BIG

BIG DAISHOWA

HIGH PRECISION TOOLHOLDERS

Reduce Costs by maximizing tool life with High Precision toolholders

BIG DAISHOWA SEIKI CO LTD

Tooling system of highest quality

Based on superior technologies and state-of-the-art production facilities,
we guarantee to offer "high precision" and "high quality" tooling to your satisfaction.

Through our activities as a specialized manufacturer of tooling since 1967, BIG Daishowa has the distinction of having the highest market share in Japan and we continue to increase the number of our customers in the world-wide market and gain their trust. We devote ourselves to the development of new products and continuously improve quality "to comply with the latest trends".
We are confident that BIG Daishowa's quality and tooling variety will lead you to the best result.

Awaji Factory No,2

Awaji Factory No,1

Awaji Factory No,3

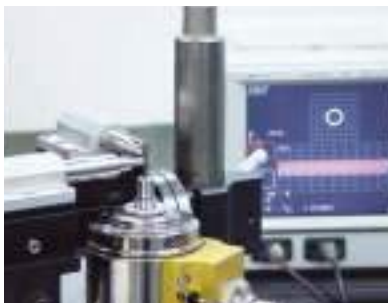
MEGA TECHNICAL CENTER

Awaji Factory No,4

Awaji Factory No,5

Osaka Factory

Accurate inspection under strictly controlled quality standards.



Total Tooling System

INDEX High Precision, High Rigidity & High Quality Performance

For High Speed MEGA MICRO CHUCK®

Ultra slim design eliminates any interference

Clamping Range :
ø0.45 - ø8.05

Features : P5

For High Speed MEGA NEW BABY CHUCK®

Most reliable high precision collet chuck in the world

Clamping Range :
ø0.25 - ø20

Features : P6

For High Speed MEGA E CHUCK®

Original and exclusive design for small endmilling

Clamping Range :
ø3 - ø12

Features : P7

MEGA For High Speed DOUBLE POWER CHUCK®

Specialist for heavy-duty cutting

Clamping Range :
ø16 - ø50

Features : P8

NEW BABY CHUCK

Most reliable high precision collet chuck in the world

Clamping Range :
ø0.25 - ø20

Features : P9

NEW Hi-POWER MILLING CHUCK

High precision design for heavy cutting

Clamping Range :
ø16 - ø42

Features : P10

MEGA ER® GRIP

Clamping Range :
ø1.9 - ø20

Features : P11

HYDRAULIC CHUCK

For high precision machining in Automotive, Aerospace, Medical and Die & Mold

Clamping Range :
ø4 - ø42

Features : P12

MOLD CHUCK

Side lock holder for Mold Making

Clamping Range :
ø3 - ø20

INDEX

SHRINK CHUCK

Clamping Range :
ø4 - ø32

MEGA SYNCHRO®
Tapping holder

Tapping Range :
M1 - M36

SIDE LOCK HOLDER

Clamping Range :
ø6 - ø50

SIDE CUTTER ARBOR

MORSE TAPER HOLDER

FACE MILL ARBOR

Eliminates chatter
for smoother finish

ANGLE HEAD

HIGH SPINDLE

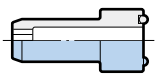
AIR TURBINE SPINDLE

Hi-JET HOLDER

CLEANER

Blowing air cleans
the BIG-PLUS
machine spindle face

OTHERS



For HSK form A & E

INDEX

MILLTURN TOOLING

The modular tooling system for turning and rotating tool holder applications

Polygon-tapered dual contact system

BIG CAPTO

The trademark CAPTO is licensed from Sandvik Coromant

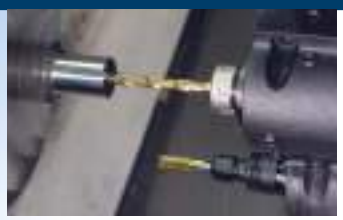
BBT(BIG-PLUS) SERIES

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

HSK-T SERIES

Rotating Tools

N/C LATHE TOOLING



For improved efficiency and reliability of production on NC lathe

OTHER TOOLS

TOOLING MATE

Ideal for mounting or removing cutting tools and retention knobs

HOLDER LOCK

Horizontal type to enable to clamp in either right or left side

KOMBI GRIP

2-way clutch holds HSK and BIG CAPTO toolholders securely from rotating

ST LOCK

For tightening clamping nuts of cylindrical shank toolholders

α WIPER CLEANER

Easy cleaning by simply inserting and removing

TK CLEANER

Absolute cleaning of clamping bore by unique "slide" feature

α TAPER CLEANER

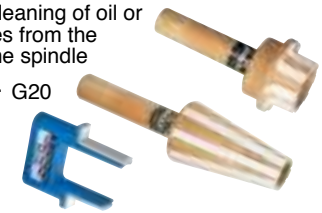
Maintain accuracy of high precision collet chucks

α TOOLING CLEANER

Particles and oil on both taper and flange of 7/24 taper holder are easily removed

SPINDLE CLEANER

Easy cleaning of oil or particles from the machine spindle



CLEAN TEC

Full automation of swarf and coolant removal by means of wind pressure

T-SLOT CLEAN

Keeps T-slots of a table free from chips

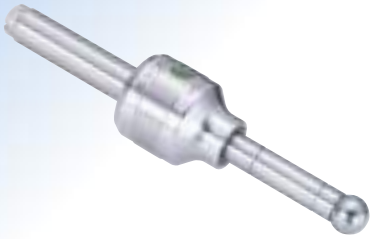
INDEX

POINT MASTER SERIES

Touch probe & edge finder

POINT CENTER

Position detecting tool



BASE MASTER SERIES

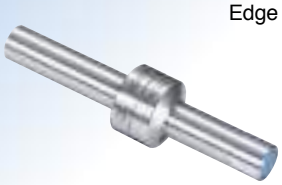
Tool offset sensors

TOOL MASTER

Tool offset sensor

ACCU CENTER

Edge finder



ALIGNMENT TOOL for ATC arm

For maintenance of machine tool spindle

DYNA TEST

Precision measuring tools of the highest quality for machine tool maintenance

Features : P23

DYNA FORCE

TOOL PRESETTER

LEVEL MASTER

2-axis simultaneous detection leveler

INDEX

FULLCUT MILL

Features : P19

FCR Type

Endmill with low cutting resistance for ramping and helical interporation

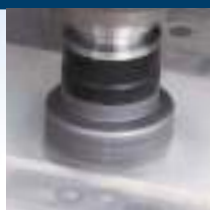
FCM Type

Shoulder and slot milling cutter with both high radial and axial rake angle

CONTACT GRIP

Threaded coupling with taper face contact

SPEED FINISER



High speed cutter for aluminum and cast iron

Features : P21

C-CUTTER MINI

Ultra High Feed Chamfer Mill

Features : P22

C-CUTTER

Extensive chamfering range

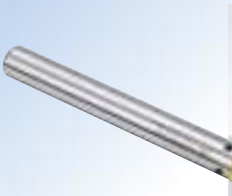
R-CUTTER

Automated R-chamfering

BF-CUTTER

Back spot facing tool for cap screw hole

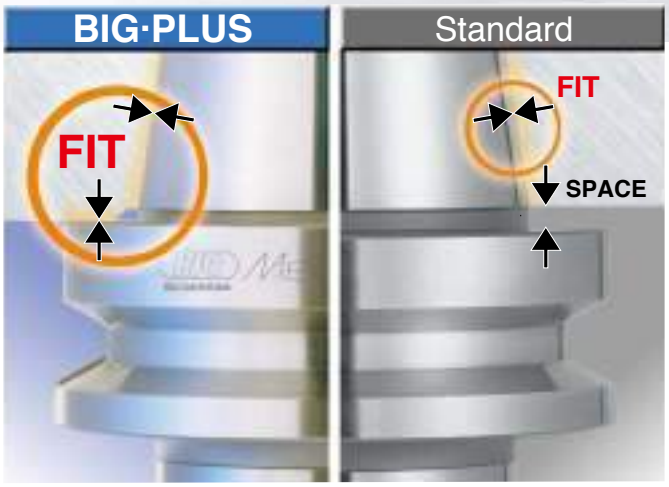
CENTER BOY



Center and Chamfer in one

BIG
BIG DAISHOWA

BIG-PLUS®
SPINDLE SYSTEM
DUAL CONTACT



SIMULTANEOUS TAPER & FLANGE FIT

BIG-PLUS surpasses all other spindle concepts while offering interchangeability with existing machines and toolholders.

BBT Shank **A1**
BDV Shank **B1**

- Improved surface finish & dimensional accuracy
- Extended tool life
- Prevention of fretting corrosion caused by heavy cutting
- Improvement of ATC repeatability
- Elimination of Z-axial movement at high speeds
- Improved roundness of boring operation

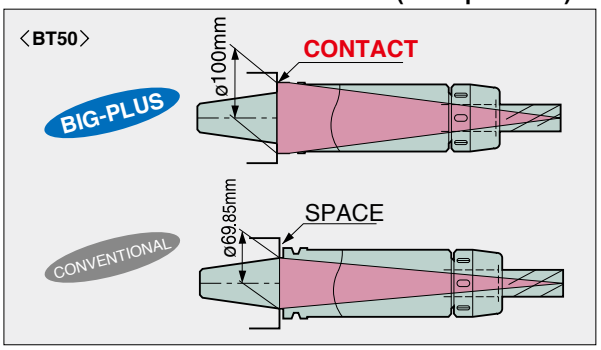
Basic Concept

The BIG-PLUS Spindle System is based on the most current available standards in JIS B6339 and DIN 69871.

A conventional steep taper toolholder is supported on a reference diameter called the gauge face. On the contrary, a BIG-PLUS toolholder is supported on the flange face, which brings remarkable improvement to rigidity.

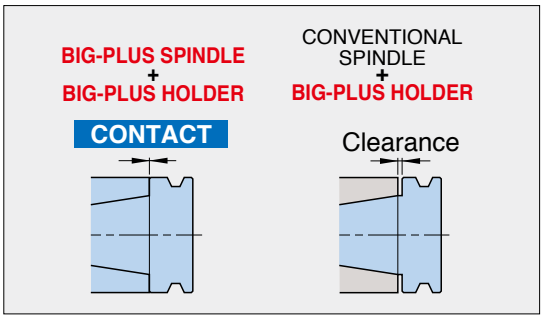
	CONVENTIONAL	BIG-PLUS
BT50	ø69.85	ø100
BT40	ø44.45	ø 63
BT30	ø31.75	ø 46

INCREASED CONTACT DIAMETER (Example of BT)



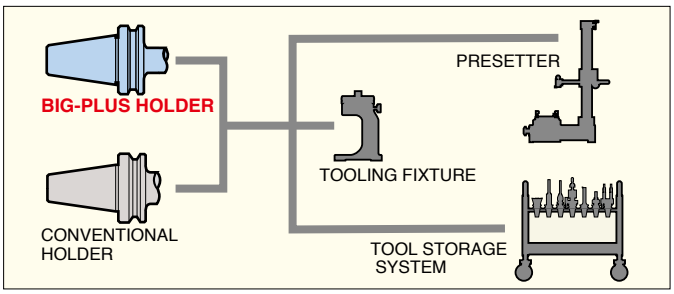
Perfect Interchangeability

BIG-PLUS toolholders can be used on existing standard machine spindles.
Existing standard toolholders can also be used on BIG-PLUS spindles.
In this case, simultaneous contact cannot be attained.



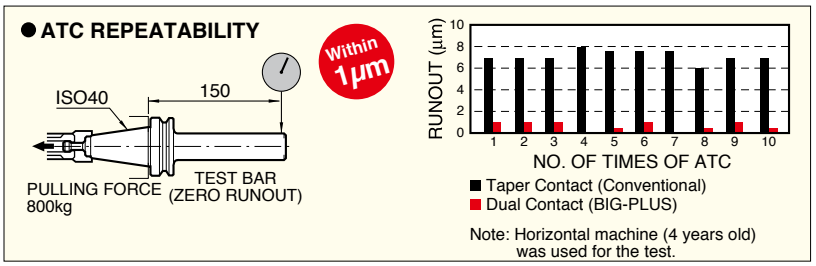
Although other simultaneous contact systems require exclusive new accessories, the BIG-PLUS Spindle uses existing accessories such as a presetter and toolholder fixture as it is based on a conventional steep taper shank.
Further, it is not necessary to modify tool magazines and ATC devices of existing machines.

EXISTING ACCESSORIES UTILIZED



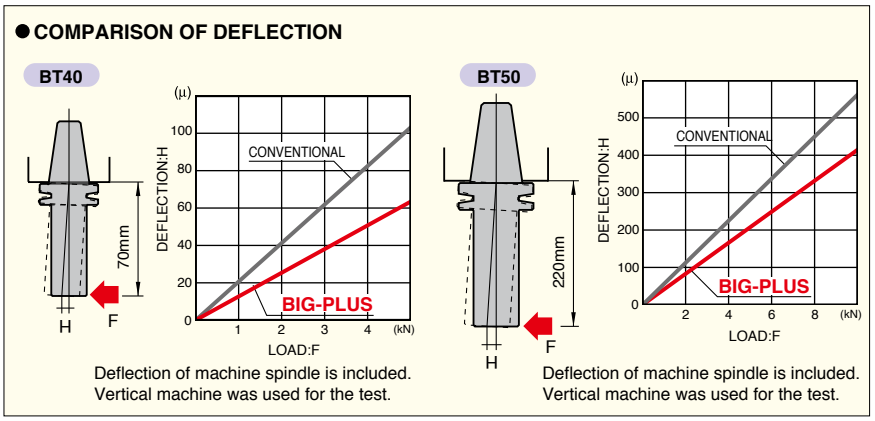
Improvement of ATC Repeatability

The BIG-PLUS System assures the highest precision location of the toolholder in the spindle when using the ATC for loading tools, as a result of the dual contact which precisely positions the toolholder within 1 micron.

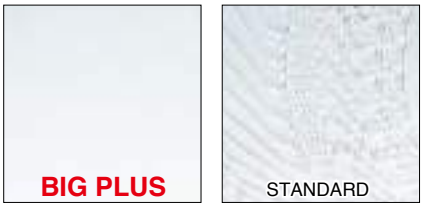


Minimized Deflection For Maximum Machining Accuracy & Superior Finish

With BIG-PLUS simultaneous contact, machining rigidity is greatly enhanced due to the larger contact diameter of the toolholder flange face. This larger face contact combined with the taper contact works together to resist deflection. With less deflection, greater machining accuracy and superior finish can be achieved.



FACE MILLING Application

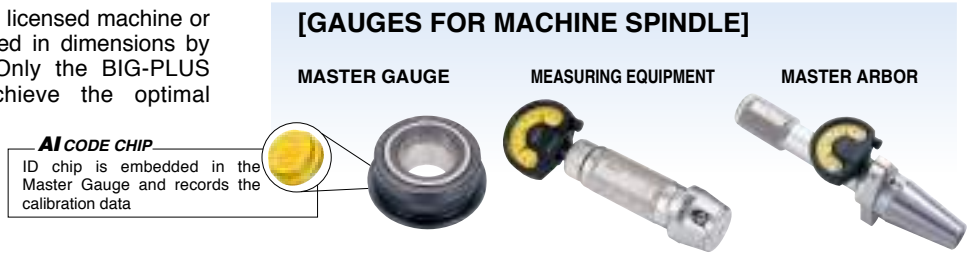


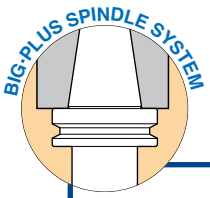
MACHINE TOOL : #40 (Horizontal Machining Center)
CUTTER : Face Milling ø125 (6 cutting edges)
WORK MATERIAL : A2017 Duralumin
CUTTING DEPTH : 2.4mm

※ Please be aware that simultaneous contact toolholders other than BIG-PLUS toolholders may damage BIG-PLUS spindles.

Strict Gauge Control

BIG-PLUS spindles produced by the licensed machine or spindle builders are strictly controlled in dimensions by the BIG original master gauge. Only the BIG-PLUS trademarked toolholders can achieve the optimal performance fully and safely.





Machine Builders

The BIG-PLUS Spindle System is offered by many of the world's leading manufacturers of machining centers. Some of the machine and spindle builders who have produced BIG-PLUS spindles are as follows;

ACCUWAY, Advanced Machine, ALEX-TECH, AMS, ANCA, Aono Giken, ARES, Asa Tech, AWEA, BERG Spanntechnik, BOST, brother, CHEVALIER, CHUO-SEIKI, CITIZEN, COLGAR, Cross Hüller Ex-Cell-O Lamb, D.S.TECHNOLOGIE, DAH LIH, DAIYA SEIKI, DIXI, DMC, DMG MORI SEIKI AD, DMG MORI SEIKI CO.,LTD., DOOSAN, DYNOMAX, EGURO, ENSHU, FANUC, FEMCO, First, FIRST, FISCHER, FOREST-LINÉ, FPT, FRANZ KESSLER, FUJI SEIKI, Giddings & Lewis, GTI, HARDINGE, HNK, HOMMA, HORKOS, HOWA, HST, HWACHEON, IBAG, IBARMIA INNOVATEK, IKEGAI, INOUE KOSOKU KIKAI, JOHNFORD, JTEKT, JUNGWOO M.S., KARATS, KASHIFUJI, KASWIN, KENTURN, KITAMURA, KIWA, KMT, KOMATSU NTC, KONDIA, KOYO, Kptec, KURAKI, LAZZATI, MAGNIX, MAKINO, MAKINO SEIKI, MANDELLI, MATSUURA, MAZAK, MECTRON, MILLTRONICS, MITSUBISHI, MITSUBOSHI KOGYO, MITSUI SEIKI, MOTOKUBO, N.S.S, NACHI, NAKAMURA, NEO, Nicolàs Correa, NIIGATA, NIPPON BEARING, NISHIJIMAX, NISSIN-mfg, NOMURA, Northland Tool, NSK, O-M, OBATAKE, OHTORI, OKK, OKUMA, OMLAT, PAMA, PIETRO CARNAGHI, PMC, QUASER, REIDEN, ROKU ROKU, ROYAL, SAJO, SEMPUCO, SETCO, SHAN RONG, SHODA, SHW, SKG, SKODA, SMEC, SNK, SODICK, SORALUCE, SPINDER, SPINTEC, SPS, StarragHeckert, STUDER, SUGINO, Sunwoo, SUPERIOR SPINDLE SERVICE, TAJMAC-ZPS, TAKAMAZ KIKAI KOUGYOU, TAKISAWA, TANABE, THETA, Tongtai, TOS VARNSDORF, TOSHIBA, TOYO SEIKI, TSUDAKOMA, TSUGAMI, Ugint, UTSUNOMIYA, VICTOR Taichung, VTEC, VYU CHENG, WALDRICH COBURG, WELE, WIA, YAMASAKI GIKEN, YAMASHINA, YASDA, Yasunaga, YCM, YU HUNG, ZAYER

[As of January, 2014]

BIG DAISHOWA

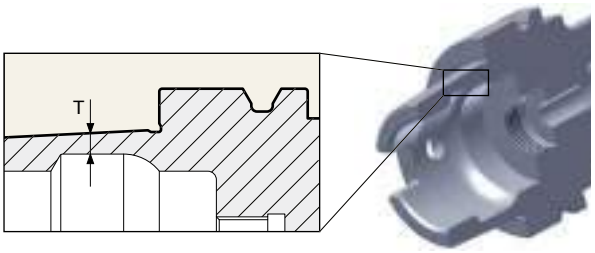
HSK TOOLING SYSTEM

Selected materials and strict control of dimensional accuracy for the optimum quality.
Wide range of standard holders to meet all production requirements.

HSK form A **C1**
HSK form E **C40**
HSK form F **C45**

Premium Material Selection

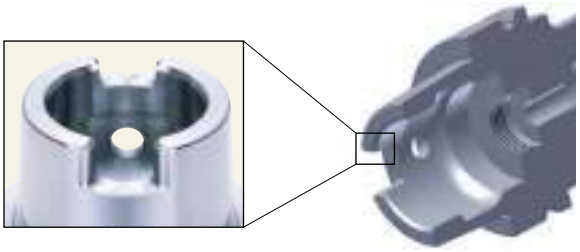
Since HSK is a hollow taper shank, the material has a critical role for optimum performance.
BIG uses carefully selected high grade alloy steels. Particularly, BIG uses die steel materials for HSK 40 and smaller where the cross section of shank taper is very thin.



HSK Size	25	32	40	50	63	100
T	1.09	1.25	1.92	2.60	3.47	5.17

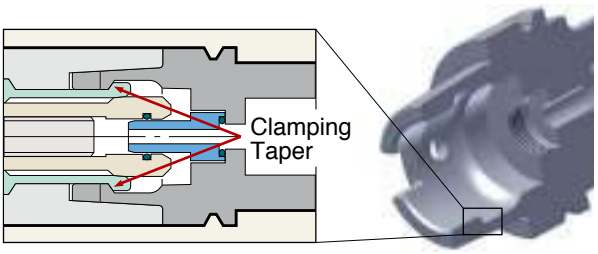
Drive Key Form

HSK Shanks according to Form A are designed to carry out torque transmission by the round shaped key-way at the end of the taper. Because of the importance of this round shaped geometry, BIG provides finishing of this feature after heat treatment.



Important Tool Retention Feature

Internal clamping of HSK tools is defined by the location of highly concentrated forces from the machine tool. Accuracy and position of this form will affect the rigidity, repeatability, and precision of tool holders. BIG provides finish machining of this area after heat treatment.



HSK Turning tools

HSK-T63 / T100 (ISO 12164-3)

HSK form T

BIG
BIG DAISHOWA

For High Speeds

MEGA CHUCK® SERIES

World's original

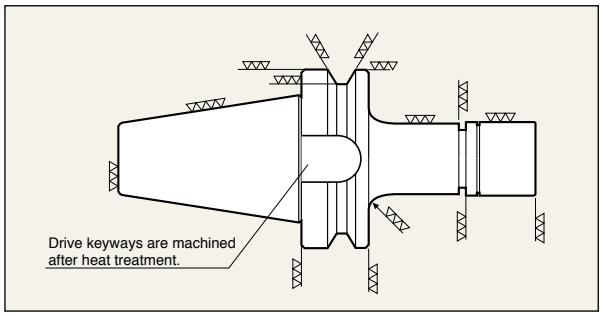
Wide variety of collets and chuck bodies to cover all high speed ultra precision machining applications.

BIG PLUS
STANDARD

BBT Shank	A1
BDV Shank	B1
HSK Shank	C1
CYLINDRICAL Shank	D1
BIG CAPTO Shank	E30

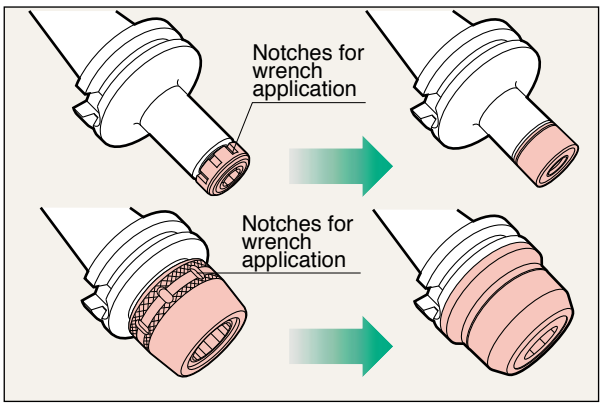
Precision ground and balanced for high speed machining

MEGA CHUCKs are micro mirror ground finished on all surfaces to assure perfect concentricity for high speed machining. The drive keyway is machined after heat treatment.



Notch-free design MEGA NUT prevents vibration and reduces noise

Vibration at high speeds is eliminated with the use of notch free designed nuts, which offer superior balance and concentricity. This ideal nut design not only reduces whistling noise and splattering coolant, but also assures increased strength of the nut itself.



4 chuck types for different high speed machining requirements

To suit micro drills and end mills
Clamping range
ø0.45 - ø8.05mm

MAX. 50,000 min⁻¹ (JIS B6339)

MEGA MICRO CHUCK

To suit carbide drills, reamers and end mills
Clamping range
ø0.25 - ø20mm

MAX. 40,000 min⁻¹ (JIS B6339)

MEGA NEW BABY CHUCK

To suit end mills
Clamping range
ø3 - ø12mm

MAX. 40,000 min⁻¹ (JIS B6339)

MEGA E CHUCK

To suit end mills
Clamping range
ø16 - ø50mm

MAX. 30,000 min⁻¹ (JIS B6339)

MEGA DOUBLE POWER CHUCK

Easy and firm clamping by the MEGA WRENCH

The unique MEGA WRENCH has a one way clutch system with roller bearings and a ratchet function which is capable of safely and evenly applying force to the entire nut periphery.

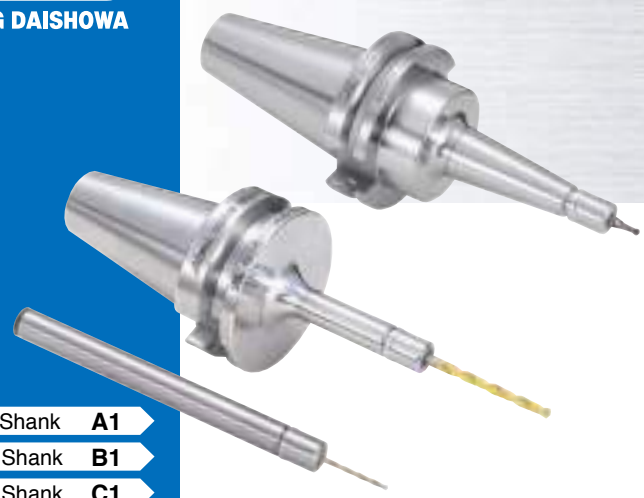
BIG DAISHOWA

High precision collet chuck system

MEGA MICRO CHUCK®

0.1mm increments for higher precision

Clamping Range: ø0.45 - ø8.05



BBT Shank	A1
BDV Shank	B1
HSK Shank	C1
CYLINDRICAL Shank	D1
BIG CAPTO Shank	E30
For N/C LATHE	F4

Endmilling | Drilling | Reamer

Extremely slim design of body and nut provides superior balance and concentricity and is ideal for reaching into confined areas.

MAX. 50,000 min^{-1}

BIG PLUS STANDARD

Nut diameter 10, 12, 14 & 18mm Extremely slim design

3Stype 4Stype 6Stype 8Stype

Slim design avoids interference.
Ideal for small mold making combining high speed and high precision capability.

ø10mm Full scale

3Stype

High concentricity

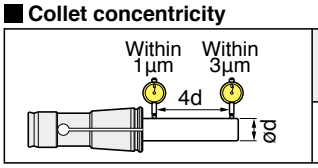
At nose within 1µm | At 4d within 3µm

100% concentricity inspection.
Within 1µm at nose is guaranteed.

High precision

Micro Collet

■ Collet concentricity

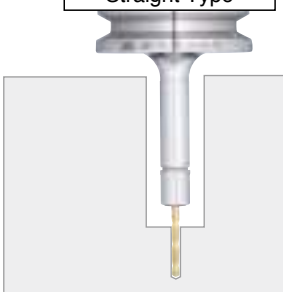


Collet class	Max. runout	
	At nose	At end of test bar
AA	Within 1µm	Within 3µm

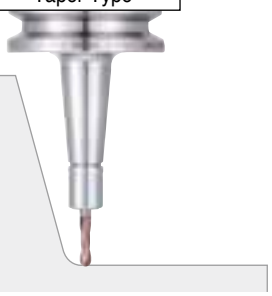
Three versions are available

Straight Type: where access is restricted
Taper Type: for increased rigidity
Cylindrical Shank Type: for increased versatility

Straight Type

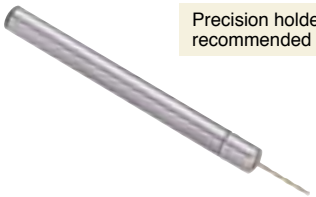


Taper Type

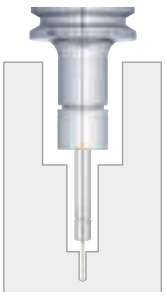


Cylindrical Shank Type

Flexible tool layout
For tighter and deeper area



Precision holder is recommended for chucking.



0.1mm increments for higher precision

Collet 175 models

Available in 0.1mm increments. Reduced shrinkage optimizes precision.

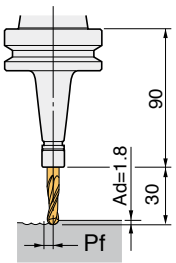
Maximum performance!

■ Setup

Machine	BBT40 vertical machining center
Holder	BBT40-MEGA6S-90T
Endmill	ø6 2-flute carbide ball nose
Workpiece	S50C (JIS)

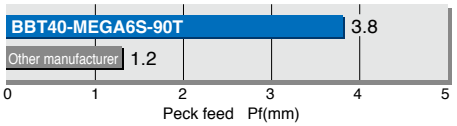
■ Cutting conditions

Spindle speed	12,000 (min^{-1})
Cutting speed	226 (m/min.)
Feed rate	720 (mm/min.)
	0.03 (mm/cutter)
Axial depth of cut	1.8 (mm)



Rigid taper design avoids chatter even with high peck feed milling leading to dramatically reduced machining time.

■ Comparison of peck feed amount

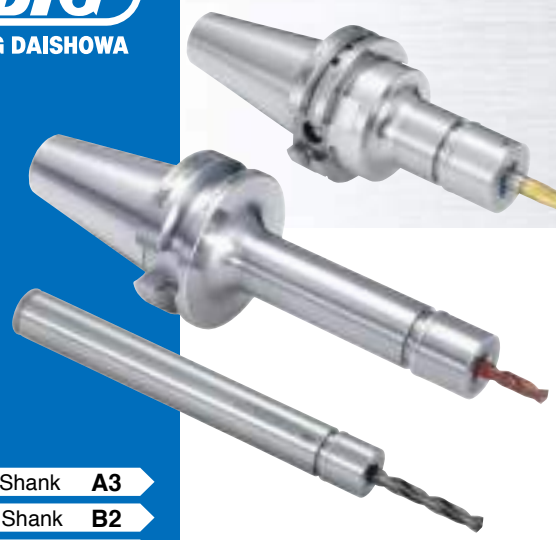


BIG
BIG DAISHOWA

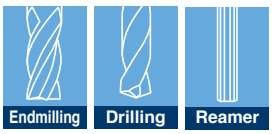
High precision collet chuck system

MEGA NEW BABY CHUCK®

Clamping Range: ø0.25 - ø20



BBT Shank	A3
BDV Shank	B2
HSK Shank	C3
CYLINDRICAL Shank	D2
BIG CAPTO Shank	E31



High speed design, offered in six different size collet series, utilizes ultra precision New Baby Collets which guarantee a runout at the collet nose of less than 1 micron.

MAX. 40,000 min-1

BIG PLUS

STANDARD

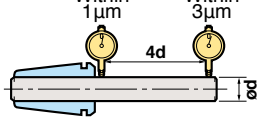
High precision collet, close to submicron

High precision

NBC Collet

100% inspection to guarantee accuracy. Material, production, heat treatment... everything is selected for precision.

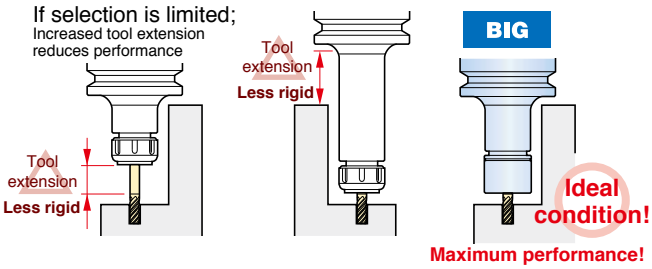
■ **Collet concentricity**



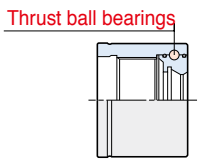
Collet class	Max. runout	
	At nose	At end of test bar
AA	Within 1µm	Within 3µm

353 versions are available as standard (BBT, BDV, HSK)

Ideal length and diameter of holder is the key to precision machining. Select the optimum from the wide range.



Precision nut to optimize performance of collet



Thrust ball bearings to eliminate distortion of the collet during tightening.
Patented design prevents ball bearings from moving at high speed.
Threads are finished after heat treatment.

2 way coolant supply

MAX. COOLANT PRESSURE 7MPa

Sealed collet nut

MEGA PERFECT SEAL

- Standard NBC Collet is used.
- High dust resistance

MPS

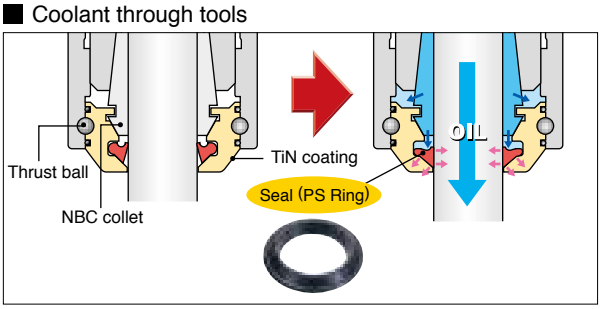
G 9

Through Tools
Tools with holes

Jet Through
Tools without holes

Unique sealed collet nut for coolant-through tools.
The sealing performance increases with higher coolant pressure. Remove the sealing ring to supply coolant to the periphery of the cutting tool.

■ Coolant through tools



BIG DAISHOWA

High precision collet chuck system

MEGA E CHUCK®

Clamping range: ø3.0 - ø12

Collet chuck designed exclusively for endmilling up to ø12mm with high concentricity & rigidity.

BBT Shank	A6
BDV Shank	B4
HSK Shank	C7
BIG CAPTO Shank	E34

Endmilling | Drilling | Reamer

MAX. 40,000 min-1

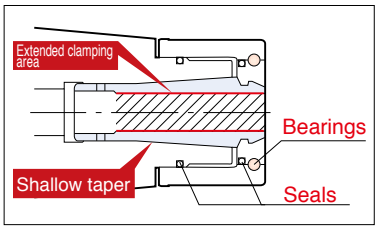
BIG PLUS

STANDARD

High grip collet

Gripping force is an important element for endmilling with a collet chuck. The long gripping length of the collet in the MEGA E series provides a powerful gripping force.

The shallower taper of the collet improves concentricity in order to achieve better surface finishes and longer cutting tool life.



● Clamping nut with thrust ball bearings

Eliminates distortion of the collet during tightening for higher gripping force and improved concentricity.

High concentricity

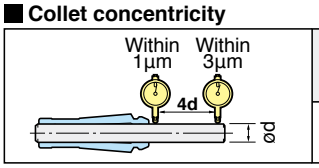
At nose: within 1µm | At 4d: within 3µm

100% inspection to guarantee accuracy within 1µm runout at collet nose.

