3.2	6	3
M4 ×	0.7	T2111242	YH2	52	7	5	4	7	3
M5 ×	0.8	T2111282	YH2	60	8	5.5	4.5	7	3
M6 ×	1	T2111312	YH2	62	10	6	4.5	7	3
M8 ×	1.25	T2111363	YH3	70	12.5	6.2	5	8	3
M10 ×	1.5	T2111423	YH3	75	15	7	5.5	8	3
M10 ×	1.25	T2111433	YH3	75	12.5	7	5.5	8	3
M12 ×	1.75	T2111503	YH3	82	17.5	8.5	6.5	9	3
M12 ×	1.5	T2111513	YH3	82	15	8.5	6.5	9	3
M12 ×	1.25	T2111523	YH3	82	12.5	8.5	6.5	9	3
M12 ×	1	T2111532	YH2	82	10	8.5	6.5	9	3
M14 ×	2	T2111543	YH3	88	20	10.5	8	11	3
M14 ×	1.5	T2111553	YH3	88	15	10.5	8	11	3
M16 ×	2	T2111603	YH3	95	20	12.5	10	13	3
M16 ×	1.5	T2111613	YH3	95	15	12.5	10	13	3
M18 ×	2.5	T2111653	YH3	100	25	14	11	14	4
M18 ×	1.5	T2111673	YH3	100	15	14	11	14	4
M20 ×	2.5	T2111703	YH3	105	25	15	12	15	4
M20 ×	1.5	T2111723	YH3	105	15	15	12	15	4
M22 ×	2.5	T2111744	YH4	115	25	17	13	16	4
M22 ×	1.5	T2111763	YH3	115	15	17	13	16	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○		○				○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
○	○	○	◎							○

SPIRAL FLUTE TAPS

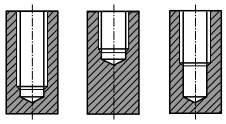
TZ181 SERIES

M 钛合金用螺旋槽丝锥
SPIRAL FLUTE TAPS for TITANIUM ALLOYS

▶ 适用于钛和钛合金和具有与其相同性质的材料的盲孔加工，也适用于低导热材料的盲孔加工.

▶ Suitable for tapping Blind holes in Titanium and Titanium Alloys. This tap compensates for the characteristics of titanium material such as closure and low thermal conductivity.

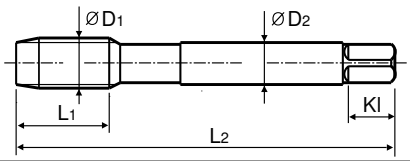
Hole type

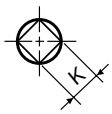


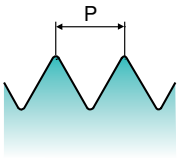
Material groups **Ti**

HSS-PM | I-SPPMti | YH | 3.0P | TiAlN

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1		牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M3	×	0.5	TZ181203	YH3	46	11	4	3.2	6	3
M4	×	0.7	TZ181243	YH3	52	13	5	4	7	3
M5	×	0.8	TZ181283	YH3	60	16	5.5	4.5	7	3
M6	×	1	TZ181313	YH3	62	19	6	4.5	7	3
M8	×	1.25	TZ181363	YH3	70	22	6.2	5	8	3
M10	×	1.5	TZ181423	YH3	75	24	7	5.5	8	3
M12	×	1.75	TZ181504	YH4	82	29	8.5	6.5	9	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
		◎		◎		◎			○

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
							◎			○

SPIRAL FLUTE TAPS

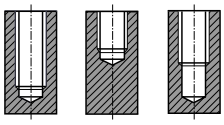
TR641 SERIES

M 镍合金用螺旋槽丝锥
SPIRAL FLUTE TAPS for NICKEL BASE ALLOYS

▶适用于镍合金，铬镍铁合金781和耐热合金钢的通孔加工.

▶ Suitable for tapping Through holes in Nikel Alloys, Inconel 781 and Heat Resistant Alloy Steels.

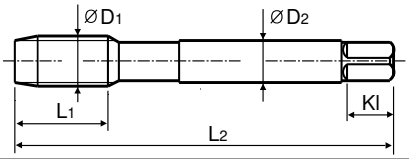
Hole type

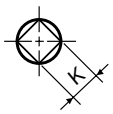


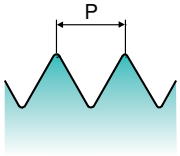
Material groups **Ni**

HSS-PM | I-GPPMni | YH | 3.0P | Bright

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







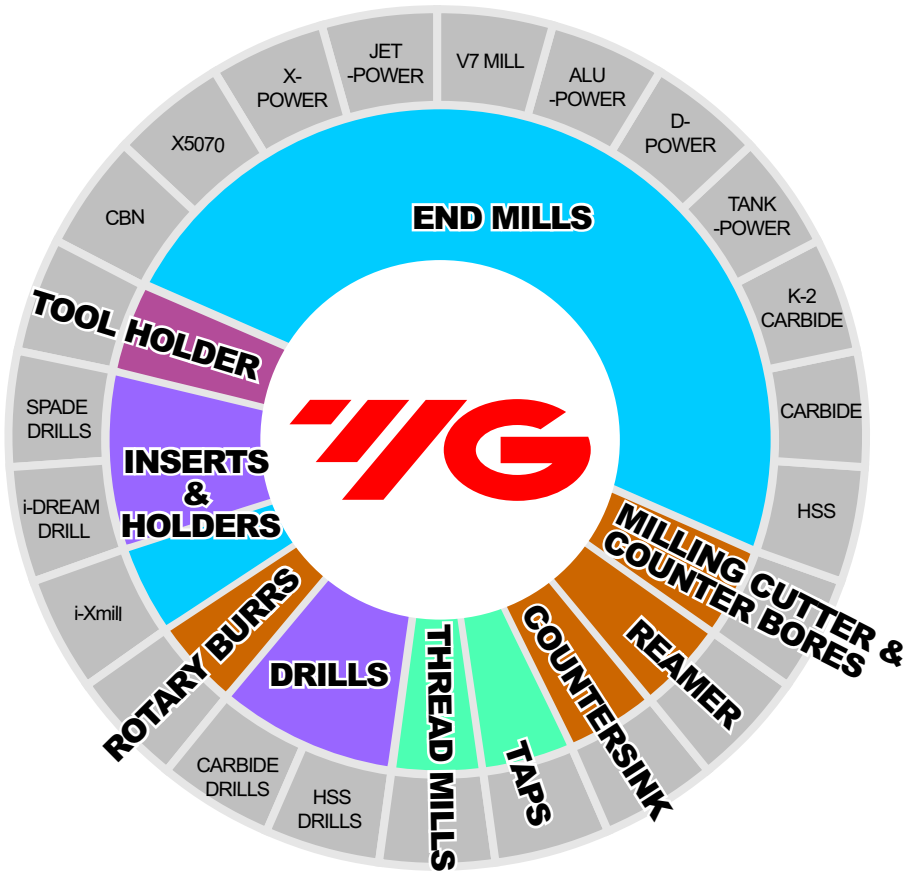
단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M3	× 0.5	TR641203	YH3	46	11	4	3.2	6	3
M4	× 0.7	TR641243	YH3	52	13	4.5	4	7	3
M5	× 0.8	TR641283	YH3	60	16	5.5	4.5	7	3
M6	× 1	TR641313	YH3	62	19	6	4.5	7	3
M8	× 1.25	TR641363	YH3	70	22	6.2	5	8	3
M10	× 1.5	TR641423	YH3	75	24	7	5.5	8	3
M10	× 1.25	TR641434	YH4	75	24	7	5.5	8	3
M12	× 1.75	TR641503	YH3	82	29	8.5	6.5	9	3
M12	× 1.5	TR641513	YH3	82	29	8.5	6.5	9	3
M12	× 1.25	TR641524	YH4	82	29	8.5	6.5	9	3
M14	× 2	TR641544	YH4	88	30	10.5	8	11	3
M14	× 1.5	TR641554	YH4	88	30	10.5	8	11	3
M16	× 2	TR641604	YH4	95	32	12.5	10	13	3
M16	× 1.5	TR641614	YH4	95	32	12.5	10	13	3
M18	× 2.5	TR641654	YH4	100	37	14	11	14	3
M18	× 1.5	TR641674	YH4	100	37	14	11	14	3
M20	× 2.5	TR641704	YH4	105	37	15	12	15	3
M20	× 1.5	TR641724	YH4	105	37	15	12	15	3
M22	× 2.5	TR641744	YH4	115	38	17	13	16	3
M22	× 1.5	TR641764	YH4	115	38	17	13	16	3
M24	× 3	TR641784	YH4	120	45	19	15	18	3
M24	× 1.5	TR641804	YH4	120	45	19	15	18	3

◎：优(Excellent)　○：良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
		◎	◎	◎		◎			○

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
							○	○		



Challenge toward a Global Leader-

YG-1 Leads the World Market.

HSS

Being the best through innovation

STRAIGHT FLUTE TAPS

- 铸铁，低碳钢和黄铜的浅孔加工 (HSS-EX & HSS-PM)

TAPPING SHALLOW HOLES OF CAST IRON, MILD STEELS AND BRASS (HSS-EX & HSS-PM)

直槽丝锥 / STRAIGHT FLUTE TAPS

铸铁，低碳钢和黄铜的浅孔加工，HSS-EX & HSS-PM

Tapping Shallow Holes of Cast Iron, Mild Steels and Brass. HSS-EX & HSS-PM

STRAIGHT FLUTE TAPS

项目 EDP No.	型号 MODEL	刀具材质 Tool Material	标准 Standard	工件材质 Work Material	尺寸 Dimensions	丝锥公差 Tolerance	倒角 Chamfer	表面处理 Surface Treatment	页 PAGE
T3492 T3491		HSS-EX	M	**GS**	I-STtin	YH	1.5P / 5.0P	TiN	**427**
T1402 T1401		HSS-EX	M	**VA**	I-STsus	YH	1.5P / 5.0P	Homo	**428**
TM482 TM481		HSS-PM	M	**HR**	I-STPM	YH	2.5P / 5.0P	Bright	**429**
T4471 T4461		HSS-EX	M	**GG**	I-STci	YH	1.5P / 5.0P	Nitrided & Homo	**430**
T4442 T4432		HSS-EX	W	**GG**	I-STci	YH	1.5P / 5.0P	Nitrided & Homo	**432**

STRAIGHT FLUTE TAPS

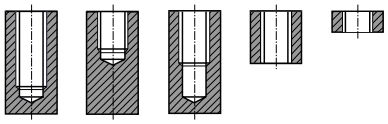
T3492 SERIES
T3491 SERIES

M 直槽丝锥 STARAIGHT FLUTE TAPS

▶适用于碳钢和合金钢的盲孔和通孔加工，具有高效，寿命长，能够快速攻丝.

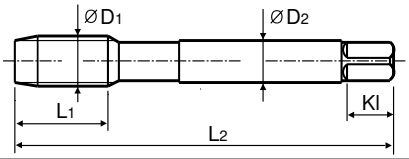
▶ Suitable for tapping Blind & Through holes in Carbon Steels and Alloy Steels. Capable of efficient, long life, high speed tapping.

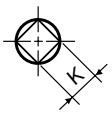
Hole type

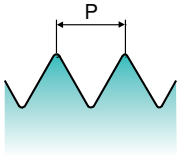


Material groups **GS** | HSS-EX | I-STtin | YH | 1.5P / 5.0P | TiN

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No. 1.5P	型号 EDP No. 5.0P	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M3	× 0.5	T3492202	T3491202	YH2	46	11	4	3.2	6	3
M4	× 0.7	T3492242	T3491242	YH2	52	13	5	4	7	3
M5	× 0.8	T3492282	T3491282	YH2	60	16	5.5	4.5	7	3
M6	× 1	T3492312	T3491312	YH2	62	19	6	4.5	7	3
M8	× 1.25	T3492362	T3491362	YH2	70	22	6.2	5	8	4
M10	× 1.5	T3492423	T3491423	YH3	75	24	7	5.5	8	4
M10	× 1.25	T3492432	T3491432	YH2	75	24	7	5.5	8	4
M12	× 1.75	T3492503	T3491503	YH3	82	29	8.5	6.5	9	4
M12	× 1.5	T3492513	T3491513	YH3	82	29	8.5	6.5	9	4
M12	× 1.25	T3492522	T3491522	YH2	82	29	8.5	6.5	9	4
M12	× 1	T3492532	T3491532	YH2	82	29	8.5	6.5	9	4
M14	× 2	T3492543	T3491543	YH3	88	30	10.5	8	11	4
M14	× 1.5	T3492553	T3491553	YH3	88	30	10.5	8	11	4
M16	× 2	T3492603	T3491603	YH3	95	32	12.5	10	13	4
M16	× 1.5	T3492613	T3491613	YH3	95	32	12.5	10	13	4
M18	× 2.5	T3492653	T3491653	YH3	100	37	14	11	14	4
M18	× 1.5	T3492673	T3491673	YH3	100	37	14	11	14	4
M20	× 2.5	T3492703	T3491703	YH3	105	37	15	12	15	4
M20	× 1.5	T3492723	T3491723	YH3	105	37	15	12	15	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel ~ C0.25	中碳钢 Meduim Carbon Steel C0.25 ~ C0.45	高碳钢 High Carbon Steel C0.45 ~	合金钢 Alloy Steel SCM	硬化钢 Hardened Steel HRc25 ~ 45	不锈钢 Stainless Steel SUS	工具钢 Tool Steel SKD	铸钢 Cast Steel SC	铸铁 Cast Iron FC	高强度铸铁 High Tension Cast Iron FCD
○	○	○	○	○					

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
○	○	○	○	○	○	○				

STRAIGHT FLUTE TAPS

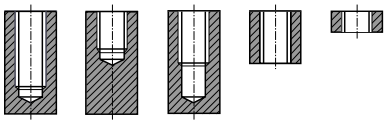
T1042 SERIES
T1041 SERIES

M 不锈钢用直槽丝锥
STRAIGHT FLUTE TAPS for STAINLESS STEELS

▶ 适用于不锈钢，铬钢，铬钼钢和其他逐硬化的具有韧性材料的盲孔和通孔加工.

▶ Suitable for tapping Blind & Through holes in Stainless Steels Chrome Steels, Chrome Molybdenum Steels and other ductile materials with great tendency to work harden.

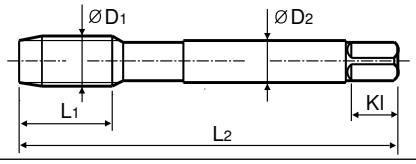
Hole type

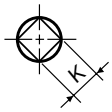


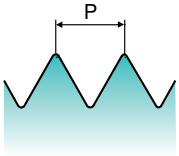
Material groups **VA**

HSS-EX | I-STsus | YH | 1.5P / 5.0P | Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No. 1.5P	型号 EDP No. 5.0P	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M3	× 0.5	T1402202	T1401202	YH2	46	11	4	3.2	6	3
M4	× 0.7	T1402242	T1401242	YH2	52	13	5	4	7	3
M5	× 0.8	T1402282	T1401282	YH2	60	16	5.5	4.5	7	3
M6	× 1	T1402312	T1401312	YH2	62	19	6	4.5	7	3
M8	× 1.25	T1402362	T1401362	YH2	70	22	6.2	5	8	3
M10	× 1.5	T1402423	T1401423	YH3	75	24	7	5.5	8	3
M10	× 1.25	T1402432	T1401432	YH2	75	24	7	5.5	8	3
M12	× 1.75	T1402503	T1401503	YH3	82	29	8.5	6.5	9	3
M12	× 1.5	T1402513	T1401513	YH2	82	29	8.5	6.5	9	3
M12	× 1.25	T1402522	T1401522	YH2	82	29	8.5	6.5	9	3
M12	× 1	T1402532	T1401532	YH3	82	29	8.5	6.5	9	3
M14	× 2	T1402543	T1401543	YH3	88	30	10.5	8	11	4
M14	× 1.5	T1402553	T1401553	YH3	88	30	10.5	8	11	4
M16	× 2	T1402603	T1401603	YH3	95	32	12.5	10	13	4
M16	× 1.5	T1402613	T1401613	YH3	95	32	12.5	10	13	4
M18	× 2.5	T1402653	T1401653	YH3	100	37	14	11	14	4
M18	× 1.5	T1402673	T1401673	YH3	100	37	14	11	14	4
M20	× 2.5	T1402703	T1401703	YH3	105	37	15	12	15	4
M20	× 1.5	T1402723	T1401723	YH3	105	37	15	12	15	4
M22	× 2.5	T1402743	T1401743	YH3	115	38	17	13	16	4
M22	× 1.5	T1402763	T1401763	YH3	115	38	17	13	16	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
					◎				

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
○										

STRAIGHT FLUTE TAPS

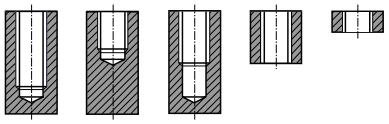
TM482 SERIES
TM481 SERIES

M 难加工材料用直槽丝锥
STRAIGHT FLUTE TAPS for HARD TO MACHINE MATERIALS

▶适用于高碳钢，合金钢，温钢和模具钢等硬度在HRc35~45的高强硬度钢的盲孔和通孔加工.

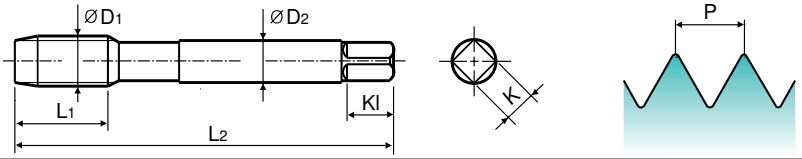
▶ Suitable for tapping Blind & Through holes in High Strength Steels with hardness ranging between 35~45 Rockwell (HRc 35~45), such as forgings of high carbon steels and alloy steels, thermal steels and mold steels.

Hole type



Material groups **HR** | HSS-PM | I-STPM | YH | 2.5P / 5.0P | Bright

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

SIZE ØD1	Pitch P	EDP No. 2.5P	EDP No. 5.0P	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M3	× 0.5	TM482202	TM481202	YH2	46	11	4	3.2	6	3
M4	× 0.7	TM482242	TM481242	YH2	52	13	5	4	7	3
M5	× 0.8	TM482282	TM481282	YH2	60	16	5.5	4.5	7	3
M6	× 1	TM482312	TM481312	YH2	62	19	6	4.5	7	3
M8	× 1.25	TM482362	TM481362	YH2	70	22	6.2	5	8	4
M10	× 1.5	TM482423	TM481423	YH3	75	24	7	5.5	8	4
M10	× 1.25	TM482432	TM481432	YH2	75	24	7	5.5	8	4
M12	× 1.75	TM482503	TM481503	YH3	82	29	8.5	6.5	9	4
M12	× 1.5	TM482513	TM481513	YH3	82	29	8.5	6.5	9	4
M12	× 1.25	TM482522	TM481522	YH2	82	29	8.5	6.5	9	4
M12	× 1	TM482532	TM481532	YH2	82	29	8.5	6.5	9	4
M14	× 2	TM482543	TM481543	YH3	88	30	10.5	8	11	4
M14	× 1.5	TM482553	TM481553	YH3	88	30	10.5	8	11	4
M16	× 2	TM482603	TM481603	YH3	95	32	12.5	10	13	4
M16	× 1.5	TM482613	TM481613	YH3	95	32	12.5	10	13	4
M18	× 2.5	TM482653	TM481653	YH3	100	37	14	11	14	4
M18	× 1.5	TM482673	TM481673	YH3	100	37	14	11	14	4
M20	× 2.5	TM482703	TM481703	YH3	105	37	15	12	15	4
M20	× 1.5	TM482723	TM481723	YH3	105	37	15	12	15	4
M22	× 2.5	TM482743	TM481743	YH3	115	38	17	13	16	4
M22	× 1.5	TM482763	TM481763	YH3	115	38	17	13	16	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
		○		◎		◎			○

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				

COMBO TAPS
SPIRAL POINT TAPS
SPIRAL FLUTE TAPS
STRAIGHT FLUTE TAPS
LONG SHANK TAPS
FLUTELRSS TAPS
SCREW THREAD INSERT TAPS
HAND TAPS
PIPE TAPS
CARBIDE TAPS
SKS21 HAND TAPS
SKS21 PIPE TAPS
THREAD MILLS
TECHNICAL DATA

STRAIGHT FLUTE TAPS

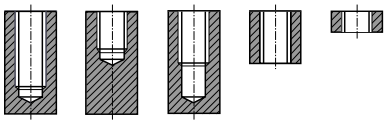
T4471 SERIES
T4461 SERIES

M 铸铁用直槽丝锥
STRAIGHT FLUTE TAPS for CAST IRONS

▶ 适用于灰铸铁，球状石墨铸铁，可锻造铸铁及具有同性质的材料的盲孔和通孔的加工.

▶ Suitable for tapping Blind & Through holes in Grey Cast Iron, Nodular Cast Iron, Malleable Cast Iron Brass Casting and other similar materials.

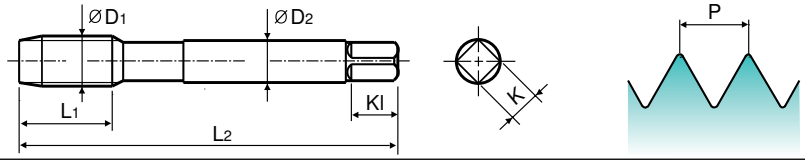
Hole type



Material groups **GG**

HSS-EX | I-STci | YH | 1.5P / 5.0P | Nitrided & Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No. 1.5P	型号 EDP No. 5.0P	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M2	× 0.4	T4471133	T4461133	YH3	40	7.5	3	2.5	5	3
M2.2	× 0.45	T4471153	T4461153	YH3	42	8.5	3	2.5	5	3
M2.3	× 0.4	T4471193	T4461193	YH3	42	8.5	3	2.5	5	3
M2.5	× 0.45	T4471173	T4461173	YH3	44	8.5	3	2.5	5	3
M2.6	× 0.45	T4471493	T4461493	YH3	44	8.5	3	2.5	5	3
M3	× 0.5	T4471203	T4461203	YH3	46	11	4	3.2	6	3
M3.5	× 0.6	T4471223	T4461223	YH3	48	13	4	3.2	6	3
M4	× 0.7	T4471243	T4461243	YH3	52	13	5	4	7	4
M5	× 0.8	T4471283	T4461283	YH3	60	16	5.5	4.5	7	4
M6	× 1	T4471313	T4461313	YH3	62	19	6	4.5	7	4
M8	× 1.25	T4471364	T4461364	YH4	70	22	6.2	5	8	4
M10	× 1.5	T4471424	T4461424	YH4	75	24	7	5.5	8	4
M10	× 1.25	T4471434	T4461434	YH4	75	24	7	5.5	8	4
M12	× 1.75	T4471505	T4461505	YH5	82	29	8.5	6.5	9	4
M12	× 1.5	T4471514	T4461514	YH4	82	29	8.5	6.5	9	4
M12	× 1.25	T4471524	T4461524	YH4	82	29	8.5	6.5	9	4
M12	× 1	T4471533	T4461533	YH3	82	29	8.5	6.5	9	4
M14	× 2	T4471545	T4461545	YH5	88	30	10.5	8	11	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
								◎	◎

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
	○	○								

STRAIGHT FLUTE TAPS

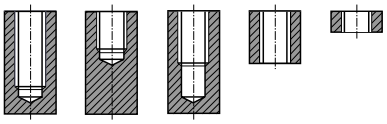
T4471 SERIES
T4461 SERIES

M 铸铁用直槽丝锥
STRAIGHT FLUTE TAPS for CAST IRONS

▶ 适用于灰铸铁，球状石墨铸铁，可锻造铸铁及具有同性质的材料的盲孔和通孔的加工.

▶ Suitable for tapping Blind & Through holes in Grey Cast Iron, Nodular Cast Iron, Malleable Cast Iron Brass Casting and other similar materials.

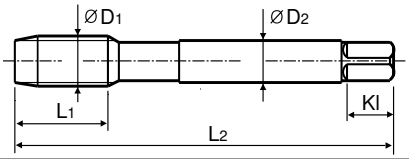
Hole type

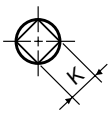


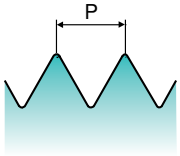
Material groups **GG**

HSS-EX | I-STci | YH | 1.5P / 5.0P | Nitrided & Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No. 1.5P	型号 EDP No. 5.0P	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M14	1.5	T4471554	T4461554	YH4	88	30	10.5	8	11	4
M16	2	T4471605	T4461605	YH5	95	32	12.5	10	13	4
M16	1.5	T4471614	T4461614	YH4	95	32	12.5	10	13	4
M18	2.5	T4471655	T4461655	YH5	100	37	14	11	14	4
M18	1.5	T4471674	T4461674	YH4	100	37	14	11	14	4
M20	2.5	T4471705	T4461705	YH5	105	37	15	12	15	4
M20	1.5	T4471724	T4461724	YH4	105	37	15	12	15	4
M22	2.5	T4471745	T4461745	YH5	115	38	17	13	16	4
M22	1.5	T4471764	T4461764	YH4	115	38	17	13	16	4
M24	3	T4471785	T4461785	YH5	120	45	19	15	18	4
M24	1.5	T4471804	T4461804	YH5	120	45	19	15	18	4
M25	1.5	T4471834	T4461834	YH4	125	45	19	15	18	4
M26	1.5	T4471854	T4461854	YH4	125	45	20	15	18	4
M27	3	T4471865	T4461865	YH5	130	45	20	15	18	4
M27	1.5	T4471884	T4461884	YH4	130	45	20	15	18	4
M28	1.5	T4471914	T4461914	YH4	130	45	21	17	20	4
M30	3.5	T4471946	T4461946	YH6	135	48	23	17	20	4
M30	1.5	T4471974	T4461974	YH4	135	45	23	17	20	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
								◎	◎

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
	○	○								

COMBO TAPS
SPIRAL POINT TAPS
SPIRAL FLUTE TAPS
STRAIGHT FLUTE TAPS
LONG SHANK TAPS
FLUTELRSS TAPS
SCREW THREAD INSERT TAPS
HAND TAPS
PIPE TAPS
CARBIDE TAPS
SKS21 HAND TAPS
SKS21 PIPE TAPS
THREAD MILLS
TECHNICAL DATA

STRAIGHT FLUTE TAPS

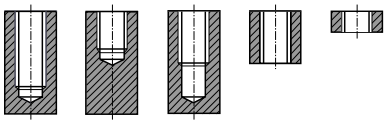
T4442 SERIES
T4432 SERIES

W 铸铁用直槽丝锥
STRAIGHT FLUTE TAPS for CAST IRONS

▶ 适用于灰铸铁，球状石墨铸铁，可锻造铸铁及具有同性质的材料的盲孔和通孔的加工.

▶ Suitable for tapping Blind & Through holes in Grey Cast Iron, Nodular Cast Iron, Malleable Cast Iron Brass Casting, and other similar materials.

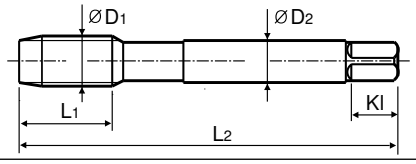
Hole type

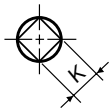


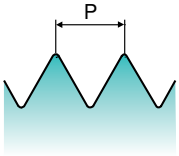
Material groups **GG**

HSS-EX | I-STci | YH | 1.5P / 5.0P | Nitrided & Homo

▶ Tap Limits : P.530
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532







단위(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No. 1.5P	型号 EDP No. 5.0P	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
W1/8	- 40	T4442203	T4432203	YH3	46	11	4	3.2	6	3
W3/16	- 24	T4442323	T4432323	YH3	60	16	5.5	4.5	7	4
W1/4	- 20	T4442404	T4432404	YH4	62	19	6	4.5	7	4
W5/16	- 18	T4442444	T4432444	YH4	70	22	6.1	5	8	4
W3/8	- 16	T4442484	T4432484	YH4	75	24	7	5.5	8	4
W7/16	- 14	T4442525	T4432525	YH5	80	25	8	6	9	4
W1/2	- 12	T4442565	T4432565	YH5	85	29	9	7	10	4
W9/16	- 12	T4442605	T4432605	YH5	90	30	10.5	8	11	4
W5/8	- 11	T4442645	T4432645	YH5	95	32	12	9	12	4
W3/4	- 10	T4442705	T4432705	YH5	105	37	14	11	14	4
W7/8	- 9	T4442746	T4432746	YH6	115	38	17	13	16	4
W1″	- 8	T4442786	T4432786	YH6	125	45	20	15	18	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
								◎	◎

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
	○	○								

HSS

YG

Being the best through innovation

LONG SHANK TAPS

- 用于加工深孔，HSS-EX

FOR TAPPING DEEP HOLES, HSS-EX

长柄丝锥 / LONG SHANK TAP
用于加工深孔，HSS-EX / for Tapping Deep Holes, HSS-EX

LONG SHANK TAPS

项目 EDP No.	型号 MODEL	刀具材质 Tool Material	标准 Standard	工件材质 Work Material	尺寸 Dimensions	丝锥公差 Tolerance	倒角 Chamfer	表面处理 Surface Treatment	页 PAGE
T1203		HSS-EX	M	**GS**	GPLS	YH	5.0P	Homo	**435**
T1204		HSS-EX	M	**GS**	GPLS	YH	5.0P	Homo	**436**
T1205		HSS-EX	M	**GS**	GPLS	YH	5.0P	Homo	**437**
T1206		HSS-EX	M	**GS**	GPLS	YH	5.0P	Homo	**438**
T1230 T1240		HSS-EX	W	**GS**	GPLS	JIS II	5.0P	Homo	**439**
T1250 T1260		HSS-EX	W	**GS**	GPLS	JIS II	5.0P	Homo	**440**
T1103		HSS-EX	M	**GS**	SPLS	YH	2.5P	Homo	**441**
T1104		HSS-EX	M	**GS**	SPLS	YH	2.5P	Homo	**442**
T1105		HSS-EX	M	**GS**	SPLS	YH	2.5P	Homo	**443**
T1106		HSS-EX	M	**GS**	SPLS	YH	2.5P	Homo	**444**
T1130 T1140		HSS-EX	W	**GS**	SPLS	JIS II	2.5P	Homo	**445**
T1150 T1160		HSS-EX	W	**GS**	SPLS	JIS II	2.5P	Homo	**446**
T1323 T1303		HSS-EX	M	**GS**	STLS	YH	1.5P / 5.0P	Homo	**447**
T1324 T1304		HSS-EX	M	**GS**	STLS	YH	1.5P / 5.0P	Homo	**448**
T1325 T1305		HSS-EX	M	**GS**	STLS	YH	1.5P / 5.0P	Homo	**449**
T1326 T1306		HSS-EX	M	**GS**	STLS	YH	1.5P / 5.0P	Homo	**450**
T1331/T1330 T1341/T1340		HSS-EX	W	**GS**	STLS	JIS II	1.5P / 5.0P	Homo	**451**
T1351/T1350 T1361/T1360		HSS-EX	W	**GS**	STLS	JIS II	1.5P / 5.0P	Homo	**452**

LONG SHANK TAPS

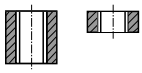
T1203 SERIES

M 长柄普通先端丝锥
LONG SHANK SPIRAL POINT TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的通孔加工，优异排屑

▶ Suitable for tapping Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

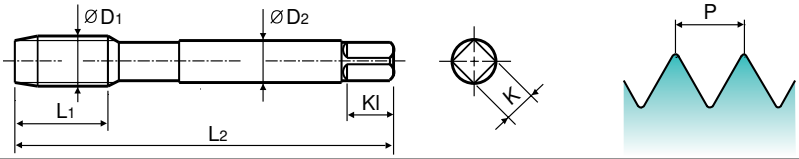
Hole type



Material groups **GS**

HSS-EX | GPLS | YH | 5.0P | Homo

▶ Tap Limits : P.530
▶ up to M8 : Male Center
▶ Tapping Speeds : P.532



▶ 100mm

단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M3	× 0.5	T1203202	YH2	100	11	4	3.2	6	3
M4	× 0.7	T1203242	YH2	100	13	5	4	7	3
M5	× 0.8	T1203282	YH2	100	16	5.5	4.5	7	3
M6	× 1	T1203312	YH2	100	19	6	4.5	7	3
M8	× 1.25	T1203363	YH3	100	22	6.2	5	8	3
M10	× 1.5	T1203423	YH3	100	24	7	5.5	8	3
M10	× 1.25	T1203433	YH3	100	24	7	5.5	8	3
M12	× 1.75	T1203504	YH4	100	29	8.5	6.5	9	3
M12	× 1.5	T1203513	YH3	100	29	8.5	6.5	9	3
M12	× 1.25	T1203523	YH3	100	29	8.5	6.5	9	3
M14	× 2	T1203544	YH4	100	30	10.5	8	11	3
M14	× 1.5	T1203553	YH3	100	30	10.5	8	11	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○				○	○	○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
										○

COMBO TAPS
SPIRAL POINT TAPS
SPIRAL FLUTE TAPS
STRAIGHT FLUTE TAPS
LONG SHANK TAPS
FLUTELRSS TAPS
SCREW THREAD INSERT TAPS
HAND TAPS
PIPE TAPS
CARBIDE TAPS
SKS21 HAND TAPS
SKS21 PIPE TAPS
THREAD MILLS
TECHNICAL DATA

LONG SHANK TAPS

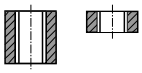
T1204 SERIES

M 长柄普通先端丝锥
LONG SHANK SPIRAL POINT TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的通孔加工，优异排屑

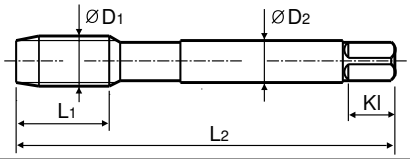
▶ Suitable for tapping Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

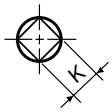
Hole type

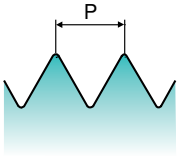


Material groups **GS** | HSS-EX | GPLS | YH | 5.0P | Homo

▶ Tap Limits : P.530
▶ up to M8 : Male Center
▶ Tapping Speeds : P.532







▶ 120mm

단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M3	× 0.5	T1204202	YH2	120	11	4	3.2	6	3
M4	× 0.7	T1204242	YH2	120	13	5	4	7	3
M5	× 0.8	T1204282	YH2	120	16	5.5	4.5	7	3
M6	× 1	T1204312	YH2	120	19	6	4.5	7	3
M8	× 1.25	T1204363	YH3	120	22	6.2	5	8	3
M10	× 1.5	T1204423	YH3	120	24	7	5.5	8	3
M10	× 1.25	T1204433	YH3	120	24	7	5.5	8	3
M12	× 1.75	T1204504	YH4	120	29	8.5	6.5	9	3
M12	× 1.5	T1204513	YH3	120	29	8.5	6.5	9	3
M12	× 1.25	T1204523	YH3	120	29	8.5	6.5	9	3
M14	× 2	T1204544	YH4	120	30	10.5	8	11	3
M14	× 1.5	T1204553	YH3	120	30	10.5	8	11	3
M16	× 2	T1204604	YH4	120	32	12.5	10	13	3
M16	× 1.5	T1204613	YH3	120	32	12.5	10	13	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○				○	○	○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
										○

LONG SHANK TAPS

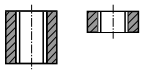
T1205 SERIES

M 长柄普通先端丝锥
LONG SHANK SPIRAL POINT TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的通孔加工，优异排屑

▶ Suitable for tapping Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

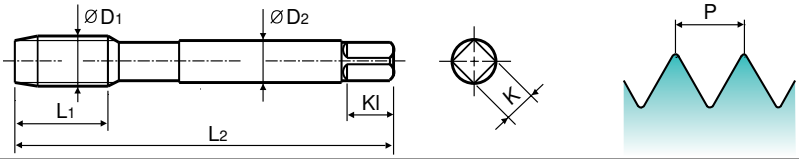
Hole type



Material groups **GS**

HSS-EX | GPLS | YH | 5.0P | Homo

▶ Tap Limits : P.530
▶ up to M8 : Male Center
▶ Tapping Speeds : P.532



▶ 150mm

단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M3	0.5	T1205202	YH2	150	11	4	3.2	6	3
M4	0.7	T1205242	YH2	150	13	5	4	7	3
M5	0.8	T1205282	YH2	150	16	5.5	4.5	7	3
M6	1	T1205312	YH2	150	19	6	4.5	7	3
M8	1.25	T1205363	YH3	150	22	6.2	5	8	3
M10	1.5	T1205423	YH3	150	24	7	5.5	8	3
M10	1.25	T1205433	YH3	150	24	7	5.5	8	3
M12	1.75	T1205504	YH4	150	29	8.5	6.5	9	3
M12	1.5	T1205513	YH3	150	29	8.5	6.5	9	3
M12	1.25	T1205523	YH3	150	29	8.5	6.5	9	3
M14	2	T1205544	YH4	150	30	10.5	8	11	3
M14	1.5	T1205553	YH3	150	30	10.5	8	11	3
M16	2	T1205604	YH4	150	32	12.5	10	13	3
M16	1.5	T1205613	YH3	150	32	12.5	10	13	3
M18	2.5	T1205654	YH4	150	37	14	11	14	3
M18	1.5	T1205674	YH4	150	37	14	11	14	3
M20	2.5	T1205704	YH4	150	37	15	12	15	3
M20	1.5	T1205724	YH4	150	37	15	12	15	3
M22	2.5	T1205744	YH4	150	38	17	13	16	3
M22	1.5	T1205764	YH4	150	38	17	13	16	3
M24	3	T1205784	YH4	150	45	19	15	18	3
M24	1.5	T1205804	YH4	150	45	19	15	18	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel ~ C0.25	中碳钢 Meduim Carbon Steel C0.25 ~ C0.45	高碳钢 High Carbon Steel C0.45 ~	合金钢 Alloy Steel SCM	硬化钢 Hardened Steel HRc25 ~ 45	不锈钢 Stainless Steel SUS	工具钢 Tool Steel SKD	铸钢 Cast Steel SC	铸铁 Cast Iron FC	高强度铸铁 High Tension Cast Iron FCD
◎	○				○	○	○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
										○

LONG SHANK TAPS

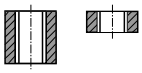
T1206 SERIES

M 长柄普通先端丝锥
LONG SHANK SPIRAL POINT TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的通孔加工，优异排屑

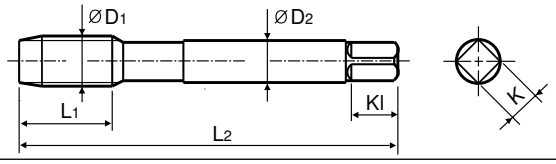
▶ Suitable for tapping Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

Hole type



Material groups **GS** | HSS-EX | GPLS | YH | 5.0P | Homo

▶ Tap Limits : P.530
▶ up to M8 : Male Center
▶ Tapping Speeds : P.532



▶ 200mm

단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M8 ×	1.25	T1206363	YH3	200	22	6.2	5	8	3
M10 ×	1.5	T1206423	YH3	200	24	7	5.5	8	3
M10 ×	1.25	T1206433	YH3	200	24	7	5.5	8	3
M12 ×	1.75	T1206504	YH4	200	29	8.5	6.5	9	3
M12 ×	1.5	T1206513	YH3	200	29	8.5	6.5	9	3
M12 ×	1.25	T1206523	YH3	200	29	8.5	6.5	9	3
M14 ×	2	T1206544	YH4	200	30	10.5	8	11	3
M14 ×	1.5	T1206553	YH3	200	30	10.5	8	11	3
M16 ×	2	T1206604	YH4	200	32	12.5	10	13	3
M16 ×	1.5	T1206613	YH3	200	32	12.5	10	13	3
M18 ×	2.5	T1206654	YH4	200	37	14	11	14	3
M18 ×	1.5	T1206674	YH4	200	37	14	11	14	3
M20 ×	2.5	T1206704	YH4	200	37	15	12	15	3
M20 ×	1.5	T1206724	YH4	200	37	15	12	15	3
M22 ×	2.5	T1206744	YH4	200	38	17	13	16	3
M22 ×	1.5	T1206764	YH4	200	38	17	13	16	3
M24 ×	3	T1206784	YH4	200	45	19	15	18	3
M24 ×	1.5	T1206804	YH4	200	45	19	15	18	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○				○	○	○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
										○

LONG SHANK TAPS

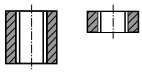
T1230 SERIES
T1240 SERIES

W 长柄普通先端丝锥
LONG SHANK SPIRAL POINT TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的通孔加工，优异排屑

▶ Suitable for tapping Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

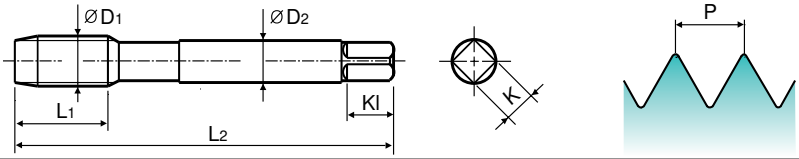
Hole type



Material groups **GS**

HSS-EX | GPLS | JIS II | 5.0P | Homo

▶ Tap Limits : JIS II
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532



▶ 100mm

单位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
W1/8	- 40	T1230202	JIS II	100	11	4	3.2	6	3
W3/16	- 24	T1230322	JIS II	100	16	5.5	4.5	7	3
W1/4	- 20	T1230402	JIS II	100	19	6	4.5	7	3
W5/16	- 18	T1230442	JIS II	100	22	6.1	5	8	3
W3/8	- 16	T1230482	JIS II	100	24	7	5.5	8	3
W7/16	- 14	T1230522	JIS II	100	25	8	6	9	3
W1/2	- 12	T1230562	JIS II	100	29	9	7	10	3

▶ 120mm

单位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
W1/8	- 40	T1240202	JIS II	120	11	4	3.2	6	3
W3/16	- 24	T1240322	JIS II	120	16	5.5	4.5	7	3
W1/4	- 20	T1240402	JIS II	120	19	6	4.5	7	3
W5/16	- 18	T1240442	JIS II	120	22	6.1	5	8	3
W3/8	- 16	T1240482	JIS II	120	24	7	5.5	8	3
W7/16	- 14	T1240522	JIS II	120	25	8	6	9	3
W1/2	- 12	T1240562	JIS II	120	29	9	7	10	3
W9/16	- 12	T1240602	JIS II	120	30	10.5	8	11	3
W5/8	- 11	T1240642	JIS II	120	32	12	9	12	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○				○	○	○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
										○

LONG SHANK TAPS

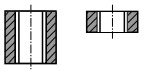
T1250 SERIES
T1260 SERIES

W 长柄普通先端丝锥
LONG SHANK SPIRAL POINT TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的通孔加工，优异排屑

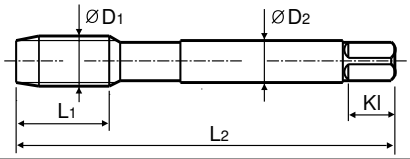
▶ Suitable for tapping Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

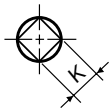
Hole type

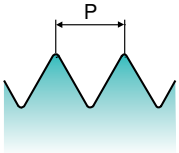


Material groups **GS** | HSS-EX | GPLS | JIS II | 5.0P | Homo

▶ Tap Limits : JIS II
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532







▶ 150mm

단位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
W1/8	- 40	T1250202	JIS II	150	11	4	3.2	6	3
W3/16	- 24	T1250322	JIS II	150	16	5.5	4.5	7	3
W1/4	- 20	T1250402	JIS II	150	19	6	4.5	7	3
W5/16	- 18	T1250442	JIS II	150	22	6.1	5	8	3
W3/8	- 16	T1250482	JIS II	150	24	7	5.5	8	3
W7/16	- 14	T1250522	JIS II	150	25	8	6	9	3
W1/2	- 12	T1250562	JIS II	150	29	9	7	10	3
W9/16	- 12	T1250602	JIS II	150	30	10.5	8	11	3
W5/8	- 11	T1250642	JIS II	150	32	12	9	12	3
W3/4	- 10	T1250702	JIS II	150	37	14	11	14	3
W7/8	- 9	T1250742	JIS II	150	38	17	13	16	3
W1″	- 8	T1250782	JIS II	150	45	20	15	18	3

▶ 200mm

단位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
W3/8	- 16	T1260482	JIS II	200	24	7	5.5	8	3
W7/16	- 14	T1260522	JIS II	200	25	8	6	9	3
W1/2	- 12	T1260562	JIS II	200	29	9	7	10	3
W9/16	- 12	T1260602	JIS II	200	30	10.5	8	11	3
W5/8	- 11	T1260642	JIS II	200	32	12	9	12	3
W3/4	- 10	T1260702	JIS II	200	37	14	11	14	3
W7/8	- 9	T1260742	JIS II	200	38	17	13	16	3
W1″	- 8	T1260782	JIS II	200	45	20	15	18	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○				○	○	○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
										○

LONG SHANK TAPS

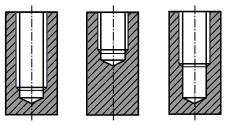
T1103 SERIES

M 长柄普通螺旋槽丝锥
LONG SHANK SPIRAL FLUTE TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的通孔加工，优异的排屑.

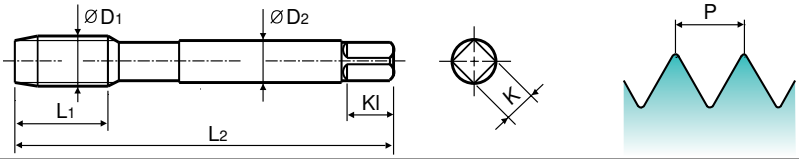
▶ Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

Hole type



Material groups **GS** | HSS-EX | SPLS | YH | 2.5P | Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532



▶ 100mm

단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length KI	槽数 No. of Flute
M3	× 0.5	T1103201	YH1	100	11	4	3.2	6	3
M4	× 0.7	T1103242	YH2	100	13	5	4	7	3
M5	× 0.8	T1103282	YH2	100	16	5.5	4.5	7	3
M6	× 1	T1103312	YH2	100	19	6	4.5	7	3
M8	× 1.25	T1103362	YH2	100	22	6.2	5	8	3
M10	× 1.5	T1103422	YH2	100	24	7	5.5	8	3
M10	× 1.25	T1103432	YH2	100	24	7	5.5	8	3
M12	× 1.75	T1103502	YH2	100	29	8.5	6.5	9	3
M12	× 1.5	T1103512	YH2	100	29	8.5	6.5	9	3
M12	× 1.25	T1103522	YH2	100	29	8.5	6.5	9	3
M14	× 2	T1103542	YH2	100	30	10.5	8	11	3
M14	× 1.5	T1103552	YH2	100	30	10.5	8	11	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	○			○	○	○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
										○

COMBO TAPS
SPIRAL POINT TAPS
SPIRAL FLUTE TAPS
STRAIGHT FLUTE TAPS
LONG SHANK TAPS
FLUTELRSS TAPS
SCREW THREAD INSERT TAPS
HAND TAPS
PIPE TAPS
CARBIDE TAPS
SKS21 HAND TAPS
SKS21 PIPE TAPS
THREAD MILLS
TECHNICAL DATA

LONG SHANK TAPS

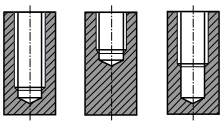
T1104 SERIES

M 长柄普通螺旋槽丝锥
LONG SHANK SPIRAL FLUTE TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的通孔加工，优异的排屑.

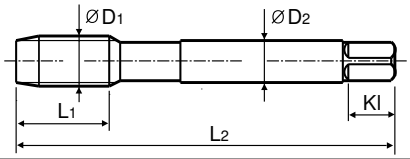
▶ Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

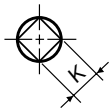
Hole type

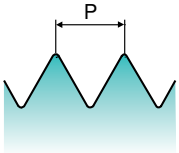


Material groups **GS** | HSS-EX | SPLS | YH | 2.5P | Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







▶ 120mm

단위(Unit) : mm

尺寸 SIZE ØD1		牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M3	×	0.5	T1104201	YH1	120	11	4	3.2	6	3
M4	×	0.7	T1104242	YH2	120	13	5	4	7	3
M5	×	0.8	T1104282	YH2	120	16	5.5	4.5	7	3
M6	×	1	T1104312	YH2	120	19	6	4.5	7	3
M8	×	1.25	T1104362	YH2	120	22	6.2	5	8	3
M10	×	1.5	T1104422	YH2	120	24	7	5.5	8	3
M10	×	1.25	T1104432	YH2	120	24	7	5.5	8	3
M12	×	1.75	T1104502	YH2	120	29	8.5	6.5	9	3
M12	×	1.5	T1104512	YH2	120	29	8.5	6.5	9	3
M12	×	1.25	T1104522	YH2	120	29	8.5	6.5	9	3
M14	×	2	T1104542	YH2	120	30	10.5	8	11	3
M14	×	1.5	T1104552	YH2	120	30	10.5	8	11	3
M16	×	2	T1104602	YH2	120	32	12.5	10	13	3
M16	×	1.5	T1104612	YH2	120	32	12.5	10	13	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	○			○	○	○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
										○

LONG SHANK TAPS

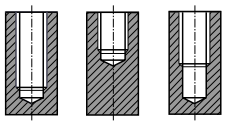
T1105 SERIES

M 长柄普通螺旋槽丝锥
LONG SHANK SPIRAL FLUTE TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的通孔加工，优异的排屑.

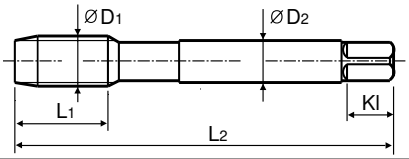
▶ Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

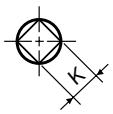
Hole type

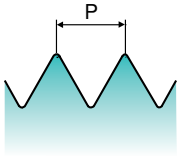


Material groups **GS** | HSS-EX | SPLS | YH | 2.5P | Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







▶ 150mm

단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length KI	槽数 No. of Flute
M3	0.5	T1105201	YH1	150	11	4	3.2	6	3
M4	0.7	T1105242	YH2	150	13	5	4	7	3
M5	0.8	T1105282	YH2	150	16	5.5	4.5	7	3
M6	1	T1105312	YH2	150	19	6	4.5	7	3
M8	1.25	T1105362	YH2	150	22	6.2	5	8	3
M10	1.5	T1105422	YH2	150	24	7	5.5	8	3
M10	1.25	T1105432	YH2	150	24	7	5.5	8	3
M12	1.75	T1105502	YH2	150	29	8.5	6.5	9	3
M12	1.5	T1105512	YH2	150	29	8.5	6.5	9	3
M12	1.25	T1105522	YH2	150	29	8.5	6.5	9	3
M14	2	T1105542	YH2	150	30	10.5	8	11	3
M14	1.5	T1105552	YH2	150	30	10.5	8	11	3
M16	2	T1105602	YH2	150	32	12.5	10	13	3
M16	1.5	T1105612	YH2	150	32	12.5	10	13	3
M18	2.5	T1105653	YH3	150	37	14	11	14	4
M18	1.5	T1105672	YH2	150	37	14	11	14	4
M20	2.5	T1105703	YH3	150	37	15	12	15	4
M20	1.5	T1105723	YH3	150	37	15	12	15	4
M22	2.5	T1105743	YH3	150	38	17	13	16	4
M22	1.5	T1105763	YH3	150	38	17	13	16	4
M24	3	T1105783	YH3	150	45	19	15	18	4
M24	1.5	T1105803	YH3	150	45	19	15	18	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	○			○	○	○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
										○

COMBO TAPS
SPIRAL POINT TAPS
SPIRAL FLUTE TAPS
STRAIGHT FLUTE TAPS
LONG SHANK TAPS
FLUTELRSS TAPS
SCREW THREAD INSERT TAPS
HAND TAPS
PIPE TAPS
CARBIDE TAPS
SKS21 HAND TAPS
SKS21 PIPE TAPS
THREAD MILLS
TECHNICAL DATA

LONG SHANK TAPS

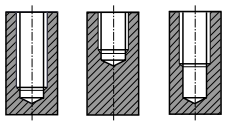
T1106 SERIES

M 长柄普通螺旋槽丝锥
LONG SHANK SPIRAL FLUTE TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的通孔加工，优异的排屑.

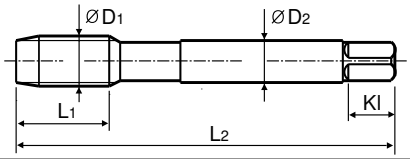
▶ Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

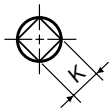
Hole type

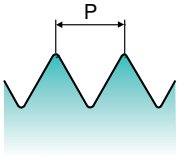


Material groups **GS** | HSS-EX | SPLS | YH | 2.5P | Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







▶ 200mm

단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M8 ×	1.25	T1106362	YH2	200	22	6.2	5	8	3
M10 ×	1.5	T1106422	YH2	200	24	7	5.5	8	3
M10 ×	1.25	T1106432	YH2	200	24	7	5.5	8	3
M12 ×	1.75	T1106502	YH2	200	29	8.5	6.5	9	3
M12 ×	1.5	T1106512	YH2	200	29	8.5	6.5	9	3
M12 ×	1.25	T1106522	YH2	200	29	8.5	6.5	9	3
M14 ×	2	T1106542	YH2	200	30	10.5	8	11	3
M14 ×	1.5	T1106552	YH2	200	30	10.5	8	11	3
M16 ×	2	T1106602	YH2	200	32	12.5	10	13	3
M16 ×	1.5	T1106612	YH2	200	32	12.5	10	13	3
M18 ×	2.5	T1106653	YH3	200	37	14	11	14	4
M18 ×	1.5	T1106672	YH2	200	37	14	11	14	4
M20 ×	2.5	T1106703	YH3	200	37	15	12	15	4
M20 ×	1.5	T1106723	YH3	200	37	15	12	15	4
M22 ×	2.5	T1106743	YH3	200	38	17	13	16	4
M22 ×	1.5	T1106763	YH3	200	38	17	13	16	4
M24 ×	3	T1106783	YH3	200	45	19	15	18	4
M24 ×	1.5	T1106803	YH3	200	45	19	15	18	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	○			○	○	○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
										○

LONG SHANK TAPS

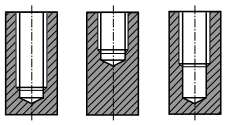
T1130 SERIES
T1140 SERIES

W 长柄普通螺旋槽丝锥
LONG SHANK SPIRAL FLUTE TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的通孔加工，优异的排屑.

▶ Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

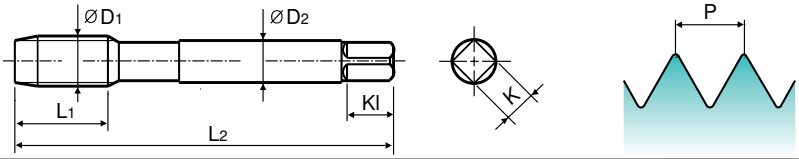
Hole type



Material groups **GS**

HSS-EX | SPLS | JIS II | 2.5P | Homo

▶ Tap Limits : JIS II
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532



▶ 100mm

单位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
W1/8	- 40	T1130202	JIS II	100	11	4	3.2	6	3
W3/16	- 24	T1130322	JIS II	100	16	5.5	4.5	7	3
W1/4	- 20	T1130402	JIS II	100	19	6	4.5	7	3
W5/16	- 18	T1130442	JIS II	100	22	6.1	5	8	3
W3/8	- 16	T1130482	JIS II	100	24	7	5.5	8	3
W7/16	- 14	T1130522	JIS II	100	25	8	6	9	3
W1/2	- 12	T1130562	JIS II	100	29	9	7	10	3

▶ 120mm

单位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
W1/8	- 40	T1140202	JIS II	120	11	4	3.2	6	3
W3/16	- 24	T1140322	JIS II	120	16	5.5	4.5	7	3
W1/4	- 20	T1140402	JIS II	120	19	6	4.5	7	3
W5/16	- 18	T1140442	JIS II	120	22	6.1	5	8	3
W3/8	- 16	T1140482	JIS II	120	24	7	5.5	8	3
W7/16	- 14	T1140522	JIS II	120	25	8	6	9	3
W1/2	- 12	T1140562	JIS II	120	29	9	7	10	3
W9/16	- 12	T1140602	JIS II	120	30	10.5	8	11	3
W5/8	- 11	T1140642	JIS II	120	32	12	9	12	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel ~ C0.25	中碳钢 Meduim Carbon Steel C0.25 ~ C0.45	高碳钢 High Carbon Steel C0.45 ~	合金钢 Alloy Steel SCM	硬化钢 Hardened Steel HRc25 ~ 45	不锈钢 Stainless Steel SUS	工具钢 Tool Steel SKD	铸钢 Cast Steel SC	铸铁 Cast Iron FC	高强度铸铁 High Tension Cast Iron FCD
◎	○	○			○	○	○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
										○

LONG SHANK TAPS

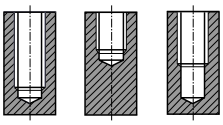
T1150 SERIES
T1160 SERIES

W 长柄普通螺旋槽丝锥
LONG SHANK SPIRAL FLUTE TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的通孔加工，优异的排屑.

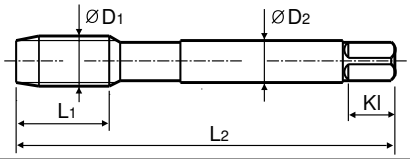
▶ Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

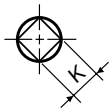
Hole type

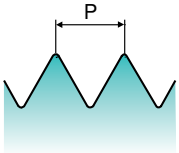


Material groups **GS** | HSS-EX | SPLS | JIS II | 2.5P | Homo

▶ Tap Limits : JIS II
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532







▶ 150mm

단位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
W1/8	- 40	T1150202	JIS II	150	11	4	3.2	6	3
W3/16	- 24	T1150322	JIS II	150	16	5.5	4.5	7	3
W1/4	- 20	T1150402	JIS II	150	19	6	4.5	7	3
W5/16	- 18	T1150442	JIS II	150	22	6.1	5	8	3
W3/8	- 16	T1150482	JIS II	150	24	7	5.5	8	3
W7/16	- 14	T1150522	JIS II	150	25	8	6	9	3
W1/2	- 12	T1150562	JIS II	150	29	9	7	10	3
W9/16	- 12	T1150602	JIS II	150	30	10.5	8	11	3
W5/8	- 11	T1150642	JIS II	150	32	12	9	12	3
W3/4	- 10	T1150702	JIS II	150	37	14	11	14	4
W7/8	- 9	T1150742	JIS II	150	38	17	13	16	4
W1″	- 8	T1150782	JIS II	150	45	20	15	18	4

▶ 200mm

단位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
W3/8	- 16	T1160482	JIS II	200	24	7	5.5	8	3
W7/16	- 14	T1160522	JIS II	200	25	8	6	9	3
W1/2	- 12	T1160562	JIS II	200	29	9	7	10	3
W9/16	- 12	T1160602	JIS II	200	30	10.5	8	11	3
W5/8	- 11	T1160642	JIS II	200	32	12	9	12	3
W3/4	- 10	T1160702	JIS II	200	37	14	11	14	4
W7/8	- 9	T1160742	JIS II	200	38	17	13	16	4
W1″	- 8	T1160782	JIS II	200	45	20	15	18	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	○			○	○	○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
										○

LONG SHANK TAPS

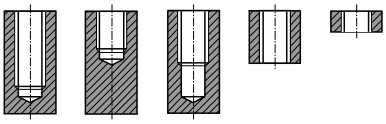
T1323 SERIES
T1303 SERIES

M 长柄普通直槽丝锥
LONG SHANK STRAIGHT FLUTE TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的盲孔和通孔加工，优异的排屑.

▶ Suitable for tapping Blind & Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil stste.

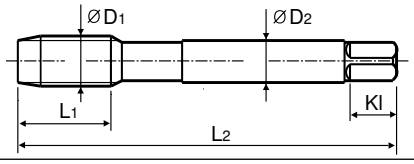
Hole type

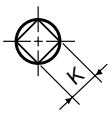


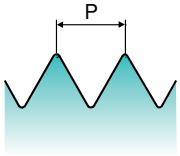
Material groups **GS**

HSS-EX | STLS | YH | 1.5P / 5.0P | Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







▶ 100mm

단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No. 1.5P	型号 EDP No. 5.0P	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M3	× 0.5	T1323201	T1303201	YH1	100	11	4	3.2	6	3
M4	× 0.7	T1323242	T1303242	YH2	100	13	5	4	7	3
M5	× 0.8	T1323282	T1303282	YH2	100	16	5.5	4.5	7	3
M6	× 1	T1323312	T1303312	YH2	100	19	6	4.5	7	3
M8	× 1.25	T1323362	T1303362	YH2	100	22	6.2	5	8	4
M10	× 1.5	T1323422	T1303422	YH2	100	24	7	5.5	8	4
M10	× 1.25	T1323432	T1303432	YH2	100	24	7	5.5	8	4
M12	× 1.75	T1323502	T1303502	YH2	100	29	8.5	6.5	9	4
M12	× 1.5	T1323512	T1303512	YH2	100	29	8.5	6.5	9	4
M12	× 1.25	T1323522	T1303522	YH2	100	29	8.5	6.5	9	4
M14	× 2	T1323542	T1303542	YH2	100	30	10.5	8	11	4
M14	× 1.5	T1323552	T1303552	YH2	100	30	10.5	8	11	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○			○		○		○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic

COMBO TAPS
SPIRAL POINT TAPS
SPIRAL FLUTE TAPS
STRAIGHT FLUTE TAPS
LONG SHANK TAPS
FLUTELRSS TAPS
SCREW THREAD INSERT TAPS
HAND TAPS
PIPE TAPS
CARBIDE TAPS
SKS21 HAND TAPS
SKS21 PIPE TAPS
THREAD MILLS
TECHNICAL DATA

LONG SHANK TAPS

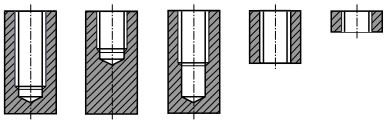
T1324 SERIES
T1304 SERIES

M 长柄普通直槽丝锥
LONG SHANK STRAIGHT FLUTE TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的盲孔和通孔加工，优异的排屑.

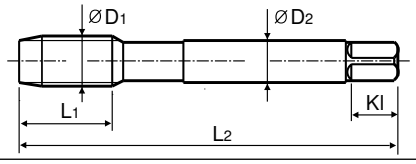
▶ Suitable for tapping Blind & Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil stste.

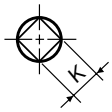
Hole type

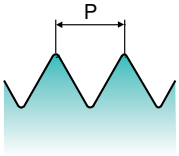


Material groups **GS** | HSS-EX | STLS | YH | 1.5P / 5.0P | Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







▶ 120mm

단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No. 1.5P	型号 EDP No. 5.0P	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M3	× 0.5	T1324201	T1304201	YH1	120	11	4	3.2	6	3
M4	× 0.7	T1324242	T1304242	YH2	120	13	5	4	7	3
M5	× 0.8	T1324282	T1304282	YH2	120	16	5.5	4.5	7	3
M6	× 1	T1324312	T1304312	YH2	120	19	6	4.5	7	3
M8	× 1.25	T1324362	T1304362	YH2	120	22	6.2	5	8	4
M10	× 1.5	T1324422	T1304422	YH2	120	24	7	5.5	8	4
M10	× 1.25	T1324432	T1304432	YH2	120	24	7	5.5	8	4
M12	× 1.75	T1324502	T1304502	YH2	120	29	8.5	6.5	9	4
M12	× 1.5	T1324512	T1304512	YH2	120	29	8.5	6.5	9	4
M12	× 1.25	T1324522	T1304522	YH2	120	29	8.5	6.5	9	4
M14	× 2	T1324542	T1304542	YH2	120	30	10.5	8	11	4
M14	× 1.5	T1324552	T1304552	YH2	120	30	10.5	8	11	4
M16	× 2	T1324602	T1304602	YH2	120	32	12.5	10	13	4
M16	× 1.5	T1324612	T1304612	YH2	120	32	12.5	10	13	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○			○		○		○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic

LONG SHANK TAPS

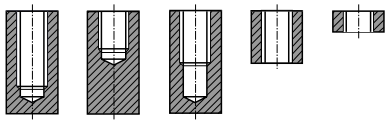
T1325 SERIES
T1305 SERIES

M 长柄普通直槽丝锥
LONG SHANK STRAIGHT FLUTE TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的盲孔和通孔加工，优异的排屑.

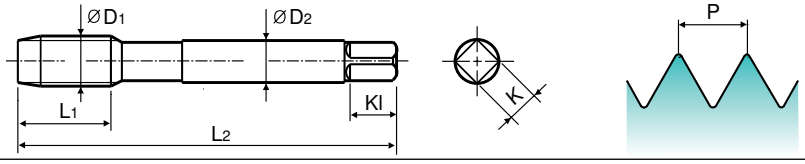
▶ Suitable for tapping Blind & Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil stste.

Hole type



Material groups **GS** | HSS-EX | STLS | YH | 1.5P / 5.0P | Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532



▶ 150mm

单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No. 1.5P	型号 EDP No. 5.0P	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M3	× 0.5	T1325201	T1305201	YH1	150	11	4	3.2	6	3
M4	× 0.7	T1325242	T1305242	YH2	150	13	5	4	7	3
M5	× 0.8	T1325282	T1305282	YH2	150	16	5.5	4.5	7	3
M6	× 1	T1325312	T1305312	YH2	150	19	6	4.5	7	3
M8	× 1.25	T1325362	T1305362	YH2	150	22	6.2	5	8	4
M10	× 1.5	T1325422	T1305422	YH2	150	24	7	5.5	8	4
M10	× 1.25	T1325432	T1305432	YH2	150	24	7	5.5	8	4
M12	× 1.75	T1325502	T1305502	YH2	150	29	8.5	6.5	9	4
M12	× 1.5	T1325512	T1305512	YH2	150	29	8.5	6.5	9	4
M12	× 1.25	T1325522	T1305522	YH2	150	29	8.5	6.5	9	4
M14	× 2	T1325542	T1305542	YH2	150	30	10.5	8	11	4
M14	× 1.5	T1325552	T1305552	YH2	150	30	10.5	8	11	4
M16	× 2	T1325602	T1305602	YH2	150	32	12.5	10	13	4
M16	× 1.5	T1325612	T1305612	YH2	150	32	12.5	10	13	4
M18	× 2.5	T1325653	T1305653	YH3	150	37	14	11	14	4
M18	× 1.5	T1325672	T1305672	YH2	150	37	14	11	14	4
M20	× 2.5	T1325703	T1305703	YH3	150	37	15	12	15	4
M20	× 1.5	T1325723	T1305723	YH3	150	37	15	12	15	4
M22	× 2.5	T1325743	T1305743	YH3	150	38	17	13	16	4
M22	× 1.5	T1325763	T1305763	YH3	150	38	17	13	16	4
M24	× 3	T1325783	T1305783	YH3	150	45	19	15	18	4
M24	× 1.5	T1325803	T1305803	YH3	150	45	19	15	18	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel ~ C0.25	中碳钢 Meduim Carbon Steel C0.25 ~ C0.45	高碳钢 High Carbon Steel C0.45 ~	合金钢 Alloy Steel SCM	硬化钢 Hardened Steel HRc25 ~ 45	不锈钢 Stainless Steel SUS	工具钢 Tool Steel SKD	铸钢 Cast Steel SC	铸铁 Cast Iron FC	高强度铸铁 High Tension Cast Iron FCD
○			○		○		○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic

COMBO TAPS
SPIRAL POINT TAPS
SPIRAL FLUTE TAPS
STRAIGHT FLUTE TAPS
LONG SHANK TAPS
FLUTELRSS TAPS
SCREW THREAD INSERT TAPS
HAND TAPS
PIPE TAPS
CARBIDE TAPS
SKS21 HAND TAPS
SKS21 PIPE TAPS
THREAD MILLS
TECHNICAL DATA

LONG SHANK TAPS

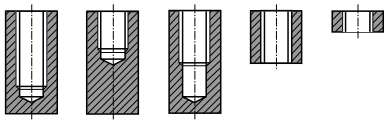
T1326 SERIES
T1306 SERIES

M 长柄普通直槽丝锥
LONG SHANK STRAIGHT FLUTE TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的盲孔和通孔加工，优异的排屑.

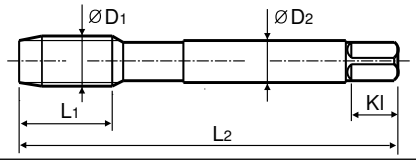
▶ Suitable for tapping Blind & Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil stste.

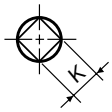
Hole type

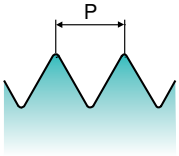


Material groups **GS** | HSS-EX | STLS | YH | 1.5P / 5.0P | Homo

▶ Tap Limits : P.530
▶ up to M7 : Male Center
▶ Tapping Speeds : P.532







▶ 200mm

단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No. 1.5P	型号 EDP No. 5.0P	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M8	× 1.25	T1326362	T1306362	YH2	200	22	6.2	5	8	4
M10	× 1.5	T1326422	T1306422	YH2	200	24	7	5.5	8	4
M10	× 1.25	T1326432	T1306432	YH2	200	24	7	5.5	8	4
M12	× 1.75	T1326502	T1306502	YH2	200	29	8.5	6.5	9	4
M12	× 1.5	T1326512	T1306512	YH2	200	29	8.5	6.5	9	4
M12	× 1.25	T1326522	T1306522	YH2	200	29	8.5	6.5	9	4
M14	× 2	T1326542	T1306542	YH2	200	30	10.5	8	11	4
M14	× 1.5	T1326552	T1306552	YH2	200	30	10.5	8	11	4
M16	× 2	T1326602	T1306602	YH2	200	32	12.5	10	13	4
M16	× 1.5	T1326612	T1306612	YH2	200	32	12.5	10	13	4
M18	× 2.5	T1326653	T1306653	YH3	200	37	14	11	14	4
M18	× 1.5	T1326672	T1306672	YH2	200	37	14	11	14	4
M20	× 2.5	T1326703	T1306703	YH3	200	37	15	12	15	4
M20	× 1.5	T1326723	T1306723	YH3	200	37	15	12	15	4
M22	× 2.5	T1326743	T1306743	YH3	200	38	17	13	16	4
M22	× 1.5	T1326763	T1306763	YH3	200	38	17	13	16	4
M24	× 3	T1326783	T1306783	YH3	200	45	19	15	18	4
M24	× 1.5	T1326803	T1306803	YH3	200	45	19	15	18	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○			○		○		○		

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic

LONG SHANK TAPS

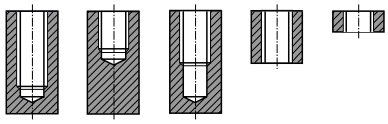
T1331 SERIES | T1330 SERIES
T1341 SERIES | T1340 SERIES

W 长柄普通直槽丝锥
LONG SHANK STRAIGHT FLUTE TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的盲孔和通孔加工，优异的排屑.

▶ Suitable for tapping Blind & Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil stste.

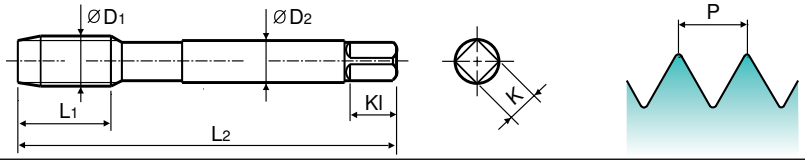
Hole type



Material groups **GS**

HSS-EX | STLS | JIS II | 1.5P / 5.0P | Homo

▶ Tap Limits : JIS II
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532



▶ 100mm

단위(Unit) : mm

尺寸 SIZE	牙距 TPI	型号 EDP No.		精度 Limit	全长 Overall Length	螺纹长 Thread Length	柄径 Shank Diameter	方块 尺寸 Square Size	方块 长度 Square Length	槽数 No. of Flute
ØD1		1.5P	5.0P		L2	L1	ØD2	K	Kl	
W1/8	- 40	T1331202	T1330202	JIS II	100	11	4	3.2	6	3
W3/16	- 24	T1331322	T1330322	JIS II	100	16	5.5	4.5	7	3
W1/4	- 20	T1331402	T1330402	JIS II	100	19	6	4.5	7	3
W5/16	- 18	T1331442	T1330442	JIS II	100	22	6.1	5	8	4
W3/8	- 16	T1331482	T1330482	JIS II	100	24	7	5.5	8	4
W7/16	- 14	T1331522	T1330522	JIS II	100	25	8	6	9	4
W1/2	- 12	T1331562	T1330562	JIS II	100	29	9	7	10	4

▶ 120mm

단위(Unit) : mm

尺寸 SIZE	牙距 TPI	型号 EDP No.		精度 Limit	全长 Overall Length	螺纹长 Thread Length	柄径 Shank Diameter	方块 尺寸 Square Size	方块 长度 Square Length	槽数 No. of Flute
ØD1		1.5P	5.0P		L2	L1	ØD2	K	Kl	
W1/8	- 40	T1341202	T1340202	JIS II	120	11	4	3.2	6	3
W3/16	- 24	T1341322	T1340322	JIS II	120	16	5.5	4.5	7	3
W1/4	- 20	T1341402	T1340402	JIS II	120	19	6	4.5	7	3
W5/16	- 18	T1341442	T1340442	JIS II	120	22	6.1	5	8	4
W3/8	- 16	T1341482	T1340482	JIS II	120	24	7	5.5	8	4
W7/16	- 14	T1341522	T1340522	JIS II	120	25	8	6	9	4
W1/2	- 12	T1341562	T1340562	JIS II	120	29	9	7	10	4
W9/16	- 12	T1341602	T1340602	JIS II	120	30	10.5	8	11	4
W5/8	- 11	T1341642	T1340642	JIS II	120	32	12	9	12	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○			○		○		○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				

LONG SHANK TAPS

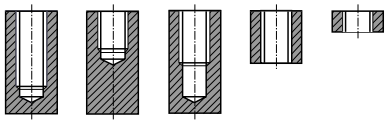
T1351 SERIES | T1350 SERIES | T1361 SERIES | T1360 SERIES

W 长柄普通直槽丝锥
LONG SHANK STRAIGHT FLUTE TAPS for GENERAL PURPOSE

▶ 适用于碳钢和合金钢的盲孔和通孔加工，优异的排屑.

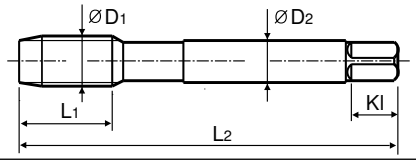
▶ Suitable for tapping Blind & Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil stste.

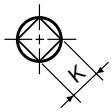
Hole type

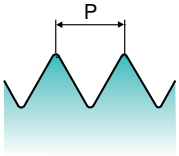


Material groups **GS** | HSS-EX | STLS | JIS II | 1.5P / 5.0P | Homo

▶ Tap Limits : JIS II
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532







▶ 150mm

단위(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No. 1.5P	型号 EDP No. 5.0P	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
W1/8	- 40	T1351202	T1350202	JIS II	150	11	4	3.2	6	3
W3/16	- 24	T1351322	T1350322	JIS II	150	16	5.5	4.5	7	3
W1/4	- 20	T1351402	T1350402	JIS II	150	19	6	4.5	7	3
W5/16	- 18	T1351442	T1350442	JIS II	150	22	6.1	5	8	4
W3/8	- 16	T1351482	T1350482	JIS II	150	24	7	5.5	8	4
W7/16	- 14	T1351522	T1350522	JIS II	150	25	8	6	9	4
W1/2	- 12	T1351562	T1350562	JIS II	150	29	9	7	10	4
W9/16	- 12	T1351602	T1350602	JIS II	150	30	10.5	8	11	4
W5/8	- 11	T1351642	T1350642	JIS II	150	32	12	9	12	4
W3/4	- 10	T1351702	T1350702	JIS II	150	37	14	11	14	4
W7/8	- 9	T1351742	T1350742	JIS II	150	38	17	13	16	4
W1″	- 8	T1351782	T1350782	JIS II	150	45	20	15	18	4

▶ 200mm

단위(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No. 1.5P	型号 EDP No. 5.0P	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
W3/8	- 16	T1361482	T1360482	JIS II	200	24	7	5.5	8	4
W7/16	- 14	T1361522	T1360522	JIS II	200	25	8	6	9	4
W1/2	- 12	T1361562	T1360562	JIS II	200	29	9	7	10	4
W9/16	- 12	T1361602	T1360602	JIS II	200	30	10.5	8	11	4
W5/8	- 11	T1361642	T1360642	JIS II	200	32	12	9	12	4
W3/4	- 10	T1361702	T1360702	JIS II	200	37	14	11	14	4
W7/8	- 9	T1361742	T1360742	JIS II	200	38	17	13	16	4
W1″	- 8	T1361782	T1360782	JIS II	200	45	20	15	18	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○			○		○		○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				

HSS

YG

Being the best through innovation

FLUTELESS TAPS

- 用于软材料的丝锥 (HSS-EX & HSS-PM)

Tapping by Forming Soft Materials (HSS-EX & HSS-PM)

挤压丝锥 / FLUTELESS TAP

用于软材料的丝锥, HSS-EX & HSS-PM / Tapping by Forming Soft Materials, HSS-EX & HSS-PM

FLUTELRSS TAPS

项目 EDP No.	型号 MODEL	刀具材质 Tool Material	标准 Standard	工件材质 Work Material	尺寸 Dimensions	丝锥公差 Tolerance	倒角 Chamfer	表面处理 Surface Treatment	页 PAGE
T1791 T1781		HSS-EX	M	**GV**	FLST	GH	2.0P / 4.0P	Homo	**455**
T1771 T1761		HSS-EX	M	**GV**	FLOst	GH	2.0P / 4.0P	Homo	**456**
T2731 T2701		HSS-EX	M	**GV**	FL	GH	2.0P / 4.0P	Bright	**457**
T2732 T2702		HSS-EX	UNC	**GV**	FL	GH	2.0P / 4.0P	Bright	**458**
T2759 T2749		HSS-EX	M	**GV**	J-FL	GH	2.0P / 4.0P	Bright	**459**
T2751 T2741		HSS-EX	M	**GV**	FLO	GH	2.0P / 4.0P	Bright	**460**
T3731 T3701		HSS-EX	M	**GV**	FLtin	GH	2.0P / 4.0P	TiN	**461**
T3751 T3741		HSS-EX	M	**GV**	FLOtin	GH	2.0P / 4.0P	TiN	**462**

FLUTELESS TAPS

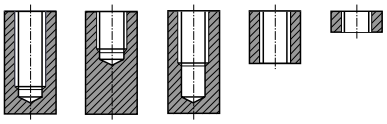
T1791 SERIES
T1781 SERIES

M 钢用挤压丝锥
FLUTELESS TAPS for STEELS

▶适用于低碳钢，合金钢和不锈钢的加工

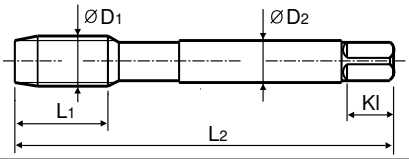
▶ Suitable for tapping in Low Carbon Steels, Alloy Steels and Stainless Steels.

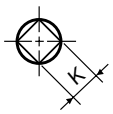
Hole type

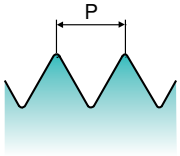


Material groups **GV** | HSS-EX | FLST | GH | 2.0P / 4.0P | Homo

▶ Tap Limits : P.531
▶ up to M6 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE	牙距 Pitch	型号 EDP No.		精度 Limit	全长 Overall Length	螺纹长 Thread Length	柄径 Shank Diameter	方块 尺寸 Square Size	方块 长度 Square Length
ØD1	P	2.0P	4.0P		L2	L1	ØD2	K	Kl
M2	× 0.4	T1791134	T1781134	GH4	40	7.5	3	2.5	5
M2.3	× 0.4	T1791194	T1781194	GH4	42	8.5	3	2.5	5
M2.5	× 0.45	T1791175	T1781175	GH5	44	8.5	3	2.5	5
M2.6	× 0.45	T1791495	T1781495	GH5	44	8.5	3	2.5	5
M3	× 0.5	T1791206	T1781206	GH6	46	11	4	3.2	6
M3.5	× 0.6	T1791226	T1781226	GH6	48	13	4	3.2	6
M4	× 0.7	T1791247	T1781247	GH7	52	13	5	4	5
M5	× 0.8	T1791287	T1781287	GH7	60	16	5.5	4.5	7
M6	× 1	T1791317	T1781317	GH7	62	19	6	4.5	7

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○		○		◎				

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
○										

FLUTELESS TAPS

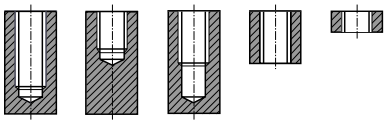
T1771 SERIES
T1761 SERIES

M 带油槽钢用挤压丝锥
FLUTELESS TAPS with OIL GROOVE for STEELS

▶ 适用于低碳钢，合金钢和不锈钢的加工.

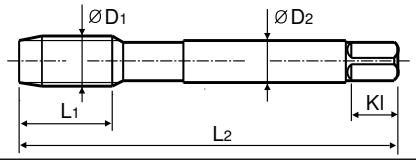
▶ Suitable for tapping in Low Carbon Steels, Alloy Steels and Stainless Steels.

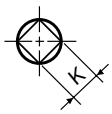
Hole type

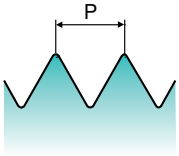


Material groups **GV** | HSS-EX | FLOst | GH | 2.0P / 4.0P | Homo

▶ Tap Limits : P.531
▶ up to M6 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No. 2.0P	型号 EDP No. 4.0P	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl
M2	× 0.4	T1771134	T1761134	GH4	40	7.5	3	2.5	5
M2.3	× 0.4	T1771194	T1761194	GH4	42	8.5	3	2.5	5
M2.5	× 0.45	T1771174	T1761174	GH4	44	8.5	3	2.5	5
M2.6	× 0.45	T1771494	T1761494	GH4	44	8.5	3	2.5	5
M3	× 0.5	T1771205	T1761205	GH5	46	11	4	3.2	6
M3.5	× 0.6	T1771225	T1761225	GH5	48	13	4	3.2	6
M4	× 0.7	T1771246	T1761246	GH6	52	13	5	4	7
M5	× 0.8	T1771286	T1761286	GH6	60	16	5.5	4.5	7
M6	× 1	T1771317	T1761317	GH7	62	19	6	4.5	7
M7	× 1	T1771347	T1761347	GH7	65	19	6.2	5	8
M8	× 1.25	T1771367	T1761367	GH7	70	22	6.2	5	8
M8	× 1	T1771377	T1761377	GH7	70	22	6.2	5	8
M10	× 1.5	T1771427	T1761427	GH7	75	24	7	5.5	8
M10	× 1.25	T1771437	T1761437	GH7	75	24	7	5.5	8
M10	× 1	T1771447	T1761447	GH7	75	24	7	5.5	8
M12	× 1.75	T1771508	T1761508	GH8	82	29	8.5	6.5	9
M12	× 1.5	T1771517	T1761517	GH7	82	29	8.5	6.5	9
M12	× 1.25	T1771527	T1761527	GH7	82	29	8.5	6.5	9
M12	× 1	T1771537	T1761537	GH7	82	29	8.5	6.5	9
M14	× 2	T1771540	T1761540	GH10	88	30	10.5	8	11
M14	× 1.5	T1771559	T1761559	GH9	88	30	10.5	8	11
M16	× 2	T1771600	T1761600	GH10	95	32	12.5	10	13
M16	× 1.5	T1771619	T1761619	GH9	95	32	12.5	10	13
M18	× 2.5	T177165A	T176165A	GH11	100	37	14	11	14
M18	× 1.5	T1771670	T1761670	GH10	100	37	14	11	14
M20	× 2.5	T177170A	T176170A	GH11	105	37	15	12	15
M20	× 1.5	T1771720	T1761720	GH10	105	37	15	12	15

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	○	○		◎				

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
○										

FLUTELESS TAPS

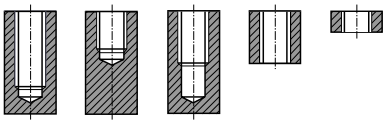
T2731 SERIES
T2701 SERIES

M 有色金属用挤压丝锥
FLUTELESS TAPS for NON-FERROUS METALS

▶适用于铝，镁，铜及有色金属的加工

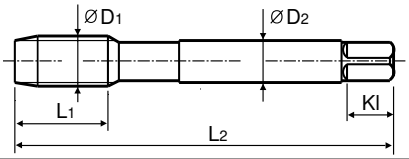
▶ Suitable for tapping in Aluminum, Magnesium, Zinc, Copper as well as Non-Ferrous metal alloy.

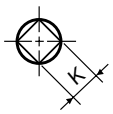
Hole type

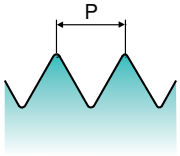


Material groups **GV** | HSS-EX | FL | GH | 2.0P / 4.0P | Bright

▶ Tap Limits : P.531
▶ up to M6 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE	牙距 Pitch	型号 EDP No.		精度 Limit	全长 Overall Length	螺纹长 Thread Length	柄径 Shank Diameter	方块 尺寸 Square Size	方块 长度 Square Length
ØD1	P	2.0P	4.0P		L2	L1	ØD2	K	Kl
M2	× 0.4	T2731134	T2701134	GH4	40	7.5	3	2.5	5
M2.3	× 0.4	T2731194	T2701194	GH4	42	8.5	3	2.5	5
M2.5	× 0.45	T2731175	T2701175	GH5	44	8.5	3	2.5	5
M2.6	× 0.45	T2731495	T2701495	GH5	44	8.5	3	2.5	5
M3	× 0.5	T2731206	T2701206	GH6	46	11	4	3.2	6
M3.5	× 0.6	T2731226	T2701226	GH6	48	13	4	3.2	6
M4	× 0.7	T2731247	T2701247	GH7	52	13	5	4	7
M5	× 0.8	T2731287	T2701287	GH7	60	16	5.5	4.5	7
M6	× 1	T2731317	T2701317	GH7	62	19	6	4.5	7

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
◎	◎	◎	◎	◎		◎				

COMBO TAPS
SPIRAL POINT TAPS
SPIRAL FLUTE TAPS
STRAIGHT FLUTE TAPS
LONG SHANK TAPS
FLUTELRSS TAPS
SCREW THREAD INSERT TAPS
HAND TAPS
PIPE TAPS
CARBIDE TAPS
SKS21 HAND TAPS
SKS21 PIPE TAPS
THREAD MILLS
TECHNICAL DATA

FLUTELESS TAPS

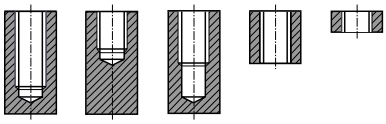
T2732 SERIES
T2702 SERIES

UNC 有色金属用挤压丝锥
FLUTELESS TAPS for NON-FERROUS METALS

▶ 适用于铝，镁，铜及有色金属的加工.

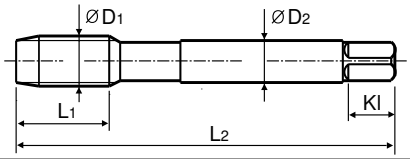
▶ Suitable for tapping in Aluminum, Magnesium, Zinc, Copper as well as Non-Ferrous metal alloys.

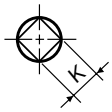
Hole type

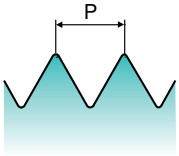


Material groups **GV** | HSS-EX | FL | GH | 2.0P / 4.0P | Bright

▶ Tap Limits : P.531
▶ up to 1/4 : Male Center
▶ Tapping Speeds : P.532







단위(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No. 2.0P	型号 EDP No. 4.0P	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块尺寸 Square Size K	方块长度 Square Length Kl
#2	- 56 UNC	T2732085	T2702085	GH5	42	8.5	3	2.5	5
#4	- 40 UNC	T2732166	T2702166	GH6	44	8.5	3	2.5	5
#5	- 40 UNC	T2732206	T2702206	GH6	46	11	4	3.2	6
#6	- 32 UNC	T2732247	T2702247	GH7	48	13	4	3.2	6
#8	- 32 UNC	T2732287	T2702287	GH7	52	13	5	4	7
#10	- 24 UNC	T2732327	T2702327	GH7	60	16	5.5	4.5	7
#12	- 24 UNC	T2732367	T2702367	GH7	60	16	5.5	4.5	7
1/4	- 20 UNC	T2732408	T2702408	GH8	62	19	6	4.5	7

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
◎	◎	◎	◎	◎		◎				

FLUTELESS TAPS

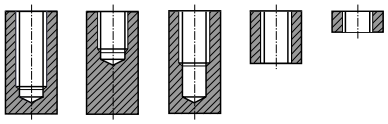
T2759 SERIES
T2749 SERIES

M 有色金属用挤压丝锥
FLUTELESS TAPS for NON-FERROUS METALS

▶ 适用于铝，镁，锌，铜及有色金属的加工.

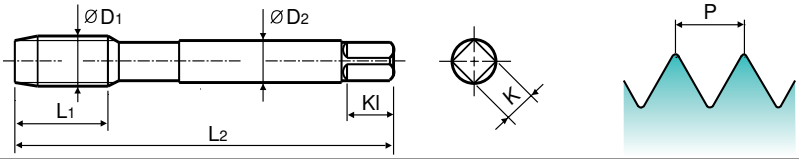
▶ Suitable for tapping in Aluminum, Magnesium, Zinc, Copper as well as Non-Ferrous metal alloy.

Hole type



Material groups **GV** | HSS-EX | J-FL | GH | 2.0P / 4.0P | Bright

▶ Tap Limits : P.531
▶ up to M6 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE	牙距 Pitch	型号 EDP No.		精度 Limit	全长 Overall Length	螺纹长 Thread Length	柄径 Shank Diameter	方块 尺寸 Square Size	方块 长度 Square Length
ØD1	P	2.0P	4.0P		L2	L1	ØD2	K	Kl
M1 ×	0.25	T2759014	T2749014	GH4	30	6.0	3.0	2.5	5
M1.4 ×	0.3	T2759074	T2749074	GH4	34	7.0	3.0	2.5	5
M1.6 ×	0.35	T2759094	T2749094	GH4	36	8.0	3.0	2.5	5
M1.7 ×	0.35	T2759K54	T2749K54	GH4	36	8.0	3.0	2.5	5
M1.8 ×	0.35	T2759114	T2749114	GH4	36	8.0	3.0	2.5	5
M2 ×	0.4	T2759134	T2749134	GH4	40	9.0	3.0	2.5	5
M2.3 ×	0.4	T2759194	T2749194	GH4	42	10.0	3.0	2.5	5
M2.5 ×	0.45	T2759175	T2749175	GH5	44	11.0	3.0	2.5	5
M2.6 ×	0.45	T2759495	T2749495	GH5	44	11.0	3.0	2.5	5
M3 ×	0.5	T2759206	T2749206	GH6	46	18.0	4.0	3.2	6
M3.5 ×	0.6	T2759226	T2749226	GH6	48	18.0	5.0	3.2	6
M4 ×	0.7	T2759247	T2749247	GH7	52	20.0	5.0	4.0	7
M5 ×	0.8	T2759287	T2749287	GH7	60	22.0	5.5	4.5	7
M6 ×	1	T2759317	T2749317	GH7	62	24.0	6.0	4.5	7

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
◎	◎	◎	◎	◎		◎				

FLUTELESS TAPS

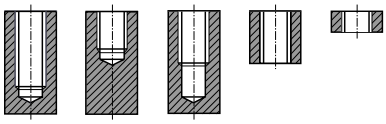
T2751 SERIES
T2741 SERIES

M 带油槽有色金属用挤压丝锥
FLUTELESS TAPS with OIL GROOVE for NON-FERROUS METALS

▶适用于铝，镁，锌，铜及有色金属的加工.

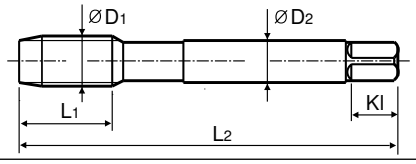
▶ Suitable for tapping in Aluminum, Magnesium, Zinc, Copper as well as Non-Ferrous metal alloys.

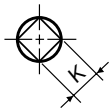
Hole type

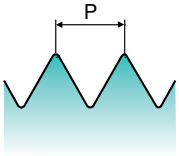


Material groups **GV** | HSS-EX | FLO | GH | 2.0P / 4.0P | Bright

▶ Tap Limits : P.531
▶ up to M6 : Male Center
▶ Tapping Speeds : P.532







단位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No. 2.0P	型号 EDP No. 4.0P	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块尺寸 Square Size K	方块长度 Square Length Kl
M2	× 0.4	T2751134	T2741134	GH4	40	7.5	3	2.5	5
M2.3	× 0.4	T2751194	T2741194	GH4	42	8.5	3	2.5	5
M2.5	× 0.45	T2751174	T2741174	GH4	44	8.5	3	2.5	5
M2.6	× 0.45	T2751494	T2741494	GH4	44	8.5	3	2.5	5
M3	× 0.5	T2751205	T2741205	GH5	46	11	4	3.2	6
M3.5	× 0.6	T2751225	T2741225	GH5	48	13	4	3.2	6
M4	× 0.7	T2751246	T2741246	GH6	52	13	5	4	7
M5	× 0.8	T2751286	T2741286	GH6	60	16	5.5	4.5	7
M6	× 1	T2751317	T2741317	GH7	62	19	6	4.5	7
M7	× 1	T2751347	T2741347	GH7	65	19	6.2	5	8
M8	× 1.25	T2751367	T2741367	GH7	70	22	6.2	5	8
M8	× 1	T2751377	T2741377	GH7	70	22	6.2	5	8
M10	× 1.5	T2751427	T2741427	GH7	75	24	7	5.5	8
M10	× 1.25	T2751437	T2741437	GH7	75	24	7	5.5	8
M10	× 1	T2751447	T2741447	GH7	75	24	7	5.5	8
M12	× 1.75	T2751508	T2741508	GH8	82	29	8.5	6.5	9
M12	× 1.5	T2751517	T2741517	GH7	82	29	8.5	6.5	9
M12	× 1.25	T2751527	T2741527	GH7	82	29	8.5	6.5	9
M12	× 1	T2751537	T2741537	GH7	82	29	8.5	6.5	9
M14	× 2	T2751540	T2741540	GH10	88	30	10.5	8	11
M14	× 1.5	T2751559	T2741559	GH9	88	30	10.5	8	11
M16	× 2	T2751600	T2741600	GH10	95	32	12.5	10	13
M16	× 1.5	T2751619	T2741619	GH9	95	32	12.5	10	13
M18	× 2.5	T275165A	T274165A	GH11	100	37	14	11	14
M18	× 1.5	T2751670	T2741670	GH10	100	37	14	11	14
M20	× 2.5	T275170A	T274170A	GH11	105	37	15	12	15
M20	× 1.5	T2751720	T2741720	GH10	105	37	15	12	15

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
◎	◎	◎	◎	◎		◎				

FLUTELESS TAPS

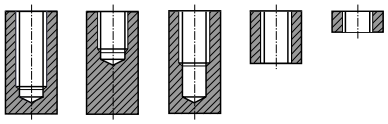
T3731 SERIES
T3701 SERIES

M 挤压丝锥 FLUTELESS TAPS

▶适用于钢和非铁金属合金和不锈钢的加工，具有高效，寿命长，能够快速攻丝.

▶ Suitable for tapping in Steels, Non-Ferrous Metal Alloys and Stainless Steels. Capable of efficient, long life, high speed tapping.

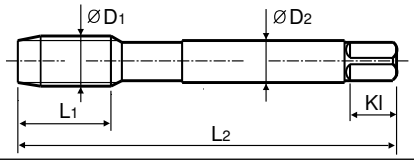
Hole type

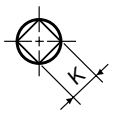


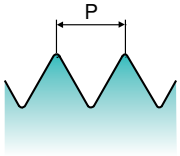
Material groups **GV**

HSS-EX | FLtin | GH | 2.0P / 4.0P | TiN

▶ Tap Limits : P.531
▶ up to M6 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE	牙距 Pitch	型号 EDP No.		精度 Limit	全长 Overall Length	螺纹长 Thread Length	柄径 Shank Diameter	方块 尺寸 Square Size	方块 长度 Square Length
ØD1	P	2.0P	4.0P		L2	L1	ØD2	K	Kl
M2	× 0.4	T3731134	T3701134	GH4	40	7.5	3	2.5	5
M2.3	× 0.4	T3731194	T3701194	GH4	42	8.5	3	2.5	5
M2.5	× 0.45	T3731175	T3701175	GH5	44	8.5	3	2.5	5
M2.6	× 0.45	T3731495	T3701495	GH5	44	8.5	3	2.5	5
M3	× 0.5	T3731206	T3701206	GH6	46	11	4	3.2	6
M3.5	× 0.6	T3731226	T3701226	GH6	48	13	4	3.2	6
M4	× 0.7	T3731247	T3701247	GH7	52	13	5	4	7
M5	× 0.8	T3731287	T3701287	GH7	60	16	5.5	4.5	7
M6	× 1	T3731317	T3701317	GH7	62	19	6	4.5	7

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	○	○		◎				

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
◎	◎	◎	◎	◎		○				

COMBO TAPS
SPIRAL POINT TAPS
SPIRAL FLUTE TAPS
STRAIGHT FLUTE TAPS
LONG SHANK TAPS
FLUTELRSS TAPS
SCREW THREAD INSERT TAPS
HAND TAPS
PIPE TAPS
CARBIDE TAPS
SKS21 HAND TAPS
SKS21 PIPE TAPS
THREAD MILLS
TECHNICAL DATA

FLUTELESS TAPS

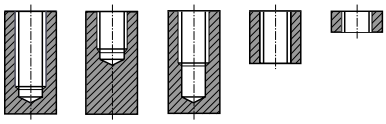
T3751 SERIES
T3741 SERIES

M 带油槽钢用挤压丝锥
FLUTELESS TAPS with OIL GROOVE

▶ 适用于钢和非铁金属合金和不锈钢的加工，具有高效，寿命长，能够快速攻丝.

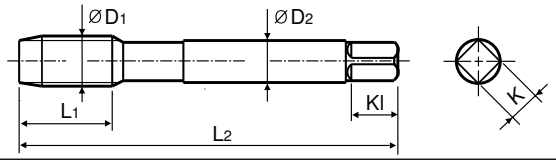
▶ Suitable for tapping in Steels, Non-Ferrous Metal Alloys and Stainless Steels. Capable of efficient, long life, high speed tapping.

Hole type



Material groups **GV** | HSS-EX | FLOtin | GH | 2.0P / 4.0P | TiN

▶ Tap Limits : P.531
▶ up to M6 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No. 2.0P	型号 EDP No. 4.0P	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块尺寸 Square Size K	方块长度 Square Length Kl
M2	× 0.4	T3751134	T3741134	GH4	40	7.5	3	2.5	5
M2.3	× 0.4	T3751194	T3741194	GH4	42	8.5	3	2.5	5
M2.5	× 0.45	T3751174	T3741174	GH4	44	8.5	3	2.5	5
M2.6	× 0.45	T3751494	T3741494	GH4	44	8.5	3	2.5	5
M3	× 0.5	T3751205	T3741205	GH5	46	11	4	3.2	6
M3.5	× 0.6	T3751225	T3741225	GH5	48	13	4	3.2	6
M4	× 0.7	T3751246	T3741246	GH6	52	13	5	4	7
M5	× 0.8	T3751286	T3741286	GH6	60	16	5.5	4.5	7
M6	× 1	T3751317	T3741317	GH7	62	19	6	4.5	7
M7	× 1	T3751347	T3741347	GH7	65	19	6.2	5	8
M8	× 1.25	T3751367	T3741367	GH7	70	22	6.2	5	8
M8	× 1	T3751377	T3741377	GH7	70	22	6.2	5	8
M10	× 1.5	T3751427	T3741427	GH7	75	24	7	5.5	8
M10	× 1.25	T3751437	T3741437	GH7	75	24	7	5.5	8
M10	× 1	T3751447	T3741447	GH7	75	24	7	5.5	8
M12	× 1.75	T3751508	T3741508	GH8	82	29	8.5	6.5	9
M12	× 1.5	T3751517	T3741517	GH7	82	29	8.5	6.5	9
M12	× 1.25	T3751527	T3741527	GH7	82	29	8.5	6.5	9
M12	× 1	T3751537	T3741537	GH7	82	29	8.5	6.5	9
M14	× 2	T3751540	T3741540	GH10	88	30	10.5	8	11
M14	× 1.5	T3751559	T3741559	GH9	88	30	10.5	8	11
M16	× 2	T3751600	T3741600	GH10	95	32	12.5	10	13
M16	× 1.5	T3751619	T3741619	GH9	95	32	12.5	10	13
M18	× 2.5	T375165A	T374165A	GH11	100	37	14	11	14
M18	× 1.5	T3751670	T3741670	GH10	100	37	14	11	14
M20	× 2.5	T375170A	T374170A	GH11	105	37	15	12	15
M20	× 1.5	T3751720	T3741720	GH10	105	37	15	12	15

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	○	○		◎				

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
◎	◎	◎	◎	◎		○				

HSS

YG

Being the best through innovation

SCREW THREAD INSERT TAPS

- 在软材质上加工STI螺纹 (HSS & HSS-EX)

Tapping STI Threads of Soft Materials (HSS & HSS-EX)

嵌套螺纹用丝锥 / SCREW THREAD INSERT TAPS

在软材质上加工STI螺纹，HSS & HSS-EX / Tapping STI Threads of Soft Materials, HSS & HSS-EX

SCREW THREAD INSERT TAPS

项目 EDP No.	型号 MODEL	刀具材质 Tool Material	标准 Standard	工件材质 Work Material	尺寸 Dimensions	丝锥公差 Tolerance	倒角 Chamfer	表面处理 Surface Treatment	页 PAGE
T7399		HSS	M	**Al**	STI	JIS 1b	1.5P / 5.0P	Bright	**465**
T7322		HSS	UNC/F	**Al**	STI	JIS 1b	1.5P / 5.0P	Bright	**466**
T2197		HSS-EX	M	**Al**	SP-STI	JIS 1b	2.5P	Bright	**467**
T2198		HSS-EX	UNC/F	**Al**	SP-STI	JIS 1b	2.5P	Bright	**468**

SCREW THREAD INSERT TAPS

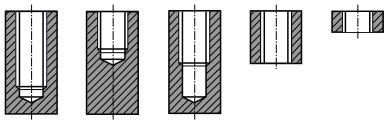
T7399 SERIES

M 嵌套螺纹手用丝锥
SCREW THREAD INSERT HAND TAPS

▶ 适用于铝，铸铝合金，铸锌合金材料的盲孔和通孔的加工.

▶ Suitable for tapping Blind & Through holes in Aluminum, Alumiunm Alloy Casting and Zinc Alloy Casting.

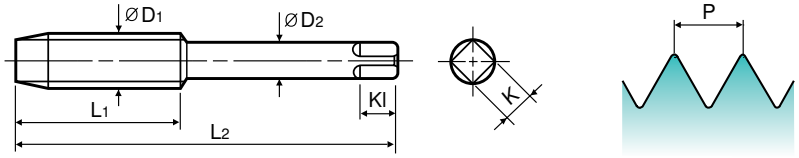
Hole type



Material groups **Al**

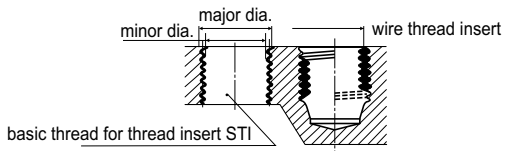
HSS | STI | JIS 1b | 1.5P / 5.0P | Bright

▶ Tap Limits : JIS Class 1b
▶ up to M5 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No. 1.5P	型号 EDP No. 5.0P	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M3	× 0.5	T7399208	T7399207	JIS 1b	48	18	4	3.2	6	3
M4	× 0.7	T7399248	T7399247	JIS 1b	60	22	5.5	4.5	7	3
M5	× 0.8	T7399288	T7399287	JIS 1b	62	24	6	4.5	7	3
M6	× 1	T7399318	T7399317	JIS 1b	65	26	6.2	5	8	3
M8	× 1.25	T7399368	T7399367	JIS 1b	75	32	7	5.5	8	4
M10	× 1.5	T7399428	T7399427	JIS 1b	82	38	8.5	6.5	9	4
M10	× 1.25	T7399438	T7399437	JIS 1b	82	38	8.5	6.5	9	4
M12	× 1.75	T7399508	T7399507	JIS 1b	90	42	10.5	8	11	4
M12	× 1.5	T7399518	T7399517	JIS 1b	88	42	10.5	8	11	4
M12	× 1.25	T7399528	T7399527	JIS 1b	88	42	10.5	8	11	4
M14	× 2	T7399548	T7399547	JIS 1b	95	45	13	10	13	4
M14	× 1.5	T7399558	T7399557	JIS 1b	95	45	12.5	10	13	4
M16	× 2	T7399608	T7399607	JIS 1b	95	45	14	11	14	4
M16	× 1.5	T7399618	T7399617	JIS 1b	95	45	14	11	14	4
M18	× 2.5	T7399658	T7399657	JIS 1b	115	55	17	13	16	4
M18	× 1.5	T7399678	T7399677	JIS 1b	95	45	15	12	15	4
M20	× 2.5	T7399708	T7399707	JIS 1b	120	58	19	15	18	5
M20	× 1.5	T7399728	T7399727	JIS 1b	95	45	17	13	16	5
M22	× 2.5	T7399748	T7399747	JIS 1b	130	62	20	15	18	5
M22	× 1.5	T7399768	T7399767	JIS 1b	95	45	19	15	18	5
M24	× 3	T7399788	T7399787	JIS 1b	135	65	21	17	20	5
M24	× 1.5	T7399808	T7399807	JIS 1b	95	45	20	15	18	5



◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
			◎	◎		◎				

SCREW THREAD INSERT TAPS

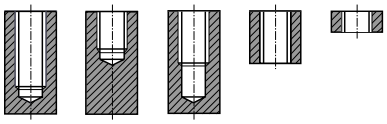
T7322 SERIES

UNC/F 嵌套螺纹手用丝锥 SCREW THREAD INSERT HAND TAPS

▶ 适用于铝，铸铝合金，铸锌合金材料的盲孔和通孔的加工.

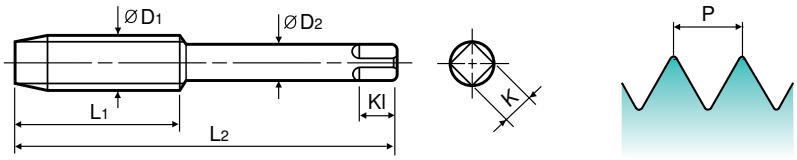
▶ Suitable for tapping Blind & Through holes in Aluminum, Alumiunm Alloy Casting and Zinc Alloy Casting.

Hole type



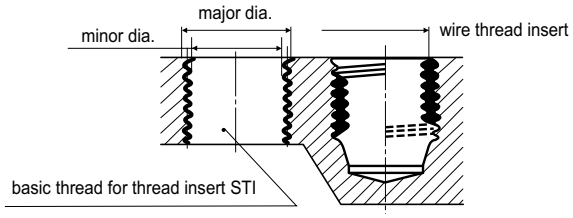
Material groups **Al** | HSS | STI | JIS 1b | 1.5P / 5.0P | Bright

▶ Tap Limits : JIS 1b
▶ up to 1/4 : Male Center
▶ Tapping Speeds : P.532



단위(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No. 1.5P	型号 EDP No. 5.0P	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
#4	- 40 UNC	T7322168	T7322167	JIS 1b	48	18	4	3.2	6	3
#5	- 40 UNC	T7322208	T7322207	JIS 1b	52	20	5	4	7	3
#6	- 32 UNC	T7322248	T7322247	JIS 1b	55	20	5	4	7	3
#8	- 32 UNC	T7322288	T7322287	JIS 1b	60	22	5.5	4.5	7	3
#10	- 24 UNC	T7322328	T7322327	JIS 1b	62	24	6	4.5	7	3
1/4	- 20 UNC	T7322408	T7322407	JIS 1b	70	30	6.1	5	8	3
5/16	- 18 UNC	T7322448	T7322447	JIS 1b	75	32	7	5.5	8	3
3/8	- 16 UNC	T7322488	T7322487	JIS 1b	82	38	8.5	6.5	9	3
3/8	- 24 UNC	T7322508	T7322507	JIS 1b	80	38	8	6	9	3
1/2	- 13 UNC	T7322568	T7322567	JIS 1b	95	45	12	9	12	3
1/2	- 20 UNF	T7322588	T7322587	JIS 1b	90	42	10.5	8	11	3
5/8	- 11 UNC	T7322648	T7322647	JIS 1b	105	50	14	11	14	4
5/8	- 18 UNF	T7322668	T7322667	JIS 1b	95	45	14	11	14	4
3/4	- 10 UNC	T7322708	T7322707	JIS 1b	120	55	18	14	16	4
3/4	- 16 UNF	T7322728	T7322727	JIS 1b	95	45	17	13	16	4
7/8	- 9 UNC	T7322748	T7322747	JIS 1b	130	62	20	15	18	4
7/8	- 14 UNF	T7322768	T7322767	JIS 1b	95	45	19	15	18	4
1″	- 8 UNC	T7322788	T7322787	JIS 1b	135	65	23	17	20	4
1″	- 12 UNF	T7322808	T7322807	JIS 1b	105	45	22	17	20	4



◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
			◎	◎		◎				

SCREW THREAD INSERT TAPS

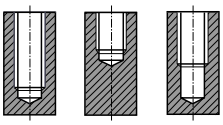
T2197 SERIES

M 嵌套螺纹用螺旋槽丝锥
SCREW THREAD INSERT SPIRAL FLUTED TAPS

▶ 适用于标准直槽丝锥加工能力不足时的深盲孔加工.

▶ Suitable for tapping deep Blind holes when a standard Straight Fluted tap is inadequate.

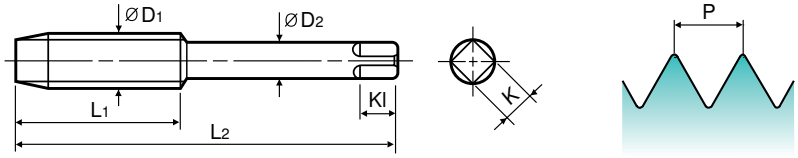
Hole type



Material groups **Al**

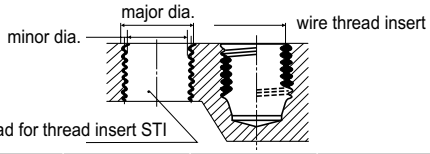
HSS-EX | SP-STI | JIS 1b | 2.5P | Bright

▶ Tap Limits : JIS Class 1b
▶ up to M5 : Male Center
▶ Tapping Speeds : P.532



단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M3	× 0.5	T2197201	JIS 1b	48	18	4	3.2	6	3
M4	× 0.7	T2197241	JIS 1b	60	22	5.5	4.5	7	3
M5	× 0.8	T2197281	JIS 1b	62	24	6	4.5	7	3
M6	× 1	T2197311	JIS 1b	65	26	6.2	5	8	3
M8	× 1.25	T2197361	JIS 1b	75	32	7	5.5	8	3
M10	× 1.5	T2197421	JIS 1b	82	38	8.5	6.5	9	3
M10	× 1.25	T2197431	JIS 1b	82	38	8.5	6.5	9	3
M12	× 1.75	T2197501	JIS 1b	90	42	10.5	8	11	3
M12	× 1.5	T2197511	JIS 1b	88	42	10.5	8	11	3
M12	× 1.25	T2197521	JIS 1b	88	42	10.5	8	11	3
M14	× 2	T2197541	JIS 1b	95	45	13	10	13	3
M14	× 1.5	T2197551	JIS 1b	95	45	12.5	10	13	3
M16	× 2	T2197601	JIS 1b	95	45	14	11	14	4
M16	× 1.5	T2197611	JIS 1b	95	45	14	11	14	4
M18	× 2.5	T2197651	JIS 1b	115	55	17	13	16	4
M18	× 1.5	T2197651	JIS 1b	95	45	15	12	15	4
M20	× 2.5	T2197701	JIS 1b	120	58	19	15	18	4
M20	× 1.5	T2197721	JIS 1b	95	45	17	13	16	4
M22	× 2.5	T2197741	JIS 1b	130	62	20	15	18	4
M22	× 1.5	T2197761	JIS 1b	95	45	19	15	18	4
M24	× 3	T2197781	JIS 1b	135	65	21	17	20	4
M24	× 1.5	T2197801	JIS 1b	95	45	20	15	18	4



◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
			◎	◎		◎				

SCREW THREAD INSERT TAPS

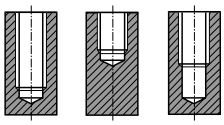
T2198 SERIES

UNC/F 嵌套螺纹用螺旋槽丝锥 SCREW THREAD INSERT SPIRAL FLUTED TAPS

▶ 适用于标准直槽丝锥加工能力不足时的深盲孔加工.

▶ Suitable for tapping deep Blind holes when a standard Straight Fluted tap is inadequate.

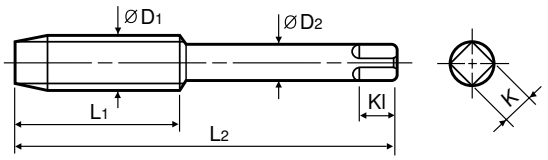
Hole type



Material groups **Al**

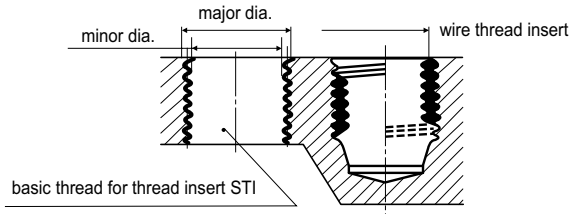
HSS-EX | SP-STI | JIS 1b | 2.5P | Bright

▶ Tap Limits : JIS 1b
▶ up to 1/4 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
#4	- 40 UNC	T2198161	JIS 1b	48	18	4	3.2	6	3
#5	- 40 UNC	T2198201	JIS 1b	52	20	5	4	7	3
#6	- 32 UNC	T2198241	JIS 1b	55	20	5	4	7	3
#8	- 32 UNC	T2198281	JIS 1b	60	22	5.5	4.5	7	3
#10	- 24 UNC	T2198321	JIS 1b	62	24	6	4.5	7	3
1/4	- 20 UNC	T2198401	JIS 1b	70	30	6.1	5	8	3
5/16	- 18 UNC	T2198441	JIS 1b	75	32	7	5.5	8	3
3/8	- 16 UNC	T2198481	JIS 1b	82	38	8.5	6.5	9	3
3/8	- 24 UNF	T2198501	JIS 1b	80	38	8	6	9	3
1/2	- 13 UNC	T2198561	JIS 1b	95	45	12	9	12	3
1/2	- 20 UNF	T2198581	JIS 1b	90	42	10.5	8	11	3
5/8	- 11 UNC	T2198641	JIS 1b	105	50	14	11	14	4
5/8	- 18 UNF	T2198661	JIS 1b	95	45	14	11	14	4
3/4	- 10 UNC	T2198701	JIS 1b	120	55	18	14	16	4
3/4	- 16 UNF	T2198721	JIS 1b	95	45	17	13	16	4
7/8	- 9 UNC	T2198741	JIS 1b	130	62	20	15	18	4
7/8	- 14 UNF	T2198761	JIS 1b	95	45	19	15	18	4
1″	- 8 UNC	T2198781	JIS 1b	135	65	23	17	20	4
1″	- 12 UNF	T2198801	JIS 1b	105	45	22	17	20	4



◎ : 优(Excellent) ○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
			◎	◎		◎				

HSS

Being the best through innovation

HAND TAPS

- 普通加工
  General Tapping

手用丝锥 / HAND TAPS
普通加工, HSS / General Tapping, HSS

HAND TAPS

项目 EDP No.	型号 MODEL	刀具材质 Tool Material	标准 Standard	工件材质 Work Material	尺寸 Dimensions	丝锥公差 Tolerance	倒角 Chamfer	表面处理 Surface Treatment	页 PAGE
T7099		HSS	M	**GS**	HT	JIS II	1.5P / 5.0P / 9.0P	Bright	**471**
T7199		HSS	UNC/F	**GS**	HT	JIS II	1.5P / 5.0P / 9.0P	Bright	**475**
T7299		HSS	W	**GS**	HT	JIS II	1.5P / 5.0P / 9.0P	Bright	**477**

HAND TAPS

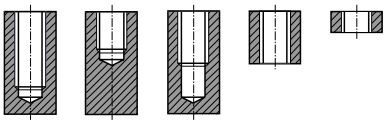
T7099 SERIES

M 手用丝锥(一套3支)
HAND TAPS(SET of 3 PIECES)

▶ 标准丝锥可用在广泛的范围中.

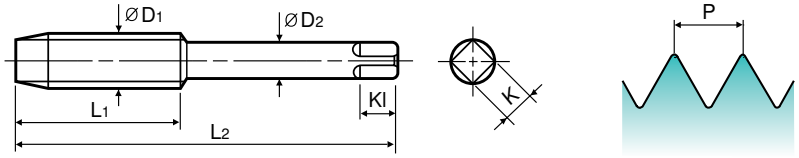
▶ Standard taps for a variety of application.

Hole type



Material groups **GS** | HSS | HT | JIS II | 1.5P/5.0P/9.0P | Bright

▶ Tap Limits : JIS Class 2
▶ up to M6 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M2	0.4	T7099139	JIS II	40	15	3	2.5	5	3
M2.2	0.45	T7099159	JIS II	42	15	3	2.5	5	3
M2.3	0.4	T7099199	JIS II	42	15	3	2.5	5	3
M2.5	0.45	T7099179	JIS II	44	16	3	2.5	5	3
M2.6	0.45	T7099499	JIS II	44	16	3	2.5	5	3
M3	0.5	T7099209	JIS II	46	18	4	3.2	6	3
M3	0.35	T7099219	JIS II	46	18	4	3.2	6	3
M3.5	0.6	T7099229	JIS II	48	18	4	3.2	6	3
M3.5	0.35	T7099239	JIS II	48	18	4	3.2	6	3
M4	0.7	T7099249	JIS II	52	20	5	4	7	4
M4	0.5	T7099259	JIS II	52	20	5	4	7	4
M4.5	0.75	T7099269	JIS II	55	20	5	4	7	4
M4.5	0.5	T7099279	JIS II	55	20	5	4	7	4
M5	0.8	T7099289	JIS II	60	22	5.5	4.5	7	4
M5	0.5	T7099299	JIS II	60	22	5.5	4.5	7	4
M5.5	0.5	T7099309	JIS II	60	22	5.5	4.5	7	4
M6	1	T7099319	JIS II	62	24	6	4.5	7	4
M6	0.75	T7099329	JIS II	62	24	6	4.5	7	4
M6	0.5	T7099339	JIS II	62	24	6	4.5	7	4
M7	1	T7099349	JIS II	65	26	6.2	5	8	4
M7	0.75	T7099359	JIS II	65	26	6.2	5	8	4
M8	1.25	T7099369	JIS II	70	30	6.2	5	8	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○	○	○	○			○	○	○

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
	○	○	○	○	○	○			○	

HAND TAPS

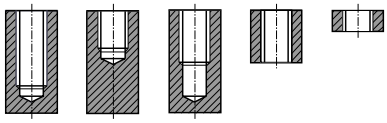
T7099 SERIES

M 手用丝锥(一套3支)
HAND TAPS(SET of 3 PIECES)

▶ 标准丝锥可用在广泛的范围中.

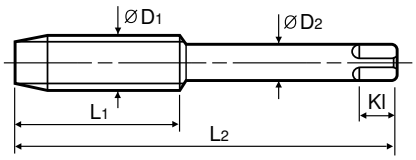
▶ Standard taps for a variety of application.

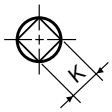
Hole type

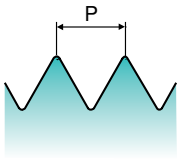


Material groups **GS** | HSS | HT | JIS II | 1.5P/5.0P/9.0P | Bright

▶ Tap Limits : JIS Class 2
▶ up to M6 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M8 ×	1	T7099379	JIS II	70	30	6.2	5	8	4
M8 ×	0.75	T7099389	JIS II	65	26	6.2	5	8	4
M9 ×	1.25	T7099399	JIS II	72	30	7	5.5	8	4
M9 ×	1	T7099409	JIS II	70	30	7	5.5	8	4
M9 ×	0.75	T7099419	JIS II	65	26	7	5.5	8	4
M10 ×	1.5	T7099429	JIS II	75	32	7	5.5	8	4
M10 ×	1.25	T7099439	JIS II	75	32	7	5.5	8	4
M10 ×	1	T7099449	JIS II	70	30	7	5.5	8	4
M10 ×	0.75	T7099459	JIS II	65	26	7	5.5	8	4
M11 ×	1.5	T7099469	JIS II	80	38	8	6	9	4
M11 ×	1	T7099479	JIS II	70	30	8	6	9	4
M11 ×	0.75	T7099489	JIS II	65	26	8	6	9	4
M12 ×	1.75	T7099509	JIS II	82	38	8.5	6.5	9	4
M12 ×	1.5	T7099519	JIS II	82	38	8.5	6.5	9	4
M12 ×	1.25	T7099529	JIS II	80	38	8.5	6.5	9	4
M12 ×	1	T7099539	JIS II	70	30	8.5	6.5	9	4
M14 ×	2	T7099549	JIS II	88	42	10.5	8	11	4
M14 ×	1.5	T7099559	JIS II	88	42	10.5	8	11	4
M14 ×	1.25	T7099569	JIS II	80	38	10.5	8	11	4
M14 ×	1	T7099579	JIS II	70	30	10.5	8	11	4
M15 ×	1.5	T7099589	JIS II	90	42	10.5	8	11	4
M15 ×	1	T7099599	JIS II	70	30	10.5	8	11	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○	○	○	○			○	○	○

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
	○	○	○	○	○	○			○	

HAND TAPS

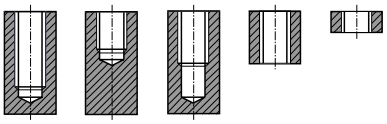
T7099 SERIES

M 手用丝锥(一套3支)
HAND TAPS(SET of 3 PIECES)

▶ 标准丝锥可用在广泛的范围中.

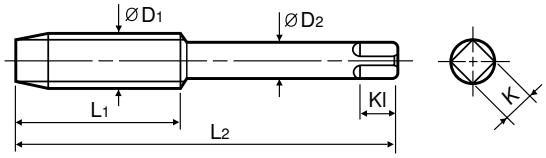
▶ Standard taps for a variety of application.

Hole type



Material groups **GS** | HSS | HT | JIS II | 1.5P/5.0P/9.0P | Bright

▶ Tap Limits : JIS Class 2
▶ up to M6 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M16 ×	2	T7099609	JIS II	95	45	12.5	10	13	4
M16 ×	1.5	T7099619	JIS II	95	45	12.5	10	13	4
M16 ×	1	T7099629	JIS II	75	30	12.5	10	13	4
M18 ×	2.5	T7099659	JIS II	100	48	14	11	14	4
M18 ×	2	T7099669	JIS II	95	45	14	11	14	4
M18 ×	1.5	T7099679	JIS II	95	45	14	11	14	4
M18 ×	1	T7099689	JIS II	80	30	14	11	14	4
M20 ×	2.5	T7099709	JIS II	105	50	15	12	15	4
M20 ×	2	T7099719	JIS II	95	45	15	12	15	4
M20 ×	1.5	T7099729	JIS II	95	45	15	12	15	4
M20 ×	1	T7099739	JIS II	80	30	15	12	15	4
M22 ×	2.5	T7099749	JIS II	115	55	17	13	16	4
M22 ×	2	T7099759	JIS II	95	45	17	13	16	4
M22 ×	1.5	T7099769	JIS II	95	45	17	13	16	4
M22 ×	1	T7099779	JIS II	85	30	17	13	16	4
M24 ×	3	T7099789	JIS II	120	58	19	15	18	4
M24 ×	2	T7099799	JIS II	95	45	19	15	18	4
M24 ×	1.5	T7099809	JIS II	95	45	19	15	18	4
M24 ×	1	T7099819	JIS II	90	30	19	15	18	4
M25 ×	2	T7099829	JIS II	95	45	19	15	18	4
M25 ×	1.5	T7099839	JIS II	95	45	19	15	18	4
M26 ×	2	T7099N49	JIS II	95	45	20	15	18	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○	○	○	○			○	○	○

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
	○	○	○	○	○	○			○	

HAND TAPS

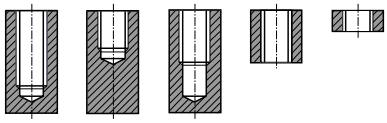
T7099 SERIES

M 手用丝锥(一套3支)
HAND TAPS(SET of 3 PIECES)

▶ 标准丝锥可用在广泛的范围中.

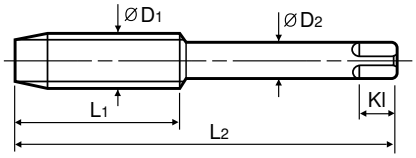
▶ Standard taps for a variety of application.

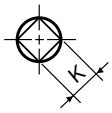
Hole type

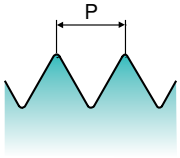


Material groups **GS** | HSS | HT | JIS II | 1.5P/5.0P/9.0P | Bright

▶ Tap Limits : JIS Class 2
▶ up to M6 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M26 ×	1.5	T7099859	JIS II	95	45	20	15	18	4
M26 ×	1	T7099N59	JIS II	95	30	20	15	18	4
M27 ×	3	T7099869	JIS II	130	62	20	15	18	4
M27 ×	2	T7099879	JIS II	95	45	20	15	18	4
M27 ×	1.5	T7099889	JIS II	95	45	20	15	18	4
M28 ×	2	T7099909	JIS II	105	45	21	17	20	4
M28 ×	1.5	T7099919	JIS II	105	45	21	17	20	4
M30 ×	3.5	T7099949	JIS II	135	65	23	17	20	4
M30 ×	3	T7099959	JIS II	135	65	23	17	20	4
M30 ×	2	T7099969	JIS II	105	45	23	17	20	4
M30 ×	1.5	T7099979	JIS II	105	45	23	17	20	4
M30 ×	1	T7099989	JIS II	105	30	23	17	20	4
M33 ×	3.5	T7099A49	JIS II	145	70	25	19	22	4
M33 ×	3	T7099A59	JIS II	145	70	25	19	22	4
M33 ×	2	T7099A69	JIS II	110	45	25	19	22	4
M33 ×	1.5	T7099A79	JIS II	110	45	25	19	22	4
M36 ×	4	T7099B39	JIS II	155	75	28	21	24	4
M36 ×	3	T7099B49	JIS II	155	75	28	21	24	4
M36 ×	2	T7099B59	JIS II	110	45	28	21	24	4
M36 ×	1.5	T7099B69	JIS II	110	45	28	21	24	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○	○	○	○			○	○	○

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
	○	○	○	○	○	○			○	

HAND TAPS

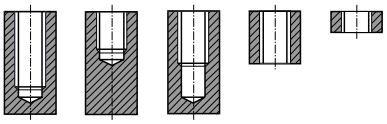
T7199 SERIES

UNC/F 手用丝锥(一套3支) HAND TAPS(SET of 3 PIECES)

▶ 标准丝锥可用在广泛的范围中.

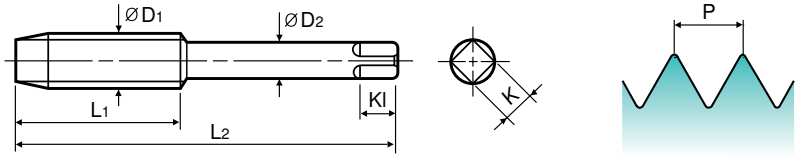
▶ Standard taps for a variety of application.

Hole type



Material groups **GS** | HSS | HT | JIS II | 1.5P/5.0P/9.0P | Bright

▶ Tap Limits : JIS Class 2
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
#4	40 UNC	T7199169	JIS II	44	16	3	2.5	5	3
#4	48 UNF	T7199189	JIS II	44	16	3	2.5	5	3
#5	40 UNC	T7199209	JIS II	46	18	4	3.2	6	3
#5	44 UNF	T7199229	JIS II	46	18	4	3.2	6	3
#6	32 UNC	T7199249	JIS II	48	18	4	3.2	6	3
#6	40 UNF	T7199269	JIS II	48	18	4	3.2	6	3
#8	32 UNC	T7199289	JIS II	52	20	5	4	7	4
#8	36 UNF	T7199309	JIS II	52	20	5	4	7	4
#10	24 UNC	T7199329	JIS II	60	22	5.5	4.5	7	4
#10	32 UNF	T7199349	JIS II	60	22	5.5	4.5	7	4
#12	24 UNC	T7199369	JIS II	60	22	5.5	4.5	7	4
#12	28 UNF	T7199389	JIS II	60	22	5.5	4.5	7	4
1/4	20 UNC	T7199409	JIS II	62	24	6	4.5	7	4
1/4	28 UNF	T7199429	JIS II	62	24	6	4.5	7	4
5/16	18 UNC	T7199449	JIS II	70	30	6.1	5	8	4
5/16	24 UNF	T7199469	JIS II	70	30	6.1	5	8	4

◎ : 优(Excellent) ○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○	○	○	○			○	○	○

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
	○	○	○	○	○	○			○	

HAND TAPS

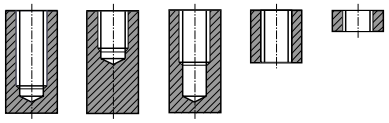
T7199 SERIES

UNC/F 手用丝锥(一套3支) HAND TAPS(SET of 3 PIECES)

▶ 标准丝锥可用在广泛的范围中.

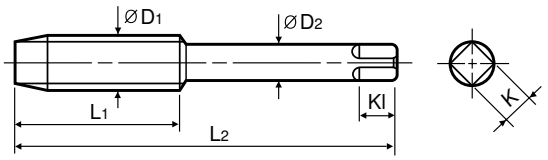
▶ Standard taps for a variety of application.

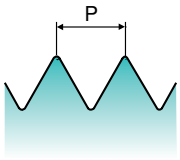
Hole type



Material groups **GS** | HSS | HT | JIS II | 1.5P/5.0P/9.0P | Bright

▶ Tap Limits : JIS Class 2
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532





单位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
3/8 -	16 UNC	T7199489	JIS II	75	35	7	5.5	8	4
3/8 -	24 UNF	T7199509	JIS II	75	32	7	5.5	8	4
7/16 -	14 UNC	T7199529	JIS II	80	38	8	6	9	4
7/16 -	20 UNF	T7199549	JIS II	80	38	8	6	9	4
1/2 -	13 UNC	T7199569	JIS II	85	42	9	7	10	4
1/2 -	20 UNF	T7199589	JIS II	85	42	9	7	10	4
9/16 -	12 UNC	T7199609	JIS II	90	42	10.5	8	11	4
9/16 -	18 UNF	T7199629	JIS II	90	42	10.5	8	11	4
5/8 -	11 UNC	T7199649	JIS II	95	45	12	9	12	4
5/8 -	18 UNF	T7199669	JIS II	95	45	12	9	12	4
3/4 -	10 UNC	T7199709	JIS II	105	50	14	11	14	4
3/4 -	16 UNF	T7199729	JIS II	95	45	14	11	14	4
7/8 -	9 UNC	T7199749	JIS II	115	55	17	13	16	4
7/8 -	14 UNF	T7199769	JIS II	95	45	17	13	16	4
1″ -	8 UNC	T7199789	JIS II	125	60	20	15	18	4
1″ -	12 UNF	T7199809	JIS II	95	45	20	15	18	4

◎ : 优(Excellent) ○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○	○	○	○			○	○	○

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
	○	○	○	○	○	○			○	

HAND TAPS

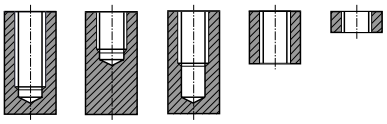
T7299 SERIES

W 手用丝锥(一套3支)
HAND TAPS(SET of 3 PIECES)

▶ 标准丝锥可用在广泛的范围中.

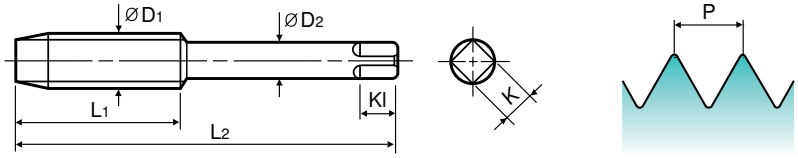
▶ Standard taps that can be used in for a variety of application.

Hole type



Material groups **GS** | HSS | HT | JIS II | 1.5P/5.0P/9.0P | Bright

▶ Tap Limits : JIS Class 2
▶ up to 5/16 : Male Center
▶ Tapping Speeds : P.532



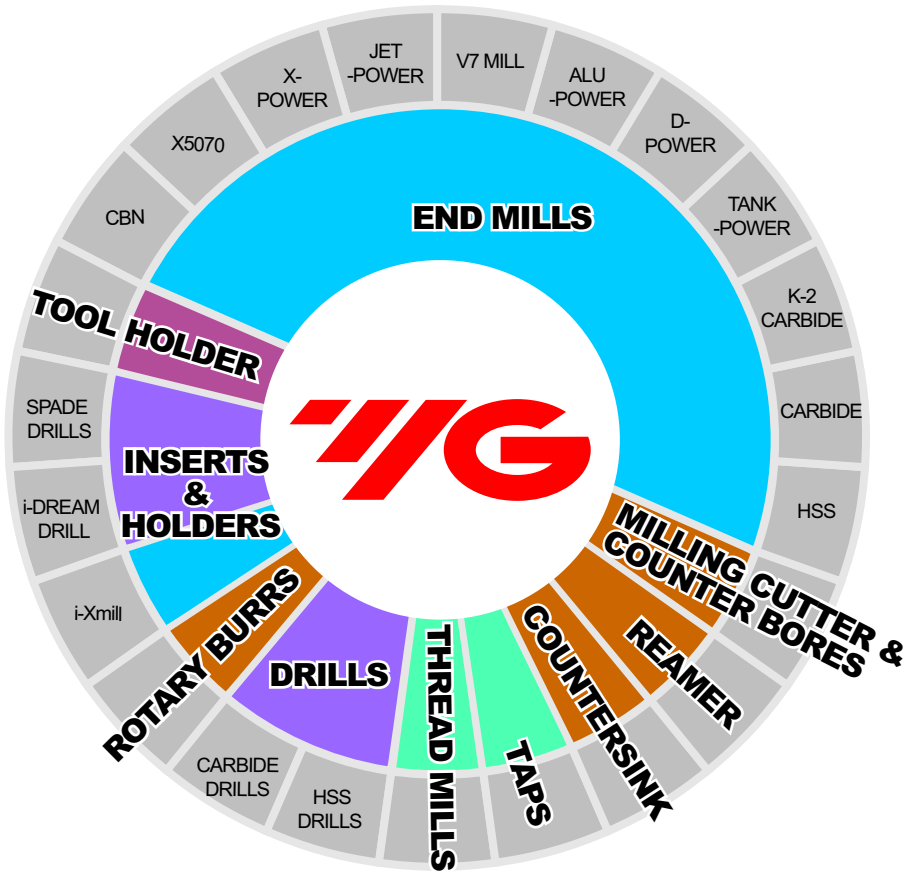
单位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
W1/8	- 40	T7299209	JIS II	46	18	4	3.2	6	3
W3/16	- 24	T7299329	JIS II	60	22	5.5	4.5	7	4
W1/4	- 20	T7299409	JIS II	62	24	6	4.5	7	4
W5/16	- 18	T7299449	JIS II	70	30	6.1	5	8	4
W3/8	- 16	T7299489	JIS II	75	35	7	5.5	8	4
W7/16	- 14	T7299529	JIS II	80	38	8	6	9	4
W1/2	- 12	T7299569	JIS II	85	42	9	7	10	4
W9/16	- 12	T7299609	JIS II	90	42	10.5	8	11	4
W5/8	- 11	T7299649	JIS II	95	45	12	9	12	4
W3/4	- 10	T7299709	JIS II	105	50	14	11	14	4
W7/8	- 9	T7299749	JIS II	115	55	17	13	16	4
W1″	- 8	T7299789	JIS II	125	60	20	15	18	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○	○	○	○			○	○	○

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
	○	○	○	○	○	○			○	



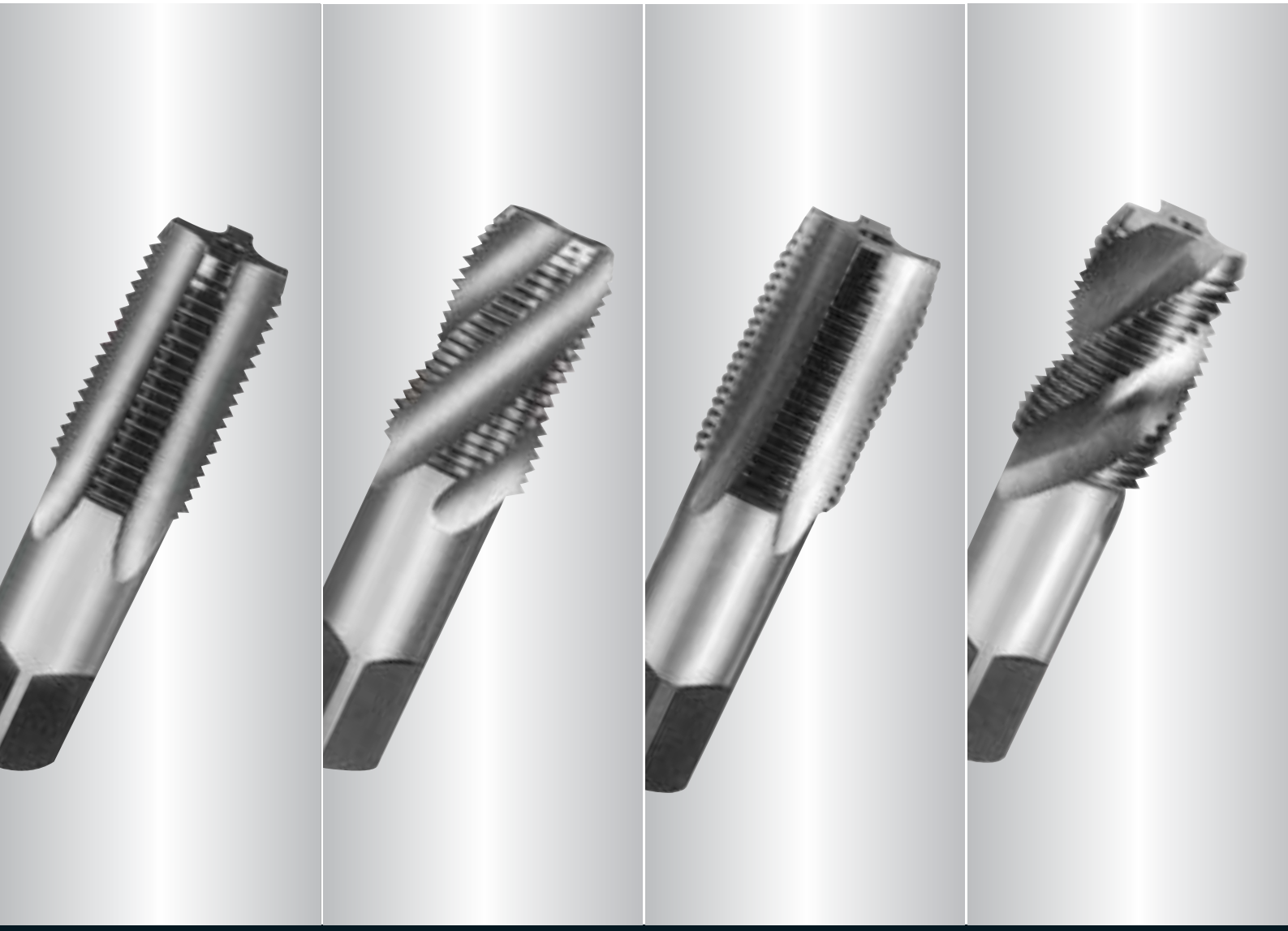
Challenge toward a Global Leader-

YG-1 Leads the World Market.

HSS

YG

Being the best through innovation



PIPE TAPS

- 惠氏管用螺纹加工 (HSS & HSS-EX)

TAPPING WHITWORTH PIPE THREADS (HSS & HSS-EX)

管用丝锥 / PIPE TAPS
惠氏管用螺纹加工, HSS & HSS-EX / Tapping Whitworth Pipe threads, HSS & HSS-EX

PIPE TAPS

项目 EDP No.	型号 MODEL	刀具材质 Tool Material	标准 Standard	工件材质 Work Material	尺寸 Dimensions	丝锥公差 Tolerance	倒角 Chamfer	表面处理 Surface Treatment	页 PAGE
T7532 **T2532**		HSS HSS-EX	PT	**GS**	PT	JIS II	2.5P	Bright	**481**
T2518		HSS-EX	SP-PT	**GS**	PT	JIS II	2.5P	Bright	**482**
T7552 **T2552**		HSS HSS-EX	PS	**GS**	PS	JIS II	3.5P	Bright	**483**
T2538		HSS-EX	SP-PS	**GS**	PS	JIS II	3.0P	Bright	**484**
T7562 **T2562**		HSS HSS-EX	PF	**GS**	PF	JIS II	3.5P	Bright	**485**
T2539		HSS-EX	SP-PF	**GS**	PF	JIS II	3.0P	Bright	**486**
T2527		HSS-EX	NPT	**GS**	NPT	ANSI G	3.0P	Bright	**487**
T2537		HSS-EX	NPTF	**GS**	NPTF	ANSI G	3.0P	Bright	**488**

PIPE TAPS

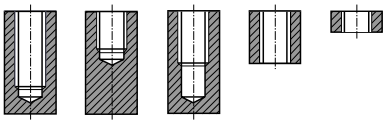
T7532 SERIES
T2532 SERIES

PT 螺纹用锥管丝锥
TAPER PIPE TAPS for PT THREADS

▶适用于锥管内部的螺纹加工

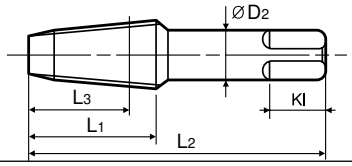
▶ Suitable for taper pipe internal threads.
PT : Taper pipe threads (for pressure-tight joints)

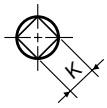
Hole type

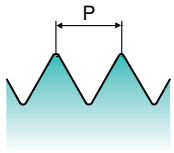


Material groups **GS** | HSS HSS-EX | PT | JIS II | 2.5P | Bright

▶ Tap Limits : JIS II
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE	牙距 TPI	型号 EDP No. HSS	型号 EDP No. HSS-EX	精度 Limit	最大基准直径 Basic Maj. Dia.	全长 Overall Length L2	螺纹长 Thread Length L1	基准长度 Projection Length L3	柄径 Shank Diameter ØD2	方块尺寸 Square Size K	方块长度 Square Length Kl	槽数 No. of Flute
PT 1/16	-28	T7532022	T2532022	JIS II	7.723	55	19	13	6.5	5	8	4
PT 1/8	-28	T7532202	T2532202	JIS II	9.728	55	19	13	8	6	9	4
PT 1/4	-19	T7532402	T2532402	JIS II	13.157	62	28	21	11	9	12	4
PT 3/8	-19	T7532482	T2532482	JIS II	16.662	65	28	21	14	11	14	4
PT 1/2	-14	T7532562	T2532562	JIS II	20.955	80	35	25	18	14	17	4
PT 3/4	-14	T7532702	T2532702	JIS II	26.441	85	35	25	23	17	20	4
PT 1″	-11	T7532782	T2532782	JIS II	33.249	95	45	32	26	21	24	5
PT 1*1/4	-11	T7532862	T2532862	JIS II	41.910	105	45	32	32	26	30	5
PT 1*1/2	-11	T7532962	T2532962	JIS II	47.803	110	45	32	38	29	32	6
PT 2″	-11	T7532D22	T2532D22	JIS II	59.614	120	50	35	46	35	38	6

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	◎	○	◎	○		○	○	○	○

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
○	○		○	○	○	○				○

PIPE TAPS

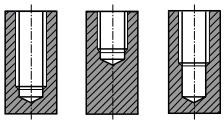
T2518 SERIES

PT 螺旋槽PT 螺纹用锥管丝锥
SPIRAL FLUTED TAPER PIPE TAPS for PT THREADS

▶ 适用于锥管内部的螺纹加工

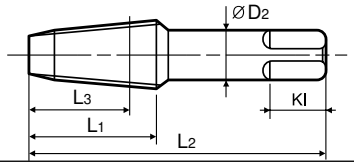
▶ Suitable for process taper pipe internal threads.
PT : Taper pipe threads (for pressure-tight joints)

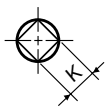
Hole type

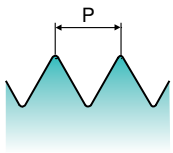


Material groups **GS** | HSS-EX | SP-PT | JIS II | 2.5P | Bright

▶ Tap Limits : JIS II
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE	牙距 TPI	型号 EDP No.	精度 Limit	最大基准直径 Basic Maj. Dia.	全长 Overall Length L2	螺纹长 Thread Length L1	基准长度 Projection Length L3	柄径 Shank Diameter ØD2	方块尺寸 Square Size K	方块长度 Square Length Kl	槽数 No. of Flute
PT 1/8	- 28	T2518202	JIS II	9.728	55	19	13	8	6	9	3
PT 1/4	- 19	T2518402	JIS II	13.157	62	28	21	11	9	12	3
PT 3/8	- 19	T2518482	JIS II	16.662	65	28	21	14	11	14	3
PT 1/2	- 14	T2518562	JIS II	20.955	80	35	25	18	14	17	4
PT 3/4	- 14	T2518702	JIS II	26.441	85	35	25	23	17	20	4
PT 1″	- 11	T2518782	JIS II	33.249	95	45	32	26	21	24	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	○	○	○				○		

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
					○					

PIPE TAPS

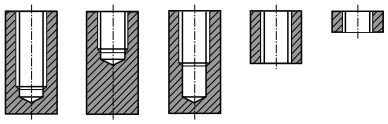
T7552 SERIES
T2552 SERIES

PS PS螺纹用直管丝锥
STRAIGHT PIPE TAPS for PS THREADS

▶适用于直管内部的螺纹加工

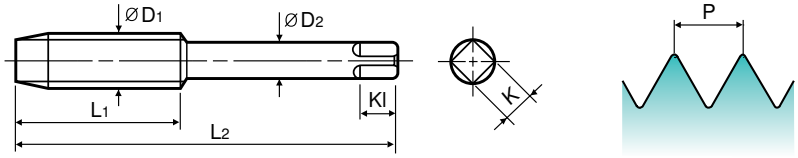
▶ Suitable for process Straight pipe internal threads.
PS : Straight pipe threads (for pressure-tight joints)

Hole type



Material groups **GS** | HSS HSS-EX | PS | JIS II | 3.5P | Bright

▶ Tap Limits : JIS II
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE	牙距 TPI	型号 EDP No. HSS	型号 EDP No. HSS-EX	精度 Limit	最大基准直径 Basic Maj. Dia.	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块尺寸 Square Size K	方块长度 Square Length Kl	槽数 No. of Flute
PS 1/8	-28	T7552202	T2552202	JIS II	9.728	55	19	8	6	9	4
PS 1/4	-19	T7552402	T2552402	JIS II	13.157	62	28	11	9	12	4
PS 3/8	-19	T7552482	T2552482	JIS II	16.662	65	28	14	11	14	4
PS 1/2	-14	T7552562	T2552562	JIS II	20.955	80	35	18	14	17	4
PS 3/4	-14	T7552702	T2552702	JIS II	26.441	85	35	23	17	20	4
PS 1″	-11	T7552782	T2552782	JIS II	33.249	95	45	26	21	24	5
PS 1*1/4	-11	T7552862	T2552862	JIS II	41.910	105	45	32	26	30	5
PS 1*1/2	-11	T7552962	T2552962	JIS II	47.803	110	45	38	29	32	6
PS 2″	-11	T7552D22	T2552D22	JIS II	59.614	120	50	46	35	38	6

◎ : 优(Excellent) ○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○	○	○	○			○	○	○

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
	○	○	○	○	○	○				

PIPE TAPS

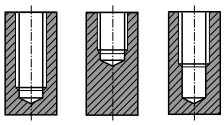
T2538 SERIES

PS 螺旋槽PS螺纹用直管丝锥
SPIRAL FLUTED STRAIGHT PIPE TAPS for PS THREADS

▶ 适用于锥管内部的螺纹加工.

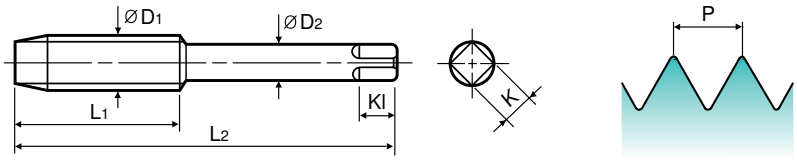
▶ Suitable for process Straight pipe internal threads.
PS : Straight pipe threads (for pressure-tight joints)

Hole type



Material groups **GS** | HSS-EX | SP-PS | JIS II | 3.0P | Bright

▶ Tap Limits : JIS II
▶ Tapping Speeds : P.532



단위(Unit) : mm

尺寸 SIZE	牙距 TPI	型号 EDP No.	精度 Limit	最大基准直径 Basic Maj. Dia.	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
PS 1/8	- 28	T2538202	JIS II	9.728	55	19	8	6	9	3
PS 1/4	- 19	T2538402	JIS II	13.157	62	28	11	9	12	3
PS 3/8	- 19	T2538482	JIS II	16.662	65	28	14	11	14	3
PS 1/2	- 14	T2538562	JIS II	20.955	80	35	18	14	17	4
PS 3/4	- 14	T2538702	JIS II	26.441	85	35	23	17	20	4
PS 1″	- 11	T2538782	JIS II	33.249	95	45	26	21	24	4

◎ : 优(Excellent) ○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	◎	○	◎				◎		○

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
○	○	○	○	○	○	○				○

PIPE TAPS

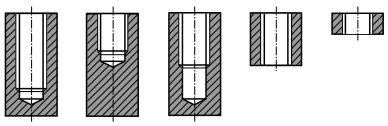
T7562 SERIES
T2562 SERIES

PF PF螺纹用直管丝锥 STRAIGHT PIPE TAPS for PF THREADS

▶适用于直管内部的螺纹加工

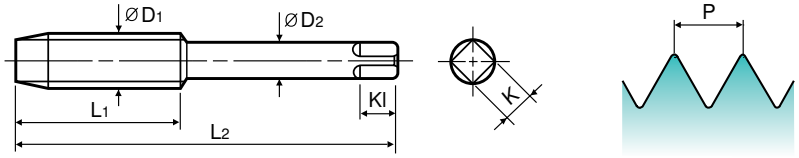
▶ Suitable for process Straight pipe internal threads.
PF : Straight pipe threads (for mechanical joints)

Hole type



Material groups **GS** | HSS HSS-EX | PF | JIS II | 3.5P | Bright

▶ Tap Limits : JIS II
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE	牙距 TPI	型号 EDP No. HSS	型号 EDP No. HSS-EX	精度 Limit	最大基准直径 Basic Maj. Dia.	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块尺寸 Square Size K	方块长度 Square Length Kl	槽数 No. of Flute
PF 1/8	-28	T7562202	T2562202	JIS II	9.728	55	19	8	6	9	4
PF 1/4	-19	T7562402	T2562402	JIS II	13.157	62	28	11	9	12	4
PF 3/8	-19	T7562482	T2562482	JIS II	16.662	65	28	14	11	14	4
PF 1/2	-14	T7562562	T2562562	JIS II	20.955	80	35	18	14	17	4
PF 3/4	-14	T7562702	T2562702	JIS II	26.441	85	35	23	17	20	4
PF 1″	-11	T7562782	T2562782	JIS II	33.249	95	45	26	21	24	4
PF 1*1/4	-11	T7562862	T2562862	JIS II	41.910	105	45	32	26	30	4
PF 1*1/2	-11	T7562962	T2562962	JIS II	47.803	110	45	38	29	32	6
PF 2″	-11	T7562D22	T2562D22	JIS II	59.614	120	50	46	35	38	6

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○	○	○	○			○	○	○

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
	○	○	○	○	○	○				

PIPE TAPS

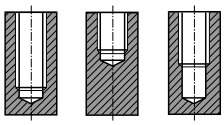
T2539 SERIES

PF 螺旋槽PF 螺纹用直管丝锥 *
SPIRAL FLUTED STRAIGHT PIPE TAPS for PF THREADS

▶ 适用于直管内部的螺纹加工.

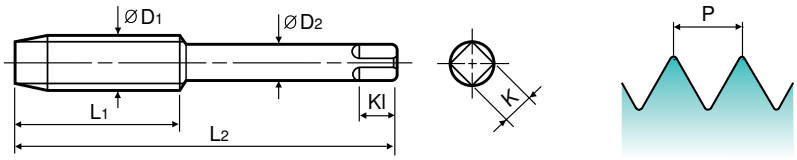
▶ Suitable for process Straight pipe internal threads.
PF : Straight pipe threads (for mechanical joints)

Hole type



Material groups **GS** | HSS-EX | SP-PF | JIS II | 3.0P | Bright

▶ Tap Limits : JIS II
▶ Tapping Speeds : P.532



단위(Unit) : mm

尺寸 SIZE	牙距 TPI	型号 EDP No.	精度 Limit	最大基准直径 Basic Maj. Dia.	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
PF 1/8	- 28	T2539202	JIS II	9.728	55	19	8	6	9	3
PF 1/4	- 19	T2539402	JIS II	13.157	62	28	11	9	12	3
PF 3/8	- 19	T2539482	JIS II	16.662	65	28	14	11	14	3
PF 1/2	- 14	T2539562	JIS II	20.955	80	35	18	14	17	4
PF 3/4	- 14	T2539702	JIS II	26.441	85	35	23	17	20	4
PF 1″	- 11	T2539782	JIS II	33.249	95	45	26	21	24	4

◎ : 优(Excellent) ○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
◎	◎	○	◎				◎		○

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
○	○	○	○	○	○	○				○

PIPE TAPS

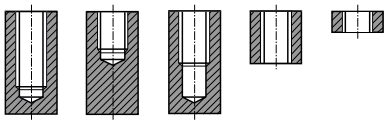
T2527 SERIES

NPT 美制NPT螺纹用锥管丝锥
AMERICAN TAPER PIPE TAPS for NPT THREADS

▶适用于锥管内部的螺纹加工.

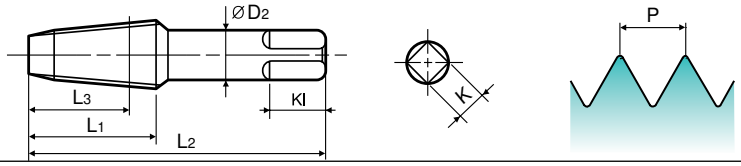
▶ Suitable for process Taper pipe internal threads.
NPT : American Taper pipe threads (for mechanical joints)

Hole type



Material groups **GS** | HSS-EX | NPT | ANSI G | 3.0P | Bright

▶ Tap Limits : ANSI G
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE	牙距 TPI	型号 EDP No.	精度 Limit	最大基准直径 Basic Maj. Dia.	全长 Overall Length L2	螺纹长 Thread Length L1	基准长度 Projection Length L3	柄径 Shank Diameter ØD2	方块尺寸 Square Size K	方块长度 Square Length Kl	槽数 No. of Flute
NPT 1/16	-27	T2527020	ANSI G	7.770	54	17	12.00	8	6	9	4
NPT 1/8	-27	T2527200	ANSI G	10.117	55	19	12.05	8	6	9	4
NPT 1/4	-18	T2527400	ANSI G	13.426	62	28	17.45	11	9	12	4
NPT 3/8	-18	T2527480	ANSI G	16.866	65	28	17.65	14	11	14	4
NPT 1/2	-14	T2527560	ANSI G	20.980	80	35	22.85	18	14	17	4
NPT 3/4	-14	T2527700	ANSI G	26.325	85	35	22.95	23	17	20	4
NPT 1″	-11 1/2	T2527780	ANSI G	32.934	95	45	27.40	26	21	24	5

◎ : 优(Excellent) ○ : 良(Good)

低碳钢 Low Carbon Steel ~ C0.25	中碳钢 Meduim Carbon Steel C0.25 ~ C0.45	高碳钢 High Carbon Steel C0.45 ~	合金钢 Alloy Steel SCM	硬化钢 Hardened Steel HRc25 ~ 45	不锈钢 Stainless Steel SUS	工具钢 Tool Steel SKD	铸钢 Cast Steel SC	铸铁 Cast Iron FC	高强度铸铁 High Tension Cast Iron FCD
○	◎	○	◎	○		○	○	○	○

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
○	○		○	○	○	○				○

PIPE TAPS

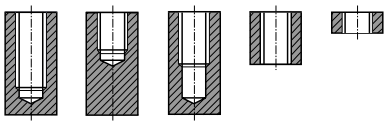
T2537 SERIES

NPTF 美制NPTF螺纹用锥管丝锥
AMERICAN TAPER PIPE TAPS for NPTF THREADS

▶ 适用于锥管内部的螺纹加工.

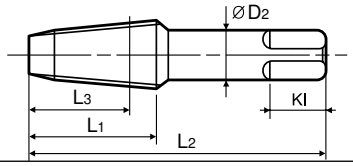
▶ Suitable for process taper pipe internal threads.
NPTF : American Taper pipe threads (Dry seal)

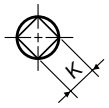
Hole type

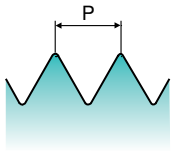


Material groups **GS** | HSS-EX | NPTF | ANSI G | 3.0P | Bright

▶ Tap Limits : ANSI G
▶ Tapping Speeds : P.532







단위(Unit) : mm

尺寸 SIZE	牙距 TPI	型号 EDP No.	精度 Limit	最大基准直径 Basic Maj. Dia.	全长 Overall Length L2	螺纹长 Thread Length L1	基准长度 Projection Length L3	柄径 Shank Diameter ØD2	方块尺寸 Square Size K	方块长度 Square Length Kl	槽数 No. of Flute
NPTF 1/16	-27	T2537020	ANSI G	7.770	54	17	12.00	8	6	9	4
NPTF 1/8	-27	T2537200	ANSI G	10.117	55	19	12.05	8	6	9	4
NPTF 1/4	-18	T2537400	ANSI G	13.426	62	28	17.45	11	9	12	4
NPTF 3/8	-18	T2537480	ANSI G	16.866	65	28	17.65	14	11	14	4
NPTF 1/2	-14	T2537560	ANSI G	20.980	80	35	22.85	18	14	17	4
NPTF 3/4	-14	T2537700	ANSI G	26.325	85	35	22.95	23	17	20	4
NPTF 1″	-11 1/2	T2537780	ANSI G	32.934	95	45	27.40	26	21	24	5

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	◎	○	◎	○		○	○	○	○

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
○	○		○	○	○	○				○

CARBIDE

Being the best through innovation

CARBIDE TAPS

- 加工铸铁和高硅铝，产量大，生产效率高

TAPPING CAST IRON AND HIGH SILICON ALUMINIUM, MASS PRODUCTION, HIGH PRODUCTIVITY

整体硬质合金丝锥 / SOLID CARBIDE TAPS

加工铸铁和高硅铝，产量大，生产效率高

Tapping Cast Iron and High Silicon Aluminium, Mass Production, High Productivity

CARBIDE TAPS

项目 EDP No.	型号 MODEL	刀具材质 Tool Material	标准 Standard	工件材质 Work Material	尺寸 Dimensions	丝锥公差 Tolerance	倒角 Chamfer	表面处理 Surface Treatment	页 PAGE
T0202 T0102		CARBIDE	M	**Al**	SPCal	YH	1.5 / 2.5P	Bright	**491**
T0164 T0154		CARBIDE	W	**Al**	SPCal	YH	1.5 / 2.5P	Bright	**492**
T0451 T0441		CARBIDE	M	**GG**	STCci	YH	1.5P / 3.0P	Bright	**493**
T0462 T0452		CARBIDE	W	**GG**	STCci	YH	1.5P / 3.0P	Bright	**494**

CARBIDE TAPS

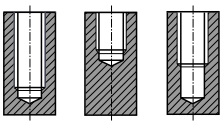
T0202 SERIES
T0102 SERIES

M 有色金属用硬质合金螺旋槽丝锥
SOLID CARBIDE SPIRAL FLUTED TAPS for NON-FERROUS METALS

▶适用于铝，镁，锌，铜及有色金属的盲孔加工.

▶ Suitable for tapping Blind holes in Aluminum, Magnesium, Zinc, Copper as well as Non-Ferrous metal alloys.

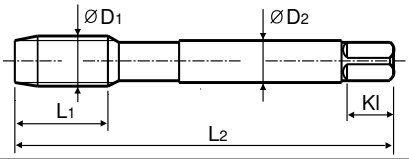
Hole type

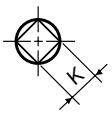


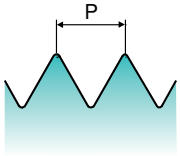
Material groups **Al**

CARBIDE | SPCal | YH | 1.5P / 2.5P | Bright

▶ Tap Limits : P.530
▶ up to M6 : Male Center
▶ Tapping Speeds : P.532







단위(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No. 1.5P	型号 EDP No. 2.5P	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M3	× 0.5	T0202203	T0102203	YH3	46	11	4	3.2	6	3
M4	× 0.7	T0202243	T0102243	YH3	52	13	5	4	7	3
M5	× 0.8	T0202283	T0102283	YH3	60	16	5.5	4.5	7	3
M6	× 1	T0202313	T0102313	YH3	62	19	6	4.5	7	3
M8	× 1.25	T0202364	T0102364	YH4	70	22	6.2	5	8	3
M10	× 1.5	T0202424	T0102424	YH4	75	24	7	5.5	8	3
M12	× 1.75	T0202504	T0102504	YH4	82	29	8.5	6.5	9	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
								○	◎

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
◎	◎	○	◎	◎		◎			○	◎

CARBIDE TAPS

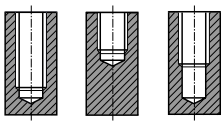
T0164 SERIES
T0154 SERIES

W 有色金属用硬质合金螺旋槽丝锥
SOLID CARBIDE SPIRAL FLUTED TAPS for NON-FERROUS METALS

▶适用于铝，镁，锌，铜及有色金属的盲孔加工.

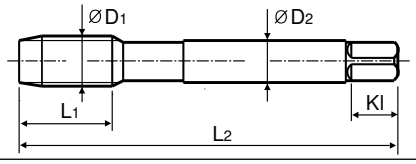
▶ Suitable for tapping Blind holes in Aluminum, Magnesium, Zinc, Copper as well as Non-Ferrous metal alloys.

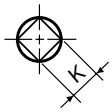
Hole type

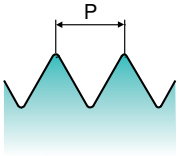


Material groups **Al** | CARBIDE | SPCal | YH | 1.5P / 2.5P | Bright

▶ Tap Limits : P.530
▶ up to 1/4 : Male Center
▶ Tapping Speeds : P.532







단위(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No. 1.5P	型号 EDP No. 2.5P	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
W1/8	- 40	T0164203	T0154203	YH3	46	11	4	3.2	6	3
W3/16	- 24	T0164323	T0154323	YH3	60	16	5.5	4.5	7	3
W1/4	- 20	T0164404	T0154404	YH4	62	19	6	4.5	7	3
W5/16	- 18	T0164444	T0154444	YH4	70	22	6.1	5	8	3
W3/8	- 16	T0164484	T0154484	YH4	75	24	7	5.5	8	3
W7/16	- 14	T0164524	T0154524	YH4	80	25	8	6	9	3
W1/2	- 12	T0164564	T0154564	YH4	85	29	9	7	10	3

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
								○	◎

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
◎	◎	○	◎	◎		◎			○	◎

CARBIDE TAPS

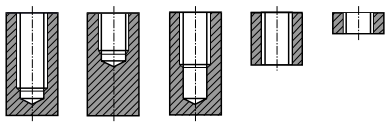
T0451 SERIES
T0441 SERIES

M 铸铁用硬质合金直槽丝锥
SOLID CARBIDE STRAIGHT FLUTED TAPS for CAST IRONS

▶ 适用于灰铸铁，球状石黑铸铁，可锻铸铁，黄铜铸件及具有相同性质的材料的盲孔和通孔的加工.

▶ Suitable for tapping Blind & Through holes in Grey Cast Iron, Nodular Cast Iron, Malleable Cast Iron, Brass Casting and other similar materials.

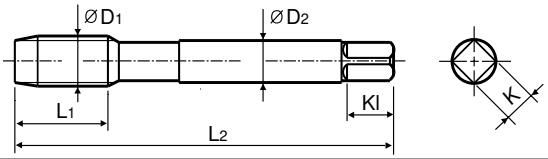
Hole type



Material groups **GG**

CARBIDE | STCci | YH | 1.5P / 3.0P | Bright

▶ Tap Limits : P.530
▶ up to M6 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No. 1.5P	型号 EDP No. 3.0P	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M3	× 0.5	T0451203	T0441203	YH3	46	11	4	3.2	6	3
M4	× 0.7	T0451243	T0441243	YH3	52	13	5	4	7	3
M5	× 0.8	T0451283	T0441283	YH3	60	16	5.5	4.5	7	3
M6	× 1	T0451313	T0441313	YH3	62	19	6	4.5	7	3
M8	× 1.25	T0451364	T0441364	YH4	70	22	6.2	5	8	4
M10	× 1.5	T0451424	T0441424	YH4	75	24	7	5.5	8	4
M12	× 1.75	T0451505	T0441505	YH5	85	29	8.5	6.5	9	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
								◎	○

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
	○	◎		◎	○	○			◎	

CARBIDE TAPS

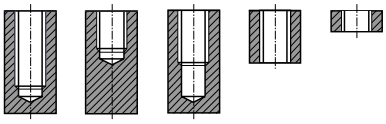
T0462 SERIES
T0452 SERIES

W 铸铁用硬质合金直槽丝锥
SOLID CARBIDE STRAIGHT FLUTED TAPS for CAST IRONS

▶ 适用于灰铸铁，球状石黑铸铁，可锻铸铁，黄铜铸件及具有相同性质的材料的盲孔和通孔的加工.

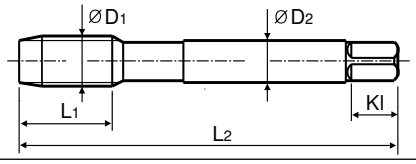
▶ Suitable for tapping Blind & Through holes in Grey Cast Iron, Nodular Cast Iron, Malleable Cast Iron, Brass Casting and other similar materials.

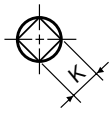
Hole type

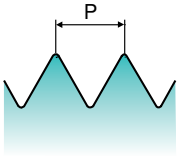


Material groups **GG** | CARBIDE | STCci | YH | 1.5P / 3.0P | Bright

▶ Tap Limits : P.530
▶ up to 1/4 : Male Center
▶ Tapping Speeds : P.532







단위(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No. 1.5P	型号 EDP No. 3.0P	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
W1/8	- 40	T0462203	T0452203	YH3	46	11	4	3.2	6	3
W3/16	- 24	T0462323	T0452323	YH3	60	16	5.5	4.5	7	3
W1/4	- 20	T0462404	T0452404	YH4	62	19	6	4.5	7	3
W5/16	- 18	T0462444	T0452444	YH4	70	22	6.1	5	8	3
W3/8	- 16	T0462484	T0452484	YH4	75	24	7	5.5	8	4
W7/16	- 14	T0462524	T0452524	YH4	80	25	8	6	9	4
W1/2	- 12	T0462565	T0452565	YH5	85	29	9	7	10	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
								◎	○

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
	○	◎		◎	○	○			◎	

YG

Being the best through innovation

SKS21 HAND TAPS

- 实现高强度加工，易装配

TO ACHIEVE HIGH STRENGTH.
EASY ASSEMBLING.

SKS21 手用丝锥 / SKS21 HAND TAP
实现高强度加工，易装配 / to Achieve High Strength. Easy Assembling.

SKS21 HAND TAPS

项目 EDP No.	型号 MODEL	刀具材质 Tool Material	标准 Standard	工件材质 Work Material	尺寸 Dimensions	丝锥公差 Tolerance	倒角 Chamfer	表面处理 Surface Treatment	页 PAGE
TSK11 (TS923)		SKS21	M	**GS**	HT	JIS III	1.5P / 5.0P / 9.0P	Bright	**497**
TSK12 (TS943)		SKS21	UNC/F	**GS**	HT	JIS III	1.5P / 5.0P / 9.0P	Bright	**500**
TSK13 (TS933)		SKS21	W	**GS**	HT	JIS III	1.5P / 5.0P / 9.0P	Bright	**502**
TSK21		SKS21	M-LH	**GS**	HT	JIS III	1.5P / 5.0P / 9.0P	Bright	**503**
TSK23		SKS21	W-LH	**GS**	HT	JIS III	1.5P / 5.0P / 9.0P	Bright	**504**

SKS21 HAND TAPS

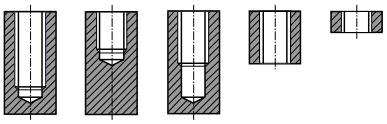
TSK11(TS923) SERIES

M 手用丝锥(一套3支)
HAND TAPS(SET of 3 PIECES)

▶ 标准丝锥可用在广泛的范围中.

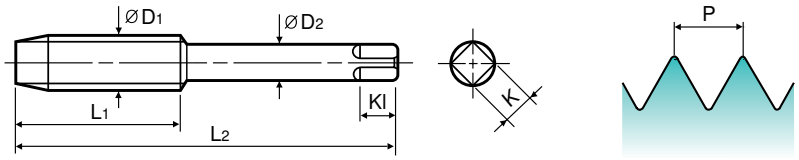
▶ Standard taps for a variety of application.

Hole type



Material groups **GS** | SKS21 | HT | JIS III | 1.5P/5.0P/9.0P | Bright

▶ Tap Limits : JIS Class 3
▶ up to M6 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M2.5	0.45	TSK11179	JIS III	44	16	3	2.5	5	3
M2.6	0.45	TSK11499	JIS III	44	16	3	2.5	5	3
M3	0.5	TSK11209	JIS III	46	18	4	3.2	6	3
M3.5	0.6	TSK11229	JIS III	48	18	4	3.2	6	3
M4	0.7	TSK11249	JIS III	52	20	5	4	7	3
M4	0.5	TSK11259	JIS III	52	15	5	4	7	3
M4.5	0.75	TSK11269	JIS III	55	20	5	4	7	3
M5	0.9	TSK11999	JIS III	60	22	5.5	4.5	7	3
M5	0.8	TSK11289	JIS III	60	22	5.5	4.5	7	3
M6	1	TSK11319	JIS III	62	24	6	4.5	7	3
M6	0.75	TSK11329	JIS III	62	20	6	4.5	7	3
M7	1	TSK11349	JIS III	65	26	6.2	5	8	4
M7	0.75	TSK11359	JIS III	62	20	6.2	5	8	4
M8	1.25	TSK11369	JIS III	70	30	6.2	5	8	4
M8	1	TSK11379	JIS III	70	30	6.2	5	8	4
M8	0.75	TSK11389	JIS III	62	20	6.2	5	8	4
M9	1.25	TSK11399	JIS III	72	30	7	5.5	8	4
M9	1	TSK11409	JIS III	70	30	7	5.5	8	4
M9	0.75	TSK11419	JIS III	62	20	7	5.5	8	4
M10	1.5	TSK11429	JIS III	75	32	7	5.5	8	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○	○					○	○	○

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
	○	○	○						○	

SKS21 HAND TAPS

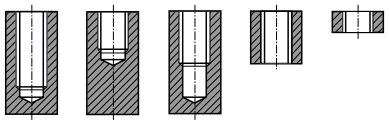
TSK11(TS923) SERIES

M 手用丝锥(一套3支) HAND TAPS(SET of 3 PIECES)

▶ 标准丝锥可用在广泛的范围中.

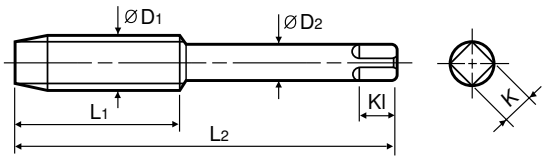
▶ Standard taps for a variety of application.

Hole type



Material groups **GS** | SKS21 | HT | JIS III | 1.5P/5.0P/9.0P | Bright

▶ Tap Limits : JIS Class 3
▶ up to M6 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M10	× 1.25	TSK11439	JIS III	75	32	7	5.5	8	4
M10	× 1	TSK11449	JIS III	70	30	7	5.5	8	4
M11	× 1.5	TSK11469	JIS III	80	38	8	6	9	4
M11	× 1	TSK11479	JIS III	70	30	8	6	9	4
M12	× 1.75	TSK11509	JIS III	82	38	8.5	6.5	9	4
M12	× 1.5	TSK11519	JIS III	82	38	8.5	6.5	9	4
M12	× 1.25	TSK11529	JIS III	80	38	8.5	6.5	9	4
M14	× 2	TSK11549	JIS III	88	42	10.5	8	11	4
M14	× 1.5	TSK11559	JIS III	88	42	10.5	8	11	4
M14	× 1.25	TSK11569	JIS III	80	38	10.5	8	11	4
M15	× 1.5	TSK11589	JIS III	90	42	10.5	8	11	4
M16	× 2	TSK11609	JIS III	95	45	12.5	10	13	4
M16	× 1.5	TSK11619	JIS III	95	45	12.5	10	13	4
M18	× 2.5	TSK11659	JIS III	100	48	14	11	14	4
M18	× 2	TSK11669	JIS III	95	45	14	11	14	4
M18	× 1.5	TSK11679	JIS III	95	45	14	11	14	4
M20	× 2.5	TSK11709	JIS III	105	50	15	12	15	4
M20	× 2	TSK11719	JIS III	95	45	15	12	15	4
M20	× 1.5	TSK11729	JIS III	95	45	15	12	15	4
M22	× 2.5	TSK11749	JIS III	115	55	17	13	16	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel ~ C0.25	中碳钢 Meduim Carbon Steel C0.25 ~ C0.45	高碳钢 High Carbon Steel C0.45 ~	合金钢 Alloy Steel SCM	硬化钢 Hardened Steel HRc25 ~ 45	不锈钢 Stainless Steel SUS	工具钢 Tool Steel SKD	铸钢 Cast Steel SC	铸铁 Cast Iron FC	高强度铸铁 High Tension Cast Iron FCD
○	○	○					○	○	○

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
	○	○	○						○	

SKS21 HAND TAPS

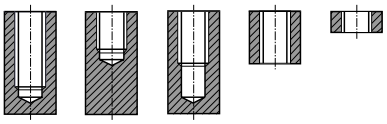
TSK11(TS923) SERIES

M 手用丝锥(一套3支)
HAND TAPS(SET of 3 PIECES)

▶ 标准丝锥可用在广泛的范围中.

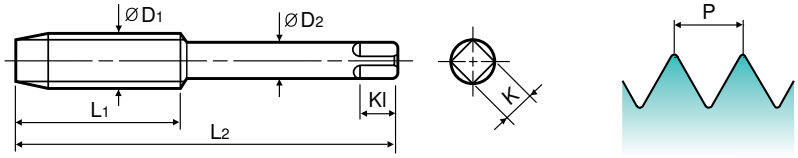
▶ Standard taps for a variety of application.

Hole type



Material groups **GS** | SKS21 | HT | JIS III | 1.5P/5.0P/9.0P | Bright

▶ Tap Limits : JIS Class 3
▶ up to M6 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M22 ×	2	TSK11759	JIS III	95	45	17	13	16	4
M22 ×	1.5	TSK11769	JIS III	95	45	17	13	16	4
M24 ×	3	TSK11789	JIS III	120	58	19	15	18	4
M24 ×	2	TSK11799	JIS III	95	45	19	15	18	4
M24 ×	1.5	TSK11809	JIS III	95	45	19	15	18	4
M25 ×	2	TSK11829	JIS III	95	45	19	15	18	4
M25 ×	1.5	TSK11839	JIS III	95	45	19	15	18	4
M26 ×	2	TSK11N49	JIS III	95	45	20	15	18	4
M26 ×	1.5	TSK11859	JIS III	95	45	20	15	18	4
M27 ×	3	TSK11869	JIS III	130	62	20	15	18	4
M27 ×	2	TSK11879	JIS III	95	45	20	15	18	4
M27 ×	1.5	TSK11889	JIS III	95	45	20	15	18	4
M28 ×	2	TSK11909	JIS III	105	45	21	17	20	4
M28 ×	1.5	TSK11919	JIS III	105	45	21	17	20	4
M30 ×	3.5	TSK11949	JIS III	135	65	23	17	20	4
M30 ×	3	TSK11959	JIS III	135	65	23	17	20	4
M30 ×	2	TSK11969	JIS III	105	45	23	17	20	4
M30 ×	1.5	TSK11979	JIS III	105	45	23	17	20	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○	○					○	○	○

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
	○	○	○						○	

SKS21 HAND TAPS

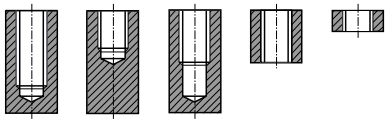
TSK12(TS943) SERIES

UNC/F 手用丝锥(一套3支) HAND TAPS(SET of 3 PIECES)

▶ 标准丝锥可用在广泛的范围中.

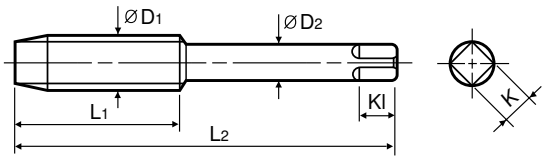
▶ Standard taps for a variety of application.

Hole type



Material groups **GS** | SKS21 | HT | JIS III | 1.5P/5.0P/9.0P | Bright

▶ Tap Limits : JIS Class 3
▶ up to 1/4 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
#4	- 40 UNC	TSK12169	JIS III	44	16	3	2.5	5	3
#4	- 48 UNF	TSK12189	JIS III	44	16	3	2.5	5	3
#5	- 40 UNC	TSK12209	JIS III	46	18	4	3.2	6	3
#5	- 44 UNF	TSK12229	JIS III	46	18	4	3.2	6	3
#6	- 32 UNC	TSK12249	JIS III	48	18	4	3.2	6	3
#6	- 40 UNF	TSK12269	JIS III	48	18	4	3.2	6	3
#8	- 32 UNC	TSK12289	JIS III	52	20	5	4	7	3
#8	- 36 UNF	TSK12309	JIS III	52	20	5	4	7	3
#10	- 24 UNC	TSK12329	JIS III	60	22	5.5	4.5	7	3
#10	- 32 UNF	TSK12349	JIS III	60	22	5.5	4.5	7	3
#12	- 24 UNC	TSK12369	JIS III	60	22	5.5	4.5	7	3
#12	- 28 UNF	TSK12389	JIS III	60	22	5.5	4.5	7	3
1/4	- 20 UNC	TSK12409	JIS III	62	24	6	4.5	7	3
1/4	- 28 UNF	TSK12429	JIS III	62	24	6	4.5	7	3
5/16	- 18 UNC	TSK12449	JIS III	70	30	6.1	5	8	4
5/16	- 24 UNF	TSK12469	JIS III	70	30	6.1	5	8	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○	○					○	○	○

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
	○	○	○						○	

SKS21 HAND TAPS

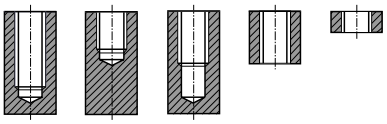
TSK12(TS943) SERIES

UNC/F 手用丝锥(一套3支) HAND TAPS(SET of 3 PIECES)

▶ 标准丝锥可用在广泛的范围中.

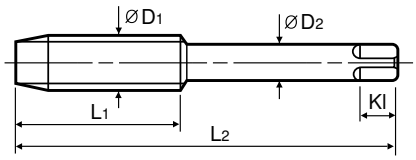
▶ Standard taps for a variety of application.

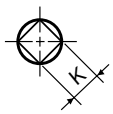
Hole type

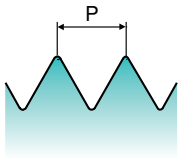


Material groups **GS** | SKS21 | HT | JIS III | 1.5P/5.0P/9.0P | Bright

▶ Tap Limits : JIS Class 3
▶ up to 1/4 : Male Center
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
3/8	- 16 UNC	TSK12489	JIS III	75	35	7	5.5	8	4
3/8	- 24 UNF	TSK12509	JIS III	75	32	7	5.5	8	4
7/16	- 14 UNC	TSK12529	JIS III	80	38	8	6	9	4
7/16	- 20 UNF	TSK12549	JIS III	80	38	8	6	9	4
1/2	- 13 UNC	TSK12569	JIS III	85	42	9	7	10	4
1/2	- 20 UNF	TSK12589	JIS III	85	42	9	7	10	4
9/16	- 12 UNC	TSK12609	JIS III	90	42	10.5	8	11	4
9/16	- 18 UNF	TSK12629	JIS III	90	42	10.5	8	11	4
5/8	- 11 UNC	TSK12649	JIS III	95	45	12	9	12	4
5/8	- 18 UNF	TSK12669	JIS III	95	45	12	9	12	4
3/4	- 10 UNC	TSK12709	JIS III	105	50	14	11	14	4
3/4	- 16 UNF	TSK12729	JIS III	95	45	14	11	14	4
7/8	- 9 UNC	TSK12749	JIS III	115	55	17	13	16	4
7/8	- 14 UNF	TSK12769	JIS III	95	45	17	13	16	4
1	- 8 UNC	TSK12789	JIS III	125	60	20	15	18	4
1	- 12 UNF	TSK12809	JIS III	95	45	20	15	18	4

◎ : 优(Excellent) ○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○	○					○	○	○

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
	○	○	○						○	

SKS21 HAND TAPS

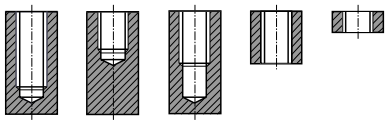
TSK13(TS933) SERIES

W 手用丝锥(一套3支) HAND TAPS(SET of 3 PIECES)

▶ 标准丝锥可用在广泛的范围中.

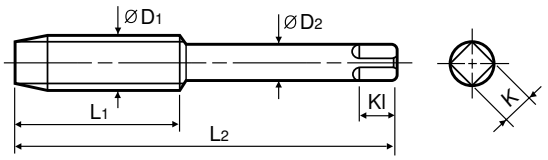
▶ Standard taps that can be used in for a variety of application.

Hole type



Material groups **GS** | SKS21 | HT | JIS III | 1.5P/5.0P/9.0P | Bright

▶ Tap Limits : JIS Class 3
▶ up to 1/4 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
W1/8	40	TSK13209	JIS III	46	18	4	3.2	6	3
W3/16	24	TSK13329	JIS III	60	22	5.5	4.5	7	3
W1/4	20	TSK13409	JIS III	62	24	6	4.5	7	3
W5/16	18	TSK13449	JIS III	70	30	6.1	5	8	4
W3/8	16	TSK13489	JIS III	75	35	7	5.5	8	4
W7/16	14	TSK13529	JIS III	80	38	8	6	9	4
W1/2	12	TSK13569	JIS III	85	42	9	7	10	4
W9/16	12	TSK13609	JIS III	90	42	10.5	8	11	4
W5/8	11	TSK13649	JIS III	95	45	12	9	12	4
W3/4	10	TSK13709	JIS III	105	50	14	11	14	4
W7/8	9	TSK13749	JIS III	115	55	17	13	16	4
W1	8	TSK13789	JIS III	125	60	20	15	18	4

◎ : 优(Excellent) ○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○	○					○	○	○

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
	○	○	○						○	

SKS21 HAND TAPS

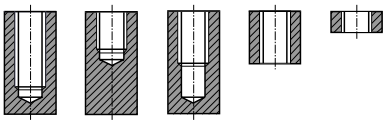
TSK21 SERIES

M-LH 手用丝锥(一套3支)
HAND TAPS(SET of 3 PIECES)

▶ 标准丝锥可用在广泛的范围中.

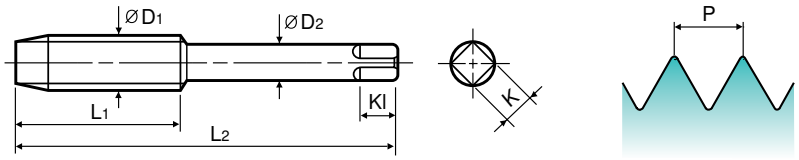
▶ Standard taps for a variety of application.

Hole type



Material groups **GS** | SKS21 | HT | JIS III | 1.5P/5.0P/9.0P | Bright

▶ Tap Limits : JIS Class 3
▶ up to M6 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 Pitch P	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
M3	× 0.5	TSK21209	JIS III	46	18	4	3.2	6	3
M4	× 0.7	TSK21249	JIS III	52	20	5	4	7	3
M5	× 0.8	TSK21289	JIS III	60	22	5.5	4.5	7	3
M6	× 1	TSK21319	JIS III	62	24	6	4.5	7	3
M7	× 1	TSK21349	JIS III	65	26	6.2	5	8	4
M8	× 1.25	TSK21369	JIS III	70	30	6.2	5	8	4
M10	× 1.5	TSK21429	JIS III	75	32	7	5.5	8	4
M10	× 1.25	TSK21439	JIS III	75	32	7	5.5	8	4
M11	× 1.5	TSK21469	JIS III	80	38	8	6	9	4
M12	× 1.75	TSK21509	JIS III	82	38	8.5	6.5	9	4
M12	× 1.5	TSK21519	JIS III	82	38	8.5	6.5	9	4
M12	× 1.25	TSK21529	JIS III	80	38	8.5	6.5	9	4
M14	× 2	TSK21549	JIS III	88	42	10.5	8	11	4
M14	× 1.5	TSK21559	JIS III	88	42	10.5	8	11	4
M14	× 1.25	TSK21569	JIS III	80	38	10.5	8	11	4
M15	× 1.5	TSK21589	JIS III	90	42	10.5	8	11	4
M16	× 2	TSK21609	JIS III	95	45	12.5	10	13	4
M16	× 1.5	TSK21619	JIS III	95	45	12.5	10	13	4
M18	× 2.5	TSK21659	JIS III	100	48	14	11	14	4
M18	× 2	TSK21669	JIS III	95	45	14	11	14	4
M18	× 1.5	TSK21679	JIS III	95	45	14	11	14	4
M20	× 2.5	TSK21709	JIS III	105	50	15	12	15	4
M20	× 2	TSK21719	JIS III	95	45	15	12	15	4
M20	× 1.5	TSK21729	JIS III	95	45	15	12	15	4

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○	○					○	○	○

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
	○	○	○						○	

SKS21 HAND TAPS

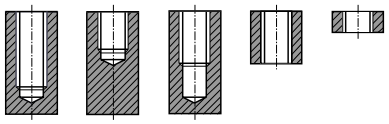
TSK23 SERIES

W-LH 手用丝锥(一套3支) HAND TAPS(SET of 3 PIECES)

▶ 标准丝锥可用在广泛的范围中.

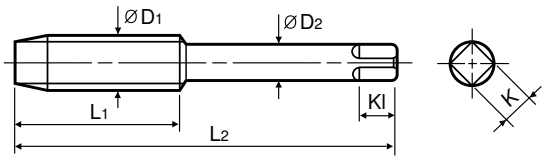
▶ Standard taps that can be used in for a variety of application.

Hole type



Material groups **GS** | SKS21 | HT | JIS III | 1.5P/5.0P/9.0P | Bright

▶ Tap Limits : JIS Class 3
▶ up to 1/4 : Male Center
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE ØD1	牙距 TPI	型号 EDP No.	精度 Limit	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块 尺寸 Square Size K	方块 长度 Square Length Kl	槽数 No. of Flute
W1/8	40	TSK23209	JIS III	46	18	4	3.2	6	3
W3/16	24	TSK23329	JIS III	60	22	5.5	4.5	7	3
W1/4	20	TSK23409	JIS III	62	24	6	4.5	7	3
W5/16	18	TSK23449	JIS III	70	30	6.1	5	8	4
W3/8	16	TSK23489	JIS III	75	35	7	5.5	8	4
W7/16	14	TSK23529	JIS III	80	38	8	6	9	4
W1/2	12	TSK23569	JIS III	85	42	9	7	10	4
W9/16	12	TSK23609	JIS III	90	42	10.5	8	11	4
W5/8	11	TSK23649	JIS III	95	45	12	9	12	4
W3/4	10	TSK23709	JIS III	105	50	14	11	14	4
W7/8	9	TSK23749	JIS III	115	55	17	13	16	4
W1	8	TSK23789	JIS III	125	60	20	15	18	4

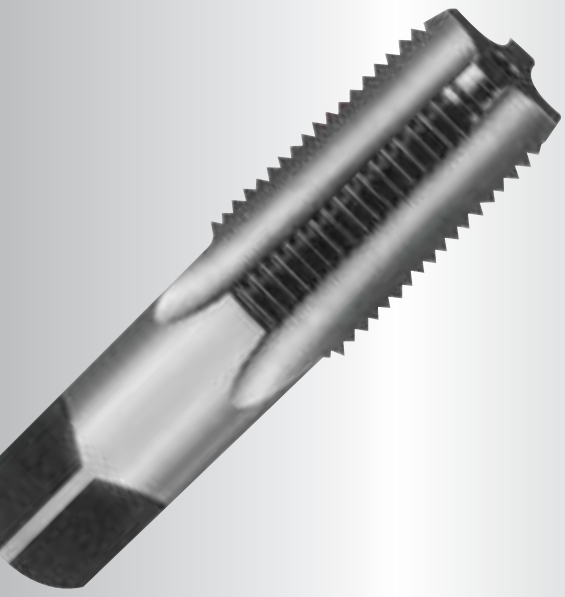
◎ : 优(Excellent) ○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○	○					○	○	○

铜 Copper Cu	黄铜 Brass Bs	铸铜 Brass Casting PB	铝轧 Aluminum Rolled AL	铸铝 Aluminum Alloy Casting AC,ADC	铸镁 Magnesium Casting MC	铸锌 Zinc Alloy Casting ZDC	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
	○	○	○						○	

YG

Being the best through innovation



SKS21
PIPE TAPS

- 实现高强度加工，易装配

TO ACHIEVE HIGH STRENGTH.
EASY ASSEMBLING.

SKS21管用丝锥 / SKS21 PIPE TAP
实现高强度加工，易装配 / to Achieve High Strength. Easy Assembling.

SKS21 PIPE TAPS

项目 EDP No.	型号 MODEL	刀具材质 Tool Material	标准 Standard	工件材质 Work Material	尺寸 Dimensions	丝锥公差 Tolerance	倒角 Chamfer	表面处理 Surface Treatment	页 PAGE
TSK34		SKS21	PT	**GS**	PT	JIS	3.0P	Bright	**507**
TSK35		SKS21	PS	**GS**	PS	JIS	3.0P	Bright	**508**
TSK36		SKS21	PF	**GS**	PF	JIS	3.0P	Bright	**509**
TSK37		SKS21	NPT	**GS**	NPT	ANSI	3.0P	Bright	**510**
TSK38		SKS21	NPS	**GS**	NPS	ANSI	3.0P	Bright	**511**

SKS21 PIPE TAPS

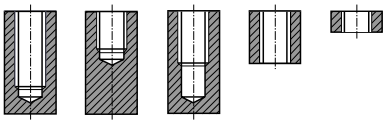
TSK34 SERIES

PT 螺纹用锥管丝锥
TAPER PIPE TAPS for PT THREADS

▶适用于锥管内部的螺纹加工

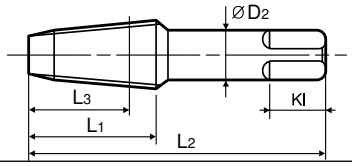
▶ Suitable for taper pipe internal threads.
PT : Taper pipe threads (for pressure-tight joints)

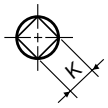
Hole type

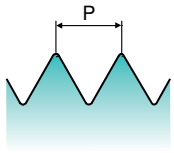


Material groups **GS** | SKS21 | PT | JIS | 3.0P | Bright

▶ Tap Limits : JIS
▶ Tapping Speeds : P.532







单位(Unit) : mm

尺寸 SIZE	牙距 TPI	型号 EDP No.	精度 Limit	最大基准直径 Basic Maj. Dia.	全长 Overall Length L2	螺纹长 Thread Length L1	基准长度 Projection Length L3	柄径 Shank Diameter ØD2	方块尺寸 Square Size K	方块长度 Square Length Kl	槽数 No. of Flute
PT 1/16	- 28	TSK34022	JIS	7.723	55	19	13	6.5	5	8	4
PT 1/8	- 28	TSK34202	JIS	9.728	55	19	13	8	6	9	4
PT 1/4	- 19	TSK34402	JIS	13.157	62	28	21	11	9	12	4
PT 3/8	- 19	TSK34482	JIS	16.662	65	28	21	14	11	14	4
PT 1/2	- 14	TSK34562	JIS	20.955	80	35	25	18	14	17	4
PT 3/4	- 14	TSK34702	JIS	26.441	85	35	25	23	17	20	4
PT 1	- 11	TSK34782	JIS	33.249	95	45	32	26	21	24	5
PT 1*1/4	- 11	TSK34862	JIS	41.910	105	45	32	32	26	30	5
PT 1*1/2	- 11	TSK34962	JIS	47.803	110	45	32	38	29	32	6
PT 2	- 11	TSK34D22	JIS	59.614	120	50	35	46	35	38	6

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○	○					○	○	○

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
	○		○							○

SKS21 PIPE TAPS

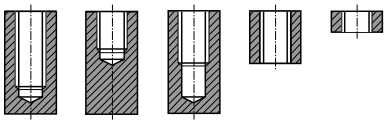
TSK35 SERIES

PS PS螺纹用直管丝锥 STRAIGHT PIPE TAPS for PS THREADS

▶ 适用于直管内部的螺纹加工

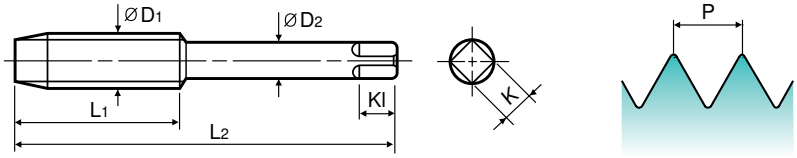
▶ Suitable for process Straight pipe internal threads.
PS : Straight pipe threads (for pressure-tight joints)

Hole type



Material groups **GS** | SKS21 | PS | JIS | 3.0P | Bright

▶ Tap Limits : JIS
▶ Tapping Speeds : P.532



단위(Unit) : mm

尺寸 SIZE	牙距 TPI	型号 EDP No.	精度 Limit	最大基准直径 Basic Maj. Dia.	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块尺寸 Square Size K	方块长度 Square Length Kl	槽数 No. of Flute
PS 1/8	- 28	TSK35202	JIS	9.728	55	19	8	6	9	4
PS 1/4	- 19	TSK35402	JIS	13.157	62	28	11	9	12	4
PS 3/8	- 19	TSK35482	JIS	16.662	65	28	14	11	14	4
PS 1/2	- 14	TSK35562	JIS	20.955	80	35	18	14	17	4
PS 3/4	- 14	TSK35702	JIS	26.441	85	35	23	17	20	4
PS 1	- 11	TSK35782	JIS	33.249	95	45	26	21	24	5
PS 1*1/4	- 11	TSK35862	JIS	41.910	105	45	32	26	30	5
PS 1*1/2	- 11	TSK35962	JIS	47.803	110	45	38	29	32	6
PS 2	- 11	TSK35D22	JIS	59.614	120	50	46	35	38	6

◎ : 优(Excellent) ○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○	○					○	○	○

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
	○	○	○							○

SKS21 PIPE TAPS

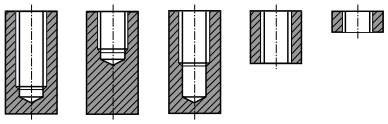
TSK36 SERIES

PF PF螺纹用直管丝锥 STRAIGHT PIPE TAPS for PF THREADS

▶适用于直管内部的螺纹加工

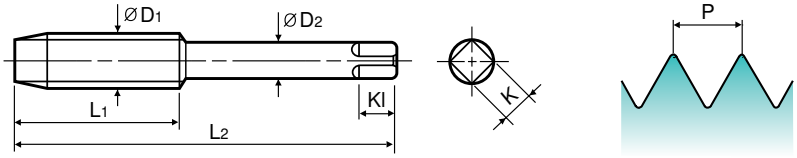
▶ Suitable for process Straight pipe internal threads.
PF : Straight pipe threads (for mechanical joints)

Hole type



Material groups **GS** | SKS21 | PF | JIS | 3.0P | Bright

▶ Tap Limits : JIS
▶ Tapping Speeds : P.532



单位(Unit) : mm

尺寸 SIZE	牙距 TPI	型号 EDP No.	精度 Limit	最大基准直径 Basic Maj. Dia.	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块尺寸 Square Size K	方块长度 Square Length Kl	槽数 No. of Flute
PF 1/8	- 28	TSK36202	JIS	9.728	55	19	8	6	9	4
PF 1/4	- 19	TSK36402	JIS	13.157	62	28	11	9	12	4
PF 3/8	- 19	TSK36482	JIS	16.662	65	28	14	11	14	4
PF 1/2	- 14	TSK36562	JIS	20.955	80	35	18	14	17	4
PF 3/4	- 14	TSK36702	JIS	26.441	85	35	23	17	20	4
PF 1	- 11	TSK36782	JIS	33.249	95	45	26	21	24	5
PF 1*1/4	- 11	TSK36862	JIS	41.910	105	45	32	26	30	5
PF 1*1/2	- 11	TSK36962	JIS	47.803	110	45	38	29	32	6
PF 2	- 11	TSK36D22	JIS	59.614	120	50	46	35	38	6

◎ : 优(Excellent)　○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○	○					○	○	○

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
	○	○	○							○

SKS21 PIPE TAPS

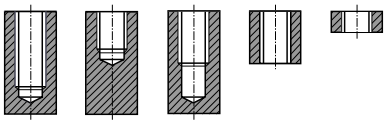
TSK37 SERIES

NPT 美制NPT螺纹用锥管丝锥 AMERICAN TAPER PIPE TAPS for NPT THREADS

▶ 适用于锥管内部的螺纹加工.