High precision

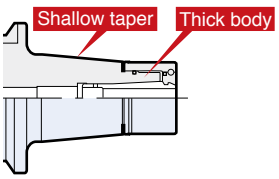
MEGA E COLLET

■ Collet concentricity



Collet class	Max. runout	
	At nose	At end of test bar
AA	Within 1µm	Within 3µm

Substantial and tapered body design



Thick body eliminates chatter and deflection.
Tapered extension provides the rigidity to prevent vibration.

Ultimate performance in both chip volume and surface finish!

BBT40-MEGA6E-90

Other manufacturer

Cutter	Model	Radial DOC (mm)	Axial DOC (mm)	Removal (CC/min)	Power (kw)	Roughness (µm)
ø6	MEGA 6E	3.0	9	45.9	3.4	5.05
	Other manufacturer	0.5	9	7.6	1.1	10.25
ø12	MEGA13E	12.0	18	91.8	3.0	3.49
	Other manufacturer	3.0	18	23.0	1.2	9.67

Slit-through coolant

MAX. COOLANT PRESSURE 7MPa

Coolant is reliably directed to cutting surface through slits in the collet. Tool life is extended together with improved surface finish as a result of smooth chip evacuation.

● For coolant-through tools

Sealed collet nut to supply coolant reliably through cutting tool.

EPS G11

MEGA E PERFECT SEAL

Ideal for burnishing drills and reamers due to extended gripping length of MEGA E CHUCK.

BIG DAISHOWA

High rigidity design for heavy cutting

MEGA DOUBLE POWER CHUCK®

Clamping range: ø16 - ø50

Ideal for solid machines

Flange contacting nut and simultaneous taper & flange contact assure highest rigidity.

BBT Shank	A9
BDV Shank	B5
HSK Shank	C9
BIG CAPTO Shank	E37

Endmilling | Drilling | Reamer

MAX. 30,000 min^{-1}

BIG PLUS

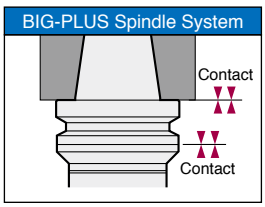
STANDARD

Stabilizing contact between flange & nut provides exceptional rigidity

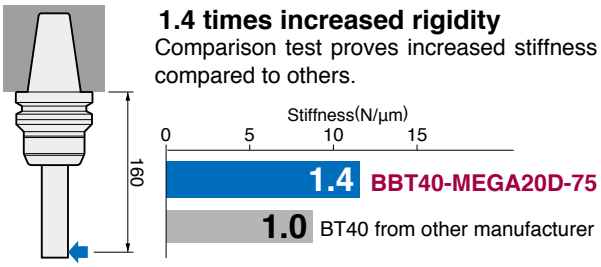
The expanded contact diameter of the nut of the MEGA DOUBLE POWER CHUCK to the flange provides the highest rigidity as if the chuck and nut were one solid piece. This superior rigidity assures heavier duty machining without chatter.

Released | Tightened

Flange contacting nut together with BIG-PLUS



Stabilizing contact of nut to the flange provides exceptional rigidity in addition to the BIG-PLUS effect.



1.4 times increased rigidity

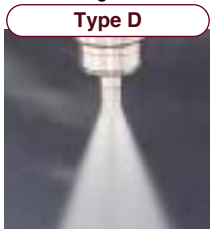
Comparison test proves increased stiffness compared to others.

Secure coolant supply

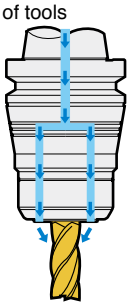
Two types are individually designed for the most effective coolant supply.

- Improved surface finish
- Smoother chip evacuation
- Extended tool life
- Cooling & lubrication of tools

Through tools **Type D**



Jet through **Type DS**



Coolant is reliably directed to cutting tool periphery from chuck nose.

- Straight Collets are available.

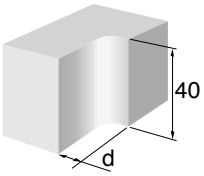
Please choose suitable models according to the applications.

G15

For JET Through
PJC Collet

For Through Tools
OCA Collet

High rigidity achieves higher level of stability



Cutting conditions

Coated carbide endmill ø32, 4-flutes Workpiece: SS400 (JIS)	V282m/min S2,800min^{-1} F1,120mm/min

BBT50-MEGA32D-105	Other manufacturer (L = 90)
Radial d = 14mm	Radial d = 9.5mm
Power 15.2KW	Power 9.2KW

BIG
BIG DAISHOWA

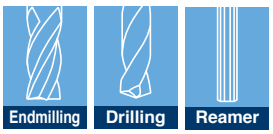
High precision collet chuck system

NEW BABY CHUCK

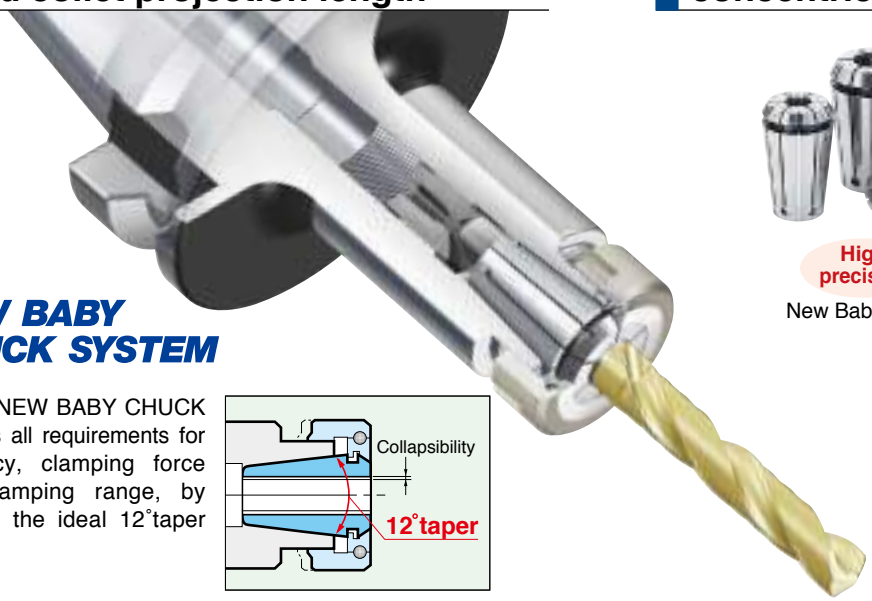
Clamping Range: ø0.25 - ø20

NEW BABY CHUCK is capable of achieving high spindle speeds as required for drilling and end milling with smaller diameter cutting tools.

BT Shank	A13
DV Shank	B6
HSK Shank	C11
CYLINDRICAL Shank	D3
BIG CAPTO Shank	E41
For N/C LATHE	F1



Ideal combination of taper angle and collet projection length



NEW BABY CHUCK SYSTEM

BIG NEW BABY CHUCK satisfies all requirements for accuracy, clamping force and clamping range, by utilizing the ideal 12˚taper angle.

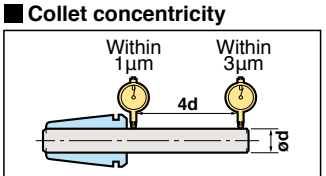
High concentricity

At nose: within 1µm
At 4d: within 3µm

High precision
New Baby Collet

Each collet is inspected and double checked to meet maximum runout tolerance permitted, i.e., 100% check & re-check.

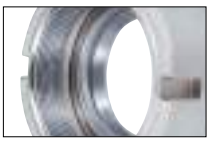
■ Collet concentricity



Collet class	Max. runout	
	At nose	At end of test bar
AA	Within 1µm	Within 3µm

The nut is a key to achieve the highest precision of a collet

- Since the threads greatly influences accuracy, they are finished after heat treatment. Therefore, bad influence from clamping action is eliminated, which enhance clamping performance.



- A nut incorporates a thrust bearing with steel balls that prevents stress to a collet and allows a smooth clamping force to a collet.

For high pressure coolant supply

MAX. COOLANT PRESSURE 7MPa

BPS
G10

Sealed collet nut
BABY PERFECT SEAL

- Standard NBC Collet is used.
- High dust resistance

Through Tools — Tools with holes

Jet Through — Tools without holes

BIG DAISHOWA

High precision design for heavy cutting

NEW Hi-POWER MILLING CHUCK

Clamping Range : ø16 - ø50.8

NEW Hi-POWER MILLING CHUCK combines the high accuracy with high torque capability and rigidity.

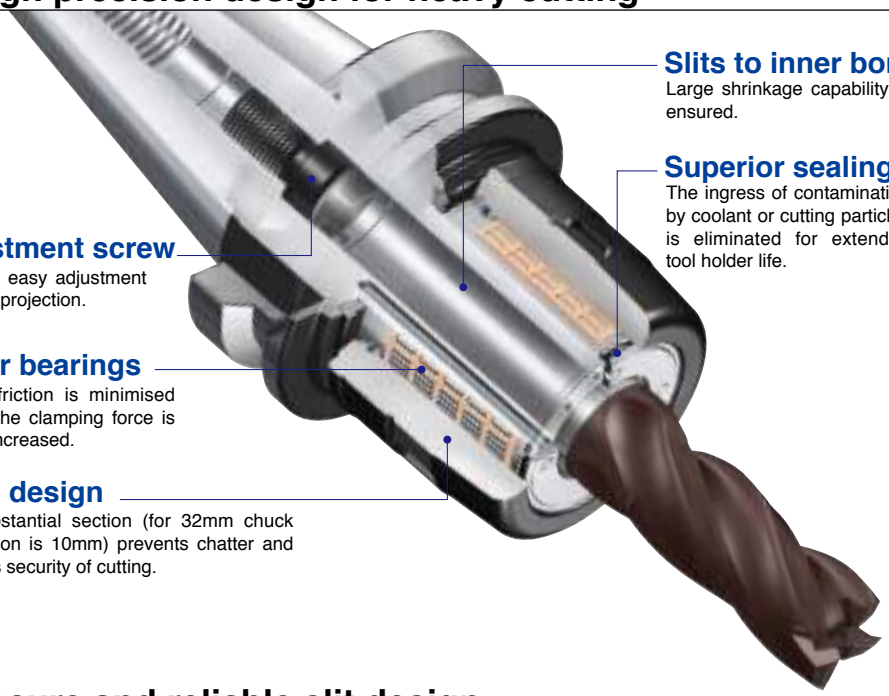
BBT/BT Shank	A16
BDV/DV Shank	B8
HSK Shank	C15
BIG CAPTO Shank	E45

Endmilling | Drilling | Reamer

BIG PLUS

STANDARD

High precision design for heavy cutting



Slits to inner bore
Large shrinkage capability is ensured.

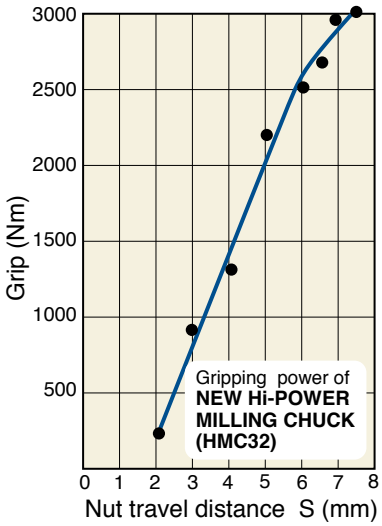
Superior sealing
The ingress of contamination by coolant or cutting particles is eliminated for extended tool holder life.

Axial adjustment screw
Provides easy adjustment of cutter projection.

Roller bearings
Rolling friction is minimised so that the clamping force is greatly increased.

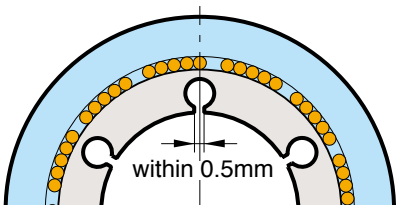
Rigid design
The substantial section (for 32mm chuck the section is 10mm) prevents chatter and achieves security of cutting.

High gripping force



Secure and reliable slit design

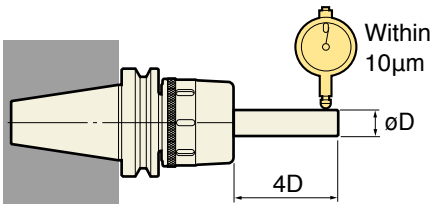
The annular section needs to be substantial in order to provide rigidity but retain the ability to collapse in order to provide sufficient grip. The section of the Hi-Power Milling Chuck has combined holes and slits at regular intervals in order to combine both requirements.



Slit and small hole

Precise concentricity

Concentricity is assured by the integral design and clamping by mechanical compression of the annular section by the rolling bearing system. All models are inspected and double checked to meet maximum runout tolerance permitted. (within 10µm at 4D).

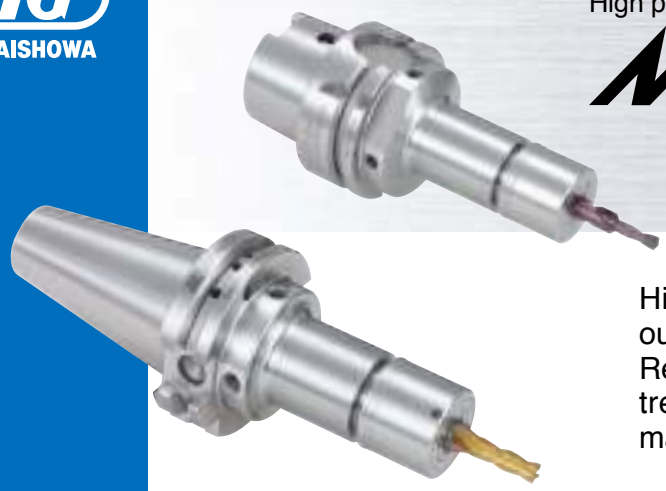


BIG
BIG DAISHOWA

High precision collet chuck system

MEGA ER® GRIP

Clamping Range: ø1.9 - ø20



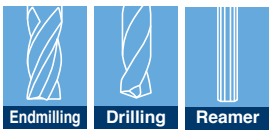
High precision collet, nut and body that outperforms standard ER systems.
Reliable and stable runout accuracy will also tremendously contribute to improving machining capability and cost reduction.

ER collet

MAX. 35,000 min-1

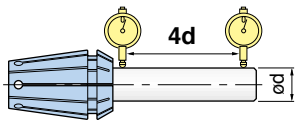
BIG PLUS
STANDARD

BDV Shank B9
HSK Shank C13
For N/C LATHE F3



The ERC collet with the best runout accuracy in the world

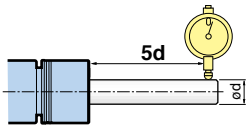
Measurement standards:
In accordance with DIN6499 and ISO15488



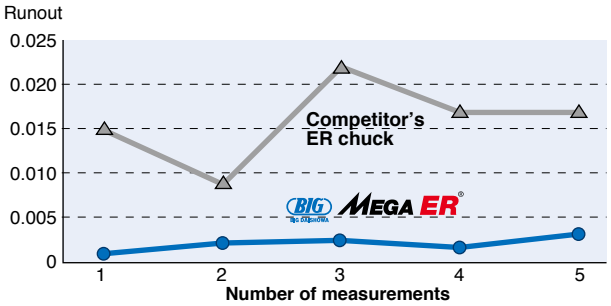
Clamping Range	DIN / ISO		BIG BIG DAISHOWA MEGA ER®
	Class 1	Class 2	
ø2 - ø10	0.010	0.015	Within 0.003
ø10 - ø20	0.015	0.020	

The test bar clamped by MEGA ER Grip is measured at 5d.

BIG's MEGA ER Grip can provide repeatable performance by assembling the precision ERC collets with it's chuck body and clamping nut, resulting in complete harmony of the tool holder assembly.

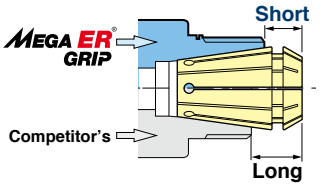


Difference in runout accuracy



High rigidity body that increases the contact area of the collet

By increasing the contact length of the internal taper of chuck bodies, the undesired overhang of the collet is reduced. This modification of the standard improves 3 of the most important requirements for the collet chuck, rigidity, runout accuracy and clamping force.
(Conventional DIN collets can also be used.)



2 way coolant supply

MAX. COOLANT PRESSURE 7MPa

Sealed collet nut
MEGA ER PERFECT SEAL
G14

Through Tools — Tools with holes

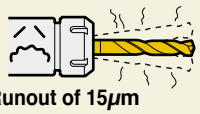
Jet Through — Tools without holes

With "Through Tools", coolant is supplied from the coolant holes of the cutter (such as drills) and "Jet Through" directs the coolant around the cutter periphery (such as end mills). Both methods can be adapted with the same Perfect Seal nut according to the desired use.

The runout accuracy greatly affects the tool life

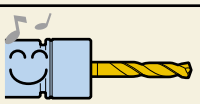
The runout accuracy has a great influence on the tool life. The tool life achieved with Mega ER Grip is about 3 times the tool life obtained with conventional collet chucks.

Competitor's



Runout of 15μm

BIG BIG DAISHOWA MEGA ER® GRIP



Runout within 2μm

800 holes
ø3mm carbide drill
CK45
12mm depth of cut
2,300 holes

Number of holes improved by 2.9 times

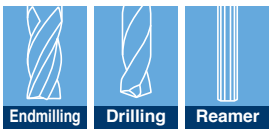
BIG DAISHOWA

HYDRAULIC CHUCK

Clamping Range: ø4 - ø42

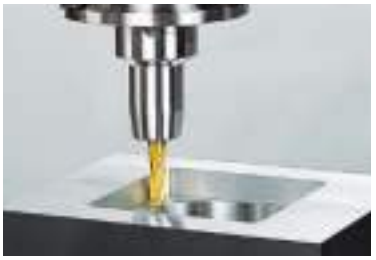
For high precision machining in Automotive, Aerospace, Medical and Die & Mold

BBT Shank	A21
HSK Shank	C16
BIG CAPTO Shank	E43

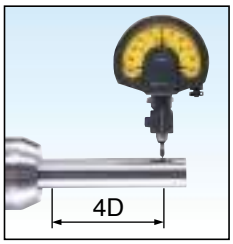


BIG PLUS

STANDARD

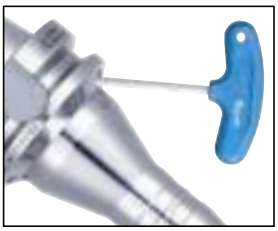


Runout accuracy less than 3µm



High precision runout accuracy less than 3µm at 4d improves the workpiece surface finish and extends tool life.

Easy clamping with 1 wrench

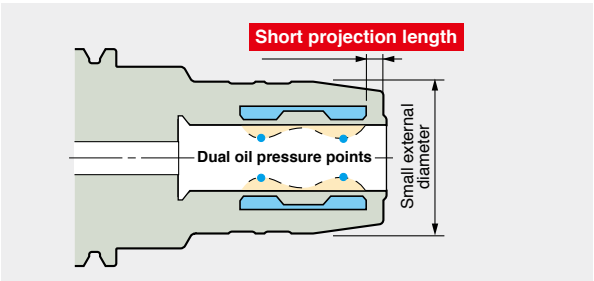


The cutting tool can be clamped or unclamped easily and securely with just 1 wrench.

High runout accuracy
Less than 3µm

Integral sleeve construction

Compared with the traditional two-part construction sealed with O-rings, BIG Hydraulic Chucks are long lasting and maintenance free. Also the rigidity is greatly improved by the short projection length and dual pressure points.



Secure coolant supply

JET-THROUGH Type NEW

Coolant is directed to tool periphery.

MAX. 35,000min^{-1}

Slim design eliminates interference. Ideal for high presicion 5 axis machining

SUPER SLIM Type

Further evolution of high precision Hydraulic Chuck

Slim+High Speed

MAX. 35,000min^{-1}
Nose diameter min. ø14mm

Balanced for high speed machining

Pre-balanced to less than 15g・mm. Vibration free machining at high speed.

Precision drills & reamers | Ball endmills | Endmills | Diamond reamers | Grinding tools

BIG
BIG DAISHOWA

Tool holder for rigid tapping License EMUGE

MEGA SYNCHRO® Tapping Holder

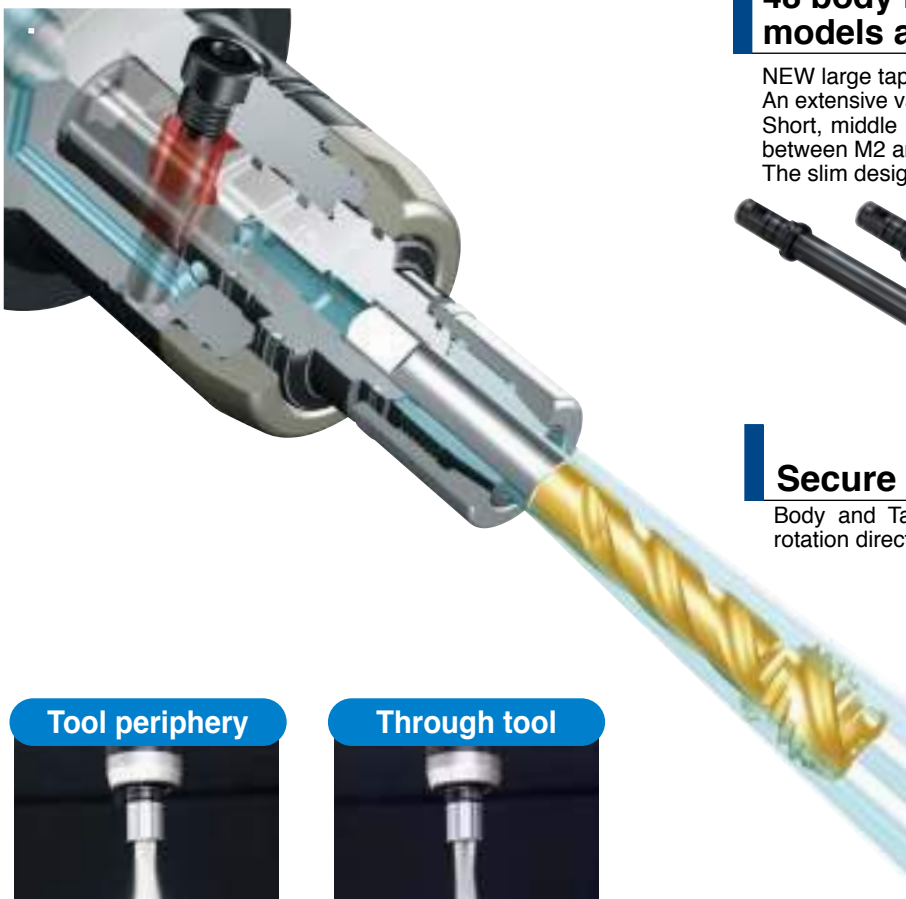
Tapping Range: M1 – M36
No.0 – U3/4
P1/8 – P1

Compensates for synchronization errors during rigid tapping.
Improves thread quality and tool life by reducing thrust loads caused by synchronization errors up to 90%.

BBT Shank	A31
BDV Shank	B10
HSK Shank	C25
CYLINDRICAL Shank	D8
BIG CAPTO Shank	E48
For N/C LATHE	F4

Tap

BIG-PLUS
STANDARD

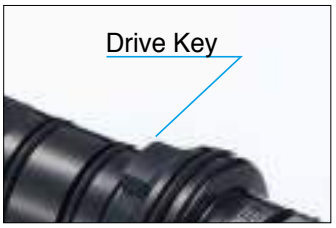


48 body models and 182 Tap Holder models are available.

NEW large tap series achieves the max. M36.
An extensive variety of bodies suitable for many spindle types.
Short, middle & long Tap Holders are standardized to cover between M2 and M36.
The slim design avoids interference.

Secure drive

Body and Tap Holder are fixed with a drive key in the rotation direction as well as the square of the tap.



Tool periphery

Coolant is supplied through slits of the Tap Holder.

Through tool

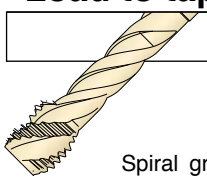
Coolant is supplied through both the tool and the slits of Tap Holder.

Coolant through center capability for all models

Coolant is supplied both through the tool and to the tool periphery simultaneously.

BIG MEGA SYNCHRO Tapping Holder compensates for synchronization errors with any type of tap. Minimized thrust load to both the tap and workpiece improves thread quality and tap life.

Load to tap



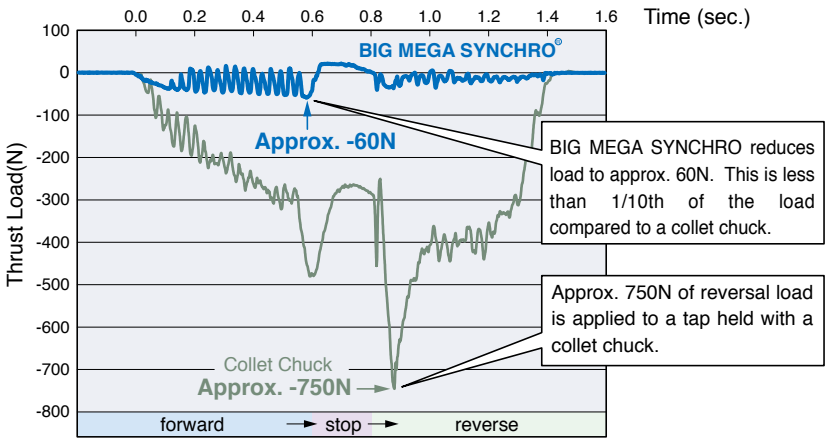
Spiral Tap

M6 P1

V : 20m/min(1,060min^{-1})

Spiral grooves on spiral tap cause loading in the reverse direction, similar to an end mill.

※ Measured by Kistler dynamometer

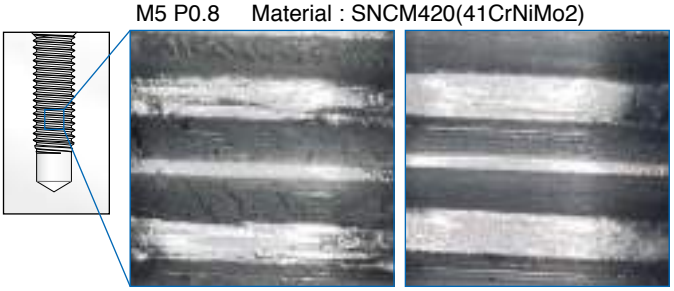


Comparison of surface finish

Tapping of exotic materials tends to cause a compressed burr on the thread surface.
BIG MEGA SYNCHRO compensates for synchronization errors and minimizes cutting load.
Fine surface finish of threads is achieved.

Spiral Tap

M5 P0.8 Material : SNCM420(41CrNiMo2)



Collet Chuck | BIG MEGA SYNCHRO®

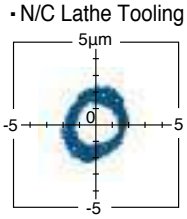
For small tap MGT3

Tapping Range
M1–M3 No.0–6

Eliminated synchronization errors and minimized dynamic runout at high speed provide stable thread quality and extended tool life.

- BBT/HSK Shank
- Cylindrical Shank
- N/C Lathe Tooling

MEGA MICRO COLLET



Dynamic runout accuracy within 5μm even at 5,000min^{-1}

Plotted position of a test bar
(at 16mm distance on 4mm diameter)

BIG DAISHOWA

ANGLE HEAD

Multiple operations on one setup save time, speed production and guarantee accuracy.

BBT Shank	A49
BDV Shank	B12
HSK Shank	C27

BIG PLUS

STANDARD

Wide range of compact and rigid heads
Suitable for all kinds of machining applications

AG90 SERIES

High precision collet chuck system
NBS TYPE

For drilling - tapping
COMPACT TYPE

Interchangeable adapter system
BUILD-UP TYPE

ø32 high power design
HMC32 TYPE

For face milling
FACE MILL TYPE

Built-in tapping depth control system
TAPPER TYPE

Coolant through tool
OAG TYPE

AG45 SERIES

45° series
NBS TYPE

AGU SERIES

Angle adjustment by 1° increments
UNIVERSAL TYPE

30° limited version
AGU30 TYPE

ULTRA SMALL HEAD

Min. ø30mm bore
SMALL BORE TYPE

SPECIAL DESIGNS We are able to design and manufacture special Angle Heads such as special angle or long type models to answer to every machining condition.

BIG DAISHOWA

Speed Increaser

HIGH SPINDLE

BBT Shank **A62**

BDV Shank **B19**

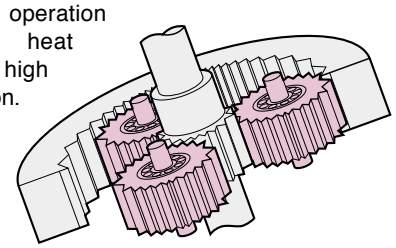
HIGH SPINDLE improves drilling and end-milling performance on existing machines by multiplying the spindle speed 4, 5, or 6 times.

BIG PLUS

STANDARD

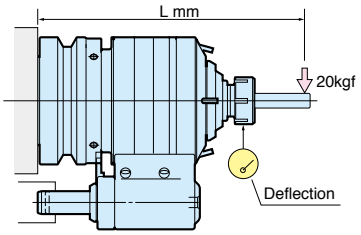
Reinforced gear driving system

The planetary gears, which have been constantly up-graded since the development of our first "HIGH SPINDLE" back in 1970, achieves smooth operation with minimal heat generation and high torque transmission.



Rigidity increased 1.7 times

Larger diameter body and spindle with double angular contact bearings and reinforced locating pin assembly greatly increase rigidity.



Model	L	Deflection	Comparison
BBT40-GTG5-10-140-65	200	36μm	58% less
BBT50-GTG6-10-158-80	220	25μm	78% less
BBT50-GTG4-16-177-80	240	11μm	93% less

Comparison against previous model.

Reduce load to machine spindle

Continuous use at high spindle speeds will reduce the life of a machine spindle due to the excessive load to the motor and bearings. The HIGH SPINDLE reduces this load and greatly extends the life of a costly machine spindle.

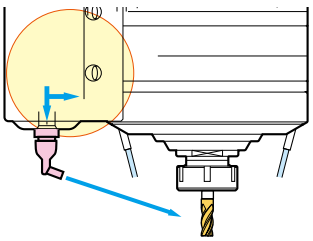
Multi-directional coolant supply

Universal Coolant Nozzles are capable of being adjusted to suit the length of cutting tool. Thus, the maximum coolant delivery to the cutting edge is assured.

Note:
HIGH SPINDLE can be operated without coolant running through the housing.

● Pinpoint coolant jet for shorter cutting tools

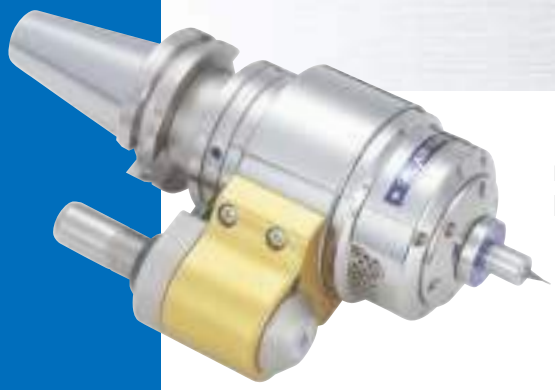
A 1/8 pipe tap thread is provided in the HIGH SPINDLE so that various types of customer supplied coolant-jet nozzles can be utilized which will provide pinpoint delivery to the cutting edge of short tools (BDV/BBT taper models only).



BIG DAISHOWA

Ultra high-speed and precision

AIR TURBINE SPINDLE



High-speed micro-machining can be done on a normal machining center, eliminating the need of an expensive high-speed machine.

BBT Shank	A63
BDV Shank	B18
HSK Shank	C38

Endmilling | Drilling | Reamer

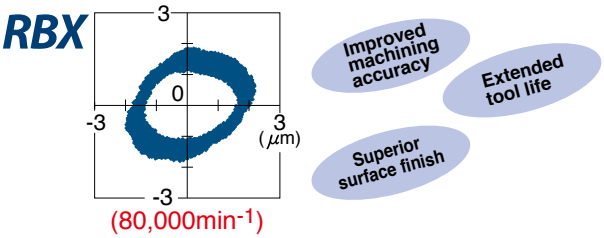
MAX. 80,000 min-1

BIG-PLUS STANDARD

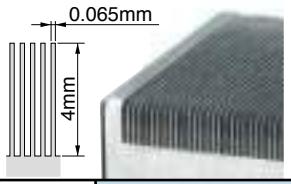
Dynamic runout accuracy

Most problems associated with micro-machining are caused by poor dynamic runout of a machine spindle. We have established a runout measuring system that can detect spindle movement during rotation at high speed and achieved the best dynamic runout accuracy.

Plotted position of a test bar at the max. spindle speed. (reference value)



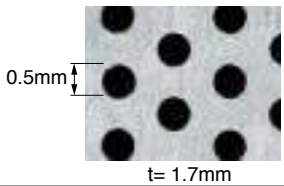
Application examples



Aluminum A2017

Outstanding runout accuracy permits super thin wall cutting.

RBX7		
	Cutter	ø0.5mm Rib-endmill
	Spindle speed	70,000min-1
	Feed	1,500mm/min
	D.O.C	Ad=0.02mm



Stainless Steel SUS303

Tool life is doubled with over 1,200 holes and cutting time is reduced to 1/3.

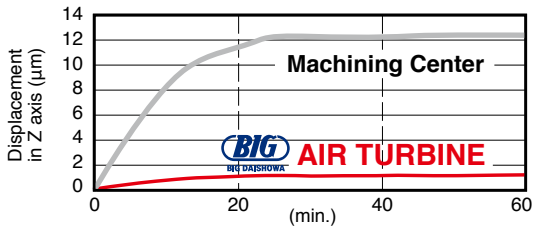
RBX5		
	Cutter	ø0.5mm Solid drill
	Spindle speed	40,000min-1
	Feed	20mm/min
	Peck	0.01mm

Minimal thermal displacement

Minimized spindle expansion !

Air turbine drive prevents thermal expansion of the spindle, which is essential for high accuracy micro-machining.

Axial displacement compared to operating time



Automatic Tool Change

ATC type is available by supplying air via a stop block to enhance productivity with unmanned operation.

2 types of Air Turbine Spindle

◎ ···· Optimum △ ···· Dependent upon cutting conditions
○ ···· Acceptable × ···· Not recommended for use

		RBX7	RBX5
Drill	ø0.1-0.3mm	○	○
	ø0.3-0.5mm	◎	○
	ø0.5-1.0mm	○	◎
	ø1.0-1.5mm	×	△
Endmill	ø0.1-1.0mm	◎	◎
	ø1.0-1.5mm	△	◎
Jig grinding		◎	◎

The table is just for reference. Machining range may change according to material, cutting conditions and cutting tools.