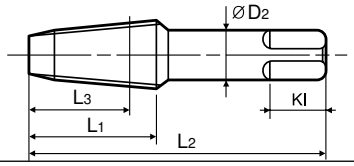
▶ Suitable for process Taper pipe internal threads.
NPT : American Taper pipe threads (for mechanical joints)

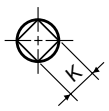
Hole type

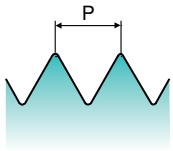


Material groups **GS** | SKS21 | NPT | ANSI | 3.0P | Bright

▶ Tap Limits : ANSI
▶ Tapping Speeds : P.532







단위(Unit) : mm

尺寸 SIZE	牙距 TPI	型号 EDP No.	精度 Limit	最大基准直径 Basic Maj. Dia.	全长 Overall Length L2	螺纹长 Thread Length L1	基准长度 Projection Length L3	柄径 Shank Diameter ØD2	方块尺寸 Square Size K	方块长度 Square Length Kl	槽数 No. of Flute
NPT 1/8	-27	TSK37200	ANSI	10.117	55	19	12.05	8	6	9	4
NPT 1/4	-18	TSK37400	ANSI	13.426	62	28	17.45	11	9	12	4
NPT 3/8	-18	TSK37480	ANSI	16.866	65	28	17.65	14	11	14	4
NPT 1/2	-14	TSK37560	ANSI	20.980	80	35	22.85	18	14	17	4
NPT 3/4	-14	TSK37700	ANSI	26.325	85	35	22.95	23	17	20	4
NPT 1 - 11 1/2		TSK37780	ANSI	32.934	95	45	27.40	26	21	24	5

◎ : 优(Excellent) ○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○	○					○	○	○

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
	○		○							○

SKS21 PIPE TAPS

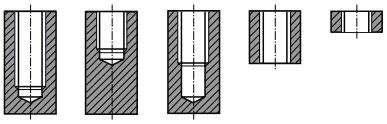
TSK38 SERIES

NPS NPS螺纹用直管丝锥
STRAIGHT PIPE TAPS for NPS THREADS

▶适用于直管内部的螺纹加工

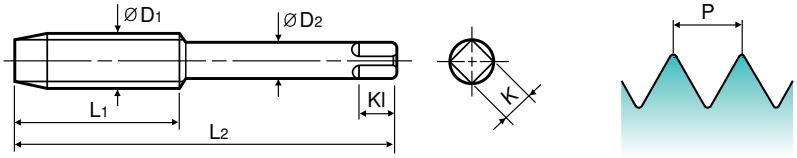
▶ Suitable for process Straight pipe internal threads.
PS : Straight pipe threads (for pressure-tight joints)

Hole type



Material groups **GS** | SKS21 | NPS | ANSI | 3.0P | Bright

▶ Tap Limits : ANSI
▶ Tapping Speeds : P.532



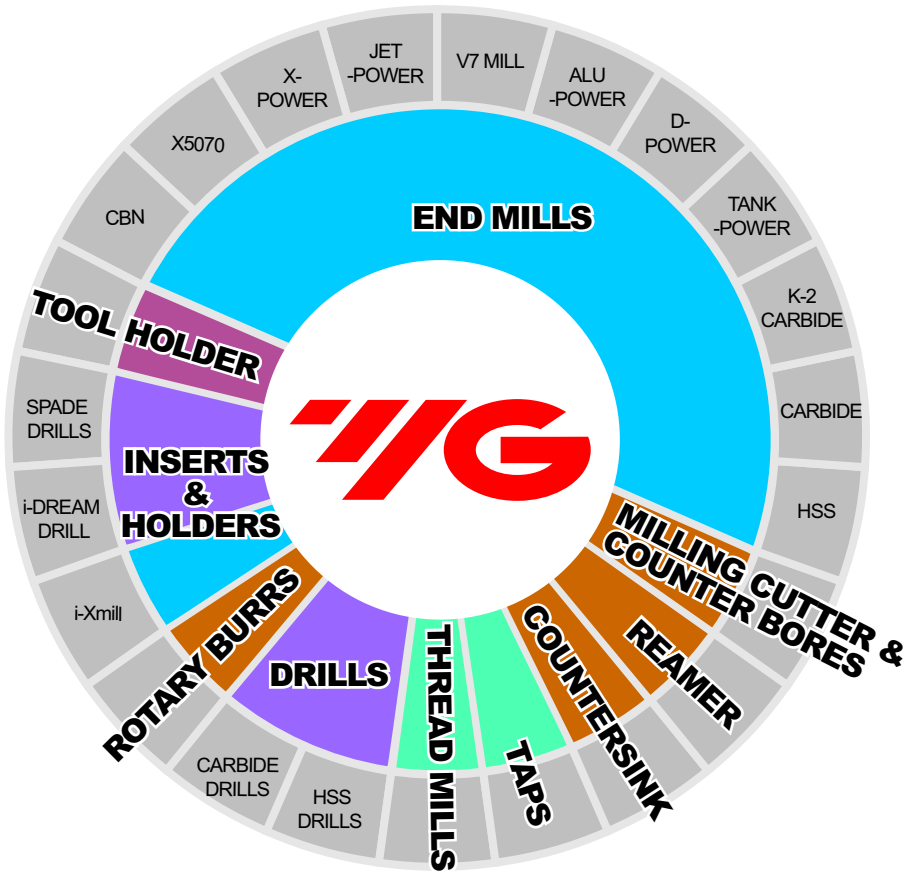
单位(Unit) : mm

尺寸 SIZE	牙距 TPI	型号 EDP No.	精度 Limit	最大基准直径 Basic Maj. Dia.	全长 Overall Length L2	螺纹长 Thread Length L1	柄径 Shank Diameter ØD2	方块尺寸 Square Size K	方块长度 Square Length Kl	槽数 No. of Flute
NPS 1/8 - 27		TSK38202	ANSI	10.117	55	19	8	6	9	4
NPS 1/4 - 18		TSK38402	ANSI	13.426	62	28	11	9	12	4
NPS 3/8 - 18		TSK38482	ANSI	16.866	65	28	14	11	14	4
NPS 1/2 - 14		TSK38562	ANSI	20.980	80	35	18	14	17	4
NPS 3/4 -14		TSK38702	ANSI	26.325	85	35	23	17	20	4
NPS 1 - 11 1/2		TSK38782	ANSI	30.934	95	45	26	21	24	5
NPS 1*1/4 - 11 1/2		TSK38862	ANSI	41.689	105	45	32	26	30	5
NPS 1*1/2 - 11 1/2		TSK38962	ANSI	47.760	110	45	38	29	32	6
NPS 2 - 11 1/2		TSK38D22	ANSI	59.800	120	50	46	35	38	6

◎ : 优(Excellent) ○ : 良(Good)

低碳钢 Low Carbon Steel	中碳钢 Meduim Carbon Steel	高碳钢 High Carbon Steel	合金钢 Alloy Steel	硬化钢 Hardened Steel	不锈钢 Stainless Steel	工具钢 Tool Steel	铸钢 Cast Steel	铸铁 Cast Iron	高强度铸铁 High Tension Cast Iron
~ C0.25	C0.25 ~ C0.45	C0.45 ~	SCM	HRc25 ~ 45	SUS	SKD	SC	FC	FCD
○	○	○					○	○	○

铜 Copper	黄铜 Brass	铸铜 Brass Casting	铝轧 Aluminum Rolled	铸铝 Aluminum Alloy Casting	铸镁 Magnesium Casting	铸锌 Zinc Alloy Casting	钛合金 Ti Alloy	镍合金 Ni Alloy	热固性塑料 Thermosetting plastic	热塑性塑料 thermoplastic
Cu	Bs	PB	AL	AC,ADC	MC	ZDC				
	○	○	○							○

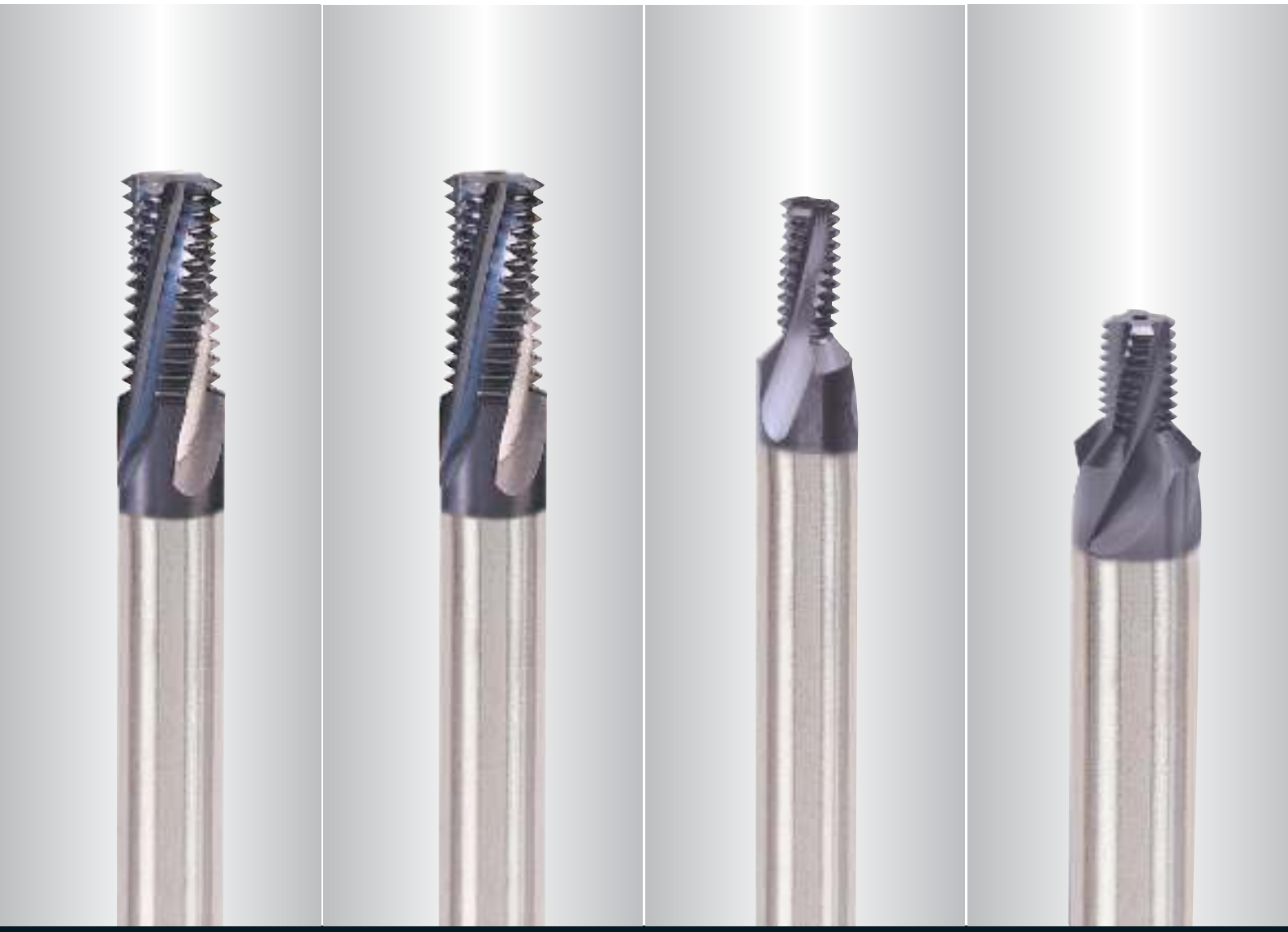


Challenge toward a Global Leader-

YG-1 Leads the World Market.

CARBIDE

Being the best through innovation



THREAD MILLS

- 带油孔和不带油孔
  在大多数及大尺寸的材料上可以高品质的螺纹铣加工，可以带有倒角
- WITH & WITHOUT COOLANT HOLES
  THREADING MOST OF MATERIALS AND BIG SIZES IN HIGH QUALITY, AVAILABLE WITH CHAMFER

SELECTION GUIDE

带油孔和不带油孔 / with & without coolant Holes
在大多数及大尺寸的材料上可以高品质的螺纹铣加工，可以带有倒角
Threading Most of Materials and Big Sizes in High Quality, Available with Chamfer

SOLID CARBIDE THREAD MILL

项目 ITEM	型号 MODEL	规格 DESCRIPTION	页 PAGE
L1111 L1211		整体硬质合金内螺纹的ISO公制螺纹铣刀-DIN 13 SOLID CARBIDE THREAD MILL for ISO METRIC INTERNAL THREAD - DIN 13	515
L1112 L1212		整体硬质合金内螺纹的ISO公制细牙螺纹铣刀-DIN 13 SOLID CARBIDE THREAD MILL for ISO METRIC-FINE INTERNAL THREAD - DIN 13	516
L1113 L1213		整体硬质合金内螺纹的英制螺纹铣刀-ANSI B 1.1 SOLID CARBIDE THREAD MILL for UNC INTERNAL THREAD - ANSI B 1.1	517
L1114 L1214		整体硬质合金内螺纹的英制细牙螺纹铣刀-ANSI B 1.1 SOLID CARBIDE THREAD MILL for UNF INTERNAL THREAD - ANSI B 1.1	518
L4111 L4211		带有内冷却油孔的整体硬质合金内螺纹的ISO公制螺纹铣刀-DIN 13 SOLID CARBIDE THREAD MILL WITH COOLANT HOLE for ISO METRIC INTERNAL THREAD - DIN 13	519
L4112 L4212		带有内冷却油孔的整体硬质合金内螺纹的ISO公制细牙螺纹铣刀-DIN13 SOLID CARBIDE THREAD MILL WITH COOLANT HOLE for ISO METRIC-FINE INTERNAL THREAD - DIN 13	520
L4171 L4271		带有内冷却油孔和倒角的整体硬质合金内螺纹的ISO公制螺纹铣刀-DIN 13 SOLID CARBIDE THREAD MILL WITH COOLANT HOLE & CHAMFER for ISO METRIC INTERNAL THREAD - DIN 13	521
L4172 L4272		带有内冷却油孔和倒角的整体硬质合金内螺纹的ISO公制细牙螺纹铣刀-DIN 13 SOLID CARBIDE THREAD MILL WITH COOLANT HOLE & CHAMFER for ISO METRIC-FINE INTERNAL THREAD - DIN 13	522
L4173 L4273		带有内冷却油孔和倒角的整体硬质合金内螺纹的英制螺纹铣刀-ANSI B 1.1 SOLID CARBIDE THREAD MILL WITH COOLANT HOLE & CHAMFER for UNC INTERNAL THREAD - ANSI B 1.1	523
L4174 L4274		带有内冷却油孔和倒角的整体硬质合金内螺纹的英制细牙螺纹铣刀-ANSI B 1.1 SOLID CARBIDE THREAD MILL WITH COOLANT HOLE & CHAMFER for UNF INTERNAL THREAD - ANSI B 1.1	524
L4176 L4276		带有内冷却油孔和倒角的整体硬质合金NPT螺纹铣刀-ANSI B 1.20.1 SOLID CARBIDE THREAD MILL WITH COOLANT HOLE & CHAMFER for NPT THREAD - ANSI B 1.20.1	525
		螺纹铣削编程 PROGRAMMING OF THREAD MILLING	526
		推荐的切削速度 RECOMMENDED CUTTING SPEED	527

可用的应用程序 / Application Program Available

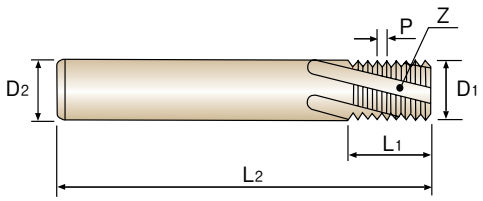
THREAD MILLS

L1111 SERIES UNCOATED
L1211 SERIES TiAlN

M 整体硬质合金内螺纹的ISO公制螺纹铣刀-DIN 13
SOLID CARBIDE THREAD MILL for ISO METRIC INTERNAL THREAD - DIN 13

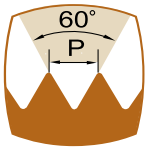
▶ 易切削螺纹用的材料如镍，钛及其合金的特殊材料

▶ Easy to cut threads even if exotic materials like Nickel, Titanium or their alloys.



▶ 原材料:整体硬质合金
▶ 柄部:DIN6535 HA
▶ 螺旋角度:15°
▶ 螺纹长度:2× D

▶ Material : Solid Carbide
▶ Shank : DIN6535 HA
▶ Spiral Angle : 15°
▶ Thread Length : 2×D



单位(Unit) : mm

型号 EDP No.		通称直径 Nominal Diameter [D]	牙距 Pitch	刃部直径 Cutter Diameter	柄径 Shank Diameter	螺纹长 Thread Length	全长 Over All Length	槽数 No. of Flute
UNCOATED	TiAlN		P	D_1	D_2	L_1	L_2	Z
L1111200	**L1211200**	M3	0.5	**2.2**	6	5	57	3
L1111240	**L1211240**	M4	0.7	**2.9**	6	7	57	3
L1111280	**L1211280**	M5	0.8	**3.8**	6	8	57	3
L1111310	**L1211310**	M6	1.0	**4.5**	6	13	57	3
L1111360	**L1211360**	M8	1.25	**6.0**	6	17.5	65	3
L1111420	**L1211420**	M10	1.5	**7.5**	8	21	72	4
L1111500	**L1211500**	M12	1.75	**9.5**	10	26.25	80	4
L1111540	**L1211540**	M14	2.0	**10.0**	10	30	83	4
L1111600	**L1211600**	M16	2.0	**12.0**	12	34	92	4
L1111650	**L1211650**	M18	2.5	**14.0**	14	37.5	92	5
L1111700	**L1211700**	M20	2.5	**16.0**	16	42.5	105	5

* 可以邀请其他的涂层方式.
Other coatings are available on your request.

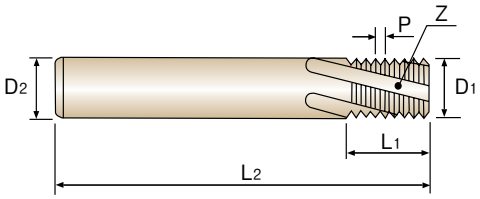
THREAD MILLS

L1112 SERIES UNCOATED
L1212 SERIES TiAlN

MF 整体硬质合金内螺纹的ISO公制细牙螺纹铣刀-DIN 13
SOLID CARBIDE THREAD MILL for ISO METRIC-FINE INTERNAL THREAD - DIN 13

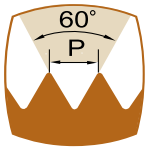
▶ 易切削螺纹用的材料如镍，钛及其合金的特殊材料

▶ Easy to cut threads even if exotic materials like Nickel, Titanium or their alloys.



▶ 原材料:整体硬质合金
▶ 柄部:DIN6535 HA
▶ 螺旋角度:15°
▶ 螺纹长度:1.5× D

▶ Material : Solid Carbide
▶ Shank : DIN6535 HA
▶ Spiral Angle : 15°
▶ Thread Length : 1.5×D



单位(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	通称直径 Nominal Diameter [D]	牙距 Pitch P	刃部直径 Cutter Diameter D1	柄径 Shank Diameter D2	螺纹长 Thread Length L1	全长 Over All Length L2	槽数 No. of Flute Z
L1112370	L1212370	M8	1.0	**6.0**	6	13	57	3
L1112380	L1212380	M8	0.75	**6.0**	6	12.75	57	3
L1112440	L1212440	M10	1.0	**8.0**	8	16	63	4
L1112510	L1212510	M12	1.5	**9.5**	10	19.5	72	4
L1112520	L1212520	M12	1.25	**9.5**	10	18.75	72	4
L1112530	L1212530	M12	1.0	**9.5**	10	19	72	4
L1112550	L1212550	M14	1.5	**10.0**	10	22.5	83	4
L1112570	L1212570	M14	1.0	**10.0**	10	22	83	4
L1112610	L1212610	M16	1.5	**12.0**	12	25.5	83	4
L1112620	L1212620	M16	1.0	**12.0**	12	25	83	4
L1112670	L1212670	M18	1.5	**14.0**	14	28.5	92	5
L1112680	L1212680	M18	1.0	**14.0**	14	28	92	5
L1112720	L1212720	M20	1.5	**16.0**	16	31.5	92	5
L1112730	L1212730	M20	1.0	**16.0**	16	31	92	5

* 可以邀请其他的涂层方式.
Other coatings are available on your request.

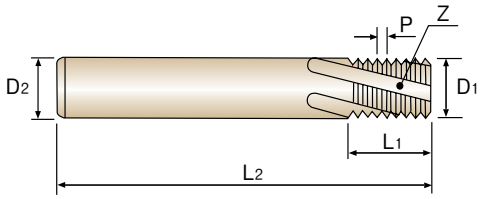
THREAD MILLS

L1113 SERIES UNCOATED
L1213 SERIES TiAlN

UNC 整体硬质合金内螺纹的英制螺纹铣刀-ANSI B 1.1
SOLID CARBIDE THREAD MILL for UNC INTERNAL THREAD - ANSI B 1.1

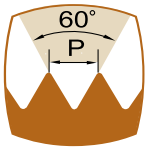
▶ 易切削螺纹用的材料如镍，钛及其合金的特殊材料

▶ Easy to cut threads even if exotic materials like Nickel, Titanium or their alloys.



▶ 原材料:整体硬质合金
▶ 柄部:DIN6535 HA
▶ 螺旋角度:15°
▶ 螺纹长度:2× D

▶ Material : Solid Carbide
▶ Shank : DIN6535 HA
▶ Spiral Angle : 15°
▶ Thread Length : 2×D



单位(Unit) : mm

型号 EDP No.		通称直径 Nominal Diameter [D]	牙距 T.P.I	刃部直径 Cutter Diameter	柄径 Shank Diameter	螺纹长 Thread Length	全长 Over All Length	槽数 No. of Flute
UNCOATED	TiAlN			D_1	D_2	L_1	L_2	Z
L1113400	**L1213400**	1/4"	20	**4.5**	6	14	57	3
L1113440	**L1213440**	5/16"	18	**5.8**	6	16.9	65	3
L1113480	**L1213480**	3/8"	16	**7.0**	8	20.6	72	4
L1113520	**L1213520**	7/16"	14	**8.0**	8	23.6	72	4
L1113560	**L1213560**	1/2"	13	**9.5**	10	27.4	80	4
L1113600	**L1213600**	9/16"	12	**10.0**	10	31.8	83	4
L1113640	**L1213640**	5/8"	11	**12.0**	12	34.6	92	4
L1113700	**L1213700**	3/4"	10	**14.0**	14	40.6	104	5

* 可以邀请其他的涂层方式.
Other coatings are available on your request.

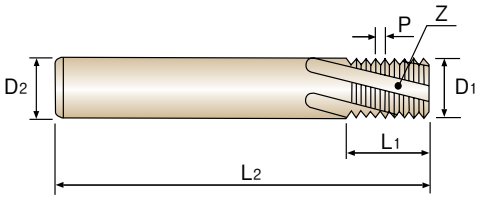
THREAD MILLS

L1114 SERIES UNCOATED
L1214 SERIES TiAlN

UNF 整体硬质合金内螺纹的英制细牙螺纹铣刀–ANSI B 1.1
SOLID CARBIDE THREAD MILL for UNF INTERNAL THREAD - ANSI B 1.1

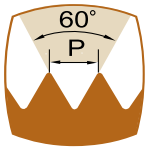
▶ 易切削螺纹用的材料如镍，钛及其合金的特殊材料

▶ Easy to cut threads even if exotic materials like Nickel, Titanium or their alloys.



▶ 原材料:整体硬质合金
▶ 柄部:DIN6535 HA
▶ 螺旋角度:15°
▶ 螺纹长度:2× D

▶ Material : Solid Carbide
▶ Shank : DIN6535 HA
▶ Spiral Angle : 15°
▶ Thread Length : 2×D



单位(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	通称直径 Nominal Diameter [D]	牙距 T.P.I	刃部直径 Cutter Diameter D1	柄径 Shank Diameter D2	螺纹长 Thread Length L1	全长 Over All Length L2	槽数 No. of Flute Z
L1114420	L1214420	1/4”	28	5.0	6	13.6	57	3
L1114460	L1214460	5/16”	24	6.0	6	16.9	65	3
L1114500	L1214500	3/8”	24	8.0	8	20.1	72	4
L1114540	L1214540	7/16”	20	8.0	8	24.1	72	4
L1114580	L1214580	1/2”	20	10.0	10	26.7	80	4
L1114620	L1214620	9/16”	18	12.0	12	29.6	83	4
L1114660	L1214660	5/8”	18	12.0	12	33.9	92	4
L1114720	L1214720	3/4”	16	14.0	14	39.7	104	5

* 可以邀请其他的涂层方式.
Other coatings are available on your request.

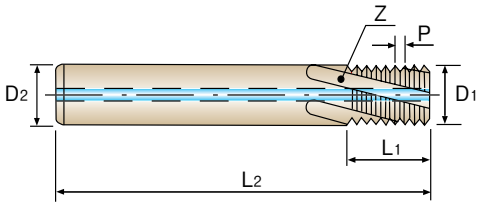
THREAD MILLS

L4111 SERIES UNCOATED
L4211 SERIES TiAIN

M 带有内冷却油孔的整体硬质合金内螺纹的ISO公制螺纹铣刀-DIN 13
SOLID CARBIDE THREAD MILL WITH COOLANT HOLE for ISO METRIC INTERNAL THREAD - DIN 13

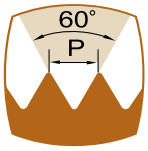
▶ 易切削螺纹用的材料如镍，钛及其合金的特殊材料

▶ Easy to cut threads even if exotic materials like Nickel, Titanium or their alloys.



▶ 原材料:整体硬质合金
▶ 柄部:DIN6535 HA
▶ 螺旋角度:15°
▶ 螺纹长度:2× D

▶ Material : Solid Carbide
▶ Shank : DIN6535 HA
▶ Spiral Angle : 15°
▶ Thread Length : 2×D



单位(Unit) : mm

型号 EDP No.		通称直径 Nominal Diameter [D]	牙距 Pitch	刃部直径 Cutter Diameter	柄径 Shank Diameter	螺纹长 Thread Length	全长 Over All Length	槽数 No. of Flute
UNCOATED	TiAIN		P	D_1	D_2	L_1	L_2	Z
L4111310	**L4211310**	M6	1.0	**4.5**	6	13.0	57	3
L4111360	**L4211360**	M8	1.25	**6.0**	6	17.5	65	3
L4111420	**L4211420**	M10	1.5	**7.5**	8	21.0	72	4
L4111500	**L4211500**	M12	1.75	**9.5**	10	26.25	80	4
L4111540	**L4211540**	M14	2.0	**10.0**	10	30.0	83	4
L4111600	**L4211600**	M16	2.0	**12.0**	12	34.0	92	4
L4111700	**L4211700**	M20	2.5	**16.0**	16	42.5	105	5

* 可以邀请其他的涂层方式.
Other coatings are available on your request.

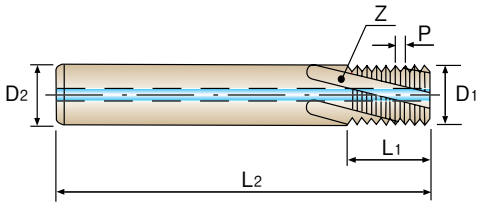
THREAD MILLS

L4112 SERIES UNCOATED
L4212 SERIES TiAlN

MF 带有内冷却油孔的整体硬质合金内螺纹的ISO公制细牙螺纹铣刀-DIN13
SOLID CARBIDE THREAD MILL WITH COOLANT HOLE for ISO METRIC-FINE INTERNAL THREAD - DIN 13

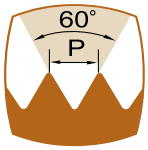
▶ 易切削螺纹用的材料如镍，钛及其合金的特殊材料

▶ Easy to cut threads even if exotic materials like Nickel, Titanium or their alloys.



▶ 原材料:整体硬质合金
▶ 柄部:DIN6535 HA
▶ 螺旋角度:15°
▶ 螺纹长度:1.5× D

▶ Material : Solid Carbide
▶ Shank : DIN6535 HA
▶ Spiral Angle : 15°
▶ Thread Length : 1.5×D



单位(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	通称直径 Nominal Diameter [D]	牙距 Pitch P	刃部直径 Cutter Diameter D1	柄径 Shank Diameter D2	螺纹长 Thread Length L1	全长 Over All Length L2	槽数 No. of Flute Z
L4112370	L4212370	M8	1.0	**6.0**	6	13.0	57	3
L4112380	L4212380	M8	0.75	**6.0**	6	12.75	57	3
L4112440	L4212440	M10	1.0	**8.0**	8	16.0	63	4
L4112510	L4212510	M12	1.5	**9.5**	10	19.5	72	4
L4112520	L4212520	M12	1.25	**9.5**	10	18.75	72	4
L4112530	L4212530	M12	1.0	**9.5**	10	19.0	72	4
L4112550	L4212550	M14	1.5	**10.0**	10	22.5	83	4
L4112570	L4212570	M14	1.0	**10.0**	10	22.0	83	4
L4112610	L4212610	M16	1.5	**12.0**	12	25.5	83	4
L4112620	L4212620	M16	1.0	**12.0**	12	25.0	83	4
L4112670	L4212670	M18	1.5	**14.0**	14	28.5	92	5
L4112680	L4212680	M18	1.0	**14.0**	14	28.0	92	5
L4112720	L4212720	M20	1.5	**16.0**	16	31.5	92	5
L4112730	L4212730	M20	1.0	**16.0**	16	31.0	92	5

* 可以邀请其他的涂层方式.
Other coatings are available on your request.

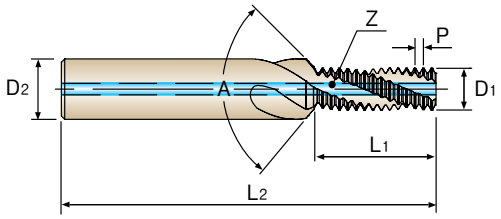
THREAD MILLS

L4171 SERIES UNCOATED
L4271 SERIES TiAlN

M 带有内冷却油孔和倒角的整体硬质合金内螺纹的ISO公制螺纹铣刀-DIN 13
SOLID CARBIDE THREAD MILL WITH COOLANT HOLE & CHAMFER for ISO METRIC INTERNAL THREAD - DIN 13

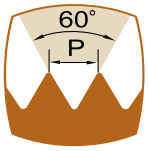
▶ 易切削螺纹用的材料如镍，钛及其合金的特殊材料

▶ Easy to cut threads even if exotic materials like Nickel, Titanium or their alloys.



▶ 原材料:整体硬质合金
▶ 柄部:DIN6535 HA
▶ 螺旋角度:15°
▶ 螺纹长度:2× D

▶ Material : Solid Carbide
▶ Shank : DIN6535 HA
▶ Spiral Angle : 15°
▶ Thread Length : 2×D



单位(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	通称直径 Nominal Diameter [D]	牙距 Pitch P	刃部直径 Cutter Diameter D1	柄径 Shank Diameter D2	螺纹长 Thread Length L1	全长 Over All Length L2	角度 Angle A	槽数 No. of Flute Z
L4171310	**L4271310**	M6	1.0	**4.8**	8	12.4	62	90°	3
L4171360	**L4271360**	M8	1.25	**6.5**	10	16.8	74	90°	3
L4171420	**L4271420**	M10	1.5	**8.2**	12	20.15	80	90°	4
L4171500	**L4271500**	M12	1.75	**9.9**	14	25.25	90	90°	4
L4171540	**L4271540**	M14	2.0	**11.6**	16	28.85	100	90°	4
L4171600	**L4271600**	M16	2.0	**13.6**	18	32.85	102	90°	4

* 可以邀请其他的涂层方式.
Other coatings are available on your request.

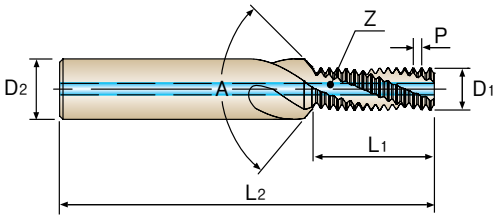
THREAD MILLS

L4172 SERIES UNCOATED
L4272 SERIES TiAlN

MF 带有内冷却油孔和倒角的整体硬质合金内螺纹的ISO公制细牙螺纹铣刀-DIN 13
SOLID CARBIDE THREAD MILL WITH COOLANT HOLE & CHAMFER for ISO METRIC-FINE INTERNAL THREAD - DIN 13

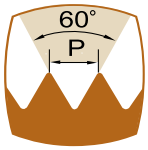
▶ 易切削螺纹用的材料如镍，钛及其合金的特殊材料

▶ Easy to cut threads even if exotic materials like Nickel, Titanium or their alloys.



▶ 原材料:整体硬质合金
▶ 柄部:DIN6535 HA
▶ 螺旋角度:15°
▶ 螺纹长度:1.5× D

▶ Material : Solid Carbide
▶ Shank : DIN6535 HA
▶ Spiral Angle : 15°
▶ Thread Length : 1.5×D



单位(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	通称直径 Nominal Diameter [D]	牙距 Pitch P	刃部直径 Cutter Diameter D_1	柄径 Shank Diameter D_2	螺纹长 Thread Length L_1	全长 Over All Length L_2	角度 Angle A	槽数 No. of Flute Z
L4172370	L4272370	M8	1.0	6.7	10	12.4	74	90°	3
L4172430	L4272430	M10	1.25	8.3	12	15.9	80	90°	4
L4172440	L4272440	M10	1.0	8.7	12	15.4	80	90°	4
L4172510	L4272510	M12	1.5	10.0	14	18.65	90	90°	4
L4172520	L4272520	M12	1.25	10.3	14	18.3	80	90°	4
L4172530	L4272530	M12	1.0	10.7	14	18.4	90	90°	4
L4172550	L4272550	M14	1.5	12.0	16	21.65	100	90°	4
L4172610	L4272610	M16	1.5	14.0	18	24.65	102	90°	5

* 可以邀请其他的涂层方式.
Other coatings are available on your request.

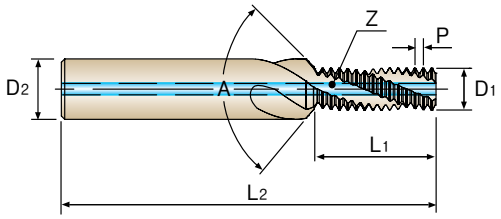
THREAD MILLS

L4173 SERIES UNCOATED
L4273 SERIES TiAlN

UNC 带有内冷却油孔和倒角的整体硬质合金内螺纹的英制螺纹铣刀-ANSI B 1.1
SOLID CARBIDE THREAD MILL WITH COOLANT HOLE & CHAMFER for UNC INTERNAL THREAD - ANSI B 1.1

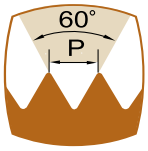
▶ 易切削螺纹用的材料如镍，钛及其合金的特殊材料

▶ Easy to cut threads even if exotic materials like Nickel, Titanium or their alloys.



▶ 原材料:整体硬质合金
▶ 柄部:DIN6535 HA
▶ 螺旋角度:15°
▶ 螺纹长度:2× D

▶ Material : Solid Carbide
▶ Shank : DIN6535 HA
▶ Spiral Angle : 15°
▶ Thread Length : 2×D



单位(Unit) : mm

型号 EDP No.		通称直径 Nominal Diameter [D]	牙距 T.P.I	刃部直径 Cutter Diameter	柄径 Shank Diameter	螺纹长 Thread Length	全长 Over All Length	角度 Angle	槽数 No. of Flute
UNCOATED	TiAlN			D_1	D_2	L_1	L_2	A	Z
L4173400	L4273400	1/4"	20	**4.8**	8	13.3	62	90°	3
L4173440	L4273440	5/16"	18	**6.2**	10	16.18	74	90°	3
L4173480	L4273480	3/8"	16	**7.6**	12	19.8	80	90°	4
L4173520	L4273520	7/16"	14	**8.9**	12	22.62	80	90°	4
L4173560	L4273560	1/2"	13	**10.3**	14	26.32	90	90°	4
L4173600	L4273600	9/16"	12	**11.7**	16	30.63	100	90°	4
L4173640	L4273640	5/8"	11	**13.1**	18	33.41	102	90°	4
L4173700	L4273700	3/4"	10	**16.0**	20	39.29	110	90°	5

* 可以邀请其他的涂层方式.
Other coatings are available on your request.

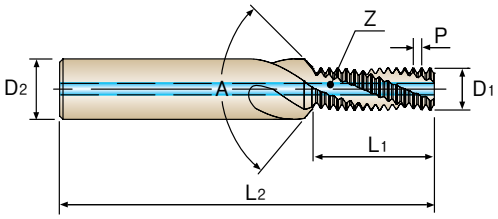
THREAD MILLS

L4174 SERIES UNCOATED
L4274 SERIES TiAlN

UNF 带有内冷却油孔和倒角的整体硬质合金内螺纹的英制细牙螺纹铣刀-ANSI B 1.1
SOLID CARBIDE THREAD MILL WITH COOLANT HOLE & CHAMFER for UNF INTERNAL THREAD - ANSI B 1.1

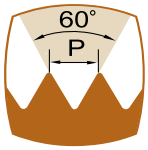
▶ 易切削螺纹用的材料如镍，钛及其合金的特殊材料

▶ Easy to cut threads even if exotic materials like Nickel, Titanium or their alloys.



▶ 原材料:整体硬质合金
▶ 柄部:DIN6535 HA
▶ 螺旋角度:15°
▶ 螺纹长度:2× D

▶ Material : Solid Carbide
▶ Shank : DIN6535 HA
▶ Spiral Angle : 15°
▶ Thread Length : 2×D



单位(Unit) : mm

型号 EDP No.		通称直径 Nominal Diameter [D]	牙距 T.P.I	刃部直径 Cutter Diameter	柄径 Shank Diameter	螺纹长 Thread Length	全长 Over All Length	角度 Angle	槽数 No. of Flute
UNCOATED	TiAlN			D1	D2	L1	L2	A	Z
L4174420	**L4274420**	1/4"	28	**5.1**	8	13.21	62	90°	3
L4174460	**L4274460**	5/16"	24	**6.5**	10	16.37	74	90°	3
L4174500	**L4274500**	3/8"	24	**8.1**	12	19.54	80	90°	4
L4174540	**L4274540**	7/16"	20	**9.4**	12	22.19	80	90°	4
L4174580	**L4274580**	1/2"	20	**11.0**	14	26	90	90°	4
L4174620	**L4274620**	9/16"	18	**12.4**	16	28.88	100	90°	4
L4174660	**L4274660**	5/8"	18	**14.0**	18	33.12	102	90°	5
L4174720	**L4274720**	3/4"	16	**17.0**	20	38.86	110	90°	5

* 可以邀请其他的涂层方式.
Other coatings are available on your request.

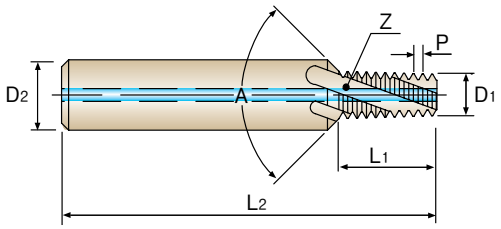
THREAD MILLS

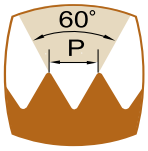
L4176 SERIES UNCOATED
L4276 SERIES TiAIN

NPT 带有内冷却油孔和倒角的整体硬质合金NPT螺纹铣刀-ANSI B 1.20.1
SOLID CARBIDE THREAD MILL WITH COOLANT HOLE & CHAMFER for NPT THREAD - ANSI B 1.20.1

▶ 易切削螺纹用的材料如镍，钛及其合金的特殊材料

▶ Easy to cut threads even if exotic materials like Nickel, Titanium or their alloys.





▶ 原材料:整体硬质合金
▶ 柄部:DIN6535 HA
▶ 螺旋角度:15°
▶ 螺纹长度:9×P

▶ Material : Solid Carbide
▶ Shank : DIN6535 HA
▶ Spiral Angle : 15°
▶ Thread Length : 9×P

单位(Unit) : mm

型号 EDP No.		通称直径 Nominal Diameter [D]	牙距 T.P.I	刃部直径 Cutter Diameter	柄径 Shank Diameter	螺纹长 Thread Length	全长 Over All Length	角度 Angle	槽数 No. of Flute
UNCOATED	TiAlN			D1	D2	L1	L2	A	Z
L4176020	L4276020	NPT1/16"	27	5.9	10	8.9	64	90°	3
L4176200	L4276200	NPT1/8"	27	7.8	12	8.9	70	90°	4
L4176400	L4276400	NPT1/4"	18	10.05	16	13.4	81	90°	4
L4176480	L4276480	NPT3/8"	18	13.45	18	13.4	81	90°	4

* 可以邀请其他的涂层方式.
Other coatings are available on your request.

THREAD MILLS 推荐的切削环境 RECOMMENDED CUTTING CONDITIONS

螺纹铣削编程 PROGRAMMING OF THREAD MILLING

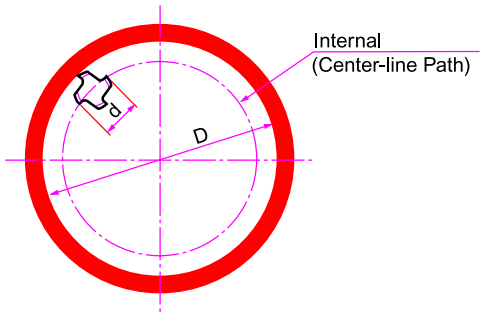
程序数据 / Program Data

螺纹铣的G代码 / G Codes for Thread Milling

G00	快速进给 Fast Feed Linear	**G90**	绝对命令 Absolute Command
G01	直线运动 Linear Movement	**G91**	增量命令 Incremental Command
G02	圆弧和螺旋插补 C.W Circular/Helical Interpolation C.W.	**M03**	顺时针旋转主轴 Clockwise Rotation of Spindle
G03	圆弧和螺旋插补 A.C.W Circular/Helical Interpolation A.C.W.	**M05**	主轴停止 Spindle Stop
G17	X,Y平面(垂直加工) X, Y Plane (Vertical Machining)	**M08**	冷却油开 Coolant On
G18	Z，X平面(水平加工) Z, X Plane (Horizontal Machining)	**X**	横向合作协调 Horizontal Co-ordinate
G19	Y,Z平面(使用90° 夹头) Y, Z Plane (Using 90° Head)	**Y**	横向合作协调 Horizontal Co-ordinate
G40	刀具半径补偿取消 Cutter Radius Compensation Cancel	**Z**	纵向合作协调 Vertical Co-ordinate
G41	刀具半径左补偿 Cutter Radius Compensation Left	**I**	沿着圆弧中心 X轴横向协调 X Co-ordinate to Center of Arc Travel
G42	刀具半径右补偿 Cutter Radius Compensation Right	**J**	沿着圆弧中心 Y轴横向协调 Y Co-ordinate to Center of Arc Travel
G43	刀具长度补偿 Tool Length Compensation Plus	**S**	主轴转速 Spindle Speed R.P.M.
G49	刀具长度补偿取消 Tool Length Compensation Cancel	**F**	进给 Feed mm/min

数控内螺纹铣削 / CNC Internal Thread Milling

G54	G90	G00	X…	Y…	Z2	T1	S…	M03
G91	G00	Z-…(A3+2)						
G41	G01	D26	X…(A6)	Y…(A5)	F…			
G03	X-…(A6)	Y…(A6)	Z…(A4)	I-…(A6)	J0			
G03	X0	Y0	Z…(A2)	I0	J-…(A1)			
G03	X-…(A6)	Y-…(A6)	Z…(A4)	I0	J-…(A6)			
G00	G40	X…(A6)	Y-…(A5)					
G00	Z…(A7)							
G90	G49	G00	Z200	M5				
M30								



参数说明 Explanation of Parameters

A1： 1/2 公称螺纹直径 1/2D
1/2 Nominal Thread Diameter 1/2D

A2： 螺纹齿距
Thread Pitch

A3： 螺纹深度
Thread Depth

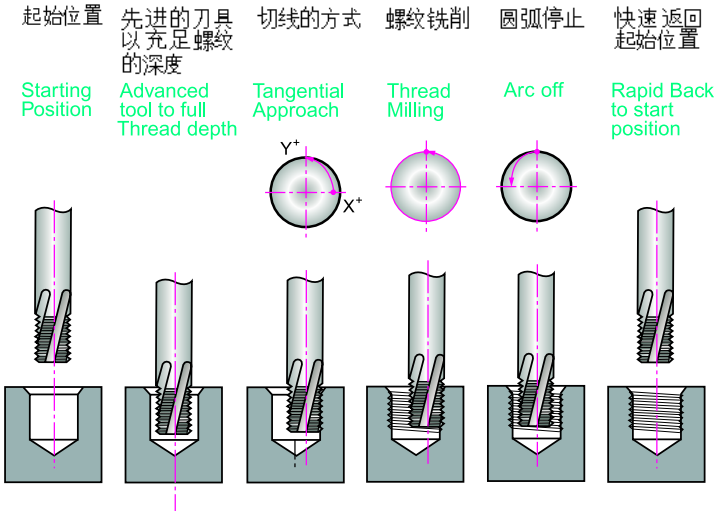
A4： 1/4P (增大铣削和右旋螺纹)
1/4P(for climb milling and right-hand thread)

A5： 从轮廓开始Y 0.5xP
Beginning of Contour in Y 0.5xP

A6： 圆弧停止 (A1-A5)
Arc Off (A1 - A5)

A7： A3+2-0.5P
A3+2-0.5P

T1： 刀具半径进行编程工具是正常的存储工具
Cutter radius to be programmed is nomally included in the tool memory



THREAD MILLS 推荐的切削条件 RECOMMENDED CUTTING CONDITIONS

推荐的切削速度 RECOMMENDED CUTTING SPEED

单位(Unit) : mm

Materials	Cutting Speed (m/min)	Feed per Tooth (fz)	
		Cutter Diameter ≤Ø8.0	Cutter Diameter >Ø8.0
低碳钢和中碳钢 Low Carbon Steels Medium Carbon Steels	80 - 120	0.02 - 0.04	0.04 - 0.10
高碳钢 High Carbon Steels	80 - 120	0.02 - 0.04	0.04 - 0.10
合金钢 Alloy Steels	80 - 120	0.02 - 0.04	0.04 - 0.10
热处理钢 Heat Treated Steels	60 - 100	0.02 - 0.04	0.04 - 0.10
不锈钢 Stainless Steels	40 - 80	0.01 - 0.02	0.02 - 0.06
铸铁 Cast Iron	50 - 100	0.02 - 0.04	0.04 - 0.10
铬镍合金钛合金 Chrome-Nickel Alloys Titanium Alloys	20 - 60	0.01 - 0.02	0.02 - 0.06
有色金属材料 Non Ferrous Materials	100 - 300	0.03 - 0.07	0.05 - 0.10

计算速度和进给速度 TO CALCULATE SPEED & FEED RATES

计算刀具转速 Calculate R.P.M of cutter

$$N = \frac{1000 \times V}{d \times \pi}$$

计算每步的运转 Calculate Feed per Revolution

$$F_1 = fz \times Z \times N$$

最后计算工具中心线进给 Finally Calculate Feed at Tool Center Line

$$F_2 = \frac{F_1 \times (D - d)}{D}$$

N : 转速 R.P.M

V : 推荐的切削条件 Recommended Cutting Speed

d : 刀具的直径 Diameter of Cutter

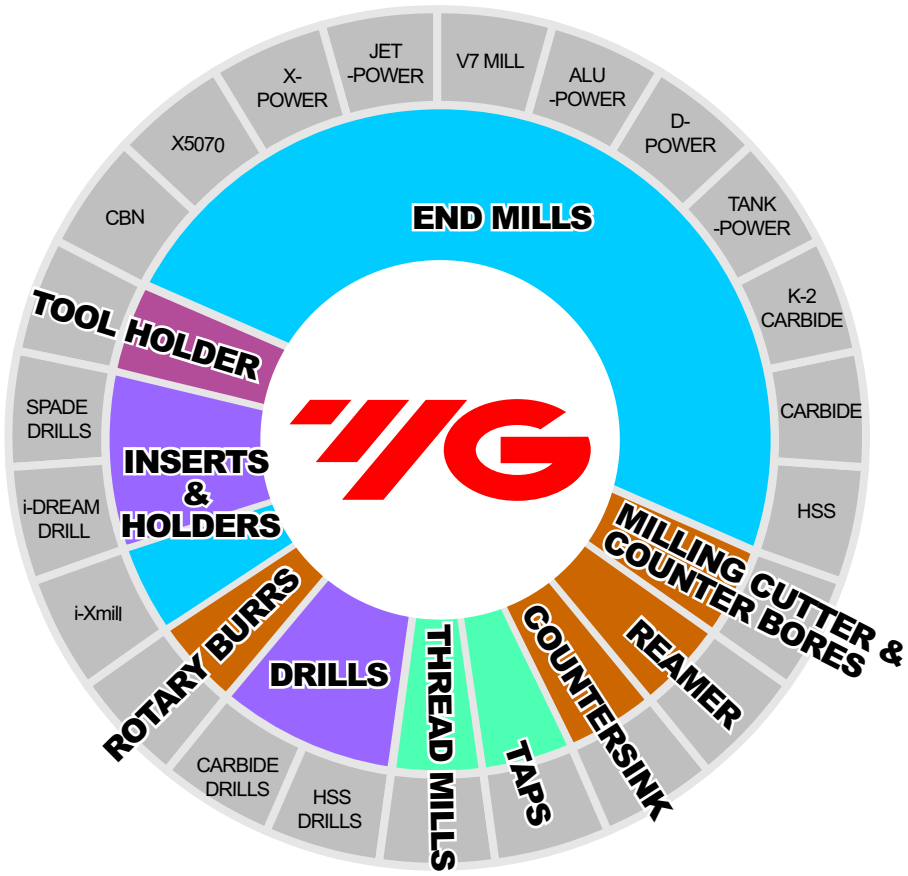
F_1 : 切削刃的进给 Feed at Cutting Edge

fz : 推荐的每步进给 Recommended Feed per Tooth

Z : 齿数 Number of Teeth

F_2 : 中心切削线的进给 Feed at Center Line of Cutting

D : 直径的主要组成部分 Major Diameter of Component



Challenge toward a Global Leader-

YG-1 Leads the World Market.

TAPS

YG

Being the best through innovation

TECHNICAL DATA

YG-1 YH精度体系
YG-1 YH LIMIT SYSTEM

YG-1使用一套独特的丝锥中径精度 我们叫它YH精度体系 用等级方法，你可选择最合适你工件条件的丝锥中径精度.

YG-1 applies a unique system of tap pitch diameter limits. We call it the YH limits system. Using the step method, you can select the best tap pitch diameter limits to match your work condition.

YH精度，为大多数YG-1的丝锥所采用 精度计算如下.

YH limit Most of Y.G-1's taps use this limit system. The limits calculated as follows;

1. Up to 0.6P (40TPI)

upper limits : 10㎛+15㎛×n

lower limit : (upper limits) - 15㎛

n=YH No.

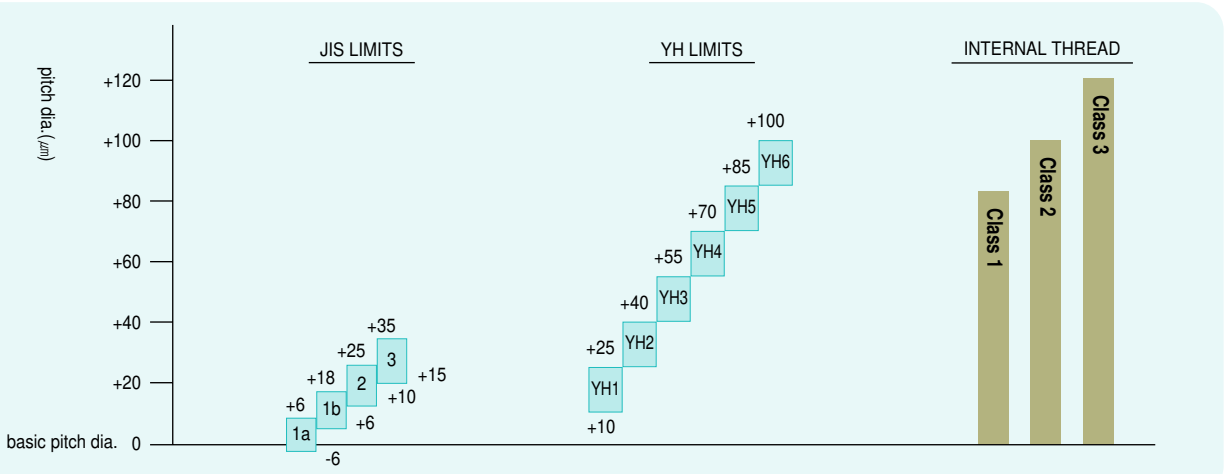
2. Above 0.7P (36TPI)

upper limits : 20㎛×n

lower limit : (upper limits) - 20㎛

n=YH No.

例如M3×0.5 / Example M3×0.5

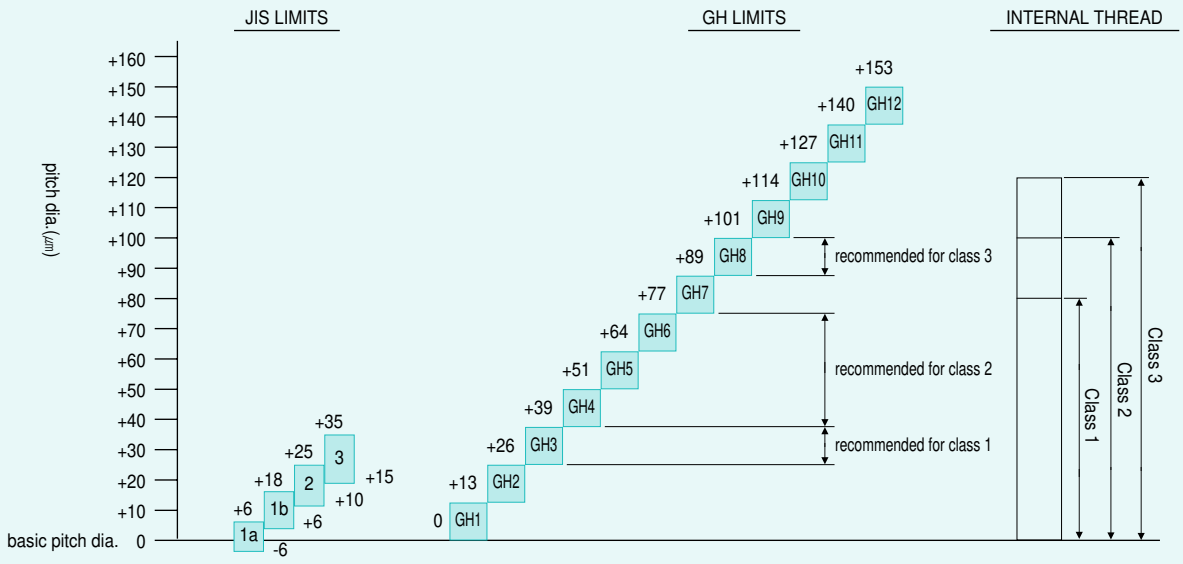


例如M10×1.5 / Example M10×1.5

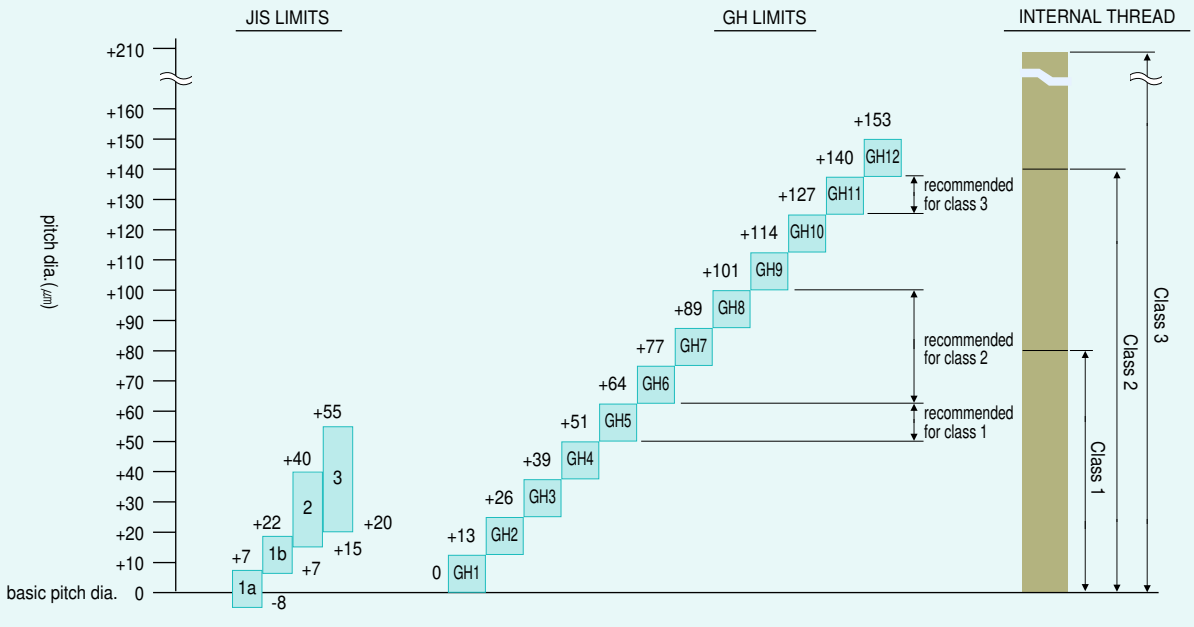
YG-1 GH精度体系
YG-1 GH LIMIT SYSTEM

YG-1的挤压丝锥采用GH精度体系 精度是按12.7um的增量确定的.
YG-1's fluteless taps are described by the GH limit system. The limits are established by increments of 12.7㎛.

例如M3×0.5 / Example M3×0.5



例如M10×1.5 / Example M10×1.5



推荐的攻丝速度
RECOMMENDED TAPPING SPEEDS

推荐攻丝速度
RECOMMENDED TAPPING SPEED AND CUTTING FLUIDS

表中列出推荐的攻丝速度和切削液 丝锥材质，丝锥倒角长度的形式底孔尺寸，工件尺寸和切削液是决定合适的攻丝速度的重要因素.
润滑，冷却能力和抗粘合性是影响切削液的3个重要因素
This chart shows the recommended tapping speeds and cutting fluids. Tap material, type of tap chamfer length, dimension of drill hole, work materials and cutting fluids are important factors for determining suitable tapping speed.
Lubrication, cooling capability and adhesion Resistance are the three important factors effecting cutting fluid.

WORK MATERIALS		TAPPING SPEED (m/min)						CUTTING FLUIDS
		SPIRAL FLUTED TAP	GUN POINTED TAP	STRAIGHT FLUTED TAP	FLUTELESS TAP	SOLID CARBIDE TAP	PIPE TAP	
LOW CARBON STEELS	≦C0.2%	8 ~ 13	15 ~ 25	8 ~ 13	8 ~ 13	—	3 ~ 6	Sulfochlorinated Oil (Active Type) Tapping Paste EP Additive Non-Water-Soluble Cutting Fluid (Emulsion Type)
MEDIUM CARBON STEELS	C0.25~0.40%	7 ~ 12	10 ~ 15	7 ~ 12	7 ~ 10	—	3 ~ 6	
HIGH CARBON STEELS	≧C0.45%	6 ~ 9	8 ~ 13	6 ~ 9	5 ~ 8	—	2 ~ 5	
ALLOY STEELS	SCM	7 ~ 12	10 ~ 15	7 ~ 12	5 ~ 8	—	2 ~ 5	
HARDENED STEELS	HRc 25~40	3 ~ 5 (4 ~ 8)	4 ~ 6 (6 ~ 10)	3 ~ 5 (4 ~ 8)	—	—	2 ~ 5	
STAINLESS STEELS	SUS	5 ~ 8	8 ~ 13	4 ~ 7	5 ~ 10	—	5 ~ 10	
TOOL STEELS	SKD	6 ~ 9	7 ~ 10	6 ~ 9	—	—	2 ~ 5	
CAST STEELS	SC	6 ~ 11	10 ~ 15	6 ~ 11	—	—	2 ~ 5	
CAST IRON	FC	—	—	10 ~ 15	—	10 ~ 20	2 ~ 5	Water-Soluble Cutting Fluid (Emulsion Type) Non-Water-Soluble Cutting Fluid
HIGH TENSION CAST IRON	FCD	7 ~ 12	10 ~ 20	7 ~ 12	—	10 ~ 20	4 ~ 8	
COPPER	Cu	6 ~ 11	7 ~ 12	6 ~ 9	7 ~ 12	10 ~ 20	2 ~ 5	Non-Water-Soluble Cutting Fluid (Inactive Type) Water-Soluble Cutting Fluid (Emulsion Type)
BRASS BRASS CASTING	Bs, BsC	10 ~ 20	15 ~ 25	10 ~ 15	7 ~ 12	15 ~ 25	5 ~ 10	
BRONZE BORNZE CASTING	PB, PBC	6 ~ 11	10 ~ 20	6 ~ 11	7 ~ 12	10 ~ 20	6 ~ 11	
ALUMINUM ROLLED STEELS	AL	10 ~ 20	15 ~ 25	10 ~ 20	10 ~ 20	—	5 ~ 10	
ALUMINUM ALLOY CASTING	AC, ADC	10 ~ 15	15 ~ 20	10 ~ 15	10 ~ 15	10 ~ 20	10 ~ 15	
MAGNESIUM ALLOY CASTING	MC	7 ~ 12	10 ~ 15	7 ~ 12	—	10 ~ 20	10 ~ 15	
ZINC ALLOY CASTING	ZDC	7 ~ 12	10 ~ 15	7 ~ 12	7 ~ 12	10 ~ 20	10 ~ 15	
THERMOSETTING PLASTIC	BAKELITE PHENOL, EPOXY	—	—	10 ~ 20	—	15 ~ 25	5 ~ 10	Water-Soluble Cutting Fluid Mist Lubrication Air Cooling, Dry
THERMOPLASTIC	VINYL CHLORIDE NYLON	10 ~ 15	10 ~ 20	10 ~ 20	—	10 ~ 20	5 ~ 10	

1.这些是一般的建议，根据实际条件，可能有变化.
2.要选择最适合的丝锥，请参考丝锥推荐表
3.( )=是关于HSS-PM丝锥的推荐
1. These are general recommendations which depending upon conditions, may be altered.
2. To select the best taps, please see Tap Recommended Table.
3. ( )=recommendation for HSS-PM taps.

推荐攻丝底孔尺寸
RECOMMENDED TAP DRILL SIZES

公制螺纹
FOR METRIC THREADS

Thread Size	Drill Size (mm)	D1 (mm)	
		Max.	Min.
M2 × 0.4	1.60	1.679	1.567
M2 × 0.25	1.75	(1.785)	(1.729)
M2.2 × 0.45	1.75	1.838	1.713
M2.2 × 0.25	1.95	(1.985)	(1.929)
M2.2 × 0.4	1.90	1.979	1.867
M2.3 × 0.25	2.05	2.061	2.001
M2.5 × 0.45	2.10	2.138	5.013
M2.5 × 0.35	2.20	2.221	2.121
M2.6 × 0.45	2.20	2.238	2.113
M2.6 × 0.35	2.20	2.246	2.186
M3 × 0.5	2.50	2.599	2.459
M3 × 0.35	2.70	2.721	2.621
M3.5 × 0.6	2.90	3.010	2.850
M3.5 × 0.35	3.20	3.221	3.121
M4 × 0.7	3.30	3.422	3.242
M4 × 0.5	3.50	3.599	3.459
M4.5 × 0.75	3.80	3.878	3.688
M4.5 × 0.5	4.00	4.099	3.959
M5 × 0.8	4.20	4.334	4.134
M5 × 0.5	4.50	4.599	4.459
M6 × 1	5.00	5.153	4.917
M6 × 0.75	5.30	5.378	5.188
M6 × 0.5	5.50	5.550	5.400
M7 × 1	6.00	6.153	5.917
M7 × 0.75	6.30	6.378	6.188
M7 × 0.5	6.50	6.550	6.400
M8 × 1.25	6.80	6.912	6.647
M8 × 1	7.00	7.153	6.917
M8 × 0.75	7.30	7.378	7.188
M8 × 0.5	7.50	7.520	7.400
M9 × 1.25	7.80	7.912	7.647
M9 × 1	8.00	8.153	7.917
M9 × 0.75	8.30	8.378	8.188
M10 × 1.5	8.50	8.676	8.376
M10 × 1.25	8.80	8.912	8.647
M10 × 1	9.00	9.153	8.917
M10 × 0.75	9.30	9.378	9.188
M10 × 0.5	9.50	9.520	9.400
M11 × 1.5	9.50	9.676	9.376
M11 × 1	10.00	10.153	9.917
M11 × 0.75	10.30	10.378	10.188
M12 × 1.75	10.30	10.441	10.106
M12 × 1.5	10.50	10.676	10.376
M12 × 1.25	10.80	10.912	10.647
M12 × 1	11.00	11.153	10.917

Thread Size	Drill Size (mm)	D1 (mm)	
		Max.	Min.
M12 × 0.5	11.50	11.520	11.400
M14 × 2	12.00	12.210	11.835
M14 × 1.5	12.50	12.676	12.376
M14 × 1	13.00	13.153	12.917
M15 × 1.5	13.50	13.673	13.376
M15 × 1	14.00	14.153	13.917
M16 × 2	14.00	14.210	13.835
M16 × 1.5	14.50	14.676	14.376
M16 × 1	15.00	15.153	14.917
M17 × 1.5	15.50	15.676	15.376
M17 × 1	16.00	16.153	15.917
M18 × 2.5	15.50	15.744	15.294
M18 × 2	16.00	16.210	15.835
M18 × 1.5	16.50	16.676	16.376
M18 × 1	17.00	17.153	16.917
M20 × 2.5	17.50	17.744	17.294
M20 × 2	18.00	18.210	17.835
M20 × 1.5	18.50	18.676	18.376
M20 × 1	19.00	19.153	18.917
M22 × 2.5	19.50	19.744	19.294
M22 × 2	20.00	20.210	19.835
M22 × 1.5	20.50	20.673	20.376
M22 × 1	21.00	21.153	20.917
M24 × 3	21.00	21.252	20.752
M24 × 2	22.00	22.210	21.835
M24 × 1.5	22.50	22.676	22.376
M24 × 1	23.00	23.153	22.917
M25 × 2	23.00	23.210	22.835
M25 × 1.5	23.50	23.676	23.376
M25 × 1	24.00	24.153	23.917
M26 × 1.5	24.50	24.676	24.376
M27 × 3	24.00	24.252	23.752
M27 × 2	25.00	25.210	24.835
M27 × 1.5	25.50	25.676	25.376
M27 × 1	26.00	26.153	25.917
M28 × 2	26.00	26.210	25.835
M28 × 1.5	26.50	26.676	26.376
M28 × 1	27.00	27.153	26.917
M30 × 3.5	26.50	26.771	26.211
M30 × 3	27.00	27.252	26.752
M30 × 2	28.00	28.210	27.835
M30 × 1.5	28.50	28.676	28.376
M30 × 1	29.00	29.153	28.917
M32 × 2	30.00	30.210	29.835
M32 × 1.5	30.50	30.676	30.376

公制螺纹
FOR METRIC THREADS

Thread Size	Drill Size (mm)	D1 (mm)	
		Max.	Min.
M33 × 3.5	29.50	29.771	29.211
M33 × 3	30.00	30.252	29.752
M33 × 2	31.00	31.210	30.835
M33 × 1.5	31.50	31.676	31.376
M35 × 1.5	33.50	33.676	33.376
M36 × 4	32.00	32.270	31.670
M36 × 3	33.00	33.252	32.752
M36 × 2	34.00	34.210	33.835
M36 × 1.5	34.50	34.676	34.376
M38 × 1.5	36.50	36.676	36.376
M39 × 4	35.00	35.270	34.670
M39 × 3	36.00	36.252	35.752
M39 × 2	37.00	37.210	36.835
M39 × 1.5	37.50	37.676	37.376
M40 × 3	37.00	37.252	36.752
M40 × 2	38.00	38.210	37.835
M40 × 1.5	38.50	38.676	38.376
M42 × 4.5	37.50	37.799	37.129

Thread Size	Drill Size (mm)	D1 (mm)	
		Max.	Min.
M42 × 4	38.00	38.270	37.670
M42 × 3	39.00	39.252	38.752
M42 × 2	40.00	40.210	39.835
M42 × 1.5	40.50	40.676	40.376
M45 × 4.5	40.50	40.799	40.129
M45 × 4	41.00	41.270	40.670
M45 × 3	42.00	42.252	41.752
M45 × 2	43.00	43.210	72.835
M45 × 1.5	43.50	43.676	73.376
M48 × 5	43.00	43.297	42.587
M48 × 4	44.00	44.270	43.670
M48 × 3	45.00	45.252	44.752
M48 × 2	46.00	46.210	45.835
M48 × 1.5	46.50	46.676	46.376
M50 × 3	47.00	47.252	46.752
M50 × 2	48.00	48.210	47.835
M50 × 1.5	48.50	48.676	48.376

D1：JIS级内螺纹小径 但（ ）内的 D1是JIS 1级内螺纹因为它们的公称尺寸在JIS2级中未指定.
D1 : Minor diameter of JIS calss internal thread. But, the minor diameter D1 shown in ( ) are of JIS class 1 internal threads because their nominal sizes are not specified in JIS Class 2.

英制螺纹
FOR UNIFIED THREADS

Thread Size	Drill Size (mm)	D1 (mm)	
		Max.	Min.
#2 - 56 UNC	1.80	1.871	1.695
#2 - 64 UNF	1.85	1.912	1.756
#3 - 48 UNC	2.10	2.146	1.941
#3 - 56 UNF	2.10	2.197	2.025
#4 - 40 UNC	2.30	2.385	2.157
#4 - 48 UNF	2.40	2.458	2.271
#5 - 40 UNC	2.60	2.697	2.487
#5 - 44 UNF	2.70	2.740	2.551
#6 - 32 UNC	2.80	2.895	2.642
#6 - 40 UNF	2.90	3.022	2.820
#8 - 32 UNC	3.40	3.530	3.302
#8 - 36 UNF	3.50	3.606	3.404
#10 - 24 UNC	3.90	3.962	3.683
#10 - 32 UNF	4.10	4.165	3.963
#12 - 24 UNC	4.50	4.597	4.344
#12 - 28 UNF	4.60	4.724	4.496
#12 - 32 UNF	4.70	4.826	4.623
1/4 - 20 UNC	5.10	5.257	4.979

Thread Size	Drill Size (mm)	D1 (mm)	
		Max.	Min.
1/4 - 28 UNF	5.50	5.588	5.360
1/4 - 32 UNEF	5.60	5.690	5.486
5/16 - 18 UNC	6.60	6.731	6.401
5/16 - 24 UNF	6.90	7.035	6.782
5/16 - 32 UNEF	7.10	7.264	7.087
3/8 - 16 UNC	8.00	8.153	7.798
3/8 - 24 UNF	8.50	8.636	8.382
3/8 - 32 UNEF	8.70	8.865	8.661
7/16 - 14 UNC	9.40	9.550	9.144
7/16 - 20 UNF	9.90	10.033	9.729
7/16 - 28 UNEF	10.20	10.338	10.135
1/2 - 13 UNC	10.80	11.023	10.592
1/2 - 20 UNF	11.50	11.607	11.329
1/2 - 28 UNEF	11.80	11.938	11.709
9/16 - 12 UNC	12.20	12.446	11.989
9/16 - 18 UNF	12.90	13.081	12.751
9/16 - 24 UNEF	13.20	13.386	13.132
5/8 - 11 UNC	13.60	13.868	13.386

英制螺纹
FOR UNIFIED THREADS

Thread Size	Drill Size (mm)	D1 (mm)	
		Max.	Min.
5/8 - 18 UNF	14.50	14.681	14.351
5/8 - 24 UNEF	14.80	14.986	14.732
3/4 - 10 UNC	16.50	16.840	16.307
3/4 - 16 UNF	17.50	17.678	17.323
3/4 - 20 UNEF	17.80	17.958	17.678
7/8 - 9 UNC	19.50	19.761	19.177
7/8 - 14 UNF	20.50	20.675	20.270
7/8 - 20 UNEF	21.00	21.133	20.853
1 - 8 UNC	22.20	22.606	21.971
1 - 12 UNF	23.20	23.571	23.114
1 - 20 UNEF	24.00	24.308	24.028
1＊1/8 - 7 UNC	25.00	25.349	24.638
1＊1/8 - 12 UNF	26.50	26.746	26.289
1＊1/8 - 18 UNEF	27.20	27.381	27.051
1＊1/8 - 8 UN	25.50	25.781	25.146
1＊1/4 - 7 UNC	28.20	28.524	27.813
1＊1/4 - 12 UNF	29.50	29.921	29.464
1＊1/4 - 18 UNEF	30.20	30.556	30.226

Thread Size	Drill Size (mm)	D1 (mm)	
		Max.	Min.
1＊1/4 - 8 UN	28.50	28.956	28.321
1＊3/8 - 6 UNC	30.80	31.115	30.353
1＊3/8 - 12 UNF	32.80	33.096	32.639
1＊3/8 - 18 UNEF	33.50	33.731	33.401
1＊3/8 - 8 UN	31.80	32.131	31.496
1＊1/2 - 6 UNC	34.00	34.290	33.528
1＊1/2 - 12 UNF	36.00	36.271	35.814
1＊1/2 - 18 UNEF	36.50	36.881	36.576
1＊1/2 - 8 UN	35.00	35.306	34.671
1＊5/8 - 18 UNEF	39.80	40.081	39.751
1＊5/8 - 8 UN	38.20	38.481	37.846
1＊5/8 - 12 UN	39.20	39.446	38.989
1＊3/4 - 5 UNC	39.50	39.827	38.964
1＊3/4 - 8 UN	41.20	41.656	41.021
1＊3/4 - 12 UN	42.20	42.621	42.164
2 - 4＊1/2 UNC	45.20	45.593	44.679
2 - 8 UN	47.80	48.006	47.371
2 - 12 UN	48.50	48.971	48.514

D1：内螺纹小径.
对 UNC 和UNF螺纹，按照JIS 2B级
对UNEF和UN螺纹，按照 ANSI B1，1a，2B级.
D1： Minor diameter of internal thread.
For UNC and UNF threads, according to JIS Class 2B ;
For UNEF and UN threads, according to ANSI B1.1 Class 2B

惠氏螺纹
FOR WHITWORTH THREADS

Thread Size	Drill Size (mm)	
	A	B
W1/8 - 40	2.65	2.60
W5/32 - 32	3.25	3.20
W3/16 - 24	3.75	3.70
W1/4 - 20	5.10	5.00
W5/16 - 18	6.60	6.50
W3/8 - 16	8.00	7.90
W7/16 - 14	9.40	9.30
W1/2 - 12	10.70	10.50
W9/16 - 12	12.30	12.00
W5/8 - 11	13.70	13.50
W3/4 - 10	16.70	16.50

Thread Size	Drill Size (mm)	
	A	B
W7/8 - 9	19.50	19.30
W1 - 8	22.40	22.00
W1＊1/8 - 7	25.00	24.80
W1＊1/4 - 7	28.30	28.00
W1＊3/8 - 6	30.50	30.30
W1＊1/2 - 6	33.80	33.50
W1＊5/8 - 5	36.00	35.70
W1＊3/4 - 5	39.20	39.00
W1＊7/8 - 4＊1/2	41.80	41.50
W2 - 4＊1/2	45.00	44.70

通常A栏的螺纹底孔的钻头尺寸是用于加工孔的；当孔的尺寸趋向变大时应选择B栏的螺纹底孔的钻头尺寸.
Generally the tap drill sizes in column A are used for producing holes ; When holes tend to be cut oversized the tap drill sizes in column B should be Selected.

TECHNICAL DATA

SUPER CUTTING TAPS

PT锥形管螺纹
PT TAPER PIPE THREADS

Thread Size	Drill Size (mm)		Internal Thread Minor Dia. on [Min] Length of Useful Thread (mm)	Internal Thread Minor Dia. on [Min] Gauge Length (mm)
	With Reaming Before Tapping	Without Reaming Before Tapoping		
PT 1/16 - 28	6.10	6.20	6.244	6.384
PT 1/8 - 28	8.10	8.20	8.249	8.388
PT 1/4 - 19	10.70	11.00	10.962	11.174
PT 3/8 - 19	14.20	14.50	14.448	14.658
PT 1/2 - 14	17.60	18.00	17.979	18.263
PT 3/4 - 14	23.00	23.50	23.378	23.663
PT 1 - 11	29.00	29.50	29.459	29.822
PT 1 * 1/4 - 11	37.50	38.00	37.976	38.339
PT 1 * 1/2 - 11	43.40	44.00	43.869	44.232
PT 2 - 11	54.90	55.50	55.412	55.844

PS 直形管螺纹
PS STRAIGHT PIPE THREADS

Thread Size	Drill Size (mm)	D1 (mm)	
		Max.	Min.
PS 1/16 - 28	6.50	6.632	6.490
PS 1/8 - 28	8.50	8.637	8.495
PS 1/4 - 19	11.40	11.549	11.341
PS 3/8 - 19	15.00	15.054	14.846
PS 1/2 - 14	18.50	18.773	18.489

Thread Size	Drill Size (mm)	D1 (mm)	
		Max.	Min.
PS 3/4 - 14	24.00	24.259	23.975
PS 1 - 11	30.20	30.471	30.111
PS 1 * 1/4 - 11	38.80	39.132	38.772
PS 1 * 1/2 - 11	44.80	45.025	44.665
PS 2 - 11	56.50	56.836	56.476

PF 直形管螺纹
PF STRAIGHT PIPE THREADS

Thread Size	Drill Size (mm)	D1 (mm)	
		Max.	Min.
PF 1/16 - 28	6.70	6.843	6.561
PF 1/8 - 28	8.70	8.848	8.566
PF 1/4 - 19	11.70	11.890	11.445
PF 3/8 - 19	15.20	15.395	14.950
PF 1/2 - 14	19.00	19.172	18.631

Thread Size	Drill Size (mm)	D1 (mm)	
		Max.	Min.
PF 3/4 - 14	24.50	24.658	24.117
PF 1 - 11	30.50	30.931	30.291
PF 1 * 1/4 - 11	39.20	39.592	38.952
PF 1 * 1/2 - 11	45.00	45.485	44.845
PF 2 - 11	57.00	57.296	56.656

NPT锥形管螺纹
NPT TAPER PIPE THREADS

Thread Size	Drill Size (mm)			
	With Reaming Before Tapping		Without Reaming Before Tapoping	
	mm	inch	mm	inch
NPT 1/16 - 27	5.94	0.234	6.15	0.242
NPT 1/8 - 27	8.33	0.328	8.43	0.332
NPT 1/4 - 18	10.72	0.422	11.13	0.438
NPT 3/8 - 18	14.27	0.562	14.27	0.562
NPT 1/2 - 14	17.48	0.688	17.86	0.703
NPT 3/4 - 14	22.63	0.891	23.01	0.906
NPT 1 - 11 * 1/2	28.58	1.125	28.98	1.141
NPT 1 * 1/4 - 11 * 1/2	37.31	1.469	37.69	1.484
NPT 1 * 1/2 - 11 * 1/2	43.26	1.703	43.66	1.719
NPT 2 - 11 * 1/2	55.17	2.172	55.58	2.188
NPT 2/1/2 - 8	65.48	2.578	66.27	2.609

NPTF锥形管螺纹
NPTF TAPER PIPE THREADS

Thread Size	Drill Size (mm)			
	With Reaming Before Tapping		Without Reaming Before Tapoping	
	mm	inch	mm	inch
NPTF 1/16 - 27	5.94	0.234	6.15	0.242
NPTF 1/8 - 27	8.33	0.328	8.43	0.332
NPTF 1/4 - 18	10.72	0.422	11.13	0.438
NPTF 3/8 - 18	14.27	0.562	14.27	0.562
NPTF 1/2 - 14	17.48	0.688	17.86	0.703
NPTF 3/4 - 14	22.63	0.891	23.01	0.906
NPTF 1 - 11 * 1/2	28.58	1.125	28.98	1.141
NPTF 1 * 1/4 - 11 * 1/2	37.31	1.469	37.69	1.484
NPTF 1 * 1/2 - 11 * 1/2	43.26	1.703	43.66	1.719
NPTF 2 - 11 * 1/2	55.17	2.172	55.58	2.188
NPTF 2/1/2 - 8	65.48	2.578	66.27	2.609

挤压丝锥
FOR FLUTELESS TAPS

Thread Size	Drill Size (mm) Tap Limits							
	GH4	GH5	GH6	GH7	GH8	GH9	GH10	GH11
M2 × 0.4	1.83	1.84	---	---	---	---	---	---
M2.2 × 0.45	2.00	2.01	---	---	---	---	---	---
M2.3 × 0.4	2.13	2.14	---	---	---	---	---	---
M2.5 × 0.45	2.30	2.31	---	---	---	---	---	---
M2.6 × 0.45	2.40	2.41	---	---	---	---	---	---
M3 × 0.5	2.77	2.78	2.79	2.81	---	---	---	---
M3 × 0.35	2.85	2.87	2.88	2.89	---	---	---	---
M3.5 × 0.6	---	3.23	3.24	3.25	---	---	---	---
M4 × 0.7	---	3.67	3.68	3.70	---	---	---	---
M4 × 0.5	---	3.78	3.79	3.81	---	---	---	---
M5 × 0.8	---	4.61	4.63	4.64	---	---	---	---
M5 × 0.5	---	4.78	4.79	4.81	---	---	---	---
M6 × 1	---	5.50	5.51	5.53	---	---	---	---
M6 × 0.75	---	5.64	5.65	5.67	---	---	---	---
M6 × 0.5	---	5.78	5.79	5.81	---	---	---	---
M7 × 1	---	6.50	6.51	6.53	---	---	---	---
M8 × 1.25	---	---	7.37	7.39	7.40	---	---	---
M8 × 1	---	---	7.51	7.53	7.54	---	---	---
M10 × 1.5	---	---	9.23	9.24	9.26	9.27	---	---
M10 × 1.25	---	---	9.37	9.39	9.40	9.41	---	---
M10 × 1	---	---	9.51	9.53	9.54	9.55	---	---
M12 × 1.75	---	---	---	11.10	11.12	11.13	11.14	---
M12 × 1.5	---	---	---	11.24	11.26	11.27	11.28	---
M12 × 1.25	---	---	---	11.39	11.40	11.41	11.42	---
M12 × 1	---	---	---	11.53	11.54	11.55	11.56	---
M14 × 2	---	---	---	---	12.98	12.99	13.00	13.01
M14 × 1.5	---	---	---	---	13.26	13.27	13.28	13.30
M14 × 1	---	---	---	---	13.54	13.55	13.56	13.58
M16 × 2	---	---	---	---	14.98	14.99	15.00	15.01
M16 × 1.5	---	---	---	---	14.26	15.27	15.28	15.30
M16 × 1	---	---	---	---	15.54	15.55	15.56	15.58
M18 × 2.5	---	---	---	---	---	16.71	16.72	16.73
M18 × 1.5	---	---	---	---	---	17.27	17.28	17.30
M20 × 2.5	---	---	---	---	---	---	18.72	18.73
M20 × 1.5	---	---	---	---	---	---	19.28	19.30

挤压丝锥
FOR FLUTELESS TAPS

Thread Size	Drill Size (mm) Tap Limits							
	GH4	GH5	GH6	GH7	GH8	GH9	GH10	GH11
#2 - 56 UNC	---	1.99	2.01	---	---	---	---	---
#4 - 40 UNC	---	2.55	2.56	2.58	---	---	---	---
#5 - 40 UNC	---	2.88	2.89	2.91	---	---	---	---
#6 - 32 UNC	---	3.12	3.13	3.15	3.16	---	---	---
#8 - 32 UNC	---	---	3.80	3.81	3.82	---	---	---
#10 - 24 UNC	---	---	---	4.32	4.33	4.34	---	---
#12 - 24 UNC	---	---	---	4.98	4.99	5.01	---	---
1/4 - 20 UNC	---	---	---	5.72	5.74	5.75	---	---

标准螺纹规格(部分)
SYMBOL USED FOR STANDARD THREADS (PARTIAL LISTING)

Thread Symbol	Thread		Reference Standard	Thread Angle
M	Metric screw threads	Coarse series	JIS B 0205	60°
		Fine series	JIS B 0207	
S	Metric screw threads		JIS B 0201	
UNC	Unified threads	Coarse series	JIS B 0206	
UNF		Fine series	ANSI B1.1	
			JIS B 0208	
UNEF		Extra-fine series	ANSI B1.1	
UNS		Special diameter, pitch, & length of engagment		
UN		Constant-pitch series		
UNJC	Unified threads (MIL Standard)	Coarse series	MIL-S-8879	
UNJF		Fine series		
UNJEF		Extra-fine series		
UNJ		Constant-pitch series		
Tr	Metric trapezoidal screw threads		JIS B 0216	30°
TM	30° Trapezoidal screw threads		JIS B 0216 Appendix	
TW	29° Trapezoidal screw threads		JIS B 0222	29°
R	Pipe threads where pressure-tight joints are made on the threads	Taper external pipe threads	JIS B 0203	55° 1/16 Taper
Rc		Taper internal pipe threads		
Rp		Parallel internal pipe threads		55°
G	Pipe threads where pressure-tight joints are not made on the threads		JIS B 0202	
PF	Parallel pipe threads (For mechanical joints)		JIS B 0202 Appendix	
PT	Taper pipe threads	(For pressure-tight joints)	JIS B 0203 Appendix	55° 1/16 Taper
PS	Parallel pipe threads			55°
NPT	American Standard taper pipe threads for general use		ANSI/ASEM B1.20.1	60° 1/16 Taper
NPSC	American Standard straight pipe threads in pipe couplings			60°
NPSM	American Standard straight pipe threads for free-fitting mechanical joints for fixtures			
NPTF	Dryseal American Standard taper pipe threads		ANSI B1.20.3	60° 1/16 Taper
NPSF	Dryseal American Standard fuel internal straight pipe threads			60°
CTG	Screw threads for rigid metal thick-walled conduits and fittings		JIS B 0204	55°
CTC	Screw threads for rigid metal thin-walled conduits and fittings			80°
BC	Cycle threads		JIS B 0225	60°
SM	Screw threads for sewing machine		JIS B 0226	
CTV	Tyre valve threads of cycle		JIS D 9422	
TV	Tyre valve threads of automobile		JIS D 4208	
E	Electric socket and lamp-base threads		JIS C 7709	- - -
BA	British association threads		BS 93	47° 30′
BSC	British Standard cycle threads		BS 811	60°
BSW	British Standard Whitworth threads		BS 84	55°
BSF	British Standard fine threads			
BSMO	Birtish Standard microscope objective threads		BS 3569	
FG	(Germany) Cycle threads		DIN 79012	80°
Pg	(Germany) Steel conduit threads		DIN 40430	80°

硬度换算表
HARDNESS CONVERSION TABLE

Rockwell ★ C. Scale Hardness	Vickers Hardness	Brinell Hardness	Rockwell A. Scale Hardness	Shore Hardness	Tensile Strength ★★ MPa (Kgf/mm2)
58	653	---	80.1	78	---
57	633	---	79.6	76	---
56	613	---	79.0	75	---
55	595	---	78.5	74	2075 (212)
54	577	---	78.0	72	2015 (205)
53	560	---	77.4	71	1950 (199)
52	544	(500)	76.8	69	1880 (192)
51	528	(487)	76.3	68	1820 (186)
50	513	(475)	75.9	67	1760 (179)
49	498	(464)	75.2	66	1695 (173)
48	484	451	74.7	64	1635 (167)
47	471	442	74.1	63	1580 (161)
46	458	432	73.6	62	1530 (156)
45	446	421	73.1	60	1480 (151)
44	434	409	72.5	58	1435 (146)
43	423	400	72.0	57	1385 (141)
42	412	390	71.5	56	1340 (136)
41	402	381	70.9	55	1295 (132)
40	392	371	70.4	54	1250 (127)
39	382	362	69.9	52	1215 (124)
38	372	353	69.4	51	1180 (120)
37	363	344	68.9	50	1160 (118)
36	354	336	68.4	49	1115 (114)
35	345	327	67.9	48	1080 (110)
34	336	319	67.4	47	1055 (108)
33	327	311	66.8	46	1025 (105)
32	318	301	66.3	44	1000 (102)
31	310	294	65.8	43	980 (100)
30	302	286	65.3	42	950 (97)
29	294	279	64.7	41	930 (95)
28	286	271	64.3	41	910 (93)
27	279	264	63.8	40	880 (90)
26	272	258	63.3	38	860 (88)
25	266	253	62.8	38	840 (86)
24	260	247	62.4	37	825 (84)
23	254	243	62.0	36	805 (82)
22	248	237	61.5	35	785 (80)
21	243	231	61.0	35	770 (79)
20	238	226	60.5	34	760 (77)
(18)	230	219	---	33	730 (75)
(16)	222	212	---	32	705 (72)
(14)	213	203	---	31	675 (69)
(12)	204	194	---	29	650 (66)
(10)	196	187	---	28	620 (63)
(8)	188	179	---	27	600 (61)
(6)	180	171	---	26	580 (59)
(4)	173	165	---	25	550 (56)
(2)	166	158	---	24	530 (54)
(0)	160	152	---	24	515 (53)

● 硬度转换只作为粗略的参考，因为不同材料会有变化.
黑体字的数字是以ASTM E 140为基准(通常由SAE-ASM-ASTM进行调整)
★ ( )中的数字只供参考
★★ 抗拉强度的单位和 ( ) 中的数字是用JIS Z 8413 & Z 8438中的转换表由psi值转换的.
此表是根据SAE J 417作成(部分)

● Hardness conversions should only be used as a rough guide due to variation for different materials.
Figures shown in bold type are based on ASTM E 140 (which being adjusted commonly by SAE-ASM-ASTM).
★ Figure shown in ( ) are provided for reference only.
★★ The unit of tensile strength and figures in ( ) are converted from psi values by using conversion tables in JIS Z 8413 & Z 8438. This table is according to SAE J 417 (partial listing).

攻丝过程中的问题及对策
APPLICATION AND USE OF THREADING TAPS

问题 / Problem	问题发生 / Causes	对策 / Solutions
攻孔过大 Tapped hole oversize	不正确的丝锥使用(切削参数不适合运用) Incorrect tap in use (cutting geometry unsuitable for application)	根据相应的材料组选择丝锥 Use tap selected from the relevant material group
	同轴性不好 Faulty alignment	确保丝锥和锥孔准确的在一条线上 Ensure that the tap is correctly aligned with the core hole axis
	冷焊 Cold welding	改变冷却油方向，调整切削速度 Improve lubrication and direction of coolant Adjust cutting speed
	重置丝锥(引入线不是同心的) Re-ground tap(lead-in is not concentric)	用合适的研磨机械再研磨丝锥的引入部分 Regrind tap lead correctly on a suitable tap grinding machine
带状螺纹 Stripped threads	错误使用丝锥(切削参数不适合运用) Incorrect tap in use (cutting geometry incorrect for application)	根据相应的材料组选择丝锥 Use a tap from the relevant material group.
	主轴速度和进给率不同步 Spindle speed and feed rate not synchronized	检查进给率程序和主轴螺距 使用带有轴向滑动的攻丝主轴 Check feed rate programming and / or pitch of leading spindle Use a tapping spindle with axial float
	不足的启动压力，促使外面的螺纹脱落 Insufficient start pressure exerted on tap with peel-cut	增大启动压力 Increase start pressure
攻丝的孔成钟型 Bell mouthed tapped hole	启动压力不合适 Incorrect start pressure applied to tap	使用带有轴向滑动的攻丝主轴 Use a tapping spindle with axial float
不理想的螺纹表面 Unsatisfactory thread surface finish	错误使用丝锥 (切削参数不适合运用) Incorrect tap in use (Cutting geometry unsuitable for application)	根据相应的材料组选择丝锥 Select tap from the relevant material group
	丝锥生硬 The tap is blunt	替换和重新研磨丝锥 Replace or re-grind tap
	再研磨效果差 Tap badly re-ground	再研磨一遍 检查切削参数是否适合被加工材料 Re-grind tap again. Check that cutting geometry is suitable for material
	冷却油太少影响润滑质量和产量 Coolant lacking in lubricating qualities and / or quantity	确保冷却油使用正确且供应充足 Ensure the use of asuitable coolant and an ample supply

问题 / Problem	问题发生 / Causes	对策 / Solutions
丝锥的铁屑部分 Partial chipping of tap	金属屑阻塞 Swarf jamming	检查切削速度 使用有选择性的丝锥类型 Check cutting speed Use alternative tap type
	丝锥碰到孔底部而阻塞 Tap has jammed against bottom of core hole	检查孔和螺纹的深度 钻孔要深一些 Check hole and thread depths Drill core hole deeper
	丝锥错误的再研磨 (导入的直径太小以至于切齿太少) Tap incorrectly re-ground (lead-in diameter too small therefore too few cutting teeth)	在再研磨时，确保它的原始值 Ensure that original values ore maintained when regrinding
	无规律的工件原材料结构 Irregular workpiece material structure	调整切削速度 提高冷却油的润滑质量 Adjust cutting speed Improve lubricating quality of coolant
过度的丝锥破损 Excessive tap wear	不当的切削速度 Incorrect cutting speed	调整切削速度以合适被加工材料 Adjust cutting speed to suit workpiece material
	冷却油太少影响润滑质量和产量 Coolant lacking in lubricating qualities and / or quantity	确保冷却油使用正确且供应充足 Ensure the use of a suitable coolant and an ample supply 检查冷却油是否到达加工区域 Check that coolant is reaching the cutting zone
	攻孔太小，孔的外表面压缩 Surface of the core hole is compacted	检查钻孔情况(仔细钻孔以减少缩孔的风险) Check core hole drilling conditions (drill carefully to reduce risk of surface compacting) 检查钻边 Check drill cutting edges
丝锥破损 Tap breakage	错误使用丝锥(切削参数不适合运用) Incorrect tap in use(cutting geometry unsuitable for application)	根据相应的材料组选择丝锥 Use tap from the relevant material group
	中心误差 Centering error	确保丝锥和被加工孔成一条直线 Ensure that axes of tap and core hole are aligned
	丝锥生硬 Blunt tap	再研磨丝锥 Re-grind tap 确保丝锥的存放安全性 Ensure that taps are stored carefully
	丝锥碰到孔的底部 Tap has reached bottom of core hole	用具有轴向滑动制动的攻丝主轴 Use tapping spindle with axial float and slipping clutch
	攻孔太小 Core hole too small	为每一步选择攻孔 手册在533-538页 Select core hole as per chart, pages 533～538 of this catalogue

铣削工具
MILLING TOOLS

CBN 铣刀	CBN END MILLS
i-Xmills,硬质合金嵌入式刀片	i-Xmills, CARBIDE INSERT END MILLS
X5070 NANO整体硬质合金立铣刀	X5070 NANO SOLID CARBIDE END MILLS
X-POWER整体硬质合金立铣刀	X-POWER SOLID CARBIDE END MILLS
JET-POWER整体硬质合金&粉末高速钢铣刀	JET-POWER SOLID CARBIDE & HSS-PM END MILLS
V7 不锈钢用整体硬质合金立铣刀	V7 Mill INOX SOLID CARBIDE END MILLS
V7 钢用整体硬质合金立铣刀	V7 Mill STEEL SOLID CARBIDE END MILLS
ALU-POWER整体硬质合金&粉末高速钢铣刀	ALU-POWER SOLID CARBIDE & HSS-PM END MILLS
CRX S 整体硬质合金铣刀	CRX S SOLID CARBIDE END MILLS
D-POWER 金刚石涂层整体硬质合金立铣刀	D-POWER DIAMOND COATED SOLID CARBIDE END MILLS
K-2整体硬质合金立铣刀	K-2 SOLID CARBIDE END MILLS
普通整体硬质合金立铣刀	GENERAL SOLID CARBIDE END MILLS
TANK-POWER 粉末高速钢铣刀	TANK-POWER HSS-PM END MILLS
普通高速钢铣刀	GENERAL HSS END MILLS
高速钢盘铣刀	HSS MILLING CUTTERS
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YG-1 CO., LTD.

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铣削工具 MILLING TOOLS

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SOLID CARBIDE END MILLS

高速钢铣刀
HSS END MILLS

高速钢盘铣刀 HSS MILLING CUTTERS

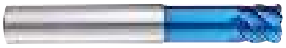
技术参数 TECHNICAL DATA

YG-1 CO., LTD.

Contents / MILLING TOOLS

CBN 铣刀 立方氮化硼 对HRc70以下的高硬度钢进行镜面加工	**CBN END MILLS** Cubic Boron Nitride Machining High Hardened Steels up to HRc70, Mirror Finish	CBN END MILLS
i-Xmills,硬质合金嵌入式刀片 用于HRc65以下的普通钢和硬度钢	**i-Xmills, CARBIDE INSERT END MILLS** Available for General Steels and for Hardened Steels up to HRc70	i-Xmill END MILLS
X5070 NANO整体硬质合金立铣刀 HRc45 ~ HRc70的高硬度钢，高速加工， 干式切削	**X5070 NANO SOLID CARBIDE END MILLS** High Hardened Steels HRc45 to HRc70 in High Speed Machining, Dry Cutting	X5070 END MILLS
X-POWER整体硬质合金立铣刀 硬度为HRc65以下工具钢到高硬度钢	**X-POWER SOLID CARBIDE END MILLS** Medium Steels to High Hardened Steels up to HRc65	X-POWER END MILLS
JET-POWER整体硬质合金&粉末高速钢铣刀 不锈钢，镍合金和钛等特殊材质	**JET-POWER SOLID CARBIDE & HSS-PM END MILLS** Exotic materials like Stainless Steels, Nickel alloys and Titanium	JET-POWER END MILLS
V7 不锈钢用整体硬质合金立铣刀 可对HRc40以下的不锈钢进行重切削和无声切削. 变化的导程设计是YG-1的专利.	**V7 Mill INOX SOLID CARBIDE END MILLS** Stainless Steels in Heavy and Silent Cutting Materials up to HRc40 Designed as Variable Leads. YG-1's Patent.	V7 Mill INOX END MILLS
V7 钢用整体硬质合金立铣刀 可对HRc40以下的钢进行重切削和无声切削. 不均一的导程设计	**V7 Mill STEEL SOLID CARBIDE END MILLS** Steels in Heavy and Silent Cutting Materials up to HRc40 Designed as Unequal Leads	V7 Mill STEEL END MILLS
ALU-POWER整体硬质合金&粉末高速钢铣刀 铝合金和无声切削	**ALU-POWER SOLID CARBIDE & HSS-PM END MILLS** Aluminium Alloys and Silent Cutting	ALU-POWER END MILLS
CRX S 整体硬质合金铣刀 铜加工用DLC 涂层硬质合金铣刀	**CRX S SOLID CARBIDE END MILLS** DLC Coating Carbide End Mills for Copper	CRX S
D-POWER 金刚石涂层整体硬质合金立铣刀 D-POWER用于加工石墨 经济型用于加工低硅铝和铜合金	**D-POWER DIAMOND COATED SOLID CARBIDE END MILLS** D-Power for Graphites, Economy type for Low Silicon Aluminium and Copper Alloys	D-POWER END MILLS
K-2整体硬质合金立铣刀 有涂层，普通用途 传统的或高速切削，湿式或干式切削	**K-2 SOLID CARBIDE END MILLS** General Purpose as Coating, Conventional or High Speed Milling, Wet or Dry Cutting	K-2 CARBIDE END MILLS
普通整体硬质合金立铣刀 未涂层的普通用途产品，可根据客户要求进行涂层	**GENERAL SOLID CARBIDE END MILLS** General Purpose. Non-coated, Any Coating Available	GENERAL CARBIDE END MILLS
TANK-POWER 粉末高速钢铣刀 有很好的韧性，可用于不锈钢，镍合金，钛等特殊 材料的普通加工，粗磨&精磨	**TANK-POWER HSS-PM END MILLS** Very Good Toughness. Good for Exotic Materials like Stainless Steels, Nikel Alloys and Titanium. Rough & Finish	TANK-POWER END MILLS
普通高速钢铣刀 未涂层的普通用途产品，可根据客户要求进行涂层	**GENERAL HSS END MILLS** General Purpose. Non-coated, Any Coating Available	GENERAL HSS END MILLS
高速钢盘铣刀 一般加工，可使用Dovetail, Woodruff Keyseat T-slot, Side Milling Cutters以及含钴8%的 Corner Rounding, Shell End Mill	**HSS MILLING CUTTERS** General Works. Available Dovetail, Woodruff Keyseat, T-slot, Side Milling Cutters and HSS (8% Cobalt) Corner Rounding, Shell End Mills	MILLING CUTTERS
技术参数	**TECHNICAL DATA**	TECHNICAL DATA

MILLING TOOLS **APPLICATION TABLE**

	项目	型号	刃	螺旋角	类型	尺寸		页
						最小	最大	
	ITEM	MODEL	FLUTES	HELIX	TYPE	SIZE RANGE		PAGE
						MIN	MAX	
CBN	ESB94		2Flute	30°	Ball	R0.2	R1.5	**566**
	ESD02		2Flute	0°	Radius	D0.5	D2.0	**567**
X5070	G8A46		2Flute	30°	Ball for Rib	R0.05	R2.0	**584**
	G8A54		2Flute	30°	Ball for Rib	R0.25	R6.0	**587**
	G8A28		2Flute	30°	Ball	R0.05	R1.0	**588**
	G8A38		2Flute	30°	Stub Ball with Extended Neck	R0.5	R12.5	**589**
	G8A53		2Flute	30°	Miniature Ball	R0.2	R1.0	**590**
	G8A59		3Flute	30°	Ball	R1.5	R10.0	**591**
	G8D62		4Flute	30°	Ball - Center Match	R1.5	R10.0	**592**
	G8A60		2Flute	30°	Radius for Rib	D0.5	D12.0	**593**
	G8A36		2Flute	30°	Stub Radius with Extended Neck	D0.3	D20.0	**596**
	G8A52		2Flute	30°	Radius for Rib	D0.5	D2.0	**598**
	G8A50		2Flute	30°	Miniature Radius	D0.3	D2.0	**599**
	G8A47		4Flute	30°	Radius	D3.0	D12.0	**600**
	G8A37		4Flute	30°	Stub Radius with Extended Neck	D1.0	D20.0	**601**
	G8B08		4Flute	30°	Radius with Extended Neck	D6.0	D12.0	**602**
	G8A39		6Flute	45°	Radius	D6.0	D20.0	**603**
	G8A45		2Flute	30°	Square for Rib	D0.1	D4.0	**604**
	G8A01		2Flute	30°	Square	D0.1	D20.0	**607**
	G8A02		4Flute	30°	Square	D1.0	D20.0	**608**
	G8D63		6&8Flute	45°	Long Square	D6.0	D25.0	**609**
	G8D64		6&8Flute	45°	Extra Long Square	D6.0	D25.0	**610**
X-POWER	EM810		2Flute	30°	Miniature Square	D0.4	D1.5	**624**
	EM810 EM820		2Flute	30°	Short Square	D1.0	D25.0	**625**
	EM816 EM826		2Flute	30°	Long Square	D2.0	D25.0	**627**
	EM836 EM846		3Flute	30°	Miniature Square	D1.0	D20.0	**628**
	EM895 EM896		3Flute	38°	Short Square	D1.0	D20.0	**629**
	EM811 EM821		4Flute	30°	Short Square	D2.0	D25.0	**630**
	EM817 EM827		4Flute	30°	Long Square	D2.0	D25.0	**632**

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	铬镍铁合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
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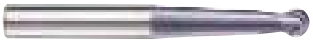
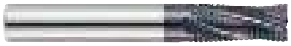
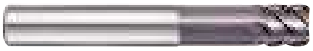
MILLING TOOLS **APPLICATION TABLE**

	项目	型号	刃	螺旋角	类型	尺寸		页
						最小	最大	
	ITEM	MODEL	FLUTES	HELIX	TYPE	SIZE RANGE		PAGE
						MIN	MAX	
X-POWER	EM812 EM822		6&8Flute	45°	Long Square	D6.0	D25.0	**633**
	EM834 EM844		6Flute	45°	Extra Long Square	D6.0	D25.0	**634**
	EM876 EM877		2Flute	30°	Short Ball	R0.5	R12.5	**635**
	EM813 EM823		2Flute	30°	Long Ball	R0.5	R12.5	**636**
	EM899 EM900		2Flute	30°	Medium Ball with Neck	R1.5	R12.5	**637**
	EM838 EM848		2Flute	30°	Long Reach Ball	R1.0	R10.0	**638**
	EM902 EM904		2Flute	30°	Ball with Taper Neck	R0.5	R6.0	**639**
	EM878 EM879		2Flute	30°	Stub Ball	R0.5	R12.5	**640**
	G4953 G4954		2Flute	30°	Stub Ball	R0.5	R12.5	**641**
	EM865		2Flute	30°	Miniature Ball	R0.3	R1.5	**642**
	EM669		2Flute	30°	Long Ball	R1.5	R8.0	**644**
	EM673		4Flute	30°	Long Ball	R2.5	R8.0	**645**
	EM863		2Flute	30°	Long Ball	R1.5	R8.0	**646**
	EM864		4Flute	30°	Long Ball	R2.5	R8.0	**647**
	EM815 EM825		4Flute	30°	Long Ball	R0.5	R12.5	**648**
	EM832 EM842		3~5Flute	20°	Short Roughing	D6.0	D25.0	**649**
	EM814 EM824		3~5Flute	20°	Long Roughing	D6.0	D25.0	**650**
	EM833 EM843		3&4Flute	20°	Long Roughing Ball	R3.0	R10.0	**651**
	EM818 EM828		2Flute	30°	Long Radius	D3.0	D20.0	**652**
	EM905		4Flute	45°	Short Radius	D10.0	D22.0	**653**
	EM819 EM829		4Flute	30°	Long Radius	D3.0	D20.0	**654**
	EM897 EM898		6Flute	45°	Stub Radius	D6.0	D12.0	**655**
	EM835 EM845		6Flute	45°	Long Radius	D6.0	D20.0	**656**
	EM839 EM849		4Flute	30°	Stub Radius	D2.0	D16.0	**657**
	EM837 EM847		2Flute	30°	Taper	D2.0	D8.0	**658**
	EM883		2Flute	30°	Square for Rib	D0.4	D6.0	**659**
	EM886		2Flute	30°	Ball for Rib	R0.2	R3.0	**663**
	EM889		4Flute	25°	Taper for Rib	D1.0	D2.0	**666**
	EM890		4Flute	25°	Taper Ball for Rib	R0.5	R1.0	**668**

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	铬镍铁合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
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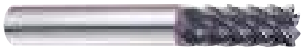
MILLING TOOLS **APPLICATION TABLE**

	项目	型号	刃	螺旋角	类型	尺寸		页
						最小	最大	
	ITEM	MODEL	FLUTES	HELIX	TYPE	SIZE RANGE		PAGE
						MIN	MAX	
JET-POWER	EH911 EH912		2Flute	35°	Short Square	D1.0	D25.0	**696**
	EH913 EH914		4Flute	35°	Short Square	D2.0	D25.0	**697**
	EH830 EH840		3&4Flute	50°	Long Square	D6.0	D25.0	**698**
	EH915 EH916		6&8Flute	45°	Long Square	D6.0	D25.0	**699**
	EE515		4&6Flute	30°	Short Square	D3.0	D25.0	**700**
	EH852 EH862		3~5Flute	30°	Short Roughing	D6.0	D25.0	**701**
	EH831 EH841		3~5Flute	30°	Long Roughing	D6.0	D25.0	**702**
	EH917 EH918		4~6Flute	45°	Short Roughing	D6.0	D20.0	**703**
	EH919 EH920		3~6Flute	45°	Long Roughing	D4.0	D25.0	**704**
	EH921 EH942		4~6Flute	45°	Long Reach Roughing	D6.0	D20.0	**705**
V7 Mill INOX	EMB41 EMB42		4Flute	Sinusoidal	Short Square	D3.0	D20.0	**714**
	EMB43 EMB44		4Flute	Sinusoidal	Short Radius	D3.0	D20.0	**715**
	EMB14 EMB39		4Flute	Sinusoidal	Long Square	D3.0	D25.0	**716**
	EMB15 EMB40		4Flute	Sinusoidal	Long Radius	D3.0	D25.0	**717**
	EMB74 EMB75		4Flute	Sinusoidal	Long Ball	R1.5	R12.5	**718**
	EMB72 EMB73		5Flute	Sinusoidal	Long Square	D6.0	D25.0	**719**
	EMB12 EMB37		4Flute	Sinusoidal	Regular Square	D1/8″	D1″	**720**
	EMB13 EMB38		4Flute	Sinusoidal	Regular Radius	D1/8″	D1″	**721**
	EMB78 EMB79		4Flute	Sinusoidal	Regular Ball	R1/16″	R1/2″	**722**
	EMB76 EMB77		5Flute	Sinusoidal	Regular Square	D1/4″	D1″	**723**
V7 Mill STEEL	EMD42 EMD43		4Flute	Multiple	Short Square	D3.0	D20.0	**730**
	EMD44 EMD45		4Flute	Multiple	Short Radius	D3.0	D20.0	**731**
	EMD38 EMD39		4Flute	Multiple	Long Square	D3.0	D25.0	**732**
	EMD40 EMD41		4Flute	Multiple	Long Radius	D3.0	D25.0	**733**
	EMD46 EMD47		4Flute	Multiple	Regular Square	D1/8″	D1″	**734**
	EMD48 EMD49		4Flute	Multiple	Regular Radius	D1/8″	D1″	**735**
ALU-POWER	E5C33		1Flute	30°	Square	D2.0	D8.0	**740**
	E5C34		1Flute	30°	Square(Down Cut Type)	D2.0	D8.0	**741**
	EG930		2Flute	25°	Radius	D2.0	D20.0	**742**

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	铬镍铁合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
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MILLING TOOLS **APPLICATION TABLE**

	项目	型号	刃	螺旋角	类型	尺寸		页
						最小	最大	
	ITEM	MODEL	FLUTES	HELIX	TYPE	SIZE RANGE		PAGE
						MIN	MAX	
ALU-POWER	E5522 E5521		2Flute	45°	Square	D3.0	D20.0	**743**
	EG909		2Flute	30°	Radius	D4.0	D20.0	**744**
	EG910		2Flute	50°	Radius	R3.0	R10.0	**745**
	EG908		3Flute	40°	Square	R1.0	R8.0	**746**
	E5A18		3Flute	45°	Square	D3.0	D20.0	**747**
	EP922 EP923		3Flute	42°	Short Roughing	D12.0	D32.0	**748**
	EP924 EP925		3Flute	42°	Long Roughing	D12.0	D32.0	**749**
CRX S	SGED27		2Flute	30°	Long Ball	R0.25	R6.0	**758**
	SGED28		2Flute	30°	Ball	R0.5	R6.0	**760**
	SGED29		2Flute	30°	Long Radius	D1.0	D12.0	**761**
	SGED30		2Flute	30°	Long Square	D0.5	D12.0	**763**
	SGED31		2Flute	30°	Square	D1.0	D12.0	**765**
D-POWER	EI997		2Flute	30°	Miniature Ball	R0.1	R3.0	**774**
	EIB93		2Flute	30°	Miniature Ball	R0.2	R2.0	**776**
	EI880		2Flute	30°	Short Ball	R1.0	R6.0	**777**
	EI451		2Flute	30°	Long Ball	R1.0	R6.0	**778**
	EI450		2Flute	30°	Long Reach Ball	R1.0	R6.0	**779**
	EI881		3Flute	30°	Short Ball	R1.0	R6.0	**780**
	EIB04		2Flute	30°	Long Square	D0.5	D12.0	**781**
	EIB87		2Flute	30°	Ball with Taper Neck	R0.5	R1.0	**782**
	EI996		2Flute	30°	Miniature Radius	D0.2	D6.0	**783**
	EIB86		2Flute	30°	Radius with Taper Neck	D1.0	D2.0	**785**
	EIB88		4Flute	30°	Radius	D6.0	D12.0	**786**
	EIA13		3Flute	40°	Short Radius	D2.0	D12.0	**787**
	EIA14		3Flute	40°	Long Radius	D2.0	D12.0	**788**
	GEB46		2Flute	30°	Miniature Ball	R1.0	R3.0	**789**
	GE944		2Flute	30°	Short Ball	R1.0	R6.0	**791**
	GE945		2Flute	30°	Long Ball	R1.0	R6.0	**792**
	GE946		2Flute	30°	Long Reach Ball	R1.0	R6.0	**793**

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	铬镍铁合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
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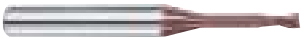
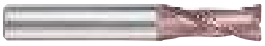
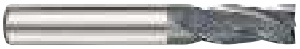
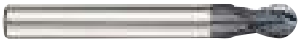
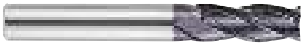
MILLING TOOLS **APPLICATION TABLE**

	项目	型号	刃	螺旋角	类型	尺寸		页
						最小	最大	
	ITEM	MODEL	FLUTES	HELIX	TYPE	SIZE RANGE		PAGE
						MIN	MAX	
D-POWER	GE947		3Flute	30°	Ball	D0.5	R6.0	**794**
	GE927		2Flute	30°	Long Square	R0.5	D12.0	**795**
	GEB02		2Flute	30°	Ball with Taper Neck	D0.2	R1.0	**796**
	GEB45		2Flute	30°	Miniature Radius	D1.0	D6.0	**797**
	GEB01		2Flute	30°	Radius with Taper Neck	D6.0	D2.0	**799**
	GEB03		4Flute	30°	Radius	D1.0	D12.0	**800**
	GE926		2Flute	45°	Square	D2.0	D20.0	**801**
	GE928		3Flute	40°	Short Radius	D2.0	D12.0	**802**
	GE929		3Flute	40°	Long Radius	D1.0	D12.0	**803**
K-2 CARBIDE	G9B80		2Flute	30°	Square for Rib	D0.4	D4.0	**816**
	G9B81		2Flute	30°	Ball for Rib	R0.2	R2.0	**818**
	G9B82		2Flute	30°	Short Radius	D2.0	D12.0	**820**
	G9B83		2Flute	30°	Long Reach Radius	D3.0	D12.0	**822**
	G9B84		4Flute	30°	Short Radius	D2.0	D12.0	**823**
	G9B85		4Flute	30°	Long Reach Radius	D3.0	D12.0	**825**
	G9A23		2Flute	30°	Regular Square	D1.0	D20.0	**826**
	G9B50		2Flute	30°	Long Reach Square	D1.0	D20.0	**827**
	G9A24		4Flute	30°	Regular Square	D1.0	D20.0	**828**
	G9B51		4Flute	30°	Long Square	D1.0	D20.0	**829**
	G9A25		2Flute	30°	Regular Ball	R0.5	R10.0	**830**
	G9B52		2Flute	30°	Long Ball	R0.5	R10.0	**831**
	EMC52		2Flute	35°	Short Square	D1.0	D20.0	**832**
	EMC53		2Flute	35°	Long Square	D2.0	D20.0	**833**
	EMC54		4Flute	35°	Short Square	D1.0	D20.0	**834**
	EMC55		4Flute	35°	Long Square	D2.0	D20.0	**835**
	EMC56		2Flute	30°	Short Ball	R0.1	R10.0	**836**
	EMC57		4&6Flute	45°	Short Square	D1.0	D20.0	**837**
	EMC58		6Flute	45°	Long Square	D6.0	D20.0	**838**
	EMC59		2Flute	30°	Long Neck Square	D0.4	D6.0	**839**

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	铬镍铁合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
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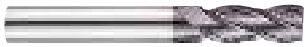
MILLING TOOLS **APPLICATION TABLE**

	项目	型号	刃	螺旋角	类型	尺寸		页
						最小	最大	
	ITEM	MODEL	FLUTES	HELIX	TYPE	SIZE RANGE		PAGE
						MIN	MAX	
K-2 CARBIDE	EMC60		2Flute	30°	Long Neck Ball	R0.2	R3.0	**844**
	EMC61		2Flute	30°	Radius	D3.0	D12.0	**848**
	EMC62		4Flute	30°	Radius	D3.0	D12.0	**849**
	GFC63		2Flute	30°	Extended Neck Square	D0.4	D20.0	**850**
	GFC64		4Flute	30°	Extended Neck Square	D1.0	D20.0	**851**
	GFC65		2Flute	30°	Short Ball	R0.1	R6.0	**852**
	GFC66		2Flute	30°	Stub Extended Neck Ball	R0.5	R10.0	**853**
	EMC67		4Flute	30°	Short Square	D6.0	D20.0	**854**
	EMC68		4Flute	30°	Long Square	D6.0	D20.0	**855**
	EMC69		4~6Flute	45°	Roughing Square	D6.0	D20.0	**856**
	E5C70		2Flute	45°	Short Square	D1.0	D20.0	**857**
	E5C71		2Flute	45°	Medium Square	D4.0	D20.0	**858**
	E5C72		3Flute	45°	Short Square	D1.0	D20.0	**859**
	E5C73		3Flute	45°	Medium Square	D4.0	D20.0	**860**
	E5C74		3Flute	45°	Extra Long Square	D3.0	D20.0	**861**
GENERAL CARBIDE	E5452		2Flute	30°	Extra Long Square	D3.0	D20.0	**884**
	E5553 E5410		3Flute	30°	Short Throw Away	D0.5	D20.0	**885**
	E5882		3Flute	35°	Radius	D3.0	D20.0	**887**
	E5423 E5415		3Flute	45°	Short Square	D3.0	D20.0	**888**
	E5453		4Flute	30°	Long Square	D3.0	D20.0	**889**
	E5455		2Flute	30°	Extra Long Ball	R1.5	R10.0	**890**
	E5634 E5524		4Flute	30°	Short Ball	R1.0	R10.0	**891**
	E5742 E5711		3Flute	30°	Long Roughing Square	D6.0	D25.0	**892**
	E5400		2Flute	30°	Drill Mill	D3.0	D20.0	**893**
	E5401		2Flute	30°	Short Square	D0.4	D20.0	**894**
	E5402		4Flute	30°	Short Square	D1.5	D20.0	**895**
	E5414		2Flute	30°	Short Ball	R0.2	R12.5	**896**
TANK-POWER	GAC25		4Flute	30°	Long Square	D3.0	D30.0	**912**
	GAA22		3~5Flute	30°	Medium Roughing	D6.0	D40.0	**913**

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	铬镍铁合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
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MILLING TOOLS **APPLICATION TABLE**

	项目	型号	刃	螺旋角	类型	尺寸		页
						最小	最大	
	ITEM	MODEL	FLUTES	HELIX	TYPE	SIZE RANGE		PAGE
						MIN	MAX	
TANK-POWER	GAD33		3~5Flute	30°	Roughing	D6.0	D30.0	**914**
	GAB58		3~5Flute	30°	Medium Roughing	D6.0	D25.0	**915**
	GAD52		3~5Flute	30°	Long Roughing	D6.0	D30.0	**916**
	EP931		2Flute	30°	Regular Square	D1.0	D25.0	**917**
	EP932		4Flute	30°	Regular Square	D1.0	D25.0	**918**
	EP933		2Flute	30°	Regular Ball	R0.5	R12.5	**919**
	EP941		3~5Flute	30°	Short Roughing	D6.0	D25.0	**920**
	EPA33		3~5Flute	30°	Short Roughing	D6.0	D25.0	**921**
GENERAL HSS	E2464		2Flute	42°	Short Square	D1.0	D32.0	**932**
	EL612		1Flute	≒30°	Square	D3.0	D10.0	**934**
	EL623		1Flute	≒30°	Square	D3.0	D10.0	**935**
	E2461 E2462 E2463		2~4Flute	50°	Short Square	D2.0 D6.0 D22.0	D5.0 D23.0 D30.0	**936**
	E2410		4&6Flute	30°	Short Ball	R3.0	R12.5	**937**
	E2429		4&6Flute	30°	Long Ball	R5.0	R12.5	**938**
	E2751 E2764		3Flute	30°	Short Roughing	D6.0 D10.0	D8.0 D40.0	**939**
	E2752 E2765		3Flute	30°	Long Roughing	D6.0 D10.0	D8.0 D40.0	**940**
	E2755		3Flute	37°	Short Roughing	D6.0	D30.0	**941**
	E2756		3Flute	37°	Long Roughing	D10.0	D30.0	**942**
	E2753		3~6Flute	30°	Short Roughing	D6.0	D40.0	**943**
	E2762		3~6Flute	30°	Long Roughing	D6.0	D40.0	**944**
	E2754		3~6Flute	30°	Short Roughing & Finishing	D6.0	D40.0	**945**
	E2768		3~6Flute	30°	Long Roughing & Finishing	D6.0	D45.0	**946**
	E2766		3Flute	30°	Short Roughing & Finishing	D6.0	D40.0	**947**
	E2401		2Flute	30°	Regular Square	D1.0	D50.0	**948**
	E2406		2Flute	30°	Long Square	D3.0	D50.0	**950**
	E2749		2Flute	30°	Extra Long Square	D16.0	D50.0	**952**
	E2420		2Flute	30°	Short Square	D1.0	D50.0	**953**
	E2412		4Flute	30°	Regular Square	D1.0	D50.0	**955**
	E2659		4Flute	30°	Long Square	D3.0	D50.0	**957**

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	铬镍铁合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
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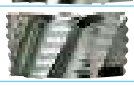
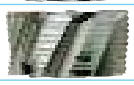
☞ NEXT

MILLING TOOLS **APPLICATION TABLE**

	项目	型号	刃	螺旋角	类型	尺寸 最小	尺寸 最大	页
	ITEM	MODEL	FLUTES	HELIX	TYPE	SIZE RANGE MIN	SIZE RANGE MAX	PAGE
GENERAL HSS	E2750		4Flute	30°	Extra Long Square	D16.0	D50.0	**959**
	E2421		4&6Flute	30°	Short Square	D2.5	D50.0	**960**
	E2480		2Flute	30°	Regular Ball	R0.5	R25.0	**962**
	E2682		2Flute	30°	Taper	D1.0	D6.0	**964**
	E2683		4Flute	30°	Taper	D8.0	D12.0	**966**
	E2760		4~6Flute	30°	Short Roughing Center Cut	D6.0	D50.0	**967**
	E2759		4~6Flute	30°	Long Roughing	D10.0	D50.0	**969**
	E2806		4&6Flute	30°	Short Roughing Ball	R4.0	R25.0	**970**
MILLING CUTTER	ML012,ML022 ML112,ML122 ML212,ML222		6~16 Teeth	0°	Dovetail Cutters	D16.0	D50.0	**990**
	ML032,ML042 ML132,ML142 ML232,ML242		6~12 Teeth	0°	Dovetail Cutters	D16.0	D38.0	**991**
	ML062 ML162 ML262		8~14 Teeth	10°~12°	Woodruff Keyseat Cutters	D10.5	D45.5	**992**
	ML072 ML172 ML272		6~8 Teeth	10°	T-Slot Cutters	D12.5	D40.0	**994**
	ML092		18~24 Teeth	0°	Side and Face with Straight Teeth	D50.0	D125.0	**995**
	ML102		14~30 Teeth	10°	Side and Face with Staggered Teeth	D50.0	D200.0	**996**
	E2675		6~14 Teeth	30°	Shell	D30.0	D160.0	**1000**
	E2676		4~6 Teeth	42°	Shell for Aluminum	D30.0	D100.0	**1001**
	E2677		6~12 Teeth	30°	Roughing Shell	D40.0	D160.0	**1002**
	E2678		6~12 Teeth	30°	Roughing Shell	D40.0	D160.0	**1003**
	E2679		6~12 Teeth	30°	Roughing & Finishing Shell	D40.0	D160.0	**1004**
	E2498		4 Teeth	0°	Corner Rounding Cutters	D8.0	D56.0	**1005**

	项目	型号	规格	尺寸 最小	尺寸 最大	页
	ITEM	MODEL	DESCRIPTION	SIZE MIN	SIZE MAX	PAGE
i-Xmill	XMB110A		i-Xmill Ball Insert for General Purpose	Ø8	Ø32	**572**
	XMB120C		i-Xmill Ball Insert for Hardened Steels	Ø8	Ø32	**572**
	XMR110A		i-Xmill Corner Radius Insert for General Purpose	Ø8	Ø32	**575**
	XMR120C		i-Xmill Corner Radius Insert for Hardened Steels	Ø8	Ø32	**575**

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	铬镍铁合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
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碳钢		合金钢		工具钢		铸铁	硬化钢	不锈钢	铝
Carbon Steels		Alloy Steels		Tool Steels		Cast Iron	Hardened Steels	Stainless Steels	Aluminum
~HRc35	HRc35~	~HRc35	HRc35~	~HRc35	HRc35~	~HRc35	HRc50~	~HRc28	~HRc8
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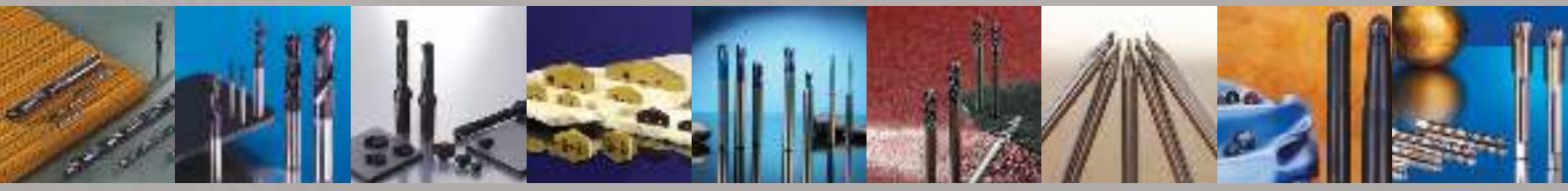
CUTTING TOOLS



YG

Being the best through innovation

CBN
(Cubic Boron Nitride)

- CBN 铣刀，能够加工HRc70以下的高硬度钢，镜面加工

Cubic Boron Nitride, Machining High Hardened Steels up to HRc70, Mirror Finish

SELECTION GUIDE

项目	型号	规格	尺寸		页
			最小	最大	
ITEM	MODEL	DESCRIPTION	SIZE		PAGE
			MIN	MAX	
ESB94		CBN, 2刃 球头 CBN, 2 FLUTE BALL NOSE	R0.2	R1.5	**566**
ESD02		CBN, 2刃 圆鼻铣刀 CBN, 2 FLUTE CORNER RADIUS	D0.5	D2.0	**567**
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS			**568**

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	铬镍铁合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
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				◎	◎							

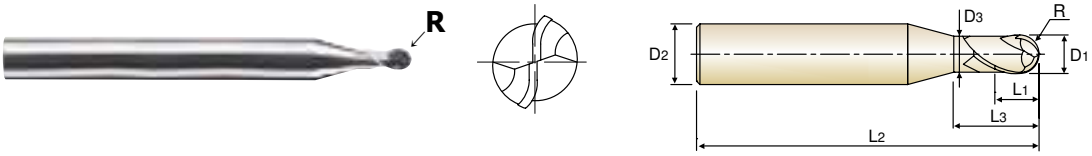
CBN END MILLS

ESB94 SERIES PLAIN SHANK

CBN, 2刃 球头
CBN, 2 FLUTE BALL NOSE

- 可持续得到稳定的高精度加工
- 由于减少频繁地更换刀具的次数而节省了调试时间和成本
- 提高性能的可重复性
- 特殊的参数设计在高速加工时提高了刀具的刚性
- 紧凑的半径公差 ±0.005mm有着更高的精度和更长的寿命

- Achieve stable machining and higher accuracy for the duration.
- Save the setting time and cost due to reducing of frequent tool change.
- Improve repeatability in performance.
- Special designed geometry improves tool rigidity at High Speed Cutting.
- Higher accuracy and longer tool life due to tight radius tolerance(±0.005mm) and raw materials.



CBN | 2 | 30° | R ±0.005 | PLAIN

P.568

단위(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.005)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
ESB94004012	R0.2	0.4	4	0.3	1.2	50	0.37
ESB94005015	R0.25	0.5	4	0.4	1.5	50	0.46
ESB94006015	R0.3	0.6	4	0.5	1.5	50	0.56
ESB94008020	R0.4	0.8	4	0.6	2	50	0.76
ESB94010025	R0.5	1.0	4	0.6	2.5	50	0.95
ESB94010040	R0.5	1.0	4	0.6	4	50	0.95
ESB94010060	R0.5	1.0	4	0.6	6	50	0.95
ESB94012030	R0.6	1.2	4	0.8	3	50	1.15
ESB94015030	R0.75	1.5	4	0.95	3	50	1.45
ESB94015040	R0.75	1.5	4	0.95	4	50	1.45
ESB94015060	R0.75	1.5	4	0.95	6	50	1.45
ESB94020050	R1.0	2.0	4	1.2	5	50	1.95
ESB94020060	R1.0	2.0	4	1.2	6	50	1.95
ESB94030060	R1.5	3.0	4	1.8	6	50	2.85

半径公差 Radius Tolerance(mm)	柄部公差 Shank Dia. Tolerance
±0.005	h5

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
				◎	◎							

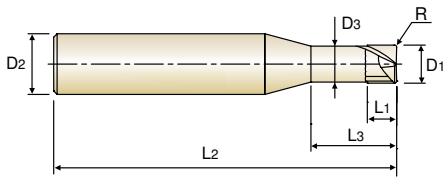
CBN END MILLS

ESD02 SERIES PLAIN SHANK

CBN, 2刃 圆鼻铣刀
CBN, 2 FLUTE CORNER RADIUS

- 可持续得到稳定的高精度加工
- 由于减少频繁地更换刀具的次数而节省了调试时间和成本
- 提高性能的可重复性
- 特殊的参数设计在高速加工时提高了刀具的刚性
- 紧凑的半径公差 ±0.005mm有着更高的精度和更长的寿命

- Achieve stable machining and higher accuracy for the duration.
- Save the setting time and cost due to reducing of frequent tool change.
- Improve repeatability in performance.
- Special designed geometry improves tool rigidity at High Speed Cutting.
- Higher accuracy and longer tool life due to tight radius tolerance(±0.005mm) and raw materials.



CBN | 2 | 0° | R ±0.005 | PLAIN

P.568

단위(Unit) : mm

型号 EDP No.	圆弧半径 Corner Radius R (±0.005)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
ESD02005052	R0.05	0.5	4	0.3	2	50	0.46
ESD02005053	R0.05	0.5	4	0.3	3	50	0.46
ESD02010053	R0.05	1.0	4	0.7	3	50	0.95
ESD02010055	R0.05	1.0	4	0.7	5	50	0.95
ESD02010103	R0.1	1.0	4	0.7	3	50	0.95
ESD02010105	R0.1	1.0	4	0.7	5	50	0.95
ESD02015105	R0.1	1.5	4	1.0	5	50	1.45
ESD02015108	R0.1	1.5	4	1.0	8	50	1.45
ESD02015205	R0.2	1.5	4	1.0	5	50	1.45
ESD02015208	R0.2	1.5	4	1.0	8	50	1.45
ESD02020106	R0.1	2.0	4	1.2	6	50	1.95
ESD02020100	R0.1	2.0	4	1.2	10	50	1.95
ESD02020206	R0.2	2.0	4	1.2	6	50	1.95
ESD02020200	R0.2	2.0	4	1.2	10	50	1.95

圆弧角公差 Corner Radius Tolerance(mm)	柄部公差 Shank Dia. Tolerance
±0.005	h5

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
				◎	◎							

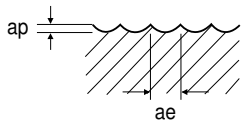
CBN END MILLS 推荐的切削条件 RECOMMENDED CUTTING CONDITIONS

CBN, 2刃 球头
CBN, 2 FLUTE BALL NOSE

ESB94 SERIES

材质 MATERIAL	硬化钢 HARDENED STEELS		高硬钢 HIGH HARDENED STEELS	
HARDNESS	HRc50 ~ HRc60		HRc60 ~ HRc70	
DIAMETER	RPM	FEED	RPM	FEED
R0.2 × 0.4	50,000	1,200	50,000	1,200
R0.25 × 0.5	50,000	1,500	50,000	1,500
R0.3 × 0.6	50,000	2,000	50,000	2,000
R0.4 × 0.8	50,000	2,000	50,000	2,000
R0.5 × 1.0	50,000	3,000	50,000	3,000
R0.6 × 1.2	50,000	3,000	50,000	3,000
R0.75 × 1.5	50,000	3,000	50,000	3,000
R1.0 × 2.0	40,000	3,200	32,000	2,500
R1.5 × 3.0	26,500	2,100	21,500	1,700

ap : R0.2 ~ R0.4 =0.005mm
R0.5 ~ R1.5 =0.01mm
ae : R0.2 ~ R0.4 =0.005mm
R0.5 ~ R1.5 =0.01mm

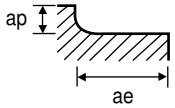


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

CBN, 2刃 圆鼻铣刀
CBN, 2 FLUTE CORNER RADIUS

ESD02 SERIES

材质 MATERIAL	硬化钢 HARDENED STEELS				高硬钢 HIGH HARDENED STEELS			
HARDNESS	HRc50 ~ HRc60				HRc60 ~ HRc70			
DIAMETER	RPM	FEED	DEPTH OF CUT ae[mm]	DEPTH OF CUT ap[mm]	RPM	FEED	DEPTH OF CUT ae[mm]	DEPTH OF CUT ap[mm]
0.5	50,000	700	0.10	0.01	50,000	550	0.06	0.005
1.0	43,000	1,000	0.20	0.01	30,000	700	0.10	0.10
1.5	30,000	1,000	0.40	0.02	19,000	700	0.20	0.20
2.0	22,000	900	0.60	0.03	14,000	800	0.30	0.30



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

CARBIDE INSERT & HOLDER

Being the best through innovation

i-Xmill

- 可应用于普通钢和硬度达到HRc65的高硬度钢

Available for General Steels and for Hardened Steels up to HRc65

SELECTION GUIDE

项目 ITEM	型号 MODEL	规格 DESCRIPTION	页 PAGE
XMB110A		普通用途用 i-Xmill 球头刀片 i-Xmill BALL INSERT for GENERAL PURPOSE	572
XMB120C		硬度钢用 i-Xmill 球头刀片 i-Xmill BALL INSERT for HARDENED STEEL	572
ZBT / ZBS		i-Xmill 球头刀柄 - 钢用 i-Xmill BALL HOLDERS - STEEL	573
ZBC		i-Xmill 球头刀柄 -硬质合金用 i-Xmill BALL HOLDERS - CARBIDE	574
XMR110A		i-Xmill 普通用途圆弧角型刀片 i-Xmill CORNER RADIUS INSERTS for GENERAL PURPOSE	575
XMR120C		i-Xmill 硬度钢用圆弧角型刀片 i-Xmill CORNER RADIUS INSERTS for HARDENED STEEL	575
ZRT / ZRS		i-Xmill 圆弧角型刀柄 - 钢用 i-Xmill CORNER RADIUS HOLDERS - STEEL	577
		切削条件推荐表 RECOMMENDED CUTTING CONDITIONS	578

◎ : 优(Excellent) ○ : 良(Good)

碳钢		合金钢		工具钢		铸铁	硬化钢	不锈钢	铝
Carbon Steels		Alloy Steels		Tool Steels		Cast Iron	Hardened Steels	Stainless Steels	Aluminum
~HRc35	HRc35~	~HRc35	HRc35~	~HRc35	HRc35~	~HRc35	HRc50~	~HRc28	~HRc8
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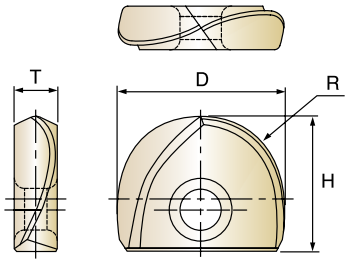
i-Xmill END MILLS

XMB110A
XMB120C

i-Xmill 球头刀片
i-Xmill BALL INSERTS

- 可替换性球头铣刀可实现经济性利用
- 两种刀片可使用-普通用途(~HRc50)&硬质材料(HRc40~HRc65)
- 特殊的几何参数和涂层具有极好的性能

- Indexable Ball End Mill for economic use
- Two Types of Inserts are available - For General Purpose (~HRc50) & For Hardened Material (HRc40~HRc65)
- Special Geometry and Coating for Excellent Performance



单位(Unit) : mm

型号 EDP No. 用于普通材料 For General Material	型号 EDP No. 用于硬质材料 For Hardened Material	球头半径 Radius of Ball Nose R	刃部直径 Mill Diameter D	高度 Height H	厚度 Thickness T
XMB110A080	XMB120C080	R4.0	8.0	8	2.4
XMB110A100	XMB120C100	R5.0	10.0	9.5	2.7
XMB110A120	XMB120C120	R6.0	12.0	11	3.2
XMB110A160	XMB120C160	R8.0	16.0	13	4.2
XMB110A200	XMB120C200	R10.0	20.0	16	5.2
XMB110A250	XMB120C250	R12.5	25.0	19.5	6.2
XMB110A300	XMB120C300	R15.0	30.0	23.5	7.2
XMB110A320	XMB120C320	R16.0	32.0	24.5	7.2

• 球头半径公差是±0.01mm, 结构精度是±0.02mm.
The ball radius tolerance is ±0.01mm and the set-up accuracy is ±0.02mm.

◎ : 优(Excellent) ○ : 良(Good)

	碳钢 Carbon Steels		合金钢 Alloy Steels		工具钢 Tool Steels		铸铁 Cast Iron	硬化钢 Hardened Steels	不锈钢 Stainless Steels	铝 Aluminum
	~HRc35	HRc35~	~HRc35	HRc35~	~HRc35	HRc35~	~HRc35	HRc50~	~HRc28	~HRc8
XMB110A	◎	○	◎	○	◎	○	○		○	○
XMB120C	○	◎	○	◎	○	◎	◎	◎		

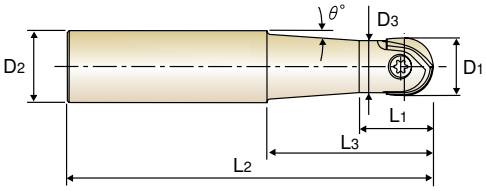
i-Xmill END MILLS

ZBT
ZBS

i-Xmill 球头刀柄 – 钢用
i-Xmill BALL HOLDERS - STEEL

- 使用高强度的超合金钢
- 精确柄部 公差(h6)
- 黑色氧化处理，能够提高耐腐蚀性和润滑性

- Premium alloy steel with excellent strength.
- Precise shank, Tolerance (h6).
- Black oxide treated, to prevent corrosion and improve lubricity.

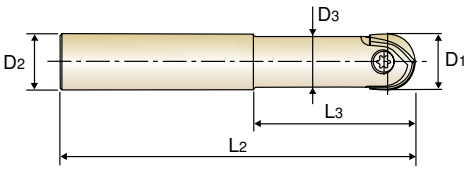


锥形颈部型 / TAPER NECK TYPE

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	脖颈直径 Neck Diameter D3	锥度 Taper Angle θ°	长度类型 Length Type	扳手型号 Wrench No.	螺丝型号 Screw No.
ZBT0801120	8.0	12	12	35	90	7.2	4°43′	Short	TWFT07	TX2508T07
ZBT0802120			25	55	110		3°37′	Regular		
ZBT1001120	10.0	12	15	35	90	9	2°51′	Short	TWFT08	TX3010T08
ZBT1002120			30	55	110		2°17′	Regular		
ZBT1201160	12.0	16	17	55	110	10.5	3°23′	Short	TWFT10	TX3512T10
ZBT1601200	16.0	20	20	65	125	14.5	2°51′	Short	TWFT15	TX4016T15
ZBT2001250	20.0	25	25	75	145	18	3°26′	Short	● TWBT20	TX5020T20
ZBT2501320	25.0	32	30	90	170	22.5	4°03′	Short	● TWBT25	TX6025T25
ZBT3001320	30.0 32.0	32	40	110	195	27	1°38′	Short	● TWBT30	TX8030T30

● 需要使用T型扳手(TWH600) / Need to use T-HANDLE (TWH600)



直型颈部型 / STRAIGHT NECK TYPE

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	颈长 Length Below Shank L3	全长 Overall Length L2	脖颈直径 Neck Diameter D3	长度类型 Length Type	扳手型号 Wrench No.	螺丝型号 Screw No.
ZBS1201120	12.0	12	35	90	10.5	Short	TWFT10	TX3512T10
ZBS1202120			55	110		Regular		
ZBS1601160	16.0	16	35	95	14.5	Short	TWFT15	TX4016T15
ZBS1602160			65	125		Regular		
ZBS2001200	20.0	20	40	110	18	Short	● TWBT20	TX5020T20
ZBS2002200			75	145		Regular		
ZBS2501250	25.0	25	45	125	22.5	Short	● TWBT25	TX6025T25
ZBS2502250			90	170		Regular		
ZBS3001320	30.0, 32.0	32	55	140	27	Short	● TWBT30	TX8030T30
ZBS3002320			110	195		Regular		

● 需要使用T型扳手(TWH600) / Need to use T-HANDLE (TWH600)

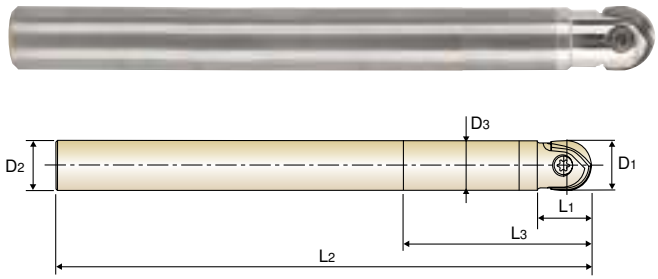
i-Xmill END MILLS

ZBC

i-Xmill 球头刀柄 -硬质合金用
i-Xmill BALL HOLDERS - CARBIDE

- ▶ 硬质合金铣刀均等的刚性可以在较小的振动下保证稳定性和高精度加工
- ▶ 模具深处的高精加工
- ▶ 硬质合金刀柄的刀具寿命要长于钢铁刀柄
- ▶ 可应用在冷缩配合的夹持系统
- ▶ 如果邀请的话，用过的刀柄可以再修理

- ▶ Equal tool rigidity with solid carbide end mill makes the stable and high finishing machining with the less vibration.
- ▶ The high finishing machining for the deeper part of mold.
- ▶ The tool's life of carbide ball holders is longer than steel holder.
- ▶ Shrink Fit Holding system can be applied.
- ▶ Upon request, the worn holder is able to be fixed.



单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	脖颈直径 Neck Diameter D3	长度类型 Length Type	扳手型号 Wrench No.	螺丝型号 Screw No.
ZBC0801080	8.0	8	12	25	130	7.7	Long	TWFT07	TX2508T07
ZBC1001100	10.0	10	15	30	140	9.7	Long	TWFT08	TX3010T08
ZBC1201120	12.0	12	17	35	150	11.7	Long	TWFT10	TX3512T10
ZBC1601160	16.0	16	20	50	200	15.7	Long	TWFT15	TX4016T15
ZBC2001200	20.0	20	25	60	200	19.7	Long	● TWBT20	TX5020T20
ZBC2501250	25.0	25	30	75	200	24.7	Long	● TWBT25	TX6025T25
ZBC3001320	30.0 32.0	32	40	90	250	29.7	Long	● TWBT30	TX8030T30

● 需要使用T型扳手(TWH600) / Need to use T-HANDLE (TWH600)

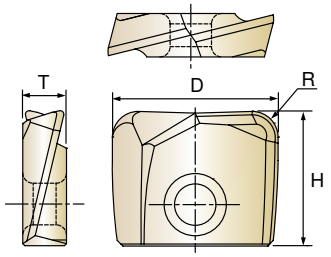
i-Xmill END MILLS

XMR110A
XMR120C

i-Xmill 圆弧角型刀片
i-Xmill CORNER RADIUS INSERTS

- 刀具的最佳几何尺寸能够达到较好的可靠性及较小的振动和切削负荷
- I-Xmill球头刀柄的可交换性，但是为了得到刀具的高稳定性和高应力，使用i-Xmill圆弧角型刀柄可以达到精密切削
- 广而多的切削范围使其可以完成粗铣和精铣的多种加工
- 特殊涂层使高硬度，高热稳定性的抗氧化
- 两种刀片可供选择-普通用途(~HRc50)&硬质材料 (HRc40~HRc65)

- The optimum geometry of the tool to achieve the better reliability and less vibration and cutting load.
- Interchangeability with i-Xmill ball holder, but the precise cutting is possible with i-Xmill corner radius holder due to higher stability and strength of tool.
- The various and wide cutting range makes it possible to machine over the roughing and finishing.
- Special coating makes high hardness with high thermal stability against oxidation.
- Two Types of Inserts are available - For General Purpose (~HRc50) & For Hardened Material (HRc40~HRc65)



单位(Unit) : mm

型号 EDP No. 用于普通材料 For General Material	型号 EDP No. 用于硬质材料 For Hardened Material	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D	高度 Height H	厚度 Thickness T
XMR110A080 03	XMR120C080 03	R0.3	8.0	8	2.4
XMR110A080 05	XMR120C080 05	R0.5			
XMR110A080 10	XMR120C080 10	R1.0			
XMR110A100 05	XMR120C100 05	R0.5	10.0	9.5	2.7
XMR110A100 10	XMR120C100 10	R1.0			
XMR110A100 20	XMR120C100 20	R2.0			
XMR110A120 05	XMR120C120 05	R0.5	12.0	11	3.2
XMR110A120 10	XMR120C120 10	R1.0			
XMR110A120 20	XMR120C120 20	R2.0			
XMR110A130 05	XMR120C130 05	R0.5	13.0	11.2	3.2
XMR110A130 10	XMR120C130 10	R1.0			
XMR110A130 20	XMR120C130 20	R2.0			
XMR110A160 05	XMR120C160 05	R0.5	16.0	13	4.2
XMR110A160 10	XMR120C160 10	R1.0			
XMR110A160 20	XMR120C160 20	R2.0			
XMR110A170 05	XMR120C170 05	R0.5	17.0	13	4.2
XMR110A170 10	XMR120C170 10	R1.0			
XMR110A170 20	XMR120C170 20	R2.0			

- 其他的圆弧值可根据要求定做.
  The other corner radius values are available on request.
- 圆弧半径公差是±0.015mm，结构精度是±0.02mm.
  The corner radius tolerance is ±0.015mm and the set-up accuracy is ±0.02mm.

◎ : 优(Excellent) ○ : 良(Good)

	碳钢 Carbon Steels		合金钢 Alloy Steels		工具钢 Tool Steels		铸铁 Cast Iron	硬化钢 Hardened Steels	不锈钢 Stainless Steels	铝 Aluminum
	~HRc35	HRc35~	~HRc35	HRc35~	~HRc35	HRc35~	~HRc35	HRc50~	~HRc28	~HRc8
XMB110A	◎	○	◎	○	◎	○	○		○	○
XMB120C	○	◎	○	◎	○	◎	◎	◎		

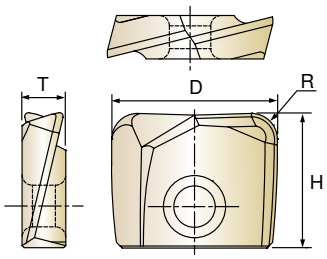
i-Xmill END MILLS

XMR110A
XMR120C

i-Xmill 圆弧角型刀片
i-Xmill CORNER RADIUS INSERTS

- 刀具的最佳几何尺寸能够达到较好的可靠性及较小的振动和切削负荷
- I-Xmill球头刀柄的可交换性，但是为了得到刀具的高稳定性和高应力，使用i-Xmill圆弧角型刀柄可以达到精密切削
- 广而多的切削范围使其可以完成粗铣和精铣的多种加工
- 特殊涂层使高硬度，高热稳定性的抗氧化
- 两种刀片可供选择-普通用途(~HRc50)&硬质材料 (HRc40~HRc65)

- The optimum geometry of the tool to achieve the better reliability and less vibration and cutting load.
- Interchangeability with i-Xmill ball holder, but the precise cutting is possible with i-Xmill corner radius holder due to higher stability and strength of tool.
- The various and wide cutting range makes it possible to machine over the roughing and finishing.
- Special coating makes high hardness with high thermal stability against oxidation.
- Two Types of Inserts are available - For General Purpose (~HRc50) & For Hardened Material (HRc40~HRc65)



单位(Unit) : mm

型号 EDP No. 用于普通材料 For General Material	型号 EDP No. 用于硬质材料 For Hardened Material	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D	高度 Height H	厚度 Thickness T
XMR110A200 05	XMR120C200 05	R0.5	20.0	16	5.2
XMR110A200 10	XMR120C200 10	R1.0			
XMR110A200 20	XMR120C200 20	R2.0			
XMR110A210 05	XMR120C210 05	R0.5	21.0	16	5.2
XMR110A210 10	XMR120C210 10	R1.0			
XMR110A210 20	XMR120C210 20	R2.0			
XMR110A250 05	XMR120C250 05	R0.5	25.0	19.5	6.2
XMR110A250 10	XMR120C250 10	R1.0			
XMR110A250 20	XMR120C250 20	R2.0			
XMR110A260 05	XMR120C260 05	R0.5	26.0	19.5	6.2
XMR110A260 10	XMR120C260 10	R1.0			
XMR110A260 20	XMR120C260 20	R2.0			
XMR110A300 05	XMR120C300 05	R0.5	30.0	23.5	7.2
XMR110A300 10	XMR120C300 10	R1.0			
XMR110A300 20	XMR120C300 20	R2.0			
XMR110A320 05	XMR120C320 05	R0.5	32.0	23.5	7.2
XMR110A320 10	XMR120C320 10	R1.0			
XMR110A320 20	XMR120C320 20	R2.0			

- 其他的圆弧值可根据要求定做.
  The other corner radius values are available on request.
- 圆弧半径公差是±0.015mm，结构精度是±0.02mm.
  The corner radius tolerance is ±0.015mm and the set-up accuracy is ±0.02mm.

◎ : 优(Excellent) ○ : 良(Good)

	碳钢 Carbon Steels		合金钢 Alloy Steels		工具钢 Tool Steels		铸铁 Cast Iron	硬化钢 Hardened Steels	不锈钢 Stainless Steels	铝 Aluminum
	~HRc35	HRc35~	~HRc35	HRc35~	~HRc35	HRc35~	~HRc35	HRc50~	~HRc28	~HRc8
XMB110A	◎	○	◎	○	◎	○	○		○	○
XMB120C	○	◎	○	◎	○	◎	◎	◎		

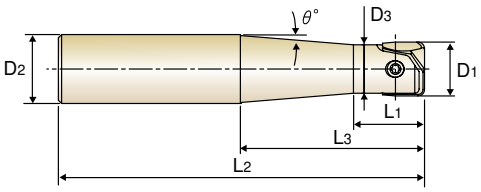
i-Xmill END MILLS

ZRT
ZRS

i-Xmill 圆弧角型刀柄 – 钢用
i-Xmill CORNER RADIUS HOLDERS - STEEL

- ▶ 具有极好应力的超合金钢
- ▶ 精确柄部 公差(h6)
- ▶ 黑色氧化处理，能够提高耐腐蚀性和润滑性

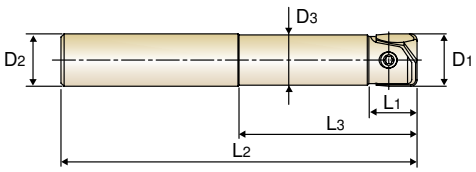
- ▶ Premium alloy steel with excellent strength.
- ▶ Precise shank, Tolerance (h6).
- ▶ Black oxide treated, to prevent corrosion and improve lubricity.



锥形颈部型 / TAPER NECK TYPE

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	脖颈直径 Neck Diameter D3	锥度 Taper Angle θ°	长度类型 Length Type	扳手型号 Wrench No.	螺丝型号 Screw No.
ZRT0801120	8.0	12	10	22	100	6.7	9°	Regular	TWFT07	TX2508T07
ZRT0802120				50	130		2° 43'	Long		
ZRT1001120	10.0	12	13	25	100	8.6	4° 45'	Regular	TWFT08	TX3010T08
ZRT1002120				50	150		1° 32'	Long		
ZRT1202160	12.0 13.0	16	15	60	160	10.2	2° 32'	Long	TWFT10	TX3512T10



直型颈部型 / STRAIGHT NECK TYPE

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	脖颈直径 Neck Diameter D3	长度类型 Length Type	扳手型号 Wrench No.	螺丝型号 Screw No.
ZRS1201120	12.0, 13.0	12	13	30	110	11	Regular	TWFT10	TX3512T10
ZRS1601160	16.0, 17.0	16	15	50	130	15	Regular	TWFT15	TX4016T15
ZRS1602160				65	165		Intermediate		
ZRS2001200	20.0, 21.0	20	18	60	140	19	Regular	● TWBT20	TX5020T20
ZRS2002200				80	180		Intermediate		
ZRS2501250	25.0, 26.0	25	23	70	150	24	Regular	● TWBT25	TX6025T25
ZRS2502250				90	200		Intermediate		
ZRS3001320	30.0	32	27	80	160	29	Regular	● TWBT30	TX8030T30
ZRS3002320				100	220		Intermediate		
ZRS3201320	32.0	32	28	80	160	31	Regular	● TWBT30	TX8030T30
ZRS3202320				100	220		Intermediate		

● 需要使用T型扳手(TWH600) / Need to use T-HANDLE (TWH600)

i-Xmill END MILLS 推荐的切削条件 RECOMMENDED CUTTING CONDITIONS

i-Xmill的装配 ASSEMBLY OF i-Xmill

◀ 确保刀片和刀片座的清洁
Make sure to clean the insert and insert seat.

◀ 使刀片滑动到刀柄的狭槽里.
使用反向混合扳手拧紧螺丝.
Slide the insert into the slot of the holder.
Tighten the screw using anti-seize compound.

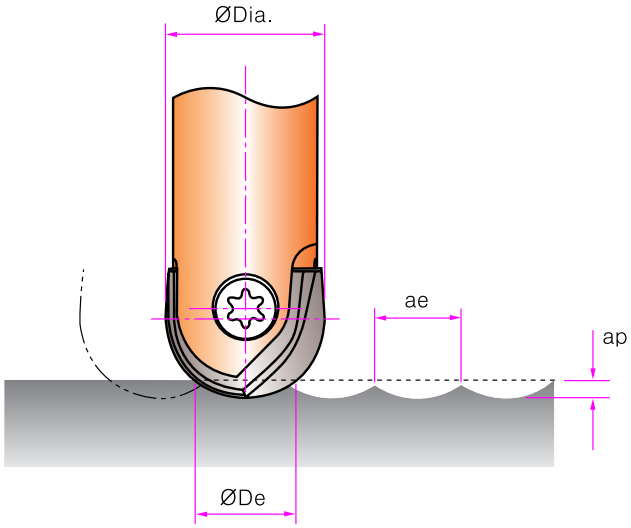
型号 SIZE (ØD)	箝位转矩 CLAMPING TORQUE [N · m]
Ø8	1.0
Ø10	1.5
Ø12, Ø13	2.5
Ø16, Ø17	3.5
Ø20, Ø21	5.0
Ø25, Ø26	6.0
Ø30, Ø32	6.5

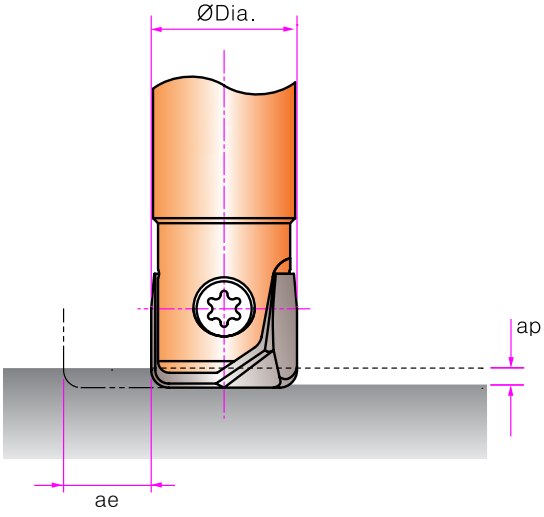
* 当螺丝磨损, 请换用新的螺丝
When the screw is worn out, please change the new screw.

* 请使用推荐的转矩来拧紧螺丝 (请参照表格)
Please tighten up the screw with recommended torque.
(Please refer to the table)

* 螺丝拧紧后, 请不要积压刀片
Don't press down the insert, when the screw is tightened.

切削条件 CUTTING CONDITION





RPM = 转速 / revolution per minute (rev/min)
Vc = 圆周速度 / surface meter per minute (M/min)
Dia. = 刀片直径 / diameter of insert (mm)
Vf = 进给速度 / feed speed (mm/min)
f = 每转进给 / feed per revolution (mm/rev)
De = 有效刀具直径 / effective tool diameter (mm)
ap = 轴向切削深度 / axial depth of cut (mm)
ae = 径向切削深度 / radial depth of cut (mm)

$$Vc\ [M/min] = \frac{(RPM) \cdot (\pi) \cdot (Dia.)}{1000}$$

$$Vf\ [mm/min] = (RPM) \cdot (f)$$

$$RPM\ [rev/min] = \frac{(Vc) \cdot (1000)}{(\pi) \cdot (Dia.)}$$

$$De\ [mm] = 2\sqrt{(ap) \cdot (Dia. - ap)}$$

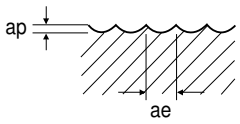
i-Xmill END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

i-Xmill 球头刀片
i-Xmill BALL INSERTS

XMB110A, XMB120C SERIES

材质		非合金钢, 合金钢, 铸铁		合金钢, 耐热钢		硬模工具钢, 预硬钢		硬化钢	
WORK MATERIAL		NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		DIE TOOL STEELS PRE-HARDENED		HARDENED STEELS	
HARDNESS	HB	~280		280~380		380~480		480~740	
	HRc	~30		30~40		40~50		50~65	
STRENGTH	N/mm²	~1000		1000~1250		1250~1500		1500~	
i-Xmill TYPE		XMB110A		XMB110A		XMB110A XMB120C		XMB120C	
CUTTING CONDITION Roughing~Finishing		RPM	Feed (Vf)	RPM	Feed (Vf)	RPM	Feed (Vf)	RPM	Feed (Vf)
8.0		6370~12730	2550~5090	4770~11140	1910~4460	3980~8750	1190~3500	3180~7160	640~2860
10.0		5090~11460	2040~4580	3820~9550	1530~3820	3180~8280	950~3310	2550~6370	510~2550
12.0, 13.0		4240~10080	1700~4030	3180~9280	1270~3710	2650~7430	800~2970	2120~5840	420~2330
16.0, 17.0		3180~9550	1590~5730	2390~7560	1190~4540	1990~6960	800~4180	1590~5170	480~3100
20.0, 21.0		2550~9230	1270~7380	1910~6680	950~5350	1590~6370	640~5090	1270~5090	380~4070
25.0, 26.0		2040~7640	1020~7640	1530~6110	760~6110	1270~5730	510~5730	1020~4580	310~4580
30.0, 32.0		1700~7430	850~8910	1270~5840	640~7000	1060~5310	420~6370	850~4240	250~5090



ae : Roughing - 0.1 x D
Finishing - Under Ø12 : 0.25mm
Ø12~Ø17 : 0.30mm
From Ø20 : 0.40mm
ap : Roughing - Under Ø16 : 0.025 x D
From Ø16 : 0.05 x D
Finishing - 0.1mm

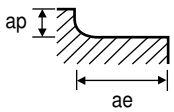
▶ 使用长刀具时, 进给速度荐于减为70%~85%.
Recommend to reduce the feed rate to 70 ~ 85% when you use long tools.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

i-Xmill 圆弧角型刀片
i-Xmill CORNER RADIUS INSERTS

XMR110A, XMR120C SERIES

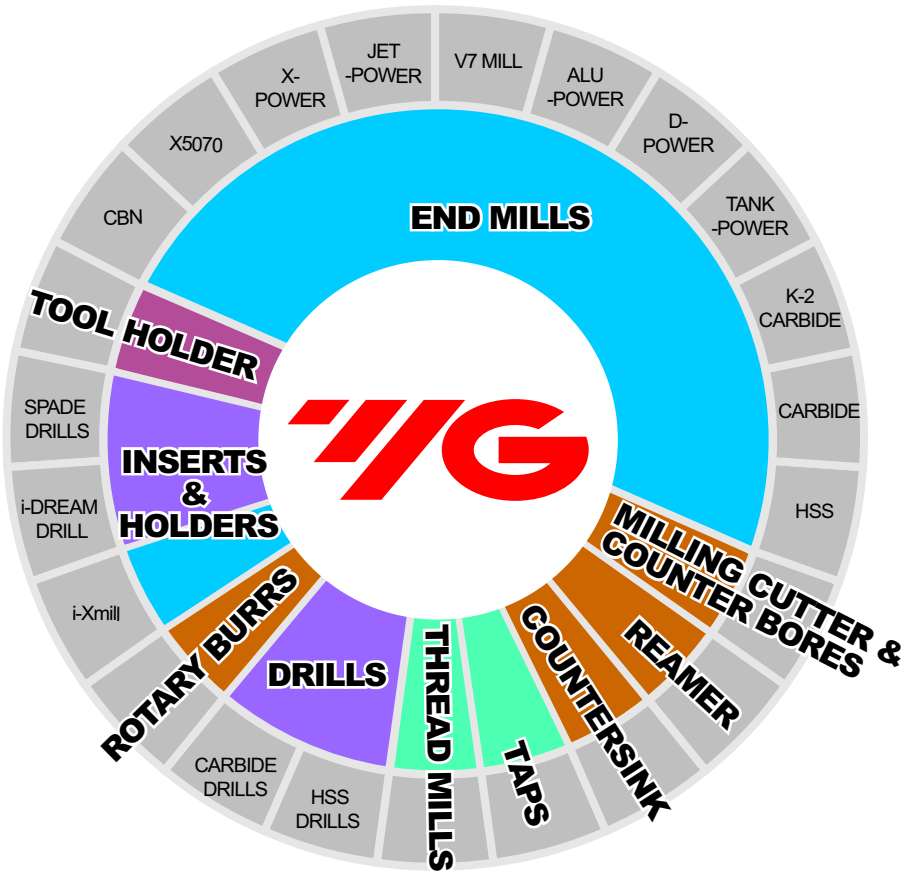
		非合金钢, 合金钢, 铸铁		合金钢, 耐热钢		硬模工具钢, 预硬钢		硬化钢	
WORK MATERIAL		NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		DIE TOOL STEELS PRE-HARDENED		HARDENED STEELS	
HARDNESS	HB	~280		280~380		380~480		480~740	
	HRc	~30		30~40		40~50		50~65	
STRENGTH	N/mm²	~1000		1000~1250		1250~1500		1500~	
i-Xmill TYPE		XMR110A		XMR110A		XMR110A XMR120C		XMR120C	
CUTTING CONDITION Roughing~Finishing		RPM	Feed (Vf)	RPM	Feed (Vf)	RPM	Feed (Vf)	RPM	Feed (Vf)
8.0		6370~11940	2550~3580	4770~11140	1910~3340	3980~11140	990~1340	3180~8750	640~880
10.0		5090~9550	2040~2860	3820~8910	1530~2670	3180~8910	800~1070	2550~7000	510~700
12.0, 13.0		4240~7960	1700~2390	3180~7430	1270~2230	2650~7430	660~890	2120~5840	420~580
16.0, 17.0		3180~5970	1590~2390	2390~5570	1190~2230	1990~5570	600~840	1590~4380	420~530
20.0, 21.0		2550~4770	1270~1910	1910~4460	950~1780	1590~4460	480~670	1270~3500	380~420
25.0, 26.0		2040~3820	1020~1530	1530~3570	760~1430	1270~3570	380~530	1020~2800	310~340
30.0, 32.0		1700~3180	850~1270	1270~2970	640~1190	1060~2970	320~450	850~2330	250~280



ae : Roughing - 0.1 x D
Finishing - 0.2mm
ap : Roughing - Under Ø16 : 0.025 x D
From Ø16 : 0.05 x D
Finishing - Under Ø16 : 0.1mm
From Ø16 : 0.2mm

▶ 使用长刀具时, 进给速度荐于减为70%~85%.
Recommend to reduce the feed rate to 70 ~ 85% when you use long tools.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)



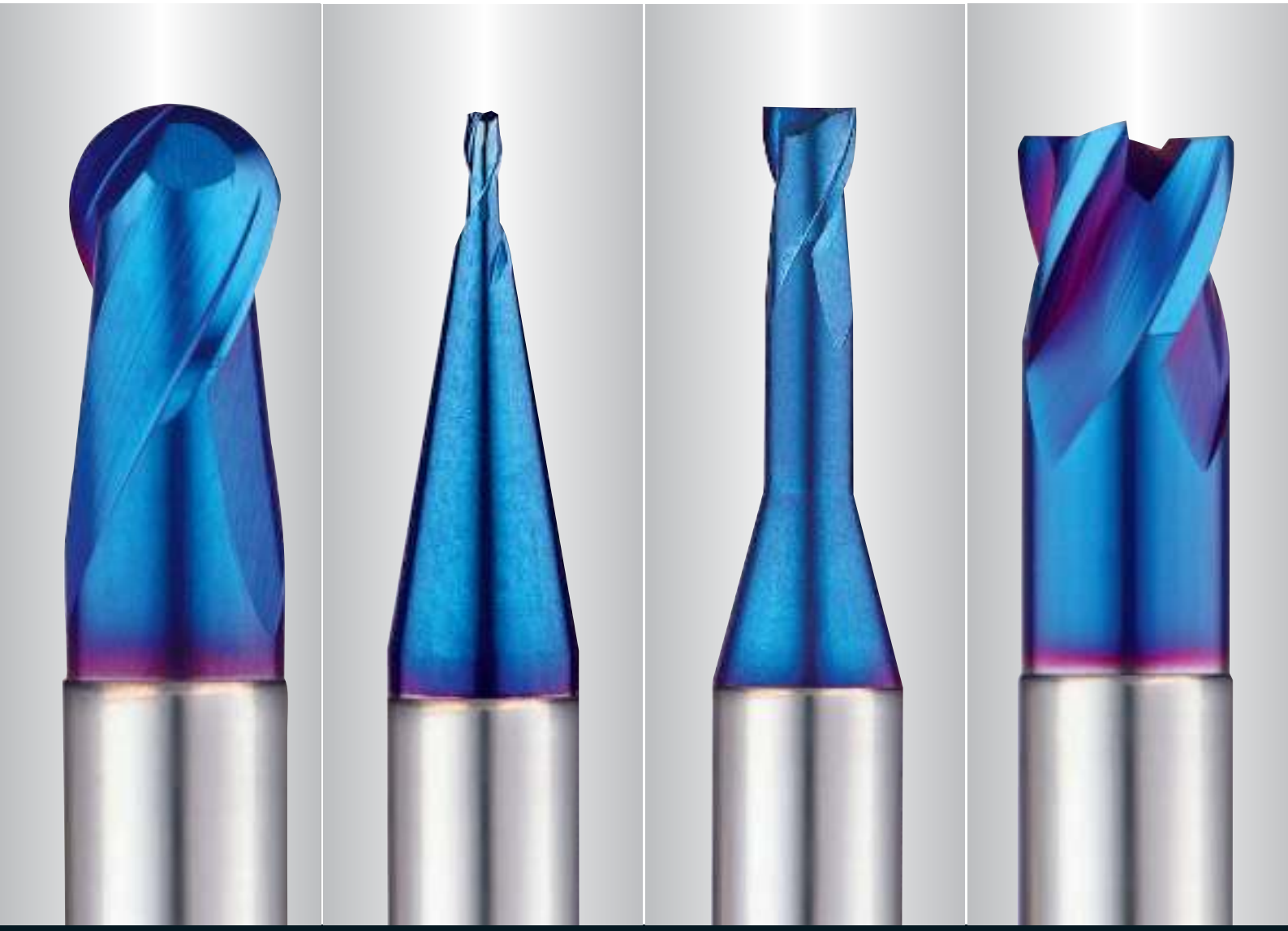
Challenge Toward a Global Leader-

YG-1 Leads the World Market.

CARBIDE

YG

Being the best through innovation

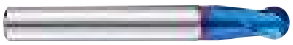
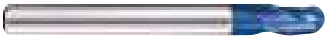
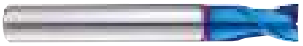


X5070

- HRc45 ~ HRc70的高硬度钢，高速加工，干式切削

High Hardened Steels HRc45 to HRc70, High Speed Machining, Dry Cutting

SELECTION GUIDE

项目 ITEM	型号 MODEL	规格 DESCRIPTION	尺寸 SIZE 最小 MIN	尺寸 SIZE 最大 MAX	页 PAGE
G8A46		硬质合金，2刃 球头 深腔加工用铣刀 CARBIDE, 2 FLUTE BALL NOSE for RIB PROCESSING	R0.05	R2.0	584
G8A54		硬质合金，2刃 球头 深腔加工用铣刀 CARBIDE, 2 FLUTE BALL NOSE for RIB PROCESSING	R0.25	R1.0	587
G8A28		硬质合金，2刃 球头 CARBIDE, 2 FLUTE BALL NOSE	R0.05	R6.0	588
G8A38		硬质合金，2刃 长颈短刃球头铣刀 CARBIDE, 2 FLUTE STUB LENGTH BALL NOSE with EXTENDED NECK	R0.5	R12.5	589
G8A53		硬质合金，2刃 微型 球头 CARBIDE, 2 FLUTE MINIATURE BALL NOSE	R0.2	R1.0	590
G8A59		硬质合金，3刃 球头 CARBIDE, 3 FLUTE BALL NOSE	R1.5	R10.0	591
G8D62		硬质合金，4刃 球头 - 中心交接式 CARBIDE, 4 FLUTE BALL NOSE - Center Match	R1.5	R10.0	592
G8A60		硬质合金，2刃 圆鼻铣刀 深腔加工用铣刀 CARBIDE, 2 FLUTE CORNER RADIUS for RIB PROCESSING	D0.5	D12.0	593
G8A36		硬质合金，2刃 长颈短刃圆弧角铣刀 CARBIDE, 2 FLUTE STUB LENGTH CORNER RADIUS with EXTENDED NECK	D0.3	D20.0	596
G8A52		硬质合金，2刃 圆鼻铣刀 深腔加工用铣刀 CARBIDE, 2 FLUTE CORNER RADIUS for RIB PROCESSING	D0.5	D2.0	598
G8A50		硬质合金，2刃 微型 圆鼻铣刀 CARBIDE, 2 FLUTE MINIATURE CORNER RADIUS	D0.3	D2.0	599
G8A47		硬质合金，4刃 圆鼻铣刀 CARBIDE, 4 FLUTE CORNER RADIUS	D3.0	D12.0	600
G8A37		硬质合金，4刃 长颈短刃圆弧角铣刀 CARBIDE, 4 FLUTE STUB LENGTH CORNER RADIUS with EXTENDED NECK	D1.0	D20.0	601
G8B08		硬质合金，4刃 长颈圆弧角铣刀 CARBIDE, 4 FLUTE CORNER RADIUS with EXTENDED NECK	D6.0	D12.0	602
G8A39		硬质合金，6刃 45度螺旋角 圆鼻铣刀 CARBIDE, 6 FLUTE 45° HELIX CORNER RADIUS	D6.0	D20.0	603
G8A45		硬质合金，2刃 深腔加工用铣刀 CARBIDE, 2 FLUTE for RIB PROCESSING	D0.1	D4.0	604
G8A01		硬质合金，2刃 CARBIDE, 2 FLUTE	D0.1	D20.0	607
G8A02		硬质合金，4刃 CARBIDE, 4 FLUTE	D1.0	D20.0	608
G8D63		硬质合金，6&8刃 45度螺旋角 长刃铣刀 CARBIDE, 6&8 FLUTE 45° HELIX LONG LENGTH	D6.0	D25.0	609
G8D64		硬质合金，6&8刃 45度螺旋角 超长刃铣刀 CARBIDE, 6&8 FLUTE 45° HELIX EXTRA LONG LENGTH	D6.0	D25.0	610
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS			611

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	镍铬铁合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							
		○	○	◎	◎							
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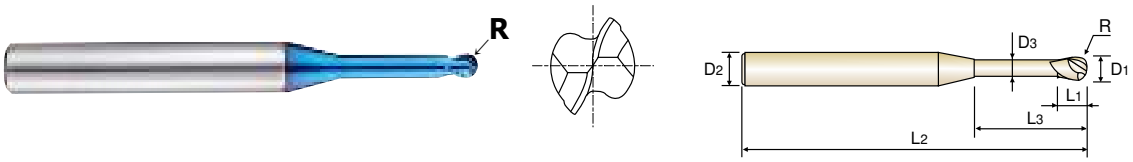
X5070 END MILLS

G8A46 SERIES PLAIN SHANK

硬质合金，2刃 球头 深腔加工用铣刀
CARBIDE, 2 FLUTE BALL NOSE for RIB PROCESSING

- 为加工高硬度材料设计.
- 适于干式切削，高速切削，最新开发的原材料和涂层.
- 卓越的工件表面粗糙度.
- 为高精度铣削设计.
- 极高的耐磨性.

- Designed to machine high hardened materials.
- Suitable for dry cutting, high speed cutting thanks to newly developed raw-material and new coating.
- Excellent workpiece finish.
- Designed for high precision milling operation.
- Higher wear-resistance.



NG HM | 2 | BLUE | 30° | R ±0.005 | PLAIN

P.611

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.005)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
G8A46805	R0.05	0.1	4	0.1	0.3	45	0.085
G8A46806	R0.05	0.1	4	0.1	0.5	45	0.085
G8A46002	R0.1	0.2	4	0.2	0.5	45	0.17
G8A46977	R0.1	0.2	4	0.2	1	45	0.17
G8A46958	R0.1	0.2	4	0.2	1.5	45	0.17
G8A46003	R0.15	0.3	4	0.3	1	45	0.27
G8A46959	R0.15	0.3	4	0.3	2	45	0.27
G8A46986	R0.15	0.3	4	0.3	3	45	0.27
G8A46004	R0.2	0.4	4	0.4	1	45	0.37
G8A46960	R0.2	0.4	4	0.4	2	45	0.37
G8A46961	R0.2	0.4	4	0.4	3	45	0.37
G8A46981	R0.2	0.4	4	0.4	4	45	0.37
G8A46987	R0.2	0.4	4	0.4	5	45	0.37
G8A46005	R0.25	0.5	4	0.4	2	45	0.45
G8A46804	R0.25	0.5	4	0.4	2.5	45	0.45
G8A46962	R0.25	0.5	4	0.4	4	45	0.45
G8A46963	R0.25	0.5	4	0.4	6	45	0.45
G8A46964	R0.25	0.5	4	0.4	8	45	0.45
G8A46957	R0.3	0.6	4	0.5	2	45	0.55
G8A46988	R0.3	0.6	4	0.5	3	45	0.55
G8A46915	R0.3	0.6	4	0.5	4	45	0.55
G8A46989	R0.3	0.6	4	0.5	5	45	0.55
G8A46916	R0.3	0.6	4	0.5	6	45	0.55
G8A46917	R0.3	0.6	4	0.5	8	45	0.55
G8A46990	R0.3	0.6	4	0.5	10	45	0.55
G8A46918	R0.4	0.8	4	0.6	2	45	0.75
G8A46919	R0.4	0.8	4	0.6	4	45	0.75
G8A46008	R0.4	0.8	4	0.6	6	45	0.75
G8A46901	R0.4	0.8	4	0.6	8	45	0.75

这种蓝色的具有装饰性的涂层在初期使用时也许会被摩擦掉，这个特性使得涂层薄厚不均，可是，它对刀具的性能没有影响.
Due to the characteristics of blue decoration layer which might be earased during short term using, the color layer might not be uniform moreover. However, it doesn't effect on performance of tool.

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							

X5070 END MILLS

G8A46 SERIES PLAIN SHANK

硬质合金，2刃 球头 深腔加工用铣刀
CARBIDE, 2 FLUTE BALL NOSE for RIB PROCESSING

- ▶ 为加工高硬度材料设计.
- ▶ 适于干式切削，高速切削，最新开发的原材料和涂层.
- ▶ 卓越的工件表面粗糙度.
- ▶ 为高精度铣削设计.
- ▶ 极高的耐磨性.

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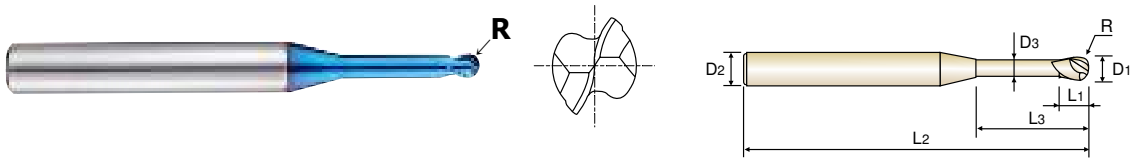

NG HM | 2 | BLUE | 30° | R ±0.005 | PLAIN

P.611

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.005)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
G8A46965	R0.4	0.8	4	0.6	10	45	0.75
G8A46920	R0.5	1.0	4	0.8	3	45	0.95
G8A46921	R0.5	1.0	4	0.8	4	45	0.95
G8A46923	R0.5	1.0	4	0.8	5	45	0.95
G8A46010	R0.5	1.0	4	0.8	6	45	0.95
G8A46924	R0.5	1.0	4	0.8	7	45	0.95
G8A46902	R0.5	1.0	4	0.8	8	45	0.95
G8A46925	R0.5	1.0	4	0.8	9	45	0.95
G8A46903	R0.5	1.0	4	0.8	10	45	0.95
G8A46904	R0.5	1.0	4	0.8	12	45	0.95
G8A46926	R0.5	1.0	4	0.8	14	50	0.95
G8A46927	R0.5	1.0	4	0.8	16	50	0.95
G8A46966	R0.5	1.0	4	0.8	20	55	0.95
G8A46982	R0.6	1.2	4	1.0	6	45	1.15
G8A46012	R0.6	1.2	4	1.0	8	45	1.15
G8A46983	R0.6	1.2	4	1.0	10	45	1.15
G8A46905	R0.6	1.2	4	1.0	12	45	1.15
G8A46930	R0.75	1.5	4	1.2	6	45	1.45
G8A46015	R0.75	1.5	4	1.2	8	45	1.45
G8A46931	R0.75	1.5	4	1.2	10	45	1.45
G8A46906	R0.75	1.5	4	1.2	12	45	1.45
G8A46992	R0.75	1.5	4	1.2	14	50	1.45
G8A46907	R0.75	1.5	4	1.2	16	50	1.45
G8A46932	R0.75	1.5	4	1.2	20	55	1.45
G8A46939	R1.0	2.0	4	1.6	4	45	1.95
G8A46940	R1.0	2.0	4	1.6	6	45	1.95
G8A46020	R1.0	2.0	4	1.6	8	45	1.95
G8A46941	R1.0	2.0	4	1.6	10	45	1.95
G8A46942	R1.0	2.0	4	1.6	12	50	1.95

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~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							

X5070 END MILLS

G8A46 SERIES PLAIN SHANK

硬质合金，2刃 球头 深腔加工用铣刀
CARBIDE, 2 FLUTE BALL NOSE for RIB PROCESSING

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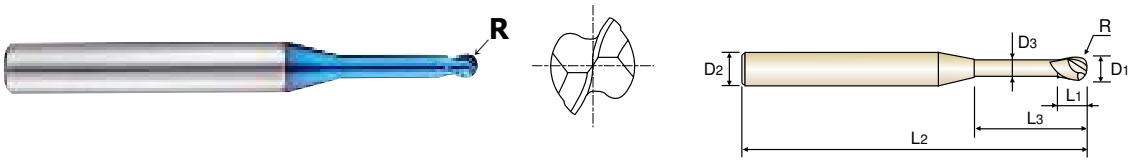
- Designed for high precision milling operation.
- Higher wear-resistance.



NG HM | 2 | BLUE | 30° | R ±0.005 | PLAIN

P.611

단위(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.005)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
G8A46943	R1.0	2.0	4	1.6	14	50	1.95
G8A46909	R1.0	2.0	4	1.6	16	50	1.95
G8A46993	R1.0	2.0	4	1.6	18	55	1.95
G8A46910	R1.0	2.0	4	1.6	20	55	1.95
G8A46944	R1.0	2.0	4	1.6	22	60	1.95
G8A46945	R1.0	2.0	4	1.6	25	60	1.95
G8A46967	R1.0	2.0	4	1.6	30	70	1.95
G8A46948	R1.5	3.0	6	2.4	12	50	2.85
G8A46984	R1.5	3.0	6	2.4	14	55	2.85
G8A46030	R1.5	3.0	6	2.4	16	55	2.85
G8A46985	R1.5	3.0	6	2.4	18	60	2.85
G8A46911	R1.5	3.0	6	2.4	20	60	2.85
G8A46968	R1.5	3.0	6	2.4	25	65	2.85
G8A46969	R1.5	3.0	6	2.4	30	70	2.85
G8A46970	R1.5	3.0	6	2.4	35	80	2.85
G8A46950	R2.0	4.0	6	3.2	12	60	3.85
G8A46040	R2.0	4.0	6	3.2	16	60	3.85
G8A46912	R2.0	4.0	6	3.2	20	65	3.85
G8A46913	R2.0	4.0	6	3.2	25	70	3.85
G8A46971	R2.0	4.0	6	3.2	30	70	3.85
G8A46972	R2.0	4.0	6	3.2	35	80	3.85
G8A46973	R2.0	4.0	6	3.2	40	90	3.85
G8A46974	R2.0	4.0	6	3.2	45	90	3.85
G8A46975	R2.0	4.0	6	3.2	50	100	3.85

这种蓝色的具有装饰性的涂层在初期使用时也许会被摩擦掉，这个特性使得涂层薄厚不均.
可是，它对刀具的性能没有影响.
Due to the characteristics of blue decoration layer which might be earased during short term using, the color layer might not be uniform moreover.
However, it doesn't effect on performance of tool.

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.012	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							

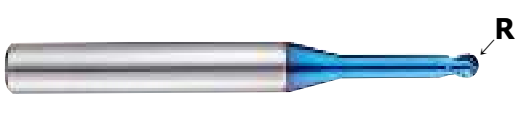
X5070 END MILLS

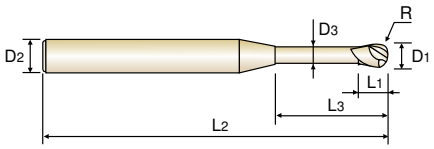
G8A54 SERIES PLAIN SHANK

硬质合金，2刃 球头 深腔加工用铣刀
CARBIDE, 2 FLUTE BALL NOSE for RIB PROCESSING

- ▶ 为加工高硬度材料设计.
- ▶ 适于干式切削，高速切削，最新开发的原材料和涂层.
- ▶ 卓越的工件表面粗糙度.
- ▶ 为高精度铣削设计.
- ▶ 极高的耐磨性.

- ▶ Designed to machine high hardened materials.
- ▶ Suitable for dry cutting, high speed cutting thanks to newly developed raw-material and new coating.
- ▶ Excellent workpiece finish.
- ▶ Designed for high precision milling operation.
- ▶ Higher wear-resistance.





NG HM | 2 | BLUE | 30° | R ±0.005 | PLAIN

P.611

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.005)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
G8A54005	R0.25	0.5	6	0.5	1.5	50	0.45
G8A54901	R0.25	0.5	6	0.5	3.3	50	0.45
G8A54006	R0.3	0.6	6	0.6	2	50	0.55
G8A54902	R0.3	0.6	6	0.6	4	50	0.55
G8A54008	R0.4	0.8	6	0.8	2.5	50	0.75
G8A54903	R0.4	0.8	6	0.8	5.5	50	0.75
G8A54010	R0.5	1.0	6	1	3.3	50	0.95
G8A54904	R0.5	1.0	6	1	6.7	50	0.95
G8A54905	R0.5	1.0	6	1	12	50	0.95
G8A54012	R0.6	1.2	6	1.2	4.4	50	1.15
G8A54906	R0.6	1.2	6	1.2	8	50	1.15
G8A54015	R0.75	1.5	6	1.5	5	50	1.45
G8A54907	R0.75	1.5	6	1.5	9.7	50	1.45
G8A54908	R0.75	1.5	6	1.5	15	50	1.45
G8A54020	R1.0	2.0	6	2	6	50	1.95
G8A54909	R1.0	2.0	6	2	13	50	1.95
G8A54910	R1.0	2.0	6	2	20	60	1.95

这种蓝色的具有装饰性的涂层在初期使用时也许会被摩擦掉，这个特性使得涂层薄厚不均.
可是，它对刀具的性能没有影响.
Due to the characteristics of blue decoration layer which might be earased during short term using, the color layer might not be uniform moreover. However, it doesn' t effect on performance of tool.

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.012	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							

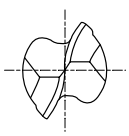
X5070 END MILLS

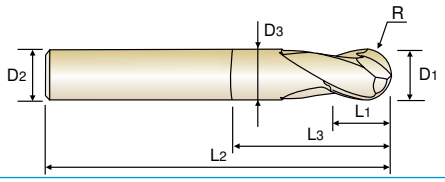
G8A28 SERIES PLAIN SHANK

硬质合金，2刃 球头
CARBIDE, 2 FLUTE BALL NOSE

- 为加工高硬度材料设计.
- 适于干式切削，高速切削，最新开发的原材料和涂层.
- 卓越的工件表面粗糙度.
- 为高精度铣削设计.
- 极高的耐磨性.

- Designed to machine high hardened materials.
- Suitable for dry cutting, high speed cutting thanks to newly developed raw-material and new coating.
- Excellent workpiece finish.
- Designed for high precision milling operation.
- Higher wear-resistance.





NG HM | 2 | BLUE | 30° | R ±0.005 (R0.05~R3) | R ±0.010 (R4~R6) | PLAIN

P.612

단위(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
G8A28001	R0.05	0.1	4	0.2	-	40	-
G8A28002	R0.1	0.2	4	0.3	-	40	-
G8A28003	R0.15	0.3	4	0.5	-	40	-
G8A28004	R0.2	0.4	4	0.6	-	40	-
G8A28005	R0.25	0.5	4	0.7	-	40	-
G8A28006	R0.3	0.6	4	0.9	-	40	-
G8A28007	R0.35	0.7	4	1.1	-	40	-
G8A28008	R0.4	0.8	4	1.2	-	40	-
G8A28009	R0.45	0.9	4	1.4	-	40	-
G8A28010	R0.5	1.0	6	1.5	3	50	0.95
G8A28015	R0.75	1.5	6	2	4	50	1.45
G8A28020	R1.0	2.0	6	2.5	5	50	1.95
G8A28025	R1.25	2.5	6	3	7	50	2.4
G8A28030	R1.5	3.0	6	4	10	60	2.85
G8A28035	R1.75	3.5	6	4.5	10	60	3.35
G8A28040	R2.0	4.0	6	5	10	60	3.85
G8A28045	R2.25	4.5	6	5.5	10	60	4.35
G8A28050	R2.5	5.0	6	6	12	60	4.85
G8A28055	R2.75	5.5	6	6.5	12	60	5.35
G8A28060	R3.0	6.0	6	7	15	60	5.85
G8A28903	R3.0	6.0	6	9	30	90	5.85
G8A28901	R4.0	8.0	8	9	15	60	7.7
G8A28080	R4.0	8.0	8	9	15	80	7.7
G8A28904	R4.0	8.0	8	12	30	100	7.7
G8A28902	R5.0	10.0	10	11	25	60	9.7
G8A28100	R5.0	10.0	10	11	25	80	9.7
G8A28905	R5.0	10.0	10	15	30	100	9.7
G8A28120	R6.0	12.0	12	14	25	80	11.7

这种蓝色的具有装饰性的涂层在初期使用时也许会被摩擦掉，这个特性使得涂层薄厚不均.
可是，它对刀具的性能没有影响.
Due to the characteristics of blue decoration layer which might be earased during short term using, the color layer might not be uniform moreover. However, it doesn't effect on performance of tool.

尺寸 Size	半径公差 Radius Tolerance (mm)	刃部公差 Mill Dia. Tolerance (mm)	柄部公差 Shank Dia. Tolerance
up to R3	±0.005	0~-0.012	h6
over R3	±0.010	0~-0.015	

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							

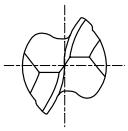
X5070 END MILLS

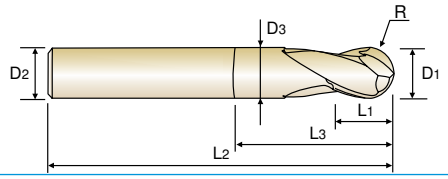
G8A38 SERIES PLAIN SHANK

硬纸合金，2刃 长颈短刃球头铣刀
CARBIDE, 2 FLUTE STUB LENGTH BALL NOSE with EXTENDED NECK

- ▶ 为加工高硬度材料设计.
- ▶ 适于干式切削，高速切削，最新开发的原材料和涂层.
- ▶ 卓越的工件表面粗糙度.
- ▶ 为高精度铣削设计.
- ▶ 极高的耐磨性.

- ▶ Designed to machine high hardened materials.
- ▶ Suitable for dry cutting, high speed cutting thanks to newly developed raw-material and new coating.
- ▶ Excellent workpiece finish.
- ▶ Designed for high precision milling operation.
- ▶ Higher wear-resistance.





NG HM | 2 | BLUE | 30° | R ±0.005 | R ±0.010 | PLAIN

P.612

R0.5~R3 R3.5~R12.5

단위(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
G8A38010	R0.5	1.0	4	1	2.2	50	0.95
G8A38012	R0.6	1.2	4	1.2	2.6	50	1.15
G8A38015	R0.75	1.5	4	1.5	3	50	1.45
G8A38020	R1.0	2.0	6	2	4	50	1.95
G8A38030	R1.5	3.0	6	3	6	60	2.85
G8A38040	R2.0	4.0	6	4	8	70	3.85
G8A38050	R2.5	5.0	6	5	10	80	4.85
G8A38060	R3.0	6.0	6	6	12	90	5.85
G8A38070	R3.5	7.0	8	7	14	90	6.7
G8A38080	R4.0	8.0	8	8	16	100	7.7
G8A38090	R4.5	9.0	10	9	18	100	8.7
G8A38100	R5.0	10.0	10	10	20	100	9.7
G8A38120	R6.0	12.0	12	12	24	110	11.7
G8A38140	R7.0	14.0	14	14	28	110	13.7
G8A38160	R8.0	16.0	16	16	32	140	15.7
G8A38180	R9.0	18.0	18	18	36	140	17.7
G8A38200	R10.0	20.0	20	20	40	160	19.7
G8A38250	R12.5	25.0	25	25	50	180	24.7

这种蓝色的具有装饰性的涂层在初期使用时也许会被摩擦掉，这个特性使得涂层薄厚不均，
可是，它对刀具的性能没有影响.
Due to the characteristics of blue decoration layer which might be earased during short term using, the color layer might not be uniform moreover. However, it doesn't effect on performance of tool.

尺寸 Size	半径公差 Radius Tolerance (mm)	刃部公差 Mill Dia. Tolerance (mm)	柄部公差 Shank Dia. Tolerance
up to R3	±0.005	0~-0.012	h6
over R3	±0.010	0~-0.015	

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							

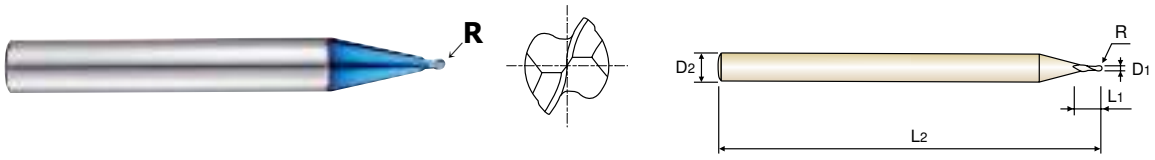
X5070 END MILLS

G8A53 SERIES PLAIN SHANK

硬质合金, 2刃 微型 球头
CARBIDE, 2 FLUTE MINIATURE BALL NOSE

- 为加工高硬度材料设计.
- 适于干式切削，高速切削，最新开发的原材料和涂层.
- 卓越的工件表面粗糙度.
- 为高精度铣削设计.
- 极高的耐磨性.

- Designed to machine high hardened materials.
- Suitable for dry cutting, high speed cutting thanks to newly developed raw-material and new coating.
- Excellent workpiece finish.
- Designed for high precision milling operation.
- Higher wear-resistance.



NG HM | 2 | BLUE | 30° | R ±0.005 | PLAIN

P.612

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.005)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	全长 Overall Length L2
G8A53004	R0.2	0.4	6	0.4	50
G8A53005	R0.25	0.5	6	0.5	50
G8A53006	R0.3	0.6	6	0.6	50
G8A53008	R0.4	0.8	6	0.8	50
G8A53010	R0.5	1.0	6	1.0	50
G8A53012	R0.6	1.2	6	1.2	50
G8A53015	R0.75	1.5	6	1.5	50
G8A53020	R1.0	2.0	6	2.0	50

这种蓝色的具有装饰性的涂层在初期使用时也许会被摩擦掉，这个特性使得涂层薄厚不均.
可是，它对刀具的性能没有影响.
Due to the characteristics of blue decoration layer which might be earased during short term using, the color layer might not be uniform moreover.
However, it doesn' t effect on performance of tool.

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.012	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							

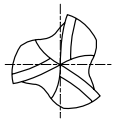
X5070 END MILLS

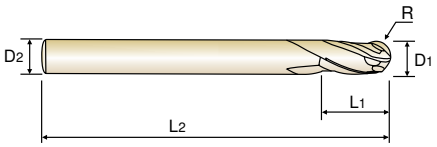
G8A59 SERIES PLAIN SHANK

硬质合金，3刃 球头
CARBIDE, 3 FLUTE BALL NOSE

- 为加工高硬度材料设计.
- 适于干式切削，高速切削，最新开发的原材料和涂层.
- 卓越的工件表面粗糙度.
- 为高精度铣削设计.
- 极高的耐磨性.

- Designed to machine high hardened materials.
- Suitable for dry cutting, high speed cutting thanks to newly developed raw-material and new coating.
- Excellent workpiece finish.
- Designed for high precision milling operation.
- Higher wear-resistance.





NG HM | 3 | BLUE | 30° | R ±0.005 | R ±0.010 | PLAIN

R1.5~R3 R4~R10

P.611

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	全长 Overall Length L2
G8A59030	R1.5	3.0	6	8	60
G8A59040	R2.0	4.0	6	8	70
G8A59050	R2.5	5.0	6	10	80
G8A59060	R3.0	6.0	6	12	90
G8A59080	R4.0	8.0	8	14	100
G8A59100	R5.0	10.0	10	18	100
G8A59120	R6.0	12.0	12	22	110
G8A59160	R8.0	16.0	16	30	140
G8A59200	R10.0	20.0	20	38	160

这种蓝色的具有装饰性的涂层在初期使用时也许会被摩擦掉，这个特性使得涂层薄厚不均.
可是，它对刀具的性能没有影响.
Due to the characteristics of blue decoration layer which might be earased during short term using, the color layer might not be uniform moreover. However, it doesn' t effect on performance of tool.

尺寸 Size	半径公差 Radius Tolerance (mm)	刃部公差 Mill Dia. Tolerance (mm)	柄部公差 Shank Dia. Tolerance
up to R3	±0.005	0~−0.012	h6
over R3	±0.010	0~−0.015	

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							

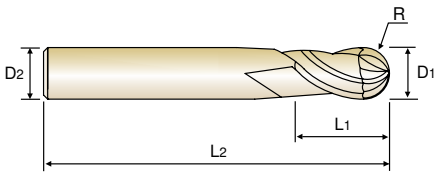
X5070 END MILLS

G8D62 SERIES PLAIN SHANK

硬质合金, 4刃 球头 – 中心交接式
CARBIDE, 4 FLUTE BALL NOSE - Center Match

- 中心交接式&球头中心形状特殊的新设计.
- 极好地高磨损阻力和高性能.
- 应用于高速度和高进给.
- 增强表面粗糙度.

- Applied center match type & special new design on ball center shape.
- Excellent high wear resistance and high performance.
- Applied for high speed and feed.
- Increased the surface roughness.



NG HM | 4 | BLUE | 30° | R ±0.005 (R1.5~R3) | R ±0.010 (R4~R10) | PLAIN P.612

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	全长 Overall Length L2
G8D62030	R1.5	3.0	6	8	60
G8D62040	R2.0	4.0	6	8	70
G8D62050	R2.5	5.0	6	10	80
G8D62060	R3.0	6.0	6	12	90
G8D62080	R4.0	8.0	8	14	100
G8D62100	R5.0	10.0	10	18	100
G8D62120	R6.0	12.0	12	22	110
G8D62160	R8.0	16.0	16	30	140
G8D62200	R10.0	20.0	20	38	160

这种蓝色的具有装饰性的涂层在初期使用时也许会被摩擦掉, 这个特性使得涂层薄厚不均.
可是, 它对刀具的性能没有影响.
Due to the characteristics of blue decoration layer which might be earased during short term using, the color layer might not be uniform moreover.
However, it doesn't effect on performance of tool.

尺寸 Size	半径公差 Radius Tolerance (mm)	刃部公差 Mill Dia. Tolerance (mm)	柄部公差 Shank Dia. Tolerance
up to R3	±0.005	0~−0.012	h6
over R3	±0.010	0~−0.015	

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							

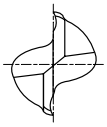
X5070 END MILLS

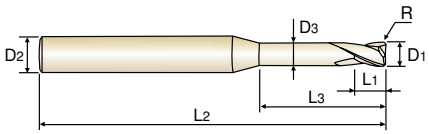
G8A60 SERIES PLAIN SHANK

硬质合金，2刃 圆鼻铣刀 深腔加工用铣刀
CARBIDE, 2 FLUTE CORNER RADIUS for RIB PROCESSING

- 为加工高硬度材料设计.
- 适于干式切削，高速切削，最新开发的原材料和涂层.
- 卓越的工件表面粗糙度.
- 由于颈部稍细可以加工深槽.
- 圆弧角可防止高速切削时崩刃.
- 极高的耐磨性.

- Designed to machine high hardened materials.
- Suitable for dry cutting, high speed cutting thanks to newly developed raw-material and new coating.
- Excellent workpiece finish.
- Deep slotting is possible by reduced neck.
- Corner radius for preventing the chipping in high speed machining.
- Higher wear-resistance.





NG HM | 2 | BLUE | 30° | R ±0.010 Ø0.5~Ø6 | R ±0.015 Ø8~Ø12 | PLAIN

P.613

单位(Unit) : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
G8A60936	R0.05	0.5	4	0.7	1.5	45	0.45
G8A60932	R0.05	0.5	4	0.7	2.5	45	0.45
G8A60935	R0.05	0.5	4	0.7	4	45	0.45
G8A60931	R0.05	0.6	4	0.9	2	45	0.55
G8A60933	R0.05	0.6	4	0.9	3	45	0.55
G8A60934	R0.05	0.6	4	0.9	4	45	0.55
G8A600060102	R0.1	0.6	4	0.9	2	45	0.55
G8A600070104	R0.1	0.7	4	1	4	45	0.65
G8A600080102	R0.1	0.8	4	1.2	2	45	0.75
G8A60008	R0.1	0.8	4	1.2	4	45	0.75
G8A60924	R0.1	0.8	4	1.2	6	45	0.75
G8A60925	R0.1	1.0	6	1.5	4	50	0.95
G8A60926	R0.1	1.0	6	1.5	6	50	0.95
G8A60010	R0.2	1.0	6	1.5	4	50	0.95
G8A60910	R0.2	1.0	6	1.5	6	50	0.95
G8A60911	R0.2	1.0	6	1.5	8	50	0.95
G8A60912	R0.3	1.0	6	1.5	4	50	0.95
G8A60930	R0.3	1.0	6	1.5	6	50	0.95
G8A600100308	R0.3	1.0	6	1.5	8	50	0.95
G8A60015	R0.2	1.5	6	2.5	4	50	1.45
G8A600150206	R0.2	1.5	6	2.5	6	50	1.45
G8A600150208	R0.2	1.5	6	2.5	8	50	1.45
G8A60913	R0.2	1.5	6	2.5	10	50	1.45
G8A60914	R0.2	1.5	6	2.5	12	50	1.45
G8A60915	R0.3	1.5	6	2.5	4	50	1.45
G8A600150306	R0.3	1.5	6	2.5	6	50	1.45
G8A600150308	R0.3	1.5	6	2.5	8	50	1.45
G8A60927	R0.2	2.0	6	3	6	50	1.95
G8A600200208	R0.2	2.0	6	3	8	50	1.95

这种蓝色的具有装饰性的涂层在初期使用时也许会被摩擦掉，这个特性使得涂层薄厚不均，
可是，它对刀具的性能没有影响.
Due to the characteristics of blue decoration layer which might be earased during short term using, the color layer might not be uniform moreover. However, it doesn't effect on performance of tool.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							

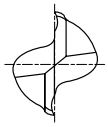
X5070 END MILLS

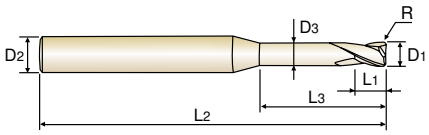
G8A60 SERIES PLAIN SHANK

硬质合金，2刃 圆鼻铣刀 深腔加工用铣刀
CARBIDE, 2 FLUTE CORNER RADIUS for RIB PROCESSING

- 为加工高硬度材料设计.
- 适于干式切削，高速切削，最新开发的原材料和涂层.
- 卓越的工件表面粗糙度.
- 由于颈部稍细可以加工深槽.
- 圆弧角可防止高速切削时崩刃.
- 极高的耐磨性.

- Designed to machine high hardened materials.
- Suitable for dry cutting, high speed cutting thanks to newly developed raw-material and new coating.
- Excellent workpiece finish.
- Deep slotting is possible by reduced neck.
- Corner radius for preventing the chipping in high speed machining.
- Higher wear-resistance.





NG HM | 2 | BLUE | 30° | R ±0.010 Ø0.5~Ø6 | R ±0.015 Ø8~Ø12 | PLAIN

P.613

단위(Unit) : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
G8A600200210	R0.2	2.0	6	3	10	55	1.95
G8A600200212	R0.2	2.0	6	3	12	55	1.95
G8A60916	R0.3	2.0	6	3	6	50	1.95
G8A600200308	R0.3	2.0	6	3	8	50	1.95
G8A600200310	R0.3	2.0	6	3	10	55	1.95
G8A600200312	R0.3	2.0	6	3	12	55	1.95
G8A600200316	R0.3	2.0	6	3	16	55	1.95
G8A60917	R0.5	2.0	6	3	6	50	1.95
G8A60020	R0.5	2.0	6	3	10	55	1.95
G8A60918	R0.5	2.0	6	3	12	55	1.95
G8A600300208	R0.2	3.0	6	4	8	55	2.85
G8A600300210	R0.2	3.0	6	4	10	55	2.85
G8A600300212	R0.2	3.0	6	4	12	55	2.85
G8A600300216	R0.2	3.0	6	4	16	55	2.85
G8A600300308	R0.3	3.0	6	4	8	55	2.85
G8A60919	R0.3	3.0	6	4	10	55	2.85
G8A600300312	R0.3	3.0	6	4	12	55	2.85
G8A600300316	R0.3	3.0	6	4	16	55	2.85
G8A60030	R0.5	3.0	6	4	10	55	2.85
G8A600300512	R0.5	3.0	6	4	12	55	2.85
G8A60901	R0.5	3.0	6	4	16	55	2.85
G8A60902	R0.5	3.0	6	4	20	55	2.85
G8A600400212	R0.2	4.0	6	5	12	55	3.85
G8A600400216	R0.2	4.0	6	5	16	55	3.85
G8A600400220	R0.2	4.0	6	5	20	55	3.85
G8A600400310	R0.3	4.0	6	5	10	55	3.85
G8A60920	R0.3	4.0	6	5	12	55	3.85
G8A600400316	R0.3	4.0	6	5	16	55	3.85
G8A600400320	R0.3	4.0	6	5	20	55	3.85

这种蓝色的具有装饰性的涂层在初期使用时也许会被摩擦掉，这个特性使得涂层薄厚不均，
可是，它对刀具的性能没有影响.
Due to the characteristics of blue decoration layer which might be earased during short term using, the color layer might not be uniform moreover. However, it doesn't effect on performance of tool.

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							

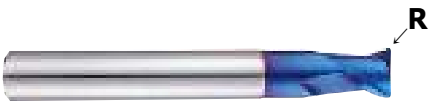
X5070 END MILLS

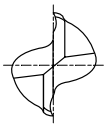
G8A60 SERIES PLAIN SHANK

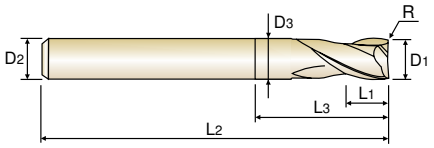
硬质合金，2刃 圆鼻铣刀 深腔加工用铣刀
CARBIDE, 2 FLUTE CORNER RADIUS for RIB PROCESSING

- 为加工高硬度材料设计.
- 适于干式切削，高速切削，最新开发的原材料和涂层.
- 卓越的工件表面粗糙度.
- 由于颈部稍细可以加工深槽.
- 圆弧角可防止高速切削时崩刃.
- 极高的耐磨性.

- Designed to machine high hardened materials.
- Suitable for dry cutting, high speed cutting thanks to newly developed raw-material and new coating.
- Excellent workpiece finish.
- Deep slotting is possible by reduced neck.
- Corner radius for preventing the chipping in high speed machining.
- Higher wear-resistance.