BIG DAISHOWA

Coolant Feed

Hi-JET HOLDER

for water-soluble coolant only

BBT Shank **A67**

BDV Shank **B20**

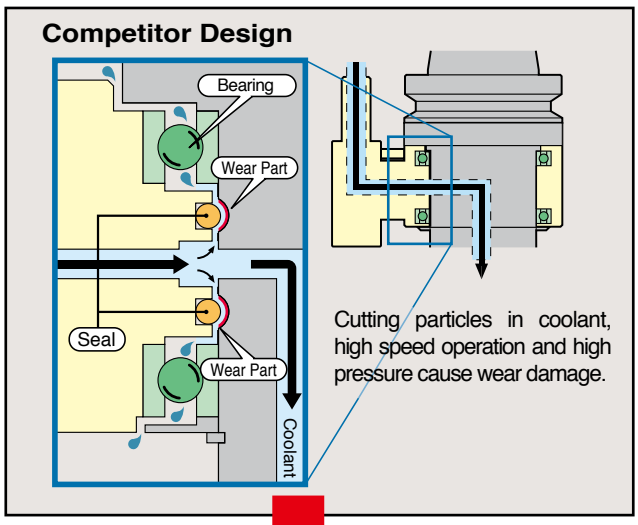
Bearings in a separate housing from the coolant for extended life.

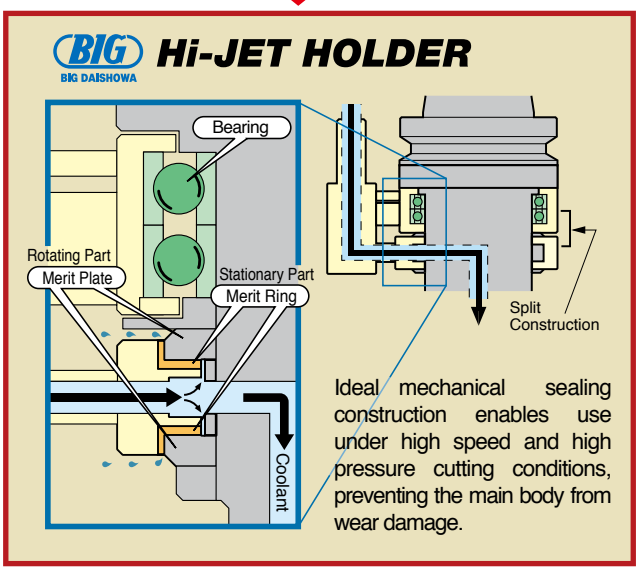
MAX. 10,000 min-1

BIG PLUS

STANDARD

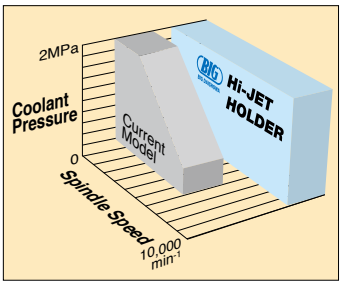
Non-contact seal design eliminates wear damage to body





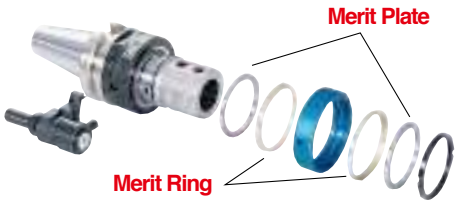
Suitable for small dia. cutters due to high speed and pressure

Small diameter cutters require high spindle speeds to maintain high cutting speed and high coolant pressure due to their small dia. coolant holes.
The Hi-JET HOLDER accepts even smaller diameter shanks, providing high spindle speeds (Max. 10,000 min-1) and high coolant pressures (Max. 2MPa).

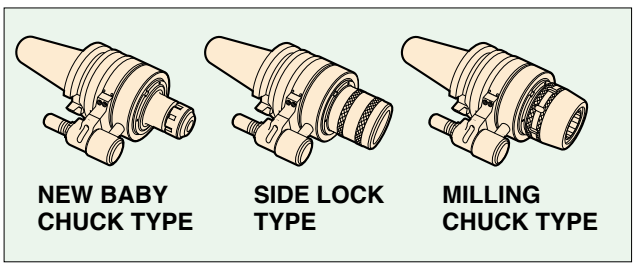


Easy maintenance by replacement of wear parts

Easily replaceable Merit Sets consist of Merit Plates, Merit Rings and O-Rings.



Hi-JET HOLDER SERIES



BIG DAISHOWA

Indexable Insert Endmill

FULLCUT MILL Type FCR / FCM

Cutter Dia. : ø12 - ø80

Type FCR I 1

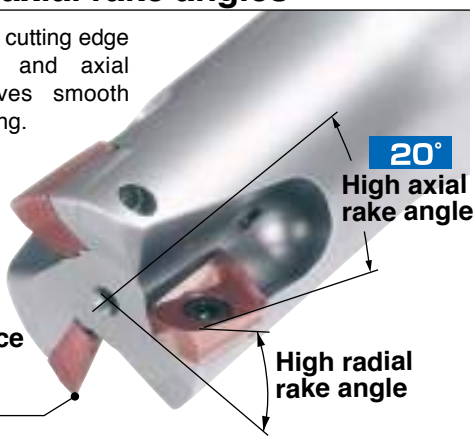
Type FCM I 10

BIG PLUS STANDARD

Indexable insert endmills with both excellent sharpness and toughness, achieving the performance of solid endmills.

Sharp cutting edge by both high radial and axial rake angles

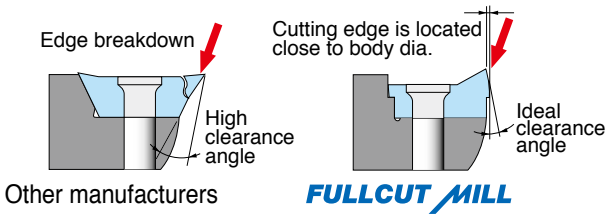
Positive high rake cutting edge for both radial and axial directions achieves smooth and quiet endmilling.



Low cutting resistance

Excellent surface finish by wide wiper action

Strong cutting edge reduces edge chipping.



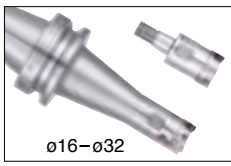
Amazing cutting performance, brought by integral & face contact body

Integral style with taper shank and flange contact with the machine spindle provides higher precision and rigidity thus achieving cutting conditions only otherwise available on larger machines.

BBT and BDV type

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

HSK type



ø16–ø32

Threaded coupling with taper & face contact

CONTACT GRIP

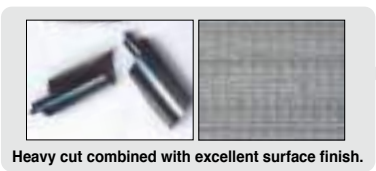
- Resistant to chatter due to the dual contact connection.
- FCM or FCR heads can be installed on the base holder

Amazing cutting perfomance even on #40 taper machine

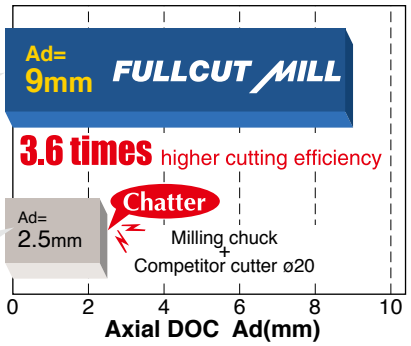
Comparison of axial DOC between integral type with face contact and straight shank type. 3.6 times higher cutting performance than other manufacturer.

Cutting condition

Machine : BBT40(BIG PLUS)
Slot milling : 20mm
Work material : C50(S50C)
Spindle speed : 2,400min^{-1}
Speed : V=150m/min
Feed : 0.12mm/tooth



Heavy cut combined with excellent surface finish.



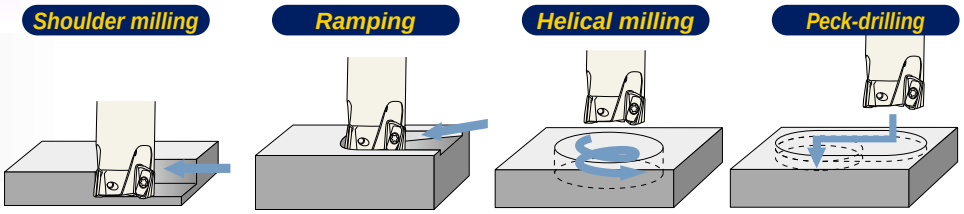
Ramping & Helical milling cutter

FULLCUT MILL Type FCR Cutter Dia. ø16 - ø33

Unique inserts designed for ramping make multi-functional cutting possible.

Higher rigidity with integral body with dual contact system.

For multi-functional cutting



Square Shoulder and slot milling cutter

FULLCUT MILL Type FCM Cutter Dia. ø12 - ø80

The indexable endmill that combines sharpness and rigidity has no match.

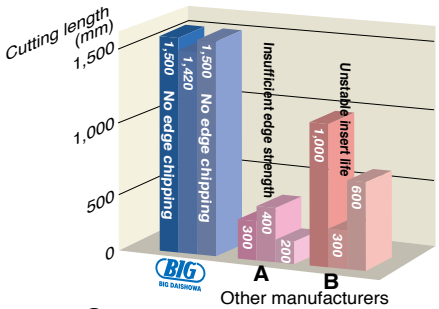
A variety of shanks including simultaneous fit with integral body.

Arbor type
For Facemill Arbor Type FMH
Cutter Dia
ø50, ø63, ø80

Evaluation of resistance to breakdown of cutting edge

Tough cutting edge of FULLCUT MILL is proven.

An evaluation of cutting length/life as measured when machining the most arduous workpiece by milling over a continuous series of holes. This is the condition most likely to cause edge chipping.

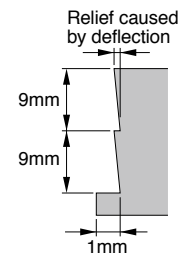


Nose radius 0.2mm

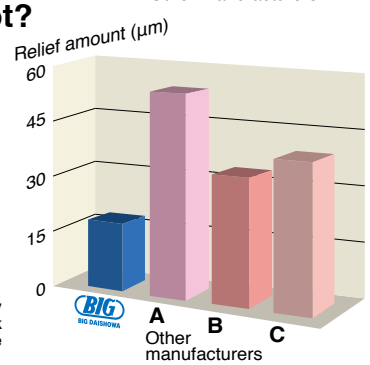
Finishing with indexable endmill - Why not?

Insert with the minimum nose radius of 0.2mm and superb squareness to achieve high precision end milling comparable with solid carbide tools.

Work material: SUS304 stainless steel
Vertical M/C, #40 taper
Cutter dia: 25mm
f = 0.12mm/tooth



Squareness is influenced by the cutting parameters, work materials, rigidity of machine and workpiece, etc.



BIG DAISHOWA

High speed cutter for aluminum and cast iron

SPEED Finisher

Diameter: ø50, ø63, ø80, ø100

Amazing improvement of surface finish at high speed cutting

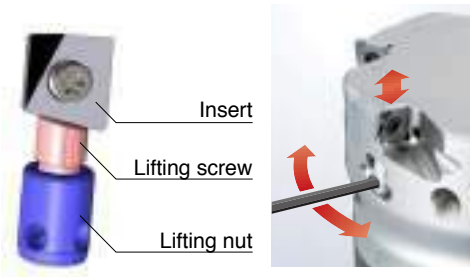
Aluminum die casting ADC12 **Rz=0.55μm**

Gray cast iron FC250 **Rz=0.67μm**

I 23

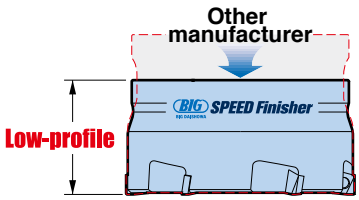
Quick adjustment of cutting edge height

After clamping the insert, lifting screw lifts up the insert directly by revolving the lifting nut from its side. Simple construction aids easy adjusting operation. Fine pitch thread of the lifting screw ensures precise adjustment.



Lightweight & high rigidity

Low-profile cutter body enhances rigidity, minimizes vibration and distortion, leading to the minimized height difference of the machined surface. Ligther weight resulted from reduced mass aids performance on small machine tools such as BT30 spindle.



PL Presetter

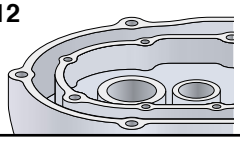
Exclusive PL Presetter shortens the setup time further up to 15 sec./insert while avoiding chipping of the cutting edge.

Necessity of cutting edge presetting

Secure coolant supply to the cutting edges

Coolant is supplied to the cutting edge directly in combination with the Face Mill Arbor Type FMH. Especially effective to avoid built-up edges when cutting aluminum and possible re-cutting of the swarf.

Application example (Cutter diameter : ø80)

Workpiece	Conditions	Surface roughness	Height difference	No. of workpiece	Result
Crankcase ADC12 	Cutting speed : 4,000m/min Spindle speed : 15,900min^{-1} Feed rate : 9,550mm/min Depth of cut : 2.5mm	Ra=0.08μm Rz=0.55μm	Within 1μm	24,000	**Rough & finish processes are combined in a single operation.**

BIG
BIG DAISHOWA

The Ultra High Feed Chamfer mill

C-CUTTER mini

Compact design with 4 inserts & small cutting diameter. High performance chamfer cutter to achieve ultra high feed rate by reducing the cutting diameter to the lowest limit.

For multi-functional cutting

- Chamfering
- Back chamfering
- Face milling

I 25

4 Inserts, small diameter and new coating achieve Triple effect

Effect 1 Superb design. Ultra high feed by 4 Inserts.

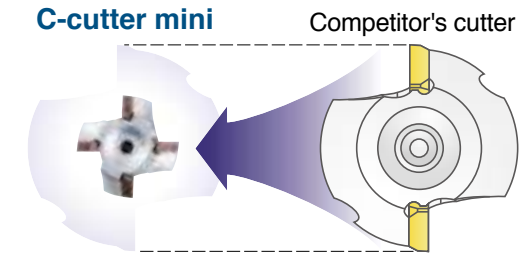
Compared with 1 or 2 inserts per cutter, a 4 insert cutter multiplies feed rate.

Effect 2 Increased Spindle speed by ultra compact diameter.

A smaller tool diameter means faster spindle speeds.

Effect 3 Latest coating [ACP200] increases the cutting speed.

Wear resistant multi layer PVD coating increases the cutting speed.



Considerably Improved

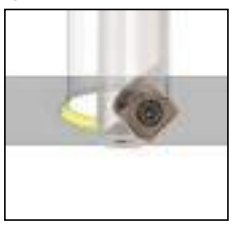
Feed rate = Spindle speed (UP) × Feed per tooth × Number of teeth (UP)

Spindle speed (UP) = Cutting speed (UP) / π × Cutting diameter (Small dia.)

World smallest hex insert

Highly-efficient back chamfering from 6mm starting hole diameter. 3-corner insert saves cost.

New series for starting hole for tapping are available from M8 to M20 range.



Cutting efficiency is improved by **8 times**.

Work material : C55(S55C)
Chamfering amount : 1mm x 45˚
Feed per tooth : 0.1mm

	Competitor's Tool	C-cutter mini (ST12-C1116-45B-25)
Chamfering dia.	ø29	ø13.5 Small dia.
Number of teeth	2	4 UP
Cutting speed (m/min)	150	300 UP
Spindle speed (min⁻¹)	1,646	7,040 UP
Feed (mm/min)	329	2,820 8.5x Higher!

BIG DAISHOWA

Precision Test Arbor

DynaTest

Precision measuring tools of the highest quality for machine tool maintenance.

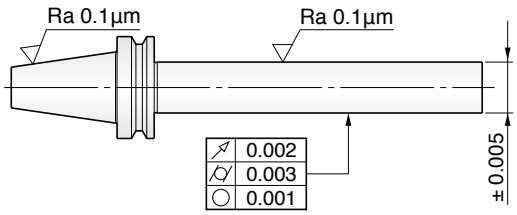
BBT Shank	A71
BDV Shank	B21
HSK Shank	C50

BIG PLUS

STANDARD

Precision standard of BIG Daishowa Test Arbors

BIG Daishowa provides high quality test bars, produced under a strict quality control system.



Runout	0.002mm
Roundness	0.001mm
Cylindricity	0.003mm
Roughness	Ra : 0.1µm
Diameter tol.	± 0.005mm

Alminum case

An aluminum case is provided to protect and store the test bars. (Some models are provided in a wooden box.)

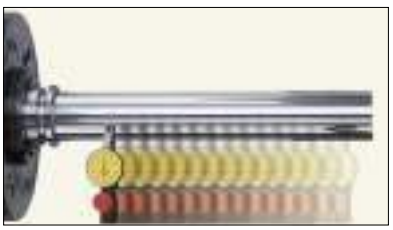
Calibration certificate and traceability system

BIG Daishowa can offer a Calibration Certificate with traceability on request as per ISO9000 requirements.

For machine tool maintenance

Runout of spindle taper

Parallelism to Z-axial movement



BBT/BT SHANK

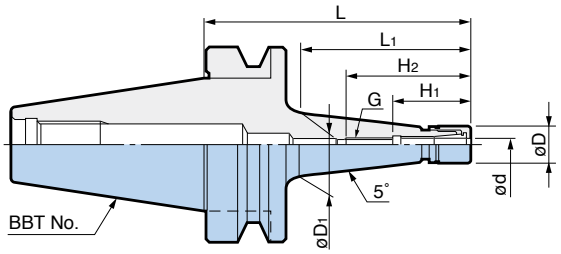
MEGA MICRO CHUCK®

Clamping Range : ø0.45 - ø8.05

Type T

Taper-off design minimizes interference and maximizes rigidity.

MAX. 40,000 min-1



BIG-PLUS tools can be used in machining centers with conventional spindles.

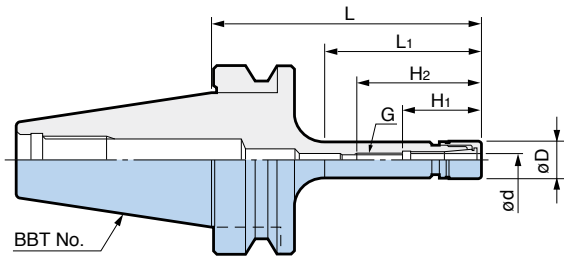
Model	Clamping Range ød	øD	øD1	L	L1	H1	H2	G	MAX. min-1	Collet Model	Nut Model	Weight (kg)
BBT30-MEGA3S- 45T	0.45 – 3.25	10	11.5	45	20	22	38	M4 P0.7	40,000	NBC3S-□	MGN3S	0.38
- 75T			15.7	75	48				40,000			0.42
- 90T			18.3	90	63				35,000			0.45
-105T			21.0	105	78				30,000			0.49
-MEGA4S- 60T	0.45 – 4.05	12	14.8	60	33	26.5	47	M5 P0.8	40,000	NBC4S-□	MGN4S	0.40
- 75T			17.4	75	48				40,000			0.43
- 90T			20.0	90	63				35,000			0.46
-105T			22.6	105	78				30,000			0.50
-120T			25.3	120	93				25,000			0.55
-MEGA6S- 60T	0.45 – 6.05	14	16.3	60	33	28.5	49	M7 P0.75	40,000	NBC6S-□	MGN6S	0.41
- 75T			18.9	75	48				40,000			0.44
- 90T			21.6	90	63				35,000			0.47
-105T			24.2	105	78				30,000			0.52
-120T			26.8	120	93				25,000			0.58
-MEGA8S- 75T	2.95 – 8.05	18	22.7	75	48	31	50.5	M9 P0.75	40,000	NBC8S-□	MGN8S	0.50
-105T			28.0	105	78				30,000			0.61
BBT40-MEGA3S- 60T	0.45 – 3.25	10	12.2	60	28	22	38	M4 P0.7	35,000	NBC3S-□	MGN3S	0.99
- 90T			17.5	90	58				28,000			1.04
-120T			22.7	120	88				22,000			1.12
-MEGA4S- 60T	0.45 – 4.05	12	13.9	60	28	26.5	47	M5 P0.8	35,000	NBC4S-□	MGN4S	1.00
- 75T			16.5	75	43				32,000			1.02
- 90T			19.1	90	58				28,000			1.05
-105T			21.8	105	73				25,000			1.08
-120T			24.4	120	88				22,000			1.13
-135T			27.0	135	103				20,000			1.20
-MEGA6S- 60T	0.45 – 6.05	14	15.4	60	28	28.5	49	M7 P0.75	35,000	NBC6S-□	MGN6S	1.01
- 75T			18.0	75	43				32,000			1.03
- 90T			20.7	90	58				28,000			1.06
-105T			23.3	105	73				25,000			1.10
-120T			25.9	120	88				22,000			1.15
-135T			28.6	135	103				20,000			1.22
-MEGA8S- 90T	2.95 – 8.05	18	24.5	90	58	31	50.5	M9 P0.75	30,000	NBC8S-□	MGN8S	1.11
-120T			29.7	120	88				22,000			1.19

1. MEGA NUT is included.

Type S

Micro diameter design is ideal for high speed applications in tight areas with small diameter cutting tools.

MAX. 40,000 min-1



BIG-PLUS tools can be used in machining centers with conventional spindles.

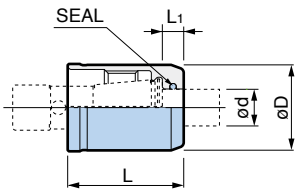
Model	Clamping Range ød	øD	L	L1	H1	H2	G	MAX. min-1	Collet Model	Nut Model	Weight (kg)
BBT30-MEGA4S- 60	0.45 – 4.05	12	60	32	26.5	47	M5 P0.8	40,000	NBC4S-□	MGN4S	0.40
- 90			90	62							0.43
-MEGA6S- 60	0.45 – 6.05	14	60	32	28.5	49	M7 P0.75		NBC6S-□	MGN6S	0.42
- 90			90	62							0.45
-105			105	73							0.47
-MEGA8S- 90	2.95 – 8.05	18	90	60	31	50.5	M9 P0.75	35,000	NBC8S-□	MGN8S	0.50
BBT40-MEGA4S- 60	0.45 – 4.05	12	60	27	26.5	47	M5 P0.8	35,000	NBC4S-□	MGN4S	1.0
- 90			90	53							
-MEGA6S- 60	0.45 – 6.05	14	60	27	28.5	49	M7 P0.75		NBC6S-□	MGN6S	1.0
- 90			90	53							
-MEGA8S- 90	2.95 – 8.05	18	90	55	31	50.5	M9 P0.75	30,000	NBC8S-□	MGN8S	1.1

1. MEGA NUT is included.

	Spare Parts	Accessories			
	MEGA NUT 	MEGA WRENCH 	MICRO COLLET G 2 	MICRO COLLET PROTECTIVE CASE 	α TAPER CLEANER 
MEGA MICRO CHUCK	Model	Model	Model	Model	Model
MEGA3S	**MGN3S**	**MGR10**	**NBC3S-□**	**NBB3S**	**SC-NBC3S**
MEGA4S	**MGN4S**	**MGR12**	**NBC4S-□**	**NBB4S**	**SC-NBC4S**
MEGA6S	**MGN6S**	**MGR14**	**NBC6S-□**	**NBB6S**	**SC-NBC6S**
MEGA8S	**MGN8S**	**MGR18**	**NBC8S-□**	–	–

Accessories
MICRO SEAL NUT

● Sealed nut for coolant-through tools.



MEGA6S

Model	ød	øD	L	L1
MGN6S-PS3	3.0	14	19	3.5
-PS4	4.0			
-PS5	5.0			
-PS6	6.0			

MEGA8S

Model	ød	øD	L	L1
MGN8S-PS3	3.0	18	20.2	3.5
-PS4	4.0			
-PS5	5.0			
-PS6	6.0			
-PS7	7.0			
-PS8	8.0			

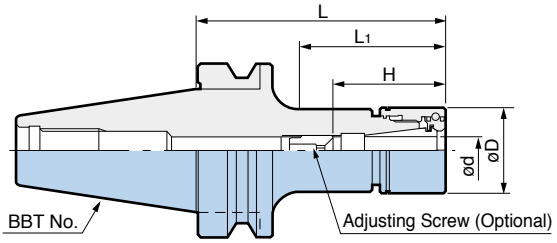
MEGA NEW BABY CHUCK®

Coolant-through hole

Clamping Range : ø0.25 - ø20

Ideal ultra precision holders for high speed machining with carbide drills, reamers and endmills. Wide range of lengths and a variety of collet series sizes covers all machining applications.

MAX. 40,000 min-1



BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Clamping Range ød	øD	L	L1	H	MAX. min-1	Collet Model	Nut Model	Weight (kg)
BBT30-MEGA 6N- 60	0.25 – 6	20	60	32	23 – 43	40,000	NBC 6-□	MGN 6	0.47
- 75			75	47		35,000			0.5
- 90			90	62		30,000			0.53
-105			105	77		20,000			0.56
-120			120	90		18,000			0.59
-MEGA 8N- 60	0.5 – 8	25	60	34	26 – 45	40,000	NBC 8-□	MGN 8	0.51
- 75			75	49		35,000			0.56
- 90			90	64		30,000			0.61
-105			105	79		20,000			0.67
-120			120	92		18,000			0.72
-MEGA10N- 60	1.5 – 10	30	60	34	38 – 48	40,000	NBC10-□	MGN10	0.54
- 75			75	49		30,000			0.61
- 90			90	64		25,000			0.68
-105			105	79		18,000			0.75
-120			120	94		15,000			0.82
-MEGA13N- 60	2.5 – 13	35	60	34	44 – 63	40,000	NBC13-□	MGN13	0.54
- 75			75	49		30,000			0.63
- 90			90	64		25,000			0.72
-105			105	79		18,000			0.82
-120			120	94		15,000			0.91
-MEGA16N- 60	2.5 – 16	42	60	37	48 – 63	35,000	NBC16-□	MGN16	0.66
- 75			75	52	48 – 68	25,000			0.81
- 90			90	67		20,000			0.95
-105			105	82		18,000			1.1
-MEGA20N- 60※	2.5 – 20	46	60	–	51	30,000	NBC20-□	MGN20	0.71
- 75			75	–	51 – 68	20,000			0.86
- 90			90	–		15,000			1.0
-105			105	–		13,000			1.15

1. MEGA NUT is included.
2. "H" indicates the adjustment length with an Adjusting Screw.

※ Adjusting screw cannot be used with BBT30-MEGA20N-60. "H" is the max. tool shank length that can be inserted into the holder.

Spare Parts

MEGA NUT

Accessories

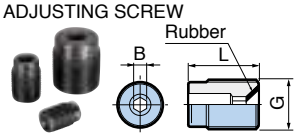
MEGA WRENCH

NBC COLLET G 3

FOR ENDMILL COLLET G 7

SEALING NUT
MEGA PERFECT SEAL G 9

ADJUSTING SCREW



MEGA NEW BABY CHUCK	Spare Parts: Model	Accessories: MEGA WRENCH Model	NBC COLLET Model	SEALING NUT MEGA PERFECT SEAL Model	ADJUSTING SCREW Model	G	L	B
MEGA 6N	**MGN 6**	**MGR20**	**NBC 6-□**	**MPS 6-□**	**NBA 6B**	M 7	12	2
MEGA 8N	**MGN 8**	**MGR25**	**NBC 8-□**	**MPS 8-□**	**NBA 8B**	M 9	13	2.5
MEGA10N	**MGN10**	**MGR30**	**NBC10-□**	**MPS10-□**	**NBA10B**	M11	16	3
MEGA13N	**MGN13**	**MGR35**	**NBC13-□**	**MPS13-□**	**NBA13B**	M14	20	4
MEGA16N	**MGN16**	**MGR42**	**NBC16-□**	**MPS16-□**	**NBA16B**	M18	20	4
MEGA20N	**MGN20**	**MGR46**	**NBC20-□**	**MPS20-□**	**NBA20B**	M21	20	4

BIG-PLUS tools can be used in machining centers with conventional spindles.

For BBT50, refer to the following page.

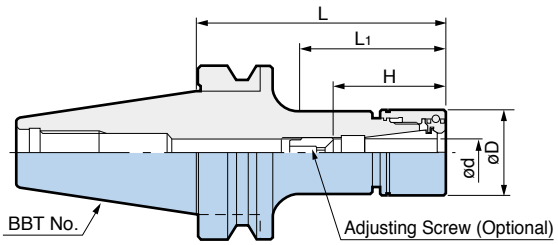
Model	Clamping Range ød	øD	L	L_1	H	MAX. min^{-1}	Collet Model	Nut Model	Weight (kg)
BBT40-MEGA 6N- 60	0.25 – 6	20	60	27	23 – 43	35,000	NBC 6-□	MGN 6	1.0
- 75			75	38		35,000			1.05
- 90			90	53		35,000			1.1
-105			105	68		20,000			1.14
-120			120	83		20,000			1.18
-135			135	98		20,000			1.2
-165			165	128		14,000			1.2
-200			200	163		9,000			1.3
-MEGA 8N- 60	0.5 – 8	25	60	27	26 – 45	35,000	NBC 8-□	MGN 8	1.0
- 75			75	38		35,000			1.05
- 90			90	53		35,000			1.1
-105			105	68		20,000			1.14
-120			120	83		20,000			1.18
-135			135	98		20,000			1.3
-165			165	128		14,000			1.3
-200			200	163		9,000			1.4
-MEGA10N- 60	1.5 – 10	30	60	27	38 – 48	35,000	NBC10-□	MGN10	1.1
- 75			75	38		35,000			1.15
- 90			90	53		35,000			1.2
-105			105	68		20,000			1.27
-120			120	83		20,000			1.34
-135			135	98		20,000			1.4
-165			165	128		15,000			1.5
-200			200	163		10,000			1.7
-MEGA13N- 60	2.5 – 13	35	60	31	44 – 63	35,000	NBC13-□	MGN13	1.1
- 75			75	40		35,000			1.2
- 90			90	55		35,000			1.3
-105			105	70		20,000			1.4
-120			120	85		20,000			1.5
-135			135	100		20,000			1.6
-165			165	130		15,000			1.8
-200			200	165		10,000			2.0
-MEGA16N- 60	2.5 – 16	42	60	31	48 – 68	30,000	NBC16-□	MGN16	1.2
- 75			75	40		30,000			1.3
- 90			90	55		30,000			1.4
-105			105	70		20,000			1.6
-120			120	85		20,000			1.7
-135			135	100		20,000			1.8
-165			165	130		15,000			2.0
-200			200	165		10,000			2.3
-MEGA20N- 60	2.5 – 20	46	60	31	51 – 68	30,000	NBC20-□	MGN20	1.1
- 75			75	42		30,000			1.25
- 90			90	57		30,000			1.4
-105			105	72		20,000			1.6
-120			120	87		20,000			1.8
-135			135	102		20,000			1.9
-165			165	132		15,000			2.1
-200			200	167		10,000			2.5

1. MEGA NUT is included.
2. "H" indicates the adjustment length with an Adjusting Screw.

MEGA NEW BABY CHUCK®

Coolant-through hole

Clamping Range : ø0.25 - ø20



BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Clamping Range ød	øD	L	L1	H	MAX. min-1	Collet Model	Nut Model	Weight (kg)
BBT50-MEGA 6N- 90	0.25– 6	20	90	37	23 – 43	20,000	NBC 6-□	MGN 6	3.7
-120			120	67		20,000			3.8
-165			165	112		14,000			3.9
-200			200	147		9,000			4.0
-MEGA 8N- 90	0.5 – 8	25	90	42	26 – 45	20,000	NBC 8-□	MGN 8	3.8
-120			120	67		20,000			3.9
-165			165	112		16,000			4.1
-200			200	147		11,000			4.2
-MEGA10N- 90	1.5 – 10	30	90	42	38 – 48	20,000	NBC10-□	MGN10	3.9
-120			120	67		20,000			4.0
-165			165	112		16,000			4.3
-200			200	147		13,000			4.7
-250			250	197		8,000			4.7
-300			300	247		5,500			4.9
-MEGA13N- 90	2.5 – 13	35	90	42	44 – 63	18,000	NBC13-□	MGN13	4.0
-120			120	67		18,000			4.2
-165			165	112		16,000			4.5
-200			200	147		12,000			4.7
-250			250	197		8,000			5.0
-300			300	247		5,500			5.3
-MEGA16N- 75	2.5 – 16	42	75	31	48 – 68	17,000	NBC16-□	MGN16	4.0
- 90			90	42		17,000			4.2
-120			120	72		17,000			4.4
-165			165	117		16,000			4.8
-200			200	152		13,000			5.1
-250			250	202		10,000			5.5
-MEGA20N- 75	2.5 – 20	46	75	31	51 – 68	16,000	NBC20-□	MGN20	4.1
- 90			90	42		16,000			4.2
-120			120	72		16,000			4.5
-165			165	117		15,000			4.9
-200			200	152		13,000			5.3
-250			250	202		10,000			5.7

1. MEGA NUT is included.
2. "H" indicates the adjustment length with an Adjusting Screw.

Spare Parts

MEGA NUT

Accessories

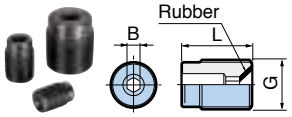
MEGA WRENCH

NBC COLLET G 3

FOR ENDMILL COLLET G 7

SEALING NUT
MEGA PERFECT SEAL G 9

ADJUSTING SCREW



MEGA NEW BABY CHUCK	Spare Parts: Model	Accessories: Model	Accessories: Model	Accessories: Model	Accessories: Model	G	L	B
MEGA 6N	**MGN 6**	**MGR20**	**NBC 6-□**	**MPS 6-□**	**NBA 6B**	M 7	12	2
MEGA 8N	**MGN 8**	**MGR25**	**NBC 8-□**	**MPS 8-□**	**NBA 8B**	M 9	13	2.5
MEGA10N	**MGN10**	**MGR30**	**NBC10-□**	**MPS10-□**	**NBA10B**	M11	16	3
MEGA13N	**MGN13**	**MGR35**	**NBC13-□**	**MPS13-□**	**NBA13B**	M14	20	4
MEGA16N	**MGN16**	**MGR42**	**NBC16-□**	**MPS16-□**	**NBA16B**	M18	20	4
MEGA20N	**MGN20**	**MGR46**	**NBC20-□**	**MPS20-□**	**NBA20B**	M21	20	4

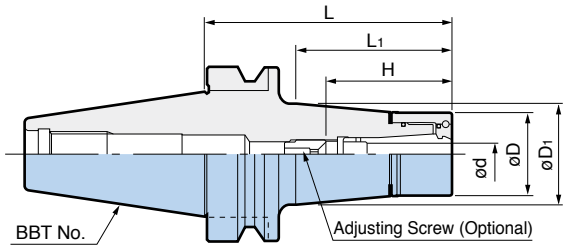
MEGA E CHUCK®

Coolant-through hole

Clamping Range : ø3.0 - ø12

Exclusively designed with the advanced technology for high speed endmilling. The long gripping length of the collet provides a powerful gripping force.

MAX. 40,000 min-1



BIG-PLUS tools can be used in machining centers with conventional spindles.

For BBT40 & BBT50, refer to the following pages.

Model	Clamping Range ød	øD	øD1	L	L1	H	MAX. min-1	Collet Model	Nut Model	Weight (kg)
BBT30-MEGA 6E- 50	3 – 6	25	25.7	50	25	37 – 45	40,000	MEC 6-□	MEN 6	0.53
- 75			29.9	75	50		35,000			0.64
- 90			32.5	90	65		25,000			0.72
-105			35.1	105	80		25,000			0.82
-MEGA 8E- 50	3 – 8	30	30.4	50	25	42 – 51	40,000	MEC 8-□	MEN 8	0.56
- 75			34.6	75	50		35,000			0.71
- 90			37.4	90	66		25,000			0.83
-105			40.1	105	81		25,000			0.96
-MEGA 10E- 50	3 – 10	35	35.3	50	25	48 – 58	39,000	MEC10-□	MEN10	0.60
- 75			39.7	75	51		35,000			0.80
- 90			41	90	66		25,000			0.93
-105			41.1	105	82		25,000			1.06
-MEGA 13E- 50	3 – 12	42	42.5	50	27	50 – 58	38,000	MEC13-□	MEN13	0.65
- 75			42	75	52	50 – 60	34,000			0.90
- 90			42	90	67		25,000			1.05
-105			42	105	82		25,000			1.20

1. MEGA E NUT is included.
2. "H" indicates the adjustment length with an Adjusting Screw.

Spare Parts

MEGA E NUT

MEGA E CHUCK	Model
MEGA 6E	**MEN 6**
MEGA 8E	**MEN 8**
MEGA10E	**MEN10**
MEGA13E	**MEN13**

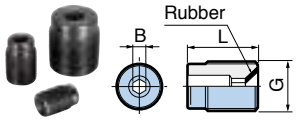
Accessories

MEGA WRENCH

MEGA E COLLET G 11

SEALING NUT
MEGA E PERFECT SEAL G 11

ADJUSTING SCREW



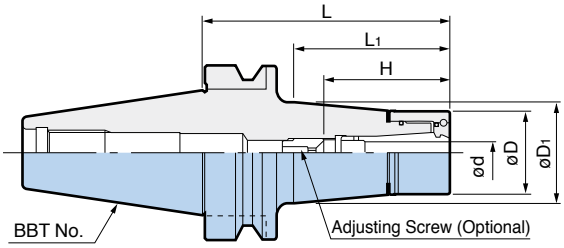
MEGA WRENCH Model	MEGA E COLLET Model	SEALING NUT MEGA E PERFECT SEAL Model	ADJUSTING SCREW Model	G	L	B
MGR25	**MEC 6-□**	**EPS 6-□**	**NBA 6B**	M 7	12	2
MGR30	**MEC 8-□**	**EPS 8-□**	**NBA 8B**	M 9	13	2.5
MGR35	**MEC10-□**	**EPS10-□**	**NBA10B**	M11	16	3
MGR42	**MEC13-□**	**EPS13-□**	**NBA13B**	M14	20	4

MEGA E CHUCK®

Coolant-through hole

Clamping Range : ø3.0 - ø12

MAX. 30,000 min-1



BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Clamping Range ød	øD	øD1	L	L1	H	MAX. min-1	Collet Model	Nut Model	Weight (kg)
BBT40-MEGA 6E- 60	3 – 6	25	26.2	60	28	37 – 45	30,000	MEC 6-□	MEN 6	1.08
- 75			28.7	75	43		30,000			1.14
- 90			31.3	90	58		30,000			1.21
-105			33.9	105	73		29,000			1.29
-120			36.5	120	88		29,000			1.41
-135			39	135	103		27,000			1.53
-165			44.4	165	133		20,000			1.85
-200			50.7	200	169		15,000			2.32
-MEGA 8E- 60	3 – 8	30	31	60	28	42 – 48	30,000	MEC 8-□	MEN 8	1.13
- 75			33.4	75	43	42 – 51	30,000			1.21
- 90			36	90	58		30,000			1.30
-105			38.7	105	73		29,000			1.46
-120			41.3	120	88		29,000			1.61
-135			43.9	135	103		27,000			1.76
-165			49.1	165	133		20,000			2.10
-200			55.8	200	171		15,000			2.53
-MEGA 10E- 60	3 – 10	35	36	60	29	48 – 58	30,000	MEC10-□	MEN10	1.23
- 75			38.3	75	43		30,000			1.34
- 90			40.9	90	58		30,000			1.46
-105			43.6	105	73		29,000			1.61
-120			46.2	120	88		29,000			1.78
-135			48.8	135	103		27,000			1.98
-165			54.4	165	135		22,000			2.37
-200			55.5	200	171		16,000			3.07
-MEGA 13E- 60	3 – 12	42	42.7	60	29	50 – 60	30,000	MEC13-□	MEN13	1.29
- 75			45	75	43		30,000			1.45
- 90			48	90	59		30,000			1.63
-105			50.6	105	75		29,000			1.84
-120			53.4	120	91		29,000			2.07
-135			56	135	106		26,000			2.34
-165			57.5	165	137		22,000			2.80
-200			62.4	200	173		16,000			3.61

1. MEGA E NUT is included.
2. "H" indicates the adjustment length with an Adjusting Screw.

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Clamping Range ød	øD	øD1	L	L1	H	MAX. min-1	Collet Model	Nut Model	Weight (kg)
BBT50-MEGA 6E- 90	3 – 6	25	30.4	90	47	37 – 45	20,000	MEC 6-□	MEN 6	3.8
-120			35.6	120	77		20,000			4.0
-165			43.5	165	122		14,000			4.4
-200			49.6	200	157		9,000			4.9
-MEGA 8E- 90	3 – 8	30	35.1	90	47	42 – 51	20,000	MEC 8-□	MEN 8	3.9
-120			40.4	120	77		20,000			4.1
-165			48.2	165	122		16,000			4.6
-200			54.4	200	157		11,000			5.2
-MEGA 10E- 90	3 – 10	35	40.0	90	47	48 – 58	20,000	MEC10-□	MEN10	4.0
-120			45.4	120	77		20,000			4.2
-165			53.0	165	121		16,000			4.9
-200			59.3	200	156		13,000			5.5
-MEGA 13E- 90	3 – 12	42	46.5	90	47	50 – 60	18,000	MEC13-□	MEN13	4.0
-120			52.0	120	77		18,000			4.4
-165			59.0	165	121		16,000			5.2
-200			64.7	200	156		12,000			6.0

1. MEGA E NUT is included.
2. "H" indicates the adjustment length with an Adjusting Screw.

Spare Parts

MEGA E NUT

MEGA E CHUCK	Model
MEGA 6E	**MEN 6**
MEGA 8E	**MEN 8**
MEGA10E	**MEN10**
MEGA13E	**MEN13**

Accessories

MEGA WRENCH

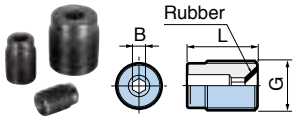
MEGA E COLLET

G 11

SEALING NUT
MEGA E PERFECT SEAL

G 11

ADJUSTING SCREW



Model	Model	Model	Model	G	L	B
MGR25	**MEC 6-□**	**EPS 6-□**	**NBA 6B**	M 7	12	2
MGR30	**MEC 8-□**	**EPS 8-□**	**NBA 8B**	M 9	13	2.5
MGR35	**MEC10-□**	**EPS10-□**	**NBA10B**	M11	16	3
MGR42	**MEC13-□**	**EPS13-□**	**NBA13B**	M14	20	4

MEGA DOUBLE POWER CHUCK®

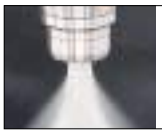
Coolant-through hole

Clamping Range : ø16 - ø50

Type D

MAX. 30,000 min-1

Close to integral rigidity and precision of a solid toolholder. Advanced technology for high speed and heavy duty endmilling.
Two types are available, Type D for use with/without coolant through the tool and Type DS to feed coolant to cutting tool periphery.



Type DS For coolant to cutting tool periphery

For TYPE DS A 11

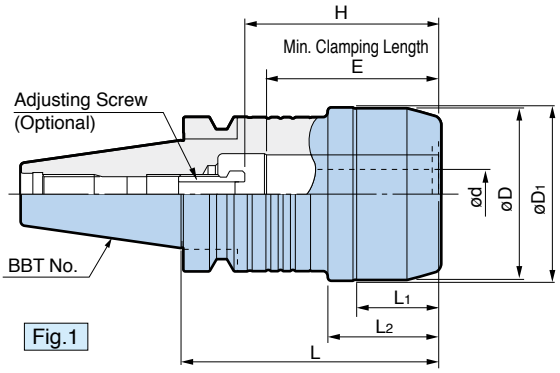


Fig.1

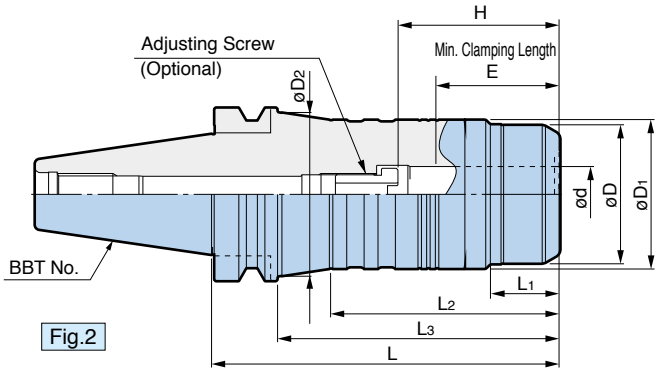


Fig.2

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Fig.	ød	øD	øD1	øD2	L	L1	L2	L3	H	E	MAX. min-1	Weight (kg)
BBT30-MEGA16D- 60	1	16	46	46.7	–	60	25.5	30	–	62	50	30,000	0.8
-MEGA20D- 65		20	50	50.7	–	65	30.5	35	–	60		25,000	0.9
BBT40-MEGA16D- 75A	2	16	42	52.6	60	75	25	38.5	48	71	55	30,000	1.5
-105A					61	105			78				2.1
-135A						135			108			25,000	2.7
-165A						165			138			22,000	3.3
-200A						200			173			20,000	4.1
-MEGA20D- 75	2	20	55	55.7	60	75	33	44.5	48	69 – 79	56	30,000	1.7
-105					61	105			78				2.1
-120						120			93			27,000	2.4
-135						135			108			25,000	2.7
-165						165			138			22,000	3.3
-200						200			173			20,000	4.2
-MEGA25D- 75A	1	25	62	62.7	–	75	39	–	–	73 – 83	57	27,000	2.0
-105A						105				71 – 81		26,000	2.3
-135A						135						24,000	3.0
-165A						165						21,000	3.7
-200A						200						18,000	4.7
-MEGA32D- 90A	1	32	70	70.7	–	90	33.5	45.5	–	71 – 81	64	26,000	2.1
-105A						105				79 – 89			2.4
-135A						135						22,000	3.1
-165A						165						20,000	3.7
-200A						200						16,000	4.5

1. Wrench is ordered separately.
2. "H" indicates the adjustment length with an Adjusting Screw.

※As a back stop for cutting tools for the MEGA16D models, a commercially available hex socket head screw can be used.

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Fig.	ød	øD	øD1	øD2	L	L1	L2	L3	H	E	MAX. min-1	Weight (kg)
BBT50-MEGA16D-105	2	16	46	55	63	105	23.5	33.5	67	71	50	21,000	4.6
-135						135			97				5.2
-165						165			127			19,000	5.7
-200						200			162			15,000	6.6
-250						250			212			13,000	7.0
-MEGA20D-105	2	20	60	69	74	105	25.5	36	67	69 – 79	56	20,000	5.1
-135						135			97			19,000	6.0
-165						165			127			17,000	6.8
-200						200		114	162			14,000	7.7
-250					77	250		136	212			12,000	9.1
-MEGA25D-105	2	25	70	77	85	105	32	45	67	76 – 86	65	20,000	5.4
-135						135			97			19,000	6.5
-165					82	165			127			17,000	7.6
-200						200		119	162			12,000	8.9
-250					85	250		136	212			10,000	10.8
-MEGA32D-90	2	32	80	86	–	90	39.5	54.5	–	78 – 95	71	20,000	4.8
-105					95	105			67				5.4
-135						135			97			18,000	7.0
-165						165			127			15,000	8.5
-200						200		130	162			12,000	9.9
-250						250		181.5	212			10,000	12.1
-300						300		182	262			5,000	14.3
-MEGA42D-105	1	42	99	99.7	–	105	40	–	–	88 –105	71	15,000	6.0
-135						135							7.8
-165						165						14,000	9.6
-MEGA50D-120	1	50	105	117	–	120	47	70	–	94 –110	75	13,000	7.3

1. Wrench is ordered separately.
2. "H" indicates the adjustment length with an Adjusting Screw.

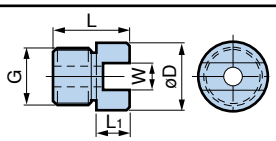
For STRAIGHT COLLET G 15

※As a back stop for cutting tools for the MEGA16D models, a commercially available hex socket head screw can be used.

Accessories

MEGA WRENCH

ADJUSTING SCREW



MEGA DOUBLE POWER CHUCK	Model	Model	øD	L	L1	G	W
BBT30-MEGA16D	**MGR46L**	–	–	–	–	–	–
-MEGA20D	**MGR50L**	**HMA-M16**	19	27	6	M16P1.5	8
BBT40-MEGA16D	**MGR42L**	–	–	–	–	–	–
-MEGA20D	**MGR55L**	**HMA-M16**	19	27	6	M16P1.5	8
-MEGA25D	**MGR62L**						
-MEGA32D	**MGR70L**	**HMA-M16S**					10
BBT50-MEGA16D,16D	**MGR46L**	–	–	–	–	–	–
-MEGA20D,20D	**MGR60L**	**HMA-M16**	19	27	6	M16P1.5	8
-MEGA25D,25D	**MGR70L**						
-MEGA32D,32D	**MGR80L**	**HMA-M24**	30	36	9.5	M24P1.5	10
-MEGA42D,42D	**MGR99L**						
-MEGA50D,50D	**MGR105L**						

MEGA DOUBLE POWER CHUCK®

Coolant-through hole

Clamping Range : ø16 - ø50

Type DS For coolant to cutting tool periphery

MAX 30,000 min-1

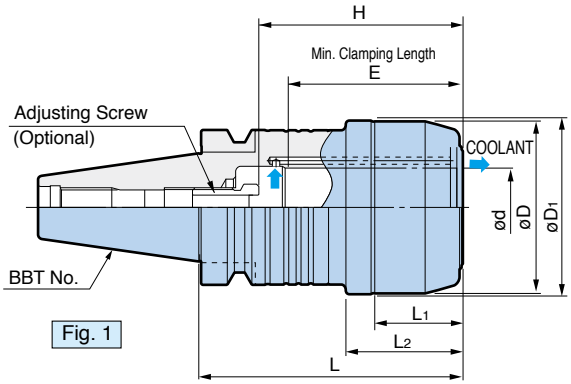


Fig. 1

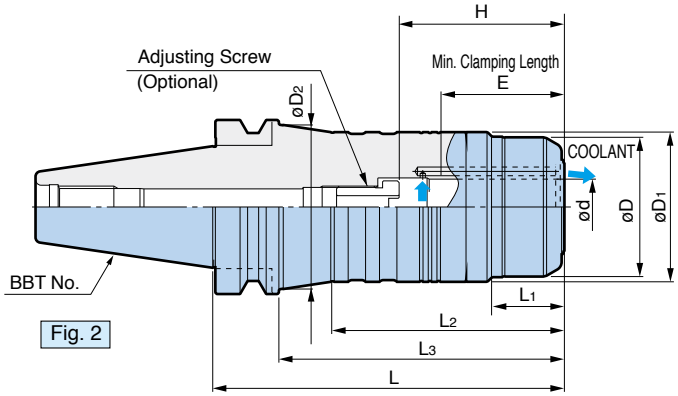


Fig. 2

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Fig.	ød	øD	øD1	øD2	L	L1	L2	L3	H	E	MAX. min-1	Weight (kg)
BBT30-MEGA16DS- 60	1	16	46	46.7	–	62.5	28	32.5	–	64	52	30,000	0.8
-MEGA20DS- 65		20	50	50.7	–	67.5	33	37.5	–	62		25,000	0.9
BBT40-MEGA16DS- 75A	2	16	42	52.6	60	77	27	40.5	50	73	57	30,000	1.5
-105A					61	107			80				2.1
-135A						137			110			25,000	2.7
-165A						167			140			22,000	3.3
-200A						202			175			20,000	4.1
-MEGA20DS- 75	2	20	55	55.7	60	77.5	35.5	47	50.5	71 – 81	58	30,000	1.7
-105					61	107.5			80.5				2.1
-120						122.5			95.5			27,000	2.4
-135						137.5			110.5			25,000	2.7
-165						167.5			140.5			22,000	3.3
-200						202.5			175.5			20,000	4.2
-MEGA25DS- 75A	1	25	62	62.7	–	77	41	–	–	75 – 85	59	27,000	2.0
-105A						107				73 – 83		26,000	2.3
-135A						137						24,000	3.0
-165A						167						21,000	3.7
-200A						202						18,000	4.7
-MEGA32DS- 90	1	32	70	70.7	–	92.5	36	47.5	–	73 – 83	67	26,000	2.1
-105						107.5				81 – 91			2.4
-135						137.5						22,000	3.1
-165						167.5						20,000	3.7
-200						202.5						16,000	4.5

1. Wrench is ordered separately.
2. "H" indicates the adjustment length with an Adjusting Screw.

※As a back stop for cutting tools for the MEGA16DS models, a commercially available hex socket head screw can be used.

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Fig	ød	øD	øD1	øD2	L	L1	L2	L3	H	E	MAX. min-1	Weight (kg)
BBT50-MEGA16DS-105	2	16	46	55	63	107.5	26	36	69.5	73	52	21,000	4.6
-135						137.5			99.5				5.2
-165						167.5			129.5			19,000	5.7
-200						202.5			164.5			15,000	6.6
-250						252.5			214.5			13,000	7.0
-MEGA20DS-105	2	20	60	69	74	107.5	28	38.5	69.5	71 – 81	58	20,000	5.1
-135						137.5			99.5			19,000	6.0
-165						167.5			129.5			17,000	6.8
-200						202.5		116.5	164.5			14,000	7.7
-250					77	252.5		138.5	214.5			12,000	9.1
-MEGA25DS-105	2	25	70	77	85	107.5	34.5	47.5	69.5	78 – 88	67	20,000	5.4
-135						137.5			99.5			19,000	6.5
-165					82	167.5			129.5			17,000	7.6
-200						202.5		121.5	164.5			12,000	8.9
-250					85	252.5		138.5	214.5			10,000	10.8
-MEGA32DS- 90	2	32	80	86	–	94.5	42	57	–	80 – 97	73	20,000	4.8
-105					95	107.5			69.5				5.4
-135						137.5			99.5			18,000	7.0
-165						167.5			129.5			15,000	8.5
-200						202.5		131.5	164.5			12,000	9.9
-250						252.5		171.5	214.5			10,000	12.1
-300						302.5		183.5	264.5			5,000	14.3
-MEGA42DS-105	1	42	99	99.7	–	107	42	–	–	90 – 107	73	15,000	6.0
-135						137							7.8
-165						167						14,000	9.6
-MEGA50DS-120	1	50	105	117	–	122	49	72	–	96 – 112	77	13,000	7.3

1. Wrench is ordered separately.
2. "H" indicates the adjustment length with an Adjusting Screw.

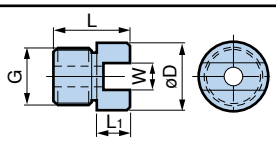
For STRAIGHT COLLET G 15

※As a back stop for cutting tools for the MEGA16DS models, a commercially available hex socket head screw can be used.

Accessories

MEGA WRENCH

ADJUSTING SCREW



MEGA DOUBLE POWER CHUCK	Model	Model	øD	L	L1	G	W
BBT30-MEGA16DS	**MGR46L**	–	–	–	–	–	–
-MEGA20DS	**MGR50L**	**HMA-M16**	19	27	6	M16P1.5	8
BBT40-MEGA16DS	**MGR42L**	–	–	–	–	–	–
-MEGA20DS	**MGR55L**	**HMA-M16**	19	27	6	M16P1.5	8
-MEGA25DS	**MGR62L**						
-MEGA32DS	**MGR70L**	**HMA-M16S**					10
BBT50-MEGA16DS,16DS	**MGR46L**	–	–	–	–	–	–
-MEGA20DS,20DS	**MGR60L**	**HMA-M16**	19	27	6	M16P1.5	8
-MEGA25DS,25DS	**MGR70L**						
-MEGA32DS,32DS	**MGR80L**	**HMA-M24**	30	36	9.5	M24P1.5	10
-MEGA42DS,42DS	**MGR99L**						
-MEGA50DS,50DS	**MGR105L**						

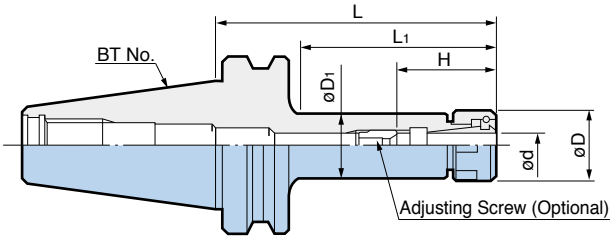
NEW BABY CHUCK

Coolant-through hole

Clamping Range : ø0.25 - ø20

Great variety in length in order to support high precision machining.

MAX 20,000 min-1



Model	Clamping Range ød	øD	øD1	L	L1	H	Collet Model	Nut Model	Weight (kg)
BT30-NBS 6- 45	0.25 – 6	20	19.5	45	20	20 – 40	NBC 6-□	NBN 6	0.41
- 60				60	32				0.44
- 75				75	47				0.47
- 90				90	62				0.51
-105				105	77				0.54
-120				120	90				0.57
-135				135	105				0.60
-NBS 8- 45	0.5 – 8	25	24.5	45	20	23 – 42	NBC 8-□	NBN 8	0.42
- 60				60	33				0.46
- 75				75	48				0.5
- 90				90	63				0.55
-105				105	78				0.61
-120				120	92				0.66
-135				135	107				0.70
-NBS10- 45	1.5 – 10	30	29.5	45	20	35 – 45	NBC10-□	NBN10	0.44
- 60				60	34				0.51
- 75				75	49				0.58
- 90				90	64				0.66
-105				105	79				0.74
-120				120	94				0.81
-135				135	109				0.88
-NBS13- 45	2.5 – 13	35	34.5	45	21	41 – 53	NBC13-□	NBN13	0.39
- 60				60	34	41 – 60			0.5
- 75				75	49				0.61
- 90				90	64				0.72
-105				105	79				0.83
-120				120	94				0.93
-135				135	109				1.02
-NBS16- 45	2.5 – 16	42	41.5	45	21	45 – 53	NBC16-□	NBN16	0.39
- 60				60	37	45 – 65			0.53
- 75				75	52				0.67
- 90				90	67				0.81
-105				105	82				0.95
-120				120	97				1.10
-135				135	112				1.25
-NBS20- 60	2.5 – 20	46	45.5	60	38	48 – 58	NBC20-□	NBN20	0.55
- 75				75	53	48 – 65			0.73
- 90				90	68				0.9
-105				105	83				1.08
-120				120	98				1.26
-135				135	113				1.45

1. NEW BABY NUT is included.
2. Max. 20,000 min^{-1} is valid for BT30 with L = 45, 60 or 75mm and BT40 with L = 60, 75 or 90mm.
3. "H" indicates the adjustment length with an Adjusting Screw.

For BT50, refer to the following page.

Model	Clamping Range ød	øD	øD1	L	L1	H	Collet Model	Nut Model	Weight (kg)
BT40-NBS 6- 60	0.25 – 6	20	19.5	60	23	20 – 40	NBC 6-□	NBN 6	1.1
- 75				75	38				1.15
- 90				90	53				1.2
-105				105	68				1.24
-120				120	83				1.28
-135				135	98				1.3
-165				165	128				1.4
-200				200	158				1.5
-NBS 8- 60	0.5 – 8	25	24.5	60	23	23 – 42	NBC 8-□	NBN 8	1.1
- 75				75	38				1.15
- 90				90	53				1.2
-105				105	68				1.24
-120				120	83				1.28
-135				135	98				1.3
-165				165	128				1.4
-200				200	158				1.5
-NBS10- 60	1.5 – 10	30	29.5	60	23	35 – 45	NBC10-□	NBN10	1.1
- 75				75	38				1.15
- 90				90	53				1.2
-105				105	68				1.3
-120				120	83				1.4
-135				135	98				1.5
-165				165	128				1.7
-200				200	163				1.9
-NBS13- 60	2.5 – 13	35	34.5	60	28	41 – 60	NBC13-□	NBN13	1.2
- 75				75	40				1.3
- 90				90	55				1.4
-105				105	70				1.5
-120				120	85				1.6
-135				135	100				1.7
-165				165	128				1.9
-200				200	163				2.2
-NBS16- 60	2.5 – 16	42	41.5	60	27	45 – 65	NBC16-□	NBN16	1.2
- 75				75	40				1.35
- 90				90	55				1.5
-105				105	70				1.65
-120				120	85				1.8
-135				135	100				1.9
-165				165	130				2.2
-200				200	165				2.6
-NBS20- 60	2.5 – 20	46	45.5	60	28	48 – 65	NBC20-□	NBN20	1.2
- 75				75	42				1.35
- 90				90	57				1.5
-105				105	72				1.7
-120				120	87				1.9
-135				135	102				2.1
-165				165	132				2.5
-200				200	167				3.0

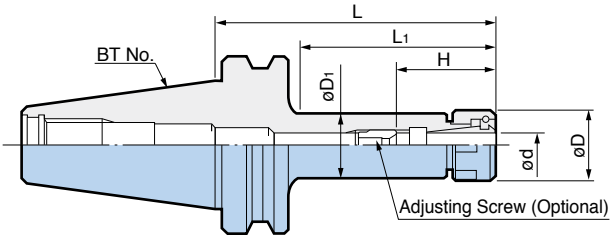
1. NEW BABY NUT is included.
2. Max. 20,000 min^{-1} is valid for BT40 with L = 60, 75 or 90mm.
3. "H" indicates the adjustment length with an Adjusting Screw.

For NEW BABY COLLET G 3
For NEW BABY COLLET for ENDMILL G 7
For WRENCH A 15
For ADJUSTING SCREW A 15
For TAP DRIVING BACK STOP G 8

NEW BABY CHUCK

Coolant-through hole

Clamping Range : ø0.25 - ø20



Model	Clamping Range ød	øD	øD1	L	L1	H	Collet Model	Nut Model	Weight (kg)
BT50-NBS 6- 90	0.25 – 6	20	19.5	90	42	20 – 40	NBC 6-□	NBN 6	3.9
-120				120	67				4.0
-165				165	112				4.1
-200				200	147				4.2
-NBS 8- 90	0.5 – 8	25	24.5	90	42	23 – 42	NBC 8-□	NBN 8	4.0
-120				120	67				4.1
-165				165	112				4.2
-200				200	147				4.3
-NBS10- 90	1.5 – 10	30	29.5	90	42	35 – 45	NBC10-□	NBN10	4.0
-120				120	67				4.1
-165				165	112				4.4
-200				200	147				4.6
-250 ※				250	197				4.9
-300 ※				300	247				5.2
-NBS13- 90	2.5 – 13	35	34.5	90	42	41 – 60	NBC13-□	NBN13	4.2
-120				120	67				4.4
-165				165	112				4.7
-200				200	147				5.0
-250 ※				250	197				5.4
-300 ※				300	247				5.8
-NBS16- 75	2.5 – 16	42	41.5	75	29	45 – 65	NBC16-□	NBN16	4.0
- 90				90	44				4.1
-120				120	72				4.4
-165				165	117				4.8
-200				200	152				5.2
-250 ※				250	202				5.7
-NBS20- 75	2.5 – 20	46	45.5	75	31	48 – 65	NBC20-□	NBN20	4.0
- 90				90	42				4.2
-120				120	72				4.5
-165				165	117				4.9
-200				200	152				5.3
-250 ※				250	202				5.9

1. NEW BABY NUT is included.
2. Models of L longer than 200mm(※) do not have the coolant-through hole as standard.
3. "H" indicates the adjustment length with an Adjusting Screw.

Spare Parts

NEW BABY NUT

Accessories

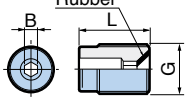
WRENCH

NBC COLLET G 3

FOR ENDMILL COLLET G 7

BABY PERFECT SEAL G 10

ADJUSTING SCREW



NEW BABY CHUCK	Spare Parts Model	Accessories Model	Model	Model	Model	G	L	B
NBS 6	NBN 6	NBK 6	NBC 6-□	BPS 6- □	NBA 6B	M 7	12	2
NBS 8	NBN 8	NBK 8	NBC 8-□	BPS 8- □	NBA 8B	M 9	13	2.5
NBS10	NBN10	NBK10	NBC10-□	BPS10- □	NBA10B	M11	16	3
NBS13	NBN13	NBK13	NBC13-□	BPS13- □	NBA13B	M14	20	4
NBS16	NBN16	NBK16	NBC16-□	BPS16- □	NBA16B	M18	20	4
NBS20	NBN20	NBK20	NBC20-□	BPS20- □	NBA20B	M21	20	4

For TAP DRIVING BACK STOP G 8

NEW Hi-POWER MILLING CHUCK

Coolant-through hole

Clamping Range : ø16 - ø32

S Type

BIG's original design of slit structure supports heavy and finish end milling with high power and precision.

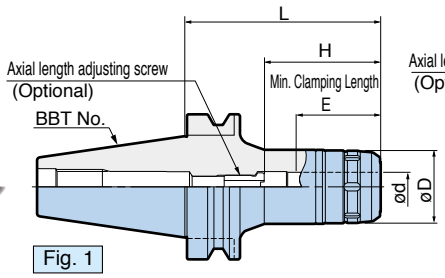


Fig. 1

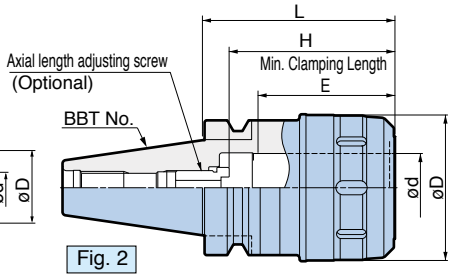


Fig. 2

BBT Shank Type

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Fig.	ød	øD	L	H	E	C-Spanner Model	Weight (kg)
BBT30-HMC16S- 70 ※	1	16	43	70	71	55	FK45-50L	0.7
-HMC20S- 75	2	20	50	75	56 – 66	56		0.9
-HMC25S- 90		25	55	90	64 – 74	57	FK52-55	1.2
-HMC32S-105		32	62	105	70 – 80	58	FK58-62L	1.5
BBT40-HMC16S- 75 ※	1	16	43	75	71	55	FK45-50L	1.3
-120 ※				120				1.8
-HMC20S- 75	1	20	50	75	69 – 79	56		1.4
-105				105				1.9
-120				120				2.1
-HMC25S- 75	1	25	59	75	73 – 83	57	FK58-62L	1.5
-105				105				2.1
-135				135				2.8
-HMC32S- 90	2	32	68	90	71 – 81	64	FK68-75L	2.0
-105				105	79 – 89			2.3
-135				135				3.0

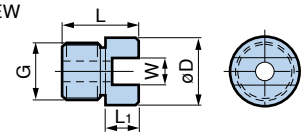
1. Wrench and axial adjusting screw is ordered separately if required.
2. "H" indicates the adjustment length with an Adjusting Screw.
3. ※As a back stop for cutting tools for the HMC16S models, a commercially available hex socket head screw can be used. "H" is the max. tool shank length that can be inserted into the holder.

For STRAIGHT COLLET G 15

Accessories

C-SPANNER

ADJUSTING SCREW



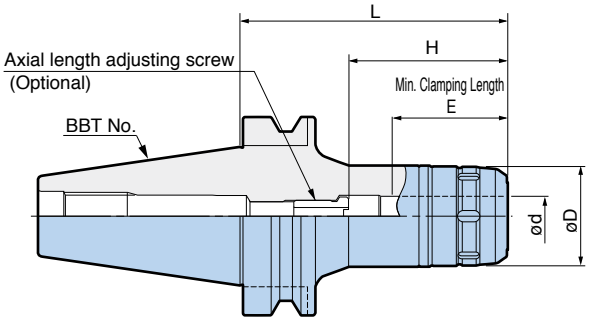
NEW Hi-POWER MILLING CHUCK	Model	Model	øD	L	L1	G	W
BBT/BT30-HMC16S	FK45- 50L	—	—	—	—	—	—
-HMC20S		HMA-M16	19	27	6	M16P1.5	8
-HMC25S	FK52- 55						
-HMC32S	FK58- 62L	HMA-M16S					10
BBT/BT40-HMC16S	FK45- 50L	—	—	—	—	—	—
-HMC20S		HMA-M16	19	27	6	M16P1.5	8
-HMC25S	FK58- 62L						
-HMC32S	FK68- 75L	HMA-M16S					10
BBT50-HMC16S	FK45- 50L	—	—	—	—	—	—
-HMC20S		HMA-M16	19	27	6	M16P1.5	8
-HMC25S	FK58- 62L						
-HMC32S	FK68- 75L	HMA-M16S					10
-HMC42S	FK80- 90L	HMA-M24	30	36	9.5	M24P1.5	
BBT/BT50-HMC20	FK58- 62	HMA-M16	19	27	6	M16P1.5	8
-HMC25							
-HMC32	FK80- 90	HMA-M24	30	36	9.5	M24P1.5	10
-HMC42	FK92-100						
-HMC50.8	FK92-100	—	—	—	—	—	—

NEW Hi-POWER MILLING CHUCK

Coolant-through hole

Clamping Range : ø16 - ø42

S Type



BBT Shank Type

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	ød	øD	L	H	E	C-Spanner Model	Weight (kg)
BBT50-HMC16S-105 ※	16	43	105	71	55	FK45-50L	4.2
-135 ※			135				4.6
-165 ※			165				5.0
-200 ※			200				5.8
-HMC20S-105	20	50	105	69 – 79	56	FK45-50L	4.3
-135			135				4.8
-165			165				5.4
-200			200				6.0
-300			300				8.3
-HMC25S-105	25	59	105	76 – 86	57	FK58-62L	4.5
-135			135				5.2
-165			165				5.9
-200			200				7.5
-HMC32S-105	32	68	105	88 – 98	72	FK68-75L	4.6
-135			135				5.4
-165			165				6.4
-200			200				7.4
-300			300				11.5
-HMC42S-105	42	85	105	93 –105	73	FK80-90L	5.2
-135			135				6.2
-165			165				7.4
-200			200				9.6
-300			300				14.1

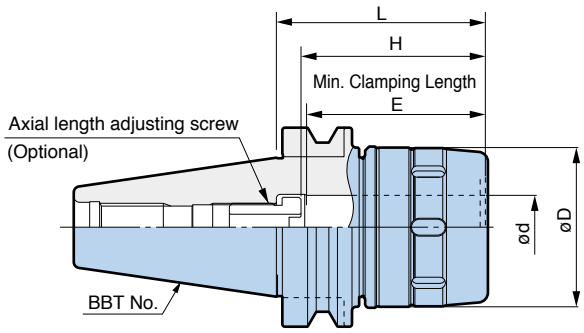
1. Wrench and axial adjusting screw is ordered separately if required.
2. "H" indicates the adjustment length with an Adjusting Screw.
3. ※As a back stop for cutting tools for the HMC16S models, a commercially available hex socket head screw can be used.
"H" is the max. tool shank length that can be inserted into the holder.