NG HM | 2 | BLUE | 30° | R ±0.010 (Ø0.5~Ø6) | R ±0.015 (Ø8~Ø12) | PLAIN

P.613

단위(Unit) : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
G8A60040	R0.5	4.0	6	5	12	55	3.85
G8A60903	R0.5	4.0	6	5	16	55	3.85
G8A60904	R0.5	4.0	6	5	20	55	3.85
G8A600401012	R1.0	4.0	6	5	12	55	3.85
G8A600401016	R1.0	4.0	6	5	16	55	3.85
G8A60921	R0.3	6.0	6	7	20	60	5.85
G8A60060	R0.5	6.0	6	7	20	60	5.85
G8A60905	R1.0	6.0	6	7	20	60	5.85
G8A60906	R1.5	6.0	6	7	20	60	5.85
G8A600602020	R2.0	6.0	6	7	20	60	5.85
G8A60922	R0.3	8.0	8	9	25	60	7.7
G8A60929	R0.5	8.0	8	9	25	60	7.7
G8A60080	R1.0	8.0	8	9	25	60	7.7
G8A60907	R1.5	8.0	8	9	25	60	7.7
G8A600802025	R2.0	8.0	8	9	25	60	7.7
G8A60923	R0.3	10.0	10	11	32	70	9.7
G8A601000532	R0.5	10.0	10	11	32	70	9.7
G8A60100	R1.0	10.0	10	11	32	70	9.7
G8A60908	R1.5	10.0	10	11	32	70	9.7
G8A601002032	R2.0	10.0	10	11	32	70	9.7
G8A601200538	R0.5	12.0	12	12	38	80	11.7
G8A60120	R1.0	12.0	12	12	38	80	11.7
G8A60909	R1.5	12.0	12	12	38	80	11.7
G8A601202038	R2.0	12.0	12	12	38	80	11.7

这种蓝色的具有装饰性的涂层在初期使用时也许会被摩擦掉，这个特性使得涂层薄厚不均.
可是，它对刀具的性能没有影响.
Due to the characteristics of blue decoration layer which might be earased during short term using, the color layer might not be uniform moreover. However, it doesn't effect on performance of tool.

尺寸 Size	圆弧角公差 Corner Radius Tolerance (mm)	刃部公差 Mill Dia. Tolerance (mm)	柄部公差 Shank Dia. Tolerance
up to Ø6	±0.010	0~−0.012	h6
over Ø6	±0.015	0~−0.015	

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							

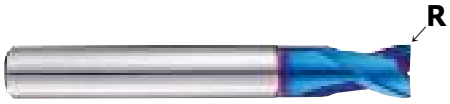
X5070 END MILLS

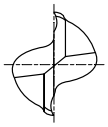
G8A36 SERIES PLAIN SHANK

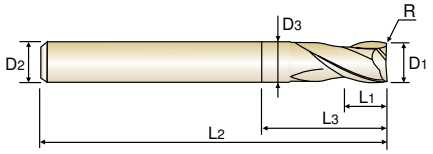
硬质合金，2刃 长颈短刃圆弧角铣刀
CARBIDE, 2 FLUTE STUB LENGTH CORNER RADIUS with EXTENDED NECK

- 为加工高硬度材料设计.
- 适于干式切削，高速切削，最新开发的原材料和涂层.
- 卓越的工件表面粗糙度.
- 由于颈部稍细可以加工深槽.
- 圆弧角可防止高速切削时崩刃.
- 极高的耐磨性.

- Designed to machine high hardened materials.
- Suitable for dry cutting, high speed cutting thanks to newly developed raw-material and new coating.
- Excellent workpiece finish.
- Deep slotting is possible by reduced neck.
- Corner radius for preventing the chipping in high speed machining.
- Higher wear-resistance.







NG HM | 2 | BLUE | 30° | R ±0.010 Ø0.3~Ø6 | R ±0.015 Ø8~Ø20 | PLAIN

P.616

단위(Unit) : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
G8A36003	-	0.3	3	0.45	-	40	-
G8A36004	-	0.4	3	0.6	-	40	-
G8A36005	R0.05	0.5	3	0.7	-	40	-
G8A36907	R0.05	0.5	4	1	-	40	-
G8A36006	R0.05	0.6	3	0.9	-	40	-
G8A36908	R0.05	0.6	4	1.2	-	40	-
G8A36909	R0.05	0.7	4	1.4	-	40	-
G8A36008	R0.05	0.8	3	1.2	-	40	-
G8A36910	R0.05	0.8	4	1.6	-	40	-
G8A36911	R0.05	0.9	4	2	-	40	-
G8A36010	R0.1	1.0	3	1.5	-	40	-
G8A36901	R0.1	1.0	4	1.5	-	40	-
G8A36903	R0.1	1.0	6	1.5	-	40	-
G8A36015	R0.1	1.5	3	2.2	-	40	-
G8A36904	R0.1	1.5	6	2.2	-	40	-
G8A36020	R0.1	2.0	3	3	6	40	1.95
G8A36902	R0.1	2.0	4	3	6	40	1.95
G8A36905	R0.1	2.0	6	3	6	40	1.95
G8A36025	R0.1	2.5	3	4	6	40	2.4
G8A36906	R0.1	2.5	6	4	6	40	2.4
G8A36030	R0.1	3.0	6	4	7	45	2.85
G8A36035	R0.1	3.5	6	5	9	45	3.35
G8A36040	R0.1	4.0	6	5	9	45	3.85
G8A36045	R0.1	4.5	6	6	10	45	4.35

这种蓝色的具有装饰性的涂层在初期使用时也许会被摩擦掉，这个特性使得涂层薄厚不均，
可是，它对刀具的性能没有影响.
Due to the characteristics of blue decoration layer which might be earased during short term using, the color layer might not be uniform moreover. However, it doesn't effect on performance of tool.

◎：优(Excellent) ○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							

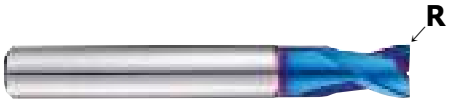
X5070 END MILLS

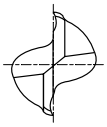
G8A36 SERIES PLAIN SHANK

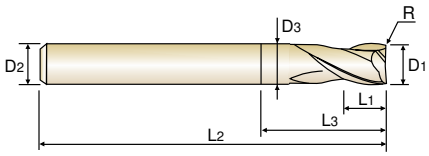
硬纸合金，2刃 长颈短刃圆弧角铣刀
CARBIDE, 2 FLUTE STUB LENGTH CORNER RADIUS with EXTENDED NECK

- 为加工高硬度材料设计.
- 适于干式切削，高速切削，最新开发的原材料和涂层.
- 卓越的工件表面粗糙度.
- 由于颈部稍细可以加工深槽.
- 圆弧角可防止高速切削时崩刃.
- 极高的耐磨性.

- Designed to machine high hardened materials.
- Suitable for dry cutting, high speed cutting thanks to newly developed raw-material and new coating.
- Excellent workpiece finish.
- Deep slotting is possible by reduced neck.
- Corner radius for preventing the chipping in high speed machining.
- Higher wear-resistance.







NG HM | 2 | BLUE | 30° | R ±0.010 Ø0.3~Ø6 | R ±0.015 Ø8~Ø20 | PLAIN

P.616

单位(Unit) : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
G8A36050	R0.2	5.0	6	6	11	50	4.85
G8A36060	R0.2	6.0	6	7	14	50	5.85
G8A36080	R0.2	8.0	8	9	18	60	7.7
G8A36100	R0.2	10.0	10	12	25	75	9.7
G8A36120	R0.3	12.0	12	15	30	75	11.7
G8A36160	R0.3	16.0	16	18	38	90	15.7
G8A36200	R0.3	20.0	20	24	45	100	19.7

这种蓝色的具有装饰性的涂层在初期使用时也许会被摩擦掉，这个特性使得涂层薄厚不均.
可是，它对刀具的性能没有影响.
Due to the characteristics of blue decoration layer which might be earased during short term using, the color layer might not be uniform moreover.
However, it doesn't effect on performance of tool.

尺寸 Size	圆弧角公差 Corner Radius Tolerance (mm)	刃部公差 Mill Dia. Tolerance (mm)	柄部公差 Shank Dia. Tolerance
up to Ø6	±0.010	0~-0.012	h6
over Ø6	±0.015	0~-0.015	

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							

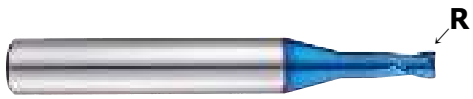
X5070 END MILLS

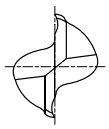
G8A52 SERIES PLAIN SHANK

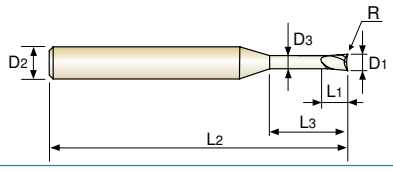
硬质合金，2刃 圆鼻铣刀 深腔加工用铣刀
CARBIDE, 2 FLUTE CORNER RADIUS for RIB PROCESSING

- 为加工高硬度材料设计.
- 适于干式切削，高速切削，最新开发的原材料和涂层.
- 卓越的工件表面粗糙度.
- 由于颈部稍细可以加工深槽.
- 圆弧角可防止高速切削时崩刃.
- 极高的耐磨性.

- Designed to machine high hardened materials.
- Suitable for dry cutting, high speed cutting thanks to newly developed raw-material and new coating.
- Excellent workpiece finish.
- Deep slotting is possible by reduced neck.
- Corner radius for preventing the chipping in high speed machining.
- Higher wear-resistance.







NG HM | 2 | BLUE | 30° | R ±0.010 | PLAIN

P.614

单位(Unit) : mm

型号 EDP No.	圆弧半径 Corner Radius R (±0.010)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
G8A52005	R0.05	0.5	6	0.7	1.5	50	0.45
G8A52901	R0.05	0.5	6	0.7	3.3	50	0.45
G8A52006	R0.05	0.6	6	0.9	2	50	0.55
G8A52902	R0.05	0.6	6	0.9	4	50	0.55
G8A52008	R0.05	0.8	6	1.2	2.5	50	0.75
G8A52903	R0.05	0.8	6	1.2	5.5	50	0.75
G8A52010	R0.10	1.0	6	1.5	3.3	50	0.95
G8A52904	R0.10	1.0	6	1.5	6.7	50	0.95
G8A52012	R0.10	1.2	6	1.8	4.4	50	1.15
G8A52905	R0.10	1.2	6	1.8	8	50	1.15
G8A52015	R0.15	1.5	6	2.2	5	50	1.45
G8A52906	R0.15	1.5	6	2.2	9.7	50	1.45
G8A52020	R0.15	2.0	6	2.2	6	50	1.95
G8A52907	R0.15	2.0	6	2.2	13	50	1.95

这种蓝色的具有装饰性的涂层在初期使用时也许会被摩擦掉，这个特性使得涂层薄厚不均.
可是，它对刀具的性能没有影响.
Due to the characteristics of blue decoration layer which might be earased during short term using, the color layer might not be uniform moreover. However, it doesn' t effect on performance of tool.

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.012	h6

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							

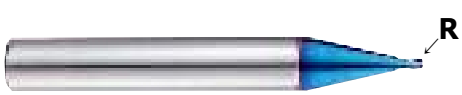
X5070 END MILLS

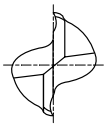
G8A50 SERIES PLAIN SHANK

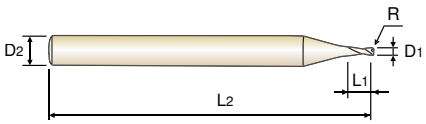
硬质合金，2刃 微型 圆鼻铣刀
CARBIDE, 2 FLUTE MINIATURE CORNER RADIUS

- ▶为加工高硬度材料设计.
- ▶适于干式切削，高速切削，最新开发的原材料和涂层.
- ▶卓越的工件表面粗糙度.
- ▶由于颈部稍细可以加工深槽.
- ▶圆弧角可防止高速切削时崩刃.
- ▶极高的耐磨性.

- ▶ Designed to machine high hardened materials.
- ▶ Suitable for dry cutting, high speed cutting thanks to newly developed raw-material and new coating.
- ▶ Excellent workpiece finish.
- ▶ Deep slotting is possible by reduced neck.
- ▶ Corner radius for preventing the chipping in high speed machining.
- ▶ Higher wear-resistance.







NG HM | 2 | BLUE | 30° | R ±0.010 | PLAIN

P.614

단위(Unit) : mm

型号 EDP No.	圆弧半径 Corner Radius R (±0.010)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	全长 Overall Length L2
G8A50003	-	0.3	6	0.45	50
G8A50004	-	0.4	6	0.6	50
G8A50005	R0.05	0.5	6	0.7	50
G8A50006	R0.05	0.6	6	0.9	50
G8A50008	R0.05	0.8	6	1.2	50
G8A50010	R0.10	1.0	6	1.5	50
G8A50012	R0.10	1.2	6	1.8	50
G8A50015	R0.15	1.5	6	2.2	50
G8A50020	R0.15	2.0	6	2.2	50

这种蓝色的具有装饰性的涂层在初期使用时也许会被摩擦掉，这个特性使得涂层薄厚不均.
可是，它对刀具的性能没有影响.
Due to the characteristics of blue decoration layer which might be earased during short term using, the color layer might not be uniform moreover. However, it doesn' t effect on performance of tool.

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-0.012	h6

◎：优(Excellent) ○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							

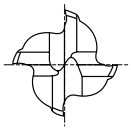
X5070 END MILLS

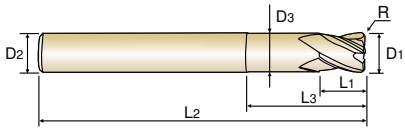
G8A47 SERIES PLAIN SHANK

硬质合金, 4刃 圆鼻铣刀
CARBIDE, 4 FLUTE CORNER RADIUS

- 为加工高硬度材料设计.
- 适于干式切削, 高速切削, 最新开发的原材料和涂层.
- 卓越的工件表面粗糙度.
- 由于颈部稍细可以加工深槽.
- 圆弧角可防止高速切削时崩刃.
- 极高的耐磨性.

- Designed to machine high hardened materials.
- Suitable for dry cutting, high speed cutting thanks to newly developed raw-material and new coating.
- Excellent workpiece finish.
- Deep slotting is possible by reduced neck.
- Corner radius for preventing the chipping in high speed machining.
- Higher wear-resistance.





NG HM | 4 | BLUE | 30° | R ±0.010 (Ø3~Ø6) | R ±0.015 (Ø8~Ø12) | PLAIN

P.615

단위(Unit) : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
G8A47916	R0.3	3.0	6	4	12	55	2.85
G8A47917	R0.3	3.0	6	4	16	55	2.85
G8A47918	R0.3	3.0	6	4	20	55	2.85
G8A47030	R0.5	3.0	6	4	10	55	2.85
G8A47901	R0.5	3.0	6	4	16	55	2.85
G8A47902	R0.5	3.0	6	4	20	55	2.85
G8A47919	R0.3	4.0	6	5	12	55	3.85
G8A47920	R0.3	4.0	6	5	16	55	3.85
G8A47921	R0.3	4.0	6	5	20	55	3.85
G8A47040	R0.5	4.0	6	5	12	55	3.85
G8A47903	R0.5	4.0	6	5	16	55	3.85
G8A47904	R0.5	4.0	6	5	20	55	3.85
G8A47922	R1.0	4.0	6	5	12	55	3.85
G8A47060	R0.5	6.0	6	7	20	60	5.85
G8A47905	R1.0	6.0	6	7	20	60	5.85
G8A47906	R1.5	6.0	6	7	20	60	5.85
G8A47910	R0.5	8.0	8	9	25	60	7.7
G8A47080	R1.0	8.0	8	9	25	60	7.7
G8A47907	R1.5	8.0	8	9	25	60	7.7
G8A47913	R2.0	8.0	8	9	25	60	7.7
G8A47911	R0.5	10.0	10	11	32	70	9.7
G8A47100	R1.0	10.0	10	11	32	70	9.7
G8A47908	R1.5	10.0	10	11	32	70	9.7
G8A47914	R2.0	10.0	10	11	32	70	9.7
G8A47912	R0.5	12.0	12	12	38	80	11.7
G8A47120	R1.0	12.0	12	12	38	80	11.7
G8A47909	R1.5	12.0	12	12	38	80	11.7
G8A47915	R2.0	12.0	12	12	38	80	11.7

这种蓝色的具有装饰性的涂层在初期使用时也许会被摩擦掉, 这个特性使得涂层薄厚不均.
可是, 它对刀具的性能没有影响.
Due to the characteristics of blue decoration layer which might be earased during short term using, the color layer might not be uniform moreover. However, it doesn't effect on performance of tool.

尺寸 Size	圆弧角公差 Corner Radius Tolerance (mm)	刃部公差 Mill Dia. Tolerance (mm)	柄部公差 Shank Dia. Tolerance
up to Ø6	±0.010	0~−0.012	h6
over Ø6	±0.015	0~−0.015	

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							

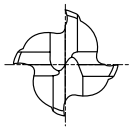
X5070 END MILLS

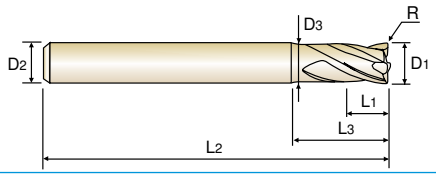
G8A37 SERIES PLAIN SHANK

硬纸合金，4刃 长颈短刃圆弧角铣刀
CARBIDE, 4 FLUTE STUB LENGTH CORNER RADIUS with EXTENDED NECK

- ▶ 为加工高硬度材料设计.
- ▶ 适于干式切削，高速切削，最新开发的原材料和涂层.
- ▶ 卓越的工件表面粗糙度.
- ▶ 由于颈部稍细可以加工深槽.
- ▶ 圆弧角可防止高速切削时崩刃.
- ▶ 极高的耐磨性.

- ▶ Designed to machine high hardened materials.
- ▶ Suitable for dry cutting, high speed cutting thanks to newly developed raw-material and new coating.
- ▶ Excellent workpiece finish.
- ▶ Deep slotting is possible by reduced neck.
- ▶ Corner radius for preventing the chipping in high speed machining.
- ▶ Higher wear-resistance.





NG HM | 4 | BLUE | 30° | R ±0.010 (Ø1~Ø6) | R ±0.015 (Ø8~Ø20) | PLAIN

P.617

单位(Unit) : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
G8A37010	R0.1	1.0	3	1.5	-	40	-
G8A37901	R0.1	1.0	6	1.5	-	40	-
G8A37015	R0.1	1.5	3	2.2	-	40	-
G8A37902	R0.1	1.5	6	2.2	-	40	-
G8A37020	R0.1	2.0	3	3	6	40	1.95
G8A37903	R0.1	2.0	6	3	6	40	1.95
G8A37025	R0.1	2.5	3	4	6	40	2.4
G8A37904	R0.1	2.5	6	4	6	40	2.4
G8A37030	R0.1	3.0	6	4	7	45	2.85
G8A37035	R0.1	3.5	6	5	9	45	3.35
G8A37040	R0.1	4.0	6	5	9	45	3.85
G8A37045	R0.1	4.5	6	6	10	45	4.35
G8A37050	R0.2	5.0	6	6	11	50	4.85
G8A37060	R0.2	6.0	6	7	14	50	5.85
G8A37080	R0.2	8.0	8	9	18	60	7.7
G8A37100	R0.2	10.0	10	12	25	75	9.7
G8A37120	R0.3	12.0	12	15	30	75	11.7
G8A37160	R0.3	16.0	16	18	38	90	15.7
G8A37200	R0.3	20.0	20	24	45	100	19.7

这种蓝色的具有装饰性的涂层在初期使用时也许会被摩擦掉，这个特性使得涂层薄厚不均.
可是，它对刀具的性能没有影响.
Due to the characteristics of blue decoration layer which might be earased during short term using, the color layer might not be uniform moreover. However, it doesn' t effect on performance of tool.

尺寸 Size	圆弧角公差 Corner Radius Tolerance (mm)	刃部公差 Mill Dia. Tolerance (mm)	柄部公差 Shank Dia. Tolerance
up to Ø6	±0.010	0~-0.012	h6
over Ø6	±0.015	0~-0.015	

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							

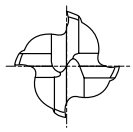
X5070 END MILLS

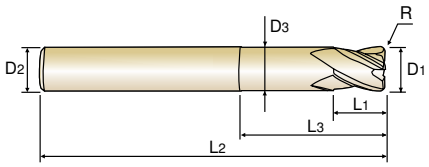
G8B08 SERIES PLAIN SHANK

硬质合金，4刃 长颈圆弧角铣刀
CARBIDE, 4 FLUTE CORNER RADIUS with EXTENDED NECK

- 为加工高硬度材料设计.
- 适于干式切削，高速切削，最新开发的原材料和涂层.
- 卓越的工件表面粗糙度.
- 由于颈部稍细可以加工深槽.
- 圆弧角可防止高速切削时崩刃.
- 极高的耐磨性.

- Designed to machine high hardened materials.
- Suitable for dry cutting, high speed cutting thanks to newly developed raw-material and new coating.
- Excellent workpiece finish.
- Deep slotting is possible by reduced neck.
- Corner radius for preventing the chipping in high speed machining.
- Higher wear-resistance.





NG HM | 4 | BLUE | 30° | R ±0.010 Ø6 | R ±0.015 Ø8~Ø12 | PLAIN | P.615

단위(Unit) : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
G8B0806005090	R0.5	6.0	6	9	20	90	5.85
G8B0806010090	R1.0	6.0	6	9	20	90	5.85
G8B0808005100	R0.5	8.0	8	12	25	100	7.7
G8B0808010100	R1.0	8.0	8	12	25	100	7.7
G8B0810005100	R0.5	10.0	10	15	32	100	9.7
G8B0810010100	R1.0	10.0	10	15	32	100	9.7
G8B0810020100	R2.0	10.0	10	15	32	100	9.7
G8B0812005110	R0.5	12.0	12	18	38	110	11.7
G8B0812010110	R1.0	12.0	12	18	38	110	11.7
G8B0812020110	R2.0	12.0	12	18	38	110	11.7

这种蓝色的具有装饰性的涂层在初期使用时也许会被摩擦掉，这个特性使得涂层薄厚不均.
可是，它对刀具的性能没有影响.
Due to the characteristics of blue decoration layer which might be earased during short term using, the color layer might not be uniform moreover. However, it doesn't effect on performance of tool.

尺寸 Size	圆弧角公差 Corner Radius Tolerance (mm)	刃部公差 Mill Dia. Tolerance (mm)	柄部公差 Shank Dia. Tolerance
up to Ø6	±0.010	0~−0.012	h6
over Ø6	±0.015	0~−0.015	

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							

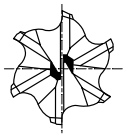
X5070 END MILLS

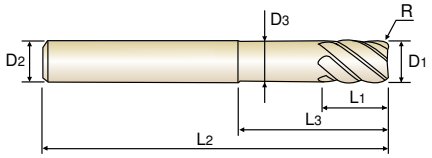
G8A39 SERIES PLAIN SHANK

硬质合金，6刃 45度螺旋角 圆鼻铣刀
CARBIDE, 6 FLUTE 45° HELIX CORNER RADIUS

- ▶ 为加工高硬度材料设计.
- ▶ 适于干式切削，高速切削，最新开发的原材料和涂层.
- ▶ 卓越的工件表面粗糙度.
- ▶ 由于颈部稍细可以加工深槽.
- ▶ 圆弧角可防止高速切削时崩刃.
- ▶ 极高的耐磨性.

- ▶ Designed to machine high hardened materials
- ▶ Suitable for dry cutting, high speed cutting thanks to newly developed raw-material and new coating.
- ▶ Excellent workpiece finish.
- ▶ Deep slotting is possible by reduced neck.
- ▶ Corner radius for preventing the chipping in high speed machining
- ▶ Higher wear-resistance.





NG HM | 6 | BLUE | 45° | R ±0.010 Ø6 | R ±0.015 Ø8~Ø20 | PLAIN

P.617

단위(Unit) : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
G8A39916	R0.25	6.0	6	6	14	50	5.85
G8A39060	R0.5	6.0	6	6	14	50	5.85
G8A39901	R0.5	6.0	6	13	-	70	-
G8A39910	R0.5	6.0	* 6	26	-	70	-
G8A39080	R0.5	8.0	8	8	24	60	7.7
G8A39902	R0.5	8.0	8	19	-	90	-
G8A39911	R0.5	8.0	* 8	36	-	90	-
G8A39903	R0.5	10.0	10	22	-	100	-
G8A39100	R1.0	10.0	10	10	30	70	9.7
G8A39904	R1.0	10.0	10	22	-	100	-
G8A39912	R1.0	10.0	* 10	46	-	100	-
G8A39905	R0.5	12.0	12	26	-	110	-
G8A39120	R1.0	12.0	12	12	30	75	11.7
G8A39906	R1.0	12.0	12	26	-	110	-
G8A39913	R1.0	12.0	* 12	56	-	110	-
G8A39160	R1.0	16.0	16	32	-	130	-
G8A39907	R1.5	16.0	16	32	-	130	-
G8A39914	R1.5	16.0	* 16	66	-	130	-
G8A39200	R1.0	20.0	20	38	-	140	-
G8A39908	R1.5	20.0	20	38	-	140	-
G8A39909	R2.0	20.0	20	38	-	140	-
G8A39915	R2.0	20.0	* 20	76	-	140	-

这种蓝色的具有装饰性的涂层在初期使用时也许会被摩擦掉，这个特性使得涂层薄厚不均.
可是，它对刀具的性能没有影响.
Due to the characteristics of blue decoration layer which might be earased during short term using, the color layer might not be uniform moreover. However, it doesn' t effect on performance of tool.

尺寸 Size	圆弧角公差 Corner Radius Tolerance (mm)	刃部公差 Mill Dia. Tolerance (mm)	柄部公差 Shank Dia. Tolerance
up to Ø6	±0.010	0~−0.02 (*Extra Long Type : 0~-0.03)	h6
over Ø6	±0.015		

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							

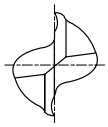
X5070 END MILLS

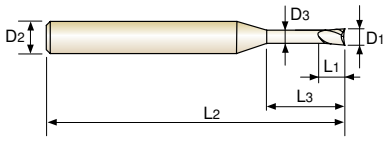
G8A45 SERIES PLAIN SHANK

硬质合金，2刃 深腔加工用铣刀
CARBIDE, 2 FLUTE for RIB PROCESSING

- ▶为加工高硬度材料设计.
- ▶适于干式切削，高速切削，最新开发的原材料和涂层.
- ▶卓越的工件表面粗糙度.
- ▶为高精度铣削设计.
- ▶极高的耐磨性.

- ▶ Designed to machine high hardened materials
- ▶ Suitable for dry cutting, high speed cutting thanks to newly developed raw-material and new coating.
- ▶ Excellent workpiece finish.
- ▶ Designed for high precision milling operation.
- ▶ Higher wear-resistance.





NG HM | 2 | BLUE | 30° | PLAIN P.615

단위(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
G8A45863	0.1	4	0.15	0.3	45	0.085
G8A45864	0.1	4	0.15	0.5	45	0.085
G8A45002	0.2	4	0.3	0.5	45	0.17
G8A45815	0.2	4	0.3	1	45	0.17
G8A45816	0.2	4	0.3	1.5	45	0.17
G8A45003	0.3	4	0.45	1	45	0.27
G8A45844	0.3	4	0.45	1.5	45	0.27
G8A45817	0.3	4	0.45	2	45	0.27
G8A45818	0.3	4	0.45	3	45	0.27
G8A45842	0.3	4	0.45	4	45	0.27
G8A45843	0.4	4	0.6	1	45	0.37
G8A45004	0.4	4	0.6	2	45	0.37
G8A45984	0.4	4	0.6	3	45	0.37
G8A45985	0.4	4	0.6	4	45	0.37
G8A45986	0.4	4	0.6	5	45	0.37
G8A45005	0.5	4	0.7	2	45	0.45
G8A45861	0.5	4	0.7	2.5	45	0.45
G8A45988	0.5	4	0.7	4	45	0.45
G8A45989	0.5	4	0.7	6	45	0.45
G8A45990	0.5	4	0.7	8	45	0.45
G8A45006	0.6	4	0.9	2	45	0.55
G8A45860	0.6	4	0.9	3	45	0.55
G8A45991	0.6	4	0.9	4	45	0.55
G8A45992	0.6	4	0.9	6	45	0.55
G8A45993	0.6	4	0.9	8	45	0.55
G8A45819	0.6	4	0.9	10	45	0.55
G8A45862	0.8	4	1.2	2	45	0.75
G8A45008	0.8	4	1.2	4	45	0.75
G8A45908	0.8	4	1.2	6	45	0.75

这种蓝色的具有装饰性的涂层在初期使用时也许会被摩擦掉，这个特性使得涂层薄厚不均，
可是，它对刀具的性能没有影响.
Due to the characteristics of blue decoration layer which might be earased during short term using, the color layer might not be uniform moreover. However, it doesn't effect on performance of tool.

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							

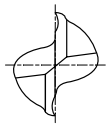
X5070 END MILLS

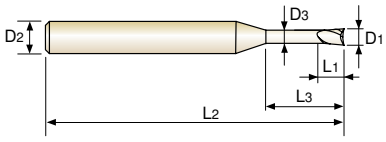
G8A45 SERIES PLAIN SHANK

硬质合金，2刃 深腔加工用铣刀
CARBIDE, 2 FLUTE for RIB PROCESSING

- ▶为加工高硬度材料设计.
- ▶适于干式切削，高速切削，最新开发的原材料和涂层.
- ▶卓越的工件表面粗糙度.
- ▶为高精度铣削设计.
- ▶极高的耐磨性.

- ▶ Designed to machine high hardened materials
- ▶ Suitable for dry cutting, high speed cutting thanks to newly developed raw-material and new coating.
- ▶ Excellent workpiece finish.
- ▶ Designed for high precision milling operation.
- ▶ Higher wear-resistance.





NG HM | 2 | BLUE | 30° | PLAIN

P.615

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
G8A45909	0.8	4	1.2	8	45	0.75
G8A45994	0.8	4	1.2	10	45	0.75
G8A45995	0.8	4	1.2	12	45	0.75
G8A45996	1.0	4	1.5	4	45	0.95
G8A45010	1.0	4	1.5	6	45	0.95
G8A45912	1.0	4	1.5	8	45	0.95
G8A45913	1.0	4	1.5	10	45	0.95
G8A45914	1.0	4	1.5	12	45	0.95
G8A45997	1.0	4	1.5	16	50	0.95
G8A45998	1.0	4	1.5	20	55	0.95
G8A45012	1.2	4	1.8	6	45	1.15
G8A45915	1.2	4	1.8	8	45	1.15
G8A45916	1.2	4	1.8	10	45	1.15
G8A45917	1.2	4	1.8	12	45	1.15
G8A45999	1.2	4	1.8	16	50	1.15
G8A45015	1.5	4	2.3	6	45	1.45
G8A45923	1.5	4	2.3	8	45	1.45
G8A45924	1.5	4	2.3	10	45	1.45
G8A45925	1.5	4	2.3	12	45	1.45
G8A45926	1.5	4	2.3	14	50	1.45
G8A45927	1.5	4	2.3	16	50	1.45
G8A45928	1.5	4	2.3	18	55	1.45
G8A45810	1.5	4	2.3	20	55	1.45
G8A45958	2.0	4	3	6	45	1.95
G8A45020	2.0	4	3	8	45	1.95
G8A45959	2.0	4	3	10	45	1.95
G8A45960	2.0	4	3	12	45	1.95
G8A45961	2.0	4	3	14	50	1.95
G8A45962	2.0	4	3	16	50	1.95

这种蓝色的具有装饰性的涂层在初期使用时也许会被摩擦掉，这个特性使得涂层薄厚不均.
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Due to the characteristics of blue decoration layer which might be earased during short term using, the color layer might not be uniform moreover. However, it doesn't effect on performance of tool.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							

X5070 END MILLS

G8A45 SERIES PLAIN SHANK

硬质合金，2刃 深腔加工用铣刀
CARBIDE, 2 FLUTE for RIB PROCESSING

- ▶为加工高硬度材料设计.
- ▶适于干式切削，高速切削，最新开发的原材料和涂层.
- ▶卓越的工件表面粗糙度.
- ▶为高精度铣削设计.
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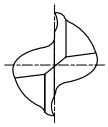
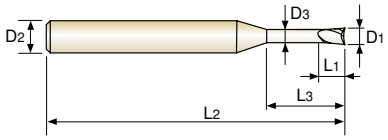




NG HM | 2 | BLUE | 30° | PLAIN P.615

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
G8A45963	2.0	4	3	18	55	1.95
G8A45964	2.0	4	3	20	55	1.95
G8A45966	2.0	4	3	25	60	1.95
G8A45814	2.0	4	3	30	70	1.95
G8A45975	3.0	6	4.5	10	45	2.85
G8A45976	3.0	6	4.5	12	45	2.85
G8A45977	3.0	6	4.5	14	50	2.85
G8A45978	3.0	6	4.5	16	55	2.85
G8A45979	3.0	6	4.5	18	55	2.85
G8A45980	3.0	6	4.5	20	60	2.85
G8A45981	3.0	6	4.5	25	65	2.85
G8A45832	3.0	6	4.5	30	70	2.85
G8A45833	3.0	6	4.5	35	80	2.85
G8A45983	3.0	6	4.5	40	90	2.85
G8A45040	4.0	6	6	12	50	3.85
G8A45801	4.0	6	6	16	60	3.85
G8A45802	4.0	6	6	20	60	3.85
G8A45803	4.0	6	6	25	70	3.85
G8A45834	4.0	6	6	30	70	3.85
G8A45835	4.0	6	6	35	80	3.85
G8A45836	4.0	6	6	40	90	3.85
G8A45837	4.0	6	6	45	90	3.85
G8A45838	4.0	6	6	50	100	3.85

这种蓝色的具有装饰性的涂层在初期使用时也许会被摩擦掉，这个特性使得涂层薄厚不均.
可是，它对刀具的性能没有影响.
Due to the characteristics of blue decoration layer which might be earased during short term using, the color layer might not be uniform moreover.
However, it doesn't effect on performance of tool.

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.012	h6

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							

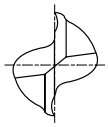
X5070 END MILLS

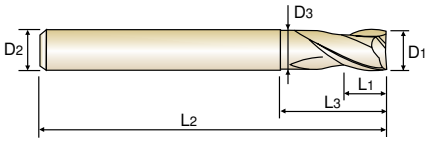
G8A01 SERIES PLAIN SHANK

硬质合金，2刃
CARBIDE, 2 FLUTE

- ▶为加工高硬度材料设计.
- ▶适于干式切削，高速切削，最新开发的原材料和涂层.
- ▶卓越的工件表面粗糙度.
- ▶为高精度铣削设计.
- ▶极高的耐磨性.

- ▶ Designed to machine high hardened materials
- ▶ Suitable for dry cutting, high speed cutting thanks to newly developed raw-material and new coating.
- ▶ Excellent workpiece finish.
- ▶ Designed for high precision milling operation.
- ▶ Higher wear-resistance.





NG HM | 2 | BLUE | 30° | PLAIN

P.616

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
G8A01001	0.1	4	0.2	-	40	-
G8A01002	0.2	4	0.4	-	40	-
G8A01003	0.3	4	0.6	-	40	-
G8A01004	0.4	4	0.8	-	40	-
G8A01005	0.5	4	1	-	40	-
G8A01006	0.6	4	1.2	-	40	-
G8A01007	0.7	4	1.4	-	40	-
G8A01008	0.8	4	1.6	-	40	-
G8A01009	0.9	4	2	-	40	-
G8A01010	1.0	6	1.5	3	50	0.95
G8A01015	1.5	6	1.7	4	50	1.45
G8A01020	2.0	6	2	5	50	1.95
G8A01025	2.5	6	2.5	6	55	2.4
G8A01030	3.0	6	3	8	55	2.85
G8A01035	3.5	6	3.5	9	55	3.35
G8A01040	4.0	6	4	10	55	3.85
G8A01050	5.0	6	5	13	55	4.85
G8A01060	6.0	6	6	15	55	5.85
G8A01080	8.0	8	8	20	65	7.7
G8A01100	10.0	10	10	25	75	9.7
G8A01120	12.0	12	12	28	85	11.7
G8A01160	16.0	16	16	32	90	15.7
G8A01200	20.0	20	20	40	105	19.7

这种蓝色的具有装饰性的涂层在初期使用时也许会被摩擦掉，这个特性使得涂层薄厚不均.
可是，它对刀具的性能没有影响.
Due to the characteristics of blue decoration layer which might be earased during short term using, the color layer might not be uniform moreover. However, it doesn' t effect on performance of tool.

尺寸 Size	刃部公差 Mill Dia. Tolerance (mm)	柄部公差 Shank Dia. Tolerance
up to Ø6	0~−0.012	h6
over Ø6	0~−0.015	

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							

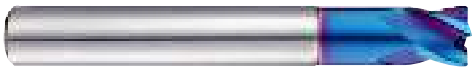
X5070 END MILLS

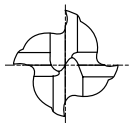
G8A02 SERIES PLAIN SHANK

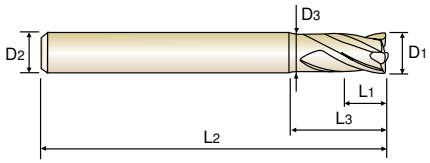
硬质合金，4刃
CARBIDE, 4 FLUTE

- ▶为加工高硬度材料设计.
- ▶适于干式切削，高速切削，最新开发的原材料和涂层.
- ▶卓越的工件表面粗糙度.
- ▶为高精度铣削设计.
- ▶极高的耐磨性.

- ▶ Designed to machine high hardened materials
- ▶ Suitable for dry cutting, high speed cutting thanks to newly developed raw-material and new coating.
- ▶ Excellent workpiece finish.
- ▶ Designed for high precision milling operation.
- ▶ Higher wear-resistance.







NG HM | 4 | BLUE | 30° | PLAIN

P.617

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
G8A02010	1.0	6	1.5	3	50	0.95
G8A02020	2.0	6	2	5	50	1.95
G8A02030	3.0	6	3	8	55	2.85
G8A02040	4.0	6	4	10	55	3.85
G8A02050	5.0	6	5	13	55	4.85
G8A02060	6.0	6	6	15	55	5.85
G8A02080	8.0	8	8	20	65	7.7
G8A02100	10.0	10	10	25	75	9.7
G8A02120	12.0	12	12	28	85	11.7
G8A02160	16.0	16	16	32	90	15.7
G8A02200	20.0	20	20	40	105	19.7

这种蓝色的具有装饰性的涂层在初期使用时也许会被摩擦掉，这个特性使得涂层薄厚不均.
可是，它对刀具的性能没有影响.
Due to the characteristics of blue decoration layer which might be earased during short term using, the color layer might not be uniform moreover.
However, it doesn't effect on performance of tool.

尺寸 Size	刃部公差 Mill Dia. Tolerance (mm)	柄部公差 Shank Dia. Tolerance
up to Ø6	0~−0.012	h6
over Ø6	0~−0.015	

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							

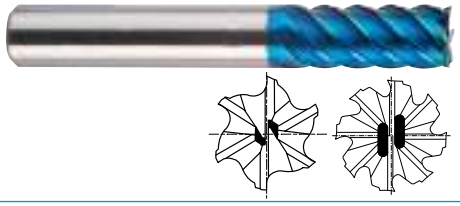
X5070 END MILLS

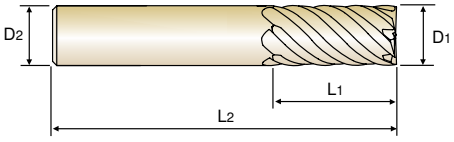
G8D63 SERIES PLAIN SHANK

硬质合金, 6&8刃 45度螺旋角 长刃铣刀
CARBIDE, 6&8 FLUTE 45° HELIX LONG LENGTH

- 为加工高硬度钢而设计.
- 由于负前角的设计具有高耐磨性.
- 在冲床模具领域有着极好的侧铣功能.

- Designed to machine high hardened materials.
- Designed for high abrasion resistance thanks to negative rake angle.
- Excellent side-cutting of press mold field.





NG HM | 6&8 | BLUE | 45° | PLAIN

P.618

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	全长 Overall Length L2	刃数 No. of Flute
G8D63060	6.0	6	13	57	6
G8D63080	8.0	8	19	63	6
G8D63100	10.0	10	22	72	6
G8D63120	12.0	12	26	83	6
G8D63140	14.0	14	26	83	6
G8D63160	16.0	16	32	92	6
G8D63180	18.0	18	32	92	8
G8D63200	20.0	20	38	104	8
G8D63250	25.0	25	44	104	8

这种蓝色的具有装饰性的涂层在初期使用时也许会被摩擦掉, 这个特性使得涂层薄厚不均.
可是, 它对刀具的性能没有影响.
Due to the characteristics of blue decoration layer which might be earased during short term using, the color layer might not be uniform moreover. However, it doesn' t effect on performance of tool.

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.02	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							

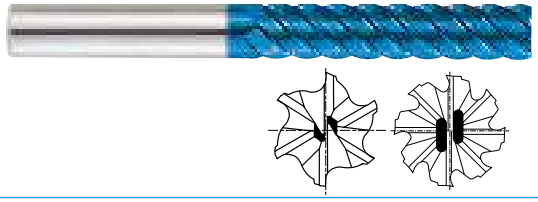
X5070 END MILLS

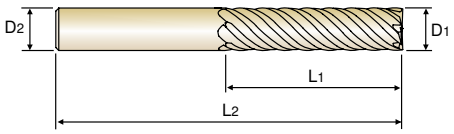
G8D64 SERIES PLAIN SHANK

硬质合金, 6&8刃 45度螺旋角 超长刃铣刀
CARBIDE, 6&8 FLUTE 45° HELIX EXTRA LONG LENGTH

- 为加工高硬度钢而设计.
- 由于负前角的设计具有高耐磨性.
- 在冲床模具领域有着极好的侧铣功能.

- Designed to machine high hardened materials.
- Designed for high abrasion resistance thanks to negative rake angle.
- Excellent side-cutting of press mold field.





NG HM | 6&8 | BLUE | 45° | PLAIN

P.618

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	全长 Overall Length L2	刃数 No. of Flute
G8D64060	6.0	6	26	70	6
G8D64080	8.0	8	36	90	6
G8D64100	10.0	10	46	100	6
G8D64120	12.0	12	56	110	6
G8D64160	16.0	16	66	130	6
G8D64200	20.0	20	76	140	8
G8D64250	25.0	25	92	180	8

这种蓝色的具有装饰性的涂层在初期使用时也许会被摩擦掉，这个特性使得涂层薄厚不均.
可是，它对刀具的性能没有影响.
Due to the characteristics of blue decoration layer which might be earased during short term using, the color layer might not be uniform moreover.
However, it doesn't effect on performance of tool.

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
		○	○	◎	◎							

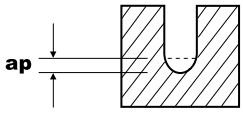
X5070 END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金，2刃 球头 深腔加工用铣刀
CARBIDE, 2 FLUTE BALL NOSE for RIB PROCESSING

G8A46, G8A54 SERIES

材质	合金钢，耐热钢			硬化钢						铜		
MATERIAL	ALLOY STEELS HEAT RESISTANT STEELS			HARDENED STEELS						COPPER		
HARDNESS	HRc 30 ~ HRc 45			HRc 45 ~ HRc 55			HRc 55 ~ HRc 65					
DIAMETER	RPM	FEED	ap (mm)	RPM	FEED	ap (mm)	RPM	FEED	ap (mm)	RPM	FEED	ap (mm)
R0.1 x 0.2	50000	300~350	0.006~0.016	50000	265~310	0.005~0.013	50000	225~265	0.005~0.012	50000	455~530	0.010~0.022
R0.15 x 0.3	48000~50000	480~520	0.010~0.017	48000~50000	440~460	0.008~0.014	46000~50000	390~420	0.007~0.013	48000~50000	690~790	0.002~0.023
R0.2 x 0.4	48000~50000	720~790	0.013~0.032	48000~50000	450~550	0.011~0.026	46000~50000	400~460	0.010~0.024	48000~50000	1000~1150	0.019~0.048
R0.25 x 0.5	34100~49500	600~870	0.007~0.028	31900~35200	490~540	0.005~0.023	31900~35200	440~480	0.005~0.021	49000~50000	1100~1400	0.010~0.042
R0.3 x 0.6	28600~40700	590~850	0.007~0.034	26400~29700	480~540	0.006~0.028	26400~29700	400~480	0.006~0.025	42000~50000	1100~1700	0.011~0.050
R0.4 x 0.8	22000~30800	640~890	0.016~0.064	19800~22000	490~550	0.013~0.052	19800~22000	440~500	0.012~0.048	31000~50000	1100~2250	0.024~0.096
R0.5 x 1.0	17600~24200	600~850	0.008~0.080	15400~17600	470~540	0.007~0.065	15400~17600	440~500	0.006~0.060	24000~49500	1100~2200	0.012~0.120
R0.6 x 1.2	14300~18700	590~780	0.024~0.032	12000~14000	480~540	0.020~0.026	12000~14000	420~480	0.018~0.024	28500~38500	1480~1950	0.036~0.048
R0.75 x 1.5	11000~14300	580~760	0.031~0.048	10000~11500	480~540	0.025~0.039	10000~11500	420~480	0.023~0.036	17000~28500	1100~1950	0.046~0.072
R1.0 x 2.0	8500~11000	590~800	0.024~0.160	7900~8800	470~530	0.020~0.130	7900~8800	440~480	0.018~0.120	12600~24000	1100~2150	0.036~0.240
R1.5 x 3.0	5700~8200	730~1000	0.064~0.240	5300~5800	590~650	0.052~0.195	5300~5800	550~620	0.048~0.120	11900~17000	1850~2700	0.096~0.360
R2.0 x 4.0	4300~6200	680~990	0.080~0.320	3950~4400	550~620	0.065~0.026	3850~4400	530~570	0.060~0.240	6600~12500	1260~2500	0.120~0.480

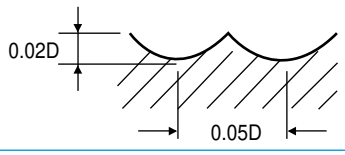


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金，3刃 球头
CARBIDE, 3 FLUTE BALL NOSE

G8A59 SERIES

材质	合金钢，耐热钢		硬化钢							
MATERIAL	ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS							
HARDNESS	HRc 30 ~ HRc 45		HRc 45 ~ HRc 55		HRc 55 ~ HRc 60		HRc 60 ~ HRc 65		HRc 65 ~ HRc 70	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
R1.5 x 3.0	32000	8600	26840	5800	19840	4280	18680	4040	12780	2760
R2.0 x 4.0	24080	7700	20130	5430	14880	3880	14220	3650	9580	2500
R2.5 x 5.0	20000	7250	16780	5430	12400	3690	11670	3470	8000	2370
R3.0 x 6.0	18000	8570	15200	6220	12200	4500	11100	3830	7590	2460
R4.0 x 8.0	13500	7350	11300	5250	9200	3980	8320	3350	5690	2130
R5.0 x 10.0	10800	6530	9100	4590	7350	3450	6660	2870	4550	1960
R6.0 x 12.0	9050	6100	7590	4260	6130	3190	5530	2400	3800	1640
R8.0 x 16.0	6700	4600	5690	3250	4600	2480	4160	1800	2850	1230
R10.0x20.0	5400	3600	4550	2620	3670	1980	3300	1440	2280	980



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

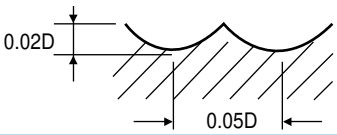
X5070 END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 2刃 球头
CARBIDE, 2 FLUTE BALL NOSE

G8A28, G8A38, G8A53 SERIES

材质 MATERIAL	合金钢, 耐热钢 ALLOY STEELS HEAT RESISTANT STEELS		硬化钢 HARDENED STEELS									
HARDNESS	HRc 30 ~ HRc 40		HRc 40 ~ HRc 50		HRc 50 ~ HRc 55		HRc 55 ~ HRc 60		HRc 60 ~ HRc 65		HRc 65 ~ HRc 70	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
R0.1 x 0.2	50000	1200	50000	1050	45000	960	40000	770	35000	674	31500	570
R0.15 x 0.3	50000	1500	50000	1350	45000	1200	40000	965	35000	840	31500	700
R0.2 x 0.4	50000	1900	50000	1700	45000	1500	40000	1200	35000	1050	31500	890
R0.25 x 0.5	50000	2400	50000	2100	45000	1900	40000	1500	35000	1300	31500	1100
R0.3 x 0.6	50000	2900	50000	2500	45000	2200	40000	1800	35000	1600	31500	1400
R0.4 x 0.8	50000	3900	50000	3300	45000	3000	40000	2400	35000	2100	31500	1800
R0.5 x 1.0	50000	4800	50000	4200	45000	3800	40000	3000	35000	2600	35000	2300
R0.6 x 1.2	50000	5100	48000	4300	43000	3850	38000	3000	34000	2700	30600	2300
R0.75 x 1.5	50000	5400	48000	4500	43000	4000	37000	3100	33000	2700	29700	2300
R1.0 x 2.0	49700	5700	47800	4800	40000	4000	35000	3150	32000	2800	28500	2300
R1.5 x 3.0	33100	6000	31800	5300	26500	4000	23500	3150	21000	2800	19000	2300
R2.0 x 4.0	24900	6000	23900	5300	20000	4000	17500	3150	16000	2800	14500	2300
R2.5 x 5.0	18600	5800	17800	4900	15000	3750	13500	3050	11500	2550	10500	2100
R3.0 x 6.0	13900	4850	13400	4100	11000	3100	10000	2500	8800	2150	8000	1750
R4.0 x 8.0	11100	4200	10700	3500	9000	2700	8000	2150	7000	1850	6500	1550
R5.0 x 10.0	9300	3700	8900	3100	7500	2400	6600	1900	5800	1650	5300	1380
R6.0 x 12.0	6950	2950	6680	2500	5600	1900	5000	1550	4400	1250	4000	1050
R8.0 x 16.0	5570	2650	5350	2200	4500	1700	4000	1350	3500	1000	3200	850
R10.0 x 20.0	4450	2350	4300	1950	3600	1500	3200	1200	2800	800	2550	660

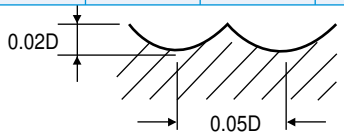


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 4刃 球头 - 中心交接式
CARBIDE, 4 FLUTE BALL NOSE - Center Match

G8D62 SERIES

材质 MATERIAL	合金钢, 耐热钢 ALLOY STEELS HEAT RESISTANT STEELS		硬化钢 HARDENED STEELS							
HARDNESS	HRc 30 ~ HRc 45		HRc 45 ~ HRc 55		HRc 55 ~ HRc 60		HRc 60 ~ HRc 65		HRc 65 ~ HRc 70	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
R1.5 x 3.0	36100	10200	30250	7300	24440	4880	22280	4010	15170	2430
R2.0 x 4.0	27050	8700	22650	6350	18300	4400	16710	3680	11380	2280
R2.5 x 5.0	21600	7800	17820	5750	14650	4150	13370	3590	9100	2260
R3.0 x 6.0	18040	7320	15180	5560	12210	4020	11110	3410	7590	2200
R4.0 x 8.0	13530	6270	11330	4680	9190	3520	8310	2970	5670	1870
R5.0 x 10.0	10840	5560	9130	4070	7370	3080	6660	2530	4570	1760
R6.0 x 12.0	9020	5230	7590	3800	6110	2810	5560	2150	3800	1430
R8.0 x 16.0	6770	3910	5670	2920	4620	2200	4180	1600	2860	1100
R10.0 x 20.0	5450	3140	4570	2310	3690	1760	3300	1270	2260	880



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

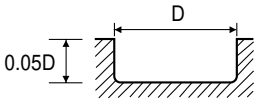
X5070 END MILLS

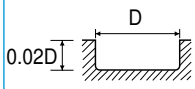
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金，2刃 圆鼻铣刀 深腔加工用铣刀 - 开槽
CARBIDE, 2 FLUTE CORNER RADIUS for RIB PROCESSING - SLOTTING

G8A60 SERIES

材质	合金钢，耐热钢		硬化钢									
MATERIAL	ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS									
HARDNESS	HRc 30 ~ HRc 40		HRc 40 ~ HRc 50		HRc 50 ~ HRc 55		HRc 55 ~ HRc 60		HRc 60 ~ HRc 65		HRc 65 ~ HRc 70	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
0.5	50000	295	45000	225	40000	175	33000	110	25000	65	20000	40
0.6	50000	375	45000	285	40000	225	30000	125	25000	85	20000	50
0.8	50000	480	45000	350	30000	235	25000	145	19000	90	16000	55
1.0	48000	600	38000	456	25500	288	20500	172	16000	108	12500	70
2.0	33300	680	26000	544	17500	336	14500	208	11000	128	9500	92
3.0	21800	680	17300	544	11500	336	9500	208	7500	128	6400	92
4.0	16700	704	13200	560	8800	352	7200	216	5600	136	4750	94
5.0	15700	800	12500	644	8300	400	6400	228	5100	144	4450	106
6.0	13100	760	10350	616	6900	384	5300	224	4200	144	3700	104
8.0	9880	744	7800	576	5200	356	4000	204	3200	132	2800	96
10.0	7800	680	6150	544	4100	332	3200	192	2550	124	2200	90
12.0	6650	680	5250	544	3500	332	2650	192	2100	124	1860	90



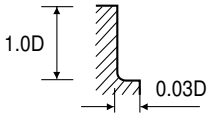


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金，2刃 圆鼻铣刀 深腔加工用铣刀 - 侧铣
CARBIDE, 2 FLUTE CORNER RADIUS for RIB PROCESSING - SIDE CUTTING

G8A60 SERIES

材质	合金钢，耐热钢		硬化钢									
MATERIAL	ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS									
HARDNESS	HRc 30 ~ HRc 40		HRc 40 ~ HRc 50		HRc 50 ~ HRc 55		HRc 55 ~ HRc 60		HRc 60 ~ HRc 65		HRc 65 ~ HRc 70	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
0.5	50000	205	45000	160	40000	125	33000	80	25000	45	20000	30
0.6	50000	265	45000	200	40000	160	30000	90	25000	60	20000	35
0.8	50000	335	40000	245	30000	165	25000	100	19000	65	16000	40
1.0	48000	840	38000	656	25500	408	20500	248	16000	152	12500	100
2.0	33300	960	26000	776	17500	480	14500	296	11000	184	9500	132
3.0	21800	960	17300	776	11500	480	9500	296	7500	184	6400	132
4.0	16700	1000	13200	800	8800	500	7200	308	5600	192	4750	136
5.0	15700	1160	12500	920	8300	568	6400	328	5100	208	4450	152
6.0	13100	1080	10350	880	6900	552	5300	320	4200	204	3700	148
8.0	9880	1056	7800	824	5200	508	4000	292	3200	188	2800	136
10.0	7800	960	6150	776	4100	472	3200	272	2550	176	2200	128
12.0	6650	960	5250	776	3500	472	2650	272	2100	176	1860	128



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

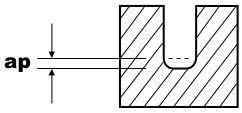
X5070 END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金，2刃 圆鼻铣刀 深腔加工用铣刀
CARBIDE, 2 FLUTE CORNER RADIUS for RIB PROCESSING

G8A52 SERIES

材质	合金钢，耐热钢			硬化钢					
MATERIAL	ALLOY STEELS HEAT RESISTANT STEELS			HARDENED STEELS					
HARDNESS	HRc 30 ~ HRc 45			HRc 45 ~ HRc 55			HRc 55 ~ HRc 60		
DIAMETER	RPM	FEED	ap (mm)	RPM	FEED	ap (mm)	RPM	FEED	ap (mm)
0.5	25650~33000	370~470	0.0056~0.0350	23750~26000	285~315	0.0040~0.0250	14200~18000	115~130	0.0024~0.0150
0.6	20900~35200	330~560	0.0063~0.0294	19900~22000	260~290	0.0450~0.0210	11900~15500	100~120	0.0027~0.0126
0.8	16150~26400	360~590	0.0084~0.0392	15200~16700	280~310	0.0060~0.0280	9000~11700	110~125	0.0036~0.0168
1.0	12300~18700	350~540	0.0105~0.0280	10500~11500	250~280	0.0075~0.0200	6300~8050	100~115	0.0045~0.0120
1.2	10450~17600	350~590	0.0245~0.0700	9100~10000	250~280	0.0150~0.0420	5400~7000	100~115	0.0090~0.0252
1.5	9100~17600	430~830	0.0161~0.0770	7000~8000	250~280	0.0115~0.0550	4300~5500	100~115	0.0069~0.0330
2.0	6350~10550	340~570	0.0210~0.1400	6100~6700	270~300	0.0150~0.1000	3600~4700	100~120	0.0090~0.0600

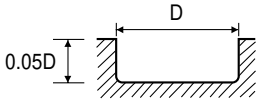


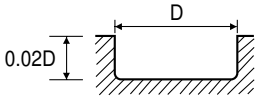
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金，2刃 微型 圆鼻铣刀 – 开槽
CARBIDE, 2 FLUTE MINIATURE CORNER RADIUS - SLOTTING

G8A50 SERIES

材质	合金钢，耐热钢		硬化钢							
MATERIAL	ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS							
HARDNESS	HRc 30 ~ HRc 45		HRc 45 ~ HRc 55		HRc 55 ~ HRc 60		HRc 60 ~ HRc 65		HRc 65 ~ HRc 70	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
0.3	50000	190	45000	140	40000	115	33000	70	25000	40
0.4	50000	235	45000	180	40000	140	33000	90	25000	55
0.5	50000	370	45000	280	40000	220	33000	140	25000	85
0.6	50000	470	45000	360	40000	285	30000	160	25000	105
0.8	50000	600	40000	440	30000	295	25000	185	19000	110
1.0	48000	750	38000	570	25500	360	20500	215	16000	135
1.2	42000	790	34000	640	22500	380	20000	250	14500	145
1.5	37000	800	30500	670	21000	410	17000	250	13000	155
2.0	33300	850	26000	680	17500	420	14500	260	11000	160





RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

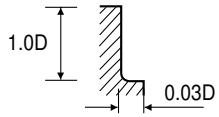
X5070 END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金，4刃 圆鼻铣刀
CARBIDE, 4 FLUTE CORNER RADIUS

G8A47, G8B08 SERIES

材质	合金钢，耐热钢		硬化钢									
MATERIAL	ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS									
HARDNESS	HRc 30 ~ HRc 40		HRc 40 ~ HRc 50		HRc 50 ~ HRc 55		HRc 55 ~ HRc 60		HRc 60 ~ HRc 65		HRc 65 ~ HRc 70	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1.0	48000	1184	38000	840	25500	568	20500	344	16000	216	12500	140
2.0	33300	1400	26000	1000	17500	672	14500	416	11000	256	9500	184
3.0	21800	1400	17300	1000	11500	672	9500	416	7500	256	6400	184
4.0	16700	1440	13200	1040	8800	704	7200	432	5600	268	4750	192
5.0	15700	1600	12500	1200	8300	800	6400	464	5100	296	4450	216
6.0	13100	1560	10350	1120	6900	760	5300	448	4200	280	3700	208
8.0	9880	1504	7800	1080	5200	720	4000	416	3200	264	2800	192
10.0	7800	1400	6150	1008	4100	672	3200	384	2550	248	2200	176
12.0	6650	1400	5250	1008	3500	672	2650	384	2100	240	1860	176
16.0	4900	1200	3900	880	2600	584	2000	336	1600	216	1400	160
20.0	3900	1040	3100	776	2050	520	1600	304	1300	200	1100	144

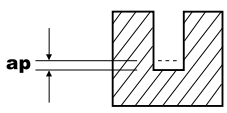


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金，2刃 深腔加工用铣刀
CARBIDE, 2 FLUTE for RIB PROCESSING

G8A45 SERIES

材质	合金钢，耐热钢			硬化钢						铜		
MATERIAL	ALLOY STEELS HEAT RESISTANT STEELS			HARDENED STEELS						COPPER		
HARDNESS	HRc 30 ~ HRc 45			HRc 45 ~ HRc 55			HRc 55 ~ HRc 65					
DIAMETER	RPM	FEED	ap (mm)	RPM	FEED	ap (mm)	RPM	FEED	ap (mm)	RPM	FEED	ap (mm)
0.2	50000	300~350	0.006~0.016	50000	265~310	0.005~0.013	50000	225~265	0.005~0.012	50000	455~530	0.010~0.022
0.3	43000~50000	330~420	0.006~0.015	39900~46200	265~310	0.004~0.011	23900~32300	105~185	0.003~0.007	48000~50000	550~640	0.010~0.025
0.4	31400~50000	350~590	0.005~0.028	30500~35200	295~340	0.003~0.020	18300~24600	120~200	0.002~0.012	48000~50000	790~920	0.008~0.048
0.5	25650~33000	370~470	0.006~0.035	23750~26000	285~315	0.004~0.025	14200~18000	115~130	0.003~0.015	44000~50000	800~1150	0.010~0.060
0.6	20900~35200	330~560	0.007~0.030	19900~22000	260~290	0.005~0.021	11900~15500	100~120	0.003~0.013	37500~50000	770~1250	0.011~0.051
0.8	16150~26400	360~590	0.009~0.040	15200~16700	280~310	0.006~0.028	9000~11700	110~125	0.004~0.017	28500~47000	770~1300	0.015~0.068
1.0	12300~18700	350~540	0.011~0.028	10500~11500	250~280	0.008~0.020	6300~8050	100~115	0.005~0.012	22500~34000	810~1300	0.018~0.048
1.2	10450~17600	350~590	0.025~0.070	9100~10000	250~280	0.015~0.042	5400~7000	100~115	0.009~0.026	22500~31500	950~1350	0.036~0.101
1.5	9100~17600	430~830	0.017~0.077	7000~8000	250~280	0.012~0.055	4300~5500	100~115	0.007~0.033	14500~25000	770~1320	0.028~0.132
2.0	6350~10550	340~570	0.021~0.140	6100~6700	270~300	0.015~0100	3600~4700	100~120	0.009~0.060	11500~18500	770~1250	0.036~0.240
3.0	4300~7050	550~900	0.056~0.210	3990~4600	445~515	0.040~0.150	2400~3200	105~310	0.024~0.090	9000~13000	1400~2110	0.096~0.360
4.0	3200~5300	400~675	0.074~0.280	3000~3400	335~380	0.053~0.200	1800~2400	75~230	0.032~0.120	6750~9750	1050~1575	0.128~0.480



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

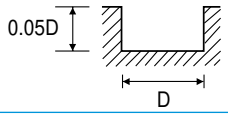
X5070 END MILLS

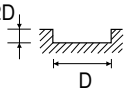
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金，2刃 - 开槽
CARBIDE, 2 FLUTE - SLOTTING

G8A01, G8A36 SERIES

材质	合金钢，耐热钢		硬化钢									
MATERIAL	ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS									
HARDNESS	HRc 30 ~ HRc 40		HRc 40 ~ HRc 50		HRc 50 ~ HRc 55		HRc 55 ~ HRc 60		HRc 60 ~ HRc 65		HRc 65 ~ HRc 70	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
0.2	50000	130	45000	115	40000	95	33000	60	33000	45	26400	30
0.3	50000	190	45000	140	40000	115	33000	70	25000	50	20000	35
0.4	50000	235	45000	180	40000	140	33000	90	25000	55	20000	40
0.5	50000	370	45000	280	40000	220	33000	140	25000	85	20000	60
0.6	50000	470	45000	360	40000	285	30000	160	25000	105	20000	75
0.8	50000	600	40000	440	30000	295	25000	185	19000	110	15200	80
0.9	49000	655	39000	520	27800	330	22700	205	17500	125	14000	90
1.0	48000	750	38000	570	25500	360	20500	215	16000	135	12500	85
2.0	33300	850	26000	680	17500	420	14500	260	11000	160	9500	115
3.0	21800	850	17300	680	11500	420	9500	260	7500	160	6400	115
4.0	16700	880	13200	700	8800	440	7200	270	5600	170	4750	118
5.0	15700	1000	12500	805	8300	500	6400	285	5100	180	4450	132
6.0	13100	950	10350	770	6900	480	5300	280	4200	180	3700	130
8.0	9880	930	7800	720	5200	445	4000	255	3200	165	2800	120
10.0	7800	850	6150	680	4100	415	3200	240	2550	155	2200	112
12.0	6650	850	5250	680	3500	415	2650	240	2100	155	1860	112
16.0	4900	730	3900	580	2600	365	2000	210	1600	135	1400	95
20.0	3900	660	3100	525	2050	335	1600	195	1300	125	1100	85



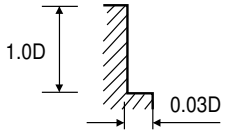


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金，2刃 - 开槽
CARBIDE, 2 FLUTE - SIDE CUTTING

G8A01, G8A36 SERIES

材质	合金钢，耐热钢		硬化钢									
MATERIAL	ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS									
HARDNESS	HRc 30 ~ HRc 40		HRc 40 ~ HRc 50		HRc 50 ~ HRc 55		HRc 55 ~ HRc 60		HRc 60 ~ HRc 65		HRc 65 ~ HRc 70	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1.0	48000	1050	38000	820	25500	510	20500	310	16000	190	12500	125
2.0	33300	1200	26000	970	17500	600	14500	370	11000	230	9500	165
3.0	21800	1200	17300	970	11500	600	9500	370	7500	230	6400	165
4.0	16700	1250	13200	1000	8800	625	7200	385	5600	240	4750	170
5.0	15700	1450	12500	1150	8300	710	6400	410	5100	260	4450	190
6.0	13100	1350	10350	1100	6900	690	5300	400	4200	255	3700	185
8.0	9880	1320	7800	1030	5200	635	4000	365	3200	235	2800	170
10.0	7800	1200	6150	970	4100	590	3200	340	2550	220	2200	160
12.0	6650	1200	5250	970	3500	590	2650	340	2100	220	1860	160
16.0	4900	1050	3900	840	2600	520	2000	300	1600	190	1400	140
20.0	3900	950	3100	750	2050	475	1600	275	1300	175	1100	125



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

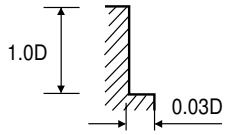
X5070 END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金，4刃 - 开槽
CARBIDE, 4 FLUTE - SIDE CUTTING

G8A02, G8A37 SERIES

材质	合金钢，耐热钢		硬化钢									
MATERIAL	ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS									
HARDNESS	HRc 30 ~ HRc 40		HRc 40 ~ HRc 50		HRc 50 ~ HRc 55		HRc 55 ~ HRc 60		HRc 60 ~ HRc 65		HRc 65 ~ HRc 70	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1.0	48000	1480	38000	1050	25500	710	20500	430	16000	270	12500	175
2.0	33300	1750	26000	1250	17500	840	14500	520	11000	320	9500	230
3.0	21800	1750	17300	1250	11500	840	9500	520	7500	320	6400	230
4.0	16700	1800	13200	1300	8800	880	7200	540	5600	335	4750	240
5.0	15700	2000	12500	1500	8300	1000	6400	580	5100	370	4450	270
6.0	13100	1950	10350	1400	6900	950	5300	560	4200	350	3700	260
8.0	9880	1880	7800	1350	5200	900	4000	520	3200	330	2800	240
10.0	7800	1750	6150	1260	4100	840	3200	480	2550	310	2200	220
12.0	6650	1750	5250	1260	3500	840	2650	480	2100	300	1860	220
16.0	4900	1500	3900	1100	2600	730	2000	420	1600	270	1400	200
20.0	3900	1300	3100	970	2050	650	1600	380	1300	250	1100	180

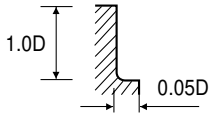


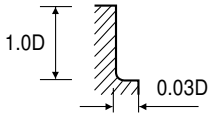
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金，6刃 45度螺旋角 圆鼻铣刀
CARBIDE, 6 FLUTE 45° HELIX CORNER RADIUS

G8A39 SERIES

材质	合金钢，耐热钢		硬化钢									
MATERIAL	ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS									
HARDNESS	HRc 30 ~ HRc 40		HRc 40 ~ HRc 50		HRc 50 ~ HRc 55		HRc 55 ~ HRc 60		HRc 60 ~ HRc 65		HRc 65 ~ HRc 70	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6.0	24800	5350	23500	4900	16000	4900	13500	3300	10500	2100	8000	1450
8.0	20000	5500	19000	5000	12000	4600	10000	3100	8000	2000	6000	1400
10.0	16000	4900	15500	4500	9500	4100	8000	2900	6400	1800	4800	1300
12.0	13000	4500	12500	4100	8000	3800	6600	2500	5300	1600	4000	1150
16.0	10000	4000	9700	3700	6000	3400	5000	2300	4000	1250	3000	870
20.0	8000	3350	7800	3400	4800	3200	4000	2100	3200	1020	2400	690





※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

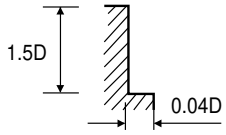
X5070 END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 6&8刃 45度螺旋角 长刃铣刀
CARBIDE, 6&8 FLUTE 45° HELIX LONG LENGTH

G8D63 SERIES

材质	合金钢, 耐热钢		硬化钢					
MATERIAL	ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS					
HARDNESS	HRc 30 ~ HRc 40		HRc 40 ~ HRc 55		HRc 55 ~ HRc 65		HRc 65 ~ HRc 70	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6.0	6360	1500	5040	1045	3840	720	2520	430
8.0	4800	1510	3840	1070	2880	720	1920	430
10.0	3840	1450	3000	995	2280	685	1560	420
12.0	3240	1355	2520	935	1920	650	1320	395
14.0	2730	1320	2180	920	1600	630	1070	325
16.0	2400	1300	1920	910	1440	625	960	370
18.0	2120	1610	1700	1090	1280	750	850	450
20.0	1920	1210	1560	1130	1200	660	720	410
25.0	1560	1370	1200	925	960	670	610	385

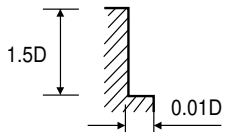


RPM = rev./min.
FEED = mm/min.

硬质合金, 6&8刃 45度螺旋角 超长刃铣刀
CARBIDE, 6&8 FLUTE 45° HELIX EXTRA LONG LENGTH

G8D64 SERIES

材质	合金钢, 耐热钢		硬化钢			
MATERIAL	ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS			
HARDNESS	HRc 30 ~ HRc 40		HRc 40 ~ HRc 55		HRc 55 ~ HRc 65	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
6.0	3180	770	3180	575	2540	455
8.0	2390	720	2390	575	1910	455
10.0	1910	685	1910	575	1520	455
12.0	1580	660	1580	575	1270	455
14.0	1370	620	1370	540	1090	430
16.0	1190	575	1190	505	960	410
18.0	1070	730	1070	685	850	550
20.0	960	660	960	695	770	560
25.0	770	550	770	490	610	395



RPM = rev./min.
FEED = mm/min.

CARBIDE

Being the best through innovation

X-POWER

- 硬度为HRc65以下工具钢到高硬度钢

Medium Steels to High Hardened Steels up to HRc65

SELECTION GUIDE

项目	型号	规格	尺寸		页
			最小	最大	
ITEM	MODEL	DESCRIPTION	SIZE		PAGE
			MIN	MAX	
EM810		硬质合金, 2刃 微型 CARBIDE, 2 FLUTE MINIATURE	D0.4	D1.5	624
EM810 EM820		硬质合金, 2刃 短刃 CARBIDE, 2 FLUTE SHORT LENGTH	D1.0	D25.0	625
EM816 EM826		硬质合金, 2刃 长刃 CARBIDE, 2 FLUTE LONG LENGTH	D2.0	D25.0	627
EM836 EM846		硬质合金, 3刃 微型 CARBIDE, 3 FLUTE MINIATURE	D1.0	D20.0	628
EM895 EM896		硬质合金, 3刃 38度螺旋角 短刃 CARBIDE, 3 FLUTE 38° HELIX SHORT LENGTH	D1.0	D20.0	629
EM811 EM821		硬质合金, 4刃 短刃 CARBIDE, 4 FLUTE SHORT LENGTH	D2.0	D25.0	630
EM817 EM827		硬质合金, 4刃 长刃 CARBIDE, 4 FLUTE LONG LENGTH	D2.0	D25.0	632
EM812 EM822		硬质合金, 6&8刃 45度螺旋角 长刃铣刀 CARBIDE, 6&8 FLUTE 45° HELIX LONG LENGTH	D6.0	D25.0	633
EM834 EM844		硬质合金, 6刃 45度螺旋角 超长刃铣刀 CARBIDE, 6 FLUTE 45° HELIX EXTRA LONG LENGTH	D6.0	D25.0	634
EM876 EM877		硬质合金, 2刃 球头 短刃 CARBIDE, 2 FLUTE SHORT LENGTH BALL NOSE	R0.5	R12.5	635
EM813 EM823		硬质合金, 2刃 长刃 球头 CARBIDE, 2 FLUTE LONG LENGTH BALL NOSE	R0.5	R12.5	636
EM899 EM900		硬质合金, 2刃 中等长 球头 颈部延伸 CARBIDE, 2 FLUTE MEDIUM BALL NOSE with NECK	R1.5	R12.5	637
EM838 EM848		硬质合金, 2刃 长刃 球头 CARBIDE, 2 FLUTE LONG REACH BALL NOSE	R1.0	R10.0	638
EM902 EM904		硬质合金, 2刃 球头 颈部锥度 CARBIDE, 2 FLUTE BALL NOSE with TAPER NECK	R0.5	R6.0	639
EM878 EM879		硬质合金, 2刃 超短刃 高精度 球头 CARBIDE, 2 FLUTE STUB LENGTH HIGH PRECISION BALL NOSE	R0.5	R12.5	640
G4953 G4954		硬质合金, 2刃 超短 球头 加工硬度HRc55以上的材料 CARBIDE, 2 FLUTE STUB LENGTH BALL NOSE for OVER HRc55	R0.5	R12.5	641
EM865		硬质合金, 2刃 微型 球头 CARBIDE, 2 FLUTE MINIATURE BALL NOSE	R0.3	R1.5	642
EM669		硬质合金, 2刃 长刃 球头-MMC CARBIDE, 2 FLUTE LONG LENGTH BALL NOSE-ECONOMIC VERSION	R1.5	R8.0	644
EM673		硬质合金, 4刃 长刃 球头-MMC CARBIDE, 4 FLUTE LONG LENGTH BALL NOSE-ECONOMIC VERSION	R2.5	R8.0	645

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	铬镍铁合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
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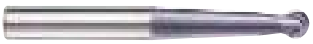
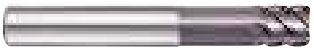
SELECTION GUIDE

项目 ITEM	型号 MODEL	规格 DESCRIPTION	尺寸 SIZE 最小 MIN	尺寸 SIZE 最大 MAX	页 PAGE
EM863		硬质合金，2刃 长刃 球头-MMC CARBIDE, 2 FLUTE LONG LENGTH BALL NOSE-SPHERE VERSION	R1.5	R8.0	646
EM864		硬质合金，4刃 长刃 球头-MMC CARBIDE, 4 FLUTE LONG LENGTH BALL NOSE-SPHERE VERSION	R2.5	R8.0	647
EM815 EM825		硬质合金，4刃 长刃(铣刀) 球头 CARBIDE, 4 FLUTE LONG LENGTH BALL NOSE	R0.5	R12.5	648
EM832 EM842		硬质合金，多刃 20度螺旋角 短刃 粗加工-细螺纹 CARBIDE, MULTI FLUTE 20° HELIX SHORT LENGTH ROUGHING	D6.0	D25.0	649
EM814 EM824		硬质合金，多刃 20度螺旋角 长刃 粗加工-细螺纹 CARBIDE, MULTI FLUTE 20° HELIX LONG LENGTH ROUGHING	D6.0	D25.0	650
EM833 EM843		硬质合金，3&4刃 20度螺旋角 长刃 粗加工-细螺纹 球头 CARBIDE, 3&4 FLUTE 20° HELIX LONG LENGTH ROUGHING BALL NOSE	R3.0	R10.0	651
EM818 EM828		硬质合金，2刃 长刃 圆鼻铣刀 CARBIDE, 2 FLUTE LONG LENGTH CORNER RADIUS	D3.0	D20.0	652
EM905		硬质合金，4刃 45度螺旋角 短刃 圆鼻铣刀 CARBIDE, 4 FLUTE 45° HELIX SHORT LENGTH CORNER RADIUS	D10.0	D22.0	653
EM819 EM829		硬质合金，4刃 长刃 圆鼻铣刀 CARBIDE, 4 FLUTE LONG LENGTH CORNER RADIUS	D3.0	D20.0	654
EM897 EM898		硬质合金，6刃 45度螺旋角 超短 圆鼻铣刀 CARBIDE, 6 FLUTE 45° HELIX STUB LENGTH CORNER RADIUS	D6.0	D12.0	655
EM835 EM845		硬质合金，6刃 45度螺旋角 长刃 圆鼻铣刀 CARBIDE, 6 FLUTE 45° HELIX LONG LENGTH CORNER RADIUS	D6.0	D20.0	656
EM839 EM849		硬质合金，4刃 超短 圆鼻铣刀 CARBIDE, 4 FLUTE STUB LENGTH CORNER RADIUS	D2.0	D16.0	657
EM837 EM847		硬质合金，2刃 锥形 CARBIDE, 2 FLUTE TAPER	D2.0	D8.0	658
EM883		硬质合金，2刃 深腔加工用铣刀 CARBIDE, 2 FLUTE for RIB PROCESSING	D0.4	D6.0	659
EM886		硬质合金，2刃 球头 深腔加工用铣刀 CARBIDE, 2 FLUTE BALL NOSE for RIB PROCESSING	R0.2	R3.0	663
EM889		硬质合金，4刃 25度螺旋角 锥度 深腔加工用铣刀 CARBIDE, 4 FLUTE 25° HELIX TAPER for RIB PROCESSING	D1.0	D2.0	666
EM890		硬质合金，4刃 25度螺旋角 锥度 球头 深腔加工用铣刀 CARBIDE, 4 FLUTE 25° HELIX TAPER BALL NOSE for RIB PROCESSING	R0.5	R1.0	668
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS			670

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	铬镍铁合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
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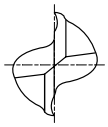
X-POWER END MILLS

EM810 SERIES PLAIN SHANK

硬质合金, 2刃 微型
CARBIDE, 2 FLUTE MINIATURE

- 在医学, 光学, 电子和航空航天工业做高精密铣削
- 卓越的高硬度钢切削性能

- High precision milling in medical, optical, electronics and aero space industries.
- Excellent performance on hardened steels



MG HM | 2 | 30° | PLAIN | P.670

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EM810004	0.4	3	0.8	40
EM810005	0.5	3	1	40
EM810006	0.6	3	1.2	40
EM810007	0.7	3	1.4	40
EM810008	0.8	3	1.6	40
EM810009	0.9	3	2	40
EM810010	1.0	4	2.5	40
EM810011	1.1	4	2.5	40
EM810012	1.2	4	4	40
EM810013	1.3	4	4	40
EM810014	1.4	4	4	40
EM810015	1.5	4	4	40

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○				

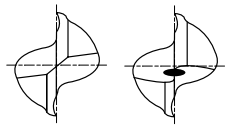
X-POWER END MILLS

EM810 SERIES PLAIN SHANK
EM820 SERIES FLAT SHANK

硬质合金, 2刃 短刃
CARBIDE, 2 FLUTE SHORT LENGTH

- 为加工工具钢, 合金钢, 模具钢和其他高硬材料设计
- 卓越的表面光洁度
- 提高进给速度

- Designed to machine tool steels, alloy steels, mold steels and other hardened materials.
- Superior workpiece finishes.
- Increased feed rates.



up to Ø3mm over Ø3mm

MG HM | 2 | 30° | PLAIN | FLAT P.670

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EM810901	EM820901	1.0	6	2.5	40
EM810902	EM820902	1.5	6	4	40
EM810020	—	2.0	4	6	40
EM810903	EM820020	2.0	6	6	40
EM810025	—	2.5	4	8	40
EM810904	EM820903	2.5	6	8	40
EM810030	EM820030	3.0	6	8	45
EM810035	EM820035	3.5	6	10	45
EM810040	EM820040	4.0	6	11	45
EM810045	EM820045	4.5	6	11	45
EM810050	EM820050	5.0	6	13	50
EM810055	EM820055	5.5	6	13	50
EM810060	EM820060	6.0	6	13	50
EM810065	EM820065	6.5	8	16	60
EM810070	EM820070	7.0	8	16	60
EM810075	EM820075	7.5	8	16	60
EM810080	EM820080	8.0	8	19	60
EM810085	EM820085	8.5	10	19	70
EM810090	EM820090	9.0	10	19	70
EM810095	EM820095	9.5	10	19	70
EM810100	EM820100	10.0	10	22	70
EM810105	EM820105	10.5	12	22	75
EM810110	EM820110	11.0	12	22	75
EM810115	EM820115	11.5	12	22	75

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○		○		

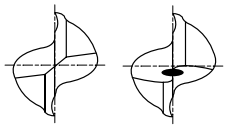
X-POWER END MILLS

EM810 SERIES PLAIN SHANK
EM820 SERIES FLAT SHANK

硬质合金, 2刃 短刃
CARBIDE, 2 FLUTE SHORT LENGTH

- 为加工工具钢, 合金钢, 模具钢和其他高硬材料设计
- 卓越的表面光洁度
- 提高进给速度

- Designed to machine tool steels, alloy steels, mold steels and other hardened materials.
- Superior workpiece finishes.
- Increased feed rates.



up to Ø3mm over Ø3mm

MG HM | 2 | 30° | PLAIN | FLAT P.670

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EM810120	EM820120	12.0	12	26	75
EM810906	EM820906	13.0	12	26	85
EM810140	EM820140	14.0	14	26	85
EM810905	EM820905	14.0	16	26	85
EM810908	EM820908	15.0	16	26	90
EM810160	EM820160	16.0	16	32	100
EM810909	EM820909	17.0	16	32	100
EM810180	EM820180	18.0	18	32	100
EM810911	EM820911	19.0	20	32	100
EM810200	EM820200	20.0	20	38	105
EM810220	EM820220	22.0	20	38	105
EM810240	EM820240	24.0	25	45	120
EM810250	EM820250	25.0	25	45	120

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○		○		

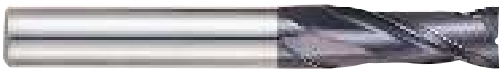
X-POWER END MILLS

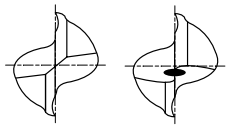
EM816 SERIES PLAIN SHANK
EM826 SERIES FLAT SHANK

硬质合金，2刃 长刃
CARBIDE, 2 FLUTE LONG LENGTH

- ▶ 为加工工具钢，合金钢，模具钢和其他高硬材料设计
- ▶ 卓越的表面光洁度
- ▶ 提高进给速度

- ▶ Designed to machine tool steels, alloy steels, mold steels and other hardened materials.
- ▶ Superior workpiece finishes.
- ▶ Increased feed rates.





up to Ø3mm over Ø3mm

MG HM | 2 | 30° | PLAIN | FLAT P.671

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EM816020	—	2.0	4	8	40
EM816030	EM826030	3.0	6	12	50
EM816040	EM826040	4.0	6	15	50
EM816050	EM826050	5.0	6	20	60
EM816060	EM826060	6.0	6	20	60
EM816080	EM826080	8.0	8	25	70
EM816100	EM826100	10.0	10	30	90
EM816120	EM826120	12.0	12	30	90
EM816140	EM826140	14.0	16	40	110
EM816160	EM826160	16.0	16	50	110
EM816180	EM826180	18.0	20	50	110
EM816200	EM826200	20.0	20	55	110
EM816250	EM826250	25.0	25	75	140

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○		○		

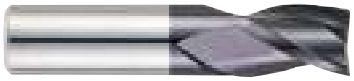
X-POWER END MILLS

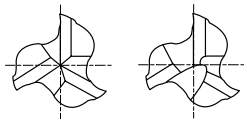
EM836 SERIES PLAIN SHANK
EM846 SERIES FLAT SHANK

硬质合金, 3刃 微型
CARBIDE, 3 FLUTE MINIATURE

▶ YG-1开发的微型铣刀被广泛应用于最具成本效益的系统的小铣刀, 它同时具备2刃和4刃的优点.

▶ The Miniature end mill developed by YG-1 is universally adopted as the most cost effective system for small milling cutters and possesses the advantage of 2 flute and 4 flute end mills.





under Ø3mm　　from Ø3mm

MG HM　3　30°　PLAIN　FLAT

P.672

단위(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EM836010	—	1.0	4	2	35
EM836020	—	2.0	4	4	35
EM836030	EM846030	3.0	6	5	36
EM836040	EM846040	4.0	6	7	38
EM836050	EM846050	5.0	6	8	39
EM836060	EM846060	6.0	6	8	39
EM836080	EM846080	8.0	8	11	43
EM836100	EM846100	10.0	10	13	50
EM836120	EM846120	12.0	12	15	55
EM836140	EM846140	14.0	14	15	58
EM836160	EM846160	16.0	16	18	62
EM836180	EM846180	18.0	18	20	70
EM836200	EM846200	20.0	20	22	75

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○		○		

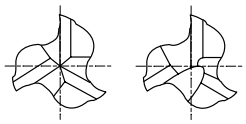
X-POWER END MILLS

EM895 SERIES PLAIN SHANK
EM896 SERIES FLAT SHANK

硬质合金，3刃 38度螺旋角 短刃
CARBIDE, 3 FLUTE 38° HELIX SHORT LENGTH

- ▶ 为加工工具钢，合金钢，模具钢和其他高硬材料设计
- ▶ 拥有2刃和4刃的优点
- ▶ 卓越的表面光洁度

- ▶ Designed to machine tool steels, alloy steels, mold steels and other hardened materials.
- ▶ Possesses the advantage of 2 flute and 4 flute end mill.
- ▶ Superior workpiece finishes.



under Ø3mm　　from Ø3mm

MG HM | 3 | 38° | PLAIN | FLAT

P.672

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EM895010	—	1.0	3	2.5	38
EM895015	—	1.5	4	5	50
EM895025	—	2.5	3	7	38
EM895030	—	3.0	3	10	38
EM895901	EM896901	3.0	6	10	50
EM895035	—	3.5	4	12	50
EM895902	EM896902	3.5	6	12	50
EM895040	—	4.0	4	12	50
EM895903	EM896040	4.0	6	12	50
EM895045	EM896045	4.5	6	14	57
EM895050	—	5.0	5	14	50
EM895904	EM896903	5.0	6	14	57
EM895060	EM896060	6.0	6	16	57
EM895080	EM896080	8.0	8	20	63
EM895100	EM896100	10.0	10	22	72
EM895120	EM896120	12.0	12	25	73
EM895140	EM896140	14.0	14	25	75
EM895160	EM896160	16.0	16	32	82
EM895180	EM896180	18.0	18	32	92
EM895200	EM896200	20.0	20	38	92

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○		○		

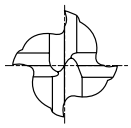
X-POWER END MILLS

EM811 SERIES PLAIN SHANK
EM821 SERIES FLAT SHANK

硬质合金, 4刃 短刃
CARBIDE, 4 FLUTE SHORT LENGTH

- 为加工工具钢, 合金钢, 模具钢和其他高硬材料设计
- 4刃可获得较高表面粗糙度.
- 提高生产效率

- Designed to machine tool steels, alloy steels, mold steels and other hardened materials.
- 4 flute allows for better workpiece finishes.
- Increased production.



MG HM | 4 | 30° | PLAIN | FLAT | P.673

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EM811020	—	2.0	4	6	40
EM811901	EM821901	2.0	6	6	40
EM811025	—	2.5	4	8	40
EM811902	EM821902	2.5	6	8	40
EM811030	EM821030	3.0	6	8	45
EM811035	EM821035	3.5	6	10	45
EM811040	EM821040	4.0	6	11	45
EM811045	EM821045	4.5	6	11	45
EM811050	EM821050	5.0	6	13	50
EM811055	EM821055	5.5	6	13	50
EM811060	EM821060	6.0	6	13	50
EM811065	EM821065	6.5	8	16	60
EM811070	EM821070	7.0	8	16	60
EM811075	EM821075	7.5	8	16	60
EM811080	EM821080	8.0	8	19	60
EM811085	EM821085	8.5	10	19	70
EM811090	EM821090	9.0	10	19	70
EM811095	EM821095	9.5	10	19	70
EM811100	EM821100	10.0	10	22	70
EM811105	EM821105	10.5	12	22	75
EM811110	EM821110	11.0	12	22	75
EM811115	EM821115	11.5	12	22	75
EM811120	EM821120	12.0	12	26	75
EM811904	EM821904	13.0	12	26	85

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○		○		

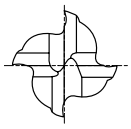
X-POWER END MILLS

EM811 SERIES PLAIN SHANK
EM821 SERIES FLAT SHANK

硬质合金, 4刃 短刃
CARBIDE, 4 FLUTE SHORT LENGTH

- ▶ 为加工工具钢, 合金钢, 模具钢和其他高硬材料设计
- ▶ 4刃可获得较高表面粗糙度.
- ▶ 提高生产效率

- ▶ Designed to machine tool steels, alloy steels, mold steels and other hardened materials.
- ▶ 4 flute allows for better workpiece finishes.
- ▶ Increased production.



MG HM | 4 | 30° | PLAIN | FLAT

P.673

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EM811140	EM821140	14.0	14	26	85
EM811905	EM821905	14.0	12	26	85
EM811903	EM821903	14.0	16	26	85
EM811906	EM821906	15.0	16	26	90
EM811160	EM821160	16.0	16	32	100
EM811907	EM821907	17.0	16	32	100
EM811180	EM821180	18.0	18	32	100
EM811908	EM821908	18.0	16	32	100
EM811909	EM821909	19.0	20	32	100
EM811200	EM821200	20.0	20	38	105
EM811220	EM821220	22.0	20	38	105
EM811240	EM821240	24.0	25	45	120
EM811250	EM821250	25.0	25	45	120

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○		○		

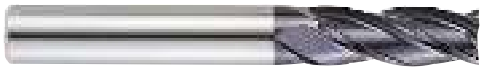
X-POWER END MILLS

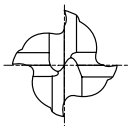
EM817 SERIES PLAIN SHANK
EM827 SERIES FLAT SHANK

硬质合金, 4刃 长刃
CARBIDE, 4 FLUTE LONG LENGTH

- 为加工工具钢, 合金钢, 模具钢和其他高硬材料设计
- 4刃可获得较高表面粗糙度.
- 提高生产效率

- Designed to machine tool steels, alloy steels, mold steels and other hardened materials.
- 4 flute allows for better workpiece finishes.
- Increased production.





MG HM | 4 | 30° | PLAIN | FLAT P.673

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EM817020	—	2.0	4	8	40
EM817030	EM827030	3.0	6	12	50
EM817040	EM827040	4.0	6	15	50
EM817050	EM827050	5.0	6	20	60
EM817060	EM827060	6.0	6	20	60
EM817080	EM827080	8.0	8	25	70
EM817100	EM827100	10.0	10	30	90
EM817120	EM827120	12.0	12	30	90
EM817140	EM827140	14.0	16	40	110
EM817160	EM827160	16.0	16	50	110
EM817180	EM827180	18.0	20	50	110
EM817200	EM827200	20.0	20	55	110
EM817250	EM827250	25.0	25	75	140

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○				

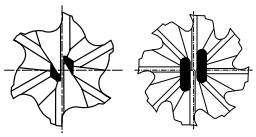
X-POWER END MILLS

EM812 SERIES PLAIN SHANK
EM822 SERIES FLAT SHANK

硬质合金, 6&8刃 45度螺旋角 长刃铣刀
CARBIDE, 6&8 FLUTE 45° HELIX LONG LENGTH

- ▶ 设计用于加工高硬度材料
- ▶ 高速切削且能以高进给率精铣.
- ▶ 卓越的表面光洁度
- ▶ 高耐磨性
- ▶ 适于干式铣削

- ▶ Designed to machine hardened materials.
- ▶ High speed cutting and finish milling with high feed rates.
- ▶ Superior workpiece finishes.
- ▶ Superior wear resistant.
- ▶ Suitable for dry milling.

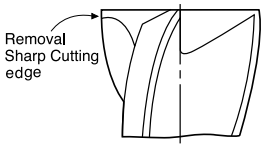


MG HM | 6&8 | 45° | PLAIN | FLAT | P.674

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
EM812060	EM822060	6.0	6	13	57	6
EM812070	EM822070	7.0	8	16	63	6
EM812080	EM822080	8.0	8	19	63	6
EM812090	EM822090	9.0	10	19	72	6
EM812100	EM822100	10.0	10	22	72	6
EM812120	EM822120	12.0	12	26	83	6
EM812140	EM822140	14.0	14	26	83	6
EM812901	EM822901	14.0	16	26	83	6
EM812160	EM822160	16.0	16	32	92	6
EM812180	EM822180	18.0	18	32	92	8
EM812200	EM822200	20.0	20	38	104	8
EM812250	EM822250	25.0	25	44	104	8

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-0.03	h6



◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○				

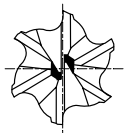
X-POWER END MILLS

EM834 SERIES PLAIN SHANK
EM844 SERIES FLAT SHANK

硬质合金, 6刃 45度螺旋角 超长刃铣刀
CARBIDE, 6 FLUTE 45° HELIX EXTRA LONG LENGTH

- 设计用于加工高硬度材料
- 高速切削且能以高进给率精铣.
- 卓越的表面光洁度
- 高耐磨性
- 适于干式铣削

- Designed to machine hardened materials.
- High speed cutting and finish milling with high feed rates.
- Superior workpiece finishes.
- Superior wear resistant.
- Suitable for dry milling.

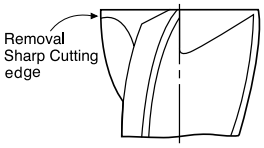


MG HM | 6 | 45° | PLAIN | FLAT | P.675

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EM834060	EM844060	6.0	6	26	70
EM834080	EM844080	8.0	8	36	90
EM834100	EM844100	10.0	10	46	100
EM834120	EM844120	12.0	12	56	110
EM834160	EM844160	16.0	16	66	130
EM834200	EM844200	20.0	20	76	140
EM834250	EM844250	25.0	25	92	180

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6



◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○				

X-POWER END MILLS

EM876 SERIES PLAIN SHANK
EM877 SERIES FLAT SHANK

硬质合金，2刃 球头 短刃
CARBIDE, 2 FLUTE SHORT LENGTH BALL NOSE

- 全长较短的经济型
- 半径公差±0.02mm&刃长较短

- Economic type with short overall length.
- Radius tolerance ±0.02mm & short length of cut.

MG HM | 2 | 30° | R ±0.02 | PLAIN | FLAT

P.676

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	球头半径 Radius of Ball Nose R (±0.02)	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EM876010	—	R0.5	1.0	3	3	38
EM876012	—	R0.6	1.2	3	3	38
EM876015	—	R0.75	1.5	3	3	38
EM876020	EM877020	R1.0	2.0	6	3	50
EM876025	EM877025	R1.25	2.5	6	4	50
EM876030	EM877030	R1.5	3.0	6	4	50
EM876040	EM877040	R2.0	4.0	6	5	54
EM876050	EM877050	R2.5	5.0	6	6	54
EM876060	EM877060	R3.0	6.0	6	7	54
EM876070	EM877070	R3.5	7.0	8	8	58
EM876080	EM877080	R4.0	8.0	8	9	58
EM876090	EM877090	R4.5	9.0	10	10	66
EM876100	EM877100	R5.0	10.0	10	11	66
EM876120	EM877120	R6.0	12.0	12	12	73
EM876140	EM877140	R7.0	14.0	14	14	75
EM876160	EM877160	R8.0	16.0	16	16	82
EM876180	EM877180	R9.0	18.0	18	18	84
EM876200	EM877200	R10.0	20.0	20	20	92
EM876250	EM877250	R12.5	25.0	25	25	104

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○	○			○				

X-POWER END MILLS

EM813 SERIES PLAIN SHANK
EM823 SERIES FLAT SHANK

硬质合金，2刃 长刃 球头
CARBIDE, 2 FLUTE LONG LENGTH BALL NOSE

- 为加工工具钢，合金钢，模具钢和其他高硬材料设计
- 用于仿形铣设备

- Designed to machine tool steels, alloy steels, mold steels and other high hardened materials.
- For copy - milling machines.

MG HM | 2 | 30° | R ±0.02 | PLAIN | FLAT

P.676

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	球头半径 Radius of Ball Nose R (±0.02)	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EM813010	—	R0.5	1.0	4	2.5	50
EM813901	EM823901	R0.5	1.0	6	2.5	50
EM813012	—	R0.6	1.2	4	3	50
EM813015	—	R0.75	1.5	4	4	50
EM813902	EM823902	R0.75	1.5	6	4	50
EM813020	EM823020	R1.0	2.0	6	5	50
EM813025	EM823025	R1.25	2.5	6	6	60
EM813030	EM823030	R1.5	3.0	6	8	60
EM813035	EM823035	R1.75	3.5	6	8	70
EM813040	EM823040	R2.0	4.0	6	8	70
EM813050	EM823050	R2.5	5.0	6	10	80
EM813060	EM823060	R3.0	6.0	6	12	90
EM813070	EM823070	R3.5	7.0	8	14	90
EM813080	EM823080	R4.0	8.0	8	14	100
EM813090	EM823090	R4.5	9.0	10	18	100
EM813100	EM823100	R5.0	10.0	10	18	100
EM813120	EM823120	R6.0	12.0	12	22	110
EM813140	EM823140	R7.0	14.0	14	26	110
EM813903	EM823903	R7.0	14.0	16	26	110
EM813160	EM823160	R8.0	16.0	16	30	140
EM813180	EM823180	R9.0	18.0	18	34	140
EM813200	EM823200	R10.0	20.0	20	38	160
EM813250	EM823250	R12.5	25.0	25	50	180

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○	○			○				

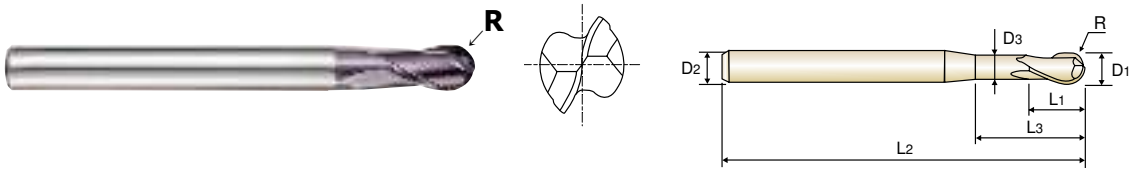
X-POWER END MILLS

EM899 SERIES PLAIN SHANK
EM900 SERIES FLAT SHANK

硬质合金, 2刃 中等长 球头 颈部延伸
CARBIDE, 2 FLUTE MEDIUM BALL NOSE with NECK

- 通过减小颈部尺寸可用于深槽加工
- 带凸出的长铣刀可做深槽高效切削

- Deep slotting milling is possible by reduced neck.
- High efficiency milling is possible in deep slotting due to long projection of the end mill.



MG HM | 2 | 30° | R ±0.02 | PLAIN | FLAT

P.677

单位(Unit) : mm

型号 EDP No.		球头半径 Radius of Ball Nose	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	颈长 Length Below Shank	全长 Overall Length	颈径 Neck Diameter
PLAIN	FLAT	R (±0.02)	D_1	D_2	L_1	L_3	L_2	D_3
EM899030	EM900030	R1.5	**3.0**	6	8	—	70	—
EM899040	EM900040	R2.0	**4.0**	6	8	—	70	—
EM899050	EM900050	R2.5	**5.0**	6	12	—	80	—
EM899060	EM900060	R3.0	**6.0**	6	12	22	80	5.8
EM899070	EM900070	R3.5	**7.0**	8	14	—	90	—
EM899080	EM900080	R4.0	**8.0**	8	14	27	90	7.8
EM899100	EM900100	R5.0	**10.0**	10	18	31	100	9.8
EM899120	EM900120	R6.0	**12.0**	12	22	35	110	11.8
EM899140	EM900140	R7.0	**14.0**	12	26	—	120	—
EM899160	EM900160	R8.0	**16.0**	16	30	50	140	15.8
EM899180	EM900180	R9.0	**18.0**	16	34	—	140	—
EM899200	EM900200	R10.0	**20.0**	20	38	58	160	19.8
EM899250	EM900250	R12.5	**25.0**	25	55	75	180	24.8

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○	○			○				

X-POWER END MILLS

EM838 SERIES PLAIN SHANK
EM848 SERIES FLAT SHANK

硬质合金，2刃 长刃 球头
CARBIDE, 2 FLUTE LONG REACH BALL NOSE

▶ 全长比EM813，EM823系列长，适于深处区域加工

▶ Longer overall length than EM813, EM823 types and suitable for machining deeply located area.

MG HM | 2 | 30° | R ±0.02 | PLAIN | FLAT

P.678

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	球头半径 Radius of Ball Nose R (±0.02)	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EM838020	—	R1.0	2.0	3	6	80
EM838030	—	R1.5	3.0	3	8	100
EM838040	—	R2.0	4.0	4	8	100
EM838050	EM848050	R2.5	5.0	6	10	120
EM838060	EM848060	R3.0	6.0	6	10	120
EM838080	EM848080	R4.0	8.0	8	14	140
EM838100	EM848100	R5.0	10.0	10	18	180
EM838120	EM848120	R6.0	12.0	12	22	200
EM838160	EM848160	R8.0	16.0	16	30	250
EM838200	EM848200	R10.0	20.0	20	38	250

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○	○			○				

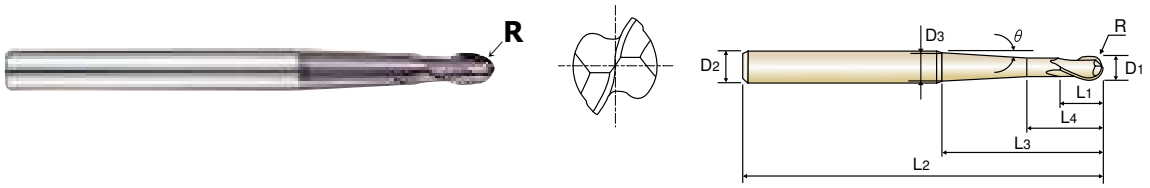
X-POWER END MILLS

EM902 SERIES PLAIN SHANK
EM904 SERIES FLAT SHANK

硬质合金，2刃 球头 颈部锥度
CARBIDE, 2 FLUTE BALL NOSE with TAPER NECK

▶ 带凸出的长铣刀可做深槽高效切削

▶ High efficiency milling is possible in deep slotting with projection of the end mill being long



MG HM | 2 | 30° | R ±0.01 | PLAIN | FLAT

P.679

单位(Unit) : mm

型号 EDP No.		球头半径 Radius of Ball Nose	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	颈部平行长度 Under Neck Parallel Length	颈长 Length Below Shank	全长 Overall Length	颈径 Neck Diameter	颈部锥度 Neck Taper Angle
PLAIN	FLAT	R (±0.01)	D1	D2	L1	L4	L3	L2	D3	θ
EM902010	EM904010	R0.5	1.0	6	2	4	23	60	2	1°30′
EM902901	EM904901	R0.5	1.0	6	2	4	23	60	4.3	5°
EM902902	EM904902	R0.5	1.0	6	2	4	42	80	5	3°
EM902020	EM904020	R1.0	2.0	6	4	6	23	60	2.9	1°30′
EM902903	EM904903	R1.0	2.0	6	4	6	23	60	5	5°
EM902904	EM904904	R1.0	2.0	6	4	6	41	80	5.7	3°
EM902030	EM904030	R1.5	3.0	6	6	8	32	70	5.6	3°
EM902905	EM904905	R1.5	3.0	6	6	8	52	90	5.3	1°30′
EM902040	EM904040	R2.0	4.0	6	8	10	28	70	6	3°
EM902906	EM904906	R2.0	4.0	6	8	10	49	90	6	1°30′
EM902050	EM904050	R2.5	5.0	8	10	12	41	90	8	3°
EM902907	EM904907	R2.5	5.0	8	10	12	61	110	7	1°30′
EM902060	EM904060	R3.0	6.0	8	12	15	34	90	8	3°
EM902908	EM904908	R3.0	6.0	8	12	15	53	110	8	1°30′
EM902080	EM904080	R4.0	8.0	10	14	17	36	100	10	3°
EM902909	EM904909	R4.0	8.0	10	14	17	55	120	10	1°30′
EM902100	EM904100	R5.0	10.0	12	18	21	40	110	12	3°
EM902910	EM904910	R5.0	10.0	12	18	21	59	130	12	1°30′
EM902120	EM904120	R6.0	12.0	16	22	25	63	140	16	3°
EM902911	EM904911	R6.0	12.0	16	22	25	83	160	15	1°30′

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	○	◎	◎	○								

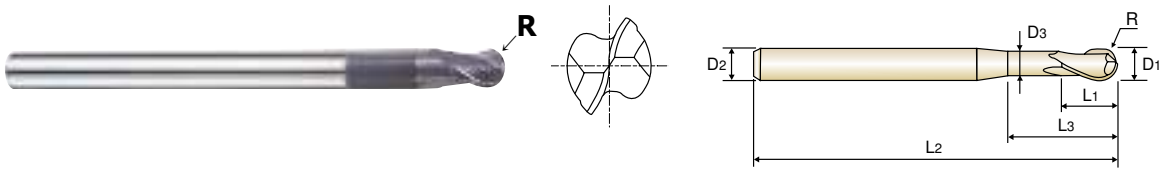
X-POWER END MILLS

EM878 SERIES PLAIN SHANK
EM879 SERIES FLAT SHANK

硬质合金，2刃 超短刃 高精度 球头
CARBIDE, 2 FLUTE STUB LENGTH HIGH PRECISION BALL NOSE

- 为高精度加工设计
- 半径公差±0.01 mm并且提高表面粗糙度

- Designed for high precision milling operation.
- Radius toleracne ± 0.01mm and improved surface roughness.



MG HM | 2 | 30° | R ±0.01 | PLAIN | FLAT

P.676

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EM878010	—	R0.5	1.0	4	1	2.2	50	0.95
EM878901	—	R0.5	1.0	6	1	2.2	50	0.95
EM878012	—	R0.6	1.2	4	1.2	2.6	50	1.1
EM878015	—	R0.75	1.5	4	1.5	3	50	1.4
EM878020	EM879020	R1.0	2.0	6	2	4	50	1.9
EM878025	EM879025	R1.25	2.5	6	2.5	5	60	2.4
EM878030	EM879030	R1.5	3.0	6	3	6	60	2.9
EM878040	EM879040	R2.0	4.0	6	4	8	70	3.9
EM878050	EM879050	R2.5	5.0	6	5	10	80	4.9
EM878060	EM879060	R3.0	6.0	6	6	12	90	5.9
EM878070	EM879070	R3.5	7.0	8	7	14	90	6.9
EM878080	EM879080	R4.0	8.0	8	8	16	100	7.9
EM878090	EM879090	R4.5	9.0	10	9	18	100	8.9
EM878100	EM879100	R5.0	10.0	10	10	20	100	9.9
EM878120	EM879120	R6.0	12.0	12	12	24	110	11.9
EM878140	EM879140	R7.0	14.0	14	14	28	110	13.8
EM878160	EM879160	R8.0	16.0	16	16	32	140	15.8
EM878180	EM879180	R9.0	18.0	18	18	36	140	17.8
EM878200	EM879200	R10.0	20.0	20	20	40	160	19.8
EM878250	EM879250	R12.5	25.0	25	25	50	180	24.8

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
	○	◎	◎	○	○			○				

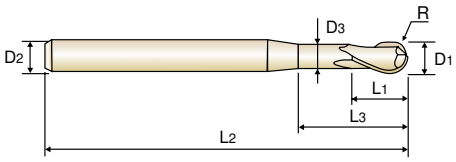
X-POWER END MILLS

G4953 SERIES PLAIN SHANK
G4954 SERIES FLAT SHANK

硬质合金，2刃 超短 球头 加工硬度HRc55以上的材料
CARBIDE, 2 FLUTE STUB LENGTH BALL NOSE for OVER HRc55

- 适合于加工HRc55~HRc70高硬度材料
- 很强的切削刃以及更高的刀具刚性
- 半径公差±0.01 mm

- Suitable for HRc55~HRc70 high hardened materials.
- Strong cutting edges and higher tool rigidity.
- Radius tolerance ±0.01mm.



MG HM | 2 | 30° | R ±0.01 | PLAIN | FLAT

P.680

単位(Unit) : mm

型号 EDP No.		球头半径 Radius of Ball Nose	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	颈长 Length Below Shank	全长 Overall Length	颈径 Neck Diameter
PLAIN	FLAT	R (±0.01)	D_1	D_2	L_1	L_3	L_2	D_3
G4953010	—	R0.5	**1.0**	4	1	2.2	50	0.95
G4953012	—	R0.6	**1.2**	4	1.2	2.6	50	1.1
G4953015	—	R0.75	**1.5**	4	1.5	3	50	1.4
G4953020	G4954020	R1.0	**2.0**	6	2	4	50	1.9
G4953030	G4954030	R1.5	**3.0**	6	3	6	60	2.9
G4953040	G4954040	R2.0	**4.0**	6	4	8	70	3.9
G4953050	G4954050	R2.5	**5.0**	6	5	10	80	4.9
G4953060	G4954060	R3.0	**6.0**	6	6	12	90	5.9
G4953070	G4954070	R3.5	**7.0**	8	7	14	90	6.9
G4953080	G4954080	R4.0	**8.0**	8	8	16	100	7.9
G4953090	G4954090	R4.5	**9.0**	10	9	18	100	8.9
G4953100	G4954100	R5.0	**10.0**	10	10	20	100	9.9
G4953120	G4954120	R6.0	**12.0**	12	12	24	110	11.9
G4953140	G4954140	R7.0	**14.0**	14	14	28	110	13.8
G4953160	G4954160	R8.0	**16.0**	16	16	32	140	15.8
G4953180	G4954180	R9.0	**18.0**	18	18	36	140	17.8
G4953200	G4954200	R10.0	**20.0**	20	20	40	160	19.8
G4953250	G4954250	R12.5	**25.0**	25	25	50	180	24.8

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
			○	◎	◎							

X-POWER END MILLS

EM865 SERIES PLAIN SHANK

硬质合金，2刃 微型 球头
CARBIDE, 2 FLUTE MINIATURE BALL NOSE

- ▶ 在医学，光学，电子和航空航天工业做高精密铣削
- ▶ 干切削时性能优越
- ▶ 卓越的高硬度钢切削性能

- ▶ High precision milling in medical, optical, electronics and aerospace industries.
- ▶ Excellent performance at dry cutting conditon.
- ▶ Excellent performance on hardened steels

MG HM | 2 | 30° | R ±0.01 | PLAIN

P.671

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EM865006	R0.3	0.6	3	1.1	40
EM865007	R0.35	0.7	3	1.5	40
EM865008	R0.4	0.8	3	2	40
EM865009	R0.45	0.9	3	2.2	40
EM865010	R0.5	1.0	3	2.5	40
EM865011	R0.55	1.1	3	3	40
EM865012	R0.6	1.2	3	3	40
EM865013	R0.65	1.3	3	3.5	40
EM865014	R0.7	1.4	3	3.5	40
EM865015	R0.75	1.5	3	4	40
EM865020	R1.0	2.0	3	5	40
EM865030	R1.5	3.0	3	8	40

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○				

X-POWER END MILLS

X-POWER 球头-MMC
X-POWER BALL NOSE END MILLS-MMC

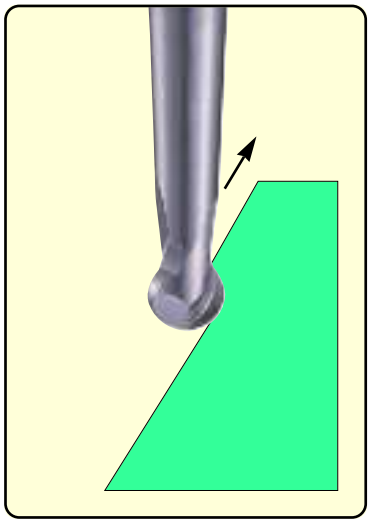
专用领域 / Useful Field Area

- 模具制造，涡轮制造和航空工业等
  Die & Mold making, Turbine manufacturing and Aircraft Industry, etc.
- 复杂的3-D形状
  Difficult 3-D Forms.
- 用于HRc60高硬度钢和合金钢，镍基合金，钛合金轮廓加工
  Profiling of up to HRc 60 high hardened steels and Alloy steels, Nickelbase alloys, Titanium alloys.

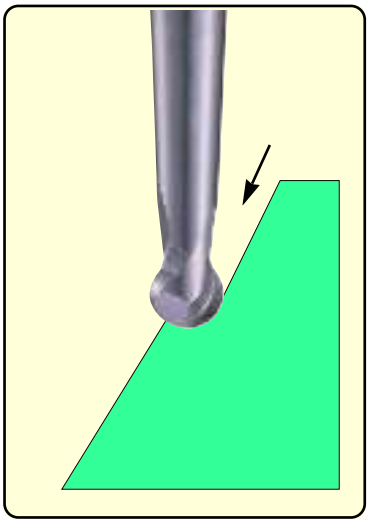
特征 / Characteristic

- 超微粒硬质合金提高了韧性和硬度
  Ultra micro grain carbide which increase both toughness and hardness.
- YG-1唯一的X-POWER涂层适于高速干切削
  YG-1's unique X-POWER coating suitable for dry cutting and high speed cutting.
- 优秀的几何参数和半径型球头形状，可提高工具寿命
  Oustanding tool geometry and sphere shape ball enables more increased tool life and higher speed and feed operation.

过切削操作 / Surpassing Milling Operation

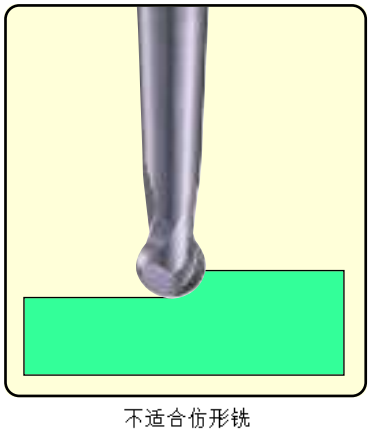


良好的倒铣
Favorable Back Milling

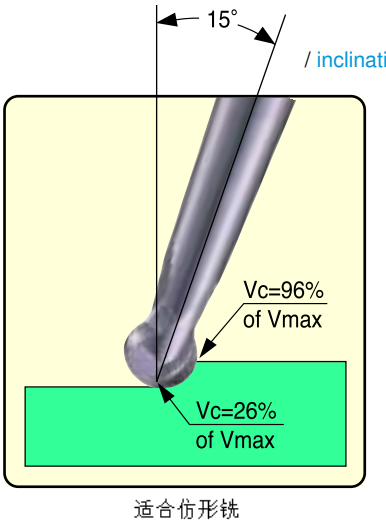


不适合钻孔
Unfavorable Drilling

- 作业角度14°~16°，较高的速度和进给能够减少切削刃处的切削阻力
  Operating angle 14° ~ 16°, higher speed and feed are possible by decreased cutting resistance at the cutting edges contacting the workpiece.
- 优秀的表面粗糙度和快速切削
  Excellent surface fiinsh and faster milling process.
- 在倒铣中有着更高的速度和进给
  Enable to milling with higher speed and feed when Back Milling.



不适合仿形铣
Unfavorable Profiling



适合仿形铣
Favorable Profiling

- 当做15°倾斜切削时，能以更高的速度和进给达到较高的生产量
  When 15° inclination milling operation, more productivity and higher speed and feed are possible.
- 降低切削力
  Decreased cutting force.
- 优秀的表面粗糙度和光洁度
  Excellent surface roughness and brightness.

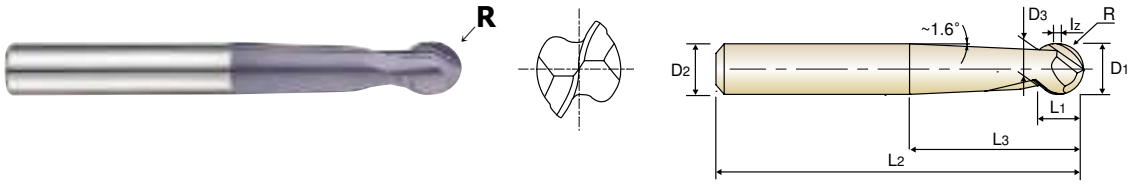
X-POWER END MILLS

EM669 SERIES PLAIN SHANK

硬质合金，2刃 长刃 球头-MMC
CARBIDE, 2 FLUTE LONG LENGTH BALL NOSE-MMC

- 用于仿形铣设备
- 提高进给速度
- 15° 倾斜度
- 易于再研磨
- 半径公差±0.01 mm

- Designed for copy milling.
- Increased feed rates.
- 15° inclination.
- Easy to regrind.
- Radius Tolerance ±0.01 mm.



MG HM | 2 | 30° | R ±0.01 | PLAIN

P.681

● 2刃 长刃-经济型
2 FLUTE LONG LENGTH- ECONOMIC VERSION

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3	Iz
EM669030	R1.5	3.0	6	4	30	80	2.5	1.5
EM669040	R2.0	4.0	6	5	30	80	3.3	1.5
EM669050	R2.5	5.0	6	6	43	80	4.1	2
EM669060	R3.0	6.0	6	7	30	100	4.7	2
EM669080	R4.0	8.0	8	9	36	100	6.5	3
EM669100	R5.0	10.0	10	11	43	100	8.2	3
EM669120	R6.0	12.0	12	13	52	100	9.8	3
EM669160	R8.0	16.0	16	15	61	150	13.4	3

※ 经济型在再研磨方面比球体型有着更多的优点.
ECONOMIC TYPE HAS MORE ADVANTAGE IN RESHARPENING THAN SPHERE TYPE.

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○	○			○				

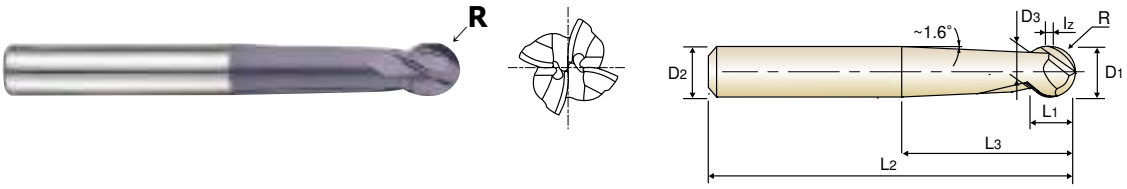
X-POWER END MILLS

EM673 SERIES PLAIN SHANK

硬质合金, 4刃 长刃 球头-MMC
CARBIDE, 4 FLUTE LONG LENGTH BALL NOSE-MMC

- ▶ 用于仿形铣设备
- ▶ 提高进给速度
- ▶ 15°倾斜度
- ▶ 易于再研磨
- ▶ 半径公差±0.01 mm

- ▶ Designed for copy milling.
- ▶ Increased feed rates.
- ▶ 15° inclination.
- ▶ Easy to regrind.
- ▶ Radius Tolerance ±0.01 mm.



MG HM | 4 | 30° | R ±0.01 | PLAIN

P.682

● 4刃 长刃-经济型
4 FLUTE LONG LENGTH- ECONOMIC VERSION

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3	Iz
EM673050	R2.5	5.0	6	6	43	80	4.1	2
EM673060	R3.0	6.0	6	7	30	100	4.7	2
EM673080	R4.0	8.0	8	9	36	100	6.5	3
EM673100	R5.0	10.0	10	11	43	100	8.2	3
EM673120	R6.0	12.0	12	13	52	100	9.8	3
EM673160	R8.0	16.0	16	15	61	150	13.4	3

※ 经济型在再研磨方面比球体型有着更多的优点.
ECONOMIC TYPE HAS MORE ADVANTAGE IN RESHARPENING THAN SPHERE TYPE.

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○	○			○				

CBN END MILLS
i-Xmill END MILLS
X5070 END MILLS
X-POWER END MILLS
JET-POWER END MILLS
V7 Mill INOX END MILLS
V7 Mill STEEL END MILLS
ALU-POWER END MILLS
CRX S
D-POWER END MILLS
K-2 CARBIDE END MILLS
GENERAL CARBIDE END MILLS
TANK-POWER END MILLS
GENERAL HSS END MILLS
MILLING CUTTERS
TECHNICAL DATA

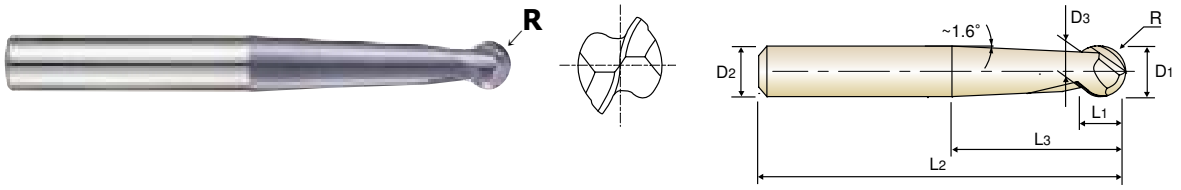
X-POWER END MILLS

EM863 SERIES PLAIN SHANK

硬质合金, 2刃 长刃 球头-MMC
CARBIDE, 2 FLUTE LONG LENGTH BALL NOSE-MMC

- 用于仿形铣设备
- 提高进给速度
- 15° 倾斜度
- 易于再研磨
- 半径公差±0.01 mm

- Designed for copy milling.
- Increased feed rates.
- 15° inclination.
- Easy to regrind.
- Radius Tolerance ±0.01mm.



MG HM | 2 | 30° | R ±0.01 | PLAIN

P.681

● 2刃 长刃-球体型
2 FLUTE LONG LENGTH- SPHERE VERSION

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EM863030	R1.5	**3.0**	6	2.3	30	80	2.5
EM863040	R2.0	**4.0**	6	3.1	30	80	3.3
EM863050	R2.5	**5.0**	6	3.9	38	80	4.1
EM863060	R3.0	**6.0**	6	4.9	28	100	4.7
EM863080	R4.0	**8.0**	8	6.3	33	100	6.5
EM863100	R5.0	**10.0**	10	7.9	40	100	8.2
EM863120	R6.0	**12.0**	12	9.5	49	100	9.8
EM863160	R8.0	**16.0**	16	12.4	59	150	13.4

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○	○			○				

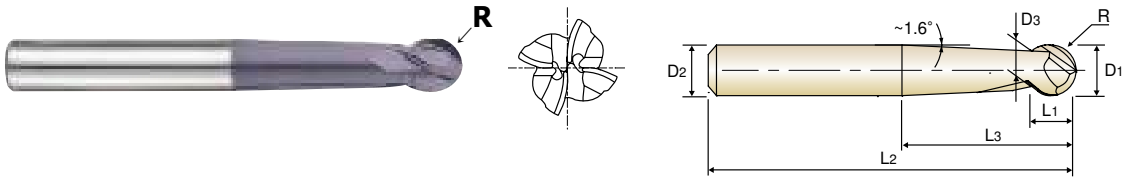
X-POWER END MILLS

EM864 SERIES PLAIN SHANK

硬质合金，4刃 长刃(铣刀) 球头-MMC
CARBIDE, 4 FLUTE LONG LENGTH BALL NOSE-MMC

- 用于仿形铣设备
- 提高进给速度
- 15°倾斜度
- 易于再研磨
- 半径公差±0.01 mm

- Designed for copy milling.
- Increased feed rates.
- 15° inclination.
- Easy to regrind.
- Radius Tolerance ±0.01mm.



MG HM | 4 | 30° | R ±0.01 | PLAIN

P.682

● 4刃 长刃-球体型
4 FLUTE LONG LENGTH- SPHERE VERSION

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EM864050	R2.5	5.0	6	3.9	38	80	4.1
EM864060	R3.0	6.0	6	4.9	28	100	4.7
EM864080	R4.0	8.0	8	6.3	33	100	6.5
EM864100	R5.0	10.0	10	7.9	40	100	8.2
EM864120	R6.0	12.0	12	9.5	49	100	9.8
EM864160	R8.0	16.0	16	12.4	59	150	13.4

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○	○			○				

CBN END MILLS
i-Xmill END MILLS
X5070 END MILLS
X-POWER END MILLS
JET-POWER END MILLS
V7 Mill INOX END MILLS
V7 Mill STEEL END MILLS
ALU-POWER END MILLS
CRX S
D-POWER END MILLS
K-2 CARBIDE END MILLS
GENERAL CARBIDE END MILLS
TANK-POWER END MILLS
GENERAL HSS END MILLS
MILLING CUTTERS
TECHNICAL DATA

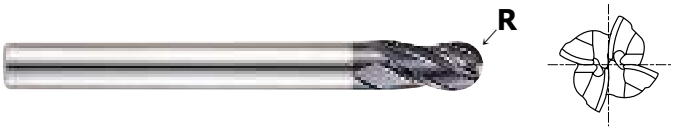
X-POWER END MILLS

EM815 SERIES PLAIN SHANK
EM825 SERIES FLAT SHANK

硬质合金，4刃 长刃(铣刀) 球头
CARBIDE, 4 FLUTE LONG LENGTH BALL NOSE

- 为工具钢，合金钢，模具钢高硬度材料设计
- 用于仿形铣设备
- 4刃设计-比EM813,EM823系列更高的进给

- Designed to machine tool steels, alloy steels, mold steels and other high hardened materials.
- For copy - milling machines.
- 4 Flute design - higher feed than EM813, EM823 series



MG HM | 4 | 30° | R ±0.01 | PLAIN | FLAT

P.683

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EM815010	—	R0.5	1.0	4	2.5	50
EM815901	EM825901	R0.5	1.0	6	2.5	50
EM815015	—	R0.75	1.5	4	4	50
EM815902	EM825902	R0.75	1.5	6	4	50
EM815020	EM825020	R1.0	2.0	6	5	50
EM815030	EM825030	R1.5	3.0	6	8	60
EM815040	EM825040	R2.0	4.0	6	8	70
EM815050	EM825050	R2.5	5.0	6	10	80
EM815060	EM825060	R3.0	6.0	6	12	90
EM815070	EM825070	R3.5	7.0	8	14	90
EM815080	EM825080	R4.0	8.0	8	14	100
EM815090	EM825090	R4.5	9.0	10	18	100
EM815100	EM825100	R5.0	10.0	10	18	100
EM815120	EM825120	R6.0	12.0	12	22	110
EM815140	EM825140	R7.0	14.0	14	26	110
EM815903	EM825903	R7.0	14.0	16	26	110
EM815160	EM825160	R8.0	16.0	16	30	140
EM815180	EM825180	R9.0	18.0	18	34	140
EM815200	EM825200	R10.0	20.0	20	38	160
EM815250	EM825250	R12.5	25.0	25	50	180

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○	○			○				

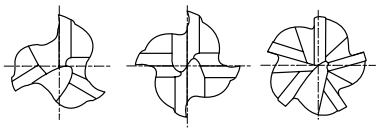
X-POWER END MILLS

EM832 SERIES PLAIN SHANK
EM842 SERIES FLAT SHANK

硬质合金, 多刃 20度螺旋角 短刃 粗加工-细螺纹
CARBIDE, MULTI FLUTE 20° HELIX SHORT LENGTH ROUGHING - FINE

- 为工具钢, 合金钢, 模具钢高硬度材料设计
- 硬钢的高速切削.
- 适于干式和湿式的铣削.
- 排泄快

- Designed to machine tool steels, alloy steels, mold steels and other hardened materials.
- High velocity milling of hardened steels.
- For dry and wet milling.
- Fast chip ejection.



MG HM | FINE | 3-5 | 20° | PLAIN | FLAT

P.684

단위(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter h10	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
EM832060	EM842060	6.0	6	7	54	3
EM832070	EM842070	7.0	8	8	58	3
EM832080	EM842080	8.0	8	9	58	3
EM832090	EM842090	9.0	10	13	66	4
EM832100	EM842100	10.0	10	14	66	4
EM832120	EM842120	12.0	12	16	73	4
EM832140	EM842140	14.0	14	18	75	4
EM832160	EM842160	16.0	16	22	82	4
EM832180	EM842180	18.0	18	24	84	4
EM832200	EM842200	20.0	20	26	92	4
EM832250	EM842250	25.0	25	25	110	5

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in ㎛
公称直径单位 / Nominal-Diameter in ㎜

	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
h10	0 / — 40	0 / — 48	0 / — 58	0 / — 70	0 / — 84
h6	0 / — 6	0 / — 8	0 / — 9	0 / — 11	0 / — 13

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○		○		

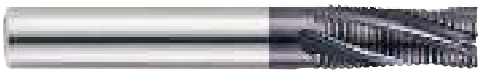
X-POWER END MILLS

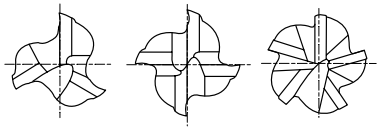
EM814 SERIES PLAIN SHANK
EM824 SERIES FLAT SHANK

硬质合金, 多刃 20度螺旋角 长刃 粗加工-细螺纹
CARBIDE, MULTI FLUTE 20° HELIX LONG LENGTH ROUGHING- FINE

- 为工具钢, 合金钢, 模具钢高硬度材料设计
- 硬钢的高速切削.
- 适于干式和湿式的铣削.
- 排泄快
- 比EM832,EM842更长的沟槽

- Designed to machine tool steels, alloy steels, mold steels and other hardened materials.
- High velocity milling of hardened steels.
- For dry and wet milling.
- Fast chip ejection.
- Longer flute length than EM832, EM842 series.





MG HM | FINE | 3-5 | 20° | PLAIN | FLAT

P.684

단위(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter h10	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
EM814060	EM824060	6.0	6	16	57	3
EM814070	EM824070	7.0	8	16	63	3
EM814080	EM824080	8.0	8	16	63	3
EM814090	EM824090	9.0	10	19	72	4
EM814100	EM824100	10.0	10	22	72	4
EM814120	EM824120	12.0	12	26	83	4
EM814140	EM824140	14.0	14	26	83	4
EM814901	EM824901	14.0	16	26	83	4
EM814160	EM824160	16.0	16	32	92	4
EM814180	EM824180	18.0	18	32	92	4
EM814200	EM824200	20.0	20	38	104	4
EM814250	EM824250	25.0	25	45	121	5

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in μm 公称直径单位 / Nominal-Diameter in mm					
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
h10	0 / — 40	0 / — 48	0 / — 58	0 / — 70	0 / — 84
h6	0 / — 6	0 / — 8	0 / — 9	0 / — 11	0 / — 13

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○		○		

X-POWER END MILLS

EM833 SERIES PLAIN SHANK
EM843 SERIES FLAT SHANK

硬质合金，3&4刃 20度螺旋角 长刃 粗加工-细螺纹 球头
CARBIDE, 3&4 FLUTE 20° HELIX LONG LENGTH ROUGHING BALL NOSE - FINE

- 为工具钢，合金钢，模具钢高硬度材料设计
- 硬钢的高速切削.
- 适于干式和湿式的铣削.
- 排泄快

- Designed to machine tool steels, alloy steels, mold steels and other hardened materials.
- High velocity milling of hardened steels.
- For dry and wet milling.
- Fast chip ejection.

MG HM | FINE | 3&4 | 20° | R ±0.02 | PLAIN | FLAT

P.684

Unit : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	球头半径 Radius of Ball Nose R (±0.02)	刃部直径 Mill Diameter h10	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
EM833060	EM843060	R3.0	6.0	6	16	57	3
EM833080	EM843080	R4.0	8.0	8	16	63	3
EM833100	EM843100	R5.0	10.0	10	22	72	4
EM833120	EM843120	R6.0	12.0	12	26	83	4
EM833140	EM843140	R7.0	14.0	14	26	83	4
EM833160	EM843160	R8.0	16.0	16	32	92	4
EM833180	EM843180	R9.0	18.0	18	32	92	4
EM833200	EM843200	R10.0	20.0	20	38	104	4

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in μm 公称直径单位 / Nominal-Diameter in mm					
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
h10	0 — 40	0 — 48	0 — 58	0 — 70	0 — 84
h6	0 — 6	0 — 8	0 — 9	0 — 11	0 — 13

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○		○		

X-POWER END MILLS

EM818 SERIES PLAIN SHANK
EM828 SERIES FLAT SHANK

硬质合金，2刃 长刃 圆鼻铣刀
CARBIDE, 2 FLUTE LONG LENGTH CORNER RADIUS

- 为工具钢，合金钢，模具钢高硬度材料设计
- 卓越的表面光洁度
- 提高进给速度

- Designed to machine tool steels, alloy steels, mold steels and other hardened materials.
- Superior workpiece finishes.
- Increased feed rates.

MG HM | 2 | 30° | PLAIN | FLAT | P.685

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	圆弧半径 Corner Radius R	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EM818030	EM828030	R0.3	3.0	6	12	50
EM818040	EM828040	R0.3	4.0	6	15	50
EM818911	EM828911	R0.5	4.0	6	15	50
EM818050	EM828050	R0.3	5.0	6	20	60
EM818912	EM828912	R0.5	5.0	6	20	60
EM818913	EM828913	R0.3	6.0	6	20	60
EM818060	EM828060	R0.5	6.0	6	20	60
EM818901	EM828901	R1.0	6.0	6	20	60
EM818914	EM828914	R0.3	8.0	8	25	70
EM818080	EM828080	R0.5	8.0	8	25	70
EM818902	EM828902	R1.0	8.0	8	25	70
EM818903	EM828903	R1.5	8.0	8	25	70
EM818904	EM828904	R2.0	8.0	8	25	70
EM818915	EM828915	R0.3	10.0	10	30	90
EM818100	EM828100	R0.5	10.0	10	30	90
EM818905	EM828905	R1.0	10.0	10	30	90
EM818906	EM828906	R1.5	10.0	10	30	90
EM818907	EM828907	R2.0	10.0	10	30	90
EM818120	EM828120	R0.5	12.0	12	30	90
EM818908	EM828908	R1.0	12.0	12	30	90
EM818909	EM828909	R1.5	12.0	12	30	90
EM818910	EM828910	R2.0	12.0	12	30	90
EM818160	EM828160	R0.5	16.0	16	50	110
EM818916	EM828916	R1.0	16.0	16	50	110
EM818917	EM828917	R1.5	16.0	16	50	110
EM818918	EM828918	R2.0	16.0	16	50	110
EM818200	EM828200	R0.5	20.0	20	55	110
EM818919	EM828919	R1.0	20.0	20	55	110
EM818920	EM828920	R1.5	20.0	20	55	110
EM818921	EM828921	R2.0	20.0	20	55	110

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○								

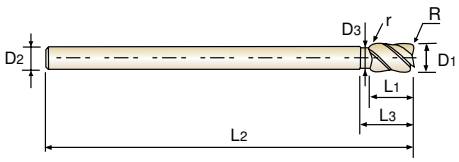
X-POWER END MILLS

EM905 SERIES PLAIN SHANK

硬质合金，4刃 45度螺旋角 短刃 圆鼻铣刀
CARBIDE, 4 FLUTE 45° HELIX SHORT LENGTH CORNER RADIUS

- 分步切削时没有分界线，因为这种工具刃部后端靠近柄部的部分有圆弧
- 宽深侧面的高速分步切削
- 适合于深处侧铣，螺旋铣和仿形铣

- No line is marked on the boundary section during step milling because this tool has radius on the end faces of the shank
- High speed cutting in wide deep wall with step milling
- Suitable for deep side milling, Helical Milling, Contour Milling



MG HM | 4 | 45° | PLAIN P.691

单位(Unit) : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EM905100	R0.5	**10.0**	8	15	19.2	130	7.5
EM905901	R1.0	**10.0**	8	15	19.2	130	7.5
EM905120	R0.5	**12.0**	10	18	22.2	150	9.5
EM905902	R1.0	**12.0**	10	18	22.2	150	9.5
EM905140	R0.5	**14.0**	12	21	25.2	160	11.5
EM905903	R1.0	**14.0**	12	21	25.2	160	11.5
EM905180	R0.5	**18.0**	16	27	31.2	180	15.5
EM905904	R1.0	**18.0**	16	27	31.2	180	15.5
EM905220	R0.5	**22.0**	20	33	37.2	200	19.5
EM905905	R1.0	**22.0**	20	33	37.2	200	19.5

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○		○		

X-POWER END MILLS

EM819 SERIES PLAIN SHANK
EM829 SERIES FLAT SHANK

硬质合金, 4刃 长刃 圆鼻铣刀
CARBIDE, 4 FLUTE LONG LENGTH CORNER RADIUS

- 为工具钢, 合金钢, 模具钢高硬材料设计
- 4刃可获得较高表面粗糙度.
- 提高生产效率

- Designed to machine tool steels, alloy steels, mold steels and other hardened materials.
- 4 flute allows for better workpiece finishes.
- Increased production.

MG HM | 4 | 30° | PLAIN | FLAT P.685

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	圆弧半径 Corner Radius R	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EM819030	EM829030	R0.3	3.0	6	12	50
EM819040	EM829040	R0.3	4.0	6	15	50
EM819911	EM829911	R0.5	4.0	6	15	50
EM819050	EM829050	R0.3	5.0	6	20	60
EM819912	EM829912	R0.5	5.0	6	20	60
EM819913	EM829913	R0.3	6.0	6	20	60
EM819060	EM829060	R0.5	6.0	6	20	60
EM819901	EM829901	R1.0	6.0	6	20	60
EM819914	EM829914	R0.3	8.0	8	25	70
EM819080	EM829080	R0.5	8.0	8	25	70
EM819902	EM829902	R1.0	8.0	8	25	70
EM819903	EM829903	R1.5	8.0	8	25	70
EM819904	EM829904	R2.0	8.0	8	25	70
EM819915	EM829915	R0.3	10.0	10	30	90
EM819100	EM829100	R0.5	10.0	10	30	90
EM819905	EM829905	R1.0	10.0	10	30	90
EM819906	EM829906	R1.5	10.0	10	30	90
EM819907	EM829907	R2.0	10.0	10	30	90
EM819120	EM829120	R0.5	12.0	12	30	90
EM819908	EM829908	R1.0	12.0	12	30	90
EM819909	EM829909	R1.5	12.0	12	30	90
EM819910	EM829910	R2.0	12.0	12	30	90
EM819160	EM829160	R0.5	16.0	16	50	110
EM819916	EM829916	R1.0	16.0	16	50	110
EM819917	EM829917	R1.5	16.0	16	50	110
EM819918	EM829918	R2.0	16.0	16	50	110
EM819200	EM829200	R0.5	20.0	20	55	110
EM819919	EM829919	R1.0	20.0	20	55	110
EM819920	EM829920	R1.5	20.0	20	55	110
EM819921	EM829921	R2.0	20.0	20	55	110

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○		○		

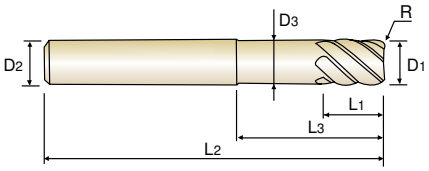
X-POWER END MILLS

EM897 SERIES PLAIN SHANK
EM898 SERIES FLAT SHANK

硬质合金，6刃 45度螺旋角 超短 圆鼻铣刀
CARBIDE, 6 FLUTE 45° HELIX STUB LENGTH CORNER RADIUS

- ▶ 高速切削
- ▶ 干切削时性能优越
- ▶ 通过减小颈部，所切削的尺寸可达3倍的直径

- ▶ High speed cutting
- ▶ Excellent performance in dry cutting
- ▶ Cutting up to three times of the diameter due to reduced neck.



MG HM | 6 | 45° | PLAIN | FLAT P.686

单位(Unit) : mm

型号 EDP No.		圆弧半径 Corner Radius	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	颈长 Length Below Shank	全长 Overall Length	颈径 Neck Diameter
PLAIN	FLAT	R	D_1	D_2	L_1	L_3	L_2	D_3
EM897060	**EM898060**	R0.5	**6.0**	6	6	14	50	5.7
EM897080	**EM898080**	R0.5	**8.0**	8	8	24	60	7.65
EM897100	**EM898100**	R1.0	**10.0**	10	10	30	70	9.65
EM897120	**EM898120**	R1.0	**12.0**	12	12	30	75	11.6

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○				

X-POWER END MILLS

EM835 SERIES PLAIN SHANK
EM845 SERIES FLAT SHANK

硬质合金，6刃 45度螺旋角 长刃 圆鼻铣刀
CARBIDE, 6 FLUTE 45° HELIX LONG LENGTH CORNER RADIUS

- 设计用于加工高硬度材料
- 高速切削且能以高进给率精铣.
- 卓越的表面光洁度
- 高耐磨性
- 适于干式铣削

- Designed to machine hardened materials.
- High speed cutting and finish milling with high feed rates.
- Superior workpiece finishes.
- Superior wear resistant.
- Suitable for dry milling.

MG HM | 6 | 45° | PLAIN | FLAT P.675

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	圆弧半径 Corner Radius R	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EM835060	EM845060	R0.5	6.0	6	13	70
EM835080	EM845080	R0.5	8.0	8	19	90
EM835100	EM845100	R0.5	10.0	10	22	100
EM835901	EM845901	R1.0	10.0	10	22	100
EM835120	EM845120	R0.5	12.0	12	26	110
EM835902	EM845902	R1.0	12.0	12	26	110
EM835160	EM845160	R1.0	16.0	16	32	130
EM835903	EM845903	R1.5	16.0	16	32	130
EM835200	EM845200	R1.0	20.0	20	38	140
EM835904	EM845904	R1.5	20.0	20	38	140
EM835905	EM845905	R2.0	20.0	20	38	140

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○				

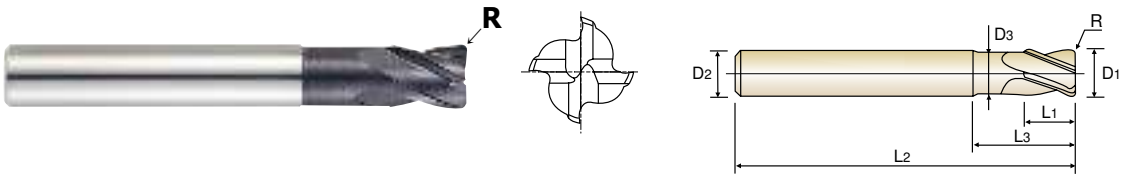
X-POWER END MILLS

EM839 SERIES PLAIN SHANK
EM849 SERIES FLAT SHANK

硬质合金，4刃 超短 圆鼻铣刀
CARBIDE, 4 FLUTE STUB LENGTH CORNER RADIUS

- ▶ 为加工工具钢，合金钢，模具钢和其他高硬材料设计
- ▶ 卓越的表面光洁度
- ▶ 提高进给速度

- ▶ Designed to machine tool steels, alloy steels, mold steels and other hardened materials.
- ▶ Superior workpiece finishes.
- ▶ Increased feed rates.



MG HM | 4 | 30° | PLAIN | FLAT

P.686

单位(Unit) : mm

型号 EDP No.		圆弧半径 Corner Radius	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	颈长 Length Below Shank	全长 Overall Length	颈径 Neck Diameter
PLAIN	FLAT	R	D_1	D_2	L_1	L_3	L_2	D_3
EM839020	**EM849020**	R0.2	**2.0**	6	2.5	5	50	1.9
EM839025	**EM849025**	R0.25	**2.5**	6	3	6	50	2.4
EM839030	**EM849030**	R0.3	**3.0**	6	4	7	50	2.8
EM839035	**EM849035**	R0.35	**3.5**	6	4.5	8	50	3.2
EM839040	**EM849040**	R0.4	**4.0**	6	5	9	50	3.7
EM839050	**EM849050**	R0.5	**5.0**	6	6	12	50	4.6
EM839060	**EM849060**	R0.6	**6.0**	6	7	14	55	5.6
EM839080	**EM849080**	R0.8	**8.0**	8	10	18	60	7.4
EM839100	**EM849100**	R1.0	**10.0**	10	12	25	70	9.4
EM839120	**EM849120**	R1.2	**12.0**	12	15	30	80	11.4
EM839160	**EM849160**	R1.6	**16.0**	16	18	35	90	15.4

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○				

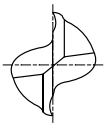
X-POWER END MILLS

EM837 SERIES PLAIN SHANK
EM847 SERIES FLAT SHANK

硬质合金, 2刃 锥形
CARBIDE, 2 FLUTE TAPER

- 设计用于铣模腔
- 适于加工合金工具钢, 模具钢及其它高硬度材料

- Designed for milling die cavity.
- Suitable for machining tool steels, alloy steels, mold steels and other hardened materials.



MG HM | 2 | 30° | PLAIN | FLAT P.690

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	锥度 Taper Angle
EM837913	—	2.0	4	6	45	30′
EM837020	—	2.0	4	6	45	1°
EM837901	—	2.0	4	6	45	2°
EM837902	—	2.0	4	6	45	3°
EM837914	EM847914	3.0	6	10	55	30′
EM837030	EM847030	3.0	6	10	55	1°
EM837903	EM847903	3.0	6	10	55	2°
EM837904	EM847904	3.0	6	10	55	3°
EM837915	EM847915	4.0	6	15	55	30′
EM837040	EM847040	4.0	6	15	55	1°
EM837905	EM847905	4.0	6	15	55	2°
EM837906	EM847906	4.0	6	15	55	3°
EM837916	EM847916	5.0	6	15	60	30′
EM837050	EM847050	5.0	6	15	60	1°
EM837907	EM847907	5.0	6	15	60	2°
EM837908	EM847908	5.0	6	15	60	3°
EM837917	EM847917	6.0	6	20	60	30′
EM837060	EM847060	6.0	6	20	60	1°
EM837909	EM847909	6.0	6	20	60	2°
EM837910	EM847910	6.0	8	20	65	3°
EM837918	EM847918	8.0	8	25	70	30′
EM837080	EM847080	8.0	8	25	70	1°
EM837911	EM847911	8.0	8	25	70	2°
EM837912	EM847912	8.0	10	25	75	3°

- 我们可以提供各种尺寸和锥度 / We can supply various sizes and taper angles.

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance	锥度公差 Taper Angle Tolerance
0~−0.03	h6	±5′

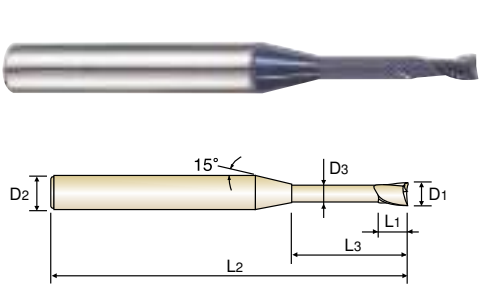
◎ : 优(Excellent) ○ : 良(Good)

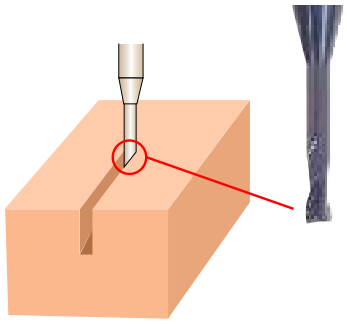
碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○				

X-POWER END MILLS

EM883 SERIES PLAIN SHANK

硬质合金，2刃 深腔加工用铣刀
CARBIDE, 2 FLUTE for RIB PROCESSING





MG HM | 2 | 30° | PLAIN

P.687

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EM883004	0.4	4	0.6	2	45	0.37
EM883984	0.4	4	0.6	3	45	0.37
EM883985	0.4	4	0.6	4	45	0.37
EM883986	0.4	4	0.6	5	45	0.37
EM883005	0.5	4	0.7	2	45	0.45
EM883988	0.5	4	0.7	4	45	0.45
EM883989	0.5	4	0.7	6	45	0.45
EM883990	0.5	4	0.7	8	45	0.45
EM883006	0.6	4	0.9	2	45	0.55
EM883991	0.6	4	0.9	4	45	0.55
EM883992	0.6	4	0.9	6	45	0.55
EM883993	0.6	4	0.9	8	45	0.55
EM883819	0.6	4	0.9	10	45	0.55
EM883007	0.7	4	1.0	2	45	0.65
EM883820	0.7	4	1.0	3	45	0.65
EM883906	0.7	4	1.0	4	45	0.65
EM883907	0.7	4	1.0	6	45	0.65
EM883821	0.7	4	1.0	8	45	0.65
EM883822	0.7	4	1.0	10	45	0.65
EM883008	0.8	4	1.2	4	45	0.75
EM883908	0.8	4	1.2	6	45	0.75
EM883909	0.8	4	1.2	8	45	0.75
EM883994	0.8	4	1.2	10	45	0.75
EM883995	0.8	4	1.2	12	45	0.75
EM883009	0.9	4	1.35	6	45	0.85
EM883910	0.9	4	1.35	8	45	0.85
EM883911	0.9	4	1.35	10	45	0.85
EM883823	0.9	4	1.35	15	50	0.85
EM883996	1.0	4	1.5	4	45	0.95
EM883010	1.0	4	1.5	6	45	0.95
EM883912	1.0	4	1.5	8	45	0.95
EM883913	1.0	4	1.5	10	45	0.95

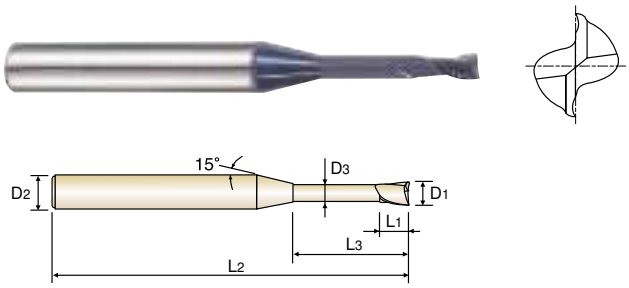
◎ : 优(Excellent)　○ : 良(Good)

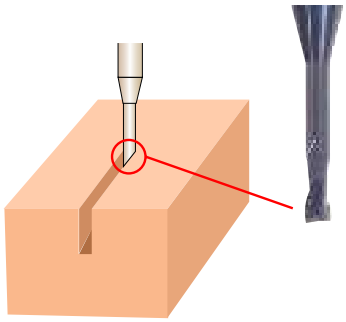
碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○				

X-POWER END MILLS

EM883 SERIES PLAIN SHANK

硬质合金，2刃 深腔加工用铣刀
CARBIDE, 2 FLUTE for RIB PROCESSING





MG HM | 2 | 30° | PLAIN P.687

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EM883914	1.0	4	1.5	12	45	0.95
EM883997	1.0	4	1.5	16	50	0.95
EM883998	1.0	4	1.5	20	55	0.95
EM883012	1.2	4	1.8	6	45	1.15
EM883915	1.2	4	1.8	8	45	1.15
EM883916	1.2	4	1.8	10	45	1.15
EM883917	1.2	4	1.8	12	45	1.15
EM883999	1.2	4	1.8	16	50	1.15
EM883824	1.4	4	2.1	6	45	1.35
EM883918	1.4	4	2.1	8	45	1.35
EM883919	1.4	4	2.1	10	45	1.35
EM883920	1.4	4	2.1	12	45	1.35
EM883921	1.4	4	2.1	14	50	1.35
EM883922	1.4	4	2.1	16	50	1.35
EM883825	1.4	4	2.1	22	55	1.35
EM883015	1.5	4	2.3	6	45	1.45
EM883923	1.5	4	2.3	8	45	1.45
EM883924	1.5	4	2.3	10	45	1.45
EM883925	1.5	4	2.3	12	45	1.45
EM883926	1.5	4	2.3	14	50	1.45
EM883927	1.5	4	2.3	16	50	1.45
EM883928	1.5	4	2.3	18	55	1.45
EM883810	1.5	4	2.3	20	55	1.45
EM883930	1.6	4	2.4	6	45	1.55
EM883016	1.6	4	2.4	8	45	1.55
EM883931	1.6	4	2.4	10	45	1.55
EM883932	1.6	4	2.4	12	45	1.55
EM883826	1.6	4	2.4	14	50	1.55
EM883827	1.6	4	2.4	16	50	1.55
EM883828	1.6	4	2.4	18	55	1.55
EM883829	1.6	4	2.4	20	55	1.55
EM883830	1.6	4	2.4	26	60	1.55

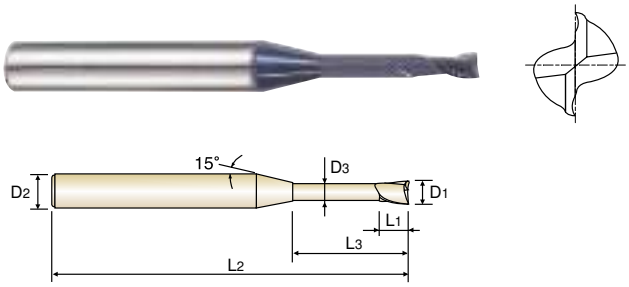
◎ : 优(Excellent)　○ : 良(Good)

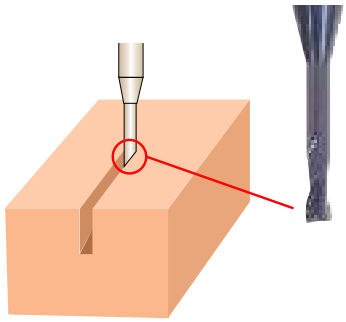
碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○				

X-POWER END MILLS

EM883 SERIES PLAIN SHANK

硬质合金，2刃 深腔加工用铣刀
CARBIDE, 2 FLUTE for RIB PROCESSING





MG HM | 2 | 30° | PLAIN | P.687

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EM883018	1.8	4	2.7	6	45	1.75
EM883944	1.8	4	2.7	8	45	1.75
EM883945	1.8	4	2.7	10	45	1.75
EM883946	1.8	4	2.7	12	45	1.75
EM883947	1.8	4	2.7	14	50	1.75
EM883948	1.8	4	2.7	16	50	1.75
EM883949	1.8	4	2.7	18	55	1.75
EM883950	1.8	4	2.7	20	55	1.75
EM883831	1.8	4	2.7	25	60	1.75
EM883958	2.0	4	3.0	6	45	1.95
EM883020	2.0	4	3.0	8	45	1.95
EM883959	2.0	4	3.0	10	45	1.95
EM883960	2.0	4	3.0	12	45	1.95
EM883961	2.0	4	3.0	14	50	1.95
EM883962	2.0	4	3.0	16	50	1.95
EM883963	2.0	4	3.0	18	55	1.95
EM883964	2.0	4	3.0	20	55	1.95
EM883966	2.0	4	3.0	25	60	1.95
EM883814	2.0	4	3.0	30	70	1.95
EM883967	2.5	4	3.7	8	45	2.40
EM883025	2.5	4	3.7	10	45	2.40
EM883968	2.5	4	3.7	12	45	2.40
EM883969	2.5	4	3.7	14	50	2.40
EM883970	2.5	4	3.7	16	55	2.40
EM883971	2.5	4	3.7	18	55	2.40
EM883972	2.5	4	3.7	20	60	2.40
EM883973	2.5	4	3.7	25	70	2.40
EM883974	2.5	4	3.7	30	80	2.40
EM883030	3.0	6	4.5	8	45	2.85
EM883975	3.0	6	4.5	10	45	2.85
EM883976	3.0	6	4.5	12	45	2.85
EM883977	3.0	6	4.5	14	50	2.85

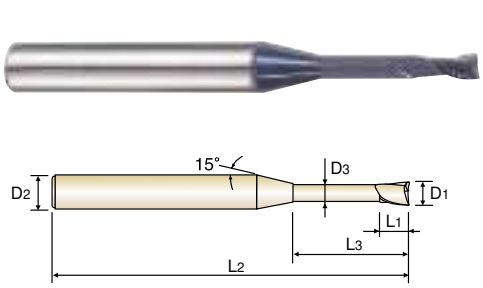
◎ : 优(Excellent)　○ : 良(Good)

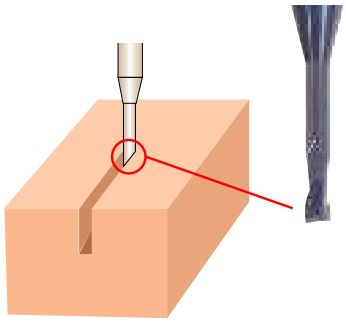
碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○				

X-POWER END MILLS

EM883 SERIES PLAIN SHANK

硬质合金, 2刃 深腔加工用铣刀
CARBIDE, 2 FLUTE for RIB PROCESSING





MG HM | 2 | 30° | PLAIN P.687

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EM883978	3.0	6	4.5	16	55	2.85
EM883979	3.0	6	4.5	18	55	2.85
EM883980	3.0	6	4.5	20	60	2.85
EM883981	3.0	6	4.5	25	65	2.85
EM883832	3.0	6	4.5	30	70	2.85
EM883833	3.0	6	4.5	35	80	2.85
EM883983	3.0	6	4.5	40	90	2.85
EM883040	4.0	6	6	12	50	3.85
EM883801	4.0	6	6	16	60	3.85
EM883802	4.0	6	6	20	60	3.85
EM883803	4.0	6	6	25	70	3.85
EM883834	4.0	6	6	30	70	3.85
EM883835	4.0	6	6	35	80	3.85
EM883836	4.0	6	6	40	90	3.85
EM883837	4.0	6	6	45	90	3.85
EM883838	4.0	6	6	50	100	3.85
EM883050	5.0	6	7.5	16	60	4.85
EM883804	5.0	6	7.5	20	60	4.85
EM883805	5.0	6	7.5	25	70	4.85
EM883806	5.0	6	7.5	30	80	4.85
EM883839	5.0	6	7.5	35	80	4.85
EM883840	5.0	6	7.5	40	80	4.85
EM883841	5.0	6	7.5	50	110	4.85
EM883060	6.0	6	9	20	80	5.85
EM883807	6.0	6	9	30	90	5.85
EM883808	6.0	6	9	40	100	5.85
EM883809	6.0	6	9	50	110	5.85

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.015	h6

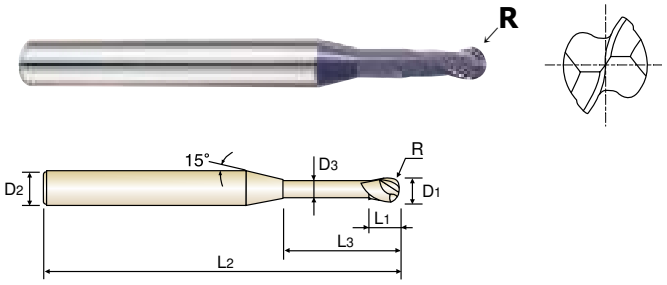
◎ : 优(Excellent) ○ : 良(Good)

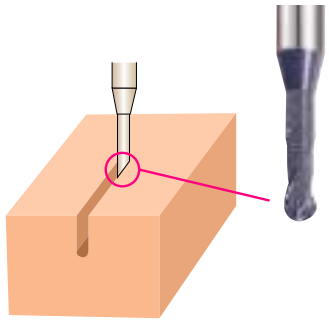
碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○				

X-POWER END MILLS

EM886 SERIES PLAIN SHANK

硬质合金，2刃 球头 深腔加工用铣刀
CARBIDE, 2 FLUTE BALL NOSE for RIB PROCESSING





MG HM | 2 | 30° | R ±0.01 | PLAIN | P.688

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EM886004	R0.2	0.4	4	0.6	1	45	0.37
EM886960	R0.2	0.4	4	0.6	2	45	0.37
EM886961	R0.2	0.4	4	0.6	3	45	0.37
EM886005	R0.25	0.5	4	0.7	2	45	0.45
EM886962	R0.25	0.5	4	0.7	4	45	0.45
EM886963	R0.25	0.5	4	0.7	6	45	0.45
EM886964	R0.25	0.5	4	0.7	8	45	0.45
EM886957	R0.3	0.6	4	0.9	2	45	0.55
EM886915	R0.3	0.6	4	0.9	4	45	0.55
EM886006	R0.3	0.6	3	0.9	6	35	0.55
EM886916	R0.3	0.6	4	0.9	6	45	0.55
EM886917	R0.3	0.6	4	0.9	8	45	0.55
EM886918	R0.4	0.8	4	1.2	2	45	0.75
EM886919	R0.4	0.8	4	1.2	4	45	0.75
EM886008	R0.4	0.8	4	1.2	6	45	0.75
EM886901	R0.4	0.8	4	1.2	8	45	0.75
EM886965	R0.4	0.8	4	1.2	10	45	0.75
EM886920	R0.5	1.0	4	1.5	3	45	0.95
EM886921	R0.5	1.0	4	1.5	4	45	0.95
EM886923	R0.5	1.0	4	1.5	5	45	0.95
EM886010	R0.5	1.0	4	1.5	6	45	0.95
EM886924	R0.5	1.0	4	1.5	7	45	0.95
EM886902	R0.5	1.0	4	1.5	8	45	0.95
EM886925	R0.5	1.0	4	1.5	9	45	0.95
EM886903	R0.5	1.0	4	1.5	10	45	0.95
EM886904	R0.5	1.0	4	1.5	12	45	0.95
EM886926	R0.5	1.0	4	1.5	14	50	0.95
EM886927	R0.5	1.0	4	1.5	16	50	0.95
EM886966	R0.5	1.0	4	1.5	20	55	0.95
EM886012	R0.6	1.2	4	1.8	8	45	1.15
EM886905	R0.6	1.2	4	1.8	12	45	1.15
EM886928	R0.7	1.4	4	2.1	8	45	1.35

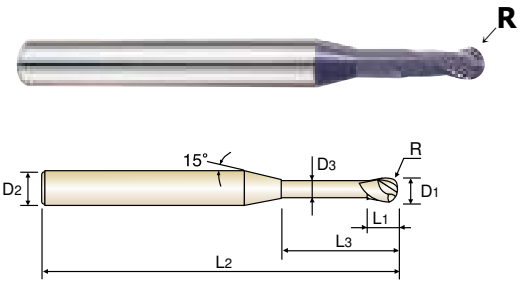
◎ : 优(Excellent)　○ : 良(Good)

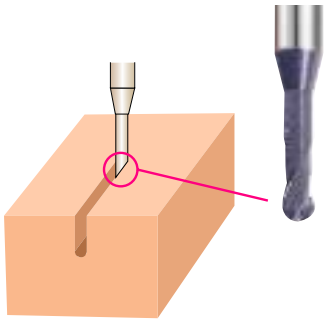
碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○				

X-POWER END MILLS

EM886 SERIES PLAIN SHANK

硬质合金，2刃 球头 深腔加工用铣刀
CARBIDE, 2 FLUTE BALL NOSE for RIB PROCESSING





MG HM | 2 | 30° | R ±0.01 | PLAIN

P.688

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EM886014	R0.7	1.4	4	2.1	12	45	1.35
EM886929	R0.7	1.4	4	2.1	16	50	1.35
EM886930	R0.75	1.5	4	2.3	6	45	1.45
EM886015	R0.75	1.5	4	2.3	8	45	1.45
EM886931	R0.75	1.5	4	2.3	10	45	1.45
EM886906	R0.75	1.5	4	2.3	12	45	1.45
EM886907	R0.75	1.5	4	2.3	16	50	1.45
EM886932	R0.75	1.5	4	2.3	20	55	1.45
EM886933	R0.8	1.6	4	2.4	8	45	1.55
EM886934	R0.8	1.6	4	2.4	12	45	1.55
EM886016	R0.8	1.6	4	2.4	16	50	1.55
EM886935	R0.8	1.6	4	2.4	20	55	1.55
EM886936	R0.9	1.8	4	2.7	8	45	1.75
EM886937	R0.9	1.8	4	2.7	12	45	1.75
EM886018	R0.9	1.8	4	2.7	16	50	1.75
EM886938	R0.9	1.8	4	2.7	20	55	1.75
EM886939	R1.0	2.0	4	3	4	45	1.95
EM886940	R1.0	2.0	4	3	6	45	1.95
EM886020	R1.0	2.0	4	3	8	45	1.95
EM886941	R1.0	2.0	4	3	10	45	1.95
EM886942	R1.0	2.0	4	3	12	50	1.95
EM886943	R1.0	2.0	4	3	14	50	1.95
EM886909	R1.0	2.0	4	3	16	50	1.95
EM886910	R1.0	2.0	4	3	20	55	1.95
EM886944	R1.0	2.0	4	3	22	60	1.95
EM886945	R1.0	2.0	4	3	25	60	1.95
EM886967	R1.0	2.0	4	3	30	70	1.95
EM886946	R1.5	3.0	6	4.5	8	50	2.85
EM886947	R1.5	3.0	6	4.5	10	50	2.85
EM886948	R1.5	3.0	6	4.5	12	50	2.85
EM886030	R1.5	3.0	6	4.5	16	55	2.85
EM886911	R1.5	3.0	6	4.5	20	60	2.85

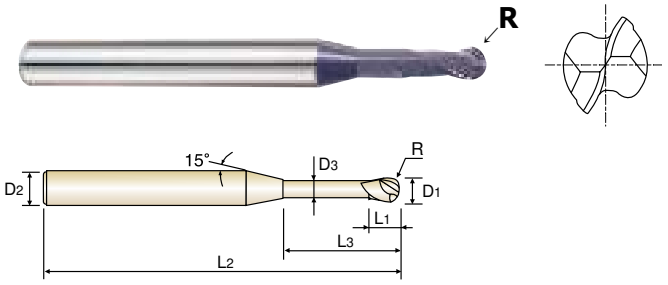
◎ : 优(Excellent)　○ : 良(Good)

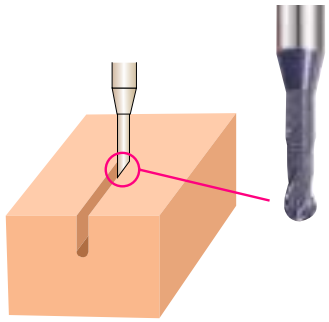
碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○				

X-POWER END MILLS

EM886 SERIES PLAIN SHANK

硬质合金，2刃 球头 深腔加工用铣刀
CARBIDE, 2 FLUTE BALL NOSE for RIB PROCESSING





MG HM | 2 | 30° | R ±0.01 | PLAIN | P.688

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EM886968	R1.5	3.0	6	4.5	25	65	2.85
EM886969	R1.5	3.0	6	4.5	30	70	2.85
EM886970	R1.5	3.0	6	4.5	35	80	2.85
EM886949	R2.0	4.0	6	6	10	60	3.85
EM886950	R2.0	4.0	6	6	12	60	3.85
EM886040	R2.0	4.0	6	6	16	60	3.85
EM886912	R2.0	4.0	6	6	20	65	3.85
EM886913	R2.0	4.0	6	6	25	70	3.85
EM886971	R2.0	4.0	6	6	30	70	3.85
EM886972	R2.0	4.0	6	6	35	80	3.85
EM886973	R2.0	4.0	6	6	40	90	3.85
EM886974	R2.0	4.0	6	6	45	90	3.85
EM886975	R2.0	4.0	6	6	50	100	3.85
EM886050	R2.5	5.0	6	7.5	16	60	4.85
EM886951	R2.5	5.0	6	7.5	20	60	4.85
EM886952	R2.5	5.0	6	7.5	25	70	4.85
EM886953	R2.5	5.0	6	7.5	30	80	4.85
EM886976	R2.5	5.0	6	7.5	35	80	4.85
EM886060	R3.0	6.0	6	9	20	80	5.85
EM886954	R3.0	6.0	6	9	30	90	5.85
EM886955	R3.0	6.0	6	9	40	100	5.85
EM886956	R3.0	6.0	6	9	50	110	5.85

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.02	h6

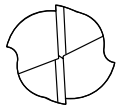
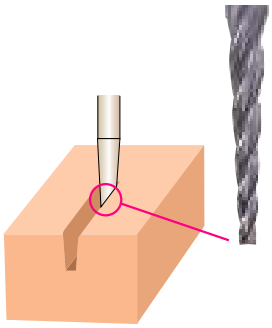
◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○				

X-POWER END MILLS

EM889 SERIES PLAIN SHANK

硬质合金，4刃 25度螺旋角 锥度 深腔加工用铣刀
CARBIDE, 4 FLUTE 25° HELIX TAPER for RIB PROCESSING

MG HM | 4 | 25° | PLAIN | P.689

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	锥度 Taper Angle
EM889952	1.0	4	8	45	30′
EM889954	1.0	4	12	45	30′
EM889010	1.0	4	8	45	1°
EM889959	1.0	4	12	45	1°
EM889960	1.0	4	8	45	1° 30′
EM889962	1.0	4	12	45	1° 30′
EM889963	1.0	4	8	45	2°
EM889965	1.0	4	12	45	2°
EM889968	1.2	4	8	45	30′
EM889970	1.2	4	12	45	30′
EM889012	1.2	4	8	45	1°
EM889977	1.2	4	12	45	1°
EM889979	1.2	4	8	45	1° 30′
EM889981	1.2	4	12	45	1° 30′
EM889983	1.2	4	8	45	2°
EM889985	1.2	4	12	45	2°
EM889987	1.5	4	8	45	30′
EM889991	1.5	4	12	45	30′
EM889992	1.5	4	16	50	30′
EM889015	1.5	4	8	45	1°
EM889801	1.5	4	12	45	1°
EM889802	1.5	4	16	50	1°
EM889804	1.5	4	8	45	1° 30′
EM889806	1.5	4	12	45	1° 30′
EM889807	1.5	4	16	50	1° 30′
EM889809	1.5	4	8	45	2°
EM889811	1.5	4	12	45	2°
EM889812	1.5	4	16	50	2°

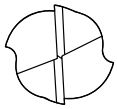
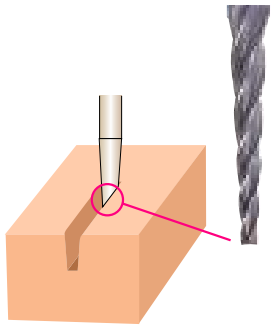
◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○				

X-POWER END MILLS

EM889 SERIES PLAIN SHANK

硬质合金，4刃 25度螺旋角 锥度 深腔加工用铣刀
CARBIDE, 4 FLUTE 25° HELIX TAPER for RIB PROCESSING

MG HM | 4 | 25° | PLAIN

P.689

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	锥度 Taper Angle
EM889869	2.0	4	12	45	30′
EM889870	2.0	4	16	50	30′
EM889878	2.0	4	12	45	1°
EM889879	2.0	4	16	50	1°
EM889883	2.0	4	12	45	1° 30′
EM889884	2.0	4	16	50	1° 30′
EM889888	2.0	4	12	45	2°
EM889889	2.0	4	16	50	2°

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance	锥度公差 Taper Angle Tolerance
0~−0.015	0~−0.008	±5′

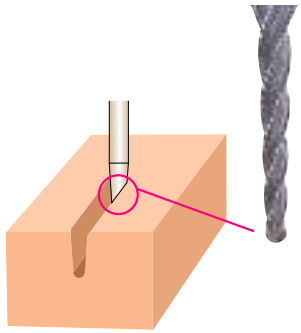
◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○				

X-POWER END MILLS

EM890 SERIES PLAIN SHANK

硬质合金，4刃 25度螺旋角 锥度 球头 深腔加工用铣刀
CARBIDE, 4 FLUTE 25° HELIX TAPER BALL NOSE for RIB PROCESSING



MG HM | 4 | 25° | R ±0.01 | PLAIN P.689

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	锥度 Taper Angle
EM890909	R0.5	1.0	4	8	45	30′
EM890911	R0.5	1.0	4	12	45	30′
EM890010	R0.5	1.0	4	8	45	1°
EM890916	R0.5	1.0	4	12	45	1°
EM890917	R0.5	1.0	4	8	45	1° 30′
EM890919	R0.5	1.0	4	12	45	1° 30′
EM890920	R0.5	1.0	4	8	45	2°
EM890922	R0.5	1.0	4	12	45	2°
EM890923	R0.6	1.2	4	8	45	30′
EM890925	R0.6	1.2	4	12	45	30′
EM890012	R0.6	1.2	4	8	45	1°
EM890932	R0.6	1.2	4	12	45	1°
EM890934	R0.6	1.2	4	8	45	1° 30′
EM890936	R0.6	1.2	4	12	45	1° 30′
EM890938	R0.6	1.2	4	8	45	2°
EM890940	R0.6	1.2	4	12	45	2°
EM890942	R0.75	1.5	4	8	45	30′
EM890944	R0.75	1.5	4	12	45	30′
EM890945	R0.75	1.5	4	16	50	30′
EM890015	R0.75	1.5	4	8	45	1°
EM890953	R0.75	1.5	4	12	45	1°
EM890954	R0.75	1.5	4	16	50	1°
EM890956	R0.75	1.5	4	8	45	1° 30′
EM890958	R0.75	1.5	4	12	45	1° 30′
EM890959	R0.75	1.5	4	16	50	1° 30′
EM890961	R0.75	1.5	4	8	45	2°
EM890963	R0.75	1.5	4	12	45	2°
EM890964	R0.75	1.5	4	16	50	2°

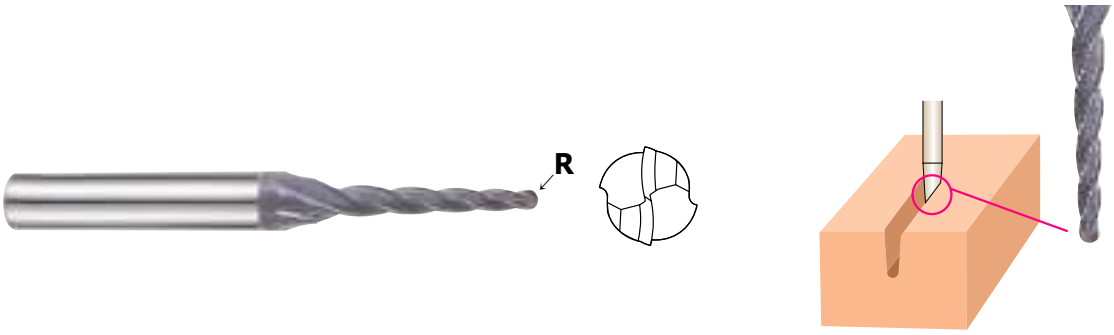
◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○				

X-POWER END MILLS

EM890 SERIES PLAIN SHANK

硬质合金，4刃 25度螺旋角 锥度 球头 深腔加工用铣刀
CARBIDE, 4 FLUTE 25° HELIX TAPER BALL NOSE for RIB PROCESSING



MG HM | 4 | 25° | R ±0.01 | PLAIN

P.689

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	锥度 Taper Angle
EM890816	R1.0	2.0	4	12	45	30′
EM890817	R1.0	2.0	4	16	50	30′
EM890825	R1.0	2.0	4	12	45	1°
EM890826	R1.0	2.0	4	16	50	1°
EM890830	R1.0	2.0	4	12	45	1° 30′
EM890831	R1.0	2.0	4	16	50	1° 30′
EM890835	R1.0	2.0	4	12	45	2°
EM890836	R1.0	2.0	4	16	50	2°

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance	锥度公差 Taper Angle Tolerance
0~−0.015	0~−0.008	±5′

◎ : 优(Excellent) ○ : 良(Good)

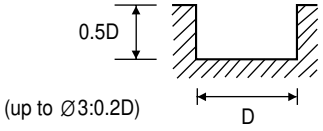
碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎	○				○				

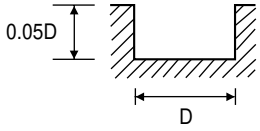
X-POWER END MILLS 推荐的切削条件 RECOMMENDED CUTTING CONDITIONS

硬质合金, 2刃 短刃 - 开槽
CARBIDE, 2 FLUTE SHORT - SLOTTING

EM810, EM820 SERIES

材质	非合金钢, 合金钢, 铸铁		合金钢, 耐热钢		不锈钢		硬化钢		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		STAINLESS STEELS		HARDENED STEELS		HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc45				HRc45 ~ HRc55		HRc55 ~ HRc65	
STRENGTH	~ 1000N/mm²		1000 ~ 1500N/mm²				1500 ~ 2000N/mm²		2000N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	9250	190	6050	120	5050	90	4030	35		
3.0	7150	210	4450	140	3700	120	2690	40	1900	40
4.0	6050	300	3700	180	3100	150	2350	40	1480	40
5.0	5050	320	3020	190	2530	160	1860	50	1260	40
6.0	4450	350	2690	220	2270	180	1600	55	1100	40
8.0	3360	380	2020	200	1680	180	1350	75	840	40
10.0	2600	330	1600	160	1350	160	1090	60	680	35
12.0	2200	280	1350	130	1090	130	930	55	560	35
16.0	1760	220	1090	110	850	110	720	40	440	20
20.0	1350	170	850	80	670	80	550	30	320	20
25.0	1090	130	670	70	550	60	430	20	260	15





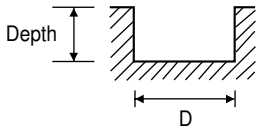
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 2刃 微型 - 开槽
CARBIDE, 2 FLUTE MINIATURE - SLOTTING

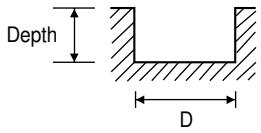
EM810 SERIES

材质	合金钢, 耐热钢		硬化钢	
MATERIAL	ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS	
HARDNESS	HRc30 ~ HRc45		HRc45 ~ HRc55	
STRENGTH	1000 ~ 1500N/mm²		1500 ~ 2000N/mm²	
DIAMETER	RPM	FEED	RPM	FEED
0.4	30000	90	23000	50
0.8	24000	150	18000	65
1.0	20000	160	15000	75
1.2	16000	160	12000	75
1.5	12000	150	9000	70

D < 1
Depth=0.15 × D
D ≧ 1
Depth=0.25 × D



D < 1
Depth=0.02 × D
D ≧ 1
Depth=0.05 × D



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

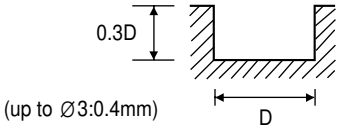
X-POWER END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

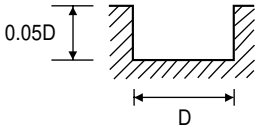
硬质合金，2刃 长刃 - 开槽
CARBIDE, 2 FLUTE LONG - SLOTTING

EM816, EM826 SERIES

材质	非合金钢，合金钢，铸铁		合金钢，耐热钢		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc45		HRc45 ~ HRc55	
STRENGTH	~ 1000N/mm²		1000 ~ 1500N/mm²		1500 ~ 2000N/mm²	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
2.0	7560	70	6050	60	3780	30
3.0	5290	85	4280	70	2640	35
4.0	4280	100	3410	85	2150	40
5.0	3660	125	2900	100	1900	45
6.0	3160	150	2520	125	1640	60
8.0	2400	160	1900	125	1260	60
10.0	2020	160	1640	125	1010	60
12.0	1640	125	1390	115	840	45
16.0	1390	115	1070	90	670	40
20.0	1010	85	820	60	500	30



(up to Ø3:0.4mm)



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

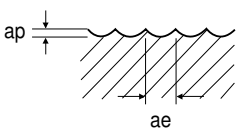
硬质合金，2刃 微型 球头
CARBIDE, 2 FLUTE MINIATURE BALL NOSE

EM865 SERIES

材质	非合金钢，合金钢，铸铁		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		HARDENED STEELS	
HARDNESS	HRc30 ~ HRc45		HRc45 ~ HRc55	
STRENGTH	1000 ~ 1500N/mm²		1500 ~ 2000N/mm²	
DIAMETER	RPM	FEED	RPM	FEED
R0.3 × 0.6	30000	510	30000	360
R0.4 × 0.8	27000	560	27000	330
R0.5 × 1.0	25000	560	25000	340
R0.6 × 1.2	24000	570	24000	350
R0.75 × 1.5	23000	600	23000	370
R1.0 × 2.0	19000	570	19000	320
R1.5 × 3.0	14000	480	14000	280

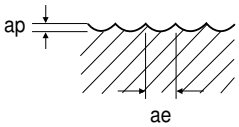
D<1
ap=0.05×D
ae=0.15×D

D≧1
ap=0.075×D
ae=0.15×D



D<1
ap=0.05×D
ae=0.1×D

D≧1
ap=0.05×D
ae=0.15×D



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

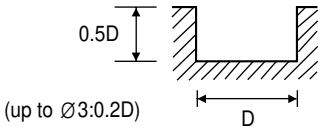
X-POWER END MILLS

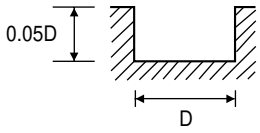
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 3刃 – 开槽
CARBIDE, 3 FLUTE - SLOTTING

EM895, EM896, EM836, EM846 SERIES

材质	非合金钢, 合金钢, 铸铁		合金钢, 耐热钢		不锈钢		硬化钢		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		STAINLESS STEELS		HARDENED STEELS		HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc45				HRc45 ~ HRc55		HRc55 ~ HRc65	
STRENGTH	~ 1000N/mm²		1000 ~ 1500N/mm²				1500 ~ 2000N/mm²		2000N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	11560	170	7560	110	6300	80	5040	30		
3.0	8920	190	5560	130	4620	110	3360	35	1900	40
4.0	7560	270	4620	160	3880	130	2940	35	1480	35
5.0	6300	280	3780	170	3160	140	2320	45	1260	35
6.0	5560	310	3360	200	2840	160	2000	50	1100	35
8.0	4200	340	2520	180	2100	160	1680	65	840	35
10.0	3260	300	2000	140	1680	145	1360	55	680	30
12.0	2740	250	1680	120	1360	120	1160	50	560	30
16.0	2200	200	1360	100	1060	100	900	35	440	20
18.0	1940	175	1210	85	950	85	790	30	380	20
20.0	1680	150	1060	70	840	70	680	25	320	20



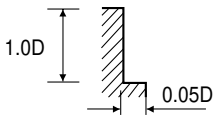


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 3刃 – 侧铣
CARBIDE, 3 FLUTE - SIDE CUTTING

EM895, EM896, EM836, EM846 SERIES

材质	非合金钢, 合金钢, 铸铁		合金钢, 耐热钢		不锈钢		硬化钢		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		STAINLESS STEELS		HARDENED STEELS		HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc45				HRc45 ~ HRc55		HRc55 ~ HRc65	
STRENGTH	~ 1000N/mm²		1000 ~ 1500N/mm²				1500 ~ 2000N/mm²		2000N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	11560	210	7560	140	6300	115	5040	30		
3.0	8920	240	5560	150	4620	125	3360	40	1900	45
4.0	7560	430	4620	260	3880	210	2940	45	1480	45
5.0	6300	450	3780	270	3160	230	2320	55	1260	45
6.0	5560	500	3360	310	2840	250	2000	60	1100	45
8.0	4200	530	2520	290	2100	265	1680	80	840	45
10.0	3260	460	2000	230	1680	230	1360	70	680	35
12.0	2740	390	1680	190	1360	180	1160	60	560	35
16.0	2200	310	1360	150	1060	150	900	45	440	20
18.0	1940	280	1210	135	950	130	790	35	380	20
20.0	1680	240	1060	120	840	115	680	30	320	20



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

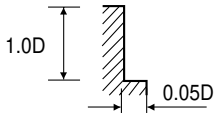
X-POWER END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 4刃 短刃 - 侧铣
CARBIDE, 4 FLUTE SHORT - SIDE CUTTING

EM811, EM821 SERIES

材质	非合金钢, 合金钢, 铸铁		合金钢, 耐热钢		不锈钢		硬化钢		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		STAINLESS STEELS		HARDENED STEELS		HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc45				HRc45 ~ HRc55		HRc55 ~ HRc65	
STRENGTH	~ 1000N/mm²		1000 ~ 1500N/mm²				1500 ~ 2000N/mm²		2000N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	11560	280	7560	170	6300	140	5040	50		
3.0	8920	320	5560	200	4620	170	3360	60	1900	50
4.0	7560	570	4620	350	3880	280	2940	60	1480	50
5.0	6300	600	3780	360	3160	300	2320	70	1260	50
6.0	5560	660	3360	410	2840	330	2000	80	1100	50
8.0	4200	710	2520	380	2100	350	1680	110	840	50
10.0	3260	610	2000	300	1680	300	1360	90	680	40
12.0	2740	520	1680	250	1360	240	1160	80	560	40
16.0	2200	410	1360	200	1100	200	900	60	440	25
20.0	1680	320	1060	160	840	150	680	40	320	25
25.0	1360	250	840	130	680	120	540	30	260	20

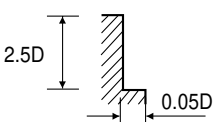


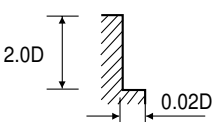
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 4刃 长刃 - 侧铣
CARBIDE, 4 FLUTE LONG - SIDE CUTTING

EM817, EM827 SERIES

材质	非合金钢, 合金钢, 铸铁		合金钢, 耐热钢		硬化钢		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS		HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc45		HRc45 ~ HRc55		HRc55 ~ HRc65	
STRENGTH	~ 1000N/mm²		1000 ~ 1500N/mm²		1500 ~ 2000N/mm²		2000N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	8820	200	5040	80	3150	45		
3.0	6170	230	3570	100	2200	55	1890	30
4.0	5000	280	2840	115	1790	60	1470	35
5.0	4270	360	2420	140	1580	70	1260	40
6.0	3680	430	2100	180	1370	90	1160	50
8.0	2800	460	1580	180	1050	90	840	50
10.0	2350	460	1370	180	840	90	670	50
12.0	1920	360	1160	160	700	70	560	40
16.0	1620	320	890	125	560	60	440	35
20.0	1180	230	680	90	420	45	340	25





RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

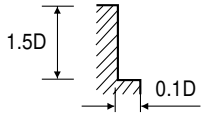
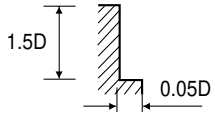
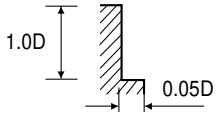
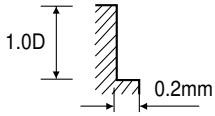
X-POWER END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 6&8刃 45度螺旋角 长刃铣刀 - 侧铣
CARBIDE, 6&8 FLUTE 45° HELIX LONG - SIDE CUTTING

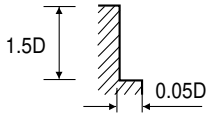
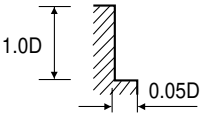
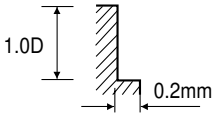
EM812, EM822 SERIES

■ 正常速度 / NORMAL SPEED

材质	非合金钢, 合金钢		合金钢, 耐热钢		硬化钢		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS		ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS		HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc50		HRc50 ~ HRc60		HRc60 ~ HRc65	
STRENGTH	~ 1000N/mm²		1000 ~ 1750N/mm²		1750 ~ 2080N/mm²		2080N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6.0	5560	2000	3880	1370	1580	210	1100	130
8.0	4200	2000	2940	1370	1160	210	840	130
10.0	3360	2000	2320	1370	1000	210	680	130
12.0	2840	1680	2000	1160	840	180	560	110
16.0	2100	1260	1480	880	640	130	420	70
20.0	1680	1010	1160	690	500	110	320	60
25.0	1500	900	1100	600	430	90	260	50
								

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

■ 高速 / HIGH SPEED

材质	耐热钢, 硬化钢		硬化钢		硬化钢	
MATERIAL	HEAT RESISTANT STEELS HARDENED STEELS		HARDENED STEELS		HARDENED STEELS	
HARDNESS	~ HRc50		HRc50 ~ HRc60		HRc60 ~ HRc65	
STRENGTH	~ 1750N/mm²		1750 ~ 2080N/mm²		2080N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
6.0	16800	6090	8400	3050	4200	1470
8.0	12600	6090	6300	3050	3160	1470
10.0	9980	5990	5040	3050	2520	1470
12.0	8400	5040	4200	2520	2100	1260
16.0	6300	3780	3160	1890	1580	950
20.0	5040	3050	2520	1470	1260	760
25.0	4500	2700	2200	1300	1120	670
						

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

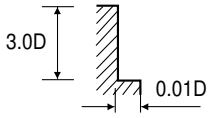
X-POWER END MILLS

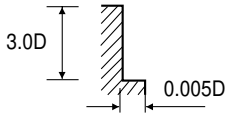
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 6刃 45度螺旋角 超长刃铣刀 - 侧铣
CARBIDE, 6 FLUTE 45° HELIX EXTRA LONG - SIDE CUTTING

EM834, EM844 SERIES

材质	非合金钢, 合金钢		合金钢, 耐热钢		硬化钢		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS		ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS		HARDENED STEELS	
HARDNESS	~ HRc40		HRc40 ~ HRc50		HRc50 ~ HRc60		HRc60 ~ HRc65	
STRENGTH	~ 1250N/mm²		1250 ~ 1750N/mm²		1750 ~ 2080N/mm²		2080N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6.0	2230	470	1670	350	1390	250	1110	200
8.0	1670	450	1250	330	1050	240	840	180
10.0	1330	440	1000	300	840	230	680	160
12.0	1110	400	840	270	690	210	560	150
16.0	840	330	630	230	530	170	420	130
20.0	670	280	500	200	420	150	320	120
25.0	540	240	400	170	340	130	270	95





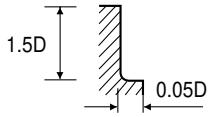
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

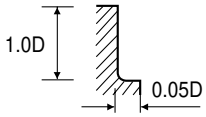
硬质合金, 6刃 45度螺旋角 圆鼻铣刀 - 侧铣
CARBIDE, 6 FLUTE 45° HELIX CORNER RADIUS - SIDE CUTTING

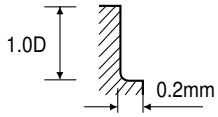
EM835, EM845 SERIES

■ 高速 / HIGH SPEED

材质	合金钢, 耐热钢		硬化钢		硬化钢	
MATERIAL	ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS		HARDENED STEELS	
HARDNESS	~ HRc50		HRc50 ~ HRc60		HRc60 ~ HRc65	
STRENGTH	~ 1750N/mm²		1750 ~ 2080N/mm²		2080N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
6.0	16800	6090	8400	3050	4200	1470
8.0	12600	6090	6300	3050	3150	1470
10.0	9980	5990	5040	3050	2520	1470
12.0	8400	5040	4200	2520	2100	1260
16.0	6300	3780	3150	1890	1580	950
20.0	5040	3050	2520	1470	1260	760







RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

X-POWER END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

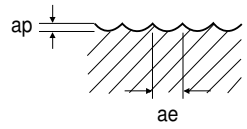
硬质合金, 2刃 球头
CARBIDE, 2 FLUTE BALL NOSE

EM876, EM877, EM813, EM823, EM878, EM879 SERIES

■ 正常速度 / NORMAL SPEED

材质 MATERIAL	非合金钢, 合金钢, 铸铁 NON-ALLOYED STEELS ALLOY STEELS CAST IRON		合金钢, 耐热钢 ALLOY STEELS HEAT RESISTANT STEELS		硬化钢 HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc40		HRc45 ~ HRc65	
STRENGTH	~ 1000N/mm²		1000 ~ 1250N/mm²		1500N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
R0.5 × 1.0	15760	250	12720	200	5800	90
R0.75 × 1.5	15760	350	12140	270	5320	120
R1.0 × 2.0	14400	750	10700	490	4680	150
R1.25 × 2.5	14400	750	10700	490	4680	150
R1.5 × 3.0	13100	680	10000	460	4520	150
R2.0 × 4.0	10500	740	8400	530	4200	180
R2.5 × 5.0	9140	820	7300	580	3680	180
R3.0 × 6.0	8490	1020	6900	830	3180	190
R4.0 × 8.0	7160	1290	5770	920	2470	220
R5.0 × 10.0	6370	1530	5090	1020	2040	225
R6.0 × 12.0	5840	1750	4640	1110	1750	245
R8.0 × 16.0	4770	1720	3780	1060	1350	245
R10.0 × 20.0	4140	1660	3260	1040	1110	250

ap: D1~D6=0.2mm
D8~D20=0.3mm
ae: 0.2×D



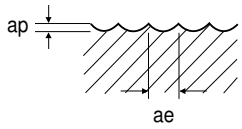
ap: D1~D6=0.2mm
D8~D20=0.3mm
ae: 0.1×D

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

■ 高速 / HIGH SPEED

材质 MATERIAL	非合金钢, 合金钢, 铸铁 NON-ALLOYED STEELS ALLOY STEELS CAST IRON		硬化钢 HARDENED STEELS	
HARDNESS	~ HRc45		HRc45 ~ HRc65	
STRENGTH	~ 1500N/mm²		1500N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED
R0.5 × 1.0	25000	1300	25000	800
R0.75 × 1.5	23000	1400	23000	860
R1.0 × 2.0	21000	1480	21000	940
R1.25 × 2.5	21000	1760	19000	980
R1.5 × 3.0	21000	2000	17000	1040
R2.0 × 4.0	21000	2940	13660	1160
R2.5 × 5.0	21000	3600	12000	1200
R3.0 × 6.0	21000	4000	10500	1250
R4.0 × 8.0	16700	4000	8360	1250
R5.0 × 10.0	14000	3900	7000	1200
R6.0 × 12.0	12200	3900	6100	1160
R8.0 × 16.0	9550	3450	4770	1000
R10.0 × 20.0	7960	3180	3980	920

ap: D1~D6=0.2mm
D8~D20=0.3mm
ae: 0.05×D



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

X-POWER END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

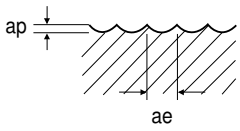
硬质合金, 2刃 球头
CARBIDE, 2 FLUTE BALL NOSE

EM899, EM900 SERIES

■ 正常速度 / NORMAL SPEED

材质	非合金钢, 合金钢, 铸铁		合金钢, 耐热钢		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc40		HRc45 ~ HRc65	
STRENGTH	~ 1000N/mm²		1000 ~ 1250N/mm²		1500N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
R0.5 × 1.0	15760	250	12720	200	5800	90
R0.75 × 1.5	15760	350	12140	270	5320	120
R1.0 × 2.0	14400	750	10700	490	4680	150
R1.25 × 2.5	14400	750	10700	490	4680	150
R1.5 × 3.0	13100	680	10000	460	4520	150
R2.0 × 4.0	10500	740	8400	530	4200	180
R2.5 × 5.0	9140	820	7300	580	3680	180
R3.0 × 6.0	8490	1020	6900	830	3180	190
R4.0 × 8.0	7160	1290	5770	920	2470	220
R5.0 × 10.0	6370	1530	5090	1020	2040	225
R6.0 × 12.0	5840	1750	4640	1110	1750	245
R8.0 × 16.0	4770	1720	3780	1060	1350	245
R10.0 × 20.0	4140	1660	3260	1040	1110	250

ap: D1~D6=0.2mm
D8~D20=0.3mm
ae: 0.2×D



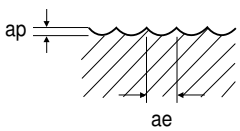
ap: D1~D6=0.2mm
D8~D20=0.3mm
ae: 0.1×D

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

■ 高速 / HIGH SPEED

材质	非合金钢, 合金钢, 铸铁		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		HARDENED STEELS	
HARDNESS	~ HRc45		HRc45 ~ HRc65	
STRENGTH	~ 1500N/mm²		1500N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED
R0.5 × 1.0	25000	1300	25000	800
R0.75 × 1.5	23000	1400	23000	860
R1.0 × 2.0	21000	1480	21000	940
R1.25 × 2.5	21000	1760	19000	980
R1.5 × 3.0	21000	2000	17000	1040
R2.0 × 4.0	21000	2940	13660	1160
R2.5 × 5.0	21000	3600	12000	1200
R3.0 × 6.0	21000	4000	10500	1250
R4.0 × 8.0	16700	4000	8360	1250
R5.0 × 10.0	14000	3900	7000	1200
R6.0 × 12.0	12200	3900	6100	1160
R8.0 × 16.0	9550	3450	4770	1000
R10.0 × 20.0	7960	3180	3980	920

ap: D1~D6=0.2mm
D8~D20=0.3mm
ae: 0.05×D



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

X-POWER END MILLS 推荐的切削条件 RECOMMENDED CUTTING CONDITIONS

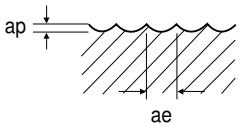
硬质合金, 2刃 长刃 球头
CARBIDE, 2 FLUTE LONG REACH BALL NOSE

EM838, EM848 SERIES

■ 正常速度 / NORMAL SPEED

材质 MATERIAL	非合金钢, 合金钢, 铸铁 NON-ALLOYED STEELS ALLOY STEELS CAST IRON		合金钢, 耐热钢 ALLOY STEELS HEAT RESISTANT STEELS		硬化钢 HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc40		HRc45 ~ HRc65	
STRENGTH	~ 1000N/mm²		1000 ~ 1250N/mm²		1500N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
R0.5 × 1.0	12600	200	10180	160	4640	70
R0.75 × 1.5	12600	280	9710	220	4250	95
R1.0 × 2.0	12600	420	9250	260	3870	90
R1.25 × 2.5	11520	600	8560	390	3740	120
R1.5 × 3.0	10500	540	8000	370	3620	120
R2.0 × 4.0	8400	590	6720	420	3360	140
R2.5 × 5.0	7310	660	5840	460	2940	140
R3.0 × 6.0	6800	820	5500	600	2550	150
R4.0 × 8.0	5700	1030	4600	740	2000	175
R5.0 × 10.0	5100	1220	4070	820	1650	180
R6.0 × 12.0	4700	1400	3700	890	1400	195
R8.0 × 16.0	3800	1380	3000	850	1100	195
R10.0 × 20.0	3300	1330	2600	830	890	200

ap: D1~D6=0.2mm
D8~D20=0.3mm
ae: 0.2×D



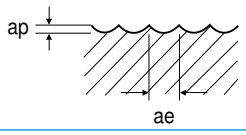
ap: D1~D6=0.2mm
D8~D20=0.3mm
ae: 0.1×D

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

■ 高速 / HIGH SPEED

材质 MATERIAL	非合金钢, 合金钢, 铸铁 NON-ALLOYED STEELS ALLOY STEELS CAST IRON		硬化钢 HARDENED STEELS	
HARDNESS	~ HRc45		HRc45 ~ HRc65	
STRENGTH	~ 1500N/mm²		1500N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED
R0.5 × 1.0	20000	1040	20000	640
R0.75 × 1.5	18400	1100	18400	690
R1.0 × 2.0	16800	1200	16800	750
R1.25 × 2.5	16800	1400	15200	780
R1.5 × 3.0	16800	1600	13600	830
R2.0 × 4.0	16800	2350	10930	930
R2.5 × 5.0	16800	2880	9600	960
R3.0 × 6.0	16800	3200	8400	1000
R4.0 × 8.0	13400	3200	6700	1000
R5.0 × 10.0	11200	3100	5600	960
R6.0 × 12.0	9800	3100	4900	930
R8.0 × 16.0	7600	2750	3800	800
R10.0 × 20.0	6400	2550	3200	740

ap: D1~D6 =0.2mm
D8~D20=0.3mm
ae: 0.05×D



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

X-POWER END MILLS

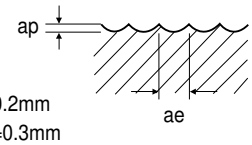
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金，2刃带锥颈球头铣刀
CARBIDE, 2 FLUTE BALL NOSE with TAPER NECK

EM902, EM904 SERIES

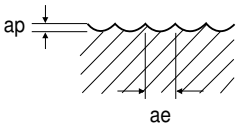
■ 正常速度 / NORMAL SPEED

材质	合金钢，耐热钢		硬化钢		硬化钢	
MATERIAL	ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS		HARDENED STEELS	
HARDNESS	HRc30 ~ HRc40		HRc40 ~ HRc50		HRc50 ~ HRc55	
STRENGTH	1000 ~ 1250N/mm²		1250 ~ 1750N/mm²		1750 ~ 2000N/mm²	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
R0.5 × 1.0	10180	160	16000	370	16000	320
R1.0 × 2.0	9250	260	11500	640	11300	590
R1.5 × 3.0	8000	370	10200	880	9800	850
R2.0 × 4.0	6720	420	8500	880	8200	850
R2.5 × 5.0	5840	460	7500	880	7200	850
R3.0 × 6.0	5500	660	6900	920	6500	880
R4.0 × 8.0	4600	740	5600	840	5300	800
R5.0 × 10.0	4070	820	4850	800	4650	770
R6.0 × 12.0	3700	890	4350	800	4150	770



ap: D1~D6=0.2mm
D8~D12=0.3mm
ae: 0.2×D

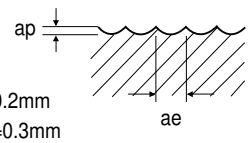
ap: D1~D4=0.05×D
D5~D8=0.25mm
D10~D12=0.30mm
ae: 0.1×D



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

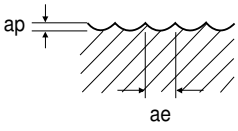
■ 高速 / HIGH SPEED

材质	非合金钢，合金钢，铸铁		硬化钢		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		HARDENED STEELS		HARDENED STEELS	
HARDNESS	~ HRc45		HRc45 ~ HRc50		HRc50 ~ HRc55	
STRENGTH	~ 1500N/mm²		1250 ~ 1750N/mm²		1750 ~ 2000N/mm²	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
R0.5 × 1.0	20000	1040	16000	620	16000	550
R1.0 × 2.0	16800	1200	11500	850	11400	980
R1.5 × 3.0	16800	1600	10200	1400	9800	1300
R2.0 × 4.0	16800	2350	8500	1350	8200	1300
R2.5 × 5.0	16800	2880	7500	1320	7200	1250
R3.0 × 6.0	16800	3200	6900	1400	6600	1350
R4.0 × 8.0	13400	3200	5600	1250	5300	1150
R5.0 × 10.0	11200	3100	4800	1150	4600	1100
R6.0 × 12.0	9800	3100	4350	1130	4150	1050



ap: D1~D6=0.2mm
D8~D12=0.3mm
ae: 0.05×D

ap: D1~D4=0.05×D
D5~D8=0.25mm
D10~D20=0.30mm
ae: 0.05×D



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

X-POWER END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

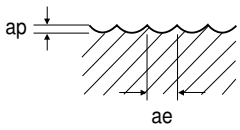
硬质合金, 2刃 超短 球头 加工硬度HRc55以上的材料
CARBIDE, 2 FLUTE STUB LENGTH BALL NOSE for OVER HRc55