For STRAIGHT COLLET G 15
For ADJUSTING SCREW A 16

NEW Hi-POWER MILLING CHUCK

Coolant-through hole

STANDARD Type Clamping Range : ø20 - ø42



BBT Shank Type

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	ød	øD	L	H	E	C-Spanner Model	Weight (kg)
BBT50-HMC20-105	20	60	105	69 – 79	56	FK58- 62	4.7
-135			135				5.4
-165			165				6.1
-HMC25-105	25	62	105	74 – 84	65	FK58- 62	4.6
-135			135				5.3
-165			165				5.9
-HMC32-105▲	32	80	105	78 – 95	71	FK80- 90	5.2
-135▲			135				6.3
-165▲			165				7.5
-200			200				9.2
-300			300				14.6
-HMC42-105▲	42	99	105	93 –105	73	FK92-100	6.0
-135▲			135				7.5
-165▲			165				8.8
-200			200				10.7
-300			300				15.5

1. Wrench and axial adjusting screw is ordered separately if required.
2. ▲mark indicates the vibration reduction screw is included.
3. "H" indicates the adjustment length with an Adjusting Screw.

For STRAIGHT COLLET G 15
For ADJUSTING SCREW A 16

Chuck types with vibration prevention screw	Minimum shank insertion length "H"
BBT50-HMC32-□□□▲	88
-HMC42-□□□▲	91

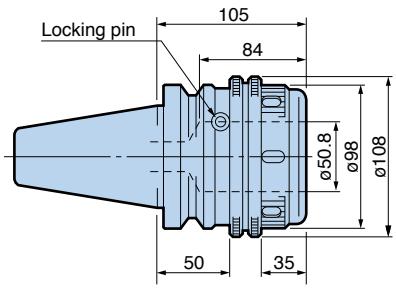
For 50.8mm large diameter endmill

Positive pin locking mechanism eliminates slip of cutter.

- Additional rear body nut provides greater rigidity.
  Roll rock clamping mechanism outperforms side lock holders in runout accuracy.

Model	Weight (kg)
BBT50-HMC50.8-105	5.9

BIG-PLUS tools can be used in machining centers with conventional spindles.



NEW Hi-POWER MILLING CHUCK

Coolant-through hole

Clamping Range : ø16 - ø32

S Type

BIG's original design of slit structure supports heavy and finish end milling with high power and precision.

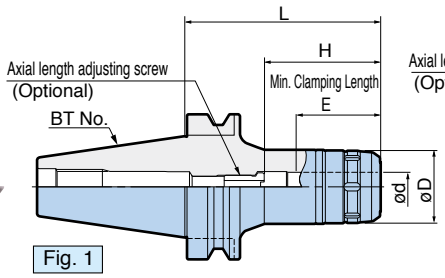


Fig. 1

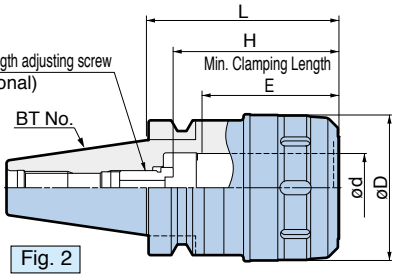


Fig. 2

BT Shank Type

Model	Fig.	ød	øD	L	H	E	C-Spanner Model	Weight (kg)
BT30-HMC16S- 70 ※	1	16	43	70	71	55	FK45-50L	0.7
-HMC20S- 75	2	20	50	75	56 – 66	56		0.9
-HMC25S- 90		25	55	90	64 – 74	57	FK52-55	1.2
-HMC32S-105		32	62	105	70 – 80	58	FK58-62L	1.5
BT40-HMC16S- 75 ※	1	16	43	75	71	55	FK45-50L	1.3
-120 ※				120				1.8
-HMC20S- 75	1	20	50	75	69 – 79	56		1.4
-105				105				1.9
-120				120				2.1
-HMC25S- 75	1	25	59	75	73 – 83	57	FK58-62L	1.5
-105				105				2.1
-135				135				2.8
-HMC32S- 90	2	32	68	90	71 – 81	64	FK68-75L	2.0
-105				105	79 – 89			2.3
-135				135				3.0

1. Wrench and axial adjusting screw is ordered separately if required.
2. "H" indicates the adjustment length with an Adjusting Screw.
3. ※ As a back stop for cutting tools for the HMC16S models, a commercially available hex socket head screw can be used. "H" is the max. tool shank length that can be inserted into the holder.

For STRAIGHT COLLET G 15
For ADJUSTING SCREW A 16

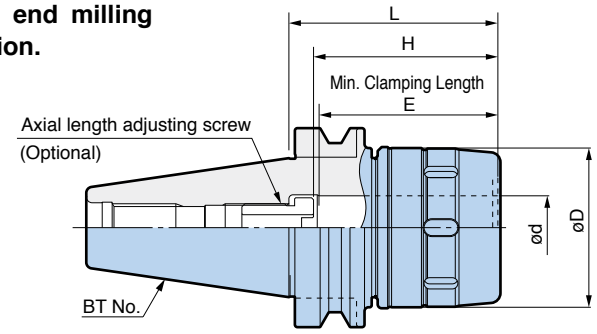
NEW Hi-POWER MILLING CHUCK

Coolant-through hole

Clamping Range : ø20 - ø42

STANDARD Type

BIG's original design of slit structure supports heavy and finish end milling with high power and precision.



BT Shank Type

Model	ød	øD	L	H	E	C-Spanner Model	Weight (kg)
BT50-HMC20-105	20	60	105	69 – 79	56	FK58- 62	4.7
-135			135				5.4
-165			165				6.1
-HMC25-105	25	62	105	74 – 84	65	FK58- 62	4.6
-135			135				5.3
-165			165				5.9
-HMC32-105 ▲	32	80	105	78 – 95	71	FK80- 90	5.2
-135 ▲			135				6.3
-165 ▲			165				7.5
-HMC42-105 ▲	42	99	105	93 –105	73	FK92-100	6.0
-135 ▲			135				7.5
-165 ▲			165				8.8

1. Wrench and axial adjusting screw is ordered separately if required.
2. ▲ mark indicates the vibration reduction screw is included.
3. "H" indicates the adjustment length with an Adjusting Screw.

For STRAIGHT COLLET G 15
For ADJUSTING SCREW A 16

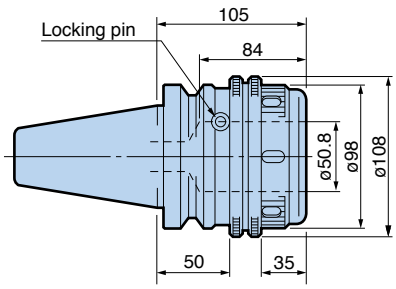
Chuck types with vibration prevention screw	Minimum shank insertion length "H"
BT50-HMC32-□□□ ▲	88
-HMC42-□□□ ▲	91

For 50.8mm large diameter endmill

Positive pin locking mechanism eliminates slip of cutter.

- Additional rear body nut provides greater rigidity.
  Roll rock clamping mechanism outperforms side lock holders in runout accuracy.

Model	Weight (kg)
BT50-HMC50.8-105	5.9



HYDRAULIC CHUCK

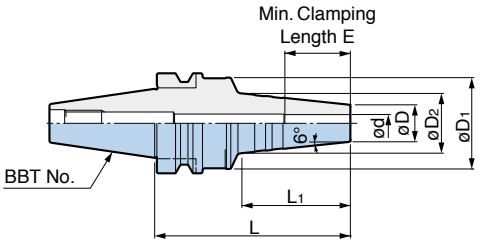
For high precision machining in Automotive, Aerospace, Medical and Die & Mold

SUPER SLIM Type

Coolant-through hole

Clamping Range : ø4 - ø12

MAX. 35,000 min-1



BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	ød	øD	øD1	øD2	L	L1	E	Weight (kg)
BBT30-HDC 4S- 60	4	14	46	20	60	28	19	0.6
-HDC 6S- 90	6		42	25	90	50	25	0.7
-HDC 8S- 90	8	17		28			30	0.7
-HDC10S- 90	10	19	44	30			32	0.7
-HDC12S- 90	12	21	46	32			35	0.8

1. Adjusting Screw cannot be used.

Caution

- Use only cutting tools that have a shank torelance within h6.
- Roughing endmills are not recommended for use with Hydraulic Chucks.
- Do not use with cutting tools made with a flat on the shank. (ie: Weldon type shank)
- Do not tighten the clamping screw without first inserting a cutting tool into the Hydraulic Chuck.
- Always insert the cutting tool into the Hydraulic Chuck beyond min. clamping length E.

JET THROUGH Type

Coolant-through hole

Clamping Range : ø4 - ø20

NEW

Fig. 1

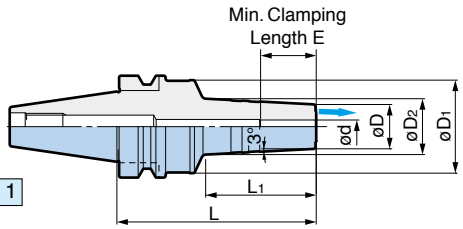
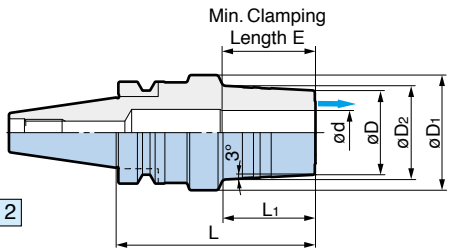


Fig. 2



BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Fig.	ød	øD	øD1	øD2	L	L1	E	Weight (kg)
BBT30-HDC 4J- 60	1	4	20	46	23	60	28	19	0.6
-HDC 6J- 90		6		42	26	90	50	25	0.7
-HDC 8J- 90		8	22		28			30	0.7
-HDC10J- 90		10	24	44	30			32	0.8
-HDC12J- 90		12	26	46	32			35	0.8
-HDC16J- 90		16	34		40		49	42	0.9
-HDC20J- 90	2	20	38	52	43		40		1.1

1. Adjusting Screw cannot be used.

Caution

- Use only cutting tools that have a shank torelance within h6.
- Roughing endmills are not recommended for use with Hydraulic Chucks.
- Do not use with cutting tools made with a flat on the shank. (ie: Weldon type shank)
- Do not tighten the clamping screw without first inserting a cutting tool into the Hydraulic Chuck.
- Always insert the cutting tool into the Hydraulic Chuck beyond min. clamping length E.

Coolant-through hole

STANDARD Type

Clamping Range : ø6 - ø32

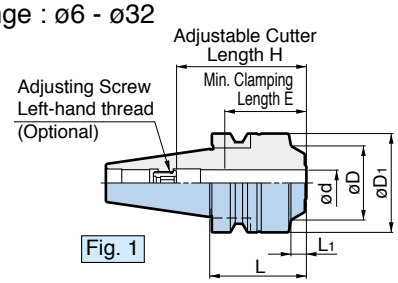


Fig. 1

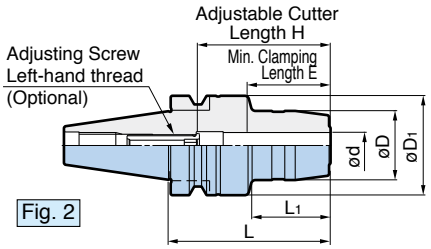


Fig. 2

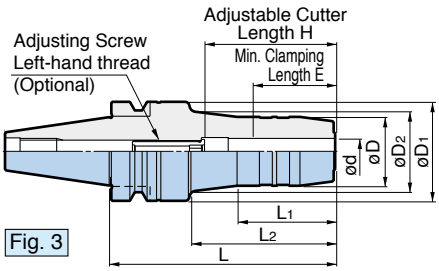


Fig. 3

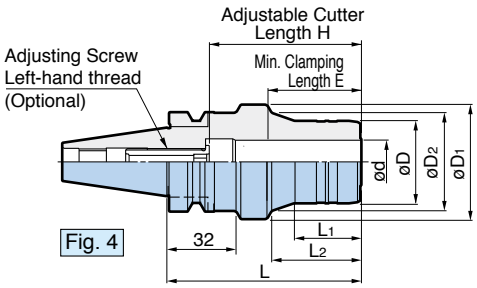


Fig. 4

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Fig.	ød	øD	øD1	øD2	L	L1	L2	H	E	Adjusting Screw (Optional)	Weight (kg)
BBT30-HDC 6- 45	1	6	30	46	—	45	7	—	35–50	28	HDA 6-05020	0.7
- 75	2		26	45.4		75	40		28–50		HDA 6-05032	0.8
- 90	3				31	90	43	57				
-105						105		72				0.9
-HDC 7- 75	2	7	27	45.4	—	75	41	—	28–50	28	HDA 6-05032	0.8
-HDC 8- 45	1	8	32	46	—	45	7	—	35–50	28	HDA 8-06020	0.7
- 75	2		28	45.4		75	41		28–50		HDA 8-06032	0.8
- 90	3				33	90	44	57				0.9
-105						105		72				
-HDC 9- 75	2	9	29	45.4	—	75	41	—	28–50	28	HDA 8-06032	0.8
-HDC10- 45	1	10	34	46	—	45	7	—	45–55	33	HDA10-08015	0.7
- 75	2		30			75	36		33–55		HDA10-08032	0.9
- 90	3				33	90	45	51				1.0
-105					36	105		66				
-HDC11- 90	3	11	31	46	34	90	51	45	33–55	33	HDA10-08032	0.9
-HDC12- 45	1	12	36	46	—	45	7	—	55–60	38	HDA12-10010 ●	0.7
- 75	2		32			75	36		38–60		HDA12-10032	0.8
- 90	3				35	90	45	51				0.9
-105					38	105		67				1.0
-HDC13- 90	3	13	33	46	36	90	45	51	38–60	38	HDA12-10032	0.9
-HDC14- 90	3	14	34	46	37	90	46	52	38–60	38	HDA12-10032	0.9
-HDC15- 90	2	15	37	46	—	90	47	—	43–70	43	HDA16-12037	1.0
-HDC16- 45▲	1	16	42	46	—	45	7	—	70	43	—	0.7
- 75	2		38			75	35		43–70		HDA16-12030	0.9
- 90	3					90	47				HDA16-12037	1.0
-105						105						1.1
-HDC18- 90	4	18	36	51	44	90	31	41	43–70	43	HDA16-12037	1.0
-HDC20- 60※	4	20	38	53	—	60	—	14	43–54	43	HDA16-12030	0.9
- 75					46	75	16	26	46–70			
- 90						90	31	41	43–70		HDA16-12037	1.1
-105	3			46	—	105	40	—				
-HDC25-105	4	25	55	63	—	105	44	—	52–80	52	HDA25-16039	1.7
-HDC32-105	4	32	60	75	—	105	39	—	56–80	56	HDA25-16039	1.8

Caution

- Use only cutting tools that have a shank tolerance within h6.
- Do not use with cutting tools made with a flat on the shank (i.e.: Weldon type shank)
- Roughing endmills are not recommended for use with Hydraulic Chucks.
- Do not tighten the clamping screw without first inserting a cutting tool into the toolholder.
- Always insert the cutting tool into the Hydraulic Chuck beyond min. clamping length E.

1. "H" indicates the adjustment length with an Adjusting Screw.
2. If a specific model number does not have a value for H, the inner bore is larger than the clamping diameter and use of Adjusting Screw is not available.
3. Model with▲ indication cannot use an Adjusting Screw. Model with※indication cannot use a Straight Collet.
4. Add the letter "W" to Adjusting Screw model number for hexagon sockets on both sides. (**e.g. HDA6-05020W**) Adjusting Screw with ● indication is not available in W type.

For STRAIGHT COLLET G 16 For INNER BORE CLEANER G 19

HYDRAULIC CHUCK

SUPER SLIM Type

Coolant-through hole

Clamping Range : ø4 - ø12

SUPER SLIM

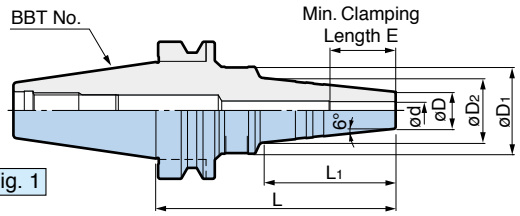


Fig. 1

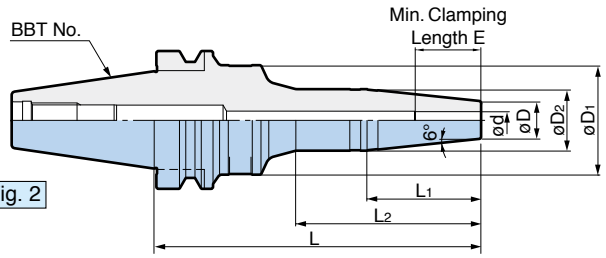


Fig. 2

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Fig.	ød	øD	øD1	øD2	L	L1	L2	E	Weight (kg)
BBT40-HDC 4S- 60	1	4	14	38	19	60	22	—	19	1.2
- 90					24	90	45			1.3
-HDC 6S-110	1	6			27	110	60		25	1.3
-150	2			48	26	150	57	85		1.6
-HDC 8S-110	1	8	17	40	30	110	60	—	30	1.4
-150	2			50	28	150	52	85		1.7
-HDC10S-110	1	10	19	42	32	110	60	—	32	1.4
-150	2			50	30	150	52	85		1.7
-HDC12S-110	1	12	21	44	34	110	60	—	35	1.4
-150	2			50	32	150	52	85		1.8

1. Adjusting Screw cannot be used.

Caution

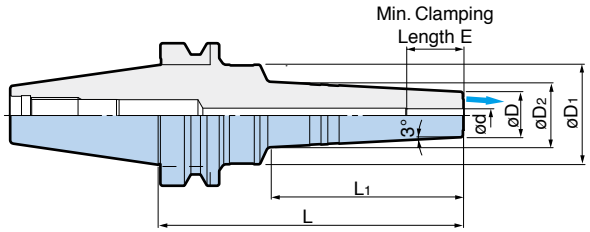
- Use only cutting tools that have a shank torelance within h6.
- Roughing endmills are not recommended for use with Hydraulic Chucks.
- Do not use with cutting tools made with a flat on the shank. (ie: Weldon type shank)
- Do not tighten the clamping screw without first inserting a cutting tool into the Hydraulic Chuck.
- Always insert the cutting tool into the Hydraulic Chuck beyond min. clamping length E.

JET THROUGH Type

Coolant-through hole

Clamping Range : ø4 - ø20

NEW



BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	ød	øD	øD1	øD2	L	L1	E	Weight (kg)
BBT40-HDC 4J- 90	4	20	38	25	90	45	19	1.3
-HDC 6J- 90	6	20	38	25	90	45	25	1.3
-135			44	29	135	85		1.5
-HDC 8J- 90	8	22	40	27	90	45	30	1.3
-135			46	31	135	85		1.6
-HDC10J- 90	10	24	42	29	90	45	32	1.3
-135			48	33	135	85		1.6
-HDC12J- 90	12	26	44	31	90	45	35	1.3
-135			50	35	135	85		1.7
-HDC16J- 90	16	34	46	40	90	46	42	1.4
-135			50	44	135	89		1.9
-HDC20J- 90	20	38	48	44	90	47	42	1.5
-135			53	48	135	90		2.0

1. Adjusting Screw cannot be used.

Caution

- Use only cutting tools that have a shank torelance within h6.
- Roughing endmills are not recommended for use with Hydraulic Chucks.
- Do not use with cutting tools made with a flat on the shank. (ie: Weldon type shank)
- Do not tighten the clamping screw without first inserting a cutting tool into the Hydraulic Chuck.
- Always insert the cutting tool into the Hydraulic Chuck beyond min. clamping length E.

Coolant-through hole

STANDARD Type

Clamping Range : ø6 - ø20

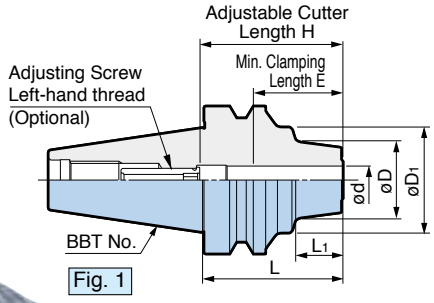


Fig. 1

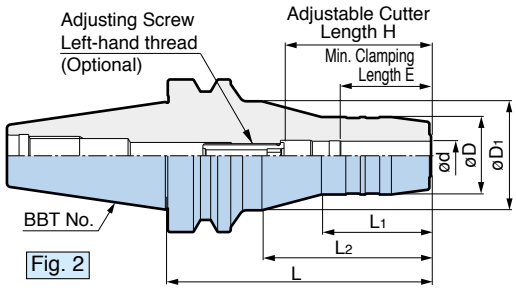


Fig. 2

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Fig.	ød	øD	øD1	L	L1	L2	H	E	Adjusting Screw (Optional)	Weight (kg)
BBT40-HDC 6- 60	1	6	27	45	60	19	—	28–50	28	HDA 6-05032	1.2
- 90	2		26		90	44	50				1.4
-110					110		70				1.5
-135					135		95				1.7
-165					165		119				1.9
-HDC 7- 90	2	7	27	45	90	44	50	28–50	28	HDA 6-05032	1.3
-HDC 8- 60	1	8	29	45	60	19	—	28–50	28	HDA 8-06032	1.2
- 90	2		28		90	44	50				1.4
-110					110		70				1.5
-135					135		95				1.7
-165					165		119				2.0
-HDC 9- 90	2	9	29	45	90	45	50	28–50	28	HDA 8-06032	1.4
-HDC10- 60	1	10	31	45	60	20	—	33–55	33	HDA10-08032	1.2
- 90	2		30		90	45	50				1.4
-110					110		70				1.5
-135					135		95				1.7
-165					165		119				2.0
-HDC11- 90	2	11	31	45	90	45	50	33–55	33	HDA10-08032	1.4
-HDC12- 60	1	12	33	45	60	20	—	38–60	38	HDA12-10032	1.2
- 90	2		32		90	45	49				1.4
-110					110		69				1.6
-135					135		94				1.8
-165					165		119				2.0
-HDC13- 90	2	13	33	45	90	45	49	38–60	38	HDA12-10032	1.4
-HDC14- 90	2	14	34	45	90	46	49	38–60	38	HDA12-10032	1.4
-110					110		69				1.6
-135					135		94				1.8
-HDC15- 90	2	15	37	45	90	47	49	43–70	43	HDA16-12037	1.4
-HDC16- 75	2	16	38	45	75	35	36	43–70	43	HDA16-12037	1.3
- 90					90	47	49				1.4
-110					110		69				1.6
-135					135		94				1.9
-165				50	165		119				2.3
-HDC18- 90	2	18	40	45	90	48	49	43–70	43	HDA16-12037	1.5
-110					110		69				1.6
-135					135		94				1.9
-HDC20- 90	2	20	42	45	90	48	50	43–70	43	HDA16-12037	1.4
-110				50	110		70				1.7
-135					135		95				2.0
-165					165		119				2.4

1. If a specific model number does not have a value for H, the inner bore is larger than the clamping diameter and use of Adjusting Screw is not available.
2. Add the letter "W" to Adjusting Screw model number for hexagon sockets on both sides. **(e.g. HDA6-05032W)**
3. "H" indicates the adjustment length with an Adjusting Screw.

Caution
- Use only cutting tools that have a shank tolerance within h6.
- Do not use with cutting tools made with a flat on the shank (i.e.: Weldon type shank)
- Roughing endmills are not recommended for use with Hydraulic Chucks.
- Do not tighten the clamping screw without first inserting a cutting tool into the toolholder.
- Always insert the cutting tool into the Hydraulic Chuck beyond min. clamping length E.

HYDRAULIC CHUCK

Substantial body design eliminates chatter and deflection when endmilling.

Coolant-through hole

High Rigidity Type Clamping Range : ø20 - ø32

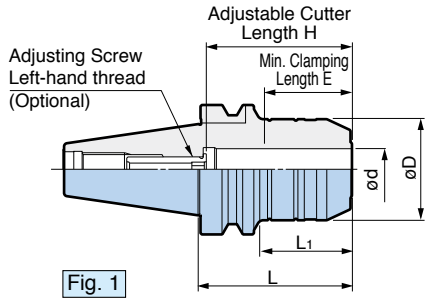


Fig. 1

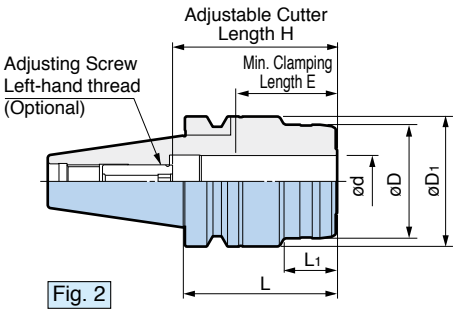


Fig. 2

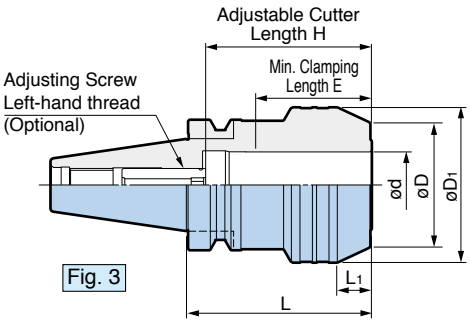


Fig. 3

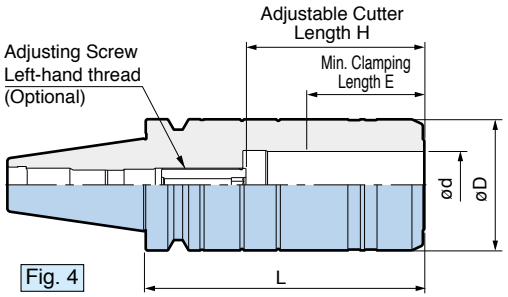


Fig. 4

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Fig.	ød	øD	øD1	L	L1	H	E	Adjusting Screw (Optional)	Weight (kg)
BBT40-HDC20E- 75	1	20	49.2	—	75	45	43–70	43	HDA16-12037	1.4
-HDC25E- 75	2	25	55	62.9	75	25	52–80	52	HDA25-16033	1.8
-110					110				HDA25-16039	2.4
-135					135					3.0
-165					165					3.6
-HDC32E- 90	3	32	60	75	90	16	56–80.5	56	HDA25-16039	2.2
-110	2		63		110	34	56–85			2.6
-135	4		62.9	—	135	—				2.8
-165					165					3.4

1. "H" indicates the adjustment length with an Adjusting Screw.
2. Add the letter "W" to Adjusting Screw model number for hexagon sockets on both sides.
   (e.g. HDA16-12037W)

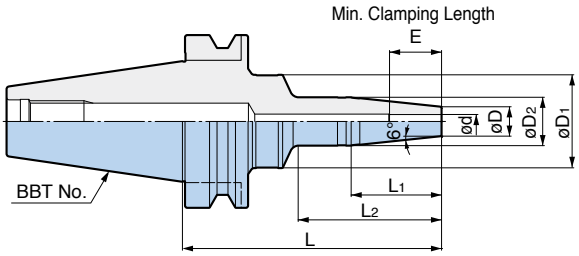
For STRAIGHT COLLET G 16
For INNER BORE CLEANER G 19

Caution
- Use only cutting tools that have a shank tolerance within h6.
- Do not use with cutting tools made with a flat on the shank (i.e.: Weldon type shank)
- Roughing endmills are not recommended for use with Hydraulic Chucks.
- Do not tighten the clamping screw without first inserting a cutting tool into the toolholder.
- Always insert the cutting tool into the Hydraulic Chuck beyond min. clamping length E.

Coolant-through hole

SUPER SLIM Type

Clamping Range : ø6 - ø12



BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	ød	øD	øD1	øD2	L	L1	L2	E	Weight (kg)
BBT50-HDC 6S-150	6	14	52	26	150	57	83	25	4.2
-HDC 8S-150	8	17	54	28		52		30	4.3
-HDC10S-150	10	19	56	30				32	4.3
-HDC12S-150	12	21	58	32				35	4.4

1. Adjusting Screw cannot be used.

Caution

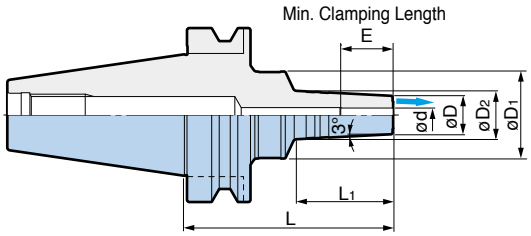
- Use only cutting tools that have a shank torelance within h6.
- Roughing endmills are not recommended for use with Hydraulic Chucks.
- Do not use with cutting tools made with a flat on the shank. (ie: Weldon type shank)
- Do not tighten the clamping screw without first inserting a cutting tool into the Hydraulic Chuck.
- Always insert the cutting tool into the Hydraulic Chuck beyond min. clamping length E.

Coolant-through hole

JET THROUGH Type

Clamping Range : ø6 - ø20

NEW



BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	ød	øD	øD1	øD2	L	L1	E	Weight (kg)
BBT50-HDC 6J-120	6	20	48	26	120	55	25	4.1
-HDC 8J-120	8	22	50	28			30	4.1
-HDC10J-120	10	24	52	30			32	4.2
-HDC12J-120	12	26	54	32			35	4.2
-HDC16J-120	16	34	58	41		56	42	4.4
-HDC20J-120	20	38	62	45				4.5

1. Adjusting Screw cannot be used.

Caution

- Use only cutting tools that have a shank torelance within h6.
- Roughing endmills are not recommended for use with Hydraulic Chucks.
- Do not use with cutting tools made with a flat on the shank. (ie: Weldon type shank)
- Do not tighten the clamping screw without first inserting a cutting tool into the Hydraulic Chuck.
- Always insert the cutting tool into the Hydraulic Chuck beyond min. clamping length E.

HYDRAULIC CHUCK

Coolant-through hole

Clamping Range : ø6 - ø42

STANDARD Type

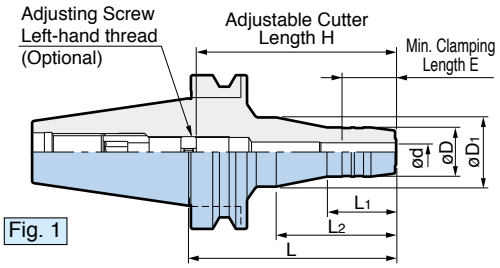


Fig. 1

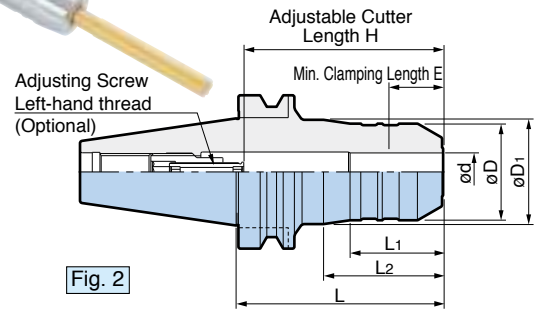


Fig. 2

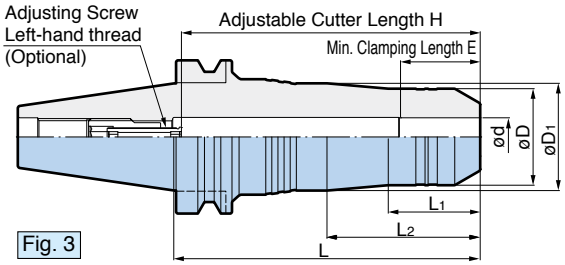


Fig. 3

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Fig.	ød	øD	øD1	L	L1	L2	H	E	Max. insertion length	Adjusting Screw (Optional)	Weight (kg)
BBT50-HDC 6L-105	1	6	26	45	105	44	48	80–120	28	165	HDA6-20010	4.2
-135					135		78	110–150		195		4.3
-150					150		93	125–165		210		4.4
-165					165		108	140–180		225		4.5
-HDC 8L-105	1	8	28	45	105	45	48	80–120	28	165	HDA6-20010	4.2
-135					135		78	110–150		195		4.4
-150					150		93	125–165		210		4.5
-165					165		108	140–180		225		4.6
-HDC10L-105	1	10	30	45	105	45	48	80–120	33	165	HDA6-20010	4.2
-135					135		78	110–150		195		4.4
-150					150		93	125–165		210		4.5
-165					165		108	140–180		225		4.7
-HDC12L-105	1	12	32	45	105	45	48.5	80–120	38	165	HDA6-20010	4.2
-135					135		78	110–150		195		4.4
-150					150		93	125–165		210		4.6
-165					165		108	140–180		225		4.7
-HDC16L- 90	1	16	38	47	90	40	43.5	56– 96	43	150	HDA20-12047	4.1
-105					105	47	48.5	80–120		165	HDA6-20010	4.3
-135					135	48	78	110–150		195		4.6
-150					150		93	125–165		210		4.7
-HDC20L- 90	2	20	42	50	90	45	—	56– 96	43	150	HDA20-12047	4.2
-105					105	47	48.5	71–111		165		4.4
-135					135	48	78	101–141		195		4.7
-150					150		93	116–156		210		4.8
-200	3				200	48	102	166–206		260		5.5
-250					250			216–256		310		6.0
-HDC25L- 90	2	25	63	—	90	45.7	—	56– 96	52	113	HDA20-12047	4.7
-105					105	60.7		71–111		128		5.0
-135				68	135		78	101–141		158		5.7
-150				70	150		92	116–156		173		6.1
-200	3				200	60	100	166–200		200		7.5
-250 ※					250			—			—	9.1
-HDC32L- 90	2	32	72	—	90	47	—	56– 96	56	112	HDA20-12047	4.7
-105					105	62		71–111		127		5.1
-135				78	135	60.7	78	101–141		157		6.0
-165				80	165		108	131–171		187		6.9
-200	3				200	60	100	166–200		200		8.4
-250 ※					250			—			—	10.8
-HDC42L-110	2	42	96	—	110	72	—	76–116	65	132	HDA20-12047	6.1

1. In the use of the Adjusting Screw in BBT50 series, please contact BIG agent because a guide screw needs to be set separately.
※ Adjusting Screw cannot be used.
2. "H" indicates the adjustment length with an Adjusting Screw.
3. Max. insertion length is the length when Adjusting Screw is not used.