G4953, G4954 SERIES

■ 正常速度 / NORMAL SPEED

材质	硬化钢		硬化钢		硬化钢		硬化钢	
MATERIAL	HARDENED STEELS		HARDENED STEELS		HARDENED STEELS		HARDENED STEELS	
HARDNESS	HRc45 ~ HRc50		HRc50 ~ HRc55		HRc55 ~ HRc60		HRc60 ~ HRc70	
STRENGTH	1500 ~ 1750N/mm²		1750 ~ 2000N/mm²		2000 ~ 2080N/mm²		2080N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
R0.5 × 1.0	20000	460	20000	400	20000	350	20000	240
R0.75 × 1.5	16300	640	16100	580	16000	570	14200	360
R1.0 × 2.0	14500	800	14200	740	13850	760	11300	465
R1.25 × 2.5	13400	950	13000	890	12600	920	9600	560
R1.5 × 3.0	12700	1100	12300	1050	11800	1000	8400	660
R2.0 × 4.0	10600	1100	10300	1050	9800	1000	6650	650
R2.5 × 5.0	9400	1100	9050	1050	8600	950	5600	680
R3.0 × 6.0	8600	1150	8250	1100	7850	950	4850	700
R4.0 × 8.0	7000	1050	6700	1000	6350	950	3800	650
R5.0 × 10.0	6050	1000	5800	960	5450	900	3200	620
R6.0 × 12.0	5450	1000	5200	960	4900	900	2750	610
R8.0 × 16.0	4350	870	4150	830	3900	820	2150	265
R10.0 × 20.0	3500	690	3300	650	3150	630	1700	220

ap: D1~D4 = 0.05×D
D5~D8 = 0.25mm
D10~D20 = 0.30mm
ae: D1~D20 = 0.1×D

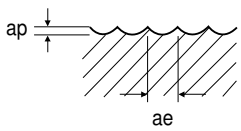


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

■ 高速 / HIGH SPEED

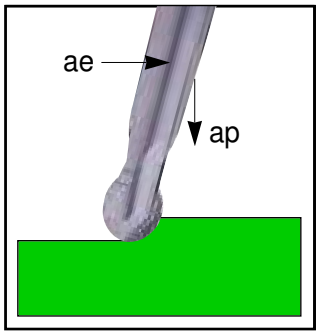
材质	硬化钢		硬化钢		硬化钢	
MATERIAL	HARDENED STEELS		HARDENED STEELS		HARDENED STEELS	
HARDNESS	HRc45 ~ HRc50		HRc50 ~ HRc55		HRc55 ~ HRc70	
STRENGTH	1500 ~ 1750N/mm²		1750 ~ 2000N/mm²		2000N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
R0.5 × 1.0	20000	770	20000	700	20000	410
R0.75 × 1.5	16300	1050	16100	980	16000	580
R1.0 × 2.0	14500	1300	14200	1230	13850	700
R1.25 × 2.5	13400	1500	13000	1430	12600	780
R1.5 × 3.0	12700	1750	12300	1670	11800	860
R2.0 × 4.0	10600	1700	10300	1620	9800	860
R2.5 × 5.0	9400	1650	9050	1570	8600	860
R3.0 × 6.0	8600	1750	8250	1670	7850	865
R4.0 × 8.0	7000	1550	6700	1460	6350	890
R5.0 × 10.0	6050	1450	5800	1360	5450	870
R6.0 × 12.0	5450	1420	5200	1330	4900	785
R8.0 × 16.0	4350	1230	4150	1130	3900	485
R10.0 × 20.0	3500	1000	3300	900	3150	410

ap: D1~D4 = 0.05×D
D5~D8 = 0.25mm
D10~D20 = 0.30mm
ae: D1~D20 = 0.05×D



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金，2刃 球头 MMC
CARBIDE, 2 FLUTE BALL NOSE MMC



▶ ap=0.02×D1
▶ ae=0.05×D1

EM669, EM863 SERIES

■ 正常速度 / NORMAL SPEED

材质	非合金钢，合金钢，铸铁		合金钢，耐热钢		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc40		HRc45 ~ HRc65	
STRENGTH	~ 1000N/mm²		1000 ~ 1250N/mm²		1500N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
R1.5 × 3.0	35000	2800	33000	2600	12000	900
R2.0 × 4.0	26000	2300	25000	2200	9000	800
R2.5 × 5.0	21000	2100	20000	2000	7000	700
R3.0 × 6.0	17000	1900	16000	1800	6000	650
R4.0 × 8.0	13000	1700	12000	1600	4500	550
R5.0 × 10.0	10500	1450	10000	1400	3500	500
R6.0 × 12.0	9000	1400	8000	1300	3000	450
R8.0 × 16.0	6000	1200	5500	1100	2000	400

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

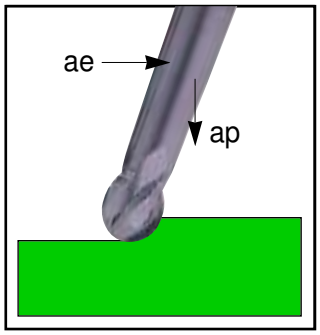
■ 高速 / HIGH SPEED

材质	非合金钢，合金钢，铸铁		合金钢，耐热钢		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc40		HRc45 ~ HRc65	
STRENGTH	~ 1000N/mm²		1000 ~ 1250N/mm²		1500N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
R1.5 × 3.0	47000	3700	44000	3500	17000	1400
R2.0 × 4.0	35000	3200	33000	3000	13000	1200
R2.5 × 5.0	28000	2800	27000	2600	10000	1100
R3.0 × 6.0	23000	2600	22000	2400	8000	950
R4.0 × 8.0	18000	2300	17000	2100	6000	850
R5.0 × 10.0	14000	2000	13000	1900	5000	750
R6.0 × 12.0	12000	1800	11000	1800	4000	700
R8.0 × 16.0	9000	1600	8000	1500	3300	600

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

X-POWER END MILLS 推荐的切削条件 RECOMMENDED CUTTING CONDITIONS

硬质合金，4刃 球头 MMC
CARBIDE, 4 FLUTE BALL NOSE MMC



▶ ap=0.02×D1
▶ ae=0.05×D1

EM673, EM864 SERIES

■ 正常速度 / NORMAL SPEED

材质	非合金钢，合金钢，铸铁		合金钢，耐热钢		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc40		HRc45 ~ HRc65	
STRENGTH	~ 1000N/mm²		1000 ~ 1250N/mm²		1500N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
R2.5 × 5.0	21000	4000	20000	4000	7000	1400
R3.0 × 6.0	17000	4000	16000	3500	6000	1300
R4.0 × 8.0	13000	3500	12000	3000	4500	1100
R5.0 × 10.0	10500	3000	10000	2500	3500	1000
R6.0 × 12.0	9000	2800	8000	2500	3000	950
R8.0 × 16.0	6000	2800	5500	2200	2000	800

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

■ 高速 / HIGH SPEED

材质	非合金钢，合金钢，铸铁		合金钢，耐热钢		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc40		HRc45 ~ HRc65	
STRENGTH	~ 1000N/mm²		1000 ~ 1250N/mm²		1500N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
R2.5 × 5.0	28000	5600	27000	5300	11000	2100
R3.0 × 6.0	23000	5100	22000	4900	9000	1900
R4.0 × 8.0	18000	4600	17000	4300	7000	1700
R5.0 × 10.0	14000	3900	13000	3700	5000	1400
R6.0 × 12.0	12000	3700	11000	3500	4500	1300
R8.0 × 16.0	9000	3100	8000	3000	3300	1100

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

X-POWER END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

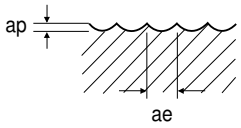
硬质合金，4刃 长刃 球头
CARBIDE, 4 FLUTE LONG BALL NOSE

EM815, EM825 SERIES

■ 正常速度 / NORMAL SPEED

材质	非合金钢，合金钢，铸铁		合金钢，耐热钢		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc40		HRc45 ~ HRc65	
STRENGTH	~ 1000N/mm²		1000 ~ 1250N/mm²		1500N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
R0.5 × 1.0	15760	380	12720	300	5800	130
R0.75 × 1.5	15760	530	12140	410	5320	180
R1.0 × 2.0	15760	800	11560	480	4840	160
R1.5 × 3.0	13100	1020	10000	690	4520	220
R2.0 × 4.0	10500	1110	8400	800	4200	270
R2.5 × 5.0	9140	1230	7300	870	3680	270
R3.0 × 6.0	8490	1530	6900	1250	3180	280
R4.0 × 8.0	7160	1950	5770	1380	2470	330
R5.0 × 10.0	6370	2300	5090	1530	2040	340
R6.0 × 12.0	5840	2600	4640	1650	1750	370
R8.0 × 16.0	4770	2600	3780	1600	1350	370
R10.0 × 20.0	4140	2500	3260	1560	1110	375

ap: D1~D6=0.2mm
D8~D20=0.3mm
ae: 0.2×D



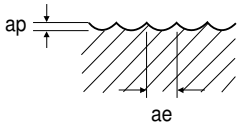
ap: D1~D6=0.2mm
D8~D20=0.3mm
ae: 0.1×D

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

■ 高速 / HIGH SPEED

材质	非合金钢，合金钢，铸铁		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		HARDENED STEELS	
HARDNESS	~ HRc45		HRc45 ~ HRc65	
STRENGTH	~ 1500N/mm²		1500N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED
R0.5 × 1.0	25000	1950	25000	1200
R0.75 × 1.5	23000	2100	23000	1290
R1.0 × 2.0	21000	2200	21000	1400
R1.5 × 3.0	21000	3000	17000	1560
R2.0 × 4.0	21000	4400	13660	1740
R2.5 × 5.0	21000	5400	12000	1800
R3.0 × 6.0	21000	6000	10500	1880
R4.0 × 8.0	16700	6000	8360	1880
R5.0 × 10.0	14000	5850	7000	1800
R6.0 × 12.0	12200	5850	6100	1740
R8.0 × 16.0	9550	5180	4770	1500
R10.0 × 20.0	7960	4770	3980	1380

ap: D1~D6=0.2mm
D8~D20=0.3mm
ae: 0.05×D



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

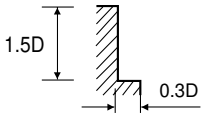
X-POWER END MILLS

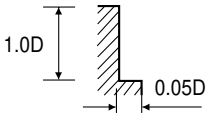
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 多刃 20度螺旋角 粗加工 - 侧铣
CARBIDE, MULTI FLUTE 20° HELIX ROUGHING - SIDE CUTTING

EM832, EM842, EM814, EM824 SERIES

材质	非合金钢, 合金钢, 铸铁		合金钢, 耐热钢		不锈钢		硬化钢		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		STAINLESS STEELS		HARDENED STEELS		HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc38		HRc38 ~ HRc45		HRc45 ~ HRc55		HRc55 ~ HRc65	
STRENGTH	~ 1000N/mm²		1000 ~ 1200N/mm²		1200 ~ 1400N/mm²		1400 ~ 2000N/mm²		2000N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6.0	15600	2320	12400	840	8400	570	3400	260	2400	190
8.0	11600	2320	9200	840	6300	570	2400	240	1800	180
10.0	9200	2320	7600	840	5100	570	2000	290	1300	190
12.0	8000	2400	6000	800	4200	570	1680	260	1200	190
14.0	6800	2400	5200	840	3600	570	1400	200	900	130
16.0	6000	2400	4800	760	3300	510	1200	160	800	110
18.0	5200	2320	4400	720	2700	420	1100	150	700	100
20.0	4800	2160	3600	560	2400	360	1000	150	660	100
25.0	4300	2150	3200	620	2160	410	900	160	600	100



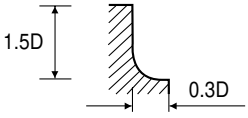


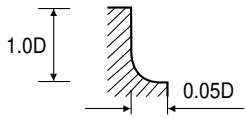
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 3&4刃 20度螺旋角 粗加工 球头 - 侧铣
CARBIDE, 3&4 FLUTE 20° HELIX ROUGHING BALL NOSE - SIDE CUTTING

EM833, EM843 SERIES

材质	非合金钢,合金钢,铸铁		合金钢, 耐热钢		合金钢, 耐热钢		硬化钢		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS		HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc38		HRc38 ~ HRc45		HRc45 ~ HRc55		HRc55 ~ HRc65	
STRENGTH	~ 1000N/mm²		1000 ~ 1200N/mm²		1200 ~ 1400N/mm²		1400 ~ 2000N/mm²		2000N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
R3.0 × 6.0	15600	2320	12400	840	8400	570	3400	260	2400	190
R4.0 × 8.0	11600	2320	9200	840	6300	570	2400	240	1800	180
R5.0 × 10.0	9200	2320	7600	840	5100	570	2000	290	1300	190
R6.0 × 12.0	8000	2400	6000	800	4200	570	1680	260	1200	190
R7.0 × 14.0	6800	2400	5200	840	3600	570	1400	200	900	130
R8.0 × 16.0	6000	2400	4800	760	3300	510	1200	160	800	110
R9.0 × 18.0	5200	2320	4400	720	2700	420	1100	150	700	100
R10.0 × 20.0	4800	2160	3600	560	2400	360	1000	150	660	100





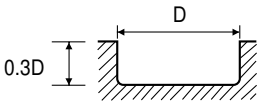
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

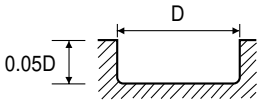
X-POWER END MILLS 推荐的切削条件 RECOMMENDED CUTTING CONDITIONS

硬质合金，2刃 长刃 圆鼻铣刀 - 开槽
CARBIDE, 2 FLUTE LONG CORNER RADIUS - SLOTTING

EM818, EM828 SERIES

材质	非合金钢，合金钢，铸铁		合金钢，耐热钢		硬化钢		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS		HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc45		HRc45 ~ HRc55		HRc55 ~ HRc65	
STRENGTH	~ 1000N/mm²		1000 ~ 1500N/mm²		1500 ~ 2000N/mm²		2000N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
3.0	6620	140	4280	70	2640	35	1870	18
4.0	5360	170	3410	85	2150	40	1470	20
5.0	4580	210	2900	100	1900	50	1260	25
6.0	3950	250	2520	125	1640	60	1160	35
8.0	3000	270	1900	125	1260	60	840	35
10.0	2520	270	1640	125	1010	60	670	35
12.0	2060	210	1390	115	840	50	550	25
16.0	1740	190	1070	90	670	40	440	20
20.0	1260	140	820	60	500	30	340	15



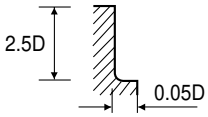


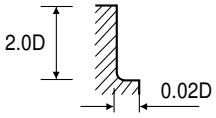
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

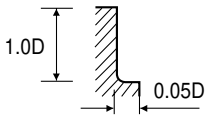
硬质合金，4刃 长刃 圆鼻铣刀 - 侧铣
CARBIDE, 4 FLUTE LONG CORNER RADIUS - SIDE CUTTING

EM819, EM829 SERIES

材质	非合金钢，合金钢，铸铁		合金钢，耐热钢		硬化钢		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS		HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc45		HRc45 ~ HRc55		HRc55 ~ HRc65	
STRENGTH	~ 1000N/mm²		1000 ~ 1500N/mm²		1500 ~ 2000N/mm²		2000N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
3.0	6620	170	4280	130	2640	65	1870	30
4.0	5360	210	3410	150	2150	70	1470	35
5.0	4580	215	2900	180	1900	85	1260	40
6.0	3950	215	2520	180	1640	85	1160	50
8.0	3000	230	1900	180	1260	85	840	50
10.0	2520	230	1640	180	1010	85	670	50
12.0	2060	180	1390	160	840	70	550	40
16.0	1740	160	1070	125	670	60	440	35
20.0	1260	115	820	90	500	45	340	25







RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

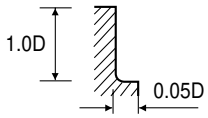
X-POWER END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金，4刃 超短 圆鼻铣刀 - 侧铣
CARBIDE, 4 FLUTE STUB CORNER RADIUS - SIDE CUTTING

EM839, EM849 SERIES

材质	非合金钢，合金钢，铸铁		合金钢，耐热钢		硬化钢		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS		HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc45		HRc45 ~ HRc55		HRc55 ~ HRc65	
STRENGTH	~ 1000N/mm²		1000 ~ 1500N/mm²		1500 ~ 2000N/mm²		2000N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	13870	340	9070	205	6050	60		
2.5	12290	360	7870	220	5040	65		
3.0	10700	385	6670	240	4030	70	2280	70
3.5	9890	535	6100	330	3780	70	2030	70
4.0	9070	685	5540	420	3530	70	1780	70
5.0	7560	720	4540	430	2780	85	1510	70
6.0	6670	790	4030	490	2400	95	1320	70
8.0	5040	850	3020	455	2020	130	1010	70
10.0	3910	730	2400	360	1630	110	820	60
12.0	3290	625	2020	300	1390	95	670	60
16.0	2640	490	1630	240	1080	70	530	35

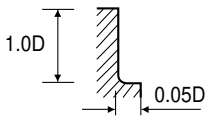


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金，6刃 超短 圆鼻铣刀 - 侧铣
CARBIDE, 6 FLUTE STUB CORNER RADIUS - SIDE CUTTING

EM897, EM898 SERIES

材质	非合金钢，合金钢，铸铁		合金钢，耐热钢		硬化钢		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS		HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc45		HRc45 ~ HRc55		HRc55 ~ HRc65	
STRENGTH	~ 1000N/mm²		1000 ~ 1500N/mm²		1500 ~ 2000N/mm²		2000N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6.0	6670	790	4030	490	2400	95	1320	70
8.0	5040	850	3020	455	2020	130	1010	70
10.0	3910	730	2400	360	1630	110	820	60
12.0	3290	625	2020	300	1390	95	670	60



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

X-POWER END MILLS

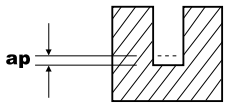
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金，2刃 深腔加工用铣刀
CARBIDE, 2 FLUTE for RIB PROCESSING

EM883 SERIES

材质	非合金钢，合金钢，铸铁			合金钢，耐热钢			硬化钢		
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON			ALLOY STEELS HEAT RESISTANT STEELS			HARDENED STEELS		
HARDNESS	~ HRc30			HRc30 ~ HRc45			HRc45 ~ HRc55		
STRENGTH	~ 1000N/mm²			1000 ~ 1500N/mm²			1500 ~ 2000N/mm²		
DIAMETER	RPM	FEED	ap (mm)	RPM	FEED	ap (mm)	RPM	FEED	ap (mm)
0.4	31000~40000	200~440	0.007~0.018	22500~28000	85~340	0.007~0.018	14300~17000	30~90	0.004~0.008
0.5	31000~40000	200~440	0.009~0.022	22500~28000	85~340	0.009~0.022	14300~17000	30~90	0.004~0.009
0.6	31000~40000	250~570	0.011~0.026	22500~28000	110~430	0.011~0.026	14300~17000	40~110	0.005~0.011
0.7	31000~40000	250~570	0.012~0.031	22500~28000	110~430	0.012~0.031	14300~17000	40~110	0.006~0.013
0.8	27000~35000	280~630	0.014~0.035	19500~24500	120~480	0.014~0.035	12500~14800	45~125	0.007~0.015
0.9	25000~31500	280~720	0.030~0.060	17500~22500	160~540	0.030~0.060	11000~12500	55~130	0.008~0.016
1.0	22500~28000	280~810	0.045~0.090	15700~20000	190~600	0.045~0.090	10000~12500	65~130	0.009~0.018
1.2	18500~22500	280~900	0.055~0.100	13000~16500	190~600	0.055~0.100	8300~10500	65~130	0.010~0.022
1.4	16000~20000	280~900	0.062~0.125	11500~14000	190~600	0.062~0.125	7200~9000	65~130	0.012~0.025
1.5	14500~18500	280~900	0.070~0.135	10500~13500	190~600	0.070~0.135	6700~8200	65~130	0.014~0.028
1.6	14000~18000	280~900	0.075~0.145	10200~12800	190~600	0.075~0.145	6400~8000	65~130	0.015~0.030
1.8	13000~16500	280~900	0.080~0.160	9200~11500	190~600	0.080~0.160	5700~7200	65~130	0.016~0.032
2.0	12000~14500	280~900	0.090~0.180	8300~10500	190~600	0.090~0.180	5300~6600	65~130	0.018~0.035
2.5	9500~12000	280~900	0.112~0.235	6700~8500	190~600	0.112~0.235	4300~5300	65~130	0.022~0.045
3.0	8000~10000	280~900	0.135~0.270	5500~7000	190~600	0.135~0.270	3500~4400	65~130	0.028~0.055
2.0	6000~7500	280~900	0.180~0.36	4100~5300	190~600	0.180~0.36	2600~3300	65~130	0.036~0.072
5.0	4800~6000	280~900	0.225~0.450	3300~4200	190~600	0.225~0.450	2100~2600	65~130	0.045~0.090
6.0	4000~5000	280~900	0.270~0.540	2800~3500	190~600	0.270~0.540	1750~2600	65~130	0.054~0.108

一次的切削深度
(Depth of Cut per one pass)



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

X-POWER END MILLS

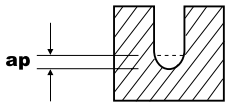
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金，2刃 球头 深腔加工用铣刀
CARBIDE, 2 FLUTE BALL NOSE for RIB PROCESSING

EM886 SERIES

材质	非合金钢，合金钢，铸铁			合金钢，耐热钢			硬化钢		
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON			ALLOY STEELS HEAT RESISTANT STEELS			HARDENED STEELS		
HARDNESS	~ HRc30			HRc30 ~ HRc45			HRc45 ~ HRc55		
STRENGTH	~ 1000N/mm²			1000 ~ 1500N/mm²			1500 ~ 2000N/mm²		
DIAMETER	RPM	FEED	ap (mm)	RPM	FEED	ap (mm)	RPM	FEED	ap (mm)
R0.2 × 0.4	31000~40000	175~490	0.018~0.036	22500~28500	88~270	0.018~0.036	14300~18000	88~175	0.004~0.007
R0.25 × 0.5	31000~40000	175~490	0.023~0.045	22500~28500	88~270	0.023~0.045	14300~18000	88~175	0.005~0.009
R0.3 × 0.6	31000~40000	225~630	0.027~0.054	22500~28500	110~350	0.027~0.054	14300~18000	110~225	0.005~0.011
R0.4 × 0.8	31000~40000	225~630	0.036~0.072	22500~28500	110~350	0.036~0.072	14300~18000	110~225	0.007~0.014
R0.5 × 1.0	29000~36500	250~700	0.045~0.090	20500~26000	125~390	0.045~0.090	13000~16300	125~250	0.009~0.018
R0.6 × 1.2	24000~30500	250~780	0.055~0.100	17000~21500	125~390	0.055~0.100	10800~13700	125~250	0.010~0.022
R0.7 × 1.4	21000~26000	250~780	0.062~0.125	15000~18000	125~390	0.062~0.125	9400~11700	125~250	0.012~0.025
R0.75 × 1.5	19000~24000	250~780	0.070~0.135	13500~17500	125~390	0.070~0.135	8700~10700	125~250	0.014~0.028
R0.8 × 1.6	18000~23500	250~780	0.075~0.145	13200~16500	125~390	0.075~0.145	8300~10400	125~250	0.015~0.030
R0.9 × 1.8	17000~21500	250~780	0.080~0.160	12000~15000	125~390	0.080~0.160	7400~9400	125~250	0.016~0.032
R1.0 × 2.0	15500~19000	250~780	0.090~0.180	11000~13500	125~390	0.090~0.180	6900~8600	125~250	0.018~0.035
R1.5 × 3.0	10500~13000	250~780	0.135~0.270	7000~9000	125~390	0.135~0.270	4600~5700	125~250	0.028~0.055
R2.0 × 4.0	8500~11000	250~780	0.180~0.360	5800~7800	125~390	0.180~0.360	3900~4900	125~250	0.035~0.070
R2.5 × 5.0	6800~8800	250~780	0.225~0.450	4600~6200	125~390	0.225~0.450	3100~3900	125~250	0.044~0.088
R3.0 × 6.0	5700~7300	250~780	0.270~0.540	3900~5200	125~390	0.270~0.540	2600~3300	125~250	0.053~0.105

一次的切削深度
(Depth of Cut per one pass)



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

X-POWER END MILLS

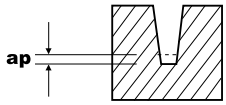
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金，4刃 锥度 深腔加工用铣刀
CARBIDE, 4 FLUTE TAPER for RIB PROCESSING

EM889 SERIES

材质	非合金钢，合金钢，铸铁			合金钢，耐热钢			硬化钢		
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON			ALLOY STEELS HEAT RESISTANT STEELS			HARDENED STEELS		
HARDNESS	~ HRc30			HRc30 ~ HRc45			HRc45 ~ HRc55		
STRENGTH	~ 1000N/mm²			1000 ~ 1500N/mm²			1500 ~ 2000N/mm²		
DIAMETER	RPM	FEED	ap (mm)	RPM	FEED	ap (mm)	RPM	FEED	ap (mm)
1.0	20000	700	0.020~0.040	15000	500	0.020~0.030	10000	300	0.010~0.020
1.2	16000	700	0.025~0.050	13000	500	0.025~0.040	8000	300	0.012~0.025
1.5	13000	700	0.030~0.060	10000	500	0.030~0.050	6500	300	0.015~0.030
2.0	10000	700	0.040~0.080	8000	500	0.040~0.060	5000	300	0.020~0.040

一次的切削深度
(Depth of Cut per one pass)



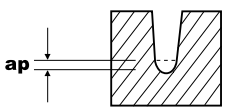
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金，4刃 锥度 球头 深腔加工用铣刀
CARBIDE, 4 FLUTE TAPER BALL NOSE for RIB PROCESSING

EM890 SERIES

材质	非合金钢，合金钢，铸铁			合金钢，耐热钢			硬化钢		
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON			ALLOY STEELS HEAT RESISTANT STEELS			HARDENED STEELS		
HARDNESS	~ HRc30			HRc30 ~ HRc45			HRc45 ~ HRc55		
STRENGTH	~ 1000N/mm²			1000 ~ 1500N/mm²			1500 ~ 2000N/mm²		
DIAMETER	RPM	FEED	ap (mm)	RPM	FEED	ap (mm)	RPM	FEED	ap (mm)
R0.5 X 1.0	20000	700	0.020~0.040	15000	500	0.020~0.030	10000	300	0.010~0.020
R0.6 X 1.2	16000	700	0.025~0.050	13000	500	0.025~0.040	8000	300	0.012~0.025
R0.75 X 1.5	13000	700	0.030~0.060	10000	500	0.030~0.050	6500	300	0.015~0.030
R1.0 X 2.0	10000	700	0.040~0.080	8000	500	0.040~0.060	5000	300	0.020~0.040

一次的切削深度
(Depth of Cut per one pass)



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

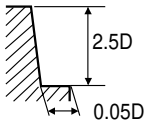
X-POWER END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 2刃 锥形 - 侧铣
CARBIDE, 2 FLUTE TAPER - SIDE CUTTING

EM837, EM847 SERIES

材质	非合金钢, 合金钢		合金钢, 耐热钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS		ALLOY STEELS HEAT RESISTANT STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc45	
STRENGTH	~ 1000N/mm²		1000 ~ 1500N/mm²	
DIAMETER	RPM	FEED	RPM	FEED
2.0	8400	170	6300	125
3.0	4410	120	3570	100
4.0	3570	140	2840	115
5.0	3050	180	2410	145
6.0	2630	210	2100	170
8.0	2000	250	1580	180

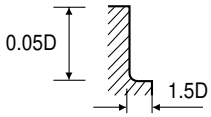


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 4刃 45度螺旋角 圆鼻铣刀 - 侧铣
CARBIDE, 4 FLUTE 45° HELIX CORNER RADIUS - SIDE CUTTING

EM905 SERIES

材质	非合金钢, 合金钢, 铸铁		合金钢, 耐热钢		不锈钢		硬化钢		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		STAINLESS STEELS		HARDENED STEELS		HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc45				HRc45 ~ HRc55		HRc55 ~ HRc65	
STRENGTH	~ 1000N/mm²		1000 ~ 1500N/mm²				1500 ~ 2000N/mm²		2000N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
10.0	7690	2000	7690	1220	5680	920	5680	740	3840	480
12.0	5760	2000	5760	1220	4260	920	4260	740	2880	480
14.0	4600	1800	4600	1220	3410	920	3410	740	2300	480
18.0	3850	1530	3850	1220	2840	920	2840	740	1920	480
22.0	3300	1300	3300	1220	2430	920	2430	740	1650	480

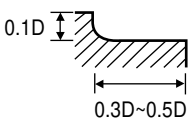


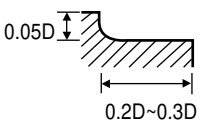
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

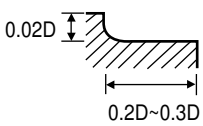
硬质合金, 4刃 45度螺旋角 圆鼻铣刀 - 仿形加工
CARBIDE, 4 FLUTE 45° HELIX CORNER RADIUS - CONTOURING

EM905 SERIES

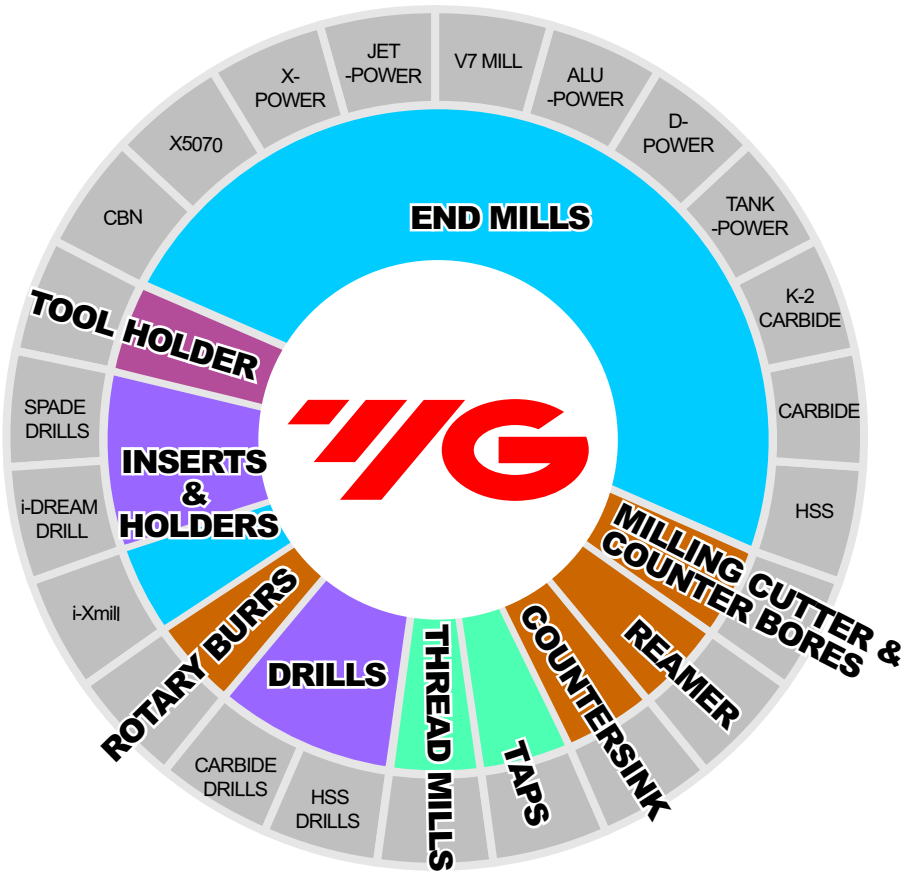
材质	非合金钢, 合金钢, 铸铁		合金钢, 耐热钢		不锈钢		硬化钢		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		STAINLESS STEELS		HARDENED STEELS		HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc45				HRc45 ~ HRc55		HRc55 ~ HRc65	
STRENGTH	~ 1000N/mm²		1000 ~ 1500N/mm²				1500 ~ 2000N/mm²		2000N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
10.0	7690	1150	5680	920	5680	800	5680	460	3840	290
12.0	5760	1150	4260	920	4260	800	4260	460	2880	290
14.0	4600	1150	3410	920	3410	800	3410	460	2300	290
18.0	3850	1150	2840	920	2840	800	2840	460	1920	290
22.0	3300	1150	2430	920	2430	800	2430	460	1650	290







RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)



Challenge Toward a Global Leader-

YG-1 Leads the World Market.

CARBIDE

YG

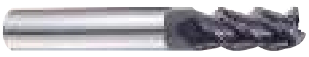
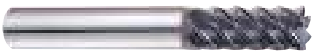
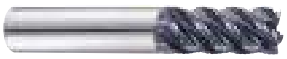
Being the best through innovation

JET-POWER

- 不锈钢，镍合金和钛等难加工材料

Exotic materials like Stainless Steels, Nickel alloys and Titanium

SELECTION GUIDE

项目 ITEM	型号 MODEL	规格 DESCRIPTION	尺寸 SIZE 最小 MIN	尺寸 SIZE 最大 MAX	页 PAGE
EH911 EH912		硬质合金，2刃 35度螺旋角 短刃 CARBIDE, 2 FLUTE 35° HELIX SHORT LENGTH	D1.0	D25.0	696
EH913 EH914		硬质合金，4刃 35度螺旋角 短刃 CARBIDE, 4 FLUTE 35° HELIX SHORT LENGTH	D2.0	D25.0	697
EH830 EH840		硬质合金，3&4刃 50度螺旋角 长刃 CARBIDE, 3&4 FLUTE 50° HELIX LONG LENGTH	D6.0	D25.0	698
EH915 EH916		硬质合金，6&8刃 45度螺旋角 长刃(正前角) CARBIDE, 6&8 FLUTE 45° HELIX LONG LENGTH (Positive Rake Angle)	D6.0	D25.0	699
EE515		粉末高速钢，4&6刃 短刃 PREMIUM HSS-PM, 4&6 FLUTE SHORT LENGTH	D3.0	D25.0	700
EH852 EH862		硬质合金，多刃 短刃 粗加工 - 细螺纹 CARBIDE, MULTI FLUTE SHORT LENGTH ROUGHING - FINE	D6.0	D25.0	701
EH831 EH841		硬质合金，多刃 长刃 粗加工 - 细螺纹 CARBIDE, MULTI FLUTE LONG LENGTH ROUGHING - FINE	D6.0	D25.0	702
EH917 EH918		硬质合金，多刃 45度螺旋角 短型 粗加工 - 细螺纹 CARBIDE, MULTI FLUTE 45° HELIX SHORT LENGTH ROUGHING - FINE	D6.0	D20.0	703
EH919 EH920		硬质合金，多刃 45度螺旋角 长刃 粗加工 - 细螺纹 CARBIDE, MULTI FLUTE 45° HELIX LONG LENGTH ROUGHING - FINE	D4.0	D25.0	704
EH921 EH942		硬质合金，多刃 45度螺旋角 长刃 粗加工 - 细螺纹 CARBIDE, MULTI FLUTE 45° HELIX LONG REACH ROUGHING - FINE	D6.0	D20.0	705
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS			706

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	铬镍铁合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	○							○	○	
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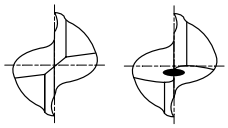
JET-POWER END MILLS

EH911 SERIES PLAIN SHANK
EH912 SERIES FLAT SHANK

硬质合金, 2刃 35度螺旋角 短刃
CARBIDE, 2 FLUTE 35° HELIX SHORT LENGTH

- 超微粒硬质合金
- 减少了角边处的崩刃
- 适合于低硬化钢(HRc45以下), 合金钢, 工具钢, 碳素钢, 预硬钢, 不锈钢等

- Ultra micro grain carbide
- Reduces chipping of corner edges
- Suitable for low hardness materials(under HRc45), alloy steels, tool steels, carbon steels, prehardened steels, stainless steels, etc



up to Ø3mm over Ø3mm

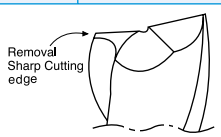
MG HM | 2 | 35° | PLAIN | FLAT

P.706

단위(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EH911010	-	1.0	4	2.5	40
EH911901	EH912901	1.0	6	2.5	40
EH911015	-	1.5	4	4	40
EH911902	EH912902	1.5	6	4	40
EH911020	-	2.0	4	6	40
EH911903	EH912903	2.0	6	6	40
EH911025	-	2.5	4	8	40
EH911904	EH912904	2.5	6	8	40
EH911030	EH912030	3.0	6	8	45
EH911035	EH912035	3.5	6	10	45
EH911040	EH912040	4.0	6	11	45
EH911045	EH912045	4.5	6	11	45
EH911050	EH912050	5.0	6	13	50
EH911055	EH912055	5.5	6	13	50
EH911060	EH912060	6.0	6	13	50
EH911065	EH912065	6.5	8	16	60
EH911070	EH912070	7.0	8	16	60
EH911075	EH912075	7.5	8	16	60
EH911080	EH912080	8.0	8	19	60
EH911085	EH912085	8.5	10	19	70
EH911090	EH912090	9.0	10	19	70
EH911095	EH912095	9.5	10	19	70
EH911100	EH912100	10.0	10	22	70
EH911110	EH912110	11.0	12	22	75
EH911120	EH912120	12.0	12	26	75
EH911140	EH912140	14.0	16	26	85
EH911160	EH912160	16.0	16	32	100
EH911180	EH912180	18.0	16	32	100
EH911200	EH912200	20.0	20	38	105
EH911220	EH912220	22.0	20	38	105
EH911250	EH912250	25.0	25	45	120

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-0.03	h6



◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	○							○	○	

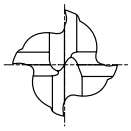
JET-POWER END MILLS

EH913 SERIES PLAIN SHANK
EH914 SERIES FLAT SHANK

硬质合金，4刃 35度螺旋角 短刃
CARBIDE, 4 FLUTE 35° HELIX SHORT LENGTH

- 超微粒硬质合金
- 减少了角边处的崩刃
- 适合于低硬化钢(HRc45以下)，合金钢，工具钢，碳素钢，预硬钢，不锈钢等

- Ultra micro grain carbide
- Reduces chipping of corner edges
- Suitable for low hardness materials(under HRc45), alloy steels, tool steels, carbon steels, prehardened steels, stainless steels, etc



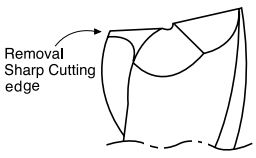
MG HM | 4 | 35° | PLAIN | FLAT

P.706

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EH913020	-	2.0	4	6	40
EH913901	EH914901	2.0	6	6	40
EH913025	-	2.5	4	8	40
EH913902	EH914902	2.5	6	8	40
EH913030	EH914030	3.0	6	8	45
EH913035	EH914035	3.5	6	10	45
EH913040	EH914040	4.0	6	11	45
EH913045	EH914045	4.5	6	11	45
EH913050	EH914050	5.0	6	13	50
EH913055	EH914055	5.5	6	13	50
EH913060	EH914060	6.0	6	13	50
EH913065	EH914065	6.5	8	16	60
EH913070	EH914070	7.0	8	16	60
EH913075	EH914075	7.5	8	16	60
EH913080	EH914080	8.0	8	19	60
EH913085	EH914085	8.5	10	19	70
EH913090	EH914090	9.0	10	19	70
EH913095	EH914095	9.5	10	19	70
EH913100	EH914100	10.0	10	22	70
EH913110	EH914110	11.0	12	22	75
EH913120	EH914120	12.0	12	26	75
EH913140	EH914140	14.0	16	26	85
EH913160	EH914160	16.0	16	32	100
EH913180	EH914180	18.0	16	32	100
EH913200	EH914200	20.0	20	38	105
EH913220	EH914220	22.0	20	38	105
EH913250	EH914250	25.0	25	45	120

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6



◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	○							◎	◎	

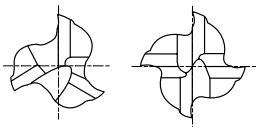
JET-POWER END MILLS

EH830 SERIES PLAIN SHANK
EH840 SERIES FLAT SHANK

硬质合金, 3&4刃 50度螺旋角 长刃
CARBIDE, 3&4 FLUTE 50° HELIX LONG LENGTH

- 超微粒硬质合金
- 减少了角边处的崩刃
- 适合于低硬化钢(HRc45以下), 合金钢, 工具钢, 碳素钢, 预硬钢, 不锈钢等

- Ultra micro grain carbide
- Reduces chipping of corner edges
- Suitable for low hardness materials(under HRc45), alloy steels, tool steels, carbon steels, prehardened steels, stainless steels, etc

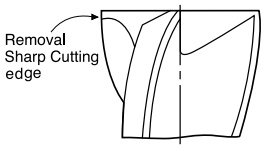


MG HM | 3&4 | 50° | PLAIN | FLAT P.707

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
EH830060	EH840060	6.0	6	13	50	3
EH830080	EH840080	8.0	8	19	60	3
EH830100	EH840100	10.0	10	22	70	3
EH830120	EH840120	12.0	12	25	75	3
EH830160	EH840160	16.0	16	32	90	3
EH830180	EH840180	18.0	18	32	90	3
EH830200	EH840200	20.0	20	38	100	4
EH830250	EH840250	25.0	25	45	120	4

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-0.03	h6



◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	○							◎	◎	○

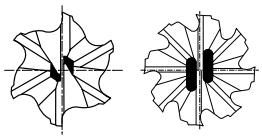
JET-POWER END MILLS

EH915 SERIES PLAIN SHANK
EH916 SERIES FLAT SHANK

硬质合金, 6&8刃 45度螺旋角 长刃(正前角)
CARBIDE, 6&8 FLUTE 45° HELIX LONG LENGTH (Positive Rake Angle)

- ▶ 超微粒硬质合金
- ▶ 减少了角边处的崩刃
- ▶ 适合于低硬化钢(HRc45以下), 合金钢, 工具钢, 碳素钢, 预硬钢, 不锈钢等

- ▶ Ultra micro grain carbide
- ▶ Reduces chipping of corner edges
- ▶ Suitable for low hardness materials(under HRc45), alloy steels, tool steels, carbon steels, prehardened steels, stainless steels, etc



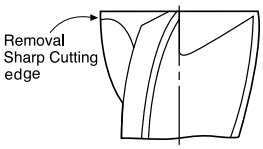
MG HM | 6&8 | 45° | PLAIN | FLAT

P.708

단위(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
EH915060	EH916060	6.0	6	13	57	6
EH915070	EH916070	7.0	8	16	63	6
EH915080	EH916080	8.0	8	19	63	6
EH915090	EH916090	9.0	10	19	72	6
EH915100	EH916100	10.0	10	22	72	6
EH915120	EH916120	12.0	12	26	83	6
EH915140	EH916140	14.0	14	26	83	6
EH915160	EH916160	16.0	16	32	92	6
EH915180	EH916180	18.0	18	32	92	8
EH915200	EH916200	20.0	20	38	104	8
EH915250	EH916250	25.0	25	44	104	8

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6



◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	○							◎	◎	○

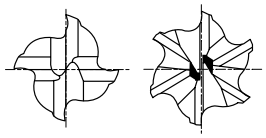
JET-POWER END MILLS

EE515 SERIES FLAT SHANK

粉末高速钢，4&6刃 短刃
PREMIUM HSS-PM, 4&6 FLUTE SHORT LENGTH

- 在加工低硬度材料(HRc45以下)，合金钢，工具钢，碳素钢，预硬钢，不锈钢，钛，镍时具有卓越的性能
- 高化学稳定性防止积屑瘤，微小裂缝凹坑形成.
- 较高的表面粗糙度

- Excellent performance on Low handness materials (under HRc45), alloy steels, tool steels, carbon steels, prehardened steels, Stainless Steel, Titanium, Inconel.
- High chemical stability prevents built-up edge, micro cracks and crater wear.
- Superior workpiece finish.



YPM | 4&6 | 30° | FLAT P.709

单位(Unit) : mm

型号 EDP No. FLAT	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
EE515030	3.0	6	8	52	4
EE515040	4.0	6	11	55	4
EE515050	5.0	6	13	57	4
EE515060	6.0	6	13	57	4
EE515080	8.0	10	19	69	4
EE515100	10.0	10	22	72	4
EE515120	12.0	12	26	83	4
EE515140	14.0	12	26	83	4
EE515160	16.0	16	32	92	6
EE515180	18.0	16	32	92	6
EE515200	20.0	20	38	104	6
EE515250	25.0	25	45	121	6

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~+0.03	h6

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	○							◎	◎	○

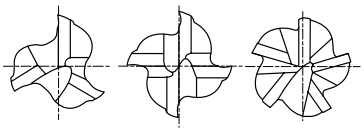
JET-POWER END MILLS

EH852 SERIES PLAIN SHANK
EH862 SERIES FLAT SHANK

硬质合金, 多刃 短刃 粗加工 – 细螺纹
CARBIDE, MULTI FLUTE SHORT LENGTH ROUGHING - FINE

- ▶ 适合于低硬化钢(HRc45以下), 合金钢, 工具钢, 碳素钢, 预硬钢, 不锈钢等
- ▶ 高速铣削
- ▶ 快速排屑

- ▶ Suitable for low hardness materials(under HRc45), alloy steels, tool steels, carbon steels, prehardened steels, stainless steels, etc
- ▶ High velocity milling operation.
- ▶ Fast chip ejection.



MG HM | FINE | 3-5 | 30° | PLAIN | FLAT

P.710

단위(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter h10	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
EH852060	EH862060	6.0	6	7	54	3
EH852070	EH862070	7.0	8	8	58	3
EH852080	EH862080	8.0	8	9	58	3
EH852090	EH862090	9.0	10	13	66	4
EH852100	EH862100	10.0	10	14	66	4
EH852120	EH862120	12.0	12	16	73	4
EH852140	EH862140	14.0	14	18	75	4
EH852160	EH862160	16.0	16	22	82	4
EH852180	EH862180	18.0	18	24	84	4
EH852200	EH862200	20.0	20	26	92	4
EH852250	EH862250	25.0	25	25	110	5

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in μm
公称直径单位 / Nominal-Diameter in mm

	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
h10	0 / — 40	0 / — 48	0 / — 58	0 / — 70	0 / — 84
h6	0 / — 6	0 / — 8	0 / — 9	0 / — 11	0 / — 13

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	○							◎	◎	○

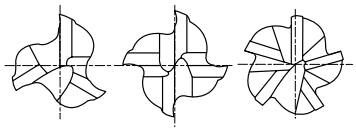
JET-POWER END MILLS

EH831 SERIES PLAIN SHANK
EH841 SERIES FLAT SHANK

硬质合金, 多刃 长刃 粗加工 – 细螺纹
CARBIDE, MULTI FLUTE LONG LENGTH ROUGHING - FINE

- 比EH852,EH862更长的沟槽
- 适合于低硬化钢(HRc45以下), 合金钢, 工具钢, 碳素钢, 预硬钢, 不锈钢等
- 高速铣削
- 快速排屑

- Longer flute length than EH852, EH862.
- Suitable for low hardness materials(under HRc45), alloy steels, tool steels, carbon steels, prehardened steels, stainless steels, etc.
- High velocity milling operation.
- Fast chip ejection.



MG HM | FINE | 3-5 | 30° | PLAIN | FLAT

P.710

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter h10	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
EH831060	EH841060	6.0	6	16	57	3
EH831070	EH841070	7.0	8	16	63	3
EH831080	EH841080	8.0	8	16	63	3
EH831090	EH841090	9.0	10	19	72	4
EH831100	EH841100	10.0	10	22	72	4
EH831120	EH841120	12.0	12	26	83	4
EH831140	EH841140	14.0	14	26	83	4
EH831160	EH841160	16.0	16	32	92	4
EH831180	EH841180	18.0	18	32	92	4
EH831200	EH841200	20.0	20	38	104	4
EH831250	EH841250	25.0	25	45	121	5

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in μm 公称直径 单位 / Nominal-Diameter in mm	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
h10	0 / — 40	0 / — 48	0 / — 58	0 / — 70	0 / — 84
h6	0 / — 6	0 / — 8	0 / — 9	0 / — 11	0 / — 13

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	○							◎	◎	○

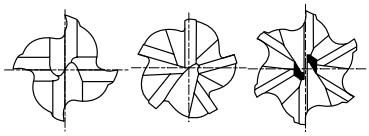
JET-POWER END MILLS

EH917 SERIES PLAIN SHANK
EH918 SERIES FLAT SHANK

硬质合金, 多刃 45度螺旋角 短型 粗加工 – 细螺纹
CARBIDE, MULTI FLUTE 45° HELIX SHORT LENGTH ROUGHING - FINE

- ▶ 超微粒硬质合金
- ▶ 很高的排屑性可以减少切削刃的破损.
- ▶ 适合于低硬化钢(HRc45以下), 合金钢, 工具钢, 碳素钢, 预硬钢, 不锈钢等

- ▶ Ultra micro grain carbide
- ▶ High chip removal and minimizing breakages of cutting edges.
- ▶ Suitable for low hardness materials(under HRc45), alloy steels, tool steels, carbon steels, prehardened steels, stainless steels, etc.



MG HM | FINE | 4-6 | 45° | PLAIN | FLAT

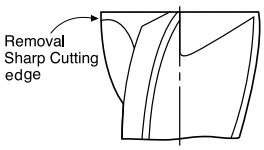
P.710

단위(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter h10	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
EH917060	EH918060	6.0	6	7	54	4
EH917080	EH918080	8.0	8	9	58	4
EH917100	EH918100	10.0	10	14	66	4
EH917120	EH918120	12.0	12	16	73	4
EH917160	EH918160	16.0	16	22	82	5
EH917200	EH918200	20.0	20	26	92	6

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in ㎛					
公称直径 单位 / Nominal-Diameter in ㎜					
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
h10	0 / — 40	0 / — 48	0 / — 58	0 / — 70	0 / — 84
h6	0 / — 6	0 / — 8	0 / — 9	0 / — 11	0 / — 13



◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	○							◎	◎	○

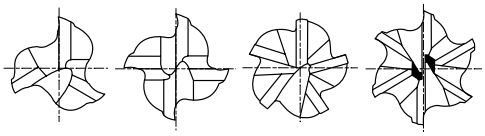
JET-POWER END MILLS

EH919 SERIES PLAIN SHANK
EH920 SERIES FLAT SHANK

硬质合金, 多刃 45度螺旋角 长刃 粗加工 – 细螺纹
CARBIDE, MULTI FLUTE 45° HELIX LONG LENGTH ROUGHING - FINE

- 超微粒硬质合金
- 很高的排屑性可以减少切削刃的破损.
- 适合于低硬化钢(HRc45以下), 合金钢, 工具钢, 碳素钢, 预硬钢, 不锈钢等

- Ultra micro grain carbide
- High chip removal and minimizing breakages of cutting edges.
- Suitable for low hardness materials(under HRc45), alloy steels, tool steels, carbon steels, prehardened steels, stainless steels, etc.



MG HM | FINE | 3-6 | 45° | PLAIN | FLAT

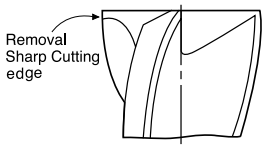
P.710

단위(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter h10	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
EH919040	EH920040	4.0	6	11	57	3
EH919050	EH920050	5.0	6	13	57	4
EH919060	EH920060	6.0	6	16	57	4
EH919070	EH920070	7.0	8	16	63	4
EH919080	EH920080	8.0	8	16	63	4
EH919090	EH920090	9.0	10	19	72	4
EH919100	EH920100	10.0	10	22	72	4
EH919120	EH920120	12.0	12	26	83	4
EH919140	EH920140	14.0	14	26	83	5
EH919160	EH920160	16.0	16	32	92	5
EH919200	EH920200	20.0	20	38	104	6
EH919250	EH920250	25.0	25	45	121	6

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in μm 公称直径单位 / Nominal-Diameter in mm	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
h10	0 / — 40	0 / — 48	0 / — 58	0 / — 70	0 / — 84
h6	0 / — 6	0 / — 8	0 / — 9	0 / — 11	0 / — 13



◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	○							◎	◎	○

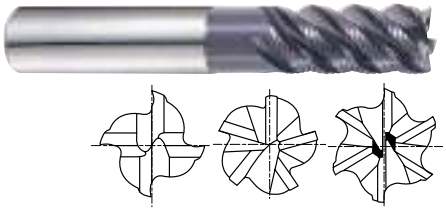
JET-POWER END MILLS

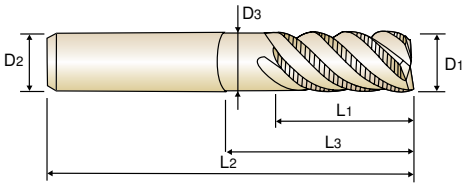
EH921 SERIES PLAIN SHANK
EH942 SERIES FLAT SHANK

硬质合金, 多刃 45度螺旋角 长刃 粗加工 – 细螺纹
CARBIDE, MULTI FLUTE 45° HELIX LONG REACH ROUGHING - FINE

- 超微粒硬质合金
- 很高的排屑性可以减少切削刃的破损.
- 适合于低硬化钢(HRc45以下), 合金钢, 工具钢, 碳素钢, 预硬钢, 不锈钢等

- Ultra micro grain carbide
- High chip removal and minimizing breakages of cutting edges.
- Suitable for low hardness materials(under HRc45), alloy steels, tool steels, carbon steels, prehardened steels, stainless steels, etc.





MG HM | FINE | 4-6 | 45° | PLAIN | FLAT

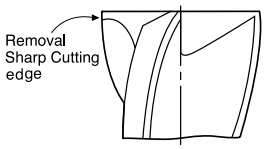
P.710

단위(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter D1(h10)	柄部直径 Shank Diameter D2(h6)	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3	刃数 No. of Flute
EH921060	EH942060	6.0	6	16	20	57	5.5	4
EH921080	EH942080	8.0	8	16	26	63	7.5	4
EH921100	EH942100	10.0	10	22	31	72	9.5	4
EH921120	EH942120	12.0	12	26	37	83	11.5	4
EH921160	EH942160	16.0	16	32	51	100	15.5	5
EH921200	EH942200	20.0	20	38	59	110	19.2	6

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in ㎛	公称直径 单位 / Nominal-Diameter in ㎜				
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
h10	0 / — 40	0 / — 48	0 / — 58	0 / — 70	0 / — 84
h6	0 / — 6	0 / — 8	0 / — 9	0 / — 11	0 / — 13



◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	○							◎	◎	○

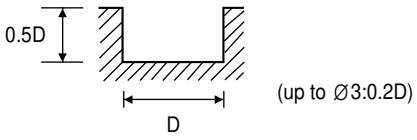
JET-POWER END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 2刃 短刃 - 开槽
CARBIDE, 2 FLUTE SHORT - SLOTTING

EH911, EH912 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		不锈钢, 钛合金	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		STAINLESS STEELS TITANIUM ALLOY	
HARDNESS	~ HRc30		HRc30 ~ HRc45			
STRENGTH	1000N/mm²		1000 ~ 1500N/mm²			
DIAMETER	RPM	FEED	RPM	FEED		
2.0	11560	190	7560	120	6300	90
3.0	8920	210	5560	140	4620	120
4.0	7560	300	4620	180	3880	150
5.0	6300	320	3780	190	3160	160
6.0	5560	350	3360	220	2840	180
8.0	4200	380	2520	200	2100	180
10.0	3260	330	2000	160	1680	160
12.0	2740	280	1680	130	1360	130
16.0	2200	220	1360	110	1060	110
20.0	1680	170	1060	80	840	80
25.0	1360	130	840	70	680	60

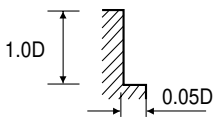


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 4刃 短刃 - 侧铣
CARBIDE, 4 FLUTE SHORT - SIDE CUTTING

EH913, EH914 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		不锈钢, 钛合金	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		STAINLESS STEELS TITANIUM ALLOY	
HARDNESS	~ HRc30		HRc30 ~ HRc45			
STRENGTH	1000N/mm²		1000 ~ 1500N/mm²			
DIAMETER	RPM	FEED	RPM	FEED		
2.0	11560	280	7560	170	6300	140
3.0	8920	320	5560	200	4620	170
4.0	7560	570	4620	350	3880	280
5.0	6300	600	3780	360	3160	300
6.0	5560	660	3360	410	2840	330
8.0	4200	710	2520	380	2100	350
10.0	3260	610	2000	300	1680	300
12.0	2740	520	1680	250	1360	240
16.0	2200	410	1360	200	1060	200
20.0	1680	320	1060	160	840	150
25.0	1360	250	840	130	680	120



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

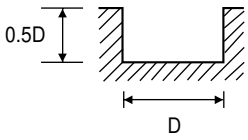
JET-POWER END MILLS

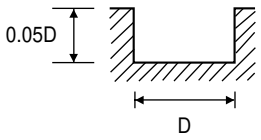
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 3&4刃 50度螺旋角 长刃 - 开槽
CARBIDE, 3&4 FLUTE 50° HELIX LONG - SLOTTING

EH830, EH840 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		不锈钢, 钛合金		石墨	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		STAINLESS STEELS TITANIUM ALLOY		INCONEL	
HARDNESS	~ HRc30		HRc30 ~ HRc45					
STRENGTH	1000N/mm²		1000 ~ 1500N/mm²					
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6.0	5560	310	3360	200	2840	160	1160	40
8.0	4200	340	2520	180	2100	160	840	40
10.0	3260	300	2000	140	1680	140	670	40
12.0	2740	250	1680	120	1370	120	560	30
16.0	2200	200	1360	100	1050	100	420	25
18.0	1940	175	1210	85	950	85	370	20
20.0	1680	150	1060	70	840	70	320	20
25.0	1360	115	840	60	670	60	270	15



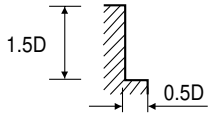


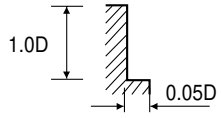
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

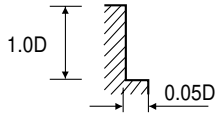
硬质合金, 3&4刃 50° 螺旋角 长刃 - 侧铣
CARBIDE, 3&4 FLUTE 50° HELIX - SIDE CUTTING

EH830, EH840 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		不锈钢, 钛合金		石墨	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		STAINLESS STEELS TITANIUM ALLOY		INCONEL	
HARDNESS	~ HRc30		HRc30 ~ HRc45					
STRENGTH	1000N/mm²		1000 ~ 1500N/mm²					
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6.0	5560	400	3360	250	2840	250	1050	55
8.0	4200	420	2520	230	2100	265	840	50
10.0	3260	370	2000	180	1680	230	680	50
12.0	2740	310	1680	150	1370	180	560	45
16.0	2200	250	1360	120	1050	150	420	35
18.0	1940	220	1210	110	950	130	370	30
20.0	1680	190	1060	95	840	115	340	30
25.0	1360	150	840	75	670	90	270	25







RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

JET-POWER END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

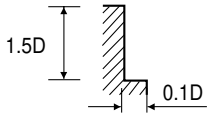
硬质合金, 6&8刃 45度螺旋角 长刃 - 侧铣
CARBIDE, 6&8 FLUTE 45° HELIX LONG - SIDE CUTTING

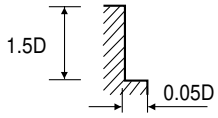
EH915, EH916 SERIES

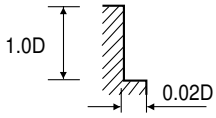
CBN END MILLS
i-Xmill END MILLS
X5070 END MILLS
X-POWER END MILLS
JET-POWER END MILLS
V7 Mill INOX END MILLS
V7 Mill STEEL END MILLS
ALU-POWER END MILLS
CRX S
D-POWER END MILLS
K-2 CARBIDE END MILLS
GENERAL CARBIDE END MILLS
TANK-POWER END MILLS
GENERAL HSS END MILLS
MILLING CUTTERS
TECHNICAL DATA

■ 正常速度 / NORMAL SPEED

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		不锈钢, 钛合金		石墨	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		STAINLESS STEELS TITANIUM ALLOY		INCONEL	
HARDNESS	~ HRc30		HRc30 ~ HRc45					
STRENGTH	1000N/mm²		1000 ~ 1500N/mm²					
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6.0	5560	2000	3880	1370	3370	1100	1350	280
8.0	4200	2000	2940	1370	2490	1100	1000	280
10.0	3360	2000	2320	1370	1920	1100	440	280
12.0	2840	1680	2000	1160	1610	1000	400	250
16.0	2100	1260	1480	880	1160	770	310	190
20.0	1680	1010	1160	690	900	620	250	155
25.0	1500	900	1100	600	850	540	220	135



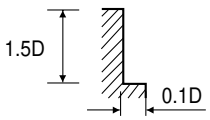


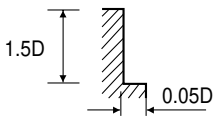


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

■ 高速 / HIGH SPEED

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc45	
STRENGTH	1000N/mm²		1000 ~ 1500N/mm²	
DIAMETER	RPM	FEED	RPM	FEED
6.0	22200	8000	16800	6090
8.0	16800	8000	12600	6090
10.0	13400	8000	9980	5990
12.0	11350	6720	8400	5040
16.0	8400	5040	6300	3780
20.0	6700	4040	5040	3050
25.0	6000	3600	4500	2700



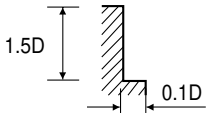


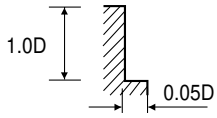
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

粉末高速钢, 4&6刃 短刃 - 侧铣
PREMIUM HSS-PM, 4&6 FLUTE SHORT- SIDE CUTTING

EE515 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		不锈钢, 钛合金		石墨	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		STAINLESS STEELS TITANIUM ALLOY		INCONEL	
HARDNESS	~ HRc30		HRc30 ~ HRc45					
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
3.0	4400	185	1100	23	2200	110	880	28
4.0	3600	210	900	31	1800	125	720	37
5.0	3000	225	750	30	1500	135	600	36
6.0	2600	235	600	29	1300	140	480	35
8.0	2000	250	500	28	1000	150	400	34
10.0	1600	285	410	30	800	170	330	36
12.0	1320	250	340	29	660	150	270	35
14.0	1160	235	290	27	580	140	230	32
16.0	1000	225	250	26	500	135	200	31
18.0	900	210	225	23	450	125	180	28
20.0	800	200	200	17	400	120	160	21
25.0	640	165	165	15	320	100	130	18





RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

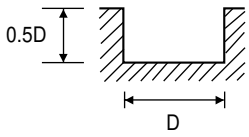
JET-POWER END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金，多刃 粗加工 - 开槽
CARBIDE, MULTI FLUTE ROUGHING - SLOTTING

EH917, EH918, EH919, EH920, EH921, EH942, EH852, EH862, EH831, EH841 SERIES

材质	碳钢，合金钢，工具钢		碳钢，合金钢，工具钢		不锈钢，钛合金		石墨	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		STAINLESS STEELS TITANIUM ALLOY		INCONEL	
HARDNESS	~ HRc30		HRc30 ~ HRc45					
STRENGTH	1000N/mm²		1000 ~ 1500N/mm²					
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
4.0	23400	2320	18600	840	12600	570	3600	190
6.0	15600	2320	12400	840	8400	570	2400	190
8.0	11600	2320	9200	840	6300	570	1800	180
10.0	9200	2320	7600	840	5100	570	1300	190
12.0	8000	2400	6000	800	4200	570	1200	190
14.0	6800	2400	5200	840	3600	570	900	130
16.0	6000	2400	4800	760	3300	510	800	110
18.0	5200	2320	4400	720	2700	420	700	100
20.0	4800	2160	3600	560	2400	360	660	100
25.0	4300	2150	3200	620	2160	410	600	110



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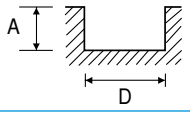
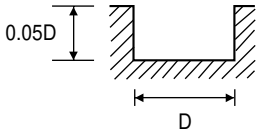
Ø12-Ø16:0.15×D
Ø18-Ø25:0.10×D





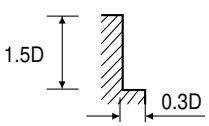
※ 对长和超长型进给应减少约50%
The FEED, in long & long reach types, should be reduced by around 50%

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金，多刃 粗加工 - 侧铣
CARBIDE, MULTI FLUTE ROUGHING - SIDE CUTTING

EH917, EH918, EH919, EH920, EH921, EH942, EH852, EH862, EH831, EH841 SERIES

材质	碳钢，合金钢，工具钢		碳钢，合金钢，工具钢		不锈钢，钛合金		石墨	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		STAINLESS STEELS TITANIUM ALLOY		INCONEL	
HARDNESS	~ HRc30		HRc30 ~ HRc45					
STRENGTH	1000N/mm²		1000 ~ 1500N/mm²					
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
4.0	23400	2320	18600	840	12600	570	3600	190
6.0	15600	2320	12400	840	8400	570	2400	190
8.0	11600	2320	9200	840	6300	570	1800	180
10.0	9200	2320	7600	840	5100	570	1300	190
12.0	8000	2400	6000	800	4200	570	1200	190
14.0	6800	2400	5200	840	3600	570	900	130
16.0	6000	2400	4800	760	3300	510	800	110
18.0	5200	2320	4400	720	2700	420	700	100
20.0	4800	2160	3600	560	2400	360	660	100
25.0	4300	2150	3200	620	2160	410	600	110



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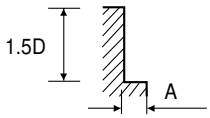
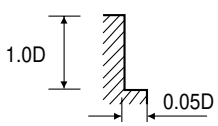
Ø12-Ø16:0.10×D
Ø18-Ø25:0.05×D





※ 对长和超长型进给应减少约50%
The FEED, in long & long reach types, should be reduced by around 50%

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

CARBIDE

YG

Being the best through innovation

V7 Mill INOX

- 可对HRc40以下的不锈钢进行重切削和无声切削
- 以变化螺旋角设计，YG-1专利

Stainless Steels in Heavy and Silent Cutting Materials up to HRc40.
Designed as Variable Leads, YG-1's Patent.

SELECTION GUIDE

项目	型号	规格	尺寸		页
			最小	最大	
ITEM	MODEL	DESCRIPTION	SIZE		PAGE
			MIN	MAX	
METRIC					
EMB41 EMB42		硬质合金, 4刃 短刃 CARBIDE, 4 FLUTE SHORT LENGTH	D3.0	D20.0	**714**
EMB43 EMB44		硬质合金, 4刃 短刃 圆鼻铣刀 CARBIDE, 4 FLUTE SHORT LENGTH CORNER RADIUS	D3.0	D20.0	**715**
EMB14 EMB39		硬质合金, 4刃 长刃 CARBIDE, 4 FLUTE LONG LENGTH	D3.0	D25.0	**716**
EMB15 EMB40		硬质合金, 4刃 长刃 圆鼻铣刀 CARBIDE, 4 FLUTE LONG LENGTH CORNER RADIUS	D3.0	D25.0	**717**
EMB74 EMB75		硬质合金, 4刃 长刃 球头 CARBIDE, 4 FLUTE LONG LENGTH BALL NOSE	R1.5	R12.5	**718**
EMB72 EMB73		硬质合金, 5刃 长刃 CARBIDE, 5 FLUTE LONG LENGTH	D6.0	D25.0	**719**
INCH					
EMB12 EMB37		硬质合金, 4刃 普通刃 CARBIDE, 4 FLUTE REGULAR LENGTH	D1/8″	D1″	**720**
EMB13 EMB38		硬质合金, 4刃 普通刃 圆鼻铣刀 CARBIDE, 4 FLUTE REGULAR LENGTH CORNER RADIUS	D1/8″	D1″	**721**
EMB78 EMB79		硬质合金, 4刃 普通刃 球头 CARBIDE, 4 FLUTE REGULAR LENGTH BALL NOSE	R1/16″	R1/2″	**722**
EMB76 EMB77		硬质合金, 5刃 普通刃 CARBIDE, 5 FLUTE REGULAR LENGTH	D1/4″	D1″	**723**
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS			**724**

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	铬镍铁合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	○	○								◎	◎	○
◎	○	○								◎	◎	○
◎	○	○								◎	◎	○
◎	○	○								◎	◎	○
◎	○	○								◎	◎	○
◎	○	○								◎	◎	○
◎	○	○								◎	◎	○
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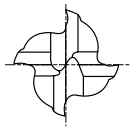
V7 Mill INOX END MILLS

EMB41 SERIES PLAIN SHANK
EMB42 SERIES FLAT SHANK

硬质合金, 4刃 短刃
CARBIDE, 4 FLUTE SHORT LENGTH

- ▶ 特殊的沟槽几何形状可以消除振动
- ▶ 设计用于加工低碳钢, 不锈钢, 铸铁, 工具钢, 钛合金, 预硬钢和硬度在HRc40以下的低硬化钢
- ▶ 卓越的工件的表面粗糙度
- ▶ 高速度, 较深切削和材料切除率

- ▶ Special flute geometry eliminates vibrations.
- ▶ Designed to mild steels, stainless steels, cast iron, tool steels, titanium alloys, prehardened steels and low hardness materials under HRc 40
- ▶ Excellent work piece finishes
- ▶ Higher speeds, deeper cuts and metal removal rates



MG HM | 4 | PLAIN | FLAT | P.724

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length
EMB41030	EMB42030	3.0	6	7	54
EMB41040	EMB42040	4.0	6	8	54
EMB41050	EMB42050	5.0	6	10	54
EMB41060	EMB42060	6.0	6	10	54
EMB41080	EMB42080	8.0	8	12	58
EMB41100	EMB42100	10.0	10	14	66
EMB41120	EMB42120	12.0	12	16	73
EMB41140	EMB42140	14.0	14	18	75
EMB41160	EMB42160	16.0	16	22	82
EMB41180	EMB42180	18.0	18	24	84
EMB41200	EMB42200	20.0	20	26	92

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	○	○								◎	◎	○

V7 Mill INOX END MILLS

EMB43 SERIES PLAIN SHANK
EMB44 SERIES FLAT SHANK

硬质合金，4刃 短刃 圆鼻铣刀
CARBIDE, 4 FLUTE SHORT LENGTH CORNER RADIUS

- ▶ 特殊的沟槽几何形状可以消除振动
- ▶ 设计用于加工低碳钢，不锈钢，铸铁，工具钢，钛合金，预硬钢和硬度在HRc40以下的低硬化钢
- ▶ 卓越的工件的表面粗糙度
- ▶ 高速度，较深切削和材料切除率

- ▶ Special flute geometry eliminates vibrations.
- ▶ Designed to mild steels, stainless steels, cast iron, tool steels, titanium alloys, prehardened steels and low hardness materials under HRc 40
- ▶ Excellent work piece finishes
- ▶ Higher speeds, deeper cuts and metal removal rates

MG HM | 4 | PLAIN | FLAT

P.724

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	圆弧半径 Corner Radius R	刃部直径 Mill Diameter	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length
EMB43030	EMB44030	R0.25~R0.38	3.0	6	7	54
EMB43040	EMB44040	R0.25~R0.38	4.0	6	8	54
EMB43050	EMB44050	R0.25~R0.38	5.0	6	10	54
EMB43060	EMB44060	R0.38~R0.51	6.0	6	10	54
EMB43080	EMB44080	R0.38~R0.51	8.0	8	12	58
EMB43100	EMB44100	R0.38~R0.51	10.0	10	14	66
EMB43120	EMB44120	R0.64~R0.76	12.0	12	16	73
EMB43140	EMB44140	R0.64~R0.76	14.0	14	18	75
EMB43160	EMB44160	R0.89~R1.02	16.0	16	22	82
EMB43180	EMB44180	R0.89~R1.02	18.0	18	24	84
EMB43200	EMB44200	R0.89~R1.02	20.0	20	26	92

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	○	○								◎	◎	○

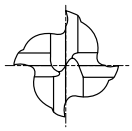
V7 Mill INOX END MILLS

EMB14 SERIES PLAIN SHANK
EMB39 SERIES FLAT SHANK

硬质合金, 4刃 长刃
CARBIDE, 4 FLUTE LONG LENGTH

- ▶ 特殊的沟槽几何形状可以消除振动
- ▶ 设计用于加工低碳钢, 不锈钢, 铸铁, 工具钢, 钛合金, 预硬钢和硬度在HRc40以下的低硬化钢
- ▶ 卓越的工件的表面粗糙度
- ▶ 高速度, 较深切削和材料切除率

- ▶ Special flute geometry eliminates vibrations.
- ▶ Designed to mild steels, stainless steels, cast iron, tool steels, titanium alloys, prehardened steels and low hardness materials under HRc 40
- ▶ Excellent work piece finishes
- ▶ Higher speeds, deeper cuts and metal removal rates



MG HM | 4 | PLAIN | FLAT

P.724

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length
EMB14030	EMB39030	3.0	6	8	57
EMB14040	EMB39040	4.0	6	11	57
EMB14050	EMB39050	5.0	6	13	57
EMB14060	EMB39060	6.0	6	13	57
EMB14080	EMB39080	8.0	8	19	63
EMB14100	EMB39100	10.0	10	22	72
EMB14120	EMB39120	12.0	12	26	83
EMB14140	EMB39140	14.0	14	26	83
EMB14160	EMB39160	16.0	16	32	92
EMB14180	EMB39180	18.0	18	32	92
EMB14200	EMB39200	20.0	20	38	104
EMB14250	EMB39250	25.0	25	38	104

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	○	○								◎	◎	○

V7 Mill INOX END MILLS

EMB15 SERIES PLAIN SHANK
EMB40 SERIES FLAT SHANK

硬质合金，4刃 长刃 圆鼻铣刀
CARBIDE, 4 FLUTE LONG LENGTH CORNER RADIUS

- ▶ 特殊的沟槽几何形状可以消除振动
- ▶ 设计用于加工低碳钢，不锈钢，铸铁，工具钢，钛合金，预硬钢和硬度在HRc40以下的低硬化钢
- ▶ 卓越的工件的表面粗糙度
- ▶ 高速度，较深切削和材料切除率

- ▶ Special flute geometry eliminates vibrations.
- ▶ Designed to mild steels, stainless steels, cast iron, tool steels, titanium alloys, prehardened steels and low hardness materials under HRc 40
- ▶ Excellent work piece finishes
- ▶ Higher speeds, deeper cuts and metal removal rates

MG HM | 4 | PLAIN | FLAT | P.724

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	圆弧半径 Corner Radius R	刃部直径 Mill Diameter	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length
EMB15030	EMB40030	R0.25~R0.38	3.0	6	8	57
EMB15040	EMB40040	R0.25~R0.38	4.0	6	11	57
EMB15050	EMB40050	R0.25~R0.38	5.0	6	13	57
EMB15060	EMB40060	R0.38~R0.51	6.0	6	13	57
EMB15080	EMB40080	R0.38~R0.51	8.0	8	19	63
EMB15100	EMB40100	R0.38~R0.51	10.0	10	22	72
EMB15120	EMB40120	R0.64~R0.76	12.0	12	26	83
EMB15140	EMB40140	R0.64~R0.76	14.0	14	26	83
EMB15160	EMB40160	R0.89~R1.02	16.0	16	32	92
EMB15180	EMB40180	R0.89~R1.02	18.0	18	32	92
EMB15200	EMB40200	R0.89~R1.02	20.0	20	38	104
EMB15250	EMB40250	R0.89~R1.02	25.0	25	38	104

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	○	○								◎	◎	○

V7 Mill INOX END MILLS

EMB74 SERIES PLAIN SHANK
EMB75 SERIES FLAT SHANK

硬质合金, 4刃 长刃 球头
CARBIDE, 4 FLUTE LONG LENGTH BALL NOSE

- ▶ 特殊的沟槽几何形状可以消除振动
- ▶ 设计用于加工低碳钢, 不锈钢, 铸铁, 工具钢, 钛合金, 预硬钢和硬度在HRc40以下的低硬化钢
- ▶ 卓越的工件的表面粗糙度
- ▶ 高速度, 较深切削和材料切除率

- ▶ Special flute geometry eliminates vibrations.
- ▶ Designed to mild steels, stainless steels, cast iron, tool steels, titanium alloys, prehardened steels and low hardness materials under HRc 40
- ▶ Excellent work piece finishes
- ▶ Higher speeds, deeper cuts and metal removal rates

MG HM | 4 | R ±0.01 | PLAIN | FLAT | P.725

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length
EMB74030	EMB75030	R1.5	3.0	6	8	57
EMB74040	EMB75040	R2.0	4.0	6	11	57
EMB74050	EMB75050	R2.5	5.0	6	13	57
EMB74060	EMB75060	R3.0	6.0	6	13	57
EMB74080	EMB75080	R4.0	8.0	8	19	63
EMB74100	EMB75100	R5.0	10.0	10	22	72
EMB74120	EMB75120	R6.0	12.0	12	26	83
EMB74160	EMB75160	R8.0	16.0	16	32	92
EMB74200	EMB75200	R10.0	20.0	20	38	104
EMB74250	EMB75250	R12.5	25.0	25	38	104

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	○	○								◎	◎	○

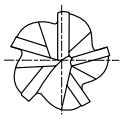
V7 Mill INOX END MILLS

EMB72 SERIES PLAIN SHANK
EMB73 SERIES FLAT SHANK

硬质合金，5刃 长刃
CARBIDE, 5 FLUTE LONG LENGTH

- ▶ 特殊的沟槽几何形状可以消除振动
- ▶ 设计用于加工低碳钢，不锈钢，铸铁，工具钢，钛合金，预硬钢和硬度在HRc40以下的低硬化钢
- ▶ 卓越的工件的表面粗糙度
- ▶ 高速度，较深切削和材料切除率

- ▶ Special flute geometry eliminates vibrations.
- ▶ Designed to mild steels, stainless steels, cast iron, tool steels, titanium alloys, prehardened steels and low hardness materials under HRc 40
- ▶ Excellent work piece finishes
- ▶ Higher speeds, deeper cuts and metal removal rates



MG HM | 5 | PLAIN | FLAT P.725

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length
EMB72060	EMB73060	6.0	6	13	57
EMB72080	EMB73080	8.0	8	19	63
EMB72100	EMB73100	10.0	10	22	72
EMB72120	EMB73120	12.0	12	26	83
EMB72140	EMB73140	14.0	14	26	83
EMB72160	EMB73160	16.0	16	32	92
EMB72180	EMB73180	18.0	18	32	92
EMB72200	EMB73200	20.0	20	38	104
EMB72250	EMB73250	25.0	25	38	104

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	○	○								◎	◎	○

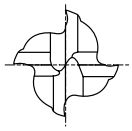
V7 Mill INOX END MILLS

EMB12 SERIES PLAIN SHANK
EMB37 SERIES FLAT SHANK

硬质合金, 4刃 普通刃
CARBIDE, 4 FLUTE REGULAR LENGTH

- 特殊的沟槽几何形状可以消除振动
- 设计用于加工低碳钢, 不锈钢, 铸铁, 工具钢, 钛合金, 预硬钢和硬度在HRc40以下的低硬化钢
- 卓越的工件的表面粗糙度
- 高速度, 较深切削和材料切除率

- Special flute geometry eliminates vibrations.
- Designed to mild steels, stainless steels, cast iron, tool steels, titanium alloys, prehardened steels and low hardness materials under HRc 40
- Excellent work piece finishes
- Higher speeds, deeper cuts and metal removal rates



MG HM | 4 | PLAIN | FLAT P.724

单位(Unit) : inch

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length
EMB12008	-	1/8	1/8	3/8	1-1/2
EMB12010	-	5/32	3/16	7/16	2
EMB12012	-	3/16	3/16	7/16	2
EMB12014	-	7/32	1/4	7/16	2-1/2
EMB12016	-	1/4	1/4	1/2	2-1/2
EMB12018	-	9/32	5/16	5/8	2-1/2
EMB12020	-	5/16	5/16	13/16	2-1/2
EMB12022	EMB37022	11/32	3/8	13/16	2-1/2
EMB12024	EMB37024	3/8	3/8	7/8	2-1/2
EMB12026	EMB37026	13/32	7/16	15/16	2-3/4
EMB12028	EMB37028	7/16	7/16	1	2-3/4
EMB12030	EMB37030	15/32	1/2	1	3
EMB12032	EMB37032	1/2	1/2	1	3
EMB12036	EMB37036	9/16	9/16	1-1/8	3-1/2
EMB12040	EMB37040	5/8	5/8	1-1/4	3-1/2
EMB12048	EMB37048	3/4	3/4	1-1/2	4
EMB12064	EMB37064	1	1	1-1/2	4

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-.0012	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	○	○								◎	◎	○

V7 Mill INOX END MILLS

EMB13 SERIES PLAIN SHANK
EMB38 SERIES FLAT SHANK

硬质合金，4刃 普通刃 圆鼻铣刀
CARBIDE, 4 FLUTE REGULAR LENGTH CORNER RADIUS

- ▶ 特殊的沟槽几何形状可以消除振动
- ▶ 设计用于加工低碳钢，不锈钢，铸铁，工具钢，钛合金，预硬钢和硬度在HRc40以下的低硬化钢
- ▶ 卓越的工件的表面粗糙度
- ▶ 高速度，较深切削和材料切除率

- ▶ Special flute geometry eliminates vibrations.
- ▶ Designed to mild steels, stainless steels, cast iron, tool steels, titanium alloys, prehardened steels and low hardness materials under HRc 40
- ▶ Excellent work piece finishes
- ▶ Higher speeds, deeper cuts and metal removal rates

MG HM | 4 | PLAIN | FLAT

P.724

单位(Unit) : inch

型号 EDP No. PLAIN	型号 EDP No. FLAT	圆弧半径 Corner Radius R	刃部直径 Mill Diameter	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length
EMB13008	-	R.010~R.015	**1/8**	1/8	3/8	1-1/2
EMB13012	-	R.010~R.015	**3/16**	3/16	7/16	2
EMB13016	-	R.015~R.020	**1/4**	1/4	1/2	2-1/2
EMB13020	-	R.015~R.020	**5/16**	5/16	13/16	2-1/2
EMB13024	**EMB38024**	R.015~R.020	**3/8**	3/8	7/8	2-1/2
EMB13028	**EMB38028**	R.015~R.020	**7/16**	7/16	1	2-3/4
EMB13032	**EMB38032**	R.025~R.030	**1/2**	1/2	1	3
EMB13036	**EMB38036**	R.025~R.030	**9/16**	9/16	1-1/8	3-1/2
EMB13040	**EMB38040**	R.035~R.040	**5/8**	5/8	1-1/4	3-1/2
EMB13048	**EMB38048**	R.035~R.040	**3/4**	3/4	1-1/2	4
EMB13064	**EMB38064**	R.035~R.040	**1**	1	1-1/2	4

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-.0012	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	○	○								◎	◎	○

V7 Mill INOX END MILLS

EMB78 SERIES PLAIN SHANK
EMB79 SERIES FLAT SHANK

硬质合金, 4刃 普通刃 球头
CARBIDE, 4 FLUTE REGULAR LENGTH BALL NOSE

- ▶ 特殊的沟槽几何形状可以消除振动
- ▶ 设计用于加工低碳钢, 不锈钢, 铸铁, 工具钢, 钛合金, 预硬钢和硬度在HRc40以下的低硬化钢
- ▶ 卓越的工件的表面粗糙度
- ▶ 高速度, 较深切削和材料切除率

- ▶ Special flute geometry eliminates vibrations.
- ▶ Designed to mild steels, stainless steels, cast iron, tool steels, titanium alloys, prehardened steels and low hardness materials under HRc 40
- ▶ Excellent work piece finishes
- ▶ Higher speeds, deeper cuts and metal removal rates

MG HM | 4 | R ±.0004" | PLAIN | FLAT P.725

单位(Unit) : inch

型号 EDP No. PLAIN	型号 EDP No. FLAT	球头半径 Radius of Ball Nose R (±.0004)	刃部直径 Mill Diameter	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length
EMB78008	-	R1/16	1/8	1/8	3/8	1-1/2
EMB78010	-	R5/64	5/32	3/16	7/16	2
EMB78012	-	R3/32	3/16	3/16	7/16	2
EMB78016	-	R1/8	1/4	1/4	1/2	2-1/2
EMB78020	-	R5/32	5/16	5/16	13/16	2-1/2
EMB78024	EMB79024	R3/16	3/8	3/8	7/8	2-1/2
EMB78032	EMB79032	R1/4	1/2	1/2	1	3
EMB78040	EMB79040	R5/16	5/8	5/8	1-1/4	3-1/2
EMB78048	EMB79048	R3/8	3/4	3/4	1-1/2	4
EMB78064	EMB79064	R1/2	1	1	1-1/2	4

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-.0012	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	○	○								◎	◎	○

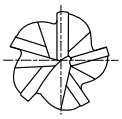
V7 Mill INOX END MILLS

EMB76 SERIES PLAIN SHANK
EMB77 SERIES FLAT SHANK

硬质合金，5刃 普通刃
CARBIDE, 5 FLUTE REGULAR LENGTH

- ▶ 特殊的沟槽几何形状可以消除振动
- ▶ 设计用于加工低碳钢，不锈钢，铸铁，工具钢，钛合金，预硬钢和硬度在HRc40以下的低硬化钢
- ▶ 卓越的工件的表面粗糙度
- ▶ 高速度，较深切削和材料切除率

- ▶ Special flute geometry eliminates vibrations.
- ▶ Designed to mild steels, stainless steels, cast iron, tool steels, titanium alloys, prehardened steels and low hardness materials under HRc 40
- ▶ Excellent work piece finishes
- ▶ Higher speeds, deeper cuts and metal removal rates



MG HM | 5 | PLAIN | FLAT | P.725

单位(Unit)：inch

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length
EMB76016	-	1/4	1/4	1/2	2-1/2
EMB76020	-	5/16	5/16	13/16	2-1/2
EMB76024	EMB77024	3/8	3/8	7/8	2-1/2
EMB76032	EMB77032	1/2	1/2	1	3
EMB76036	EMB77036	9/16	9/16	1-1/8	3-1/2
EMB76040	EMB77040	5/8	5/8	1-1/4	3-1/2
EMB76048	EMB77048	3/4	3/4	1-1/2	4
EMB76064	EMB77064	1	1	1-1/2	4

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-.0012	h6

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	○	○								◎	◎	○

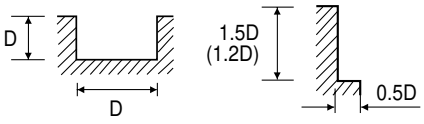
V7 Mill INOX END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

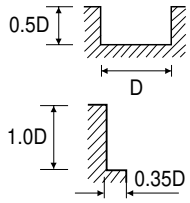
硬质合金, 4刃
CARBIDE, 4 FLUTE

EMB41, EMB42, EMB43, EMB44, EMB14, EMB39, EMB15, EMB40, EMB12, EMB37, EMB13, EMB38 SERIES

材质	合金钢, 铸铁		不锈钢, 300SERIES		不锈钢, 400SERIES		钛		铬镍铁合金	
MATERIAL	ALLOY STEELS CAST IRON		STAINLESS STEELS 300SERIES		STAINLESS STEELS 400SERIES		TITANIUM		INCONEL	
HARDNESS	~HB 230									
STRENGTH	~1000N/mm²									
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
3.0	13475	275	10185	195	14260	205	10185	205	2715	55
4.0	10105	330	7600	250	14260	255	7600	255	2005	55
5.0	8085	370	6110	310	8655	310	6110	310	1630	80
6.0	6735	435	5095	360	7130	360	5095	360	1355	95
8.0	5050	555	3820	435	5345	465	3280	465	1015	125
10.0	4455	690	3055	590	4275	585	3055	585	815	155
12.0	3710	695	2545	565	3565	565	2545	565	675	150
14.0	3180	620	2180	520	3055	520	2180	520	580	140
16.0	2785	590	1910	480	2670	480	1910	480	505	130
18.0	2475	585	1695	475	2375	475	1695	475	450	125
20.0	2225	580	1525	470	2140	470	1525	470	405	125
25.0	1780	450	1215	380	1710	380	1215	380	320	110



1.2D 轴向切削深度应该使用在刃径超过8mm的短刃系列
1.2 x D Axial cutting depth should be applied for Short length series DIA over 8mm



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

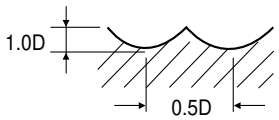
V7 Mill INOX END MILLS

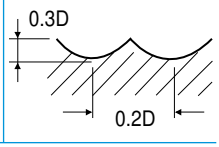
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 4刃 球头
CARBIDE, 4 FLUTE BALL NOSE

EMB74, EMB75, EMB78, EMB79 SERIES

材质	合金钢, 铸铁		不锈钢, 300SERIES		不锈钢, 400SERIES		钛		铬镍铁合金	
MATERIAL	ALLOY STEELS CAST IRON		STAINLESS STEELS 300SERIES		STAINLESS STEELS 400SERIES		TITANIUM		INCONEL	
HARDNESS	~HB 230									
STRENGTH	~1000N/mm²									
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
R1.5 × 3.0	14324	1430	8220	650	7420	440	5830	280	3180	140
R2.0 × 4.0	10740	1070	6160	490	5570	330	4370	210	2380	100
R2.5 × 5.0	8590	1030	4930	490	4450	440	3500	210	1910	80
R3.0 × 6.0	7460	1140	4110	670	3710	440	2910	230	1590	100
R4.0 × 8.0	5370	1280	3080	550	2780	440	2180	260	1190	120
R5.0 × 10.0	4290	1030	2460	490	2220	400	1750	210	950	100
R6.0 × 12.0	3580	1000	2050	450	1850	370	1450	230	790	120
R8.0 × 16.0	2680	800	1540	370	1390	300	1090	190	590	110
R9.0 × 18.0	2380	760	1370	350	1230	290	970	190	530	110
R10.0 × 20.0	2140	770	1230	320	1110	260	870	210	470	100
R12.5 × 25.0	1710	680	980	270	890	210	700	190	380	80



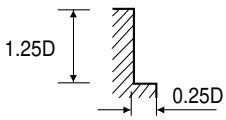


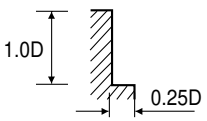
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 5刃
CARBIDE, 5 FLUTE

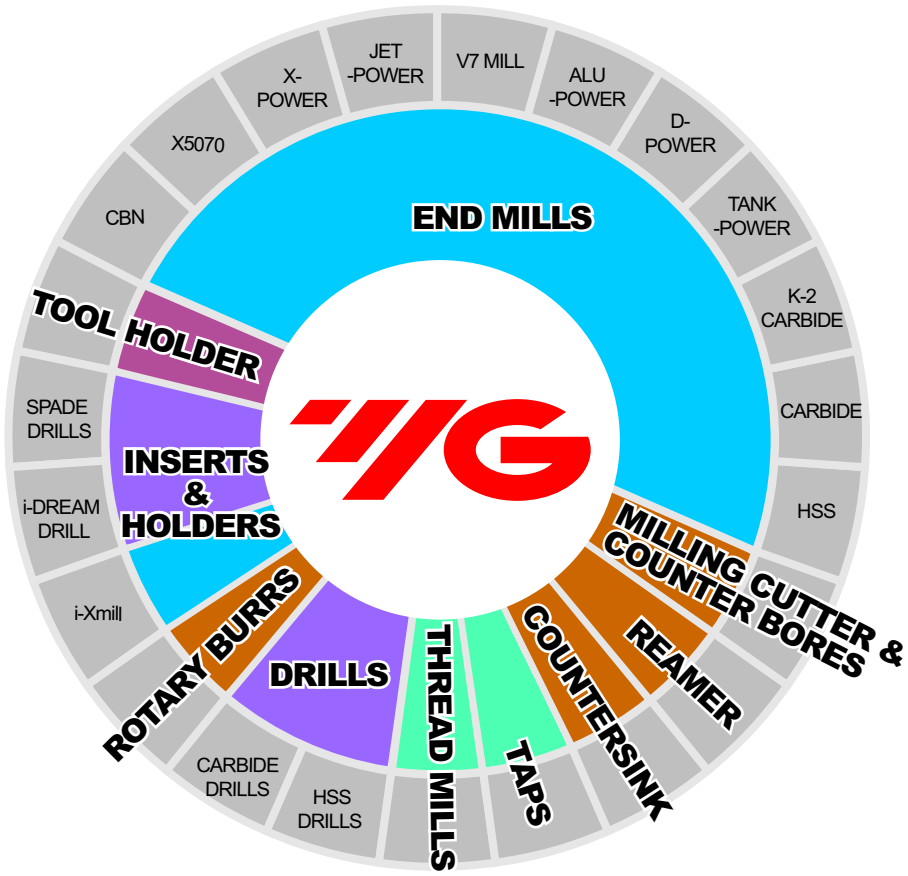
EMB72, EMB73, EMB76, EMB77 SERIES

材质	合金钢, 铸铁		不锈钢, 300SERIES		不锈钢, 400SERIES		钛		铬镍铁合金	
MATERIAL	ALLOY STEELS CAST IRON		STAINLESS STEELS 300SERIES		STAINLESS STEELS 400SERIES		TITANIUM		INCONEL	
HARDNESS	~HB 230									
STRENGTH	~1000N/mm²									
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6.0	7270	1240	6060	920	5660	860	4440	670	1450	120
8.0	5450	1040	4540	720	4240	670	3330	520	1090	110
10.0	4360	1100	3630	690	3390	640	2660	500	870	110
12.0	3630	1150	3030	960	3830	820	2220	560	720	130
14.0	3110	1080	2600	850	2420	770	1900	540	620	140
16.0	2720	1040	2270	780	2120	720	1660	520	540	130
18.0	2420	1000	2020	710	1880	670	1480	510	480	130
20.0	2180	970	1810	690	1690	640	1330	500	430	130
25.0	1740	880	1450	640	1350	600	1060	470	340	130





RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)



Challenge toward a Global Leader-

YG-1 Leads the World Market.

CARBIDE

YG

Being the best through innovation

V7 Mill STEEL

- 可对HRc40以下的钢进行重切削和无声切削
以不等的螺旋角设计

Steels in Heavy and Silent Cutting Materials up to HRc40.
Designed as Unequal Leads.

SELECTION GUIDE

项目	型号	规格	尺寸		页
			最小	最大	
ITEM	MODEL	DESCRIPTION	SIZE		PAGE
			MIN	MAX	
METRIC					
EMD42 EMD43		硬质合金，4刃 多样螺旋角 短刃 CARBIDE, 4 FLUTE MULTIPLE HELIX SHORT LENGTH	D3.0	D20.0	**730**
EMD44 EMD45		硬质合金，4刃 多样螺旋角 短刃 圆鼻铣刀 CARBIDE, 4 FLUTE MULTIPLE HELIX SHORT LENGTH CORNER RADIUS	D3.0	D20.0	**731**
EMD38 EMD39		硬质合金，4刃 多样螺旋角 长刃 CARBIDE, 4 FLUTE MULTIPLE HELIX LONG LENGTH	D3.0	D25.0	**732**
EMD40 EMD41		硬质合金，4刃 多样螺旋角 长刃 圆鼻铣刀 CARBIDE, 4 FLUTE MULTIPLE HELIX LONG LENGTH CORNER RADIUS	D3.0	D25.0	**733**
INCH					
EMD46 EMD47		硬质合金，4刃 多样螺旋角 普通刃 CARBIDE, 4 FLUTE MULTIPLE HELIX REGULAR LENGTH	D1/8"	D1"	**734**
EMD48 EMD49		硬质合金，4刃 多样螺旋角 普通刃 圆鼻铣刀 CARBIDE, 4 FLUTE MULTIPLE HELIX REGULAR LENGTH CORNER RADIUS	D1/8"	D1"	**735**
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS			**736**

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	铬镍铁合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○		○		
◎	◎	◎	○					○		○		
◎	◎	◎	○					○		○		
◎	◎	◎	○					○		○		
◎	◎	◎	○					○		○		
◎	◎	◎	○					○		○		

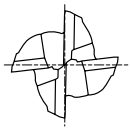
V7 Mill STEEL END MILLS

EMD42 SERIES PLAIN SHANK
EMD43 SERIES FLAT SHANK

硬质合金, 4刃 多样螺旋角 短刃
CARBIDE, 4 FLUTE MULTIPLE HELIX SHORT LENGTH

- 特殊的沟槽几何形状和多样的螺旋角可以消除振动
- 设计用于加工低碳钢, 铸铁, 工具钢和硬度在HRc40以下的低硬化钢
- 卓越的工件的表面粗糙度
- 高速度, 较深切削和高材料切除率

- Special flute geometry and multiple helix eliminate vibrations.
- Designed to machine mild steels, cast irons, tool steels, and low hardened steels up to HRc 40.
- Excellent work piece finishes.
- Higher speeds, deeper cuts, and higher metal removal rates.



MG HM | DIN 6527 | 4 | PLAIN | FLAT P.736

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EMD42030	EMD43030	3.0	6	5	50
EMD42040	EMD43040	4.0	6	8	54
EMD42050	EMD43050	5.0	6	9	54
EMD42060	EMD43060	6.0	6	10	54
EMD42080	EMD43080	8.0	8	12	58
EMD42100	EMD43100	10.0	10	14	66
EMD42120	EMD43120	12.0	12	16	73
EMD42140	EMD43140	14.0	14	18	75
EMD42160	EMD43160	16.0	16	22	82
EMD42180	EMD43180	18.0	18	24	84
EMD42200	EMD43200	20.0	20	26	92

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○		○		

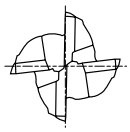
V7 Mill STEEL END MILLS

EMD44 SERIES PLAIN SHANK
EMD45 SERIES FLAT SHANK

硬质合金，4刃 多样螺旋角 短刃 圆鼻铣刀
CARBIDE, 4 FLUTE MULTIPLE HELIX SHORT LENGTH CORNER RADIUS

- ▶ 特殊的沟槽几何形状和多样的螺旋角可以消除振动
- ▶ 设计用于加工低碳钢，铸铁，工具钢和硬度在HRc40以下的低硬化钢
- ▶ 卓越的工件的表面粗糙度
- ▶ 高速度，较深切削和高材料切除率

- ▶ Special flute geometry and multiple helix eliminate vibrations.
- ▶ Designed to machine mild steels, cast irons, tool steels, and low hardened steels up to HRc 40.
- ▶ Excellent work piece finishes.
- ▶ Higher speeds, deeper cuts, and higher metal removal rates.



MG HM | DIN 6527 | 4 | PLAIN | FLAT

P.736

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	圆弧半径 Corner Radius R	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EMD44030	EMD45030	R0.3	3.0	6	5	50
EMD44040	EMD45040	R0.3	4.0	6	8	54
EMD44050	EMD45050	R0.3	5.0	6	9	54
EMD44060	EMD45060	R0.4	6.0	6	10	54
EMD44080	EMD45080	R0.4	8.0	8	12	58
EMD44100	EMD45100	R0.4	10.0	10	14	66
EMD44120	EMD45120	R0.6	12.0	12	16	73
EMD44140	EMD45140	R0.6	14.0	14	18	75
EMD44160	EMD45160	R0.8	16.0	16	22	82
EMD44180	EMD45180	R0.8	18.0	18	24	84
EMD44200	EMD45200	R0.8	20.0	20	26	92

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○		○		

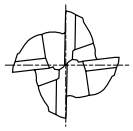
V7 Mill STEEL END MILLS

EMD38 SERIES PLAIN SHANK
EMD39 SERIES FLAT SHANK

硬质合金, 4刃 多样螺旋角 长刃
CARBIDE, 4 FLUTE MULTIPLE HELIX LONG LENGTH

- 特殊的沟槽几何形状和多样的螺旋角可以消除振动
- 设计用于加工低碳钢, 铸铁, 工具钢和硬度在HRc40以下的低硬化钢
- 卓越的工件的表面粗糙度
- 高速度, 较深切削和高材料切除率

- Special flute geometry and multiple helix eliminate vibrations.
- Designed to machine mild steels, cast irons, tool steels, and low hardened steels up to HRc 40.
- Excellent work piece finishes.
- Higher speeds, deeper cuts, and higher metal removal rates.



MG HM | DIN 6527 | 4 | PLAIN | FLAT

P.736

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EMD38030	EMD39030	3.0	6	8	57
EMD38040	EMD39040	4.0	6	11	57
EMD38050	EMD39050	5.0	6	13	57
EMD38060	EMD39060	6.0	6	13	57
EMD38080	EMD39080	8.0	8	19	63
EMD38100	EMD39100	10.0	10	22	72
EMD38120	EMD39120	12.0	12	26	83
EMD38140	EMD39140	14.0	14	26	83
EMD38160	EMD39160	16.0	16	32	92
EMD38180	EMD39180	18.0	18	32	92
EMD38200	EMD39200	20.0	20	38	104
EMD38250	EMD39250	25.0	25	38	104

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○		○		

V7 Mill STEEL END MILLS

EMD40 SERIES PLAIN SHANK
EMD41 SERIES FLAT SHANK

硬质合金，4刃 多样螺旋角 长刃 圆鼻铣刀
CARBIDE, 4 FLUTE MULTIPLE HELIX LONG LENGTH CORNER RADIUS

- ▶ 特殊的沟槽几何形状和多样的螺旋角可以消除振动
- ▶ 设计用于加工低碳钢，铸铁，工具钢和硬度在HRc40以下的低硬化钢
- ▶ 卓越的工件的表面粗糙度
- ▶ 高速度，较深切削和高材料切除率

- ▶ Special flute geometry and multiple helix eliminate vibrations.
- ▶ Designed to machine mild steels, cast irons, tool steels, and low hardened steels up to HRc 40.
- ▶ Excellent work piece finishes.
- ▶ Higher speeds, deeper cuts, and higher metal removal rates.

MG HM | DIN 6527 | 4 | PLAIN | FLAT

P.736

单位(Unit) : mm

型号 EDP No.		圆弧半径 Corner Radius	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
PLAIN	FLAT	R				
EMD40030	EMD41030	R0.3	3.0	6	8	57
EMD40040	EMD41040	R0.3	4.0	6	11	57
EMD40050	EMD41050	R0.3	5.0	6	13	57
EMD40060	EMD41060	R0.4	6.0	6	13	57
EMD40080	EMD41080	R0.4	8.0	8	19	63
EMD40100	EMD41100	R0.4	10.0	10	22	72
EMD40120	EMD41120	R0.6	12.0	12	26	83
EMD40140	EMD41140	R0.6	14.0	14	26	83
EMD40160	EMD41160	R0.8	16.0	16	32	92
EMD40180	EMD41180	R0.8	18.0	18	32	92
EMD40200	EMD41200	R0.8	20.0	20	38	104
EMD40250	EMD41250	R0.8	25.0	25	38	104

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○		○		

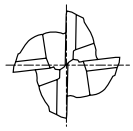
V7 Mill STEEL END MILLS

EMD46 SERIES PLAIN SHANK
EMD47 SERIES FLAT SHANK

硬质合金, 4刃 多样螺旋角 普通刃
CARBIDE, 4 FLUTE MULTIPLE HELIX REGULAR LENGTH

- ▶ 特殊的沟槽几何形状和多样的螺旋角可以消除振动
- ▶ 设计用于加工低碳钢, 铸铁, 工具钢和硬度在HRc40以下的低硬化钢
- ▶ 卓越的工件的表面粗糙度
- ▶ 高速度, 较深切削和高材料切除率

- ▶ Special flute geometry and multiple helix eliminate vibrations.
- ▶ Designed to machine mild steels, cast irons, tool steels, and low hardened steels up to HRc 40.
- ▶ Excellent work piece finishes.
- ▶ Higher speeds, deeper cuts, and higher metal removal rates.



MG HM | 4 | PLAIN | FLAT P.736

单位(Unit) : inch

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EMD46008	-	1/8	1/8	3/8	1-1/2
EMD46010	-	5/32	3/16	7/16	2
EMD46012	-	3/16	3/16	7/16	2
EMD46014	-	7/32	1/4	7/16	2-1/2
EMD46016	-	1/4	1/4	1/2	2-1/2
EMD46018	-	9/32	5/16	5/8	2-1/2
EMD46020	-	5/16	5/16	13/16	2-1/2
EMD46022	EMD47022	11/32	3/8	13/16	2-1/2
EMD46024	EMD47024	3/8	3/8	7/8	2-1/2
EMD46026	EMD47026	13/32	7/16	15/16	2-3/4
EMD46028	EMD47028	7/16	7/16	1	2-3/4
EMD46030	EMD47030	15/32	1/2	1	3
EMD46032	EMD47032	1/2	1/2	1	3
EMD46036	EMD47036	9/16	9/16	1-1/8	3-1/2
EMD46040	EMD47040	5/8	5/8	1-1/4	3-1/2
EMD46048	EMD47048	3/4	3/4	1-1/2	4
EMD46064	EMD47064	1	1	1-1/2	4

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0 ~ −.0012	0 ~ −.0003

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○		○		

V7 Mill STEEL END MILLS

EMD48 SERIES PLAIN SHANK
EMD49 SERIES FLAT SHANK

硬质合金，4刃 多样螺旋角 普通刃 圆鼻铣刀
CARBIDE, 4 FLUTE MULTIPLE HELIX REGULAR LENGTH CORNER RADIUS

- ▶ 特殊的沟槽几何形状和多样的螺旋角可以消除振动
- ▶ 设计用于加工低碳钢，铸铁，工具钢和硬度在HRc40以下的低硬化钢
- ▶ 卓越的工件的表面粗糙度
- ▶ 高速度，较深切削和高材料切除率

- ▶ Special flute geometry and multiple helix eliminate vibrations.
- ▶ Designed to machine mild steels, cast irons, tool steels, and low hardened steels up to HRc 40.
- ▶ Excellent work piece finishes.
- ▶ Higher speeds, deeper cuts, and higher metal removal rates.

MG HM | 4 | PLAIN | FLAT

P.736

单位(Unit) : inch

型号 EDP No. PLAIN	型号 EDP No. FLAT	圆弧半径 Corner Radius R	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EMD48008	-	R.010	1/8	1/8	3/8	1-1/2
EMD48012	-	R.010	3/16	3/16	7/16	2
EMD48016	-	R.015	1/4	1/4	1/2	2-1/2
EMD48020	-	R.015	5/16	5/16	13/16	2-1/2
EMD48024	EMD49024	R.015	3/8	3/8	7/8	2-1/2
EMD48028	EMD49028	R.015	7/16	7/16	1	2-3/4
EMD48032	EMD49032	R.025	1/2	1/2	1	3
EMD48036	EMD49036	R.025	9/16	9/16	1-1/8	3-1/2
EMD48040	EMD49040	R.035	5/8	5/8	1-1/4	3-1/2
EMD48048	EMD49048	R.035	3/4	3/4	1-1/2	4
EMD48064	EMD49064	R.035	1	1	1-1/2	4

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0 ~ −.0012	0 ~ −.0003

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○		○		

V7 Mill STEEL END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 4刃
CARBIDE, 4 FLUTE

EMD42, EMD43, EMD44, EMD45, EMD38, EMD39, EMD40, EMD41, EMD46, EMD47, EMD48, EMD49 SERIES

材质	合金钢, 铸铁		合金钢, 铸铁	
MATERIAL	ALLOY STEELS CAST IRON		ALLOY STEELS CAST IRON	
HARDNESS	~ HB 300		HB 300 ~ HB 380	
STRENGTH	~ 1000N/mm²		1000 ~ 1300N/mm²	
DIAMETER	RPM	FEED	RPM	FEED
3.0	13475	275	9430	190
4.0	10105	330	7070	230
5.0	8085	370	5660	260
6.0	6735	435	4715	305
8.0	5050	555	3535	385
10.0	4455	690	3115	480
12.0	3710	695	2600	485
14.0	3180	620	2225	435
16.0	2785	590	1950	410
18.0	2475	585	1730	410
20.0	2225	580	1560	405
25.0	1780	450	1245	315

1.2D 轴向切削深度应该使用在刃径超过8mm的短刃系列.
1.2 x D Axial cutting depth should be applied for Short length series DIA over 8mm.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

CARBIDE

YG

Being the best through innovation

ALU-POWER

- 铝合金以及无声切削

Aluminium Alloys and Silent Cutting

SELECTION GUIDE

项目	型号	规格	尺寸		页
			最小	最大	
ITEM	MODEL	DESCRIPTION	SIZE		PAGE
			MIN	MAX	
E5C33		硬质合金, 1刃 CARBIDE, 1 FLUTE	D2.0	D8.0	740
E5C34		硬质合金, 1刃 (顺铣) CARBIDE, 1 FLUTE (DOWN CUT TYPE)	D2.0	D8.0	741
EG930		硬质合金, 2刃 25度螺旋角 圆鼻铣刀 TiCN 涂层 CARBIDE, 2 FLUTE 25° HELIX CORNER RADIUS TiCN COATED	D2.0	D20.0	742
E5522 E5521		硬质合金, 2刃 45度螺旋角 CARBIDE, 2 FLUTE 45° HELIX	D3.0	D20.0	743
EG909		硬质合金, 2刃 圆鼻铣刀 TiCN 涂层 CARBIDE, 2 FLUTE CORNER RADIUS TiCN COATED	D4.0	D20.0	744
EG910		硬质合金, 2刃 50度螺旋角 球头 TiCN 涂层 CARBIDE, 2 FLUTE 50° HELIX BALL NOSE TiCN COATED	R3.0	R10.0	745
EG908		硬质合金, 3刃 40度螺旋角 球头 TiCN 涂层 CARBIDE, 3 FLUTE 40° HELIX BALL NOSE TiCN COATED	R1.0	R8.0	746
E5A18		硬质合金, 3刃 45度螺旋角 CARBIDE, 3 FLUTE 45° HELIX	D3.0	D20.0	747
EP922 EP923		粉末高速钢, 3刃 42度螺旋角 短刃 粗加工 - TiAlN 涂层 PREMIUM HSS-PM, 3 FLUTE 42° HELIX SHORT LENGTH ROUGHING TiAlN COATED	D12.0	D32.0	748
EP924 EP925		粉末高速钢, 3刃 42度螺旋角 长刃 粗加工 - TiAlN 涂层 PREMIUM HSS-PM, 3 FLUTE 42° HELIX LONG LENGTH ROUGHING TiAlN COATED	D12.0	D32.0	749
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS			750

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	铬镍铁合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
	○							○	◎			
	○							○	◎			
									◎			
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									◎			
									◎			
									◎			
								○	◎			
								○	◎			

ALU-POWER END MILLS

E5C33 SERIES PLAIN SHANK

硬质合金, 1刃
CARBIDE, 1 FLUTE

- 为有色金属和铝' 塑料等非金属设计的
- 1刃可得到卓越的的工件表面粗糙度和铁屑排除率
- 普通型和长型可以适用各种尺寸的原材料

- Designed to non-ferrous metal and non-metal like aluminum and acryilic
- 1 Flute allows for excellent workpiece finishes and chip-evacuation.
- Regular and long length types are suitable to apply the variable size work pieces.

MG HM | 1 | 30° | PLAIN P.750

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E5C33020	2.0	6	7	40
E5C3302012	2.0	6	12	50
E5C33030	3.0	6	8	45
E5C33030A	3.0	6	12	45
E5C3303020	3.0	6	20	55
E5C33040	4.0	6	12	50
E5C33040A	4.0	6	16	55
E5C3304022	4.0	6	22	60
E5C33050	5.0	6	22	60
E5C3305028	5.0	6	28	65
E5C33060	6.0	6	27	65
E5C3306032	6.0	6	32	75
E5C33080	8.0	8	32	70

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
	○							○	◎			

ALU-POWER END MILLS

E5C34 SERIES PLAIN SHANK

硬质合金，1刃 (顺铣)
CARBIDE, 1 FLUTE (Down Cut Type)

- ▶ 为有色金属和铝，塑料等非铁金属设计的
- ▶ 1刃铣刀 可得到出众的工件表面粗糙度和铁屑排除率
- ▶ 普通型和长型可以适用各种尺寸的原材料
- ▶ 顺铣具有稳定的性能

- ▶ Suitable for high speed machining aluminum, aluminum alloys and non- ferrous materials.
- ▶ 1 Flute allows for excellent workpiece finishes and chip-evacuation.
- ▶ Regular and long length are available to apply the variable size work pieces.
- ▶ Stable performance thanks to down cut type.

MG HM | 1 | 30° | PLAIN P.750

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E5C34020	2.0	6	7	50
E5C34030	3.0	6	8	50
E5C34030A	3.0	6	12	55
E5C34040	4.0	6	12	55
E5C34040A	4.0	6	16	60
E5C34050	5.0	6	22	60
E5C34060	6.0	6	27	65
E5C34080	8.0	8	32	70

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
	○							○	◎			

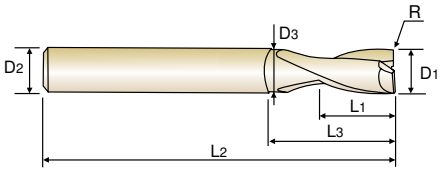
ALU-POWER END MILLS

EG930 SERIES PLAIN SHANK

硬质合金, 2刃 25度螺旋角 圆鼻铣刀 TiCN 涂层
CARBIDE, 2 FLUTE 25° HELIX CORNER RADIUS TiCN COATED

- 设计用于加工铝及铝合金, 有色金属材料.
- 提高刀具寿命和较高的切削精度.
- 最大程度的材料切除量′铁屑排除量和稳定性.
- 圆弧角防止崩刃.

- Suitable for high speed machining aluminum, aluminum alloys and non- ferrous materials.
- Increased tool life and higher cutting accuracy.
- Maximum stock removal, chip ejection and stability.
- Corner Radius for avoiding the chipping.



MG HM | 2 | 25° | PLAIN

P.750

单位(Unit) : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EG930020	R0.2	2.0	3	3	6	40	1.9
EG930030	R0.2	3.0	3	4	8	40	2.9
EG930040	R0.2	4.0	4	5	12	50	3.8
EG930050	R0.2	5.0	5	8	14	50	4.8
EG930060	R0.2	6.0	6	8	18	65	5.7
EG930080	R0.2	8.0	8	10	22	70	7.7
EG930100	R0.2	10.0	10	14	28	80	9.7
EG930120	R0.2	12.0	12	16	35	90	11.5
EG930160	R0.2	16.0	16	20	40	90	15.5
EG930200	R0.2	20.0	20	25	50	100	19.5

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
									◎			

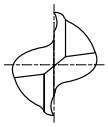
ALU-POWER END MILLS

E5522 SERIES PLAIN SHANK
E5521 SERIES FLAT SHANK

硬质合金，2刃 45度螺旋角
CARBIDE, 2 FLUTE 45° HELIX

- 适合于铝及其他有色金属材料的高速切削.
- 具有卓越的表面粗糙度.
- 及出众的排屑.

- Suitable for high speed machining aluminmun, aluminum alloys and non-ferrous materials.
- Excellent surface finishes.
- Good chip removal.



MG HM | 2 | 45° | PLAIN | FLAT

P.751

单位(Unit) : mm

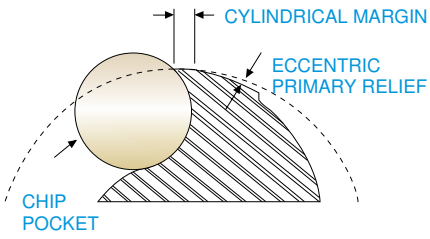
型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E5522030	E5521030	3.0	6	8	57
E5522040	E5521040	4.0	6	11	57
E5522050	E5521050	5.0	6	13	57
E5522060	E5521060	6.0	6	13	57
E5522080	E5521080	8.0	8	19	63
E5522100	E5521100	10.0	10	22	72
E5522120	E5521120	12.0	12	26	83
E5522140	E5521140	14.0	14	26	83
E5522160	E5521160	16.0	16	32	92
E5522180	E5521180	18.0	18	32	92
E5522200	E5521200	20.0	20	38	104

▶ TiN，TiCN涂层或者TiAlN涂层 可根据客户需求进行加工. / TiN, TiCN - coating & TiAlN - coating is available on your request.

- 加工铝和有色金属时具有很高的性能
  High performance in machining aluminum and non-ferrous materials
- 特殊设计的几何尺寸使切削刃具有很高的刚性
  Special designed geometry with high rigidity cutting edge
- 提高表面粗糙度 - 具有能严格控制的外周钻边
  Improved surface roughness - cylindrical margin which is controlled tightly.
- 出众的铁屑排除率 - 高倾斜角，高螺旋角(45°)，更大的排屑槽
  Excellent chip removal - higher rake angle, higher helix angle(45°), bigger chip pocket.

- 根据您的要求可以进行圆弧角铣刀，倒角刀，颈部设计等制作
  Corner radius, Corner chamfer, Neck design is available on your request.
- TiN,TiCN & TiAlN & 可根据客户需求进行加工.
  TiN, TiCN & TiAlN coating is available on your request.

	UNCOATED	TiN	TiCN	TiAlN
PLAIN SHANK	E5522	E6522	EG522	EH522
FLAT SHANK	E5521	E6521	EG521	EH521



刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
									◎			

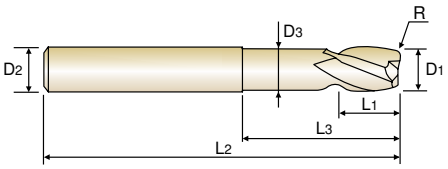
ALU-POWER END MILLS

EG909 SERIES PLAIN SHANK

硬质合金，2刃 圆鼻铣刀 TiCN 涂层
CARBIDE, 2 FLUTE CORNER RADIUS TiCN COATED

- 对不锈钢，铝及铜具有卓越的切削质量.
- 提高刀具寿命和较高的切削精度.

- Excellent cutting performance when cutting stainless steels, aluminum and copper.
- Increased tool life and higher cutting accuracy.



MG HM | 2 | 30° | PLAIN

P.752

单位(Unit) : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EG909040	R0.3	4.0	6	5	10	50	3.6
EG909060	R0.5	6.0	6	8	20	60	5.4
EG909080	R0.6	8.0	8	10	30	70	7.2
EG909100	R0.8	10.0	10	12	36	80	9
EG909120	R1.0	12.0	12	14	40	90	11
EG909160	R1.3	16.0	16	18	45	100	14.5
EG909200	R1.6	20.0	20	24	45	100	18

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
									◎			

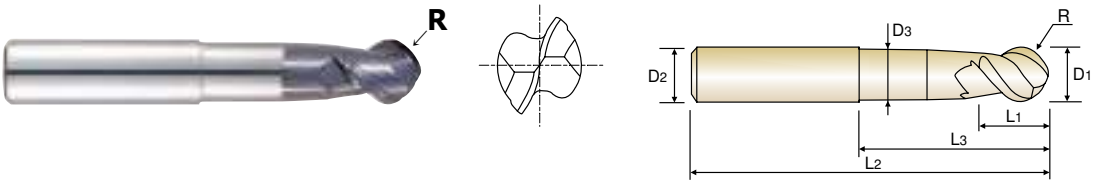
ALU-POWER END MILLS

EG910 SERIES PLAIN SHANK

硬质合金，2刃 50度螺旋角 球头 TiCN 涂层
CARBIDE, 2 FLUTE 50° HELIX BALL NOSE TiCN COATED

- ▶ 对不锈钢，铝及铜具有卓越的切削质量.
- ▶ 提高刀具寿命和较高的切削精度.

- ▶ Suitable for high speed machining aluminum, aluminum alloys and non- ferrous materials.
- ▶ Increased tool life and higher cutting accuracy.



MG HM | 2 | 50° | R ±0.01 | PLAIN

P.752

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EG910060	R3.0	6.0	6	5.5	25	55	5.4
EG910080	R4.0	8.0	8	7	30	65	7.2
EG910100	R5.0	10.0	10	8.5	35	75	9
EG910120	R6.0	12.0	12	10.5	40	75	11
EG910160	R8.0	16.0	16	14	50	90	14.5
EG910200	R10.0	20.0	20	17	50	100	18

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
±0.02	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
									◎			

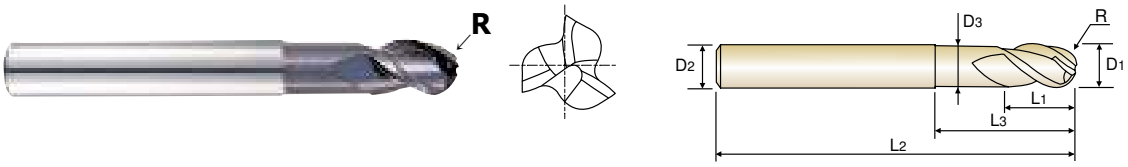
ALU-POWER END MILLS

EG908 SERIES PLAIN SHANK

硬质合金, 3刃 40度螺旋角 球头 TiCN 涂层
CARBIDE, 3 FLUTE 40° HELIX BALL NOSE TiCN COATED

- 在加工不锈钢, 铝和铜时具有出众的切削性能
- 提高刀具寿命和较高的切削精度.

- Suitable for high speed machining aluminum, aluminum alloys and non- ferrous materials.
- Increased tool life and higher cutting accuracy.



MG HM | 3 | 40° | R ±0.01 | PLAIN

P.753

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EG908020	R1.0	2.0	6	3	5	60	1.9
EG908025	R1.25	2.5	6	4	6	60	2.4
EG908030	R1.5	3.0	6	4.5	6.5	60	2.8
EG908035	R1.75	3.5	6	5	7	65	3.2
EG908040	R2.0	4.0	6	6	8	65	3.7
EG908050	R2.5	5.0	6	7.5	10	65	4.6
EG908060	R3.0	6.0	6	9	12	75	5.6
EG908080	R4.0	8.0	8	12	25	75	7.4
EG908100	R5.0	10.0	10	15	30	80	9.4
EG908120	R6.0	12.0	12	18	36	90	11.4
EG908160	R8.0	16.0	16	24	40	100	15.4

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
									◎			

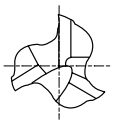
ALU-POWER END MILLS

E5A18 SERIES PLAIN SHANK

硬质合金，3刃 45度螺旋角
CARBIDE, 3 FLUTE 45° HELIX

- 为铝，铝合金以及有色金属合成材料设计的
- 由于切削刃的镜面研磨具有出众的表面粗糙度
- 特殊的沟槽几何形状可以消除振动
- 使用准确的外径公差

- Suitable for high speed machining aluminmun, aluminum alloys and non-ferrous materials.
- Excellent surface roughness thanks to Mirror Face of cutting edges.
- Special flute geometry eliminates vibrations.
- Precise tolerance of outside diameter is applied.



MG HM | 3 | 45° | PLAIN

P.754

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E5A18030	3.0	6	10	50
E5A18040	4.0	6	13	50
E5A18050	5.0	6	17	55
E5A18060	6.0	6	17	55
E5A18070	7.0	8	22	65
E5A18080	8.0	8	22	65
E5A18090	9.0	10	27	70
E5A18100	10.0	10	27	70
E5A18110	11.0	12	32	80
E5A18120	12.0	12	32	80
E5A18130	13.0	12	35	85
E5A18140	14.0	16	37	85
E5A18150	15.0	16	42	90
E5A18160	16.0	16	42	90
E5A18180	18.0	18	47	110
E5A18200	20.0	20	47	110

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.015	h6

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
									◎			

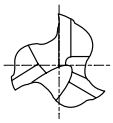
ALU-POWER END MILLS

EP922 SERIES PLAIN SHANK
EP923 SERIES FLAT SHANK

粉末高速钢, 3刃 42度螺旋角 短刃 粗加工 – TiAlN 涂层
PREMIUM HSS-PM, 3 FLUTE 42° HELIX ROUGHING SHORT LENGTH TiAlN COATED

- 在高速条件下有着最大的空间排屑率.
- 减少振动提高表面粗糙度.

- Maximum stock removal rates at High Speed Condition.
- Reduces vibrations and improves surface roughness.



YPM | ALU | 3 | 42° | PLAIN | FLAT

P.753

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter js12	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length
EP922120	EP923120	12.0	12	26	83
EP922140	EP923140	14.0	12	26	83
EP922160	EP923160	16.0	16	32	92
EP922180	EP923180	18.0	16	32	92
EP922200	EP923200	20.0	20	38	104
EP922220	EP923220	22.0	20	38	104
EP922250	EP923250	25.0	25	45	121
EP922280	EP923280	28.0	25	45	121
EP922320	EP923320	32.0	32	53	133

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位/ Tolerance range in μm 公称直径单位/ Nominal-Diameter in mm						
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
js12	± 50	± 60	± 75	± 90	± 105	± 125
h6	0 / — 6	0 / — 8	0 / — 9	0 / — 11	0 / — 13	0 / — 16

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
								○	◎			

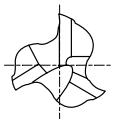
ALU-POWER END MILLS

EP924 SERIES PLAIN SHANK
EP925 SERIES FLAT SHANK

粉末高速钢, 3刃 42度螺旋角 长刃 粗加工 – TiAlN 涂层
PREMIUM HSS-PM, 3 FLUTE 42° HELIX ROUGHING LONG LENGTH TiAlN COATED

- ▶ 在高速条件下有着最大的空间排屑率.
- ▶ 减少振动提高表面粗糙度.

- ▶ Maximum stock removal rates at High Speed Condition.
- ▶ Reduces vibrations and improves surface roughness.



YPM | ALU | 3 | 42° | PLAIN | FLAT

P.753

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter js12	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length
EP924120	EP925120	12.0	12	53	110
EP924140	EP925140	14.0	12	53	110
EP924160	EP925160	16.0	16	63	123
EP924180	EP925180	18.0	16	63	123
EP924200	EP925200	20.0	20	75	141
EP924220	EP925220	22.0	20	75	141
EP924250	EP925250	25.0	25	90	166
EP924280	EP925280	28.0	25	90	166
EP924320	EP925320	32.0	32	106	186

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in ㎛						
公称直径单位 / Nominal-Diameter in mm						
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
js12	± 50	± 60	± 75	± 90	± 105	± 125
h6	0 / — 6	0 / — 8	0 / — 9	0 / — 11	0 / — 13	0 / — 16

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
								○	◎			

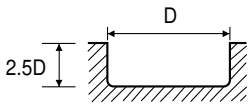
ALU-POWER END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金，1刃
CARBIDE, 1 FLUTE

E5C33, E5C34 SERIES

材质	压克力		合金钢，铸铁	
MATERIAL	ACRYLIC		ALLOY STEELS CAST IRON	
DIAMETER	RPM	FEED	RPM	FEED
2.0	32000	2200	23000	1500
3.0	25000	2400	18000	1700
4.0	20000	2400	15000	1800
5.0	15000	2200	12000	1800
6.0	13500	2300	10000	1800
8.0	10000	2400	7800	1900
10.0	8000	2400	6000	2000

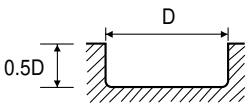


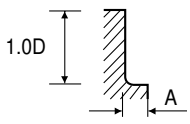
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金，2刃 25度螺旋角 圆鼻铣刀 TiCN 涂层
CARBIDE, 2 FLUTE 25° HELIX CORNER RADIUS TiCN COATED

EG930 SERIES

材质	铝，低硅铝			
MATERIAL	ALUMINUM LOW SILICON ALUMINUM			
DIAMETER	RPM	FEED	RPM	FEED
3.0	13000	900	13000	1200
4.0	13000	1200	13000	1400
5.0	13000	1300	13000	1700
6.0	13000	1500	13000	2000
8.0	10000	1800	10000	2300
10.0	10000	2200	10000	2700
12.0	10000	2700	10000	3400
16.0	8000	2500	8000	3100
20.0	5000	2000	5000	2500





A : Ø3 ~ Ø10 = 0.25 × D
Ø12 ~ Ø20 = 0.5 × D

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

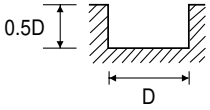
ALU-POWER END MILLS

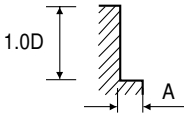
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 2刃 45度螺旋角
CARBIDE, 2 FLUTE 45° HELIX

E5522, E5521 SERIES

材质 MATERIAL	铝, 低硅铝 ALUMINUM LOW SILICON ALUMINUM			
DIAMETER	RPM	FEED	RPM	FEED
3.0	10000	700	10000	900
4.0	10000	900	10000	1100
5.0	10000	1000	10000	1300
6.0	10000	1200	10000	1500
8.0	8000	1400	8000	1800
10.0	8000	1700	8000	2100
12.0	8000	2100	8000	2600
14.0	6000	1800	6000	2200
16.0	6000	1900	6000	2400
18.0	4000	1400	4000	1800
20.0	4000	1600	4000	1900





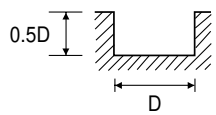
A : Ø3 ~ Ø10 = 0.25 × D
Ø12 ~ Ø20 = 0.5 × D

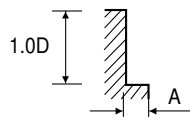
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 2刃 45度螺旋角 TiCN 涂层
CARBIDE, 2 FLUTE 45° HELIX TiCN COATED

EG522, EG521 SERIES

材质 MATERIAL	铝, 低硅铝 ALUMINUM LOW SILICON ALUMINUM			
DIAMETER	RPM	FEED	RPM	FEED
3.0	13000	900	13000	1200
4.0	13000	1200	13000	1400
5.0	13000	1300	13000	1700
6.0	13000	1500	13000	2000
8.0	10000	1800	10000	2300
10.0	10000	2200	10000	2700
12.0	10000	2700	10000	3400
14.0	8000	2300	8000	2800
16.0	8000	2500	8000	3100
18.0	5000	1800	5000	2300
20.0	5000	2000	5000	2500





A : Ø3 ~ Ø10 = 0.25 × D
Ø12 ~ Ø20 = 0.5 × D

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

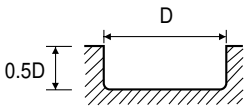
ALU-POWER END MILLS

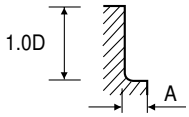
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 2刃 圆鼻铣刀 TiCN 涂层
CARBIDE, 2 FLUTE CORNER RADIUS TiCN COATED

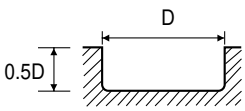
EG909 SERIES

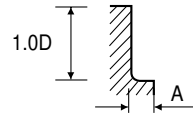
材质 MATERIAL	铝, 铝合金 ALUMINUM ALUMINUM ALLOY				铜合金 COPPER ALLOY			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
4.0	13000	1200	13000	1400	3900	300	3900	350
6.0	13000	1500	13000	2000	3900	380	3900	500
8.0	10000	1800	10000	2300	3000	450	3000	580
10.0	10000	2200	10000	2700	3000	550	3000	680
12.0	10000	2700	10000	3400	3000	680	3000	850
16.0	8000	2500	8000	3100	2400	630	2400	780
20.0	5000	2000	5000	2500	1500	500	1500	630





A : ~Ø10=0.25D
Ø12~Ø20=0.5D





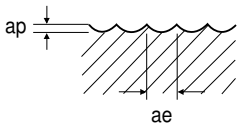
A : ~Ø10=0.25D
Ø12~Ø20=0.5D

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 2刃 50度螺旋角 球头 TiCN 涂层
CARBIDE, 2 FLUTE 50° HELIX BALL NOSE TiCN COATED

EG910 SERIES

材质 MATERIAL	铝, 铝合金 ALUMINUM ALUMINUM ALLOY		铜合金 COPPER ALLOY	
DIAMETER	RPM	FEED	RPM	FEED
R3.0 × 6.0	18000	1750	5500	440
R4.0 × 8.0	14000	2000	4200	500
R5.0 × 10.0	14000	2350	4200	580
R6.0 × 12.0	14000	3000	4200	750
R8.0 × 16.0	11000	2700	3300	670
R10.0 × 20.0	7000	2200	2100	550



ap=0.2×D
ae=0.5×D

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

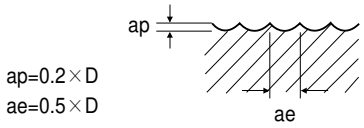
ALU-POWER END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 3刃 40度螺旋角 球头 TiCN 涂层
CARBIDE, 3 FLUTE 40° HELIX BALL NOSE TiCN COATED

EG908 SERIES

材质	铝, 低硅铝		铜合金	
MATERIAL	ALUMINUM LOW SILICON ALUMINUM		COPPER ALLOY	
DIAMETER	RPM	FEED	RPM	FEED
R1.0 ×2.0	27000	950	8000	240
R1.25×2.5	22000	950	6500	240
R1.5 ×3.0	18000	950	5500	240
R2.0 ×4.0	18000	1250	5500	310
R2.5 ×5.0	18000	1350	5500	340
R3.0 ×6.0	18000	1750	5500	440
R4.0 ×8.0	14000	2000	4200	500
R5.0 ×10.0	14000	2350	4200	580
R6.0 ×12.0	14000	3000	4200	750
R8.0 ×16.0	11000	2700	3300	670

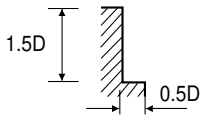


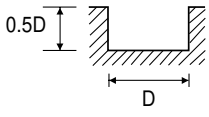
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

粉末高速钢, 3刃 42度螺旋角 粗加工 – TiAlN 涂层
PREMIUM HSS-PM, 3 FLUTE 42° HELIX ROUGHING TiAlN COATED

EP922, EP923, EP924, EP925 SERIES

材质	铝, 铝合金			
MATERIAL	ALUMINUM ALUMINUM ALLOY			
DIAMETER	RPM	FEED	RPM	FEED
12.0	2800	550	2800	410
16.0	2200	625	2200	465
20.0	1700	700	1700	525
25.0	1400	625	1400	465
32.0	1100	700	1100	525





※ 对长和超长型进给应减少约50%
The FEED, in long & long reach types, should be reduced by around 50%

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

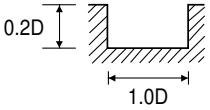
ALU-POWER END MILLS

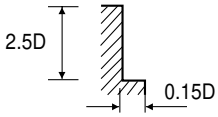
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 3刃 45度螺旋角
CARBIDE, 3 FLUTE 45° HELIX

E5A18 SERIES

材质 MATERIAL	铝, 有色金属 ALUMINIUM NONFERROUS METALS			
DIAMETER	RPM	FEED	RPM	FEED
3.0	10000	500	10000	650
4.0	10000	630	10000	780
5.0	10000	720	10000	930
6.0	10000	865	10000	1080
8.0	8000	1000	8000	1230
10.0	8000	1220	8000	1500
12.0	8000	1500	8000	1260
14.0	6000	1290	6000	1580
16.0	6000	1350	6000	1730
18.0	4000	1000	4000	1300
20.0	4000	1150	4000	1365

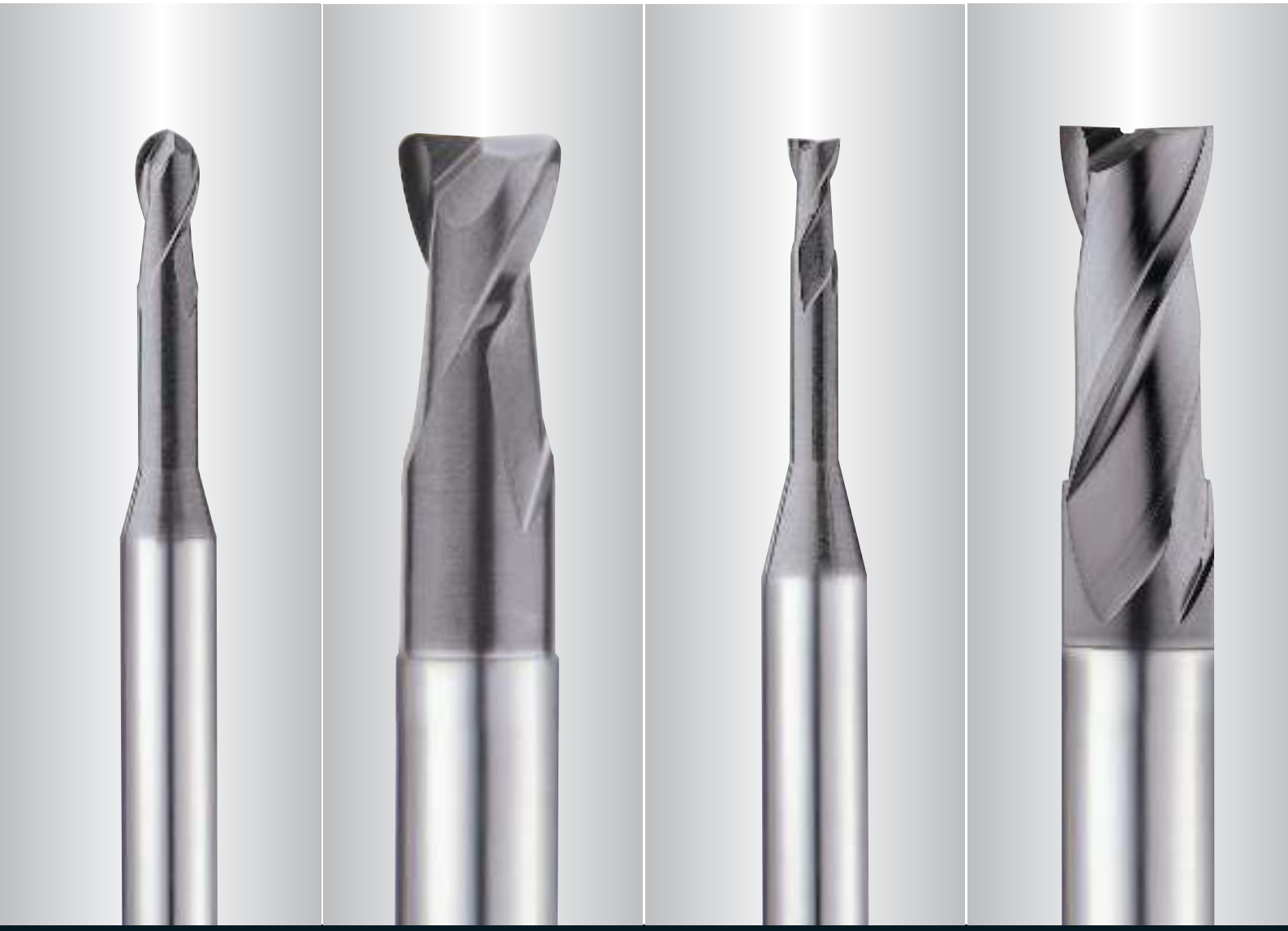




RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

CARBIDE

Being the best through innovation



CRX S

- 铜加工用DLC 涂层硬质合金铣刀

DLC Coating Carbide End Mills for Copper

SELECTION GUIDE

项目	型号	规格	尺寸		页
			最小	最大	
ITEM	MODEL	DESCRIPTION	SIZE		PAGE
			MIN	MAX	
SGED27		硬质合金, 2刃 长颈 球头 DLC 涂层 CARBIDE, 2 FLUTE LONG NECK BALL NOSE DLC COATING	R0.25	R6.0	758
SGED28		硬质合金, 2刃 球头 DLC 涂层 CARBIDE, 2 FLUTE BALL NOSE DLC COATING	R0.5	R6.0	760
SGED29		硬质合金, 2刃 长颈 圆鼻铣刀 DLC 涂层 CARBIDE, 2 FLUTE LONG NECK CORNER RADIUS DLC COATING	D1.0	D12.0	761
SGED30		硬质合金, 2刃 长颈 DLC 涂层 CARBIDE, 2 FLUTE LONG NECK DLC COATING	D0.5	D12.0	763
SGED31		硬质合金, 2刃 DLC 涂层 CARBIDE, 2 FLUTE DLC COATING	D1.0	D12.0	765
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS			766

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	铬镍铁合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
						◎			○			
						◎			○			
						◎			○			
						◎			○			
						◎			○			

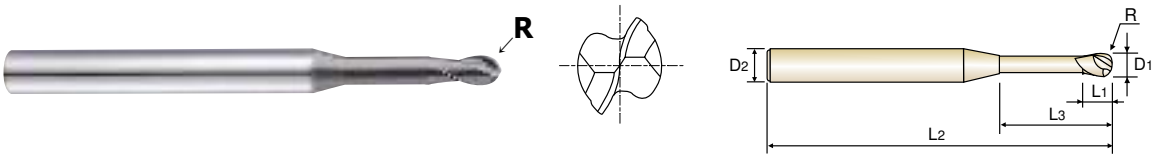
CRX S END MILLS

SGED27 SERIES PLAIN SHANK

硬质合金, 2刃 长颈 球头 DLC 涂层
CARBIDE, 2 FLUTE LONG NECK BALL NOSE DLC COATING

- 使用YG-1金刚石涂层(DLC)
- 为铜, 铜合金, 软石墨, 硬塑料, 非金属合成材料或碳化纤维, 玻璃等非金属材料设计
- 使用±5㎛以下精确的半径公差(小于R3)
- 由于切削刃的镜面研磨具有出众的表面粗糙度
- 通过双重脖颈可进行更高的硬度, 最小的振动的加工(R0.5以下)

- Applied YG-1's diamond film coating(DLC)
- Designed to copper, copper alloys soft graphites, reinforced plastics and the matterials affiliated with non-ferrous metals & nonmetals like carbon fiber and glass.
- Tight Radius tolerance is applied (±0.005mm tolerance under R3).
- Excellent surface roughness thanks to Mirror Face of cutting edges
- High strength and minimized vibration are available due to two step taper neck(under R0.5).



NG HM | 2 | DLC | 30° | R ±0.005 (R0.25~R3) | R ±0.010 (R4~R6) | PLAIN

P.766

단위(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2
SGED2700502	R0.25	0.5	4	0.5	2	45
SGED2700504	R0.25	0.5	4	0.5	4	45
SGED2700506	R0.25	0.5	4	0.5	6	45
SGED2700508	R0.25	0.5	4	0.5	8	45
SGED2700510	R0.25	0.5	4	0.5	10	45
SGED2700602	R0.3	0.6	4	0.6	2	45
SGED2700604	R0.3	0.6	4	0.6	4	45
SGED2700606	R0.3	0.6	4	0.6	6	45
SGED2700608	R0.3	0.6	4	0.6	8	45
SGED2700610	R0.3	0.6	4	0.6	10	45
SGED2700804	R0.4	0.8	4	0.8	4	45
SGED2700806	R0.4	0.8	4	0.8	6	45
SGED2700808	R0.4	0.8	4	0.8	8	45
SGED2700810	R0.4	0.8	4	0.8	10	45
SGED2700812	R0.4	0.8	4	0.8	12	45
SGED2701004	R0.5	1.0	4	1	4	45
SGED2701006	R0.5	1.0	4	1	6	45
SGED2701008	R0.5	1.0	4	1	8	45
SGED2701010	R0.5	1.0	4	1	10	45
SGED2701012	R0.5	1.0	4	1	12	45
SGED2701506	R0.75	1.5	4	1.5	6	45
SGED2701508	R0.75	1.5	4	1.5	8	45
SGED2701510	R0.75	1.5	4	1.5	10	45
SGED2701512	R0.75	1.5	4	1.5	12	45
SGED2701516	R0.75	1.5	4	1.5	16	50

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
						◎			○			

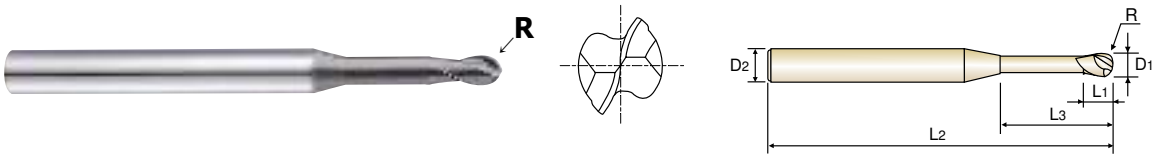
CRX S END MILLS

SGED27 SERIES PLAIN SHANK

硬质合金，2刃 长颈 球头 DLC 涂层
CARBIDE, 2 FLUTE LONG NECK BALL NOSE DLC COATING

- 使用YG-1金刚石涂层(DLC)
- 为铜，铜合金，软石墨，硬塑料，非金属合成材料或碳化纤维，玻璃等非金属材料设计
- 使用±5㎛以下精确的半径公差(小于R3)
- 由于切削刃的镜面研磨具有出众的表面粗糙度
- 通过双重脖颈可进行更高的硬度，最小的振动的加工(R0.5以下)

- Applied YG-1's diamond film coating(DLC)
- Designed to copper, copper alloys soft graphites, reinforced plastics and the matterials affiliated with non-ferrous metals & nonmetals like carbon fiber and glass.
- Tight Radius tolerance is applied (±0.005mm tolerance under R3).
- Excellent surface roughness thanks to Mirror Face of cutting edges
- High strength and minimized vibration are available due to two step taper neck(under R0.5).



NG HM | 2 | DLC | 30° | R ±0.005 (R0.25~R3) | R ±0.010 (R4~R6) | PLAIN

P.766

단위(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2
SGED2702006	R1.0	2.0	4	3	6	45
SGED2702008	R1.0	2.0	4	3	8	45
SGED2702010	R1.0	2.0	4	3	10	45
SGED2702012	R1.0	2.0	4	3	12	45
SGED2702016	R1.0	2.0	4	3	16	50
SGED2703010	R1.5	3.0	6	4	10	50
SGED2703012	R1.5	3.0	6	4	12	50
SGED2703016	R1.5	3.0	6	4	16	60
SGED2703020	R1.5	3.0	6	4	20	60
SGED2704010	R2.0	4.0	6	5	10	50
SGED2704012	R2.0	4.0	6	5	12	50
SGED2704016	R2.0	4.0	6	5	16	60
SGED2704020	R2.0	4.0	6	5	20	60
SGED2704025	R2.0	4.0	6	5	25	60
SGED2706020	R3.0	6.0	6	8	20	60
SGED2706030	R3.0	6.0	6	8	30	90
SGED2708020	R4.0	8.0	8	10	20	70
SGED2710025	R5.0	10.0	10	12	25	80
SGED2712025	R6.0	12.0	12	14	25	80

尺寸 Size	半径公差 Radius Tolerance (mm)	刃部公差 Mill Dia. Tolerance (mm)	柄部公差 Shank Dia. Tolerance
up to R3	±0.005	0~−0.012	h6
over R3	±0.010	0~−0.015	

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
						◎			○			

CRX S END MILLS

SGED28 SERIES PLAIN SHANK

硬质合金, 2刃 球头 DLC 涂层
CARBIDE, 2 FLUTE BALL NOSE DLC COATING

- 使用YG-1金刚石涂层(DLC)
- 为铜, 铜合金, 软石墨, 硬塑料, 非金属合成材料或碳化纤维, 玻璃等非金属材料设计
- 使用准确的半径公差±5㎛ 以下(小于R3)
- 由于切削刃的镜面研磨具有出众的表面粗糙度

- Applied YG-1's diamond film coating(DLC)
- Designed to copper, copper alloys soft graphites, reinforced plastics and the matterials affiliated with non-ferrous metals & nonmetals like carbon fiber and glass.
- Tight Radius tolerance is applied (±0.005mm tolerance under R3).
- Excellent surface roughness thanks to Mirror Face of cutting edges

NG HM | 2 | DLC | 30° | R ±0.005 | PLAIN

P.766

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.005)	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
SGED28010	R0.5	1.0	6	2.5	50
SGED28015	R0.75	1.5	6	4	50
SGED28020	R1.0	2.0	6	5	50
SGED28030	R1.5	3.0	6	8	60
SGED28040	R2.0	4.0	6	8	70
SGED28050	R2.5	5.0	6	12	90
SGED28060	R3.0	6.0	6	12	90
SGED28080	R4.0	8.0	8	16	100
SGED28100	R5.0	10.0	10	20	100
SGED28120	R6.0	12.0	12	25	110

尺寸 Size	半径公差 Radius Tolerance (mm)	刃部公差 Mill Dia. Tolerance (mm)	柄部公差 Shank Dia. Tolerance
up to R3	±0.005	0~−0.012	h6
over R3		0~−0.015	

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
						◎			○			

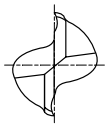
CRX S END MILLS

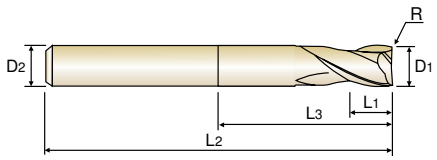
SGED29 SERIES PLAIN SHANK

硬质合金，2刃 长颈 圆鼻铣刀 DLC 涂层
CARBIDE, 2 FLUTE LONG NECK CORNER RADIUS DLC COATING

- 使用YG-1金刚石涂层(DLC)
- 为铜，铜合金，软石墨，硬塑料，非金属合成材料或碳化纤维，玻璃等非金属材料设计
- 可以广泛应用于粗加工，半精加工和精加工

- Applied YG-1's diamond film coating(DLC)
- Designed to copper, copper alloys soft graphites, reinforced plastics and the matterials affiliated with non-ferrous metals & nonmetals like carbon fiber and glass.
- Suitable for various cutting application like roughing, semi-finishing and finishing thanks to application





NG HM | 2 | DLC | 30° | R ±0.010 | R ±0.015 | PLAIN

P.767

Ø1~Ø6 Ø8~Ø12

단위(Unit) : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2
SGED290100104	R0.1	1.0	4	1.5	4	45
SGED290100106	R0.1	1.0	4	1.5	6	45
SGED290100108	R0.1	1.0	4	1.5	8	45
SGED290100204	R0.2	1.0	4	1.5	4	45
SGED290100206	R0.2	1.0	4	1.5	6	45
SGED290100208	R0.2	1.0	4	1.5	8	45
SGED290150106	R0.1	1.5	4	2.3	6	45
SGED290150108	R0.1	1.5	4	2.3	8	45
SGED290150110	R0.1	1.5	4	2.3	10	45
SGED290150206	R0.2	1.5	4	2.3	6	45
SGED290150208	R0.2	1.5	4	2.3	8	45
SGED290150210	R0.2	1.5	4	2.3	10	45
SGED290200208	R0.2	2.0	4	3	8	45
SGED290200210	R0.2	2.0	4	3	10	45
SGED290200212	R0.2	2.0	4	3	12	45
SGED290200508	R0.5	2.0	4	3	8	45
SGED290200510	R0.5	2.0	4	3	10	45
SGED290200512	R0.5	2.0	4	3	12	45
SGED290300210	R0.2	3.0	6	4.5	10	50
SGED290300212	R0.2	3.0	6	4.5	12	50
SGED290300216	R0.2	3.0	6	4.5	16	60
SGED290300310	R0.3	3.0	6	4.5	10	50
SGED290300312	R0.3	3.0	6	4.5	12	50
SGED290300316	R0.3	3.0	6	4.5	16	60

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
						◎			○			

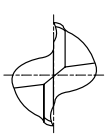
CRX S END MILLS

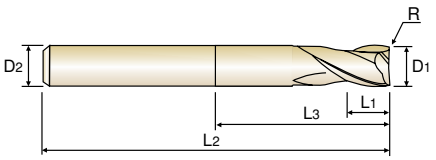
SGED29 SERIES PLAIN SHANK

硬质合金, 2刃 长颈 圆鼻铣刀 DLC 涂层
CARBIDE, 2 FLUTE LONG NECK CORNER RADIUS DLC COATING

- 使用YG-1金刚石涂层(DLC)
- 为铜, 铜合金, 软石墨, 硬塑料, 非金属合成材料或碳化纤维, 玻璃等非金属材料设计
- 可以广泛应用于粗加工, 半精加工和精加工

- Applied YG-1's diamond film coating(DLC)
- Designed to copper, copper alloys soft graphites, reinforced plastics and the matterials affiliated with non-ferrous metals & nonmetals like carbon fiber and glass.
- Suitable for various cutting application like roughing, semi-finishing and finishing thanks to application





NG HM | 2 | DLC | 30° | R ±0.010 (Ø1~Ø6) | R ±0.015 (Ø8~Ø12) | PLAIN

P.767

단위(Unit) : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2
SGED290400212	R0.2	4.0	6	6	12	50
SGED290400216	R0.2	4.0	6	6	16	60
SGED290400220	R0.2	4.0	6	6	20	60
SGED290400512	R0.5	4.0	6	6	12	50
SGED290400516	R0.5	4.0	6	6	16	60
SGED290400520	R0.5	4.0	6	6	20	60
SGED290600320	R0.3	6.0	6	9	20	60
SGED290600520	R0.5	6.0	6	9	20	60
SGED290601020	R1.0	6.0	6	9	20	60
SGED290800325	R0.3	8.0	8	12	25	65
SGED290800525	R0.5	8.0	8	12	25	65
SGED290801025	R1.0	8.0	8	12	25	65
SGED291000530	R0.5	10.0	10	15	30	70
SGED291001030	R1.0	10.0	10	15	30	70
SGED291200532	R0.5	12.0	12	18	32	80
SGED291201032	R1.0	12.0	12	18	32	80

尺寸 Size	圆弧角公差 Corner Radius Tolerance (mm)	刃部公差 Mill Dia. Tolerance (mm)	柄部公差 Shank Dia. Tolerance
up to Ø6	±0.010	0~−0.012	h6
over Ø6	±0.015	0~−0.015	

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
						◎			○			

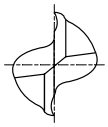
CRX S END MILLS

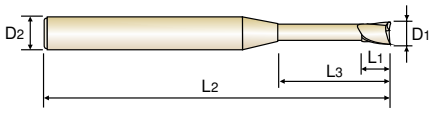
SGED30 SERIES PLAIN SHANK

硬质合金，2刃 长颈 DLC 涂层
CARBIDE, 2 FLUTE LONG NECK DLC COATING

- 使用YG-1金刚石涂层(DLC)
- 为铜，铜合金，软石墨，硬塑料，非金属合成材料或碳化纤维，玻璃等非金属材料设计
- 通过双重脖颈可进行更高的硬度，最小的振动的加工(Φ1.0以下)
- 由于特殊的沟槽能够减少毛刺，因此可达到出众的表面粗糙度

- Applied YG-1's diamond film coating(DLC)
- Designed to copper, copper alloys soft graphites, reinforced plastics and the matterials affiliated with non-ferrous metals & nonmetals like carbon fiber and glass.
- High toughness and minimized vibration are available due to two step taper neck(under dia. 1.0mm)
- Excellent surface roughness due to special flute geometry for removing burrs





NG HM | 2 | DLC | 30° | PLAIN

P.768

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2
SGED3000502	0.5	4	0.7	2	45
SGED3000504	0.5	4	0.7	4	45
SGED3000506	0.5	4	0.7	6	45
SGED3000508	0.5	4	0.7	8	45
SGED3000510	0.5	4	0.7	10	45
SGED3000602	0.6	4	0.9	2	45
SGED3000604	0.6	4	0.9	4	45
SGED3000606	0.6	4	0.9	6	45
SGED3000608	0.6	4	0.9	8	45
SGED3000610	0.6	4	0.9	10	45
SGED3000804	0.8	4	1.2	4	45
SGED3000806	0.8	4	1.2	6	45
SGED3000808	0.8	4	1.2	8	45
SGED3000810	0.8	4	1.2	10	45
SGED3000812	0.8	4	1.2	12	45
SGED3001004	1.0	4	1.5	4	45
SGED3001006	1.0	4	1.5	6	45
SGED3001008	1.0	4	1.5	8	45
SGED3001010	1.0	4	1.5	10	45
SGED3001012	1.0	4	1.5	12	45
SGED3001506	1.5	4	2.3	6	45
SGED3001508	1.5	4	2.3	8	45
SGED3001510	1.5	4	2.3	10	45
SGED3001512	1.5	4	2.3	12	45
SGED3001516	1.5	4	2.3	16	50

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
						◎			○			

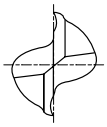
CRX S END MILLS

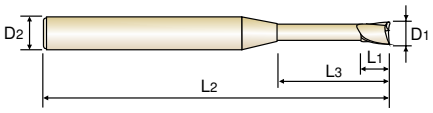
SGED30 SERIES PLAIN SHANK

硬质合金, 2刃 长颈 DLC 涂层
CARBIDE, 2 FLUTE LONG NECK DLC COATING

- 使用YG-1金刚石涂层(DLC)
- 为铜, 铜合金, 软石墨, 硬塑料, 非金属合成材料或碳化纤维, 玻璃等非金属材料设计
- 通过双重脖颈可进行更高的硬度, 最小的振动的加工(Φ1.0以下)
- 由于特殊的沟槽能够减少毛刺, 因此可达到出众的表面粗糙度

- Applied YG-1's diamond film coating(DLC)
- Designed to copper, copper alloys soft graphites, reinforced plastics and the matterials affiliated with non-ferrous metals & nonmetals like carbon fiber and glass.
- High toughness and minimized vibration are available due to two step taper neck(under dia. 1.0mm)
- Excellent surface roughness due to special flute geometry for removing burrs





NG HM | 2 | DLC | 30° | PLAIN

P.768

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2
SGED3002008	2.0	4	3	8	45
SGED3002010	2.0	4	3	10	45
SGED3002012	2.0	4	3	12	45
SGED3002016	2.0	4	3	16	50
SGED3003008	3.0	6	4.5	8	50
SGED3003010	3.0	6	4.5	10	50
SGED3003012	3.0	6	4.5	12	50
SGED3003016	3.0	6	4.5	16	60
SGED3003020	3.0	6	4.5	20	60
SGED3004010	4.0	6	6	10	50
SGED3004012	4.0	6	6	12	50
SGED3004016	4.0	6	6	16	60
SGED3004020	4.0	6	6	20	60
SGED3004025	4.0	6	6	25	60
SGED3006020	6.0	6	8	20	60
SGED3006030	6.0	6	8	30	90
SGED3008020	8.0	8	12	20	70
SGED3010025	10.0	10	15	25	80
SGED3012030	12.0	12	18	30	80

尺寸 Size	刃部公差 Mill Dia. Tolerance (mm)	柄部公差 Shank Dia. Tolerance
up to Ø6	0~−0.012	h6
over Ø6	0~−0.015	

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
						◎			○			

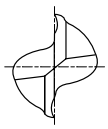
CRX S END MILLS

SGED31 SERIES PLAIN SHANK

硬质合金，2刃 DLC 涂层
CARBIDE, 2 FLUTE DLC COATING

- 使用YG-1金刚石涂层(DLC)
- 为铜，铜合金，软石墨，硬塑料，非金属合成材料或碳化纤维，玻璃等非金属材料设计
- 由于特殊的沟槽能够减少毛刺，因此可达到出众的表面粗糙度

- Applied YG-1's diamond film coating(DLC)
- Designed to copper, copper alloys soft graphites, reinforced plastics and the matterials affiliated with non-ferrous metals & nonmetals like carbon fiber and glass.
- Excellent surface roughness thanks to special flute geometry for reduced burr



NG HM | 2 | DLC | 30° | PLAIN

P.768

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
SGED31010	1.0	6	2.5	50
SGED31015	1.5	6	4	50
SGED31020	2.0	6	6	50
SGED31025	2.5	6	8	50
SGED31030	3.0	6	10	50
SGED31040	4.0	6	12	50
SGED31050	5.0	6	15	60
SGED31060	6.0	6	15	60
SGED31080	8.0	8	20	65
SGED31100	10.0	10	25	70
SGED31120	12.0	12	30	80

尺寸 Size	刃部公差 Mill Dia. Tolerance (mm)	柄部公差 Shank Dia. Tolerance
up to Ø6	0~-0.012	h6
over Ø6	0~-0.015	

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
						◎			○			

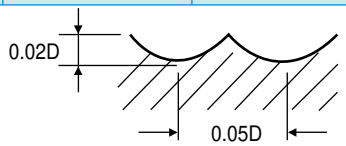
CRX S END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 2刃 长颈 球头 DLC 涂层
CARBIDE, 2 FLUTE LONG NECK BALL NOSE DLC COATING

SGED27 SERIES

材质	锻造铝		纯铜		热塑性塑料	
MATERIAL	WROUGHT ALUMINIUM		UNALLOYED COPPER		THERMOPLASTICS	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
0.5	50000	500	50000	500	50000	380
0.6	50000	700	50000	650	50000	450
0.8	50000	850	44000	770	50000	600
1.0	50000	1000	35000	770	50000	630
2.0	39600	1716	19800	780	50000	1250
3.0	26000	1584	13000	720	39000	1512
4.0	19000	1606	9500	730	28500	1533
5.0	15400	1606	7700	730	23100	1533
6.0	13000	1584	6500	720	19500	1512
8.0	10000	1584	5000	720	15000	1512
10.0	8000	1606	4000	730	12000	1533
12.0	6600	1606	3300	730	9900	1533

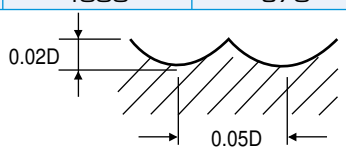


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 2刃 球头 DLC 涂层
CARBIDE, 2 FLUTE BALL NOSE DLC COATING

SGED28 SERIES

材质	锻造铝		纯铜		热塑性塑料	
MATERIAL	WROUGHT ALUMINIUM		UNALLOYED COPPER		THERMOPLASTICS	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
1.0	50000	1000	42000	930	50000	750
2.0	47520	2068	24000	940	50000	1500
3.0	31200	1914	15800	870	47400	1800
4.0	22800	1936	11500	880	34500	1825
5.0	18500	1936	9300	880	28000	1825
6.0	15600	1892	7800	860	23500	1800
8.0	12000	1892	6000	860	18000	1800
10.0	9600	1936	4800	880	14500	1825
12.0	8000	1914	4000	870	12000	1825

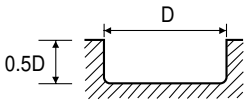


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 2刃 长颈 圆鼻铣刀 DLC 涂层 - 开槽
CARBIDE, 2 FLUTE LONG NECK CORNER RADIUS DLC COATING - SLOTTING

SGED29 SERIES

材质	锻造铝		纯铜		热塑性塑料	
MATERIAL	WROUGHT ALUMINIUM		UNALLOYED COPPER		THERMOPLASTICS	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
1.0	50000	1000	50000	1000	50000	700
2.0	50000	1800	50000	1700	50000	1400
3.0	50000	2600	44500	2350	50000	2100
4.0	50000	3680	33400	2100	50000	2600
5.0	50000	4300	27000	2100	50000	3400
6.0	44500	4670	22300	2100	50000	4200
8.0	33400	4560	16700	2100	50000	5700
10.0	26700	4770	13370	2100	40000	5500
12.0	22200	4660	11100	2100	33500	5600

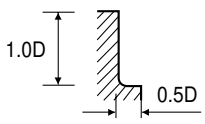


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 2刃 长颈 圆鼻铣刀 DLC 涂层 - 侧铣
CARBIDE, 2 FLUTE LONG NECK CORNER RADIUS DLC COATING - SIDE CUTTING

SGED29 SERIES

材质	锻造铝		纯铜		热塑性塑料	
MATERIAL	WROUGHT ALUMINIUM		UNALLOYED COPPER		THERMOPLASTICS	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
1.0	50000	1400	50000	1200	50000	1200
2.0	50000	2800	50000	2500	50000	2500
3.0	50000	4200	50000	3700	50000	3700
4.0	50000	5300	50000	4700	50000	5000
5.0	50000	6500	40000	4800	50000	6500
6.0	50000	7850	33400	4900	50000	7500
8.0	37500	7850	25000	4700	50000	8400
10.0	30000	7850	20000	4800	40000	8400
12.0	25000	7850	16700	4700	33500	8400



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

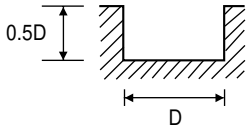
CRX S END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 2刃 DLC 涂层 - 开槽
CARBIDE, 2 FLUTE DLC COATING - SLOTTING

SGED30, SGED31 SERIES

材质	锻造铝		纯铜		热塑性塑料	
MATERIAL	WROUGHT ALUMINIUM		UNALLOYED COPPER		THERMOPLASTICS	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
0.5	50000	160	50000	160	50000	140
0.6	50000	200	50000	190	50000	170
0.8	50000	260	43000	225	50000	220
1.0	50000	330	35000	230	50000	280
2.0	25400	330	12700	165	38100	429
3.0	17600	530	8700	265	26100	689
4.0	13000	560	6500	280	19500	728
6.0	8700	560	4350	280	13050	728
8.0	6600	560	3300	280	9900	728
10.0	5200	560	2600	280	7800	728
12.0	4400	570	2200	285	6600	741

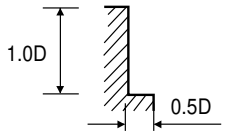


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 2刃 DLC 涂层 - 侧铣
CARBIDE, 2 FLUTE DLC COATING - SIDE CUTTING

SGED30, SGED31 SERIES

材质	锻造铝		纯铜		热塑性塑料	
MATERIAL	WROUGHT ALUMINIUM		UNALLOYED COPPER		THERMOPLASTICS	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
0.5	50000	170	50000	160	50000	130
0.6	50000	210	45000	175	50000	160
0.8	50000	280	34000	170	50000	210
1.0	41250	288	27500	180	50000	263
2.0	20550	288	13700	180	27400	288
3.0	13950	456	9300	285	18600	456
4.0	10500	480	7000	300	14000	480
6.0	7200	512	4800	320	9600	512
8.0	5250	480	3500	300	7000	480
10.0	4200	480	2800	300	5600	480
12.0	3600	512	2400	320	4800	512



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

CARBIDE

Being the best through innovation

D-POWER

- D-power 加工石墨
加工低硅铝和铜合金的经济型产品

D-Power for Graphites.
Economy type for Low Silicon Aluminium and Copper Alloys.

用于加工石墨的金刚石涂层硬质合金铣刀
DIAMOND COATED CARBIDE END MILLS for GRAPHITE

项目	型号	规格	尺寸		页
			最小	最大	
ITEM	MODEL	DESCRIPTION	SIZE		PAGE
			MIN	MAX	
EI997		硬质合金, 2刃 微型 球头 CARBIDE, 2 FLUTE MINIATURE BALL NOSE	R0.1	R3.0	**774**
EIB93		硬质合金, 2刃 微型 球头 CARBIDE, 2 FLUTE MINIATURE BALL NOSE	R0.2	R2.0	**776**
EI880		硬质合金, 2刃 短刃 球头 CARBIDE, 2 FLUTE SHORT LENGTH BALL NOSE	R1.0	R6.0	**777**
EI451		硬质合金, 2刃 长刃 球头 CARBIDE, 2 FLUTE LONG LENGTH BALL NOSE	R1.0	R6.0	**778**
EI450		硬质合金, 2刃 长刃 球头 CARBIDE, 2 FLUTE LONG REACH BALL NOSE	R1.0	R6.0	**779**
EI881		硬质合金, 3刃 短刃 球头 CARBIDE, 3 FLUTE SHORT LENGTH BALL NOSE	R1.0	R6.0	**780**
EIB04		硬质合金, 2刃 长刃 CARBIDE, 2 FLUTE LONG LENGTH	D0.5	D12.0	**781**
EIB87		硬质合金, 2刃 球头 锥形脖颈 CARBIDE, 2 FLUTE BALL NOSE with TAPER NECK	R0.5	R1.0	**782**
EI996		硬质合金, 2刃 微型 圆鼻铣刀 CARBIDE, 2 FLUTE MINIATURE CORNER RADIUS	D0.2	D6.0	**783**
EIB86		硬质合金, 2刃 圆鼻铣刀 锥形脖颈 CARBIDE, 2 FLUTE CORNER RADIUS with TAPER NECK	D1.0	D2.0	**785**
EIB88		硬质合金, 4刃 圆鼻铣刀 CARBIDE, 4 FLUTE CORNER RADIUS	D6.0	D12.0	**786**
EIA13		硬质合金, 3刃 40度螺旋角 短刃 圆鼻铣刀 CARBIDE, 3 FLUTE 40° HELIX SHORT LENGTH CORNER RADIUS	D2.0	D12.0	**787**
EIA14		硬质合金, 3刃 40度螺旋角 长刃 圆鼻铣刀 CARBIDE, 3 FLUTE 40° HELIX LONG LENGTH CORNER RADIUS	D2.0	D12.0	**788**

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	铬镍铁合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
							◎		○			
							◎		○			
							◎		○			
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D-POWER 经济型金刚石涂层硬质合金铣刀
D-POWER ECONOMY DIAMOND COATED CARBIDE END MILLS

项目 ITEM	型号 MODEL	规格 DESCRIPTION	尺寸 SIZE 最小 MIN	尺寸 SIZE 最大 MAX	页 PAGE
GEB46		硬质合金，2刃 微型 球头 CARBIDE, 2 FLUTE MINIATURE BALL NOSE	R0.1	R3.0	789
GE944		硬质合金，2刃 短刃 球头 CARBIDE, 2 FLUTE SHORT LENGTH BALL NOSE	R1.0	R6.0	791
GE945		硬质合金，2刃 长刃 球头 CARBIDE, 2 FLUTE LONG LENGTH BALL NOSE	R1.0	R6.0	792
GE946		硬质合金，2刃 长刃 球头 CARBIDE, 2 FLUTE LONG REACH BALL NOSE	R1.0	R6.0	793
GE947		硬质合金，3刃 短刃 球头 CARBIDE, 3 FLUTE SHORT LENGTH BALL NOSE	R1.0	R6.0	794
GE927		硬质合金，2刃 长刃 CARBIDE, 2 FLUTE LONG LENGTH	D0.5	D12.0	795
GEB02		硬质合金，2刃 球头 锥形脖颈 CARBIDE, 2 FLUTE BALL NOSE with TAPER NECK	R0.5	R1.0	796
GEB45		硬质合金，2刃 微型 圆鼻铣刀 CARBIDE, 2 FLUTE MINIATURE CORNER RADIUS	D0.2	D6.0	797
GEB01		硬质合金，2刃 圆鼻铣刀 锥形脖颈 CARBIDE, 2 FLUTE CORNER RADIUS with TAPER NECK	D1.0	D2.0	799
GEB03		硬质合金，4刃 圆鼻铣刀 CARBIDE, 4 FLUTE CORNER RADIUS	D6.0	D12.0	800
GE926		硬质合金，2刃 45度螺旋角 CARBIDE, 2 FLUTE 45° HELIX	D1.0	D20.0	801
GE928		硬质合金，3刃 40度螺旋角 短刃 圆鼻铣刀 CARBIDE, 3 FLUTE 40° HELIX SHORT LENGTH CORNER RADIUS	D2.0	D12.0	802
GE929		硬质合金，3刃 40度螺旋角 长刃 圆鼻铣刀 CARBIDE, 3 FLUTE 40° HELIX LONG LENGTH CORNER RADIUS	D2.0	D12.0	803
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS			804

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	铬镍铁合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
						◎	○		◎			
						◎	○		◎			
						◎	○		◎			
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						◎	○		◎			

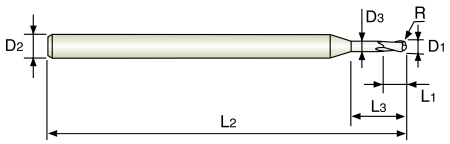
D-POWER END MILLS

EI997 SERIES PLAIN SHANK

硬质合金, 2刃 微型 球头
CARBIDE, 2 FLUTE MINIATURE BALL NOSE

- 较高硬度的涂层和优秀的耐磨性极大地提高了工具寿命.
- YG-1金刚石涂层的硬质合金球头铣刀的极细涂层能够确保被加工材料的表面光滑性及良好的表面粗糙度.
- 在加工石墨, 精炼铝, 胶木, 塑料, 木头, 铜等具有高性能. YG-1金刚石涂层的硬质合金球头铣刀在加工有色金属和非金属材料时具有很好的效果.

- Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.
- Ultra fine film of YG-1's diamond coated carbide ball end mills ensure the smooth and excellent surface on work materials.
- High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. YG-1's diamond coated carbide ball end mills have good result for the machining of non-ferrous metals and non-metallic materials.



MG HM | 2 | 30° | R ±0.01 | PLAIN

P.804

단위(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EI997002000040	R0.1	0.2	3	0.2	-	40	-
EI997003000040	R0.15	0.3	3	0.3	-	40	-
EI997004000040	R0.2	0.4	3	0.4	-	40	-
EI997005025040	R0.25	0.5	3	0.5	2.5	40	0.45
EI997006	R0.3	0.6	3	0.6	3	40	0.55
EI997006050040	R0.3	0.6	3	0.6	5	40	0.55
EI997008	R0.4	0.8	3	0.8	4	40	0.75
EI997008070040	R0.4	0.8	3	0.8	7	40	0.75
EI997010	R0.5	1.0	3	1	5	40	0.95
EI997903	R0.5	1.0	3	1	8.5	40	0.95
EI997010120040	R0.5	1.0	3	1	12	40	0.95
EI997012	R0.6	1.2	3	1.2	6	50	1.15
EI997012100050	R0.6	1.2	3	1.2	10	50	1.15
EI997015	R0.75	1.5	3	1.5	7.5	50	1.4
EI997906	R0.75	1.5	3	1.5	12	50	1.4
EI997015180050	R0.75	1.5	3	1.5	18	50	1.4
EI997020	R1.0	2.0	3	2.2	10	60	1.9
EI997908	R1.0	2.0	3	2.2	16	60	1.9
EI997020250060	R1.0	2.0	3	2.2	25	60	1.9
EI997030100065	R1.5	3.0	4	3	10	65	2.9
EI997030150065	R1.5	3.0	4	3	15	65	2.9
EI997030200065	R1.5	3.0	4	3	20	65	2.9
EI997030250075	R1.5	3.0	4	3	25	75	2.9
EI997030300075	R1.5	3.0	4	3	30	75	2.9
EI997040200065	R2.0	4.0	6	4	20	65	3.9
EI997040300075	R2.0	4.0	6	4	30	75	3.9
EI997040400090	R2.0	4.0	6	4	40	90	3.9

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
							◎		○			

D-POWER END MILLS

EI997 SERIES PLAIN SHANK

硬质合金, 2刃 微型 球头
CARBIDE, 2 FLUTE MINIATURE BALL NOSE

- 较高硬度的涂层和优秀的耐磨性极大地提高了工具寿命.
- YG-1金刚石涂层的硬质合金球头铣刀的极细薄膜能够确保被加件表面光滑性及良好的表面粗糙度.
- 在加工石墨, 精炼铝, 胶木, 塑料, 木头, 铜等具有高性能. YG-1金刚石涂层的硬质合金球头铣刀在加工有色金属和非金属材料时具有很好的效果.

- Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.
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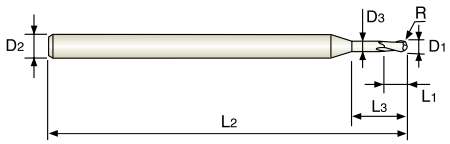

MG HM | 2 | 30° | R ±0.01 | PLAIN

P.804

단위(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EI997050200065	R2.5	**5.0**	6	5	20	65	4.9
EI997050300075	R2.5	**5.0**	6	5	30	75	4.9
EI997050400090	R2.5	**5.0**	6	5	40	90	4.9
EI997050500090	R2.5	**5.0**	6	5	50	90	4.9
EI997060300075	R3.0	**6.0**	6	6	30	75	5.9
EI997060400090	R3.0	**6.0**	6	6	40	90	5.9
EI997060500090	R3.0	**6.0**	6	6	50	90	5.9
EI997060600100	R3.0	**6.0**	6	6	60	100	5.9

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.02	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
							◎		○			

D-POWER END MILLS

EIB93 SERIES PLAIN SHANK

硬质合金, 2刃 微型 球头
CARBIDE, 2 FLUTE MINIATURE BALL NOSE

- 较高硬度的涂层和优秀的耐磨性极大地提高了工具寿命.
- YG-1金刚石涂层的硬质合金球头铣刀的极细薄膜能够确保被加件表面光滑性及良好的表面粗糙度.
- 在加工石墨, 精炼铝, 胶木, 塑料, 木头, 铜等具有高性能. YG-1金刚石涂层的硬质合金球头铣刀在加工有色金属和非金属材料时具有很好的效果.

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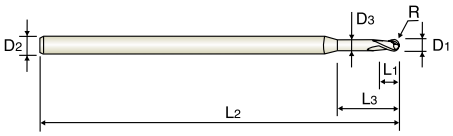


MG HM | 2 | 30° | R ±0.01 | PLAIN

P.804

단위(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EIB93004040	R0.2	0.4	4	0.6	4	45	0.36
EIB93004060	R0.2	0.4	4	0.6	6	45	0.36
EIB93006040	R0.3	0.6	4	1	4	45	0.56
EIB93006060	R0.3	0.6	4	1	6	45	0.56
EIB93006080	R0.3	0.6	4	1	8	45	0.56
EIB93010060	R0.5	1.0	4	1.5	6	45	0.95
EIB93010080	R0.5	1.0	4	1.5	8	45	0.95
EIB93010120	R0.5	1.0	4	1.5	12	45	0.95
EIB93015120	R0.75	1.5	4	1.75	12	45	1.45
EIB93020080	R1.0	2.0	4	3	8	60	1.95
EIB93020120	R1.0	2.0	4	3	12	60	1.95
EIB93020160	R1.0	2.0	4	3	16	60	1.95
EIB93040160	R2.0	4.0	4	6	16	60	3.9

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.02	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
							◎		○			

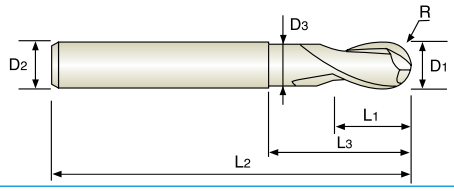
D-POWER END MILLS

EI880 SERIES PLAIN SHANK

硬质合金, 2刃 短刃 球头
CARBIDE, 2 FLUTE SHORT LENGTH BALL NOSE

- 较高硬度的涂层和优秀的耐磨性极大地提高了工具寿命.
- YG-1金刚石涂层的硬质合金球头铣刀的极细薄膜能够确保被加件表面光滑性及良好的表面粗糙度.
- 在加工石墨, 精炼铝, 胶木, 塑料, 木头, 铜等具有高性能. YG-1金刚石涂层的硬质合金球头铣刀在加工有色金属和非金属材料时具有很好的效果.

- Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.'
- Ultra fine film of YG-1's diamond coated carbide ball end mills ensure the smooth and excellent surface on work materials.
- High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. YG-1's diamond coated carbide ball end mills have good result for the machining of non-ferrous metals and non-metallic materials.



MG HM | 2 | 30° | R ±0.01 | PLAIN

P.804

단위(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EI880020	R1.0	2.0	6	3	5	60	1.9
EI880025	R1.25	2.5	6	4	6	60	2.4
EI880030	R1.5	3.0	6	4.5	6.5	60	2.8
EI880035	R1.75	3.5	6	5	7	65	3.2
EI880040	R2.0	4.0	6	6	8	65	3.7
EI880050	R2.5	5.0	6	7.5	10	65	4.6
EI880060	R3.0	6.0	6	9	12	75	5.6
EI880080	R4.0	8.0	8	12	25	75	7.4
EI880100	R5.0	10.0	10	15	30	80	9.4
EI880120	R6.0	12.0	12	18	36	90	11.4

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
							◎		○			

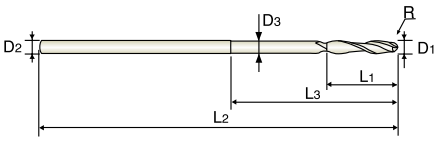
D-POWER END MILLS

EI451 SERIES PLAIN SHANK

硬质合金, 2刃 长刃 球头
CARBIDE, 2 FLUTE LONG LENGTH BALL NOSE

- 较高硬度的涂层和优秀的耐磨性极大地提高了工具寿命.
- YG-1金刚石涂层的硬质合金球头铣刀的极细薄膜能够确保被加件表面光滑性及良好的表面粗糙度.
- 在加工石墨, 精炼铝, 胶木, 塑料, 木头, 铜等具有高性能.
  YG-1金刚石涂层的硬质合金球头铣刀在加工有色金属和非金属材料时具有很好的效果.

- Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.
- Ultra fine film of YG-1's diamond coated carbide ball end mills ensure the smooth and excellent surface on work materials.
- High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. YG-1's diamond coated carbide ball end mills have good result for the machining of non-ferrous metals and non-metallic materials.



MG HM | 2 | 30° | R ±0.01 | PLAIN

P.804

단위(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EI451020	R1.0	2.0	4	10	20	80	1.95
EI451030	R1.5	3.0	4	15	25	80	2.9
EI451040	R2.0	4.0	4	20	30	80	3.9
EI451050	R2.5	5.0	6	30	50	100	4.9
EI451060	R3.0	6.0	6	30	50	100	5.5
EI451070	R3.5	7.0	6	30	-	100	-
EI451080	R4.0	8.0	8	40	60	110	7.5
EI451090	R4.5	9.0	8	40	-	110	-
EI451100	R5.0	10.0	10	50	70	120	9.5
EI451120	R6.0	12.0	12	55	75	130	11.5

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
							◎		○			

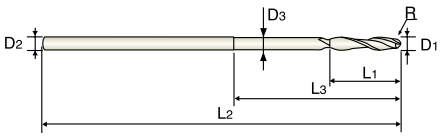
D-POWER END MILLS

EI450 SERIES PLAIN SHANK

硬质合金, 2刃 长刃 球头
CARBIDE, 2 FLUTE LONG REACH BALL NOSE

- 较高硬度的涂层和优秀的耐磨性极大地提高了工具寿命.
- YG-1金刚石涂层的硬质合金球头铣刀的极细薄膜能够确保被加件表面光滑性及良好的表面粗糙度.
- 在加工石墨, 精炼铝, 胶木, 塑料, 木头, 铜等具有高性能. YG-1金刚石涂层的硬质合金球头铣刀在加工有色金属和非金属材料时具有很好的效果.

- Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.
- Ultra fine film of YG-1's diamond coated carbide ball end mills ensure the smooth and excellent surface on work materials.
- High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. YG-1's diamond coated carbide ball end mills have good result for the machining of non-ferrous metals and non-metallic materials.



MG HM | 2 | 30° | R ±0.01 | PLAIN

P.804

단위(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EI450020	R1.0	**2.0**	4	10	20	100	1.95
EI450030	R1.5	**3.0**	4	15	25	100	2.9
EI450040	R2.0	**4.0**	4	20	30	100	3.9
EI450050	R2.5	**5.0**	6	30	50	120	4.9
EI450060	R3.0	**6.0**	6	30	50	150	5.5
EI450070	R3.5	**7.0**	6	30	-	150	-
EI450080	R4.0	**8.0**	8	40	60	150	7.5
EI450090	R4.5	**9.0**	8	40	-	150	-
EI450100	R5.0	**10.0**	10	50	70	180	9.5
EI450120	R6.0	**12.0**	12	55	75	200	11.5

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
							◎		○			

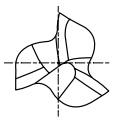
D-POWER END MILLS

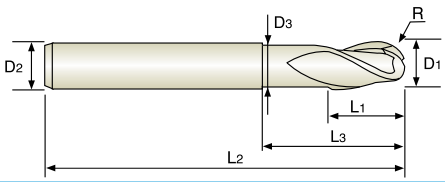
EI881 SERIES PLAIN SHANK

硬质合金, 3刃 短刃 球头
CARBIDE, 3 FLUTE SHORT LENGTH BALL NOSE

- 较高硬度的涂层和优秀的耐磨性极大地提高了工具寿命.
- YG-1金刚石涂层的硬质合金球头铣刀的极细薄膜能够确保被加件表面光滑性及良好的表面粗糙度.
- 在加工石墨, 精炼铝, 胶木, 塑料, 木头, 铜等具有高性能. YG-1金刚石涂层的硬质合金球头铣刀在加工有色金属和非金属材料时具有很好的效果.

- Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.
- Ultra fine film of YG-1's diamond coated carbide ball end mills ensure the smooth and excellent surface on work materials.
- High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. YG-1's diamond coated carbide ball end mills have good result for the machining of non-ferrous metals and non-metallic materials.





MG HM | 3 | 30° | R ±0.01 | PLAIN

P.804

단위(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EI881020	R1.0	**2.0**	6	3	5	60	1.9
EI881025	R1.25	**2.5**	6	4	6	60	2.4
EI881030	R1.5	**3.0**	6	4.5	6.5	60	2.8
EI881035	R1.75	**3.5**	6	5	7	65	3.2
EI881040	R2.0	**4.0**	6	6	8	65	3.7
EI881050	R2.5	**5.0**	6	7.5	10	65	4.6
EI881060	R3.0	**6.0**	6	9	12	75	5.6
EI881080	R4.0	**8.0**	8	12	25	75	7.4
EI881100	R5.0	**10.0**	10	15	30	80	9.4
EI881120	R6.0	**12.0**	12	18	36	90	11.4

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
							◎		○			

D-POWER END MILLS

EIB04 SERIES PLAIN SHANK

硬质合金，2刃 长刃
CARBIDE, 2 FLUTE LONG LENGTH

- 较高硬度的涂层和优秀的耐磨性极大地提高了工具寿命.
- YG-1金刚石涂层的硬质合金球头铣刀的极细薄膜能够确保被加件表面光滑性及良好的表面粗糙度.
- 在加工石墨，精炼铝，胶木，塑料，木头，铜等具有高性能. YG-1金刚石涂层的硬质合金球头铣刀在加工有色金属和非金属材料时具有很好的效果.

- Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.
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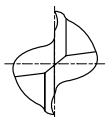
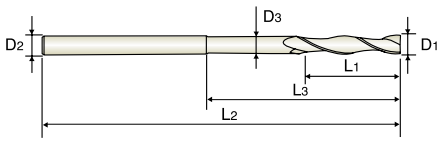
- High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. YG-1's diamond coated carbide ball end mills have good result for the machining of non-ferrous metals and non-metallic materials.





MG HM | 2 | 30° | PLAIN

P.804

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EIB0400502040	0.5	3	1	2	40	0.45
EIB0400603040	0.6	3	2	3	40	0.55
EIB0400704040	0.7	3	2	4	40	0.65
EIB0400805040	0.8	3	2	5	40	0.75
EIB0400906040	0.9	3	2	6	40	0.85
EIB0401008075	1.0	4	3	8	75	0.95
EIB0401510075	1.5	4	4	10	75	1.45
EIB0402016100	2.0	4	6	16	100	1.9
EIB0402520100	2.5	4	8	20	100	2.4
EIB0403030100	3.0	6	8	30	100	2.8
EIB0403535100	3.5	6	10	35	100	3.2
EIB0404040100	4.0	6	20	40	100	3.7
EIB0405050125	5.0	6	25	50	125	4.6
EIB0406060140	6.0	6	30	60	140	5.6
EIB0407000140	7.0	6	35	-	140	-
EIB0408080150	8.0	8	40	80	150	7.4
EIB0409000150	9.0	8	45	-	150	-
EIB0410080150	10.0	10	50	80	150	9.4
EIB0411000150	11.0	10	50	-	150	-
EIB0412080150	12.0	12	55	80	150	11.4

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
							◎		○			

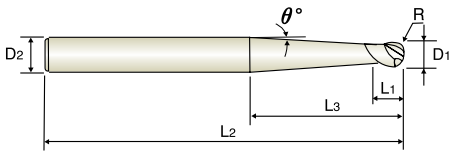
D-POWER END MILLS

EIB87 SERIES PLAIN SHANK

硬质合金, 2刃 球头 锥形脖颈
CARBIDE, 2 FLUTE BALL NOSE with TAPER NECK

- 较高硬度的涂层和优秀的耐磨性极大地提高了工具寿命.
- YG-1金刚石涂层的硬质合金球头铣刀的极细薄膜能够确保被加件表面光滑性及良好的表面粗糙度.
- 在加工石墨, 精炼铝, 胶木, 塑料, 木头, 铜等具有高性能. YG-1金刚石涂层的硬质合金球头铣刀在加工有色金属和非金属材料时具有很好的效果.

- Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.
- Ultra fine film of YG-1's diamond coated carbide ball end mills ensure the smooth and excellent surface on work materials.
- High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. YG-1's diamond coated carbide ball end mills have good result for the machining of non-ferrous metals and non-metallic materials.



MG HM | 2 | 30° | R ±0.01 | PLAIN

P.804

단위(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	脖颈锥度 Neck Taper Angle θ°
EIB87010	R0.5	1.0	3	2	-	40	8°30′
EIB87901	R0.5	1.0	3	2	30	60	2°
EIB87902	R0.5	1.0	3	2	70	100	1°
EIB87015	R0.75	1.5	3	3	-	40	6°15′
EIB87903	R0.75	1.5	3	3	30	60	1°30′
EIB87904	R0.75	1.5	3	3	58	100	45′
EIB87020	R1.0	2.0	3	4	-	40	4°15′
EIB87905	R1.0	2.0	3	4	30	60	1°
EIB87906	R1.0	2.0	4	4	70	100	1°

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-0.02	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
							◎		○			

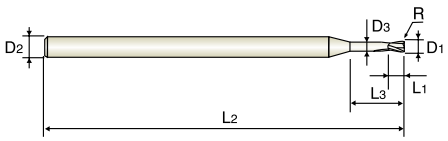
D-POWER END MILLS

EI996 SERIES PLAIN SHANK

硬质合金，2刃 微型 圆鼻铣刀
CARBIDE, 2 FLUTE MINIATURE CORNER RADIUS

- 较高硬度的涂层和优秀的耐磨性极大地提高了工具寿命.
- YG-1金刚石涂层的硬质合金球头铣刀的极细薄膜能够确保被加件表面光滑性及良好的表面粗糙度.
- 在加工石墨，精炼铝，胶木，塑料，木头，铜等具有高性能. YG-1金刚石涂层的硬质合金球头铣刀在加工有色金属和非金属材料时具有很好的效果.

- Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.
- Ultra fine film of YG-1's diamond coated carbide end mills ensure the smooth and excellent surface on work materials.
- High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. YG-1's diamond coated carbide end mills have good result for the machining of non-ferrous metals and non-metallic materials.



MG HM | 2 | 30° | PLAIN

P.805

单位(Unit) : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EI99600200000	-	0.2	3	0.3	-	40	-
EI99600300000	-	0.3	3	0.5	-	40	-
EI99600400000	-	0.4	3	0.6	-	40	-
EI99600505025	R0.05	0.5	3	0.7	2.5	40	0.45
EI99600505040	R0.05	0.5	3	0.7	4	40	0.45
EI996006	R0.05	0.6	3	0.9	3	40	0.55
EI99600605050	R0.05	0.6	3	0.9	5	40	0.55
EI996008	R0.05	0.8	3	1.2	4	40	0.75
EI99600805070	R0.05	0.8	3	1.2	7	40	0.75
EI996010	R0.1	1.0	3	1.5	5	40	0.95
EI996904	R0.1	1.0	3	1.5	8.5	40	0.95
EI99601010120	R0.1	1.0	3	1.5	12	40	0.95
EI996012	R0.1	1.2	3	1.8	6	50	1.15
EI99601210100	R0.1	1.2	3	1.8	10	50	1.15
EI996015	R0.15	1.5	3	2.2	7.5	50	1.4
EI996907	R0.15	1.5	3	2.2	12	50	1.4
EI99601515180	R0.15	1.5	3	2.2	18	50	1.4
EI996020	R0.15	2.0	3	2.2	10	60	1.9
EI996909	R0.15	2.0	3	2.2	16	60	1.9
EI99602015250	R0.15	2.0	3	2.2	25	60	1.9
EI99603020100	R0.2	3.0	4	3	10	65	2.9
EI99603020150	R0.2	3.0	4	3	15	65	2.9
EI99603020200	R0.2	3.0	4	3	20	65	2.9
EI99603020250	R0.2	3.0	4	3	25	75	2.9
EI99603020300	R0.2	3.0	4	3	30	75	2.9
EI99604020200	R0.2	4.0	6	4	20	65	3.9
EI99604020300	R0.2	4.0	6	4	30	75	3.9
EI99604020400	R0.2	4.0	6	4	40	90	3.9

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
							◎		○			

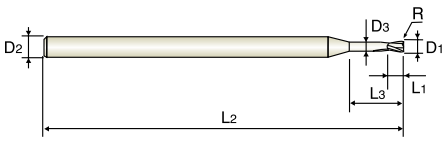
D-POWER END MILLS

EI996 SERIES PLAIN SHANK

硬质合金, 2刃 微型 圆鼻铣刀
CARBIDE, 2 FLUTE MINIATURE CORNER RADIUS

- 较高硬度的涂层和优秀的耐磨性极大地提高了工具寿命.
- YG-1金刚石涂层的硬质合金球头铣刀的极细薄膜能够确保被加件表面光滑性及良好的表面粗糙度.
- 在加工石墨, 精炼铝, 胶木, 塑料, 木头, 铜等具有高性能.
  YG-1金刚石涂层的硬质合金球头铣刀在加工有色金属和非金属材料时具有很好的效果.

- Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.
- Ultra fine film of YG-1's diamond coated carbide end mills ensure the smooth and excellent surface on work materials.
- High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. YG-1's diamond coated carbide end mills have good result for the machining of non-ferrous metals and non-metallic materials.



MG HM | 2 | 30° | PLAIN

P.805

단위(Unit) : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EI99605030200	R0.3	5.0	6	5	20	75	4.9
EI99605030300	R0.3	5.0	6	5	30	75	4.9
EI99605030400	R0.3	5.0	6	5	40	90	4.9
EI99605030500	R0.3	5.0	6	5	50	90	4.9
EI99606030300	R0.3	6.0	6	6	30	75	5.9
EI99606030400	R0.3	6.0	6	6	40	90	5.9
EI99606030500	R0.3	6.0	6	6	50	90	5.9
EI99606030600	R0.3	6.0	6	6	60	100	5.9

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.02	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
							◎		○			

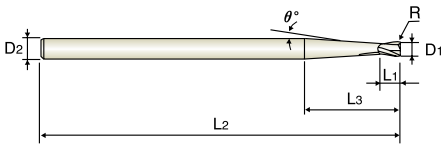
D-POWER END MILLS

EIB86 SERIES PLAIN SHANK

硬质合金，2刃 圆鼻铣刀 锥形脖颈
CARBIDE, 2 FLUTE CORNER RADIUS with TAPER NECK

- 较高硬度的涂层和优秀的耐磨性极大地提高了工具寿命.
- YG-1金刚石涂层的硬质合金球头铣刀的极细薄膜能够确保被加件表面光滑性及良好的表面粗糙度.
- 在加工石墨，精炼铝，胶木，塑料，木头，铜等具有高性能. YG-1金刚石涂层的硬质合金球头铣刀在加工有色金属和非金属材料时具有很好的效果.

- Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.
- Ultra fine film of YG-1's diamond coated carbide ball end mills ensure the smooth and excellent surface on work materials.
- High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. YG-1's diamond coated carbide ball end mills have good result for the machining of non-ferrous metals and non-metallic materials.



MG HM | 2 | 30° | PLAIN

P.805

单位(Unit) : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	脖颈锥度 Neck Taper Angle θ°
EIB86010	R0.1	**1.0**	3	2	30	60	2°
EIB86901	R0.1	**1.0**	3	2	70	100	1°
EIB86015	R0.15	**1.5**	3	3	30	60	1°30′
EIB86902	R0.15	**1.5**	3	3	50	100	1°
EIB86020	R0.15	**2.0**	3	4	30	60	1°
EIB86903	R0.15	**2.0**	4	4	70	100	1°

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.02	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
							◎		○			

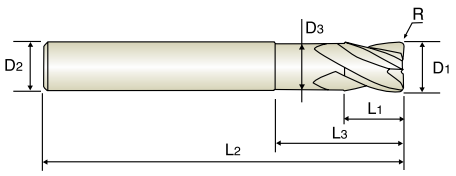
D-POWER END MILLS

EIB88 SERIES PLAIN SHANK

硬质合金, 4刃 圆鼻铣刀
CARBIDE, 4 FLUTE CORNER RADIUS

- 较高硬度的涂层和优秀的耐磨性极大地提高了工具寿命.
- YG-1金刚石涂层的硬质合金球头铣刀的极细薄膜能够确保被加件表面光滑性及良好的表面粗糙度.
- 在加工石墨, 精炼铝, 胶木, 塑料, 木头, 铜等具有高性能. YG-1金刚石涂层的硬质合金球头铣刀在加工有色金属和非金属材料时具有很好的效果.

- Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.
- Ultra fine film of YG-1's diamond coated carbide ball end mills ensure the smooth and excellent surface on work materials.
- High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. YG-1's diamond coated carbide ball end mills have good result for the machining of non-ferrous metals and non-metallic materials.



MG HM | 4 | 30° | PLAIN

P.805

단위(Unit) : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EIB88060	R0.5	6.0	6	10	40	80	5.9
EIB88080	R0.5	8.0	8	10	40	80	7.8
EIB88901	R1.0	8.0	8	10	60	100	7.8
EIB88100	R0.5	10.0	10	25	-	75	-
EIB88902	R0.5	10.0	10	12	40	80	9.8
EIB88903	R1.0	10.0	10	12	40	80	9.8
EIB88904	R0.5	10.0	10	12	80	125	9.8
EIB88120	R0.5	12.0	12	25	-	80	-
EIB88905	R0.5	12.0	12	15	40	80	11.8
EIB88906	R1.0	12.0	12	15	40	80	11.8
EIB88907	R1.0	12.0	12	15	80	125	11.8

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
							◎		○			

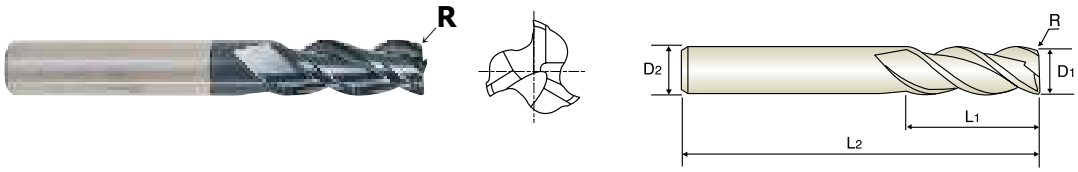
D-POWER END MILLS

EIA13 SERIES PLAIN SHANK

硬质合金, 3刃 40度螺旋角 短刃 圆鼻铣刀
CARBIDE, 3 FLUTE 40° HELIX SHORT LENGTH CORNER RADIUS

- 较高硬度的涂层和优秀的耐磨性极大地提高了工具寿命.
- YG-1金刚石涂层的硬质合金球头铣刀的极细薄膜能够确保被加件表面光滑性及良好的表面粗糙度.
- 在加工石墨, 精炼铝, 胶木, 塑料, 木头, 铜等具有高性能. YG-1金刚石涂层的硬质合金球头铣刀在加工有色金属和非金属材料时具有很好的效果.

- Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.
- Ultra fine film of YG-1's diamond coated carbide end mills ensure the smooth and excellent surface on work materials.
- High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. YG-1's diamond coated carbide end mills have good result for the machining of non-ferrous metals and non-metallic materials.



MG HM | 3 | 40° | PLAIN P.805

Unit : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	全长 Overall Length L2
EIA13020	R0.15	2.0	3	6	40
EIA13030	R0.15	3.0	3	12	40
EIA13040	R0.2	4.0	4	14	50
EIA13050	R0.3	5.0	5	16	50
EIA13060	R0.3	6.0	6	20	65
EIA13080	R0.5	8.0	8	20	65
EIA13100	R0.5	10.0	10	25	75
EIA13120	R0.5	12.0	12	25	75

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
							◎		○			

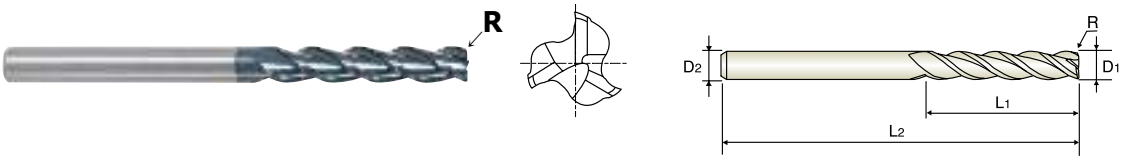
D-POWER END MILLS

EIA14 SERIES PLAIN SHANK

硬质合金, 3刃 40度螺旋角 长刃 圆鼻铣刀
CARBIDE, 3 FLUTE 40° HELIX LONG LENGTH CORNER RADIUS

- 较高硬度的涂层和优秀的耐磨性极大地提高了工具寿命.
- YG-1金刚石涂层的硬质合金球头铣刀的极细薄膜能够确保被加件表面光滑性及良好的表面粗糙度.
- 在加工石墨, 精炼铝, 胶木, 塑料, 木头, 铜等具有高性能. YG-1金刚石涂层的硬质合金球头铣刀在加工有色金属和非金属材料时具有很好的效果.

- Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.
- Ultra fine film of YG-1's diamond coated carbide end mills ensure the smooth and excellent surface on work materials.
- High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. YG-1's diamond coated carbide end mills have good result for the machining of non-ferrous metals and non-metallic materials.



MG HM | 3 | 40° | PLAIN

P.805

Unit : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	全长 Overall Length L2
EIA14020	R0.15	2.0	3	9	60
EIA14030	R0.15	3.0	3	30	60
EIA14040	R0.2	4.0	4	30	60
EIA14050	R0.3	5.0	5	35	70
EIA14060	R0.3	6.0	6	40	100
EIA14080	R0.5	8.0	8	40	100
EIA14100	R0.5	10.0	10	40	100
EIA14120	R0.5	12.0	12	45	100

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
							◎		○			

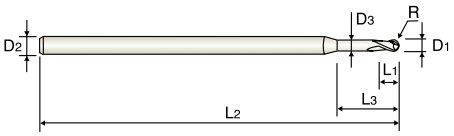
D-POWER END MILLS

GEB46 SERIES PLAIN SHANK

硬质合金, 2刃 微型 球头
CARBIDE, 2 FLUTE MINIATURE BALL NOSE

- 设计用于加工硬塑料，含硅量高的铝合金，铜合金.
- YG-1新开发的金刚石薄膜涂层在加工有色金属和非金属材料时具有很好的效果.

- plastics, for the machining reinforced plastic, high silicon aluminum alloys and copper alloys.
- YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.



MG HM | 2 | 30° | R ±0.01 | PLAIN

P.806

ECONOMY

단위(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
GEB46002000040	R0.1	**0.2**	3	0.2	–	40	–
GEB46003000040	R0.15	**0.3**	3	0.3	–	40	–
GEB46004000040	R0.2	**0.4**	3	0.4	–	40	–
GEB46005025040	R0.25	**0.5**	3	0.5	2.5	40	0.45
GEB46006030040	R0.3	**0.6**	3	0.6	3	40	0.55
GEB46006050040	R0.3	**0.6**	3	0.6	5	40	0.55
GEB46008040040	R0.4	**0.8**	3	0.8	4	40	0.75
GEB46008070040	R0.4	**0.8**	3	0.8	7	40	0.75
GEB46010050040	R0.5	**1.0**	3	1	5	40	0.95
GEB46010085040	R0.5	**1.0**	3	1	8.5	40	0.95
GEB46010120040	R0.5	**1.0**	3	1	12	40	0.95
GEB46012060050	R0.6	**1.2**	3	1.2	6	50	1.15
GEB46012100050	R0.6	**1.2**	3	1.2	10	50	1.15
GEB46015075050	R0.75	**1.5**	3	1.5	7.5	50	1.4
GEB46015120050	R0.75	**1.5**	3	1.5	12	50	1.4
GEB46015180050	R0.75	**1.5**	3	1.5	18	50	1.4
GEB46020100060	R1.0	**2.0**	3	2.2	10	60	1.9
GEB46020160060	R1.0	**2.0**	3	2.2	16	60	1.9
GEB46020250060	R1.0	**2.0**	3	2.2	25	60	1.9
GEB46030100065	R1.5	**3.0**	4	3	10	65	2.9
GEB46030150065	R1.5	**3.0**	4	3	15	65	2.9
GEB46030200065	R1.5	**3.0**	4	3	20	65	2.9
GEB46030250075	R1.5	**3.0**	4	3	25	75	2.9
GEB46030300075	R1.5	**3.0**	4	3	30	75	2.9
GEB46040200065	R2.0	**4.0**	6	4	20	65	3.9
GEB46040300075	R2.0	**4.0**	6	4	30	75	3.9
GEB46040400090	R2.0	**4.0**	6	4	40	90	3.9

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
						◎	○		◎			

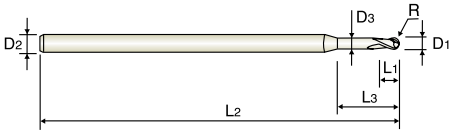
D-POWER END MILLS

GEB46 SERIES PLAIN SHANK

硬质合金, 2刃 微型 球头
CARBIDE, 2 FLUTE MINIATURE BALL NOSE

- 设计用于加工硬塑料, 含硅量高的铝合金, 铜合金.
- YG-1新开发的金刚石薄膜涂层在加工有色金属和非金属材料时具有很好的效果.

- plastics, for the machining reinforced plastic, high silicon aluminum alloys and copper alloys.
- YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.



MG HM | 2 | 30° | R ±0.01 | PLAIN

P.806

ECONOMY

단위(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
GEB46050200065	R2.5	5.0	6	5	20	65	4.9
GEB46050300075	R2.5	5.0	6	5	30	75	4.9
GEB46050400090	R2.5	5.0	6	5	40	90	4.9
GEB46050500090	R2.5	5.0	6	5	50	90	4.9
GEB46060300075	R3.0	6.0	6	6	30	75	5.9
GEB46060400090	R3.0	6.0	6	6	40	90	5.9
GEB46060500090	R3.0	6.0	6	6	50	90	5.9
GEB46060600100	R3.0	6.0	6	6	60	100	5.9

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.02	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
						◎	○		◎			

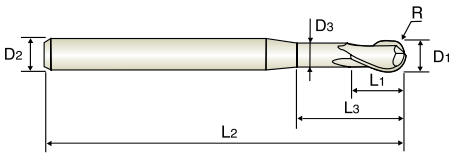
D-POWER END MILLS

GE944 SERIES PLAIN SHANK

硬质合金, 2刃 短刃 球头
CARBIDE, 2 FLUTE SHORT LENGTH BALL NOSE

- 设计用于加工硬塑料，含硅量高的铝合金，铜合金.
- YG-1新开发的金刚石薄膜涂层在加工有色金属和非金属材料时具有很好的效果.

- plastics, for the machining reinforced plastic, high silicon aluminum alloys and copper alloys.
- YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.



MG HM | 2 | 30° | R ±0.01 | PLAIN

P.806

ECONOMY

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
GE944020	R1.0	2.0	6	3	5	60	1.9
GE944025	R1.25	2.5	6	4	6	60	2.4
GE944030	R1.5	3.0	6	4.5	6.5	60	2.8
GE944035	R1.75	3.5	6	5	7	65	3.2
GE944040	R2.0	4.0	6	6	8	65	3.7
GE944050	R2.5	5.0	6	7.5	10	65	4.6
GE944060	R3.0	6.0	6	9	12	75	5.6
GE944080	R4.0	8.0	8	12	25	75	7.4
GE944100	R5.0	10.0	10	15	30	80	9.4
GE944120	R6.0	12.0	12	18	36	90	11.4

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
						◎	○		◎			

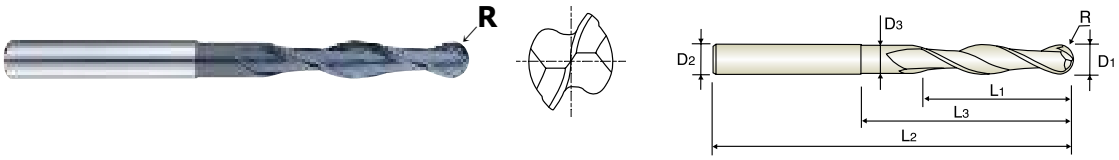
D-POWER END MILLS

GE945 SERIES PLAIN SHANK

硬质合金, 2刃 长刃 球头
CARBIDE, 2 FLUTE LONG LENGTH BALL NOSE

- 设计用于加工硬塑料, 含硅量高的铝合金, 铜合金.
- YG-1新开发的金刚石薄膜涂层在加工有色金属和非金属材料时具有很好的效果.

- plastics, for the machining reinforced plastic, high silicon aluminum alloys and copper alloys.
- YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.



MG HM | 2 | 30° | R ±0.01 | PLAIN

P.806

ECONOMY

단위(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
GE945020	R1.0	2.0	4	10	20	80	1.95
GE945030	R1.5	3.0	4	15	25	80	2.9
GE945040	R2.0	4.0	4	20	30	80	3.9
GE945050	R2.5	5.0	6	30	50	100	4.9
GE945060	R3.0	6.0	6	30	50	100	5.5
GE945070	R3.5	7.0	6	30	–	100	–
GE945080	R4.0	8.0	8	40	60	110	7.5
GE945090	R4.5	9.0	8	40	–	110	–
GE945100	R5.0	10.0	10	50	70	120	9.5
GE945120	R6.0	12.0	12	55	75	130	11.5

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
						◎	○		◎			

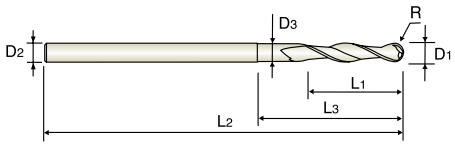
D-POWER END MILLS

GE946 SERIES PLAIN SHANK

硬质合金, 2刃 长刃 球头
CARBIDE, 2 FLUTE LONG REACH BALL NOSE

- 设计用于加工硬塑料，含硅量高的铝合金，铜合金.
- YG-1新开发的金刚石薄膜涂层在加工有色金属和非金属材料时具有很好的效果.

- plastics, for the machining reinforced plastic, high silicon aluminum alloys and copper alloys.
- YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.



MG HM | 2 | 30° | R ±0.01 | PLAIN

P.806

ECONOMY

단위(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
GE946020	R1.0	2.0	4	10	20	100	1.95
GE946030	R1.5	3.0	4	15	25	100	2.9
GE946040	R2.0	4.0	4	20	30	100	3.9
GE946050	R2.5	5.0	6	30	50	120	4.9
GE946060	R3.0	6.0	6	30	50	150	5.5
GE946070	R3.5	7.0	6	30	–	150	–
GE946080	R4.0	8.0	8	40	60	150	7.5
GE946090	R4.5	9.0	8	40	–	150	–
GE946100	R5.0	10.0	10	50	70	180	9.5
GE946120	R6.0	12.0	12	55	75	200	11.5

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
						◎	○		◎			

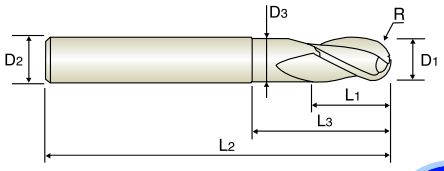
D-POWER END MILLS

GE947 SERIES PLAIN SHANK

硬质合金, 3刃 短刃 球头
CARBIDE, 3 FLUTE SHORT LENGTH BALL NOSE

- 设计用于加工硬塑料, 含硅量高的铝合金, 铜合金.
- YG-1新开发的金刚石薄膜涂层在加工有色金属和非金属材料时具有很好的效果.

- plastics, for the machining reinforced plastic, high silicon aluminum alloys and copper alloys.
- YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.



MG HM | 3 | 30° | R ±0.01 | PLAIN

P.807

ECONOMY

단위(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
GE947020	R1.0	2.0	6	3	5	60	1.9
GE947025	R1.25	2.5	6	4	6	60	2.4
GE947030	R1.5	3.0	6	4.5	6.5	60	2.8
GE947035	R1.75	3.5	6	5	7	65	3.2
GE947040	R2.0	4.0	6	6	8	65	3.7
GE947050	R2.5	5.0	6	7.5	10	65	4.6
GE947060	R3.0	6.0	6	9	12	75	5.6
GE947080	R4.0	8.0	8	12	25	75	7.4
GE947100	R5.0	10.0	10	15	30	80	9.4
GE947120	R6.0	12.0	12	18	36	90	11.4

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
						◎	○		◎			

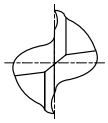
D-POWER END MILLS

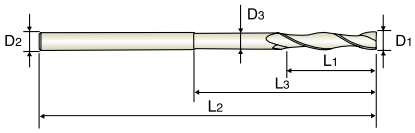
GE927 SERIES PLAIN SHANK

硬质合金, 2刃 长刃
CARBIDE, 2 FLUTE LONG LENGTH

- 设计用于加工硬塑料，含硅量高的铝合金, 铜合金.
- YG-1新开发的金刚石薄膜涂层在加工有色金属和非金属材料时具有很好的效果.

- plastics, for the machining reinforced plastic, high silicon aluminum alloys and copper alloys.
- YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.





MG HM | 2 | 30° | PLAIN

P.807

ECONOMY

단위(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
GE927005	0.5	3	1	2	40	0.45
GE927006	0.6	3	2	3	40	0.55
GE927007	0.7	3	2	4	40	0.65
GE927008	0.8	3	2	5	40	0.75
GE927009	0.9	3	2	6	40	0.85
GE927010	1.0	4	3	8	75	0.95
GE927015	1.5	4	4	10	75	1.45
GE927020	2.0	4	6	16	100	1.9
GE927025	2.5	4	8	20	100	2.4
GE927030	3.0	6	8	30	100	2.8
GE927035	3.5	6	10	35	100	3.2
GE927040	4.0	6	20	40	100	3.7
GE927050	5.0	6	25	50	125	4.6
GE927060	6.0	6	30	60	140	5.6
GE927070	7.0	6	35	–	140	–
GE927080	8.0	8	40	80	150	7.4
GE927090	9.0	8	45	–	150	–
GE927100	10.0	10	50	80	150	9.4
GE927110	11.0	10	50	–	150	–
GE927120	12.0	12	55	80	150	11.4

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
						◎	○		◎			

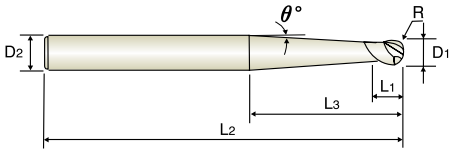
D-POWER END MILLS

GEB02 SERIES PLAIN SHANK

硬质合金, 2刃 球头 锥形脖颈
CARBIDE, 2 FLUTE BALL NOSE with TAPER NECK

- 设计用于加工硬塑料, 含硅量高的铝合金, 铜合金.
- YG-1新开发的金刚石薄膜涂层在加工有色金属和非金属材料时具有很好的效果.

- plastics, for the machining reinforced plastic, high silicon aluminum alloys and copper alloys.
- YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.



MG HM | 2 | 30° | R ±0.01 | PLAIN

P.806

ECONOMY

단위(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	脖颈锥度 Neck Taper Angle θ°
GEB02010000040	R0.5	1.0	3	2	–	40	8°30′
GEB02010300060	R0.5	1.0	3	2	30	60	2°
GEB02010700100	R0.5	1.0	3	2	70	100	1°
GEB02015000040	R0.75	1.5	3	3	–	40	6°15′
GEB02015300060	R0.75	1.5	3	3	30	60	1°30′
GEB02015580100	R0.75	1.5	3	3	58	100	45′
GEB02020000040	R1.0	2.0	3	4	–	40	4°15′
GEB02020300060	R1.0	2.0	3	4	30	60	1°
GEB02020700100	R1.0	2.0	4	4	70	100	1°

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-0.015	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
						◎	○		◎			

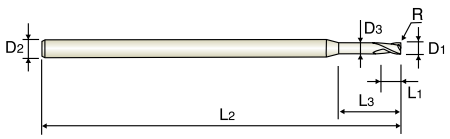
D-POWER END MILLS

GEB45 SERIES PLAIN SHANK

硬质合金，2刃 微型 圆鼻铣刀
CARBIDE, 2 FLUTE MINIATURE CORNER RADIUS

- 设计用于加工硬塑料，含硅量高的铝合金，铜合金.
- YG-1新开发的金刚石薄膜涂层在加工有色金属和非金属材料时具有很好的效果.

- plastics, for the machining reinforced plastic, high silicon aluminum alloys and copper alloys.
- YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.



MG HM | 2 | 30° | PLAIN

P.808

ECONOMY

단위(Unit) : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
GEB4500200000	–	0.2	3	0.3	–	40	–
GEB4500300000	–	0.3	3	0.45	–	40	–
GEB4500400000	–	0.4	3	0.6	–	40	–
GEB4500505025	R0.05	0.5	3	0.7	2.5	40	0.45
GEB4500505040	R0.05	0.5	3	0.7	4	40	0.45
GEB4500605030	R0.05	0.6	3	0.9	3	40	0.55
GEB4500605050	R0.05	0.6	3	0.9	5	40	0.55
GEB4500805040	R0.05	0.8	3	1.2	4	40	0.75
GEB4500805070	R0.05	0.8	3	1.2	7	40	0.75
GEB4501010050	R0.1	1.0	3	1.5	5	40	0.95
GEB4501010085	R0.1	1.0	3	1.5	8.5	40	0.95
GEB4501010120	R0.1	1.0	3	1.5	12	40	0.95
GEB4501210060	R0.1	1.2	3	1.8	6	50	1.15
GEB4501210100	R0.1	1.2	3	1.8	10	50	1.15
GEB4501515075	R0.15	1.5	3	2.2	7.5	50	1.4
GEB4501515120	R0.15	1.5	3	2.2	12	50	1.4
GEB4501515180	R0.15	1.5	3	2.2	18	50	1.4
GEB4502015100	R0.15	2.0	3	2.2	10	60	1.9
GEB4502015160	R0.15	2.0	3	2.2	16	60	1.9
GEB4502015250	R0.15	2.0	3	2.2	25	60	1.9
GEB4503020100	R0.2	3.0	4	3	10	65	2.9
GEB4503020150	R0.2	3.0	4	3	15	65	2.9
GEB4503020200	R0.2	3.0	4	3	20	65	2.9
GEB4503020250	R0.2	3.0	4	3	25	75	2.9
GEB4503020300	R0.2	3.0	4	3	30	75	2.9
GEB4504020200	R0.2	4.0	6	4	20	65	3.9
GEB4504020300	R0.2	4.0	6	4	30	75	3.9
GEB4504020400	R0.2	4.0	6	4	40	90	3.9

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
						◎	○		◎			

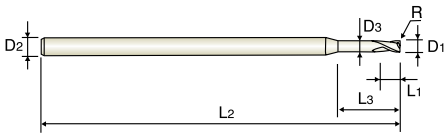
D-POWER END MILLS

GEB45 SERIES PLAIN SHANK

硬质合金, 2刃 微型 圆鼻铣刀
CARBIDE, 2 FLUTE MINIATURE CORNER RADIUS

- 设计用于加工硬塑料, 含硅量高的铝合金, 铜合金.
- YG-1新开发的金刚石薄膜涂层在加工有色金属和非金属材料时具有很好的效果.

- plastics, for the machining reinforced plastic, high silicon aluminum alloys and copper alloys.
- YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.



MG HM | 2 | 30° | PLAIN

P.808

ECONOMY

单位(Unit) : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
GEB4505030200	R0.3	5.0	6	5	20	75	4.9
GEB4505030300	R0.3	5.0	6	5	30	75	4.9
GEB4505030400	R0.3	5.0	6	5	40	90	4.9
GEB4505030500	R0.3	5.0	6	5	50	90	4.9
GEB4506030300	R0.3	6.0	6	6	30	75	5.9
GEB4506030400	R0.3	6.0	6	6	40	90	5.9
GEB4506030500	R0.3	6.0	6	6	50	90	5.9
GEB4506030600	R0.3	6.0	6	6	60	100	5.9

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.02	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
						◎	○		◎			

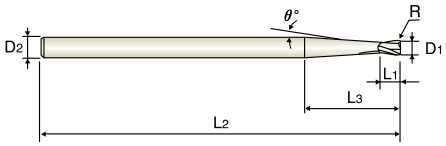
D-POWER END MILLS

GEB01 SERIES PLAIN SHANK

硬质合金，2刃 圆鼻铣刀 锥形脖颈
CARBIDE, 2 FLUTE CORNER RADIUS with TAPER NECK

- 设计用于加工硬塑料，含硅量高的铝合金，铜合金.
- YG-1新开发的金刚石薄膜涂层在加工有色金属和非金属材料时具有很好的效果.
- 圆弧角防止崩刃.

- plastics, for the machining reinforced plastic, high silicon aluminum alloys and copper alloys.
- YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.
- Corner protection against chipping.



MG HM | 2 | 30° | PLAIN

P.808

ECONOMY

단위(Unit) : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	脖颈锥度 Neck Taper Angle θ°
GEB01010300060	R0.1	1.0	3	2	30	60	2°
GEB01010700100	R0.1	1.0	3	2	70	100	1°
GEB01015300060	R0.15	1.5	3	3	30	60	1°30′
GEB01015500100	R0.15	1.5	3	3	50	100	1°
GEB01020300060	R0.15	2.0	3	4	30	60	1°
GEB01020700100	R0.15	2.0	4	4	70	100	1°

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.015	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
						◎	○		◎			

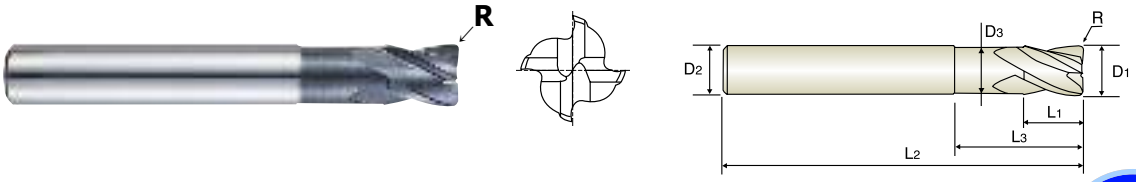
D-POWER END MILLS

GEB03 SERIES PLAIN SHANK

硬质合金, 4刃 圆鼻铣刀
CARBIDE, 4 FLUTE CORNER RADIUS

- 设计用于加工硬塑料, 含硅量高的铝合金, 铜合金.
- YG-1新开发的金刚石薄膜涂层在加工有色金属和非金属材料时具有很好的效果.
- 圆弧角防止崩刃.

- plastics, for the machining reinforced plastic, high silicon aluminum alloys and copper alloys.
- YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.
- Corner radius against chipping.



MG HM | 4 | 30° | PLAIN | P.808

ECONOMY

단위(Unit) : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
GEB0306005040	R0.5	6.0	6	10	40	80	5.9
GEB0308005040	R0.5	8.0	8	10	40	80	7.8
GEB0308010060	R1.0	8.0	8	10	60	100	7.8
GEB0310005000	R0.5	10.0	10	25	–	75	–
GEB0310005040	R0.5	10.0	10	12	40	80	9.8
GEB0310010040	R1.0	10.0	10	12	40	80	9.8
GEB0310005080	R0.5	10.0	10	12	80	125	9.8
GEB0312005000	R0.5	12.0	12	25	–	80	–
GEB0312005040	R0.5	12.0	12	15	40	80	11.8
GEB0312010040	R1.0	12.0	12	15	40	80	11.8
GEB0312010080	R1.0	12.0	12	15	80	125	11.8

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
						◎	○		◎			

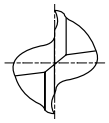
D-POWER END MILLS

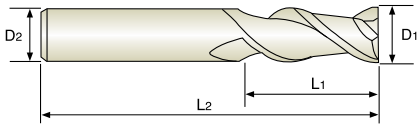
GE926 SERIES PLAIN SHANK

硬质合金，2刃 45度螺旋角
CARBIDE, 2 FLUTE 45° HELIX

- ▶ 设计用于加工铝及铝合金，铜，塑料等.
- ▶ 最大程度的材料切除量，铁屑排除量和稳定性.
- ▶ 圆弧角防止崩刃.

- ▶ Designed for the machining aluminum and its alloys, copper, plastic etc.
- ▶ Maximum-stock removal, chip ejection, stability.
- ▶ Corner protection against chipping.





MG HM | 2 | 45° | PLAIN

P.809

ECONOMY

Unit : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	全长 Overall Length L2
GE926010	1.0	4	3	40
GE926015	1.5	4	4	40
GE926020	2.0	4	6	40
GE926025	2.5	4	8	40
GE926030	3.0	6	8	45
GE926035	3.5	6	10	45
GE926040	4.0	6	11	45
GE926045	4.5	6	11	50
GE926050	5.0	6	13	50
GE926055	5.5	6	13	50
GE926060	6.0	6	13	50
GE926070	7.0	8	16	60
GE926080	8.0	8	19	60
GE926090	9.0	10	19	70
GE926100	10.0	10	22	70
GE926110	11.0	12	22	75
GE926120	12.0	12	26	75
GE926160	16.0	16	32	90
GE926200	20.0	20	38	100

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
						◎	○		◎			

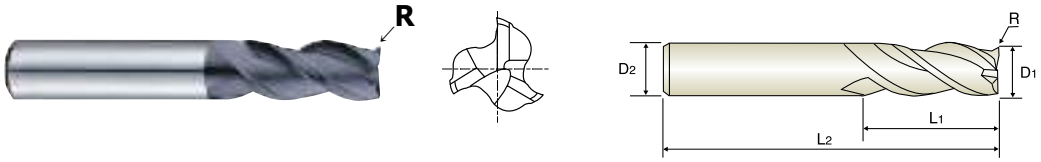
D-POWER END MILLS

GE928 SERIES PLAIN SHANK

硬质合金, 3刃 40度螺旋角 短刃 圆鼻铣刀
CARBIDE, 3 FLUTE 40° HELIX SHORT LENGTH CORNER RADIUS

- 设计用于加工硬塑料, 含硅量高的铝合金, 铜合金.
- YG-1新开发的金刚石薄膜涂层在加工有色金属和非金属材料时具有很好的效果.
- 圆弧角防止崩刃.

- plastics, for the machining reinforced plastic, high silicon aluminum alloys and copper alloys.
- YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.
- Corner radius against chipping.



MG HM | 3 | 40° | PLAIN | ECONOMY

P.809

Unit : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	全长 Overall Length L2
GE928020	R0.15	2.0	3	6	40
GE928030	R0.15	3.0	3	12	40
GE928040	R0.2	4.0	4	14	50
GE928050	R0.3	5.0	5	16	50
GE928060	R0.3	6.0	6	20	65
GE928080	R0.5	8.0	8	20	65
GE928100	R0.5	10.0	10	25	75
GE928120	R0.5	12.0	12	25	75

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
						◎	○		◎			

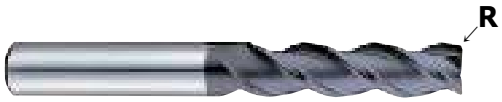
D-POWER END MILLS

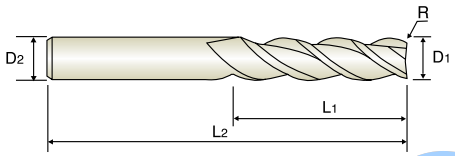
GE929 SERIES PLAIN SHANK

硬质合金，3刃 40度螺旋角 长刃 圆鼻铣刀
CARBIDE, 3 FLUTE 40° HELIX LONG LENGTH CORNER RADIUS

- ▶ 设计用于加工硬塑料，含硅量高的铝合金，铜合金.
- ▶ YG-1新开发的金刚石薄膜涂层在加工有色金属和非金属材料时具有很好的效果.
- ▶ 圆弧角防止崩刃.

- ▶ plastics, for the machining reinforced plastic, high silicon aluminum alloys and copper alloys.
- ▶ YG-1's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.
- ▶ Corner radius against chipping.





MG HM | 3 | 40° | PLAIN

P.809

ECONOMY

Unit : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	全长 Overall Length L2
GE929020	R0.15	2.0	3	9	60
GE929030	R0.15	3.0	3	30	60
GE929040	R0.2	4.0	4	30	60
GE929050	R0.3	5.0	5	35	70
GE929060	R0.3	6.0	6	40	100
GE929080	R0.5	8.0	8	40	100
GE929100	R0.5	10.0	10	40	100
GE929120	R0.5	12.0	12	45	100

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎：优(Excellent) ○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
						◎	○		◎			

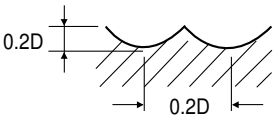
D-POWER END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 2刃 微型 球头
CARBIDE, 2 FLUTE MINIATURE BALL NOSE

EI997, EIB93, EIB87 SERIES

材质 MATERIAL	石墨 GRAPHITE	
DIAMETER	RPM	FEED
R0.2 × 0.4	40000	600
R0.3 × 0.6	40000	800
R0.4 × 0.8	40000	960
R0.5 × 1.0	40000	1200
R0.6 × 1.2	40000	1440
R0.75 × 1.5	40000	1600
R1.0 × 2.0	40000	2000
R1.5 × 3.0	27000	2200
R2.0 × 4.0	20000	2900
R2.5 × 5.0	16000	2900
R3.0 × 6.0	14000	2900

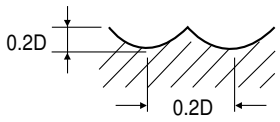


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 2刃 球头
CARBIDE, 2 FLUTE BALL NOSE

EI880, EI451, EI450 SERIES

材质 MATERIAL	石墨 GRAPHITE	
DIAMETER	RPM	FEED
R1.0 × 2.0	16000	800
R1.25 × 2.5	16000	1120
R1.5 × 3.0	16000	1450
R1.75 × 3.5	16000	1750
R2.0 × 4.0	16000	2100
R2.5 × 5.0	15500	2550
R3.0 × 6.0	15000	2950
R4.0 × 8.0	13000	3000
R5.0 × 10.0	11500	3050
R6.0 × 12.0	10500	3150



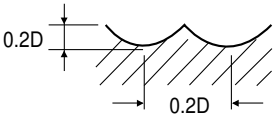
※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 3刃 球头
CARBIDE, 3 FLUTE BALL NOSE

EI881 SERIES

材质 MATERIAL	石墨 GRAPHITE	
DIAMETER	RPM	FEED
R1.0 × 2.0	16000	1200
R1.25 × 2.5	16000	1700
R1.5 × 3.0	16000	2150
R1.75 × 3.5	16000	2650
R2.0 × 4.0	16000	3100
R2.5 × 5.0	15500	3800
R3.0 × 6.0	15000	4450
R4.0 × 8.0	13000	4500
R5.0 × 10.0	11500	4600
R6.0 × 12.0	10500	4750

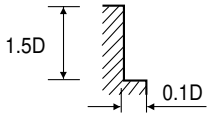


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 2刃 长刃 球头
CARBIDE, 2 FLUTE LONG LENGTH

EIB04 SERIES

材质 MATERIAL	石墨 GRAPHITE	
DIAMETER	RPM	FEED
0.4	40000	200
0.6	40000	350
0.8	40000	550
1.0	40000	700
1.5	40000	800
2.0	25000	800
3.0	20000	800
4.0	18000	950
5.0	14000	1200
6.0	11000	1400
8.0	8000	1300
10.0	6500	1200
12.0	5500	1200



※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

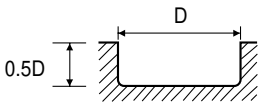
D-POWER END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 2刃 微型 圆鼻铣刀
CARBIDE, 2 FLUTE MINIATURE CORNER RADIUS

EI996, EIB86 SERIES

材质 MATERIAL	石墨 GRAPHITE	
DIAMETER	RPM	FEED
0.4	40000	640
0.6	40000	640
0.8	40000	800
1.0	40000	960
1.2	40000	1200
1.5	40000	1440
2.0	40000	1600
3.0	27000	1900
4.0	20000	2300
5.0	16000	2300
6.0	14000	2300

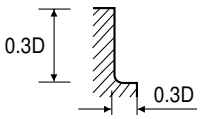


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 3刃 40度螺旋角 圆鼻铣刀
CARBIDE, 3 FLUTE 40° HELIX CORNER RADIUS

EIA13, EIA14 SERIES

材质 MATERIAL	石墨 GRAPHITE	
DIAMETER	RPM	FEED
2.0	40000	3000
3.0	40000	4200
4.0	40000	6000
5.0	40000	7200
6.0	40000	8400
8.0	32000	8400
10.0	26000	8600
12.0	21000	8200



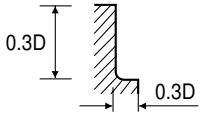
※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 4刃 圆鼻铣刀
CARBIDE, 4 FLUTE CORNER RADIUS

EIB88 SERIES

材质 MATERIAL	石墨 GRAPHITE	
DIAMETER	RPM	FEED
6.0	40000	5600
8.0	32000	5600
10.0	26000	5700
12.0	21000	5450



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

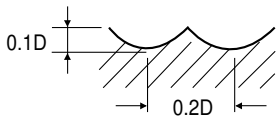
D-POWER END MILLS

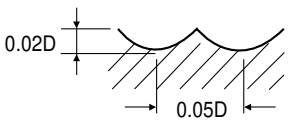
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 2刃 微型 球头
CARBIDE, 2 FLUTE MINIATURE BALL NOSE

GEB46, GEB02 SERIES

材质 MATERIAL	铝, 压铸件 ALUMINUM DIECAST		铜合金 COPPER ALLOY	
DIAMETER	RPM	FEED	RPM	FEED
R0.25 × 0.5	50000	850	43000	650
R0.3 × 0.6	50000	1300	43000	1000
R0.4 × 0.8	50000	1600	38000	1200
R0.5 × 1.0	46000	2000	34000	1400
R0.6 × 1.2	39000	2000	29000	1400
R0.75 × 1.5	36000	2000	26000	1400
R1.0 × 2.0	27000	1800	20000	1300
R1.5 × 3.0	20000	1800	13500	1300
R2.0 × 4.0	15000	1800	10000	1300
R2.5 × 5.0	12000	1800	8000	1300
R3.0 × 6.0	10000	1800	6800	1300



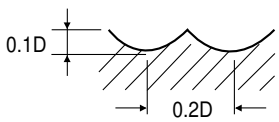


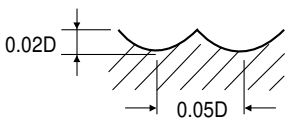
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 2刃 球头
CARBIDE, 2 FLUTE BALL NOSE

GE944, GE945, GE946 SERIES

材质 MATERIAL	铝, 压铸件 ALUMINUM DIECAST		铜合金 COPPER ALLOY	
DIAMETER	RPM	FEED	RPM	FEED
R1.0 × 2.0	25000	1000	19000	800
R1.5 × 3.0	17000	1000	12500	800
R2.0 × 4.0	12500	1000	9500	800
R2.5 × 5.0	10000	1200	7600	850
R3.0 × 6.0	8500	1350	6400	900
R4.0 × 8.0	7000	1450	5100	900
R5.0 × 10.0	6000	1450	4200	900
R6.0 × 12.0	5000	1450	3500	900





※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

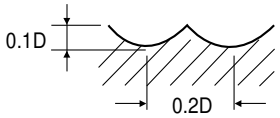
D-POWER END MILLS

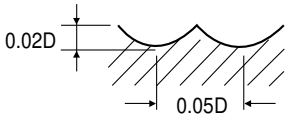
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金，3刃 球头
CARBIDE, 3 FLUTE BALL NOSE

GE947 SERIES

材质	铝，压铸件		铜合金	
MATERIAL	ALUMINUM DIECAST		COPPER ALLOY	
DIAMETER	RPM	FEED	RPM	FEED
R1.0 × 2.0	25000	1000	19000	800
R1.5 × 3.0	17000	1000	12500	800
R2.0 × 4.0	12500	1000	9500	800
R2.5 × 5.0	10000	1200	7600	850
R3.0 × 6.0	8500	1350	6400	900
R4.0 × 8.0	7000	1450	5100	900
R5.0 × 10.0	6000	1450	4200	900
R6.0 × 12.0	5000	1450	3500	900



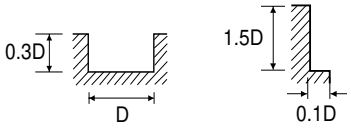


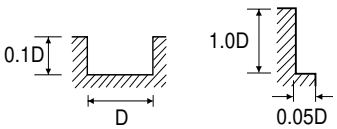
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金，2刃
CARBIDE, 2 FLUTE

GE927 SERIES

材质	铝，压铸件		铜合金	
MATERIAL	ALUMINUM DIECAST		COPPER ALLOY	
DIAMETER	RPM	FEED	RPM	FEED
0.5	32000	100	32000	100
1.0	32000	190	25000	140
2.0	27000	300	12000	150
3.0	20000	510	8000	220
4.0	15000	520	6000	240
5.0	12000	540	4800	250
6.0	10000	600	4000	250
8.0	8000	650	3000	280
10.0	6400	680	2500	330
12.0	5500	800	2000	360
16.0	4000	1000	1500	450
20.0	3300	1200	1200	500





※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

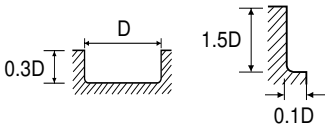
D-POWER END MILLS

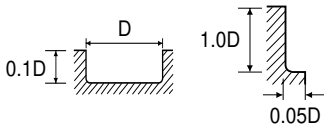
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 2刃 微型 圆鼻铣刀
CARBIDE, 2 FLUTE MINIATURE CORNER RADIUS

GEB45, GEB01 SERIES

材质 MATERIAL	铝, 压铸件 ALUMINUM DIECAST		铜合金 COPPER ALLOY	
DIAMETER	RPM	FEED	RPM	FEED
0.5	32000	130	32000	130
1.0	32000	250	25000	180
1.5	32000	320	16000	185
2.0	27000	390	12000	190
3.0	20000	660	8000	280
4.0	15000	670	6000	310
5.0	12000	700	4800	320
6.0	10000	780	4000	320



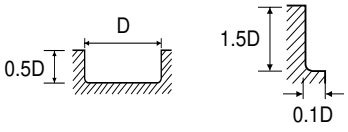


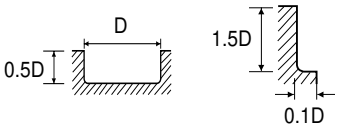
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 4刃 圆鼻铣刀
CARBIDE, 4 FLUTE CORNER RADIUS

GEB03 SERIES

材质 MATERIAL	铝, 压铸件 ALUMINUM DIECAST		铜合金 COPPER ALLOY	
DIAMETER	RPM	FEED	RPM	FEED
6.0	10000	1850	4000	530
8.0	7500	2000	3000	610
10.0	6000	2250	2400	640
12.0	5000	2250	2000	680





RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

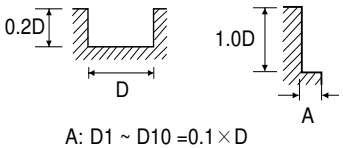
D-POWER END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

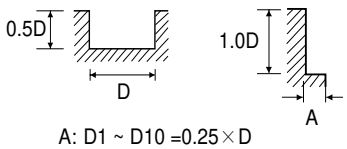
硬质合金，2刃 45度螺旋角
CARBIDE, 2 FLUTE 45° HELIX

GE926 SERIES

材质	铝，压铸件		铜合金	
MATERIAL	ALUMINUM DIECAST		COPPER ALLOY	
DIAMETER	RPM	FEED	RPM	FEED
1.0	30000	260	20000	80
2.0	30000	450	20000	160
3.0	24000	700	14000	280
4.0	20000	950	11000	380
5.0	13000	1100	7500	400
6.0	13000	1200	7500	480
8.0	11000	1500	6000	580
10.0	8500	1800	4800	700
12.0	7200	2200	3900	850
16.0	6000	2000	3300	780
20.0	3600	1600	2000	630



A: D1 ~ D10 =0.1×D



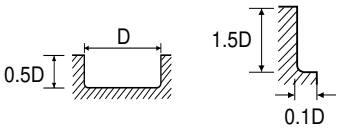
A: D1 ~ D10 =0.25×D

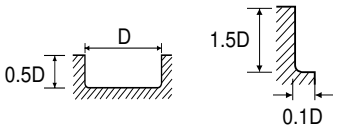
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金，3刃 40度螺旋角 圆鼻铣刀
CARBIDE, 3 FLUTE 40° HELIX CORNER RADIUS

GE928, GE929 SERIES

材质	铝，压铸件		铜合金	
MATERIAL	ALUMINUM DIECAST		COPPER ALLOY	
DIAMETER	RPM	FEED	RPM	FEED
2.0	27000	1000	10000	250
3.0	21000	1100	8000	320
4.0	15000	1200	6000	360
5.0	12000	1250	4800	385
6.0	10000	1400	4000	400
8.0	7500	1500	3000	460
10.0	6000	1700	2400	480
12.0	5000	1700	2000	510





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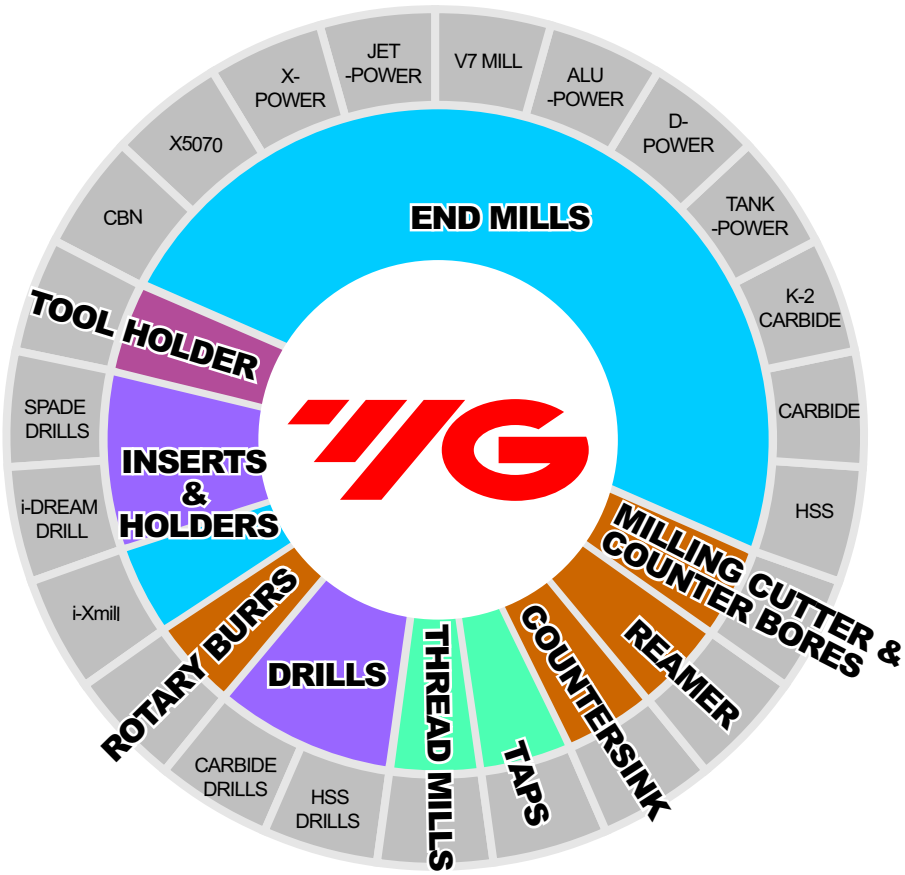
The Feed, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)



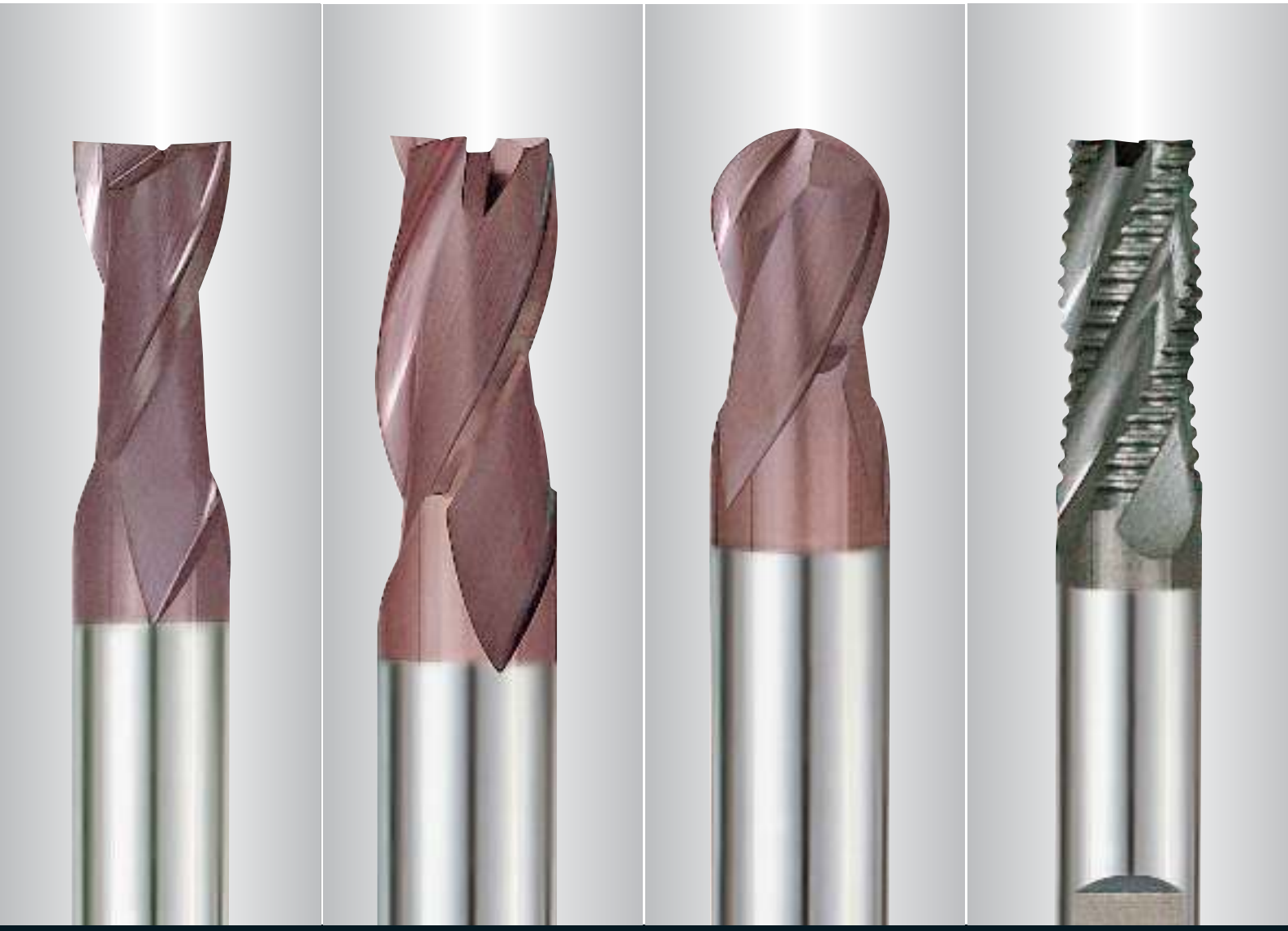
Challenge Toward a Global Leader-

YG-1 Leads the World Market.

CARBIDE

YG

Being the best through innovation

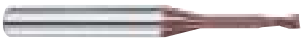
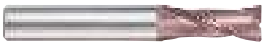
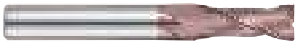


K-2 CARBIDE

- 有涂层，普通用途.
常规或高速切削，干式或湿式切削.

General Purpose as Coating.
Conventional or High Speed Milling, Wet or Dry Cutting.

SELECTION GUIDE

项目 ITEM	型号 MODEL	规格 DESCRIPTION	尺寸 SIZE 最小 MIN	尺寸 SIZE 最大 MAX	页 PAGE
G9B80		硬质合金 2刃 深孔加工 CARBIDE, 2 FLUTE RIB PROCESSING	D0.4	D4.0	816
G9B81		硬质合金 2刃 球头 深孔加工 CARBIDE, 2 FLUTE BALL NOSE RIB PROCESSING	R0.2	R2.0	818
G9B82		硬质合金 2刃 短刃 圆鼻铣刀 CARBIDE, 2 FLUTE SHORT LENGTH CORNER RADIUS	D2.0	D12.0	820
G9B83		硬质合金 2刃 长刃 圆鼻铣刀 CARBIDE, 2 FLUTE LONG REACH CORNER RADIUS	D3.0	D12.0	822
G9B84		硬质合金 4刃 短刃 圆鼻铣刀 CARBIDE, 4 FLUTE SHORT LENGTH CORNER RADIUS	D2.0	D12.0	823
G9B85		硬质合金 4刃 长刃 圆鼻铣刀 CARBIDE, 4 FLUTE LONG REACH CORNER RADIUS	D3.0	D12.0	825
G9A23		硬质合金, 2刃 普通刃 CARBIDE, 2 FLUTE REGULAR LENGTH	D1.0	D20.0	826
G9B50		硬质合金, 2刃 长型 CARBIDE, 2 FLUTE LONG LENGTH	D1.0	D20.0	827
G9A24		硬质合金, 4刃 普通刃 CARBIDE, 4 FLUTE REGULAR LENGTH	D1.0	D20.0	828
G9B51		硬质合金, 4刃 长型 CARBIDE, 4 FLUTE LONG LENGTH	D1.0	D20.0	829
G9A25		硬质合金, 2刃 普通刃 球头 CARBIDE, 2 FLUTE REGULAR LENGTH BALL NOSE	R0.5	R10.0	830
G9B52		硬质合金, 2刃 长型 球头 CARBIDE, 2 FLUTE LONG LENGTH BALL NOSE	R0.5	R10.0	831
EMC52		硬质合金, 2刃 35度螺旋角 短型 CARBIDE, 2 FLUTE 35° HELIX SHORT LENGTH	D1.0	D20.0	832
EMC53		硬质合金, 2刃 35度螺旋角 长型 CARBIDE, 2 FLUTE 35° HELIX LONG LENGTH	D2.0	D20.0	833
EMC54		硬质合金, 4刃 35度螺旋角 短型 CARBIDE, 4 FLUTE 35° HELIX SHORT LENGTH	D1.0	D20.0	834
EMC55		硬质合金, 4刃 35度螺旋角 长型 CARBIDE, 4 FLUTE 35° HELIX LONG LENGTH	D2.0	D20.0	835
EMC56		硬质合金, 2刃 球头 短型 CARBIDE, 2 FLUTE BALL NOSE SHORT LENGTH	R0.1	R10.0	836
EMC57		硬质合金, 4(6)刃 45度螺旋角 短型 CARBIDE, 4(6) FLUTE 45° HELIX SHORT LENGTH	D1.0	D20.0	837

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	铬镍铁合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
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SELECTION GUIDE

项目 ITEM	型号 MODEL	规格 DESCRIPTION	尺寸 SIZE MIN	尺寸 SIZE MAX	页 PAGE
EMC58		硬质合金，6刃 45度螺旋角 长型 CARBIDE, 6 FLUTE 45° HELIX LONG LENGTH	D6.0	D20.0	838
EMC59		硬质合金，2刃 颈部加长型 CARBIDE, 2FLUTE LONG NECK	D0.4	D6.0	839
EMC60		硬质合金，2刃 颈部加长型 球头 CARBIDE, 2FLUTE LONG NECK BALL NOSE	R0.2	R3.0	844
EMC61		硬质合金，2刃 圆鼻铣刀 CARBIDE, 2FLUTE CORNER RADIUS	D3.0	D12.0	848
EMC62		硬质合金，4刃 圆鼻铣刀 CARBIDE, 4FLUTE CORNER RADIUS	D3.0	D12.0	849
GFC63		硬质合金，2刃 颈部延伸 CARBIDE, 2 FLUTE EXTENDED NECK	D0.4	D20.0	850
GFC64		硬质合金，4刃 颈部延伸 CARBIDE, 4 FLUTE EXTENDED NECK	D1.0	D20.0	851
GFC65		硬质合金，2刃 球头 短型 CARBIDE, 2 FLUTE BALL NOSE SHORT LENGTH	R0.1	R6.0	852
GFC66		硬质合金，2刃 球头 超短型 颈部延伸 CARBIDE, 2 FLUTE BALL NOSE STUB LENGTH EXTENDED NECK	R0.5	R10.0	853
EMC67		硬质合金，4刃 短型 CARBIDE, 4 FLUTE SHORT LENGTH	D6.0	D20.0	854
EMC68		硬质合金，4刃 长型 CARBIDE, 4 FLUTE LONG LENGTH	D6.0	D20.0	855
EMC69		硬质合金，多种刃 45度螺旋角 螺纹 - 细螺纹 CARBIDE, MULTI FLUTE 45° HELIX ROUGHING - FINE	D6.0	D20.0	856
E5C70		硬质合金，2刃 45度螺旋角 短型 CARBIDE, 2 FLUTE 45° HELIX SHORT LENGTH	D1.0	D20.0	857
E5C71		硬质合金，2刃 45度螺旋角 中等长度 CARBIDE, 2 FLUTE 45° HELIX MEDIUM LENGTH	D4.0	D20.0	858
E5C72		硬质合金，3刃 45度螺旋角 短型 CARBIDE, 3 FLUTE 45° HELIX SHORT LENGTH	D1.0	D20.0	859
E5C73		硬质合金，3刃 45度螺旋角 中等长度 CARBIDE, 3 FLUTE 45° HELIX MEDIUM LENGTH	D4.0	D20.0	860
E5C74		硬质合金，3刃 45度螺旋角 超长型 CARBIDE, 3 FLUTE 45° HELIX EX-LONG LENGTH	D3.0	D20.0	861
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS			863

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	铬镍铁合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
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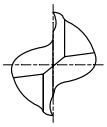
K-2 CARBIDE END MILLS

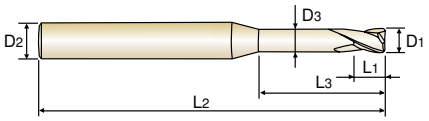
G9B80 SERIES PLAIN SHANK

硬质合金, 2刃 深孔加工
CARBIDE, 2 FLUTE RIB PROCESSING

- 适于高温干切削
- 卓越的高性能铣刀
- 2刃为槽铣设计

- Suitable for dry milling applications at high temperatures.
- Excellent high-performance end mills.
- 2 flute design for slotting.





MG HM | 2 | 30° | DIN 6535HA

P.863

단위(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
G9B80004	0.4	4	0.7	2	50	0.37
G9B80901	0.4	4	0.7	4	50	0.37
G9B80005	0.5	4	0.75	2	50	0.45
G9B80902	0.5	4	0.75	4	50	0.45
G9B80903	0.5	4	0.75	6	50	0.45
G9B80006	0.6	4	0.9	2	50	0.55
G9B80904	0.6	4	0.9	4	50	0.55
G9B80905	0.6	4	0.9	6	50	0.55
G9B80007	0.7	4	1.1	4	50	0.65
G9B80906	0.7	4	1.1	6	50	0.65
G9B80008	0.8	4	1.2	4	50	0.75
G9B80907	0.8	4	1.2	6	50	0.75
G9B80908	0.8	4	1.2	8	50	0.75
G9B80009	0.9	4	1.4	6	50	0.85
G9B80909	0.9	4	1.4	8	50	0.85
G9B80910	0.9	4	1.4	10	50	0.85
G9B80010	1.0	4	1.5	6	50	0.95
G9B80911	1.0	4	1.5	8	50	0.95
G9B80912	1.0	4	1.5	10	50	0.95
G9B80913	1.0	4	1.5	12	50	0.95
G9B80012	1.2	4	1.8	6	50	1.15
G9B80914	1.2	4	1.8	8	50	1.15
G9B80915	1.2	4	1.8	10	50	1.15
G9B80916	1.2	4	1.8	12	50	1.15
G9B80015	1.5	4	2.3	6	50	1.45
G9B80917	1.5	4	2.3	8	50	1.45
G9B80918	1.5	4	2.3	10	50	1.45
G9B80919	1.5	4	2.3	12	50	1.45
G9B80920	1.5	4	2.3	14	50	1.45
G9B80921	1.5	4	2.3	16	50	1.45

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○				

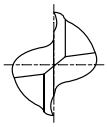
K-2 CARBIDE END MILLS

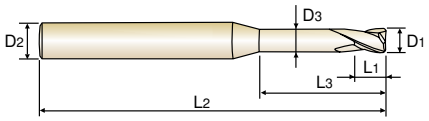
G9B80 SERIES PLAIN SHANK

硬质合金，2刃 深孔加工
CARBIDE, 2 FLUTE RIB PROCESSING

- 适于高温干切削
- 卓越的高性能铣刀
- 2刃为槽铣设计

- Suitable for dry milling applications at high temperatures.
- Excellent high-performance end mills.
- 2 flute design for slotting.





MG HM | 2 | 30° | DIN 6535HA

P.863

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
G9B80922	1.5	4	2.3	18	50	1.45
G9B80923	1.5	4	2.3	20	50	1.45
G9B80020	2.0	4	3	6	50	1.95
G9B80924	2.0	4	3	8	50	1.95
G9B80925	2.0	4	3	10	50	1.95
G9B80926	2.0	4	3	12	50	1.95
G9B80927	2.0	4	3	14	50	1.95
G9B80928	2.0	4	3	16	50	1.95
G9B80929	2.0	4	3	18	50	1.95
G9B80930	2.0	4	3	20	50	1.95
G9B80025	2.5	4	3.7	8	50	2.40
G9B80931	2.5	4	3.7	12	50	2.40
G9B80932	2.5	4	3.7	16	50	2.40
G9B80933	2.5	4	3.7	20	50	2.40
G9B80030	3.0	6	4.5	8	50	2.85
G9B80934	3.0	6	4.5	12	50	2.85
G9B80935	3.0	6	4.5	16	60	2.85
G9B80936	3.0	6	4.5	20	60	2.85
G9B80937	3.0	6	4.5	25	75	2.85
G9B80040	4.0	6	6	12	50	3.85
G9B80938	4.0	6	6	16	60	3.85
G9B80939	4.0	6	6	20	75	3.85
G9B80940	4.0	6	6	25	75	3.85
G9B80941	4.0	6	6	30	75	3.85
G9B80942	4.0	6	6	35	75	3.85

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○				

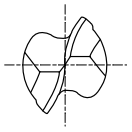
K-2 CARBIDE END MILLS

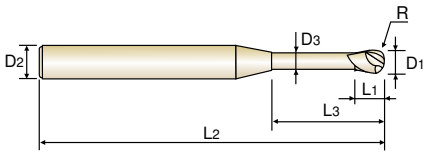
G9B81 SERIES PLAIN SHANK

硬质合金, 2刃 球头 深孔加工
CARBIDE, 2 FLUTE BALL NOSE for RIB PROCESSING

- 适于高温干切削
- 卓越的高性能铣刀
- 设计用于加工圆底沟槽带和特殊轮廓

- Suitable for dry milling applications at high temperatures.
- Excellent high-performance end mills.
- Designed for milling of radius bottom slots, fillets and special contours.





MG HM | 2 | 30° | R ±0.02 | DIN 6535HA

P.864

単位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.02)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
G9B81004	R0.2	0.4	4	0.7	2	50	0.37
G9B81005	R0.25	0.5	4	0.75	2	50	0.45
G9B81901	R0.25	0.5	4	0.75	4	50	0.45
G9B81902	R0.25	0.5	4	0.75	6	50	0.45
G9B81006	R0.3	0.6	4	0.9	2	50	0.55
G9B81903	R0.3	0.6	4	0.9	4	50	0.55
G9B81904	R0.3	0.6	4	0.9	6	50	0.55
G9B81008	R0.4	0.8	4	1.2	4	50	0.75
G9B81905	R0.4	0.8	4	1.2	6	50	0.75
G9B81906	R0.4	0.8	4	1.2	8	50	0.75
G9B81010	R0.5	1.0	4	1.5	6	50	0.95
G9B81907	R0.5	1.0	4	1.5	8	50	0.95
G9B81908	R0.5	1.0	4	1.5	10	50	0.95
G9B81909	R0.5	1.0	4	1.5	12	50	0.95
G9B81012	R0.6	1.2	4	1.8	8	50	1.15
G9B81910	R0.6	1.2	4	1.8	12	50	1.15
G9B81014	R0.7	1.4	4	2.1	16	50	1.35
G9B81015	R0.75	1.5	4	2.3	6	50	1.45
G9B81911	R0.75	1.5	4	2.3	8	50	1.45
G9B81912	R0.75	1.5	4	2.3	10	50	1.45
G9B81913	R0.75	1.5	4	2.3	12	50	1.45
G9B81914	R0.75	1.5	4	2.3	16	50	1.45
G9B81915	R0.75	1.5	4	2.3	20	50	1.45
G9B81016	R0.8	1.6	4	2.4	8	50	1.55
G9B81916	R0.8	1.6	4	2.4	12	50	1.55
G9B81917	R0.8	1.6	4	2.4	16	50	1.55

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○				

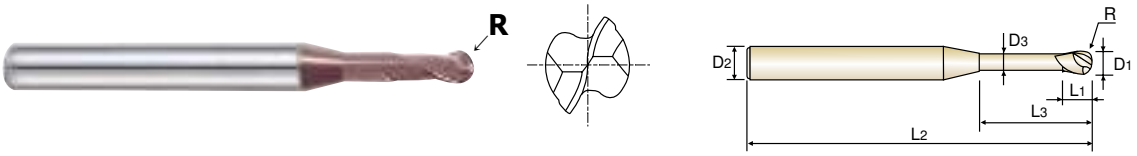
K-2 CARBIDE END MILLS

G9B81 SERIES PLAIN SHANK

硬质合金, 2刃 球头 深孔加工
CARBIDE, 2 FLUTE BALL NOSE for RIB PROCESSING

- 适于高温干切削
- 卓越的高性能铣刀
- 设计用于加工圆底沟槽带和特殊轮廓

- Suitable for dry milling applications at high temperatures.
- Excellent high-performance end mills.
- Designed for milling of radius bottom slots, fillets and special contours.



MG HM | 2 | 30° | R ±0.02 | DIN 6535HA

P.864

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.02)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
G9B81918	R0.8	1.6	4	2.4	20	50	1.55
G9B81020	R1.0	2.0	4	3	8	50	1.95
G9B81919	R1.0	2.0	4	3	10	50	1.95
G9B81920	R1.0	2.0	4	3	12	50	1.95
G9B81921	R1.0	2.0	4	3	14	50	1.95
G9B81922	R1.0	2.0	4	3	16	50	1.95
G9B81923	R1.0	2.0	4	3	20	50	1.95
G9B81030	R1.5	3.0	6	4.5	10	50	2.85
G9B81924	R1.5	3.0	6	4.5	12	50	2.85
G9B81925	R1.5	3.0	6	4.5	16	60	2.85
G9B81926	R1.5	3.0	6	4.5	20	60	2.85
G9B81927	R1.5	3.0	6	4.5	25	75	2.85
G9B81040	R2.0	4.0	6	6	12	50	3.85
G9B81928	R2.0	4.0	6	6	16	60	3.85
G9B81929	R2.0	4.0	6	6	20	75	3.85
G9B81930	R2.0	4.0	6	6	25	75	3.85
G9B81931	R2.0	4.0	6	6	30	75	3.85

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○				

K-2 CARBIDE END MILLS

G9B82 SERIES PLAIN SHANK

硬质合金, 2刃 短刃 圆鼻铣刀
CARBIDE, 2 FLUTE SHORT LENGTH CORNER RADIUS

- 适于高温干切削
- 卓越的高性能铣刀
- 2刃为槽铣设计

- Suitable for dry milling applications at high temperatures.
- Excellent high-performance end mills.
- 2 flute design for slotting.

MG HM | 2 | 30° | DIN 6535HA

P.865

Unit : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
G9B82020	R0.2	2.0	4	4	50
G9B82901	R0.3	2.0	4	4	50
G9B82902	R0.5	2.0	4	4	50
G9B82025	R0.2	2.5	4	5	50
G9B82903	R0.3	2.5	4	5	50
G9B82904	R0.5	2.5	4	5	50
G9B82030	R0.2	3.0	4	6	50
G9B82905	R0.3	3.0	4	6	50
G9B82906	R0.5	3.0	4	6	50
G9B82907	R1.0	3.0	4	6	50
G9B82040	R0.2	4.0	4	8	50
G9B82908	R0.3	4.0	4	8	50
G9B82909	R0.5	4.0	4	8	50
G9B82910	R1.0	4.0	4	8	50
G9B82050	R0.2	5.0	6	10	50
G9B82911	R0.3	5.0	6	10	50
G9B82912	R0.5	5.0	6	10	50
G9B82913	R1.0	5.0	6	10	50
G9B82060	R0.2	6.0	6	12	50
G9B82914	R0.3	6.0	6	12	50
G9B82915	R0.5	6.0	6	12	50
G9B82916	R1.0	6.0	6	12	50

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels		合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225		HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎		◎	◎	○					○	○	○		

K-2 CARBIDE END MILLS

G9B82 SERIES PLAIN SHANK

硬质合金，2刃 短刃 圆鼻铣刀
CARBIDE, 2 FLUTE SHORT LENGTH CORNER RADIUS

- ▶ 适于高温干切削
- ▶ 卓越的高性能铣刀
- ▶ 2刃为槽铣设计

- ▶ Suitable for dry milling applications at high temperatures.
- ▶ Excellent high-performance end mills.
- ▶ 2 flute design for slotting.

P.865

Unit : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
G9B82080	R0.5	8.0	8	16	60
G9B82917	R1.0	8.0	8	16	60
G9B82918	R1.5	8.0	8	16	60
G9B82919	R2.0	8.0	8	16	60
G9B82920	R2.5	8.0	8	16	60
G9B82100	R0.5	10.0	10	20	75
G9B82921	R1.0	10.0	10	20	75
G9B82922	R1.5	10.0	10	20	75
G9B82923	R2.0	10.0	10	20	75
G9B82924	R2.5	10.0	10	20	75
G9B82120	R0.5	12.0	12	24	75
G9B82925	R1.0	12.0	12	24	75
G9B82926	R1.5	12.0	12	24	75
G9B82927	R2.0	12.0	12	24	75
G9B82928	R2.5	12.0	12	24	75

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○	○	○		

K-2 CARBIDE END MILLS

G9B83 SERIES PLAIN SHANK

硬质合金, 2刃 长刃 圆鼻铣刀
CARBIDE, 2 FLUTE LONG REACH CORNER RADIUS

- 适于高温干切削
- 卓越的高性能铣刀
- 2刃为槽铣设计

- Suitable for dry milling applications at high temperatures.
- Excellent high-performance end mills.
- 2 flute design for slotting.

MG HM | 2 | 30° | DIN 6535HA P.865

Unit : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
G9B83030	R0.5	3.0	4	6	75
G9B83901	R1.0	3.0	4	6	75
G9B83040	R0.5	4.0	4	8	75
G9B83902	R1.0	4.0	4	8	75
G9B83050	R0.5	5.0	6	10	75
G9B83903	R1.0	5.0	6	10	75
G9B83060	R0.5	6.0	6	12	75
G9B83904	R1.0	6.0	6	12	75
G9B83080	R0.5	8.0	8	16	100
G9B83905	R1.0	8.0	8	16	100
G9B83906	R1.5	8.0	8	16	100
G9B83907	R2.0	8.0	8	16	100
G9B83908	R2.5	8.0	8	16	100
G9B83100	R0.5	10.0	10	20	100
G9B83909	R1.0	10.0	10	20	100
G9B83910	R1.5	10.0	10	20	100
G9B83911	R2.0	10.0	10	20	100
G9B83912	R2.5	10.0	10	20	100
G9B83120	R0.5	12.0	12	24	100
G9B83913	R1.0	12.0	12	24	100
G9B83914	R1.5	12.0	12	24	100
G9B83915	R2.0	12.0	12	24	100
G9B83916	R2.5	12.0	12	24	100

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○	○	○		

K-2 CARBIDE END MILLS

G9B84 SERIES PLAIN SHANK

硬质合金，4刃 短刃 圆鼻铣刀
CARBIDE, 4 FLUTE SHORT LENGTH CORNER RADIUS

- 适于高温干切削
- 卓越的高性能铣刀
- 设计用于加工圆底沟槽带和特殊轮廓

- Suitable for dry milling applications at high temperatures.
- Excellent high-performance end mills.
- Designed for milling of radius bottom slots, fillets and special contours.

MG HM | 4 | 30° | DIN 6535HA

P.865

Unit : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
G9B84020	R0.2	2.0	4	4	50
G9B84901	R0.3	2.0	4	4	50
G9B84902	R0.5	2.0	4	4	50
G9B84025	R0.2	2.5	4	5	50
G9B84903	R0.3	2.5	4	5	50
G9B84904	R0.5	2.5	4	5	50
G9B84030	R0.2	3.0	4	6	50
G9B84905	R0.3	3.0	4	6	50
G9B84906	R0.5	3.0	4	6	50
G9B84907	R1.0	3.0	4	6	50
G9B84040	R0.2	4.0	4	8	50
G9B84908	R0.3	4.0	4	8	50
G9B84909	R0.5	4.0	4	8	50
G9B84910	R1.0	4.0	4	8	50
G9B84050	R0.2	5.0	6	10	50
G9B84911	R0.3	5.0	6	10	50
G9B84912	R0.5	5.0	6	10	50
G9B84913	R1.0	5.0	6	10	50
G9B84060	R0.2	6.0	6	12	50
G9B84914	R0.3	6.0	6	12	50
G9B84915	R0.5	6.0	6	12	50
G9B84916	R1.0	6.0	6	12	50

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○	○	○		

K-2 CARBIDE END MILLS

G9B84 SERIES PLAIN SHANK

硬质合金, 4刃 短刃 圆鼻铣刀
CARBIDE, 4 FLUTE SHORT LENGTH CORNER RADIUS

- 适于高温干切削
- 卓越的高性能铣刀
- 设计用于加工圆底沟槽带和特殊轮廓

- Suitable for dry milling applications at high temperatures.
- Excellent high-performance end mills.
- Designed for milling of radius bottom slots, fillets and special contours.

MG HM | 4 | 30° | DIN 6535HA P.865

Unit : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
G9B84080	R0.5	8.0	8	16	60
G9B84917	R1.0	8.0	8	16	60
G9B84918	R1.5	8.0	8	16	60
G9B84919	R2.0	8.0	8	16	60
G9B84920	R2.5	8.0	8	16	60
G9B84100	R0.5	10.0	10	20	75
G9B84921	R1.0	10.0	10	20	75
G9B84922	R1.5	10.0	10	20	75
G9B84923	R2.0	10.0	10	20	75
G9B84924	R2.5	10.0	10	20	75
G9B84120	R0.5	12.0	12	24	75
G9B84925	R1.0	12.0	12	24	75
G9B84926	R1.5	12.0	12	24	75
G9B84927	R2.0	12.0	12	24	75
G9B84928	R2.5	12.0	12	24	75

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○	○	○		

K-2 CARBIDE END MILLS

G9B85 SERIES PLAIN SHANK

硬质合金，4刃 长刃 圆鼻铣刀
CARBIDE, 4 FLUTE LONG REACH CORNER RADIUS

- 适于高温干切削
- 卓越的高性能铣刀
- 设计用于加工圆底沟槽带和特殊轮廓

- Suitable for dry milling applications at high temperatures.
- Excellent high-performance end mills.
- Designed for milling of radius bottom slots, fillets and special contours.

MG HM | 4 | 30° | DIN 6535HA

P.865

Unit : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
G9B85030	R0.5	3.0	4	6	75
G9B85901	R1.0	3.0	4	6	75
G9B85040	R0.5	4.0	4	8	75
G9B85902	R1.0	4.0	4	8	75
G9B85050	R0.5	5.0	6	10	75
G9B85903	R1.0	5.0	6	10	75
G9B85060	R0.5	6.0	6	12	75
G9B85904	R1.0	6.0	6	12	75
G9B85080	R0.5	8.0	8	16	100
G9B85905	R1.0	8.0	8	16	100
G9B85906	R1.5	8.0	8	16	100
G9B85907	R2.0	8.0	8	16	100
G9B85908	R2.5	8.0	8	16	100
G9B85100	R0.5	10.0	10	20	100
G9B85909	R1.0	10.0	10	20	100
G9B85910	R1.5	10.0	10	20	100
G9B85911	R2.0	10.0	10	20	100
G9B85912	R2.5	10.0	10	20	100
G9B85120	R0.5	12.0	12	24	100
G9B85913	R1.0	12.0	12	24	100
G9B85914	R1.5	12.0	12	24	100
G9B85915	R2.0	12.0	12	24	100
G9B85916	R2.5	12.0	12	24	100

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○	○	○		

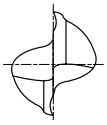
K-2 CARBIDE END MILLS

G9A23 SERIES PLAIN SHANK

硬质合金, 2刃 普通刃
CARBIDE, 2 FLUTE REGULAR LENGTH

- 适于高温干切削
- 卓越的高性能铣刀
- 2刃为槽铣设计

- Suitable for dry milling applications at high temperatures.
- Excellent high-performance end mills.
- 2 flute design for slotting.



MG HM | 2 | 30° | PLAIN

P.866

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
G9A23010	1.0	4	3	50
G9A23015	1.5	4	4	50
G9A23020	2.0	4	6	50
G9A23025	2.5	4	8	50
G9A23030	3.0	4	9	50
G9A23040	4.0	4	11	50
G9A23050	5.0	6	13	50
G9A23060	6.0	6	16	50
G9A23070	7.0	8	16	60
G9A23080	8.0	8	19	60
G9A23090	9.0	10	19	60
G9A23905	9.0	10	25	75
G9A23100	10.0	10	25	75
G9A23120	12.0	12	30	75
G9A23140	14.0	14	32	75
G9A23906	14.0	16	45	100
G9A23160	16.0	16	32	100
G9A23907	16.0	16	45	100
G9A23180	18.0	18	32	100
G9A23908	18.0	20	45	100
G9A23200	20.0	20	38	100
G9A23909	20.0	20	45	100

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○	○	○		

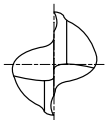
K-2 CARBIDE END MILLS

G9B50 SERIES PLAIN SHANK

硬质合金，2刃 长型
CARBIDE, 2 FLUTE LONG LENGTH

- 适于高温干切削
- 卓越的高性能铣刀
- 2刃为槽铣设计

- Suitable for dry milling applications at high temperatures.
- Excellent high-performance end mills.
- 2 flute design for slotting.



MG HM | 2 | 30° | PLAIN

P.866

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
G9B50010	1.0	4	5	75
G9B50901	1.0	6	5	75
G9B50015	1.5	4	6	75
G9B50902	1.5	6	6	75
G9B50020	2.0	4	9	75
G9B50903	2.0	6	9	75
G9B50025	2.5	4	12	75
G9B50904	2.5	6	12	75
G9B50030	3.0	4	12	75
G9B50905	3.0	6	12	75
G9B50040	4.0	4	16	75
G9B50906	4.0	6	16	75
G9B50050	5.0	6	20	75
G9B50060	6.0	6	20	75
G9B50080	8.0	8	20	100
G9B50100	10.0	10	25	100
G9B50120	12.0	12	30	100
G9B50140	14.0	16	75	150
G9B50160	16.0	16	75	150
G9B50200	20.0	20	75	150

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○	○	○		

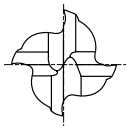
K-2 CARBIDE END MILLS

G9A24 SERIES PLAIN SHANK

硬质合金, 4刃 普通刃
CARBIDE, 4 FLUTE REGULAR LENGTH

- 适于高温干切削
- 卓越的高性能铣刀
- 4刃可得到好的表面质量

- Suitable for dry milling applications at high temperatures.
- Excellent high-performance end mills.
- 4 flute allows for better work piece finishes.



MG HM | 4 | 30° | PLAIN

P.867

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
G9A24010	1.0	4	3	50
G9A24015	1.5	4	4	50
G9A24020	2.0	4	6	50
G9A24025	2.5	4	8	50
G9A24030	3.0	4	9	50
G9A24040	4.0	4	11	50
G9A24050	5.0	6	13	50
G9A24060	6.0	6	16	50
G9A24070	7.0	8	16	60
G9A24080	8.0	8	19	60
G9A24090	9.0	10	19	60
G9A24905	9.0	10	25	75
G9A24100	10.0	10	25	75
G9A24120	12.0	12	30	75
G9A24140	14.0	14	32	75
G9A24906	14.0	16	45	100
G9A24160	16.0	16	32	100
G9A24907	16.0	16	45	100
G9A24908	18.0	20	45	100
G9A24200	20.0	20	38	100
G9A24909	20.0	20	45	100

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○	○	○		

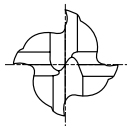
K-2 CARBIDE END MILLS

G9B51 SERIES PLAIN SHANK

硬质合金, 4刃 长型
CARBIDE, 4 FLUTE LONG LENGTH

- ▶ 适于高温干切削
- ▶ 卓越的高性能铣刀
- ▶ 4刃可得到好的表面质量

- ▶ Suitable for dry milling applications at high temperatures.
- ▶ Excellent high-performance end mills.
- ▶ 4 flute allows for better work piece finishes.



MG HM | 4 | 30° | PLAIN P.867

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
G9B51010	1.0	4	5	75
G9B51901	1.0	6	5	75
G9B51015	1.5	4	6	75
G9B51902	1.5	6	6	75
G9B51020	2.0	4	9	75
G9B51903	2.0	6	9	75
G9B51025	2.5	4	12	75
G9B51904	2.5	6	12	75
G9B51030	3.0	4	12	75
G9B51905	3.0	6	12	75
G9B51040	4.0	4	16	75
G9B51906	4.0	6	16	75
G9B51050	5.0	6	20	75
G9B51060	6.0	6	20	75
G9B51080	8.0	8	20	100
G9B51100	10.0	10	25	100
G9B51120	12.0	12	30	100
G9B51140	14.0	16	75	150
G9B51160	16.0	16	75	150
G9B51200	20.0	20	75	150

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○	○	○		

K-2 CARBIDE END MILLS

G9A25 SERIES PLAIN SHANK

硬质合金, 2刃 普通刃 球头
CARBIDE, 2 FLUTE REGULAR LENGTH BALL NOSE

- 适于高温干切削
- 卓越的高性能铣刀
- 设计用于加工圆底沟槽带和特殊轮廓

- Suitable for dry milling applications at high temperatures.
- Excellent high-performance end mills.
- Designed for milling of radius bottom slots, fillets and special contours.

MG HM | 2 | 30° | R ±0.02 | PLAIN

P.868

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.02)	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
G9A25010	R0.5	1.0	4	2	50
G9A25015	R0.75	1.5	4	3	50
G9A25020	R1.0	2.0	4	4	50
G9A25025	R1.25	2.5	4	6	50
G9A25030	R1.5	3.0	4	6	50
G9A25040	R2.0	4.0	4	8	50
G9A25050	R2.5	5.0	6	10	50
G9A25060	R3.0	6.0	6	12	50
G9A25080	R4.0	8.0	8	14	60
G9A25100	R5.0	10.0	10	18	75
G9A25120	R6.0	12.0	12	22	75
G9A25910	R6.0	12.0	12	25	75
G9A25140	R7.0	14.0	14	32	75
G9A25911	R7.0	14.0	16	25	100
G9A25160	R8.0	16.0	16	32	100
G9A25912	R8.0	16.0	16	30	100
G9A25200	R10.0	20.0	20	38	100
G9A25913	R10.0	20.0	20	30	100

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○	○	○		

K-2 CARBIDE END MILLS

G9B52 SERIES PLAIN SHANK

硬质合金, 2刃 长型 球头
CARBIDE, 2 FLUTE LONG LENGTH BALL NOSE

- 适于高温干切削
- 卓越的高性能铣刀
- 设计用于加工圆底沟槽带和特殊轮廓

- Suitable for dry milling applications at high temperatures.
- Excellent high-performance end mills.
- Designed for milling of radius bottom slots, fillets and special contours.

MG HM | 2 | 30° | R ±0.02 | PLAIN P.868

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.02)	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
G9B52010	R0.5	1.0	4	2	75
G9B52901	R0.5	1.0	6	2	75
G9B52015	R0.75	1.5	4	3	75
G9B52902	R0.75	1.5	6	3	75
G9B52020	R1.0	2.0	4	4	75
G9B52903	R1.0	2.0	6	4	75
G9B52030	R1.5	3.0	4	8	75
G9B52904	R1.5	3.0	6	8	75
G9B52040	R2.0	4.0	4	11	75
G9B52905	R2.0	4.0	6	11	75
G9B52050	R2.5	5.0	6	13	75
G9B52060	R3.0	6.0	6	13	75
G9B52080	R4.0	8.0	8	16	100
G9B52100	R5.0	10.0	10	16	100
G9B52120	R6.0	12.0	12	25	100
G9B52160	R8.0	16.0	16	30	150
G9B52200	R10.0	20.0	20	30	150

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○	○	○		

CBN END MILLS
i-Xmill END MILLS
X5070 END MILLS
X-POWER END MILLS
JET-POWER END MILLS
V7 Mill INOX END MILLS
V7 Mill STEEL END MILLS
ALU-POWER END MILLS
CRX S
D-POWER END MILLS
K-2 CARBIDE END MILLS
GENERAL CARBIDE END MILLS
TANK-POWER END MILLS
GENERAL HSS END MILLS
MILLING CUTTERS
TECHNICAL DATA

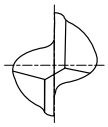
K-2 CARBIDE END MILLS

EMC52 SERIES PLAIN SHANK

硬质合金，2刃 35度螺旋角 短刃
CARBIDE, 2 FLUTE 35° HELIX SHORT LENGTH

- ▶ 设计用于加工碳钢，工具钢，合金钢，不锈钢等多种用途的钢
- ▶ 高耐磨性
- ▶ 适应于高速加工，湿式和干式切削条件

- ▶ Designed for general purposes to carbon steels, tool steels, alloy steels and stainless steels.
- ▶ Suitable for high speed machining in wet or dry condition.
- ▶ Application in high speed machining, wet and dry cutting conditions.



MG HM | 2 | 35° | PLAIN

P.869

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EMC52010	1.0	4	3	50
EMC52015	1.5	4	4	50
EMC52020	2.0	4	6	50
EMC52025	2.5	4	8	50
EMC52030	3.0	4	8	50
EMC52035	3.5	4	10	50
EMC52040	4.0	4	11	50
EMC52901	3.0	6	8	50
EMC52902	3.5	6	10	50
EMC52903	4.0	6	11	50
EMC52045	4.5	6	11	50
EMC52050	5.0	6	13	50
EMC52055	5.5	6	13	50
EMC52060	6.0	6	16	50
EMC52065	6.5	8	16	60
EMC52070	7.0	8	20	60
EMC52075	7.5	8	20	60
EMC52080	8.0	8	20	60
EMC52085	8.5	10	20	75
EMC52090	9.0	10	20	75
EMC52095	9.5	10	22	75
EMC52100	10.0	10	25	75
EMC52110	11.0	12	30	75
EMC52120	12.0	12	32	75
EMC52140	14.0	16	40	100
EMC52160	16.0	16	40	100
EMC52180	18.0	20	40	100
EMC52200	20.0	20	45	100

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○		○		

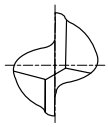
K-2 CARBIDE END MILLS

EMC53 SERIES PLAIN SHANK

硬质合金，2刃 35度螺旋角 长型
CARBIDE, 2 FLUTE 35° HELIX LONG LENGTH

- ▶ 设计用于加工碳钢，工具钢，合金钢，不锈钢等多种用途的钢
- ▶ 高耐磨性
- ▶ 适应于高速加工，湿式和干式切削条件

- ▶ Designed for general purposes to carbon steels, tool steels, alloy steels and stainless steels.
- ▶ Suitable for high speed machining in wet or dry condition.
- ▶ Application in high speed machining, wet and dry cutting conditions.



MG HM | 2 | 35° | PLAIN P.869

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EMC53020	2.0	4	10	50
EMC53030	3.0	4	15	60
EMC53901	3.0	6	15	60
EMC53040	4.0	4	20	60
EMC53902	4.0	6	20	60
EMC53050	5.0	6	25	75
EMC53060	6.0	6	30	75
EMC53080	8.0	8	35	100
EMC53100	10.0	10	45	100
EMC53120	12.0	12	45	100
EMC53140	14.0	14	70	150
EMC53903	14.0	16	70	150
EMC53160	16.0	16	70	150
EMC53180	18.0	20	75	150
EMC53200	20.0	20	75	150

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○		○		

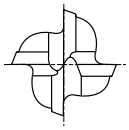
K-2 CARBIDE END MILLS

EMC54 SERIES PLAIN SHANK

硬质合金, 4刃 35度螺旋角 短刃
CARBIDE, 4 FLUTE 35° HELIX SHORT LENGTH

- 设计用于加工碳钢，工具钢，合金钢，不锈钢等多种用途的钢
- 高耐磨性
- 4刃可得到较好的表面粗糙度
- 适应于高速加工，湿式和干式切削条件

- Designed for general purposes to carbon steels, tool steels, alloy steels and stainless steels.
- Suitable for high speed machining in wet or dry condition.
- 4 flute allows for better work piece finishes.
- Application in high speed machining, wet and dry cutting conditions.



MG HM | 4 | 35° | PLAIN P.869

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EMC54010	1.0	4	3	50
EMC54015	1.5	4	4	50
EMC54020	2.0	4	6	50
EMC54025	2.5	4	8	50
EMC54030	3.0	4	8	50
EMC54035	3.5	4	10	50
EMC54040	4.0	4	11	50
EMC54901	3.0	6	8	50
EMC54902	3.5	6	10	50
EMC54903	4.0	6	11	50
EMC54045	4.5	6	11	50
EMC54050	5.0	6	13	50
EMC54055	5.5	6	13	50
EMC54060	6.0	6	16	50
EMC54065	6.5	8	16	60
EMC54070	7.0	8	20	60
EMC54075	7.5	8	20	60
EMC54080	8.0	8	20	60
EMC54085	8.5	10	20	75
EMC54090	9.0	10	20	75
EMC54095	9.5	10	22	75
EMC54100	10.0	10	25	75
EMC54110	11.0	12	30	75
EMC54120	12.0	12	32	75
EMC54140	14.0	16	40	100
EMC54160	16.0	16	40	100
EMC54180	18.0	20	40	100
EMC54200	20.0	20	45	100

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○		○		

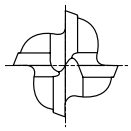
K-2 CARBIDE END MILLS

EMC55 SERIES PLAIN SHANK

硬质合金，4刃 35度螺旋角 长型
CARBIDE, 4 FLUTE 35° HELIX LONG LENGTH

- 设计用于加工碳钢，工具钢，合金钢，不锈钢等多种用途的钢
- 高耐磨性
- 4刃可得到较好的表面粗糙度
- 适应于高速加工，湿式和干式切削条件

- Designed for general purposes to carbon steels, tool steels, alloy steels and stainless steels.
- Suitable for high speed machining in wet or dry condition.
- 4 flute allows for better work piece finishes.
- Application in high speed machining, wet and dry cutting conditions.



MG HM | 4 | 35° | PLAIN

P.869

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EMC55020	2.0	4	10	50
EMC55030	3.0	4	15	60
EMC55901	3.0	6	15	60
EMC55040	4.0	4	20	60
EMC55902	4.0	6	20	60
EMC55050	5.0	6	25	75
EMC55060	6.0	6	30	75
EMC55080	8.0	8	35	100
EMC55100	10.0	10	45	100
EMC55120	12.0	12	45	100
EMC55140	14.0	14	70	150
EMC55903	14.0	16	70	150
EMC55160	16.0	16	70	150
EMC55180	18.0	20	75	150
EMC55200	20.0	20	75	150

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○		○		

K-2 CARBIDE END MILLS

EMC56 SERIES PLAIN SHANK

硬质合金，2刃 短刃 球头
CARBIDE, 2 FLUTE SHORT LENGTH BALL NOSE

- 设计用于加工碳钢，工具钢，合金钢，不锈钢等多种用途的钢
- 高耐磨性
- 设计用于铣削圆形底部的槽，带和特殊轮廓
- 适应于高速加工，湿式和干式切削条件

- Designed for general purposes to carbon steels, tool steels, alloy steels and stainless steels.
- Suitable for high speed machining in wet or dry condition.
- Designed for milling of radius bottom slots, fillets and special contours.
- Application in high speed machining, wet and dry cutting conditions.

MG HM | 2 | 30° | R ±0.01 (R0.1~R3) | R ±0.02 (R3.5~R10) | PLAIN

P.868

단위(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EMC56002	R 0.1	0.2	4	0.4	50
EMC56003	R 0.15	0.3	4	0.6	50
EMC56004	R 0.2	0.4	4	0.8	50
EMC56005	R 0.25	0.5	4	1	50
EMC56006	R 0.3	0.6	4	1.2	50
EMC56008	R 0.4	0.8	4	1.6	50
EMC56010	R 0.5	1.0	4	2	50
EMC56015	R 0.75	1.5	4	4	50
EMC56020	R 1.0	2.0	4	5	50
EMC56025	R 1.25	2.5	4	6	50
EMC56030	R 1.5	3.0	4	6	50
EMC56040	R 2.0	4.0	4	8	50
EMC56901	R 1.5	3.0	6	6	50
EMC56902	R 2.0	4.0	6	8	50
EMC56050	R 2.5	5.0	6	10	50
EMC56060	R 3.0	6.0	6	12	50
EMC56070	R 3.5	7.0	8	14	60
EMC56080	R 4.0	8.0	8	14	60
EMC56090	R 4.5	9.0	10	18	75
EMC56100	R 5.0	10.0	10	20	75
EMC56120	R 6.0	12.0	12	24	75
EMC56160	R 8.0	16.0	16	32	100
EMC56200	R 10.0	20.0	20	40	100

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○		○		

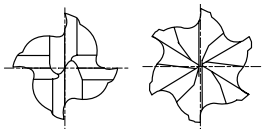
K-2 CARBIDE END MILLS

EMC57 SERIES PLAIN SHANK

硬质合金，4(6)刃 45度螺旋角 短刃
CARBIDE, 4(6) FLUTE 45° HELIX SHORT LENGTH

- ▶ 高速切削和高进给量的精切削
- ▶ 卓越的工件表面粗糙度
- ▶ 适应于高速加工，湿式和干式切削条件

- ▶ High speed cutting and finish milling with high feed rate.
- ▶ Excellent surface finishes.
- ▶ Application in high speed machining, wet and dry cutting condition.



MG HM | 4&6 | 45° | PLAIN

P.868

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
EMC57010	1.0	4	3	45	4
EMC57015	1.5	4	4	45	4
EMC57020	2.0	4	6	45	4
EMC57025	2.5	4	8	45	4
EMC57030	3.0	4	8	50	4
EMC57040	4.0	4	11	50	4
EMC57050	5.0	6	13	50	6
EMC57060	6.0	6	16	50	6
EMC57080	8.0	8	19	60	6
EMC57100	10.0	10	22	75	6
EMC57120	12.0	12	26	75	6
EMC57140	14.0	14	30	90	6
EMC57160	16.0	16	32	100	6
EMC57180	18.0	18	38	100	6
EMC57200	20.0	20	38	100	6

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
	○	◎	◎	○				○				

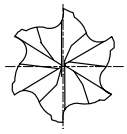
K-2 CARBIDE END MILLS

EMC58 SERIES PLAIN SHANK

硬质合金，6刃 45度螺旋角 长型
CARBIDE, 6 FLUTE 45° HELIX LONG LENGTH

- ▶ 高速切削和高进给量的精切削
- ▶ 卓越的工件表面粗糙度
- ▶ 适应于高速加工，湿式和干式切削条件

- ▶ High speed cutting and finish milling with high feed rate.
- ▶ Excellent surface finishes.
- ▶ Application in high speed machining, wet and dry cutting conditions.



MG HM | 6 | 45° | PLAIN P.868

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EMC58060	6.0	6	25	80
EMC58080	8.0	8	35	90
EMC58100	10.0	10	45	100
EMC58120	12.0	12	50	100
EMC58160	16.0	16	65	150
EMC58200	20.0	20	70	150

▶ Ø4mm以下产品时，为4FL.

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-0.03	h6

◎：优(Excellent) ○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
	○	◎	◎	○				○				

CBN END MILLS
i-Xmill END MILLS
X5070 END MILLS
X-POWER END MILLS
JET-POWER END MILLS
V7 Mill INOX END MILLS
V7 Mill STEEL END MILLS
ALU-POWER END MILLS
CRX S
D-POWER END MILLS
K-2 CARBIDE END MILLS
GENERAL CARBIDE END MILLS
TANK-POWER END MILLS
GENERAL HSS END MILLS
MILLING CUTTERS
TECHNICAL DATA

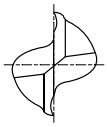
K-2 CARBIDE END MILLS

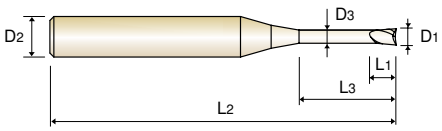
EMC59 SERIES PLAIN SHANK

硬质合金, 2刃 颈部加长型
CARBIDE, 2 FLUTE LONG NECK

- ▶ 设计用于加工碳钢, 工具钢, 合金钢, 不锈钢等多种用途的钢
- ▶ 由于颈部稍细能够加工深槽.
- ▶ 高耐磨性.

- ▶ Designed for general purposes to carbon steels, tool steels, alloy steels and stainless steels.
- ▶ Deep slotting is possible by reduced neck.
- ▶ Suitable for high speed machining in wet or dry condition.





MG HM | 2 | 30° | PLAIN P.870

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EMC59004010	0.4	4	0.6	1	1	0.37
EMC59004020	0.4	4	0.6	2	2	0.37
EMC59004030	0.4	4	0.6	3	3	0.37
EMC59004040	0.4	4	0.6	4	4	0.37
EMC59004050	0.4	4	0.6	5	5	0.37
EMC59005020	0.5	4	0.7	2	2	0.45
EMC59005030	0.5	4	0.7	3	3	0.45
EMC59005040	0.5	4	0.7	4	4	0.45
EMC59005060	0.5	4	0.7	6	6	0.45
EMC59005080	0.5	4	0.7	8	8	0.45
EMC59006020	0.6	4	0.9	2	2	0.55
EMC59006030	0.6	4	0.9	3	3	0.55
EMC59006040	0.6	4	0.9	4	4	0.55
EMC59006060	0.6	4	0.9	6	6	0.55
EMC59006080	0.6	4	0.9	8	8	0.55
EMC59006100	0.6	4	0.9	10	10	0.55
EMC59007020	0.7	4	1	2	2	0.65
EMC59007040	0.7	4	1	4	4	0.65
EMC59007060	0.7	4	1	6	6	0.65
EMC59007080	0.7	4	1	8	8	0.65
EMC59007100	0.7	4	1	10	10	0.65
EMC59008020	0.8	4	1.2	2	2	0.75
EMC59008040	0.8	4	1.2	4	4	0.75
EMC59008060	0.8	4	1.2	6	6	0.75
EMC59008080	0.8	4	1.2	8	8	0.75
EMC59008100	0.8	4	1.2	10	10	0.75
EMC59008120	0.8	4	1.2	12	12	0.75
EMC59009060	0.9	4	1.4	6	6	0.85

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○				

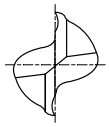
K-2 CARBIDE END MILLS

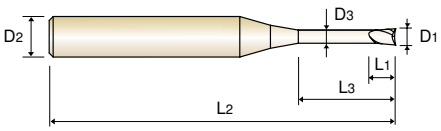
EMC59 SERIES PLAIN SHANK

硬质合金, 2刃 颈部加长型
CARBIDE, 2 FLUTE LONG NECK

- 设计用于加工碳钢，工具钢，合金钢，不锈钢等多种用途的钢
- 由于颈部稍细能够加工深槽.
- 高耐磨性.

- Designed for general purposes to carbon steels, tool steels, alloy steels and stainless steels.
- Deep slotting is possible by reduced neck.
- Suitable for high speed machining in wet or dry condition.





MG HM | 2 | 30° | PLAIN P.870

단위(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EMC59009080	0.9	4	1.4	8	8	0.85
EMC59009100	0.9	4	1.4	10	10	0.85
EMC59009150	0.9	4	1.4	15	15	0.85
EMC59010040	1.0	4	1.5	4	4	0.95
EMC59010050	1.0	4	1.5	5	5	0.95
EMC59010060	1.0	4	1.5	6	6	0.95
EMC59010080	1.0	4	1.5	8	8	0.95
EMC59010100	1.0	4	1.5	10	10	0.95
EMC59010120	1.0	4	1.5	12	12	0.95
EMC59010140	1.0	4	1.5	14	14	0.95
EMC59010160	1.0	4	1.5	16	16	0.95
EMC59010200	1.0	4	1.5	20	20	0.95
EMC59012040	1.2	4	1.8	4	4	1.15
EMC59012060	1.2	4	1.8	6	6	1.15
EMC59012080	1.2	4	1.8	8	8	1.15
EMC59012100	1.2	4	1.8	10	10	1.15
EMC59012120	1.2	4	1.8	12	12	1.15
EMC59012160	1.2	4	1.8	16	16	1.15
EMC59014060	1.4	4	2.1	6	6	1.35
EMC59014080	1.4	4	2.1	8	8	1.35
EMC59014100	1.4	4	2.1	10	10	1.35
EMC59014120	1.4	4	2.1	12	12	1.35
EMC59014140	1.4	4	2.1	14	14	1.35
EMC59014160	1.4	4	2.1	16	16	1.35
EMC59014220	1.4	4	2.1	22	22	1.35
EMC59015060	1.5	4	2.3	6	6	1.45
EMC59015080	1.5	4	2.3	8	8	1.45
EMC59015100	1.5	4	2.3	10	10	1.45

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○				

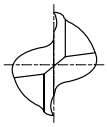
K-2 CARBIDE END MILLS

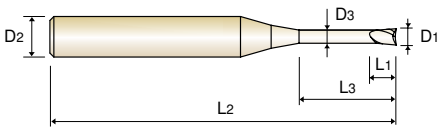
EMC59 SERIES PLAIN SHANK

硬质合金, 2刃 颈部加长型
CARBIDE, 2 FLUTE LONG NECK

- ▶ 设计用于加工碳钢, 工具钢, 合金钢, 不锈钢等多种用途的钢
- ▶ 由于颈部稍细能够加工深槽.
- ▶ 高耐磨性.

- ▶ Designed for general purposes to carbon steels, tool steels, alloy steels and stainless steels.
- ▶ Deep slotting is possible by reduced neck.
- ▶ Suitable for high speed machining in wet or dry condition.





MG HM | 2 | 30° | PLAIN

P.870

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EMC59015120	1.5	4	2.3	12	12	1.45
EMC59015140	1.5	4	2.3	14	14	1.45
EMC59015160	1.5	4	2.3	16	16	1.45
EMC59015180	1.5	4	2.3	18	18	1.45
EMC59015200	1.5	4	2.3	20	20	1.45
EMC59016060	1.6	4	2.4	6	6	1.55
EMC59016080	1.6	4	2.4	8	8	1.55
EMC59016100	1.6	4	2.4	10	10	1.55
EMC59016120	1.6	4	2.4	12	12	1.55
EMC59016140	1.6	4	2.4	14	14	1.55
EMC59016160	1.6	4	2.4	16	16	1.55
EMC59016180	1.6	4	2.4	18	18	1.55
EMC59016200	1.6	4	2.4	20	20	1.55
EMC59016260	1.6	4	2.4	26	26	1.55
EMC59018060	1.8	4	2.7	6	6	1.75
EMC59018080	1.8	4	2.7	8	8	1.75
EMC59018100	1.8	4	2.7	10	10	1.75
EMC59018120	1.8	4	2.7	12	12	1.75
EMC59018140	1.8	4	2.7	14	14	1.75
EMC59018160	1.8	4	2.7	16	16	1.75
EMC59018180	1.8	4	2.7	18	18	1.75
EMC59018200	1.8	4	2.7	20	20	1.75
EMC59018260	1.8	4	2.7	26	26	1.75
EMC59020060	2.0	4	3	6	6	1.95
EMC59020080	2.0	4	3	8	8	1.95
EMC59020100	2.0	4	3	10	10	1.95
EMC59020120	2.0	4	3	12	12	1.95
EMC59020140	2.0	4	3	14	14	1.95

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○				

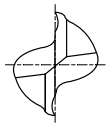
K-2 CARBIDE END MILLS

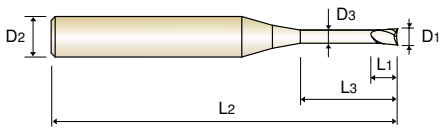
EMC59 SERIES PLAIN SHANK

硬质合金, 2刃 颈部加长型
CARBIDE, 2 FLUTE LONG NECK

- 设计用于加工碳钢，工具钢，合金钢，不锈钢等多种用途的钢
- 由于颈部稍细能够加工深槽.
- 高耐磨性.

- Designed for general purposes to carbon steels, tool steels, alloy steels and stainless steels.
- Deep slotting is possible by reduced neck.
- Suitable for high speed machining in wet or dry condition.





MG HM | 2 | 30° | PLAIN P.870

단위(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EMC59020160	2.0	4	3	16	16	1.95
EMC59020180	2.0	4	3	18	18	1.95
EMC59020200	2.0	4	3	20	20	1.95
EMC59020220	2.0	4	3	22	22	1.95
EMC59020260	2.0	4	3	26	26	1.95
EMC59020300	2.0	4	3	30	30	1.95
EMC59025080	2.5	4	3.7	8	8	2.4
EMC59025100	2.5	4	3.7	10	10	2.4
EMC59025120	2.5	4	3.7	12	12	2.4
EMC59025140	2.5	4	3.7	14	14	2.4
EMC59025160	2.5	4	3.7	16	16	2.4
EMC59025180	2.5	4	3.7	18	18	2.4
EMC59025200	2.5	4	3.7	20	20	2.4
EMC59025260	2.5	4	3.7	26	26	2.4
EMC59025300	2.5	4	3.7	30	30	2.4
EMC59030080	3.0	6	4.5	8	8	2.85
EMC59030100	3.0	6	4.5	10	10	2.85
EMC59030120	3.0	6	4.5	12	12	2.85
EMC59030140	3.0	6	4.5	14	14	2.85
EMC59030160	3.0	6	4.5	16	16	2.85
EMC59030180	3.0	6	4.5	18	18	2.85
EMC59030200	3.0	6	4.5	20	20	2.85
EMC59030260	3.0	6	4.5	26	26	2.85
EMC59030300	3.0	6	4.5	30	30	2.85
EMC59030360	3.0	6	4.5	36	36	2.85
EMC59030400	3.0	6	4.5	40	40	2.85
EMC59040100	4.0	6	6	10	10	3.85
EMC59040120	4.0	6	6	12	12	3.85

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○				

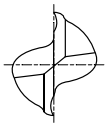
K-2 CARBIDE END MILLS

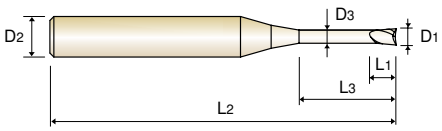
EMC59 SERIES PLAIN SHANK

硬质合金，2刃 颈部加长型
CARBIDE, 2 FLUTE LONG NECK

- ▶ 设计用于加工碳钢，工具钢，合金钢，不锈钢等多种用途的钢
- ▶ 由于颈部稍细能够加工深槽.
- ▶ 高耐磨性.

- ▶ Designed for general purposes to carbon steels, tool steels, alloy steels and stainless steels.
- ▶ Deep slotting is possible by reduced neck.
- ▶ Suitable for high speed machining in wet or dry condition.





MG HM | 2 | 30° | PLAIN P.870

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EMC59040160	4.0	6	6	16	16	3.85
EMC59040200	4.0	6	6	20	20	3.85
EMC59040260	4.0	6	6	26	26	3.85
EMC59040300	4.0	6	6	30	30	3.85
EMC59040360	4.0	6	6	36	36	3.85
EMC59040400	4.0	6	6	40	40	3.85
EMC59040460	4.0	6	6	46	46	3.85
EMC59040500	4.0	6	6	50	50	3.85
EMC59050160	5.0	6	7.5	16	16	4.85
EMC59050200	5.0	6	7.5	20	20	4.85
EMC59050260	5.0	6	7.5	26	26	4.85
EMC59050300	5.0	6	7.5	30	30	4.85
EMC59050360	5.0	6	7.5	36	36	4.85
EMC59050400	5.0	6	7.5	40	40	4.85
EMC59050500	5.0	6	7.5	50	50	4.85
EMC59060200	6.0	6	9	20	20	5.85
EMC59060300	6.0	6	9	30	30	5.85
EMC59060400	6.0	6	9	40	40	5.85
EMC59060500	6.0	6	9	50	50	5.85

尺寸 Size	刃部公差 Mill Dia. Tolerance (mm)	柄部公差 Shank Dia. Tolerance
up to Ø3	0~−0.015	h6
over Ø3	0~−0.020	

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○				

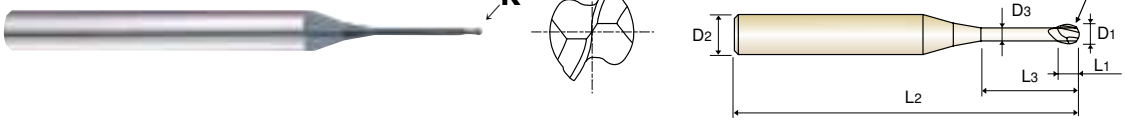
K-2 CARBIDE END MILLS

EMC60 SERIES PLAIN SHANK

硬质合金, 2刃 颈部加长型 球头
CARBIDE, 2 FLUTE LONG NECK BALL NOSE

- 设计用于加工碳钢，工具钢，合金钢，不锈钢等多种用途的钢
- 由于颈部稍细能够加工深槽.
- 高耐磨性.

- Designed for general purposes to carbon steels, tool steels, alloy steels and stainless steels.
- Deep slotting is possible by reduced neck.
- Suitable for high speed machining in wet or dry condition.



MG HM | 2 | 30° | R ±0.01 | PLAIN

P.871

단위(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EMC60004005	R0.2	0.4	4	0.4	0.5	45	0.37
EMC60004010	R0.2	0.4	4	0.4	1	45	0.37
EMC60004015	R0.2	0.4	4	0.4	1.5	45	0.37
EMC60004020	R0.2	0.4	4	0.4	2	45	0.37
EMC60004030	R0.2	0.4	4	0.4	3	45	0.37
EMC60004040	R0.2	0.4	4	0.4	4	45	0.37
EMC60004050	R0.2	0.4	4	0.4	5	45	0.37
EMC60005010	R0.25	0.5	4	0.5	1	45	0.45
EMC60005020	R0.25	0.5	4	0.5	2	45	0.45
EMC60005030	R0.25	0.5	4	0.5	3	45	0.45
EMC60005040	R0.25	0.5	4	0.5	4	45	0.45
EMC60005050	R0.25	0.5	4	0.5	5	45	0.45
EMC60005060	R0.25	0.5	4	0.5	6	45	0.45
EMC60005080	R0.25	0.5	4	0.5	8	45	0.45
EMC60006010	R0.3	0.6	4	0.6	1	45	0.55
EMC60006020	R0.3	0.6	4	0.6	2	45	0.55
EMC60006030	R0.3	0.6	4	0.6	3	45	0.55
EMC60006040	R0.3	0.6	4	0.6	4	45	0.55
EMC60006050	R0.3	0.6	4	0.6	5	45	0.55
EMC60006060	R0.3	0.6	4	0.6	6	45	0.55
EMC60006080	R0.3	0.6	4	0.6	8	45	0.55
EMC60006100	R0.3	0.6	4	0.6	10	45	0.55
EMC60008020	R0.4	0.8	4	0.8	2	45	0.75
EMC60008040	R0.4	0.8	4	0.8	4	45	0.75
EMC60008060	R0.4	0.8	4	0.8	6	45	0.75
EMC60008080	R0.4	0.8	4	0.8	8	45	0.75
EMC60008100	R0.4	0.8	4	0.8	10	45	0.75
EMC60010030	R0.5	1.0	4	1	3	45	0.95
EMC60010040	R0.5	1.0	4	1	4	45	0.95

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○				

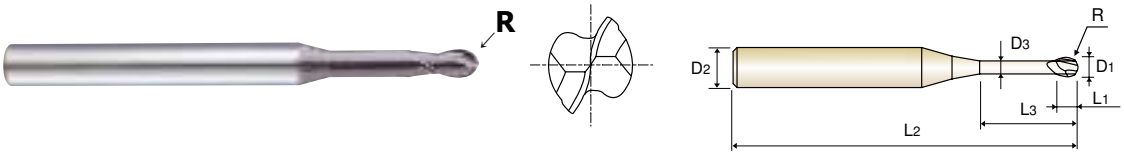
K-2 CARBIDE END MILLS

EMC60 SERIES PLAIN SHANK

硬质合金, 2刃 颈部加长型 球头
CARBIDE, 2 FLUTE LONG NECK BALL NOSE

- 设计用于加工碳钢, 工具钢, 合金钢, 不锈钢等多种用途的钢
- 由于颈部稍细能够加工深槽.
- 高耐磨性.

- Designed for general purposes to carbon steels, tool steels, alloy steels and stainless steels.
- Deep slotting is possible by reduced neck.
- Suitable for high speed machining in wet or dry condition.



MG HM | 2 | 30° | R ±0.01 | PLAIN

P.871

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EMC60010050	R0.5	1.0	4	1	5	45	0.95
EMC60010060	R0.5	1.0	4	1	6	45	0.95
EMC60010070	R0.5	1.0	4	1	7	45	0.95
EMC60010080	R0.5	1.0	4	1	8	45	0.95
EMC60010100	R0.5	1.0	4	1	10	45	0.95
EMC60010120	R0.5	1.0	4	1	12	45	0.95
EMC60010140	R0.5	1.0	4	1	14	50	0.95
EMC60010160	R0.5	1.0	4	1	16	50	0.95
EMC60010200	R0.5	1.0	4	1	20	55	0.95
EMC60012040	R0.6	1.2	4	1.2	4	45	1.15
EMC60012060	R0.6	1.2	4	1.2	6	45	1.15
EMC60012080	R0.6	1.2	4	1.2	8	45	1.15
EMC60012100	R0.6	1.2	4	1.2	10	45	1.15
EMC60012120	R0.6	1.2	4	1.2	12	45	1.15
EMC60014080	R0.7	1.4	4	1.4	8	45	1.35
EMC60014120	R0.7	1.4	4	1.4	12	45	1.35
EMC60014160	R0.7	1.4	4	1.4	16	50	1.35
EMC60015040	R0.75	1.5	4	1.5	4	45	1.45
EMC60015060	R0.75	1.5	4	1.5	6	45	1.45
EMC60015080	R0.75	1.5	4	1.5	8	45	1.45
EMC60015100	R0.75	1.5	4	1.5	10	45	1.45
EMC60015120	R0.75	1.5	4	1.5	12	45	1.45
EMC60015140	R0.75	1.5	4	1.5	14	50	1.45
EMC60015160	R0.75	1.5	4	1.5	16	50	1.45
EMC60015200	R0.75	1.5	4	1.5	20	55	1.45
EMC60016080	R0.8	1.6	4	1.6	8	45	1.55
EMC60016120	R0.8	1.6	4	1.6	12	45	1.55
EMC60016160	R0.8	1.6	4	1.6	16	50	1.55
EMC60016200	R0.8	1.6	4	1.6	20	55	1.55

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○				

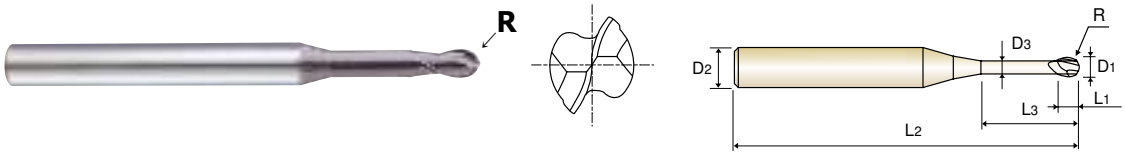
K-2 CARBIDE END MILLS

EMC60 SERIES PLAIN SHANK

硬质合金, 2刃 颈部加长型 球头
CARBIDE, 2 FLUTE LONG NECK BALL NOSE

- 设计用于加工碳钢，工具钢，合金钢，不锈钢等多种用途的钢
- 由于颈部稍细能够加工深槽.
- 高耐磨性.

- Designed for general purposes to carbon steels, tool steels, alloy steels and stainless steels.
- Deep slotting is possible by reduced neck.
- Suitable for high speed machining in wet or dry condition.



MG HM | 2 | 30° | R ±0.01 | PLAIN

P.871

단위(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EMC60018080	R0.9	1.8	4	1.8	8	45	1.75
EMC60018120	R0.9	1.8	4	1.8	12	45	1.75
EMC60018160	R0.9	1.8	4	1.8	16	50	1.75
EMC60018200	R0.9	1.8	4	1.8	20	55	1.75
EMC60020040	R1.0	2.0	4	2	4	45	1.95
EMC60020060	R1.0	2.0	4	2	6	45	1.95
EMC60020080	R1.0	2.0	4	2	8	45	1.95
EMC60020100	R1.0	2.0	4	2	10	45	1.95
EMC60020120	R1.0	2.0	4	2	12	50	1.95
EMC60020140	R1.0	2.0	4	2	14	50	1.95
EMC60020160	R1.0	2.0	4	2	16	50	1.95
EMC60020180	R1.0	2.0	4	2	18	55	1.95
EMC60020200	R1.0	2.0	4	2	20	55	1.95
EMC60020220	R1.0	2.0	4	2	22	60	1.95
EMC60020260	R1.0	2.0	4	2	26	70	1.95
EMC60020300	R1.0	2.0	4	2	30	70	1.95
EMC60025080	R1.25	2.5	6	2.5	8	50	2.4
EMC60025100	R1.25	2.5	6	2.5	10	50	2.4
EMC60025160	R1.25	2.5	6	2.5	16	55	2.4
EMC60025200	R1.25	2.5	6	2.5	20	60	2.4
EMC60030080	R1.5	3.0	6	3	8	50	2.85
EMC60030100	R1.5	3.0	6	3	10	50	2.85
EMC60030120	R1.5	3.0	6	3	12	50	2.85
EMC60030140	R1.5	3.0	6	3	14	55	2.85
EMC60030160	R1.5	3.0	6	3	16	55	2.85
EMC60030180	R1.5	3.0	6	3	18	60	2.85
EMC60030200	R1.5	3.0	6	3	20	60	2.85
EMC60030260	R1.5	3.0	6	3	26	70	2.85
EMC60030300	R1.5	3.0	6	3	30	70	2.85

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○				

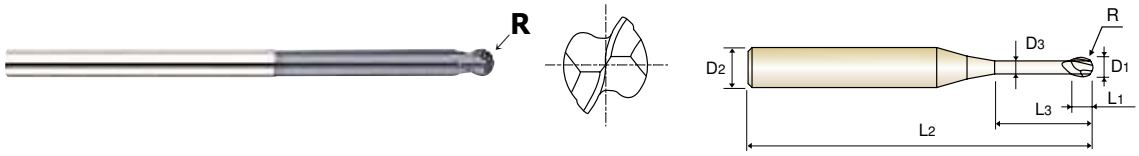
K-2 CARBIDE END MILLS

EMC60 SERIES PLAIN SHANK

硬质合金，2刃 颈部加长型 球头
CARBIDE, 2 FLUTE LONG NECK BALL NOSE

- 设计用于加工碳钢，工具钢，合金钢，不锈钢等多种用途的钢
- 由于颈部稍细能够加工深槽.
- 高耐磨性.

- Designed for general purposes to carbon steels, tool steels, alloy steels and stainless steels.
- Deep slotting is possible by reduced neck.
- Suitable for high speed machining in wet or dry condition.



MG HM | 2 | 30° | R ±0.01 | PLAIN P.871

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.01)	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
EMC60030360	R1.5	3.0	6	3	36	80	2.85
EMC60040100	R2.0	4.0	6	4	10	60	3.85
EMC60040120	R2.0	4.0	6	4	12	60	3.85
EMC60040160	R2.0	4.0	6	4	16	60	3.85
EMC60040200	R2.0	4.0	6	4	20	65	3.85
EMC60040260	R2.0	4.0	6	4	26	70	3.85
EMC60040300	R2.0	4.0	6	4	30	70	3.85
EMC60040360	R2.0	4.0	6	4	36	80	3.85
EMC60040400	R2.0	4.0	6	4	40	90	3.85
EMC60040460	R2.0	4.0	6	4	46	90	3.85
EMC60040500	R2.0	4.0	6	4	50	100	3.85
EMC60050160	R2.5	5.0	6	5	16	60	4.85
EMC60050200	R2.5	5.0	6	5	20	60	4.85
EMC60050260	R2.5	5.0	6	5	26	70	4.85
EMC60050300	R2.5	5.0	6	5	30	80	4.85
EMC60050360	R2.5	5.0	6	5	36	80	4.85
EMC60060200	R3.0	6.0	6	6	20	80	5.85
EMC60060300	R3.0	6.0	6	6	30	90	5.85
EMC60060400	R3.0	6.0	6	6	40	100	5.85
EMC60060500	R3.0	6.0	6	6	50	110	5.85

尺寸 Size	刃部公差 Mill Dia. Tolerance (mm)	柄部公差 Shank Dia. Tolerance
up to Ø3	0~−0.015	h6
over Ø3	0~−0.020	

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○				

K-2 CARBIDE END MILLS

EMC61 SERIES PLAIN SHANK

硬质合金，2刃 圆鼻铣刀
CARBIDE, 2 FLUTE CORNER RADIUS

- ▶ 设计用于加工碳钢，工具钢，合金钢，不锈钢等多种用途的钢
- ▶ 高耐磨性
- ▶ 弧形角可防止高速切削时崩刃
- ▶ 适应于高速加工，湿式和干式切削条件

- ▶ Designed for general purposes to carbon steels, tool steels, alloy steels and stainless steels.
- ▶ Suitable for high speed machining in wet or dry condition.
- ▶ Corner radius against chipping in high speed machining.
- ▶ Application in high speed machining, wet and dry cutting conditions.

MG HM | 2 | 30° | R ±0.020 | PLAIN

P.872

Unit : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EMC6103002	R0.2	3.0	6	10	70
EMC6103003	R0.3	3.0	6	10	70
EMC6103005	R0.5	3.0	6	10	70
EMC6104002	R0.2	4.0	6	12	70
EMC6104003	R0.3	4.0	6	12	70
EMC6104005	R0.5	4.0	6	12	70
EMC6104010	R1.0	4.0	6	12	70
EMC6105002	R0.2	5.0	6	15	80
EMC6105003	R0.3	5.0	6	15	80
EMC6105005	R0.5	5.0	6	15	80
EMC6105010	R1.0	5.0	6	15	80
EMC6106002	R0.2	6.0	6	15	90
EMC6106003	R0.3	6.0	6	15	90
EMC6106005	R0.5	6.0	6	15	90
EMC6106010	R1.0	6.0	6	15	90
EMC6108003	R0.3	8.0	8	20	100
EMC6108005	R0.5	8.0	8	20	100
EMC6108010	R1.0	8.0	8	20	100
EMC6108015	R1.5	8.0	8	20	100
EMC6108020	R2.0	8.0	8	20	100
EMC6110003	R0.3	10.0	10	25	100
EMC6110005	R0.5	10.0	10	25	100
EMC6110010	R1.0	10.0	10	25	100
EMC6110015	R1.5	10.0	10	25	100
EMC6110020	R2.0	10.0	10	25	100
EMC6110025	R2.5	10.0	10	25	100
EMC6112003	R0.3	12.0	12	30	110
EMC6112005	R0.5	12.0	12	30	110
EMC6112010	R1.0	12.0	12	30	110
EMC6112015	R1.5	12.0	12	30	110
EMC6112020	R2.0	12.0	12	30	110
EMC6112025	R2.5	12.0	12	30	110
EMC6112030	R3.0	12.0	12	30	110

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○		○		

K-2 CARBIDE END MILLS

EMC62 SERIES PLAIN SHANK

硬质合金，4刃 圆鼻铣刀
CARBIDE, 4 FLUTE CORNER RADIUS

- 设计用于加工碳钢，工具钢，合金钢，不锈钢等多种用途的钢
- 高耐磨性
- 4刃可得到较好的表面粗糙度
- 弧形角可防止高速切削时崩刃
- 适应于高速加工，湿式和干式切削条件

- Designed for general purposes to carbon steels, tool steels, alloy steels and stainless steels.
- Suitable for high speed machining in wet or dry condition.
- 4 flute allows for better work piece finishes.
- Corner radius against chipping in high speed machining.
- Application in high speed machining, wet and dry cutting conditions.

P.873

Unit : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EMC6203002	R0.2	3.0	6	10	70
EMC6203003	R0.3	3.0	6	10	70
EMC6203005	R0.5	3.0	6	10	70
EMC6204002	R0.2	4.0	6	12	70
EMC6204003	R0.3	4.0	6	12	70
EMC6204005	R0.5	4.0	6	12	70
EMC6204010	R1.0	4.0	6	12	70
EMC6205002	R0.2	5.0	6	15	80
EMC6205003	R0.3	5.0	6	15	80
EMC6205005	R0.5	5.0	6	15	80
EMC6205010	R1.0	5.0	6	15	80
EMC6206002	R0.2	6.0	6	15	90
EMC6206003	R0.3	6.0	6	15	90
EMC6206005	R0.5	6.0	6	15	90
EMC6206010	R1.0	6.0	6	15	90
EMC6208003	R0.3	8.0	8	20	100
EMC6208005	R0.5	8.0	8	20	100
EMC6208010	R1.0	8.0	8	20	100
EMC6208015	R1.5	8.0	8	20	100
EMC6208020	R2.0	8.0	8	20	100
EMC6210003	R0.3	10.0	10	25	100
EMC6210005	R0.5	10.0	10	25	100
EMC6210010	R1.0	10.0	10	25	100
EMC6210015	R1.5	10.0	10	25	100
EMC6210020	R2.0	10.0	10	25	100
EMC6210025	R2.5	10.0	10	25	100
EMC6212005	R0.5	12.0	12	30	110
EMC6212010	R1.0	12.0	12	30	110
EMC6212015	R1.5	12.0	12	30	110
EMC6212020	R2.0	12.0	12	30	110
EMC6212025	R2.5	12.0	12	30	110
EMC6212030	R3.0	12.0	12	30	110

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○					○		○		

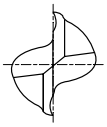
K-2 CARBIDE END MILLS

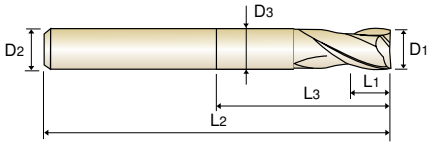
GFC63 SERIES PLAIN SHANK

硬质合金, 2刃 颈部延伸
CARBIDE, 2 FLUTE EXTENDED NECK

- 为加工高硬度材料设计.
- 最新开发的原材料和涂层适用于干式切削, 高速切削.
- 卓越的工件表面粗糙度.
- 由于颈部稍细能够加工深槽.
- 极高的耐磨性.

- Designed to machine high hardened materials.
- Suitable for high speed machining in dry due to newly developed raw material and coating.
- Excellent workpiece finishes.
- Suitable deep slotting due to reduced long neck.
- Superior wear-resistance.





UMG | 2 | 30° | PLAIN P.874

単位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
GFC63004	0.4	4	0.8	-	40	-
GFC63005	0.5	4	1	-	40	-
GFC63006	0.6	4	1.2	-	40	-
GFC63007	0.7	4	1.4	-	40	-
GFC63008	0.8	4	1.6	-	40	-
GFC63009	0.9	4	2	-	40	-
GFC63010	1.0	6	1.5	3	50	0.95
GFC63015	1.5	6	1.7	4	50	1.45
GFC63020	2.0	6	2	5	50	1.95
GFC63025	2.5	6	2.5	6	55	2.4
GFC63030	3.0	6	3	8	55	2.85
GFC63035	3.5	6	3.5	9	55	3.35
GFC63040	4.0	6	4	10	55	3.85
GFC63050	5.0	6	5	13	55	4.85
GFC63060	6.0	6	6	15	55	5.85
GFC63080	8.0	8	8	20	65	7.7
GFC63100	10.0	10	10	25	75	9.7
GFC63120	12.0	12	12	28	85	11.7
GFC63160	16.0	16	16	32	90	15.7
GFC63200	20.0	20	20	40	105	19.7

尺寸 Size	刃部公差 Mill Dia. Tolerance (mm)	柄部公差 Shank Dia. Tolerance
up to Ø6	0~−0.015	h6
over Ø6	0~−0.020	

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
	○	◎	◎	◎	○							

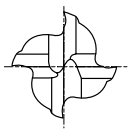
K-2 CARBIDE END MILLS

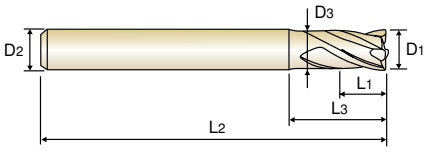
GFC64 SERIES PLAIN SHANK

硬质合金, 4刃 颈部延伸
CARBIDE, 4 FLUTE EXTENDED NECK

- 为加工高硬度材料设计.
- 最新开发的原材料和涂层适用于干式切削, 高速切削.
- 卓越的工件表面粗糙度.
- 由于颈部稍细能够加工深槽.
- 极高的耐磨性.

- Designed to machine high hardened materials.
- Suitable for high speed machining in dry due to newly developed raw material and coating.
- Excellent workpiece finishes.
- Suitable deep slotting due to reduced long neck.
- Superior wear-resistance.





UMG | 4 | 30° | PLAIN

P.873

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
GFC64010	1.0	6	1.5	3	50	0.95
GFC64020	2.0	6	2	5	50	1.95
GFC64030	3.0	6	3	8	55	2.85
GFC64040	4.0	6	4	10	55	3.85
GFC64050	5.0	6	5	13	55	4.85
GFC64060	6.0	6	6	15	55	5.85
GFC64080	8.0	8	8	20	65	7.7
GFC64100	10.0	10	10	25	75	9.7
GFC64120	12.0	12	12	28	85	11.7
GFC64160	16.0	16	16	32	90	15.7
GFC64200	20.0	20	20	40	105	19.7

尺寸 Size	刃部公差 Mill Dia. Tolerance (mm)	柄部公差 Shank Dia. Tolerance
up to Ø6	0~−0.015	h6
over Ø6	0~−0.020	

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
	○	◎	◎	◎	○							

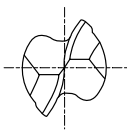
K-2 CARBIDE END MILLS

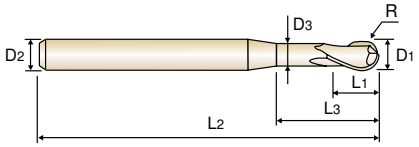
GFC65 SERIES PLAIN SHANK

硬质合金，2刃 短刃 球头
CARBIDE, 2 FLUTE SHORT LENGTH BALL NOSE

- 为加工高硬度材料设计.
- 适于干式切削，高速切削，最新开发的原材料和涂层.
- 卓越的工件表面粗糙度.
- 为高精度铣削设计.
- 极高的耐磨性.

- Designed to machine high hardened materials.
- Suitable for high speed machining in dry due to newly developed raw material and coating.
- Excellent workpiece finishes.
- Designed for high precision milling operation.
- Superior wear-resistance.





UMG | 2 | 30° | R ±0.005 (R0.1~R3) | R ±0.01 (R4~R6) | PLAIN P.875

단위(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
GFC65002	R0.1	0.2	4	0.3	–	40	-
GFC65003	R0.15	0.3	4	0.5	–	40	-
GFC65004	R0.2	0.4	4	0.6	–	40	-
GFC65005	R0.25	0.5	4	0.7	–	40	-
GFC65006	R0.3	0.6	4	0.9	–	40	-
GFC65007	R0.35	0.7	4	1.1	–	40	-
GFC65008	R0.4	0.8	4	1.2	–	40	-
GFC65009	R0.45	0.9	4	1.4	–	40	-
GFC65010	R0.5	1.0	6	1.5	3	50	0.95
GFC65015	R0.75	1.5	6	2	4	50	1.45
GFC65020	R1.0	2.0	6	2.5	5	50	1.95
GFC65025	R1.25	2.5	6	3	7	50	2.4
GFC65030	R1.5	3.0	6	4	10	60	2.85
GFC65040	R2.0	4.0	6	5	10	60	3.85
GFC65050	R2.5	5.0	6	6	12	60	4.85
GFC65060	R3.0	6.0	6	7	15	60	5.85
GFC65080	R4.0	8.0	8	9	15	60	7.7
GFC6508080	R4.0	8.0	8	9	15	80	7.7
GFC65100	R5.0	10.0	10	11	25	60	9.7
GFC6510080	R5.0	10.0	10	11	25	80	9.7
GFC65120	R6.0	12.0	12	14	25	80	11.7

尺寸 Size	半径公差 Radius Tolerance (mm)	刃部公差 Mill Dia. Tolerance (mm)	柄部公差 Shank Dia. Tolerance
up to R3	±0.005	0~−0.015	h6
over R3	±0.010	0~−0.020	

◎：优(Excellent)　○：良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
	○	◎	◎	◎	○							

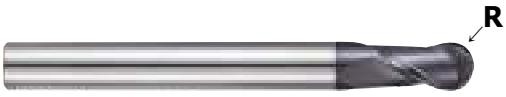
K-2 CARBIDE END MILLS

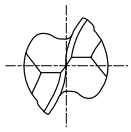
GFC66 SERIES PLAIN SHANK

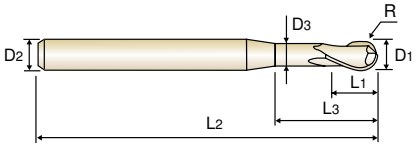
硬质合金，2刃 超短型 颈部延伸 球头
CARBIDE, 2 FLUTE STUB LENGTH EXTENDED NECK BALL NOSE

- 为加工高硬度材料设计.
- 适于干式切削，高速切削，最新开发的原材料和涂层.
- 卓越的工件表面粗糙度.
- 为高精度铣削设计.
- 极高的耐磨性.

- Designed to machine high hardened materials.
- Suitable for high speed machining in dry due to newly developed raw material and coating.
- Excellent workpiece finishes.
- Designed for high precision milling operation.
- Superior wear-resistance.







UMG | 2 | 30° | R ±0.005 | R ±0.01 | PLAIN

R0.5~R3 R3.5~R10

P.875

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R	刃部直径 Mill Diameter D1	柄部直径 Shank Diameter D2	刃长 Length of Cut L1	颈长 Length Below Shank L3	全长 Overall Length L2	颈径 Neck Diameter D3
GFC66010	R0.5	1.0	4	1	2.2	50	0.95
GFC66012	R0.6	1.2	4	1.2	2.6	50	1.15
GFC66015	R0.75	1.5	4	1.5	3	50	1.45
GFC66020	R1.0	2.0	6	2	4	50	1.95
GFC66030	R1.5	3.0	6	3	6	60	2.85
GFC66040	R2.0	4.0	6	4	8	70	3.85
GFC66050	R2.5	5.0	6	5	10	80	4.85
GFC66060	R3.0	6.0	6	6	12	90	5.85
GFC66070	R3.5	7.0	8	7	14	90	6.85
GFC66080	R4.0	8.0	8	8	16	100	7.7
GFC66090	R4.5	9.0	10	9	18	100	8.7
GFC66100	R5.0	10.0	10	10	20	100	9.7
GFC66120	R6.0	12.0	12	12	24	110	11.7
GFC66140	R7.0	14.0	14	14	28	110	13.7
GFC66160	R8.0	16.0	16	16	32	140	15.7
GFC66180	R9.0	18.0	18	18	36	140	17.7
GFC66200	R10.0	20.0	20	20	40	160	19.7

尺寸 Size	半径公差 Radius Tolerance (mm)	刃部公差 Mill Dia. Tolerance (mm)	柄部公差 Shank Dia. Tolerance
up to R3	±0.005	0~−0.015	h6
over R3	±0.010	0~−0.020	

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
	○	◎	◎	◎	○							

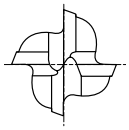
K-2 CARBIDE END MILLS

EMC67 SERIES PLAIN SHANK

硬质合金, 4刃 短刃
CARBIDE, 4 FLUTE SHORT LENGTH

- 低音的设计可以减少振动.
- 适于加工不锈钢,钛合金和硬度低于HRc40的低硬度材料.
- 高速, 深切削和大切削量

- Special flute geometry eliminates vibrations.
- Designed for stainless steels, titanium alloys, and low hardness materials under HRc40.
- Higher speeds, deeper cuts and higher metal removal rates.



MG HM | 4 | 30° | PLAIN

P.876

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EMC67060	6.0	6	10	54
EMC67080	8.0	8	12	58
EMC67100	10.0	10	14	66
EMC67120	12.0	12	16	73
EMC67140	14.0	14	18	75
EMC67160	16.0	16	22	82
EMC67180	18.0	18	24	84
EMC67200	20.0	20	26	92

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	○	○								◎	◎	○

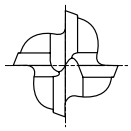
K-2 CARBIDE END MILLS

EMC68 SERIES PLAIN SHANK

硬质合金, 4刃 长型
CARBIDE, 4 FLUTE LONG LENGTH

- 低音的设计可以减少振动.
- 适于加工不锈钢,钛合金和硬度低于HRc40的低硬度材料.
- 高速, 深切削和大切削量

- Special flute geometry eliminates vibrations.
- Designed for stainless steels, titanium alloys, and low hardness materials under HRc40.
- Higher speeds, deeper cuts and higher metal removal rates.



MG HM | 4 | 30° | PLAIN P.876

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EMC68060	6.0	6	13	57
EMC68080	8.0	8	19	63
EMC68100	10.0	10	22	72
EMC68120	12.0	12	26	83
EMC68140	14.0	14	26	83
EMC68160	16.0	16	32	92
EMC68180	18.0	18	32	92
EMC68200	20.0	20	38	104

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	○	○								◎	◎	○

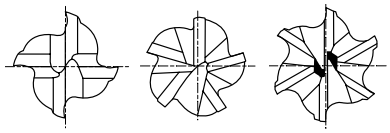
K-2 CARBIDE END MILLS

EMC69 SERIES PLAIN SHANK

硬质合金，多刃45度螺旋角 粗精加工
CARBIDE, MULTI FLUTE 45° HELIX ROUGHING-FINE

- 适用于不锈钢系列，Ti/Ni，INCONEL(铬镍铁合金)等的粗加工
- 采用细螺纹，适合高速加工

- Suitable for rough machining of stainless steels, Ti, Ni, Inconel etc.
- Fine pitch wave for high speed machining.



MG HM | FINE | 4-6 | 45° | PLAIN

P.877

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter h10	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
EMC69060	6.0	6	13	60	4
EMC69080	8.0	8	19	65	4
EMC69090	9.0	10	20	70	4
EMC69100	10.0	10	22	70	4
EMC69120	12.0	12	26	80	4
EMC69160	16.0	16	42	110	5
EMC69200	20.0	20	48	110	6

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in ㎛

公称直径单位 / Nominal-Diameter in ㎜

	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
h10	0 / — 40	0 / — 48	0 / — 58	0 / — 70	0 / — 84
h6	0 / — 6	0 / — 8	0 / — 9	0 / — 11	0 / — 13

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	◎							◎	◎	○

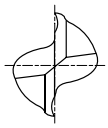
K-2 CARBIDE END MILLS

E5C70 SERIES PLAIN SHANK

硬质合金, 2刃 45度螺旋角 短刃
CARBIDE, 2 FLUTE 45° HELIX SHORT LENGTH

- 适用铝及铝合金材质加工
- 其设计使振动最小化
- 镜面处理的切削刃可保证加工面的粗糙度
- 刃部直径公差高精密化

- Applied for aluminum and aluminum alloys.
- Designed to minimize vibration.
- Excellent surface roughness caused by Mirror Face of cutting edges.
- Precise tolerance of cutting diameters.



MG HM | 2 | 45° | PLAIN P.878

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E5C70010	1.0	6	3	40
E5C70015	1.5	6	5	40
E5C70020	2.0	6	6	40
E5C70025	2.5	6	8	40
E5C70030	3.0	6	11	50
E5C70040	4.0	6	13	50
E5C70050	5.0	6	17	55
E5C70060	6.0	6	17	55
E5C70070	7.0	8	22	65
E5C70080	8.0	8	22	65
E5C70090	9.0	10	27	70
E5C70100	10.0	10	27	70
E5C70120	12.0	12	32	80
E5C70140	14.0	14	37	85
E5C70160	16.0	16	42	100
E5C70180	18.0	16	48	110
E5C70200	20.0	20	48	110

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.02	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
									◎			

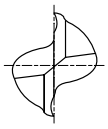
K-2 CARBIDE END MILLS

E5C71 SERIES PLAIN SHANK

硬质合金, 2刃 45度螺旋角 中等长度
CARBIDE, 2 FLUTE 45° HELIX MEDIUM LENGTH

- ▶ 适用铝及铝合金材质加工
- ▶ 其设计使振动最小化
- ▶ 镜面处理的切削刃可保证加工面的粗糙度
- ▶ 刃部直径公差高精密化

- ▶ Applied for aluminum and aluminum alloys.
- ▶ Designed to minimize vibration.
- ▶ Excellent surface roughness caused by Mirror Face of cutting edges.
- ▶ Precise tolerance of cutting diameters.



MG HM | 2 | 45° | PLAIN P.878

単位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E5C71040	4.0	6	16	70
E5C71050	5.0	6	22	70
E5C71060	6.0	6	22	70
E5C71080	8.0	8	28	80
E5C71100	10.0	10	32	90
E5C71120	12.0	12	38	95
E5C71160	16.0	16	52	110
E5C71200	20.0	20	55	110

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.02	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
									◎			

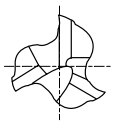
K-2 CARBIDE END MILLS

E5C72 SERIES PLAIN SHANK

硬质合金, 3刃 45度螺旋角 短刃
CARBIDE, 3 FLUTE 45° HELIX SHORT LENGTH

- 适用铝及铝合金材质加工
- 其设计使振动最小化
- 镜面处理的切削刃可保证加工面的粗糙度
- 刃部直径公差高精密化

- Applied for aluminum and aluminum alloys.
- Designed to minimize vibration.
- Excellent surface roughness caused by Mirror Face of cutting edges.
- Precise tolerance of cutting diameters.



MG HM | 3 | 45° | PLAIN

P.879

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E5C72010	1.0	6	3	50
E5C72015	1.5	6	5	50
E5C72020	2.0	6	6	50
E5C72025	2.5	6	8	50
E5C72030	3.0	6	11	50
E5C72040	4.0	6	13	50
E5C72050	5.0	6	17	55
E5C72060	6.0	6	17	55
E5C72070	7.0	8	22	65
E5C72080	8.0	8	22	65
E5C72090	9.0	10	27	70
E5C72100	10.0	10	27	70
E5C72120	12.0	12	32	80
E5C72140	14.0	14	37	85
E5C72160	16.0	16	42	100
E5C72180	18.0	16	48	110
E5C72200	20.0	20	48	110

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.02	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
									◎			

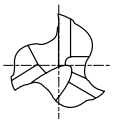
K-2 CARBIDE END MILLS

E5C73 SERIES PLAIN SHANK

硬质合金, 3刃 45度螺旋角 中等长度
CARBIDE, 3 FLUTE 45° HELIX MEDIUM LENGTH

- ▶ 适用铝及铝合金材质加工
- ▶ 其设计使振动最小化
- ▶ 镜面处理的切削刃可保证加工面的粗糙度
- ▶ 刃部直径公差高精密化

- ▶ Applied for aluminum and aluminum alloys.
- ▶ Designed to minimize vibration.
- ▶ Excellent surface roughness caused by Mirror Face of cutting edges.
- ▶ Precise tolerance of cutting diameters.



MG HM | 3 | 45° | PLAIN

P.879

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E5C73040	4.0	6	16	70
E5C73050	5.0	6	22	70
E5C73060	6.0	6	22	70
E5C73080	8.0	8	28	80
E5C73100	10.0	10	32	90
E5C73120	12.0	12	38	95
E5C73160	16.0	16	52	110
E5C73200	20.0	20	55	110

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~-0.02	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
									◎			

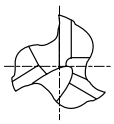
K-2 CARBIDE END MILLS

E5C74 SERIES PLAIN SHANK

硬质合金，3刃 45度螺旋角 超长刃铣刀
CARBIDE, 3 FLUTE 45° HELIX EX-LONG LENGTH

- 适用铝及铝合金材质加工
- 其设计使振动最小化
- 镜面处理的切削刃可保证加工面的粗糙度
- 刃部直径公差高精密化

- Applied for aluminum and aluminum alloys.
- Designed to minimize vibration.
- Excellent surface roughness caused by Mirror Face of cutting edges.
- Precise tolerance of cutting diameters.



MG HM | 3 | 45° | PLAIN

P.880

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E5C74030015	3.0	6	15	65
E5C74030020	3.0	6	20	70
E5C74030025	3.0	6	25	75
E5C74040020	4.0	6	20	70
E5C74040025	4.0	6	25	75
E5C74040030	4.0	6	30	80
E5C74050025	5.0	6	25	70
E5C74050030	5.0	6	30	75
E5C74050035	5.0	6	35	80
E5C74050040	5.0	6	40	85
E5C74060025	6.0	6	25	70
E5C74060030	6.0	6	30	75
E5C74060035	6.0	6	35	80
E5C74060042	6.0	6	42	90
E5C74080030	8.0	8	30	80
E5C74080035	8.0	8	35	85
E5C74080040	8.0	8	40	90
E5C74080045	8.0	8	45	95
E5C74080050	8.0	8	50	100
E5C74080055	8.0	8	55	105
E5C74100035	10.0	10	35	90
E5C74100045	10.0	10	45	100
E5C74100055	10.0	10	55	110
E5C74100065	10.0	10	65	120
E5C74120040	12.0	12	40	95
E5C74120045	12.0	12	45	100
E5C74120055	12.0	12	55	110
E5C74120060	12.0	12	60	110
E5C74120065	12.0	12	65	120
E5C74120075	12.0	12	75	135

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
									◎			

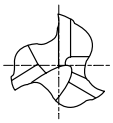
K-2 CARBIDE END MILLS

E5C74 SERIES PLAIN SHANK

硬质合金, 3刃 45度螺旋角 超长刃铣刀
CARBIDE, 3 FLUTE 45° HELIX EX-LONG LENGTH

- ▶ 适用铝及铝合金材质加工
- ▶ 其设计使振动最小化
- ▶ 镜面处理的切削刃可保证加工面的粗糙度
- ▶ 刃部直径公差高精密化

- ▶ Applied for aluminum and aluminum alloys.
- ▶ Designed to minimize vibration.
- ▶ Excellent surface roughness caused by Mirror Face of cutting edges.
- ▶ Precise tolerance of cutting diameters.



MG HM | 3 | 45° | PLAIN P.880

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E5C74160055	16.0	16	55	120
E5C74160065	16.0	16	65	135
E5C74160075	16.0	16	75	150
E5C74160085	16.0	16	85	160
E5C74160095	16.0	16	95	180
E5C74160105	16.0	16	105	190
E5C74160115	16.0	16	115	200
E5C74200055	20.0	20	55	125
E5C74200065	20.0	20	65	140
E5C74200075	20.0	20	75	150
E5C74200085	20.0	20	85	160
E5C74200095	20.0	20	95	180
E5C74200105	20.0	20	105	190
E5C74200115	20.0	20	115	200
E5C74200125	20.0	20	125	220

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.02	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
									◎			

K-2 CARBIDE END MILLS

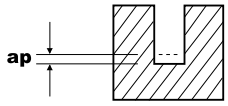
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 2刃 深孔加工
CARBIDE, 2 FLUTE for RIB PROCESSING

G9B80 SERIES

材质	非合金钢, 合金钢			合金钢, 耐热钢		
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS			ALLOY STEELS HEAT RESISTANT STEELS		
HARDNESS	~ HRc30			HRc30 ~ HRc45		
STRENGTH	~ 1000N/mm²			1000 ~ 1500N/mm²		
DIAMETER	RPM	FEED	ap (mm)	RPM	FEED	ap (mm)
0.4	26500~34000	170~370	0.007~0.018	19000~24000	72~290	0.007~0.018
0.5	26500~34000	170~370	0.009~0.022	19000~24000	72~290	0.009~0.022
0.6	26500~34000	210~485	0.011~0.026	19000~24000	95~365	0.011~0.026
0.7	26500~34000	210~485	0.012~0.031	19000~24000	95~365	0.012~0.031
0.8	23000~30000	240~535	0.014~0.035	16500~21000	100~410	0.014~0.035
0.9	21500~27000	240~610	0.030~0.060	15000~19000	135~460	0.030~0.060
1.0	19000~24000	240~690	0.045~0.090	13500~17000	160~510	0.045~0.090
1.2	15500~19000	240~765	0.055~0.100	11000~14000	160~510	0.055~0.100
1.4	13600~17000	240~765	0.062~0.125	9800~12000	160~510	0.062~0.125
1.5	12500~15500	240~765	0.070~0.135	8950~11500	160~510	0.070~0.135
1.6	12000~15000	240~765	0.075~0.145	8700~10900	160~510	0.075~0.145
1.8	11000~14000	240~765	0.080~0.160	7800~9800	160~510	0.080~0.160
2.0	10000~12500	240~765	0.090~0.180	7000~8950	160~510	0.090~0.180
2.5	8000~10000	240~765	0.112~0.235	5700~7200	160~510	0.112~0.235
3.0	6800~8500	240~765	0.135~0.270	4700~6000	160~510	0.135~0.270
4.0	5100~6500	240~765	0.180~0.360	3500~4500	160~510	0.180~0.360

每一次的切削深度
(Depth of Cut per one pass)



※ 对于长型和超长型进给量应该减少约50%.
The FEED, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

K-2 CARBIDE END MILLS

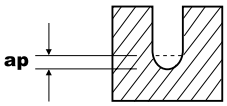
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 2刃 球头 深孔加工
CARBIDE, 2 FLUTE BALL NOSE for RIB PROCESSING

G9B81 SERIES

材质	非合金钢, 合金钢			合金钢, 耐热钢		
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS			ALLOY STEELS HEAT RESISTANT STEELS		
HARDNESS	~ HRc30			HRc30 ~ HRc45		
STRENGTH	~ 1000N/mm²			1000 ~ 1500N/mm²		
DIAMETER	RPM	FEED	ap (mm)	RPM	FEED	ap (mm)
R	26350~34000	150~415	0.018~0.036	19100~24200	75~230	0.018~0.036
	26350~34000	150~415	0.023~0.045	19100~24200	75~230	0.023~0.045
	26350~34000	190~535	0.027~0.054	19100~24200	95~300	0.027~0.054
	26350~34000	190~535	0.036~0.072	19100~24200	95~300	0.036~0.072
	24650~31000	210~595	0.045~0.090	17400~22100	105~330	0.045~0.090
	20500~26000	210~665	0.055~0.100	14500~18300	105~330	0.055~0.100
	18000~22000	210~665	0.062~0.125	12800~15300	105~330	0.062~0.125
	16000~20500	210~665	0.070~0.135	11500~14900	105~330	0.070~0.135
	15500~20000	210~665	0.075~0.145	11200~14000	105~330	0.075~0.145
	14500~18200	210~665	0.080~0.160	10200~12800	105~330	0.080~0.160
	13000~16000	210~665	0.090~0.180	9400~11500	105~330	0.090~0.180
	9000~11000	210~665	0.135~0.270	6000~11500	105~330	0.135~0.270
	7200~9350	210~665	0.180~0.360	5000~6600	105~330	0.180~0.360

每一次的切削深度
(Depth of Cut per one pass)



※ 对于长型和超长型进给量应该减少约50%.
The FEED, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

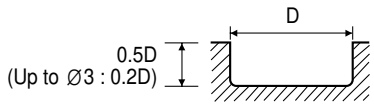
K-2 CARBIDE END MILLS

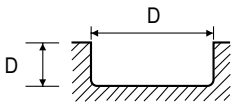
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 2刃 圆鼻铣刀 精铣 - 开槽
CARBIDE, 2 FLUTE CORNER RADIUS FINISH - SLOTTING

G9B82, G9B83 SERIES

材质	非合金钢, 合金钢 工具钢		合金钢, 耐热钢		不锈钢		铸铁		铝合金		铜, 非铁制金属	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS TOOL STEELS		ALLOY STEELS, HEAT RESISTANT STEELS		STAINLESS STEELS		CAST IRON		ALUMINUM ALLOYS		COPPER. BRASS NON-FERROUS METALS	
HARDNESS	~ HRc 30		HRc 30 ~ HRc 45									
STRENGTH	~1000N/mm²		1000~1500N/mm²									
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1.0	14300	105	8500	65	7150	50	18700	205	44000	330	24700	200
1.5	9350	150	5550	85	5600	80	12100	205	27500	385	20300	300
2.0	7850	160	5150	100	4300	80	9350	220	22000	460	16500	340
3.0	6100	180	3800	120	3150	100	6050	220	15400	460	11000	340
4.0	5150	255	3150	155	2650	130	4600	220	11000	460	8800	340
5.0	4300	270	2550	160	2150	135	3650	220	9150	460	6800	340
6.0	3800	300	2300	190	1950	155	2950	255	7600	485	5700	375
8.0	2850	325	1700	170	1450	155	2200	275	5700	485	4400	375
10.0	2200	280	1350	135	1150	135	1850	285	4600	485	3400	375
12.0	1850	240	1150	110	950	110	1450	295	3750	485	2850	375





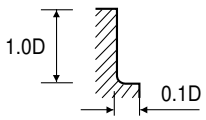
※ 对于长型和超长型进给量应该减少约50%.
The FEED, in long & extra long types, should be reduced by around 50%.

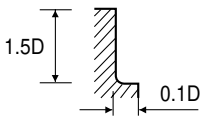
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 4刃 圆鼻铣刀 精铣 - 侧铣
CARBIDE, 4 FLUTE CORNER RADIUS FINISH - SIDE CUTTING

G9B84, G9B85 SERIES

材质	非合金钢, 合金钢 工具钢		合金钢, 耐热钢		不锈钢		铸铁		铝合金		铜, 非铁制金属	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS TOOL STEELS		ALLOY STEELS, HEAT RESISTANT STEELS		STAINLESS STEELS		CAST IRON		ALUMINUM ALLOYS		COPPER. BRASS NON-FERROUS METALS	
HARDNESS	~ HRc 30		HRc 30 ~ HRc 45									
STRENGTH	~1000N/mm²		1000~1500N/mm²									
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1.0	17600	150	10250	85	8650	75	18700	620	44000	1050	24700	605
1.5	11800	215	7050	115	7050	120	12100	620	27500	1160	20300	910
2.0	9850	240	6450	145	5350	120	9350	640	22000	1320	16500	1035
3.0	7600	270	4750	170	3950	145	6050	640	15400	1320	11000	1035
4.0	6450	485	3950	300	3300	240	4600	640	11000	1320	8800	1035
5.0	5350	510	3200	305	2700	255	3650	640	9150	1320	6800	1035
6.0	4750	560	2850	350	2400	280	2950	770	7600	1430	5700	1100
8.0	3550	605	2150	325	1800	300	2200	815	5700	1430	4400	1100
10.0	2750	520	1700	255	1450	255	1850	860	4600	1430	3400	1100
12.0	2350	440	1450	215	1150	205	1450	900	3750	1430	2850	1100





※ 对于长型和超长型进给量应该减少约50%.
The FEED, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

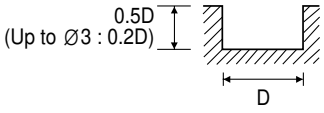
K-2 CARBIDE END MILLS

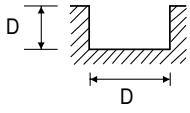
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 2刃 精铣 - 开槽
CARBIDE, 2 FLUTE FINISH - SLOTTING

G9A23, G9B50 SERIES

材质	非合金钢, 合金钢 工具钢		合金钢, 耐热钢		不锈钢		铸铁		铝合金		铜, 非铁制金属	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS TOOL STEELS		ALLOY STEELS, HEAT RESISTANT STEELS		STAINLESS STEELS		CAST IRON		ALUMINUM ALLOYS		COPPER. BRASS NON-FERROUS METALS	
HARDNESS	~ HRc 30		HRc 30 ~ HRc 45									
STRENGTH	~1000N/mm²		1000~1500N/mm²									
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1.0	14300	105	8500	65	7150	50	18700	205	44000	330	24700	200
1.5	9350	150	5550	85	5600	80	12100	205	27500	385	20300	300
2.0	7850	160	5150	100	4300	80	9350	220	22000	460	16500	340
3.0	6100	180	3800	120	3150	100	6050	220	15400	460	11000	340
4.0	5150	255	3150	155	2650	130	4600	220	11000	460	8800	340
5.0	4300	270	2550	160	2150	135	3650	220	9150	460	6800	340
6.0	3800	300	2300	190	1950	155	2950	255	7600	485	5700	375
8.0	2850	325	1700	170	1450	155	2200	275	5700	485	4400	375
10.0	2200	280	1350	135	1150	135	1850	285	4600	485	3400	375
12.0	1850	240	1150	110	950	110	1450	295	3750	485	2850	375
14.0	1700	215	1050	100	850	100	1300	310	3300	485	2400	375
16.0	1500	185	950	95	700	95	1100	320	2850	485	2200	375
20.0	1150	145	700	70	550	70	900	340	2200	485	1700	375





※ 对于长型和超长型进给量应该减少约50%.
The FEED, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

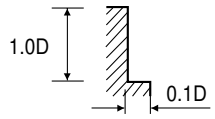
K-2 CARBIDE END MILLS

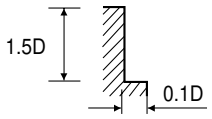
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 4刃 精铣 - 侧铣
CARBIDE, 4 FLUTE FINISH - SIDE CUTTING

G9A24, G9B51 SERIES

材质	非合金钢, 合金钢 工具钢		合金钢, 耐热钢		不锈钢		铸铁		铝合金		铜, 非铁制金属	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS TOOL STEELS		ALLOY STEELS, HEAT RESISTANT STEELS		STAINLESS STEELS		CAST IRON		ALUMINUM ALLOYS		COPPER. BRASS NON-FERROUS METALS	
HARDNESS	~ HRc 30		HRc 30 ~ HRc 45									
STRENGTH	~1000N/mm²		1000~1500N/mm²									
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1.0	17600	150	10250	85	8650	75	18700	620	44000	1050	24700	605
1.5	11800	215	7050	115	7050	120	12100	620	27500	1160	20300	910
2.0	9850	240	6450	145	5350	120	9350	640	22000	1320	16500	1035
3.0	7600	270	4750	170	3950	145	6050	640	15400	1320	11000	1035
4.0	6450	485	3950	300	3300	240	4600	640	11000	1320	8800	1035
5.0	5350	510	3200	305	2700	255	3650	640	9150	1320	6800	1035
6.0	4750	560	2850	350	2400	280	2950	770	7600	1430	5700	1100
8.0	3550	605	2150	325	1800	300	2200	815	5700	1430	4400	1100
10.0	2750	520	1700	255	1450	255	1850	860	4600	1430	3400	1100
12.0	2350	440	1450	215	1150	205	1450	900	3750	1430	2850	1100
14.0	2100	395	1300	195	1050	190	1300	945	3300	1430	2400	1100
16.0	1850	350	1150	170	950	170	1100	970	2850	1430	2200	1100
20 .0	1450	270	900	135	700	130	900	1035	2200	1430	1700	1100





※ 对于长型和超长型进给量应该减少约50%.
The FEED, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

K-2 CARBIDE END MILLS

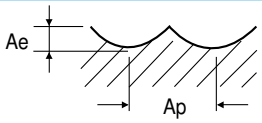
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

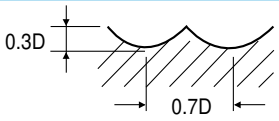
硬质合金，2刃 球头
CARBIDE, 2 FLUTE BALL NOSE

G9A25, G9B52, EMC56 SERIES

材质	碳钢，合金钢，铸铁		碳钢，合金钢，铸铁		硬化钢		铸铁		铝合金	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		HARDENED STEELS		CAST IRON		ALUMINUM ALLOYS	
HARDNESS	~ HRc30		HRc30 ~ HRc45		HRc45 ~ HRc50					
STRENGTH	~ 1000N/mm²		1000 ~ 1500N/mm²		1500N/mm²					
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
R1.0 × 2.0	12350	640	9150	415	4000	125	10500	220	30800	395
R1.5 × 3.0	11400	575	8550	390	3800	125	7050	230	20500	395
R2.0 × 4.0	8950	630	7150	450	3600	150	5150	285	15400	395
R2.5 × 5.0	7800	700	6200	490	3100	150	4150	330	12100	470
R3.0 × 6.0	7250	870	5900	705	2700	160	3400	360	10300	470
R4.0 × 8.0	6100	1090	4900	785	2050	190	2500	460	7900	540
R5.0 × 10.0	5450	1330	4350	870	1750	190	2050	460	6150	540
R6.0 × 12.0	4990	1500	3950	950	1500	210	1750	460	5150	630
R7.0 × 14.0	4530	1495	3600	925	1300	210	1400	460	4300	630
R8.0 × 16.0	4085	1470	3200	905	1150	210	1300	460	3850	540
R9.0 × 18.0	3800	1425	3000	890	1050	210	1100	460	3400	540
R10.0 × 20.0	3550	1425	2800	885	950	210	1050	420	2950	540

Ae : D1~D6=0.2mm
D8~D20=0.3mm
Ap : 0.2D





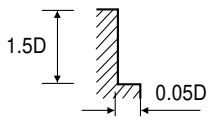
※ 对于长型和超长型进给量应该减少约50%.
The FEED, in long & extra long types, should be reduced by around 50%.

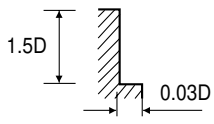
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

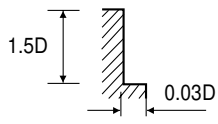
硬质合金，4&6刃 45度螺旋角
CARBIDE, 4&6 FLUTE 45° HELIX

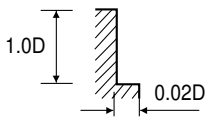
EMC57, EMC58 SERIES

材质	非合金钢，合金钢，铸铁		合金钢，耐热钢		硬化钢		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEEL HEAT RESISTANT STEELS		HARDENED STEELS		HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc50		HRc50 ~ HRc60		HRc60 ~ HRc65	
STRENGTH	~ 1000N/mm²		1000 ~ 1750N/mm²		1750 ~ 2080N/mm²		2080N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1.0	19000	693	12750	468	10250	284	8000	179
2.0	13000	825	8750	555	7250	344	5500	212
3.0	8650	825	5750	555	4750	344	3750	212
4.0	6600	858	4400	581	3600	357	2800	221
5.0	6250	990	4150	660	3200	383	2550	245
6.0	5175	924	3450	627	2650	369	2100	231
8.0	3900	891	2600	594	2000	344	1600	218
10.0	3075	831	2050	555	1600	317	1275	204
12.0	2625	831	1750	555	1825	317	1050	198
16.0	1950	726	1300	482	1000	278	800	179
20.0	1550	641	1025	429	800	251	650	165









RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

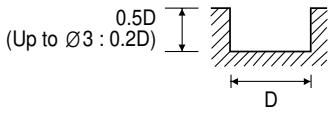
K-2 CARBIDE END MILLS

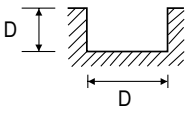
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 2刃 精铣 - 开槽
CARBIDE, 2 FLUTE FINISH - SLOTTING

EMC52, EMC53 SERIES

材质	碳钢, 合金钢, 工具钢		合金钢, 预硬度钢		不锈钢		铸铁		铝合金	
MATERIAL	CARBON STEELS, ALLOY STEELS, TOOL STEELS		ALLOY STEELS, PRE-HARDENED STEELS		STAINLESS STEELS		CAST IRON		ALUMINUM ALLOYS	
HARDNESS	~ HRc30		HRc30 ~ HRc50							
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1.0	14300	105	8500	65	7150	50	18700	205	44000	330
1.5	9350	150	5550	85	5600	80	12100	205	27500	385
2.0	7850	160	5150	100	4300	80	9350	220	22000	460
3.0	6100	180	3800	120	3150	100	6050	220	15400	460
4.0	5150	255	3150	155	2650	130	4600	220	11000	460
5.0	4300	270	2550	160	2150	135	3650	220	9150	460
6.0	3800	300	2300	190	1950	155	2950	255	7600	485
8.0	2850	325	1700	170	1450	155	2200	275	5700	485
10.0	2200	280	1350	135	1150	135	1850	285	4600	485
12.0	1850	240	1150	110	950	110	1450	295	3750	485
14.0	1700	215	1050	100	850	100	1300	310	3300	485
16.0	1500	185	950	95	700	95	1100	320	2850	485
20.0	1150	145	700	70	550	70	900	340	2200	485





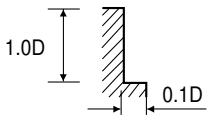
※ 对于长型和超长型进给量应该减少约50%.
The FEED, in long & extra long types, should be reduced by around 50%.

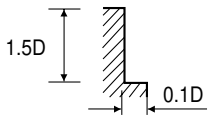
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 4刃 精铣 - 侧铣
CARBIDE, 4 FLUTE FINISH - SLOTTING

EMC54, EMC55 SERIES

材质	碳钢, 合金钢, 工具钢		合金钢, 预硬度钢		不锈钢		铸铁		铝合金	
MATERIAL	CARBON STEELS, ALLOY STEELS, TOOL STEELS		ALLOY STEELS, PRE-HARDENED STEELS		STAINLESS STEELS		CAST IRON		ALUMINUM ALLOYS	
HARDNESS	~ HRc30		HRc30 ~ HRc50							
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1.0	17600	150	10250	85	8650	75	18700	620	44000	1050
1.5	11800	215	7050	115	7050	120	12100	620	27500	1160
2.0	9850	240	6450	145	5350	120	9350	640	22000	1320
3.0	7600	270	4750	170	3950	145	6050	640	15400	1320
4.0	6450	485	3950	300	3300	240	4600	640	11000	1320
5.0	5350	510	3200	305	2700	255	3650	640	9150	1320
6.0	4750	560	2850	350	2400	280	2950	770	7600	1430
8.0	3550	605	2150	325	1800	300	2200	815	5700	1430
10.0	2750	520	1700	255	1450	255	1850	860	4600	1430
12.0	2350	440	1450	215	1150	205	1450	900	3750	1430
14.0	2100	395	1300	195	1050	190	1300	945	3300	1430
16.0	1850	350	1150	170	950	170	1100	970	2850	1430
20.0	1450	270	900	135	700	130	900	1035	2200	1430





※ 对于长型和超长型进给量应该减少约50%.
The FEED, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

K-2 CARBIDE END MILLS

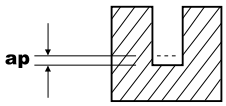
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 2刃 颈部加长型
CARBIDE, 2 FLUTE LONG NECK

EMC59 SERIES

材质	非合金钢, 合金钢, 铸铁			合金钢, 耐热钢			硬化钢		
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON			ALLOY STEELS HEAT RESISTANT STEELS			HARDENED STEELS		
HARDNESS	~ HRc30			HRc30 ~ HRc45			HRc45 ~ HRc55		
STRENGTH	~ 1000N/mm²			1000 ~ 1500N/mm²			1500 ~ 2000N/mm²		
DIAMETER	RPM	FEED	ap (mm)	RPM	FEED	ap (mm)	RPM	FEED	ap (mm)
0.4	29700~37800	200~440	0.007~0.018	21600~27000	90~340	0.007~0.018	13500~16200	30~90	0.004~0.008
0.5	29700~37800	200~440	0.009~0.022	21600~27000	90~340	0.009~0.022	13500~16200	30~90	0.004~0.009
0.6	29700~37800	250~570	0.011~0.026	21600~27000	110~440	0.011~0.026	13500~16200	40~110	0.005~0.011
0.7	29700~37800	250~570	0.012~0.031	21600~27000	110~440	0.012~0.031	13500~16200	40~110	0.006~0.013
0.8	25650~33300	280~630	0.014~0.035	18450~23400	120~480	0.014~0.035	11700~13950	45~130	0.007~0.015
0.9	23400~29700	280~720	0.030~0.060	17100~21600	160~540	0.030~0.060	10350~12150	50~130	0.008~0.016
1.0	21600~27000	280~810	0.045~0.090	14850~18900	190~590	0.045~0.090	9450~12150	70~130	0.009~0.018
1.2	17550~21600	280~890	0.055~0.100	12600~15300	190~590	0.055~0.100	8100~9900	70~130	0.010~0.022
1.4	15300~18900	280~890	0.062~0.125	10800~13500	190~590	0.062~0.125	6750~8550	70~130	0.012~0.025
1.5	13950~18000	280~890	0.070~0.135	9900~13050	190~590	0.070~0.135	6300~7650	70~130	0.014~0.028
1.6	13500~17100	280~890	0.075~0.145	9900~12150	190~590	0.075~0.145	5850~7650	70~130	0.015~0.030
1.8	12600~16200	280~890	0.080~0.160	9000~10800	190~590	0.080~0.160	5400~6750	70~130	0.016~0.032
2.0	11250~13950	280~890	0.090~0.180	8100~9900	190~590	0.090~0.180	4950~6300	70~130	0.018~0.035
2.5	9000~11700	280~890	0.112~0.235	6300~8100	190~590	0.112~0.235	4050~4950	70~130	0.022~0.045
3.0	7650~9450	280~890	0.135~0.270	5400~6750	190~590	0.135~0.270	3150~4050	70~130	0.028~0.055
2.0	5850~7200	280~890	0.180~0.360	4050~4950	190~590	0.180~0.360	2430~3150	70~130	0.036~0.072
5.0	4500~5850	280~890	0.225~0.450	3150~4050	190~590	0.225~0.450	1980~2520	70~130	0.045~0.090
6.0	4500~4950	280~890	0.270~0.540	2700~3600	190~590	0.270~0.540	1800~2700	70~130	0.054~0.108

每一次的切削深度
(Depth of Cut per one pass)



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

K-2 CARBIDE END MILLS

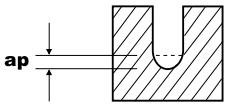
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 2刃 颈部加长型 球头
CARBIDE, 2 FLUTE LONG NECK BALL NOSE

EMC60 SERIES

材质	非合金钢, 合金钢, 铸铁			合金钢, 耐热钢			硬化钢		
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON			ALLOY STEELS HEAT RESISTANT STEELS			HARDENED STEELS		
HARDNESS	~ HRc30			HRc30 ~ HRc45			HRc45 ~ HRc55		
STRENGTH	~ 1000N/mm²			1000 ~ 1500N/mm²			1500 ~ 2000N/mm²		
DIAMETER	RPM	FEED	ap (mm)	RPM	FEED	ap (mm)	RPM	FEED	ap (mm)
R0.2 x 0.4	29700~37800	180~490	0.018~0.036	21600~27000	90~270	0.018~0.036	13500~17100	90~180	0.004~0.007
R0.25 x 0.5	29700~37800	180~490	0.023~0.045	21600~27000	90~270	0.023~0.045	13500~17100	90~180	0.005~0.009
R0.3 x 0.6	29700~37800	225~630	0.027~0.054	21600~27000	110~350	0.027~0.054	13500~17100	110~225	0.005~0.011
R0.4 x 0.8	29700~37800	225~630	0.036~0.072	21600~27000	110~350	0.036~0.072	13500~17100	110~225	0.007~0.014
R0.5 x 1.0	27000~34200	250~690	0.045~0.090	19800~24300	130~390	0.045~0.090	12150~15750	130~250	0.009~0.018
R0.6 x 1.2	22500~28800	250~770	0.055~0.100	16200~20700	130~390	0.055~0.100	10350~13050	130~250	0.010~0.022
R0.7 x 1.4	19800~24300	250~770	0.062~0.125	14400~17100	130~390	0.062~0.125	9000~11250	130~250	0.012~0.025
R0.75 x 1.5	18000~22500	250~770	0.070~0.135	13050~16650	130~390	0.070~0.135	8550~10350	130~250	0.014~0.028
R0.8 x 1.6	17100~22500	250~770	0.075~0.145	12600~15750	130~390	0.075~0.145	8100~9900	130~250	0.015~0.030
R0.9 x 1.8	16200~20700	250~770	0.080~0.160	11250~14400	130~390	0.080~0.160	7200~9000	130~250	0.016~0.032
R1.0 x 2.0	14400~18000	250~770	0.090~0.180	10350~13050	130~390	0.090~0.180	6750~8100	130~250	0.018~0.035
R1.5 x 3.0	9900~12600	250~770	0.135~0.270	6750~8550	130~390	0.135~0.270	4500~5400	130~250	0.028~0.055
R2.0 x 4.0	8100~10800	250~770	0.180~0.360	5490~7380	130~390	0.180~0.360	3600~4500	130~250	0.035~0.070
R2.5 x 5.0	6300~8100	250~770	0.225~0.450	4500~5850	130~390	0.225~0.450	2930~3690	130~250	0.044~0.088
R3.0 x 6.0	5400~7200	250~770	0.270~0.540	3600~4950	130~390	0.270~0.540	2250~3150	130~250	0.053~0.105

每一次的切削深度
(Depth of Cut per one pass)



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

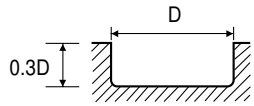
K-2 CARBIDE END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 2刃 圆鼻铣刀 - 开槽
CARBIDE, 2 FLUTE CORNER RADIUS - SLOTTING

EMC61 SERIES

材质	非合金钢, 合金钢, 铸铁		合金钢, 耐热钢		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc45		HRc45 ~ HRc55	
STRENGTH	~ 1000N/mm²		1000 ~ 1500N/mm²		1500 ~ 2000N/mm²	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
3.0	6255	140	4050	70	2970	50
4.0	5040	180	3240	90	2430	50
5.0	4320	220	2745	100	2115	70
6.0	3735	260	2385	130	1845	80
8.0	2835	190	1800	130	1440	80
10.0	1935	225	1530	130	1125	80
12.0	1620	180	1350	120	945	70
16.0	1620	190	990	90	670	50
20.0	1170	140	770	60	560	40

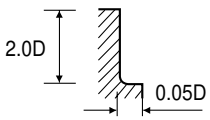


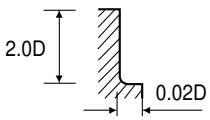
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 2刃 圆鼻铣刀 - 侧铣
CARBIDE, 2 FLUTE CORNER RADIUS - SIDE CUTTING

EMC61 SERIES

材质	非合金钢, 合金钢, 铸铁		合金钢, 耐热钢		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc45		HRc45 ~ HRc55	
STRENGTH	~ 1000N/mm²		1000 ~ 1500N/mm²		1500 ~ 2000N/mm²	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
3.0	6255	180	4050	135	2970	90
4.0	5040	220	3240	150	2430	95
5.0	4320	225	2745	190	2115	110
6.0	3735	225	2385	190	1845	110
8.0	2835	240	1800	190	1440	110
10.0	1935	240	1530	190	1125	110
12.0	1620	190	1350	170	945	95
16.0	1620	170	990	125	760	80
20.0	1170	120	770	95	560	60





RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

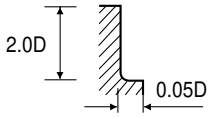
K-2 CARBIDE END MILLS

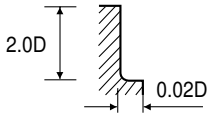
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 4刃 圆鼻铣刀
CARBIDE, 4 FLUTE CORNER RADIUS

EMC62 SERIES

材质	非合金钢, 合金钢, 铸铁		合金钢, 耐热钢		硬化钢	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc45		HRc45 ~ HRc55	
STRENGTH	~ 1000N/mm²		1000 ~ 1500N/mm²		1500 ~ 2000N/mm²	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
3.0	6255	180	4050	135	2970	90
4.0	5040	220	3240	150	2430	95
5.0	4320	225	2745	190	2115	110
6.0	3735	225	2385	190	1845	110
8.0	2835	240	1800	190	1440	110
10.0	1935	240	1530	190	1125	110
12.0	1620	190	1350	170	945	95
16.0	1620	170	990	130	760	80
20.0	1170	120	770	95	560	60



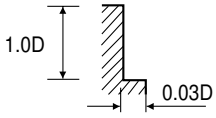


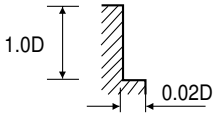
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 4刃 颈部延伸 – 侧铣
CARBIDE, 4 FLUTE EXTENDED NECK - SIDE CUTTING

GFC64 SERIES

材质	硬化钢, 耐热钢		硬化钢							
MATERIAL	HARDENED STEELS HEAT RESISTANT STEELS		HARDENED STEELS							
HARDNESS	HRc30 ~ HRc40		HRc40 ~ HRc50		HRc50 ~ HRc55		HRc55 ~ HRc60		HRc60 ~ HRc65	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1.0	24000	814	19000	578	12750	391	10250	237	8000	149
2.0	16650	963	13000	688	8750	462	7250	286	5500	176
3.0	10900	963	8650	688	5750	462	4750	286	3750	176
4.0	8350	990	6600	715	4400	484	3600	297	2800	184
5.0	7850	1100	6250	825	4150	550	3200	319	2550	204
6.0	6550	1073	5175	770	3450	523	2650	308	2100	193
8.0	4940	1034	3900	743	2600	495	2000	286	1600	182
10.0	3900	963	3075	693	2050	462	1600	264	1275	171
12.0	3325	963	2625	693	1750	462	1325	264	1050	165
16.0	2450	825	1950	605	1300	402	1000	231	800	149
20.0	1950	715	1550	534	1025	358	800	209	650	138





RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

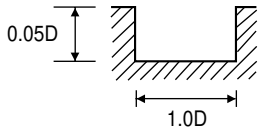
K-2 CARBIDE END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 2刃 颈部延伸 - 开槽
CARBIDE, 2 FLUTE EXTENDED NECK - SLOTTING

GFC63 SERIES

材质	硬化钢, 耐热钢		硬化钢							
MATERIAL	HARDENED STEELS HEAT RESISTANT STEELS		HARDENED STEELS							
HARDNESS	HRc30 ~ HRc40		HRc40 ~ HRc50		HRc50 ~ HRc55		HRc55 ~ HRc60		HRc60 ~ HRc65	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
0.5	18750	130	16875	100	15000	80	12375	50	9375	30
0.6	18750	165	16875	130	15000	100	11250	55	9375	40
0.8	18750	210	16875	150	11250	100	9375	60	7125	40
1.0	18000	260	14250	200	9560	130	7690	80	6000	50
2.0	12490	300	9750	240	6560	150	5440	90	4125	55
3.0	8175	300	6490	240	4310	150	3560	90	2810	55
4.0	6260	310	4950	250	3300	160	2700	95	2100	60
5.0	5890	350	4690	280	3110	180	2400	100	1910	60
6.0	4910	330	3880	270	2590	170	1990	100	1575	60
8.0	3705	330	2925	250	1950	160	1500	90	1200	60
10.0	2925	300	2310	240	1540	150	1200	85	960	50
12.0	2490	300	1970	240	1310	150	990	85	790	50

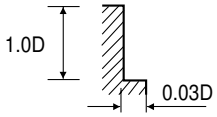


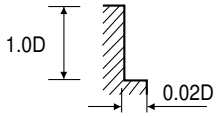
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 2刃 颈部延伸 - 侧铣
CARBIDE, 2 FLUTE EXTENDED NECK - SIDE CUTTING

GFC63 SERIES

材质	硬化钢, 耐热钢		硬化钢							
MATERIAL	HARDENED STEELS HEAT RESISTANT STEELS		HARDENED STEELS							
HARDNESS	HRc30 ~ HRc40		HRc40 ~ HRc50		HRc50 ~ HRc55		HRc55 ~ HRc60		HRc60 ~ HRc65	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
0.5	18750	90	16875	70	15000	55	12375	35	9375	20
0.6	18750	120	16875	90	15000	70	11250	40	9375	30
0.8	18750	150	16875	110	11250	70	9375	40	7125	30
1.0	18000	370	14250	290	9560	180	7690	110	6000	70
2.0	12490	420	9750	340	6560	210	5440	130	4125	80
3.0	8175	420	6490	340	4310	210	3560	130	2810	80
4.0	6260	440	4950	350	3300	220	2700	135	2100	85
5.0	5890	510	4690	405	3110	250	2400	140	1910	90
6.0	4910	475	3880	390	2590	240	1990	140	1575	90
8.0	3705	465	2925	360	1950	220	1500	130	1200	80
10.0	2925	420	2310	340	1540	210	1200	120	960	80
12.0	2490	420	1970	340	1310	210	990	120	790	80





RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

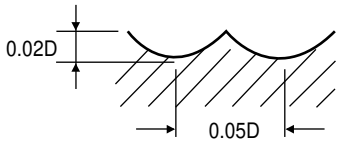
K-2 CARBIDE END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金，2刃 球头
CARBIDE, 2 FLUTE BALL NOSE

GFC65, GFC66 SERIES

材质	硬化钢，耐热钢		硬化钢							
MATERIAL	HARDENED STEELS HEAT RESISTANT STEELS		HARDENED STEELS							
HARDNESS	HRc30 ~ HRc40		HRc40 ~ HRc50		HRc50 ~ HRc55		HRc55 ~ HRc60		HRc60 ~ HRc65	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
R0.1 × 0.2	25000	660	25000	578	22500	528	20000	424	17500	371
R0.15 × 0.3	25000	825	25000	743	22500	660	20000	531	17500	462
R0.2 × 0.4	25000	1045	25000	935	22500	825	20000	660	17500	578
R0.25 × 0.5	25000	1320	25000	1155	22500	1045	20000	825	17500	715
R0.3 × 0.6	25000	1595	25000	1375	22500	1210	20000	990	17500	880
R0.4 × 0.8	25000	2145	25000	1815	22500	1650	20000	1320	17500	1155
R0.5 × 1.0	25000	2640	25000	2310	22500	2090	20000	1650	17500	1430
R0.6 × 1.2	25000	2805	24000	2365	21500	2118	19000	1650	17000	1485
R0.75 × 1.5	25000	2970	24000	2475	21500	2200	18500	1705	16500	1485
R1 × 2.0	24850	3135	23900	2640	20000	2200	17500	1733	16000	1540
R1.5 × 3.0	16550	3300	15900	2915	13250	2200	11750	1733	10500	1540
R2 × 4.0	12450	3300	11950	2915	10000	2200	8750	1733	8000	1540
R2.5 × 5.0	9300	3190	8900	2695	7500	2063	6750	1678	5750	1403
R3 × 6.0	6950	2668	6700	2255	5500	1705	5000	1375	4400	1183
R4 × 8.0	5550	2310	5350	1925	4500	1485	4000	1183	3500	1018
R5 × 10.0	4650	2035	4450	1705	3750	1320	3300	1045	2900	908
R6 × 12.0	3475	1623	3340	1375	2800	1045	2500	853	2200	688
R8 × 16.0	2785	1458	2675	1210	2250	935	2000	743	1750	550
R10 × 20.0	2225	1293	2150	1073	1800	825	1600	660	1400	440



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

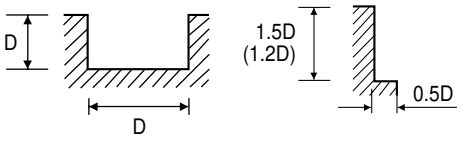
K-2 CARBIDE END MILLS

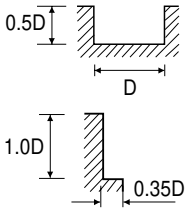
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 4刃
CARBIDE, 4 FLUTE

EMC67, EMC68 SERIES

材质	合金钢, 铸铁		合金钢, 铸铁		不锈钢, 300SERIES		不锈钢, 400SERIES		钛		铬镍铁合金	
MATERIAL	ALLOY STEELS CAST IRON		ALLOY STEELS CAST IRON		STAINLESS STEELS 300SERIES		STAINLESS STEELS 400SERIES		TITANIUM		INCONEL	
HARDNESS	~ HRc 30		HRc 30 ~ HRc 45									
STRENGTH	~1000N/mm²		1000~1300N/mm²									
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6.0	6060	390	4240	350	4590	320	6420	320	4590	320	1220	90
8.0	4545	500	3180	350	3440	390	4810	420	2950	420	910	110
10.0	4010	620	2800	430	2750	530	3850	530	2750	530	730	140
12.0	3340	630	2340	440	2290	510	3210	510	2290	410	610	135
14.0	2860	560	2000	390	1960	470	2750	470	1960	470	520	130
16.0	2510	530	1755	370	1720	430	2400	430	1720	430	455	120
18.0	2230	530	1560	370	1530	430	2140	430	1530	430	405	110
20.0	2000	520	1400	365	1370	420	1930	420	1370	420	365	110
25.0	1600	405	1120	280	1090	340	1540	340	1090	340	290	100





1.2D 轴向切削深度应该使用在刃径超过8mm的短刃系列.
1.2 x D Axial cutting depth should be applied for Short length series DIA over 8mm.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

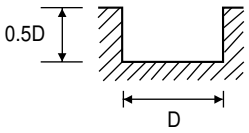
K-2 CARBIDE END MILLS

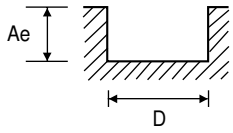
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 多刃 45度螺旋角 粗加工 - 开槽
CARBIDE, MULTI FLUTE 45° HELIX ROUGHING - SLOTTING

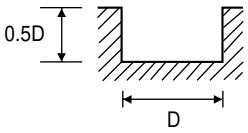
EMC69 SERIES

材质	非合金钢, 合金钢, 铸铁		合金钢, 耐热钢		不锈钢		铬镍铁合金	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		STAINLESS STEELS		INCONEL	
HARDNESS	~ HRc30		HRc30 ~ HRc45					
STRENGTH	~ 1000N/mm²		1000 ~ 1500N/mm²					
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6.0	14740	2410	11720	870	7940	600	2700	260
8.0	10960	2410	8690	870	5950	600	2025	240
10.0	8690	2410	7180	870	4820	590	1460	260
12.0	7560	2490	5670	830	3970	590	1350	260
16.0	5670	2490	4540	790	3120	530	900	150
20.0	4540	2250	3400	585	2270	370	740	135





Ae : Ø4~Ø10=0.25×D
Ø12~Ø16=0.15×D
Ø18~Ø20=0.10×D

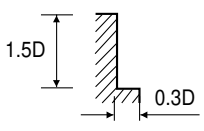


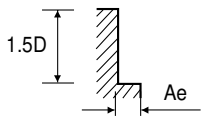
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 多刃 45度螺旋角 粗加工 - 侧铣
CARBIDE, MULTI FLUTE 45° HELIX ROUGHING - SIDE CUTTING

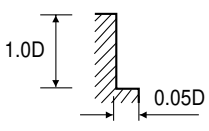
EMC69 SERIES

材质	非合金钢, 合金钢, 铸铁		合金钢, 耐热钢		不锈钢		铬镍铁合金	
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		STAINLESS STEELS		INCONEL	
HARDNESS	~ HRc30		HRc30 ~ HRc45					
STRENGTH	~ 1000N/mm²		1000 ~ 1500N/mm²					
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6.0	14740	2410	11720	870	7940	600	2700	260
8.0	10960	2410	8690	870	5950	600	2025	240
10.0	8690	2410	7180	870	4820	590	1460	260
12.0	7560	2490	5670	830	3970	590	1350	260
16.0	5670	2490	4540	790	3120	530	900	150
20.0	4540	2250	3400	590	2270	370	740	135





Ae : Ø4~Ø10=0.25×D
Ø12~Ø16=0.15×D
Ø18~Ø20=0.10×D



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

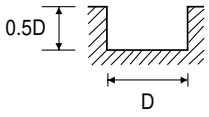
K-2 CARBIDE END MILLS

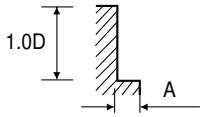
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 2刃 45度螺旋角
CARBIDE, 2 FLUTE 45° HELIX

E5C70, E5C71 SERIES

材质	合金钢, 铸铁		铝	
MATERIAL	ALLOY STEELS CAST IRON		ALUMINUM	
HARDNESS	~ HB 230			
DIAMETER	RPM	FEED	RPM	FEED
1	15180	455	15180	760
1.5	11840	475	11835	710
2	10170	510	10170	710
2.5	9510	570	9510	760
3	9000	630	9000	810
4	9000	810	9000	990
5	9000	900	9000	1170
6	9000	1080	9000	1350
7	7965	1120	7965	1355
8	7200	1260	7200	1620
9	7200	1395	7200	1510
10	7200	1530	7200	1890
12	7200	1890	7200	2340
14	5400	1620	5400	1980
16	5400	1710	5400	2160
18	3600	1260	3600	1620
20	3600	1440	3600	1710





A : Ø3~Ø10=0.25×D
Ø12~Ø20=0.5×D

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

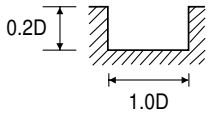
K-2 CARBIDE END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 3刃 45度螺旋角 - 开槽
CARBIDE, 3 FLUTE 45° HELIX - SLOTTING

E5C72, E5C73 SERIES

材质	铝合金, 非铁制金属	
MATERIAL	ALUMINUM NONFERROUS METALS	
DIAMETER	RPM	FEED
3.0	9000	450
4.0	9000	570
5.0	9000	650
6.0	9000	780
8.0	7200	900
10.0	7200	1100
12.0	7200	1350
14.0	5400	1160
16.0	5400	1215
18.0	3600	900
20.0	3600	1035

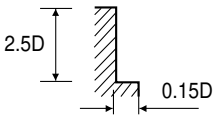


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 3刃 45度螺旋角 - 侧铣
CARBIDE, 3 FLUTE 45° HELIX - SIDE CUTTING

E5C72, E5C73 SERIES

材质	铝合金, 非铁制金属	
MATERIAL	ALUMINUM NONFERROUS METALS	
DIAMETER	RPM	FEED
3.0	9000	585
4.0	9000	700
5.0	9000	840
6.0	9000	970
8.0	7200	1110
10.0	7200	1350
12.0	7200	1130
14.0	5400	1420
16.0	5400	1560
18.0	3600	1170
20.0	3600	1230



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

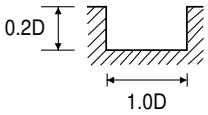
K-2 CARBIDE END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 3刃 45度螺旋角 超长刃铣刀 - 开槽
CARBIDE, 3 FLUTE 45° HELIX EX-LONG LENGTH - SLOTTING

E5C74 SERIES

材质 MATERIAL	铝合金, 非铁制金属 ALUMINUM NONFERROUS METALS	
DIAMETER	RPM	FEED
3.0	6300	315
4.0	6300	400
5.0	6300	450
6.0	6300	545
8.0	5040	630
10.0	5040	680
12.0	5040	945
14.0	3780	810
16.0	3780	850
18.0	2520	630
20.0	2520	725

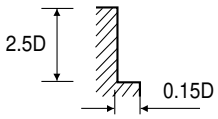


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 3刃 45度螺旋角 超长刃铣刀 - 侧铣
CARBIDE, 3 FLUTE 45° HELIX EX-LONG LENGTH - SIDE CUTTING

E5C74 SERIES

材质 MATERIAL	铝合金, 非铁制金属 ALUMINUM NONFERROUS METALS	
DIAMETER	RPM	FEED
3.0	6300	410
4.0	6300	490
5.0	6300	590
6.0	6300	680
8.0	5040	775
10.0	5040	945
12.0	5040	790
14.0	3780	995
16.0	3780	1090
18.0	2520	820
20.0	2520	860



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

CARBIDE

YG

Being the best through innovation

CARBIDE

- 普通用途,没有涂层,但可进行任何涂层

General Purposes, Non-coated, Any Coating Available

SELECTION GUIDE

项目	型号	规格	尺寸		页
			最小	最大	
ITEM	MODEL	DESCRIPTION	SIZE		PAGE
			MIN	MAX	
E5452		硬质合金, 2刃 超长刃 CARBIDE, 2 FLUTE EXTRA LONG LENGTH	D3.0	D20.0	884
E5553 E5410		硬质合金, 3刃 短刃 一次性 CARBIDE, 3 FLUTE SHORT LENGTH THROW AWAY	D0.5	D20.0	885
E5882		硬质合金, 3刃 35度螺旋角 圆鼻铣刀 CARBIDE, 3 FLUTE 35° HELIX CORNER RADIUS	D3.0	D20.0	887
E5423 E5415		硬质合金, 3刃 45度螺旋角 短刃 CARBIDE, 3 FLUTE 45° HELIX SHORT LENGTH	D3.0	D20.0	888
E5453		硬质合金, 4刃 超长刃 CARBIDE, 4 FLUTE EXTRA LONG LENGTH	D3.0	D20.0	889
E5455		硬质合金, 2刃 超长刃 球头 CARBIDE, 2 FLUTE EXTRA LONG LENGTH BALL NOSE	R1.5	R10.0	890
E5634 E5524		硬质合金, 4刃 短刃 球头 CARBIDE, 4 FLUTE SHORT LENGTH BALL NOSE	R1.0	R10.0	891
E5742 E5711		硬质合金, 3刃 长刃 粗加工 CARBIDE, 3 FLUTE LONG LENGTH ROUGHING	D6.0	D25.0	892
E5400		硬质合金, 钻铣刀 CARBIDE, DRILL MILLS	D3.0	D20.0	893
E5401		硬质合金, 2刃 标准 CARBIDE, 2 FLUTE STANDARD	D0.4	D20.0	894
E5402		硬质合金, 4刃 标准 CARBIDE, 4 FLUTE STANDARD	D1.5	D20.0	895
E5414		硬质合金, 2刃 球头 CARBIDE, 2 FLUTE BALL NOSE	R0.2	R12.5	896
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS			897

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	铬镍铁合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎				○		○	○	○		
◎	◎	◎				○		○	○	○		
○	◎	○				○		○	○	◎		
◎	◎	◎				○		○	○	○		
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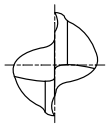
◎	◎	◎				○		○	○	○		
◎	◎	◎				○		○	○	○		
○	◎	◎	○			○		○	○			

CARBIDE END MILLS

E5452 SERIES PLAIN SHANK

硬质合金, 2刃 超长刃
CARBIDE, 2 FLUTE EXTRA LONG LENGTH



MG HM | YG STD | N | 2 | 30° | DIN 6535HA

P.897

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter h10	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length
E5452030	3.0	3	30	75
E5452040	4.0	4	30	75
E5452050	5.0	5	40	100
E5452060	6.0	6	50	150
E5452080	8.0	8	50	150
E5452100	10.0	10	60	150
E5452120	12.0	12	75	150
E5452140	14.0	14	65	150
E5452160	16.0	16	65	150
E5452180	18.0	18	65	150
E5452200	20.0	20	65	150

▶ TiN,TiCN涂层&TiAlN涂层可根据您的要求加工
TiN, TiCN-COATING & TiAlN-COATING are available on your request.

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in μm
公称直径单位 / Nominal-Diameter in mm

	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
h10	0 / — 40	0 / — 48	0 / — 58	0 / — 70	0 / — 84
h6	0 / — 6	0 / — 8	0 / — 9	0 / — 11	0 / — 13

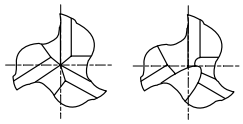
◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎				○		○	○	○		

CARBIDE END MILLS

E5553 SERIES FLAT SHANK
E5410 SERIES FLAT SHANK

硬质合金, 3刃 短刃 一次性
CARBIDE, 3 FLUTE SHORT LENGTH THROW AWAY



under Ø2mm from Ø2mm

MG HM | YG STD | N | 3 | 30° | DIN 6535HB

P.898, 899

단위(Unit) : mm

型号 EDP No.	系列号 ITEM No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
FLAT	FLAT	h10	h6		
E5553005	T3FSC-005KS	0.5	● 3	1.5	38
E5553006	T3FSC-006KS	0.6	● 3	1.5	38
E5553008	T3FSC-008KS	0.8	● 3	2	38
E5553010	T3FSC-010KS	1.0	● 3	2	38
E5553012	T3FSC-012KS	1.2	● 3	2	38
E5553015	T3FSC-015KS	1.5	● 3	2	38
E5553018	T3FSC-018KS	1.8	● 3	2	38
E5410020	T3FSQ-020AF	2.0	6	4	35
E5410025	T3FSQ-025AF	2.5	6	5	36
E5410030	T3FSQ-030AF	3.0	6	5	36
E5410035	T3FSQ-035AF	3.5	6	6	37
E5410040	T3FSQ-040AF	4.0	6	7	38
E5410045	T3FSQ-045AF	4.5	6	8	38
E5410050	T3FSQ-050AF	5.0	6	8	39
E5410055	T3FSQ-055AF	5.5	6	8	39
E5410957	T3FSQ-0575AF	5.75	6	8	39
E5410060	T3FSQ-060AF	6.0	6	8	39
E5410967	T3FSQ-0675BF	6.75	8	10	42
E5410070	T3FSQ-070BF	7.0	8	10	42
E5410977	T3FSQ-0775BF	7.75	8	10	42
E5410080	T3FSQ-080BF	8.0	8	11	43

● 直柄 / with plain shank

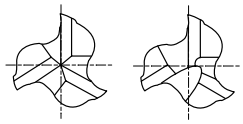
◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎				○		○	○	○		

CARBIDE END MILLS

E5553 SERIES FLAT SHANK
E5410 SERIES FLAT SHANK

硬质合金, 3刃 短刃 一次性
CARBIDE, 3 FLUTE SHORT LENGTH THROW AWAY



under Ø2mm from Ø2mm

MG HM | YG STD | N | 3 | 30° | DIN 6535HB

P.898, 899

단위(Unit) : mm

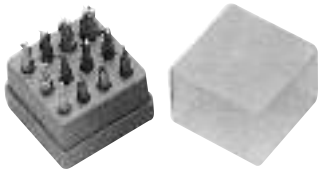
型号 EDP No. FLAT	系列号 ITEM No. FLAT	刃部直径 Mill Diameter h10	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length
E5410087	T3FSQ-087TF	8.7	10	11	48
E5410090	T3FSQ-090TF	9.0	10	11	48
E5410097	T3FSQ-097TF	9.7	10	11	48
E5410100	T3FSQ-100TF	10.0	10	13	50
E5410120	T3FSQ-120DF	12.0	12	15	55
E5410140	T3FSQ-140ZF	14.0	14	15	58
E5410160	T3FSQ-160EF	16.0	16	18	62
E5410180	T3FSQ-180ZF	18.0	18	20	70
E5410200	T3FSQ-200FF	20.0	20	22	75

▶ TiN,TiCN涂层&TiAlN涂层可根据您的要求加工
TiN, TiCN-COATING & TiAlN-COATING are available on your request.

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in ㎛
公称直径单位 / Nominal-Diameter in ㎜

	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
h10	0 — 40	0 — 48	0 — 58	0 — 70	0 — 84
h6	0 — 6	0 — 8	0 — 9	0 — 11	0 — 13



SET 订单号 : E5SET410
SET ORDERING No.: E5SET410
* 12PCS. SET
  - 每个尺寸两根
    2PCS. OF EACH SIZE
    2, 3, 4, 5, 6mm (T3FSC)
  - 每个尺寸一根
    1PC. OF EACH SIZE
    8, 10mm (T3FSC)
* 1刃过中心
  1 Tooth Over Center

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎				○		○	○	○		

CARBIDE END MILLS

E5882 SERIES PLAIN SHANK

硬质合金, 3刃 35度螺旋角 圆鼻铣刀
CARBIDE, 3 FLUTE 35° HELIX CORNER RADIUS

用于不锈钢
for STAINLESS STEELS

MG HM | DIN 6527 | N | 3 | 35° | DIN 6535HA

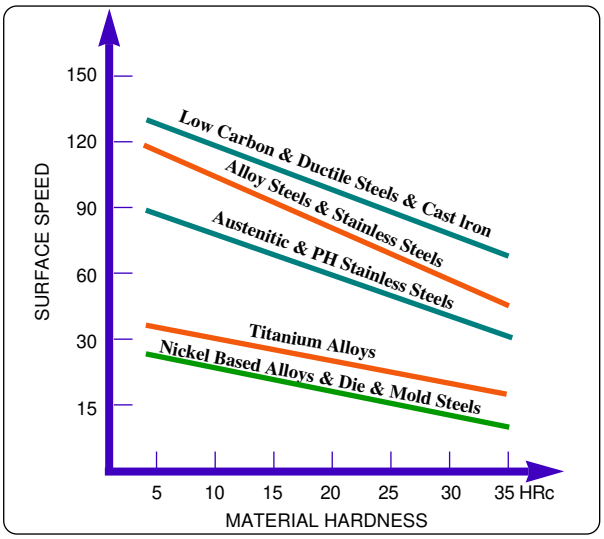
单位(Unit) : mm

型号 EDP No.	圆弧半径 Corner Radius R	刃部直径 Mill Diameter h10	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length
E5882030	0.20~0.25	3.0	3	4	38
E5882040	0.20~0.25	4.0	6	5	54
E5882050	0.20~0.25	5.0	6	6	54
E5882060	0.40~0.50	6.0	6	7	54
E5882080	0.40~0.50	8.0	8	9	58
E5882100	0.40~0.50	10.0	10	11	66
E5882120	0.75~0.85	12.0	12	12	73
E5882160	0.75~0.85	16.0	16	16	82
E5882200	0.75~0.85	20.0	20	20	92

▶ TiN,TiCN涂层&TiAlN涂层可根据您的要求加工
TiN, TiCN-COATING & TiAlN-COATING are available on your request.

FEED CHART

MILL DIAMETER(mm)	3	5	6	8	10	12	16	20
FEED(mm)/TOOTH	0.008 ~ 0.015	0.010 ~ 0.050	0.025 ~ 0.065	0.040 ~ 0.075	0.040 ~ 0.090	0.050 ~ 0.100	0.065 ~ 0.130	0.075 ~ 0.150



DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in μm
公称直径单位 / Nominal-Diameter in mm

	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
h10	0 — 40	0 — 48	0 — 58	0 — 70	0 — 84
h6	0 — 6	0 — 8	0 — 9	0 — 11	0 — 13

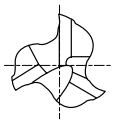
◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	○				○		○	○	◎		

CARBIDE END MILLS

E5423 SERIES PLAIN SHANK
E5415 SERIES FLAT SHANK

硬质合金, 3刃 45度螺旋角 短刃
CARBIDE, 3 FLUTE 45° HELIX SHORT LENGTH



MG HM | YG STD | N | 3 | 45° | DIN 6535HA | DIN 6535HB

P.900, 901

单位(Unit) : mm

型号 EDP No. PLAIN	系列号 ITEM No. PLAIN	型号 EDP No. FLAT	系列号 ITEM No. FLAT	刃部直径 Mill Diameter h10	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length
E5423030	T3ERS-030A	E5415030	T3ERS-030AF	3.0	6	8	45
E5423040	T3ERS-040A	E5415040	T3ERS-040AF	4.0	6	11	45
E5423050	T3ERS-050A	E5415050	T3ERS-050AF	5.0	6	13	50
E5423060	T3ERS-060Z	E5415060	T3ERS-060ZF	6.0	6	13	50
E5423080	T3ERS-080Z	E5415080	T3ERS-080ZF	8.0	8	19	60
E5423100	T3ERS-100Z	E5415100	T3ERS-100ZF	10.0	10	22	70
E5423120	T3ERS-120Z	E5415120	T3ERS-120ZF	12.0	12	26	75
E5423140	T3ERS-140Z	E5415140	T3ERS-140ZF	14.0	14	26	75
E5423160	T3ERS-160Z	E5415160	T3ERS-160ZF	16.0	16	25	75
E5423200	T3ERS-200Z	E5415200	T3ERS-200ZF	20.0	20	32	100

▶ TiN,TiCN涂层&TiAlN涂层可根据您的要求加工
TiN, TiCN-COATING & TiAlN-COATING are available on your request.

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in ㎛
公称直径单位 / Nominal-Diameter in ㎜

	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
h10	0 — 40	0 — 48	0 — 58	0 — 70	0 — 84
h6	0 — 6	0 — 8	0 — 9	0 — 11	0 — 13

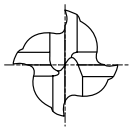
◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎				○		○	○	○		

CARBIDE END MILLS

E5453 SERIES PLAIN SHANK

硬质合金, 4刃 超长刃
CARBIDE, 4 FLUTE EXTRA LONG LENGTH



MG HM | YG STD | N | 4 | 30° | DIN 6535HA

P.902

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter h10	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length
E5453030	3.0	3	30	75
E5453040	4.0	4	30	75
E5453050	5.0	5	40	100
E5453060	6.0	6	50	150
E5453080	8.0	8	50	150
E5453100	10.0	10	60	150
E5453120	12.0	12	75	150
E5453140	14.0	14	65	150
E5453160	16.0	16	65	150
E5453180	18.0	18	65	150
E5453200	20.0	20	65	150

▶ TiN,TiCN涂层&TiAlN涂层可根据您的要求加工
TiN, TiCN-COATING & TiAlN-COATING are available on your request.

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in μm
公称直径单位 / Nominal-Diameter in mm

	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
h10	0 / −40	0 / −48	0 / −58	0 / −70	0 / −84
h6	0 / −6	0 / −8	0 / −9	0 / −11	0 / −13

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎				○		○	○	○		

CARBIDE END MILLS

E5455 SERIES PLAIN SHANK

硬质合金, 2刃 超长刃 球头
CARBIDE, 2 FLUTE EXTRA LONG LENGTH BALL NOSE

MG HM | YG STD | N | 2 | 30° | R ±0.02 | DIN 6535HA

P.903

单位(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.02)	刃部直径 Mill Diameter h10	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length
E5455030	R1.5	3.0	3	30	75
E5455040	R2.0	4.0	4	30	75
E5455050	R2.5	5.0	5	40	100
E5455060	R3.0	6.0	6	50	150
E5455080	R4.0	8.0	8	50	150
E5455100	R5.0	10.0	10	60	150
E5455120	R6.0	12.0	12	75	150
E5455140	R7.0	14.0	14	75	150
E5455160	R8.0	16.0	16	75	150
E5455180	R9.0	18.0	18	75	150
E5455200	R10.0	20.0	20	75	150

▶ TiN,TiCN涂层&TiAlN涂层可根据您的要求加工
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DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in μm
公称直径单位 / Nominal-Diameter in mm

	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
h10	0 / — 40	0 / — 48	0 / — 58	0 / — 70	0 / — 84
h6	0 / — 6	0 / — 8	0 / — 9	0 / — 11	0 / — 13

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○			○		○	○			

CARBIDE END MILLS

E5634 SERIES PLAIN SHANK
E5524 SERIES FLAT SHANK

硬质合金, 4刃 短刃 球头
CARBIDE, 4 FLUTE SHORT LENGTH BALL NOSE

MG HM | YG STD | N | 4 | 30° | R ±0.02 | DIN 6535HA | DIN 6535HB

P.904

单位(Unit) : mm

型号 EDP No. PLAIN	系列号 ITEM No. PLAIN	型号 EDP No. FLAT	系列号 ITEM No. FLAT	球头半径 Radius of Ball Nose R (±0.02)	刃部直径 Mill Diameter h10	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length
E5634020	T4GRB-020A	E5524020	T4GRB-020AF	R1.0	2.0	6	4	48
E5634030	T4GRB-030A	E5524030	T4GRB-030AF	R1.5	3.0	6	4	48
E5634040	T4GRB-040A	E5524040	T4GRB-040AF	R2.0	4.0	6	6	50
E5634050	T4GRB-050A	E5524050	T4GRB-050AF	R2.5	5.0	6	7	51
E5634060	T4GRB-060Z	E5524060	T4GRB-060ZF	R3.0	6.0	6	7	51
E5634080	T4GRB-080Z	E5524080	T4GRB-080ZF	R4.0	8.0	8	9	59
E5634100	T4GRB-100Z	E5524100	T4GRB-100ZF	R5.0	10.0	10	10	60
E5634120	T4GRB-120Z	E5524120	T4GRB-120ZF	R6.0	12.0	12	14	71
E5634140	T4GRB-140Z	E5524140	T4GRB-140ZF	R7.0	14.0	14	14	71
E5634160	T4GRB-160Z	E5524160	T4GRB-160ZF	R8.0	16.0	16	16	76
E5634180	T4GRB-180Z	E5524180	T4GRB-180ZF	R9.0	18.0	18	18	76
E5634200	T4GRB-200Z	E5524200	T4GRB-200ZF	R10.0	20.0	20	20	82

▶ TiN,TiCN涂层&TiAlN涂层可根据您的要求加工
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DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in ㎛					
公称直径单位 / Nominal-Diameter in ㎜					
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
h10	0 / — 40	0 / — 48	0 / — 58	0 / — 70	0 / — 84
h6	0 / — 6	0 / — 8	0 / — 9	0 / — 11	0 / — 13

◎ : 优(Excellent) ○ : 良(Good)

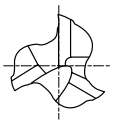
碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○			○		○	○			

CARBIDE END MILLS

E5742 SERIES PLAIN SHANK
E5711 SERIES FLAT SHANK

硬质合金, 3刃 长刃 粗加工
CARBIDE, 3 FLUTE LONG LENGTH ROUGHING

铝加工用
for ALUMINUM



MG HM | YG STD | WR | ALU | 3 | 30° | DIN 6535HA | DIN 6535HB

P.905

单位(Unit) : mm

型号 EDP No. PLAIN	型号 EDP No. FLAT	刃部直径 Mill Diameter h10	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length
E5742060	E5711060	6.0	6	16	57
E5742070	E5711070	7.0	8	16	63
E5742080	E5711080	8.0	8	16	63
E5742090	E5711090	9.0	10	19	72
E5742100	E5711100	10.0	10	22	72
E5742120	E5711120	12.0	12	26	83
E5742140	E5711140	14.0	14	26	83
E5742160	E5711160	16.0	16	32	92
E5742180	E5711180	18.0	18	32	92
E5742200	E5711200	20.0	20	38	104
E5742250	E5711250	25.0	25	45	121

▶ TiN,TiCN涂层&TiAlN涂层可根据您的要求加工
TiN, TiCN-COATING & TiAlN-COATING are available on your request.