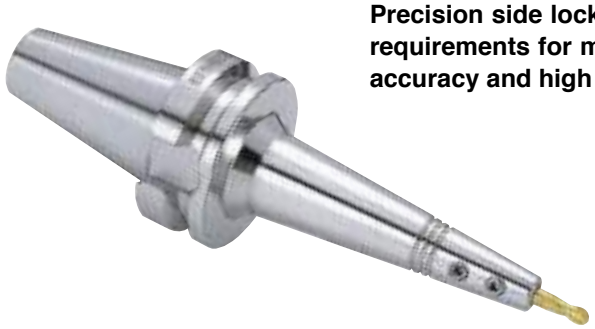
Caution
- Use only cutting tools that have a shank tolerance within h6.
- Do not use with cutting tools made with a flat on the shank (i.e.: Weldon type shank)
- Roughing endmills are not recommended for use with Hydraulic Chucks.
- Do not tighten the clamping screw without first inserting a cutting tool into the toolholder.
- Always insert the cutting tool into the Hydraulic Chuck beyond min. clamping length E.

For STRAIGHT COLLET G 16
For INNER BORE CLEANER G 19

MOLD CHUCK

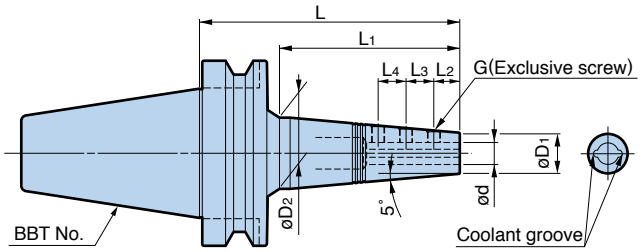
Coolant-through hole

Clamping Range : ø3 - ø20



Precision side lock holder to satisfy the requirements for minimum interference, accuracy and high speed.

MAX. 20,000 min-1



Coolant is supplied through 2-grooves in the bore.

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	ød	øD1	øD2	L	L1	L2	L3	L4	G	Max. min-1	Weight (kg)
BBT40-SSL 3-135	3	10	27.3	135	100	6	6	–	M3	20,000	1.2
-SSL 4-135	4	11	28.2				7		M4	20,000	1.2
-SSL 6-135	6	13	30.0			12	13		M6	20,000	1.3
-SSL 8-135	8	15	31.8			13.5	18			20,000	1.3
-SSL10-150	10	17	36.3	150	115	15	20			17,000	1.5
-SSL12-150	12	22	41.1				16	16	M8	17,000	1.7
BBT50-SSL 6-150	6	13	30.7	150	104	12	13	–	M6	15,000	3.9
-200			39.5	200	154					12,000	4.4
-SSL 8-150	8	15	32.5	150	104	13.5	18			15,000	3.9
-200			41.3	200	154					12,000	4.4
-SSL10-150	10	17	34.4	150	104	15	20			15,000	4.0
-200			43.1	200	154					12,000	4.4
-SSL12-150	12	22	39.2	150	104		16	16	M8	15,000	4.2
-200			47.9	200	154					12,000	4.9
-SSL16-150	16	26	42.8	150	104		20	22		15,000	4.5
-200			51.6	200	154					12,000	5.0
-SSL20-150	20	30	46.8	150	104			25		15,000	4.6
-200			55.6	200	154					12,000	5.2

● **BIG genuine side lock screws must be used as they are made to an exclusive design and different from other screws on the market.**

■SIDE LOCK SCREWS

Model	Screw size	Screw Length / Quantity	Chuck Model
H0304FS	M3 P0.5	4mm / 2pcs.	SSL3
H0404FS	M4 P0.5	4mm / 2pcs.	SSL4
H06FSA	M6 P0.75	4.5 , 5mm / 1pce. each	SSL6
H06FSB		4.5 , 6mm / 1pce. each	SSL8,10
H08FSA	M8 P0.75	6mm / 2pcs. 8mm / 1pce.	SSL12
H08FSB		6, 8, 10mm / 1pce. each	SSL16,20

1. Each model consists of 1 set of screws required for 1 Mold Chuck.

SHRINK CHUCK

Coolant-through hole

SLIM Type Clamping Range : ø6 - ø12

Slim design avoids interference with the side wall and draft of the mold.

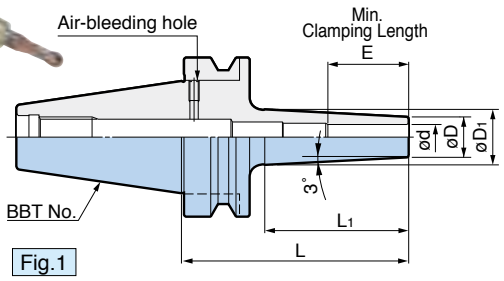


Fig.1

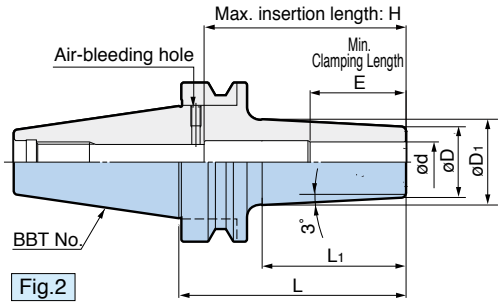


Fig.2

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Fig.	ød	øD	øD1	L	L1	E	H	Weight (kg)
BBT30 -SRC 6S -105	1	6	10	18.0	105	77	26	–	0.48
-SRC 8S -105		8	13	21.0					0.51
-SRC10S -105	2	10	16	24.0			32	62	0.55
-SRC12S -105		12	19	27.0			36	72	0.60
BBT40 -SRC 6S -120	1	6	10	19.0	120	86	26	–	1.08
-165				23.5	165	127			1.21
-SRC 8S -120		8	13	22.0	120	86			1.12
-165				26.5	165	129			1.29
-SRC10S -120		10	16	25.0	120	86	32		1.17
-165				29.5	165	129			1.36
-SRC12S -120		12	19	28.0	120	87	36		1.22
-165				33.0	165	131			1.44

1. Use carbide cutter within a tolerance of h6.

Please refer to the operation manual of heating / cooling equipment, as some equipments may not be compatible.

α **Wiper Cleaner** is recommended to clean the clamping bore. G 19

STANDARD Type Clamping Range : ø4 - ø20

Substantial body provides higher rigidity.
Available from 4mm clamping diameter.

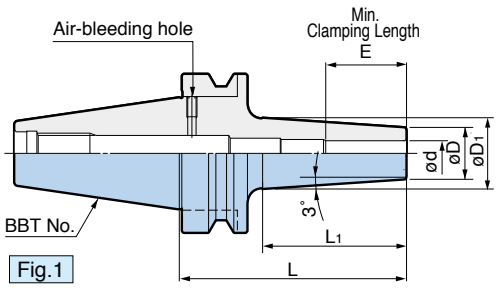


Fig.1

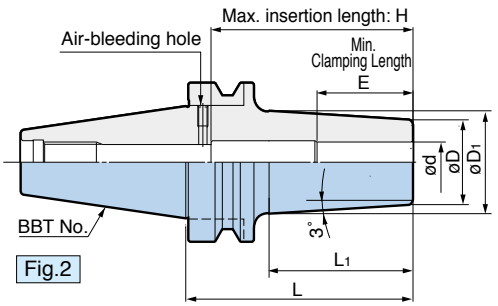


Fig.2

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Fig.	ød	øD	øD1	L	L1	E	H	Weight (kg)
BBT30-SRC 4 - 75※	2	4	10	14.6	75	44	16	–	0.45
-SRC 6 - 75	1	6	14	19.0		47	26		0.47
-SRC 8 - 75		8	18	23.0					0.51
-SRC10 - 75	2	10	22	27.0			32	62	0.56
-SRC12 - 75		12	24	29.0			36	72	0.58
-SRC16 - 75		16	28	33.0		48	38	80	0.62

BIG-PLUS tools can be used in machining centers with conventional spindles.

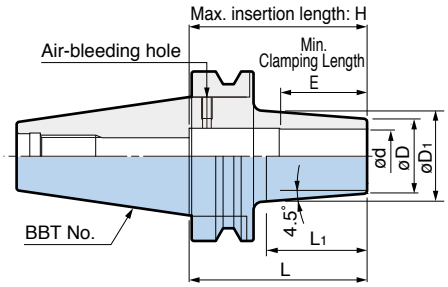
Model	Fig.	ød	øD	øD1	L	L1	E	H	Weight (kg)
BBT40 -SRC 4 - 90※	2	4	10	15.5	90	52	16	–	1.05
-SRC 6 - 90	1	6	14	20.0		57	26		1.07
-150				26.0	150	114			1.25
-SRC 8 - 90		8	18	24.0	90	57			1.12
-150				30.0	150	114			1.36
-SRC10 - 90		10	22	28.0	90	57	32		1.18
-150				34.0	150	116			1.49
-SRC12 - 90		12	24	30.0	90	57	36		1.20
-150				36.0	150	116			1.54
-SRC16 - 90	2	16	28	34.0	90	57	38	80	1.25
-165				42.0	165	132			1.82
-SRC20 - 90		20	34	40.0	90	57	42	100	1.35
-165				48.0	165	132			2.08
BBT50 -SRC 6 -105	1	6	14	20.5	105	61	26	–	3.7
-165				26.0	165	116			3.9
-SRC 8 -105		8	18	24.5	105	61			3.8
-165				30.0	165	116			4.0
-SRC10 -105		10	22	28.5	105	61	32		3.8
-165				34.0	165	116			4.2
-SRC12 -105		12	24	30.5	105	61	36		3.9
-165				36.0	165	116			4.2
-SRC16 -105		16	28	34.5	105	61	38		3.9
-165				40.0	165	116			4.3
-SRC20 -105		20	34	40.5	105	61	42		4.0
-165				46.0	165	116			4.6

1. Use carbide cutter within a tolerance of h6.
2. ※Use carbide cutter within a tolerance of h5.

Please refer to the operation manual of heating / cooling equipment, as some equipments may not be compatible.

α **Wiper Cleaner** or **TK Cleaner** is recommended to clean the clamping bore. G 19

For ø32mm Straight Shank



ø32mm Straight Shank Type D 7

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	ød	øD	øD1	L	L1	E	H	Weight (kg)
BBT40-SRC32D- 95	32	44	54	95	65	51	88	1.6
BBT50-SRC32D-105				105	61		105	4.1

1. For assembling and disassembling of the straight shank type, a BIG-HAIMER Power Clamp device is necessary.
2. Designed for center through coolant application when used with coolant through cutting tools.

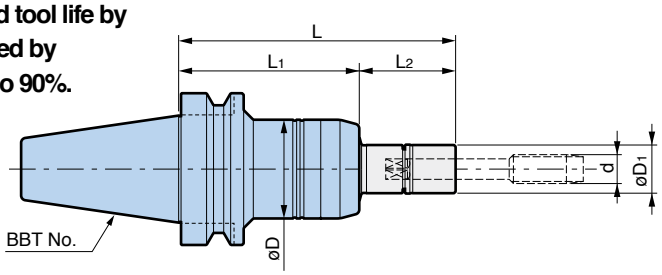
TK Cleaner is recommended to clean the clamping bore. G 19

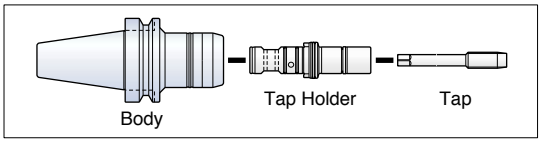
MEGA SYNCHRO® Tapping Holder

Coolant-through hole

Tapping Range : M1 - M20

Compensates for synchronization errors during rigid tapping.
Improves thread quality and tool life by reducing thrust loads caused by synchronization errors up to 90%.





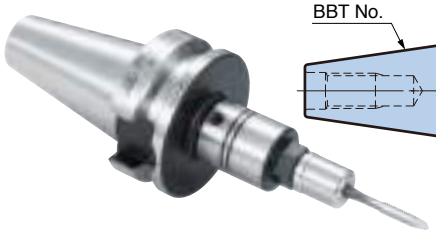
BIG-PLUS tools can be used in machining centers with conventional spindles.

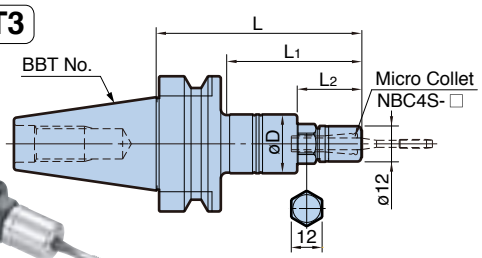
Model	Tap Holder Model	Tapping Range d	øD	øD1	L	L1	L2	Weight (kg)
BBT30-MGT 6- 70	MGT 6-d- 30	M2 – M6 No.3 – U1/4	36	16	100	70	30	0.7
	- 70				140		70	
	-100				170		100	
-MGT12- 70	MGT12-d- 30	M6 – M12 U1/4 – U7/16 P1/8	41	20	100	70	30	0.8
	- 70				140		70	
	-100				170		100	
-MGT20-110	MGT20-d- 35	M12 – M20 U1/2 – U3/4 P1/4 – P3/8	54	30	145	110	35	1.5
	- 85				195		85	
	-115				225		115	
BBT40-MGT 6- 75	MGT 6-d- 30	M2 – M6 No.3 – U1/4	36	16	105	75	30	1.3
	- 70				145		70	
	-100				175		100	
-MGT12- 75	MGT12-d- 30	M6 – M12 U1/4 – U7/16 P1/8	41	20	105	75	30	1.4
	- 70				145		70	
	-100				175		100	
-MGT20- 95	MGT20-d- 35	M12 – M20 U1/2 – U3/4 P1/4 – P3/8	54	30	130	95	35	1.8
	- 85				180		85	
	-115				210		115	
BBT50-MGT 6- 90	MGT 6-d- 30	M2 – M6 No.3 – U1/4	36	16	120	90	30	3.9
	- 70				160		70	
	-100				190		100	
-MGT12- 90	MGT12-d- 30	M6 – M12 U1/4 – U7/16 P1/8	41	20	120	90	30	4.0
	- 70				160		70	
	-100				190		100	
-MGT20-105	MGT20-d- 35	M12 – M20 U1/2 – U3/4 P1/4 – P3/8	54	30	140	105	35	4.4
	- 85				190		85	
	-115				220		115	

1. Tap Holder and wrench are ordered separately.
Rigid tapping function is required on the machine tool.

For TAP HOLDER A33–A36

For small Tap MGT3





Model	Tapping Range d	øD	L	L1	L2	Weight (kg)
BBT30-MGT3-70	M1 – M3	20	70	46	22	0.5
BBT40-MGT3-90			90	61		1.2

1. Nut is included. Wrench and collet are ordered separately.
2. 12mm common spanner is also required to hold the hex portion of the body when clamping/unclamping the tap.

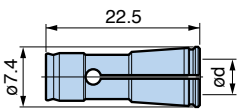
- **Rigid tapping function is required on the machine tool.**
- **Not capable of supplying coolant through the holder body.**

MEGA Wrench For MGT3

Model	MGR12

1. 12mm common spanner is also required to clamp/unclamp the tap.

MICRO COLLET For MGT3

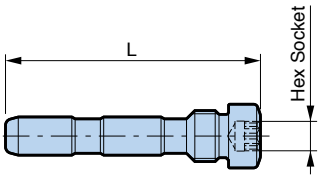


Model	Tapping Range		Tap Shank ød
	DIN371	ISO529	
NBC4S - 2.5AA	M1 – M1.8	M2	2.5
NBC4S - 2.8AA	M2 – M2.6	M2.2, M2.5	2.8
NBC4S - 3.1AA		M3	3.15
NBC4S - 3.5AA	M3		3.5

■MGT Set Screw For (MGT6, MGT12, MGT20)

(Made of high-strength material)

Secures the Tap Holder into body.

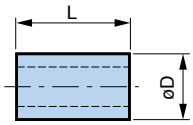


Model	Hex Socket size	L	Body
MGT 6SS	4	35	MGT 6
MGT12SS	4	40	MGT12
MGT20SS	5	53	MGT20

■Synchro Adjuster For (MGT6, MGT12, MGT20)

(Made of special material)

Replaceable bushing in Tap Holder

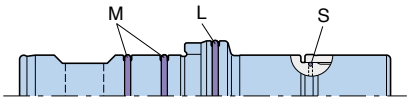


Model	øD	L	Tap Holder
MGT 6SA	9	11	MGT 6-d-□
MGT12SA	10	15	MGT12-d-□
MGT20SA	14	24	MGT20-d-□

1.Sold in a packages of 5pcs.

■O Ring Set For (MGT6, MGT12, MGT20)

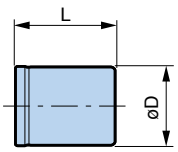
Set includes 1 each of small & large size, 2 middle size.



Set Model	Nut Dia.	Tap Holder
MGT 6OR	ø16	MGT 6-d-□
MGT12OR	ø20	MGT12-d-□
MGT20OR	ø30	MGT20-d-□

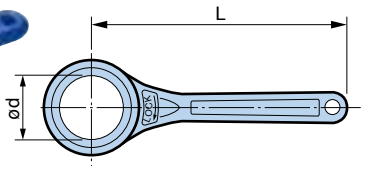
■MGT Nut For (MGT6, MGT12, MGT20)

(Spare Part)



Model	øD	L	Tap Holder
MGN 6T	16	19	MGT 6-d-□
MGN12T	20	21	MGT12-d-□
MGN20T	30	24	MGT20-d-□

■MEGA Wrench For (MGT6, MGT12, MGT20)

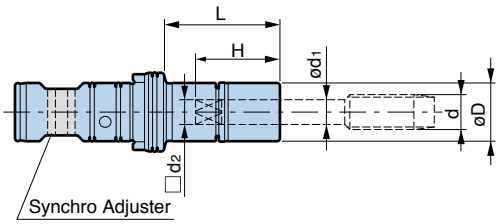


Model	ød	L	Nut
MGR16	16	90	MGN 6T
MGR20L	20	160	MGN12T
MGR30L	30	220	MGN20T

MEGA SYNCHRO® Tapping Holder

Available in short, long and extra long length (150mm, 200mm) to meet all production requirements.

■Tap Holder For JIS Standard



MGT6 (Tap size : M2 – M6)

Tap Holder Model	Tap size d Metric	Pipe	Unify	ød1	□d2	H	L	øD	Weight (kg)
MGT6-M 2 - 30	M2		No.3 No.4	3	2.5	19	30	16	0.12
- 70							70		0.18
-100							100		0.23
-150							150		0.31
-M 3 - 30	M3		No.5 No.6	4	3.2	21	30		0.12
- 70							70		0.18
-100							100		0.23
-150							150		0.31
-M 4 - 30	M4		No.8	5	4	25	30		0.12
- 70							70		0.18
-100							100		0.22
-150							150		0.3
-200							200		0.37
-M 5 - 30	M5		No.10 No.12	5.5	4.5	25	30		0.12
- 70							70		0.18
-100							100		0.22
-150							150		0.3
-200							200		0.37
-M6,U1/4- 30	M6		U1/4	6	4.5	25	30		0.12
- 70							70		0.17
-100							100		0.22
-150							150		0.3
-200							200		0.37

1. Nut is included. Wrench is ordered separately.

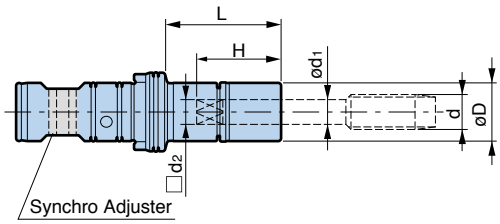
For MEGA WRENCH A 32

MGT12 (Tap size : M6 – M12)

Tap Holder Model	Tap size d Metric	Pipe	Unify	ød1	□d2	H	L	øD	Weight (kg)
MGT12-M 6,U1/4 - 30	M6		U1/4	6	4.5	27	30	20	0.19
- 70							70		0.29
-100							100		0.36
-150							150		0.48
-200							200		0.6
-U5/16 - 30			U5/16	6.1	5	28	30		0.19
- 70							70		0.29
-100							100		0.36
-150							150		0.48
-200							200		0.6
-M 8 - 30	M8			6.2	5	28	30		0.19
- 70							70		0.29
-100							100		0.36
-150							150		0.48
-200							200		0.6
-M10,U3/8- 30	M10		U3/8	7	5.5	28	30		0.19
- 70							70		0.28
-100							100		0.35
-150							150		0.47
-200							200		0.59
-U7/16,P1/8- 30		P1/8	U7/16	8	6	29	30		0.18
- 70							70		0.28
-100							100		0.35
-150							150		0.46
-200							200		0.58
-M12 - 30	M12			8.5	6.5	29	30		0.18
- 70							70		0.27
-100							100		0.34
-150							150		0.46
-200							200		0.58

1. Nut is included. Wrench is ordered separately.

For MEGA WRENCH A 32



MGT20 (Tap size : M12 – M20)

Tap Holder Model	Tap size d Metric	Tap size d Pipe	Tap size d Unify	ød1	□d2	H	L	øD	Weight (kg)
MGT20-M12 - 35	M12			8.5	6.5	29	35	30	0.55
- 85							85		0.82
-115							115		0.98
-150							150		1.17
-U1/2 - 35			U1/2	9	7	30	35		0.55
- 85							85		0.82
-115							115		0.98
-150							150		1.17
-M14,U9/16- 35	M14		U9/16	10.5	8	33	35		0.53
- 85							85		0.79
-115							115		0.95
-150							150		1.14
-P1/4 - 35		P1/4		11	9	31	35		0.53
- 85							85		0.79
-115							115		0.95
-150							150		1.14
-U5/8 - 35			U5/8	12	9	34	35		0.52
- 85							85		0.78
-115							115		0.94
-150							150		1.13
-M16 - 35	M16			12.5	10	35	35		0.52
- 85							85		0.77
-115							115		0.93
-150							150		1.11
-M18,U3/4- 35	M18		U3/4	14	11	36	35		0.51
- 85							85		0.76
-115							115		0.92
-150							150		1.1
-P3/8 - 35		P3/8		14	11	33	35		0.51
- 85							85		0.76
-115							115		0.92
-150							150		1.1
-M20 - 35	M20			15	12	37	35		0.49
- 85							85		0.74
-115							115		0.89
-150							150		1.06

1. Nut is included. Wrench is ordered separately.

For MEGA WRENCH A 32

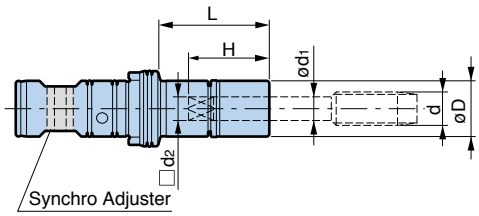
CAUTION

Tap with eccentric thread relief, which no margin exists on tap periphery, may result in oversize threads. In such case, tap with con-eccentric thread relief is recommended.

MEGA SYNCHRO® Tapping Holder

Available in short, long and extra long length (150mm, 200mm) to meet all production requirements.

■Tap Holder For DIN & ISO standard



MGT6 (Tap size DIN:M3 – M8 ISO:M3 – M5)

Tap Holder Model	Tap size d (DIN) DIN371	DIN376	DIN353	Tap size d (ISO) ISO529	ISO2284	ød1	□d2	H	L	øD	Weight (kg)
MGT6-031025- 30									30		0.12
- 70				M3		3.15	2.5	20	70		0.18
-100									100		0.23
-150									150		0.31
-035027- 30									30		0.12
- 70	M3	M5				3.5	2.7	21	70		0.18
-100									100		0.23
-150									150		0.31
-040032- 30									30		0.12
- 70				M4		4.0	3.15	21	70		0.18
-100									100		0.23
-150									150	16	0.31
-045034- 30									30		0.12
- 70	M4	M6				4.5	3.4	21	70		0.18
-100									100		0.22
-150									150		0.30
-050040- 30									30		0.12
- 70									70		0.18
-100				M5		5.0	4.0	25	100		0.22
-150									150		0.30
-200									200		0.37
-060049- 30									30		0.12
- 70									70		0.17
-100	M5,M6	M8				6.0	4.9	26	100		0.22
-150									150		0.30
-200									200		0.37

1. Nut is included. Wrench is ordered separately.

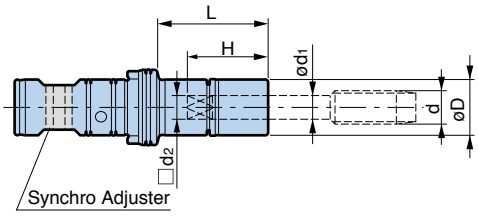
For MEGA WRENCH A 32

MGT12 (Tap size DIN:M5 – M12 ISO:M6 – M12)

Tap Holder Model	Tap size d (DIN) DIN371	DIN376	DIN353	Tap size d (ISO) ISO529	ISO2284	ød1	□d2	H	L	øD	Weight (kg)
MGT12-060049- 30									30		0.19
- 70									70		0.29
-100	M5,M6	M8				6.0	4.9	28	100		0.36
-150									150		0.48
-200									200		0.60
-063050- 30									30		0.19
- 70									70		0.29
-100				M6		6.3	5.0	28	100		0.36
-150									150		0.48
-200									200		0.60
-070055- 30									30		0.19
- 70									70	20	0.28
-100		M10	1/8			7.0	5.5	28	100		0.35
-150									150		0.47
-200									200		0.59
-080063- 30									30		0.18
- 70									70		0.28
-100	M8			M8	1/8	8.0	6.3	29	100		0.35
-150									150		0.46
-200									200		0.58
-090071- 30									30		0.18
- 70									70		0.27
-100		M12		M12		9.0	7.1	30	100		0.34
-150									150		0.46
-200									200		0.58

1. Nut is included. Wrench is ordered separately.

For MEGA WRENCH A 32



MGT20 (Tap size DIN:M10 – M20 ISO:M10 – M20)

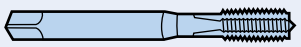
Tap Holder Model	Tap size d (DIN)			Tap size d (ISO)		ød1	□d2	H	L	øD	Weight (kg)
	DIN371	DIN376	DIN353	ISO529	ISO2284						
MGT20-090071- 35									35		0.55
- 85		M12		M12		9.0	7.1	30	85		0.82
-115									115		0.98
-150									150		1.17
-100080- 35									35		0.54
- 85	M10			M10	1/4	10.0	8.0	33	85		0.80
-115									115		0.96
-150									150		1.15
-110090- 35									35		0.53
- 85		M14	1/4			11.0	9.0	34	85		0.79
-115									115		0.95
-150									150		1.14
-112090- 35									35		0.53
- 85				M14		11.2	9.0	34	85		0.79
-115									115	30	0.95
-150									150		1.14
-120090- 35									35		0.52
- 85		M16	3/8			12.0	9.0	34	85		0.78
-115									115		0.94
-150									150		1.13
-125100- 35									35		0.52
- 85				M16	3/8	12.5	10.0	35	85		0.77
-115									115		0.93
-150									150		1.11
-140110- 35									35		0.51
- 85		M18				14.0	11.0	36	85		0.76
-115									115		0.92
-150									150		1.10
-140112- 35									35		0.51
- 85				M18,M20		14.0	11.2	36	85		0.76
-115									115		0.92
-150									150		1.10
-160120- 35		M20	1/2			16.0	12.0	37	35		0.51

1. Nut is included. Wrench is ordered separately.

For MEGA WRENCH A 32

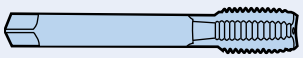
Tap Shank of DIN Standard

DIN 371



Machine Tap with Reinforced Shank

DIN 376



Machine Tap with Reduced Shank

CAUTION

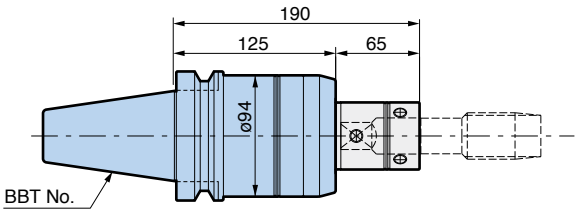
Tap with eccentric thread relief, which no margin exists on tap periphery, may result in oversize threads. In such case, tap with con-eccentric thread relief is recommended.

MEGA SYNCHRO® Tapping Holder

Coolant-through hole

For Large Tap MGT36 Tapping Range : M20 - M36

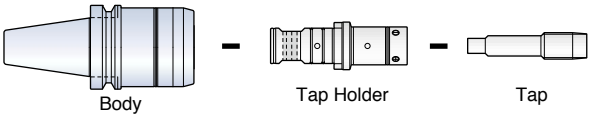
Compensation for synchronization error eliminates heavy thrust load of large diameter tapping.



Model	BBT50-MGT36-125

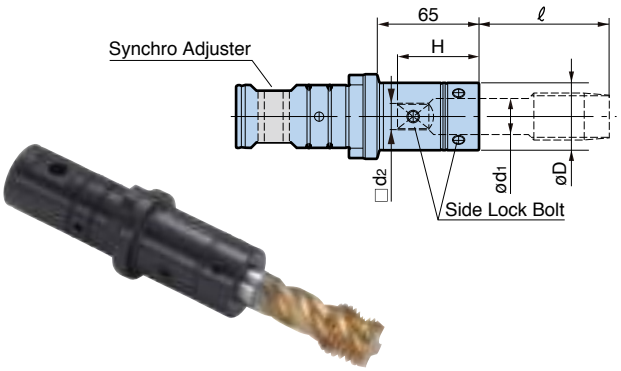
Weight : 7.2kg

BIG-PLUS tools can be used in machining centers with conventional spindles.



■Tap Holder For MGT36

JIS standard (M20-M36, P1/2, P3/4, P1)



Tap Holder Model	Tap		ød1	□d2	H	øD	Weight (kg)
	Size	ℓ					
MGT36-M20-65	M20	65 – 68	15	12	40	32	1.2
-M22-65	M22	71 – 74	17	13	44	34	1.3
-M24-65	M24	74 – 77	19	15	46	39	1.4
-M27-65	M27	80 – 83	20	15	50	40	1.4
-M30-65	M30	83 – 86	23	17	52	43	1.5
-M33-65	M33	88 – 91	25	19	57	49	1.6
-M36-65	M36	94 – 97	28	21	61	52	1.6
-P1/2-65	P1/2	38 – 41	18	14	42	35	1.3
-P3/4-65	P3/4	38 – 41	23	17	47	43	1.5
-P1 -65	P1	49 – 52	26	21	46	50	1.7

1. Tap projection length "ℓ" is in accordance to JIS standard.

For DIN TAP HOLDER B 10

■MGT Set Screw For MGT36

(Made of high-strength material)

Secures the Tap Holder into body.

Model	MGT36SS

■Synchro Adjuster For MGT36

(Made of special material)

Replaceable bushing in Tap Holder.

Model	MGT36SA

■O Ring Set For MGT36

Set O Ring for Tap Holder.

Model	MGT36OR

■Adjust Screw For MGT36

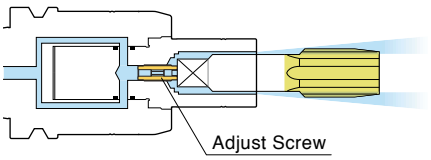
Aids easy adjustment of tap projection length.

Model	MGT36AJ

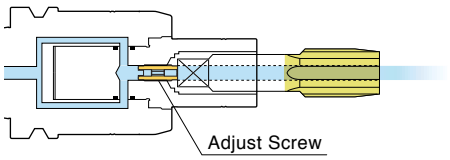
Provides 2-functions.

- Adjustment of tap projection length (Adjustable amount : 3mm).
- Coolant supply adjustable in 2 ways by reversing the Adjust Screw.

●Tap without hole



●Tap with hole



■Side Lock Bolt Set For MGT36

Spare locking screw to clamp a tap.