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in ㎛
公称直径单位 / Nominal-Diameter in mm

	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
h10	0 / — 40	0 / — 48	0 / — 58	0 / — 70	0 / — 84
h6	0 / — 6	0 / — 8	0 / — 9	0 / — 11	0 / — 13

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	○							○	◎			

CARBIDE END MILLS

E5400 SERIES PLAIN SHANK

硬质合金, 钻铣刀
CARBIDE, 2 FLUTE DRILL MILLS

MG HM | YG STD | N | 2 | 30° | DIN 6535HA

P.906, 907, 908

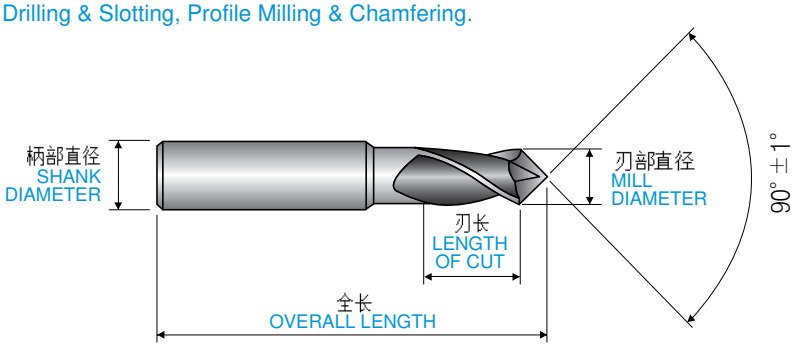
单位(Unit) : mm

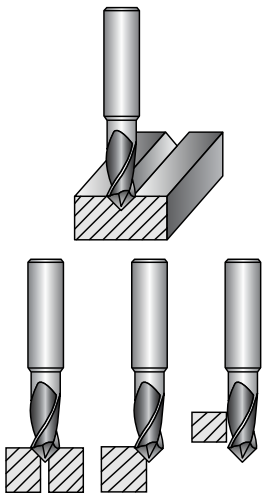
型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E5400030	3.0	4	6	50
E5400040	4.0	5	8	50
E5400050	5.0	6	10	50
E5400060	6.0	8	12	60
E5400080	8.0	10	16	70
E5400100	10.0	12	18	70
E5400120	12.0	12	20	70
E5540140	14.0	14	24	80
E5400160	16.0	16	26	80
E5400200	20.0	20	32	100

▶ TiN,TiCN涂层&TiAlN涂层可根据您的要求加工
TiN, TiCN-COATING & TiAlN-COATING are available on your request.

● 现在许多钻孔和铣削加工时, 不使用标准铣刀
Performs many drilling and milling operations not presently done with the standard end mill.

● 在许多立式铣床加工中, 钻铣刀的作用是：钻孔, 铣立槽, 数控铣削, 钻孔并铣立槽, 仿形铣和倒角.
Among the many vertical milling machine operations the Drill Mill performs are : Drilling, Slotting, NC Milling Drilling & Slotting, Profile Milling & Chamfering.





刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
Ø3 ~ Ø10=h9 Ø12 ~ Ø20=d9	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎						○	○	○		

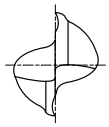
CARBIDE END MILLS

E5401 SERIES PLAIN SHANK

硬质合金, 2刃 标准
CARBIDE, 2 FLUTE STANDARD

▶ 这种微粒硬质合金具有很好的耐磨性，同时也具有普通硬质合金一样的韧性和刚性，适于切削高硬质合金钢，铸铁，冷铸件，可锻铸铁，铬镍合金，青铜，黄铜，硅含量大的铝和耐磨塑料.

▶ The raw materials in micro grain grade has excellent wear resistance as well as great toughness and rigidity which is the same as normal carbide. Designed for cutting hardened & high alloy steels, steel casting, chill casting, malleable cast iron, CrNi-steels, brass, copper, aluminum with a high percentage of silicon and abrasive plastics.



MG HM | 2 | 30° | PLAIN

P.897

단위(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E5401004	0.4	3	1	38
E5401005	0.5	3	1.5	38
E5401006	0.6	3	1.5	38
E5401007	0.7	3	1.5	38
E5401008	0.8	3	2	38
E5401009	0.9	3	2	38
E5401010	1.0	4	3	40
E5401910	1.0	6	3	40
E5401014	1.4	4	5	40
E5401015	1.5	4	5	40
E5401915	1.5	6	5	40
E5401020	2.0	4	6	40
E5401920	2.0	6	6	40
E5401025	2.5	4	8	40
E5401925	2.5	6	8	40
E5401030	3.0	6	8	45
E5401035	3.5	6	10	45
E5401040	4.0	6	11	45
E5401045	4.5	6	11	45
E5401050	5.0	6	13	50
E5401055	5.5	6	13	50
E5401060	6.0	6	13	50
E5401065	6.5	8	16	60
E5401070	7.0	8	16	60
E5401080	8.0	8	19	60
E5401090	9.0	10	19	70
E5401100	10.0	10	22	70
E5401110	11.0	12	22	75
E5401120	12.0	12	26	75
E5401140	14.0	14	26	75
E5401160	16.0	16	25	75
E5401180	18.0	18	32	100
E5401200	20.0	20	32	100

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

▶ TiCN涂层&TiAlN涂层可根据您的要求加工
TiCN-COATING & TiAlN-COATING are available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎				○		○	○	○		

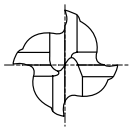
CARBIDE END MILLS

E5402 SERIES PLAIN SHANK

硬质合金, 4刃 标准
CARBIDE, 4 FLUTE STANDARD

▶ 这种微粒硬质合金具有很好的耐磨性, 同时也具有普通硬质合金一样的韧性和刚性, 适于切削高硬质合金钢, 铸铁, 冷铸件, 可锻铸铁, 铬镍合金, 青铜, 黄铜, 硅含量大的铝和耐磨塑料.

▶ The raw materials in micro grain grade has excellent wear resistance as well as great toughness and rigidity which is the same as normal carbide. Designed for cutting hardened & high alloy steels, steel casting, chill casting, malleable cast iron, CrNi-steels, brass, copper, aluminum with a high percentage of silicon and abrasive plastics.



MG HM | 4 | 30° | PLAIN P.902

단위(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E5402015	1.5	4	5	40
E5402020	2.0	4	6	40
E5402025	2.5	4	8	40
E5402030	3.0	6	8	45
E5402035	3.5	6	10	45
E5402040	4.0	6	11	45
E5402045	4.5	6	11	45
E5402050	5.0	6	13	50
E5402055	5.5	6	13	50
E5402060	6.0	6	13	50
E5402070	7.0	8	16	60
E5402080	8.0	8	19	60
E5402090	9.0	10	19	70
E5402100	10.0	10	22	70
E5402110	11.0	12	22	75
E5402120	12.0	12	26	75
E5402140	14.0	14	26	75
E5402160	16.0	16	25	75
E5402180	18.0	18	32	100
E5402200	20.0	20	32	100

▶ TiCN涂层&TiAlN涂层可根据您的要求加工
TiCN-COATING & TiAlN-COATING are available on your request.

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎				○		○	○	○		

CARBIDE END MILLS

E5414 SERIES PLAIN SHANK

硬质合金, 2刃 球头
CARBIDE, 2 FLUTE BALL NOSE

▶ 这种微粒硬质合金具有很好的耐磨性，同时也具有普通硬质合金一样的韧性和刚性，适于切削高硬质合金钢，铸铁，冷铸件，可锻铸铁，铬镍合金，青铜，黄铜，硅含量大的铝和耐磨塑料.

▶ The raw materials in micro grain grade has excellent wear resistance as well as great toughness and rigidity which is the same as normal carbide. Designed for cutting hardened & high alloy steels, steel casting, chill casting, malleable cast iron, CrNi-steels, brass, copper, aluminum with a high percentage of silicon and abrasive plastics.

MG HM | 2 | 30° | R ±0.02 | PLAIN

P.903

단위(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.02)	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E5414004	R0.2	**0.4**	3	0.8	50
E5414006	R0.3	**0.6**	3	1.2	50
E5414008	R0.4	**0.8**	3	1.6	50
E5414901	R0.5	**1.0**	6	3	50
E5414902	R1.0	**2.0**	6	6	50
E5414030	R1.5	**3.0**	6	8	60
E5414040	R2.0	**4.0**	6	11	70
E5414050	R2.5	**5.0**	6	13	80
E5414060	R3.0	**6.0**	6	13	80
E5414070	R3.5	**7.0**	8	16	90
E5414080	R4.0	**8.0**	8	19	90
E5414090	R4.5	**9.0**	10	19	100
E5414100	R5.0	**10.0**	10	22	100
E5414120	R6.0	**12.0**	12	26	110
E5414140	R7.0	**14.0**	14	26	120
E5414160	R8.0	**16.0**	16	30	120
E5414200	R10.0	**20.0**	20	38	130
E5414250	R12.5	**25.0**	25	50	150

▶ TiCN涂层&TiAlN涂层可根据您的要求加工
TiCN-COATING & TiAlN-COATING are available on your request.

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

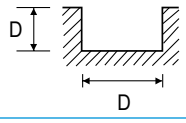
碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	◎	◎	○			○		○	○			

CARBIDE END MILLS
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 2刃 - 开槽
CARBIDE, 2 FLUTE - SLOTTING

E5452, E5401 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		不锈钢, 钛合金		铸铁		铝合金		铜黄铜 非铁制金属	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		STAINLESS STEELS TITANIUM ALLOYS		CAST IRON		ALUMINUM ALLOYS		COPPER. BRASS NON-FERROUS METALS	
HARDNESS	~ HRc 20		HRc 20 ~ HRc 30		HRc 30 ~ HRc 40									
STRENGTH	500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²									
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	5500	80	4800	70	4000	55	8000	65	6500	150	16000	320	12000	240
3.0	3700	90	3200	80	2600	60	5300	65	4200	150	11000	320	8000	240
4.0	2800	90	2400	80	2000	60	4000	65	3200	150	8000	320	6000	240
5.0	2200	90	1900	80	1600	60	3200	65	2500	150	6400	320	4800	240
6.0	1800	90	1600	80	1300	60	2600	65	2100	180	5300	340	4000	260
8.0	1400	90	1200	80	1000	60	2000	65	1600	190	4000	340	3000	260
10.0	1100	90	950	80	800	60	1600	65	1300	200	3200	340	2400	260
12.0	900	90	800	80	660	60	1300	65	1000	210	2600	340	2000	260
14.0	800	90	700	80	570	60	1100	65	900	220	2300	340	1700	260
16.0	700	100	600	85	500	75	1000	75	800	225	2000	340	1500	260
20.0	550	100	480	85	400	75	800	80	640	240	1600	340	1200	260



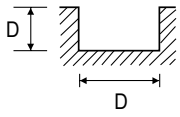
※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 2刃 TiAlN 涂层 - 开槽
CARBIDE, 2 FLUTE TiAlN-COATED - SLOTTING

E5452, E5401 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		不锈钢, 钛合金		铸铁		铝合金		铜黄铜 非铁制金属	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		STAINLESS STEELS TITANIUM ALLOYS		CAST IRON		ALUMINUM ALLOYS		COPPER. BRASS NON-FERROUS METALS	
HARDNESS	~ HRc 20		HRc 20 ~ HRc 30		HRc 30 ~ HRc 40									
STRENGTH	500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²									
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	7700	110	6720	100	5600	75	11200	90	9100	210	22400	450	16800	335
3.0	5180	125	4480	110	3640	85	7420	90	5880	210	15400	450	11200	335
4.0	3920	125	3360	110	2800	85	5600	90	4480	210	11200	450	8400	335
5.0	3080	125	2660	110	2240	85	4480	90	3500	210	8960	450	6720	335
6.0	2520	125	2240	110	1820	85	3640	90	2940	250	7420	475	5600	365
8.0	1960	125	1680	110	1400	85	2800	90	2240	265	5600	475	4200	365
10.0	1540	125	1330	110	1120	85	2240	90	1820	280	4480	475	3360	365
12.0	1260	125	1120	110	924	85	1820	90	1400	295	3640	475	2800	365
14.0	1120	125	980	110	798	85	1540	90	1260	310	3220	475	2380	365
16.0	980	140	840	120	700	105	1400	105	1120	315	2800	475	2100	365
20.0	770	140	672	120	560	105	1120	110	900	335	2240	475	1680	365



※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

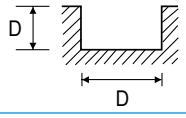
CARBIDE END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 3刃 - 开槽
CARBIDE, 3 FLUTE - SLOTTING

E5553, E5410 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		不锈钢, 钛合金		铸铁		铝合金		铜.黄铜 非铁制金属	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		STAINLESS STEELS TITANIUM ALLOYS		CAST IRON		ALUMINUM ALLOYS		COPPER. BRASS NON-FERROUS METALS	
HARDNESS	~ HRc 20		HRc 20 ~ HRc 30		HRc 30 ~ HRc 40									
STRENGTH	500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²									
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	5500	70	4800	60	4000	50	8000	55	6500	140	16000	290	12000	220
3.0	3700	80	3200	75	2600	55	5300	55	4200	140	11000	300	8000	220
4.0	2800	80	2400	75	2000	55	4000	55	3200	130	8000	290	6000	220
5.0	2200	80	1900	70	1600	55	3200	55	2500	135	6400	290	4800	220
6.0	1800	80	1600	70	1300	55	2600	60	2100	160	5300	305	4000	240
8.0	1400	80	1200	70	1000	55	2000	60	1600	170	4000	310	3000	230
10.0	1100	80	950	70	800	55	1600	60	1300	180	3200	305	2400	230
12.0	900	80	800	70	660	55	1300	60	1000	190	2600	300	2000	230
14.0	800	80	700	70	570	55	1100	60	900	200	2300	300	1700	230
16.0	700	90	600	75	500	65	1000	70	800	200	2000	300	1500	230
20.0	550	90	480	75	400	65	800	70	640	215	1600	300	1200	230



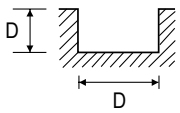
※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 3刃 TiAlN 涂层 - 开槽
CARBIDE, 3 FLUTE TiAlN-COATED - SLOTTING

E5553, E5410 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		不锈钢, 钛合金		铸铁		铝合金		铜.黄铜 非铁制金属	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		STAINLESS STEELS TITANIUM ALLOYS		CAST IRON		ALUMINUM ALLOYS		COPPER. BRASS NON-FERROUS METALS	
HARDNESS	~ HRc 20		HRc 20 ~ HRc 30		HRc 30 ~ HRc 40									
STRENGTH	500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²									
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	7700	100	6720	85	5600	70	11200	75	9100	195	22400	405	16800	310
3.0	5180	110	4480	105	3640	75	7420	75	5880	195	15400	420	11200	310
4.0	3920	110	3360	105	2800	75	5600	75	4480	180	11200	405	8400	310
5.0	3080	110	2660	100	2240	75	4480	75	3500	190	8960	405	6720	310
6.0	2520	110	2240	100	1820	75	3640	85	2940	225	7420	425	5600	335
8.0	1960	110	1680	100	1400	75	2800	85	2240	240	5600	435	4200	320
10.0	1540	110	1330	100	1120	75	2240	85	1820	250	4480	425	3360	320
12.0	1260	110	1120	100	920	75	1820	85	1400	265	3640	420	2800	320
14.0	1120	110	980	100	800	75	1540	85	1260	280	3220	420	2380	320
16.0	980	125	840	105	700	90	1400	100	1120	280	2800	420	2100	320
20.0	770	125	670	105	560	90	1120	100	900	300	2240	420	1680	320



※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

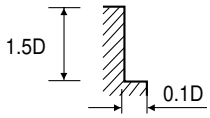
CARBIDE END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 3刃 - 侧铣
CARBIDE, 3 FLUTE - SIDE CUTTING

E5553, E5410 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		不锈钢, 钛合金		铸铁		铝合金		铜黄铜 非铁制金属	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		STAINLESS STEELS TITANIUM ALLOYS		CAST IRON		ALUMINUM ALLOYS		COPPER. BRASS NON-FERROUS METALS	
HARDNESS	~ HRc 20		HRc 20 ~ HRc 30		HRc 30 ~ HRc 40									
STRENGTH	500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²									
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	5500	180	4800	160	4000	120	8000	140	6500	330	16000	720	12000	540
3.0	3700	200	3200	170	2600	130	5300	140	4200	330	11000	690	8000	530
4.0	2800	200	2400	180	2000	130	4000	140	3200	340	8000	720	6000	540
5.0	2200	200	1900	180	1600	130	3200	140	2500	340	6400	710	4800	530
6.0	1800	200	1600	180	1300	130	2600	150	2100	400	5300	760	4000	580
8.0	1400	200	1200	180	1000	130	2000	150	1600	430	4000	760	3000	580
10.0	1100	200	950	180	800	130	1600	150	1300	450	3200	760	2400	580
12.0	900	200	800	180	660	130	1300	150	1000	470	2600	760	2000	580
14.0	800	200	700	180	570	130	1100	150	900	490	2300	760	1700	580
16.0	700	220	600	190	500	160	1000	170	800	510	2000	760	1500	580
20.0	550	220	480	190	400	160	800	180	640	540	1600	760	1200	580



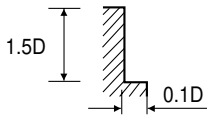
※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 3刃 TiAlN 涂层 - 侧铣
CARBIDE, 3 FLUTE TiAlN-COATED - SIDE CUTTING

E5553, E5410 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		不锈钢, 钛合金		铸铁		铝合金		铜黄铜 非铁制金属	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		STAINLESS STEELS TITANIUM ALLOYS		CAST IRON		ALUMINUM ALLOYS		COPPER. BRASS NON-FERROUS METALS	
HARDNESS	~ HRc 20		HRc 20 ~ HRc 30		HRc 30 ~ HRc 40									
STRENGTH	500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²									
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	7700	250	6720	225	5600	170	11200	195	9100	460	22400	1010	16800	755
3.0	5180	280	4480	240	3640	180	7420	195	5880	460	15400	965	11200	740
4.0	3920	280	3360	250	2800	180	5600	195	4480	475	11200	1010	8400	755
5.0	3080	280	2660	250	2240	180	4480	195	3500	475	8960	995	6720	740
6.0	2520	280	2240	250	1820	180	3640	210	2940	560	7420	1065	5600	810
8.0	1960	280	1680	250	1400	180	2800	210	2240	600	5600	1065	4200	810
10.0	1540	280	1330	250	1120	180	2240	210	1820	630	4480	1065	3360	810
12.0	1260	280	1120	250	920	180	1820	210	1400	660	3640	1065	2800	810
14.0	1120	280	980	250	800	180	1540	210	1260	685	3220	1065	2380	810
16.0	980	310	840	265	700	225	1400	240	1120	715	2800	1065	2100	810
20.0	770	310	670	265	560	225	1120	250	900	755	2240	1065	1680	810



※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

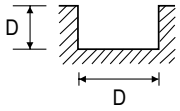
CARBIDE END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 3刃 45度螺旋角 - 开槽
CARBIDE, 3 FLUTE 45° HELIX - SLOTTING

E5423, E5415 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		铸铁		铝合金		铜.黄铜, 非铁制金属	
MATERIAL	CARBON STEELS, ALLOY STEELS, TOOL STEELS		CARBON STEELS, ALLOY STEELS, TOOL STEELS		CAST IRON		ALUMINUM ALLOYS		COPPER. BRASS NON-FERROUS METALS	
HARDNESS	~ HRc30		HRc30 ~ HRc40							
STRENGTH	~ 1000N/mm²		1000 ~ 1300N/mm²							
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6.0	1600	95	1300	65	2100	220	5300	410	4000	310
8.0	1200	95	1000	65	1600	230	4000	410	3000	310
10.0	950	95	800	65	1300	240	3200	410	2400	310
12.0	800	95	660	65	1000	250	2600	410	2000	310
14.0	700	95	570	65	900	260	2300	410	1700	310
16.0	600	100	500	80	800	270	2000	410	1500	310
20.0	480	100	400	80	640	290	1600	410	1200	310



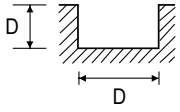
※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 3刃 45度螺旋角 TiAlN 涂层 - 开槽
CARBIDE, 3 FLUTE 45° HELIX TiAlN-COATED - SLOTTING

E5423, E5415 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		铸铁		铝合金		铜.黄铜, 非铁制金属	
MATERIAL	CARBON STEELS, ALLOY STEELS, TOOL STEELS		CARBON STEELS, ALLOY STEELS, TOOL STEELS		CAST IRON		ALUMINUM ALLOYS		COPPER. BRASS NON-FERROUS METALS	
HARDNESS	~ HRc30		HRc30 ~ HRc40							
STRENGTH	~ 1000N/mm²		1000 ~ 1300N/mm²							
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6.0	2240	135	1820	90	2940	310	7420	575	5600	435
8.0	1680	135	1400	90	2240	320	5600	575	4200	435
10.0	1330	135	1120	90	1820	335	4480	575	3360	435
12.0	1120	135	925	90	1400	350	3640	575	2800	435
14.0	980	135	800	90	1260	365	3220	575	2380	435
16.0	840	140	700	110	1120	380	2800	575	2100	435
20.0	670	140	560	110	895	405	2240	575	1680	435



※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

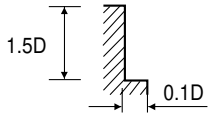
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

CARBIDE END MILLS 推荐的切削条件 RECOMMENDED CUTTING CONDITIONS

硬质合金, 3刃 45度螺旋角 - 侧铣
CARBIDE, 3 FLUTE 45° HELIX - SIDE CUTTING

E5423, E5415 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		铸铁		铝合金		铜.黄铜, 非铁制金属	
MATERIAL	CARBON STEELS, ALLOY STEELS, TOOL STEELS		CARBON STEELS, ALLOY STEELS, TOOL STEELS		CAST IRON		ALUMINUM ALLOYS		COPPER. BRASS NON-FERROUS METALS	
HARDNESS	~ HRc30		HRc30 ~ HRc40							
STRENGTH	~ 1000N/mm²		1000 ~ 1300N/mm²							
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6.0	1600	190	1300	130	2100	440	5300	820	4000	620
8.0	1200	190	1000	130	1600	460	4000	820	3000	620
10.0	950	190	800	130	1300	480	3200	820	2400	620
12.0	800	190	660	130	1000	500	2600	820	2000	620
14.0	700	190	570	130	900	520	2300	820	1700	620
16.0	600	200	500	160	800	540	2000	820	1500	620
20.0	480	200	400	160	640	580	1600	820	1200	620



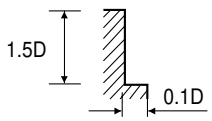
※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 3刃 45度螺旋角 TiAlN 涂层 - 侧铣
CARBIDE, 3 FLUTE 45° HELIX TiAlN-COATED - SIDE CUTTING

E5423, E5415 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		铸铁		铝合金		铜.黄铜, 非铁制金属	
MATERIAL	CARBON STEELS, ALLOY STEELS, TOOL STEELS		CARBON STEELS, ALLOY STEELS, TOOL STEELS		CAST IRON		ALUMINUM ALLOYS		COPPER. BRASS NON-FERROUS METALS	
HARDNESS	~ HRc30		HRc30 ~ HRc40							
STRENGTH	~ 1000N/mm²		1000 ~ 1300N/mm²							
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6.0	2240	265	1820	180	2940	615	7420	1150	5600	870
8.0	1680	265	1400	180	2240	645	5600	1150	4200	870
10.0	1330	265	1120	180	1820	670	4480	1150	3360	870
12.0	1120	265	925	180	1400	700	3640	1150	2800	870
14.0	980	265	800	180	1260	730	3220	1150	2380	870
16.0	840	280	700	225	1120	755	2800	1150	2100	870
20.0	670	280	560	225	895	810	2240	1150	1680	870



※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

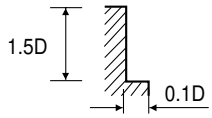
CARBIDE END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 4刃 - 侧铣
CARBIDE, 4 FLUTE - SIDE CUTTING

E5453, E5402 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		不锈钢, 钛合金		铸铁		铝合金		铜.黄铜 非铁制金属	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		STAINLESS STEELS TITANIUM ALLOYS		CAST IRON		ALUMINUM ALLOYS		COPPER. BRASS NON-FERROUS METALS	
HARDNESS	~ HRc 20		HRc 20 ~ HRc 30		HRc 30 ~ HRc 40									
STRENGTH	500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²									
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	5500	240	4800	210	4000	160	8000	200	6500	450	16000	960	12000	720
3.0	3700	270	3200	240	2600	180	5300	200	4200	450	11000	960	8000	720
4.0	2800	270	2400	240	2000	180	4000	200	3200	450	8000	960	6000	720
5.0	2200	270	1900	240	1600	180	3200	200	2500	450	6400	960	4800	720
6.0	1800	270	1600	240	1300	180	2600	200	2100	540	5300	1020	4000	780
8.0	1400	270	1200	240	1000	180	2000	200	1600	570	4000	1020	3000	780
10.0	1100	270	950	240	800	180	1600	200	1300	600	3200	1020	2400	780
12.0	900	270	800	240	660	180	1300	200	1000	630	2600	1020	2000	780
14.0	800	270	700	240	570	180	1100	200	900	660	2300	1020	1700	780
16.0	700	300	600	260	500	220	1000	225	800	680	2000	1020	1500	780
20.0	550	300	480	260	400	220	800	240	640	720	1600	1020	1200	780



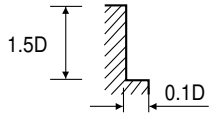
※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 4刃 TiAlN 涂层 - 侧铣
CARBIDE, 4 FLUTE TiAlN-COATED - SIDE CUTTING

E5453, E5402 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		不锈钢, 钛合金		铸铁		铝合金		铜.黄铜 非铁制金属	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		STAINLESS STEELS TITANIUM ALLOYS		CAST IRON		ALUMINUM ALLOYS		COPPER. BRASS NON-FERROUS METALS	
HARDNESS	~ HRc 20		HRc 20 ~ HRc 30		HRc 30 ~ HRc 40									
STRENGTH	500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²									
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	7700	335	6720	295	5600	225	11200	280	9100	630	22400	1345	16800	1010
3.0	5180	380	4480	335	3640	250	7420	280	5880	630	15400	1345	11200	1010
4.0	3920	380	3360	335	2800	250	5600	280	4480	630	11200	1345	8400	1010
5.0	3080	380	2660	335	2240	250	4480	280	3500	630	8960	1345	6720	1010
6.0	2520	380	2240	335	1820	250	3640	280	2940	755	7420	1430	5600	1090
8.0	1960	380	1680	335	1400	250	2800	280	2240	800	5600	1430	4200	1090
10.0	1540	380	1330	335	1120	250	2240	280	1820	840	4480	1430	3360	1090
12.0	1260	380	1120	335	920	250	1820	280	1400	880	3640	1430	2800	1090
14.0	1120	380	980	335	800	250	1540	280	1260	925	3220	1430	2380	1090
16.0	980	420	840	365	700	310	1400	315	1120	950	2800	1430	2100	1090
20.0	770	420	670	365	560	310	1120	335	900	1010	2240	1430	1680	1090



※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

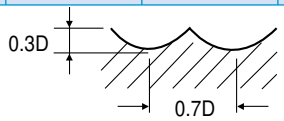
CARBIDE END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 2刃 球头
CARBIDE, 2 FLUTE BALL NOSE

E5455, E5414 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		铸铁		铝合金	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CAST IRON		ALUMINUM ALLOYS	
HARDNESS	~ HRc30		HRc30 ~ HRc40					
STRENGTH	~ 1000N/mm²		1000 ~ 1300N/mm²					
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
R1.0 × 2.0	5200	90	4400	45	7300	150	21500	280
R1.5 × 3.0	3500	100	2900	45	4900	160	14300	280
R2.0 × 4.0	2600	100	2100	45	3600	200	10900	280
R2.5 × 5.0	2100	105	1700	45	2900	230	8800	330
R3.0 × 6.0	1700	100	1430	45	2400	250	7260	330
R4.0 × 8.0	1270	95	1100	45	1800	320	5500	380
R5.0 × 10.0	1000	95	870	45	1430	320	4300	380
R6.0 × 12.0	870	85	730	45	1200	320	3600	440
R7.0 × 14.0	750	85	620	45	1000	325	3000	440
R8.0 × 16.0	650	85	540	45	920	325	2700	380
R9.0 × 18.0	580	85	480	45	810	325	2400	380
R10.0 × 20.0	500	85	430	45	730	290	2100	380



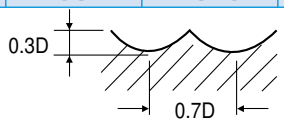
※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 2刃 球头 TiAlN 涂层
CARBIDE, 2 FLUTE BALL NOSE TiAlN-COATED

E5455, E5414 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		铸铁		铝合金	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CAST IRON		ALUMINUM ALLOYS	
HARDNESS	~ HRc30		HRc30 ~ HRc40					
STRENGTH	~ 1000N/mm²		1000 ~ 1300N/mm²					
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
R1.0 × 2.0	7280	125	6160	65	10220	210	30100	390
R1.5 × 3.0	4900	140	4060	65	6860	225	20020	390
R2.0 × 4.0	3640	140	2940	65	5040	280	15260	390
R2.5 × 5.0	2940	145	2380	65	4060	320	12320	460
R3.0 × 6.0	2380	140	2000	65	3360	350	10165	460
R4.0 × 8.0	1780	135	1540	65	2520	450	7700	530
R5.0 × 10.0	1400	135	1220	65	2000	450	6020	530
R6.0 × 12.0	1220	120	1020	65	1680	450	5040	615
R7.0 × 14.0	1050	120	870	65	1400	455	4200	615
R8.0 × 16.0	910	120	755	65	1290	455	3780	530
R9.0 × 18.0	810	120	670	65	1135	455	3360	530
R10.0 × 20.0	700	120	600	65	1020	405	2940	530



※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

CBN END MILLS
i-Xmill END MILLS
X5070 END MILLS
X-POWER END MILLS
JET-POWER END MILLS
V7 Mill INOX END MILLS
V7 Mill STEEL END MILLS
ALU-POWER END MILLS
CRX S
D-POWER END MILLS
K-2 CARBIDE END MILLS
GENERAL CARBIDE END MILLS
TANK-POWER END MILLS
GENERAL HSS END MILLS
MILLING CUTTERS
TECHNICAL DATA

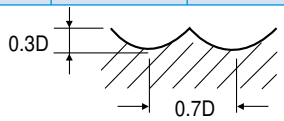
CARBIDE END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 4刃 球头
CARBIDE, 4 FLUTE BALL NOSE

E5634, E5524 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		铸铁		铝合金	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CAST IRON		ALUMINUM ALLOYS	
HARDNESS	~ HRc30		HRc30 ~ HRc40					
STRENGTH	~ 1000N/mm²		1000 ~ 1300N/mm²					
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
R1.0 × 2.0	5200	140	4400	70	7300	230	21500	420
R1.5 × 3.0	3500	150	2900	70	4900	240	14300	420
R2.0 × 4.0	2600	150	2100	70	3600	300	10900	420
R2.5 × 5.0	2100	160	1700	70	2900	350	8800	500
R3.0 × 6.0	1700	150	1430	70	2400	380	7260	500
R4.0 × 8.0	1270	140	1100	70	1800	480	5500	570
R5.0 × 10.0	1000	140	870	70	1430	480	4300	570
R6.0 × 12.0	870	130	730	70	1200	480	3600	660
R7.0 × 14.0	750	130	620	70	1000	490	3000	660
R8.0 × 16.0	650	130	540	70	920	490	2700	570
R9.0 × 18.0	580	130	480	70	810	490	2400	570
R10.0 × 20.0	500	130	430	70	730	440	2100	570



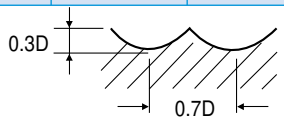
※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 4刃 球头 TiAlN 涂层
CARBIDE, 4 FLUTE BALL NOSE TiAlN-COATED

E5634, E5524 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		铸铁		铝合金	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CAST IRON		ALUMINUM ALLOYS	
HARDNESS	~ HRc30		HRc30 ~ HRc40					
STRENGTH	~ 1000N/mm²		1000 ~ 1300N/mm²					
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
R1.0 × 2.0	7280	195	6160	100	10220	320	30100	590
R1.5 × 3.0	4900	210	4060	100	6860	335	20020	590
R2.0 × 4.0	3640	210	2940	100	5040	420	15260	590
R2.5 × 5.0	2940	225	2380	100	4060	490	12320	700
R3.0 × 6.0	2380	210	2000	100	3360	530	10165	700
R4.0 × 8.0	1780	195	1540	100	2520	670	7700	800
R5.0 × 10.0	1400	195	1220	100	2000	670	6020	800
R6.0 × 12.0	1220	180	1020	100	1680	670	5040	925
R7.0 × 14.0	1050	180	870	100	1400	685	4200	925
R8.0 × 16.0	910	180	755	100	1290	685	3780	800
R9.0 × 18.0	810	180	670	100	1135	685	3360	800
R10.0 × 20.0	700	180	600	100	1020	615	2940	800



※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

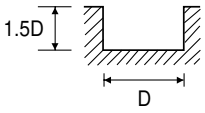
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

CARBIDE END MILLS 推荐的切削条件 RECOMMENDED CUTTING CONDITIONS

硬质合金，3刃 粗加工
CARBIDE, 3 FLUTE ROUGHING

E5742, E5711 SERIES 开槽 Slotting

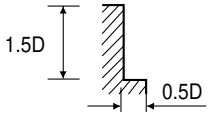
材质	铝，非铁制金属	
MATERIAL	ALUMINUM NONFERROUS METALS	
DIAMETER	RPM	FEED
6.0	10500	800
8.0	8000	700
10.0	6500	750
12.0	5250	800
16.0	4000	800
20.0	3200	800



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

E5742, E5711 SERIES 侧铣 Side Cutting

材质	铝，非铁制金属	
MATERIAL	ALUMINUM NONFERROUS METALS	
DIAMETER	RPM	FEED
6.0	10500	800
8.0	8000	700
10.0	6500	750
12.0	5250	800
16.0	4000	800
20.0	3200	800

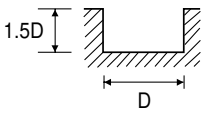


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金，3刃 粗加工 TiCN 涂层
CARBIDE, 3 FLUTE ROUGHING TiCN-COATED

E5742, E5711 SERIES 开槽 Slotting

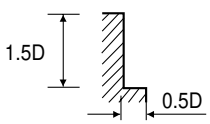
材质	铝，非铁制金属	
MATERIAL	ALUMINUM NONFERROUS METALS	
DIAMETER	RPM	FEED
6.0	13500	1050
8.0	10500	900
10.0	8500	1000
12.0	6800	1050
16.0	5200	1050
20.0	4200	1050



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

E5742, E5711 SERIES 侧铣 Side Cutting

材质	铝，非铁制金属	
MATERIAL	ALUMINUM NONFERROUS METALS	
DIAMETER	RPM	FEED
6.0	13500	1050
8.0	10500	900
10.0	8500	950
12.0	6800	1050
16.0	5200	1050
20.0	4200	1050



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

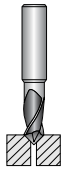
CARBIDE END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金, 2刃 - 倒角
CARBIDE, 2 FLUTE - CHAMFERING

E5400 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		不锈钢, 钛合金		铝合金	
MATERIAL	CARBON STEELS, ALLOY STEELS, TOOL STEELS		CARBON STEELS, ALLOY STEELS, TOOL STEELS		CARBON STEELS, ALLOY STEELS, TOOL STEELS		STAINLESS STEELS TITANIUM ALLOYS		ALUMINUM ALLOYS	
HARDNESS	~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40					
STRENGTH	500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²					
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
3.0	4400	220	3500	160	3000	140	2400	100	11000	550
4.0	3600	220	3000	160	2500	140	2000	100	9000	580
5.0	2860	230	2400	170	2000	140	1760	105	6900	620
6.0	2300	240	2000	170	1600	140	1400	105	5600	640
8.0	1760	250	1540	180	1200	145	1000	110	4400	660
10.0	1500	250	1300	190	1100	145	870	110	4000	680
12.0	1300	260	1100	200	900	150	730	115	3500	700
10.0	1000	250	950	200	700	160	550	120	2750	740
20.0	950	260	750	210	600	160	530	130	2200	770



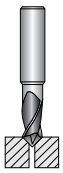
※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金, 2刃 TiAlN 涂层 - 倒角
CARBIDE, 2 FLUTE TiAlN-COATED - CHAMFERING

E5400 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		不锈钢, 钛合金		铝合金	
MATERIAL	CARBON STEELS, ALLOY STEELS, TOOL STEELS		CARBON STEELS, ALLOY STEELS, TOOL STEELS		CARBON STEELS, ALLOY STEELS, TOOL STEELS		STAINLESS STEELS TITANIUM ALLOYS		ALUMINUM ALLOYS	
HARDNESS	~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40					
STRENGTH	500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²					
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
3.0	6160	310	4900	225	4200	195	3360	140	15400	770
4.0	5040	310	4200	225	3500	195	2800	140	12600	810
5.0	4005	320	3360	240	2800	195	2465	145	9660	870
6.0	3220	335	2800	240	2240	195	1960	145	7840	895
8.0	2465	350	2155	250	1680	2030	1400	155	6160	925
10.0	2100	350	1820	265	1540	2030	1220	155	5600	950
12.0	1820	365	1540	280	1260	210	1020	160	4900	980
16.0	1400	350	1330	280	980	225	770	170	3850	1035
20.0	1330	365	1050	295	840	225	740	180	3080	1080



※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

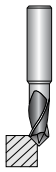
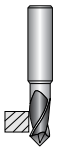
CARBIDE END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金，2刃 - 倒角 & 侧铣
CARBIDE, 2 FLUTE - CHAMFERING & SIDE CUTTING

E5400 SERIES

材质	碳钢，合金钢，工具钢		碳钢，合金钢，工具钢		碳钢，合金钢，工具钢		不锈钢，钛合金		铝合金	
MATERIAL	CARBON STEELS, ALLOY STEELS, TOOL STEELS		CARBON STEELS, ALLOY STEELS, TOOL STEELS		CARBON STEELS, ALLOY STEELS, TOOL STEELS		STAINLESS STEELS TITANIUM ALLOYS		ALUMINUM ALLOYS	
HARDNESS	~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40					
STRENGTH	500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²					
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
3.0	5900	95	3900	65	3300	50	2400	40	14000	230
4.0	4800	95	3200	65	2800	50	2000	40	12000	240
5.0	3800	100	2500	65	2200	55	1760	45	9500	250
6.0	3000	110	2000	70	1800	60	1400	50	7700	300
8.0	2300	115	1540	75	1300	65	1100	55	5800	350
10.0	2000	120	1300	80	1200	65	1000	55	5100	380
12.0	1760	130	1100	90	1000	70	840	60	4400	400
16.0	1300	140	900	90	770	70	660	60	3300	330
20.0	1100	140	700	90	600	70	440	60	2640	340

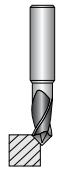
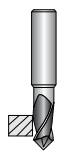
※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金，2刃 TiAlN 涂层 - 倒角 & 侧铣
CARBIDE, 2 FLUTE TiAlN-COATED - CHAMFERING & SIDE CUTTING

E5400 SERIES

材质	碳钢，合金钢，工具钢		碳钢，合金钢，工具钢		碳钢，合金钢，工具钢		不锈钢，钛合金		铝合金	
MATERIAL	CARBON STEELS, ALLOY STEELS, TOOL STEELS		CARBON STEELS, ALLOY STEELS, TOOL STEELS		CARBON STEELS, ALLOY STEELS, TOOL STEELS		STAINLESS STEELS TITANIUM ALLOYS		ALUMINUM ALLOYS	
HARDNESS	~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40					
STRENGTH	500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²					
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
3.0	8260	135	5460	90	4620	70	3360	55	19600	320
4.0	6720	135	4480	90	3920	70	2800	55	16800	335
5.0	5320	140	3500	90	3080	75	2465	65	13300	350
6.0	4200	155	2800	100	2520	85	1960	70	10780	420
8.0	3220	160	2155	105	1820	90	1540	75	8120	490
10.0	2800	170	1820	110	1680	90	1400	75	7140	530
12.0	2465	180	1540	125	1400	100	1175	85	6160	560
16.0	1820	195	1260	125	1080	100	925	85	4620	460
20.0	1540	195	980	125	840	100	615	85	3695	475

※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

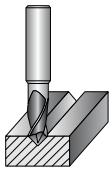
CARBIDE END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

硬质合金，2刃 – V型槽
CARBIDE, 2 FLUTE - V-GROOVING

E5400 SERIES

材质	碳钢，合金钢，工具钢		碳钢，合金钢，工具钢		碳钢，合金钢，工具钢		不锈钢，钛合金		铝合金	
MATERIAL	CARBON STEELS, ALLOY STEELS, TOOL STEELS		CARBON STEELS, ALLOY STEELS, TOOL STEELS		CARBON STEELS, ALLOY STEELS, TOOL STEELS		STAINLESS STEELS TITANIUM ALLOYS		ALUMINUM ALLOYS	
HARDNESS	~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40					
STRENGTH	500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²					
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
3.0	5900	60	4000	30	3300	25	2400	20	14000	220
4.0	4800	60	3300	30	2800	25	2000	20	11800	230
5.0	3800	60	2500	30	2200	25	1760	20	9500	240
6.0	3000	60	2000	30	1800	30	1400	20	7700	250
8.0	2300	65	1540	35	1300	35	1100	20	5800	260
10.0	2000	65	1300	35	1200	35	1000	20	5000	260
12.0	1760	65	1000	40	1000	35	840	20	4400	260
16.0	1400	65	900	40	770	35	660	25	3300	270
20.0	1100	65	700	40	600	35	440	25	2600	270



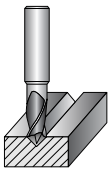
※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

硬质合金，2刃 TiAlN 涂层 – V型槽
CARBIDE, 2 FLUTE TiAlN-COATED - V-GROOVING

E5400 SERIES

材质	碳钢，合金钢，工具钢		碳钢，合金钢，工具钢		碳钢，合金钢，工具钢		不锈钢，钛合金		铝合金	
MATERIAL	CARBON STEELS, ALLOY STEELS, TOOL STEELS		CARBON STEELS, ALLOY STEELS, TOOL STEELS		CARBON STEELS, ALLOY STEELS, TOOL STEELS		STAINLESS STEELS TITANIUM ALLOYS		ALUMINUM ALLOYS	
HARDNESS	~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40					
STRENGTH	500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²					
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
3.0	8260	85	5600	40	4620	35	3360	30	19600	310
4.0	6720	85	4620	40	3920	35	2800	30	16520	320
5.0	5320	85	3500	40	3080	35	2465	30	13300	335
6.0	4200	85	2800	40	2520	40	1960	30	10780	350
8.0	3220	90	2155	50	1820	50	1540	30	8120	365
10.0	2800	90	1820	50	1680	50	1400	30	7000	365
12.0	2465	90	1400	55	1400	50	1175	30	6160	365
16.0	1960	90	1260	55	1080	50	925	35	4620	380
20.0	1540	90	980	55	840	50	615	35	3640	380



※ 对长和超长型进给应减少约50%
The Feed, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

HSS

YG

Being the best through innovation

TANK-POWER

- 韧性好，适合难加工材料的加工，像不锈钢，镍合金，钛合金，
也适合一般加工用中的粗，精加工

Very Good Toughness, Good for Exotic Materials like Stainless Steels, Nikel Alloys, Titanium and General Application, Rough & Finish

SELECTION GUIDE

项目	型号	规格	尺寸		页
			最小	最大	
ITEM	MODEL	DESCRIPTION	SIZE		PAGE
			MIN	MAX	
GAC25		粉末高速钢，4刃 长刃 PREMIUM HSS-PM, 4 FLUTE LONG LENGTH	D3.0	D30.0	912
GAA22		粉末高速钢，多刃 粗加工 - 中等螺距 PREMIUM HSS-PM, MULTI FLUTE ROUGHING-MEDIUM	D6.0	D40.0	913
GAD33		粉末高速钢，多刃 短刃 粗加工 - 细螺纹 PREMIUM HSS-PM, MULTI FLUTE SHORT LENGTH ROUGHING-FINE	D6.0	D30.0	914
GAB58		粉末高速钢，多刃 中等长 粗加工 - 细螺纹 PREMIUM HSS-PM, MULTI FLUTE MEDIUM LENGTH ROUGHING-FINE	D6.0	D25.0	915
GAD52		粉末高速钢，多刃 长刃 粗加工 - 细螺纹 PREMIUM HSS-PM, MULTI FLUTE LONG LENGTH ROUGHING-FINE	D6.0	D30.0	916
EP931		粉末高速钢，2刃 普通刃 PREMIUM HSS-PM, 2 FLUTE REGULAR LENGTH	D1.0	D25.0	917
EP932		粉末高速钢，4刃 普通刃 PREMIUM HSS-PM, 4 FLUTE REGULAR LENGTH	D1.0	D25.0	918
EP933		粉末高速钢，2刃 普通刃 球头 PREMIUM HSS-PM, 2 FLUTE REGULAR LENGTH BALL NOSE	R0.5	R12.5	919
EP941		粉末高速钢，多刃 短刃 粗加工 - 细螺纹 PREMIUM HSS-PM, MULTI FLUTE SHORT LENGTH ROUGHING-FINE	D6.0	D25.0	920
EPA33		粉末高速钢，多刃 短刃 粗加工 - 粗螺纹 PREMIUM HSS-PM, MULTI FLUTE SHORT LENGTH ROUGHING-COARSE	D6.0	D25.0	921
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS			922

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	铬镍铁合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎						◎		◎		
◎	◎	◎						◎		◎		
◎	◎	◎						◎		◎		
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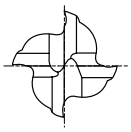
TANK-POWER END MILLS

GAC25 SERIES PLAIN SHANK

粉末高速钢，4刃 长刃
PREMIUM HSS-PM, 4 FLUTE LONG LENGTH

- ▶ 超粉末高速钢材料使用
- ▶ Tank-power 涂层具有耐磨性

- ▶ Raw materials in Premium HSS- PM.
- ▶ YG-1's tailored Tank-power coating for excellent wear resistance.



YPM | 4 | 30° | PLAIN P.925

単位(Unit) : mm

型号 EDP No. TiAlN	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
GAC25030N	3.0	6	15	60
GAC25040N	4.0	8	20	70
GAC25050N	5.0	8	25	75
GAC25060N	6.0	8	25	75
GAC25070N	7.0	10	35	90
GAC25080N	8.0	10	35	90
GAC25090N	9.0	10	45	90
GAC25100N	10.0	10	45	100
GAC25120N	12.0	12	55	115
GAC25140N	14.0	16	55	120
GAC25160N	16.0	16	65	130
GAC25180N	18.0	16	65	130
GAC25200N	20.0	20	75	145
GAC25220N	22.0	20	75	145
GAC25250N	25.0	25	90	165
GAC25260N	26.0	25	90	165
GAC25300N	30.0	25	90	165

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~+0.03	h6

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	镍镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎						◎		◎		

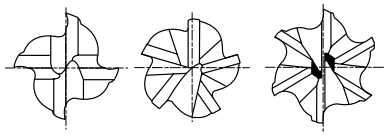
TANK-POWER END MILLS

GAA22 SERIES PLAIN SHANK

粉末高速钢, 多刃 粗加工 – 中等螺距
PREMIUM HSS-PM, MULTI FLUTE ROUGHING-MEDIUM

- ▶ 超粉末高速钢材料使用
- ▶ Tank-power 涂层具有耐磨性
- ▶ 由于中心切割式底刃，可以加工立槽的圆弧形底面

- ▶ Raw materials in Premium HSS- PM.
- ▶ YG-1's tailored Tank-power coating for excellent wear resistance.
- ▶ Designed for milling of bottom surface due to center cut type.



YPM | MEDIUM | 4-6 | 30° | PLAIN

P.924

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
TiAlN	js12	h6			
GAA22060	6.0	6	20	60	4
GAA22070	7.0	10	20	70	4
GAA22080	8.0	10	25	75	4
GAA22090	9.0	10	30	75	4
GAA22100	10.0	10	35	85	4
GAA22120	12.0	12	40	100	4
GAA22140	14.0	16	40	100	4
GAA22160	16.0	16	50	110	4
GAA22180	18.0	20	50	110	4
GAA22200	20.0	20	60	125	4
GAA22220	22.0	20	60	125	5
GAA22250	25.0	25	70	145	5
GAA22280	28.0	25	70	145	5
GAA22300	30.0	25	70	145	6
GAA22320	32.0	32	80	160	6
GAA22350	35.0	32	80	160	6
GAA22400	40.0	32	95	175	6

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in μm 公称直径单位 / Nominal-Diameter in mm						
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
js12	± 50	± 60	± 75	± 90	± 105	± 125
h6	0 / – 6	0 / – 8	0 / – 9	0 / – 11	0 / – 13	0 / – 16

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎						◎		◎		

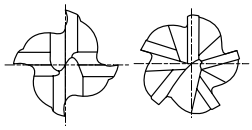
TANK-POWER END MILLS

GAD33 SERIES PLAIN SHANK

粉末高速钢，多刃 短刃 粗加工 – 细螺纹
PREMIUM HSS-PM, MULTI FLUTE SHORT LENGTH ROUGHING-FINE

- 超粉末高速钢材料使用
- Tank-power 涂层具有耐磨性
- 由于具有细螺纹，用于加工合金钢以及难加工材料
- 由于中心切割式底刃，可以加工立槽的圆弧形底面

- Raw materials in Premium HSS- PM.
- YG-1's tailored Tank-power coating for excellent wear resistance.
- Designed to alloy steels, difficult-to -cut materials due to fine pitch.
- Designed for milling of bottom surface due to center cut type.



YPM | FINE | 4-5 | 30° | PLAIN

P.924

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
TiAlN	js12	h6			
GAD33060	6.0	8	.13	57	4
GAD33070	7.0	10	16	66	4
GAD33080	8.0	10	19	69	4
GAD33090	9.0	10	19	69	4
GAD33100	10.0	10	22	72	4
GAD33120	12.0	12	26	83	4
GAD33140	14.0	16	26	83	4
GAD33160	16.0	16	32	92	4
GAD33180	18.0	20	32	92	4
GAD33200	20.0	20	38	104	4
GAD33220	22.0	20	38	104	5
GAD33250	25.0	25	45	121	5
GAD33300	30.0	25	45	121	5

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位/ Tolerance range in μm
公称直径单位/ Nominal-Diameter in mm

	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
js12	± 50	± 60	± 75	± 90	± 105	± 125
h6	0 / – 6	0 / – 8	0 / – 9	0 / – 11	0 / – 13	0 / – 16

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎						◎		◎		

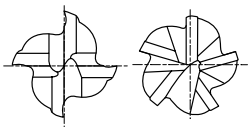
TANK-POWER END MILLS

GAB58 SERIES PLAIN SHANK

粉末高速钢, 多刃 中等长 粗加工 – 细螺纹
PREMIUM HSS-PM, MULTI FLUTE MEDIUM LENGTH ROUGHING-FINE

- ▶ 超粉末高速钢材料使用
- ▶ Tank-power 涂层具有耐磨性
- ▶ 由于具有细螺纹，用于加工合金钢以及难加工材料
- ▶ 由于中心切割式底刃，可以加工立槽的圆弧形底面

- ▶ Raw materials in Premium HSS- PM.
- ▶ YG-1's tailored Tank-power coating for excellent wear resistance.
- ▶ Designed to alloy steels, difficult-to -cut materials due to fine pitch.
- ▶ Designed for milling of bottom surface due to center cut type.



YPM | FINE | 4-5 | 30° | PLAIN

P.924

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
TiAlN	js12	h6			
GAB58060	6.0	6	20	60	4
GAB58070	7.0	10	20	70	4
GAB58080	8.0	10	25	75	4
GAB58090	9.0	10	30	75	4
GAB58100	10.0	10	35	85	4
GAB58120	12.0	12	40	100	4
GAB58140	14.0	12	40	100	4
GAB58160	16.0	16	50	110	4
GAB58180	18.0	16	50	110	4
GAB58200	20.0	20	60	125	4
GAB58220	22.0	20	60	125	5
GAB58250	25.0	25	70	145	5

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in ㎛						
公称直径单位 / Nominal-Diameter in mm						
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
js12	± 50	± 60	± 75	± 90	± 105	± 125
h6	0 — 6	0 — 8	0 — 9	0 — 11	0 — 13	0 — 16

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎						◎		◎		

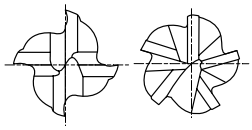
TANK-POWER END MILLS

GAD52 SERIES PLAIN SHANK

粉末高速钢，多刃 长刃 粗加工 – 细螺纹
PREMIUM HSS-PM, MULTI FLUTE LONG LENGTH ROUGHING-FINE

- ▶ 超粉末高速钢材料使用
- ▶ Tank-power 涂层具有耐磨性
- ▶ 由于具有细螺纹，用于加工合金钢以及难加工材料
- ▶ 由于中心切割式底刃，可以加工立槽的圆弧形底面

- ▶ Raw materials in Premium HSS- PM.
- ▶ YG-1's tailored Tank-power coating for excellent wear resistance.
- ▶ Designed to alloy steels, difficult-to -cut materials due to fine pitch.
- ▶ Designed for milling of bottom surface due to center cut type.



YPM | FINE | 4-5 | 30° | PLAIN

P.924

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
TiAlN	js12	h6			
GAD52060	6.0	8	25	70	4
GAD52080	8.0	10	40	90	4
GAD52100	10.0	10	45	100	4
GAD52120	12.0	12	55	110	4
GAD52130	13.0	12	55	110	4
GAD52140	14.0	16	55	110	4
GAD52150	15.0	16	65	125	4
GAD52160	16.0	16	65	125	4
GAD52180	18.0	20	65	125	4
GAD52200	20.0	20	75	140	4
GAD52220	22.0	20	75	140	5
GAD52250	25.0	25	90	170	5
GAD52260	26.0	25	90	170	5
GAD52300	30.0	25	90	170	5

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in μm 公称直径单位 / Nominal-Diameter in mm						
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
js12	± 50	± 60	± 75	± 90	± 105	± 125
h6	0 / – 6	0 / – 8	0 / – 9	0 / – 11	0 / – 13	0 / – 16

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎						◎		◎		

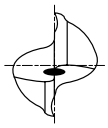
TANK-POWER END MILLS

EP931 SERIES PLAIN SHANK

粉末高速钢，2刃 普通刃
PREMIUM HSS-PM, 2 FLUTE REGULAR LENGTH

- 2刃为槽铣设计
- 适合于难加工材料，不锈钢，钛，特殊材料的高速切削
- YG-1新开发的TANK-POWER涂层适于高速切削

- Two-Flute design for slotting.
- Suitable for high speed cutting of difficult-to-cut materials, stainless steels, titanium and exotic materials.
- YG-1's new developed TANK-POWER Coating suitable for high speed cutting.



YPM | 2 | 30° | PLAIN P.922

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EP931010	1.0	6	2.5	55
EP931020	2.0	6	6	55
EP931030	3.0	6	10	55
EP931040	4.0	8	12	60
EP931050	5.0	8	15	65
EP931060	6.0	8	15	65
EP931070	7.0	10	20	75
EP931080	8.0	10	20	75
EP931090	9.0	10	25	80
EP931100	10.0	10	25	80
EP931120	12.0	12	30	90
EP931140	14.0	12	35	95
EP931160	16.0	16	40	105
EP931180	18.0	16	40	105
EP931200	20.0	20	45	115
EP931220	22.0	20	45	115
EP931250	25.0	25	50	125

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎						◎		◎		

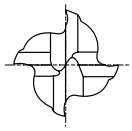
TANK-POWER END MILLS

EP932 SERIES PLAIN SHANK

粉末高速钢，4刃 普通刃
PREMIUM HSS-PM, 4 FLUTE REGULAR LENGTH

- 推荐用于铣型腔,凸轮加工，加工模腔及开立槽
- 设计用于难加工材料，不锈钢，钛等特殊材料的高速切削
- YG-1新开发的TANK-POWER涂层适于高速切削

- Recommended for pocketing, tracer milling, cam milling, die sinking and slotting.
- Suitable for high speed cutting of difficult-to-cut materials, stainless steels, titanium and exotic materials.
- YG-1's new developed TANK-POWER Coating suitable for high speed cutting.



YPM | 4 | 30° | PLAIN P.923

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EP932010	1.0	6	2.5	55
EP932020	2.0	6	6	55
EP932030	3.0	6	10	55
EP932040	4.0	8	12	60
EP932050	5.0	8	15	65
EP932060	6.0	8	15	65
EP932070	7.0	10	20	75
EP932080	8.0	10	20	75
EP932090	9.0	10	25	80
EP932100	10.0	10	25	80
EP932120	12.0	12	30	90
EP932140	14.0	12	35	95
EP932160	16.0	16	40	105
EP932180	18.0	16	40	105
EP932200	20.0	20	45	115
EP932220	22.0	20	45	115
EP932250	25.0	25	50	125

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~+0.03	h6

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎						◎		◎		

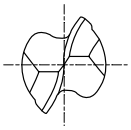
TANK-POWER END MILLS

EP933 SERIES PLAIN SHANK

粉末高速钢，2刃 普通刃 球头
PREMIUM HSS-PM, 2 FLUTE REGULAR LENGTH BALL NOSE

- ▶ 从碳素钢，不锈钢到铝等广泛的材料上都有卓越的性能
- ▶ 设计用于加工圆底沟槽，带和特殊轮廓
- ▶ YG-1新开发的TANK-POWER涂层适于高速切削

- ▶ Excellent performance on wide materials from carbon steels and stainless steels to aluminum.
- ▶ Designed for milling of radius bottom slots, fillets and special contours.
- ▶ YG-1's new developed TANK-POWER Coating suitable for high speed cutting.



YPM | 2 | 30° | R ±0.02 | PLAIN

P.923

단위(Unit) : mm

型号 EDP No.	球头半径 Radius of Ball Nose R (±0.02)	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
EP933010	R 0.5	1.0	6	2.5	50
EP933020	R 1.0	2.0	6	5	50
EP933030	R 1.5	3.0	6	8	60
EP933040	R 2.0	4.0	6	8	70
EP933050	R 2.5	5.0	6	10	80
EP933060	R 3.0	6.0	6	12	90
EP933070	R 3.5	7.0	8	14	90
EP933080	R 4.0	8.0	8	14	100
EP933090	R 4.5	9.0	10	18	100
EP933100	R 5.0	10.0	10	18	100
EP933120	R 6.0	12.0	12	22	110
EP933140	R 7.0	14.0	12	26	110
EP933160	R 8.0	16.0	16	30	140
EP933180	R 9.0	18.0	16	34	140
EP933200	R 10.0	20.0	20	38	160
EP933220	R 11.0	22.0	20	45	170
EP933250	R 12.5	25.0	25	50	180

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎						◎		◎		

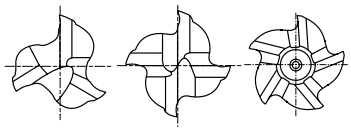
TANK-POWER END MILLS

EP941 SERIES FLAT SHANK

粉末高速钢，多刃 短刃 粗加工 – 细螺纹
PREMIUM HSS-PM, MULTI FLUTE SHORT LENGTH ROUGHING-FINE

- ▶ 适合于高速粗铣
- ▶ 设计用于加工碳素钢，合金钢，不锈钢
- ▶ 在许多情况下，能够提供卓越的表面粗糙度
- ▶ YG-1新开发的TANK-POWER涂层适于高速切削
- ▶ Ø20以下：中心切割式，Ø20超过：中心孔式

- ▶ Suitable for high-feed rough milling.
- ▶ Designed to machine carbon steels, alloyed steels and stainless steels.
- ▶ Providing excellent finished surface in many case.
- ▶ YG-1's new developed TANK-POWER Coating suitable for high speed cutting.
- ▶ up to Ø20 : center cut, over Ø20 : non center cut



YPM | FINE | 3-5 | 30° | DIN 1835B | ~Ø20 | Ø22~

P.924

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter js12	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
EP941060	6.0	6	13	57	3
EP941070	7.0	10	16	66	3
EP941080	8.0	10	19	69	3
EP941090	9.0	10	19	69	3
EP941100	10.0	10	22	72	4
EP941120	12.0	12	26	83	4
EP941140	14.0	12	26	83	4
EP941160	16.0	16	32	92	4
EP941180	18.0	16	32	92	4
EP941200	20.0	20	38	104	4
EP941220	22.0	20	38	104	5
EP941250	25.0	25	45	121	5

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位/ Tolerance range in ㎛ 公称直径单位/ Nominal-Diameter in ㎜						
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
js12	± 50	± 60	± 75	± 90	± 105	± 125
h6	0 — 6	0 — 8	0 — 9	0 — 11	0 — 13	0 — 16

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎						◎		◎		

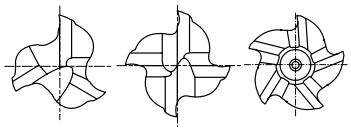
TANK-POWER END MILLS

EPA33 SERIES FLAT SHANK

粉末高速钢，多刃 短刃 粗加工 – 粗螺纹
PREMIUM HSS-PM, MULTI FLUTE SHORT LENGTH ROUGHING-COARSE

- ▶ 适合于高速粗铣
- ▶ 设计用于加工碳素钢，合金钢，不锈钢
- ▶ YG-1新开发的TANK-POWER涂层适于高速切削
- ▶ Ø20以下：中心切割式，Ø20超过：中心孔式

- ▶ Suitable for high-feed rough milling.
- ▶ Designed to machine carbon steels, alloyed steels and stainless steels.
- ▶ YG-1's new developed TANK-POWER Coating suitable for high speed cutting.
- ▶ up to Ø20 : center cut, over Ø20 : non center cut



up to Ø9 Ø10 ~ Ø20 over Ø20

YPM | COARSE | 3-5 | 30° | DIN 1835B | ~Ø20 | Ø22~ P.924

単位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter js12	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
EPA33060	6.0	6	13	57	3
EPA33070	7.0	10	16	66	3
EPA33080	8.0	10	19	69	3
EPA33090	9.0	10	19	69	3
EPA33100	10.0	10	22	72	4
EPA33120	12.0	12	26	83	4
EPA33140	14.0	12	26	83	4
EPA33160	16.0	16	32	92	4
EPA33180	18.0	16	32	92	4
EPA33200	20.0	20	38	104	4
EPA33220	22.0	20	38	104	5
EPA33250	25.0	25	45	121	5

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in μm 公称直径单位 / Nominal-Diameter in mm						
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
js12	± 50	± 60	± 75	± 90	± 105	± 125
h6	0 / – 6	0 / – 8	0 / – 9	0 / – 11	0 / – 13	0 / – 16

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	镍镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎						◎		◎		

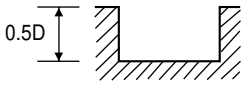
TANK-POWER END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

粉末高速钢，2刃 普通刃 - 开槽
PREMIUM HSS-PM, 2 FLUTE REGULAR LENGTH - SLOTTING

EP931 SERIES

材质	结构钢，碳钢		结构钢，碳钢，铸铁		碳钢，合金钢，工具钢		预硬钢，合金钢，工具钢		合金钢，工具钢，奥氏体不锈钢	
MATERIAL	STRUCTURAL STEELS, CARBON STEELS		STRUCTURAL STEELS, CARBON STEELS, CAST IRONS		CARBON STEELS, ALLOY STEELS, TOOL STEELS		PREHARDENED STEELS, ALLOY STEELS, TOOL STEELS		ALLOY STEELS, TOOL STEELS, AUSTENITIC STAINLESS STEELS	
HARDNESS			~HRc20		HRc20~HRc30		HRc30~HRc35		HRc35~HRc40	
STRENGTH	~ 500N/mm²		500~800N/mm²		800~1000N/mm²		1000~1100N/mm²		1100~1300N/mm²	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	6700	100	5600	80	4700	85	3000	55	1900	35
3.0	4700	140	3900	120	3200	100	2200	70	1700	55
4.0	4100	200	3400	155	3000	140	1900	80	1500	65
5.0	3700	220	3100	175	2500	160	1600	90	1300	65
6.0	3300	230	2750	185	2200	165	1400	95	1100	75
8.0	2500	240	2100	210	1700	175	1100	100	850	75
10.0	2000	260	1700	230	1400	200	850	110	670	90
12.0	1700	240	1400	210	1100	180	700	100	550	75
14.0	1500	230	1200	200	950	170	600	95	480	70
16.0	1300	230	1100	185	850	155	530	90	420	70
18.0	1100	210	900	170	750	140	480	85	380	65
20.0	900	190	750	145	670	130	420	80	340	60
22.0	800	160	680	130	570	110	380	70	300	50
25.0	720	135	600	120	470	100	340	65	240	45



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

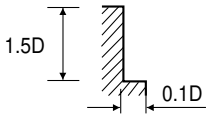
TANK-POWER END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

粉末高速钢，2刃 普通刃 - 侧铣
PREMIUM HSS-PM, 2 FLUTE REGULAR LENGTH - SIDE CUTTING

EP932 SERIES

材质	结构钢，碳钢		结构钢，碳钢，铸铁		碳钢，合金钢，工具钢		预硬钢，合金钢，工具钢		合金钢，工具钢，不锈钢	
MATERIAL	STRUCTURAL STEELS, CARBON STEELS		STRUCTURAL STEELS, CARBON STEELS, CAST IRONS		CARBON STEELS, ALLOY STEELS, TOOL STEELS		PREHARDENED STEELS, ALLOY STEELS, TOOL STEELS		ALLOY STEELS, TOOL STEELS, AUSTENITIC, STAINLESS STEELS	
HARDNESS			~HRc20		HRc20~HRc30		HRc30~HRc35		HRc35~HRc40	
STRENGTH	~ 500N/mm²		500~800N/mm²		800~1000N/mm²		1000~1100N/mm²		1100~1300N/mm²	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	8800	250	8000	210	5800	150	3900	110	3200	75
3.0	6300	360	5700	300	4200	220	2800	155	2300	110
4.0	5000	420	4500	350	3400	260	2200	175	1900	130
5.0	4200	440	3800	370	2800	275	1900	190	1600	140
6.0	3700	470	3400	390	2500	285	1700	200	1400	155
8.0	3000	500	2500	420	1900	320	1300	210	1100	160
10.0	2200	550	2000	460	1500	330	1000	230	850	175
12.0	1900	500	1700	420	1300	320	850	210	690	160
14.0	1700	480	1500	400	1100	300	750	200	600	150
16.0	1550	440	1300	370	950	290	650	190	520	145
18.0	1400	400	1200	350	850	270	600	170	480	130
20.0	1200	380	1000	320	750	240	500	155	420	120
22.0	1000	360	900	280	650	220	450	140	380	115
25.0	950	320	800	265	600	200	400	130	340	110

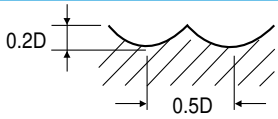


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

粉末高速钢，2刃 球头 - 仿形
PREMIUM HSS-PM, 2 FLUTE BALL NOSE - PROFILING

EP933 SERIES

材质	结构钢，碳钢		结构钢，碳钢，铸铁		碳钢，合金钢，工具钢		预硬钢，合金钢，工具钢		不锈钢	
MATERIAL	STRUCTURAL STEELS CARBON STEELS		STRUCTURAL STEELS CARBON STEELS CAST IRONS		CARBON STEELS ALLOY STEELS TOOL STEELS		PREHARDENED STEELS ALLOY STEELS TOOL STEELS		STAINLESS STEELS	
HARDNESS			~HRc20		HRc20~HRc30		HRc30~HRc40			
STRENGTH	~ 500N/mm²		500~800N/mm²		800~1000N/mm²		1000~1300N/mm²			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
R1.5 × 3.0	7000	300	5500	200	3700	110	1900	50	2100	60
R2.0 × 4.0	5700	370	4400	250	2900	140	1500	65	1650	80
R3.0 × 6.0	4200	420	3300	280	2200	155	1150	75	1265	90
R4.0 × 8.0	3200	460	2500	310	1700	175	850	75	935	90
R5.0 × 10.0	2600	520	2000	350	1350	200	650	90	715	105
R6.0 × 12.0	2200	460	1700	310	1150	175	550	75	605	90
R8.0 × 16.0	1600	420	1250	280	850	155	420	70	460	80
R10.0 × 20.0	1300	360	1000	240	650	130	340	60	375	70
R12.5 × 25.0	900	270	700	180	450	100	240	45	265	55



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

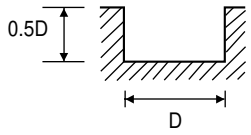
TANK-POWER END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

粉末高速钢, 多刃 粗加工 - 开槽
PREMIUM HSS-PM, MULTI FLUTE ROUGHING - SLOTTING

EP941, EPA33, GAA22, GAD33, GAB58, GAD52 SERIES

材质	结构钢, 碳钢		结构钢, 碳钢, 铸铁		碳钢, 合金钢, 工具钢		预硬钢, 合金钢, 工具钢		不锈钢	
MATERIAL	STRUCTURAL STEELS, CARBON STEELS		STRUCTURAL STEELS, CARBON STEELS, CAST IRONS		CARBON STEELS, ALLOY STEELS, TOOL STEELS		PREHARDENED STEELS, ALLOY STEELS, TOOL STEELS		STAINLESS STEELS	
HARDNESS			~HRc20		HRc20~HRc30		HRc30~HRc40			
STRENGTH	~ 500N/mm²		500~800N/mm²		800~1000N/mm²		1000~1300N/mm²			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6.0	2700	150	2100	115	1500	75	1250	65	1370	80
8.0	2300	185	1800	150	1300	405	1000	80	1100	95
10.0	1800	270	1400	205	1000	125	850	105	930	125
12.0	1500	270	1150	215	850	150	700	115	770	140
14.0	1300	270	1000	215	720	150	600	115	660	140
16.0	1150	270	900	215	625	150	520	115	570	140
18.0	1000	270	850	215	580	150	470	115	510	140
20.0	920	275	720	215	500	150	420	115	460	140
22.0	850	275	620	215	450	150	380	115	410	140
25.0	750	270	570	205	400	140	340	115	370	140



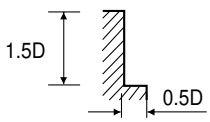
※ 对长和超长型进给应减少约50%.
The FEED, in long & long reach types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

粉末高速钢, 多刃 粗加工 - 侧铣
PREMIUM HSS-PM, MULTI FLUTE ROUGHING - SIDE CUTTING

EP941, EPA33, GAA22, GAD33, GAB58, GAD52 SERIES

材质	结构钢, 碳钢		结构钢, 碳钢, 铸铁		碳钢, 合金钢, 工具钢		预硬钢, 合金钢, 工具钢		不锈钢	
MATERIAL	STRUCTURAL STEELS, CARBON STEELS		STRUCTURAL STEELS, CARBON STEELS, CAST IRONS		CARBON STEELS, ALLOY STEELS, TOOL STEELS		PREHARDENED STEELS, ALLOY STEELS, TOOL STEELS		STAINLESS STEELS	
HARDNESS			~HRc20		HRc20~HRc30		HRc30~HRc40			
STRENGTH	~ 500N/mm²		500~800N/mm²		800~1000N/mm²		1000~1300N/mm²			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6.0	2700	200	2100	155	1500	100	1250	90	1370	105
8.0	2300	250	1800	200	1300	140	1000	110	1100	130
10.0	1800	360	1400	275	1000	170	850	140	930	185
12.0	1500	360	1150	290	850	200	700	155	770	185
14.0	1300	360	1000	290	720	200	600	155	660	185
16.0	1150	360	900	290	625	200	520	155	570	185
18.0	1000	360	850	290	580	200	470	155	510	185
20.0	920	370	720	290	500	200	420	155	460	185
22.0	850	370	620	290	450	200	380	155	410	185
25.0	750	360	570	275	400	190	340	155	370	185



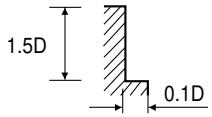
※ 对长和超长型进给应减少约50%.
The FEED, in long & long reach types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

粉末高速钢, 4刃 长刃 - 侧铣
PREMIUM HSS-PM, 4 FLUTE LONG LENGTH - SIDE CUTTING

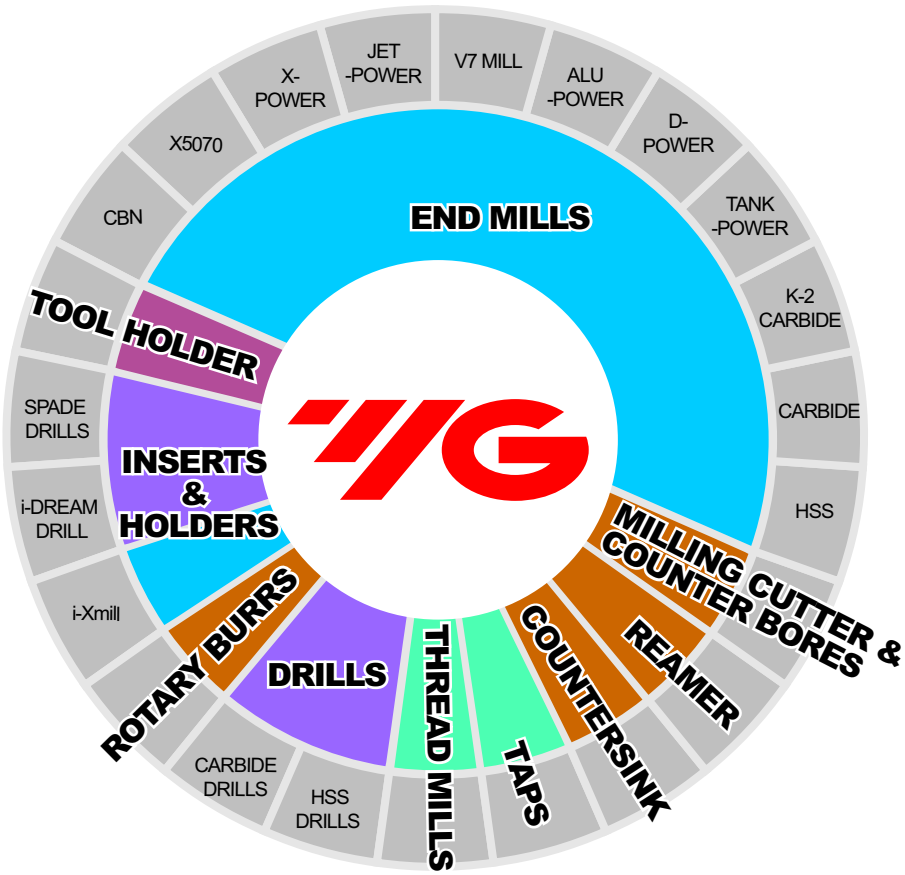
GAC25 SERIES

材质	结构钢, 碳钢		结构钢, 碳钢, 铸铁		碳钢, 合金钢, 工具钢		预硬钢, 合金钢, 工具钢		合金钢, 工具钢, 不锈钢	
MATERIAL	STRUCTURAL STEELS, CARBON STEELS		STRUCTURAL STEELS, CARBON STEELS, CAST IRONS		CARBON STEELS, ALLOY STEELS, TOOL STEELS		PREHARDENED STEELS, ALLOY STEELS, TOOL STEELS		ALLOY STEELS, TOOL STEELS, AUSTENITIC, STAINLESS STEELS	
HARDNESS			~HRc20		HRc20~HRc30		HRc30~HRc35		HRc35~HRc40	
STRENGTH	~ 500N/mm²		500~800N/mm²		800~1000N/mm²		1000~1100N/mm²		1100~1300N/mm²	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
3.0	6600	210	6000	180	4400	130	2700	95	2400	65
4.0	5300	245	4700	205	3600	155	2300	105	2000	80
5.0	4400	260	4000	215	2900	165	2000	115	1700	85
6.0	3900	275	3600	230	2600	170	1800	120	1450	95
8.0	3100	290	2600	245	2000	190	1400	125	1150	95
10.0	2300	320	2100	270	1600	195	1000	140	890	105
12.0	2000	290	1800	245	1400	190	890	125	720	100
14.0	1800	280	1600	235	1100	180	790	120	630	90
16.0	1600	260	1400	220	1000	175	680	115	550	90
18.0	1500	235	1250	205	890	160	630	105	500	80
20.0	1250	225	1050	190	780	145	530	95	440	75
22.0	1050	210	950	165	680	135	470	85	400	70
25.0	1000	190	840	160	630	120	420	80	360	70
28.0	850	170	700	145	500	105	350	70	319	65
30.0	750	150	600	125	450	95	320	65	319	65



※ 对长和超长型进给应减少约50%.
The FEED, in long & long reach types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)



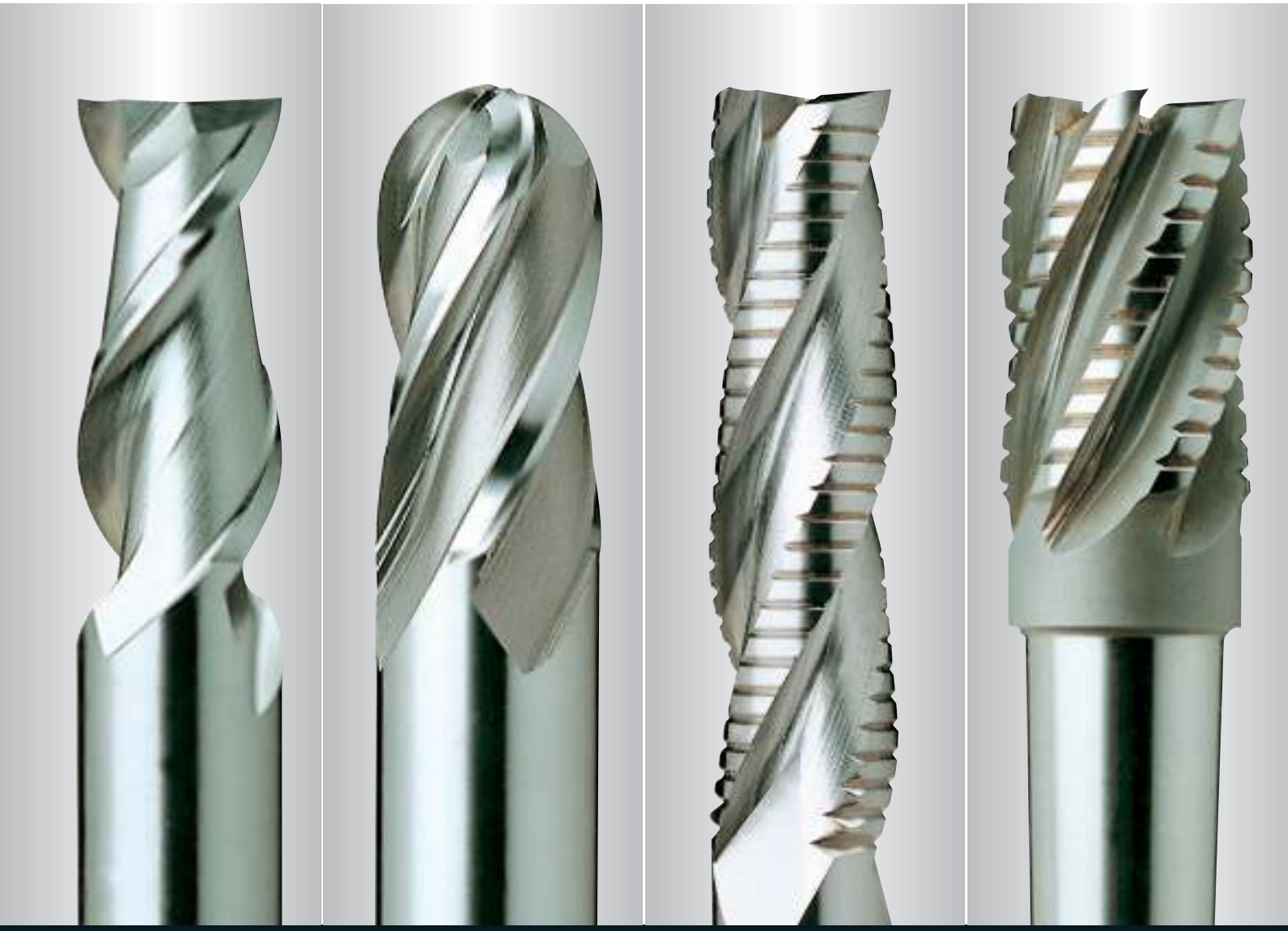
Challenge Toward a Global Leader-

YG-1 Leads the World Market.

HSS

YG

Being the best through innovation



HSS

- 普通用途,没有涂层,但可进行任何涂层

General Purposes, Non-coated, Any Coating Available

项目	型号	规格	尺寸		页
			最小	最大	
ITEM	MODEL	DESCRIPTION	SIZE		PAGE
			MIN	MAX	
E2464		HSSCo8, 2刃 42度螺旋角 短刃 HSSCo8, 2 FLUTE 42° HELIX SHORT LENGTH	D1.0	D32.0	932
EL612		HSS-E, 1刃 HSS-E, 1 FLUTE	D3.0	D10.0	934
EL623		HSS-E, 1刃 HSS-E, 1 FLUTE	D3.0	D10.0	935
E2461 E2462 E2463		HSSCo8, 多刃 50度螺旋角 短刃 HSSCo8, MULTI FLUTE 50° HELIX SHORT LENGTH	D2.0 D6.0 D22.0	D5.0 D23.0 D30.0	936
E2410		HSSCo8, 4&6刃 短刃 球头 HSSCo8, 4&6 FLUTE SHORT LENGTH BALL NOSE	R3.0	R12.5	937
E2429		HSSCo8, 4&6刃 长刃 球头 HSSCo8, 4&6 FLUTE LONG LENGTH BALL NOSE	R5.0	R12.5	938
E2751 E2764		HSSCo8, 3刃 短刃 粗加工 - 粗螺纹 HSSCo8, 3 FLUTE SHORT LENGTH ROUGHING - COARSE	D6.0 D10.0	D8.0 D40.0	939
E2752 E2765		HSSCo8, 3刃 长刃 粗加工 - 粗螺纹 HSSCo8, 3 FLUTE LONG LENGTH ROUGHING - COARSE	D6.0 D10.0	D8.0 D40.0	940
E2755		HSSCo8, 3刃 37度螺旋角 短刃 粗加工 HSSCo8, 3 FLUTE 37° HELIX SHORT LENGTH ROUGHING	D6.0	D30.0	941
E2756		HSSCo8, 3刃 37度螺旋角 长刃 螺纹 HSSCo8, 3 FLUTE 37° HELIX LONG LENGTH ROUGHING	D10.0	D30.0	942
E2753		HSSCo8, 多刃 短刃 粗加工 - 细螺纹 HSSCo8, MULTI FLUTE SHORT LENGTH ROUGHING - FINE	D6.0	D40.0	943
E2762		HSSCo8, 多刃 长刃 粗加工 - 细螺纹 HSSCo8, MULTI FLUTE LONG LENGTH ROUGHING - FINE	D6.0	D40.0	944
E2754		HSSCo8, 多刃 短刃 粗加工和精加工 HSSCo8, MULTI FLUTE SHORT LENGTH ROUGHING & FINISHING	D6.0	D40.0	945
E2768		HSSCo8, 多刃 长刃 粗加工和精加工 HSSCo8, MULTI FLUTE LONG LENGTH ROUGHING & FINISHING	D6.0	D45.0	946
E2766		HSSCo8, 3刃 短刃 粗加工和精加工 HSSCo8, 3 FLUTE SHORT LENGTH ROUGHING & FINISHING	D6.0	D40.0	947

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	铬镍铁合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
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SELECTION GUIDE

项目	型号	规格	尺寸		页
			最小	最大	
ITEM	MODEL	DESCRIPTION	SIZE		PAGE
			MIN	MAX	
E2401		HSSCo8, 2刃 普通刃 HSSCo8, 2 FLUTE REGULAR LENGTH	D1.0	D50.0	948
E2406		HSSCo8, 2刃 长刃 HSSCo8, 2 FLUTE LONG LENGTH	D3.0	D50.0	950
E2749		HSSCo8, 2刃 超长刃 HSSCo8, 2 FLUTE EXTRA LONG LENGTH	D16.0	D50.0	952
E2420		HSSCo8, 2刃 短刃 HSSCo8, 2 FLUTE SHORT LENGTH	D1.0	D50.0	953
E2412		HSSCo8, 4刃 普通刃 - 中心切割式 HSSCo8, 4 FLUTE REGULAR LENGTH CENTER CUTTING	D1.0	D50.0	955
E2659		HSSCo8, 4刃 长刃 - 中心切割式 HSSCo8, 4 FLUTE LONG LENGTH CENTER CUTTING	D3.0	D50.0	957
E2750		HSSCo8, 4刃 超长刃 HSSCo8, 4 FLUTE EXTRA LONG LENGTH	D16.0	D50.0	959
E2421		HSSCo8, 4&6刃 短刃 HSSCo8, 4 & 6 FLUTE SHORT LENGTH	D2.5	D50.0	960
E2480		HSSCo8, 2刃 普通刃 球头 HSSCo8, 2 FLUTE REGULAR LENGTH BALL NOSE	R0.5	R25.0	962
E2682		HSSCo8, 2刃 锥形 HSSCo8, 2 FLUTE TAPER	D1.0	D6.0	964
E2683		HSSCo8, 4刃 锥形 HSSCo8, 4 FLUTE TAPER	D8.0	D12.0	966
E2760		HSSCo8, 多刃 短刃 中心切割式 粗加工 - 粗螺纹 HSSCo8, MULTI FLUTE SHORT LENGTH CENTER CUT ROUGHING-COARSE	D6.0	D50.0	967
E2759		HSSCo8, 多刃 长刃 粗加工 - 粗螺纹 HSSCo8, MULTI FLUTE LONG LENGTH ROUGHING-COARSE	D10.0	D50.0	969
E2806		HSSCo8, 多刃 短刃 粗加工 球头 - 粗螺纹 HSSCo8, MULTI FLUTE SHORT LENGTH ROUGHING BALL NOSE-COARSE	R4.0	R25.0	970
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS			971

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	铬镍铁合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
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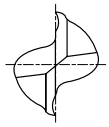
HSS END MILLS

E2464 SERIES FLAT SHANK

HSSCo8, 2刃 42度螺旋角 短刃
HSSCo8, 2 FLUTE 42° HELIX SHORT LENGTH

铝加工用
for ALUMINUM



HSS Co8 | DIN 844 | W | 2 | 42° | DIN 1835B

P.973

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter e8	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length
E2464010	1.0	6	3	49
E2464015	1.5	6	5	49
E2464020	2.0	6	7	51
E2464025	2.5	6	8	52
E2464030	3.0	6	8	52
E2464035	3.5	6	10	54
E2464040	4.0	6	11	55
E2464045	4.5	6	11	55
E2464050	5.0	6	13	57
E2464055	5.5	6	13	57
E2464060	6.0	6	13	57
E2464065	6.5	10	16	66
E2464070	7.0	10	16	66
E2464075	7.5	10	16	66
E2464080	8.0	10	19	69
E2464085	8.5	10	19	69
E2464090	9.0	10	19	69
E2464100	10.0	10	22	72
E2464110	11.0	12	22	79
E2464120	12.0	12	26	83
E2464130	13.0	12	26	83
E2464140	14.0	12	26	83
E2464150	15.0	12	26	83
E2464160	16.0	16	32	92
E2464170	17.0	16	32	92
E2464180	18.0	16	32	92
E2464190	19.0	16	32	92

◎ : 优(Excellent)　○ : 良(Good)

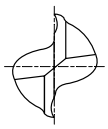
碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○									◎			

HSS END MILLS

E2464 SERIES FLAT SHANK

HSSCo8, 2刃 42度螺旋角 短刃
HSSCo8, 2 FLUTE 42° HELIX SHORT LENGTH

铝加工用
for ALUMINUM



HSS Co8 | DIN 844 | W | 2 | 42° | DIN 1835B

P.973

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter e8	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length
E2464200	20.0	20	38	104
E2464210	21.0	20	38	104
E2464220	22.0	20	38	104
E2464230	23.0	20	38	104
E2464240	24.0	25	45	121
E2464250	25.0	25	45	121
E2464260	26.0	25	45	121
E2464280	28.0	25	45	121
E2464300	30.0	25	45	121
E2464320	32.0	32	53	133

▶ 其他柄部按照您的要求设计
Other shank design on your request.

▶ TiN涂层&TiCN涂层可根据您的要求加工
TiN-COATING & TiCN-COATING are available on your request.

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in ㎛
公称直径单位 / Nominal-Diameter in ㎜

	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
e8	— 14 — 28	— 20 — 38	— 25 — 47	— 32 — 59	— 40 — 73	— 50 — 89
h6	0 — 6	0 — 8	0 — 9	0 — 11	0 — 13	0 — 16

◎ : 优(Excellent) ○ : 良(Good)

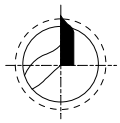
碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○									◎			

HSS END MILLS

EL612 SERIES PLAIN SHANK

HSS-E, 1刃
HSS-E, 1 FLUTE

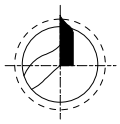
铝加工用
for ALUMINUM

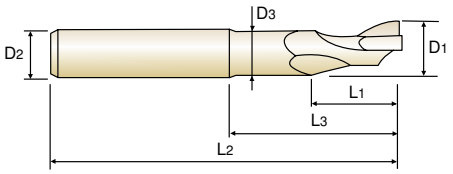


HSS-E | YG STD | W | 1 | ≈30° | DIN 1835A

单位(Unit) : mm

型号 EDP No.	系列号 ITEM No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
UNCOATED	UNCOATED	js14	h6		
EL612030	M1NRA-03001	3.0	8	12	60
EL612040	M1NRA-04001	4.0	8	12	60
EL612050	M1NRA-05001	5.0	8	14	60
EL612060	M1NRA-06001	6.0	8	14	60
EL612070	M1NRA-07001	7.0	8	14	60
EL612080	M1NRA-08001	8.0	8	14	80
EL612090	M1NRA-09001	9.0	8	14	80
EL612100	M1NRA-10001	10.0	8	14	80





单位(Unit) : mm

型号 EDP No.	系列号 ITEM No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	颈长 LENGTH BELOW SHANK	全长 Overall Length	颈径 NECK DIAMETER
UNCOATED	UNCOATED	D1(js14)	D2(h6)	L1	L3	L2	D3
EL612904	M1NRA-05002	5.0	8	18	35	80	4.8
EL612909	M1NRA-05009	5.0	8	40	40	100	—
EL612932	M1NRA-08007	8.0	8	14	68	120	7.5

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in ㎛						
公称直径单位 / Nominal-Diameter in ㎜						
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
js14	±125	±150	±180	±215	±260	±310
h6	0 / −6	0 / −8	0 / −9	0 / −11	0 / −13	0 / −16

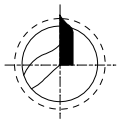
◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○									◎			

HSS END MILLS

EL623 SERIES PLAIN SHANK

HSS-E, 1刃
HSS-E, 1 FLUTE



HSS-E | YG STD | N | 1 | ≈30° | DIN 1835A

単位(Unit) : mm

型号 EDP No.	系列号 ITEM No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
UNCOATED	UNCOATED	js14	h6		
EL623030	M1NRS-03001	3.0	8	12	60
EL623040	M1NRS-04001	4.0	8	12	60
EL623050	M1NRS-05006	5.0	8	12	60
EL623060	M1NRS-06001	6.0	8	14	60
EL623070	M1NRS-07001	7.0	8	14	60
EL623080	M1NRS-08001	8.0	8	14	80
EL623090	M1NRS-09001	9.0	8	14	80
EL623100	M1NRS-10001	10.0	8	14	80

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in μm 公称直径单位 / Nominal-Diameter in mm						
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
js14	±125	±150	±180	±215	±260	±310
h6	0 / −6	0 / −8	0 / −9	0 / −11	0 / −13	0 / −16

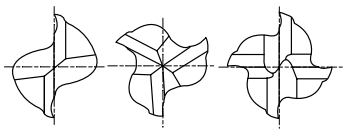
◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎								○			

HSS END MILLS

E2461, E2462, E2463 SERIES FLAT SHANK
EQ461, EQ462, EQ463 SERIES FLAT SHANK

HSSCo8, 多刃 50度螺旋角 短刃
HSSCo8, MULTI FLUTE 50° HELIX SHORT LENGTH



HSS Co8 | DIN 844 | N | 2-4 | 50° | DIN 1835B

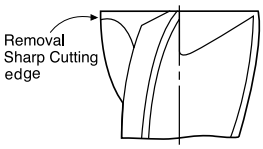
P.976, 977

단위(Unit) : mm

型号 EDP No. UNCOATED	系列号 ITEM No. UNCOATED	型号 EDP No. TiAlN	系列号 ITEM No. TiAlN	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	刃数 No.of Flute
E2461020	C2ERH-020AF	EQ461020	R2ERH-020AF	2.0	6	7	51	2
E2461030	C2ERH-030AF	EQ461030	R2ERH-030AF	3.0	6	8	52	2
E2461040	C2ERH-040AF	EQ461040	R2ERH-040AF	4.0	6	11	55	2
E2461050	C2ERH-050AF	EQ461050	R2ERH-050AF	5.0	6	13	57	2
E2462060	C3ERH-060AF	EQ462060	R3ERH-060AF	6.0	6	13	57	3
E2462070	C3ERH-070TF	EQ462070	R3ERH-070TF	7.0	10	16	66	3
E2462080	C3ERH-080TF	EQ462080	R3ERH-080TF	8.0	10	19	69	3
E2462090	C3ERH-090TF	EQ462090	R3ERH-090TF	9.0	10	19	69	3
E2462100	C3ERH-100TF	EQ462100	R3ERH-100TF	10.0	10	22	72	3
E2462110	C3ERH-110DF	EQ462110	R3ERH-110DF	11.0	12	22	79	3
E2462120	C3ERH-120DF	EQ462120	R3ERH-120DF	12.0	12	26	83	3
E2462130	C3ERH-130DF	EQ462130	R3ERH-130DF	13.0	12	26	83	3
E2462140	C3ERH-140DF	EQ462140	R3ERH-140DF	14.0	12	26	83	3
E2462150	C3ERH-150DF	EQ462150	R3ERH-150DF	15.0	12	26	83	3
E2462160	C3ERH-160EF	EQ462160	R3ERH-160EF	16.0	16	32	92	3
E2462180	C3ERH-180EF	EQ462180	R3ERH-180EF	18.0	16	32	92	3
E2462200	C3ERH-200FF	EQ462200	R3ERH-200FF	20.0	20	38	104	3
E2462230	C3ERH-230FF	EQ462230	R3ERH-230FF	23.0	20	38	104	3
E2463220	C4ERH-220GF	EQ463220	R4ERH-220GF	22.0	25	45	121	4
E2463250	C4ERH-250GF	EQ463250	R4ERH-250GF	25.0	25	45	121	4
E2463300	C4ERH-300GF	EQ463300	R4ERH-300GF	30.0	25	45	121	4

刃部公差 Mill Dia. Tolerance(mm)		柄部公差 Shank Dia. Tolerance
up to Ø3	0~+0.04	h6
Ø4.0 ~ Ø6.0	0~+0.048	
Ø7.0 ~ Ø10.0	0~+0.058	
Ø10.5 ~ Ø18.0	0~+0.07	
over Ø18	0~+0.084	

▶ 其他柄部按照您的要求设计
Other shank design on your request.
▶ TiN涂层&TiCN涂层可根据您的要求加工
TiN-COATING & TiCN-COATING are available on your request.



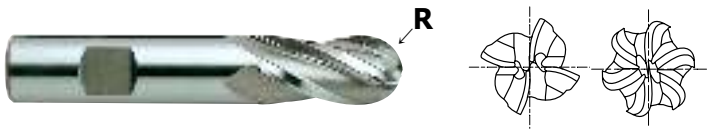
◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○										

HSS END MILLS

E2410 SERIES FLAT SHANK
EQ410 SERIES FLAT SHANK

HSSCo8, 4&6刃 短刃 球头
HSSCo8, 4&6 FLUTE SHORT LENGTH BALL NOSE



HSS Co8 | DIN 1889 | N | 4&6 | 30° | R ±0.02 | DIN 1835B

P.979

单位(Unit) : mm

型号 EDP No.		球头半径 Radius of Ball Nose	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	刃数 No.of Flute
UNCOATED	TiAlN	R (±0.02)	e8	h6			
E2410060	EQ410060	R3.0	6.0	6	13	57	4
E2410080	EQ410080	R4.0	8.0	10	19	69	4
E2410100	EQ410100	R5.0	10.0	10	22	72	4
E2410120	EQ410120	R6.0	12.0	12	26	83	4
E2410160	EQ410160	R8.0	16.0	16	32	92	4
E2410200	EQ410200	R10.0	20.0	20	38	104	4
E2410250	EQ410250	R12.5	25.0	25	45	121	6

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in μm 公称直径单位 / Nominal-Diameter in mm						
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
e8	— 14 — 28	— 20 — 38	— 25 — 47	— 32 — 59	— 40 — 73	— 50 — 89
h6	0 — 6	0 — 8	0 — 9	0 — 11	0 — 13	0 — 16

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

HSS END MILLS

E2429 SERIES FLAT SHANK
EQ429 SERIES FLAT SHANK

HSSCo8, 4&6刃 长刃 球头
HSSCo8, 4&6 FLUTE LONG LENGTH BALL NOSE

HSS Co8 | DIN 1889 | N | 4&6 | 30° | R ±0.02 | DIN 1835B

P.979

单位(Unit) : mm

型号 EDP No.		球头半径 Radius of Ball Nose	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	刃数 No.of Flute
UNCOATED	TiAlN	R (±0.02)	e8	h6			
E2429100	EQ429100	R5.0	10.0	10	45	95	4
E2429120	EQ429120	R6.0	12.0	12	53	110	4
E2429160	EQ429160	R8.0	16.0	16	63	123	4
E2429200	EQ429200	R10.0	20.0	20	75	141	4
E2429250	EQ429250	R12.5	25.0	25	90	166	6

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in μm
公称直径单位 / Nominal-Diameter in mm

	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
e8	— 14 — 28	— 20 — 38	— 25 — 47	— 32 — 59	— 40 — 73	— 50 — 89
h6	0 — 6	0 — 8	0 — 9	0 — 11	0 — 13	0 — 16

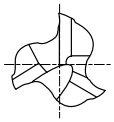
◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

HSS END MILLS

E2751, EQ751 SERIES FLAT SHANK
E2764, EQ764 SERIES FLAT SHANK

HSSCo8, 3刃 短刃 粗加工 - 粗螺纹
HSSCo8, 3 FLUTE SHORT LENGTH ROUGHING - COARSE



HSS Co8 | DIN 844 | NR | COARSE | 3 | 30° | DIN 1835B

P.980, 981

单位(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	刃部直径 Mill Diameter js12	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length
E2751060	EQ751060	6.0	6	13	57
E2751080	EQ751080	8.0	10	19	69
E2764100	EQ764100	10.0	10	22	72
E2764120	EQ764120	12.0	12	26	83
E2764140	EQ764140	14.0	12	26	83
E2764160	EQ764160	16.0	16	32	92
E2764180	EQ764180	18.0	16	32	92
E2764200	EQ764200	20.0	20	38	104
E2764220	EQ764220	22.0	20	38	104
E2764250	EQ764250	25.0	25	45	121
E2764280	EQ764280	28.0	25	45	121
E2764300	EQ764300	30.0	25	45	121
E2764320	EQ764320	32.0	32	53	133
E2764360	EQ764360	36.0	32	53	133
E2764400	EQ764400	40.0	32	63	155

▶ 其他柄部按照您的要求设计
Other shank design on your request.

▶ TiN涂层&TiCN涂层可根据您的要求加工
TiN-COATING & TiCN-COATING are available on your request.

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in ㎛						
公称直径单位 / Nominal-Diameter in ㎜						
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
js12	±50	±60	±75	±90	±105	±125
h6	0 / −6	0 / −8	0 / −9	0 / −11	0 / −13	0 / −16

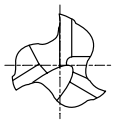
◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

HSS END MILLS

E2752, EQ752 SERIES FLAT SHANK
E2765, EQ765 SERIES FLAT SHANK

HSSCo8, 3刃 长刃 粗加工 - 粗螺纹
HSSCo8, 3 FLUTE LONG LENGTH ROUGHING - COARSE



HSS Co8 | DIN 844 | NR | COARSE | 3 | 30° | DIN 1835B

P.980, 981

单位(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	刃部直径 Mill Diameter js12	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length
E2752060	EQ752060	6.0	6	24	68
E2752080	EQ752080	8.0	10	38	88
E2765100	EQ765100	10.0	10	45	95
E2765120	EQ765120	12.0	12	53	110
E2765140	EQ765140	14.0	12	53	110
E2765160	EQ765160	16.0	16	63	123
E2765180	EQ765180	18.0	16	63	123
E2765200	EQ765200	20.0	20	75	141
E2765220	EQ765220	22.0	20	75	141
E2765250	EQ765250	25.0	25	90	166
E2765280	EQ765280	28.0	25	90	166
E2765300	EQ765300	30.0	25	90	166
E2765360	EQ765360	36.0	32	106	186
E2765400	EQ765400	40.0	32	125	217

▶ 其他柄部按照您的要求设计
Other shank design on your request.

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TiN-COATING & TiCN-COATING are available on your request.

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in μm
公称直径单位 / Nominal-Diameter in mm

	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
js12	±50	±60	±75	±90	±105	±125
h6	0 / −6	0 / −8	0 / −9	0 / −11	0 / −13	0 / −16

◎ : 优(Excellent)　○ : 良(Good)

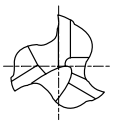
碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

HSS END MILLS

E2755 SERIES FLAT SHANK

HSSCo8, 3刃 37度螺旋角 短刃 粗加工
HSSCo8, 3 FLUTE 37° HELIX SHORT LENGTH ROUGHING

铝加工用
for ALUMINUM



HSS Co8 | DIN 844 | WR | ALU | 3 | 37° | DIN 1835B

P.980, 981

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter js12	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length
E2755060	6.0	6	13	57
E2755080	8.0	10	19	69
E2755100	10.0	10	22	72
E2755120	12.0	12	26	83
E2755140	14.0	12	26	83
E2755160	16.0	16	32	92
E2755180	18.0	16	32	92
E2755200	20.0	20	38	104
E2755220	22.0	20	38	104
E2755250	25.0	25	45	121
E2755300	30.0	25	45	121

▶ 其他柄部按照您的要求设计
Other shank design on your request.

▶ TiN涂层&TiCN涂层可根据您的要求加工
TiN-COATING & TiCN-COATING are available on your request.

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in ㎛
公称直径单位 / Nominal-Diameter in ㎜

	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
js12	±50	±60	±75	±90	±105	±125
h6	0 / −6	0 / −8	0 / −9	0 / −11	0 / −13	0 / −16

◎ : 优(Excellent)　○ : 良(Good)

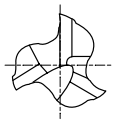
碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	○								◎			

HSS END MILLS

E2756 SERIES FLAT SHANK

HSSCo8, 3刃 37度螺旋角 长刃 螺纹
HSSCo8, 3 FLUTE 37° HELIX LONG LENGTH ROUGHING

铝加工用
for ALUMINUM



HSS Co8 | DIN 844 | WR | ALU | 3 | 37° | DIN 1835B

P.980, 981

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter js12	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length
E2756100	10.0	10	45	95
E2756120	12.0	12	53	110
E2756140	14.0	12	53	110
E2756160	16.0	16	63	123
E2756180	18.0	16	63	123
E2756200	20.0	20	75	141
E2756220	22.0	20	75	141
E2756250	25.0	25	90	166
E2756300	30.0	25	90	166

▶ 其他柄部按照您的要求设计
Other shank design on your request.

▶ TiN涂层&TiCN涂层可根据您的要求加工
TiN-COATING & TiCN-COATING are available on your request.

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in ㎛
公称直径单位 / Nominal-Diameter in ㎜

	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
js12	±50	±60	±75	±90	±105	±125
h6	0 / −6	0 / −8	0 / −9	0 / −11	0 / −13	0 / −16

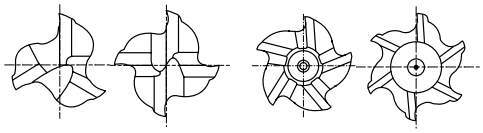
◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	○								◎			

HSS END MILLS

E2753 SERIES FLAT SHANK
EQ753 SERIES FLAT SHANK

HSSCo8, 多刃 短刃 粗加工 - 细螺纹
HSSCo8, MULTI FLUTE SHORT LENGTH ROUGHING - FINE



Up to Ø20mm　　Over Ø20mm

HSS Co8 | DIN 844 | HR | FINE | 3-6 | 30° | DIN 1835B | ~Ø20 | Ø22~

P.980, 981

단위(Unit) : mm

型号 EDP No. UNCOATED	系列号 ITEM No. UNCOATED	型号 EDP No. TiAlN	系列号 ITEM No. TiAlN	刃部直径 Mill Diameter js12	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length	刃数 No.of Flute
E2753060	C3426-060AF	EQ753060	R3426-060AF	6.0	6	13	57	3
E2753070	C3426-070TF	EQ753070	R3426-070TF	7.0	10	16	66	3
E2753080	C3426-080TF	EQ753080	R3426-080TF	8.0	10	19	69	3
E2753090	C3426-090TF	EQ753090	R3426-090TF	9.0	10	19	69	3
E2753100	C4426-100TF	EQ753100	R4426-100TF	10.0	10	22	72	4
E2753110	C4426-110DF	EQ753110	R4426-110DF	11.0	12	22	79	4
E2753120	C4426-120DF	EQ753120	R4426-120DF	12.0	12	26	83	4
E2753130	C4426-130DF	EQ753130	R4426-130DF	13.0	12	26	83	4
E2753140	C4426-140DF	EQ753140	R4426-140DF	14.0	12	26	83	4
E2753150	C4426-150DF	EQ753150	R4426-150DF	15.0	12	26	83	4
E2753160	C4426-160EF	EQ753160	R4426-160EF	16.0	16	32	92	4
E2753180	C4426-180EF	EQ753180	R4426-180EF	18.0	16	32	92	4
E2753200	C4426-200FF	EQ753200	R4426-200FF	20.0	20	38	104	4
E2753250	C5426-250GF	EQ753250	R5426-250GF	25.0	25	45	121	5
E2753280	C6426-280GF	EQ753280	R6426-280GF	28.0	25	45	121	6
E2753300	C6426-300GF	EQ753300	R6426-300GF	30.0	25	45	121	6
E2753320	C6426-320HF	EQ753320	R6426-320HF	32.0	32	53	133	6
E2753350	C6426-350HF	EQ753350	R6426-350HF	35.0	32	53	133	6
E2753400	C6426-400HF	EQ753400	R6426-400HF	40.0	32	63	155	6

▶ 其他柄部按照您的要求设计
Other shank design on your request.

▶ TiN涂层&TiCN涂层可根据您的要求加工
TiN-COATING & TiCN-COATING are available on your request.

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in ㎛
公称直径单位 / Nominal-Diameter in ㎜

	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
js12	±50	±60	±75	±90	±105	±125
h6	0 / −6	0 / −8	0 / −9	0 / −11	0 / −13	0 / −16

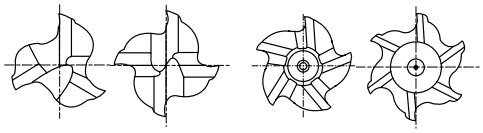
◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

HSS END MILLS

E2762 SERIES FLAT SHANK
EQ762 SERIES FLAT SHANK

HSSCo8, 多刃 长刃 粗加工 - 细螺纹
HSSCo8, MULTI FLUTE LONG LENGTH ROUGHING - FINE



Up to Ø20mm　　Over Ø20mm

HSS Co8 | DIN 844 | HR | FINE | 3-6 | 30° | DIN 1835B | ~Ø20 | Ø22~

P.980, 981

単位(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	刃部直径 Mill Diameter js12	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
E2762060	EQ762060	6.0	6	24	68	3
E2762070	EQ762070	7.0	10	30	80	3
E2762080	EQ762080	8.0	10	38	88	3
E2762090	EQ762090	9.0	10	38	88	3
E2762100	EQ762100	10.0	10	45	95	4
E2762110	EQ762110	11.0	12	45	102	4
E2762120	EQ762120	12.0	12	53	110	4
E2762130	EQ762130	13.0	12	53	110	4
E2762140	EQ762140	14.0	12	53	110	4
E2762150	EQ762150	15.0	12	53	110	4
E2762160	EQ762160	16.0	16	63	123	4
E2762170	EQ762170	17.0	16	63	123	4
E2762180	EQ762180	18.0	16	63	123	4
E2762190	EQ762190	19.0	16	63	123	4
E2762200	EQ762200	20.0	20	75	141	4
E2762220	EQ762220	22.0	20	75	141	5
E2762240	EQ762240	24.0	25	90	166	5
E2762250	EQ762250	25.0	25	90	166	5
E2762260	EQ762260	26.0	25	90	166	6
E2762280	EQ762280	28.0	25	90	166	6
E2762300	EQ762300	30.0	25	90	166	6
E2762320	EQ762320	32.0	32	106	186	6
E2762350	EQ762350	35.0	32	106	186	6
E2762360	EQ762360	36.0	32	106	186	6
E2762380	EQ762380	38.0	32	125	217	6
E2762400	EQ762400	40.0	32	125	217	6
E2762940	EQ762940	40.0	40	125	217	6

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in ㎛	公称直径单位 / Nominal-Diameter in ㎜					
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
js12	±50	±60	±75	±90	±105	±125
h6	0 / −6	0 / −8	0 / −9	0 / −11	0 / −13	0 / −16

▶ 其他柄部按照您的要求设计
Other shank design on your request.

▶ TiN涂层&TiCN涂层可根据您的要求加工
TiN-COATING & TiCN-COATING are available on your request.

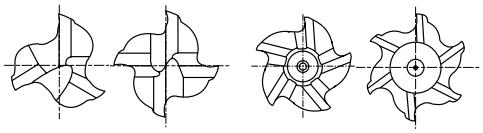
◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

HSS END MILLS

E2754 SERIES FLAT SHANK
EQ754 SERIES FLAT SHANK

HSSCo8, 多刃 短刃 粗加工和精加工
HSSCo8, MULTI FLUTE SHORT LENGTH ROUGHING & FINISHING



Up to Ø20mm　　Over Ø20mm

HSS Co8 | DIN 844 | NF | ROUGHING & FINISHING | 3-6 | 30° | DIN 1835B | ~Ø20 | Ø22~

P.983, 984

単位(Unit) : mm

型号 EDP No. UNCOATED	系列号 ITEM No. UNCOATED	型号 EDP No. TiAlN	系列号 ITEM No. TiAlN	刃部直径 Mill Diameter k10	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length	刃数 No.of Flute
E2754060	C3428-060AF	EQ754060	R3428-060AF	6.0	6	13	57	3
E2754070	C3428-070TF	EQ754070	R3428-070TF	7.0	10	16	66	3
E2754080	C4428-080TF	EQ754080	R4428-080TF	8.0	10	19	69	4
E2754090	C4428-090TF	EQ754090	R4428-090TF	9.0	10	19	69	4
E2754100	C4428-100TF	EQ754100	R4428-100TF	10.0	10	22	72	4
E2754110	C4428-110DF	EQ754110	R4428-110DF	11.0	12	22	79	4
E2754120	C4428-120DF	EQ754120	R4428-120DF	12.0	12	26	83	4
E2754130	C4428-130DF	EQ754130	R4428-130DF	13.0	12	26	83	4
E2754140	C4428-140DF	EQ754140	R4428-140DF	14.0	12	26	83	4
E2754150	C4428-150DF	EQ754150	R4428-150DF	15.0	12	26	83	4
E2754160	C4428-160EF	EQ754160	R4428-160EF	16.0	16	32	92	4
E2754180	C4428-180EF	EQ754180	R4428-180EF	18.0	16	32	92	4
E2754200	C4428-200FF	EQ754200	R4428-200FF	20.0	20	38	104	4
E2754220	C5428-220FF	EQ754220	R5428-220FF	22.0	20	38	104	5
E2754250	C5428-250GF	EQ754250	R5428-250GF	25.0	25	45	121	5
E2754280	C5428-280GF	EQ754280	R5428-280GF	28.0	25	45	121	5
E2754300	C5428-300GF	EQ754300	R5428-300GF	30.0	25	45	121	5
E2754320	C5428-320HF	EQ754320	R5428-320HF	32.0	32	53	133	5
E2754360	C6428-360HF	EQ754360	R6428-360HF	36.0	32	53	133	6
E2754400	C6428-400HF	EQ754400	R6428-400HF	40.0	32	63	155	6

▶ 其他柄部按照您的要求设计
Other shank design on your request.

▶ TiN涂层&TiCN涂层可根据您的要求加工
TiN-COATING & TiCN-COATING are available on your request.

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in ㎛
公称直径单位 / Nominal-Diameter in mm

	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
k10	+40 0	+48 0	+58 0	+70 0	+84 0	+100 0
h6	0 — 6	0 — 8	0 — 9	0 — 11	0 — 13	0 — 16

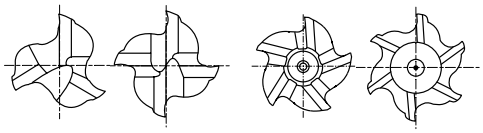
◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

HSS END MILLS

E2768 SERIES FLAT SHANK
EQ768 SERIES FLAT SHANK

HSSCo8, 多刃 长刃 粗加工和精加工
HSSCo8, MULTI FLUTE LONG LENGTH ROUGHING & FINISHING



Up to Ø20mm　　Over Ø20mm

HSS Co8 | DIN 844 | NF | ROUGHING & FINISHING | 3-6 | 30° | DIN 1835B | ~Ø20 | Ø22~

P.983, 984

단위(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	刃部直径 Mill Diameter k10	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
E2768060	EQ768060	6.0	6	24	68	3
E2768080	EQ768080	8.0	10	38	88	4
E2768100	EQ768100	10.0	10	45	95	4
E2768120	EQ768120	12.0	12	53	110	4
E2768140	EQ768140	14.0	12	53	110	4
E2768160	EQ768160	16.0	16	63	123	4
E2768180	EQ768180	18.0	16	63	123	4
E2768200	EQ768200	20.0	20	75	141	4
E2768220	EQ768220	22.0	20	75	141	5
E2768250	EQ768250	25.0	25	90	166	5
E2768300	EQ768300	30.0	25	90	166	5
E2768320	EQ768320	32.0	32	106	186	5
E2768450	EQ768450	45.0	40	125	217	6

▶ 其他柄部按照您的要求设计
Other shank design on your request.
▶ TiN涂层&TiCN涂层可根据您的要求加工
TiN-COATING & TiCN-COATING are available on your request.

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位/ Tolerance range in ㎛
公称直径单位/ Nominal-Diameter in ㎜

	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
k10	+40 0	+48 0	+58 0	+70 0	+84 0	+100 0
h6	0 — 6	0 — 8	0 — 9	0 — 11	0 — 13	0 — 16

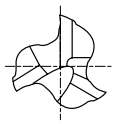
◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

HSS END MILLS

E2766 SERIES FLAT SHANK
EQ766 SERIES FLAT SHANK

HSSCo8, 3刃 短刃 粗加工和精加工
HSSCo8, 3 FLUTE SHORT LENGTH ROUGHING & FINISHING



HSS Co8 | DIN 844 | NF | ROUGHING & FINISHING | 3 | 30° | DIN 1835B

P.983, 984

单位(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	刃部直径 Mill Diameter k10	柄部直径 Shank Diameter h6	刃长 Length of Cut	全长 Overall Length
E2766060	EQ766060	6.0	6	13	57
E2766080	EQ766080	8.0	10	19	69
E2766100	EQ766100	10.0	10	22	72
E2766120	EQ766120	12.0	12	26	83
E2766130	EQ766130	13.0	12	26	83
E2766140	EQ766140	14.0	12	26	83
E2766160	EQ766160	16.0	16	32	92
E2766180	EQ766180	18.0	16	32	92
E2766200	EQ766200	20.0	20	38	104
E2766220	EQ766220	22.0	20	38	104
E2766250	EQ766250	25.0	25	45	121
E2766280	EQ766280	28.0	25	45	121
E2766300	EQ766300	30.0	25	45	121
E2766320	EQ766320	32.0	32	53	133
E2766360	EQ766360	36.0	32	53	133
E2766400	EQ766400	40.0	32	63	155

▶ 其他柄部按照您的要求设计
Other shank design on your request.

▶ TiN涂层&TiCN涂层可根据您的要求加工
TiN-COATING & TiCN-COATING are available on your request.

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

精度范围单位 / Tolerance range in ㎛
公称直径单位 / Nominal-Diameter in mm

	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
k10	+40 0	+48 0	+58 0	+70 0	+84 0	+100 0
h6	0 −6	0 −8	0 −9	0 −11	0 −13	0 −16

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

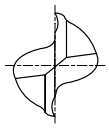
HSS END MILLS

E2401 SERIES PLAIN SHANK
EQ401 SERIES PLAIN SHANK

HSSCo8, 2刃 普通刃
HSSCo8, 2 FLUTE REGULAR LENGTH

▶ 这些铣刀是右向螺旋角右向切削的正规铣刀. 为开立槽, 钻孔, 型腔和普通用途加工而设计.

▶ These end mills are furnished as regular with right-hand cutting and right-hand helical flutes. These are designed for slotting, drilling, pocketing and general-purpose operation.



HSS Co8 | 2 | 30° | PLAIN

P.971, 972

单位(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E2401010	EQ401010	1.0	6	2.5	55
E2401015	EQ401015	1.5	6	4	55
E2401020	EQ401020	2.0	6	6	55
E2401025	EQ401025	2.5	6	7	55
E2401030	EQ401030	3.0	6	10	55
E2401035	EQ401035	3.5	8	12	60
E2401903	EQ401903	4.0	6	12	55
E2401040	EQ401040	4.0	8	12	60
E2401045	EQ401045	4.5	8	15	65
E2401905	EQ401905	5.0	6	15	60
E2401050	EQ401050	5.0	8	15	65
E2401055	EQ401055	5.5	8	15	65
E2401907	EQ401907	• 6.0	6	15	60
E2401060	EQ401060	6.0	8	15	65
E2401065	EQ401065	6.5	10	20	75
E2401909	EQ401909	7.0	8	20	70
E2401070	EQ401070	7.0	10	20	75
E2401075	EQ401075	7.5	10	20	75
E2401911	EQ401911	• 8.0	8	20	70
E2401080	EQ401080	8.0	10	21	75
E2401085	EQ401085	8.5	10	25	80
E2401090	EQ401090	9.0	10	25	80
E2401095	EQ401095	9.5	10	25	80
E2401100	EQ401100	• 10.0	10	26	80
E2401105	EQ401105	10.5	12	30	90
E2401110	EQ401110	11.0	12	30	90
E2401115	EQ401115	11.5	12	30	90
E2401120	EQ401120	• 12.0	12	31	90
E2401130	EQ401130	13.0	12	35	95
E2401916	EQ401916	14.0	12	35	95
E2401140	EQ401140	14.0	16	35	100
E2401150	EQ401150	15.0	16	40	105
E2401160	EQ401160	16.0	16	40	105
E2401170	EQ401170	17.0	16	40	105

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

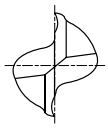
HSS END MILLS

E2401 SERIES PLAIN SHANK
EQ401 SERIES PLAIN SHANK

HSSCo8, 2刃 普通刃
HSSCo8, 2 FLUTE REGULAR LENGTH

▶ 这些铣刀是右向螺旋角右向切削的正规铣刀，为开立槽，钻孔，型腔和普通用途加工而设计。

▶ These end mills are furnished as regular with right-hand cutting and right-hand helical flutes. These are designed for slotting, drilling, pocketing and general-purpose operation.



HSS Co8 | 2 | 30° | PLAIN

P.971, 972

单位(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E2401180	EQ401180	18.0	16	40	105
E2401190	EQ401190	19.0	20	45	115
E2401200	EQ401200	20.0	20	45	115
E2401210	EQ401210	21.0	20	45	115
E2401220	EQ401220	22.0	20	45	115
E2401230	EQ401230	23.0	25	50	125
E2401240	EQ401240	24.0	25	50	125
E2401250	EQ401250	25.0	25	50	125
E2401260	EQ401260	26.0	25	50	125
E2401270	EQ401270	27.0	25	55	125
E2401280	EQ401280	28.0	25	55	125
E2401290	EQ401290	29.0	25	55	125
E2401300	EQ401300	30.0	25	55	125
E2401310	EQ401310	31.0	32	60	145
E2401320	EQ401320	32.0	32	60	145
E2401330	EQ401330	33.0	32	60	145
E2401340	EQ401340	34.0	32	60	145
E2401350	EQ401350	35.0	32	60	145
E2401360	EQ401360	36.0	32	65	150
E2401370	EQ401370	37.0	32	65	150
E2401380	EQ401380	38.0	32	65	150
E2401390	EQ401390	39.0	32	65	150
E2401400	EQ401400	40.0	32	65	150
E2401420	EQ401420	42.0	42	70	160
E2401450	EQ401450	45.0	42	70	160
E2401460	EQ401460	46.0	42	75	160
E2401480	EQ401480	48.0	42	75	165
E2401500	EQ401500	50.0	42	75	165

刃部公差 Mill Dia. Tolerance(mm)					柄部公差 Shank Dia. Tolerance
• 6	• 8	• 10	• 12	Other size	h6
0 — 0.035	0 — 0.040	0 — 0.040	0 — 0.045	0 — 0.030	

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

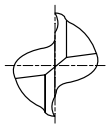
HSS END MILLS

E2406 SERIES PLAIN SHANK
EQ406 SERIES PLAIN SHANK

HSSCo8, 2刃 长刃
HSSCo8, 2 FLUTE LONG LENGTH

▶ 通过使用更长的沟槽可以进行更深更宽的加工.

▶ Possible for deeper & wider cutting by using the much longer flutes.



HSS Co8 | 2 | 30° | PLAIN P.971, 972

单位(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E2406030	EQ406030	3.0	6	15	60
E2406901	EQ406901	4.0	6	20	65
E2406902	EQ406902	5.0	6	25	70
E2406050	EQ406050	5.0	8	25	75
E2406903	EQ406903	6.0	6	25	70
E2406060	EQ406060	6.0	8	25	75
E2406070	EQ406070	7.0	10	35	90
E2406080	EQ406080	8.0	10	35	90
E2406090	EQ406090	9.0	10	45	100
E2406100	EQ406100	10.0	10	45	100
E2406110	EQ406110	11.0	12	55	115
E2406120	EQ406120	12.0	12	55	115
E2406130	EQ406130	13.0	12	55	115
E2406140	EQ406140	14.0	16	55	120
E2406150	EQ406150	15.0	16	65	130
E2406160	EQ406160	16.0	16	65	130
E2406170	EQ406170	17.0	16	65	130
E2406180	EQ406180	18.0	16	65	130
E2406190	EQ406190	19.0	20	75	145
E2406200	EQ406200	20.0	20	75	145
E2406210	EQ406210	21.0	20	75	145
E2406220	EQ406220	22.0	20	75	145
E2406230	EQ406230	23.0	25	90	165
E2406240	EQ406240	24.0	25	90	165
E2406250	EQ406250	25.0	25	90	165

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

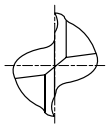
HSS END MILLS

E2406 SERIES PLAIN SHANK
EQ406 SERIES PLAIN SHANK

HSSCo8, 2刃 长刃
HSSCo8, 2 FLUTE LONG LENGTH

▶ 通过使用更长的沟槽可以进行更深更宽的加工.

▶ Possible for deeper & wider cutting by using the much longer flutes.



HSS Co8 | 2 | 30° | PLAIN

P.971, 972

单位(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E2406260	EQ406260	26.0	25	90	165
E2406270	EQ406270	27.0	25	90	165
E2406280	EQ406280	28.0	25	90	165
E2406290	EQ406290	29.0	25	90	165
E2406300	EQ406300	30.0	25	90	165
E2406310	EQ406310	31.0	32	95	180
E2406320	EQ406320	32.0	32	95	180
E2406330	EQ406330	33.0	32	100	185
E2406340	EQ406340	34.0	32	100	185
E2406350	EQ406350	35.0	32	100	185
E2406360	EQ406360	36.0	32	105	190
E2406370	EQ406370	37.0	32	105	190
E2406380	EQ406380	38.0	32	105	190
E2406390	EQ406390	39.0	32	110	195
E2406400	EQ406400	40.0	32	110	195
E2406420	EQ406420	42.0	42	115	200
E2406450	EQ406450	45.0	42	120	205
E2406480	EQ406480	48.0	42	125	215
E2406500	EQ406500	50.0	42	125	215

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

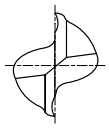
HSS END MILLS

E2749 SERIES PLAIN SHANK
EQ749 SERIES PLAIN SHANK

HSSCo8, 2刃 超长刃
HSSCo8, 2 FLUTE EXTRA LONG LENGTH

▶ 通过使用比E2406(C2OLS)系列更长的沟槽可以进行更深更宽的加工.

▶ Possible for deeper & wider cutting by using the much longer flutes than E2406(C2OLS) type.



HSS Co8 | 2 | 30° | PLAIN

P.971, 972

单位(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E2749160	EQ749160	16.0	16	100	160
E2749180	EQ749180	18.0	16	100	180
E2749200	EQ749200	20.0	20	100	180
E2749901	EQ749901	20.0	20	120	200
E2749902	EQ749902	20.0	20	150	230
E2749220	EQ749220	22.0	20	120	200
E2749240	EQ749240	24.0	25	100	180
E2749903	EQ749903	24.0	25	150	250
E2749250	EQ749250	25.0	25	100	180
E2749904	EQ749904	25.0	25	120	220
E2749905	EQ749905	25.0	25	150	250
E2749260	EQ749260	26.0	25	150	250
E2749280	EQ749280	28.0	25	150	250
E2749300	EQ749300	30.0	25	120	200
E2749906	EQ749906	30.0	25	150	250
E2749907	EQ749907	30.0	25	200	280
E2749320	EQ749320	32.0	32	150	230
E2749908	EQ749908	32.0	32	200	280
E2749350	EQ749350	35.0	32	150	250
E2749909	EQ749909	35.0	32	200	300
E2749360	EQ749360	36.0	32	150	250
E2749380	EQ749380	38.0	32	150	250
E2749400	EQ749400	40.0	32	150	250
E2749910	EQ749910	40.0	32	200	300
E2749450	EQ749450	45.0	42	200	300
E2749500	EQ749500	50.0	42	200	300

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

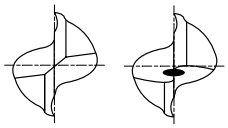
HSS END MILLS

E2420 SERIES PLAIN SHANK
EQ420 SERIES PLAIN SHANK

HSSCo8, 2刃 短刃
HSSCo8, 2 FLUTE SHORT LENGTH

▶ 为插入式切削, 型腔加工及普通用途进行了很好的设计.

▶ Well - designed for the plunge cutting, pocketing and general purpose.



up to Ø3mm over Ø3mm

HSS Co8 | 2 | 30° | PLAIN

P.971, 972

単位(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E2420010	EQ420010	1.0	6	2.5	45
E2420015	EQ420015	1.5	6	4	45
E2420020	EQ420020	2.0	6	5	50
E2420025	EQ420025	2.5	6	6	50
E2420030	EQ420030	3.0	6	8	50
E2420035	EQ420035	3.5	8	8	60
E2420040	EQ420040	4.0	8	8	60
E2420045	EQ420045	4.5	8	10	60
E2420050	EQ420050	5.0	8	10	60
E2420055	EQ420055	5.5	8	12	60
E2420060	EQ420060	6.0	8	12	60
E2420070	EQ420070	7.0	10	14	60
E2420080	EQ420080	8.0	10	14	60
E2420090	EQ420090	9.0	10	18	70
E2420100	EQ420100	10.0	10	18	70
E2420110	EQ420110	11.0	12	22	80
E2420120	EQ420120	12.0	12	22	80
E2420130	EQ420130	13.0	12	26	85
E2420140	EQ420140	14.0	16	26	90
E2420150	EQ420150	15.0	16	30	95
E2420160	EQ420160	16.0	16	30	95
E2420170	EQ420170	17.0	16	34	95
E2420180	EQ420180	18.0	16	34	95
E2420190	EQ420190	19.0	20	38	110
E2420200	EQ420200	20.0	20	38	110
E2420210	EQ420210	21.0	20	45	110
E2420220	EQ420220	22.0	20	45	110

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

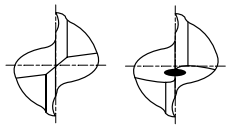
HSS END MILLS

E2420 SERIES PLAIN SHANK
EQ420 SERIES PLAIN SHANK

HSSCo8, 2刃 短刃
HSSCo8, 2 FLUTE SHORT LENGTH

▶ 为插入式切削, 型腔加工及普通用途进行了很好的设计.

▶ Well - designed for the plunge cutting, pocketing and general purpose.



up to Ø3mm over Ø3mm

HSS Co8 | 2 | 30° | PLAIN

P.971, 972

单位(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E2420230	EQ420230	23.0	25	50	120
E2420240	EQ420240	24.0	25	50	120
E2420250	EQ420250	25.0	25	50	120
E2420260	EQ420260	26.0	25	50	120
E2420270	EQ420270	27.0	25	55	125
E2420280	EQ420280	28.0	25	55	125
E2420290	EQ420290	29.0	25	55	125
E2420300	EQ420300	30.0	25	55	125
E2420310	EQ420310	31.0	32	60	145
E2420320	EQ420320	32.0	32	60	145
E2420330	EQ420330	33.0	32	60	145
E2420340	EQ420340	34.0	32	60	145
E2420350	EQ420350	35.0	32	60	145
E2420360	EQ420360	36.0	32	65	150
E2420370	EQ420370	37.0	32	65	150
E2420380	EQ420380	38.0	32	65	150
E2420390	EQ420390	39.0	32	65	150
E2420400	EQ420400	40.0	32	65	150
E2420420	EQ420420	42.0	42	70	160
E2420450	EQ420450	45.0	42	70	160
E2420500	EQ420500	50.0	42	70	165

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

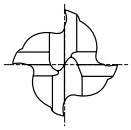
HSS END MILLS

E2412 SERIES PLAIN SHANK
EQ412 SERIES PLAIN SHANK

HSSCo8, 4刃 普通刃 – 中心切割式
HSSCo8, 4FLUTE CENTER CUTTING REGULAR LENGTH

▶ 这些铣刀是右向螺旋角右向切削的正规铣刀，为开立槽，钻孔，型腔和普通用途加工而设计。

▶ These end mills are furnished as regular with right-hand cutting and right-hand helical flutes. These are designed for slotting, drilling, pocketing and general-purpose operation.



HSS Co8 | 4 | 30° | PLAIN

P.974, 975

单位(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E2412010	EQ412010	1.0	6	2.5	55
E2412015	EQ412015	1.5	6	4	55
E2412020	EQ412020	2.0	6	6	55
E2412025	EQ412025	2.5	6	7	55
E2412030	EQ412030	3.0	6	10	55
E2412035	EQ412035	3.5	8	12	60
E2412040	EQ412040	4.0	8	12	60
E2412045	EQ412045	4.5	8	15	65
E2412050	EQ412050	5.0	8	15	65
E2412055	EQ412055	5.5	8	15	65
E2412060	EQ412060	6.0	8	15	65
E2412065	EQ412065	6.5	10	20	75
E2412070	EQ412070	7.0	10	20	75
E2412075	EQ412075	7.5	10	20	75
E2412080	EQ412080	8.0	10	21	75
E2412085	EQ412085	8.5	10	25	80
E2412090	EQ412090	9.0	10	25	80
E2412095	EQ412095	9.5	10	25	80
E2412100	EQ412100	10.0	10	26	80
E2412105	EQ412105	10.5	12	30	90
E2412110	EQ412110	11.0	12	30	90
E2412115	EQ412115	11.5	12	30	90
E2412120	EQ412120	12.0	12	31	90
E2412130	EQ412130	13.0	12	35	95
E2412912	EQ412912	14.0	12	35	95
E2412140	EQ412140	14.0	16	35	100
E2412150	EQ412150	15.0	16	40	105
E2412160	EQ412160	16.0	16	40	105
E2412170	EQ412170	17.0	16	40	105
E2412180	EQ412180	18.0	16	40	105
E2412190	EQ412190	19.0	20	45	115
E2412200	EQ412200	20.0	20	45	115
E2412210	EQ412210	21.0	20	45	115
E2412220	EQ412220	22.0	20	45	115

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

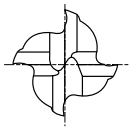
HSS END MILLS

E2412 SERIES PLAIN SHANK
EQ412 SERIES PLAIN SHANK

HSSCo8, 4刃 普通刃 – 中心切割式
HSSCo8, 4FLUTE CENTER CUTTING REGULAR LENGTH

▶ 这些铣刀是右向螺旋角右向切削的正规铣刀. 为开立槽, 钻孔, 型腔和普通用途加工而设计.

▶ These end mills are furnished as regular with right-hand cutting and right-hand helical flutes. These are designed for slotting, drilling, pocketing and general-purpose operation.



HSS Co8 | 4 | 30° | PLAIN

P.974, 975

单位(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E2412230	EQ412230	23.0	25	50	125
E2412240	EQ412240	24.0	25	50	125
E2412250	EQ412250	25.0	25	50	125
E2412260	EQ412260	26.0	25	50	125
E2412270	EQ412270	27.0	25	55	125
E2412280	EQ412280	28.0	25	55	125
E2412290	EQ412290	29.0	25	55	125
E2412300	EQ412300	30.0	25	55	125
E2412310	EQ412310	31.0	32	60	145
E2412320	EQ412320	32.0	32	60	145
E2412330	EQ412330	33.0	32	60	145
E2412340	EQ412340	34.0	32	60	145
E2412350	EQ412350	35.0	32	60	145
E2412360	EQ412360	36.0	32	65	150
E2412370	EQ412370	37.0	32	65	150
E2412380	EQ412380	38.0	32	65	150
E2412390	EQ412390	39.0	32	65	150
E2412400	EQ412400	40.0	32	65	150
E2412410	EQ412410	41.0	42	70	160
E2412420	EQ412420	42.0	42	70	160
E2412430	EQ412430	43.0	42	70	160
E2412440	EQ412440	44.0	42	70	160
E2412450	EQ412450	45.0	42	70	160
E2412460	EQ412460	46.0	42	75	160
E2412470	EQ412470	47.0	42	75	160
E2412480	EQ412480	48.0	42	75	165
E2412490	EQ412490	49.0	42	75	165
E2412500	EQ412500	50.0	42	75	165

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~+0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

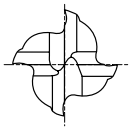
HSS END MILLS

E2659 SERIES PLAIN SHANK
EQ659 SERIES PLAIN SHANK

HSSCo8, 4刃 长刃 - 中心切割式
HSSCo8, 4FLUTE CENTER CUTTING LONG LENGTH

▶ 通过使用更长的沟槽可以进行更深更宽的加工.

▶ Possible for deeper & wider cutting by using the much longer flutes.



HSS Co8 | 4 | 30° | PLAIN

P.974, 975

单位(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E2659030	EQ659030	3.0	6	15	60
E2659040	EQ659040	4.0	8	20	70
E2659050	EQ659050	5.0	8	25	75
E2659060	EQ659060	6.0	8	25	75
E2659070	EQ659070	7.0	10	35	90
E2659080	EQ659080	8.0	10	35	90
E2659090	EQ659090	9.0	10	45	100
E2659100	EQ659100	10.0	10	45	100
E2659110	EQ659110	11.0	12	55	115
E2659120	EQ659120	12.0	12	55	115
E2659130	EQ659130	13.0	12	55	115
E2659140	EQ659140	14.0	16	55	120
E2659150	EQ659150	15.0	16	65	130
E2659160	EQ659160	16.0	16	65	130
E2659170	EQ659170	17.0	16	65	130
E2659180	EQ659180	18.0	16	65	130
E2659190	EQ659190	19.0	20	75	145
E2659200	EQ659200	20.0	20	75	145
E2659210	EQ659210	21.0	20	75	145
E2659220	EQ659220	22.0	20	75	145
E2659230	EQ659230	23.0	25	90	165
E2659240	EQ659240	24.0	25	90	165
E2659250	EQ659250	25.0	25	90	165
E2659260	EQ659260	26.0	25	90	165
E2659270	EQ659270	27.0	25	90	165

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

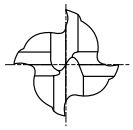
HSS END MILLS

E2659 SERIES PLAIN SHANK
EQ659 SERIES PLAIN SHANK

HSSCo8, 4刃 长刃 - 中心切割式
HSSCo8, 4FLUTE CENTER CUTTING LONG LENGTH

▶ 通过使用更长的沟槽可以进行更深更宽的加工.

▶ Possible for deeper & wider cutting by using the much longer flutes.



HSS Co8 | 4 | 30° | PLAIN

P.974, 975

单位(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E2659280	EQ659280	28.0	25	90	165
E2659290	EQ659290	29.0	25	90	165
E2659300	EQ659300	30.0	25	90	165
E2659310	EQ659310	31.0	32	95	180
E2659320	EQ659320	32.0	32	95	180
E2659330	EQ659330	33.0	32	100	185
E2659340	EQ659340	34.0	32	100	185
E2659350	EQ659350	35.0	32	100	185
E2659360	EQ659360	36.0	32	105	190
E2659370	EQ659370	37.0	32	105	190
E2659380	EQ659380	38.0	32	105	190
E2659390	EQ659390	39.0	32	110	195
E2659400	EQ659400	40.0	32	110	195
E2659420	EQ659420	42.0	42	115	200
E2659450	EQ659450	45.0	42	120	205
E2659460	EQ659460	46.0	42	125	215
E2659480	EQ659480	48.0	42	125	215
E2659500	EQ659500	50.0	42	125	215

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~+0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

HSS END MILLS

E2750 SERIES PLAIN SHANK
EQ750 SERIES PLAIN SHANK

HSSCo8, 4刃 超长刃
HSSCo8, 4 FLUTE EXTRA LONG LENGTH

HSS Co8 | 4 | 30° | PLAIN

P.974, 975

单位(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E2750160	EQ750160	16.0	16	100	160
E2750180	EQ750180	18.0	16	100	180
E2750200	EQ750200	20.0	20	100	180
E2750901	EQ750901	20.0	20	120	200
E2750902	EQ750902	20.0	20	150	230
E2750220	EQ750220	22.0	20	120	200
E2750240	EQ750240	24.0	25	100	180
E2750903	EQ750903	24.0	25	150	250
E2750250	EQ750250	25.0	25	100	180
E2750904	EQ750904	25.0	25	120	220
E2750905	EQ750905	25.0	25	150	250
E2750260	EQ750260	26.0	25	150	250
E2750280	EQ750280	28.0	25	150	250
E2750300	EQ750300	30.0	25	120	200
E2750906	EQ750906	30.0	25	150	250
E2750907	EQ750907	30.0	25	200	280
E2750320	EQ750320	32.0	32	150	230
E2750908	EQ750908	32.0	32	200	280
E2750350	EQ750350	35.0	32	150	250
E2750909	EQ750909	35.0	32	200	300
E2750360	EQ750360	36.0	32	150	250
E2750380	EQ750380	38.0	32	150	250
E2750400	EQ750400	40.0	32	150	250
E2750910	EQ750910	40.0	32	200	300
E2750450	EQ750450	45.0	42	200	300
E2750500	EQ750500	50.0	42	200	300

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~+0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

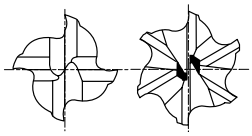
HSS END MILLS

E2421 SERIES PLAIN SHANK
EQ421 SERIES PLAIN SHANK

HSSCo8, 4&6刃 短刃
HSSCo8, 4&6 FLUTE SHORT LENGTH

▶ 荐于用于加工型腔，凸轮轮廓，模腔和开立槽.

▶ Recommended for pocketing copy milling, cam profiling, die sinking and slotting.



HSS Co8 | 4&6 | 30° | PLAIN

P.974, 975

单位(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
E2421025	EQ421025	2.5	6	10	50	4
E2421030	EQ421030	3.0	6	10	50	4
E2421035	EQ421035	3.5	8	12	60	4
E2421040	EQ421040	4.0	8	12	60	4
E2421045	EQ421050	4.5	8	15	60	4
E2421050	EQ421055	5.0	8	15	60	4
E2421055	EQ421060	5.5	8	15	60	4
E2421060	EQ421060	6.0	8	15	60	4
E2421070	EQ421070	7.0	10	20	60	4
E2421080	EQ421080	8.0	10	20	60	4
E2421090	EQ421090	9.0	10	25	70	4
E2421100	EQ421100	10.0	10	25	70	4
E2421110	EQ421110	11.0	12	30	80	4
E2421120	EQ421120	12.0	12	30	80	4
E2421130	EQ421130	13.0	12	35	85	4
E2421140	EQ421140	14.0	16	35	90	4
E2421150	EQ421150	15.0	16	40	95	4
E2421160	EQ421160	16.0	16	40	95	4
E2421170	EQ421170	17.0	16	40	95	4
E2421180	EQ421180	18.0	16	40	95	4
E2421190	EQ421190	19.0	20	45	110	4
E2421200	EQ421200	20.0	20	45	110	4
E2421210	EQ421210	21.0	20	45	110	4
E2421220	EQ421220	22.0	20	45	110	4
E2421230	EQ421230	23.0	25	50	120	4
E2421240	EQ421240	24.0	25	50	120	4
E2421250	EQ421250	25.0	25	50	120	4

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

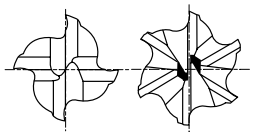
HSS END MILLS

E2421 SERIES PLAIN SHANK
EQ421 SERIES PLAIN SHANK

HSSCo8, 4&6刃 短刃
HSSCo8, 4&6 FLUTE SHORT LENGTH

▶ 荐于用于加工型腔, 凸轮轮廓, 模腔和开立槽.

▶ Recommended for pocketing copy milling, cam profiling, die sinking and slotting.



HSS Co8 | 4&6 | 30° | PLAIN

P.974, 975

单位(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
E2421260	EQ421260	26.0	25	50	120	4
E2421270	EQ421270	27.0	25	55	125	4
E2421280	EQ421280	28.0	25	55	125	4
E2421290	EQ421290	29.0	25	55	125	4
E2421300	EQ421300	30.0	25	55	125	4
E2421310	EQ421310	31.0	32	60	145	4
E2421320	EQ421320	32.0	32	60	145	4
E2421330	EQ421330	33.0	32	60	145	4
E2421340	EQ421340	34.0	32	60	145	4
E2421350	EQ421350	35.0	32	60	145	4
E2421360	EQ421360	36.0	32	65	150	4
E2421370	EQ421370	37.0	32	65	150	4
E2421380	EQ421380	38.0	32	65	150	4
E2421390	EQ421390	39.0	32	65	150	4
E2421400	EQ421400	40.0	32	65	150	4
E2421420	EQ421420	42.0	42	70	160	6
E2421450	EQ421450	45.0	42	70	160	6
E2421500	EQ421500	50.0	42	75	165	6

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~+0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

HSS END MILLS

E2480 SERIES PLAIN SHANK
EQ480 SERIES PLAIN SHANK

HSSCo8, 2刃 普通刃 球头
HSSCo8, 2 FLUTE REGULAR LENGTH BALL NOSE

▶ 2个刃的球头铣刀是用来加工圆弧底面的立槽, 带沟和特殊轮廓而设计的. 底刃切削刃到中心允许这些铣刀在开立槽之前在材料上先钻孔. 2刃设计为开立槽时提供了很好的排屑能力.

▶ The two flute ball End Mills are designed for milling of radius bottom slot, fillet and special contour. The end teeth are cut to center allowing these end mills to drill into material at the beginning of a slotting cut. The two flute design provides good chip ejection ability in slotting.

HSS Co8 | 2 | 30° | R ±0.02 | PLAIN

P.978

단위(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	球头半径 Radius of Ball Nose R (±0.02)	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E2480010	EQ480010	R0.5	1.0	6	2.5	50
E2480015	EQ480015	R0.75	1.5	6	4	50
E2480020	EQ480020	R1.0	2.0	6	5	50
E2480025	EQ480025	R1.25	2.5	6	6	60
E2480030	EQ480030	R1.5	3.0	6	8	60
E2480901	EQ480901	R2.0	4.0	6	8	70
E2480902	EQ480902	R2.5	5.0	6	10	80
E2480903	EQ480903	R3.0	6.0	6	12	90
E2480904	EQ480904	R3.5	7.0	8	14	90
E2480905	EQ480905	R4.0	8.0	8	14	100
E2480090	EQ480090	R4.5	9.0	10	18	100
E2480100	EQ480100	R5.0	10.0	10	18	100
E2480110	EQ480110	R5.5	11.0	12	22	100
E2480120	EQ480120	R6.0	12.0	12	22	110
E2480130	EQ480130	R6.5	13.0	12	26	110
E2480906	EQ480906	R7.0	14.0	12	26	110
E2480907	EQ480907	R7.5	15.0	12	30	110
E2480160	EQ480160	R8.0	16.0	16	30	140
E2480170	EQ480170	R8.5	17.0	16	34	140
E2480180	EQ480180	R9.0	18.0	16	34	140
E2480190	EQ480190	R9.5	19.0	16	38	140

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

HSS END MILLS

E2480 SERIES PLAIN SHANK
EQ480 SERIES PLAIN SHANK

HSSCo8, 2刃 普通刃 球头
HSSCo8, 2 FLUTE REGULAR LENGTH BALL NOSE

▶ 2个刃的球头铣刀是用来加工圆弧底面的立槽，带沟和特殊轮廓而设计的。底刃切削刃到中心允许这些铣刀在开立槽之前在材料上先钻孔。2刃设计为开立槽时提供了很好的排屑能力。

▶ The two flute ball End Mills are designed for milling of radius bottom slot, fillet and special contour. The end teeth are cut to center allowing these end mills to drill into material at the beginning of a slotting cut. The two flute design provides good chip ejection ability in slotting.

HSS Co8 | 2 | 30° | R ±0.02 | PLAIN

P.978

单位(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	球头半径 Radius of Ball Nose R (±0.02)	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length
E2480200	EQ480200	R10.0	**20.0**	20	38	160
E2480210	EQ480210	R10.5	**21.0**	20	45	170
E2480220	EQ480220	R11.0	**22.0**	20	45	170
E2480230	EQ480230	R11.5	**23.0**	20	50	180
E2480908	EQ480908	R12.0	**24.0**	20	50	180
E2480240	EQ480240	R12.0	**24.0**	25	50	180
E2480250	EQ480250	R12.5	**25.0**	25	50	180
E2480260	EQ480260	R13.0	**26.0**	25	50	180
E2480270	EQ480270	R13.5	**27.0**	25	50	180
E2480280	EQ480280	R14.0	**28.0**	25	50	180
E2480300	EQ480300	R15.0	**30.0**	25	55	180
E2480320	EQ480320	R16.0	**32.0**	32	60	180
E2480350	EQ480350	R17.5	**35.0**	32	60	180
E2480400	EQ480400	R20.0	**40.0**	32	65	200
E2480500	EQ480500	R25.0	**50.0**	42	75	210

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
0~−0.03	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

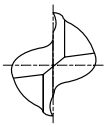
HSS END MILLS

E2682 SERIES PLAIN SHANK

HSSCo8, 2刃 锥度
HSSCo8, 2 FLUTE TAPER

▶ 用于模具加工

▶ For machining dies and molds.



HSS Co8 | 2 | 30° | PLAIN

P.985

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	锥度 Taper Angle
E2682010	1.0	6	4	45	30′
E2682011	1.0	6	4	45	1°
E2682012	1.0	6	4	45	1°30′
E2682013	1.0	6	4	45	2°
E2682014	1.0	6	4	45	3°
E2682015	1.5	6	5	45	30′
E2682016	1.5	6	5	45	1°
E2682017	1.5	6	5	45	1°30′
E2682018	1.5	6	5	45	2°
E2682019	1.5	6	5	45	3°
E2682020	2.0	6	6	45	30′
E2682021	2.0	6	6	45	1°
E2682022	2.0	6	6	45	1°30′
E2682023	2.0	6	6	45	2°
E2682024	2.0	6	6	45	3°
E2682025	2.0	6	6	45	5°
E2682902	2.0	6	6	45	2°30′
E2682026	2.5	6	8	45	30′
E2682027	2.5	6	8	45	1°
E2682028	2.5	6	8	45	1°30′
E2682029	2.5	6	8	45	2°
E2682903	2.5	6	8	45	2°30′
E2682904	2.5	6	8	45	3°
E2682901	2.5	6	8	50	5°
E2682030	3.0	6	10	45	30′
E2682031	3.0	6	10	45	1°
E2682032	3.0	6	10	45	1°30′
E2682033	3.0	6	10	45	2°
E2682036	3.0	6	10	45	2°30′
E2682034	3.0	6	10	45	3°
E2682035	3.0	6	10	50	5°

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

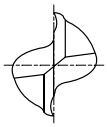
HSS END MILLS

E2682 SERIES PLAIN SHANK

HSSCo8, 2刃 锥度
HSSCo8, 2 FLUTE TAPER

▶ 用于模具加工

▶ For machining dies and molds.



HSS Co8 | 2 | 30° | PLAIN

P.985

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	锥度 Taper Angle
E2682040	4.0	6	15	50	30′
E2682041	4.0	6	15	50	1°
E2682042	4.0	6	15	50	1°30′
E2682043	4.0	6	15	50	2°
E2682046	4.0	6	15	50	2°30′
E2682044	4.0	6	15	50	3°
E2682045	4.0	6	15	60	5°
E2682050	5.0	6	20	55	30′
E2682051	5.0	6	20	55	1°
E2682052	5.0	6	20	55	1°30′
E2682053	5.0	6	20	55	2°
E2682054	5.0	6	20	55	2°30′
E2682055	5.0	6	20	55	3°
E2682056	5.0	8	20	80	5°
E2682060	6.0	6	20	55	30′
E2682061	6.0	6	20	55	1°
E2682062	6.0	6	20	55	1°30′
E2682063	6.0	6	20	55	2°
E2682064	6.0	6	20	55	2°30′
E2682065	6.0	8	20	60	3°
E2682066	6.0	8	20	80	5°

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance	锥度公差 Taper Angle Tolerance
+0.01 −0.05	h6	±5′

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

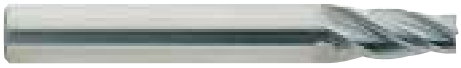
HSS END MILLS

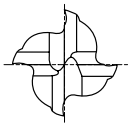
E2683 SERIES PLAIN SHANK

HSSCo8, 4刃 锥度
HSSCo8, 4 FLUTE TAPER

▶ 用于模具加工

▶ For machining dies and molds.





HSS Co8 | 4 | 30° | PLAIN P.985

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	锥度 Taper Angle
E2683080	8.0	8	25	65	30′
E2683081	8.0	8	25	65	1°
E2683082	8.0	8	25	65	1°30′
E2683083	8.0	8	25	65	2°
E2683084	8.0	10	25	70	2°30′
E2683085	8.0	10	25	70	3°
E2683086	8.0	12	25	90	5°
E2683100	10.0	10	35	85	30′
E2683101	10.0	10	35	85	1°
E2683102	10.0	10	35	85	1°30′
E2683103	10.0	12	35	90	2°
E2683104	10.0	12	35	90	2°30′
E2683105	10.0	12	35	90	3°
E2683106	10.0	16	35	115	5°
E2683120	12.0	12	55	110	30′
E2683121	12.0	12	55	110	1°
E2683122	12.0	12	55	110	1°30′
E2683123	12.0	12	55	110	2°
E2683124	12.0	16	55	110	2°30′
E2683125	12.0	16	55	110	3°
E2683126	12.0	20	55	110	5°
E2683127	12.0	20	55	155	5°

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance	锥度公差 Taper Angle Tolerance
+0.01 −0.05	h6	±5′

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

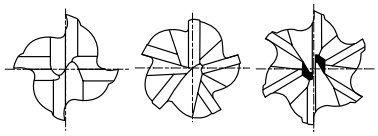
HSS END MILLS

E2760 SERIES FLAT SHANK
EQ760 SERIES FLAT SHANK

HSSCo8, 多刃 短刃 中心切割式 粗加工 - 粗螺纹
HSSCo8, MULTI FLUTE SHORT LENGTH CENTER CUT ROUGHING-COARSE

▶ 普通用途的粗加工刀具为在广泛的被加工材料上进行高生产量金属切削而设计的.

▶ This general purpose rougher is designed for high production metal removal in a wide range of work piece material. It is recommanded for cutting steel grades and many non-ferrous materials.



HSS Co8 | COARSE | 4-6 | 30° | DIN 1835B

P.980, 981

单位(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
E2760060	EQ760060	6.0	8	15	60	4
E2760070	EQ760070	7.0	10	20	65	4
E2760080	EQ760080	8.0	10	20	65	4
E2760090	EQ760090	9.0	12	25	75	4
E2760100	EQ760100	10.0	12	25	75	4
E2760110	EQ760110	11.0	12	30	80	4
E2760120	EQ760120	12.0	12	30	80	4
E2760130	EQ760130	13.0	16	35	90	4
E2760140	EQ760140	14.0	16	35	90	4
E2760150	EQ760150	15.0	16	40	95	4
E2760160	EQ760160	16.0	16	40	95	4
E2760170	EQ760170	17.0	20	40	105	4
E2760180	EQ760180	18.0	20	40	105	4
E2760190	EQ760190	19.0	20	45	110	4
E2760200	EQ760200	20.0	20	45	110	4
E2760210	EQ760210	21.0	20	45	110	5
E2760220	EQ760220	22.0	20	45	110	5
E2760230	EQ760230	23.0	25	50	120	5
E2760240	EQ760240	24.0	25	50	120	5
E2760250	EQ760250	25.0	25	50	120	5
E2760260	EQ760260	26.0	25	50	120	6
E2760270	EQ760270	27.0	25	55	125	6
E2760280	EQ760280	28.0	25	55	125	6
E2760290	EQ760290	29.0	25	55	125	6
E2760300	EQ760300	30.0	25	55	125	6
E2760310	EQ760310	31.0	32	60	145	6
E2760320	EQ760320	32.0	32	60	145	6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

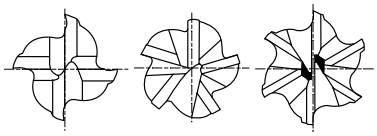
HSS END MILLS

E2760 SERIES FLAT SHANK
EQ760 SERIES FLAT SHANK

HSSCo8, 多刃 短刃 中心切割式 粗加工 - 粗螺纹
HSSCo8, MULTI FLUTE SHORT LENGTH CENTER CUT ROUGHING-COARSE

▶ 普通用途的粗加工刀具为在广泛的被加工材料上进行高生产量金属切削而设计的.

▶ This general purpose rougher is designed for high production metal removal in a wide range of work piece material. It is recommanded for cutting steel grades and many non-ferrous materials.



HSS Co8 | COARSE | 4-6 | 30° | DIN 1835B

P.980, 981

单位(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
E2760330	EQ760330	33.0	32	60	145	6
E2760340	EQ760340	34.0	32	60	145	6
E2760350	EQ760350	35.0	32	60	145	6
E2760360	EQ760360	36.0	32	60	145	6
E2760370	EQ760370	37.0	32	65	150	6
E2760380	EQ760380	38.0	32	65	150	6
E2760390	EQ760390	39.0	32	65	150	6
E2760400	EQ760400	40.0	32	65	150	6
E2760420	EQ760420	42.0	32	65	155	6
E2760942	EQ760942	42.0	42	65	155	6
E2760450	EQ760450	45.0	32	70	160	6
E2760945	EQ760945	45.0	42	70	160	6
E2760480	EQ760480	48.0	32	70	160	6
E2760948	EQ760948	48.0	42	70	160	6
E2760500	EQ760500	50.0	32	70	160	6
E2760950	EQ760950	50.0	42	70	160	6

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
±0.12	h6

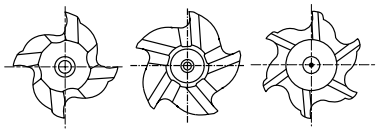
◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

HSS END MILLS

E2759 SERIES PLAIN SHANK
EQ759 SERIES PLAIN SHANK

HSSCo8, 多刃 长刃 粗加工 - 粗螺纹
HSSCo8, MULTI FLUTE LONG LENGTH ROUGHING-COARSE



HSS Co8 | COARSE | 4-6 | 30° | PLAIN

P.980, 981

单位(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
E2759100	EQ759100	10.0	10	45	95	4
E2759120	EQ759120	12.0	12	53	110	4
E2759140	EQ759140	14.0	12	53	110	4
E2759160	EQ759160	16.0	16	63	123	4
E2759180	EQ759180	18.0	16	63	123	4
E2759200	EQ759200	20.0	20	75	141	4
E2759220	EQ759220	22.0	20	75	141	5
E2759250	EQ759250	25.0	25	90	166	5
E2759280	EQ759280	28.0	25	90	166	5
E2759300	EQ759300	30.0	25	90	166	6
E2759320	EQ759320	32.0	32	106	186	6
E2759350	EQ759350	35.0	32	106	186	6
E2759360	EQ759360	36.0	32	106	186	6
E2759400	EQ759400	40.0	32	125	205	6
E2759450	EQ759450	45.0	42	125	227	6
E2759500	EQ759500	50.0	42	150	252	6

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
±0.12	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

HSS END MILLS

E2806 SERIES PLAIN SHANK
EQ806 SERIES PLAIN SHANK

HSSCo8, 多刃 短刃 粗加工 球头 - 粗螺纹
HSSCo8, 4&6 FLUTE SHORT LENGTH ROUGHING BALL NOSE-COARSE

▶ 普通用途的粗加工刀具为在广泛的被加工材料上进行高生产量金属切削而设计的.

▶ This general purpose rougher is designed for high production metal removal in a wide range of work piece materials. It is recommanded for cutting steel grades and many non-ferrous materials.

HSS Co8 | COARSE | 4&6 | 30° | R ±0.02 | PLAIN

P.982

단위(Unit) : mm

型号 EDP No. UNCOATED	型号 EDP No. TiAlN	球头半径 Radius of Ball Nose R (±0.02)	刃部直径 Mill Diameter	柄部直径 Shank Diameter	刃长 Length of Cut	全长 Overall Length	刃数 No. of Flute
E2806080	EQ806080	R4.0	8.0	8	20	90	4
E2806100	EQ806100	R5.0	10.0	10	25	100	4
E2806120	EQ806120	R6.0	12.0	12	32	115	4
E2806140	EQ806140	R7.0	14.0	12	32	115	4
E2806160	EQ806160	R8.0	16.0	16	36	130	4
E2806180	EQ806180	R9.0	18.0	16	40	130	4
E2806200	EQ806200	R10.0	20.0	20	45	145	4
E2806250	EQ806250	R12.5	25.0	25	50	165	4
E2806300	EQ806300	R15.0	30.0	25	63	180	6
E2806320	EQ806320	R16.0	32.0	25	63	180	6
E2806350	EQ806350	R17.5	35.0	32	70	190	6
E2806400	EQ806400	R20.0	40.0	32	70	190	6
E2806500	EQ806500	R25.0	50.0	42	90	225	6

刃部公差 Mill Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
±0.12	h6

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

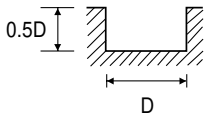
HSS END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

HSSCo8, 2刃 - 开槽
HSSCo8, 2 FLUTE - SLOTTING

E2401, E2406, E2749, E2420 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		铝, 铝合金	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		ALUMINUM ALUMINUM ALLOYS	
HARDNESS			~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40			
STRENGTH	~ 500N/mm²		500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	5600	40	4500	30	4000	30	2200	15	12000	160
3.0	3500	55	3200	45	2500	40	1600	20	11000	250
4.0	2800	70	2200	55	1800	45	1100	30	8000	290
5.0	2200	90	1800	70	1600	60	900	35	6300	310
6.0	1800	90	1600	80	1200	60	800	40	5600	310
8.0	1400	100	1100	90	900	70	560	45	4000	390
10.0	1100	100	900	90	800	80	450	45	3100	400
12.0	900	110	800	100	630	80	400	50	2500	380
14.0	800	110	700	90	560	80	350	50	2200	350
16.0	700	110	560	90	450	70	280	45	2000	350
18.0	630	100	500	90	400	70	250	45	1800	350
20.0	560	100	450	90	400	70	220	45	1600	320
22.0	500	100	450	90	350	70	220	45	1400	300
25.0	450	90	400	80	310	60	180	35	1200	280
28.0	400	80	350	70	280	55	160	30	1100	270
30.0	350	70	310	60	250	50	160	30	1100	270
32.0	350	70	280	55	220	45	140	30	1000	240
36.0	310	60	250	50	200	40	120	25	900	220
40.0	280	60	220	50	180	40	110	25	800	200



※ 对于长型和超长型进给量应该减少约50%.
The FEED, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

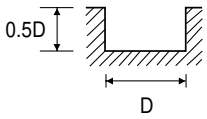
HSS END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

HSSCo8, 2刃 TiAlN 涂层 - 开槽
HSSCo8, 2 FLUTE TiAlN COATED - SLOTTING

E2401, E2406, E2749, E2420 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		铝, 铝合金	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		ALUMINUM ALUMINUM ALLOYS	
HARDNESS			~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40			
STRENGTH	~ 500N/mm²		500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	7850	55	6300	40	5600	40	3100	20	16800	225
3.0	4900	75	4500	65	3500	55	2250	30	15400	350
4.0	3900	100	3100	75	2500	65	1550	40	11200	405
5.0	3100	125	2500	100	2250	85	1250	50	8800	435
6.0	2500	125	2250	110	1700	85	1100	55	7850	435
8.0	1950	140	1550	125	1250	100	800	65	5600	545
10.0	1550	140	1250	125	1100	110	650	65	4350	560
12.0	1250	155	1100	140	900	110	550	70	3500	530
14.0	1100	155	1000	125	800	110	500	70	3100	490
16.0	1000	155	800	125	650	100	400	65	2800	490
18.0	900	140	700	125	550	100	350	65	2500	490
20.0	800	140	650	125	550	100	300	65	2250	450
22.0	700	140	650	125	500	100	300	65	1950	420
25.0	650	125	550	110	450	85	250	50	1700	390
28.0	550	110	500	100	400	75	200	40	1550	380
30.0	500	100	450	85	350	70	200	40	1550	380
32.0	500	100	400	75	300	65	200	40	1400	335
36.0	450	85	350	70	300	55	150	35	1250	310
40.0	400	85	300	70	250	55	150	35	1100	280



※ 对于长型和超长型进给量应该减少约50%.
The FEED, in long & extra long types, should be reduced by around 50%.

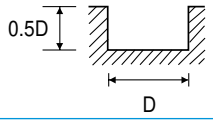
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

HSSCo8, 2刃 42度螺旋角
HSSCo8, 2 FLUTE 42° HELIX

E2464 SERIES

开槽 / SLOTTING

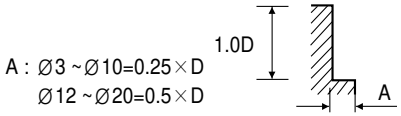
材质 / MATERIAL	铝, 非铁制金属 / ALUMINUM NONFERROUS METALS	
DIAMETER	RPM	FEED
3.0	8000	560
6.0	7000	700
8.0	6000	850
10.0	5000	1200
12.0	5000	1200
14.0	3500	1240
16.0	3500	1240
18.0	2300	1300
20.0	2300	1300



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

侧铣 / SIDE CUTTING

材质 / MATERIAL	铝, 非铁制金属 / ALUMINUM NONFERROUS METALS	
DIAMETER	RPM	FEED
3.0	8000	730
6.0	7000	900
8.0	6000	1100
10.0	5000	1500
12.0	5000	1500
14.0	3500	1600
16.0	3500	1600
18.0	2300	1700
20.0	2300	1700



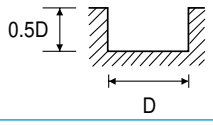
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

HSSCo8, 2刃 42度螺旋角 TiCN 涂层
HSSCo8, 2 FLUTE 42° HELIX TiCN COATED

E2464 SERIES

开槽 / SLOTTING

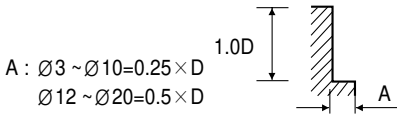
材质 / MATERIAL	铝, 非铁制金属 / ALUMINUM NONFERROUS METALS	
DIAMETER	RPM	FEED
3.0	10400	730
6.0	9100	910
8.0	7800	1100
10.0	6500	1560
12.0	6500	1560
14.0	4500	1610
16.0	4500	1610
18.0	3000	1700
20.0	3000	1700



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

侧铣 / SIDE CUTTING

材质 / MATERIAL	铝, 非铁制金属 / ALUMINUM NONFERROUS METALS	
DIAMETER	RPM	FEED
3.0	10400	950
6.0	9100	1150
8.0	7800	1400
10.0	6500	1950
12.0	6500	1950
14.0	4500	2080
16.0	4500	2080
18.0	3000	2210
20.0	3000	2210



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

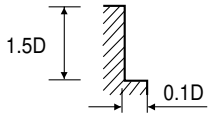
HSS END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

HSSCo8, 多刃 - 侧铣.
HSSCo8, MULTI FLUTE - SIDE CUTTING

E2412, E2659, E2750, E2421 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		铝, 铝合金	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		ALUMINUM ALUMINUM ALLOYS	
HARDNESS			~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40			
STRENGTH	~ 500N/mm²		500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	5600	80	4500	55	4000	45	2200	20	12000	240
3.0	3500	110	3200	80	2500	60	1600	30	11000	380
4.0	2800	140	2200	100	1800	65	1100	45	8000	440
5.0	2200	180	1800	125	1600	90	900	50	6300	470
6.0	1800	180	1600	145	1200	90	800	60	5600	470
8.0	1400	200	1100	160	900	105	560	65	4000	580
10.0	1100	200	900	160	800	120	450	65	3100	600
12.0	900	220	800	180	630	120	400	75	2500	570
14.0	800	220	700	160	560	120	350	75	2200	530
16.0	700	220	560	160	450	105	280	65	2000	530
18.0	630	200	500	160	400	105	250	65	1800	530
20.0	560	200	450	160	400	105	220	65	1600	480
22.0	500	200	450	160	350	105	220	65	1400	450
25.0	450	180	400	145	310	90	180	50	1200	420
28.0	400	160	350	125	280	80	160	45	1100	400
30.0	350	140	310	110	250	75	160	45	1100	400
32.0	350	140	280	100	220	65	140	45	1000	360
36.0	310	120	250	90	200	60	120	35	900	330
40.0	280	120	220	90	180	60	110	35	800	300



※ 对于长型和超长型进给量应该减少约50%.
The FEED, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

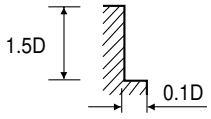
HSS END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

HSSCo8, 多刃 TiAlN 涂层 - 侧铣
HSSCo8, MULTI FLUTE TiAlN COATED - SIDE CUTTING

E2412, E2659, E2750, E2421 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		铝, 铝合金	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		ALUMINUM ALUMINUM ALLOYS	
HARDNESS			~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40			
STRENGTH	~ 500N/mm²		500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	7850	110	6300	75	5600	65	3100	30	16800	335
3.0	4900	155	4500	110	3500	85	2250	40	15400	530
4.0	3900	195	3100	140	2500	90	1550	65	11200	615
5.0	3100	250	2500	175	2250	125	1250	70	8800	660
6.0	2500	250	2250	205	1700	125	1100	85	7850	660
8.0	1950	280	1550	225	1250	145	800	90	5600	810
10.0	1550	280	1250	225	1100	170	650	90	4350	840
12.0	1250	310	1100	250	900	170	550	105	3500	800
14.0	1100	310	1000	225	800	170	500	105	3100	740
16.0	1000	310	800	225	650	145	400	90	2800	740
18.0	900	280	700	225	550	145	350	90	2500	740
20.0	800	280	650	225	550	145	300	90	2250	670
22.0	700	280	650	225	500	145	300	90	1950	630
25.0	650	250	550	205	450	125	250	70	1700	590
28.0	550	225	500	175	400	110	200	65	1550	560
30.0	500	195	450	155	350	105	200	65	1550	560
32.0	500	195	400	140	300	90	200	65	1400	505
36.0	450	170	350	125	300	85	150	50	1250	460
40.0	400	170	300	125	250	85	150	50	1100	420



※ 对于长型和超长型进给量应该减少约50%.
The FEED, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

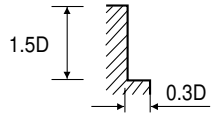
HSS END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

HSSCo8, 多刃 50度螺旋角 - 侧铣
HSSCo8, MULTI FLUTE 50° HELIX - SIDE CUTTING

E2461, E2462, E2463 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS	
HARDNESS	~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40	
STRENGTH	500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
2.0	5000	35	4500	25	2500	10
3.0	3500	50	2800	35	1800	20
4.0	2500	60	2000	40	1200	25
5.0	2000	75	1800	55	1000	30
6.0	1800	85	1300	55	900	35
8.0	1200	95	1000	65	600	40
10.0	1000	95	900	70	500	40
12.0	900	110	700	70	450	45
14.0	800	95	600	70	400	45
16.0	600	95	500	65	300	40
18.0	550	95	450	65	280	40
20.0	500	95	450	65	250	40
22.0	500	95	400	65	250	40
25.0	450	85	350	55	200	30
28.0	400	75	300	50	180	25
30.0	350	65	280	45	180	25

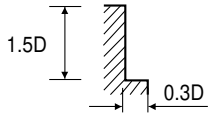


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

HSSCo8, 多刃 50度螺旋角 TiAlN 涂层 - 侧铣
HSSCo8, MULTI FLUTE 50° HELIX TiAlN COATED - SIDE CUTTING

E2461, E2462, E2463 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS	
HARDNESS	~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40	
STRENGTH	500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
2.0	7000	50	6300	35	3500	15
3.0	4900	70	3920	50	2520	30
4.0	3500	85	2800	55	1680	35
5.0	2800	105	2520	75	1400	40
6.0	2520	120	1820	75	1260	50
8.0	1680	135	1400	90	840	55
10.0	1400	135	1260	100	700	55
12.0	1260	155	980	100	630	65
14.0	1120	135	840	100	560	65
16.0	840	135	700	90	420	55
18.0	770	135	630	90	390	55
20.0	700	135	630	90	350	55
22.0	700	135	560	90	350	55
25.0	630	120	490	75	280	40
28.0	560	105	420	70	250	35
30.0	490	90	390	65	250	35



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

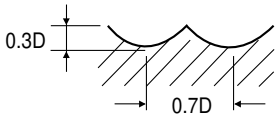
HSS END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

HSSCo8, 2刃 球头
HSSCo8, 2 FLUTE BALL NOSE

E2480 SERIES

MATERIAL	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		铝, 铝合金	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		ALUMINUM ALUMINUM ALLOYS	
HARDNESS			~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40			
STRENGTH	~ 500N/mm²		500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
R1.5 × 3.0	4500	95	3400	70	2000	30	1400	20	11000	230
R2.0 × 4.0	3200	115	2400	80	1400	35	1000	25	8000	260
R3.0 × 6.0	2200	135	1700	90	1000	45	700	25	5600	280
R4.0 × 8.0	1600	160	1200	105	700	50	500	30	4000	350
R5.0 × 10.0	1300	180	1000	120	560	60	400	35	3200	360
R6.0 × 12.0	1000	170	800	105	450	55	320	35	2500	340
R8.0 × 16.0	800	150	600	100	350	55	250	35	2000	300
R10.0 × 20.0	600	140	500	85	300	50	200	35	1600	280
R12.5 × 25.0	500	130	400	70	220	40	160	30	1300	250



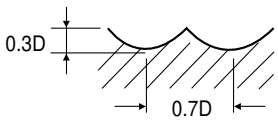
※ 对于长型和超长型进给量应该减少约50%.
The FEED, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

HSSCo8, 2刃 球头 TiAlN 涂层
HSSCo8, 2 FLUTE BALL NOSE TiAlN COATED

E2480 SERIES

MATERIAL	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		铝, 铝合金	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		ALUMINUM ALUMINUM ALLOYS	
HARDNESS			~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40			
STRENGTH	~ 500N/mm²		500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
R1.5 × 3.0	6300	135	4750	100	2800	40	1950	30	15400	320
R2.0 × 4.0	4500	160	3350	110	1950	50	1400	35	11200	365
R3.0 × 6.0	3100	190	2400	125	1400	65	1000	35	7850	390
R4.0 × 8.0	2250	225	1700	145	1000	70	700	40	5600	490
R5.0 × 10.0	1800	250	1400	170	800	85	550	50	4500	505
R6.0 × 12.0	1400	240	1100	145	650	75	450	50	3500	475
R8.0 × 16.0	1100	210	850	140	500	75	350	50	2800	420
R10.0 × 20.0	850	195	700	120	400	70	300	50	2250	390
R12.5 × 25.0	700	180	550	100	300	55	200	40	1800	350



※ 对于长型和超长型进给量应该减少约50%.
The FEED, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

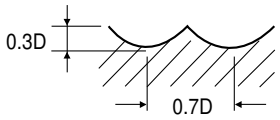
HSS END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

HSSCo8, 多刃 球头
HSSCo8, MULTI FLUTE BALL NOSE

E2410, E2429 SERIES

MATERIAL	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		铝, 铝合金	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		ALUMINUM ALUMINUM ALLOYS	
HARDNESS			~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40			
STRENGTH	~ 500N/mm²		500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
R3.0 × 6.0	2200	200	1700	135	1000	70	700	40	5600	420
R4.0 × 8.0	1600	240	1200	160	700	75	500	45	4000	530
R5.0 × 10.0	1300	270	1000	180	560	90	400	50	3200	540
R6.0 × 12.0	1000	260	800	160	450	80	320	50	2500	510
R8.0 × 16.0	800	230	600	150	350	80	250	50	2000	450
R10.0 × 20.0	600	210	500	130	300	75	200	50	1600	420
R12.5 × 25.0	500	200	400	105	220	60	160	45	1300	380



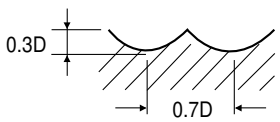
※ 对于长型和超长型进给量应该减少约50%.
The FEED, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

HSSCo8, 多刃 球头 TiAlN 涂层
HSSCo8, MULTI FLUTE BALL NOSE TiAlN COATED

E2410, E2429 SERIES

MATERIAL	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		铝, 铝合金	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		ALUMINUM ALUMINUM ALLOYS	
HARDNESS			~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40			
STRENGTH	~ 500N/mm²		500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
R3.0 × 6.0	3100	280	2400	190	1400	100	1000	55	7850	590
R4.0 × 8.0	2250	335	1700	225	1000	105	700	65	5600	740
R5.0 × 10.0	1800	380	1400	250	800	125	550	70	4500	755
R6.0 × 12.0	1400	365	1100	225	650	110	450	70	3500	715
R8.0 × 16.0	1100	320	850	210	500	110	350	70	2800	630
R10.0 × 20.0	850	295	700	180	400	105	300	70	2250	590
R12.5 × 25.0	700	280	550	145	300	85	200	65	1800	530



※ 对于长型和超长型进给量应该减少约50%.
The FEED, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

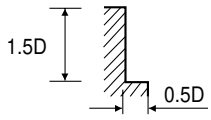
HSS END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

HSSCo8, 多刃 粗加工 - 侧铣
HSSCo8, MULTI FLUTE ROUGHING - SIDE CUTTING

E2751, E2752, E2755 , E2756, E2764, E2765, E2753, E2759, E2760, E2762 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		铝, 铝合金	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		ALUMINUM ALUMINUM ALLOYS	
HARDNESS			~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40			
STRENGTH	~ 500N/mm²		500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6.0	1800	80	1600	60	1200	55	800	30	4500	200
8.0	1400	105	1100	75	900	65	560	35	3100	230
10.0	1100	150	900	120	800	110	450	60	2500	350
12.0	900	180	800	140	630	110	400	70	2000	400
14.0	800	180	700	140	560	110	350	70	1800	420
16.0	700	180	560	140	450	110	280	70	1600	450
18.0	630	180	500	140	400	110	250	70	1400	470
20.0	560	180	450	140	400	110	220	70	1200	500
22.0	500	220	450	170	350	140	220	85	1100	470
25.0	450	220	400	170	310	140	180	85	1000	450
28.0	400	210	350	160	280	130	160	85	900	510
30.0	350	210	310	160	250	130	160	85	900	530
32.0	350	210	280	160	220	130	140	85	800	500
36.0	310	210	250	160	200	130	120	85	700	470
40.0	280	200	220	150	180	120	110	80	630	450
50.0	220	200	180	170	160	140	90	80	500	370



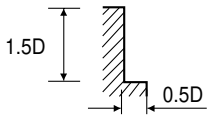
※ 对于长型和超长型进给量应该减少约50%.
The FEED, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

HSSCo8, 多刃 粗加工 TiAlN 涂层 - 侧铣
HSSCo8, MULTI FLUTE ROUGHING TiAlN COATED - SIDE CUTTING

E2751, E2752, E2755 , E2756, E2764, E2765, E2753, E2759, E2760, E2762 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		铝, 铝合金	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		ALUMINUM ALUMINUM ALLOYS	
HARDNESS			~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40			
STRENGTH	~ 500N/mm²		500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6.0	2500	110	2250	85	1700	75	1100	40	6300	280
8.0	1950	145	1550	105	1250	90	800	50	4350	320
10.0	1550	210	1250	170	1100	155	650	85	3500	490
12.0	1250	250	1100	195	900	155	550	100	2800	560
14.0	1100	250	1000	195	800	155	500	100	2500	590
16.0	1000	250	800	195	650	155	400	100	2250	630
18.0	900	250	700	195	550	155	350	100	1950	660
20.0	800	250	650	195	550	155	300	100	1700	700
22.0	700	310	650	240	500	195	300	120	1550	660
25.0	650	310	550	240	450	195	250	120	1400	630
28.0	550	295	500	225	400	180	220	120	1250	715
30.0	500	295	450	225	350	180	220	120	1250	740
32.0	500	295	400	225	300	180	200	120	1100	700
36.0	450	295	350	225	300	180	170	120	1000	660
40.0	400	280	300	210	250	170	130	110	900	630
50.0	300	280	250	240	220	195	120	110	700	520



※ 对于长型和超长型进给量应该减少约50%.
The FEED, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

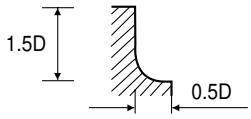
HSS END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

HSSCo8, 多刃 粗加工 螺纹球头 - 侧铣
HSSCo8, MULTI FLUTE ROUGHING BALL NOSE - SIDE CUTTING

E2806 SERIES

MATERIAL	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		铝, 铝合金	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		ALUMINUM ALUMINUM ALLOYS	
HARDNESS			~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40			
STRENGTH	~ 500N/mm²		500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
R4.0 × 8.0	1400	105	1100	75	900	65	560	35	3100	230
R5.0 × 10.0	1100	150	900	120	800	110	450	60	2500	250
R6.0 × 12.0	900	180	800	140	630	110	400	70	2000	400
R8.0 × 16.0	700	180	560	140	450	110	280	70	1600	450
R10.0 × 20.0	560	180	450	140	400	110	220	70	1200	500
R12.5 × 25.0	450	220	400	170	310	140	180	85	1000	450
R16.0 × 32.0	350	210	280	160	220	130	140	85	800	500
R20.0 × 40.0	280	200	220	150	180	120	110	80	630	450



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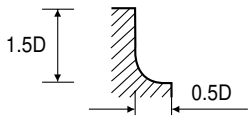
The FEED, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

HSSCo8, 多刃 螺纹球头 TiAlN 涂层 - 侧铣
HSSCo8, MULTI FLUTE ROUGHING BALL NOSE TiAlN COATED - SIDE CUTTING

E2806 SERIES

MATERIAL	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		铝, 铝合金	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		ALUMINUM ALUMINUM ALLOYS	
HARDNESS			~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40			
STRENGTH	~ 500N/mm²		500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
R4.0 × 8.0	1960	150	1540	105	1260	90	790	50	4340	320
R5.0 × 10.0	1540	210	1260	170	1120	155	630	85	3500	350
R6.0 × 12.0	1260	250	1120	195	880	155	560	100	2800	560
R8.0 × 16.0	980	250	790	195	630	155	390	100	2240	630
R10.0 × 20.0	790	250	630	195	560	155	310	100	1680	700
R12.5 × 25.0	630	310	560	240	440	195	250	120	1400	630
R16.0 × 32.0	490	295	390	225	310	180	200	120	1120	700
R20.0 × 40.0	390	280	310	210	250	170	160	110	880	630



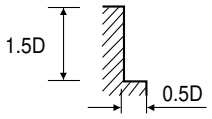
※ 对于长型和超长型进给量应该减少约50%.
The FEED, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

HSSCo8, 多刃 粗加工和精加工 - 侧铣
HSSCo8, MULTI FLUTE ROUGHING & FINISHING - SIDE CUTTING

E2754, E2768, E2766 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		铝, 铝合金	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		ALUMINUM ALUMINUM ALLOYS	
HARDNESS			~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40			
STRENGTH	~ 500N/mm²		500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6.0	1800	65	1600	50	1200	45	800	25	4500	160
8.0	1400	85	1100	60	900	50	560	30	3100	185
10.0	1100	120	900	95	800	90	450	50	2500	280
12.0	900	145	800	110	630	90	400	55	2000	320
14.0	800	145	700	110	560	90	350	55	1800	340
16.0	700	145	560	110	450	90	280	55	1600	360
18.0	630	145	500	110	400	90	250	55	1400	380
20.0	560	145	450	110	400	90	220	55	1200	400
22.0	500	175	450	135	350	110	220	70	1100	380
25.0	450	175	400	135	310	110	180	70	1000	360
28.0	400	170	350	130	280	105	160	70	900	410
30.0	350	170	310	130	250	105	160	70	900	420
32.0	350	170	280	130	220	105	140	70	800	400
36.0	310	170	250	130	200	105	120	70	700	380
40.0	280	160	220	120	180	95	110	65	630	360



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The FEED, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

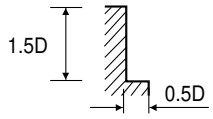
HSS END MILLS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

HSSCo8, 多刃 粗加工和精加工 TiAlN 涂层 - 侧铣
HSSCo8, MULTI FLUTE ROUGHING & FINISHING TiAlN COATED - SIDE CUTTING

E2754, E2768, E2766 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		铝, 铝合金	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		ALUMINUM ALUMINUM ALLOYS	
HARDNESS			~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40			
STRENGTH	~ 500N/mm²		500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6.0	2500	90	2250	70	1700	65	1100	35	6300	225
8.0	1950	120	1550	85	1250	70	800	40	4350	260
10.0	1550	170	1250	135	1100	125	650	70	3500	390
12.0	1250	205	1100	155	900	125	550	75	2800	450
14.0	1100	205	1000	155	800	125	500	75	2500	475
16.0	1000	205	800	155	650	125	400	75	2250	505
18.0	900	205	700	155	550	125	350	75	1950	530
20.0	800	205	650	155	550	125	300	75	1700	560
22.0	700	245	650	190	500	155	300	100	1550	530
25.0	650	245	550	190	450	155	250	100	1400	505
28.0	550	240	500	180	400	145	200	100	1250	575
30.0	500	240	450	180	350	145	200	100	1250	590
32.0	500	240	400	180	300	145	170	100	1100	560
36.0	450	240	350	180	280	145	150	100	1000	530
40.0	400	225	300	170	250	135	150	90	900	505



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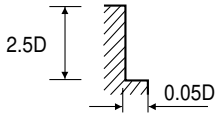
The FEED, in long & extra long types, should be reduced by around 50%.

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

HSSCo8, 锥度 - 侧铣
HSSCo8, TAPER - SIDE CUTTING

E2682, E2683 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS	
HARDNESS	~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
2.0	3800	50	3500	38	2800	22
3.0	2800	50	2400	38	1900	22
4.0	2000	50	1750	38	1400	22
5.0	1700	55	1400	42	1100	27
6.0	1300	55	1150	46	940	27
8.0	1000	55	880	46	700	27
10.0	780	55	700	46	560	27
12.0	600	55	580	46	530	27

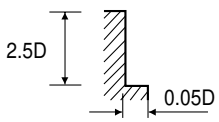


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

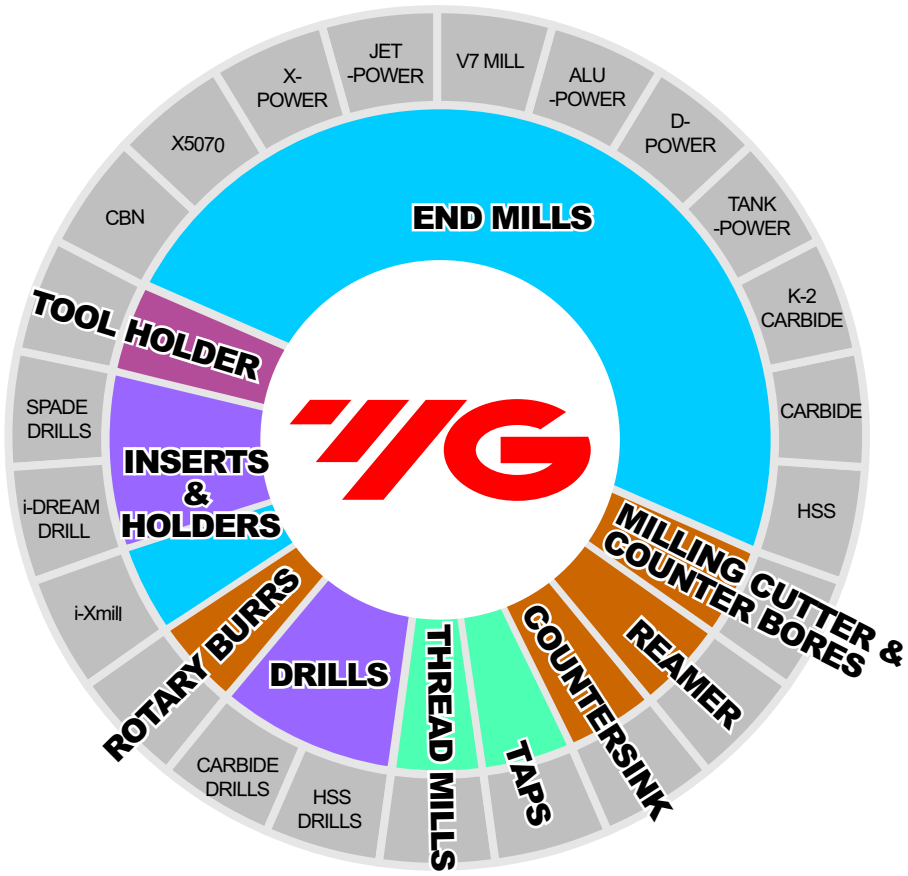
HSSCo8, 锥度 TiAlN 涂层 - 侧铣
HSSCo8, TAPER TiAlN COATED - SIDE CUTTING

E2682, E2683 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS	
HARDNESS	~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
2.0	5300	70	4900	53	3900	30
3.0	3900	70	3360	53	2650	30
4.0	2800	70	2450	53	1950	30
5.0	2380	77	1960	58	1540	37
6.0	1800	77	1600	64	1300	37
8.0	1400	77	1200	64	980	37
10.0	1100	77	980	64	780	37
12.0	840	77	810	64	740	37



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)



Challenge Toward a Global Leader-

YG-1 Leads the World Market.

HSS

YG

Being the best through innovation

MILLING CUTTER

- 一般加工. 可使用燕尾槽铣刀，月牙键槽铣刀，T型槽铣刀，三面刃铣刀，含钴8%的圆角铣刀和圆筒形端铣刀

General Works. Available Dovetail, Woodruff Keyseat, T-slot, Side Milling Cutters and HSS (8% cobalt) Corner Rounding,Shell End Mills

SELECTION GUIDE

项目	型号	规格	尺寸		页
			最小	最大	
ITEM	MODEL	DESCRIPTION	SIZE		PAGE
			MIN	MAX	
ML012 ML022 ML112 ML122		HSS-E, 燕尾槽铣刀 "A"型, "C"型, "E"型 HSS-E, DOVETAIL CUTTERS TYPE "A", "C", "E"	D16.0	D50.0	990
ML032 ML042 ML132 ML142		HSS-E, 燕尾槽铣刀 "B"型, "D"型, "F"型 HSS-E, DOVETAIL CUTTERS TYPE "B", "D", "F"	D16.0	D38.0	991
ML062 ML162		HSS-E, 月牙键槽铣刀 "B"型, "D"型, "F"型 HSS-E, WOODRUFF KEYSEAT CUTTERS TYPE "B", "D", "F"	D10.5	D45.5	992
ML072 ML172		HSS-E, T型铣刀 "AA"型, "AB"型, "AD"型 HSS-E, T-SLOT CUTTERS TYPE "AA", "AB", "AD"	D12.5	D40.0	994
ML092		HSS-E, 直齿三面刃铣刀 HSS-E, SIDE AND FACE MILLING CUTTERS with STRAIGHT TEETH	D50.0	D125.0	995
ML102		HSS-E, 错齿三面刃铣刀 HSS-E, SIDE AND FACE MILLING CUTTERS with STAGGERED TEETH	D50.0	D200.0	996
E2675		HSSCo8, 多刃圆筒形端铣刀 HSSCo8, MULTI FLUTE SHELL END MILL	D30.0	D160.0	1000
E2676		HSSCo8, 多刃铝用圆筒形端铣刀 HSSCo8, MULTI FLUTE SHELL END MILL for ALUMINUM	D30.0	D100.0	1001
E2677		HSSCo8, 多刃圆筒形粗加工端铣刀 - 粗螺纹 HSSCo8, MULTI FLUTE ROUGHING SHELL END MILL - COARSE	D40.0	D160.0	1002
E2678		HSSCo8, 多刃圆筒形粗加工端铣刀 - 细螺纹 HSSCo8, MULTI FLUTE ROUGHING SHELL END MILL - FINE	D40.0	D160.0	1003
E2679		HSSCo8, 多刃圆筒形粗加工和精加工端铣刀 HSSCo8, MULTI FLUTE ROUGHING & FINISHING SHELL END MILL	D40.0	D160.0	1004
E2498		HSSCo8, 4刃圆角铣刀 HSSCo8, 4 FLUTE CORNER ROUNDING CUTTERS	D8.0	D56.0	1005
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS			1006

◎ : 优(Excellent) ○ : 良(Good)

碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	铬镍铁合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			
◎	◎	○							○			
◎	◎	○							○			
◎	◎								○			
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◎	◎	○							○			
◎	◎	○							○			

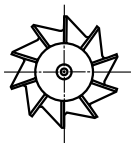
YG MILLING CUTTERS

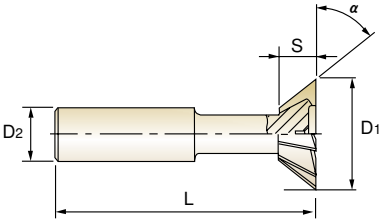
ML012, ML022 SERIES PLAIN SHANK
ML112, ML122 SERIES FLAT SHANK
ML212, ML222 SERIES THREAD SHANK

HSS-E, 燕尾槽铣刀"A"型, "C"型, "E"型
HSS-E, DOVETAIL CUTTERS TYPE "A", "C", "E"

▶ 推荐使用机器心轴和螺纹孔盘铣刀来降低调试时间并且容易处理

▶ Recommanded for use in place of arbor and threaded hole type cutters to reduce set time and facilitate handling.





HSS-E | DIN 1833 | N | 0° | DIN 1835A | DIN 1835B | DIN 1835D

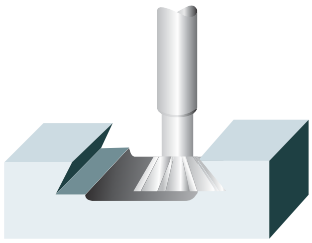
P.1006

단위(Unit) : mm

型号 EDP No. PLAIN	FLAT	THREAD	刀具直径 Cutter Diameter D1(js16)	刃幅 Width of Face S(js14)	Angle Divergent Taper Angle α(±15′)	柄部直径 Shank Diameter D2(h6)	全长 Overall Length L(js18)	刃数 No. of Teeth Z
ML01201601	ML11201601	ML21201601	16.0	4	45°	12	60	6
ML01202001	ML11202001	ML21202001	20.0	5	45°	12	63	6
ML01202201	ML11202201	ML21202201	22.0	6	45°	12	67	6
ML01202501	ML11202501	ML21202501	25.0	6.3	45°	16	67	8
ML01202801	ML11202801	ML21202801	28.0	7.5	45°	16	67	8
ML01203201	ML11203201	ML21203201	32.0	8	45°	16	71	10
ML01203801	ML11203801	ML21203801	38.0	10	45°	16	80	12
ML02201601	ML12201601	ML22201601	16.0	6.3	60°	12	60	6
ML02202001	ML12202001	ML22202001	20.0	8	60°	12	63	6
ML02202201	ML12202201	ML22202201	22.0	9	60°	12	67	6
ML02202501	ML12202501	ML22202501	25.0	10	60°	16	67	8
ML02202801	ML12202801	ML22202801	28.0	11	60°	16	67	8
ML02203201	ML12203201	ML22203201	32.0	12.5	60°	16	71	10
ML02203801	ML12203801	ML22203801	38.0	16	60°	16	80	12
ML02204001	ML12204001	ML22204001	40.0	13	60°	25	85	12
ML02205001	ML12205001	ML22205001	50.0	16	60°	25	100	16

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

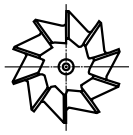
公称直径单位/ Nominal-Diameter in mm	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50	over 50 to 80	over 80 to 120
精度范围单位/ Tolerance range in mm							
js16	± 0.375	± 0.45	± 0.55	± 0.65	± 0.80	± 0.95	± 1.10
js14	± 0.15	± 0.18	± 0.215	± 0.26	± 0.31	± 0.37	± 0.435
js18	± 0.90	± 1.10	± 1.35	± 1.65	± 1.95	± 2.30	± 2.70
精度范围单位/ Tolerance range in μm							
h6	0 / − 8	0 / − 9	0 / − 11	0 / − 13	0 / − 16	0 / − 19	0 / − 22

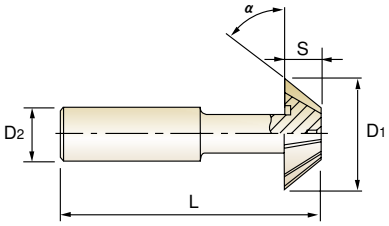


◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

HSS-E, 燕尾槽铣刀"B"型, "D"型, "F"型
HSS-E, DOVETAIL CUTTERS TYPE "B", "D", "F"





HSS-E | DIN 1833 | N | 0° | DIN 1835A | DIN 1835B | DIN 1835D

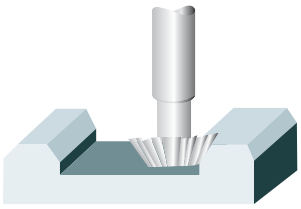
P.1006

单位(Unit) : mm

型号 EDP No.			刀具直径 Cutter Diameter	刃幅 Width of Face	锥度 Divergent Taper Angle	柄部直径 Shank Diameter	全长 Overall Length	刃数 No. of Teeth
PLAIN	FLAT	THREAD	D1(js16)	S(js14)	α(±15′)	D2(h6)	L(js18)	Z
ML03201601	ML13201601	ML23201601	16.0	4	45°	12	60	6
ML03202001	ML13202001	ML23202001	20.0	5	45°	12	63	6
ML03202201	ML13202201	ML23202201	22.0	6	45°	12	67	6
ML03202501	ML13202501	ML23202501	25.0	6.3	45°	16	67	8
ML03202801	ML13202801	ML23202801	28.0	7.5	45°	16	67	8
ML03203201	ML13203201	ML23203201	32.0	8	45°	16	71	10
ML03203801	ML13203801	ML23203801	38.0	10	45°	16	80	12
ML04201601	ML14201601	ML24201601	16.0	6.3	60°	12	60	6
ML04202001	ML14202001	ML24202001	20.0	8	60°	12	63	6
ML04202201	ML14202201	ML24202201	22.0	9	60°	12	67	6
ML04202501	ML14202501	ML24202501	25.0	10	60°	16	67	8
ML04202801	ML14202801	ML24202801	28.0	11	60°	16	67	8
ML04203201	ML14203201	ML24203201	32.0	12.5	60°	16	71	10
ML04203801	ML14203801	ML24203801	38.0	16	60°	16	80	12

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

	公称直径单位 / Nominal-Diameter in mm					
	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50	over 50 to 80
	精度范围单位 / Tolerance range in mm					
js16	± 0.375	± 0.45	± 0.55	± 0.65	± 0.80	± 0.95
js14	± 0.15	± 0.18	± 0.215	± 0.26	± 0.31	± 0.37
js18	± 0.90	± 1.10	± 1.35	± 1.65	± 1.95	± 2.30
	精度范围单位 / Tolerance range in μm					
h6	0 / − 8	0 / − 9	0 / − 11	0 / − 13	0 / − 16	0 / − 19



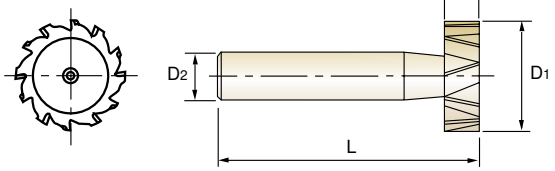
◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

MILLING CUTTERS

ML062 SERIES PLAIN SHANK
ML162 SERIES FLAT SHANK
ML262 SERIES THREAD SHANK

HSS-E, 月牙键槽铣刀"B"型, "D"型, "F"型
HSS-E, WOODRUFF KEYSEAT CUTTERS TYPE "B", "D", "F"



HSS-E | DIN 850 | N | 10~12° | DIN 1835A | DIN 1835B | DIN 1835D

P.1007

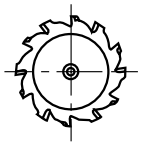
单位(Unit) : mm

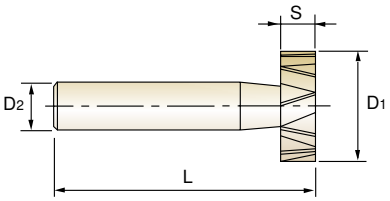
型号 EDP No.			刀具直径 Cutter Diameter	刃幅 Width of Face	柄部直径 Shank Diameter	全长 Overall Length	刃数 No. of Teeth
PLAIN	FLAT	THREAD	D1(h11)	S(e8)	D2(h6)	L(js18)	Z
ML06210E01	ML16210E01	ML26210E01	10.5	2	6	50	8
ML06210E02	ML16210E02	ML26210E02	10.5	2.5	6	50	8
ML06210E03	ML16210E03	ML26210E03	10.5	3	6	50	8
ML06213E01	ML16213E01	ML26213E01	13.5	2	10	56	8
ML06213E02	ML16213E02	ML26213E02	13.5	2.5	10	56	8
ML06213E03	ML16213E03	ML26213E03	13.5	3	10	56	8
ML06213E04	ML16213E04	ML26213E04	13.5	4	10	56	8
ML06216E01	ML16216E01	ML26216E01	16.5	2.5	10	56	8
ML06216E02	ML16216E02	ML26216E02	16.5	3	10	56	8
ML06216E03	ML16216E03	ML26216E03	16.5	4	10	56	8
ML06216E04	ML16216E04	ML26216E04	16.5	5	10	56	8
ML06219E01	ML16219E01	ML26219E01	19.5	3	10	56	8
ML06219E02	ML16219E02	ML26219E02	19.5	4	10	63	8
ML06219E03	ML16219E03	ML26219E03	19.5	5	10	63	8
ML06219E04	ML16219E04	ML26219E04	19.5	6	10	63	8
ML06222E01	ML16222E01	ML26222E01	22.5	4	10	63	10
ML06222E02	ML16222E02	ML26222E02	22.5	5	10	63	10
ML06222E03	ML16222E03	ML26222E03	22.5	6	10	63	10
ML06222E04	ML16222E04	ML26222E04	22.5	8	10	63	10
ML06225E01	ML16225E01	ML26225E01	25.5	5	10	63	10
ML06225E02	ML16225E02	ML26225E02	25.5	6	10	63	10
ML06225E03	ML16225E03	ML26225E03	25.5	7	10	63	10
ML06225E04	ML16225E04	ML26225E04	25.5	8	10	63	10
ML06228E01	ML16228E01	ML26228E01	28.5	5	10	63	10
ML06228E02	ML16228E02	ML26228E02	28.5	6	10	63	10
ML06228E03	ML16228E03	ML26228E03	28.5	7	10	63	10
ML06228E04	ML16228E04	ML26228E04	28.5	8	10	63	10
ML06228E05	ML16228E05	ML26228E05	28.5	10	12	71	10

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

HSS-E, 月牙键槽铣刀"B"型, "D"型, "F"型
HSS-E, WOODRUFF KEYSEAT CUTTERS TYPE "B", "D", "F"





HSS-E | DIN 850 | N | 10~12° | DIN 1835A | DIN 1835B | DIN 1835D

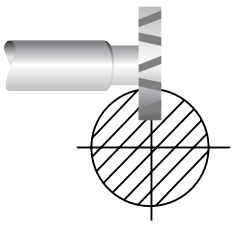
P.1007

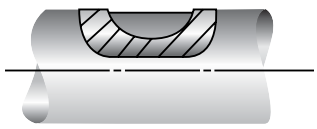
단위(Unit) : mm

型号 EDP No. PLAIN	FLAT	THREAD	刀具直径 Cutter Diameter D1(h11)	刃幅 Width of Face S(e8)	柄部直径 Shank Diameter D2(h6)	全长 Overall Length L(js18)	刃数 No. of Teeth Z
ML06232E01	ML16232E01	ML26232E01	32.5	5	12	71	12
ML06232E02	ML16232E02	ML26232E02	32.5	6	12	71	12
ML06232E03	ML16232E03	ML26232E03	32.5	7	12	71	12
ML06232E04	ML16232E04	ML26232E04	32.5	8	12	71	12
ML06232E05	ML16232E05	ML26232E05	32.5	10	12	71	12
ML06238E01	ML16238E01	ML26238E01	38.5	7	12	71	12
ML06238E02	ML16238E02	ML26238E02	38.5	8	12	71	12
ML06238E03	ML16238E03	ML26238E03	38.5	9	12	71	12
ML06238E04	ML16238E04	ML26238E04	38.5	10	12	71	12
ML06245E01	ML16245E01	ML26245E01	45.5	10	12	71	14

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

公称直径单位 / Nominal-Diameter in mm							
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50	over 50 to 80
精度范围单位 / Tolerance range in mm							
js18	—	± 0.90	± 1.10	± 1.35	± 1.65	± 1.95	± 2.30
精度范围单位 / Tolerance range in μm							
h11	0 / − 60	0 / − 75	0 / − 90	0 / − 110	0 / − 130	0 / − 160	0 / − 190
e8	− 14 / − 28	− 20 / − 38	− 25 / − 47	− 32 / − 59	− 40 / − 73	− 50 / − 89	− 60 / − 106
h6	0 / − 6	0 / − 8	0 / − 9	0 / − 11	0 / − 13	0 / − 16	0 / − 19





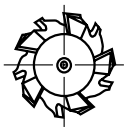
◎ : 优(Excellent) ○ : 良(Good)

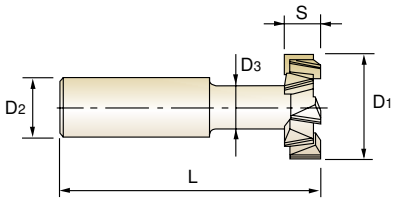
碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

YG MILLING CUTTERS

ML072 SERIES PLAIN SHANK
ML172 SERIES FLAT SHANK
ML272 SERIES THREAD SHANK

HSS-E, T型铣刀"AA"型, "AB"型, "AD"型
HSS-E, T-SLOT CUTTERS TYPE "AA", "AB", "AD"





HSS-E | DIN 851 | N | 10° | DIN 1835A | DIN 1835B | DIN 1835D

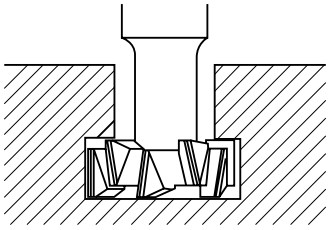
P.1007

단위(Unit) : mm

型号 EDP No. PLAIN	FLAT	THREAD	刀具直径 Cutter Diameter D1(d11)	刃幅 Width of Face S(d11)	柄部直径 Shank Diameter D2(h6)	颈径 Neck Diameter D3(h12)	全长 Overall Length L(js18)	刃数 No. of Teeth Z
ML07212E01	ML17212E01	ML27212E01	12.5	6	10	5	57	6
ML07201601	ML17201601	ML27201601	16.0	8	10	6.5	62	6
ML07201801	ML17201801	ML27201801	18.0	8	12	8	70	6
ML07201901	ML17201901	ML27201901	19.0	9	12	8	71	6
ML07202101	ML17202101	ML27202101	21.0	9	12	10	74	6
ML07202201	ML17202201	ML27202201	22.0	10	12	10	75	6
ML07202501	ML17202501	ML27202501	25.0	11	16	12	82	6
ML07202801	ML17202801	ML27202801	28.0	12	16	13	83	6
ML07203201	ML17203201	ML27203201	32.0	14	16	15	90	8
ML07203601	ML17203601	ML27203601	36.0	16	25	17	103	8
ML07204001	ML17204001	ML27204001	40.0	18	25	19	108	8

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

公称直径单位 / Nominal-Diameter in mm	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50	over 50 to 80	over 80 to 120
精度范围单位 / Tolerance range in mm							
h12	0 / − 0.12	0 / − 0.15	0 / − 0.18	0 / − 0.21	0 / − 0.25	0 / − 0.30	0 / − 0.35
js18	± 0.90	± 1.10	± 1.35	± 1.65	± 1.95	± 2.30	± 2.70
精度范围单位 / Tolerance range in μm							
d11	− 30 / − 105	− 40 / − 130	− 50 / − 160	− 65 / − 195	− 80 / − 240	− 100 / − 290	− 120 / − 340
h6	0 / − 8	0 / − 9	0 / − 11	0 / − 13	0 / − 16	0 / − 19	0 / − 22



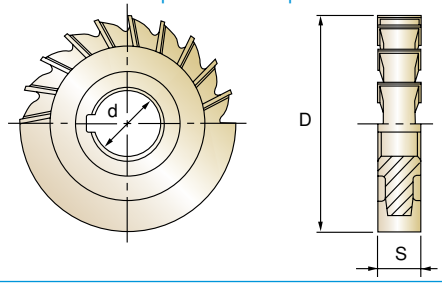
◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎								○			

HSS-E, 直齿三面刃铣刀
HSS-E, SIDE AND FACE MILLING CUTTERS with STRAIGHT TEETH

▶刀具用在普通用途的侧铣和跨铣，这种铣法不要求深切削

▶ The tools are used for general purpose side and straddle milling where deep cut is not required.