Set Model	Tap Holder Model	Bolt size
MGT36SL 6	MGT36-M20-65	M6× 8L (×4) + M6×10L (×2)
	-M22-65	
	-P1/2-65	
MGT36SL 8	-M24-65	M8×10L (×4) + M8×12L (×2)
	-M27-65	
	-M30-65	
	-P3/4-65	

Set Model	Tap Holder Model	Bolt size
MGT36SL10	MGT36-M33-65	M10×12L (×4) + M10×14L (×2)
	-M36-65	
	-P1 -65	

SIDE LOCK HOLDER

Coolant-through hole

Clamping Range : ø6 - ø50

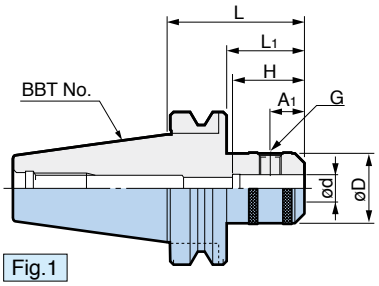


Fig.1

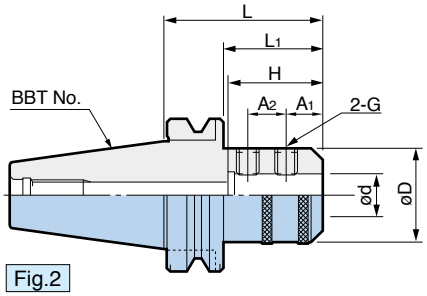


Fig.2

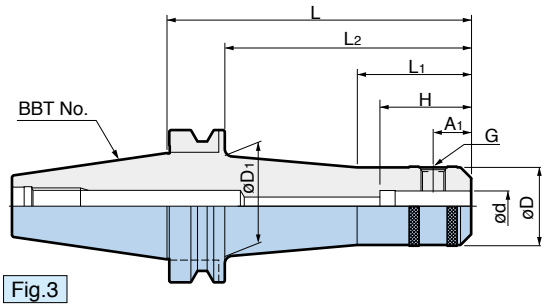


Fig.3

For ENDMILL

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Fig.	ød (H5)	øD	øD1	L	L1	L2	A1	A2	H	G	Weight (kg)
BBT30-ISL 6- 60	1	6	25	–	60	38	–	18	–	85※	M 6	0.6
-ISL 8- 60		8	28								M 8	
-ISL10- 60		10	35					20		45	M10	0.7
-ISL12- 60		12	42					22.5		48	M12	0.8
-ISL16- 60		16	48					24		53	M14	0.8
BBT40-ISL12- 75	1	12	42	–	75	48	–	22.5	–	110※	M12	1.5
-ISL16- 75		16	48					24		53	M14	
-ISL20- 75		20	52					25		55	M16	1.6
-ISL25- 90	2	25	63.5		90	63		24	25	60	M18×P2	2.1
-ISL32-105		32	72		105	–		24	28	82	M20×P2	2.9
BBT50-ISL16- 90	1	16	48	–	90	52	–	24	–	145※	M14	4.4
-150	3			56.1	150	60	112			205※		5.0
-200				62.2	200	75	162			255※		5.9
-ISL20- 90	1	20	52	–	90	52	–	25	–	145※	M16	4.5
-150	3			60.1	150	60	112			60		5.3
-200				66.2	200	75	162					5.9
-ISL25-105	2	25	65	–	105	67	–	24	25	60	M18×P2	4.6
-150					150	112						5.3
-200					200	162						6.2
-ISL32-105	2	32	72	–	105	67	–	24	28	90	M20×P2	5.3
-150					150	112						6.1
-200					200	162						7.3
-ISL40-120	2	40	90	–	120	82	–	30	32	90	M20×P2	6.5
-150					150	112						8.1
-200					200	162						10.5
-ISL42-120	2	42	90	–	120	82	–	30	32	90	M20×P2	6.5
-150					150	112						8.0
-200					200	162						10.4
-ISL50-121	2	50	99.5	–	121	83	–	35	35	90	M24×P2	7.2

1. H dimension marked with ※ indicates this dimension to the back end of the retention knob.

SIDE LOCK HOLDER

Coolant-through hole

Clamping Range : ø16 - ø50

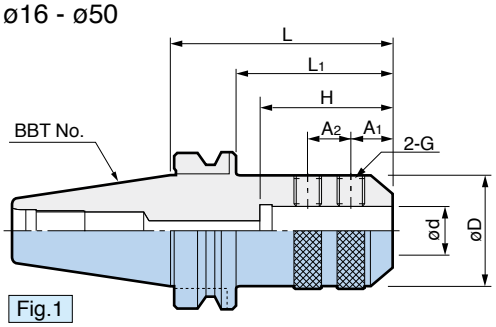


Fig.1

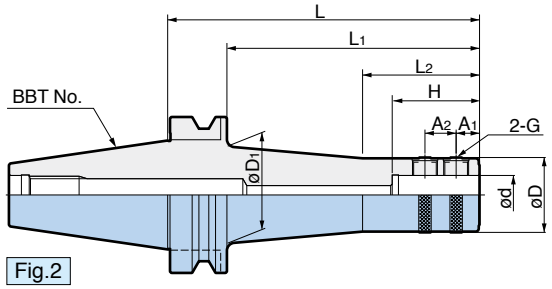


Fig.2

For DRILL

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Fig.	ød	øD	øD1	L	L1	L2	A1	A2	H	G	Weight (kg)
BBT30-TSL16- 75	1	16	48	–	75	–	–	14	14	48	M10	1.0
-TSL20- 75		20			75			14	14	50	M10	1.0
-TSL25- 80		25			80			20	15	56	M16	1.0
BBT40-TSL16- 90	1	16	48	–	90	63	–	14	14	48	M10	1.7
-105					105	78						1.9
-TSL20- 90		20	48		90	63		14	14	50	M10	1.7
- 105					105	78						1.9
-TSL25- 90		25	48		90	63		15	20	56	M16	1.6
-105					105	78						1.8
-TSL32-105		32	63		105	78		15	20	60	M16	2.4
-135					135	108						3.0
-TSL40-105		40	68		105	–		15	25	70	M16	2.4
BBT50-TSL16- 90	1	16	48	–	90	52	–	14	14	48	M10	4.2
-135					135	97						4.8
-165					165	127						5.2
-200	2			62.2	200	162	75					6.1
-TSL20- 90	1	20	48	–	90	52	–	14	14	50	M10	4.2
-135					135	97						4.8
-165					165	127						5.2
-200	2			62.2	200	162	75					6.0
-250				64	250	212	90					6.8
-TSL25-105	1	25	48	–	105	67	–	15	20	56	M16	4.3
-135					135	97						4.7
-165					165	127						5.1
-200	2			62.2	200	162	75					5.9
-250				64	250	212	90					6.7
-TSL32-105	1	32	63	–	105	67	–	15	20	60	M16	4.8
-135					135	97						5.5
-165					165	127						6.2
-200					200	162						6.9
-250					250	212						8.0
-TSL40-105	1	40	68	–	105	67	–	15	25	70	M16	4.8
-135					135	97						5.6
-165					165	127						6.4
-200					200	162						7.3
-250					250	212						8.6
-TSL50-105	1	50	84	–	105	67	–	15	25	70	M16	5.4
-150					150	112						7.2

SIDE LOCK HOLDER Type SLE

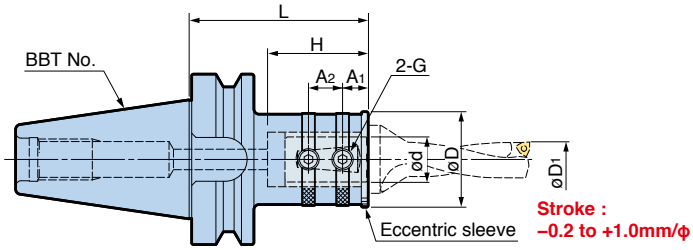
Coolant-through hole

Clamping Range : ø20 - ø40

Single operation with an indexable insert drill achieves ± 0.1mm tolerance.

Drilling diameter is adjustable by revolving the eccentric sleeve.

Stroke
–0.2 to +1.0mm/ϕ



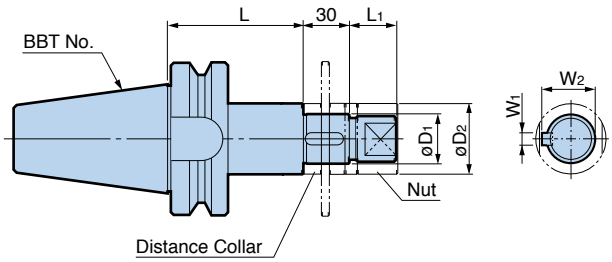
BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	ød	øD	L	A1	A2	H	G	Weight (kg)	Drill dia. (øD1)
BBT40-TSLE20- 90	20	50	90	14	14	53	M10	1.7	12 – 19.8
-TSLE25- 90	25	56		15	20	59	M12	1.8	20 – 24.5
-TSLE32-105	32	66	105	16	20	63	M12	2.5	25 – 29.5
BBT50-TSLE20-105	20	50	105	14	14	53	M10	4.5	12 – 19.8
-TSLE25-105	25	56		15	20	59	M12	4.6	20 – 24.5
-TSLE32-105	32	66		16	20	63	M12	4.9	25 – 29.5
-TSLE40-105	40	80		18	25	73	M16	5.4	30 – 36

Caution

External insert and flat on the shank of the drill should be aligned each other.
Drills without this alignment cannot be used.

SIDE CUTTER ARBOR



BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	øD1 (h6)	W1	W2	øD2	L	L1	Weight (kg)
BBT40-SCA25.4 - 75	25.4	6.35	27.78	40	75	25	1.9
-120					120		2.3
-SCA31.75- 75	31.75	7.92	34.92	46	75	30	2.4
BBT50-SCA25.4 - 90	25.4	6.35	27.78	40	90	25	4.7
-135					135		5.1
-SCA31.75- 90	31.75	7.92	34.92	46	90	30	5.1
-135					135		5.7
-SCA38.1 - 90	38.1	9.52	42.06	55	90	36	5.8
-135					135		6.8

1. Nut is included.
2. Distance collars of 5mm, 8mm, 10mm, and 12mm are included.

MORSE TAPER HOLDER

Precise finish of inner taper guarantees high concentricity.

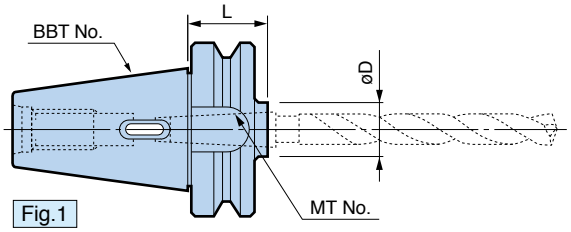


Fig.1

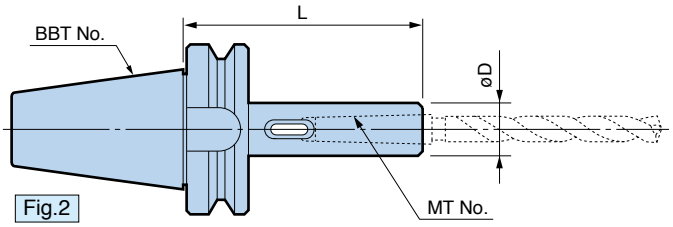


Fig.2

BIG-PLUS tools can be used in machining centers with conventional spindles.

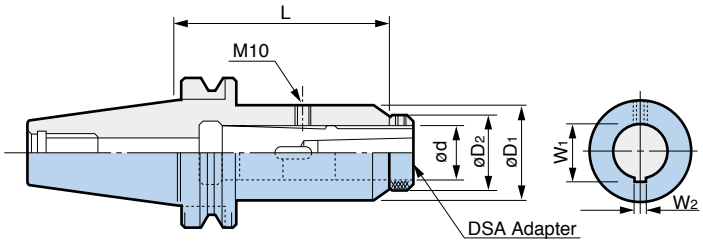
Model	Fig.	MT No.	øD	L	Weight (kg)
BBT30-MTA1- 60	1	1	25	60	0.5
-MTA2- 60		2	32	60	
-MTA3- 80		3	40	80	
BBT40-MTA1- 45	1	1	25	45	1.0
-120	2			120	1.3
-MTA2- 45	1	2	32	45	1.0
-120	2			120	1.6
-MTA3- 75	1	3	40	75	1.0
-135	2			135	1.7
-MTA4- 90	2	4	50	90	1.6
BBT50-MTA1- 45	1	1	25	45	3.9
-120	2			120	4.2
-180				180	4.3
-MTA2- 45	1	2	32	45	3.9
-135	2			135	4.3
-180				180	4.6
-MTA3- 45	1	3	40	45	3.8
-150	2			150	4.6
-180				180	4.9
-MTA4- 75	1	4	50	75	3.9
-180	2			180	5.4
-MTA5-105	1	5	65	105	4.5
-210	2			210	7.2

Morse taper size and corresponding drill diameter

MT No.	Drill diameter ※
1	ø 3 – ø14
2	ø14.5 – ø23
3	ø23.5 – ø31.5
4	ø32 – ø50
5	ø51 – ø76

※ Drill diameter JIS B4302 1 Standard

SIDE LOCK HOLDER TYPE B



BIG-PLUS tools can be used in machining centers with conventional spindles.

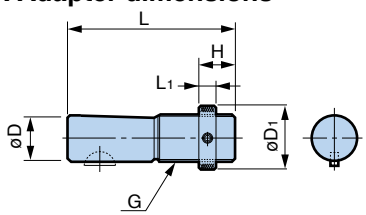
Model	ød	øD1	øD2	L	W1	W2	DSA Adapter	Weight (kg)
BBT40-SLB26-105	26	50	39	105	28.2	5	DSA26	1.6
-SLB35-135	35	60	48	135	37.6	6	DSA35	2.2
BBT50-SLB26-105	26	50	39	105	28.2	5	DSA26	4.7
-SLB35-135	35	60	48	135	37.6	6	DSA35	5.6

1. Use with the DSA Adapter shown below.

For SIDE LOCK HOLDER TYPE B

DSA ADAPTER

DSA Adapter dimensions



Model	øD	L	L1	øD1	H	G
DSA26-□□	26	92	12	39	26	TM26×P2
DSA35-□□	35	117	12	48	32	TM35×P2

■DSA Drill Socket

● For morse taper drills with tang.

Model	MT No.	Weight (kg)
DSA26-MT1	1	0.4
-MT2	2	0.3
DSA35-MT1	1	0.9
-MT2	2	0.8
-MT3	3	0.7

■DSA Jacobs Taper Insert

● Holder for keyless chuck, rubber chuck, etc.

Model	JT No.	Weight (kg)
DSA26-JT1	1	0.4
DSA26-JT2	2	0.4
DSA26-JT6	6	0.5
DSA35-JT6		1.0

FACE MILL ARBOR Type FMA

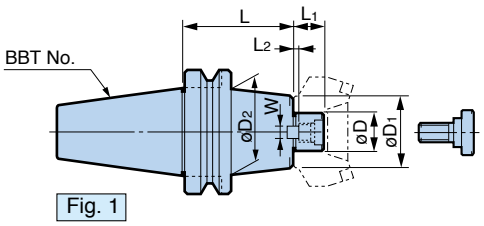


Fig. 1

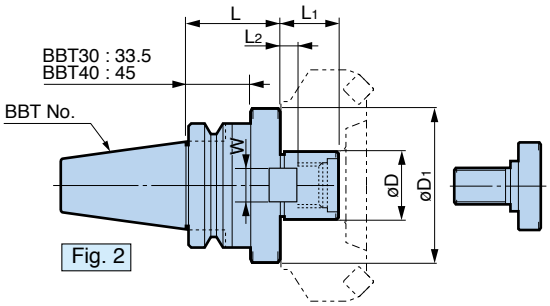


Fig. 2

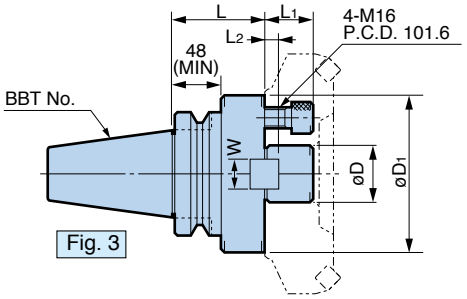


Fig. 3

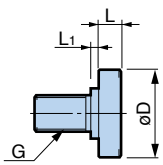
BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Fig.	øD (h6)	øD1	øD2	L	L1	Driver keys L2	Driver keys W	Clamp Bolt	Weight (kg)
BBT30-FMA22.225- 45	1	22.225	42	—	45	18	4	8.3	M10-40L	0.9
-FMA25.4 - 45	2	25.4	50	—	45	22	5	9.5	MBA-M12	1.0
BBT40-FMA25.4 - 45	1	25.4	50	—	45	22	5	9.5	MBA-M12	1.5
- 90				60	90					2.3
-150 ※					150					3.4
-FMA31.75 - 45		31.75	60	—	45	30	7	12.7	MBA-M16	1.7
- 75					75					2.4
-105 ※					105					3.0
-150 ※					150					4.0
-FMA38.1 - 60	2	38.1	80	—	60	34	9	15.9	MBA-M20	2.5

Models marked with ※ are not equipped with a hole through for coolant.

1. Standard Clamp Bolt (MBA-M□□) is included.
2. To supply coolant through the arbor, Clamping Bolt with a hole through (TMBA-M□□) is required.

■CLAMP BOLT



Standard Clamp Bolt (accessory) Model	Clamp Bolt with a hole through (option) Model	øD	L	L1	G
MBA-M12	**TMBA-M12**	33	10	2	12
-M12H	—			—	
-M16	**-M16**	40	10	6	16
-M16H	—			—	
-M20	**-M20**	50	14	6	20
-M20H	—			—	
-M24	**-M24**	65		10	24

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Fig.	øD (h6)	øD1	øD2	L	L1	Driver keys L2	Driver keys W	Clamp Bolt	Weight (kg)
BBT50-FMA25.4 - 45	1	25.4	50	—	45	22	5	9.5	MBA-M12	4.1
- 90				70	90					5.0
-150 ※					150					6.4
-200 ※					200					7.7
-250 ※					250					8.8
-300 ※					300					9.9
-350 ※					350					11.0
-FMA31.75 - 45	1	31.75	60	—	45	30	7	12.7	MBA-M16	4.2
- 75				70	75					5.1
-105					105					5.6
-150 ※					150					6.7
-200 ※					200					8.3
-250 ※				80	250					9.6
-300 ※					300					10.9
-350 ※					350					12.2
-FMA38.1 - 45	1	38.1	80	—	45	34	9	15.9	MBA-M20	4.6
- 75					75					5.4
-105					105					6.7
-150 ※					150					8.5
-200 ※					200					10.4
-250 ※					250					12.4
-300 ※					300					14.3
-350 ※					350					16.3
-FMA47.625- 75 ※	3	47.625	128.57	—	75	38	12.5	25.3	4-M16	8.1
-100 ※					100					9.6
-150 ※					150					12.7
-FMA50.8 - 45	1	50.8	100	—	45	36	10	19.05	MBA-M24	4.8
- 75					75					6.6
-105					105					8.5
-150 ※					150					11.2
-200 ※					200					14.3
-250 ※					250					17.4
-300 ※					300					20.4
-350 ※					350					23.5

Models marked with ※ are not equipped with a hole through for coolant.

1. Standard Clamp Bolt (MBA-M□□) is included.
2. To supply coolant through the arbor, Clamping Bolt with a hole through (TMBA-M□□) is required.

FACE MILL ARBOR Type FMC

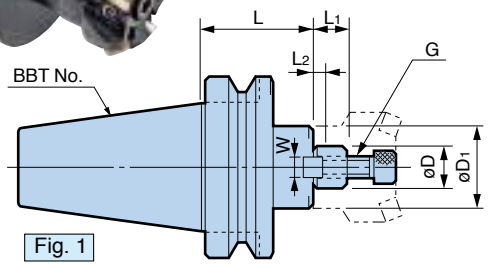


Fig. 1

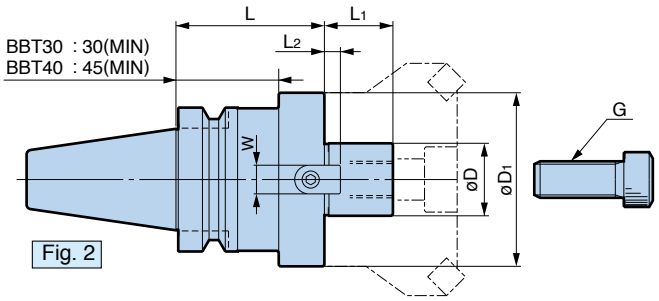


Fig. 2

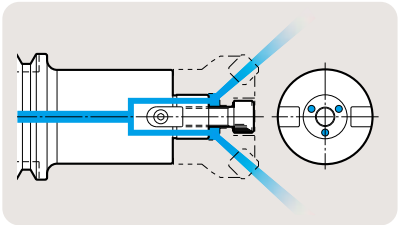
BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Fig.	øD (h6)	øD1	L	L1	Driver keys L2	Driver keys W	G	Weight (kg)
BBT30-FMC16 - 45	2	16	34	45	16	5	8	M8	0.6
-FMC22 - 45	1	22	45		18	5	10	M10	0.8
-FMC27 - 45	1	27	70		20	6	12	M12	1.0
-FMC25.4- 45	2	25.4	70	45	20	5	9.5	M12	1.0
BBT40-FMC22 - 45	1	22	45	45	18	5	10	M10	1.3
- 90				90					1.7
-150 ※				150					2.5
-FMC27 - 60	2	27	70	60	20	6	12	M12	2.0
- 90				90					2.6
-150 ※				150					4.1
-FMC32 - 60	2	32	85	60	22	7	14	M16	2.1
- 75				75					2.5
-105				105					3.3
-FMC25.4- 60	2	25.4	70	60	20	5	9.5	M12	2.0
- 90				90					2.7
-150 ※				150					4.2
-FMC38.1- 60	2	38.1	85	60	22	7	15.9	M16	2.3
- 75				75					2.7
BBT50-FMC22 - 60	1	22	45	60	18	5	10	M10	4.1
-105				105					4.6
-150 ※				150					4.9
-200 ※	3			200					6.5
-250 ※				250					7.3
-FMC27 - 45	1	27	70	45	20	6	12	M12	4.1
- 90				90					5.1
-150 ※				150					6.9
-200 ※				200					8.5
-250 ※				250					10.0
-FMC32 - 45	1	32	85	45	22	7	14	M16	4.3
- 75				75					5.6
-105				105					7.0
-150 ※				150					8.7
-200 ※				200					10.9
-250 ※				250					13.1
-FMC25.4- 45	1	25.4	70	45	20	5	9.5	M12	3.7
- 90				90					5.1
-150 ※				150					6.9
-200 ※				200					8.5
-250 ※				250					10.0
-FMC38.1- 45	1	38.1	85	45	22	7	15.9	M16	4.2
- 75				75					5.5
-105 ※				105					6.7

1. Models marked with ※ do not have a through coolant hole.
2. Clamp Bolt (Cap Screw) is included.
3. By utilizing a clamping bolt with a hole through, coolant is supplied through the bolt.

FACE MILL ARBOR Type FMH

For cutters that require a coolant hole through the pilot.



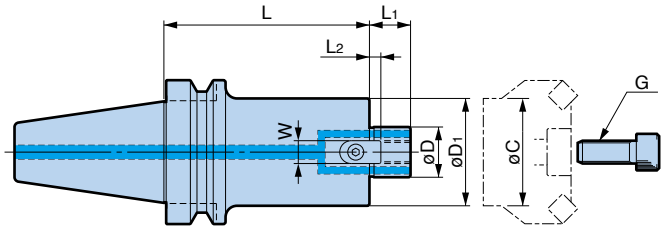


Fig.1

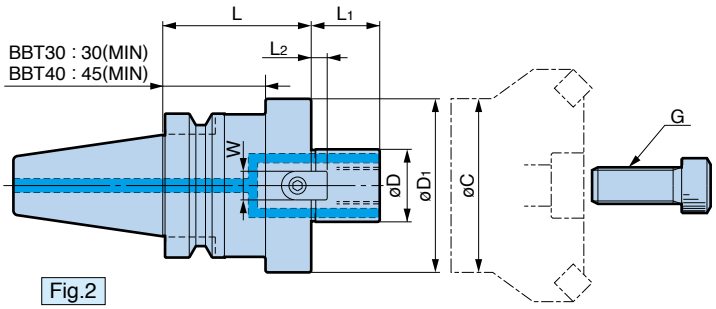


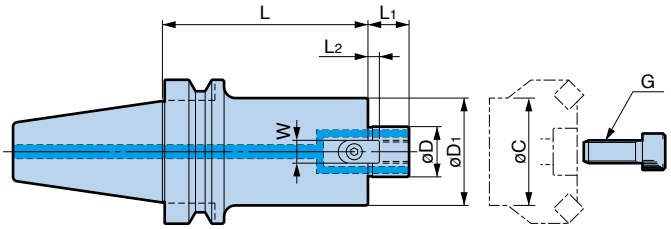
Fig.2

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Fig.	øD (h6)	øD1	L	L1	Driver keys L2	Driver keys W	G	Weight (kg)	øC Min.
BBT30-FMH16 -37- 35	1	16	37	35	16	5	8	M 8	0.53	32
-FMH22 -47- 45	2	22	47	45	18	5	10	M10	0.73	43
-FMH27 -60- 45	2	27	60	45	20	6	12	M12	0.89	46
BBT40-FMH16 -37- 40	1	16	37	40	16	5	8	M 8	1.1	32
-FMH22 -47- 45	1	22	47	45	18	5	10	M10	1.3	43
- 60				60					1.5	36
- 90				90					1.9	
-150				150					2.7	
-FMH22 -60- 45	1	22	60	45	18	5	10	M10	1.5	49
- 60				60					1.8	
- 90				90					2.5	
-FMH27 -60- 45	1	27	60	45	20	6	12	M12	1.5	46
- 60				60					1.8	
- 90				90					2.5	
-FMH27 -76- 60	2	27	76	60	20	6	12	M12	2.1	62
- 90				90					2.8	
-FMH32 -96- 60	2	32	96	60	22	7	14	M16	2.4	80
-FMH22.225-47- 45	1	22.225	47	45	17	3.5	8	M10	1.3	39
- 60				60					1.5	
- 90				90					1.9	
-150				150					2.7	
-FMH22.225-60- 45	1	22.225	60	45	17	3.5	8	M10	1.5	53
- 60				60					1.8	
- 90				90					2.5	
-FMH25.4 -70- 60	2	25.4	70	60	22	5	9.5	M12	2.0	55
- 90				90					2.7	
-105				105					3.1	
-FMH31.75 -76- 60	2	31.75	76	60	30	7	12.7	M16	2.2	63
- 90				90					2.9	
-FMH31.75 -96- 60	2	31.75	96	60	30	7	12.7	M16	2.5	84

1. By utilizing a clamping bolt with a hole through, coolant is supplied through the bolt.
2. Hexagon Socket Head Cap Screw is included.

FACE MILL ARBOR Type FMH



BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	øD (h6)	øD1	L	L1	Driver keys L2	Driver keys W	G	Weight (kg)	øC Min.
BBT50-FMH16 - 37- 60	16	37	60	16	5	8	M8	3.8	32
-105			105					4.1	
-150			150					4.5	
-200			200					4.9	
-FMH22 - 47- 60	22	47	60	18	5	10	M10	4.1	43
-105			105					4.7	36
-150			150					5.3	
-200			200					6.0	
-250			250					6.7	
-300			300					7.8	
-350			350					8.9	
-FMH22 - 60- 60	22	60	60	18	5	10	M10	4.2	49
-105			105					5.2	
-150			150					5.2	
-200			200					7.4	
-250			250					8.5	
-300			300					9.6	
-350			350					10.7	
-FMH27 - 60- 45	27	60	45	20	6	12	M12	3.9	53
- 90			90					5.0	46
-150			150					6.3	
-200			200					7.4	
-250			250					8.5	
-300			300					9.6	
-FMH27 - 76- 45	27	76	45	20	6	12	M12	4.0	69
- 90			90					5.6	62
-150			150					7.8	
-200			200					9.7	
-250			250					11.4	
-300			300					13.2	
-FMH32 - 96- 45	32	96	45	22	7	14	M16	4.2	76
- 90			90					6.8	80
-150			150					10.2	
-200			200					13.3	
-250			250					16.1	
-300			300					19.0	
-FMH40 -100- 45	40	100	45	26	8.5	16	M20 (MBA-M20H)	4.4	80
- 75			75					6.2	
-105			105					8.1	

1. By utilizing a clamping bolt with a hole through, coolant is supplied through the bolt.
2. Hexagon Socket Head Cap Screw is included.

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	øD (h6)	øD1	L	L1	Driver keys L2	Driver keys W	G	Weight (kg)	øC Min.
BBT50-FMH22.225-47- 60	22.225	47	60	17	3.5	8	M10	4.1	39
-105			105					4.7	
-150			150					5.3	
-200			200					6.0	
-250			250					6.6	
-300			300					7.7	
-350			350					8.9	
-FMH22.225-60- 60	22.225	60	60	17	3.5	8	M10	4.2	53
-105			105					5.2	
-150			150					6.2	
-200			200					7.4	
-250			250					8.5	
-300			300					9.5	
-350			350					10.6	
-FMH25.4 -70- 45	25.4	70	45	22	5	9.5	M12	4.0	64
- 60			60					4.5	55
- 90			90					5.4	
-150			150					7.2	
-200			200					8.7	
-250			250					10.3	
-300			300					11.8	
-FMH31.75 -76- 45	31.75	76	45	30	7	12.7	M16	4.1	74
- 75			75					5.2	63
-105			105					6.3	
-150			150					7.9	
-200			200					9.7	
-250			250					11.6	
-300			300					13.4	
-FMH31.75 -96- 45	31.75	96	45	30	7	12.7	M16	4.3	79
- 75			75					6.0	84
-105			105					7.7	
-150			150					10.3	
-200			200					13.1	
-250			250					16.4	
-300			300					19.2	
-FMH38.1 -100- 45	38.1	100	45	34	9	15.9	M20 (MBA-M20H)	4.4	89
- 75			75					6.3	85
-105			105					8.1	
-150			150					10.9	
-200			200					14.5	
-250			250					17.5	
-300			300					20.5	

1. By utilizing a clamping bolt with a hole through, coolant is supplied through the bolt.
2. Hexagon Socket Head Cap Screw is included.

ANGLE HEAD

It is the outstanding rigidity and accuracy of the NEW BABY CHUCK, used for holding the cutting tool, that produces high precision with less runout. Available in various sizes to meet specific production requirements.

AG90 NBS type

SPINDLE ANGLE : 90˚

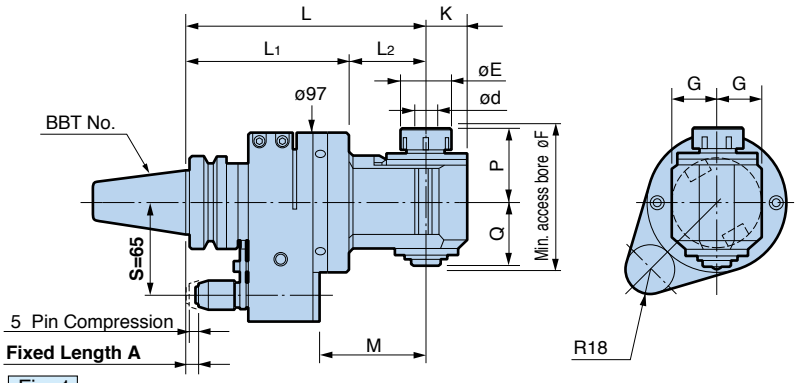


Fig. 1

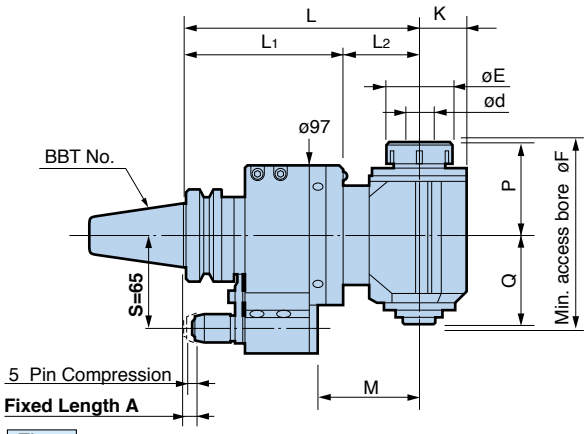


Fig. 2

BIG-PLUS tools can be used in machining centers with conventional spindles.

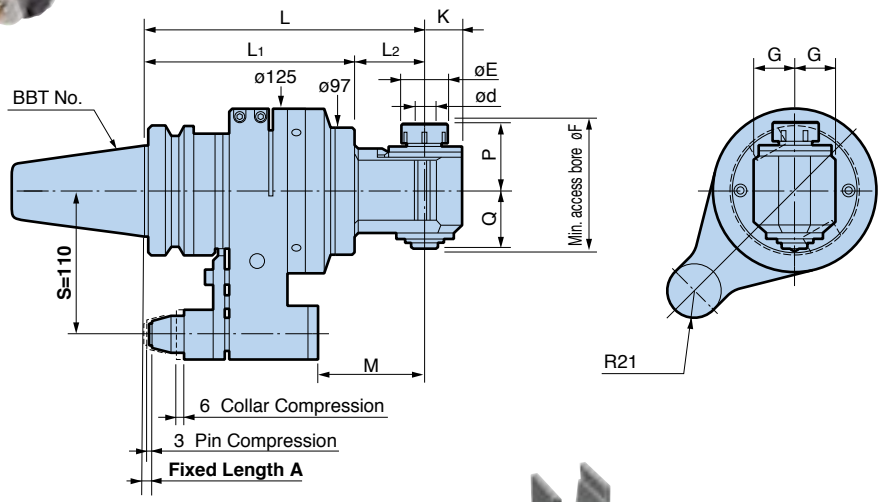
Exclusive STOP BLOCK is required.

● The rotation of the cutting tool is in reverse direction of the machine spindle.(Speed Ratio 1:1)

Model	Fig.	ød	øE	G	K	L	L1	L2	M	P	Q	øF	Collet	Max. min-1	Weight (kg)
BBT40-AG90/NBS 6 -170	1	0.25 – 6	20	21	17	170	115	55	77	33	29	67	NBC 6	6,000	5.1
-200						200		85	107						5.3
-230						230		115	137						5.5
-260						260		145	167						5.7
-AG90/NBS10 -170	1	1.5 – 10	30	30	25	170	115	55	77	45	43	91	NBC10	6,000	5.5
-200						200		85	107						5.9
-230						230		115	137						6.2
-AG90/NBS13 -170	1	2.5 – 13	35	31	28	170	115	55	77	52	45	101	NBC13	6,000	5.6
-200						200		85	107						6.0
-230						230		115	137						6.3
-AG90/NBS20S -165S	2	2.5 – 20	46	35	33	165	112	53	72	65	62	132	NBC20	3,000	8.0

1. **The standard Fixed Length A is 8mm.** Other lengths are available upon request.
2. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.
3. Clamping nut and wrench are included. Collet must be ordered separately.
4. New Baby Collet for endmill model NBC□-□EAA cannot be used.
5. **BBT30 models are also available. Please contact BIG agent.**

For NEW BABY COLLET G 3
For STOP BLOCK G 25



Exclusive STOP BLOCK for ANGLE HEAD is required.

BIG-PLUS tools can be used in machining centers with conventional spindles.

● The rotation of the cutting tool is in reverse direction of the machine spindle.(Speed Ratio 1:1)

Model	ød	øE	G	K	L	L1	L2	M	P	Q	øF	Collet	Max. min-1	Weight (kg)
BBT50-AG90/NBS 6-215	0.25 – 6	20	21	17	215	160	55	82	33	29	67	NBC 6	6,000	12.6
-245					245		85	112						12.8
-275					275		115	142						13.0
-305					305		145	172						13.2
-AG90/NBS10-215	1.5 – 10	30	30	25	215	160	55	82	45	43	91	NBC10	6,000	13.0
-245					245		85	112						13.4
-275					275		115	142						13.7
-AG90/NBS13-215	2.5 – 13	35	31	28	215	160	55	82	52	45	101	NBC13	6,000	13.1
-245					245		85	112						13.5
-275					275		115	142						13.8
-AG90/NBS20-230	2.5 – 20	46	35	35	230	160	70	97	65	62	132	NBC20	3,000	14.2

1. **The standard Fixed Length A is 6mm.** Other lengths are available upon request.
2. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.
3. Clamping nut and wrench are included. Collet must be ordered separately.
4. New Baby Collet for endmill model NBC□-□EAA cannot be used.