HSS-E | DIN 885-B | H

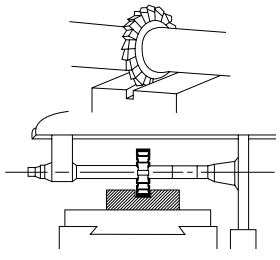
P.1008

单位(Unit) : mm

型号 EDP No.	刀具直径 Cutter Diameter D(js14)	刃幅 Width of Face S(k11)	内径 Internal Diameter d(H7)	刃数 No. of Teeth Z
ML09205001	50.0	4	16	18
ML09205002	50.0	5	16	18
ML09205003	50.0	6	16	18
ML09205004	50.0	8	16	16
ML09205005	50.0	10	16	16
ML09206301	63.0	5	22	22
ML09206302	63.0	6	22	22
ML09206303	63.0	8	22	20
ML09206304	63.0	10	22	20
ML09206305	63.0	12	22	20
ML09208001	80.0	6	22	24
ML09208002	80.0	8	22	24
ML09208003	80.0	10	22	24
ML09208004	80.0	12	22	20
ML09208005	80.0	6	27	24
ML09208006	80.0	8	27	24
ML09208007	80.0	10	27	24
ML09208008	80.0	12	27	20
ML09210001	100.0	6	27	26
ML09210002	100.0	8	27	26
ML09210003	100.0	10	27	22
ML09210004	100.0	6	32	26
ML09210005	100.0	8	32	26
ML09210006	100.0	10	32	22
ML09210007	100.0	12	32	22
ML09212501	125.0	8	32	30
ML09212502	125.0	10	32	30
ML09212503	125.0	12	32	24

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

	公称直径单位/ Nominal-Diameter in mm							
	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50	over 50 to 80	over 80 to 120	over 120 to 180
	精度范围单位/ Tolerance range in mm							
js14	± 0.15	± 0.18	± 0.215	± 0.26	± 0.31	± 0.37	± 0.435	± 0.50
	精度范围单位/ Tolerance range in μm							
k11	+ 75 0	+ 90 0	+ 110 0	+ 130 0	+ 160 0	+ 190 0	+ 220 0	+ 250 0
H7	+ 12 0	+ 15 0	+ 18 0	+ 21 0	+ 25 0	+ 30 0	+ 35 0	+ 40 0



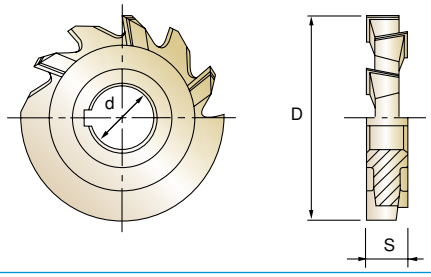
◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

HSS-E, 错齿三面刃铣刀
HSS-E, SIDE AND FACE MILLING CUTTERS with STAGGERED TEETH

▶ 这种盘铣刀荐于开槽加工.
交替的螺旋可有效的防治加工中的震动.

▶ The type of cutter is recommended for slotting operations.
The alternate spiral effectively counteracts all tendency to chatter.



HSS-E | DIN 885-A | H

P.1008

单位(Unit) : mm

型号 EDP No.	刀具直径 Cutter Diameter D(js14)	刃幅 Width of Face S(k11)	内径 Internal Diameter d(H7)	刃数 No. of Teeth Z
ML10205001	50.0	3	16	14
ML10205002	50.0	4	16	14
ML10205003	50.0	5	16	14
ML10205004	50.0	6	16	14
ML10205005	50.0	7	16	14
ML10205006	50.0	8	16	14
ML10205007	50.0	9	16	14
ML10205008	50.0	10	16	14
ML10206301	63.0	3	22	16
ML10206302	63.0	4	22	16
ML10206303	63.0	5	22	16
ML10206304	63.0	6	22	16
ML10206305	63.0	7	22	16
ML10206306	63.0	8	22	16
ML10206307	63.0	9	22	16
ML10206308	63.0	10	22	16
ML10206309	63.0	12	22	16
ML10206310	63.0	14	22	16
ML10206311	63.0	16	22	16
ML10206312	63.0	18	22	16
ML10208001	80.0	3	22	18
ML10208002	80.0	4	22	18
ML10208003	80.0	5	22	18
ML10208004	80.0	6	22	18
ML10208005	80.0	7	22	18
ML10208006	80.0	8	22	18
ML10208007	80.0	9	22	18
ML10208008	80.0	10	22	18

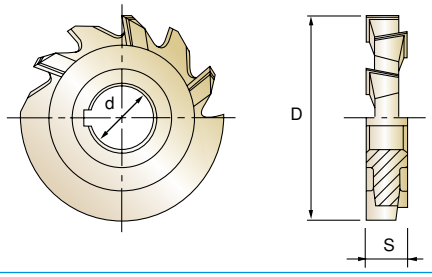
◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

HSS-E, 错齿三面刃铣刀
HSS-E, SIDE AND FACE MILLING CUTTERS with STAGGERED TEETH

▶ 这种盘铣刀荐于开槽加工.
交替的螺旋可有效的防治加工中的震动.

▶ The type of cutter is recommended for slotting operations.
The alternate spiral effectively counteracts all tendency to chatter.



HSS-E DIN 885-A H

P.1008

单位(Unit) : mm

型号 EDP No.	刀具直径 Cutter Diameter D(js14)	刃幅 Width of Face S(k11)	内径 Internal Diameter d(H7)	刃数 No. of Teeth Z
ML10208009	80.0	12	22	18
ML10208010	80.0	14	22	18
ML10208011	80.0	16	22	18
ML10208012	80.0	18	22	18
ML10208013	80.0	20	22	18
ML10208014	80.0	4	27	18
ML10208015	80.0	5	27	18
ML10208016	80.0	6	27	18
ML10208017	80.0	7	27	18
ML10208018	80.0	8	27	18
ML10208019	80.0	9	27	18
ML10208020	80.0	10	27	18
ML10208021	80.0	12	27	18
ML10208022	80.0	14	27	18
ML10208023	80.0	16	27	18
ML10208024	80.0	18	27	18
ML10208025	80.0	20	27	18
ML10210001	100.0	3	27	20
ML10210002	100.0	4	27	20
ML10210003	100.0	5	27	20
ML10210004	100.0	6	27	20
ML10210005	100.0	7	27	20
ML10210006	100.0	8	27	20
ML10210007	100.0	9	27	20
ML10210008	100.0	10	27	20
ML10210009	100.0	12	27	20
ML10210010	100.0	14	27	20
ML10210011	100.0	15	27	20

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

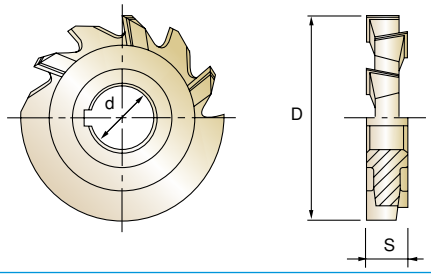
MILLING CUTTERS

ML102 SERIES STAGGERED TEETH

HSS-E, 错齿三面刃铣刀
HSS-E, SIDE AND FACE MILLING CUTTERS with STAGGERED TEETH

▶ 这种盘铣刀荐于开槽加工.
交替的螺旋可有效的防治加工中的震动.

▶ The type of cutter is recommended for slotting operations.
The alternate spiral effectively counteracts all tendency to chatter.



HSS-E | DIN 885-A | H

P.1008

单位(Unit) : mm

型号 EDP No.	刀具直径 Cutter Diameter D(js14)	刃幅 Width of Face S(k11)	内径 Internal Diameter d(H7)	刃数 No. of Teeth Z
ML10210012	100.0	16	27	20
ML10210013	100.0	18	27	20
ML10210014	100.0	20	27	20
ML10210015	100.0	4	32	20
ML10210016	100.0	5	32	20
ML10210017	100.0	6	32	20
ML10210018	100.0	7	32	20
ML10210019	100.0	8	32	20
ML10210020	100.0	9	32	20
ML10210021	100.0	10	32	20
ML10210022	100.0	12	32	20
ML10210023	100.0	14	32	20
ML10210024	100.0	15	32	20
ML10210025	100.0	16	32	20
ML10210026	100.0	18	32	20
ML10210027	100.0	20	32	20
ML10212501	125.0	5	32	22
ML10212502	125.0	6	32	22
ML10212503	125.0	8	32	22
ML10212504	125.0	10	32	22
ML10212505	125.0	12	32	22
ML10212506	125.0	14	32	22
ML10212507	125.0	16	32	22
ML10212508	125.0	18	32	22
ML10212509	125.0	20	32	22
ML10216001	160.0	6	32	26
ML10216002	160.0	8	32	26
ML10216003	160.0	10	32	26

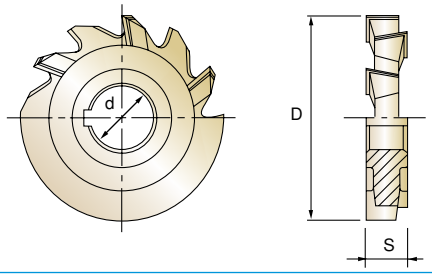
◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

HSS-E, 错齿三面刃铣刀
HSS-E, SIDE AND FACE MILLING CUTTERS with STAGGERED TEETH

▶ 这种盘铣刀荐于开槽加工.
交替的螺旋可有效的防治加工中的震动.

▶ The type of cutter is recommended for slotting operations.
The alternate spiral effectively counteracts all tendency to chatter.



HSS-E | DIN 885-A | H

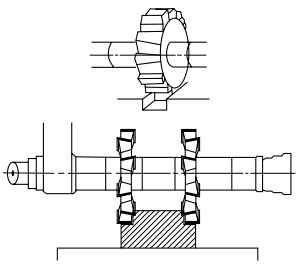
P.1008

单位(Unit) : mm

型号 EDP No.	刀具直径 Cutter Diameter D(js14)	刃幅 Width of Face S(k11)	内径 Internal Diameter d(H7)	刃数 No. of Teeth Z
ML10216004	160.0	12	32	26
ML10216005	160.0	14	32	26
ML10216006	160.0	16	32	26
ML10216007	160.0	18	32	26
ML10216008	160.0	20	32	26
ML10216009	160.0	6	40	26
ML10216010	160.0	8	40	26
ML10216011	160.0	10	40	26
ML10216012	160.0	12	40	26
ML10216013	160.0	14	40	26
ML10216014	160.0	16	40	26
ML10216015	160.0	18	40	26
ML10216016	160.0	20	40	26
ML10220001	200.0	10	40	30
ML10220002	200.0	12	40	30
ML10220003	200.0	14	40	30
ML10220004	200.0	16	40	30
ML10220005	200.0	18	40	30
ML10220006	200.0	20	40	30
ML10220007	200.0	22	40	30
ML10220008	200.0	25	40	30

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

	公称直径单位 / Nominal-Diameter in mm								
	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50	over 50 to 80	over 80 to 120	over 120 to 180	over 180 to 250
	精度范围单位 / Tolerance range in mm								
js14	± 0.15	± 0.18	± 0.215	± 0.26	± 0.31	± 0.37	± 0.435	± 0.50	± 0.575
	精度范围单位 / Tolerance range in μm								
k11	+ 75 0	+ 90 0	+ 110 0	+ 130 0	+ 160 0	+ 190 0	+ 220 0	+ 250 0	+ 290 0
H7	+ 12 0	+ 15 0	+ 18 0	+ 21 0	+ 25 0	+ 30 0	+ 35 0	+ 40 0	+ 46 0



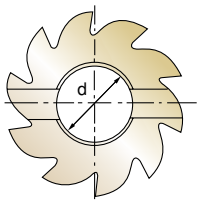
◎ : 优(Excellent) ○ : 良(Good)

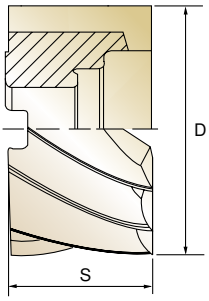
碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

MILLING CUTTERS

E2675 SERIES

HSSCo8, 多刃圆筒形端铣刀
HSSCo8, MULTI FLUTE SHELL END MILL





HSS Co8 | DIN 841 | N | 6-10 | 30° P.1009

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D	刃幅 Width of Face S	内径 Internal Diameter d	刃数 No. of Teeth Z
E2675300	30.0	30	● 13	6
E2675350	35.0	35	● 16	6
E2675400	40.0	20	● 16	8
E2675402	40.0	40	● 16	8
E2675500	50.0	25	22	8
E2675502	50.0	50	22	8
E2675600	60.0	30	27	8
E2675601	60.0	60	27	8
E2675750	75.0	35	27	10
E2675751	75.0	75	27	10
E2675900	90.0	35	27	10
E2675902	110.0	35	32	10

● 内径公差=+0.018~0 / Tolerance of Internal Diameter = +0.018 ~ 0
▶ TiN涂层,TiCN涂层&TiAlN涂层可根据您的要求加工 / TiN-COATING, TiCN-COATING or TiAlN-COATING is available on your request.

HSS Co8 | DIN 1880 | N | 8-14 | 30° P.1009

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D	刃幅 Width of Face S	内径 Internal Diameter d	刃数 No. of Teeth Z
E2675401	40.0	32	● 16	8
E2675501	50.0	36	22	8
E2675630	63.0	40	27	8
E2675800	80.0	45	27	10
E2675901	100.0	50	32	10
E2675903	125.0	56	40	12
E2675904	160.0	63	50	14

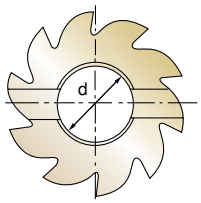
刃部公差 Mill Dia. Tolerance(mm)	刃幅公差 Width of Face Tolerance(mm)	内径公差 Internal Dia. Tolerance(mm)
+ 0.25 − 0.15	+ 0.5 − 0	+ 0.02 − 0

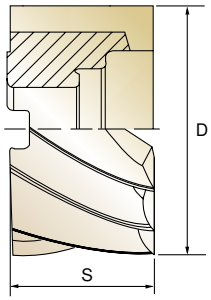
● 内径公差=+0.018~0
Tolerance of Internal Diameter = +0.018 ~ 0
▶ TiN涂层,TiCN涂层&TiAlN涂层可根据您的要求加工
TiN-COATING, TiCN-COATING or TiAlN-COATING is available on your request.

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○										

HSSCo8, 多刃铝用圆筒形端铣刀
HSSCo8, MULTI FLUTE SHELL END MILL for ALUMINUM





HSS Co8 | DIN 841 | W | 4&6 | 42° P.1009

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D	刃幅 Width of Face S	内径 Internal Diameter d	刃数 No. of Teeth Z
E2676300	30.0	30	● 13	4
E2676400	40.0	20	● 16	4
E2676402	40.0	40	● 16	4
E2676500	50.0	25	22	6
E2676502	50.0	50	22	6
E2676600	60.0	30	27	6
E2676601	60.0	60	27	6
E2676750	75.0	75	27	6

● 内径公差=+0.018~0 / Tolerance of Internal Diameter = +0.018 ~ 0
▶ TiN涂层,TiCN涂层&TiAlN涂层可根据您的要求加工 / TiN-COATING, TiCN-COATING or TiAlN-COATING is available on your request.

HSS Co8 | DIN 1880 | W | 4&6 | 42° P.1009

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D	刃幅 Width of Face S	内径 Internal Diameter d	刃数 No. of Teeth Z
E2676401	40.0	32	● 16	4
E2676501	50.0	36	22	6
E2676630	63.0	40	27	6
E2676800	80.0	45	27	6
E2676901	100.0	50	32	6

● 内径公差=+0.018~0 / Tolerance of Internal Diameter = +0.018 ~ 0
▶ TiN涂层,TiCN涂层&TiAlN涂层可根据您的要求加工 / TiN-COATING, TiCN-COATING or TiAlN-COATING is available on your request.

刃部公差 Mill Dia. Tolerance(mm)	刃幅公差 Width of Face Tolerance(mm)	内径公差 Internal Dia. Tolerance(mm)
+ 0.25 − 0.15	+ 0.5 − 0	+ 0.02 − 0

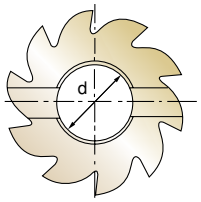
◎ : 优(Excellent)　○ : 良(Good)

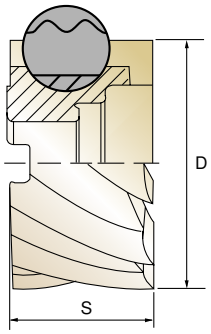
碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	○								◎			

YG MILLING CUTTERS

E2677 SERIES

HSSCo8, 多刃圆筒形粗加工端铣刀 – 粗螺纹
HSSCo8, MULTI FLUTE ROUGHING SHELL END MILL - COARSE





HSS Co8 | DIN 841 | NR | COARSE | 6-12 | 30° P.1010

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D	刃幅 Width of Face S	内径 Internal Diameter d	刃数 No. of Teeth Z
E2677401	40.0	40	● 16	6
E2677501	50.0	50	22	8
E2677600	60.0	30	27	8
E2677601	60.0	60	27	8
E2677750	75.0	35	27	10
E2677751	75.0	75	27	10
E2677900	90.0	35	27	10
E2677902	110.0	35	32	12

● 内径公差=+0.018~0 / Tolerance of Internal Diameter = +0.018 ~ 0
▶ TiN涂层,TiCN涂层&TiAlN涂层可根据您的要求加工 / TiN-COATING, TiCN-COATING or TiAlN-COATING is available on your request.

HSS Co8 | DIN 1880 | NR | COARSE | 6-12 | 30° P.1010

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D	刃幅 Width of Face S	内径 Internal Diameter d	刃数 No. of Teeth Z
E2677400	40.0	32	● 16	6
E2677500	50.0	36	22	8
E2677630	63.0	40	27	8
E2677800	80.0	45	27	10
E2677901	100.0	50	32	10
E2677903	125.0	56	40	12
E2677904	160.0	63	50	12

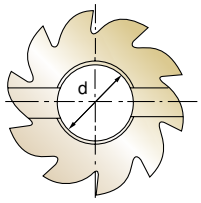
● 内径公差=+0.018~0 / Tolerance of Internal Diameter = +0.018 ~ 0
▶ TiN涂层,TiCN涂层&TiAlN涂层可根据您的要求加工 / TiN-COATING, TiCN-COATING or TiAlN-COATING is available on your request.

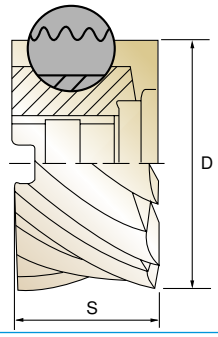
刃部公差 Mill Dia. Tolerance(mm)	刃幅公差 Width of Face Tolerance(mm)	内径公差 Internal Dia. Tolerance(mm)
+ 0.25 – 0.15	+ 0.5 – 0	+ 0.02 – 0

◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

HSSCo8, 多刃圆筒形粗加工端铣刀 – 细螺纹
HSSCo8, MULTI FLUTE ROUGHING SHELL END MILL - FINE





HSS Co8 | DIN 841 | HR | FINE | 6-12 | 30° P.1010

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D	刃幅 Width of Face S	内径 Internal Diameter d	刃数 No. of Teeth Z
E2678401	40.0	40	● 16	6
E2678501	50.0	50	22	8
E2678600	60.0	30	27	8
E2678601	60.0	60	27	8
E2678750	75.0	35	27	10
E2678751	75.0	75	27	10
E2678900	90.0	35	27	10
E2678902	110.0	35	32	12

● 内径公差=+0.018~0 / Tolerance of Internal Diameter = +0.018 ~ 0
▶ TiN涂层,TiCN涂层&TiAlN涂层可根据您的要求加工 / TiN-COATING, TiCN-COATING or TiAlN-COATING is available on your request.

HSS Co8 | DIN 1880 | HR | FINE | 6-12 | 30° P.1010

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D	刃幅 Width of Face S	内径 Internal Diameter d	刃数 No. of Teeth Z
E2678400	40.0	32	● 16	6
E2678500	50.0	36	22	8
E2678630	63.0	40	27	8
E2678800	80.0	45	27	10
E2678901	100.0	50	32	10
E2678903	125.0	56	40	12
E2678904	160.0	63	50	12

● 内径公差=+0.018~0 / Tolerance of Internal Diameter = +0.018 ~ 0
▶ TiN涂层,TiCN涂层&TiAlN涂层可根据您的要求加工 / TiN-COATING, TiCN-COATING or TiAlN-COATING is available on your request.

刃部公差 Mill Dia. Tolerance(mm)	刃幅公差 Width of Face Tolerance(mm)	内径公差 Internal Dia. Tolerance(mm)
+ 0.25 – 0.15	+ 0.5 – 0	+ 0.02 – 0

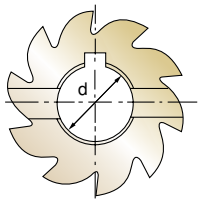
◎ : 优(Excellent)　○ : 良(Good)

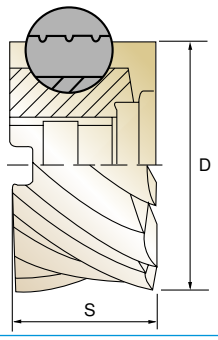
碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

MILLING CUTTERS

E2679 SERIES

HSSCo8, 多刃圆筒形粗加工和精加工端铣刀
HSSCo8, MULTI FLUTE ROUGHING & FINISHING SHELL END MILL





HSS Co8 | DIN 841 | NF | ROUGHING & FINISHING | 6-12 | 30° P.1010

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D	刃幅 Width of Face S	内径 Internal Diameter d	刃数 No. of Teeth Z
E2679401	40.0	40	● 16	6
E2679501	50.0	50	22	8
E2679600	60.0	30	27	8
E2679601	60.0	60	27	8
E2679750	75.0	35	27	10
E2679751	75.0	75	27	10
E2679900	90.0	35	27	10
E2679902	110.0	35	32	12

● 内径公差=+0.018~0 / Tolerance of Internal Diameter = +0.018 ~ 0
▶ TiN涂层,TiCN涂层&TiAlN涂层可根据您的要求加工 / TiN-COATING, TiCN-COATING or TiAlN-COATING is available on your request.

HSS Co8 | DIN 1880 | NF | ROUGHING & FINISHING | 6-12 | 30° P.1010

单位(Unit) : mm

型号 EDP No.	刃部直径 Mill Diameter D	刃幅 Width of Face S	内径 Internal Diameter d	刃数 No. of Teeth Z
E2679400	40.0	32	● 16	6
E2679500	50.0	36	22	8
E2679630	63.0	40	27	8
E2679800	80.0	45	27	10
E2679901	100.0	50	32	10
E2679903	125.0	56	40	12
E2679904	160.0	63	50	12

● 内径公差=+0.018~0 / Tolerance of Internal Diameter = +0.018 ~ 0
▶ TiN涂层,TiCN涂层&TiAlN涂层可根据您的要求加工 / TiN-COATING, TiCN-COATING or TiAlN-COATING is available on your request.

刃部公差 Mill Dia. Tolerance(mm)	刃幅公差 Width of Face Tolerance(mm)	内径公差 Internal Dia. Tolerance(mm)
+ 0.25 − 0.15	+ 0.5 − 0	+ 0.02 − 0

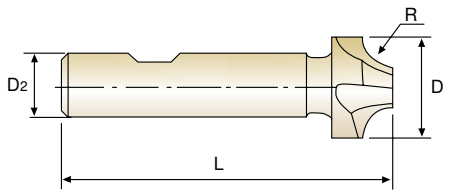
◎ : 优(Excellent)　○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

HSSCo8, 4刃圆角铣刀
HSSCo8, 4 FLUTE CORNER ROUNDING CUTTERS

▶ 这种产品用在自动切削机上对产品的端部进行详细精确的圆弧加工

▶ These tools can be adapted for many screw machine applications as end formming tools to form a specific radius.



HSS Co8 | DIN 6518 | N | 4 | 0° | DIN 1835B

P.1011

单位(Unit) : mm

型号 EDP No.	半径 Radius R(H11)	外径 Outside Diameter D	柄部直径 Shank Diameter D2(h6)	全长 Overall Length L
E2498010	R1.0	8.0	10	60
E2498015	R1.5	9.0	10	60
E2498020	R2.0	10.0	10	60
E2498025	R2.5	11.0	10	60
E2498030	R3.0	12.0	12	60
E2498035	R3.5	13.0	12	60
E2498040	R4.0	14.0	12	60
E2498045	R4.5	15.0	12	60
E2498050	R5.0	16.0	12	60
E2498055	R5.5	19.0	16	67
E2498060	R6.0	20.0	16	67
E2498065	R6.5	21.0	16	71
E2498070	R7.0	22.0	16	71
E2498075	R7.5	23.0	16	71
E2498080	R8.0	24.0	16	71
E2498085	R8.5	25.0	25	85
E2498090	R9.0	26.0	25	85
E2498095	R9.5	27.0	25	85
E2498100	R10.0	28.0	25	85
E2498105	R10.5	31.0	25	90
E2498110	R11.0	32.0	25	90
E2498120	R12.0	34.0	25	90
E2498125	R12.5	41.0	25	100
E2498130	R13.0	42.0	25	100
E2498140	R14.0	44.0	25	100
E2498150	R15.0	46.0	25	100
E2498160	R16.0	48.0	25	100
E2498180	R18.0	52.0	32	112
E2498200	R20.0	56.0	32	112

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

Nominal-Diameter in mm / Nennmaßbereich in mm						
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30	over 30 to 50
精度范围单位 / Tolerance range in μm						
H11	+ 60 0	+ 75 0	+ 90 0	+ 110 0	+ 130 0	+ 160 0
h6	0 − 6	0 − 8	0 − 9	0 − 11	0 − 13	0 − 16

▶ TiN涂层,TiCN涂层&TiAlN涂层可根据您的要求加工
TiN-COATING, TiCN-COATING or TiAlN-COATING is available on your request.

◎ : 优(Excellent) ○ : 良(Good)

碳钢 Carbon Steels	合金钢 Alloy Steels	预硬钢 Prehardened Steels	硬化钢 Hardened Steels		高硬钢 High Hardened Steels	铜 Copper	石墨 Graphite	铸铁 Cast Iron	铝 Aluminum	不锈钢 Stainless Steels	钛 Titanium	铬镍铁合金 Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	○							○			

MILLING CUTTERS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

HSS-E, 燕尾槽铣刀"A"型, "C"型, "E"型
HSS-E, DOVETAIL CUTTERS TYPE "A", "C", "E"

ML012, ML112, ML022, ML122, ML212, ML222 SERIES

材质	碳钢, 合金钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		铝, 铝合金	
MATERIAL	CARBON STEELS ALLOY STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		ALUMINUM & ALUMINUM ALLOYS	
HARDNESS			~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40			
STRENGTH	~ 500N/mm²		500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
16.0	615	110	305	57	215	40	160	20	1850	336
20.0	500	110	255	55	180	38	125	15	1350	324
25.0	380	80	190	47	135	30	100	16	1150	270
32.0	300	125	155	64	100	40	80	16	920	375
40.0	250	130	125	64	90	45	60	16	765	387
50.0	190	90	100	42	75	36	50	16	550	265
63.0	150	75	80	40	60	32	40	15	450	240

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

HSS-E, 燕尾槽铣刀"B"型, "D"型, "F"型
HSS-E, DOVETAIL CUTTERS TYPE "B", "D", "F"

ML032, ML132, ML042, ML142, ML232, ML242 SERIES

材质	碳钢, 合金钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		铝, 铝合金	
MATERIAL	CARBON STEELS ALLOY STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		ALUMINUM & ALUMINUM ALLOYS	
HARDNESS			~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40			
STRENGTH	~ 500N/mm²		500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
16.0	615	110	305	57	215	40	160	20	1850	336
20.0	500	110	255	55	180	38	125	15	1350	324
25.0	380	80	190	47	135	30	100	16	1150	270
32.0	300	125	155	64	100	40	80	16	920	375

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

HSS-E, 月牙键槽铣刀"B"型, "D"型, "F"型
HSS-E, WOODRUFF KEYSEAT CUTTERS TYPE "B", "D", "F"

ML062, ML162, ML262 SERIES

材质	碳钢, 合金钢	碳钢, 合金钢, 工具钢	碳钢, 合金钢, 工具钢	碳钢, 合金钢, 工具钢	铝, 铝合金
MATERIAL	CARBON STEELS ALLOY STEELS	CARBON STEELS ALLOY STEELS TOOL STEELS	CARBON STEELS ALLOY STEELS TOOL STEELS	CARBON STEELS ALLOY STEELS TOOL STEELS	ALUMINUM & ALUMINUM ALLOYS
HARDNESS		~ HRc20	HRc20 ~ HRc30	HRc30 ~ HRc40	
STRENGTH	~ 500N/mm²	500 ~ 800N/mm²	800 ~ 1000N/mm²	1000 ~ 1300N/mm²	
DIAMETER	RPM	RPM	RPM	RPM	RPM
10.5	900	600	480	300	3000
13.5	700	470	370	230	2300
16.5	570	380	300	190	1900
19.5	480	320	260	160	1600
22.5	420	280	220	140	1400
28.5	330	220	180	110	1100
32.5	290	190	155	90	900
45.5	210	130	110	70	700

RPM = rev./min. (转速/分钟)

HSS-E, T型铣刀"AA"型, "AB"型, "AD"型
HSS-E, T-SLOT CUTTERS TYPE "AA", "AB", "AD"

ML072, ML172, ML272 SERIES

材质	碳钢, 合金钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		铝, 铝合金	
MATERIAL	CARBON STEELS ALLOY STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		ALUMINUM & ALUMINUM ALLOYS	
HARDNESS			~ HRc20		HRc20 ~ HRc30			
STRENGTH	~ 500N/mm²		500 ~ 800N/mm²		800 ~ 1000N/mm²			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
12.5	770	38	380	16	270	8	2350	110
16.0	600	45	300	19	210	9	1830	140
18.0	550	47	270	20	195	12	1680	150
19.0	500	50	250	20	180	15	1540	160
21.0	470	52	230	22	160	16	1430	165
22.0	440	55	220	25	150	17	1330	170
25.0	390	65	190	30	135	18	1170	180
28.0	345	75	170	38	120	20	1040	210
32.0	310	90	150	42	100	20	910	250
50.0	270	80	135	40	90	20	800	230
63.0	240	70	120	38	85	20	730	210

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

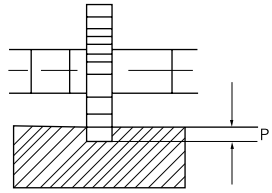
MILLING CUTTERS 推荐的切削条件 RECOMMENDED CUTTING CONDITIONS

HSS-E, 直齿三面刃铣刀
HSS-E, SIDE AND FACE MILLING CUTTERS with STRAIGHT TEETH

ML092 SERIES

材质	碳钢, 合金钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		铝, 铝合金	
MATERIAL	CARBON STEELS ALLOY STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		ALUMINUM & ALUMINUM ALLOYS	
HARDNESS			~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40			
STRENGTH	~ 500N/mm²		500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
50.0	160	130	115	82	95	58	76	42	630	200
63.0	125	160	90	72	75	51	60	38	500	250
80.0	100	145	70	69	60	48	47	34	400	250
100.0	80	130	60	60	47	41	38	30	320	200
125.0	63	100	45	54	38	38	30	26	250	200

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)



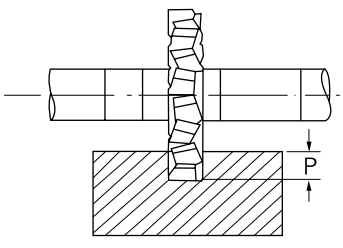
铣削深度=刃幅
MILLING DEPTH P = WIDTH OF FACES

HSS-E, 错齿三面刃铣刀
HSS-E, SIDE AND FACE MILLING CUTTERS with STAGGERED TEETH

ML102 SERIES

材质	碳钢, 合金钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		铝, 铝合金	
MATERIAL	CARBON STEELS ALLOY STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		ALUMINUM & ALUMINUM ALLOYS	
HARDNESS			~ HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40			
STRENGTH	~ 500N/mm²		500 ~ 800N/mm²		800 ~ 1000N/mm²		1000 ~ 1300N/mm²			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
50.0	160	130	115	85	95	58	76	42	630	200
63.0	125	160	90	75	75	51	60	38	500	250
80.0	100	145	70	69	60	48	47	34	400	250
100.0	80	130	60	60	47	41	38	30	320	200
125.0	63	100	45	54	38	38	30	26	250	200
160.0	50	105	37	48	30	34	23	24	200	150
200.0	40	95	31	45	25	31	19	22	160	150

RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

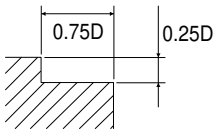


铣削深度=刃幅
MILLING DEPTH P = WIDTH OF FACES

HSSCo8, 多刃圆筒形端铣刀
HSSCo8, MULTI FLUTE SHELL END MILL

E2675 SERIES

材质 MATERIAL	碳钢, 合金钢, 工具钢 CARBON STEELS ALLOY STEELS TOOL STEELS		碳钢, 合金钢, 工具钢 CARBON STEELS ALLOY STEELS TOOL STEELS		碳钢, 合金钢, 工具钢 CARBON STEELS ALLOY STEELS TOOL STEELS		碳钢, 合金钢, 工具钢 CARBON STEELS ALLOY STEELS TOOL STEELS	
HARDNESS	~ HRc20		HRc20 ~ HRc28		HRc28 ~ HRc35		HRc35 ~ HRc40	
STRENGTH	~ 800N/mm²		800 ~ 900N/mm²		900 ~ 1100N/mm²		1100 ~ 1300N/mm²	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
40.0	240	135	200	120	140	80	80	50
50.0	200	125	170	105	120	75	70	45
63.0	150	110	130	95	90	65	50	40
80.0	120	120	100	100	80	75	40	40
100.0	100	115	80	95	60	70	30	35
125.0	80	115	70	95	50	65	20	35
160.0	60	110	60	100	40	65	20	35

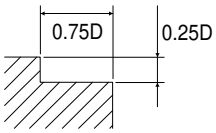


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

HSSCo8, 多刃铝用圆筒形端铣刀
HSSCo8, MULTI FLUTE SHELL END MILL for ALUMINUM

E2676 SERIES

材质 MATERIAL	铝, 非铁制金属 ALUMINUM, NONFERROUS METALS	
DIAMETER	RPM	FEED
30.0	1050	210
40.0	840	200
50.0	600	250
60.0	500	300
63.0	480	330
75.0	450	350
80.0	390	300
100.0	320	290



RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

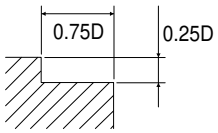
MILLING CUTTERS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

HSSCo8, 多刃圆筒形粗加工端铣刀
HSSCo8, MULTI FLUTE ROUGHING SHELL END MILL

E2677, E2678 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS	
HARDNESS	~ HRc20		HRc20 ~ HRc28		HRc28 ~ HRc35		HRc35 ~ HRc40	
STRENGTH	~ 800N/mm²		800 ~ 900N/mm²		900 ~ 1100N/mm²		1100 ~ 1300N/mm²	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
40.0	240	100	200	85	140	60	80	35
50.0	200	125	170	105	120	75	70	45
63.0	150	110	130	95	90	65	50	40
80.0	120	120	100	100	80	75	40	40
100.0	100	115	80	95	60	70	30	35
125.0	80	115	70	95	50	65	20	35
160.0	60	110	60	100	40	65	20	35

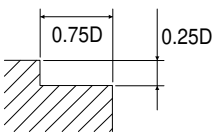


RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

HSSCo8, 多刃圆筒形粗加工和精加工端铣刀
HSSCo8, MULTI FLUTE ROUGHING & FINISHING SHELL END MILL

E2679 SERIES

材质	碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢		碳钢, 合金钢, 工具钢	
MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS	
HARDNESS	~ HRc20		HRc20 ~ HRc28		HRc28 ~ HRc35		HRc35 ~ HRc40	
STRENGTH	~ 800N/mm²		800 ~ 900N/mm²		900 ~ 1100N/mm²		1100 ~ 1300N/mm²	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
40.0	240	100	200	85	140	60	80	35
50.0	200	125	170	105	120	75	70	45
63.0	150	110	130	95	90	65	50	40
80.0	120	120	100	100	80	75	40	40
100.0	100	115	80	95	60	70	30	35
125.0	80	115	70	95	50	65	20	35
160.0	60	110	60	100	40	65	20	35



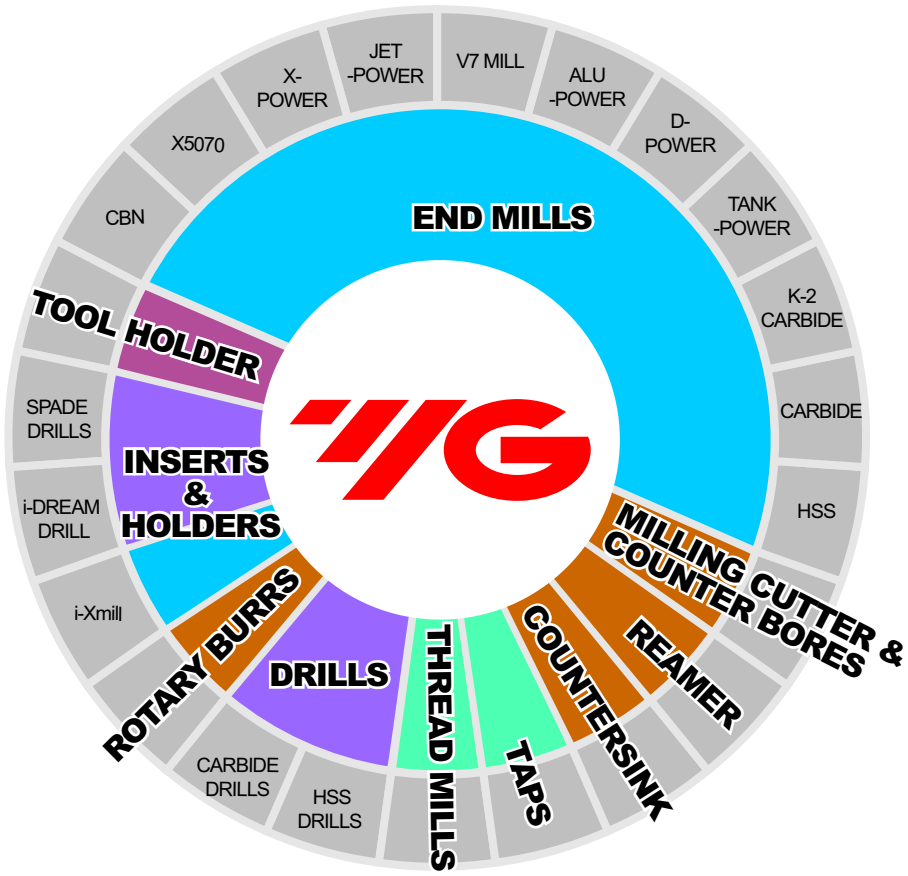
RPM = rev./min. (转速/分钟)
FEED = mm/min. (进给量)

HSSCo8, 4刃圆角铣刀
HSSCo8, 4 FLUTE CORNER ROUNDING CUTTERS

E2498 SERIES

材质		铝, 铝合金	碳钢, 合金钢	碳钢, 合金钢, 工具钢	碳钢, 合金钢, 工具钢
MATERIAL		ALUMINUM & ALUMINUM ALLOYS	CARBON STEELS ALLOY STEELS	CARBON STEELS ALLOY STEELS TOOL STEELS	CARBON STEELS ALLOY STEELS TOOL STEELS
HARDNESS				~ HRc20	HRc20 ~ HRc35
STRENGTH			~ 500N/mm²	500 ~ 800N/mm²	800 ~ 1100N/mm²
OUTSIDE DIAMETER	CORNER RADIUS	RPM	RPM	RPM	RPM
8.0	R1	3500	800	600	480
9.0	R1.5	2800	630	470	380
10.0	R2	2800	630	470	380
11.0	R2.5	2400	530	390	315
12.0	R3	2400	530	390	315
14.0	R4	2000	450	330	270
16.0	R5	1600	350	260	210
20.0	R6	1400	310	230	185
24.0	R8	1200	260	190	155
28.0	R10	950	210	155	125
34.0	R12	800	180	130	105
48.0	R16	600	130	95	75

RPM = rev./min. (转速/分钟)



Challenge toward a Global Leader-

YG-1 Leads the World Market.

END MILLS

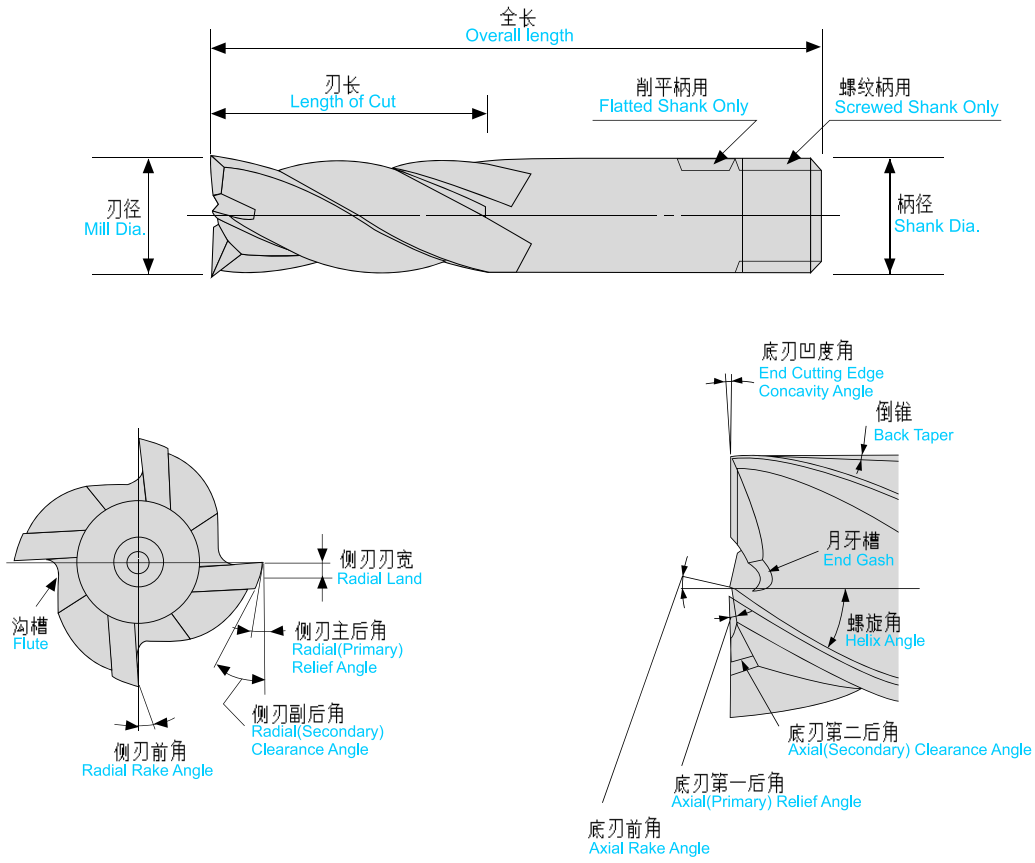
YG

Being the best through innovation

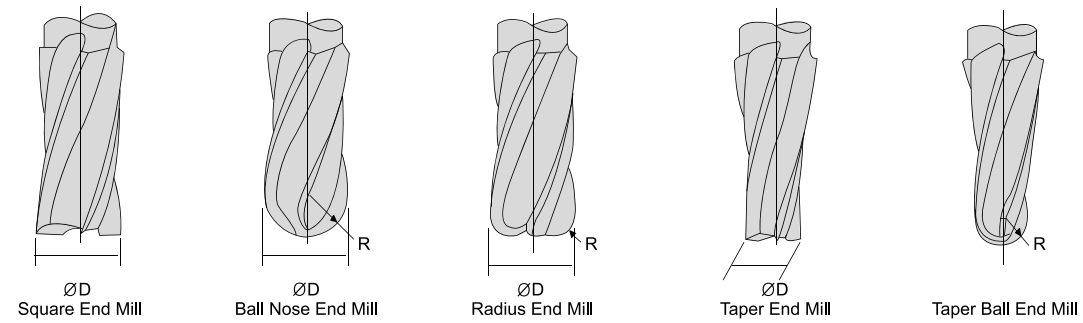
TECHNICAL DATA

CBN END MILLS
i-Xmill END MILLS
X5070 END MILLS
X-POWER END MILLS
JET-POWER END MILLS
V7 Mill INOX END MILLS
V7 Mill STEEL END MILLS
ALU-POWER END MILLS
CRX S
D-POWER END MILLS
K-2 CARBIDE END MILLS
GENERAL CARBIDE END MILLS
TANK-POWER END MILLS
GENERAL HSS END MILLS
MILLING CUTTERS
TECHNICAL DATA

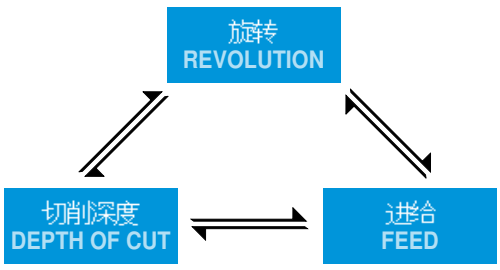
1 铣刀各部分名称 Names of End Mill Parts



2 铣刀类型 Type of End Mill



速度，进给量和切削深度是决定切削效果最重要的因素.
不适合的进给量和速度常常导致生产量降低，工作质量差和刀具的破损. 这部分包含了切削刀具的速度和进给量选择的基本原理.
它将是铣削工作的向导.
Speed, feed and depth of cut are the most important factors to consider for best results in milling. Improper feeds and speeds often cause low production, poor work quality and unnecessary damage to the cutter.
This section covers the basic principles of speed and feed selection for milling cutters and end mills. It will serve as a guide in setting-up naew milling jobs.



三个因素的相互关系
INTERRELATIONSHIP OF THREE FACTORS

3 速度 SPEEDS

在铣削中，速度是指在圆周上每分钟的英制数(以英制计算在刀具圆周上每分钟的转数)，这通常指的是"圆周速度"，"切削速度"或"表面速度"
In milling, SPEED is measured in peripheral feet per minute.(revolution per minute times cutter circumference in feet) This is frequently referred to as "peripheral speed" "cutting speed" or "surface speed".

每分钟转数
Revolutions per Minute

$$N = \frac{1000V}{\pi \times D}$$

V : 切削速度 / Cutting Speed (m/min)
D : 刀具直径 / Diameter of Tool (mm)
N : 每分钟转数/ Revolution per minute (rev/min)
π : 3.1416

必须调节工作中适合的条件
They will have to be tempered to suit the conditons ON THE JOB. For example:

使用低速范围用于 Use Lower Speed Ranges for	使用高速范围用于 Use Higher Speed Ranges for
高硬度材料 / Hard materials 韧性大的材料 / Tough materials 耐磨材料 / Abrasive materials 重切削 / Heavy cuts 最小的刀具磨损 / Minimum tool wear 最长的刀具寿命 / Maximum cutter life	软质材料 / Softer materials 较好的表面质量 / Better finishes 较小的刀具直径 / Smaller diameter cutters 轻切削 / Light cuts 脆性大的工件 / Frail work pieces or set-ups 手动操作 / Hand feed operations 最大的加工效率 / Maximum production rates 非金属材料 / Non-metallics

4 进给 FEEDS

进给通常是通过每分钟的毫米数来测量的. 它是"每齿进给乘以每分钟的转速再乘以刀具上的齿数"的产物. 由于刀具尺寸，刃数和每分钟转数的变化，所有进给率应该通过每刃的进给来计算. 无论刀具的大小，粗牙或细牙，在高速或低速的圆周速度下运行，每刃的进给是所有每分钟的进给率的基础 因为每刃的进给影响铁屑的厚度. 这是影响刀具寿命的一个非常重要的因素.
尽可能高的每齿进给可以带来更长的刀具寿命和更高的生产效率. 过分的进给可能导致刀具的切削刃超负荷并引起刀具的切削刃破损或崩刃. 开始使用每齿进给时，下面因素必须牢记.
Feed is usually measured in milimeters per minute. It is the product of feed per tooth times revolution per minute times the number of teeth in the cutter. Due to variations in cutter sizes, numbers of teeth and revolutions per minute, all feed rates should be calculated from feed per tooth. Feed per tooth is the basis of all feed rates per minute, whether the cutters are large or small, fine or coarse tooth, and are run at high or low peripheral speed. Because feed per tooth affects chip thickness. It is a very important factor in cutter life.
Highest possible feed per tooth will usually give longer cutter life between grinds and greater production per grind. Excessive feeds may over load the cutter teeth and cause breakage or chipping of the cutting edges. The following factors should be kept in mind when using the recommended starting feed per tooth.

TECHNICAL DATA

SUPER CUTTING END MILLS

每分钟进给的毫米数 / Feed in milimeters per Minute

F.M = F.R. × R.P.M

F.R. : 每转的进给毫米数 / Feed per Revolutions in milimeters

R.P.M .: 每分钟转数 / Revolutions per Minutes

开始使用每齿进给时，下面因素必须牢记.
The following factors should be kept in mind when using the recommended stating feed per tooth.

使用高进给量用于 Use Higher Feeds For	使用低进给量用于 Use Lower Feeds For
重，粗切削 / Heavy, roughing cuts	轻加工，精切削 / Light, and finishing cuts
钢性结构 / Rigid set-ups	脆性结构 / Frail set-ups
易加工材料 / Easy-to-machine work materials	难加工材料 / Hard to machine work materials
粗加工刀具 / Rugged cutters	细小刀具 / Frail and small cutters
平面切削 / Slab milling cuts	深立槽加工 / Deep slots
低抗拉强度材料 / Low tensile strength materials	高抗拉强度材料 / High tensile strength materials
粗牙刀具 / Coarse tooth cutters	细牙刀具 / Fine tooth cutters
耐磨材料 / Abrasive materials	

速度和进给量计算公式 / SPEED AND FEED CALCULATIONS
用于铣刀和其他旋转刀具 / FOR MILLING CUTTERS AND OTHER ROTATING TOOLS

求值 / TO FIND	已知条件 / HAVING	公式 / FORMULA
切削速度 (米/分钟) = S.F.M. Surface(or Periphery) Speed in meter Per Minute	刀具直径 (单位米) = D Diameter of Tool in milimeters 转速 = R.P.M Revolutions per Minute	$V=\frac{D\times 3.1416\times R.P.M.}{1000}$
转速 = R.P.M Revolutions Per Minute	切削速度 (米/分钟) = S.F.M Surface Speed in meter per Minute 刀具直径 (单位米) = D Diameter of Tool in milimeters	$R.P.M.=\frac{V\times 1000}{D\times 3.1416}$
每转进给 (单位毫米) = F.R Feed per Revolution in milimeters	每分钟进给 (单位毫米) = F.M Feed in milimeters per Minute 转速 = R.P.M Revolution per Minute	$F.R.=\frac{F.M.}{R.P.M.}$
每分钟进给 (单位毫米)=F.M Feed in milimeters Per Minute	每转进给 (单位毫米) = F.R Feed per Revolution in milimeters 转速 = R.P.M Revolution per Minute	F.M.= F.R. × R.P.M.
每分钟切削齿数 = T.M Number of Cutting Teeth per Minute	刀具齿数 = T Number of Teeth in Tool 转速 = R.P.M Revolution per Minute	T.M=T × R.P.M.
每齿进给 = F.T Feed per tooth	刀具齿数 = T Number of Teeth in Tool 每转进给 (单位毫米) = F.R Feed per Revolution in milimeters	$F.T.=\frac{F.R.}{T}$
每齿进给 = F.T Feed per Tooth	刀具齿数 = T Number of Teeth in Tool 每分钟进给 (单位毫米) = F.M Feed in milimeters per Minute 转速 = R.P.M Speed in Revolution per Minute	$F.T.=\frac{F.M.}{T\times R.P.M.}$

5 再研磨情况 CASE OF RESHARPENING

当产品的表面变差，切削刃变钝，铁屑变小，切削声音变大，在这种情况下，铣刀必须再研磨．下面是铣刀需要再研磨时的破损情况．

When the product finish become worse, the cutting edge must get dulled, chips become smaller and the cutting sound gets louder. In such cases, a end mill must be resharpened. The following are the damages of end mills when the resharpening is required.

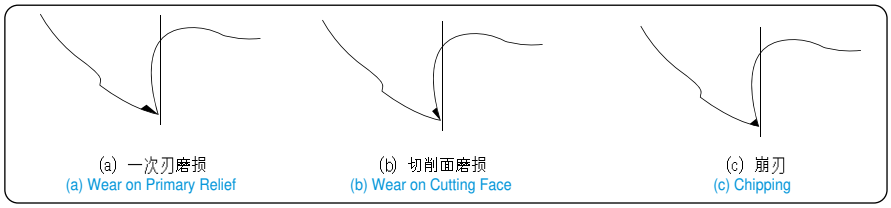


图1.切削刃的破损
Fig. 1. Damages of Cutting Edge

6 按预定的磨损刃宽磨快 SHARPEN AT PREDETERMINED WEAR LAND

一旦磨损刃宽 (图 2)到达预定刃宽，刀具需要再研磨．这个宽度应该在刀具寿命不受到过分降低时允许再研磨．根据刀具的类型和所需要的表面光洁度，它有从几十到几百的选择范围．这个方法可用于加工不均一的切削余量或者切削性能不同的材质上．它也使用在小的数量生产批次上．

Cutters should be sharpened as soons as the wear land(Fig. 2.) reaches a predetermined width. This width should permit sharpening without excessive loss of tool life. it may vary from a few hundredth to some tenth of a millimeter, depending on the type of cutter and the finish required on the product. This method is used on production runs where uneven amounts of stock is removed or where the material varies in machinability. It is also used on small quantity product lots.

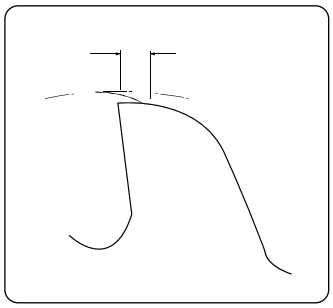


图2. 磨损 刃宽
Fig. 2. Wear Land

7 外周切削刃再研磨 RESHARPENING PERIPHERAL CUTTING EDGE

1 外周切削刃再研磨 RESHARPENING PERIPHERAL CUTTING EDGE

铣刀间隙角的几何形状由3种表示法：凹形，平面，和弧形，如图3所示．最近，大多数铣刀使用弧形间隙角(弧形磨尖)．在这种方法，自从弧形间隙角采用了外周磨削法，同时提高了间隙角的表面粗糙度并加强了切削刃的力度．(图4)从结果上看，提高了刀具寿命．

The geometry of relief angle in an end mill consist of three methods as shown in Fig.3 concave, flat, and eccentric. Recently, most end mills have the eccentric relief(eccenrtic sharpening). In this method, since the relief is formed an eccentric are surface in cylindrical grinding method, the roughness of the finished surface of the relief improves and the strength of cutting edge increase at the same time.(Fig.4) As a result, the tool life is improved.

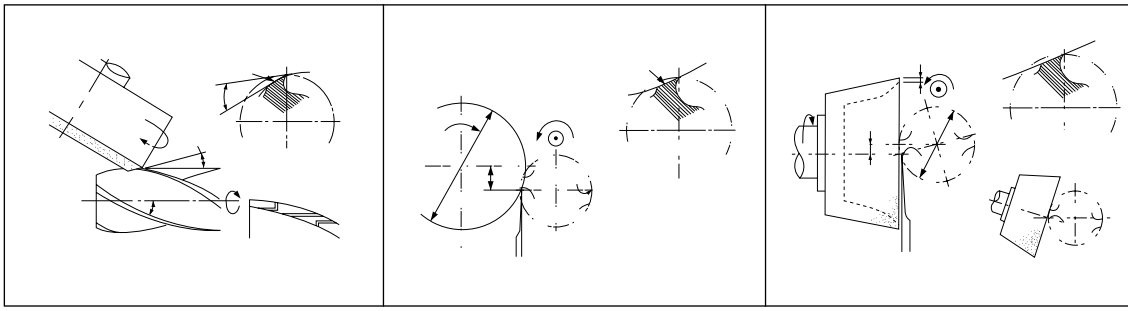
Eccentric	Concave	Flat
		

图3. 一次间隙角的3种类型
Fig. 3. Three Types of Primary Relief

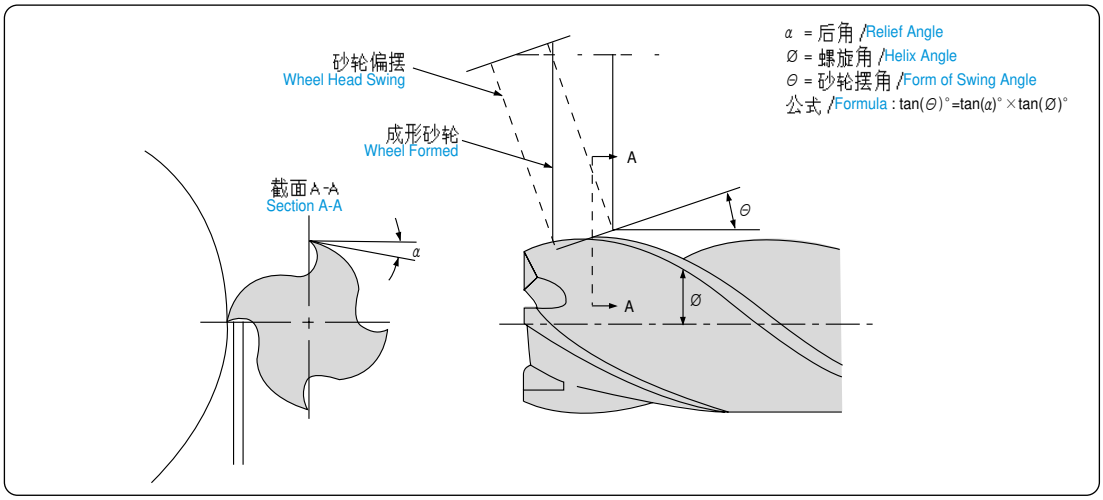


图4. 切削刃的弧形间隙角
Fig. 4. Toothing of Eccentric Relief Angle

2 砂轮倾斜的角度 ANGLE OF WHEEL INCLINATION

弧形间隙角是通过普通砂轮的位置与轴平行或刀具轴向偏移轻微的角度来产生的，通过改变砂轮的倾向的角度可以得到多种间隙角度.

Eccentric relief is produced with a plain wheel positioned with its axis parallel or at a slight angle with the cutter axis. The degree of relief is varied by changing the angle of wheel inclination.

表格1.铣刀推荐使用的间隙角
Table 1. RECOMMENDED RELIEF ON END MILLS

Mill Diameter (mm)	Eccentric relief indicator drop for relief Angles shown		Checking Distance	Wheel Angles(Deg.)Θ			Radial Relief Angles(α1)	Clearance Angles(α2)
				15° Helix	30° Helix	60° Helix		
-	Min	Max.	-	*Angle	*Angle	*Angle	*Angle	*Angle
3.0	0.100	0.130	0.40	4°24′	9°25′	26°28′	16°02′	25°
6.0	0.090	0.125	0.50	3°18′	7°05′	20°25′	12°08′	25°
12.0	0.100	0.135	0.65	2°46′	5°46′	17°23′	10°15′	25°
25.0	0.095	0.140	0.80	2°15′	4°15′	14°16′	8°21′	25°
40.0	0.085	0.125	0.80	2°01′	4°33′	12°48′	7°29′	25°
50.0	0.085	0.125	0.80	2°01′	4°33′	12°48′	7°29′	25°

实际的径向间隙角通常保持在所示的范围之内，但是它可能根据情况适合刀具的材料，被加工材料和加工条件

The actual at the radial relief angle is normally kept within the range shown but may be varied to suit the cutter material, the work material and the operating conditions.

*角度是在径向间隙角度的基础上计算出来的.

*Angle is calculated from the basic mean at the radical angle.

8 底刃的再研磨 RESHARPENING END TEETH

三个必须的加工和一个选择性特征连同调试建议一起在图5中A到D的每一个图中显示出来，阴影部分表示要研磨的面.

The three necessary operations and one option feature, along with setup suggestions are shown in Fig.5 A to D in each drawing, the shaded area indicates the surface being ground.

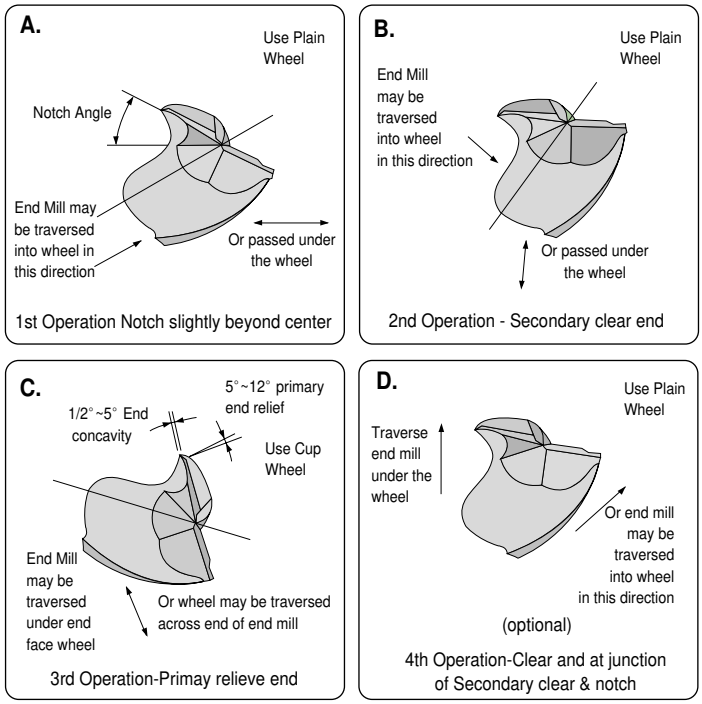


图5.2刃铣刀再研磨的过程
Fig 5. PROCEDURE FOR SHARPENING END OF 2 FLUTE SQUARE END MILLS

9 检查 INSPECTION

检查数值是通过表格1中的公式计算出来的.
使用指示器检查径向间隙角的过程

The inspection is caculated by using the formula shown in Table1.
Procedure To Check Radial Relief Angles With Indicators.

1. 把刀具安在可自由旋转无轴向移动的装置上
2. 把千分表的探头调整在切削刃上，能显示出径向变化. 如图6所示
3. 旋转刀具使第二个千分表指针变化，变化的数据在"检测长度"中可以找到.
4. 根据表格和变化的数据可以得出特定直径和间隙角角度.

1. Mount the cutter to rotate freely with no end movement.
2. Adjust the sharp pointed indicator to bear at the very tip of the cutting edge, pointing in a radial line, shown in Figure6
3. Roll the outter the tabuleted amount gives under "checking distance" using the second indicator as control.
4. Consult chart for amount of drop for the particular diameter and relief angle.

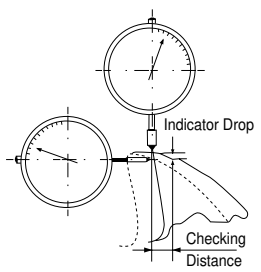
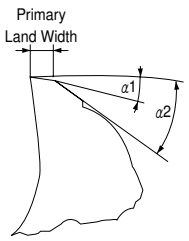
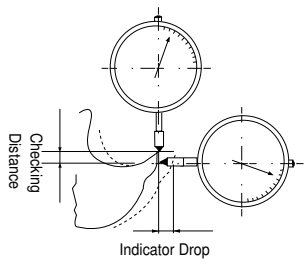
Radial Relief	Peripheral Cutting Edge	Cutting Angle
		

图6，设置千分表
Fig. 6. Indicator Set-Up for Checking

10 铣刀问题解决指南 Troubleshooting in Endmilling

具体问题 Trouble	原因 Occurrences of trouble	解决方法 Countermeasures
刀具破损 Breaking of tool	· 与被加工材料接触时 At time of engaging with work material · 结束切削时 When ending cut	1. 降低进给速度 / Decrease feed rate. 2. 减少发射次数 / Decrease projection amount 3. 缩短切削刃长度到所需的最小值极限 Shorten cutting edge length to required minimum limit
	· 在正常加工中 During normal cutting	1. 降低进给速度 / Decrease feed rate 2. 控制磨损→及早的替换刀具 / Control wear → replace tool early 3. 更换刀柄或夹头 / Replace chuck or collet 4. 减少发射次数 / Decrease projection amount 5. 实行衍磨 / Carry out honing 6. 4刃改为2刃 (铁屑的堵塞) If 4 flute, reduce to 2 flute(clogging of chipping) 7. 把干铣改为使用切削液的湿铣 对于湿铣，冷却液从前面供给时，更改为顶部侧面角度 使用充足的速度. If dry cutting change to wet cutting utilize cutting fluid. In case of wet cutting flow oil supplied from the front, change to from rear angle of side top. Use ample with rate.
	· 变换进给方向时 When changing direction of feed	1. 使用环形内插法 (数对空设备)或者临时停止进给 (木钉) Utilize circular interpolation(in case of NC machine) or temporarily stop feed(Dowelling) 2. 改变方向前后降低进给速度 Reduce feed rate before and after change of directions 3. 更换刀柄或夹头 / Replace chuck or collect
切削刃的破裂 Fracture of cutting edge	· 拐角破裂 Fracture of corners	1. 用手动移动来完成倒角或圆鼻 Carry out chamfering or nose with hand lapper. 2. 顺铣 → 逆铣 / Down cut → Up cut
	· 切削深度的边界破裂 Fracture at boundary of depth of cut	1. 顺铣 → 逆铣 / Down cut → Up cut 2. 降低切削速度 / Reduce cutting speed
	· 中心部份或全面崩刃 Chipping at center part or overall	1. 实行衍磨 或扩大. / Carry out honing. Or enlarge. 2. 改变转数 (设备振动的情况) Change number of rotation(in case machine vibrates) 3. 增加切削速度 / Increase cutting speed 4. 切削时产生噪音，增加进给. In ease of squeaking noise during cutting, increase feed. 5. 干铣时，使用切削液或气流冷却. It dry cutting use cutting fluid or blow air. 6. 更换刀柄或夹头 / Replace chuck or collet 7. 降低切削速度 / Reduce cutting speed
	· 切削刃巨大的破裂 Large fracturing of cutting edge	1. 降低进给速度 / Decrease feed rate 2. 4刃改为2刃 / If 4 flute reduce to 2 flute 3. 实行研磨或扩大 / Carry out honing. Or enlarge 4. 更换刀柄或夹头 / Replace chuck or collet 5. 降低切削速度 / Reduce cutting speed 6. 把干铣改为湿铣. 对于湿铣，冷却液从前面供给时，更改为顶部侧面角度. 使用充足的速度 If dry cutting, change to wet cutting. In case oil supply in wet cutting is from the front, change to rear at an angle or from side top. Use ample supply.

具体问题 Trouble	原因 Occurrences of trouble	解决方法 Countermeasures
刀具磨损过快 Rapid tool wear		1. 降低切削速度 / Reduce cutting speed 2. 逆铣 → 顺铣 / Up cut → Down cut 3. 增加进给 / Increase feed 4. 利用湿铣或气流 / Utilize wet cutting or air 5. 如果是再研磨刀具，提高侧翼的表面粗糙度 If reground tool, improve surface roughness of flank.
表面粗糙度恶劣 Inferior finished surface	· 表面好但是粗糙 Surface is good but rough	1. 减少进给 / Decrease feed 2. 2刃改为4刃 In case using 2 flute, increse to 4 flute
	· 小的冷焊 Small chip welding	1. 增加切削速度 / Increase cutting speed 2. 利用湿铣或气流(充足供应) Utilize wet cutting air blow(ample supply) 3. 使用较细的衍磨 / Carry out fine honing 4. 逆铣 → 顺铣 / Up cut → Down cut 5. 增加进给或放大表面允许范围 Increase feed or enlarge finish allowance
	· 横断条纹 With transverse streaks	1. 使用较细的衍磨 / Carry out fine honing 2. 使用水溶性切削液 Use water insoluble cutting fluid 3. 顺铣 → 逆铣 / Down cut → Up cut
	· 过量裁切的迹象 Signs of excessive cutting	1. 减少切削深度 / Reduce finishing depth of cut 2. 增加切削速度 / Increase cutting speed 3. 减少进给 / Reduce feed
加工精度不好 Poor machining accuracy	· 最终尺寸是负值 Finish dimensions are on minus side	1. 逆铣 → 顺铣 / Up cut → Down cut 2. 减少切削深度 / Reduce finishing depth of cut 3. 更换刀柄或夹头 / Replace chuck or collet 4. 减少发射次数 / Reduce projection amount 5. 增加切削速度 / Increase cutting speed
	· 垂直度不好 Poor perpendicufarity	1. 减少切削深度 / Reduce finishing depth of cut 2. 更换刀柄或夹头 / Replace chuck or collet 3. 减少发射次数 / Reduce projection amont 4. 增加切削速度 / Increase cutting speed 5. 2刃 → 4 刃 / 2Flute → 4 Flute 6. 减少进给 / Reduce feed 7. 检查磨损速度 → 更换刀具 Check wear rate → Replace tool
振纹 Chattering		1. 增加进给速度 (一旦超过 0.05 mm/Zahn, 尽量降低) Increase feed rate(in case over 0.05 mm/Zahn, try reducing) 2. 改变切削速度 / Change cutting speed 3. 更换刀柄或夹头 / Replace chuck or collet 4. 减少发射次数 / Reduce projection amount 5. 使用2刃刀具进行粗加工以及使用4刃刀具进行精加工 Use 2 flute cutter for rough cutting and 4 flute for finishing 6. 顺铣 → 逆铣 / Down cut → Up cut

TECHNICAL DATA

SUPER CUTTING END MILLS

硬度对照表
Comparison Chart Scale for Hardness

Rockwell Hardness C Scale 150kg Brale (HRc)	Diamond Pyramid Hardness Number. Vickers (HV)	Brinell Hardness Standard 10mm Ball 29.42kN (HB)	Rockwell Hardness A Scale 60kg Brale (HRA)	Shore Scleroscope Hardness Number (HS)	Approx. Tensile Strength N/mm²
68	940	-	85.6	97	-
67	900	-	85.5	95	-
66	865	-	84.5	92	-
65	832	-	83.9	91	-
64	800	-	83.4	88	-
63	772	-	82.8	87	-
62	746	-	82.3	85	-
61	720	-	81.8	83	-
60	697	-	81.2	81	-
59	674	-	80.7	80	-
58	653	-	80.1	78	-
57	633	-	79.6	76	-
56	613	-	79.0	75	-
55	595	-	78.5	74	2079
54	577	-	78.0	72	2010
53	560	-	77.4	71	1952
52	544	500	76.8	69	1883
51	528	487	76.3	68	1824
50	513	475	75.9	67	1755
49	498	464	75.2	66	1687
48	484	451	74.7	64	1639
47	471	442	74.1	63	1578
46	458	432	73.6	62	1530
45	446	421	73.1	60	1481
44	434	409	72.5	58	1432
43	423	400	72.0	57	1383
42	412	390	71.5	56	1334
41	402	381	70.9	55	1294
40	392	371	70.4	54	1245
39	382	362	69.9	52	1216
38	372	353	69.4	51	1177
37	363	344	68.9	50	1157
36	354	336	68.4	49	1118
35	345	327	67.9	48	1079
34	336	319	67.4	47	1059
33	327	311	66.8	46	1030
32	318	301	66.3	44	1000
31	310	294	65.8	43	981
30	302	286	65.3	42	952
29	294	279	64.7	41	932
28	285	271	64.3	41	912
27	279	264	63.8	40	883
26	272	258	63.3	38	863
25	266	253	62.8	38	843
24	260	247	62.4	37	824
23	254	243	62.0	36	804
22	248	237	61.5	35	785
21	243	231	61.0	35	775
20	238	226	60.5	34	755
(18)	230	219	-	33	736
(16)	222	212	-	32	706
(14)	213	203	-	31	677
(12)	204	194	-	29	647
(10)	196	187	-	28	618
(8)	188	179	-	27	598
(6)	180	171	-	26	579
(4)	173	165	-	25	549
(2)	166	158	-	24	530
(0)	160	152	-	24	520

其它工具
OTHER TOOLS

高速钢铰刀
HSS REAMERS

高速钢沉孔刀
HSS COUNTERSINKS

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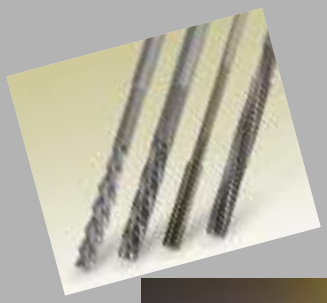
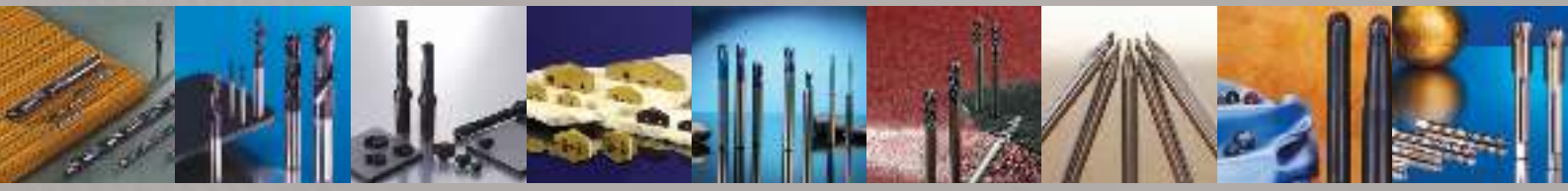
高速钢铰刀 高速钢手用铰刀，高速钢夹持式铰刀	**HSS REAMERS** **HSS Hand Reamers, HSS-E Chucking Reamers**	REAMERS
高速钢沉孔刀 修边，倒角，锥形扩孔，HSS&HSS-E&含钴8%	**HSS COUNTERSINKS** Deburring, Chamfering, Countersinking, HSS & HSS-E & 8% Cobalt	COUNTER SINKS
HSS-E锪刀 普通用途	**HSS-E COUNTERBORES** General Purpose	COUNTER BORES
硬质合金旋转锉 普通钢和有色金属(柄部直径3mm和6mm)	**CARBIDE ROTARY BURRS** General Steels and Nonferrous Metals etc. (3&6mm Shank Diameter)	ROTARY BURRS



CUTTING TOOLS



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REAMERS

- 高速钢手用铰刀, HSS-E 夹持式铰刀

  HSS Hand Reamers, HSS-E Chucking Reamers

项目 ITEM	型号 MODEL	规格 DESCRIPTION	尺寸 SIZE 最小 MIN	尺寸 SIZE 最大 MAX	页 PAGE
K1143		高速钢手用铰刀-直槽 HSS HAND REAMERS - STRAIGHT FLUTES	D2.0	D60.0	1029
K1153		高速钢手用铰刀-左向螺旋槽 HSS HAND REAMERS - LH SPIRAL FLUTES	D2.0	D60.0	1031
K2101		HSS-E直柄夹持铰刀-直槽 HSS-E STRAIGHT SHANK CHUCKING REAMERS - STRAIGHT FLUTES	D2.0	D20.0	1033
K2111		HSS-E直柄夹持铰刀-左向螺旋槽 HSS-E STRAIGHT SHANK CHUCKING REAMERS - LH SPIRAL FLUTES	D2.0	D20.0	1034
K2121		HSS-E直柄夹持铰刀-左向螺旋槽(快速螺旋) HSS-E STRAIGHT SHANK CHUCKING REAMERS - LH SPIRAL FLUTES(QUICK SPIRAL)	D4.0	D20.0	1035
K2102		HSS-E锥柄夹持铰刀-直槽 HSS-E MORSE TAPER SHANK CHUCKING REAMERS - STRAIGHT FLUTES	D10.0	D50.0	1036
K2112		HSS-E锥柄夹持铰刀-左向螺旋槽 HSS-E MORSE TAPER SHANK CHUCKING REAMERS - LH SPIRAL FLUTES	D10.0	D50.0	1037
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS			1038

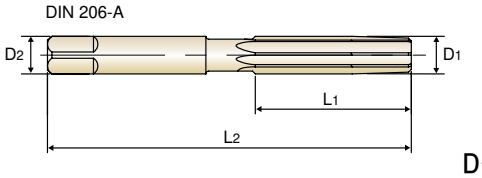
REAMERS

K1143 SERIES

高速钢手用铰刀–直槽
HSS HAND REAMERS - STRAIGHT FLUTES

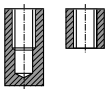
- ▶ 刃部公差 : DIN 1420 for H7
- ▶ 柄部直径 = 铰刀刃部直径
- ▶ 直槽/右切
- ▶ 倒角-锥形
- ▶ 中心孔类型 - Ø3.75以下 : 凸出中心孔
  - Ø3.75超过 : 内部中心孔

- ▶ O.D. Tolerances : DIN 1420 for H7
- ▶ Shank Diameter ≒ Nominal Reamer Diameter
- ▶ Straight Flutes / Right Hand Cut
- ▶ Chamfer Angle - tapered
- ▶ Type of center - Up to Ø3.75 : external centers
  - Over Ø3.75 : internal centers



$D_1 = D_2$

HSS | DIN 206 | H7

Hole type 

단위(Unit) : mm

型号 EDP No.	名义上的 尺寸 Nominal SIZE D_1	刃长 Flute Length L_1	全长 Overall Length L_2	刃数 No.of Flutes
K114300200	2.0	25	50	4
K114300220	2.2	27	54	4
K114300250	2.5	29	58	4
K114300280	2.8	31	62	4
K114300300	3.0	31	62	6
K114300320	3.2	33	66	6
K114300350	3.5	35	71	6
K114300400	4.0	38	76	6
K114300450	4.5	41	81	6
K114300500	5.0	44	87	6
K114300550	5.5	47	93	6
K114300600	6.0	47	93	6
K114300700	7.0	54	107	6
K114300800	8.0	58	115	6
K114300900	9.0	62	124	6
K114301000	10.0	66	133	6
K114301100	11.0	71	142	6
K114301200	12.0	76	152	6
K114301300	13.0	76	152	6
K114301400	14.0	81	163	8
K114301500	15.0	81	163	8
K114301600	16.0	87	175	8
K114301700	17.0	87	175	8
K114301800	18.0	93	188	8
K114301900	19.0	93	188	8
K114302000	20.0	100	201	8
K114302200	22.0	107	215	8
K114302400	24.0	115	231	8

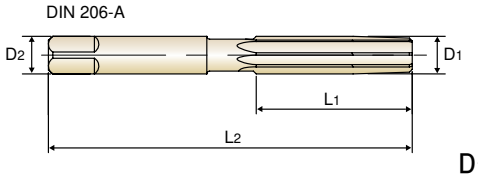
YG REAMERS

K1143 SERIES

高速钢手用铰刀-直槽
HSS HAND REAMERS - STRAIGHT FLUTES

- ▶ 刃部公差 : DIN 1420 for H7
- ▶ 柄部直径 = 铰刀 刃部直径
- ▶ 直槽/右切
- ▶ 倒角-锥形
- ▶ 中心孔类型 - Ø3.75以下：凸出中心孔
  - Ø3.75超过：内部中心孔

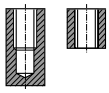
- ▶ O.D. Tolerances : DIN 1420 for H7
- ▶ Shank Diameter ≒ Nominal Reamer Diameter
- ▶ Straight Flutes / Right Hand Cut
- ▶ Chamfer Angle - tapered
- ▶ Type of center - Up to Ø3.75 : external centers
  - Over Ø3.75 : internal centers



$D_1=D_2$

HSS | DIN 206 | H7

Hole type



단위(Unit) : mm

型号 EDP No.	名义上的 尺寸 Nominal SIZE D_1	刃长 Flute Length L_1	全长 Overall Length L_2	刃数 No.of Flutes
K114302500	25.0	115	231	8
K114302600	26.0	115	231	8
K114302700	27.0	124	247	10
K114302800	28.0	124	247	10
K114302900	29.0	124	247	10
K114303000	30.0	124	247	10
K114303100	31.0	133	265	10
K114303200	32.0	133	265	10
K114303300	33.0	133	265	10
K114303400	34.0	142	284	10
K114303500	35.0	142	284	10
K114303600	36.0	142	284	10
K114303700	37.0	142	284	10
K114303800	38.0	152	305	10
K114303810	38.1	152	305	10
K114303900	39.0	152	305	10
K114304000	40.0	152	305	10
K114304100	41.0	152	305	12
K114304200	42.0	152	305	12
K114304300	43.0	163	326	12
K114304400	44.0	163	326	12
K114304500	45.0	163	326	12
K114304600	46.0	163	326	12
K114304700	47.0	163	326	12
K114304800	48.0	174	347	12
K114304900	49.0	174	347	12
K114305200	52.0	174	347	12
K114306000	60.0	184	367	12

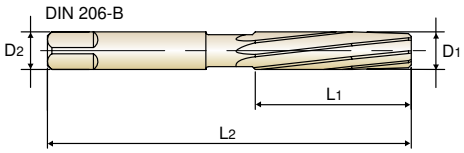
REAMERS

K1153 SERIES

高速钢手用铰刀–左向螺旋槽
HSS HAND REAMERS - LH SPIRAL FLUTES

- ▶ 刃部公差：DIN 1420 for H7
- ▶ 柄部直径 = 铰刀刃部直径
- ▶ 左向螺旋槽/右切
- ▶ 倒角-锥形
- ▶ 中心孔类型 - Ø3.75以下：凸出中心孔
  - Ø3.75超过：内部中心孔

- ▶ O.D. Tolerances : DIN 1420, H7
- ▶ Shank Diameter ≒ Nominal Reamer Diameter
- ▶ LH Spiral Flutes / Right Hand Cut
- ▶ Chamfer Angle - tapered
- ▶ Type of center - Up to Ø3.75 : external centers
  - Over Ø3.75 : internal centers



$D_1 = D_2$

HSS | DIN 206 | H7 | LH7°

Hole type

单位(Unit) : mm

型号 EDP No.	名义上的 尺寸 Nominal SIZE D1	刃长 Flute Length L1	全长 Overall Length L2	刃数 No.of Flutes
K115300200	2.0	25	50	4
K115300220	2.2	27	54	4
K115300250	2.5	29	58	4
K115300280	2.8	31	62	4
K115300300	3.0	31	62	6
K115300320	3.2	33	66	6
K115300350	3.5	35	71	6
K115300400	4.0	38	76	6
K115300450	4.5	41	81	6
K115300500	5.0	44	87	6
K115300550	5.5	47	93	6
K115300600	6.0	47	93	6
K115300700	7.0	54	107	6
K115300800	8.0	58	115	6
K115300900	9.0	62	124	6
K115301000	10.0	66	133	6
K115301100	11.0	71	142	6
K115301200	12.0	76	152	6
K115301300	13.0	76	152	6
K115301400	14.0	81	163	8
K115301500	15.0	81	163	8
K115301600	16.0	87	175	8
K115301700	17.0	87	175	8
K115301800	18.0	93	188	8
K115301900	19.0	93	188	8
K115302000	20.0	100	201	8
K115302200	22.0	107	215	8
K115302400	24.0	115	231	8

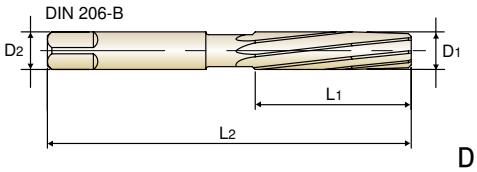
YG REAMERS

K1153 SERIES

高速钢手用铰刀-左向螺旋槽
HSS HAND REAMERS - LH SPIRAL FLUTES

- ▶ 刃部公差 : DIN 1420 for H7
- ▶ 柄部直径 = 铰刀 刃部直径
- ▶ 左向螺旋槽/右切
- ▶ 倒角-锥形
- ▶ 中心孔类型 - Ø3.75以下：凸出中心孔
  - Ø3.75超过：内部中心孔

- ▶ O.D. Tolerances : DIN 1420, H7
- ▶ Shank Diameter ≒ Nominal Reamer Diameter
- ▶ LH Spiral Flutes / Right Hand Cut
- ▶ Chamfer Angle - tapered
- ▶ Type of center - Up to Ø3.75 : external centers
  - Over Ø3.75 : internal centers



$D_1 = D_2$

HSS | DIN 206 | H7 | LH7°

Hole type

단위(Unit) : mm

型号 EDP No.	名义上的 尺寸 Nominal SIZE D1	刃长 Flute Length L1	全长 Overall Length L2	刃数 No.of Flutes
K115302500	25.0	115	231	8
K115302600	26.0	115	231	8
K115302700	27.0	124	247	10
K115302800	28.0	124	247	10
K115302900	29.0	124	247	10
K115303000	30.0	124	247	10
K115303100	31.0	133	265	10
K115303200	32.0	133	265	10
K115303300	33.0	133	265	10
K115303400	34.0	142	284	10
K115303500	35.0	142	284	10
K115303600	36.0	142	284	10
K115303700	37.0	142	284	10
K115303800	38.0	152	305	10
K115303810	38.1	152	305	10
K115303900	39.0	152	305	10
K115304000	40.0	152	305	10
K115304100	41.0	152	305	12
K115304200	42.0	152	305	12
K115304300	43.0	163	326	12
K115304400	44.0	163	326	12
K115304500	45.0	163	326	12
K115304600	46.0	163	326	12
K115304700	47.0	163	326	12
K115304800	48.0	174	347	12
K115304900	49.0	174	347	12
K115305200	52.0	174	347	12
K115306000	60.0	184	367	12

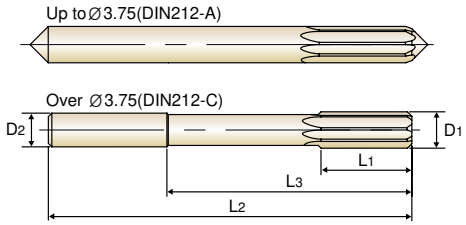
REAMERS

K2101 SERIES

HSS-E直柄夹持铰刀-直槽
HSS-E STRAIGHT SHANK CHUCKING REAMERS - STRAIGHT FLUTES

- 刃部公差 : DIN 1420 for H7
- 柄部直径 = h8
- 直槽/右切
- 倒角 - Ø3.75以下 : 15 °
  - Ø3.75超过 : 45 °

- O.D. Tolerances : DIN 1420 for H7
- Shank Diameter Tolerances : h8
- Straight Flute / Right Hand Cut
- Chamfer Angle - Up to Ø3.75 : 15°
  - Over Ø3.75 : 45°



HSS-E | DIN 212 | H7 | 15° | 45°

up to Ø3.75 over Ø3.75

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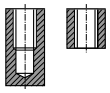
Hole type



단위(Unit) : mm

型号 EDP No.	名义上的 尺寸 Nominal SIZE D1	柄部直径 Shank Diameter D2	切削长度 Cutting Length L1	颈部长度 Neck Length L3	全长 Overall Length L2	刃数 No.of Flutes
K210100200	2.0	2	11	-	49	4
K210100220	2.2	2.2	12	-	53	4
K210100250	2.5	2.5	14	-	57	4
K210100260	2.6	2.6	14	-	57	4
K210100280	2.8	2.8	15	-	61	4
K210100300	3.0	3	15	-	61	6
K210100310	3.1	3.1	16	-	65	6
K210100320	3.2	3.2	16	-	65	6
K210100350	3.5	3.5	18	-	70	6
K210100360	3.6	3.6	18	-	70	6
K210100370	3.7	3.7	18	-	70	6
K210100400	4.0	4	19	42	75	6
K210100430	4.3	4.5	21	46	80	6
K210100450	4.5	4.5	21	46	80	6
K210100460	4.6	4.5	21	46	80	6
K210100500	5.0	5	23	51	86	6
K210100550	5.5	5.6	26	56	93	6
K210100560	5.6	5.6	26	56	93	6
K210100600	6.0	5.6	26	56	93	6
K210100650	6.5	6.3	28	62	101	6
K210100700	7.0	7.1	31	68	109	6
K210100720	7.2	7.1	31	68	109	6
K210100800	8.0	8	33	74	117	6
K210100830	8.3	8	33	74	117	6
K210100850	8.5	8	33	74	117	6
K210100900	9.0	9	36	80	125	6
K210100950	9.5	9	36	80	125	6
K210101000	10.0	10	38	86	133	6
K210101050	10.5	10	38	86	133	6
K210101100	11.0	10	41	95	142	6
K210101200	12.0	10	44	104	151	6
K210101300	13.0	10	44	104	151	6
K210101400	14.0	12.5	47	108	160	8
K210101500	15.0	12.5	50	110	162	8
K210101600	16.0	12.5	52	118	170	8
K210101700	17.0	14	54	121	175	8
K210101800	18.0	14	56	128	182	8
K210101900	19.0	16	58	129	189	8
K210102000	20.0	16	60	135	195	8

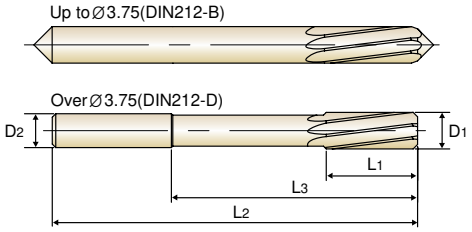
YG REAMERS

K2111 SERIES

HSS-E直柄夹持铰刀-左向螺旋槽
HSS-E STRAIGHT SHANK CHUCKING REAMERS - LH SPIRAL FLUTES

- ▶ 刃部公差 : DIN 1420 for H7
- ▶ 柄部直径 = h8
- ▶ 左向螺旋槽 / 右切
- ▶ 倒角 - Ø3.75以下 : 15 °
  - Ø3.75超过 : 45 °

- ▶ O.D. Tolerances : DIN 1420 for H7
- ▶ Shank Diameter Tolerances : h8
- ▶ LH Spiral Flutes / Right Hand Cut
- ▶ Chamfer Angle - Up to Ø3.75 : 15°
  - Over Ø3.75 : 45°



HSS-E | DIN 212 | H7 | LH7° | 15° | 45°

up to Ø3.75 over Ø3.75

P.1038

Hole type

단위(Unit) : mm

型号 EDP No.	名义上的 尺寸 Nominal SIZE D1	柄部直径 Shank Diameter D2	切削长度 Cutting Length L1	颈部长度 Neck Length L3	全长 Overall Length L2	刃数 No.of Flutes
K211100200	2.0	2	11	-	49	4
K211100220	2.2	2.2	12	-	53	4
K211100250	2.5	2.5	14	-	57	4
K211100260	2.6	2.6	14	-	57	4
K211100280	2.8	2.8	15	-	61	4
K211100300	3.0	3	15	-	61	6
K211100310	3.1	3.1	16	-	65	6
K211100320	3.2	3.2	16	-	65	6
K211100350	3.5	3.5	18	-	70	6
K211100360	3.6	3.6	18	-	70	6
K211100370	3.7	3.7	18	-	70	6
K211100400	4.0	4	19	42	75	6
K211100430	4.3	4.5	21	46	80	6
K211100450	4.5	4.5	21	46	80	6
K211100460	4.6	4.5	21	46	80	6
K211100500	5.0	5	23	51	86	6
K211100550	5.5	5.6	26	56	93	6
K211100560	5.6	5.6	26	56	93	6
K211100600	6.0	5.6	26	56	93	6
K211100650	6.5	6.3	28	62	101	6
K211100700	7.0	7.1	31	68	109	6
K211100720	7.2	7.1	31	68	109	6
K211100800	8.0	8	33	74	117	6
K211100830	8.3	8	33	74	117	6
K211100850	8.5	8	33	74	117	6
K211100900	9.0	9	36	80	125	6
K211100950	9.5	9	36	80	125	6
K211101000	10.0	10	38	86	133	6
K211101050	10.5	10	38	86	133	6
K211101100	11.0	10	41	95	142	6
K211101200	12.0	10	44	104	151	6
K211101300	13.0	10	44	104	151	6
K211101400	14.0	12.5	47	108	160	8
K211101500	15.0	12.5	50	110	162	8
K211101600	16.0	12.5	52	118	170	8
K211101700	17.0	14	54	121	175	8
K211101800	18.0	14	56	128	182	8
K211101900	19.0	16	58	129	189	8
K211102000	20.0	16	60	135	195	8

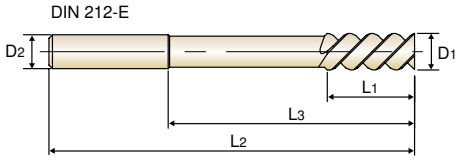
REAMERS

K2121 SERIES

HSS-E直柄夹持铰刀-左向螺旋槽(快速螺旋)
HSS-E STRAIGHT SHANK CHUCKING REAMERS - LH SPIRAL FLUTES(QUICK SPIRAL)

- ▶ 刃部公差 : DIN 1420 for H7
- ▶ 柄部直径 = h8
- ▶ 倒角-锥形
- ▶ 左向高螺旋槽/右切

- ▶ O.D. Tolerances : DIN 1420 for H7
- ▶ Shank Diameter Tolerances : h8
- ▶ Chamfer Angle - tapered
- ▶ LH High Spiral Flutes / Right Hand Cut



HSS-E | DIN 212 | H7 | LH45° | FORM E

P.1038

Hole type

단位(Unit) : mm

型号 EDP No.	名义上的 尺寸 Nominal SIZE D1	柄部直径 Shank Diameter D2	切削长度 Cutting Length L1	颈部长度 Neck Length L3	全长 Overall Length L2	刃数 No.of Flutes
K212100400	4.0	4	19	42	75	3
K212100450	4.5	4.5	21	46	80	3
K212100500	5.0	5	23	51	86	3
K212100550	5.5	5.6	26	56	93	3
K212100600	6.0	5.6	26	56	93	3
K212100650	6.5	6.3	28	62	101	3
K212100700	7.0	7.1	31	68	109	3
K212100800	8.0	8	33	74	117	3
K212100850	8.5	8	33	74	117	3
K212100900	9.0	9	36	80	125	3
K212100950	9.5	9	36	80	125	3
K212101000	10.0	10	38	86	133	3
K212101100	11.0	10	41	95	142	3
K212101200	12.0	10	44	104	151	3
K212101300	13.0	10	44	104	151	3
K212101400	14.0	12.5	47	108	160	4
K212101500	15.0	12.5	50	110	162	4
K212101600	16.0	12.5	52	118	170	4
K212101700	17.0	14	54	121	175	4
K212101800	18.0	14	56	128	182	4
K212101900	19.0	16	58	129	189	4
K212102000	20.0	16	60	135	195	4

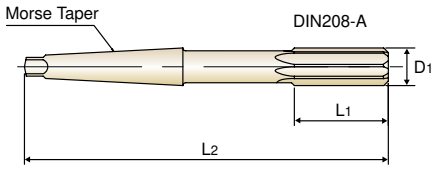
YG REAMERS

K2102 SERIES

HSS-E锥柄夹持铰刀-直槽
HSS-E MORSE TAPER SHANK CHUCKING REAMERS - STRAIGHT FLUTES

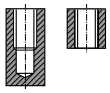
- ▶ 刃部公差 : DIN 1420 for H7
- ▶ 直槽/右切
- ▶ 倒角 - 45°

- ▶ O.D. Tolerances : DIN 1420 for H7
- ▶ Straight Flute / Right Hand Cut
- ▶ Chamfer Angle : 45°



HSS-E | DIN 208 | H7 | 45° | P.1038

Hole type



단위(Unit) : mm

型号 EDP No.	名义上的 尺寸 Nominal SIZE D1	锥度型号 No. of Morse Taper	切削长度 Cutting Length L1	全长 Overall Length L2	刃数 No.of Flutes
K210201000	10.0	1	38	168	6
K210201100	11.0	1	41	175	6
K210201200	12.0	1	44	182	6
K210201300	13.0	1	44	182	6
K210201400	14.0	1	47	189	8
K210201500	15.0	2	50	204	8
K210201600	16.0	2	52	210	8
K210201700	17.0	2	54	214	8
K210201800	18.0	2	56	219	8
K210201900	19.0	2	58	223	8
K210202000	20.0	2	60	228	8
K210202100	21.0	2	62	232	8
K210202200	22.0	2	64	237	8
K210202300	23.0	2	66	241	8
K210202400	24.0	3	68	268	8
K210202500	25.0	3	68	268	8
K210202600	26.0	3	70	273	8
K210202700	27.0	3	71	277	10
K210202800	28.0	3	71	277	10
K210202900	29.0	3	73	281	10
K210203000	30.0	3	73	281	10
K210203100	31.0	3	75	285	10
K210203200	32.0	4	77	317	10
K210203400	34.0	4	78	321	10
K210203500	35.0	4	78	321	10
K210203600	36.0	4	79	325	10
K210203800	38.0	4	81	329	10
K210204000	40.0	4	81	329	10
K210204100	41.0	4	82	333	12
K210204200	42.0	4	82	333	12
K210204300	43.0	4	83	336	12
K210204400	44.0	4	83	336	12
K210204500	45.0	4	83	336	12
K210204600	46.0	4	84	340	12
K210204700	47.0	4	84	340	12
K210204800	48.0	4	86	344	12
K210205000	50.0	4	86	344	12

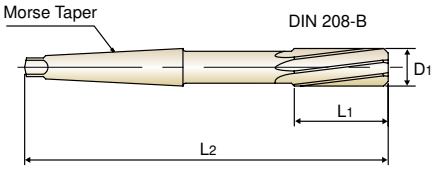
REAMERS

K2112 SERIES

HSS-E锥柄夹持铰刀-左向螺旋槽
HSS-E MORSE TAPER SHANK CHUCKING REAMERS - LH SPIRAL FLUTES

- 刃部公差 : DIN 1420 for H7
- 左向螺旋槽/右切
- 倒角 - 45 °

- O.D. Tolerances : DIN 1420 for H7
- LH Spiral Flutes / Right Hand Cut
- Chamfer Angle : 45°



HSS-E | DIN 208 | H7 | LH7° | 45° | P.1038

Hole type

단위(Unit) : mm

型号 EDP No.	名义上的 尺寸 Nominal SIZE D1	锥度型号 No. of Morse Taper	切削长度 Cutting Length L1	全长 Overall Length L2	刃数 No.of Flutes
K211201000	10.0	1	38	168	6
K211201100	11.0	1	41	175	6
K211201200	12.0	1	44	182	6
K211201300	13.0	1	44	182	6
K211201400	14.0	1	47	189	8
K211201500	15.0	2	50	204	8
K211201600	16.0	2	52	210	8
K211201700	17.0	2	54	214	8
K211201800	18.0	2	56	219	8
K211201900	19.0	2	58	223	8
K211202000	20.0	2	60	228	8
K211202100	21.0	2	62	232	8
K211202200	22.0	2	64	237	8
K211202300	23.0	2	66	241	8
K211202400	24.0	3	68	268	8
K211202500	25.0	3	68	268	8
K211202600	26.0	3	70	273	8
K211202700	27.0	3	71	277	10
K211202800	28.0	3	71	277	10
K211202900	29.0	3	73	281	10
K211203000	30.0	3	73	281	10
K211203100	31.0	3	75	285	10
K211203200	32.0	4	77	317	10
K211203400	34.0	4	78	321	10
K211203500	35.0	4	78	321	10
K211203600	36.0	4	79	325	10
K211203800	38.0	4	81	329	10
K211204000	40.0	4	81	329	10
K211204100	41.0	4	82	333	12
K211204200	42.0	4	82	333	12
K211204300	43.0	4	83	336	12
K211204400	44.0	4	83	336	12
K211204500	45.0	4	83	336	12
K211204600	46.0	4	84	340	12
K211204700	47.0	4	84	340	12
K211204800	48.0	4	86	344	12
K211205000	50.0	4	86	344	12

REAMERS 推荐的切削条件 RECOMMENDED CUTTING CONDITIONS

直槽夹持式铰刀，螺旋槽夹持式铰刀
STRAIGHT FLUTE CHUCKING REAMER, SPIRAL FLUTE CHUCKING REAMER

材质 Material	切削速度 Cutting Speed (m/min.)	每转进给 Feed(mm/rev.) Ø2 ~ Ø4	Ø4 ~ Ø8	Ø8 ~ Ø13	Ø13 ~ Ø20	Ø20 ~ Ø30	> Ø30
钢 <500N/mm² Steels < 500N/mm²	12 ~ 16	0.05~0.15	0.10~0.20	0.15~0.25	0.20~0.30	0.25~0.40	0.35~0.50
钢 500-700N/mm² Steels 500-700N/mm²	10 ~ 12	0.05~0.15	0.10~0.20	0.15~0.25	0.20~0.30	0.25~0.40	0.35~0.50
钢 700-800N/mm² Steels 700-800N/mm²	6 ~ 8	0.05~0.10	0.08~0.16	0.10~0.20	0.15~0.25	0.20~0.30	0.30~0.40
合金钢或碳钢铸件<500N/mm² Alloy Steel or Carbon Steel castings < 500N/mm²	6 ~ 10	0.05~0.10	0.08~0.16	0.10~0.20	0.15~0.25	0.20~0.30	0.30~0.40
合金钢或碳钢铸件>500N/mm² Alloy Steel or Carbon Steel castings > 500N/mm²	4 ~ 6	0.05~0.10	0.08~0.16	0.10~0.20	0.15~0.25	0.20~0.30	0.30~0.40
合金钢或碳钢锻造 Alloy Steel or Carbon Steel forgings	4 ~ 6	0.03~0.08	0.06~0.10	0.08~0.15	0.10~0.20	0.15~0.25	0.20~0.30
铸铁<200HB Cast Iron < 200HB	12 ~ 14	0.05~0.15	0.10~0.20	0.15~0.25	0.20~0.30	0.25~0.40	0.35~0.50
铸铁>200HB Cast Iron > 200HB	10 ~ 12	0.05~0.10	0.08~0.16	0.10~0.20	0.15~0.25	0.20~0.30	0.30~0.40
铝或铝合金 Aluminum or Aluminum Alloy	16 ~ 20	0.10~0.20	0.15~0.25	0.20~0.30	0.25~0.40	0.35~0.50	0.40~0.60
镁或镁合金 Magnesium or Magnesium Alloy	10 ~ 16	0.10~0.20	0.15~0.25	0.20~0.30	0.25~0.40	0.35~0.50	0.40~0.60
铜，黄铜 Copper, Brass	16 ~ 18	0.10~0.20	0.15~0.25	0.20~0.30	0.25~0.40	0.35~0.50	0.40~0.60
不锈钢 Stainless Steels	4 ~ 6	0.03~0.08	0.06~0.10	0.08~0.15	0.10~0.20	0.15~0.25	0.20~0.30
塑料 Plastics	8 ~ 12	0.10~0.20	0.20~0.30	0.30~0.40	0.40~0.50	0.50~0.60	0.60~0.80

夹持式铰刀-大螺旋
CHUCKING REAMER-QUICK SPIRAL

材质 Material	切削速度 Cutting Speed (m/min.)	每转进给 Feed(mm/rev.) Ø2 ~ Ø4	Ø4 ~ Ø8	Ø8 ~ Ø13	Ø13 ~ Ø20
钢 <500N/mm² Steels < 500N/mm²	16 ~ 18	0.08~0.16	0.16~0.25	0.20~0.30	0.30~0.40
钢 <500-700N/mm² Steels 500-700N/mm²	14 ~ 16	0.08~0.16	0.16~0.25	0.20~0.30	0.30~0.40
铝或铝合金 Aluminum or Aluminum Alloy	18 ~ 22	0.10~0.20	0.20~0.30	0.30~0.40	0.40~0.60
镁或镁合金 Magnesium or Magnesium Alloy	10 ~ 16	0.08~0.16	0.16~0.25	0.20~0.30	0.30~0.40
铜，黄铜 Copper, Brass	16 ~ 20	0.08~0.16	0.16~0.25	0.20~0.30	0.30~0.40
塑料 Plastics	12 ~ 14	0.10~0.20	0.20~0.30	0.30~0.40	0.40~0.60

HSS

YG

Being the best through innovation

COUNTERSINK

- 修边，倒角，锥形扩孔，HSS&HSS-E&含钴8%

Deburring, Chamfering, Countersinking, HSS & HSS-E & 8% Cobalt

SELECTION GUIDE

项目 ITEM	型号 MODEL	规格 DESCRIPTION	尺寸 最小 MIN	尺寸 最大 MAX	页 PAGE
C1109 C2109 C3109		高速钢带孔的去毛刺刀具 HSS DEBURRING TOOL with HOLE	D10.0	D50.0	1041
C1119 C2119 C3119		高速钢单刃倒角刀具 HSS SINGLE FLUTE CHAMFERING CUTTERS	D10.0	D50.0	1042
C1139 C2139 C3139		高速钢3刃沉孔刀 HSS THREE FLUTE COUNTERSINKS	D4.3	D31.0	1043
		推荐的切削条件 RECOMMENDED CUTTING CONDITIONS			1044

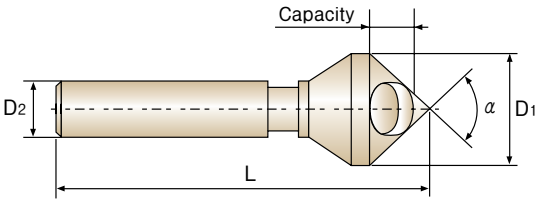
COUNTERSINKS

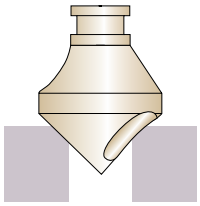
C1109 SERIES
C2109 SERIES
C3109 SERIES

高速钢带孔的去毛刺刀具
HSS DEBURRING TOOL with HOLE

- 用于轻金属和塑料
- 用于去毛刺和小的倒角
- 最好的表面粗糙度
- 加工时没有振动

- For light metals and plastics.
- For deburring and small chamfers.
- Best surface finish.
- Works without vibrations.





单位(Unit) : mm

型号 EDP No. (uncoating)			角度 Angle	刃部直径 Nominal Diameter	柄部直径 Shank Diameter	全长 Overall Length	生产量 Capacity
HSSCo8	HSS-E	HSS	α (-1°)	D1	D2	L(±1)	min/max
C1109100	C2109100	C3109100	90°	10.0	6	45	2 - 5
C1109150	C2109150	C3109150	90°	15.0	8	55	6 - 14
C1109200	C2109200	C3109200	90°	20.0	10	65	8 - 18
C1109250	C2109250	C3109250	90°	25.0	12	78	10 - 23
C1109300	C2109300	C3109300	90°	30.0	12	88	12 - 28
C1109350	C2109350	C3109350	90°	35.0	16	110	14 - 33
C1109400	C2109400	C3109400	90°	40.0	16	115	16 - 38
C1109450	C2109450	C3109450	90°	45.0	16	120	18 - 43
C1109500	C2109500	C3109500	90°	50.0	16	130	20 - 48

- TiN&TiCN涂层可根据您的要求加工
  TiN & TiCN coating are available on your request.

刃部公差 Nominal Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
+0.3	h9

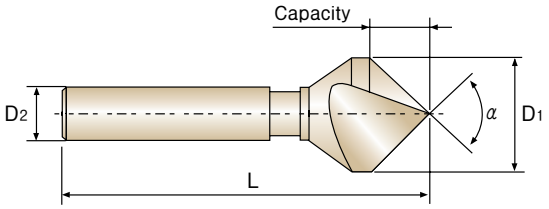
COUNTERSINKS

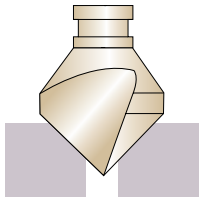
C1119 SERIES
C2119 SERIES
C3119 SERIES

高速钢单刃倒角刀具
HSS SINGLE FLUTE CHAMFERING CUTTERS

- 用于木头和硬塑料
- 可以在薄板上钻孔
- 容易再研磨
- 加工时没有振动

- For wood and hard plastics.
- Can drill in sheet materials.
- Easy to resharp.
- Works without vibrations.





单位(Unit) : mm

型号 EDP No. (uncoating)			角度 Angle	刃部直径 Nominal Diameter	柄部直径 Shank Diameter	全长 Overall Length	生产量 Capacity
HSSCo8	HSS-E	HSS	α (-1°)	D1	D2	L(±1)	min/max
C1119100	C2119100	C3119100	90°	10.0	6	45	1 - 10
C1119150	C2119150	C3119150	90°	15.0	8	55	2 - 15
C1119200	C2119200	C3119200	90°	20.0	10	65	2 - 20
C1119250	C2119250	C3119250	90°	25.0	12	78	3 - 25
C1119300	C2119300	C3119300	90°	30.0	12	88	3 - 30
C1119350	C2119350	C3119350	90°	35.0	16	110	4 - 35
C1119400	C2119400	C3119400	90°	40.0	16	115	5 - 40
C1119450	C2119450	C3119450	90°	45.0	16	120	10 - 45
C1119500	C2119500	C3119500	90°	50.0	16	130	12 - 50

- TiN&TiCN涂层可根据您的要求加工
  TiN & TiCN coating are available on your request.

刃部公差 Nominal Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
+0.3	h9

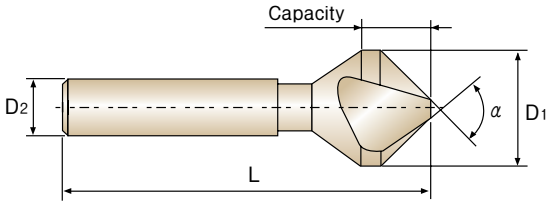
COUNTERSINKS

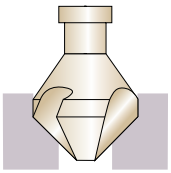
C1139 SERIES
C2139 SERIES
C3139 SERIES

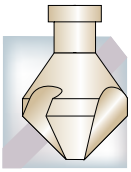
高速钢3刃沉孔刀
HSS THREE FLUTE COUNTERSINKS

- 自定心(3槽)
- 为90°螺帽钉做埋头孔而设计的
- 手用
- 纵向倒角和作等值线
- 加工时没有振动

- Self-centering(3 flutes).
- Designed for 90' capscrews countersinking.
- Hand using.
- Longitudinal chamfers and contouring.
- Works without vibrations







DIN 335 C

单位(Unit) : mm

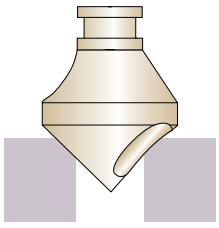
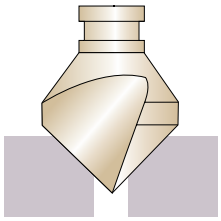
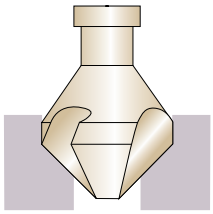
型号 EDP No. (uncoating)			角度 Angle	刃部直径 Nominal Diameter	柄部直径 Shank Diameter	全长 Overall Length	生产量 Capacity
HSSCo8	HSS-E	HSS	α (-1°)	D1	D2	L(±1)	min/max
C1139043	C2139043	C3139043	90°	4.3	4	40	1.3 - 4.3
C1139050	C2139050	C3139050	90°	5.0	4	40	1.5 - 5
C1139060	C2139060	C3139060	90°	6.0	5	45	1.5 - 6
C1139063	C2139063	C3139063	90°	6.3	5	45	1.5 - 6.3
C1139070	C2139070	C3139070	90°	7.0	6	50	1.8 - 7
C1139080	C2139080	C3139080	90°	8.0	6	50	2 - 8
C1139083	C2139083	C3139083	90°	8.3	6	50	2 - 8.3
C1139100	C2139100	C3139100	90°	10.0	6	50	2.5 - 10
C1139104	C2139104	C3139104	90°	10.4	6	50	2.5 - 10.4
C1139115	C2139115	C3139115	90°	11.5	8	56	2.8 - 11.5
C1139124	C2139124	C3139124	90°	12.4	8	56	2.8 - 12.4
C1139150	C2139150	C3139150	90°	15.0	10	60	3.2 - 15
C1139165	C2139165	C3139165	90°	16.5	10	60	3.2 - 16.5
C1139190	C2139190	C3139190	90°	19.0	10	63	3.5 - 19
C1139205	C2139205	C3139205	90°	20.5	10	63	3.5 - 20.5
C1139230	C2139230	C3139230	90°	23.0	10	67	3.8 - 23
C1139250	C2139250	C3139250	90°	25.0	10	67	3.8 - 25
C1139300	C2139300	C3139300	90°	30.0	12	71	4.2 - 30
C1139310	C2139310	C3139310	90°	31.0	12	71	4.2 - 31

- TiN&TiCN涂层可根据您的要求加工
  TiN & TiCN coating are available on your request.

刃部公差 Nominal Dia. Tolerance(mm)	柄部公差 Shank Dia. Tolerance
±0.05	h9

COUNTERSINKS

推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

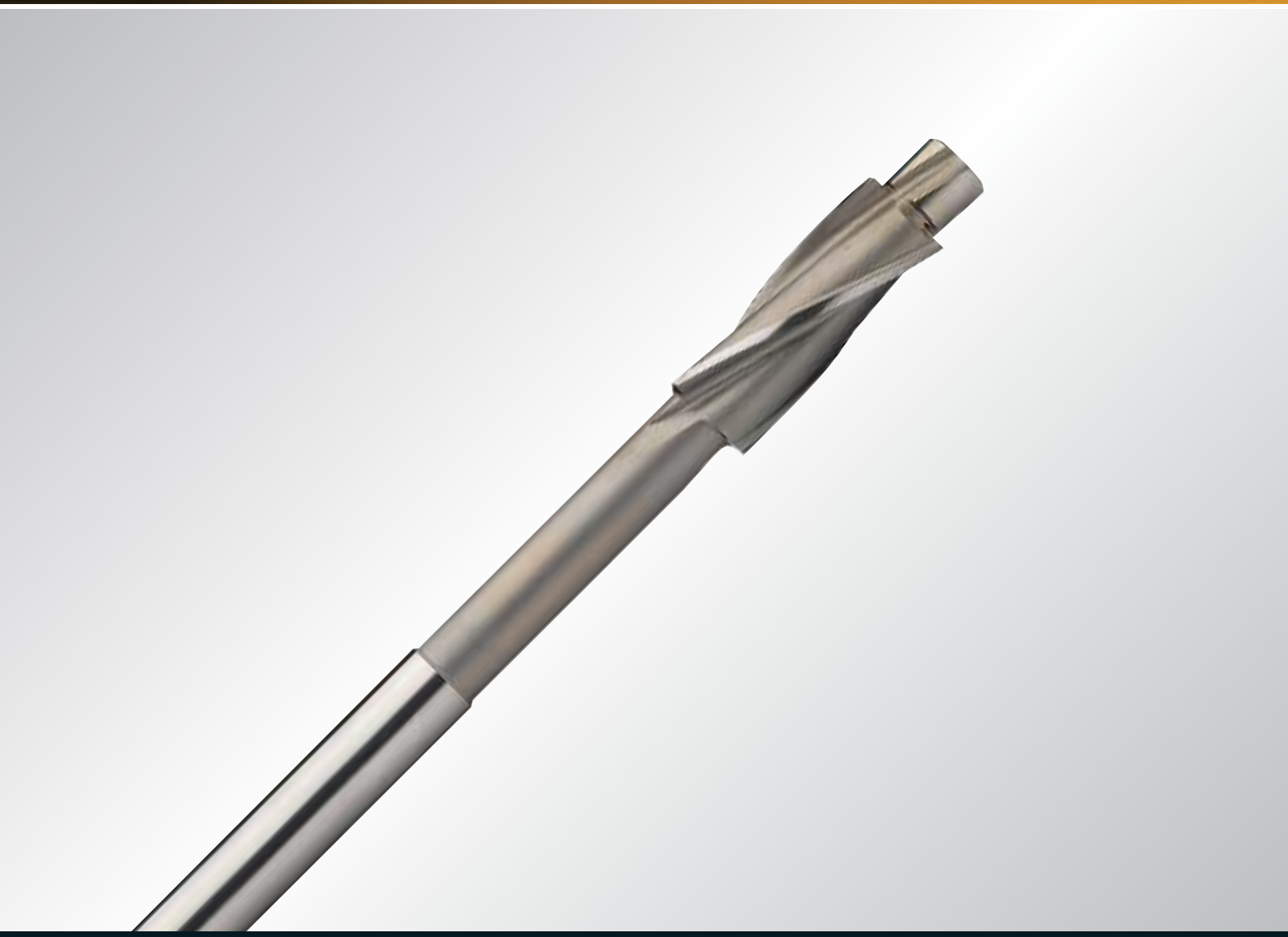
材质 Material	V	S Ø≤ 10	S Ø≤ 20	S Ø≤ 30	V	S Ø≤ 10	S Ø≤ 20	S Ø≤ 30	V	S Ø≤ 10	S Ø≤ 20	S Ø≤ 30
钢≤500N/mm² Steels ≤ 500N/mm²	35-45	0.20	0.22	0.24	35-45	0.20	0.22	0.24	17-22	0.30	0.32	0.36
钢 500-800N/mm² Steels 500~800N/mm²	20-30	0.14	0.17	0.20	20-30	0.14	0.17	0.20	10-15	0.28	0.30	0.31
钢 800-1000N/mm² Steels 800~1000N/mm²	15-20	0.11	0.12	0.14	15-20	0.11	0.12	0.14	8-12	0.24	0.26	0.28
钢-不锈钢 1000-1300N/mm² Steels-Stainless Steel 1000~1300N/mm²	12-15	0.10	0.12	0.15	12-15	0.10	0.12	0.15	6-8	0.20	0.20	0.22
不锈钢 Stainless Steels	6-8	0.07	0.08	0.09	6-8	0.07	0.08	0.09	4-6	0.08	0.09	0.10
铸铁 Cast Iron	20-40	0.15	0.24	0.28	20-40	0.15	0.24	0.28	15-25	0.13	0.19	0.24
铝 Aluminum	50-60	0.22	0.25	0.27	50-60	0.22	0.25	0.27	35-45	0.27	0.30	0.35
黄铜-青铜 Brass-Bronze	30-40	0.23	0.25	0.28	30-40	0.23	0.25	0.28	20-30	0.30	0.30	0.31
铜 Copper	20-30	0.22	0.25	0.27	20-30	0.22	0.25	0.27	10-15	0.29	0.30	0.31
塑料 Plastics	50-100	0.50	0.60	0.65	50-100	0.50	0.60	0.65	35-70	0.40	0.45	0.50

V : 切削速度/Cutting Speed(m/min)
S : 每转进给/Feed per Revolution(mm/rev)

HSS

YG

Being the best through innovation



COUNTERBORES

- 普通用途

General Purpose

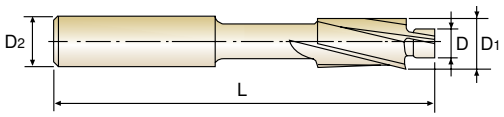
COUNTERBORES

EL950 SERIES PLAIN SHANK

HSS-E, 平头螺钉(180°)用三刃沉孔锪刀
HSS-E, 3 FLUTE COUNTERBORES for 180° CAPSCREW

▶ 带整体导柱锪刀用于模具加工中螺帽或导管安装面的加工.

▶ The counterbores with solid pilot are designed for machining as fillister screw caps or ejector caps in molds.



HSS-E | DIN 373 | 3 | PLAIN | P1047

中等 / MEDIUM

单位(Unit) : mm

型号 EDP No.	系列号 ITEM No.	螺丝尺寸 Screw Size	导杆直径 Pilot Diameter	刃部直径 Cutter Diameter	柄部直径 Shank Diameter	全长 Overall Length
PLAIN	PLAIN		D(e8)	D1(z9)	D2(h9)	L
EL950003	YG54M3-M	M3	3.4	6.0	5	71
EL950035	YG54M3.5-M	M3.5	3.9	6.5	5	71
EL950004	YG54M4-M	M4	4.5	8.0	5	71
EL950005	YG54M5-M	M5	5.5	10.0	8	80
EL950006	YG54M6-M	M6	6.6	11.0	8	80
EL950008	YG54M8-M	M8	9.0	15.0	12.5	100
EL950010	YG54M10-M	M10	11.0	18.0	12.5	100
EL950012	YG54M12-M	M12	14.0	20.0	12.5	100

精加工 / FINE

单位(Unit) : mm

型号 EDP No.	系列号 ITEM No.	螺丝尺寸 Screw Size	导杆直径 Pilot Diameter	刃部直径 Cutter Diameter	柄部直径 Shank Diameter	全长 Overall Length
PLAIN	PLAIN		D(e8)	D1(z9)	D2(h9)	L
EL950901	YG54M3-F	M3	3.2	6.0	5	71
EL950902	YG54M3.5-F	M3.5	3.7	6.5	5	71
EL950903	YG54M4-F	M4	4.3	8.0	5	71
EL950904	YG54M5-F	M5	5.3	10.0	8	80
EL950905	YG54M6-F	M6	6.4	11.0	8	80
EL950906	YG54M8-F	M8	8.4	15.0	12.5	100
EL950907	YG54M10-F	M10	10.5	18.0	12.5	100
EL950908	YG54M12-F	M12	13.0	20.0	12.5	100

攻丝前 / BEFORE THREADING

单位(Unit) : mm

型号 EDP No.	系列号 ITEM No.	螺丝尺寸 Screw Size	导杆直径 Pilot Diameter	刃部直径 Cutter Diameter	柄部直径 Shank Diameter	全长 Overall Length
PLAIN	PLAIN		D(e8)	D1(z9)	D2(h9)	L
EL950909	YG54M3-T	M3	2.5	6.0	5	71
EL950910	YG54M3.5-T	M3.5	2.9	6.5	5	71
EL950911	YG54M4-T	M4	3.3	8.0	5	71
EL950912	YG54M5-T	M5	4.2	10.0	8	80
EL950913	YG54M6-T	M6	5.0	11.0	8	80
EL950914	YG54M8-T	M8	6.8	15.0	12.5	100
EL950915	YG54M10-T	M10	8.5	18.0	12.5	100
EL950916	YG54M12-T	M12	10.2	20.0	12.5	100

DIN 7160 & 7161规定的精度
Tolerances according to DIN 7160 & 7161

公称直径单位/ Nominal-Diameter in mm				
	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18
精度范围单位 / Tolerance range in μm				
e8	− 14 − 28	− 20 − 38	− 25 − 47	− 32 − 59
h9	0 − 25	0 − 30	0 − 36	0 − 43

公称直径单位/ Nominal-Diameter in mm				
	from 6 to 10	over 10 to 14	over 14 to 18	over 18 to 24
精度范围单位/ Tolerance range in μm				
z9	+ 78 + 42	+ 93 + 50	+ 103 + 60	+ 125 + 73

COUNTERBORES

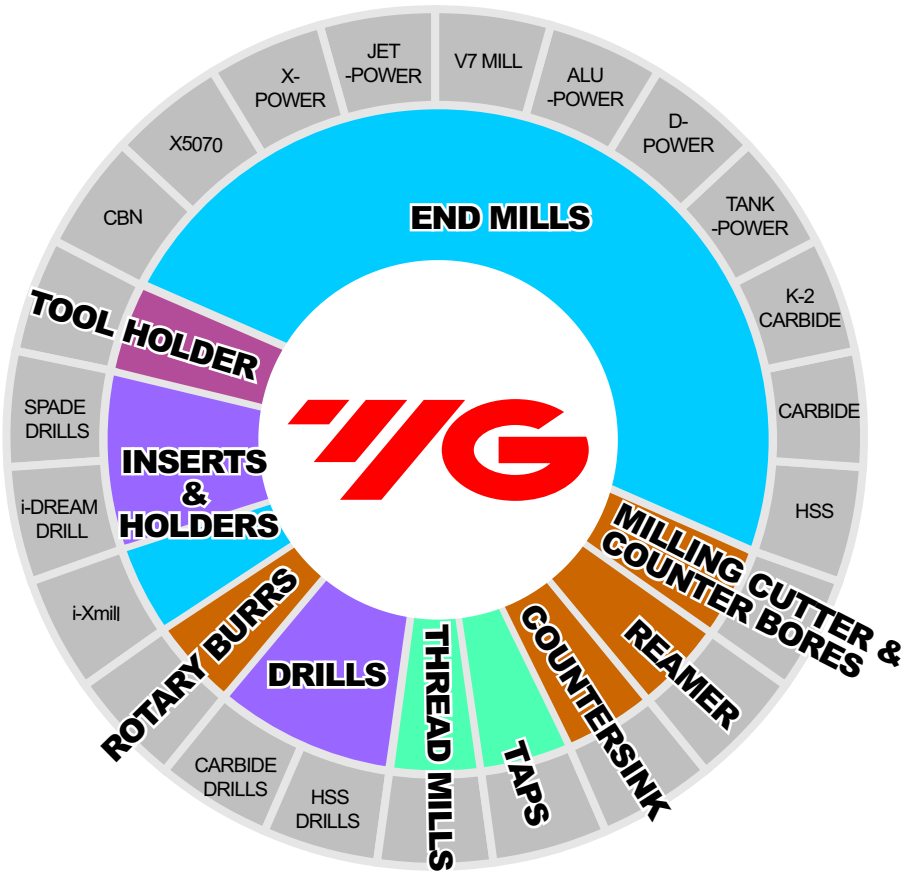
推荐的切削条件
RECOMMENDED CUTTING CONDITIONS

HSS-E, 平头螺钉(180°)用三刃沉孔锪刀
HSS-E, 3 FLUTE COUNTERBORES for 180° CAPSCREW

EL950 SERIES

材质	铝&铝合金	碳钢, 合金钢	碳钢, 合金钢, 工具钢	碳钢, 合金钢, 工具钢	碳钢, 合金钢, 工具钢
MATERIAL	ALUMINUM & ALUMINUM ALLOYS	CARBON STEELS ALLOY STEELS	CARBON STEELS ALLOY STEELS TOOL STEELS	CARBON STEELS ALLOY STEELS TOOL STEELS	CARBON STEELS ALLOY STEELS TOOL STEELS
HARDNESS			~ HRc20	HRc20 ~ HRc35	HRc35 ~ HRc40
STRENGTH		~ 500N/mm²	500 ~ 800N/mm²	800 ~ 1100N/mm²	1100 ~ 1300N/mm²
CUTTER DIAMETER	RPM	RPM	RPM	RPM	RPM
6.0	2100	590	480	380	320
6.5	2100	590	480	380	320
8.0	1700	470	380	300	250
10.0	1200	380	320	260	170
11.0	1100	300	240	190	160
15.0	840	240	195	155	130
18.0	670	190	160	120	80
20.0	550	160	125	95	70

RPM = rev./min. (转速/分钟)



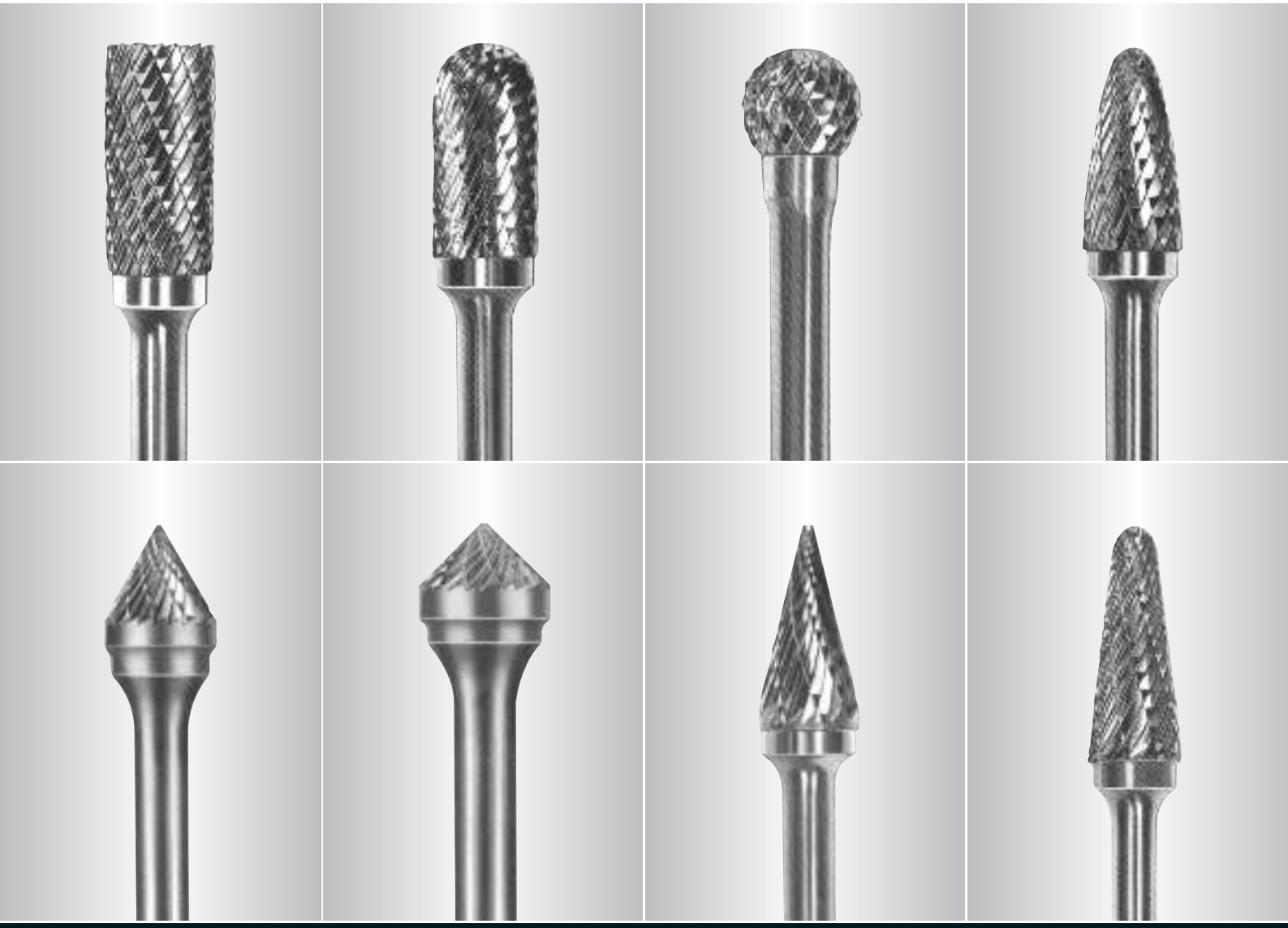
Challenge Toward a Global Leader-

YG-1 Leads the World Market.

CARBIDE

YG

Being the best through innovation



CARBIDE ROTARY BURRS

- 普通钢和有色金属(柄部直径3mm和6mm)

General Steels and Nonferrous Metals etc.
(3mm & 6mm Shank Diameter)

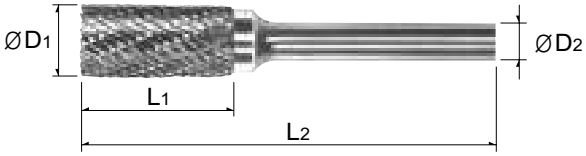
硬质合金旋转锉
CARBIDE ROTARY BURRS

项目 ITEM	型号 MODEL	规格 DESCRIPTION	尺寸 SIZE 最小 MIN	尺寸 SIZE 最大 MAX	页 PAGE
SA R1101 R1201 R1301		圆柱形 (A型) CYLINDER SHAPE TYPE SA(Form A)	D1.5	D25.0	1051
SB R1102 R1202 R1302		端部带刃圆柱形 (B型) CYLINDER SHAPE WITH END CUT TYPE SB(Form B)	D1.5	D25.0	1052
SC R1103 R1203 R1303		端部弧状圆柱形 (C型) CYLINDER SHAPE WITH RADIUS END TYPE SC(Form C)	D2.5	D25.0	1053
SD R1104 R1204 R1304		球形 (D型) BALL SHAPE TYPE SD(Form D)	D2.5	D25.0	1054
SE R1105 R1205 R1305		椭圆形 (E型) OVAL SHAPE TYPE SE(Form E)	D3.0	D19.0	1055
SF R1106 R1206 R1306		圆顶树形 (F型) TREE SHAPE WITH RADIUS END TYPE SF(Form F)	D3.0	D19.0	1056
SG R1107 R1207		尖顶树形 (G型) TREE SHAPE WITH POINTED END TYPE SG(Form G)	D3.0	D19.0	1057
SH R1108 R1208		火焰形 (H型) FLAME SHAPE TYPE SH(Form H)	D3.0	D19.0	1058
SJ R1109 R1209		60° 圆锥形 (J型) 60° CONE SHAPE TYPE SJ(Form J)	D3.0	D25.0	1059
SK R1110 R1210		90° 圆锥形 (K型) 90° CONE SHAPE TYPE SK(Form K)	D3.0	D25.0	1060
SL R1111 R1211 R1311		圆顶锥形 (L型) TAPER WITH RADIUS END TYPE SL(Form L)	D3.0	D19.0	1061
SM R1112 R1212		圆锥形(M型) CONE SHAPE TYPE SM(Form M)	D3.0	D16.0	1062
SN R1113 R1213		倒圆锥形(N型) INVERTED CONE SHAPE TYPE SN(Form N)	D2.5	D19.0	1063
		硬质合金的技术信息 TECHNICAL INFORMATION FOR CARBIDE BURRS			1064
		旋转锉的运用信息&速度推荐 BURR APPLICATION INFORMATION & SPEED RECOMMENDATION			1065

ROTARY BURRS

SA R1101, R1201, R1301

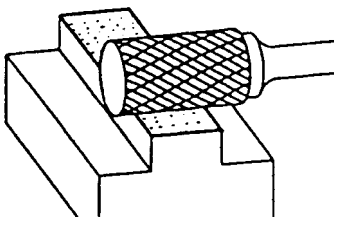
圆柱形(A型)
CYLINDER SHAPE TYPE SA(FORM A)



단위(Unit) : mm

双纹切削 DOUBLE CUT		D1	D2	L1	L2	平面切削 PLAIN CUT	
EDP No.	ITEM No.					EDP No.	ITEM No.
R1101001	SA-41M	1.5	3	6	38	R1201001	SA-41MP
R1101002	SA-41ML2	1.5	3	6	50	R1201002	SA-41ML2P
R1101003	SA-41ML3	1.5	3	6	75	R1201003	SA-41ML3P
R1101004	SA-42M	2.5	3	11	38	R1201004	SA-42MP
R1101005	SA-42ML2	2.5	3	11	50	R1201005	SA-42ML2P
R1101006	SA-42ML3	2.5	3	11	75	R1201006	SA-42ML3P
R1101007	SA-43M	3.0	3	14	38	R1201007	SA-43MP
R1101008	SA-43ML2	3.0	3	14	50	R1201008	SA-43ML2P
R1101009	SA-43ML3	3.0	3	14	75	R1201009	SA-43ML3P
R1101010	SA-11M	3.0	6	12	56	R1201010	SA-11MP
R1101011	SA-12M	3.0	6	12.7	60	R1201011	SA-12MP
R1101012	SA-52M	4.0	3	12.7	38	R1201012	SA-52MP
R1101013	SA-13M	4.0	6	16	50	R1201013	SA-13MP
R1101014	SA-53M	5.0	3	12.7	38	R1201014	SA-53MP
R1101015	SA-14M	5.0	6	16	50	R1201015	SA-14MP
R1101017	SA-1ML	6.0	6	25	50	R1201017	SA-1MLP
R1101019	SA-1M	6.0	6	16	50	R1201019	SA-1MP
R1101020	SA-51M	6.3	3	12.7	50	R1201020	SA-51MP
R1101021	SA-2M	8.0	6	19	63	R1201021	SA-2MP
R1101022	SA-3M	9.5	6	19	63	R1201022	SA-3MP
R1101025	SA-3ML	9.5	6	25	69	R1201025	SA-3MLP
R1101027	SA-4M	11.0	6	25	69	R1201027	SA-4MP
R1101029	SA-5M	12.7	6	25	69	R1201029	SA-5MP
R1101032	SA-6M	16.0	6	25	69	R1201032	SA-6MP
R1101034	SA-7M	19.0	6	25	69	R1201034	SA-7MP
R1101037	SA-9M	25.0	6	25	69	R1201037	SA-9MP

软材质切削 ALUMA CUT		D1	D2	L1	L2
EDP No.	ITEM No.				
R1301018	SA-1MNF	6.0	6	19	50
R1301024	SA-3MNF	9.5	6	19	63
R1301030	SA-5MNF	12.7	6	25	69
R1301033	SA-6MNF	16.0	6	25	69
R1301035	SA-7MNF	19.0	6	25	69

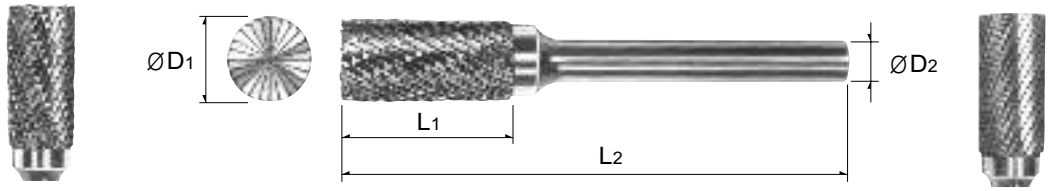


▶ 根据您的要求可以制作断屑型或金刚石刻磨型
Chip Breaker Type or Diamond Cut Type is available on your request.

ROTARY BURRS

SB R1102, R1202, R1302

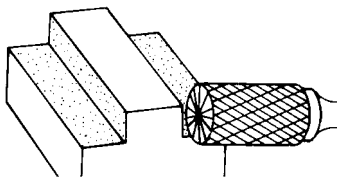
端部带刃圆柱形(B型)
CYLINDER SHAPE WITH END CUT TYPE SB(FORM B)



单位(Unit) : mm

双纹切削 DOUBLE CUT		D1	D2	L1	L2	平面切削 PLAIN CUT	
EDP No.	ITEM No.					EDP No.	ITEM No.
R1102001	SB-41M	1.5	3	6	38	R1202001	SB-41MP
R1102002	SB-41ML2	1.5	3	6	50	R1202002	SB-41ML2P
R1102003	SB-41ML3	1.5	3	6	75	R1202003	SB-41ML3P
R1102004	SB-42M	2.5	3	11	38	R1202004	SB-42MP
R1102005	SB-42ML2	2.5	3	11	50	R1202005	SB-42ML2P
R1102006	SB-42ML3	2.5	3	11	75	R1202006	SB-42ML3P
R1102007	SB-ECOM	3.0	3	-	38	-	-
R1102008	SB-43M	3.0	3	14	38	R1202008	SB-43MP
R1102026	SB-43ML2	3.0	3	14	50	R1202026	SB-43ML2P
R1102027	SB-43ML3	3.0	3	14	75	R1202027	SB-43ML3P
R1102009	SB-11M	3.0	6	12	56	R1202009	SB-11MP
R1102010	SB-12M	3.0	6	12.7	60	R1202010	SB-12MP
R1102011	SB-13M	4.0	6	16	50	R1202011	SB-13MP
R1102012	SB-14M	5.0	6	16	50	R1202012	SB-14MP
R1102013	SB-1M	6.0	6	16	50	R1202013	SB-1MP
R1102014	SB-1ML	6.0	6	25	50	R1202014	SB-1MLP
R1102015	SB-51M	6.3	3	4.7	43	R1202015	SB-51MP
R1102016	SB-2M	8.0	6	19	63	R1202016	SB-2MP
R1102017	SB-3M	9.5	6	19	63	R1202017	SB-3MP
R1102018	SB-3ML	9.5	6	25	69	R1202018	SB-3MLP
R1102020	SB-4M	11.0	6	25	69	R1202020	SB-4MP
R1102022	SB-5M	12.7	6	25	69	R1202022	SB-5MP
R1102023	SB-6M	16.0	6	25	69	R1202023	SB-6MP
R1102024	SB-7M	19.0	6	25	69	R1202024	SB-7MP
R1102025	SB-9M	25.0	6	25	69	R1202025	SB-9MP

软材质切削 ALUMA CUT		D1	D2	L1	L2
EDP No.	ITEM No.				
R1302018	SB-1MNF	6.0	6	19	50
R1302024	SB-3MNF	9.5	6	19	63
R1302030	SB-5MNF	12.7	6	25	69
R1302033	SB-6MNF	16.0	6	25	69
R1302035	SB-7MNF	19.0	6	25	69

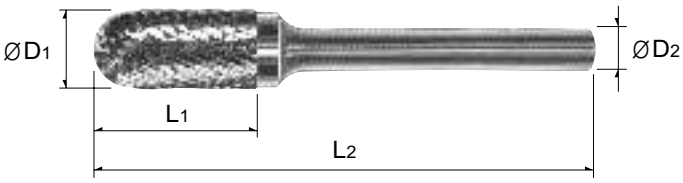


▶ 根据您的要求可以制作断屑型或金刚石刻磨型
Chip Breaker Type or Diamond Cut Type is available on your request.

ROTARY BURRS

SC R1103, R1203, R1303

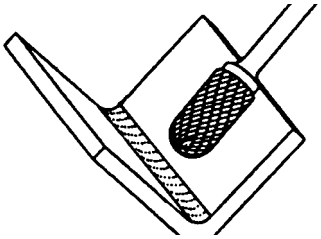
端部圆弧状圆柱形(C型)
CYLINDER SHAPE WITH RADIUS END TYPE SC(FORM C)



单位(Unit) : mm

双纹切削 DOUBLE CUT		D1	D2	L1	L2	平面切削 PLAIN CUT	
EDP No.	ITEM No.					EDP No.	ITEM No.
R1103001	SC-41M	2.5	3	11	38	R1203001	SC-41MP
R1103002	SC-42M	3.0	3	14	38	R1203002	SC-42MP
R1103003	SC-42ML2	3.0	3	14	50	R1203003	SC-42ML2P
R1103004	SC-42ML3	3.0	3	14	75	R1203004	SC-42ML3P
R1103005	SC-11M	3.0	6	12	56	R1203005	SC-11MP
R1103006	SC-12M	3.0	6	16	60	R1203006	SC-12MP
R1103007	SC-52M	4.0	3	12.7	38	R1203007	SC-52MP
R1103008	SC-13M	4.0	6	16	50	R1203008	SC-13MP
R1103009	SC-53M	5.0	3	12.7	38	R1203009	SC-53MP
R1103010	SC-14M	5.0	6	16	50	R1203010	SC-14MP
R1103011	SC-1M	6.0	6	16	50	R1203011	SC-1MP
R1103014	SC-1ML	6.0	6	25	50	R1203014	SC-1MLP
R1103015	SC-51M	6.3	3	12.7	50	R1203015	SC-51MP
R1103016	SC-2M	8.0	6	19	63	R1203016	SC-2MP
R1103017	SC-3M	9.5	6	19	63	R1203017	SC-3MP
R1103020	SC-3ML	9.5	6	25	69	R1203020	SC-3MLP
R1103022	SC-4M	11.0	6	25	69	R1203022	SC-4MP
R1103024	SC-5M	12.7	6	25	69	R1203024	SC-5MP
R1103027	SC-6M	16.0	6	25	69	R1203027	SC-6MP
R1103028	SC-7M	19.0	6	25	69	R1203028	SC-7MP
R1103031	SC-9M	25.0	6	25	69	R1203031	SC-9MP

软材质切削 ALUMA CUT		D1	D2	L1	L2
EDP No.	ITEM No.				
R1303013	SC-1MNF	6.0	6	19	50
R1303019	SC-3MNF	9.5	6	19	63
R1303026	SC-5MNF	12.7	6	25	69
R1303029	SC-7MNF	19.0	6	25	69

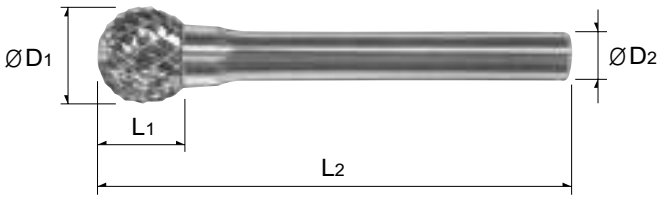


▶ 根据您的要求可以制作断屑型或金刚石刻磨型
Chip Breaker Type or Diamond Cut Type is available on your request.

ROTARY BURRS

SD R1104, R1204, R1304

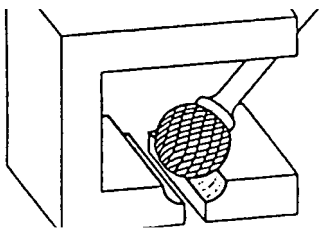
球形(D型)
BALL SHAPE TYPE SD(FORM D)



单位(Unit) : mm

双绞切削 DOUBLE CUT		D1	D2	L1	L2	平面切削 PLAIN CUT	
EDP No.	ITEM No.					EDP No.	ITEM No.
R1104001	SD-41M	2.5	3	2.3	38	R1204001	SD-41MP
R1104002	SD-42M	3.0	3	2.8	38	R1204002	SD-42MP
R1104003	SD-42ML2	3.0	3	2.8	50	R1204003	SD-42ML2P
R1104004	SD-42ML3	3.0	3	2.8	75	R1204004	SD-42ML3P
R1104005	SD-11M	3.0	6	2.8	50	R1204005	SD-11MP
R1104007	SD-53M	5.0	3	4	38	R1204007	SD-53MP
R1104008	SD-14M	5.0	6	4	50	R1204008	SD-14MP
R1104010	SD-1M	6.0	6	5	50	R1204010	SD-1MP
R1104012	SD-51M	6.3	3	5	44	R1204012	SD-51MP
R1104013	SD-2M	8.0	6	6.4	50	R1204013	SD-2MP
R1104014	SD-3M	9.5	6	8	52	R1204014	SD-3MP
R1104018	SD-4M	11.0	6	9.5	54	R1204018	SD-4MP
R1104020	SD-5M	12.7	6	11	55	R1204020	SD-5MP
R1104023	SD-6M	16.0	6	14	58	R1204023	SD-6MP
R1104025	SD-7M	19.0	6	16	62	R1204025	SD-7MP
R1104028	SD-9M	25.0	6	23	68	R1204028	SD-9MP

软材质切削 ALUMA CUT		D1	D2	L1	L2
EDP No.	ITEM No.				
R1304011	SD-1MNF	6.0	6	5	50
R1304015	SD-3MNF	9.5	6	8	52
R1304021	SD-5MNF	12.7	6	11	55
R1304024	SD-6MNF	16.0	6	14	58
R1304026	SD-7MNF	19.0	6	16	62

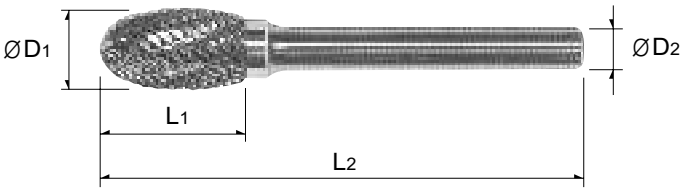


▶ 根据您的要求可以制作断屑型或金刚石刻磨型
Chip Breaker Type or Diamond Cut Type is available on your request.

ROTARY BURRS

SE R1105, R1205, R1305

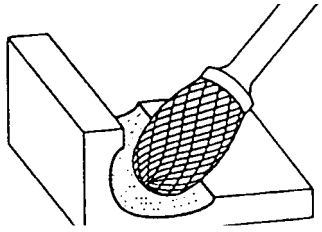
椭圆形(E型)
OVAL SHAPE TYPE SE(FORM E)



单位(Unit) : mm

双纹切削 DOUBLE CUT		D1	D2	L1	L2	平面切削 PLAIN CUT	
EDP No.	ITEM No.					EDP No.	ITEM No.
R1105001	SE-41M	3.0	3	5.5	38	R1205001	SE-41MP
R1105002	SE-41ML2	3.0	3	5.5	50	R1205002	SE-41ML2P
R1105003	SE-41ML3	3.0	3	5.5	75	R1205003	SE-41ML3P
R1105004	SE-53M	5.0	3	7.1	38	R1205004	SE-53MP
R1105005	SE-1M	6.0	6	9.5	50	R1205005	SE-1MP
R1105007	SE-51M	6.3	3	9.5	47	R1205007	SE-51MP
R1105008	SE-3M	9.5	6	16	60	R1205008	SE-3MP
R1105011	SE-5M	12.7	6	22	66	R1205011	SE-5MP
R1105014	SE-6M	16.0	6	25	69	R1205014	SE-6MP
R1105016	SE-7M	19.0	6	25	69	R1205016	SE-7MP

软材质切削 ALUMA CUT		D1	D2	L1	L2
EDP No.	ITEM No.				
R1305010	SE-3MNF	9.5	6	16	60
R1305013	SE-5MNF	12.7	6	22	66
R1305015	SE-6MNF	16.0	6	25	69
R1305017	SE-7MNF	19.0	6	25	69

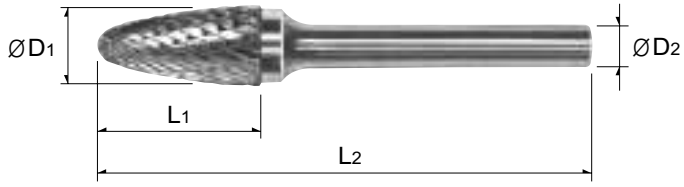


▶ 根据您的要求可以制作断屑型或金刚石刻磨型
Chip Breaker Type or Diamond Cut Type is available on your request.

ROTARY BURRS

SF R1106, R1206, R1306

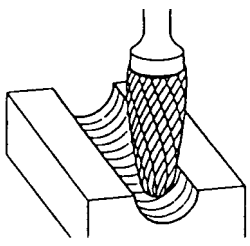
圆顶树形(F型)
TREE SHAPE WITH RADIUS END TYPE SF(FORM F)



단위(Unit) : mm

双纹切削 DOUBLE CUT		D1	D2	L1	L2	平面切削 PLAIN CUT	
EDP No.	ITEM No.					EDP No.	ITEM No.
R1106001	SF-41M	3.0	3	6	38	R1206001	SF-41MP
R1106002	SF-42M	3.0	3	12.7	38	R1206002	SF-42MP
R1106003	SF-11M	3.0	6	12.7	56	R1206003	SF-11MP
R1106004	SF-42ML2	3.0	3	12.7	50	R1206004	SF-42ML2P
R1106005	SF-42ML3	3.0	3	12.7	75	R1206005	SF-42ML3P
R1106006	SF-53M	5.0	3	12.7	38	R1206006	SF-53MP
R1106008	SF-1M	6.0	6	16	50	R1206008	SF-1MP
R1106010	SF-51M	6.3	3	12.7	50	R1206010	SF-51MP
R1106011	SF-3M	9.5	6	19	63	R1206011	SF-3MP
R1106014	SF-4M	11.0	6	25	69	R1206014	SF-4MP
R1106016	SF-13M	12.7	6	19	63	R1206016	SF-13MP
R1106017	SF-5M	12.7	6	25	69	R1206017	SF-5MP
R1106020	SF-6M	16.0	6	25	69	R1206020	SF-6MP
R1106022	SF-7M	19.0	6	25	69	R1206022	SF-7MP
R1106023	SF-14M	19.0	6	32	76	R1206023	SF-14MP
R1106026	SF-15M	19.0	6	38	82	R1206026	SF-15MP

软材质切削 ALUMA CUT		D1	D2	L1	L2
EDP No.	ITEM No.				
R1306009	SF-1MNF	6.0	6	19	50
R1306013	SF-3MNF	9.5	6	19	63
R1306019	SF-5MNF	12.7	6	25	69
R1306021	SF-6MNF	16.0	6	25	69
R1306024	SF-14MNF	19.0	6	32	76

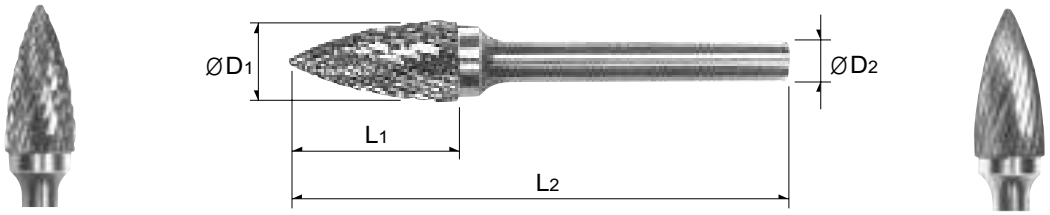


▶ 根据您的要求可以制作断屑型或金刚石刻磨型
Chip Breaker Type or Diamond Cut Type is available on your request.

ROTARY BURRS

SG R1107, R1207

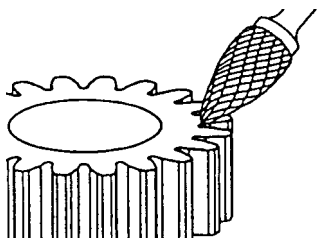
尖顶树形(G型)
TREE SHAPE WITH POINTED END TYPE SG(FORM G)



单位(Unit) : mm

双纹切削 DOUBLE CUT		D1	D2	L1	L2	平面切削 PLAIN CUT	
EDP No.	ITEM No.					EDP No.	ITEM No.
R1107001	SG-41M	3.0	3	6	38	R1207001	SG-41MP
R1107002	SG-43M	3.0	3	9.5	38	R1207002	SG-43MP
R1107003	SG-44M	3.0	3	12.7	38	R1207003	SG-44MP
R1107004	SG-44ML2	3.0	3	12.7	50	R1207004	SG-44ML2P
R1107005	SG-44ML3	3.0	3	12.7	75	R1207005	SG-44ML3P
R1107006	SG-53M	5.0	3	12.7	38	R1207006	SG-53MP
R1107008	SG-1M	6.0	6	16	50	R1207008	SG-1MP
R1107009	SG-51M	6.3	3	12.7	50	R1207009	SG-51MP
R1107010	SG-2M	8.0	6	19	63	R1207010	SG-2MP
R1107011	SG-3M	9.5	6	19	63	R1207011	SG-3MP
R1107015	SG-13M	12.7	6	19	63	R1207015	SG-13MP
R1107016	SG-5M	12.7	6	25	69	R1207016	SG-5MP
R1107018	SG-6M	16.0	6	25	69	R1207018	SG-6MP
R1107019	SG-7M	19.0	6	25	69	R1207019	SG-7MP
R1107020	SG-15M	19.0	6	38	82	R1207020	SG-15MP

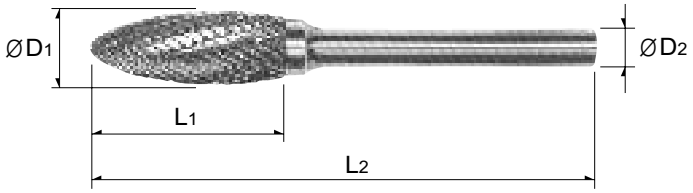
▶ 根据您的要求可以制作断屑型或金刚石刻磨型
Chip Breaker Type or Diamond Cut Type is available on your request.



ROTARY BURRS

SH R1108, R1208

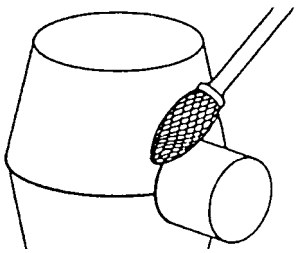
火焰形(H型)
FLAME SHAPE TYPE SH(FORM H)



单位(Unit) : mm

双纹切削 DOUBLE CUT		D1	D2	L1	L2	平面切削 PLAIN CUT	
EDP No.	ITEM No.					EDP No.	ITEM No.
R1108001	SH-41M	3.0	3	6.3	38	R1208001	SH-41MP
R1108002	SH-41ML2	3.0	3	6.3	50	R1208002	SH-41ML2P
R1108003	SH-41ML3	3.0	3	6.3	75	R1208003	SH-41ML3P
R1108004	SH-53M	5.0	3	9.5	38	R1208004	SH-53MP
R1108005	SH-2M	8.0	6	19	63	R1208005	SH-2MP
R1108007	SH-5M	12.7	6	32	76	R1208007	SH-5MP
R1108009	SH-6M	16.0	6	36	80	R1208009	SH-6MP
R1108010	SH-7M	19.0	6	41	85	R1208010	SH-7MP

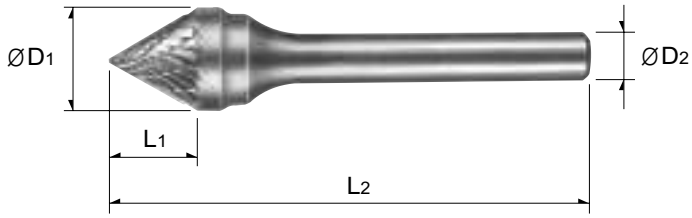
▶ 根据您的要求可以制作断屑型或金刚石刻磨型
Chip Breaker Type or Diamond Cut Type is available on your request.



ROTARY BURRS

SJ R1109, R1209

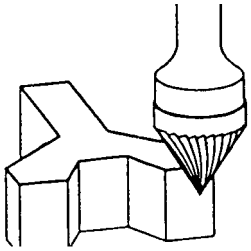
60° 圆锥形(J型)
60° CONE SHAPE TYPE SJ(FORM J)



단위(Unit) : mm

双纹切削 DOUBLE CUT		D1	D2	L1	L2	平面切削 PLAIN CUT	
EDP No.	ITEM No.					EDP No.	ITEM No.
R1109001	SJ-42M	3.0	3	2.5	38	R1209001	SJ-42MP
R1109002	SJ-1M	6.0	6	4	50	R1209002	SJ-1MP
R1109003	SJ-3M	9.5	6	8	55	R1209003	SJ-3MP
R1109004	SJ-5M	12.7	6	11	58	R1209004	SJ-5MP
R1109005	SJ-6M	16.0	6	13.5	61	R1209005	SJ-6MP
R1109006	SJ-7M	19.0	6	16.5	65	R1209006	SJ-7MP
R1109007	SJ-9M	25.0	6	21.5	68	R1209007	SJ-9MP

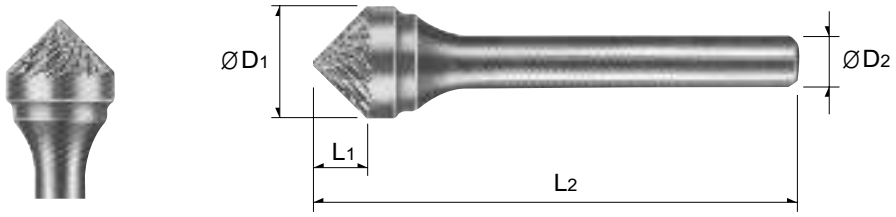
▶ 根据您的要求可以制作断屑型或金刚石刻磨型
Chip Breaker Type or Diamond Cut Type is available on your request.



ROTARY BURRS

SK R1110, R1210

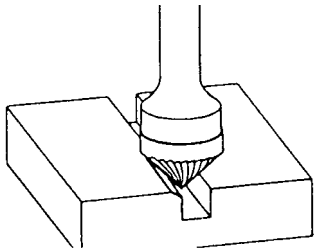
90° 圆锥形(K型)
90° CONE SHAPE TYPE SK(FORM K)



单位(Unit) : mm

双纹切削 DOUBLE CUT		D1	D2	L1	L2	平面切削 PLAIN CUT	
EDP No.	ITEM No.					EDP No.	ITEM No.
R1110001	SK-42M	3.0	3	1.5	38	R1210001	SK-42MP
R1110002	SK-1M	6.0	6	3	50	R1210002	SK-1MP
R1110003	SK-3M	9.5	6	4.7	52	R1210003	SK-3MP
R1110004	SK-5M	12.7	6	6.3	54	R1210004	SK-5MP
R1110005	SK-6M	16.0	6	8	57	R1210005	SK-6MP
R1110006	SK-7M	19.0	6	9.5	58	R1210006	SK-7MP
R1110007	SK-9M	25.0	6	12.7	60	R1210007	SK-9MP

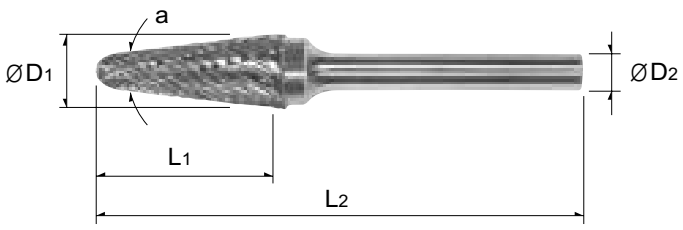
▶ 根据您的要求可以制作断屑型或金刚石刻磨型
Chip Breaker Type or Diamond Cut Type is available on your request.



ROTARY BURRS

SL R1111, R1211, R1311

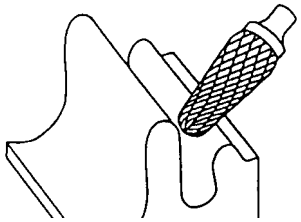
圆顶锥形(L型)
TAPER WITH RADIUS END TYPE SL(FORM L)



单位(Unit) : mm

双纹切削 DOUBLE CUT		D1	D2	L1	L2	a	平面切削 PLAIN CUT	
EDP No.	ITEM No.						EDP No.	ITEM No.
R1111001	SL-41M	3.0	3	9.5	38	8°	R1211001	SL-41MP
R1111002	SL-42M	3.0	3	12.7	38	8°	R1211002	SL-42MP
R1111003	SL-42ML2	3.0	3	12.7	50	8°	R1211003	SL-42ML2P
R1111004	SL-42ML3	3.0	3	12.7	75	8°	R1211004	SL-42ML3P
R1111005	SL-53M	5.0	3	12.7	38	14°	R1211005	SL-53MP
R1111006	SL-1M	6.0	6	16	50	14°	R1211006	SL-1MP
R1111008	SL-2M	8.0	6	22	69	14°	R1211008	SL-2MP
R1111009	SL-3M	9.5	6	27	74	14°	R1211009	SL-3MP
R1111012	SL-4M	12.7	6	28	76	14°	R1211012	SL-4MP
R1111015	SL-5M	16.0	6	30	77	14°	R1211015	SL-5MP
R1111017	SL-7M	19.0	6	38	85	14°	R1211017	SL-7MP

软材质切削 ALUMA CUT		D1	D2	L1	L2	a
EDP No.	ITEM No.					
R1311010	SL-3MNF	9.5	6	27	74	14°
R1311013	SL-4MNF	12.7	6	28	76	14°
R1311016	SL-5MNF	16.0	6	30	77	14°
R1311018	SL-7MNF	19.0	6	38	85	14°

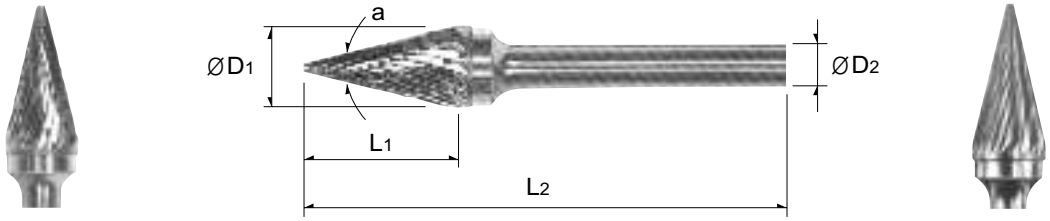


▶ 根据您的要求可以制作断屑型或金刚石刻磨型
Chip Breaker Type or Diamond Cut Type is available on your request.

ROTARY BURRS

SM R1112, R1212

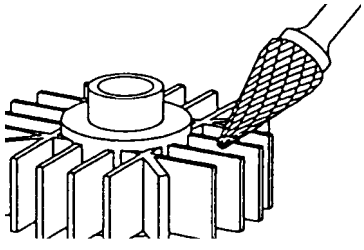
圆锥形(M型)
CONE SHAPE TYPE SM(FORM M)



单位(Unit) : mm

双纹切削 DOUBLE CUT		D1	D2	L1	L2	a	平面切削 PLAIN CUT	
EDP No.	ITEM No.						EDP No.	ITEM No.
R1112001	SM-41M	3.0	3	8.9	38	12°	R1212001	SM-41MP
R1112002	SM-42M	3.0	3	11	38	14°	R1212002	SM-42MP
R1112003	SM-42ML2	3.0	3	11	50	14°	R1212003	SM-42ML2P
R1112004	SM-42ML3	3.0	3	11	75	14°	R1212004	SM-42ML3P
R1112005	SM-43M	3.0	3	16	38	7°	R1212005	SM-43MP
R1112006	SM-53M	5.0	3	12.7	38	16°	R1212006	SM-53MP
R1112007	SM-1M	6.0	6	12.7	50	22°	R1212007	SM-1MP
R1112008	SM-2M	6.0	6	19	50	14°	R1212008	SM-2MP
R1112009	SM-3M	6.0	6	25	50	10°	R1212009	SM-3MP
R1112010	SM-51M	6.3	3	12.7	53	22°	R1212010	SM-51MP
R1112011	SM-4M	9.5	6	16	63	28°	R1212011	SM-4MP
R1112012	SM-5M	12.7	6	22	69	28°	R1212012	SM-5MP
R1112013	SM-6M	16.0	6	25	73	31°	R1212013	SM-6MP

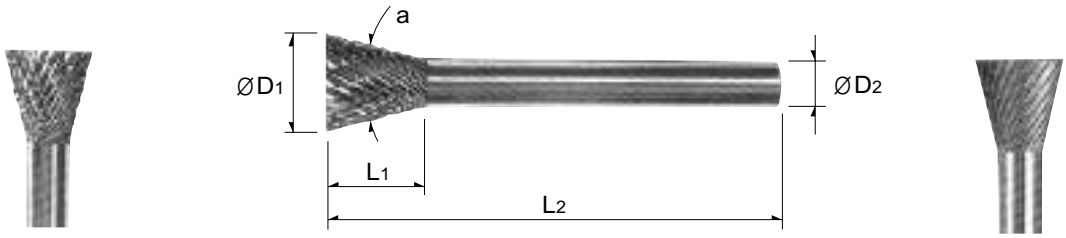
▶ 根据您的要求可以制作断屑型或金刚石刻磨型
Chip Breaker Type or Diamond Cut Type is available on your request.



ROTARY BURRS

SN R1113, R1213

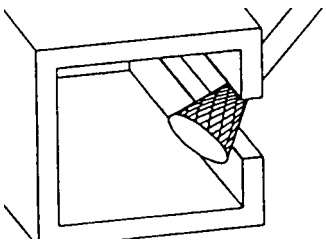
倒圆锥形(N型)
INVERTED CONE SHAPE TYPE SN(FORM N)



单位(Unit) : mm

双纹切削 DOUBLE CUT		D1	D2	L1	L2	a	平面切削 PLAIN CUT	
EDP No.	ITEM No.						EDP No.	ITEM No.
R1113001	SN-41M	2.5	3	3	38	10°	R1213001	SN-41MP
R1113002	SN-42M	3.0	3	4	38	10°	R1213002	SN-42MP
R1113003	SN-53M	5.0	3	6.3	38	10°	R1213003	SN-53MP
R1113004	SN-1M	6.0	6	8	50	10°	R1213004	SN-1MP
R1113005	SN-51M	6.3	3	6	44	10°	R1213005	SN-51MP
R1113006	SN-2M	9.5	6	9.5	53	13°	R1213006	SN-2MP
R1113007	SN-4M	12.7	6	12.7	57	28°	R1213007	SN-4MP
R1113008	SN-6M	16.0	6	19	63	18°	R1213008	SN-6MP
R1113009	SN-7M	19.0	6	16	60	30°	R1213009	SN-7MP

▶ 根据您的要求可以制作断屑型或金刚石刻磨型
Chip Breaker Type or Diamond Cut Type is available on your request.

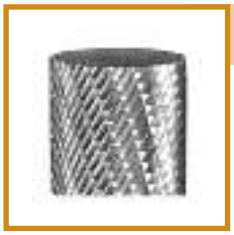


ROTARY BURRS

硬质合金的技术信息
TECHNICAL INFORMATION FOR CARBIDE BURRS

平面切削 Plain Cut

- 用于钢，钢合金，铸铁，铜和黄铜的普通平面切削.
- 为了大切削量和好的工件表面粗糙度而设计的.
- 产生长的铁屑.
- The general use of "Plain Cut" is on steels, steel alloys, cast iron, copper and brass.
- Designed for rapid stock removal and good workpiece finishes.
- Produces long chips.

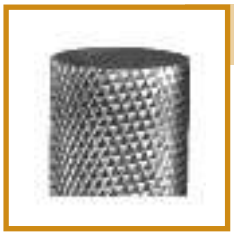


双纹切削 Double Cut

- 双纹旋转锉允许在硬质钢材料上进行大切削量.
- 为了得到小的铁屑和出众的工件表面粗糙度而设计的.
- 小的铁屑有助于消除沟槽的负荷.
- 使用者极其方便的使用.
- The double cut burr allows rapid stock removal in the harder materials.
- Designed for creating a small chip and excellent workpiece finishes.
- The small chip helps to eliminate loading of the flutes.
- Exceedingly convenient application by user.

软材质切削 Aluma Cut

- 通过设计侧刃角得到较大的排屑槽.
- 更适合使用于有色金属.
- Designed to have wider chip space with relief angle.
- More suitable application to non-ferrous metals.



金刚石刻磨 Diamond Cut

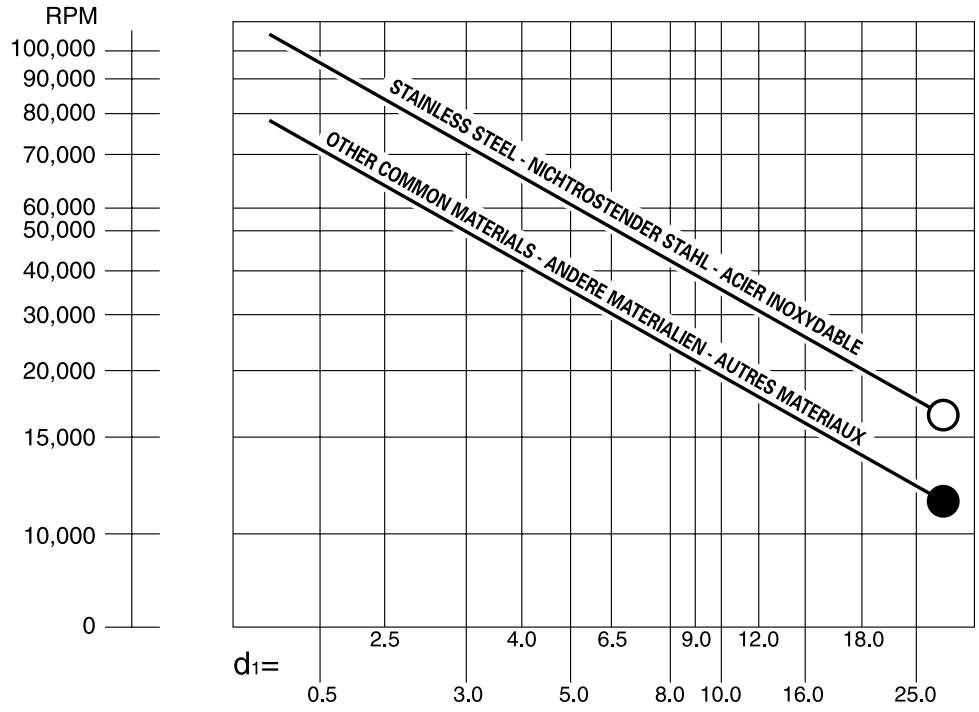
- 为了得到像粉末似的非常小的铁屑而设计.
- 优秀的操作者控制热处理和韧合金钢.
- 极好的表面粗糙度.
- Designed for creating extremely small chips as powder-like chip.
- Excellent operator control on heat treated and tough alloy steels.
- Excellent finishes.

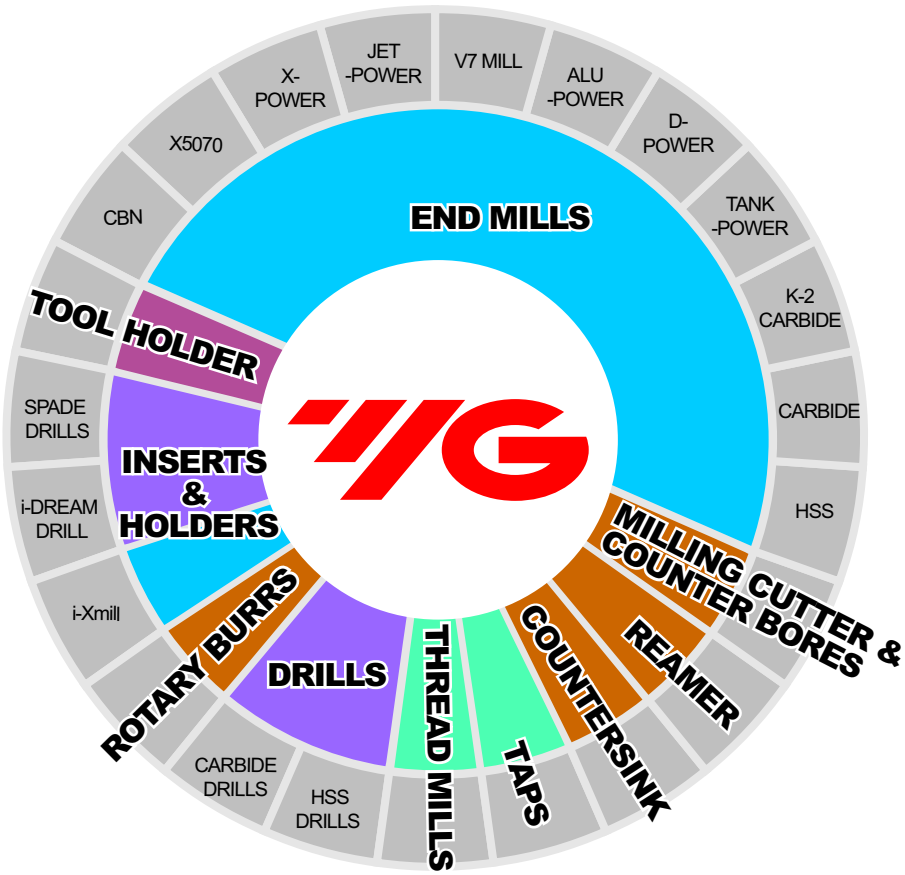
ROTARY BURRS

旋转锉运用信息
BURR APPLICATION INFORMATION

材质 MATERIALS	平面切削 PLAIN CUT	双纹切削 DOUBLE CUT	软材质切削 ALUMA CUT	金刚石刻磨 DIAMOND CUT	断屑式 CHIP BREAKER
铝 ALUMINUM			●		
黄铜, 青铜, 铜 BRASS, BRONZE, COPPER	●	●			●
玻璃纤维 FIBER GLASS				●	
铸铁 CAST IRON	●	●			●
塑料 PLASTICS			●		
钢, HRc 40~55 STEEL, HRc 40~55	●	●		●	●
钢, HRc 55~60 STEEL, HRc 55~60	●	●		●	●
钢, 碳 STEEL, CARBON	●	●			●
钢, 镍铬合金 STEEL, NICKEL CHROME	●	●		●	●
钢, 焊接件 STEEL, WELDMENTS	●	●			●
钛 TITANIUM	●	●			●
锌 ZINC			●		

旋转锉速度推荐
BURR SPEED RECOMMENDATIONS





Challenge Toward a Global Leader-

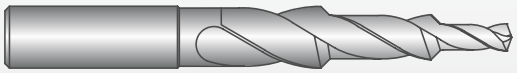
YG-1 Leads the World Market.

SPECIAL CUTTING TOOLS

阶梯钻(高速钢 和 硬质合金, Multi-diameter钻头)	Step drills(HSS & Carbide, Multi-diameter Drills)
高速钢 Sub-land(阶梯)钻	HSS Sub-land (Step) Drills
硬质合金抛光钻	Carbide Burnishing Drills
高速钢钻头丝锥	HSS Drill Taps
顶点螺纹丝锥和梯形螺纹丝锥	Acme Thread Taps & Trapezoidal thread taps
硬质合金阶梯铰刀	Carbide step Reamers
桥式铰刀	Bridge Reamers
机用钻头	Aircraft drills.

YG-1 CO., LTD.

阶梯钻(高速钢&硬质合金，多直径钻头)
STEP DRILLS(HSS & CARBIDE, MULTI-DIAMETER DRILLS)

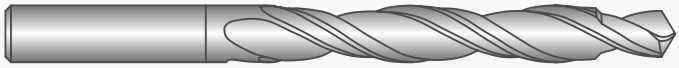


这些刀具可加工多种阶梯孔 如2层，3层&4层阶梯钻头等)

These tools can produce all type of multi-diameters hole.

avaliable 2 step, 3 step & 4 step drill etc.

高速钢双刃阶梯钻
HSS SUB-LAND (STEP) DRILLS



双刃阶梯钻除了在结构上与普通阶梯钻有稍微的不同，在性能上有着同样的作用.

双刃阶梯钻的优势是两个直径可以使刀具寿命维持不变，因为在大直径切削刃的再研磨时可以避免碰到小直径的钻边.

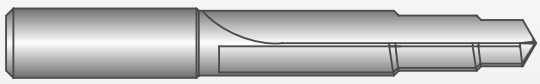
制造双刃钻头比普通阶梯钻要稍微贵一些，但是在再研磨的便利和经济上往往大于第一成本的差额.

The subland (step) drill performs the same function as the step drill though its construction is somewhat different.

The advantage of the subland drill is that the two diameters may be maintained constant throughout the life of drill because in resharpening the cutting edges of the large diameter it is unnecessary to touch the margins of the small diameter.

It is somewhat more expensive to manufacture than the step drill, but the convenience and economy in resharpening often outweigh the difference in first cost.

硬质合金抛光钻头
CARBIDE BURNISHING DRILLS



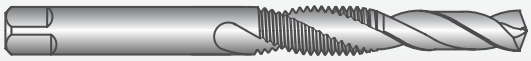
抛光钻头有4个钻边为了在钻孔时得到较好的稳定性.

两个额外的抛光钻边有助于使切削钻边切削后抛光孔的表面，使孔比使用常规钻头得到较好的光洁度

The burnishing drill has four margins which stabilize it as it is drilling.

The two extra "Burnishing" margins also help to smooth the hole after the "Cutting" margin has cut, giving the hole a better finish than a conventional drill.

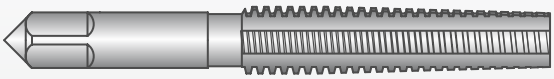
高速钢钻孔攻螺纹复合刀具
HSS DRILL TAPS



这些刀具用在钻孔和攻丝一步完成.

These tools are used for drilling & threading in one operation.

梯形丝锥
ACME THREAD TAPS & TRAPEZOIDAL THREAD TAPS



梯形丝锥(29°)和梯形丝锥(30°)用于在工作母机和类似设备上进行通过式运动.
这些丝锥用来制作横向螺孔的内螺纹.

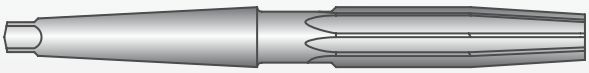
Acme threads(29°) and trapezoidal threads(30°) are used for purpose of producing traversing motion on machine tools and similar machines.
These taps are used for making internal threads of screw for traversing motion.

硬质合金阶梯铰刀
CARBIDE STEP REAMERS

使用硬质合金基体，可得到比高速钢铰刀更长的刀具寿命和较好的表面粗糙度.
2个或多个阶梯或倒角可以进行一次性加工.

Using carbide substrates, longer tool life and better finish than HSS reamers can be achieved .
Two or more step diameters or chamfers can be machined in one operation.

桥式铰刀
BRIDGE REAMERS



高速钢桥式铰刀是为特殊用途而设计的，是结构钢，架桥和舰艇建造等精度没有特殊要求的情况下的专用刀具.

Bridge reamers, made of high speed steels, are especially designed for severe service and are particularly adapted for use in structural iron and steel, bridge erection, and ship construction, where extreme precision not required.

航行器专用钻头
AIRCRAFT DRILLS.

- Aircraft Extension Drills(6" & 12" O.A.L.)

- Treaded Shank Aircraft Drills

1)航行器接长钻(6″&12″全长)
2)螺纹柄部的航行器专用钻头Th.
用于航行器材料的钻孔，按照NAS 907规格制作.

1) Aircraft Extension Drills(6" & 12" OAL)
2) Threaded Shank Aircraft Drills.
Used for drilling aircraft materials and made to NAS 907 specification.

Step drills(HSS & Carbide, Multi-diameter Drills)
HSS Sub-land (Step) Drills
Carbide Burnishing Drills
HSS Drill Taps
Acme Thread Taps & Trapezoidal thread taps
Carbide step Reamers
Bridge Reamers
Aircraft drills.

TOOL HOLDERS

HYDRAULIC CHUCK

SHRINK FIT HOLDER

MILLING CHUCK

SK SLIM CHUCK

ER COLLET CHUCK

MORSE TAPER ARBOR

TAPPING ER CHUCK

TAP CHUCK

FACE MILL SYSTEM

FACE MILL SYSTEM

SHELL MILL ARBOR & COMBI SMA

BORING SYSTEM

YG-1 CO., LTD.

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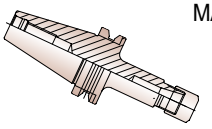
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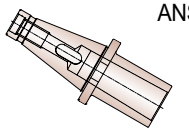
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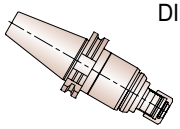
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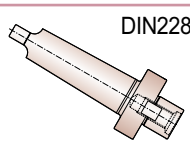
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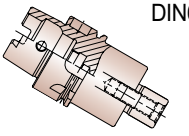
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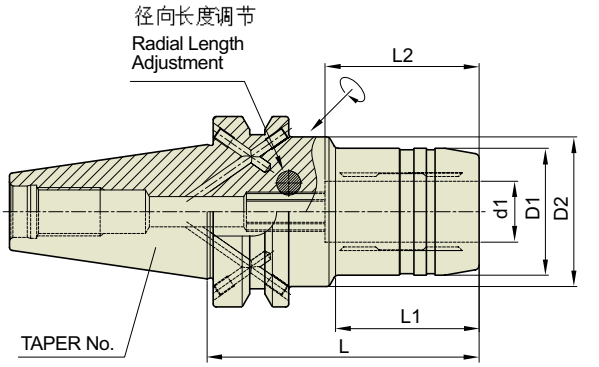
液压刀柄(长度调节型)
HYDRAULIC CHUCK (Radial tool length pre-setting type)

MAS403-BT FORM AD/B



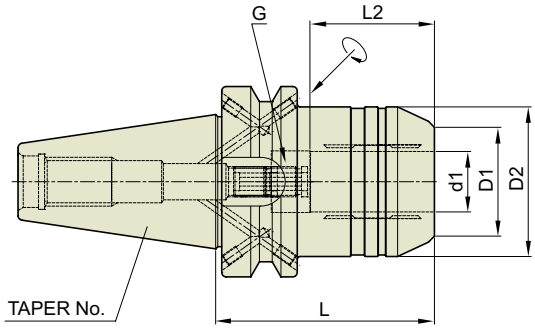
MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3	2.5	25,000	AD/B

TAPER No.	CODE No.	d1	D1	D2	L	L1	L 2	Weight (kg)
30	BT30AD/B-HCR12-85	12	32	44.5	85	40	37	0.90
	BT30AD/B-HCR20-85	20	44	44	85	-	42	1.00
40	BT40AD/B-HCR12-90	12	32	44.5	90	44.5	37	1.50
	BT40AD/B-HCR20-90	20	42	49.5	90	47.5	42	1.60
	BT40AD/B-HCR32-105	32	60	60	105	-	55	2.20
50	BT50AD/B-HCR12-95	12	32	44.5	95	34	37	3.90
	BT50AD/B-HCR20-95	20	42	44.5	95	34	42	4.00
	BT50AD/B-HCR32-115	32	60	60	115	-	55	4.10

▶ 根据客户要求可生产G2.5/40,000rpm(G6.3/100,000rpm)动平衡产品.
Higher balancing grade product up to G2.5/40,000(G6.3/100,000rpm) could be supplied by customer's request.

液压刀柄(短/重型-SH型)
HYDRAULIC CHUCK (SHORT & HEAVY)

MAS403-BT FORM AD/B



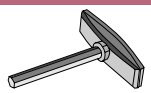
MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3	2.5	25,000	AD/B

TAPER No.	CODE No.	d1	D1	D2	L	L 2	G	Weight (kg)
30	**BT30AD/B-HC20S-85**	20	41	44	85	42	M10×1.0	0.93
40	**BT40AD/B-HC12S-58**	12	32	42	58	35	M8×1.0	
	BT40AD/B-HC20S-72.5	20	37	49.5	72.5	42	M16×1.0	1.40
50	**BT50AD/B-HC12S-69**	12	32	42	69	35	M8×1.0	
	BT50AD/B-HC20S-90	20	37	49.5	83.5	42	M16×1.0	3.85
	BT50AD/B-HC32S-90	32	55	72	90	55	M16×1.0	4.53

▶ 根据客户要求可生产G2.5/40,000rpm(G6.3/100,000rpm)动平衡产品.
Higher balancing grade product up to G2.5/40,000(G6.3/100,000rpm) could be supplied by customer's request.

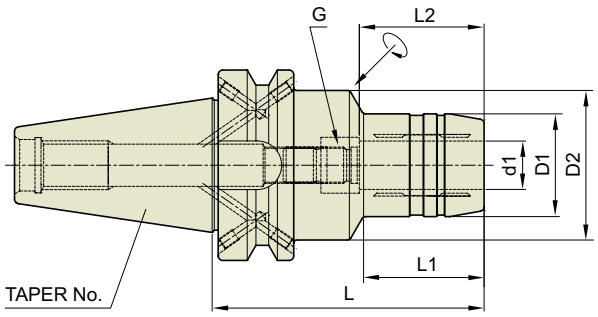
液压刀柄专用筒夹
HYDRAULIC CHUCK COLLET (REDUCTION SLEEVE)

HK筒夹 HK COLLET	CODE No.	
	HK12	Ø3 ~ Ø8
	HK20	Ø3 ~ Ø16
	HK32	Ø3 ~ Ø25

T扳手 T-WRENCH	CODE No.
	T-4 T-5

液压刀柄(细长型)
HYDRAULIC CHUCK (SLIM)

MAS403-BT FORM AD/B



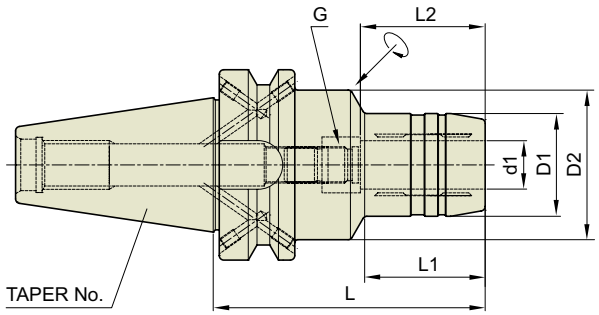
MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3	2.5	25,000	AD/B

TAPER No.	CODE No.	d1	D1	D2	L	L1	L 2	G	Weight (kg)
30	BT30AD/B-HC6-70	6	26	44.5	70	29.5	27	M5×0.8	0.65
	BT30AD/B-HC8-70	8	28	44.5	70	30	27	M6×1.0	0.65
	BT30AD/B-HC10-75	10	30	44.5	75	31	32	M8×1.0	0.73
	BT30AD/B-HC12-85	12	32	44.5	85	40	37	M10×1.0	0.80
	BT30AD/B-HC14-85	14	34	44.5	85	40	37	M10×1.0	0.80
	BT30AD/B-HC16-90	16	38	44.5	90	46	42	M12×1.0	0.90
	BT30AD/B-HC18-90	18	40	44.5	90	46	42	M12×1.0	0.90
	BT30AD/B-HC20-90	20	42	44.5	90	48	42	M16×1.0	0.90
40	BT40AD/B-HC6-90	6	26	49.5	90	30	27	M5×0.8	1.30
	BT40AD/B-HC8-90	8	28	49.5	90	30	27	M6×1.0	1.30
	BT40AD/B-HC10-90	10	30	49.5	90	32	32	M8×1.0	1.35
	BT40AD/B-HC12-90	12	32	49.5	90	35	37	M10×1.0	1.35
	BT40AD/B-HC14-90	14	24	49.5	90	35	37	M10×1.0	1.35
	BT40AD/B-HC16-90	16	38	49.5	90	40	42	M12×1.0	1.40
	BT40AD/B-HC18-90	18	40	49.5	90	40	42	M12×1.0	1.45
	BT40AD/B-HC20-90	20	42	49.5	90	40	42	M16×1.0	1.50
	BT40AD/B-HC25-100	25	50	60	100	45	48	M16×1.0	1.70
	BT40AD/B-HC32-105	32	60	60	105	50	55	M16×1.0	2.10

▶ 根据客户要求可生产G2.5/40,000rpm(G6.3/100,000rpm)动平衡产品.
Higher balancing grade product up to G2.5/40,000(G6.3/100,000rpm) could be supplied by customer's request.

液压刀柄(细长型)
HYDRAULIC CHUCK (SLIM)

MAS403-BT FORM AD/B



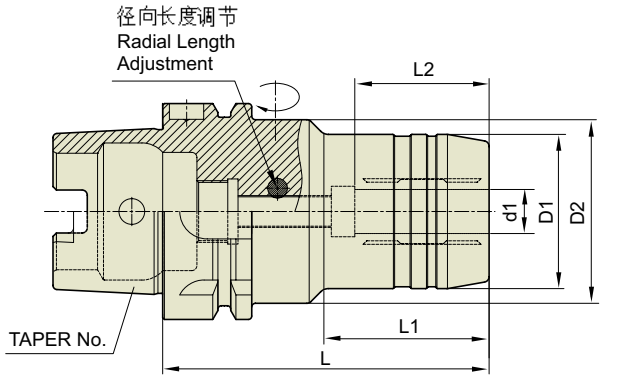
MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3	2.5	25,000	AD/B

TAPER No.	CODE No.	d1	D1	D2	L	L1	L 2	G	Weight (kg)
50	BT50AD/B-HC6-90	6	26	44.5	90	43	27	M5×0.8	3.75
	BT50AD/B-HC6-120	6	26	44.5	120	43	27	M5×0.8	4.10
	BT50AD/B-HC6-150	6	26	44.5	150	43	27	M5×0.8	4.70
	BT50AD/B-HC8-90	8	28	44.5	90	44.5	27	M6×1.0	3.75
	BT50AD/B-HC8-120	8	28	44.5	120	44.5	27	M6×1.0	4.10
	BT50AD/B-HC8-150	8	28	44.5	150	44.5	27	M6×1.0	4.10
	BT50AD/B-HC10-90	10	30	44.5	90	44.5	32	M8×1.0	3.90
	BT50AD/B-HC10-120	10	30	44.5	120	44.5	32	M8×1.0	4.30
	BT50AD/B-HC10-150	10	30	44.5	150	44.5	32	M8×1.0	4.90
	BT50AD/B-HC12-90	12	32	44.5	90	44.5	37	M10×1.0	3.90
	BT50AD/B-HC12-120	12	32	44.5	120	44.5	37	M10×1.0	4.30
	BT50AD/B-HC12-150	12	32	44.5	150	44.5	37	M10×1.0	4.90
	BT50AD/B-HC14-90	14	34	44.5	90	44.5	37	M10×1.0	3.90
	BT50AD/B-HC14-120	14	34	44.5	120	44.5	37	M10×1.0	4.30
	BT50AD/B-HC14-150	14	34	44.5	150	44.5	37	M10×1.0	4.90
	BT50AD/B-HC16-90	16	38	44.5	90	44.5	42	M12×1.0	4.00
	BT50AD/B-HC16-120	16	38	44.5	120	44.5	42	M12×1.0	4.40
	BT50AD/B-HC16-150	16	38	44.5	150	44.5	42	M12×1.0	5.00
	BT50AD/B-HC18-90	18	40	44.5	90	44.5	42	M12×1.0	4.00
	BT50AD/B-HC18-120	18	40	44.5	120	44.5	42	M12×1.0	4.40
	BT50AD/B-HC18-150	18	40	44.5	150	44.5	42	M12×1.0	5.00
	BT50AD/B-HC20-90	20	42	44.5	90	44.5	42	M16×1.0	4.00
	BT50AD/B-HC20-120	20	42	44.5	120	44.5	42	M16×1.0	4.40
	BT50AD/B-HC20-150	20	42	44.5	150	44.5	42	M16×1.0	5.00
	BT50AD/B-HC25-105	25	50	60	105	47.5	42	M16×1.0	4.40
	BT50AD/B-HC25-150	25	50	60	150	47.5	42	M16×1.0	5.60
	BT50AD/B-HC32-115	32	60	60	115	-	42	M16×1.0	4.70
	BT50AD/B-HC32-150	32	60	60	150	-	42	M16×1.0	6.00

▶ 液压刀柄 Ø 12, Ø 20, Ø 32型可配套专用筒夹选用多种规格的刀具.
In case of Hydraulic Chuck with Ø12, Ø20 and Ø32 ID, various cutting tools with different dia. can be used together with Hydraulic Chuck collet(reduction sleeve).

液压刀柄(长度调节型)
HYDRAULIC CHUCK (Radial tool length pre-setting type)

DIN69893-HSK FORM A



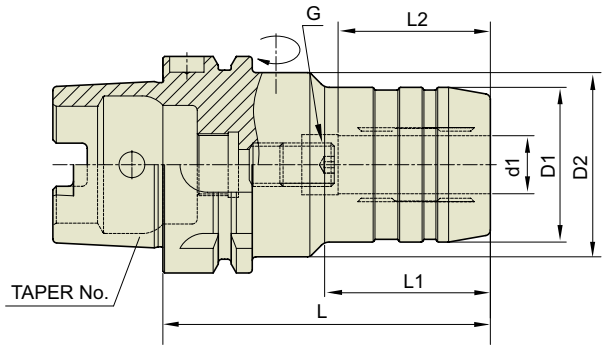
DIN69893 - HSK	Taper Accuracy	G Value	RPM	Coolant System
	AT3	2.5	25,000	

TAPER No.	CODE No.	d1	D1	D2	L	L1	L 2	Weight (kg)
40A	HSK40A-HCR6-80	6	26	34	80	36	27	0.55
	HSK40A-HCR8-80	8	28	34	80	36	27	0.55
	HSK40A-HCR10-85	10	30	34	85	43	32	0.65
	HSK40A-HCR12-90	12	32	34	90	48	37	0.70
50A	HSK50A-HCR6-80	6	26	50	80	35	27	0.70
	HSK50A-HCR8-80	8	28	50	80	35	27	0.70
	HSK50A-HCR10-85	10	30	50	85	38	32	0.73
	HSK50A-HCR12-90	12	32	50	90	40	37	0.80
	HSK50A-HCR14-90	14	34	50	90	40	37	0.80
	HSK50A-HCR16-95	16	38	53	95	34	42	1.00
	HSK50A-HCR18-95	18	40	57	95	34	42	1.00
	HSK50A-HCR20-100	20	42	60	100	34	42	1.10
63A	HSK63A-HCR6-80	6	26	50	80	33	27	0.96
	HSK63A-HCR8-80	8	28	50	80	33	27	0.98
	HSK63A-HCR10-85	10	30	50	85	38	32	1.04
	HSK63A-HCR12-90	12	32	50	90	40	37	1.06
	HSK63A-HCR14-90	14	34	50	90	46	37	1.08
	HSK63A-HCR16-95	16	38	50	95	51	42	1.18
	HSK63A-HCR18-95	18	40	50	95	52	42	1.20
	HSK63A-HCR20-100	20	42	50	100	51	42	1.22
	HSK63A-HCR25-120	25	57	63	120	54.5	48	2.20
	HSK63A-HCR32-125	32	64	75	125	57.5	55	2.60
100A	HSK100A-HCR6-85	6	26	63	85	33	27	3.60
	HSK100A-HCR8-85	8	28	63	85	33	27	3.60
	HSK100A-HCR10-90	10	30	63	90	36	32	3.80
	HSK100A-HCR12-95	12	32	63	95	40	37	3.80
	HSK100A-HCR14-95	14	34	63	95	41	37	3.80
	HSK100A-HCR16-100	16	38	63	100	46	42	3.90
	HSK100A-HCR18-100	18	40	63	100	46	42	3.90
	HSK100A-HCR20-105	20	42	75	105	51	42	4.20
	HSK100A-HCR25-115	25	57	75	115	55.5	48	4.40
	HSK100A-HCR32-120	32	64	75	120	63.5	55	4.60

▶ 根据客户要求可生产G2.5/40,000rpm(G6.3/100,000rpm)动平衡产品.
Higher balancing grade product up to G2.5/40,000(G6.3/100,000rpm) could be supplied by customer's request.

液压刀柄
HYDRAULIC CHUCK

DIN69893-HSK FORM A



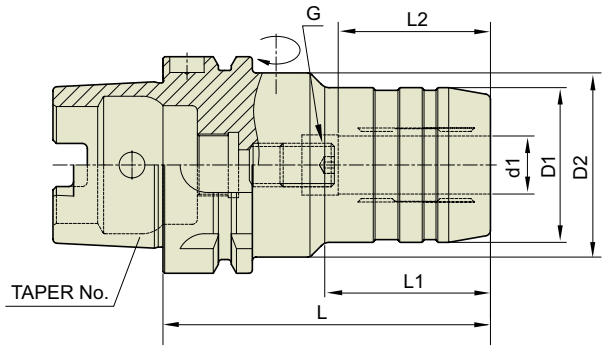
DIN69893 - HSK	Taper Accuracy	G Value	RPM	Coolant System
	AT3	2.5	25,000	

TAPER No.	CODE No.	d1	D1	D2	L	L1	L 2	G	Weight (kg)
32A	HSK32A-HC6-80	6	26	40	80	29	27	M5×0.8	0.30
	HSK32A-HC8-80	8	28	40	80	29	27	M6×1.0	0.30
	HSK32A-HC10-85	10	30	40	85	35	32	M6×1.0	0.30
	HSK32A-HC12-90	12	32	40	90	40	37	M6×1.0	0.30
40A	HSK40A-HC6-70	6	26	34	70	36	27	M5×0.8	0.50
	HSK40A-HC8-70	8	28	34	70	36	27	M6×1.0	0.50
	HSK40A-HC10-75	10	30	34	75	42	32	M6×1.0	0.60
	HSK40A-HC12-80	12	32	34	80	48	37	M6×1.0	0.65
50A	HSK50A-HC6-70	6	26	50	70	28	27	M5×0.8	0.65
	HSK50A-HC8-70	8	28	50	70	28	27	M6×1.0	0.65
	HSK50A-HC10-75	10	30	50	75	34	32	M8×1.0	0.70
	HSK50A-HC12-85	12	32	50	85	44	37	M10×1.0	0.75
	HSK50A-HC14-85	14	34	50	85	44	37	M10×1.0	0.75
	HSK50A-HC16-90	16	38	53	90	30	42	M12×1.0	0.90
	HSK50A-HC18-90	18	40	57	90	30	42	M12×1.0	0.90
	HSK50A-HC20-90	20	42	60	90	34	42	M16×1.0	1.00
63A	HSK63A-HC6-70	6	26	50	70	24	27	M5×0.8	0.53
	HSK63A-HC8-70	8	28	50	70	24	27	M6×1.0	0.55
	HSK63A-HC10-80	10	30	50	80	35	32	M8×1.0	1.00
	HSK63A-HC12-85	12	32	50	85	40	37	M10×1.0	1.03
	HSK63A-HC14-85	14	34	50	85	40	37	M10×1.0	1.05
	HSK63A-HC16-90	16	38	50	90	46	42	M12×1.0	1.15
	HSK63A-HC18-90	18	40	50	90	46	42	M12×1.0	1.15
	HSK63A-HC20-90	20	42	50	90	48	42	M16×1.0	1.20
	HSK63A-HC25-120	25	57	63	120	59	48	M16×1.0	2.20
	HSK63A-HC32-125	32	64	75	125	63	55	M16×1.0	2.40

▶ 根据客户要求可生产G2.5/40,000rpm(G6.3/100,000rpm)动平衡产品.
Higher balancing grade product up to G2.5/40,000(G6.3/100,000rpm) could be supplied by customer's request.

液压刀柄
HYDRAULIC CHUCK

DIN69893-HSK FORM A

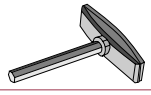


DIN69893 - HSK	Taper Accuracy	G Value	RPM	Coolant System
	AT3	2.5	25,000	

TAPER No.	CODE No.	d1	D1	D2	L	L1	L 2	G	Weight (kg)
100A	HSK100A-HC6-75	6	26	50	75	24	27	M5×0.8	3.20
	HSK100A-HC8-75	8	28	50	75	24	27	M6×1.0	3.20
	HSK100A-HC10-90	10	30	50	90	35	32	M8×1.0	3.40
	HSK100A-HC12-95	12	32	50	95	40	37	M10×1.0	3.40
	HSK100A-HC14-95	14	34	50	95	40	37	M10×1.0	3.40
	HSK100A-HC16-100	16	38	50	100	46	42	M12×1.0	3.50
	HSK100A-HC18-100	18	40	50	100	46	42	M12×1.0	3.60
	HSK100A-HC20-105	20	42	50	105	48	42	M16×1.0	4.00
	HSK100A-HC25-110	25	57	63	110	59	48	M16×1.0	4.20
	HSK100A-HC32-110	32	64	75	110	63	55	M16×1.0	4.30

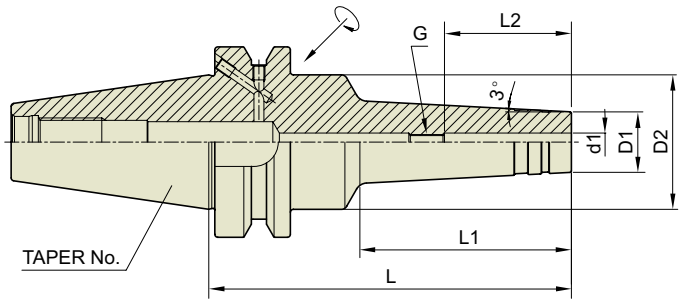
▶液压刀柄 Ø12, Ø20, Ø32型可配套专用筒夹选用多种规格的刀具.
In case of Hydraulic Chuck with Ø12, Ø20 and Ø32 ID, various cutting tools with different dia. can be used together with Hydraulic Chuck collet(reduction sleeve).

液压刀柄专用筒夹
HYDRAULIC CHUCK COLLET (REDUCTION SLEEVE)

HK筒夹 HK COLLET	CODE No.		T扳手 T-WRENCH	CODE No.
	HK12	Ø3 ~ Ø8		T-4 T-5
	HK20	Ø3 ~ Ø16		
	HK32	Ø3 ~ Ø25		

液压模具刀柄
HYDRAULIC MOLD CHUCK

MAS403-BT FORM AD/B



MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3	2.5	25,000	AD/B

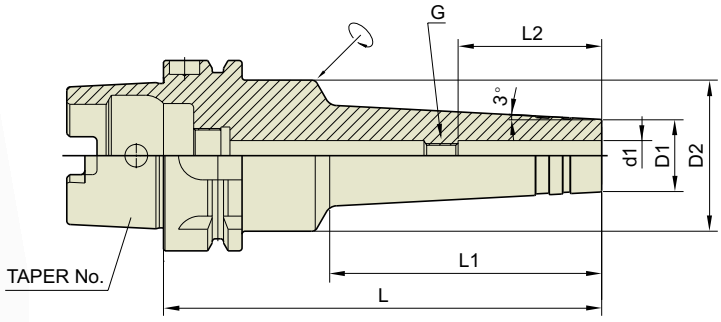
TAPER No.	CODE No.	d1	D1	D2	L	L1	L 2	G	Weight (kg)
40	BT40AD/B-HMC6-120	6	20	44.5	120	70	27	M5×0.8	1.40
	BT40AD/B-HMC6-150	6	20	44.5	150	100	27	M5×0.8	1.65
	BT40AD/B-HMC8-120	8	22	44.5	120	70	27	M6×1.0	1.40
	BT40AD/B-HMC8-150	8	22	44.5	150	100	27	M6×1.0	1.65
	BT40AD/B-HMC10-120	10	24	44.5	120	70	32	M8×1.0	1.40
	BT40AD/B-HMC10-150	10	24	44.5	150	100	32	M8×1.0	1.65
	BT40AD/B-HMC12-120	12	25	44.5	120	70	37	M10×1.0	1.40
	BT40AD/B-HMC12-150	12	25	44.5	150	100	37	M10×1.0	1.65
	BT40AD/B-HMC16-120	16	32	44.5	120	70	42	M12×1.0	1.45
	BT40AD/B-HMC16-150	16	32	44.5	150	100	42	M12×1.0	1.70
	BT40AD/B-HMC20-120	20	34	44	120	-	42	M16×1.0	1.50
	BT40AD/B-HMC20-150	20	34	47	150	-	42	M16×1.0	1.80
50	BT50AD/B-HMC6-150	6	20	50	150	90	27	M5×0.8	4.70
	BT50AD/B-HMC8-150	8	22	50	150	90	27	M6×1.0	4.70
	BT50AD/B-HMC10-150	10	24	50	150	90	32	M8×1.0	4.70
	BT50AD/B-HMC12-150	12	25	37	150	-	37	M10×1.0	4.70
	BT50AD/B-HMC16-150	16	32	44	150	-	42	M12×1.0	4.90
	BT50AD/B-HMC20-150	20	34	46	150	-	42	M16×1.0	5.00

▶ 根据客户要求可生产G2.5/40,000rpm(G6.3/100,000rpm)动平衡产品.
Higher balancing grade product up to G2.5/40,000(G6.3/100,000rpm) could be supplied by customer's request.

TOOL HOLDERS

液压模具刀柄
HYDRAULIC MOLD CHUCK

DIN69893-HSK FORM A



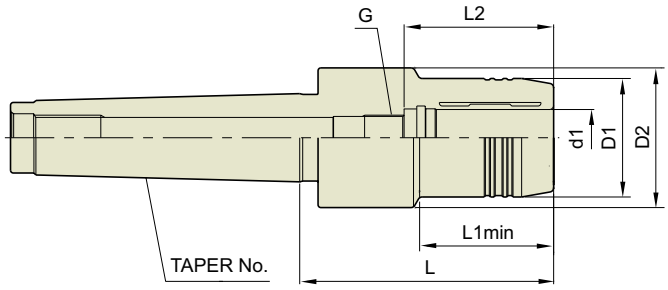
DIN69893 - HSK	Taper Accuracy	G Value	RPM	Coolant System
	AT3	2.5	25,000	

TAPER No.	CODE No.	d1	D1	D2	L	L1	L 2	G	Weight (kg)
63A	HSK63A-HMC6-145	6	20	50	145	90	27	M5×0.8	1.40
	HSK63A-HMC8-145	8	22	50	145	90	27	M6×1.0	1.40
	HSK63A-HMC10-145	10	24	50	145	90	32	M8×1.0	1.40
	HSK63A-HMC12-145	12	25	50	145	90	37	M10×1.0	1.40
	HSK63A-HMC16-145	16	32	50	145	90	42	M12×1.0	1.45
	HSK63A-HMC20-145	20	34	50	145	90	42	M16×1.0	1.50
100A	HSK100A-HMC6-150	6	20	50	150	90	27	M5×0.8	4.50
	HSK100A-HMC8-150	8	22	50	150	90	27	M6×1.0	4.50
	HSK100A-HMC10-150	10	24	50	150	90	32	M8×1.0	4.50
	HSK100A-HMC12-150	12	25	50	150	90	37	M10×1.0	4.50
	HSK100A-HMC16-150	16	32	50	150	90	42	M12×1.0	4.70
	HSK100A-HMC20-150	20	34	50	150	90	42	M16×1.0	5.00

▶根据客户要求可生产G2.5/40,000rpm(G6.3/100,000rpm)动平衡产品.
Higher balancing grade product up to G2.5/40,000(G6.3/100,000rpm) could be supplied by customer's request.

液压刀柄(研磨机专用)
HYDRAULIC CHUCK (Exclusive use for grinder)

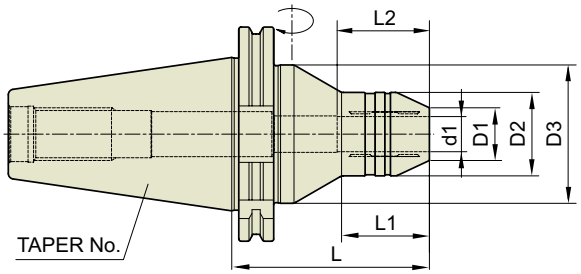
MTB



MTB	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

TAPER No.	CODE No.	d1	D1	D2	L	L1	L 2	G	Weight (kg)
MT4	MTB4-HC20-90	20	42	49.5	90	47.5	53	M6×1.0	1.30
	MTB4-HC32S-90	32	72	72	90	-	75	-	1.40
MT5	MTB5-HC20-90	20	42	49.5	90	47.5	53	-	2.20
	MTB5-HC32S-90	32	72	72	90	-	100	-	2.40

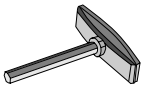
DIN 69871 - SK FORM A



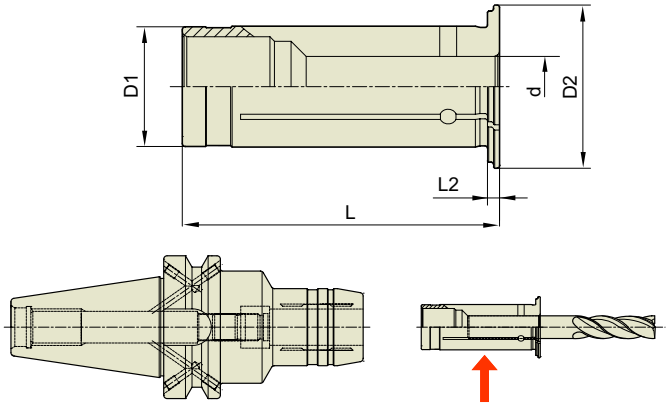
DIN 69871 - SK	Taper Accuracy	G Value	RPM	Coolant System
	AT3	2.5	25,000	

TAPER No.	CODE No.	d1	D1	D2	D3	L	L1	L 2	Weight (kg)
50	SK50-HC6G-90	6	14	30	63	90	30	27	3.00
	SK50-HC8G-90	8	16	30	63	90	30	27	3.00
	SK50-HC10G-90	10	18	30	63	90	30	32	3.00
	SK50-HC12G-90	12	21	33	63	90	35	37	3.05
	SK50-HC14G-90	14	22	35	63	90	35	37	3.10
	SK50-HC16G-90	16	24	38	63	90	40	42	3.10
	SK50-HC18G-90	18	26	40	63	90	40	42	3.10
	SK50-HC20G-110	20	29	42	63	110	40	42	3.30
	SK50-HC25G-110	25	34	50	70	110	45	48	3.60
	SK50-HC32G-110	32	42	56	80	110	50	55	4.20

液压刀柄专用筒夹
HYDRAULIC CHUCK COLLET (REDUCTION SLEEVE)

HK筒夹 HK COLLET	CODE No.		T扳手 T-WRENCH	CODE No.
	HK12	Ø3 ~ Ø8		T-4
	HK20	Ø3 ~ Ø16		T-5
	HK32	Ø3 ~ Ø25		

液压刀柄专用筒夹
HYDRAULIC CHUCK COLLET (REDUCTION SLEEVE)



HK筒夹
Hydraulic Chuck collet

CODE No.		d	D1	D2	L	L2
HK12	3	3	12	19	47	2
	4	4	12	19	47	2
	5	5	12	19	47	2
	6	6	12	19	47	2
	7	7	12	19	47	2
	8	8	12	19	47	2
HK20	3	3	20	24	50.5	2
	4	4	20	24	50.5	2
	5	5	20	24	50.5	2
	6	6	20	24	50.5	2
	7	7	20	24	50.5	2
	8	8	20	24	50.5	2
	9	9	20	24	50.5	2
	10	10	20	24	50.5	2
	11	11	20	24	50.5	2
	12	12	20	24	50.5	2
	13	13	20	24	50.5	2
	14	14	20	24	50.5	2
	15	15	20	24	50.5	2
	16	16	20	24	50.5	2
	17	17	20	24	50.5	2
HK32	6	6	32	36	60.5	3
	8	8	32	36	60.5	3
	10	10	32	36	60.5	3
	12	12	32	36	60.5	3
	14	14	32	36	60.5	3
	16	16	32	36	60.5	3
	18	18	32	36	60.5	3
	20	20	32	36	60.5	3
	25	25	32	36	60.5	3

▶其它非标规格也生产.
Other special sizes of Hydraulic Chuck collets could be produced and supplied .

▶特征 / FEATURE

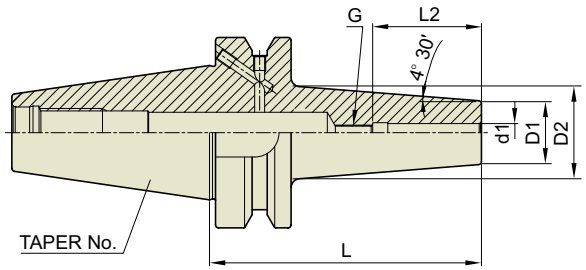
液压刀柄专用筒夹采用高精密线切割,加工成3等份,内径精密度非常优秀.
Hydraulic Chuck collet(reduction sleeve) is divided into trisection by high precision wire cutting, which guarantees high precision ID.

▶夹紧方法 / CHUCKING METHOD

安装刀具时,首先把刀具插入筒夹,再把筒夹插入液压刀柄.
Please assemble cutting tool with collet firstly, and then insert collet into Hydraulic Chuck.

热缩式刀柄
SHRINK FIT HOLDER

MAS403-BT FORM AD/B



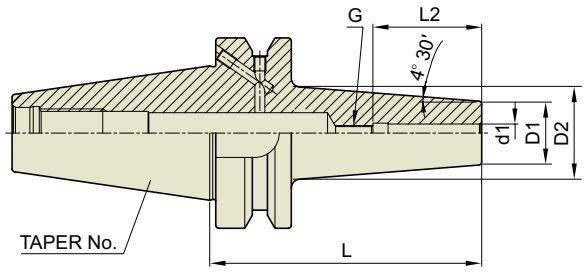
MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3	2.5	25,000	AD/B

TAPER No.	CODE No.	d1	D1	D2	L	L 2	G	Weight (kg)
30	BT30AD/B-SFH3-60	3	11	21	60	14	-	0.40
	BT30AD/B-SFH4-60	4	11	21	60	17	-	0.40
	BT30AD/B-SFH5-60	5	13	23	60	23	-	0.40
	BT30AD/B-SFH6-60	6	21	27	60	36	M5×0.8	0.40
	BT30AD/B-SFH8-60	8	21	27	60	36	M6×1.0	0.40
	BT30AD/B-SFH10-80	10	24	32	80	42	M8×1.0	0.40
	BT30AD/B-SFH12-80	12	24	32	80	47	M10×1.0	0.42
	BT30AD/B-SFH14-80	14	27	34	80	47	M10×1.0	
	BT30AD/B-SFH16-80	16	27	34	80	50	M12×1.0	0.42
	BT30AD/B-SFH18-80	18	33	42	80	50	M12×1.0	
	BT30AD/B-SFH20-90	20	33	42	90	52	M16×1.0	0.44
40	BT40AD/B-SFH3-90	3	11	21	90	14	-	1.00
	BT40AD/B-SFH4-90	4	11	21	90	17	-	1.00
	BT40AD/B-SFH5-90	5	13	23	90	23	-	1.00
	BT40AD/B-SFH6-90	6	21	27	90	36	M5×0.8	1.10
	BT40AD/B-SFH6-160	6	21	27	160	36	M5×0.8	1.15
	BT40AD/B-SFH8-90	8	21	27	90	36	M6×1.0	1.11
	BT40AD/B-SFH8-160	8	21	27	160	36	M6×1.0	1.15
	BT40AD/B-SFH10-90	10	24	32	90	42	M8×1.0	1.10
	BT40AD/B-SFH10-160	10	24	32	160	42	M8×1.0	1.15
	BT40AD/B-SFH12-90	12	24	32	90	47	M10×1.0	1.10
	BT40AD/B-SFH12-160	12	24	32	160	47	M10×1.0	1.15
	BT40AD/B-SFH14-90	14	27	34	90	47	M10×1.0	1.20
	BT40AD/B-SFH14-160	14	27	34	160	47	M10×1.0	1.50
	BT40AD/B-SFH16-90	16	27	34	90	50	M12×1.0	1.20
	BT40AD/B-SFH16-160	16	27	34	160	50	M12×1.0	1.50
	BT40AD/B-SFH18-90	18	33	42	90	50	M12×1.0	1.30
	BT40AD/B-SFH18-160	18	33	42	160	50	M12×1.0	1.60
	BT40AD/B-SFH20-90	20	33	42	90	52	M16×1.0	1.40
	BT40AD/B-SFH20-160	20	33	42	160	52	M16×1.0	1.70
	BT40AD/B-SFH25-100	25	44	53	100	58	M16×1.0	1.70
	BT40AD/B-SFH25-160	25	44	53	160	58	M16×1.0	2.00

▶ 根据客户要求可生产G2.5/40,000rpm(G6.3/100,000rpm)动平衡产品.
Higher balancing grade product up to G2.5/40,000(G6.3/100,000rpm) could be supplied by customer's request.

热缩式刀柄
SHRINK FIT HOLDER

MAS403-BT FORM AD/B



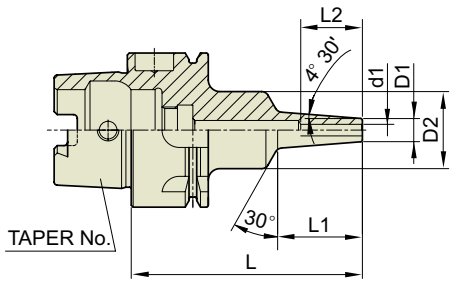
MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3	2.5	25,000	AD/B

TAPER No.	CODE No.	d1	D1	D2	L	L 2	G	Weight (kg)
50	BT50AD/B-SFH3-100	3	11	21	100	14	-	1.50
	BT50AD/B-SFH4-100	4	11	21	100	17	-	1.50
	BT50AD/B-SFH5-100	5	13	23	100	23	-	1.50
	BT50AD/B-SFH6-100	6	21	27	100	36	M5×0.8	1.50
	BT50AD/B-SFH6-160	6	21	27	160	36	M5×0.8	2.00
	BT50AD/B-SFH8-100	8	21	27	100	36	M6×1.0	1.50
	BT50AD/B-SFH8-160	8	21	27	160	36	M6×1.0	2.00
	BT50AD/B-SFH10-100	10	24	32	100	42	M8×1.0	1.50
	BT50AD/B-SFH10-160	10	24	32	160	42	M8×1.0	2.00
	BT50AD/B-SFH12-100	12	24	32	100	47	M10×1.0	1.50
	BT50AD/B-SFH12-160	12	24	32	160	47	M10×1.0	2.00
	BT50AD/B-SFH14-100	14	27	34	100	47	M10×1.0	1.60
	BT50AD/B-SFH14-160	14	27	34	160	47	M10×1.0	2.10
	BT50AD/B-SFH16-100	16	27	34	100	50	M12×1.0	1.60
	BT50AD/B-SFH16-160	16	27	34	160	50	M12×1.0	2.10
	BT50AD/B-SFH18-100	18	33	42	100	50	M12×1.0	1.60
	BT50AD/B-SFH18-160	18	33	42	160	50	M12×1.0	2.00
	BT50AD/B-SFH20-100	20	33	42	100	52	M16×1.0	1.80
	BT50AD/B-SFH20-160	20	33	42	160	52	M16×1.0	2.20
	BT50AD/B-SFH25-100	25	44	53	100	58	M16×1.0	2.00
	BT50AD/B-SFH25-160	25	44	53	160	58	M16×1.0	2.40

▶ 根据客户要求可生产G2.5/40,000rpm(G6.3/100,000rpm)动平衡产品.
Higher balancing grade product up to G2.5/40,000(G6.3/100,000rpm) could be supplied by customer's request.

热缩式刀柄
SHRINK FIT HOLDER

DIN69893-HSK FORM A

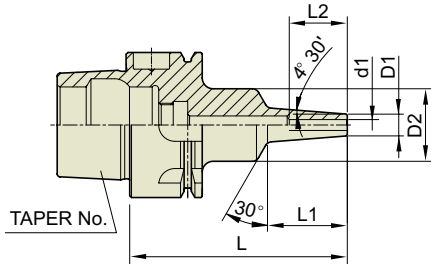


DIN69893 - HSK	Taper Accuracy	G Value	RPM	Coolant System
	AT3	2.5	25,000	

TAPER No.	CODE No.	d1	D1	D2	L	L 2	G	Weight (kg)
40A	HSK40A-SFH3-60	3	11	21	60	14	-	0.30
	HSK40A-SFH3-80	3	11	21	80	14	-	0.40
	HSK40A-SFH4-60	4	11	21	60	17	-	0.30
	HSK40A-SFH4-80	4	11	21	80	17	-	0.40
	HSK40A-SFH5-60	5	13	23	60	23	-	0.30
	HSK40A-SFH5-80	5	13	23	80	23	-	0.40
	HSK40A-SFH6-60	6	21	27	60	36	M5×0.8	0.40
	HSK40A-SFH6-80	6	21	27	80	36	M5×0.8	0.50
	HSK40A-SFH8-70	8	21	27	70	36	M6×1.0	0.40
	HSK40A-SFH8-90	8	21	27	90	36	M6×1.0	0.50
	HSK40A-SFH10-70	10	24	32	70	42	M8×1.0	0.50
	HSK40A-SFH10-90	10	24	32	90	42	M8×1.0	0.60

▶ 根据客户要求可生产G2.5/40,000rpm(G6.3/100,000rpm)动平衡产品.
Higher balancing grade product up to G2.5/40,000(G6.3/100,000rpm) could be supplied by customer's request.

DIN69893-HSK FORM E



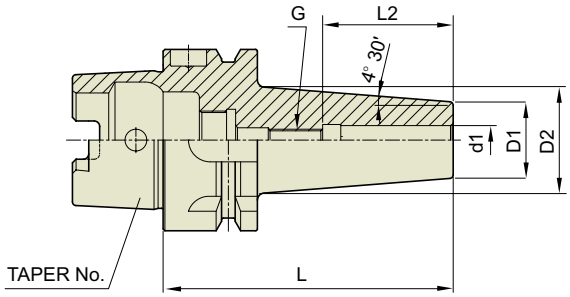
TAPER No.	CODE No.	d1	D1	D2	L	L 2	G	Weight (kg)
40E	HSK40E-SFH3-50	3	11	21	50	14	-	0.30
	HSK40E-SFH3-70	3	11	21	70	14	-	0.40
	HSK40E-SFH4-50	4	11	21	50	17	-	0.30
	HSK40E-SFH4-70	4	11	21	70	17	-	0.40
	HSK40E-SFH5-50	5	13	23	50	23	-	0.30
	HSK40E-SFH5-70	5	13	23	70	23	-	0.40
	HSK40E-SFH6-50	6	21	27	50	36	M5×0.8	0.40
	HSK40E-SFH6-70	6	21	27	70	36	M5×0.8	0.50
	HSK40E-SFH8-60	8	21	27	60	36	M6×1.0	0.40
	HSK40E-SFH8-80	8	21	27	80	36	M6×1.0	0.50
	HSK40E-SFH10-60	10	24	32	60	42	M8×1.0	0.50
	HSK40E-SFH10-80	10	24	32	80	42	M8×1.0	0.60

▶ 根据客户要求可生产G2.5/40,000rpm(G6.3/100,000rpm)动平衡产品.
Higher balancing grade product up to G2.5/40,000(G6.3/100,000rpm) could be supplied by customer's request.

热缩式刀柄
SHRINK FIT HOLDER

TOOL HOLDERS

DIN69893-HSK FORM A



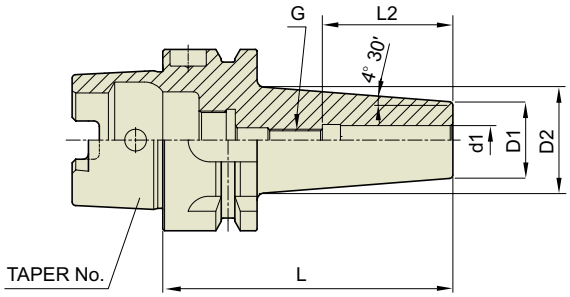
DIN69893 - HSK	Taper Accuracy	G Value	RPM	Coolant System
	AT3	2.5	25,000	

TAPER No.	CODE No.	d1	D1	D2	L	L 2	G	Weight (kg)
50A	HSK50A-SFH3-80	3	11	21	80	14	-	0.54
	HSK50A-SFH4-80	4	11	21	80	17	-	0.55
	HSK50A-SFH5-80	5	13	23	80	23	-	0.56
	HSK50A-SFH6-80	6	21	27	80	36	M5×0.8	0.57
	HSK50A-SFH8-80	8	21	27	80	36	M6×1.0	0.58
	HSK50A-SFH10-85	10	24	32	85	42	M8×1.0	0.65
	HSK50A-SFH12-90	12	24	32	90	47	M10×1.0	0.67
	HSK50A-SFH14-90	14	27	34	90	47	M10×1.0	0.72
	HSK50A-SFH16-95	16	27	34	95	50	M12×1.0	0.73
	HSK50A-SFH18-95	18	33	42	95	50	M12×1.0	0.90
	HSK50A-SFH20-100	20	33	42	100	52	M16×1.0	0.92
63A	HSK63A-SFH3-80	3	11	21	80	14	-	0.70
	HSK63A-SFH4-80	4	11	21	80	17	-	0.70
	HSK63A-SFH5-80	5	13	23	80	23	-	0.70
	HSK63A-SFH6-80	6	21	27	80	36	M5×0.8	0.83
	HSK63A-SFH6-160	6	21	27	160	36	M5×0.8	1.00
	HSK63A-SFH8-80	8	21	27	80	36	M6×1.0	0.83
	HSK63A-SFH8-160	8	21	27	160	36	M6×1.0	0.00
	HSK63A-SFH10-85	10	24	32	85	42	M8×1.0	0.83
	HSK63A-SFH10-160	10	24	32	160	42	M8×1.0	0.00
	HSK63A-SFH12-90	12	24	32	90	47	M10×1.0	0.83
	HSK63A-SFH12-160	12	24	32	160	47	M10×1.0	0.00
	HSK63A-SFH14-90	14	27	34	90	47	M10×1.0	0.91
	HSK63A-SFH14-160	14	27	34	160	47	M10×1.0	1.30
	HSK63A-SFH16-95	16	27	34	95	50	M12×1.0	0.98
	HSK63A-SFH16-160	16	27	34	160	50	M12×1.0	1.40
	HSK63A-SFH18-95	18	33	42	95	50	M12×1.0	0.98
	HSK63A-SFH18-160	18	33	42	160	50	M12×1.0	1.40
	HSK63A-SFH20-100	20	33	42	100	52	M16×1.0	1.00
	HSK63A-SFH20-160	20	33	42	160	52	M16×1.0	1.40
	HSK63A-SFH25-115	25	44	53	115	58	M16×1.0	1.40
	HSK63A-SFH25-160	25	44	53	160	58	M16×1.0	1.80

▶ 根据客户要求可生产G2.5/40,000rpm(G6.3/100,000rpm)动平衡产品.
Higher balancing grade product up to G2.5/40,000(G6.3/100,000rpm) could be supplied by customer's request.

热缩式刀柄
SHRINK FIT HOLDER

DIN69893-HSK FORM A

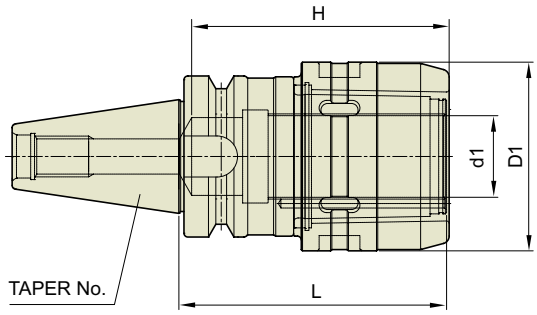


DIN69893 - HSK	Taper Accuracy	G Value	RPM	Coolant System
	AT3	2.5	25,000	

TAPER No.	CODE No.	d1	D1	D2	L	L 2	G	Weight (kg)
100A	HSK100A-SFH3-85	3	11	21	85	14	-	1.30
	HSK100A-SFH4-85	4	11	21	85	17	-	1.30
	HSK100A-SFH5-85	5	13	23	85	23	-	1.30
	HSK100A-SFH6-85	6	21	27	85	36	M5×0.8	1.30
	HSK100A-SFH6-160	6	21	27	160	36	M5×0.8	1.80
	HSK100A-SFH8-85	8	21	27	85	36	M6×1.0	1.30
	HSK100A-SFH8-160	8	21	27	160	36	M6×1.0	1.80
	HSK100A-SFH10-90	10	24	32	90	42	M8×1.0	1.30
	HSK100A-SFH10-160	10	24	32	160	42	M8×1.0	1.80
	HSK100A-SFH12-95	12	24	32	95	47	M10×1.0	1.30
	HSK100A-SFH12-160	12	24	32	160	47	M10×1.0	1.80
	HSK100A-SFH14-95	14	27	34	95	47	M10×1.0	1.40
	HSK100A-SFH14-160	14	27	34	160	47	M10×1.0	1.90
	HSK100A-SFH16-100	16	27	34	100	50	M12×1.0	1.40
	HSK100A-SFH16-160	16	27	34	160	50	M12×1.0	1.90
	HSK100A-SFH18-100	18	33	42	100	50	M12×1.0	1.50
	HSK100A-SFH18-160	18	33	42	160	50	M12×1.0	2.00
	HSK100A-SFH20-100	20	33	42	100	52	M16×1.0	1.50
	HSK100A-SFH20-160	20	33	42	160	52	M16×1.0	2.00
	HSK100A-SFH25-115	25	44	53	115	58	M16×1.0	1.80
	HSK100A-SFH25-160	25	44	53	160	58	M16×1.0	2.30

高速强力刀柄
HIGH SPEED MILLING CHUCK

MAS403-BT FORM AD

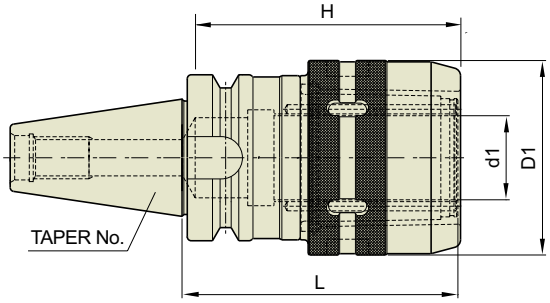


MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3	6.3	20,000	

TAPER No.	CODE No.	d1	D1	L	H	Weight (kg)
30	**BT30-C20-75HS**	20	54	75	70	1.50
	BT30-C25-80HS	25	62.5	80	80	2.00
40	**BT40-C20-80HS**	20	54	80	70	2.00
	BT40-C20-105HS	20	54	105	70	2.10
	BT40-C25-105HS	25	62.5	105	80	2.50
	BT40-C32-90HS	32	74	90	100	3.00
	BT40-C32-105HS	32	74	105	100	3.10
	BT40-C32-135HS	32	74	135	100	3.30
50	**BT50-C20-105HS**	20	54	105	70	4.50
	BT50-C20-135HS	20	54	135	70	4.90
	BT50-C20-165HS	20	54	165	70	5.40
	BT50-C25-105HS	25	62.5	105	80	5.20
	BT50-C25-135HS	25	62.5	135	80	5.80
	BT50-C25-165HS	25	62.5	165	80	6.20
	BT50-C32-105HS	32	74	105	100	6.00
	BT50-C32-135HS	32	74	135	100	6.70
	BT50-C32-165HS	32	74	165	100	7.40
	BT50-C42-115HS	42	92	115	110	6.70
	BT50-C42-135HS	42	92	135	110	7.60
	BT50-C42-165HS	42	92	165	110	8.30

强力刀柄
MILLING CHUCK

MAS403-BT



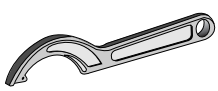
MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

TAPER No.	CODE No.	d1	D1	L	H	使用筒夹 Applicable collet	Weight (kg)
30	BT30-C20- 75	20	54	75	70	K20, CK20	1.5
	BT30-C25- 80	25	62.5	80	80	K25, CK25	2.0
40	BT40-C20- 80	20	54	80	70	K20, CK20	2.0
	BT40-C20-105	20	54	105	70	K20, CK20	2.1
	BT40-C25-105	25	62.5	105	80	K25, CK25	2.5
	BT40-C32- 90	32	72	90	100	K32, CK32	3
	BT40-C32-105	32	72	105	100	K32, CK32	3.1
	BT40-C32-135	32	72	135	100	K32, CK32	3.3
50	BT50-C20-105	20	54	105	70	K20, CK20	4.5
	BT50-C20-135	20	54	135	70	K20, CK20	4.9
	BT50-C20-165	20	54	165	70	K20, CK20	5.4
	BT50-C25-105	25	62.5	105	80	K25, CK25	5.2
	BT50-C25-135	25	62.5	135	80	K25, CK25	5.8
	BT50-C25-165	25	62.5	165	80	K25, CK25	6.2
	BT50-C32-105	32	72	105	100	K32, CK32	6
	BT50-C32-115	32	72	115	100	K32, CK32	6.2
	BT50-C32-135	32	72	135	100	K32, CK32	6.7
	BT50-C32-165	32	72	165	100	K32, CK32	7.4
	BT50-C42-115	42	92	115	110	K42, CK42	6.7
	BT50-C42-135	42	92	135	110	K42, CK42	7.6
	BT50-C42-165	42	92	165	110	K42, CK42	8.3

配件 / SPARE PARTS

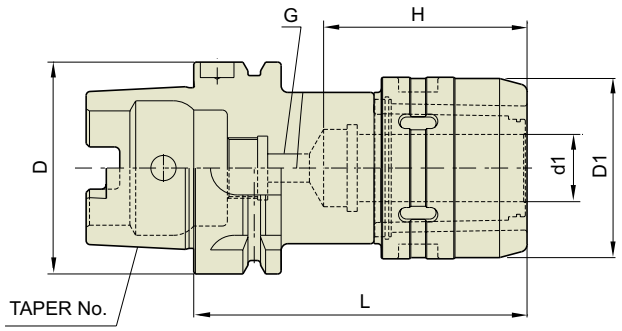
铣刀筒夹 / END MILL COLLET	CODE No.	SET
	K20 - 6, 8, 10, 12, 16	5PCS
	K25 - 6, 8, 10, 12, 16, 20	6PCS
	K32 - 6, 8, 10, 12, 16, 20, 25	7PCS
	K42 - 6, 8, 10, 12, 16, 20, 25, 32	8PCS

铣刀筒夹 / END MILL COLLET	CODE No.	SET
	CK20 - 6, 8, 10, 12, 16	5PCS
	CK25 - 6, 8, 10, 12, 16, 20	6PCS
	CK32 - 6, 8, 10, 12, 16, 20, 25	7PCS
	CK42 - 6, 8, 10, 12, 16, 20, 25, 32	8PCS

扳手 / SPANNER	CODE No.
	C20 SP
	C25 SP
	C32 SP
	C42 SP

高速强力刀柄
HIGH SPEED MILLING CHUCK

DIN69893-HSK FORM A

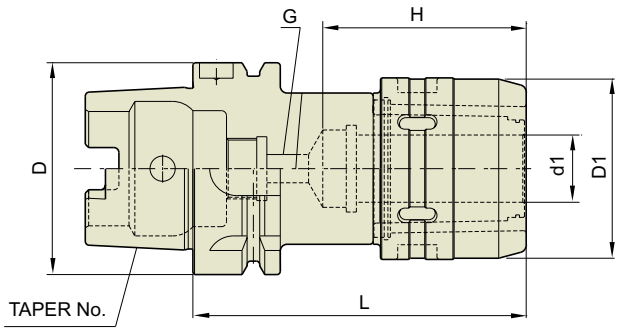


DIN69893 - HSK	Taper Accuracy	G Value	RPM	Coolant System
	AT3	6.3	20,000	

TAPER No.	CODE No.	d1	D1	L	H	Weight (kg)
50A	**HSK50A-C20-100HS**	20	54	100	70	1.30
63A	**HSK63A-C20-105HS**	20	54	105	70	1.50
	HSK63A-C25-120HS	25	62.5	120	80	2.20
	HSK63A-C32-130HS	32	74	130	100	2.70
100A	**HSK100A-C20-110HS**	20	54	110	70	3.50
	HSK100A-C25-130HS	25	62.5	130	80	3.80
	HSK100A-C32-135HS	32	74	135	100	4.20
	HSK100A-C42-135HS	42	74	135	100	5.30

强力刀柄
MILLING CHUCK

HSK FORM A



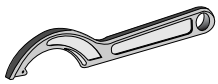
DIN69893 - HSK	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

TAPER No.	CODE No.	D	d1	D1	L	H	G	Weight (kg)
50A	**HSK 50A-C20-100**	50	20	54	100	70	M12	1.30
63A	**HSK 63A-C20-105**	63	20	54	105	70	M12	1.50
	HSK 63A-C32-130	63	32	72	130	100	M12	2.70
100A	**HSK100A-C20-110**	100	20	54	110	70	M12	3.50
	HSK100A-C32-135	100	32	72	135	100	M12	4.20
	HSK100A-C42-135	100	42	92	135	100	M12	5.30

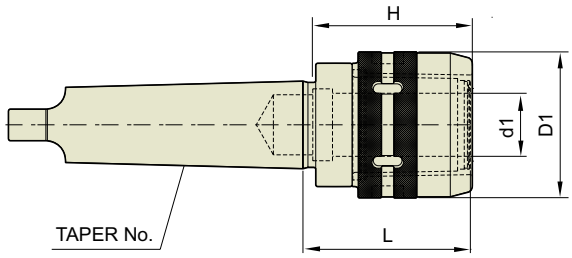
配件 / SPARE PARTS

铣刀筒夹 / END MILL COLLET	CODE No.	SET
	K20 - 6, 8, 10, 12, 16	5PCS
	K32 - 6, 8, 10, 12, 16, 20, 25	7PCS
	K42 - 6, 8, 10, 12, 16, 20, 25, 32	8PCS

铣刀筒夹 / END MILL COLLET	CODE No.	SET
	CK20 - 6, 8, 10, 12, 16	5PCS
	CK25 - 6, 8, 10, 12, 16, 20	6PCS
	CK32 - 6, 8, 10, 12, 16, 20, 25	7PCS
	CK42 - 6, 8, 10, 12, 16, 20, 25, 32	8PCS

扳手 / SPANNER	CODE No.
	C20 SP
	C25 SP
	C32 SP
	C42 SP

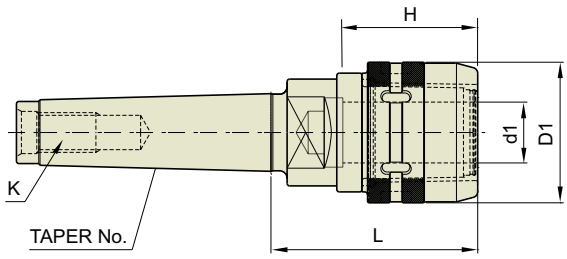
强力刀柄
MILLING CHUCK



DIN 228 - MTA	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

TAPER No.	CODE No.	d1	D1	L	H	使用筒夹 Applicable collet	Weight (kg)
MT4	**MTA4-C32**	32	72	98	100	K32, CK32	2.57
MT5	**MTA5-C32**	32	72	85	100	K32, CK32	3.06
	MTA5-C42	42	92	114	110	K42, CK42	3.45
MT6	**MTA6-C42**	42	92	99	110	K42, CK42	4.14

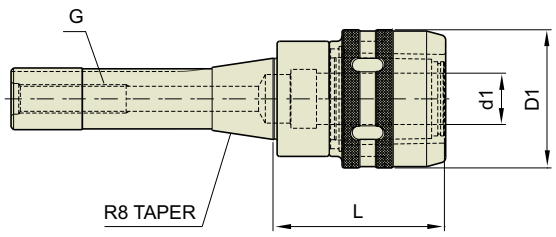
▶ MT6型为了确定尾槽规格需要提供设备型号及公司名称.
In case of MT16 ,please inform us of machine model number and company name for selection of cutter groove.



DIN 228 - MTB	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

TAPER No.	CODE No.	d1	D1	L	H	K	使用筒夹 Applicable collet	Weight (kg)
MT3	**MTB3-C20**	20	54	74	70	M12	K20, CK20	2.10
MT4	**MTB4-C32**	32	72	98	100	M16	K32, CK32	2.57
	MTB5-C32	32	72	85	100	M20	K32, CK32	3.06
MT5	**MTB5-C42**	42	92	114	110	M20	K42, CK42	3.45

强力刀柄
MILLING CHUCK

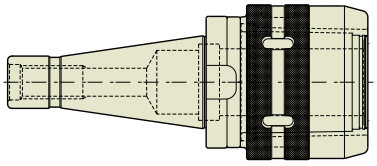


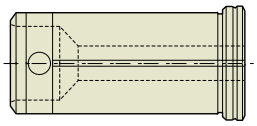
R8	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

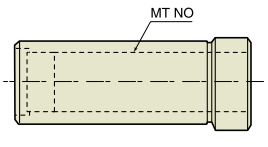
TAPER No.	CODE No.	d1	D1	L	G	使用筒夹 Applicable collet	Weight (kg)
R8	**R8-C20**	20	54	69	U7/16-20	K20, CK20	1.40

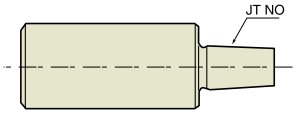
成套标准强力刀柄
MILLING CHUCK STANDARD SET

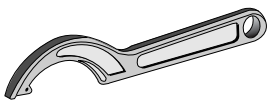
设备主轴锥柄 MACHINE SPINDLE TAPER	成套标准型号 STANDARD SET CODE No.	强力刀柄 MILLING CHUCK	铣刀筒夹 END MILL COLLET	莫氏锥柄筒夹 MORSE TAPER COLLET	钻头夹式筒夹 DRILL CHUCK BAR
R8	**SR8-C20**	R8-C20	K20-(6-16)(5PCS)	K20-MT1,2	K20-JTA6
NT30	**SNT30-20**	NT30-C20	K20-(6-16)(5PCS)	K20-MT1,2	K20-JTA6
NT40	**SNT40-32A**	NT40-C32	K32-(6-25)(7PCS)	–	–
	SNT40-32	NT40-C32	K32-(6-25)(7PCS)	K32-MT1,2,3	K32-JTA6
NT50	**SNT50-32A**	NT50-C32	K32-(6-25)(7PCS)	–	K32-JTA6
	SNT50-32	NT50-C32	K32-(6-25)(7PCS)	K32-MT1,2,3	K32-JTA6
	SNT50-42A	NT50-C42	K42-(6-32)(8PCS)	–	–
	SNT50-42	NT50-C42	K42-(6-32)(8PCS)	K42-MT1,2,3,4	K42-JTA6











强力刀柄 / MILLING CHUCK

CODE No.
NT30 - C20
NT40 - C32
NT50 - C32
NT50 - C42

铣刀筒夹 / END MILL COLLET

CODE No.	SET
K20 - 6, 8, 10, 12, 16	5PCS
K25 - 6, 8, 10, 12, 16, 20	6PCS
K32 - 6, 8, 10, 12, 16, 20, 25	7PCS
K42 - 6, 8, 10, 12, 16, 20, 25, 32	8PCS

MT式筒夹 / MT COLLET

CODE No.
K20 - MT1, 2
K25 - MT1, 2, 3
K32 - MT1, 2, 3
K42 - MT1, 2, 3, 4

钻头夹式-筒夹 / DRILL CHUCK ARBOR

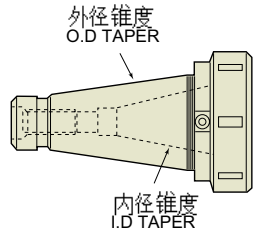
CODE No.
K20 - JTA6
K25 - JTA6
K32 - JTA6
K42 - JTA6

扳手 / SPANNER

CODE No.
C20 SP
C25 SP
C32 SP
C42 SP

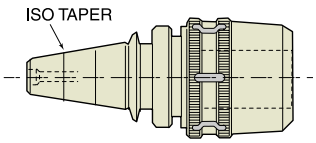
成套Q.C强力刀柄
Q.C MILLING CHUCK SET

设备主轴锥柄 MACHINE SPINDLE TAPER	成套Q.C强力刀柄型号 Q.C MILLING HOLDER SET CODE No.	Q.C基础刀柄 Q.C MASTER HOLDER	Q.C强力刀柄 Q.C MILLING CHUCK	铣刀筒夹 END MILL COLLETS	Q.C面铣刀杆 Q.C FACE MILL ARBOR	Q.C锥柄钻头夹 Q.C DRILL CHUCK BAR	钻头夹式筒夹 DRILL CHUCK ARBOR	Q.C锥柄MT套 Q.C TAPER SLEEVE
NT40	**SMH40-T35-32 A**	MH40-T35	QT35-32	K32-(6-25)(7PCS)	QT35-4R	–	K32-J6	–
	SMH40-T35-32 B	MH40-T35	QT35-32	K32-(6-25)(7PCS)	QT35-4R	QT35-J6	–	QT35-MT2,3,4
NT50	**SMH50-T45-32 A**	MH50-T45	QT45-32	K32-(6-25)(7PCS)	QT45-5R	–	K32-J6	–
	SMH50-T45-32 B	MH50-T45	QT45-32	K32-(6-25)(7PCS)	QT45-5R	QT45-J6	–	QT45-MT2,3,4
	SMH50-T45-42 A	MH50-T45	QT45-42	K42-(6-32)(8PCS)	QT45-5R	–	K42-J6	–
	SMH50-T45-42 B	MH50-T45	QT45-42	K42-(6-32)(8PCS)	QT45-5R	QT45-J6	–	QT45-MT2,3,4



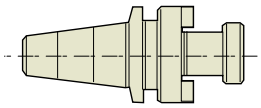
Q.C基础刀柄 / Q.C MASTER HOLDER

CODE No.	外径锥度 O.D TAPER	内径锥度 I.D TAPER	DRAW THREADS
MH40-T35	NT40	NT35	U5/8-11(M16-2)
MH50-T45	NT50	NT45	U1-8(M24-3)



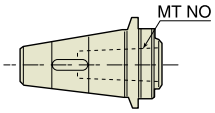
Q.C强力刀柄 / Q.C MILLING CHUCK

CODE No.	Q.C基础刀柄 Q.C MASTER HOLDER
QT35-C32	MH40
QT45-C32	MH50
QT45-C42	MH50



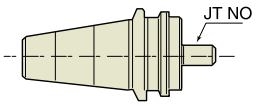
Q.C面铣刀杆 / Q.C FACE MILL ARBOR

CODE No.	Q.C基础刀柄 Q.C MASTER HOLDER
QT35-3,4,5R	MH40
QT45-3,4,5,6R	MH50



Q.C 锥柄MT套 / Q.C TAPER SLEEVE

CODE No.	Q.C基础刀柄 Q.C MASTER HOLDER
QT35 - MT1, 2, 3	MH40
QT45 - MT1, 2, 3, 4	MH50



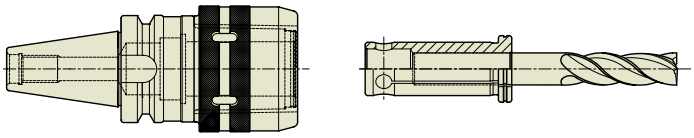
Q.C锥柄钻头夹 / Q.C DRILL CHUCK ARBOR

CODE No.	Q.C基础刀柄 Q.C MASTER HOLDER	DRILLØ
QT35-J6	MH40	1-13mm
QT45-J6	MH50	1-13mm

强力刀柄配件
COLLET & SPANNER

铣刀筒夹
END MILL COLLET (K TYPE)

CODE No.	SET
K20-6,8,10,12,16	5pcs
K25-6,8,10,12,16,20	6pcs
K32-6,8,10,12,16,20,25	7pcs
K42-6,8,10,12,16,20,25,32	8pcs



MT式筒夹
END MILL COLLET (CK TYPE)

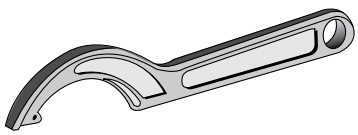
CODE No.	SET
CK20-6,8,10,12,16	5pcs
CK25-6,8,10,12,16,20	6pcs
CK32-6,8,10,12,16,20,25	7pcs
CK42-6,8,10,12,16,20,25,32	8pcs

雅各布锥柄筒夹
MT COLLET

CODE No.
K20-MT1,2
K25-MT1,2
K32-MT1,2,3
K42-MT1,2,3,4

扳手
DRILL CHUCK ARBOR

CODE No.
K20-JTA6
K25-JTA6
K32-JTA6
K42-JTA6



铣刀筒夹
SPANNER

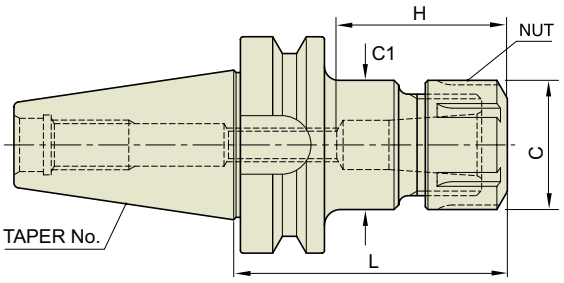
CODE No.
C20 SP
C25 SP
C32 SP
C42 SP

SK刀柄
SK SLIM CHUCK

MAS403-BT

- 体现最高精密度
- 适用铣刀,钻头,铰刀,丝锥等多种刀具.
- 使用瑞士产螺母,提高产品性能及寿命.
- 产品为细长型,适用于深孔加工.

- Realizing highest precision .
- Applicable to various tools such as end mill, drill, reamer, tap, and etc.
- Usable for long hours with use of nut produced by Switzerland manufacturer
- Creating maximum effect with slim type when machining deep shape



MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3	6.3	12,000	

TAPER No.	CODE No.	RANGE	L	C	C1	H		COLLET	Weight (kg)
						Min	Max		
30	BT30-SKA06-60	0.9-6.0	60	20	19.5	21	35	SKC6	0.7
	BT30-SKA06-90	0.9-6.0	90	20	19.5	21	35	SKC6	0.8
	BT30-SKA10-60	1.75-10.0	60	28	27.5	30	50	SKC10	0.9
	BT30-SKA10-90	1.75-10.0	90	28	27.5	30	50	SKC10	1
	BT30-SKA13-60	2.75-13.0	60	33	33	31	65	SKC13	1
	BT30-SKA13-90	2.75-13.0	90	33	33	31	65	SKC13	1.1
	BT30-SKA16-60	2.75-16.0	60	40	40	45	60	SKC16	1.1
	BT30-SKA16-90	2.75-16.0	90	40	40	45	60	SKC16	1.2
	BT30-SKA20-60	4.0-20.0	60	48.5	48.5	65	75	SKC20	1.3
	BT30-SKA20-90	4.0-20.0	90	48.5	48.5	65	75	SKC20	1.4
	BT30-SKA25-90	16.0-25.4	90	55	55	55	75	SKC25	1.5
40	BT40-SKA06-90	0.9-6.0	90	20	19.5	21	35	SKC6	1.1
	BT40-SKA06-120	0.9-6.0	120	20	19.5	21	35	SKC6	1.4
	BT40-SKA06-150	0.9-6.0	150	20	19.5	21	35	SKC6	1.5
	BT40-SKA10-90	1.75-10.0	90	28	27.5	30	50	SKC10	1.2
	BT40-SKA10-120	1.75-10.0	120	28	27.5	30	50	SKC10	1.4
	BT40-SKA10-150	1.75-10.0	150	28	27.5	30	50	SKC10	1.6
	BT40-SKA13-90	2.75-13.0	90	33	33	31	65	SKC13	1.4
	BT40-SKA13-120	2.75-13.0	120	33	33	31	65	SKC13	1.6
	BT40-SKA13-150	2.75-13.0	150	33	40	31	65	SKC13	1.8
	BT40-SKA16-90	2.75-16.0	90	40	40	45	70	SKC16	1.5
	BT40-SKA16-120	2.75-16.0	120	40	40	45	70	SKC16	1.7
	BT40-SKA16-150	2.75-16.0	150	40	40	45	70	SKC16	1.9
	BT40-SKA20-90	4.0-20.0	90	48.5	48.5	47	80	SKC20	1.6
	BT40-SKA20-120	4.0-20.0	120	48.5	48.5	47	80	SKC20	2
	BT40-SKA20-150	4.0-20.0	150	48.5	48.5	47	80	SKC20	2.4
	BT40-SKA25-90	16.0-25.4	90	55	55	55	85	SKC25	1.8
	BT40-SKA25-120	16.0-25.4	120	55	55	55	85	SKC25	2
	BT40-SKA25-150	16.0-25.4	150	55	55	55	85	SKC25	2.3

- 适用SK筒夹产品，请参考page 1102和 page 1103.
  For usable SK collet, please refer to page 1102 and 1103.
- 可根据客户要求生产更高等级的动平衡的产品.
  Higher balancing grade product could be supplied by customer's request.

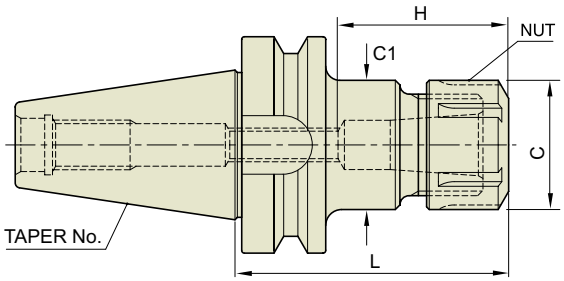
TOOL HOLDERS

SK刀柄
SK SLIM CHUCK

MAS403-BT

- 体现最高精密度
- 适用铣刀,钻头,铰刀,丝锥等多种刀具.
- 使用瑞士产螺母,提高产品性能及寿命.
- 产品为细长型,适用于深孔加工.

- Realizing highest precision .
- Applicable to various tools such as end mill, drill, reamer, tap, and etc.
- Usable for long hours with use of nut produced by Switzerland manufacturer
- Creating maximum effect with slim type when machining deep shape



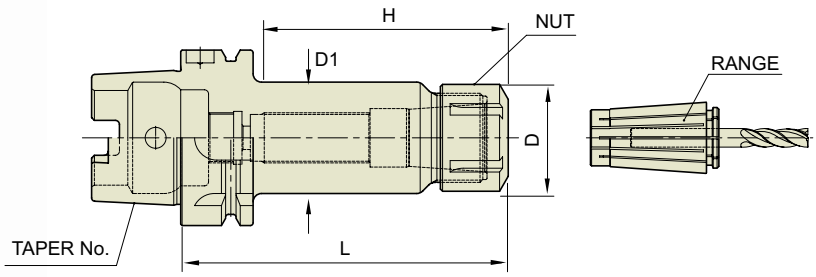
MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3	6.3	12,000	

TAPER No.	CODE No.	RANGE	L	C	C1	H		COLLET	Weight (kg)
						Min	Max		
50	BT50-SKA06-105	0.9-6.0	105	20	19.5	21	35	SKC6	3.8
	BT50-SKA06-135	0.9-6.0	135	20	19.5	21	35	SKC6	3.9
	BT50-SKA06-165	0.9-6.0	165	20	32.5	21	35	SKC6	4
	BT50-SKA06-195	0.9-6.0	195	20	32.5	21	35	SKC6	4.2
	BT50-SKA10-105	1.75-10.0	105	28	27.5	30	50	SKC10	4.2
	BT50-SKA10-135	1.75-10.0	135	28	27.5	30	50	SKC10	4.4
	BT50-SKA10-165	1.75-10.0	165	28	37.4	30	50	SKC10	4.6
	BT50-SKA10-195	1.75-10.0	195	28	37.4	30	50	SKC10	4.8
	BT50-SKA13-105	2.75-13.0	105	33	33	31	65	SKC13	4.5
	BT50-SKA13-135	2.75-13.0	135	33	33	31	65	SKC13	4.7
	BT50-SKA13-165	2.75-13.0	165	33	45	31	65	SKC13	4.9
	BT50-SKA13-195	2.75-13.0	195	33	45	31	65	SKC13	5.2
	BT50-SKA16-105	2.75-16.0	105	40	40	45	70	SKC16	4.7
	BT50-SKA16-135	2.75-16.0	135	40	40	45	70	SKC16	4.9
	BT50-SKA16-165	2.75-16.0	165	40	40	45	70	SKC16	5.1
	BT50-SKA16-195	2.75-16.0	195	40	40	45	70	SKC16	5.5
	BT50-SKA20-105	4.0-20.0	105	48.5	48.5	47	80	SKC20	4.3
	BT50-SKA20-135	4.0-20.0	135	48.5	48.5	47	80	SKC20	4.6
	BT50-SKA20-165	4.0-20.0	165	48.5	48.5	47	80	SKC20	5
	BT50-SKA20-195	4.0-20.0	195	48.5	48.5	47	80	SKC20	5.4
	BT50-SKA25-105	16.0-25.4	105	55	55	55	85	SKC25	5.2
	BT50-SKA25-135	16.0-25.4	135	55	55	55	85	SKC25	5.4
	BT50-SKA25-165	16.0-25.4	165	55	55	55	85	SKC25	5.6
	BT50-SKA25-195	16.0-25.4	195	55	55	55	85	SKC25	6

- 适用SK筒夹产品，请参考page 1102和 page 1103.
  For usable SK collet, please refer to page 1102 and 1103.
- 可根据客户要求生产更高等级的动平衡的产品.
  Higher balancing grade product could be supplied by customer's request.

SK刀柄
SK SLIM CHUCK

DIN 69893-HSK FORM A



DIN69893 - HSK	Taper Accuracy	G Value	RPM	Coolant System
	AT3	6.3	15,000	

TAPER No.	CODE No.	RANGE	D	D1	L	H		COLLET	Weight (kg)
						Min	Max		
HSK 50	HSK50A-SKA06-80	0.75 - 6.0	20	19.5	80	21	35	SKC06	0.9
	HSK50A-SKA10-100	1.75 - 10.0	28	27.5	100	30	50	SKC10	1.1
	HSK50A-SKA13-100	2.75-13.0	33	33	100	31	65	SKC13	1.2
HSK 63	HSK63A-SKA06-100	0.75 - 6.0	20	19.5	100	21	35	SKC06	1.4
	HSK63A-SKA10-100	1.75 - 10.0	28	27.5	100	30	50	SKC10	1.6
	HSK63A-SKA13-100	2.75-13.0	33	33	100	31	65	SKC13	1.7
	HSK63A-SKA16-120	2.75 - 16.0	40	40	120	45	70	SKC16	1.7
	HSK63A-SKA20-120	4.0-20.0	48.5	48.5	120	65	75	SKC20	2.1
	HSK63A-SKA25-150	16.0 - 25.4	55	55	150	55	85	SKC25	2.4
HSK 100	HSK100A-SKA06-120	0.75 - 6.0	20	19.5	120	21	35	SKC06	4
	HSK100A-SKA10-150	1.75 - 10.0	28	27.5	150	30	50	SKC10	4.5
	HSK100A-SKA13-150	2.75-13.0	33	40	150	31	65	SKC13	4.6
	HSK100A-SKA16-150	2.75 - 16.0	40	40	150	45	70	SKC16	5.1
	HSK100A-SKA20-150	4.0-20.0	48.5	48.5	150	65	75	SKC20	5.4
	HSK100A-SKA25-160	16.0 - 25.4	55	55	160	55	85	SKC25	5.5

▶ 适用SK筒夹产品，请参考page 1102和 page 1103.
For usable SK collet, please refer to page 1102 and 1103.

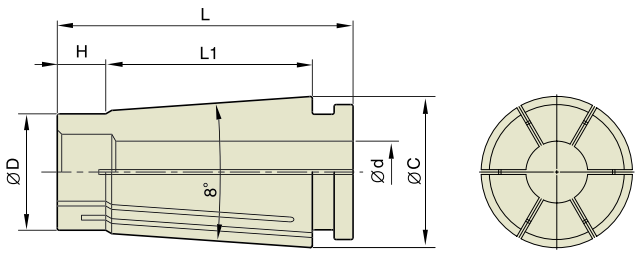
▶ 可根据客户要求生产更高等级的动平衡的产品.
Higher balancing grade product could be supplied by customer's request.

SKC

SK刀柄专用筒夹
SK SLIM CHUCK COLLET

- 8度锥面保障强劲的夹紧力和高精密度.
- 夹持范围(0.9 - 25.4mm).
- 适用铣刀,钻头,铰刀,丝锥等多种刀具.
- 产品为细长型,适用于深孔加工.

- Ensuring strong chucking power of 8° Taper and high precision
- Able to use various tools ranging from 0.9 to 25.4mm dia.
- Applicable to various tools such as end mill, drill, tap, reamer
- Collet of 3㎛ or 5㎛ T.I.R at 3D available by customer's request



型号 Style	Code No.	夹持范围 Chucking (d)
SKC 6	SKC 6 - 1	0.9 - 1.0
	SKC 6 - 1.5	1.3 - 1.5
	SKC 6 - 2	1.8 - 2.0
	SKC 6 - 2.5	2.3 - 2.5
	SKC 6 - 3	2.8 - 3.0
	SKC 6 - 3.5	3.0 - 3.5
	SKC 6 - 4	3.5 - 4.0
	SKC 6 - 4.5	4.0 - 4.5
	SKC 6 - 5	4.5 - 5.0
	SKC 6 - 5.5	5.0 - 5.5
	SKC 6 - 6	5.5 - 6.0

型号 Style	Code No.	夹持范围 Chucking (d)
SKC 10	SKC10 - 2	1.75 - 2.0
	SKC10 - 2.5	2.25 - 2.5
	SKC10 - 3	2.75 - 3.0
	SKC10 - 3.5	3.0 - 3.5
	SKC10 - 4	3.5 - 4.0
	SKC10 - 4.5	4.0 - 4.5
	SKC10 - 5	4.5 - 5.0
	SKC10 - 5.5	5.0 - 5.5
	SKC10 - 6	5.5 - 6.0
	SKC10 - 6.5	6.0 - 6.5
	SKC10 - 7	6.5 - 7.0
	SKC10 - 7.5	7.0 - 7.5
	SKC10 - 8	7.5 - 8.0
	SKC10 - 8.5	8.0 - 8.5
	SKC10 - 9	8.5 - 9.0
	SKC10 - 9.5	9.0 - 9.5
	SKC10 - 10	9.5 - 10.0

型号 Style	Code No.	夹持范围 Chucking (d)
SKC 13	SKC 13 - 3	2.75 - 3.0
	SKC 13 - 3.5	3.0 - 3.5
	SKC 13 - 4	3.5 - 4.0
	SKC 13 - 4.5	4.0 - 4.5
	SKC 13 - 5	4.5 - 5.0
	SKC 13 - 5.5	5.0 - 5.5
	SKC 13 - 6	5.5 - 6.0
	SKC 13 - 6.5	6.0 - 6.5
	SKC 13 - 7	6.5 - 7.0
	SKC 13 - 7.5	7.0 - 7.5
	SKC 13 - 8	7.5 - 8.0
	SKC 13 - 8.5	8.0 - 8.5
	SKC 13 - 9	8.5 - 9.0
	SKC 13 - 9.5	9.0 - 9.5
	SKC 13 - 10	9.5 - 10.0
	SKC 13 - 10.5	10.0 - 10.5
	SKC 13 - 11	10.5 - 11.0
	SKC 13 - 11.5	11.0 - 11.5
	SKC 13 - 12	11.5 - 12.0
	SKC 13 - 12.5	12.0 - 12.5
	SKC 13 - 13	12.5 - 13.0

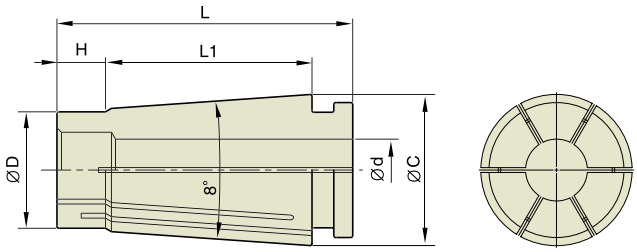
■ SKC筒夹尺寸 / SKC COLLET DIMENSION

型号 STYLE	D	L	L1	H	C	Weight (kg)
SKC 6	7.5	25.7	17.6	3.8	10	0.03
SKC 10	12	32	21.3	5	15	0.04
SKC 13	15.4	39	28.3	5.5	20	
SKC 16	18.8	46	32	8	24	0.06
SKC 20	22.5	54.2	41	8	29	
SKC 25	28.9	58.2	43	8.5	35	0.10

SK刀柄专用筒夹
SK SLIM CHUCK COLLET

- 8度锥面保障强劲的夹紧力和高精密度.
- 夹持范围(0.9 - 25.4mm).
- 适用铣刀,钻头,铰刀,丝锥等多种刀具.
- 产品为细长型,适用于深孔加工.

- Ensuring strong chucking power of 8° Taper and high precision
- Able to use various tools ranging from 0.9 to 25.4mm dia.
- Applicable to various tools such as end mill, drill, tap, reamer
- Collet of 3㎛ or 5㎛ T.I.R at 3D available by customer's request



型号 Style	Code No.	夹持范围 Chucking (d)
SKC 16	SKC16 - 3	2.75 - 3.0
	SKC16 - 3.5	3.0 - 3.5
	SKC16 - 4	3.5 - 4.0
	SKC16 - 4.5	4.0 - 4.5
	SKC16 - 5	4.5 - 5.0
	SKC16 - 5.5	5.0 - 5.5
	SKC16 - 6	5.5 - 6.0
	SKC16 - 6.5	6.0 - 6.5
	SKC16 - 7	6.5 - 7.0
	SKC16 - 7.5	7.0 - 7.5
	SKC16 - 8	7.5 - 8.0
	SKC16 - 8.5	8.0 - 8.5
	SKC16 - 9	8.5 - 9.0
	SKC16 - 9.5	9.0 - 9.5
	SKC16 - 10	9.5 - 10.0
	SKC16 - 10.5	10.0 - 10.5
	SKC16 - 11	10.5 - 11.0
	SKC16 - 11.5	10.0 - 11.5
	SKC16 - 12	11.5 - 12.0
	SKC16 - 12.5	12.0 - 12.5
	SKC16 - 13	12.5 - 13.0
	SKC16 - 13.5	13.0 - 13.5
	SKC16 - 14	13.5 - 14.0
	SKC16 - 14.5	14.0 - 14.5
	SKC16 - 15	14.5 - 15.0
	SKC16 - 15.5	15.0 - 15.5
	SKC16 - 16	15.5 - 16.0

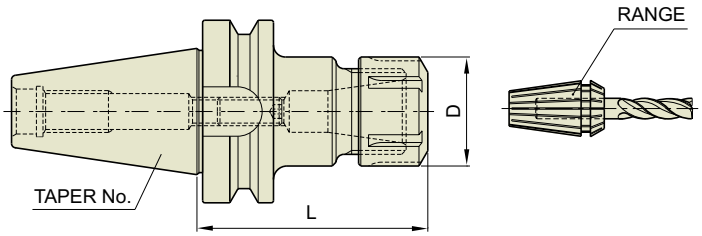
型号 Style	Code No.	夹持范围 Chucking (d)
SKC 20	SKC 20 - 4	3.5 - 4.0
	SKC 20 - 4.5	4.0 - 4.5
	SKC 20 - 5	4.5 - 5.0
	SKC 20 - 5.5	5.0 - 5.5
	SKC 20 - 6	5.5 - 6.0
	SKC 20 - 6.5	6.0 - 6.5
	SKC 20 - 7	6.5 - 7.0
	SKC 20 - 7.5	7.0 - 7.5
	SKC 20 - 8	7.5 - 8.0
	SKC 20 - 8.5	8.0 - 8.5
	SKC 20 - 9	8.5 - 9.0
	SKC 20 - 9.5	9.0 - 9.5
	SKC 20 - 10	9.5 - 10.0
	SKC 20 - 10.5	10.0 - 10.5
	SKC 20 - 11	10.5 - 11.0
	SKC 20 - 11.5	11.0 - 11.5
	SKC 20 - 12	11.5 - 12.0
	SKC 20 - 12.5	12.0 - 12.5
	SKC 20 - 13	12.5 - 13.0
	SKC 20 - 13.5	13.0 - 13.5
	SKC 20 - 14	13.5 - 14.0
	SKC 20 - 14.5	14.0 - 14.5
	SKC 20 - 15	14.5 - 15.0
	SKC 20 - 15.5	15.0 - 15.5
	SKC 20 - 16	15.5 - 16.0
	SKC 20 - 16.5	16.0 - 16.5
	SKC 20 - 17	16.5 - 17.0
	SKC 20 - 17.5	17.0 - 17.5
	SKC 20 - 18	17.5 - 18.0
	SKC 20 - 18.5	18.0 - 18.5
	SKC 20 - 19	18.5 - 19.0
	SKC 20 - 19.5	19.0 - 19.5
	SKC 20 - 20.0	19.5 - 20.0

型号 Style	Code No.	夹持范围 Chucking (d)
SKC 25	SKC25 - 16.5	16.0 - 16.5
	SKC25 - 17	16.5 - 17.0
	SKC25 - 17.5	17.0 - 17.5
	SKC25 - 18	17.5 - 18.0
	SKC25 - 18.5	18.0 - 18.5
	SKC25 - 19	18.5 - 19.0
	SKC25 - 19.5	19.0 - 19.5
	SKC25 - 20	19.5 - 20.0
	SKC25 - 20.5	20.0 - 20.5
	SKC25 - 21	20.5 - 21.0
	SKC25 - 21.5	21.0 - 21.5
	SKC25 - 22	21.5 - 22.0
	SKC25 - 22.5	22.0 - 22.5
	SKC25 - 23	22.5 - 23.0
	SKC25 - 23.5	23.0 - 23.5
	SKC25 - 24	23.5 - 24.0
	SKC25 - 24.5	24.0 - 24.5
	SKC25 - 25	24.5 - 25.0
	SKC25 - 25.4	25.0 - 25.4

ER刀柄
ER COLLET CHUCK

TOOL HOLDERS

MAS403-BT



MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3	6.3	12,000	

■ 一般级 / STANDARD TYPE

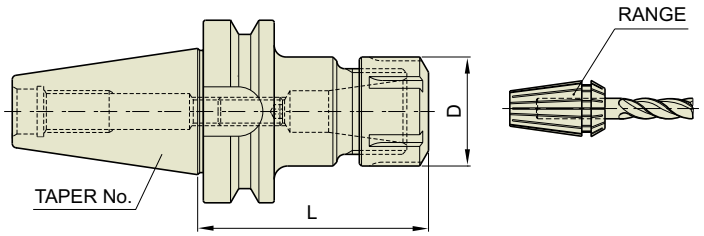
TAPER No.	CODE No.	RANGE	D	L	M	NUT	COLLET	Weight (kg)
30	BT30-ER11- 70	0.5~7.0	19	70	M6	ER11	ER11	0.5
	BT30-ER11-100	0.5~7.0	19	100	M6	ER11	ER11	0.5
	BT30-ER16- 70	0.5~10.0	28	70	M10	ER16	ER16	1.0
	BT30-ER16-100	0.5~10.0	28	100	M10	ER16	ER16	1.1
	BT30-ER20- 80	1.0~13.0	34	80	M12	ER20	ER20	1.2
	BT30-ER20-100	1.0~13.0	34	100	M12	ER20	ER20	1.3
	BT30-ER25- 70	1.0~16.0	42	70	M12	ER25	ER25	1.2
	BT30-ER25-100	1.0~16.0	42	100	M12	ER25	ER25	1.3
	BT30-ER32- 60	2.0~20.0	50	60	M12	ER32	ER32	1.4
	BT30-ER32- 90	2.0~20.0	50	90	M12	ER32	ER32	1.9
40	BT40-ER11- 75	0.5~7.0	19	75	M6	ER11	ER11	1.0
	BT40-ER11-100	0.5~7.0	19	100	M6	ER11	ER11	1.1
	BT40-ER16- 75	0.5~10.0	28	75	M10	ER16	ER16	1.1
	BT40-ER16-100	0.5~10.0	28	100	M10	ER16	ER16	1.2
	BT40-ER16-120	0.5~10.0	28	120	M10	ER16	ER16	1.4
	BT40-ER20- 75	1.0~13.0	34	75	M12	ER20	ER20	1.4
	BT40-ER20-100	1.0~13.0	34	100	M12	ER20	ER20	1.8
	BT40-ER20-135	1.0~13.0	34	135	M12	ER20	ER20	2.2
	BT40-ER25- 75	1.0~16.0	42	75	M12	ER25	ER25	1.4
	BT40-ER25-100	1.0~16.0	42	100	M12	ER25	ER25	1.8
	BT40-ER25-135	1.0~16.0	42	135	M12	ER25	ER25	2.2
	BT40-ER25-150	1.0~16.0	42	150	M12	ER25	ER25	2.4
	BT40-ER32- 60	2.0~20.0	50	60	M12	ER32	ER32	1.8
	BT40-ER32-100	2.0~20.0	50	100	M12	ER32	ER32	2.2
	BT40-ER32-120	2.0~20.0	50	120	M12	ER32	ER32	2.4
	BT40-ER32-150	2.0~20.0	50	150	M12	ER32	ER32	2.6
	BT40-ER40- 80	3.0~30.0	63	80	M12	ER40	ER40	1.5

▶ 适用筒夹产品，请参考page 1114和 page 1115.
For usable collet, please refer to page 1114 and 1115

▶ 可根据客户要求生产更高等级的动平衡的产品.
Higher balancing grade product could be supplied by customer's request.

ER刀柄
ER COLLET CHUCK

MAS403-BT



MAS403-BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3	6.3	12,000	

■ 一般级 / STANDARD TYPE

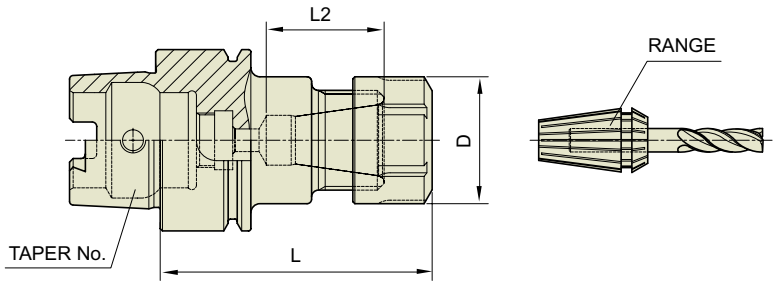
TAPER No.	CODE No.	RANGE	D	L	M	NUT	COLLET	Weight (kg)
50	BT50-ER16-100	0.5~10.0	28	100	M10	ER16	ER16	4.2
	BT50-ER16-120	0.5~10.0	28	120	M10	ER16	ER16	4.4
	BT50-ER16-165	0.5~10.0	28	165	M10	ER16	ER16	4.6
	BT50-ER20-100	1.0~13.0	34	100	M12	ER20	ER20	4.6
	BT50-ER20-135	1.0~13.0	34	135	M12	ER20	ER20	4.8
	BT50-ER20-165	1.0~13.0	34	165	M12	ER20	ER20	5.0
	BT50-ER25-100	1.0~16.0	42	100	M12	ER25	ER25	4.7
	BT50-ER25-135	1.0~16.0	42	135	M12	ER25	ER25	4.8
	BT50-ER25-165	1.0~16.0	42	165	M12	ER25	ER25	5.0
	BT50-ER32-100	2.0~20.0	50	100	M12	ER32	ER32	5.2
	BT50-ER32-135	2.0~20.0	50	135	M12	ER32	ER32	5.7
	BT50-ER32-165	2.0~20.0	50	165	M12	ER32	ER32	5.8
	BT50-ER40-100	3.0~30.0	63	100	M12	ER40	ER40	5.6
	BT50-ER40-150	3.0~30.0	63	150	M12	ER40	ER40	6.1
	BT50-ER50-100	12.0~34.0	78	100	M12	ER50	ER40	5.8
	BT50-ER50-150	12.0~34.0	78	150	M12	ER50	ER40	6.3

▶ 适用筒夹产品，请参考page 1114和 page 1115.
For usable collet, please refer to page 1114 and 1115

▶ 可根据客户要求生产更高等级的动平衡的产品.
Higher balancing grade product could be supplied by customer's request.

ER刀柄
ER COLLET CHUCK

DIN69893-HSK FORM A



DIN69893 - HSK	Taper Accuracy	G Value	RPM	Coolant System
	AT3	6.3	15,000	

■ 标准型 / STANDARD TYPE

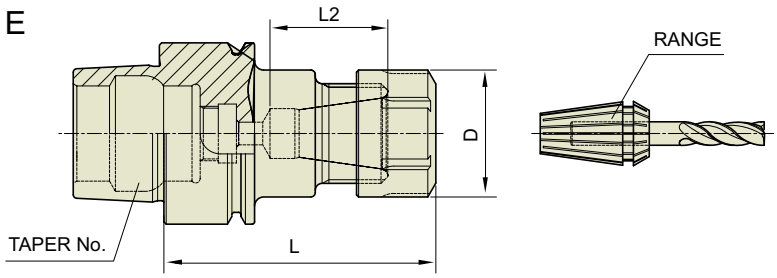
TAPER No.	CODE No.	RANGE	D	L	L2	NUT	Weight (kg)
40A	HSK40A-ER11-60	0.5 ~ 7.0	19	60	22	ER 11	0.40
	HSK40A-ER16-60	0.5 ~ 10.0	28	60	26	ER 16	0.50
	HSK40A-ER20-70	1.0 ~ 13.0	34	70	33	ER 20	0.80

■ 超薄型 / SLIM TYPE

TAPER No.	CODE No.	RANGE	D	L	L2	NUT	Weight (kg)
40A	HSK40A-ER11M-75	0.5 ~ 7.0	16	75	22	ER11M	0.40
	HSK40A-ER16M-80	0.5 ~ 10.0	22	80	26	ER16M	0.50
	HSK40A-ER20M-80	1.0 ~ 13.0	28	80	33	ER20M	0.70
	HSK40A-ER25M-80	1.0 ~ 16.0	35	80	40	ER25M	0.80

▶ 可根据客户要求生产更高等级的动平衡的产品.
Higher balancing grade product could be supplied by customer's request.

DIN69893-HSK FORM E



■ 标准型 / STANDARD TYPE

TAPER No.	CODE No.	RANGE	D	L	L2	NUT	Weight (kg)
40E	HSK40E-ER11-60	0.5 ~ 7.0	19	60	22	ER 11	0.40
	HSK40E-ER16-60	0.5 ~ 10.0	28	60	26	ER 16	0.50
	HSK40E-ER20-70	1.0 ~ 13.0	34	70	33	ER 20	0.80

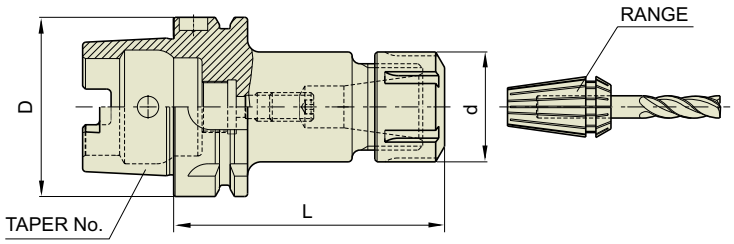
■ 超薄型 / SLIM TYPE

TAPER No.	CODE No.	RANGE	D	L	L2	NUT	Weight (kg)
40E	HSK40E-ER11M-75	0.5 ~ 7.0	16	75	22	ER11M	0.40
	HSK40E-ER16M-80	0.5 ~ 10.0	22	80	26	ER16M	0.50
	HSK40E-ER20M-80	1.0 ~ 13.0	28	80	33	ER20M	0.70
	HSK40E-ER25M-80	1.0 ~ 16.0	35	80	40	ER25M	0.80

▶ 可根据客户要求生产更高等级的动平衡的产品.
Higher balancing grade product could be supplied by customer's request.

ER刀柄
ER COLLET CHUCK

DIN69893-HSK FORM A



DIN69893 - HSK	Taper Accuracy	G Value	RPM	Coolant System
	AT3	6.3	15,000	

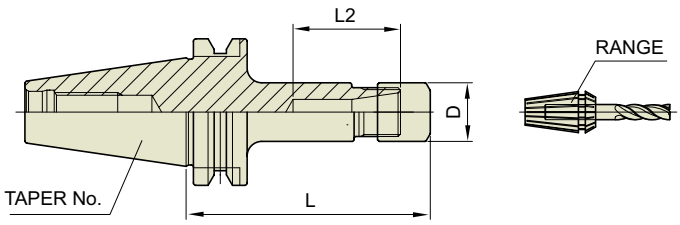
TAPER No.	CODE No.	RANGE	d	D	L	Weight (kg)
50A	HSK 50A-ER16-100	0.5-10	28	50	100	0.70
	HSK 50A-ER20-100	1-13	35	50	100	0.90
	HSK 50A-ER25-100	1-16	42	50	100	1.20
	HSK 50A-ER32-100	2-20	50	50	100	1.50
63A	HSK 63A-ER16-100	0.5-10	28	63	100	1.20
	HSK 63A-ER20-100	1-13	35	63	100	1.50
	HSK 63A-ER25-100	1-16	42	63	100	1.80
	HSK 63A-ER32-100	2-20	50	63	100	2.00
	HSK 63A-ER40-120	3-26	63	63	120	2.30
100A	HSK100A-ER16-100	0.5-10	28	100	100	2.60
	HSK100A-ER20-100	1-13	35	100	100	2.70
	HSK100A-ER25-100	1-16	42	100	100	2.90
	HSK100A-ER32-100	2-20	50	100	100	3.10
	HSK100A-ER40-120	3-26	63	100	120	3.30

▶ 可根据客户要求生产更高等级的动平衡的产品.
Higher balancing grade product could be supplied by customer's request.

▶ 使用ERC螺母时,可适用高压内部中心出油方式.
Internal oil supply mode is applicable when using ERC nut.

ER刀柄
ER COLLET CHUCK

MAS403-BT

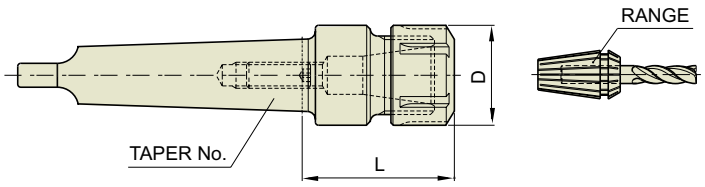


MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

TAPER No.	CODE No.	RANGE	D	L	L2	Weight (kg)
BT20	**BT20-ER8M-50**	0.5 ~ 5.0	12	50	22	
	BT20-ER11M-50	0.5 ~ 7.0	16	50	22	
	BT20-ER16M-50	0.5 ~ 10.0	22	50	26	
	BT20-ER11-50	0.5 ~ 7.0	19	50	22	
	BT20-ER16-50	0.5 ~ 10.0	28	50	26	
BT25	**BT25-ER8M-50**	0.5 ~ 5.0	12	50	22	
	BT25-ER11M-50	0.5 ~ 7.0	16	50	22	
	BT25-ER16M-50	0.5 ~ 10.0	22	50	26	
	BT25-ER11-50	0.5 ~ 7.0	19	50	22	
	BT25-ER16-50	0.5 ~ 10.0	28	50	26	

ER刀柄
ER COLLET CHUCK

MTA



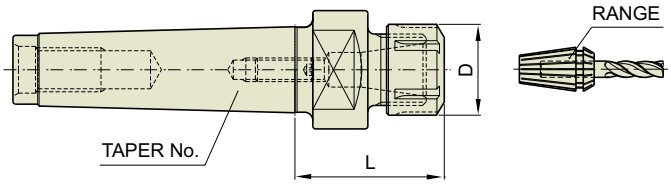
DIN228 - MTA | Taper Accuracy: AT3 | G Value | RPM | Coolant System

■一般级 / STANDARD TYPE

TAPER No.	CODE No.	RANGE	D	L	NUT	COLLET	Weight (kg)
1	**MTA1-ER11**	0.5-7.0	19	35	ER11	ER11	0.30
	MTA1-ER16	0.5-10	28	40	ER16	ER16	0.35
2	**MTA2-ER20**	1-13	34	50	ER20	ER20	0.50
	MTA2-ER25	1-16	42	50	ER25	ER25	0.60
3	**MTA3-ER25**	1-16	42	60	ER25	ER25	0.60
	MTA3-ER32	2-20	50	70	ER32	ER32	0.65
4	**MTA4-ER20**	1-13	34	60	ER20	ER20	1.00
	MTA4-ER25	1-16	42	60	ER25	ER25	1.10
	MTA4-ER32	2-20	50	65	ER32	ER32	1.30
	MTA4-ER40	3-30	63	80	ER40	ER40	1.50
5	**MTA5-ER32**	2-20	50	70	ER32	ER32	2.20
	MTA5-ER40	3-30	63	80	ER40	ER40	2.40
	MTA5-ER50	6-34	78	80	ER50	ER50	2.80

ER刀柄
ER COLLET CHUCK

MTB



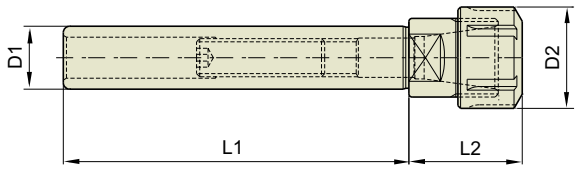
DIN228 - MTB	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

■一般级 / STANDARD TYPE

TAPER No.	CODE No.	RANGE	D	L	NUT	COLLET	Weight (kg)
1	**MTB1-ER16**	1-10	28	40	ER16	ER16	0.35
2	**MTB2-ER20**	1-13	34	50	ER20	ER20	0.50
	MTB2-ER25	1-16	42	50	ER25	ER25	0.60
3	**MTB3-ER25**	1-16	42	60	ER25	ER25	0.60
	MTB3-ER32	2-20	50	70	ER32	ER32	0.65
4	**MTB4-ER32**	2-20	50	70	ER32	ER32	1.10
	MTB4-ER40	3-30	63	80	ER40	ER40	1.30
5	**MTB5-ER32**	2-20	50	70	ER32	ER32	2.00
	MTB5-ER40	3-30	63	80	ER40	ER40	2.20
	MTB5-ER50	6-34	78	80	ER50	ER50	2.60

ER刀柄
ER CHUCK

K

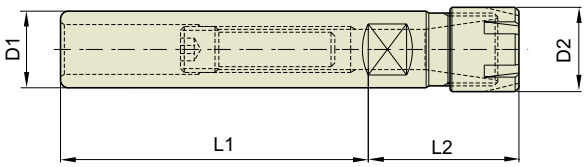


K	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

■一般级 / STANDARD TYPE

TAPER No.	CODE No.	RANGE	D1	D2	L1	L2	NUT	COLLET	Weight (kg)
16	**K16-ER11-100**	0.5-7.0	16	19	100	32	ER11	ER11	0.15
	K16-ER16-100	0.5-10.0	16	28	100	36	ER16	ER16	0.18
20	**K20-ER16-100**	0.5-10.0	20	28	100	36	ER16	ER16	0.25
	K20-ER20-100	1.0-13.0	20	34	100	40	ER20	ER20	0.29
	K20-ER25-100	1.0-16.0	20	42	100	50	ER25	ER25	0.35
25	**K25-ER20-100**	1.0-13.0	25	34	100	40	ER20	ER20	0.40
	K25-ER25-100	1.0-16.0	25	42	100	50	ER25	ER25	0.45
32	**K32-ER16-100**	0.5-10.0	32	28	100	36	ER16	ER16	0.50
	K32-ER20-100	1.0-13.0	32	34	100	40	ER20	ER20	0.66
	K32-ER25-100	1.0-16.0	32	42	100	50	ER25	ER25	0.75
	K32-ER32-100	2.0-20.0	32	50	100	58	ER32	ER32	1.00

ER延长杆 – 细长型
EXTENSION ER COLLET CHUCK - SLIM TYPE

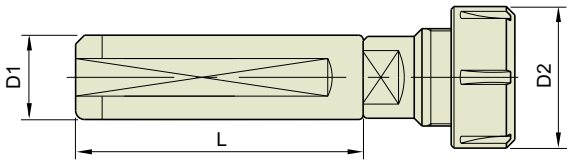


K	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

TAPER No.	CODE No.	RANGE	D1	D2	L1	L2	NUT	Weight (kg)
12	K12-ER8M-70	0.5-5.0	12	12	70	25	ERM 8	0.10
16	K16-ER11M-140	0.5-7.0	16	16	140	32	ERM11	0.22
20	K20-ER16M-140	0.5-10.0	20	22	140	41	ERM16	0.32
	K20-ER20M-140	1.0-13.0	20	28	140	41	ERM20	0.35
25	K25-ER16M-140	0.5-10.0	25	22	140	41	ERM16	0.45
	K25-ER20M-140	1.0-13.0	25	28	140	41	ERM20	0.52
	K25-ER25M-140	1.0-16.0	25	35	140	45	ERM25	0.55

ERT

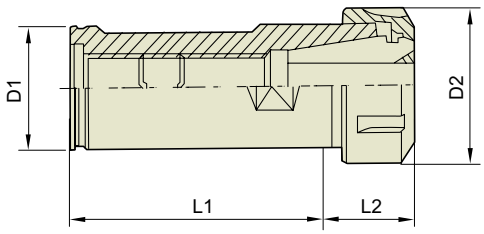
ER型丝锥刀柄 – 丝锥专用
TENSION ER CHUCK - Exclusive use for tapping



K	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

TAPER No.	CODE No.	RANGE	D1	D2	L	NUT	Weight (kg)
20	K20-ERT16-70	0.5-10.0	20	28	70	ER16	0.4
25	K25-ERT16-70	0.5-10.0	25	28	70	ER16	0.45
	K25-ERT20-80	1.0-13.0	25	34	80	ER20	0.50
32	K32-ERT16-70	0.5-10.0	32	28	70	ER16	0.70
	K32-ERT20-80	1.0-13.0	32	34	80	ER20	0.80
	K32-ERT25-80	1.0-16.0	32	42	80	ER25	1.00
	K32-ERT32-80	2.0-20.0	32	50	80	ER32	1.20

ER刀柄 – 数控车床(NC)
ER COLLET CHUCK for CNC LATHE - NC

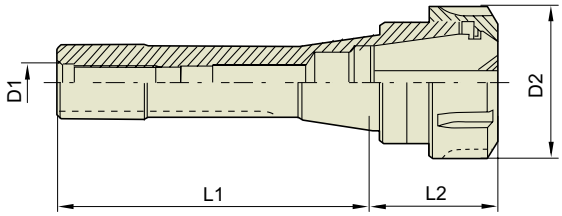


NC | Taper Accuracy: AT3 | G Value | RPM | Coolant System

■一般级 / STANDARD TYPE

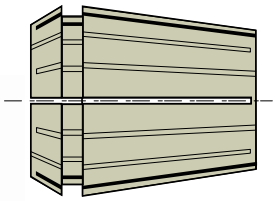
TAPER No.	CODE No.	RANGE	D1	D2	L1	L2	NUT	COLLET	Weight (kg)
25	**NC25-ER11**	0.5-7.0	25	19	65	32	ER11	ER11	0.30
	NC25-ER16	0.5-10.0	25	28	65	32	ER16	ER16	0.45
	NC25-ER20	1.0-13.0	25	34	65	32	ER20	ER20	0.50
	NC25-ER25	1.0-16.0	25	42	65	32	ER25	ER25	0.55
32	**NC32-ER20**	1.0-13.0	32	34	70	32	ER20	ER20	0.60
	NC32-ER25	1.0-16.0	32	42	70	38	ER25	ER25	0.70
	NC32-ER32	2.0-20.0	32	50	60	38	ER32	ER32	0.75
40	**NC40-ER32**	2.0-20.0	40	50	75	53	ER32	ER32	1.25
	NC40-ER40	3.0-30.0	40	63	75	53	ER40	ER40	1.30

ER COLLET CHUCK for BRIDGEPORT - R8



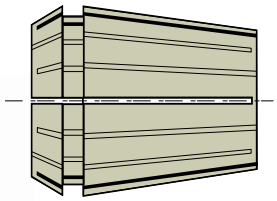
TAPER No.	CODE No.	RANGE	D1	D2	L1	L2	NUT	COLLET	Weight (kg)
R8	**R8-ER32**	2-20.0	U7/16	50	101.5	50	ER32	ER32	1.00
	R8-ER40	3-30.0	U7/16	63	101.5	75	ER40	ER40	1.20

ER筒夹 - UF
ER COLLET - UF



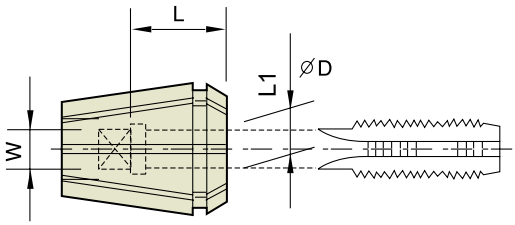
TYPE ER 8		TYPE ER11		TYPE ER16		TYPE ER20	
夹持范围 CLAMPING CAPACITY	ITEM No.	夹持范围 CLAMPING CAPACITY	ITEM No.	夹持范围 CLAMPING CAPACITY	ITEM No.	夹持范围 CLAMPING CAPACITY	ITEM No.
1.0-0.5	208010	1.0-0.5	211010	1.0-0.5	216010	2-1	220020
1.5-1.0	208015	1.5-1.0	211015	2.0-1.0	216020	3-2	220030
2.0-1.5	208020	2.0-1.5	211020	3.0-2.0	216030	4-3	220040
2.5-2.0	208025	2.5-2.0	211025	4.0-3.0	216040	5-4	220050
3.0-2.5	208030	3.0-2.5	211030	5.0-4.0	216050	6-5	220060
3.5-3.0	208035	3.5-3.0	211035	6.0-5.0	216060	7-6	220070
4.0-3.5	208040	4.0-3.5	211040	7.0-6.0	216070	8-7	220080
4.5-4.0	208045	4.5-4.0	211045	8.0-7.0	216080	9-8	220090
5.0-4.5	208050	5.0-4.5	211050	9.0-8.0	216090	10-9	220100
		5.5-5.0	211055	10.0-9.0	216100	11-10	220120
		6.0-5.5	211060	1.5-1.0	216015	12-11	220130
		6.5-6.0	211065	2.5-2.0	216025	13-12	220140
		7.0-6.5	211070			1.0-0.5	220010
						1.5-1.0	220015
						2.5-2.0	220025
标准 成套 STANDARD SET	208000	标准 成套 STANDARD SET	211000	标准 成套 STANDARD SET	216000	标准 成套 STANDARD SET	220000
Ø 1.0-5.0mm		Ø 1.0-7.0mm		Ø 1.0-10.0mm		Ø 2.0-13.0mm	
9PCS		13PCS		10PCS		12PCS	
木制盒子 WOODEN TRAY ZWT 8	108110	木制盒子 WOODEN TRAY ZWT 11	011110	木制盒子 WOODEN TRAY ZWT 16	016110	木制盒子 WOODEN TRAY ZWT 20	020110

ER筒夹 - UF
ER COLLET - UF



TYPE ER25		TYPE ER32		TYPE ER40		TYPE ER50	
夹持范围 CLAMPING CAPACITY	ITEM No.	夹持范围 CLAMPING CAPACITY	ITEM No.	夹持范围 CLAMPING CAPACITY	ITEM No.	夹持范围 CLAMPING CAPACITY	ITEM No.
2-1	225020	3-2	232030	4-3	240040	12-10	250120
3-2	225030	4-3	232040	5-4	240050	14-12	250140
4-3	225040	5-4	232050	6-5	240060	16-14	250160
5-4	225050	6-5	232060	7-6	240070	18-16	250180
6-5	225060	7-6	232070	8-7	240080	20-18	250200
7-6	225070	8-7	232080	9-8	240090	22-20	250220
8-7	225080	9-8	232090	10-9	240100	24-22	250240
9-8	225090	10-9	232100	11-10	240110	26-24	250260
10-9	225100	11-10	232110	12-11	240120	28-26	250280
11-10	225110	12-11	232120	13-12	240130	30-28	250300
12-11	225120	13-12	232130	14-13	240140	32-30	250320
13-12	225130	14-13	232140	15-14	240150	34-32	250340
14-13	225140	15-14	232150	16-15	240160	6-4	250060
15-14	225150	16-15	232160	17-16	240170	8-6	250080
16-15	225160	17-16	232170	18-17	240180	10-8	250100
1.0-1.5	225010	18-17	232180	19-18	240190	25-23	250250
1.5-1.0	225015	19-18	232190	20-19	240200		
2.5-2.0	225025	20-19	232200	21-20	240210		
		2.0-1.0	232020	22-21	240220		
		2.5-2.0	232025	23-22	240230		
				24-23	240240		
				25-24	240250		
				26-25	240260		
				3-2	240030		
				27-26	240270		
				28-27	240280		
				29-28	240290		
				30-29	240300		
标准 成套 STANDARD SET	225000	标准 成套 STANDARD SET	232000	标准 成套 STANDARD SET	240000	标准 成套 STANDARD SET	250000
Ø 2.0-16.0mm		Ø 3.0-20.0mm		Ø 4.0-26.0mm		Ø 12.0-34.0mm	
15PCS		18PCS		23PCS		12PCS	
木制盒子 WOODEN TRAY ZWT 25	025110	木制盒子 WOODEN TRAY ZWT 32	032110	木制盒子 WOODEN TRAY ZWT 40	040110	木制盒子 WOODEN TRAY ZWT50	050110

丝锥专用筒夹
ER COLLET FOR EXCLUSIVE USE FOR TAP



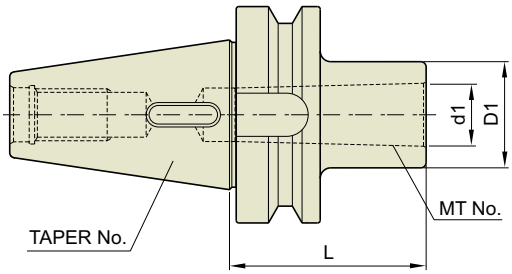
RDT 16				RDT 20				RDT 25				RDT 32				RDT 40			
TAP	Ø	W	L	TAP	Ø	W	L	TAP	Ø	W	L	TAP	Ø	W	L	TAP	Ø	W	L
M2	3.0	2.5	15																
M3	4.0	3.2	15	M3	4.0	3.2	15	M3	4.0	3.2	15								
M4	5.0	4.0	15	M4	5.0	4.0	15	M4	5.0	4.0	15	M4	5.0	4.0	15				
M5	5.5	4.5	15	M5	5.5	4.5	15	M5	5.5	4.5	15	M5	5.5	4.5	15				
M6	6.0	4.5	15	M6	6.0	4.5	15	M6	6.0	4.5	15	M6	6.0	4.5	15				
M8	6.2	5.0	15	M8	6.2	5.0	20	M8	6.2	5.0	20	M8	6.2	5.0	20	M8	6.2	5.0	20
				M10	7.0	5.5	20	M10	7.0	5.5	20	M10	7.0	5.5	20	M10	7.0	5.5	20
								M12	8.5	6.5	20	M12	8.5	6.5	20	M12	8.5	6.5	25
								M14	10.5	8.0	20	M14	10.5	8.0	20	M14	10.5	8.0	25
												M16	12.5	10.0	20	M16	12.5	10.0	25
												M18	14.0	11.0	20	M18	14.0	11.0	25
																M20	15.0	12.0	28
																M22	17.0	13.0	28
																M24	19.0	15.0	28

▶丝锥专用筒夹
These ER collets are for exclusive use for tap.

▶夹持范围M2~M24
Various sizes of taps ranging from M2 to M24 can be used.

莫氏锥柄变换刀柄
MORSE TAPER ADAPTER

MAS403-BT

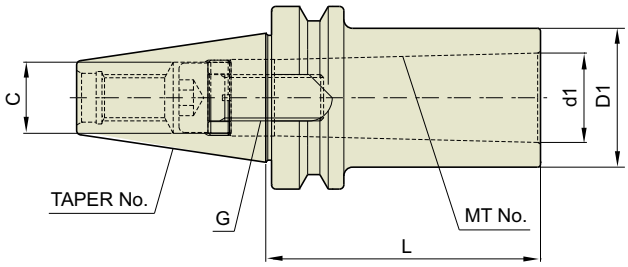


MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3	6.3	12,000	

TAPER No.	CODE No.	MT No.	L	d1	D1	Weight (kg)
30	BT30-MTA1- 45	1	45	12.065	25	0.4
	BT30-MTA2- 60	2	60	17.780	32	0.5
	BT30-MTA2- 120	2	120	17.780	32	0.6
	BT30-MTA3- 75	3	75	23.825	40	0.7
40	BT40-MTA1- 45	1	45	12.065	25	1.0
	BT40-MTA1-120	1	120	12.065	25	1.3
	BT40-MTA2- 60	2	60	17.780	32	1.0
	BT40-MTA2-120	2	120	17.780	32	1.4
	BT40-MTA3- 75	3	75	23.825	40	1.2
	BT40-MTA3-135	3	135	23.825	40	1.8
	BT40-MTA4- 95	4	95	31.267	50	1.1
	BT40-MTA4-165	4	165	31.267	50	2.4
50	BT50-MTA1- 45	1	45	12.065	25	4.0
	BT50-MTA1-120	1	120	12.065	25	4.3
	BT50-MTA1-180	1	180	12.065	25	4.3
	BT50-MTA2- 45	2	45	17.780	32	4.0
	BT50-MTA2-135	2	135	17.780	32	4.4
	BT50-MTA2-180	2	180	17.780	32	4.6
	BT50-MTA3- 45	3	45	23.825	40	3.9
	BT50-MTA3-150	3	150	23.825	40	4.7
	BT50-MTA3-180	3	180	23.825	40	4.9
	BT50-MTA4- 75	4	75	31.267	50	4.0
	BT50-MTA4-105	4	105	31.267	50	4.5
	BT50-MTA4-180	4	180	31.267	50	5.4
	BT50-MTA5-105	5	105	44.399	65	4.5
	BT50-MTA5-210	5	210	44.399	65	7.2
	BT50-MTA5-270	5	270	44.399	65	7.5

莫氏锥柄变换刀柄
MORSE TAPER ADAPTER

MAS403-BT

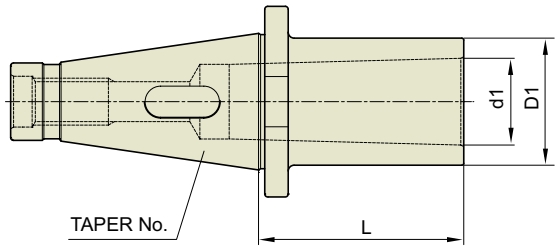


MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3	6.3	12,000	

TAPER No.	CODE No.	MT No.	L	d1	D1	C	G	Weight (kg)
30	**BT30-MTB1-45**	1	45	12.065	25	10	M6×1.0	0.8
	BT30-MTB2-45	2	45	17.780	32	–	M10×1.5	0.8
40	**BT40-MTB1-45**	1	45	12.065	25	10	M6×1.0	1.0
	BT40-MTB2-45	2	45	17.780	32	13.5	M10×1.5	1.1
	BT40-MTB3-60	3	60	23.825	40	–	M12×1.75	1.1
	BT40-MTB4-85	4	85	31.267	50	–	M16×2.0	1.3
50	**BT50-MTB1-45**	1	45	12.065	25	10	M6×1.0	3.9
	BT50-MTB2-45	2	45	17.780	32	16	M10×1.5	3.9
	BT50-MTB3-60	3	60	23.825	40	18	M12×1.75	3.9
	BT50-MTB4-75	4	75	31.267	50	20.5	M16×2.0	3.9

莫氏锥柄变换刀柄
MORSE TAPER ADAPTER

NT

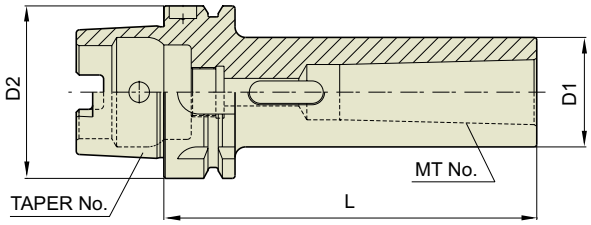


Taper Accuracy	G Value	RPM	Coolant System
AT3	6.3	12,000	

TAPER No.	CODE No.	MT No.	钻孔范围 Range of drill		D1	L	螺栓规格 DRAW THREAD	Weight (kg)
			MIN	MAX				
40	NT40-MTA1-30	1	2.0	14.0	25	30	U 5/8-11(M16×2)	0.90
	NT40-MTA2-30	2	14.1	23.0	32	30	U 5/8-11(M16×2)	1.00
	NT40-MTA3-35	3	23.1	32.0	40	45	U 5/8-11(M16×2)	1.00
	NT40-MTA4-90	4	32.1	50.0	50	90	U 5/8-11(M16×2)	1.20
50	NT50-MTA1-30	1	2.0	14.0	25	30	U 1-8(M24×3)	3.50
	NT50-MTA2-30	2	14.1	23.0	32	30	U 1-8(M24×3)	3.50
	NT50-MTA3-30	3	23.1	32.0	40	30	U 1-8(M24×3)	3.50
	NT50-MTA4-45	4	32.1	50.0	50	45	U 1-8(M24×3)	3.50
	NT50-MTA5-105	5	50.1	75.0	60	105	U 1-8(M24×3)	4.00

莫氏锥柄变换刀柄
MORSE TAPER ADAPTER

DIN69893-HSK FORM A

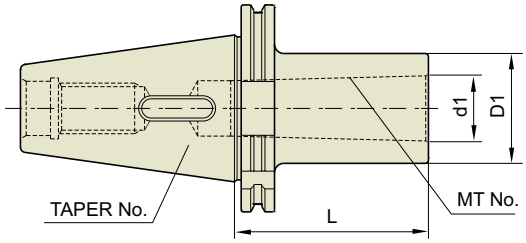


DIN69893 - HSK	Taper Accuracy	G Value	RPM	Coolant System
	AT3	6.3	15,000	

TAPER No.	CODE No.	MT No.	D1	D2	L	Weight (kg)
50A	HSK 50A-MTA1-100	1	25	50	100	0.67
	HSK 50A-MTA2-120	2	32	50	120	0.78
	HSK 50A-MTA3-140	3	40	50	140	0.91
63A	HSK 63A-MTA1-100	1	25	63	100	0.87
	HSK 63A-MTA2-120	2	32	63	120	1.28
	HSK 63A-MTA3-140	3	40	63	140	1.44
	HSK 63A-MTA4-160	4	48	63	160	1.86
100A	HSK100A-MTA1-110	1	25	100	110	2.12
	HSK100A-MTA2-120	2	32	100	120	2.41
	HSK100A-MTA3-150	3	40	100	150	2.82
	HSK100A-MTA4-170	4	48	100	170	3.63
	HSK100A-MTA5-200	5	63	100	200	4.80

莫氏锥柄变换刀柄
MORSE TAPER ADAPTER

DIN69871-SK



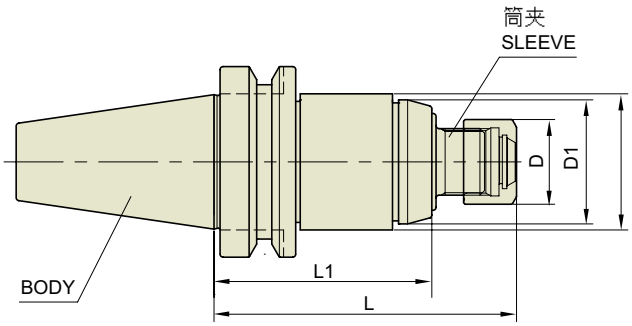
DIN69871 -SK	Taper Accuracy	G Value	RPM	Coolant System
	AT3	6.3	12,000	

■ 标准 / STANDARD

TAPER No.	CODE No.	MT No.	d1	D1	L	Weight (kg)
30	SK30-MTA1-50	1	12.065	25	50	0.72
	SK30-MTA2-60	2	17.78	32	60	0.87
	SK30-MTA3-80	3	23.825	40	80	1.02
40	SK40-MTA1-50	1	12.065	25	50	1.49
	SK40-MTA2-50	2	17.78	32	50	1.62
	SK40-MTA3-70	3	23.825	40	70	1.65
	SK40-MTA4-95	4	31.267	48	95	1.90
50	SK50-MTA1-45	1	12.065	25	45	2.60
	SK50-MTA2-60	2	17.78	32	60	2.66
	SK50-MTA3-65	3	23.825	40	65	2.75
	SK50-MTA4-95	4	31.267	48	95	3.00
	SK50-MTA5-105	5	44.399	63	105	3.30

丝锥ER刀柄
TAPPING ER CHUCK

MAS403-BT



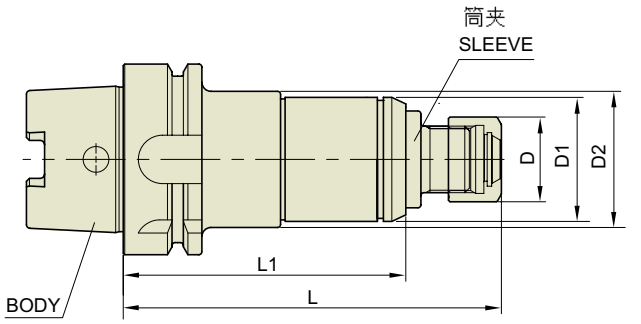
MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

TAPER No.	CODE No.	D	D1	D2	L	L1	NUT	Weight (kg)
40	BT40-TER16-100	28	41	45	100	68.4	ER16	1.45
	BT40-TER16-150	28	41	45	150	118.4	ER16	2.00
	BT40-TER32-110	50	58	63	110	72	ER32	2.20
	BT40-TER32-150	50	58	63	150	112	ER32	2.70
50	BT50-TER16-115	28	41	45	115	79.4	ER16	3.95
	BT50-TER16-150	28	41	45	150	114.4	ER16	4.35
	BT50-TER32-120	50	58	63	120	83	ER32	4.70
	BT50-TER32-150	50	58	63	150	113	ER32	5.20

▶ 可使用1114~1115页ER筒夹及1116页丝锥ER筒夹.
ER collet of page 1114 and 1115, and Tap ER collet of page 1116 are usable.

丝锥ER刀柄
TAPPING ER CHUCK

DIN69893-HSK



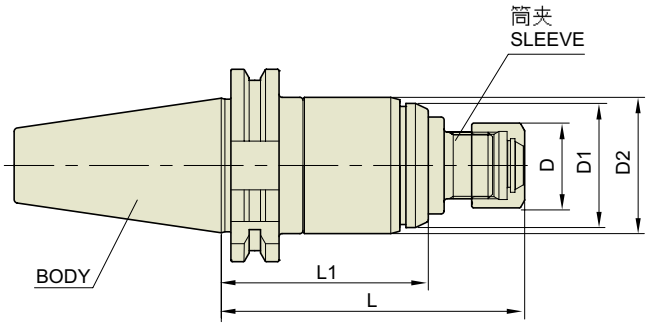
DIN69893 - HSK	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

TAPER No.	CODE No.	D	D1	D2	L	L1	NUT	Weight (kg)
50	HSK50A-TER16-125	28	41	45	125	93.4	ER16	1.20
	HSK50A-TER16-150	28	41	45	150	118.4	ER16	1.30
63	HSK63A-TER16-125	28	41	45	125	93.4	ER16	1.70
	HSK63A-TER16-150	28	41	45	150	118.4	ER16	1.85
	HSK63A-TER32-150	50	58	63	150	112	ER32	2.10
	HSK63A-TER32-180	50	58	63	180	142	ER32	2.30
100	HSK100A-TER16-130	28	41	45	130	98.4	ER16	4.00
	HSK100A-TER16-150	28	41	45	150	118.4	ER16	4.20
	HSK100A-TER32-150	50	58	63	150	112	ER32	4.40
	HSK100A-TER32-180	50	58	63	180	142	ER32	4.60

▶ 可使用1114~1115页ER筒夹及1116页丝锥ER筒夹.
ER collet of page 1114 and 1115, and Tap ER collet of page 1116 are usable.

丝锥ER刀柄
TAPPING ER CHUCK

DIN69871-SK



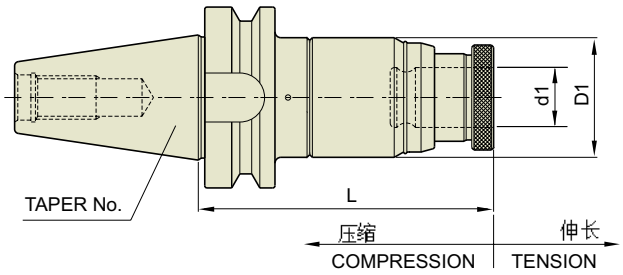
DIN69871 - SK	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

TAPER No.	CODE No.	D	D1	D2	L	L1	NUT	Weight (kg)
40	SK40-TER16-100	28	41	45	100	68.4	ER16	1.65
	SK40-TER16-150	28	41	45	150	118.4	ER16	1.85
	SK40-TER32-130	50	58	63	130	92	ER32	2.10
	SK40-TER32-150	50	58	63	150	112	ER32	2.30
50	SK50-TER16-115	28	41	45	115	79.4	ER16	4.30
	SK50-TER16-150	28	41	45	150	114.4	ER16	4.50
	SK50-TER32-120	50	58	63	120	83	ER32	4.65
	SK50-TER32-150	50	58	63	150	113	ER32	4.85

▶ 可使用1114~1115页ER筒夹及1116页丝锥ER筒夹.
ER collet of page 1114 and 1115, and Tap ER collet of page 1116 are usable.

丝锥刀柄
TAP CHUCK

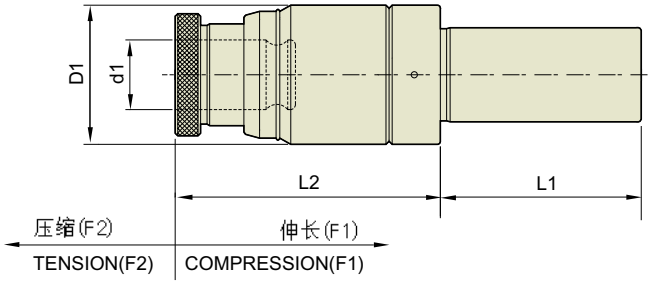
MAS403-BT



MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

TAPER No.	CODE No.	TAP SIZE	伸缩范围 LENGTH COMPENSATION 压缩 COMP.	伸长 TEN.	d1	D1	L	TAP ADAPTER CODE	Weight (kg)
30	**BT30-TC12-100**	M3~M12	5	15	19	45	100	TCS12	1.0
40	**BT40-TC12- 90**	M3~M12	5	15	19	45	90	TCS12	1.5
	BT40-TC12-130	M3~M12	5	15	19	45	130	TCS12	1.6
	BT40-TC24-100	M6~M24	5	20	31	63	100	TCS24	2.1
	BT40-TC24-142	M6~M24	5	20	31	63	142	TCS24	2.9
50	**BT50-TC12-130**	M3~M12	5	15	19	45	130	TCS12	4.2
	BT50-TC12-175	M3~M12	5	15	19	45	175	TCS12	4.8
	BT50-TC12-220	M3~M12	5	15	19	45	220	TCS12	5.1
	BT50-TC24-142	M6~M24	5	20	31	63	142	TCS24	5.8
	BT50-TC24-187	M6~M24	5	20	31	63	187	TCS24	6.0
	BT50-TC38-175	M18~M38	10	25	48	98	175	TCS38	8.3

丝锥刀柄 – 直柄
TAP CHUCK - STRAIGHT SHANK

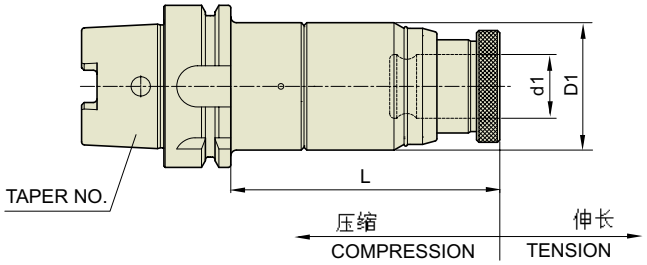


K	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

TAPER No.	CODE No.	TAP SIZE	伸缩范围 LENGTH COMPENSATION 压缩 COMP.	伸缩范围 LENGTH COMPENSATION 伸长 TEN.	d1	D1	L1	L2	TAP ADAPTER CODE	Weight (kg)
32	**K32-TC12-100**	M3-M12	15	5	32	45	60	100	TCS12	0.90
	K32-TC24-120	M6-M24	20	5	32	63	60	120	TCS24	1.40
42	**K42-TC12-100**	M3-M12	15	5	42	45	70	100	TCS12	1.10
	K42-TC24-120	M6-M24	20	5	42	63	70	120	TCS24	1.60

丝锥刀柄
TAP CHUCK

DIN69893-HSK

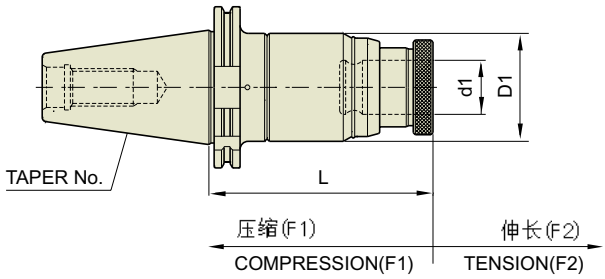


DIN69893 - HSK	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

TAPER No.	CODE No.	TAP SIZE	伸缩范围 LENGTH COMPENSATION 压缩 COMP.	伸长 TEN.	d1	D1	L	TAP ADAPTER CODE	Weight (kg)
63A	HSK63A-TC12-120	M3 ~ M12	5	15	19	45	120	TCS12	1.00
	HSK63A-TC12-150	M3 ~ M12	5	15	19	45	150	TCS12	1.70
	HSK63A-TC24-142	M6 ~ M24	5	20	31	63	142	TCS24	2.40
	HSK63A-TC24-172	M6 ~ M24	5	20	31	63	172	TCS24	2.70
100A	HSK100A-TC12-130	M3 ~ M12	5	15	19	45	130	TCS12	4.30
	HSK100A-TC12-175	M3 ~ M12	5	15	19	45	175	TCS12	4.80
	HSK100A-TC12-220	M3 ~ M12	5	15	19	45	220	TCS12	5.30
	HSK100A-TC24-142	M6 ~ M24	5	20	31	63	142	TCS24	5.20
	HSK100A-TC24-187	M6 ~ M24	5	20	31	63	187	TCS24	6.60
	HSK100A-TC38-200	M18 ~ M38	10	25	48	98	200	TCS38	8.00

丝锥刀柄
TAP CHUCK

DIN69871-SK

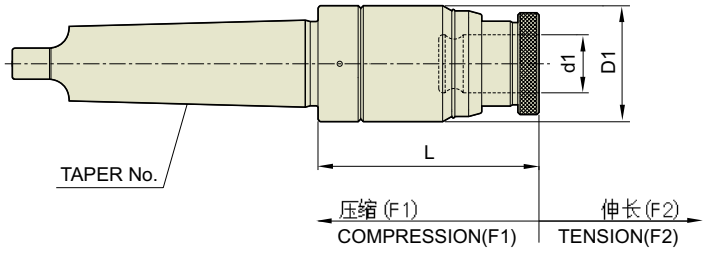


DIN69871 - SK	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

■ STANDARD

TAPER No.	CODE No.	TAP SIZE	d1	D1	L	F1	F2	Weight (kg)
40	**SK40-TC12-90**	M3-M12	19	45	90	5	15	1.30
	SK40-TC12-130	M3-M12	19	45	130	5	15	1.80
	SK40-TC24-120	M6-M24	31	63	120	5	20	2.50
	SK40-TC24-142	M6-M24	31	63	142	5	20	2.80
50	**SK50-TC12-130**	M3-M12	19	45	130	5	15	4.30
	SK50-TC12-175	M3-M12	19	45	175	5	15	5.50
	SK50-TC24-142	M6-M24	31	63	142	5	20	5.30
	SK50-TC24-187	M6-M24	31	63	187	5	20	7.80
	SK50-TC38-175	M18-M38	48	98	175	10	25	7.50

MTA

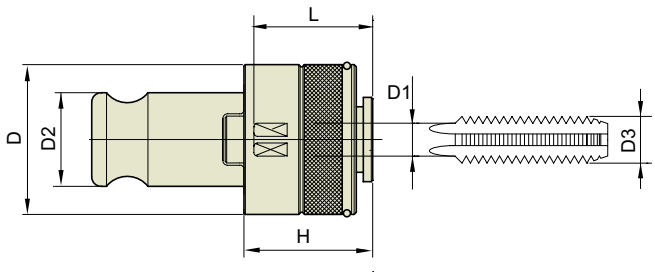


DIN228 - MTA	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

TAPER No.	CODE No.	TAP SIZE	伸缩范围 LENGTH COMPENSATION 压缩 COMP.	伸缩范围 LENGTH COMPENSATION 伸长 TEN.	d1	D1	L	TAP ADAPTER CODE	Weight (kg)
3	**MTA3-TC12- 90**	M3-M12	5	15	19	45	90	TCS12	1.00
	MTA3-TC24-115	M6-M24	5	20	31	63	115	TCS24	2.00
4	**MTA4-TC12-105**	M3-M12	5	15	19	45	105	TCS12	1.20
	MTA4-TC24-115	M6-M24	5	20	31	63	115	TCS24	2.20
5	**MTA5-TC12-145**	M3-M12	5	15	19	45	145	TCS12	1.50
	MTA5-TC24-175	M6-M24	5	20	31	63	175	TCS24	2.60

丝锥筒夹
TAP ADAPTER

JIS



TAPER No.	CODE No.	D	D1	D2	D3	H	W	L	Weight (kg)
TCS12	TCS12-M3	32	4	19	3	25	3.2	24	0.18
	TCS12-M4	32	5	19	4	25	4.	24	0.18
	TCS12-M5	32	5.5	19	5	25	4.5	24	0.18
	TCS12-M6, U1/4	32	6	19	6	25	4.5	24	0.18
	TCS12-M8	32	6.2	19	8	25	5	25	0.18
	TCS12-M10, U3/8	32	7	19	10	25	5.5	25	0.18
	TCS12-M12	32	8.5	19	12	25	6.5	26	0.18
TCS24	TCS24-M6	52	6	31	6	33	4.5	38	0.60
	TCS24-M8	52	6.2	31	8	33	5	38	0.60
	TCS24-M10	52	7	31	10	33	5.5	38	0.60
	TCS24-M12	52	8.5	31	12	33	6.5	39	0.60
	TCS24-M14, U3/4	52	10.5	31	14	33	8	41	0.60
	TCS24-M16	52	12.5	31	16	33	10	43	0.60
	TCS24-M18, P3/8	52	14	31	18	33	11	43	0.60
	TCS24-M20	52	15	31	20	33	12	43.5	0.60
	TCS24-M22, U7/8	52	17	31	22	33	13	46	0.60
	TCS24-M24, PF5/8	52	19	31	24	33	15	46	0.60
TCS38	TCS38-M18	72	14	48	18	45	11	43	1.80
	TCS38-M20	72	15	48	20	45	12	43.5	1.80
	TCS38-M22	72	17	48	22	45	13	45	1.80
	TCS38-M24	72	19	48	24	45	15	45	1.80
	TCS38-M27, U1″	72	20	48	27	45	15	62	1.80
	TCS38-M30, PT3/4	72	23	48	30	45	17	64	1.80
	TCS38-M33	72	25	48	33	45	19	66	1.80
	TCS38-M36	72	28	48	36	45	19	68	1.80
	TCS38-M38	72	28	48	38	45	21	68	1.80

特 征 / FEATURES

1. 丝锥筒夹快速更换.
   Type of built-in torque safety device with rapid exchange mode
2. 扭矩安全装置.
   Tap size(Ø x □) and range designation are needed.

平面铣刀刀柄
FACE MILL ARBOR

MAS403-BT

FIG.1

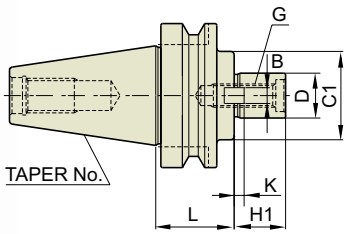
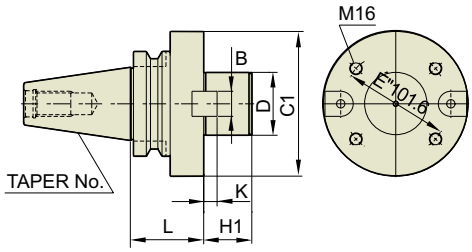


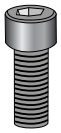
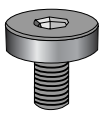
FIG.2



MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3	6.3	12,000	

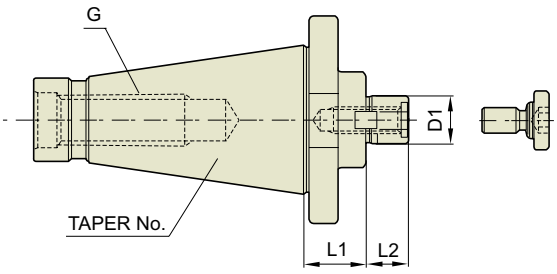
TAPER No.	CODE No.	D	L1	C1	H1	B	K	G	FIG.	Weight (kg)
30	BT30-FMA25.4 -45	25.4	45	50	22	9.5	5	M12	1	1.1
	BT30-FMA31.75-45	31.75	45	60	30	12.7	7	M16	1	1.2
40	BT40-FMA25.4 -45	25.4	45	50	22	9.5	5	M12	1	1.5
	BT40-FMA25.4 -90	25.4	90	50	22	9.5	5	M12	1	3.1
	BT40-FMA31.75-45	31.75	45	60	30	12.7	7	M16	1	1.9
	BT40-FMA31.75-75	31.75	75	60	30	12.7	7	M16	1	2.7
	BT40-FMA38.1 -60	38.1	60	80	34	15.9	9	M20	1	2.9
50	BT50-FMA25.4 -45	25.4	45	50	22	9.5	5	M12	1	3.7
	BT50-FMA25.4 -90	25.4	90	50	22	9.5	5	M12	1	4.6
	BT50-FMA25.4 -150	25.4	150	50	22	9.5	5	M12	1	5.5
	BT50-FMA31.75-45	31.75	45	60	30	12.7	7	M16	1	4.5
	BT50-FMA31.75-75	31.75	75	60	30	12.7	7	M16	1	5.3
	BT50-FMA31.75-105	31.75	105	60	30	12.7	7	M16	1	5.8
	BT50-FMA31.75-150	31.75	150	60	30	12.7	7	M16	1	6.3
	BT50-FMA38.1 -45	38.1	45	80	34	15.9	9	M20	1	4.3
	BT50-FMA38.1 -75	38.1	75	80	34	15.9	9	M20	1	5.6
	BT50-FMA38.1 -105	38.1	105	80	34	15.9	9	M20	1	6.0
	BT50-FMA38.1 -150	38.1	150	80	34	15.9	9	M20	1	6.5
	BT50-FMA50.8 -45	50.8	45	100	36	19.05	10	M24	1	4.9
	BT50-FMA50.8 -75	50.8	75	100	36	19.05	10	M24	1	6.8
	BT50-FMA47.625-75	47.625	75	128.57	38	25.4	12.5	–	2	7.7

配件 / SPARE PARTS

型号	传动销		销螺栓		安装螺栓	
TYPE	KEY		KEY BOLT		MOUNTING BOLT	
3R(FMA 25.4)		W9.52		M4×10		MB12
4R(FMA 31.75)		W12.7		M5×12		MB16
5R(FMA 38.1)		W15.87		M6×16		MB20
6R(FMA 50.8)		W19		M6×18		MB24
8R(FMA 47.625)		-		-		-

平面铣刀刀柄
FACE MILL ARBOR

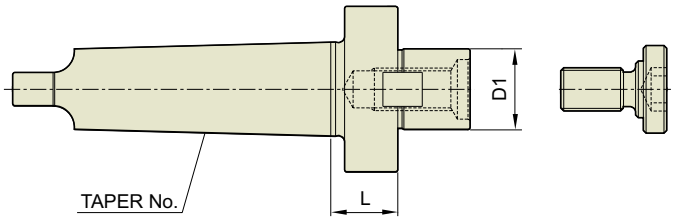
DIN 2080-NT



DIN2080 - NT	Taper Accuracy	G Value	RPM	Coolant System
	AT3	6.3	12,000	

TAPER No.	CODE No.	CUTTERØ	D1	L1	L2	DRAW THREAD	旧式 Old Code No.	Weight (kg)
40	NT40-FMA25.4	3″(75Ø)	25.4	30	22	U5/8-11(M16×2)	NT40-3R	1.45
	NT40-FMA31.75	4″(100Ø)	31.75	30	30	U5/8-11(M16×2)	NT40-4R	1.75
	NT40-FMA38.1	5″(125Ø)	38.1	30	34	U5/8-11(M16×2)	NT40-5R	1.93
	NT40-FMA50.8	6″(150Ø)	50.8	30	36	U5/8-11(M16×2)	NT40-6R	2.55
50	NT50-FMA25.4	3″(75Ø)	25.4	30	22	U1-8(M24×3)	NT50-3R	3.30
	NT50-FMA31.75	4″(100Ø)	31.75	30	30	U1-8(M24×3)	NT50-4R	3.40
	NT50-FMA38.1	5″(125Ø)	38.1	30	34	U1-8(M24×3)	NT50-5R	3.60
	NT50-FMA50.8	6″(150Ø)	50.8	30	36	U1-8(M24×3)	NT50-6R	3.90
	NT50-FMA47.625	8″(200Ø)	47.625	45	38	U1-8(M24×3)	NT50-8R	4.90

MT



DIN228 - MTA	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

TAPER No.	CODE No.	CUTTERØ	D1	L	Weight (kg)
5	MT5-FMA25.4	3″(75Ø)	40	22	1.60
	MT5-FMA31.75	4″(100Ø)	41.5	30	1.90
	MT5-FMA38.1	5″(125Ø)	45	34	2.20
6	MT6-FMA25.4	3″(75Ø)	45	22	3.50
	MT6-FMA31.75	4″(100Ø)	45	30	3.80
	MT6-FMA38.1	5″(125Ø)	45	34	4.10
	MT6-FMA50.8	6″(150Ø)	45	36	4.60
	MT6-FMA47.625	8″(200Ø)	48	38	5.40

平面铣刀刀柄
FACE MILL ARBOR

MAS403-BT

FIG.1

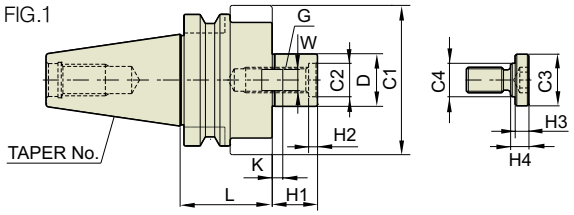


FIG.2

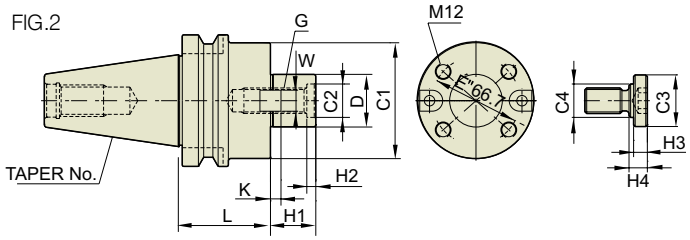


FIG.3

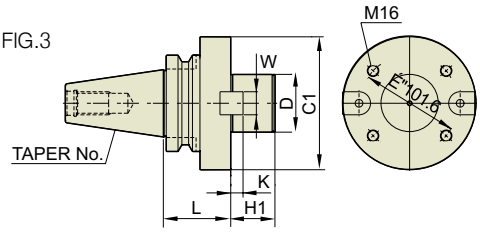
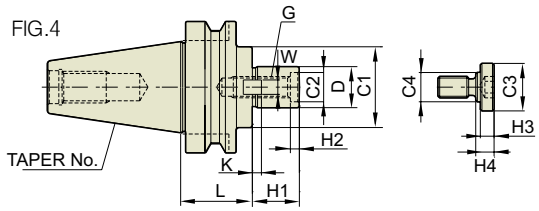


FIG.4



MAS403-BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3	6.3	12,000	

■ 公制型 / METRIC TYPE

TAPER No.	CODE No.	FIG.	D	L	C1	C2	H1	H2	W	K	G	C3	C4	H3	H4	Weight (kg)
30	BT30-FMB27- 40	4	27	40	80	–	26	–	12	6	M12	33	23	10	10	2.1
40	BT40-FMB27- 60	4	27	60	80	–	26	–	12	6	M12	33	23	10	10	2.5
	BT40-FMB27- 90	4	27	90	80	–	26	–	12	6	M12	33	23	10	10	4.7
	BT40-FMB40- 60	4	40	60	85	28	26	6	16	8.5	M20	50	27	14	20	7.4
50	BT50-FMB27- 45	1	27	45	80	–	26	–	12	6	M12	33	23	10	12	4.0
	BT50-FMB27- 90	1	27	90	80	–	26	–	12	6	M12	33	23	10	12	5.8
	BT50-FMB27-150	1	27	150	80	–	26	–	12	6	M12	33	23	10	12	8.2
	BT50-FMB40- 45	1	40	45	85	28	26	6	16	8.5	M20	50	27	14	20	4.7
	BT50-FMB40- 75	1	40	75	85	28	26	6	16	8.5	M20	50	27	14	20	6.1
	BT50-FMB40- 105	1	40	105	85	28	26	6	16	8.5	M20	50	27	14	20	8.1
	BT50-FMB40F-75	2	40	75	110	28	26	6	16	8.5	M20	50	27	14	20	6.6
	BT50-FMB60- 75	3	60	75	140	–	25	–	25.4	12.5	–	–	–	–	–	7.9

■ 英制型 / INCH TYPE

TAPER No.	CODE No.	FIG.	D	L	C1	C2	H1	H2	W	K	G	C3	C4	H3	H4	Weight (kg)
30	BT30-FMB25.4-40	4	25.4	40	80	–	26	–	9.5	5	M12	33	23	10	12	2.1
40	BT40-FMB25.4-60	4	25.4	60	80	–	26	–	9.5	5	M12	33	23	10	12	2.5
	BT40-FMB25.4-90	4	25.4	90	80	–	26	–	9.5	5	M12	33	23	10	12	4.7
	BT40-FMB38.1-60	4	38.1	60	85	28	26	6	15.9	9	M20	60	27	14	20	7.4
50	BT50-FMB25.4-45	1	25.4	45	80	–	26	–	9.5	5	M12	33	23	10	12	4.0
	BT50-FMB25.4-90	1	25.4	90	80	–	26	–	9.5	5	M12	33	23	10	12	5.8
	BT50-FMB25.4-150	1	25.4	150	80	–	26	–	9.5	5	M12	33	23	10	12	8.2
	BT50-FMB38.1-45	1	38.1	45	85	28	26	6	15.9	9	M20	50	27	14	20	4.7
	BT50-FMB38.1-75	1	38.1	75	85	28	26	6	15.9	9	M20	50	27	14	20	6.1
	BT50-FMB38.1-105	1	38.1	105	85	28	26	6	15.9	9	M20	50	27	14	20	8.7
	BT50-FMB38.1F-75	2	38.1	75	110	28	26	6	15.9	9	M20	50	27	14	20	6.6

平面铣刀刀柄
FACE MILL ARBOR

MAS403-BT

FIG.1

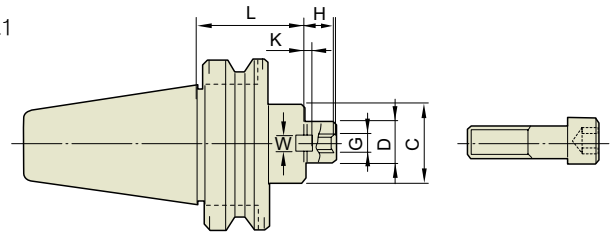
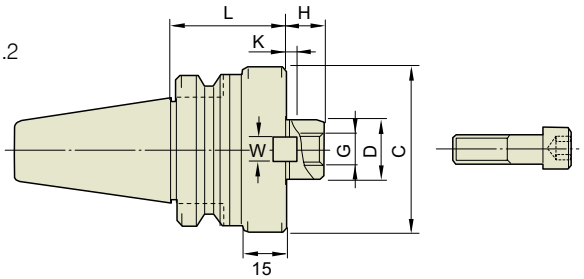


FIG.2



MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3	6.3	12,000	

■ 公制型 / METRIC TYPE

TAPER No.	CODE No.	D	L	C	H	W	K	G	FIG.	Weight (kg)
30	BT30-FMC22- 45	22	45	45	18	10	5	M10	2	0.8
40	BT40-FMC22- 45	22	45	45	18	10	5	M10	1	1.3
	BT40-FMC27- 60	27	60	70	20	12	6	M12	2	1.5
	BT40-FMC32- 60	32	60	85	22	14	7	M16	2	2.3
50	BT50-FMC22- 60	22	60	45	18	10	5	M10	1	4.2
	BT50-FMC22-105	22	105	45	18	10	5	M10	1	4.7
	BT50-FMC22-150	22	150	45	18	10	5	M10	1	5.3
	BT50-FMC27- 45	27	45	70	20	12	6	M12	1	4.1
	BT50-FMC27- 90	27	90	70	20	12	6	M12	1	5.5
	BT50-FMC27-150	27	150	70	20	12	6	M12	1	7.3
	BT50-FMC32- 60	32	60	85	22	14	7	M16	1	4.2
	BT50-FMC32-105	32	105	85	22	14	7	M16	1	5.5
	BT50-FMC32-150	32	150	85	22	14	7	M16	1	7.0

■ 英制型 / INCH TYPE

TAPER No.	CODE No.	D	L	C	H	W	K	G	FIG.	Weight (kg)
30	BT30-FMC25.4- 45	25.4	45	70	20	9.5	6	M12	2	1.1
40	BT40-FMC25.4- 60	25.4	60	70	20	9.5	6	M12	2	1.5
	BT40-FMC25.4- 90	25.4	90	70	20	9.5	6	M12	2	2.2
	BT40-FMC38.1- 60	38.1	60	85	22	15.9	7	M16	2	2.3
	BT40-FMC38.1- 75	38.1	75	85	22	15.9	7	M16	2	2.6
50	BT50-FMC25.4- 45	25.4	45	70	20	9.5	6	M12	1	4.1
	BT50-FMC25.4- 90	25.4	90	70	20	9.5	6	M12	1	5.5
	BT50-FMC25.4-150	25.4	150	70	20	9.5	6	M12	1	7.3
	BT50-FMC38.1- 45	38.1	45	85	22	15.9	7	M16	1	4.2
	BT50-FMC38.1- 75	38.1	75	85	22	15.9	7	M16	1	5.5
	BT50-FMC38.1-105	38.1	105	85	22	15.9	7	M16	1	7.0

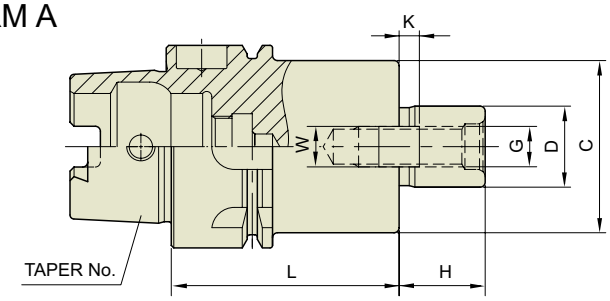
配件 / SPARE PARTS

型号 / TYPE	传动销 / KEY		销螺栓 / KEY BOLT		安装螺栓 / CLAMP BOLT	
FMC 22		W10		M4×10		M10
FMC 27		W12		M5×12		M12
FMC 32		W14		M6×16		M16

平面铣刀刀柄
FACE MILL ARBOR

TOOL HOLDERS

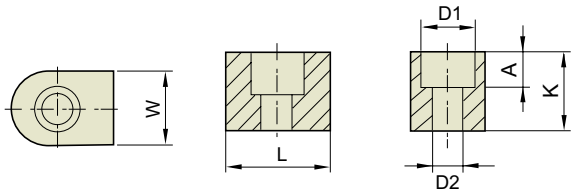
DIN69893-HSK FORM A



DIN69893 - HSK	Taper Accuracy	G Value	RPM	Coolant System
	AT3	6.3	15,000	

TAPER No.	CODE No.	D	C	L	H	W	K	G	Weight (kg)
40A	HSK40A-FMC16-45	16	34	45	17	8	4	M8	0.40
	HSK40A-FMC22-50	22	45	50	18	10	5	M10	0.50
	HSK40A-FMC27-60	27	68	60	20	12	7	M12	0.70

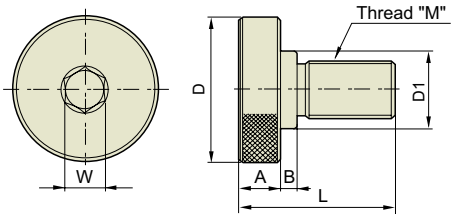
KEY FOR FACE MILL ARBOR



Unit : mm

Size	W	K	L	D1	D2	A	Applicable arbor	Weight (kg)
8×7×12.8	8	7	12.8	5.8	3.2	3.2	SMA16	
10×7.8×15.5	10	7.8	15.5	7.5	4.2	4.3	SMA22	
9.52×9.52×10.2	9.52	9.52	10.2	7.5	4.5	5.2	FMA25.4/FMB25.4	
9.5×12×11	9.5	12	11	7.5	4.2	5	FMC25.4	
12×9×18.5	12	9	18.5	9	5.3	5.5	SMA27	
10×10×11	10	10	11	7.5	4.2	5	FMC22	
14×11.5×20.5	14	11.5	20.5	10.5	6.5	6.5	SMA32	
12×13×18	12	13	18	9	5.3	8	FMB27/FMC27	
16×13.5×23.5	16	13.5	23.5	10.5	6.5	6.5	SMA40	
12.7×12.7×12.7	12.7	12.7	12.7	7.5	4.5	5.2	FMA31.75	
15.87×15.87×18.5	15.87	15.87	18.5	10.3	6.6	7.5	FMA38.1/FMB40/FMB40F	
14×15×20	14	15	20	10.5	6.3	8	FMC32	
18×18×28.5	18	18	28.5	10.5	6.5	10	SMA50	
19×18×22	19	18	22	10.5	6.3	7	FMA50.8	

MOUNTING BOLT-MB

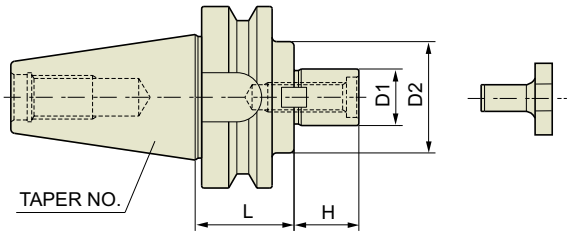


Unit : mm

Size	M	D	D1	L	A	B	W	Applicable arbor	Weight (kg)
MB8	8×1.25	20	15	23	7	2	6	SMA16	
MB10	10×1.5	28	18	29	9	2	8	SMA22	
MB12	12×1.75	33	23	32	10	2	10	SMA27/FMB27/FMA25.4	
MB16	16×2.0	40	23	42	10	6	12	SMA32/FMA3.1.75	
MB20	20×2.5	50	27	54	14	6	14	SMA40/FMA38.1/FMB40/FMB40F	
MB24	24×3.0	65	37	62	14	10	17	FMA50.8	

平面铣刀刀柄
SHELL MILL ARBOR

MAS403-BT



MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3	6.3	12,000	

■ 标准 / STANDARD

TAPER No.	CODE No.	D1	D2	L	H	Weight (kg)
30	BT30 - SMA16 - 50	16	32	50	17	
	BT30 - SMA22 - 50	22	40	50	19	
	BT30 - SMA27 - 50	27	48	50	21	
40	BT40 - SMA16 - 60	16	32	60	17	
	BT40 - SMA22 - 60	22	40	60	19	
	BT40 - SMA27 - 60	27	48	60	21	
	BT40 - SMA32 - 60	32	58	60	24	
	BT40 - SMA40 - 60	40	70	60	27	
50	BT50 - SMA16 - 75	16	32	75	17	
	BT50 - SMA22 - 75	22	40	75	19	
	BT50 - SMA27 - 75	27	48	75	21	
	BT50 - SMA32 - 75	32	58	75	24	
	BT50 - SMA40 - 75	40	70	75	27	
	BT50 - SMA50 - 75	50	90	75	30	

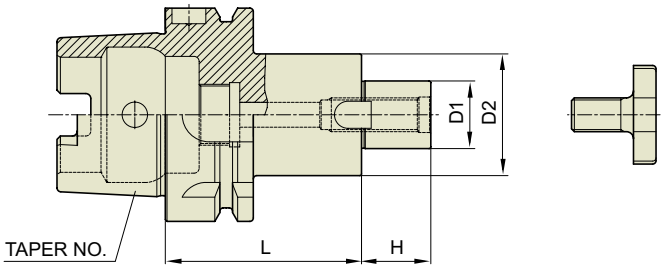
■ 延长 / EXTENDED

TAPER No.	CODE No.	D1	D2	L	H	Weight (kg)
40	BT40 - SMA16 - 120	16	32	120	17	
	BT40 - SMA22 - 120	22	40	120	19	
	BT40 - SMA27 - 120	27	48	120	21	
	BT40 - SMA32 - 120	32	58	120	24	
50	BT50 - SMA16 - 120	16	32	120	17	
	BT50 - SMA22 - 120	22	40	120	19	
	BT50 - SMA27 - 120	27	48	120	21	
	BT50 - SMA32 - 120	32	58	120	24	
	BT50 - SMA40 - 120	40	70	120	27	

平面铣刀刀柄
SHELL MILL ARBOR

TOOL HOLDERS

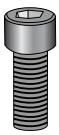
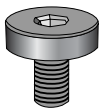
DIN69893-HSK FORM A



DIN69893 - HSK	Taper Accuracy	G Value	RPM	Coolant System
	AT3	6.3	15,000	

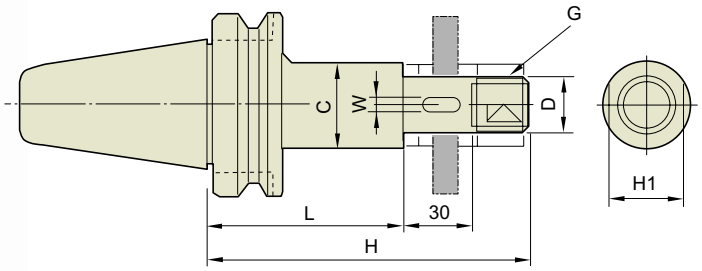
TAPER No.	CODE No.	D1	D2	L	H	Weight (kg)
40A	HSK40A-SMA16-50	16	32	50	17	0.40
	HSK40A-SMA22-50	22	40	50	19	0.50
	HSK40A-SMA27-60	27	48	60	21	0.60
50A	HSK 50A-SMA16-50	16	38	50	17	0.50
	HSK 50A-SMA22-60	22	48	60	19	0.57
	HSK 50A-SMA27-60	27	58	60	21	0.75
	HSK 50A-SMA32-60	32	63	60	24	0.90
63A	HSK 63A-SMA16-50	16	38	50	17	0.81
	HSK 63A-SMA22-50	22	48	50	19	0.93
	HSK 63A-SMA27-60	27	58	60	21	1.22
	HSK 63A-SMA32-60	32	78	60	24	1.46
	HSK 63A-SMA40-60	40	88	60	27	1.80
100A	HSK100A-SMA16-50	16	38	50	17	2.14
	HSK100A-SMA22-50	22	48	50	19	2.25
	HSK100A-SMA27-50	27	58	50	21	2.40
	HSK100A-SMA32-50	32	78	50	24	2.60
	HSK100A-SMA40-60	40	88	60	27	3.25
	HSK100A-SMA50-70	50	129	70	30	5.40

配件 / SPARE PARTS

型号 TYPE	传动销 KEY		销螺栓 KEY BOLT		安装螺栓 MOUNTING BOLT	
SMA 16		W8		M3× 8		MB 8
SMA 22		W10		M4×10		MB10
SMA 27		W12		M5×12		MB12
SMA 32		W14		M6×16		MB16
SMA 40		W16		M6×16		MB20

平面铣刀刀柄
SIDE CUTTER ARBOR

MAS403-BT

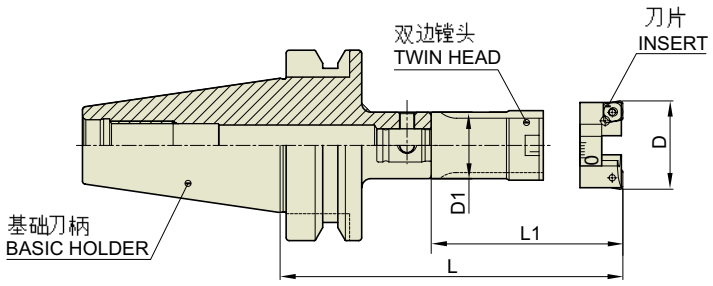


MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

TAPER No.	CODE No.	H	H1	C	W	G	D	L	Weight (kg)
30	BT30-SCA12.7-60	105	17	20	–	M12	12.7	60	1.0
	BT30-SCA15.875-60	106	23	26	3.18	M14	15.875	60	1.1
	BT30-SCA22.225-60	110	29	34	3.18	M20	22.225	60	1.2
	BT30-SCA25.4-60	115	32	40	6.35	M24	25.4	60	1.3
40	BT40-SCA12.7-75	120	17	20	–	M12	12.7	75	1.2
	BT40-SCA12.7-105	150	17	20	–	M12	12.7	105	1.3
	BT40-SCA15.875-75	121	23	26	3.18	M14	15.875	75	1.4
	BT40-SCA15.875-120	151	23	26	3.18	M14	15.875	120	1.5
	BT40-SCA22.225-75	126	29	34	3.18	M20	22.225	75	1.7
	BT40-SCA22.225-120	171	29	34	3.18	M20	22.225	120	2.0
	BT40-SCA25.4-75	130	32	40	6.35	M24	25.4	75	2.0
	BT40-SCA25.4-120	175	32	40	6.35	M24	25.4	120	2.4
	BT40-SCA31.75-90	150	41	46	7.92	M30	31.75	90	2.6
50	BT50-SCA12.7-75	120	17	20	–	M12	12.7	75	4.1
	BT50-SCA12.7-105	150	17	20	–	M12	12.7	105	4.2
	BT50-SCA15.875-90	136	23	26	3.18	M14	15.875	90	4.2
	BT50-SCA15.875-120	166	23	26	3.18	M14	15.875	120	4.2
	BT50-SCA22.225-90	144	29	34	3.18	M20	22.225	90	4.4
	BT50-SCA22.225-135	186	29	34	3.18	M20	22.225	135	4.7
	BT50-SCA25.4-90	145	32	40	6.35	M24	25.4	90	4.5
	BT50-SCA25.4-135	190	32	40	6.35	M24	25.4	135	4.9
	BT50-SCA31.75-90	150	41	46	7.92	M30	31.75	90	4.7
	BT50-SCA31.75-135	195	41	46	7.92	M30	31.75	135	5.2
	BT50-SCA38.1-90	156	46	55	9.52	M36	38.1	90	4.9
	BT50-SCA38.1-135	201	46	55	9.52	M36	38.1	135	5.9

双刃镗孔刀柄(小径)
TWIN EDGE BORING BAR SET (Small Bore)

MAS403-BT

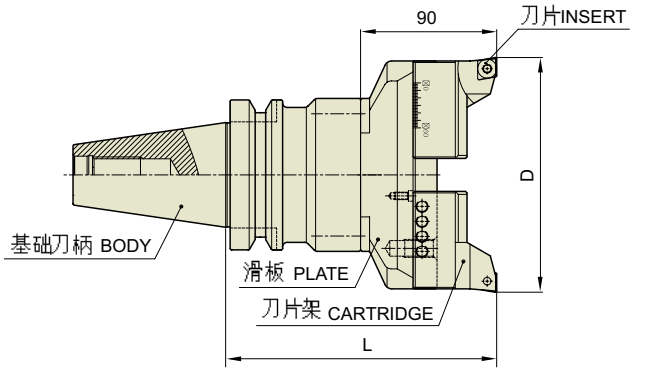


MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

CODE No.	D Min - Max	L	基础刀柄 BASIC HOLDER	双边镗头 TWIN HEAD	D1	L1	刀片 INSERT
BT30-TBH25-90	Ø25 - Ø34	90	BT30-SAS22-40	SAS22-TBH25-50	22	50	CCMT060200
BT30-TBH25-140	Ø25 - Ø34	140	BT30-SAS22-90	SAS22-TBH25-50	22	50	CCMT060200
BT30-TBH34-110	Ø34 - Ø50	110	BT30-SAS31-50	SAS31-TBH34-60	31	60	CCMT060200
BT30-TBH34-150	Ø34 - Ø50	150	BT30-SAS31-90	SAS31-TBH34-60	31	60	CCMT060200
BT40-TBH25-100	Ø25 - Ø34	100	BT40-SAS22-50	SAS22-TBH25-50	22	50	CCMT060200
BT40-TBH25-140	Ø25 - Ø34	140	BT40-SAS22-90	SAS22-TBH25-50	22	50	CCMT060200
BT40-TBH25-155	Ø25 - Ø34	155	BT40-SAS22-105	SAS22-TBH25-50	22	50	CCMT060200
BT40-TBH34-120	Ø34 - Ø50	120	BT40-SAS31-60	SAS31-TBH34-60	31	60	CCMT060200
BT40-TBH34-160	Ø34 - Ø50	160	BT40-SAS31-100	SAS31-TBH34-60	31	60	CCMT060200
BT40-TBH34-180	Ø34 - Ø50	180	BT40-SAS31-120	SAS31-TBH34-60	31	60	CCMT060200
BT40-TBH50-140	Ø50 - Ø76	140	BT40-SAS42-60	SAS42-TBH50-80	42	80	CCMT09T300
BT40-TBH50-185	Ø50 - Ø76	185	BT40-SAS42-105	SAS42-TBH50-80	42	80	CCMT09T300
BT40-TBH50-200	Ø50 - Ø76	200	BT40-SAS42-120	SAS42-TBH50-80	42	80	CCMT09T300
BT40-TBH76-180	Ø76 - Ø116	180	BT40-SAS65-70	SAS65-TBH76-110	65	110	CCMT120400
BT40-TBH76-200	Ø76 - Ø116	200	BT40-SAS65-90	SAS65-TBH76-110	65	110	CCMT120400
BT40-TBH76-220	Ø76 - Ø116	220	BT40-SAS65-110	SAS65-TBH76-110	65	110	CCMT120400
BT40-TBH76-240	Ø76 - Ø116	240	BT40-SAS65-130	SAS65-TBH76-110	65	110	CCMT120400
BT50-TBH25-110	Ø25 - Ø34	110	BT50-SAS22-60	SAS22-TBH25-50	22	50	CCMT060200
BT50-TBH25-130	Ø25 - Ø34	130	BT50-SAS22-80	SAS22-TBH25-50	22	50	CCMT060200
BT50-TBH25-150	Ø25 - Ø34	150	BT50-SAS22-100	SAS22-TBH25-50	22	50	CCMT060200
BT50-TBH34-130	Ø34 - Ø50	130	BT50-SAS31-70	SAS31-TBH34-60	31	60	CCMT060200
BT50-TBH34-160	Ø34 - Ø50	160	BT50-SAS31-100	SAS31-TBH34-60	31	60	CCMT060200
BT50-TBH34-190	Ø34 - Ø50	190	BT50-SAS31-130	SAS31-TBH34-60	31	60	CCMT060200
BT50-TBH50-150	Ø50 - Ø76	150	BT50-SAS42-70	SAS42-TBH50-80	42	80	CCMT09T300
BT50-TBH50-190	Ø50 - Ø76	190	BT50-SAS42-110	SAS42-TBH50-80	42	80	CCMT09T300
BT50-TBH50-240	Ø50 - Ø76	240	BT50-SAS42-150	SAS42-TBH50-80	42	80	CCMT09T300
BT50-TBH76-200	Ø76 - Ø116	200	BT50-SAS65-90	SAS65-TBH76-110	65	110	CCMT120400
BT50-TBH76-240	Ø76 - Ø116	240	BT50-SAS65-130	SAS65-TBH76-110	65	110	CCMT120400
BT50-TBH76-280	Ø76 - Ø116	280	BT50-SAS65-170	SAS65-TBH76-110	65	110	CCMT120400
BT50-TBH116-225	Ø116- Ø156	225	BT50-SAS84-80	SAS84-TBH116-145	84	145	CCMT120400
BT50-TBH116-275	Ø116- Ø156	275	BT50-SAS84-130	SAS84-TBH116-145	84	145	CCMT120400
BT50-TBH116-325	Ø116- Ø156	325	BT50-SAS84-180	SAS84-TBH116-145	84	145	CCMT120400

双刃镗孔刀柄(大径-粗镗)
TWIN EDGE BORING BAR SET (Big Bore - For Rough Cutting)

MAS403-BT



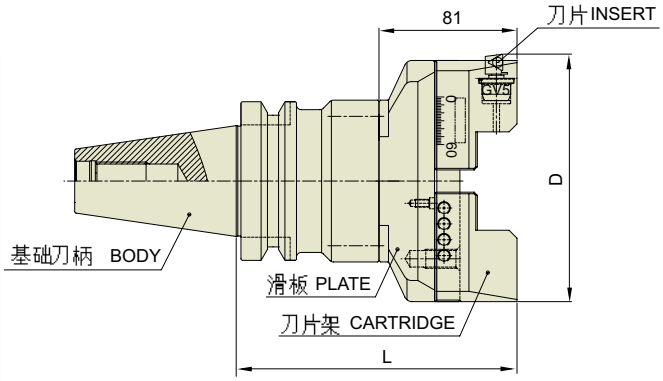
MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

CODE No.	D Min - Max	L	基础刀柄 BODY	滑板 PLATE	刀片 INSERT
BT50-TBH156-180	Ø156 - Ø216	180	BT50-SAS102-90	PLA156	CCMT120400
BT50-TBH156-230	Ø156 - Ø216	230	BT50-SAS102-140	PLA156	CCMT120400
BT50-TBH156-280	Ø156 - Ø216	280	BT50-SAS102-190	PLA156	CCMT120400
BT50-TBH216-180	Ø216 - Ø276	180	BT50-SAS102-90	PLA216	CCMT120400
BT50-TBH216-230	Ø216 - Ø276	230	BT50-SAS102-140	PLA216	CCMT120400
BT50-TBH216-280	Ø216 - Ø276	280	BT50-SAS102-190	PLA216	CCMT120400
BT50-TBH276-180	Ø276 - Ø336	180	BT50-SAS102-90	PLA276	CCMT120400
BT50-TBH276-230	Ø276 - Ø336	230	BT50-SAS102-140	PLA276	CCMT120400
BT50-TBH276-280	Ø276 - Ø336	280	BT50-SAS102-190	PLA276	CCMT120400
BT50-TBH336-180	Ø336 - Ø396	180	BT50-SAS102-90	PLA336	CCMT120400
BT50-TBH336-230	Ø336 - Ø396	230	BT50-SAS102-140	PLA336	CCMT120400
BT50-TBH336-280	Ø336 - Ø396	280	BT50-SAS102-190	PLA336	CCMT120400
BT50-TBH396-180	Ø396 - Ø456	180	BT50-SAS102-90	PLA396	CCMT120400
BT50-TBH396-230	Ø396 - Ø456	230	BT50-SAS102-140	PLA396	CCMT120400
BT50-TBH396-280	Ø396 - Ø456	280	BT50-SAS102-190	PLA396	CCMT120400
BT50-TBH456-180	Ø456 - Ø516	180	BT50-SAS102-90	PLA456	CCMT120400
BT50-TBH456-230	Ø456 - Ø516	230	BT50-SAS102-140	PLA456	CCMT120400
BT50-TBH456-280	Ø456 - Ø516	280	BT50-SAS102-190	PLA456	CCMT120400
BT50-TBH516-180	Ø516 - Ø576	180	BT50-SAS102-90	PLA516	CCMT120400
BT50-TBH516-230	Ø516 - Ø576	230	BT50-SAS102-140	PLA516	CCMT120400
BT50-TBH516-280	Ø516 - Ø576	280	BT50-SAS102-190	PLA516	CCMT120400

双刃镗孔刀柄(大径-精镗)

TWIN EDGE BORING BAR (Big Bore - For Finishing)

MAS403-BT



MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

CODE No.	D Min - Max	L	基础刀柄 BODY	滑板 PLATE	刀片 INSERT
BT50-FBH156-171	Ø156 - Ø216	171	BT50-SAS102-90	PLA156	TPGT110400
BT50-FBH156-221	Ø156 - Ø216	221	BT50-SAS102-140	PLA156	TPGT110400
BT50-FBH156-271	Ø156 - Ø216	271	BT50-SAS102-190	PLA156	TPGT110400
BT50-FBH216-171	Ø216 - Ø276	171	BT50-SAS102-90	PLA216	TPGT110400
BT50-FBH216-221	Ø216 - Ø276	221	BT50-SAS102-140	PLA216	TPGT110400
BT50-FBH216-271	Ø216 - Ø276	271	BT50-SAS102-190	PLA216	TPGT110400
BT50-FBH276-171	Ø276 - Ø336	171	BT50-SAS102-90	PLA276	TPGT110400
BT50-FBH276-221	Ø276 - Ø336	221	BT50-SAS102-140	PLA276	TPGT110400
BT50-FBH276-271	Ø276 - Ø336	271	BT50-SAS102-190	PLA276	TPGT110400
BT50-FBH336-171	Ø336 - Ø396	171	BT50-SAS102-90	PLA336	TPGT110400
BT50-FBH336-221	Ø336 - Ø396	221	BT50-SAS102-140	PLA336	TPGT110400
BT50-FBH336-271	Ø336 - Ø396	271	BT50-SAS102-190	PLA336	TPGT110400
BT50-FBH396-171	Ø396 - Ø456	171	BT50-SAS102-90	PLA396	TPGT110400
BT50-FBH396-221	Ø396 - Ø456	221	BT50-SAS102-140	PLA396	TPGT110400
BT50-FBH396-271	Ø396 - Ø456	271	BT50-SAS102-190	PLA396	TPGT110400
BT50-FBH456-171	Ø456 - Ø516	171	BT50-SAS102-90	PLA456	TPGT110400
BT50-FBH456-221	Ø456 - Ø516	221	BT50-SAS102-140	PLA456	TPGT110400
BT50-FBH456-271	Ø456 - Ø516	271	BT50-SAS102-190	PLA456	TPGT110400
BT50-FBH516-171	Ø516 - Ø576	171	BT50-SAS102-90	PLA516	TPGT110400
BT50-FBH516-221	Ø516 - Ø576	221	BT50-SAS102-140	PLA516	TPGT110400
BT50-FBH516-271	Ø516 - Ø576	271	BT50-SAS102-190	PLA516	TPGT110400

微切削镗孔刀柄
MICRO BORING BAR

MAS403-BT

FIG.1

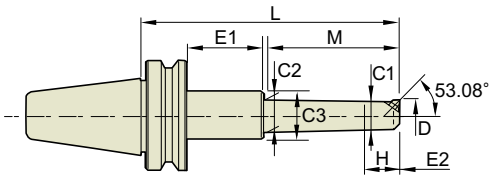
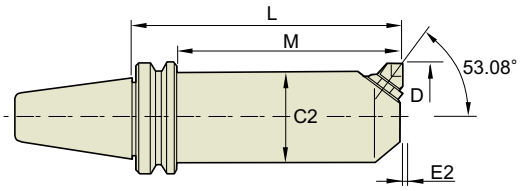


FIG.2



MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

TAPER No.	CODE No.	FIG.	D		L	M	C1	C2	C3	H	E1	E2	刀头	刀片	Weight (kg)
			Min	Max									UNIT	INSERT	
30	BT30-BCA13.5-105	1	13.5	16	105	68	12	13.0	44	15	5	0.2	M1B2 E/F	BRAZED TYPE	
	BT30-BCA14.5-105	1	14.5	17	105	68	13	14.0	44	15	5	0.2	M1B2 E/F	BRAZED TYPE	
	BT30-BCA16-105	3	16	22.5	105	73	14	15	–	18	–	0.2	M1A2 E/F	BRAZED TYPE	
	BT30-BCA19-120	1	19	23	120	85	16	18	44	23	3	0.2	M2B 2XC	CCGT0401	0.70
	BT30-BCA23-135	3	23	29	135	105	19	22	–	24	–	0.2	M3B 2XT	TBGT0601	0.70
	BT30-BCA29-150	1	29	41	150	115	25	28	44	30	8	0.2	M3A 2XT	TBGT0601	0.90
	BT30-BCA29-195	1	29	41	195	115	25	28	44	30	53	0.2	M3A 2XT	TBGT0601	
	BT30-BCA38-150	1	38	49	150	115	33	35	55	41	8	0.2	M5B 2XT	TCMT1102	1.40
	BT30-BCA38-210	1	38	49	210	175	33	37	55	41	8	0.2	M5B 2XT	TCMT1102	
	BT30-BCA46-150	1	46	66	150	115	38	41	55	45	8	0.2	M5A 2XT	TCMT1102	2.10
	BT30-BCA46-210	1	46	66	210	175	38	45	55	45	8	0.2	M5A 2XT	TCMT1102	
	BT30-BCA62-165	2	62	87	165	135	51	–	–	–	–	0.2	M7A 2XT	TCMT16T3	
40	BT40-BCA13.5-105	1	13.5	16	105	68	12	13.0	44	15	5	0.2	M1B2 E/F	BRAZED TYPE	
	BT40-BCA14.5-105	1	14.5	17	105	68	13	14.0	44	15	5	0.2	M1B2 E/F	BRAZED TYPE	
	BT40-BCA16-105	3	16	22.5	105	73	14	15	–	18	–	0.2	M1A2 E/F	BRAZED TYPE	
	BT40-BCA19-120	1	19	23	120	85	16	18	44	23	3	0.2	M2B2XC	CCGT0401	1.50
	BT40-BCA23-135	3	23	29	135	105	19	22	–	24	–	0.2	M3B2XT	TBGT0601	1.50
	BT40-BCA29-150	1	29	41	150	115	25	28	44	30	8	0.2	M3A2XT	TBGT0601	1.50
	BT40-BCA29-195	1	29	41	195	115	25	28	44	30	53	0.2	M3A2XT	TBGT0601	2.00
	BT40-BCA38-150	1	38	49	150	115	33	35	55	41	8	0.2	M5B2XT	TCMT1102	1.80
	BT40-BCA38-210	1	38	49	210	175	33	37	55	41	8	0.2	M5B2XT	TCMT1102	2.20
	BT40-BCA46-150	1	46	66	150	115	38	41	55	45	8	0.2	M5A2XT	TCMT1102	2.10
	BT40-BCA46-210	1	46	66	210	175	38	45	55	45	8	0.2	M5A2XT	TCMT1102	2.30
	BT40-BCA62-165	2	62	87	165	135	51	–	–	–	–	0.2	M7A2XT	TCMT16T3	2.90
	BT40-BCA62-210	2	62	87	210	180	51	–	–	–	–	0.2	M7A2XT	TCMT16T3	3.60
	BT40-BCA83-150	2	83	108	150	120	63	–	–	–	–	0.2	M7A2XT	TCMT16T3	
	BT40-BCA83-210	2	83	108	210	180	63	–	–	–	–	0.2	M7A2XT	TCMT16T3	
	BT40-BCA98-150	4	98	142	150	120	83	–	–	85	–	0.2	M10A2XT	TCMT16T3	

微切削镗孔刀柄
MICRO BORING BAR

MAS403-BT

FIG.1

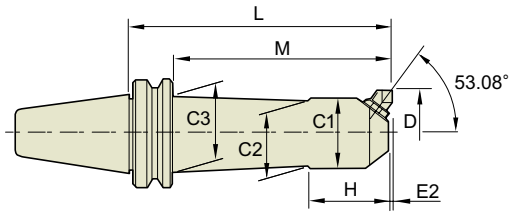
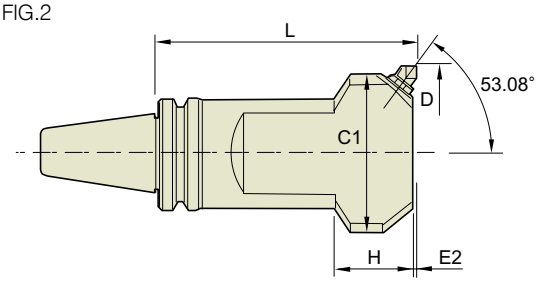


FIG.2



MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

TAPER No.	CODE No.	FIG.	D		L	M	C1	C2	C3	H	E1	E2	刀头	刀片	Weight (kg)
			Min	Max									UNIT	INSERT	
50	BT50-BCA13.5-120	1	13.5	16	120	67	12	13	44	15	10	0.2	M1B2 E/F	–	
	BT50-BCA13.5-195	1	13.5	16	195	67	12	13	44	15	85	0.2	M1B2 E/F	–	
	BT50-BCA14.5-120	1	14.5	17	120	67	13	14	44	15	10	0.2	M1B2 E/F	–	
	BT50-BCA14.5-195	1	14.5	17	195	67	13	14	44	15	85	0.2	M1B2 E/F	–	
	BT50-BCA16-120	1	16	22.5	120	73	14	15	44	18	4	0.2	M1A2 E/F	–	
	BT50-BCA16-195	1	16	22.5	195	73	14	15	44	18	79	0.2	M1A2 E/F	–	
	BT50-BCA19-135	1	19	23	135	86	16	18	44	23	6	0.2	M2B2XC	CCGT0401	3.80
	BT50-BCA19-210	1	19	23	210	86	16	18	44	23	81	0.2	M2B2XC	CCGT0401	
	BT50-BCA23-150	1	23	29	150	105	19	22	44	24	2	0.2	M3B2XT	TBGT0601	3.90
	BT50-BCA23-225	1	23	29	225	105	19	22	44	24	77	0.2	M3B2XT	TBGT0601	
	BT50-BCA29-165	1	29	41	165	115	25	28	44	30	7	0.2	M3A2XT	TBGT0601	4.50
	BT50-BCA29-225	1	29	41	225	115	25	28	44	30	67	0.2	M3A2XT	TBGT0601	
	BT50-BCA38-165	1	38	49	165	115	33	35	55	41	7	0.2	M5B2XT	TCMT1102	
	BT50-BCA38-225	1	38	49	225	172	33	37	55	41	10	0.2	M5B2XT	TCMT1102	5.00
	BT50-BCA46-165	1	46	66	165	115	38	41	55	45	7	0.2	M5A2XT	TCMT1102	5.20
	BT50-BCA46-225	3	46	66	225	182	38	–	–	45	–	0.2	M5A2XT	TCMT1102	
	BT50-BCA46-255	1	46	66	255	206	38	–	55	45	6	0.2	M5A2XT	TCMT1102	5.70
	BT50-BCA62-180	2	62	87	180	137	51	–	–	–	–	0.2	M7A2XT	TCMT16T3	7.00
	BT50-BCA62-240	1	62	87	240	184	51	57	70	60	13	0.2	M7A2XT	TCMT16T3	7.60
	BT50-BCA62-330	1	62	87	330	280	51	60	70	60	7	0.2	M7A2XT	TCMT16T3	9.50
	BT50-BCA83-165	2	83	108	165	122	63	–	–	–	–	0.2	M7A2XT	TCMT16T3	
	BT50-BCA83-240	1	83	108	240	190	63	62	90	95	7	0.2	M7A2XT	TCMT16T3	
	BT50-BCA83-345	1	83	108	345	295	63	62	90	95	7	0.2	M7A2XT	TCMT16T3	
	BT50-BCA98-165	2	98	142	165	122	83	–	–	–	–	0.2	M10A2XT	TCMT16T3	
	BT50-BCA98-240	2	98	142	240	197	83	–	–	–	–	0.2	M10A2XT	TCMT16T3	
	BT50-BCA98-345	3	98	142	345	302	83	92	–	85	–	0.2	M10A2XT	TCMT16T3	
	BT50-BCA132-210	4	132	176	210	–	108	–	–	65	–	0.2	M10A2XT	TCMT16T3	
	BT50-BCA132-315	4	132	176	315	–	108	–	–	65	–	0.2	M10A2XT	TCMT16T3	
	BT50-BCA166-225	4	166	210	225	–	142	–	–	70	–	0.2	M10A2XT	TCMT16T3	
	BT50-BCA166-315	4	166	210	315	–	142	–	–	70	–	0.2	M10A2XT	TCMT16T3	
	BT50-BCA200-210	4	200	244	210	–	176	–	–	75	–	0.2	M10A2XT	TCMT16T3	

微切削镗孔刀柄
MICRO BORING BAR

ST

FIG.1

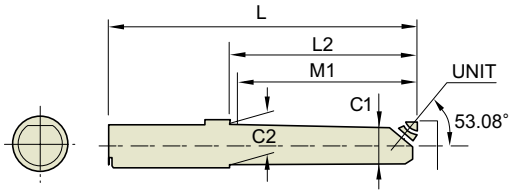
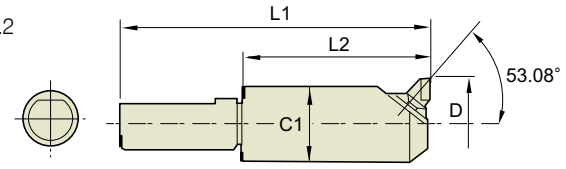


FIG.2



K	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

STYLE	CODE No.	FIG.	D		L1	L2	M1	C1	C2	刀头	Weight (kg)
			Min	Max						MICRO UNIT	
32	ST32-BCA13.5-75	1	13.5	16	135	75	67	12	13	M1B2E/F	0.5
	ST32-BCA14.5-75	1	14.5	17	145	75	67	12	14	M1B2E/F	0.5
	ST32-BCA16-90	1	16	22.5	160	90	82	14	15	M1A2E/F	0.5
	ST32-BCA19-90	1	19	23.0	160	90	82	16	18	M2B-2XC	0.5
	ST32-BCA23-120	1	23	29.0	190	120	110	19	22	M3B-2XT	1
	ST32-BCA29-120	1	29	41.0	190	120	110	25	28	M3A-2XT	1
	ST32-BCA38-120	2	38	49.0	190	120	115	33	35	M5B-2XT	1.5
	ST32-BCA46-120	2	46	66	190	120	115	38	–	M5A-2XT	1.5
	ST32-BCA62-120	2	62	87.0	190	120	115	51	–	M7A-2XT	2.5
42	ST42-BCA13.5-85	1	13.5	16	165	85	67	12	13	M1B2E or F	1.0
	ST42-BCA14.5-85	1	14.5	17	165	85	67	12	14	M1B2E or F	1.0
	ST42-BCA16-100	1	16	22.5	180	100	82	14	15	M1A2E or F	1.0
	ST42-BCA19-100	1	19	23.0	180	100	82	16	18	M2B2E or F	1.0
	ST42-BCA23-120	1	23	29.0	200	120	110	19	22	M3B-2XT	1.5
	ST42-BCA29-120	1	29	41.0	200	120	110	25	28	M3A-2XT	1.5
	ST42-BCA38-130	1	38	49.0	210	130	125	33	35	M5B-2XT	1.5
	ST42-BCA46-135	1	46	66.0	215	135	130	38	44	M5A-2XT	1.5
	ST42-BCA62-135	2	62	87.0	215	135	130	51	–	M7A-2XT	2.5
	ST42-BCA83-150	2	83	108	230	150	145	63	–	M7A-2XT	3.0

直角镗孔刀柄 (45°)
SQUARE BORING BAR (45°)

MAS403-BT

FIG.1

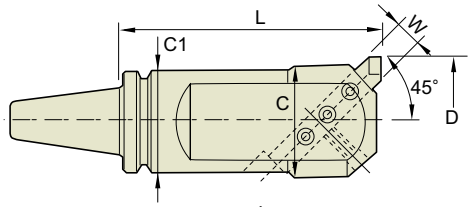
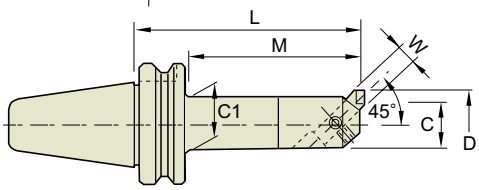


FIG.2



MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

TAPER No.	CODE No.	D		L	C	C1	W	M	Weight (kg)
		Min	Max						
30	BT30-BSA25-120	25	38	120	20	22	8	90	1.0
	BT30-BSA30-135	30	42	135	24	26	8	105	1.1
	BT30-BSA38-150	38	52	150	30	33	10	120	1.4
	BT30-BSA42-150	42	56	150	34	37	10	125	1.6
	BT30-BSA50-150	50	65	150	40	44	13	125	1.8
40	BT40-BSA25-135	25	38	135	20	22	8	108	1.3
	BT40-BSA30-165	30	42	165	24	26	8	138	1.5
	BT40-BSA38-180	38	52	180	30	33	10	153	1.8
	BT40-BSA42-210	42	56	210	34	37	10	183	2.3
	BT40-BSA50-180	50	65	180	40	44	13	153	2.4
	BT40-BSA50-225	50	65	225	40	44	13	198	2.9
	BT40-BSA62-180	62	90	180	50	54	16	153	3.2
	BT40-BSA62-240	62	90	240	50	54	16	213	4.2
	BT40-BSA72-180	72	110	180	60	63	19	153	4.4
	BT40-BSA72-240	72	110	240	60	63	19	213	5.7
	BT40-BSA90-180	90	125	180	75	63	19	153	5.4
50	BT50-BSA25-135	25	38	135	20	22	8	95	4.4
	BT50-BSA30-165	30	42	165	24	26	8	125	4.6
	BT50-BSA38-180	38	52	180	30	33	10	140	4.8
	BT50-BSA42-210	42	56	210	34	37	10	170	5.0
	BT50-BSA50-180	50	65	180	40	44	13	140	5.4
	BT50-BSA50-240	50	65	240	40	44	13	200	5.7
	BT50-BSA62-195	62	90	195	50	54	16	155	6.1
	BT50-BSA62-270	62	90	270	50	54	16	230	7.5
	BT50-BSA72-195	72	110	195	60	66	19	155	6.9
	BT50-BSA72-285	72	110	285	60	66	19	245	9.3
	BT50-BSA90-210	90	125	210	75	80	19	170	9.2
	BT50-BSA90-300	90	125	300	75	80	19	260	12.3
	BT50-BSA105-195	105	160	195	90	90	25	157	10.5
	BT50-BSA105-285	105	160	285	90	90	25	247	14.8

直角镗孔刀柄 (90°)
SQUARE BORING BAR (90°)

MAS403-BT

FIG.1

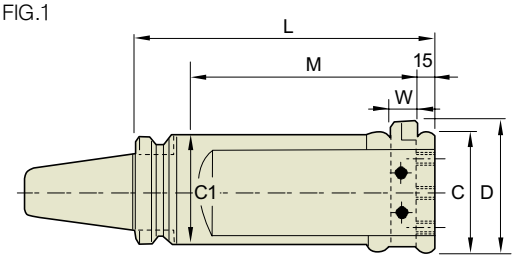
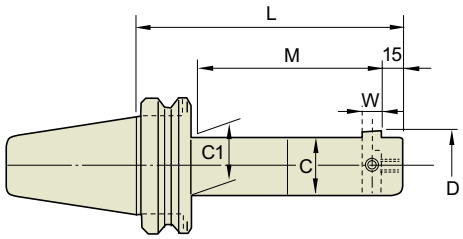


FIG.2

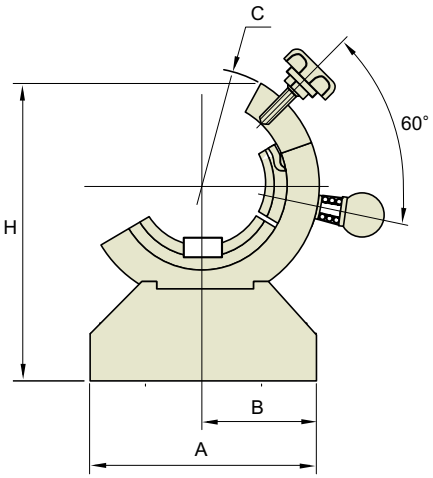


MAS403 -BT	Taper Accuracy	G Value	RPM	Coolant System
	AT3			

TAPER No.	CODE No.	D		L	C	C1	W	M	Weight (kg)
		Min	Max						
30	BT30-BSB25-120	25	50	120	20	22	8	90	1.1
	BT30-BSB38-150	38	70	150	30	33	10	120	1.5
	BT30-BSB50-150	50	90	150	40	44	13	125	2.2
40	BT40-BSB25-135	25	50	135	20	22	8	108	1.3
	BT40-BSB38-180	38	70	180	30	33	10	153	1.9
	BT40-BSB50-180	50	90	180	40	44	13	153	2.6
	BT40-BSB50-225	50	90	225	40	44	13	198	3.1
	BT40-BSB62-180	62	115	180	50	56	16	153	3.4
	BT40-BSB62-225	62	115	225	50	56	16	198	4.1
	BT40-BSB72-180	72	135	180	60	66	19	153	4.7
	BT40-BSB72-225	72	135	225	60	66	19	198	5.6
	BT40-BSB90-180	90	150	180	75	80	19	153	5.7
	BT40-BSB90-225	90	150	225	75	80	19	198	6.6
50	BT50-BSB25-135	25	50	135	20	22	8	95	4.1
	BT50-BSB38-180	38	70	180	30	33	10	140	4.8
	BT50-BSB50-180	50	90	180	40	44	13	140	5.5
	BT50-BSB50-240	50	50	240	40	44	13	200	5.7
	BT50-BSB62-195	62	115	195	50	56	16	155	6.4
	BT50-BSB62-270	62	115	270	50	56	16	230	7.9
	BT50-BSB72-195	72	135	195	60	66	19	155	7.3
	BT50-BSB72-285	72	135	285	60	66	19	245	9.6
	BT50-BSB90-210	90	150	210	75	80	19	170	9.6
	BT50-BSB90-300	90	150	300	75	80	19	260	12.6
	BT50-BSB105-195	105	190	195	90	–	25	155	11.1
	BT50-BSB105-285	105	190	285	90	94	25	245	15.4

TCP

工具夹持器
TOOL CLAMPER

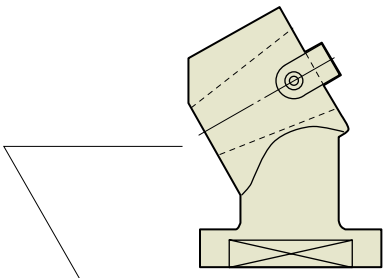


Flange Clamping	Taper Clamping
YES	NO

TAPER No.	CODE No.	A	B	C	H	Weight (kg)
BT30	**TCP30**	125	65	108	135	3.0
BT40	**TCP40**	160	80	138	180	7.6
BT50	**TCP50**	180	90	165	205	8.6
SK30	**TSK30**	125	65	108	135	3.0
SK40	**TSK40**	160	80	138	180	7.6
SK50	**TSK50**	180	90	165	205	8.6

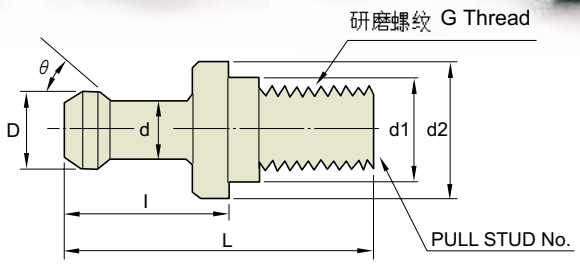
■ 特 征 / FEATURES

1. 避免锥柄表面的碰伤及磨损. (锥柄直接影响刀具的震动)
   No surface damage such as abrasion and scratch around taper shank closely associated with tool runout
2. 方便装配拉丁
   Easy to assemble and disassemble pull stud bolt
3. 强力刀柄, ER刀柄等产品,使用扳手时既方便又安全
   Convenient and safe when using spanner wrench with milling chuck or ER collet chuck



内部有异物时容易损伤锥柄
Severe damage to taper shank due to foreign substances inside sleeve

拉丁
PULL STUD BOLT



CODE No.	D	d2	d1	d	L	l	G	θ	TYPE
PS-1	15	23	17	10	60	35	M16	45°	BT40- I standard type
PS-2	15	23	17	10	60	35	M16	60°	BT40- II standard type
PS-5	23	38	25	17	85	45	M24	45°	BT50- I standard type
PS-6	23	38	25	17	85	45	M24	60°	BT50- II standard type
PS-16	11	16.5	12.5	7	43	23	M12	45°	BT30- I standard type
PS-17	11	16.5	12.5	7	43	23	M12	60°	BT30- II standard type
PS-0	23	38	25	17	85	45	M24	90°	For BT50 OKK
PS-08	15	23	17	10	60	35	M16	90°	For BT40 OKK
PS-P	24	36	25	18	71	31	M24	90°	For BT50 MITISUI SEIKI
PS-P5	15	23	17	10	50	25	M16	90°	For BT40 MITISUI SEIKI
PS-G41	29	37	25	21	65.2	25.2	M24	45°	For BT50 MASAK
PS-G51	18.8	22	17	12	44.1	19.1	M16	45°	For BT40 MASAK
PS-S2	25	39	25	18	95	55	M24	60°	For SHIN NIPPON KOKI
PS-F1	23	39	25	18	104	64	M24	45°	For MITSUBISHI
PS-B1	22	38	25	16	112	72	M24	60°	For OKUMA
PSS-1	19	23	17	14	54	26	M16	75°	For SK40
PSS-5	28	36	25	21	74	34	M24	75°	For SK50

▶ 其它特殊型号的液压刀柄也可以制作.
Other special sizes of hydraulic chucks could be manufactured.

▶ 通孔型 ("H"型)可根据要求提供.
Through hole type ("H" type) is available upon request .

拉丁比较表 / COMPARISON TABLE OF PULL STUD

设备厂家 MACHINE MANUFACTURER	型号 PS / BOLT	工具型号 PS / BOLT	工具型号 PS / BOLT
DOOSAN	ACE-TC400	BT30	PS-16
	ACE-TC320D	BT30	PS-16
	Mynx NM410	BT40	PS-1
	Mynx 410	BT40	PS-5
	Mynx 500	BT50	PS-5
	Mynx 650	BT50	PS-5
	Mynx 750	BT50	PS-1
	ACE-VM5410/510	BT40	PS-1
	ACE-VM710	BT50	PS-5
	ACE-VM900/950	BT50	PS-1
	ACE-V430	BT40	PS-1
	ACE-VC500	BT40	PS-1
	ACE-VMD450	BT40	PS-1
	ACE-VMD600	BT40	PS-1

设备厂家 MACHINE MANUFACTURER	型号 PS / BOLT	工具型号 PS / BOLT	工具型号 PS / BOLT
DOOSAN	NR 510M	BT50	PS-5
	NR 700	BT50	PS-5
	VM560/50	BT50	PS-5
	VM 70(H)	BT50	PS-5
	VM 84	BT50	PS-5
	VM 925L	BT50	PS-5
	NX 5000	BT50	PS-5
	ACE-HC400/500	BT40	PS-1
	ACE-HM500/630/800	BT50	PS-5
	ACE-H100	BT50	PS-5
	ACE-HP4000/5100	BT40	PS-1
	ACE-HP400	BT40	PS-1
	ACE-HP500/630	BT50	PS-5

拉丁
PULL STUD BOLT

拉丁比较表 / COMPARISON TABLE OF PULL STUD

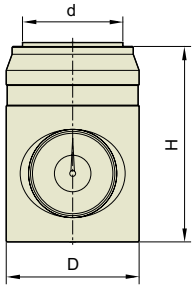
设备厂家 MACHINE MANUFACTURER	型号 PS / BOLT	工具型号 PS / BOLT	工具型号 PS / BOLT
WIA	VX380T/420T	BT30	PS-16
	MX380/420	BT30	PS-16
	VX400/460	BT40	PS-1
	KV45/45P	BT40	PS-1
	VX500	BT40	PS-1
	VX510M/660M	BT40	PS-1
	VX700/40	BT40	PS-1
	VX700/50	BT50	PS-5
	VX750	BT50	PS-5
	VX500/50	BT50	PS-6
	KV60N/90	BT50	PS-5
SEMC	Any Mill LCV30A/B	BT30	PS-17
	Any Mill LCV55S	BT50	PS-6
	Any Mill LCV650S	BT50	PS-5
	Any Mill ICV66	BT50	PS-5
	Any Mill ICV80	BT50	PS-5
	DMC-3000	BT50	PS-0
	PCH40	BT40	PS-1
	PCH50	BT50	PS-5
HWACHEON	SIRIUS-1	BT30	PS-16
	SIRIUS-550	BT40	PS-1
	SIRIUS-UL/ULG	BT40	PS-1
	SIRIUS-7040	BT50	PS-0

设备厂家 MACHINE MANUFACTURER	型号 PS / BOLT	工具型号 PS / BOLT	工具型号 PS / BOLT
HWACHEON	SIRIUS-650/650N	BT50	PS-0
	SIRIUS-850/850N	BT50	PS-0
	SIRIUS-700	BT50	PS-0
	SIRIUS-12580	BT50	PS-0
S&T	TCH-45	BT40	PS-1
	TCH-50	BT50	PS-6
	TCH-80	BT50	PS-6
	TCH-80TS	BT50	PS-6
	FX-500H	BT40	PS-2
	TNV-40A	BT40	PS-1
	TNV-80A	BT40	PS-1
	TNV-650V	BT50	PS-6
HASS	TM-1/2	BT40	PS-1
	VF-4SS/3SS/2SS	BT40	PS-1
	VF-2TR	BT40	PS-1
	VF-5/50TR	BT50	PS-5
	VF-9/50	BT50	PS-5
	VF-8/50	BT50	PS-5
MAZAK		BT40	PS-G51
		BT50	PS-G41
MORI SEKI		BT40	PS-08
		BT50	PS-51

MHP-100/HP-100

高度压力测试器
HEIGHT PRESETTER

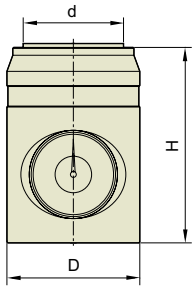
· 磁性高度压力测试器
Magnetic Height Pesetter



* Vertical(垂直), Horizontal(水平) 均可使用
Both vertical and horizontal type usable

* 超薄设计 / Slim design

· 高度测试器
Height Presetter



* Vertical(垂直) 专用
Exclusively for vertical

CODE NO.	D	H	d	DIAL
MHP-100 (magnetic)	98	100	62	0.01
HP-100	68	100 ± 0.01	62	0.01

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C2109	1041	DL109	183	E5524	891	EM818	652
C2119	1042	DL126	159	E5553	885	EM819	654
C2139	1043	DL504	154	E5634	891	EM820	625
C3109	1041	DL505	152	E5711	892	EM821	630
C3119	1042	DL507	161	E5742	892	EM822	633
C3139	1043	DL600	155	E5882	887	EM823	636
CDRA03	116	DL608	156	E5A18	747	EM824	650
CDRA04	118	DL609	157	E5C33	740	EM825	648
D1100	184	DL610	158	E5C34	741	EM826	627
D1101	188	DN221	225	E5C70	857	EM827	632
D1102	192	DPPA01	66	E5C71	858	EM828	652
D1105	176	DPPA02	69	E5C72	859	EM829	654
D1106	186	DV301	237	E5C73	860	EM832	649
D1107	171	DV304	236	E5C74	861	EM833	651
D1121	182	DV305	236	EE515	700	EM834	634
D1123	198	E2401	948	EG908	746	EM835	656
D1201	206	E2406	950	EG909	744	EM836	628
D1202	209	E2410	937	EG910	745	EM837	658
D1203	208	E2412	955	EG930	742	EM838	638
D1204	210	E2420	953	EH830	698	EM839	657
D1205	213	E2421	960	EH831	702	EM842	649
D1206	215	E2429	938	EH840	698	EM843	651
D1207	212	E2461	936	EH841	702	EM844	634
D1208	211	E2462	936	EH852	701	EM845	656
D1209	216	E2463	936	EH862	701	EM846	628
D1210	217	E2464	932	EH911	696	EM847	658
D1GP103	142	E2480	962	EH912	696	EM848	638
D2101	190	E2498	1005	EH913	697	EM849	657
D2104	180	E2659	957	EH914	697	EM863	646
D2105	173	E2675	1000	EH915	699	EM864	647
D2107	168	E2676	1001	EH916	699	EM865	642
D2201	218	E2677	1002	EH917	703	EM876	635
D2202	221	E2678	1003	EH918	703	EM877	635
D2203	220	E2679	1004	EH919	704	EM878	640
D2204	222	E2682	964	EH920	704	EM879	640
D2207	224	E2683	966	EH921	705	EM883	659
D2208	223	E2749	952	EH942	705	EM886	663
D2306	230	E2750	959	EI450	779	EM889	666
D2307	230	E2751	939	EI451	778	EM890	668
D2GP191	144	E2752	940	EI880	777	EM895	629
D4541	124	E2753	943	EI881	780	EM896	629
D4542	128	E2754	945	EI996	783	EM897	655
D5306	110	E2755	941	EI997	774	EM898	655
D5307	110	E2756	942	EIA13	787	EM899	637
D5315	111	E2759	969	EIA14	788	EM900	637
D5318	111	E2760	967	EIB04	781	EM902	639
D5401	104	E2762	944	EIB86	785	EM904	639
D5405	100	E2764	939	EIB87	782	EM905	653
D5407	102	E2765	940	EIB88	786	EMB12	720
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DH406	55	E2768	946	EL612	934	EMB14	716
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DH423	50	E5401	894	EM669	644	EMB38	721
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DH452	79	E5414	896	EM810	625	EMB41	714
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G8A28	588	KSC-METRIC	302	R1102	1052	S1815	263~266
G8A36	596	KSD-INCH	299	R1103	1053	S1855	263~266
G8A37	601	KSD-METRIC	302	R1104	1054	S1860	263~266
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G8A47	600	KSG-INCH	298,305	R1109	1059	SGED30	763
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G8A54	587	KTB-METRIC	294	R1113	1063	SM115	271~274
G8A59	591	KTC-INCH	290	R1201	1051	SM155	271~274
G8A60	593	KTC-METRIC	295	R1202	1052	SM160	271~274
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SM710	281~284	T1326	450	T7562	485	ZH120	34
SM715	281~284	T1330	451	TL231	384	ZH125	34
SM755	281~284	T1331	451	TM481	429	ZH130	34
SM760	281~284	T1340	451	TM482	429	ZH135	34
SM765	281~284	T1341	451	TR641	423	ZH140	34
SM805	285~288	T1350	452	TSK11	497	ZH145	35
SM810	285~288	T1351	452	TSK12	500	ZH150	35
SM815	285~288	T1360	452	TSK13	502	ZH155	35
SM855	285~288	T1361	452	TSK21	503	ZH160	35
SM860	285~288	T1401	428	TSK23	504	ZH165	35
SM865	285~288	T1402	428	TSK34	507	ZH170	36
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T0452	494	T2111	421	XMB110A	572	ZH205	37
T0462	494	T2120	417	XMB120C	572	ZH210	37
T1022	359	T2131	419	XMR110A	575	ZH215	37
T1023	375	T2197	467	XMR120C	575	ZH220	37
T1042	366	T2198	468	YA1A12	34	ZH225	37
T1043	377	T2518	482	YA1A13	34	ZH230	37
T1103	441	T2527	487	YA2C12	34	ZH235	37
T1104	442	T2532	481	YA2C13	34	ZH240	38
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T1131	411	T2702	458	YC2C16	35,36	ZH275	38
T1132	394	T2731	457	YC2C17	35,36	ZH280	39
T1133	414	T2732	458	YD1A18	36	ZH285	39
T1140	445	T2741	460	YD1A19	36	ZH290	39
T1142	370	T2749	459	YD2C18	36	ZH295	39
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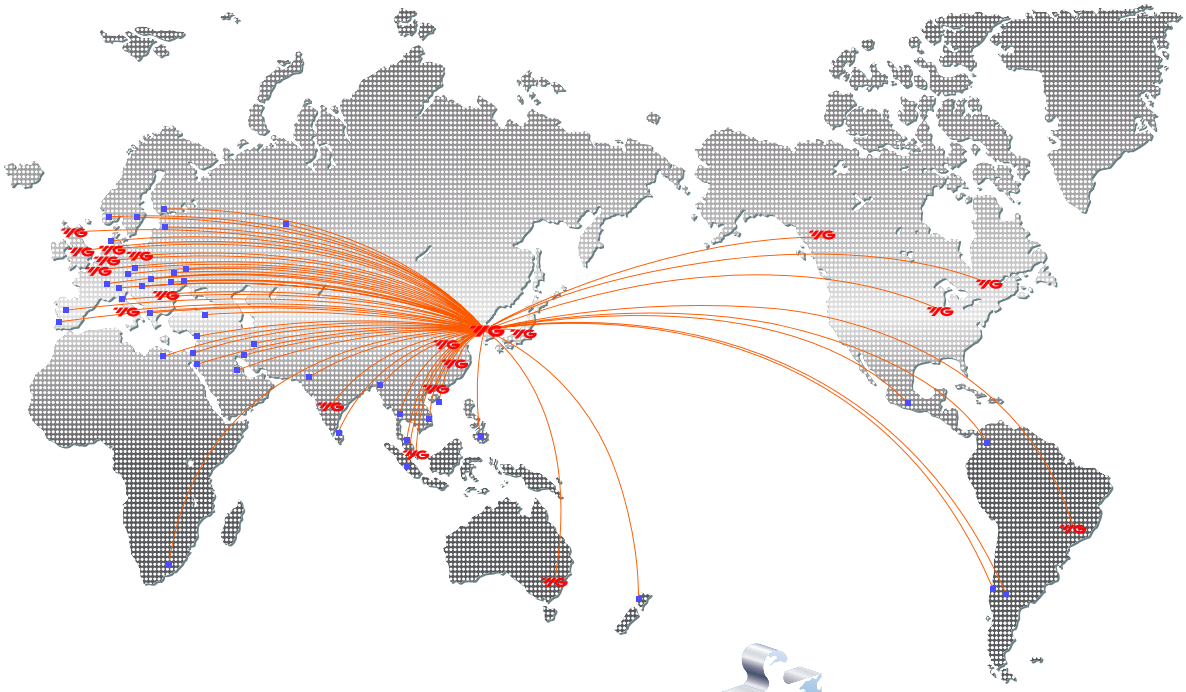
MEMO

Based on Global Management,
YG-1 Brand is Exporting to 75 countries.

In front of the technology and goods of YG-1, Borders is collapsed.
We have already established regional manufacturing plants in the US,the UK, France, China and India, and also have been exporting our goods to 75 countries in the name of YG-1 by means of building up local subsidiaries and worldwide sales network.
Automobiles of Germany, Aircrafts of the US and Electronics of Japan need cutting tools of YG-1 to come into existence.
From now on,when you look at a global map, please remember the name, YG-1.



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