S=80 type is available upon request.

For NEW BABY COLLET G 3
For STOP BLOCK G 25

ANGLE HEAD

Compact and lightweight design combined with the accuracy required for drilling.
Ideal size for small machining centers.

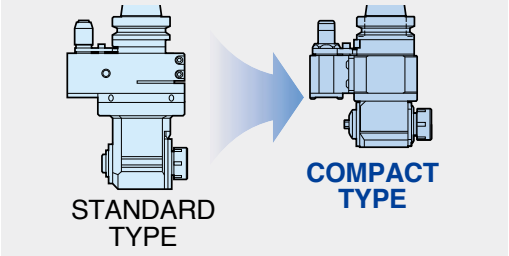
AG90 COMPACT type SPINDLE ANGLE : 90˚

For drilling

High quality components

- **High precision New Baby Collet**
- **Spiral bevel gears and angular contact bearings**
- **Advanced non-contact sealing structure**

■ Case & head sizes are substantially reduced.



Light & Compact

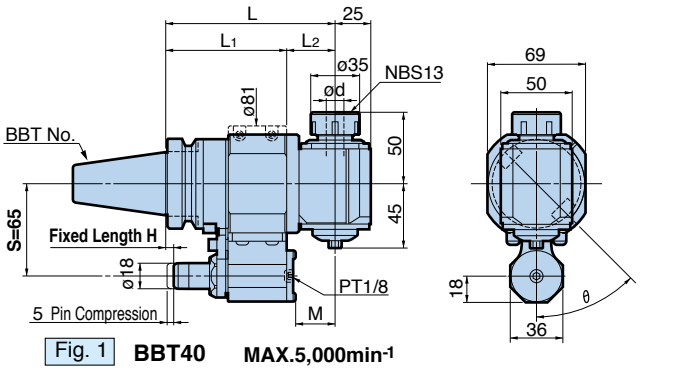


Fig. 1 **BBT40** **MAX.5,000min-1**

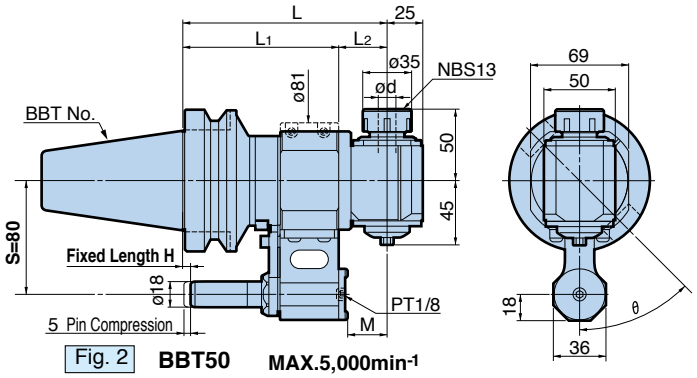


Fig. 2 **BBT50** **MAX.5,000min-1**

BIG-PLUS tools can be used in machining centers with conventional spindles.

● The rotation of the cutting tool is in reverse direction of the machine spindle.

Exclusive STOP BLOCK is required.
Exclusive STOP BLOCK for compact type is the same as HIGH SPINDLE & Hi JET HOLDER.

Model	Fig.	ød	L	L1	L2	M	Collet	Speed Ratio	Weight (kg)
BBT40-AG90-13-120	1	2.5 – 13	120	86	34	27.85	NBC13	1 : 1	4.5
-170			170		84	77.85			5.5
BBT50-AG90-13-145	2	2.5 – 13	145	111	34	27.85	NBC13	1 : 1	7.6
-195			195		84	77.85			8.6

1. Clamping nut and wrench are included. Collet must be ordered separately.
2. New Baby Collet for endmill model NBC13-□EAA cannot be used.
3. Fixed Length H and angle θ vary depending on machine models. Please specify your required dimensions.
4. A tapped hole (PT1/8) is prepared at the bottom cover of the Locating Pin housing so that a pipe for coolant can be connected.

For NEW BABY COLLET G 3 For STOP BLOCK G 25

Application example

High rigidity and runout accuracy provides stable machining.

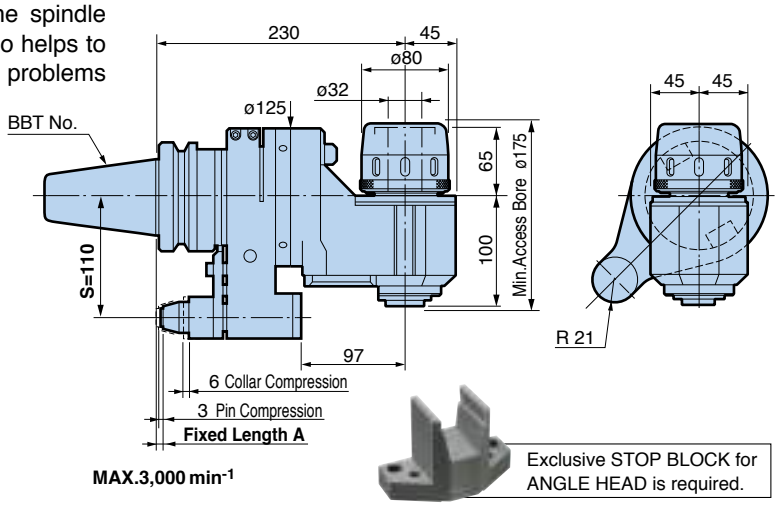
	Drilling
Cutter	ø12 carbide drill
Workpiece	C50(S50C)
Cutting Speed	70m/min
Cutting Feed	372mm/min
	0.2mm/rev
Spindle Speed	1,860min-1

Improved versatility is achieved from the 32mm capacity Milling Chuck by using parallel reduction collets and other accessories.

AG90 HMC type SPINDLE ANGLE : 90˚

[STANDARD TYPE]

Designed for greater rigidity by having the face of the spindle bore in line with the center of the machine spindle. Also helps to minimize interference problems with ATC and storage problems within magazine.



MAX.3,000 min^{-1}

BIG-PLUS tools can be used in machining centers with conventional spindles.

● The cutter rotates in the same direction of the machine spindle.

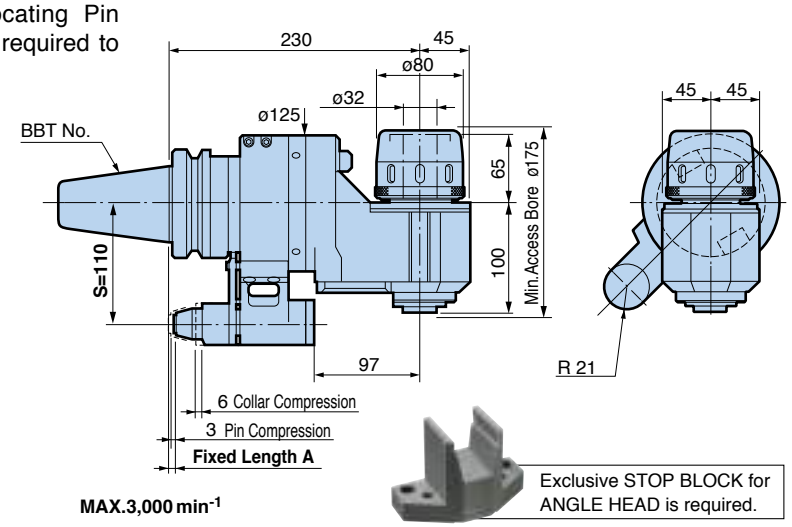
Model	Weight (kg)
BBT50-AG90/HMC32-230	16.8

1. **The standard Fixed Length A is 6mm.** Other lengths are available upon request.
2. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.
3. Wrench (FK80-90) is included.

For STOP BLOCK G 25
For STRAIGHT COLLET G 15

[HIGH RIGIDITY TYPE]

Provided with a steel housing and reinforced Locating Pin assembly for applications where increased rigidity is required to perform various types of heavier machining.



MAX.3,000 min^{-1}

BIG-PLUS tools can be used in machining centers with conventional spindles.

● The cutter rotates in the same direction of the machine spindle.

Model	Weight (kg)
BBT50-AG90/HMC32-230S	18.1

1. **The standard Fixed Length A is 6mm.** Other lengths are available upon request.
2. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.
3. Wrench (FK80-90) is included.

S=80 type is available upon request.

For STRAIGHT COLLET G 15
For STOP BLOCK G 25

ANGLE HEAD

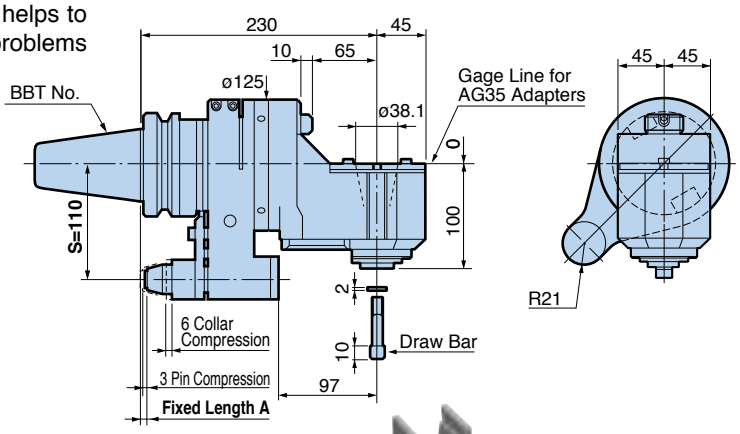
Spindle head is equipped with a short taper for quick changing of various adapters.

AG90 BUILD-UP type

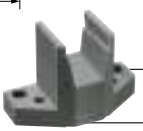
SPINDLE ANGLE : 90˚

[STANDARD TYPE]

Designed for greater rigidity by having the face of the spindle bore in line with the center of the machine spindle. Also helps to minimize interference problems with ATC and storage problems within the magazine.



MAX.3,000 min^{-1}



Exclusive STOP BLOCK for ANGLE HEAD is required.

BIG-PLUS tools can be used in machining centers with conventional spindles.

● The cutter rotates in the same direction of the machine spindle.

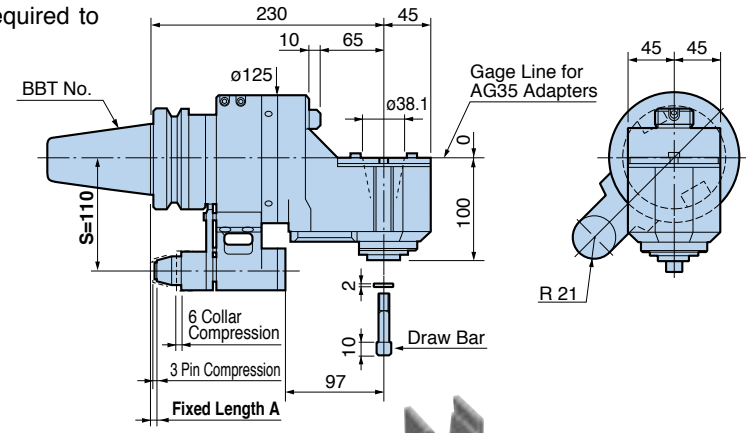
Model	Weight (kg)
BBT50-AG90/AGH35-230	15.0

1. **The standard Fixed Length A is 6mm.** Other lengths are available upon request.
2. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.

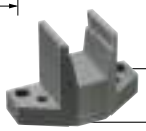
For STOP BLOCK G 25

[HIGH RIGIDITY TYPE]

Provided with a steel housing and reinforced Locating Pin assembly for applications where increased rigidity is required to perform various types of heavier machining.



MAX.3,000 min^{-1}



Exclusive STOP BLOCK for ANGLE HEAD is required.

BIG-PLUS tools can be used in machining centers with conventional spindles.

● The cutter rotates in the same direction of the machine spindle.

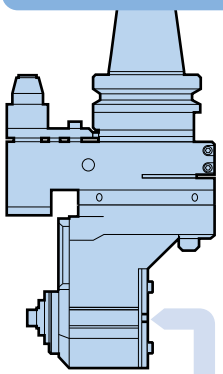
Model	Weight (kg)
BBT50-AG90/AGH35-230S	16.3

1. **The standard Fixed Length A is 6mm.** Other lengths are available upon request.
2. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.

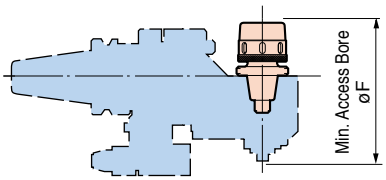
S=80 type is available upon request.

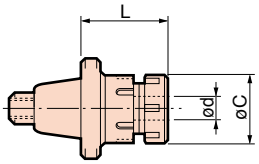
For STOP BLOCK G 25

BUILD-UP TYPE **AG35 ADAPTER SERIES**



øF= Minimum bore size that an AG35 adapter can fit into, excluding the cutting tool.



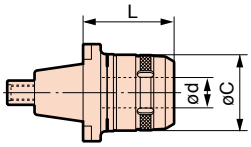


NEW BABY CHUCK

Model	ød	L	øC	øF	Weight (kg)
AG35-NBS10	1.5 - 10	47	30	162	0.6
-NBS13	2.5 - 13	54	35	168	0.7
-NBS16	2.5 - 16		42	170	0.8
-NBS20	2.5 - 20		46		0.9

Collet and wrench must be ordered separately.

For NEW BABY COLLET G 3
For WRENCH A 15

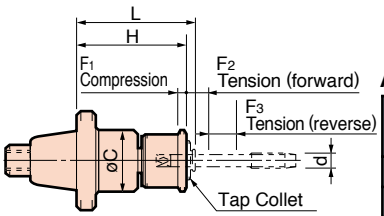


NEW HI-POWER MILLING CHUCK

Model	ød	L	øC	øF	Weight (kg)
AG35-HMC20S	20	60	50	178	1.5

Wrench(FK45-50L) is included.

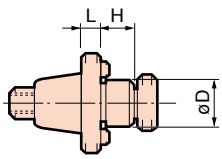
For STRAIGHT COLLET G 15



AUTO TAPPER TYPE B (Automatic depth control)

Model	d	L	øC	H	F_1	F_2	F_3	Weight (kg)
AG35-ATB12E	M4 - M12	80	40.5	72	0.5	5	4	1.0
-ATB20E	M8 - M20	115	57.5	102.5		6.5	5	1.7

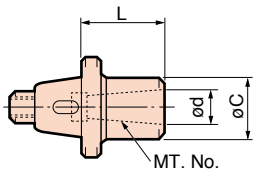
For Tap Collets, please contact BIG agent.



FACE MILL ARBOR

Model	øD	L	H	Weight (kg)
AG35-FMA25.4-20	25.4	20	22	1.0
AG35-FMH22 -30	22	30	18	1.0
-FMH27 -20	27	20	20	1.0

Cutter face protrudes by 7.5mm from the 125mm diameter housing with the following combinations;
AG35-FMA25.4-20 + 50mm thick cutter, AG35-FMH22-30 + 40mm thick cutter
AG35-FMH27-20 + 50mm thick cutter



MORSE TAPER ADAPTER

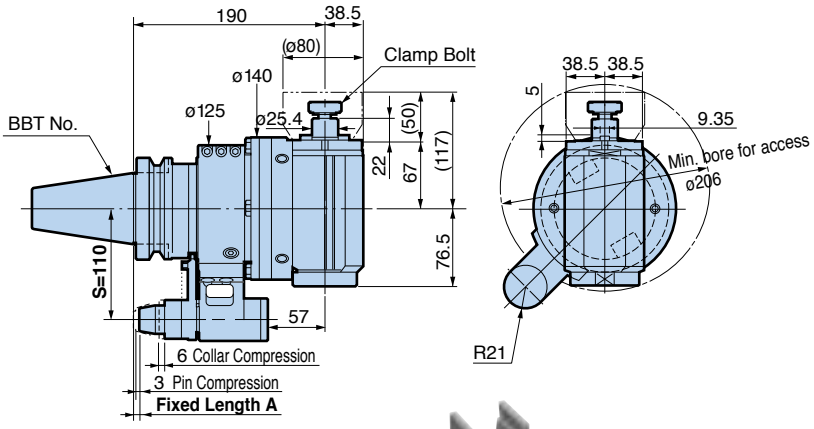
Model	ød	MT.No.	L	øC	øF	Weight (kg)
AG35-MT1	12.065	1	50	24	164	0.6
-MT2	17.78	2	60	32	180	0.7

ANGLE HEAD

High rigidity bearings and substantial spindle design.
Max. power transmission 20Kw. (at 1,500min^{-1})

AG90 FACE MILL type

SPINDLE ANGLE : 90˚



MAX.1,500 min^{-1}

Exclusive STOP BLOCK for ANGLE HEAD is required.

Simple 90˚ indexing of the cutter direction.
(Accuracy ±5')

BIG-PLUS tools can be used in machining centers with conventional spindles.

● The rotation of the cutting tool is in reverse direction of the machine spindle.

Model	Weight (kg)
BBT50-AG90-FMA25.4S-190S	19.2

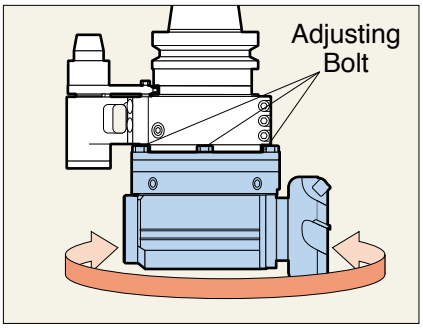
Figures in ( ) indicate dimensions when 80mm diameter and 50mm high face mill cutter is mounted.

1. **The standard Fixed Length A is 6mm.** Other lengths are available upon request.
2. Coolant cannot be supplied through the Locating Pin.
3. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.

For STOP BLOCK G 25

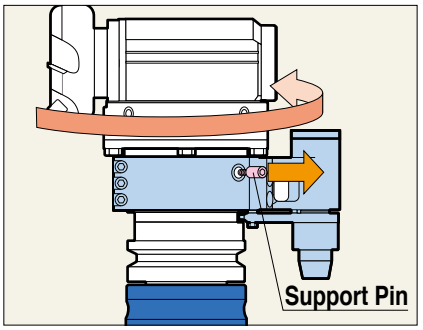
■ Cutter head adjustable through 360˚ to any angle

Following the release of the Adjusting Bolts (8 positions), the cutter direction can be easily adjusted.



■ Indexing through 90˚

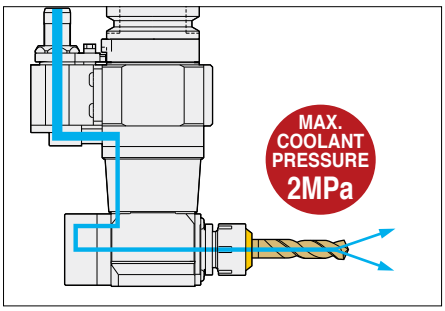
Cutter head is quickly indexable to 90˚ increments. (The Support Pin should be removed.)



⚠CAUTION : Indexing should not take place within the machine.

AG90 OAG type SPINDLE ANGLE : 90˚

For drilling Secure coolant supply through tool!



Coolant is supplied from the Stop Block through the cutting tool.

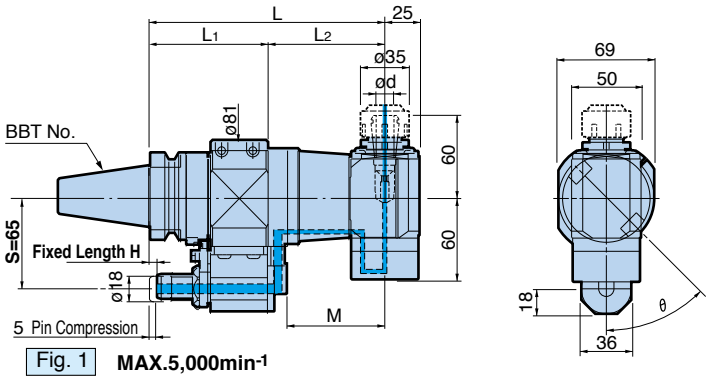


Fig. 1 **MAX.5,000min-1**

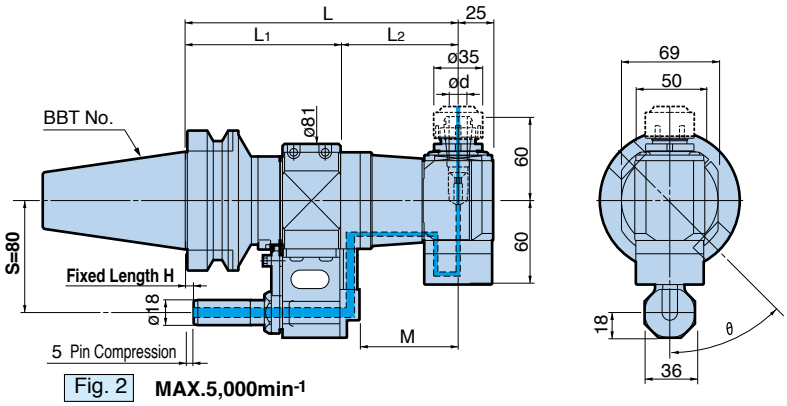


Fig. 2 **MAX.5,000min-1**

BIG-PLUS tools can be used in machining centers with conventional spindles.

● The rotation of the cutting tool is in reverse direction of the machine spindle.

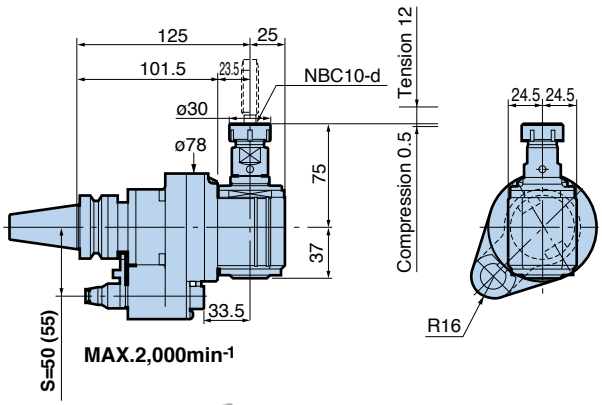
Exclusive STOP BLOCK is required.
Exclusive STOP BLOCK for OAG type is the same as HIGH SPINDLE & Hi JET HOLDER.

Model	Fig.	ød	L	L1	L2	M	Collet	NUT	Speed Ratio	Weight (kg)
BBT40-OAG90-13-170	1	2.5 – 13	170	86	84	70.5	NBC13	BPS13	1 : 1	6.0
BBT50-OAG90-13-195	2		195	111						9.2

1. Designed to be used with coolant. Never run dry.
2. Clamping nut must be ordered separately. Please order BABY PERFECT SEAL (BPS) for your application.
3. Collet must be ordered separately.
4. Adjusting screw and wrench are included.
5. Fixed Length H and angle θ vary depending on machine models. Please specify your required dimensions.

For STOP BLOCK G 25
For NEW BABY COLLET G 3
For BABY PERFECT SEAL G 10

AG90 TAPPER type SPINDLE ANGLE : 90˚



BIG-PLUS tools can be used in machining centers with conventional spindles.

● The rotation of the cutting tool is in reverse direction of the machine spindle.

Exclusive STOP BLOCK is required.
Exclusive STOP BLOCK for oil hole type is the same as HIGH SPINDLE & Hi JET HOLDER.

Model	d	Collet	Speed Ratio	Weight (kg)
BBT30-AG90-FT12-125	M4 – M12	NBC10	1 : 1	2.7

1. Clamping nut and wrench are included. Collet must be ordered separately.
2. The angles of Locating Pin to drive key groove and direction of cutting edge are adjustable from 0° to 360°.
3. Automatic depth control is not provided.

For NEW BABY COLLET G 3
For STOP BLOCK G 25

ANGLE HEAD

A special head case, angled at 45°, insures an accurate cutting angle.
Utilizes NEW BABY CHUCK to assure high accuracy and versatility.

AG45 NBS type SPINDLE ANGLE : 45˚

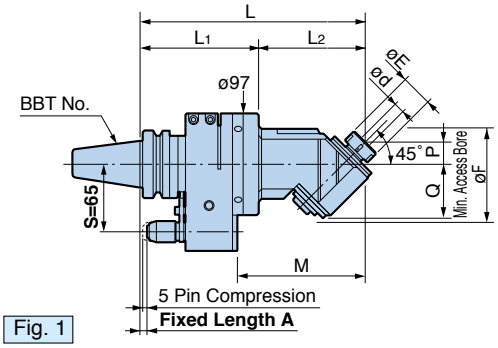


Fig. 1
MAX.6,000min-1

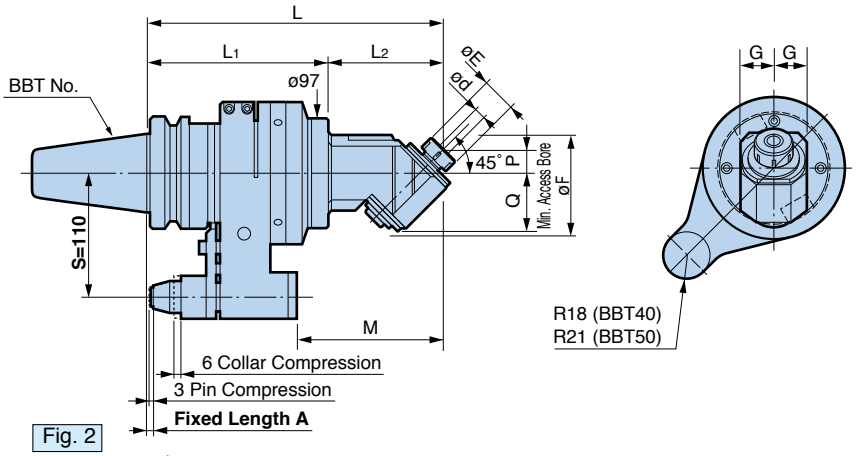


Fig. 2
MAX.6,000 min-1

BIG-PLUS tools can be used in machining centers with conventional spindles.

● The rotation of the cutting tool is in reverse direction of the machine spindle.

Exclusive STOP BLOCK is required.

Model	Fig.	ød	øE	G	L	L1	L2	M	P	Q	øF	Collet	Weight (kg)
BBT40-AG45/NBS10-215	1	1.5 – 10	30	30	215	115	100	122	20	51.5	90	NBC10	5.7
-AG45/NBS13-220		2.5 – 13	35		220		105	127	25			NBC13	5.8
BBT50-AG45/NBS10-260	2	1.5 – 10	30	30	260	160	100	127	20	51.5	90	NBC10	13.2
-AG45/NBS13-265		2.5 – 13	35		265		105	132	25			NBC13	13.3

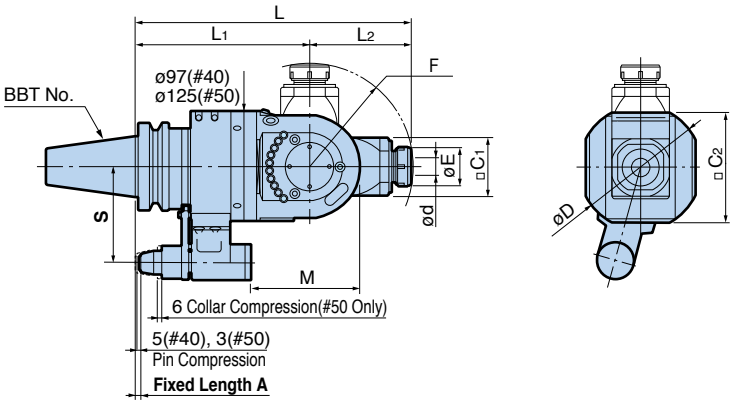
1. **The standard fixed length A: 40 taper=8mm , 50 taper=6mm.**
   Other lengths are available upon request.
2. Clamping nut and wrench are included. Collet must be ordered separately.
3. New Baby Collet for endmill model NBC□-□EAA cannot be used.
4. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.

For NEW BABY COLLET G 3
For STOP BLOCK G 25

Suitable for all cutting angles. In addition to the cutter head being adjustable a full 360˚, the spindle also becomes easily and precisely adjustable from 0˚ to 90˚ by 1˚ increments.

AGU UNIVERSAL type

SPINDLE ANGLE : 0˚ to 90˚



BIG-PLUS tools can be used in machining centers with conventional spindles.

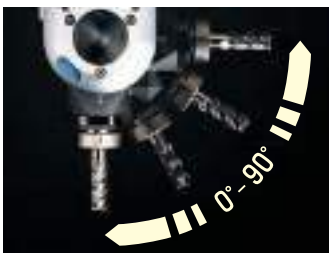
● The rotation of the cutting tool is in reverse direction of the machine spindle.

Exclusive STOP BLOCK is required.

Model	ød	øE	øD	□C1	□C2	L	L1	L2	M	F	S	Collet	Max. min-1	Weight (kg)
BBT40-AGU/NBS13-270	2.5 – 13	35	115	51	97	270	170	100	124	102	65	NBC13	6,000	9.7
BBT50-AGU/NBS20-315	2.5 – 20	46	140	65	125	315	200	115	125	118	110	NBC20	4,000	20.8

1. **The standard fixed length A: 40 taper=8mm , 50 taper=6mm.** Other lengths are available upon request.
2. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.
3. Clamping nut and wrench are included. Collet must be ordered separately.

For NEW BABY COLLET G 3
For STOP BLOCK G 25



EASILY ADJUSTABLE SPINDLE ANGLE FROM 0˚ to 90˚.

PRECISE ANGLE ADJUSTMENT

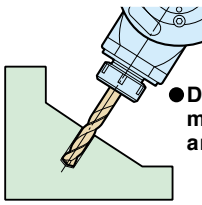
Unique setting mechanism enables the spindle angle to be precisely set at 1˚ increments.

EXCLUSIVE CLAMPING BOLTS AND NUTS

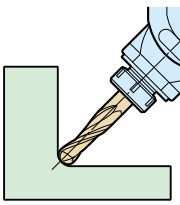
Specially selected materials and special design for clamping the head guarantee rigidity for even end milling applications.

Application example

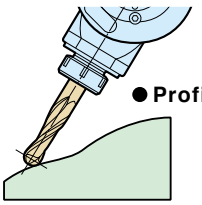
Adjustable AGU Universal Series expands Angle Head capabilities to accomplish various angular machining applications.



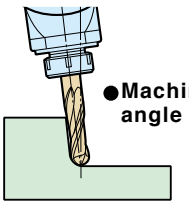
●Drilling or end milling on an angled surface



●Corner rounding



●Profiling



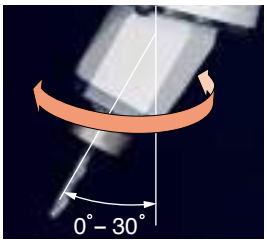
●Machining draft angle of a mold

ANGLE HEAD

Spindle angle is adjustable from 0 to 30 .
Large swivel flange assures high rigidity.

AGU **AGU30 type** SPINDLE ANGLE : 0˚ to 30˚

Light Weight



Angle adjustment by aligning divisions

Spindle angle is easily adjustable from 0˚to 30˚using the scale indication on the body.

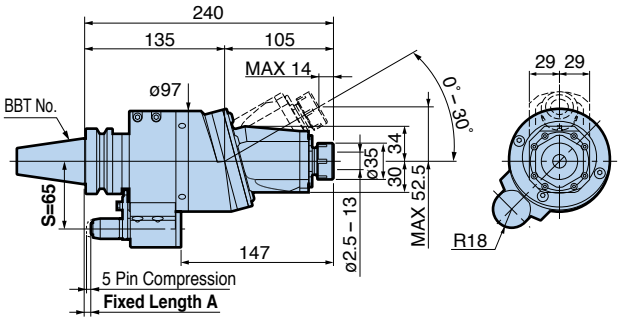


Fig. 1
MAX.6,000min-1

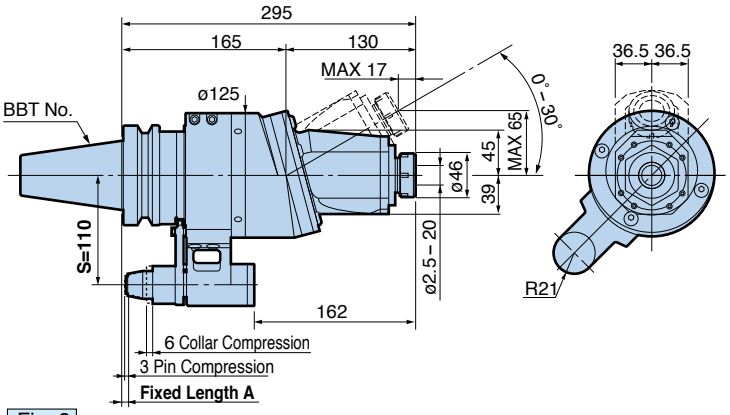


Fig. 2
MAX.4,000min-1

BIG-PLUS tools can be used in machining centers with conventional spindles.

● The cutter rotates in the same direction of the machine spindle.

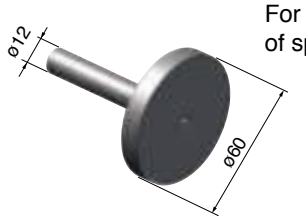
Model	Fig.	Collet	Speed Ratio	Weight (kg)
BBT40-AGU30/NBS13-240	1	NBC13	1 : 1	6.9
BBT50-AGU30/NBS20-295	2	NBC20	1 : 1	16.1

1. **The standard fixed length A: 40 taper=8mm , 50 taper=6mm.**
   Other lengths are available upon request.
2. Clamping nut and wrench are included. Collet must be ordered separately.
3. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.

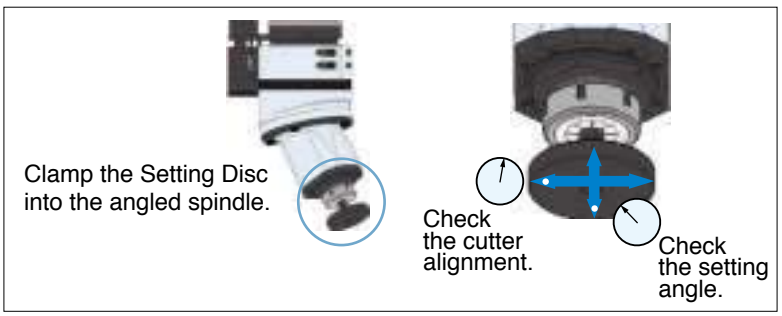
For NEW BABY COLLET G 3
For STOP BLOCK G 25

Exclusive STOP BLOCK is required.

■SETTING DISK (included accessory)

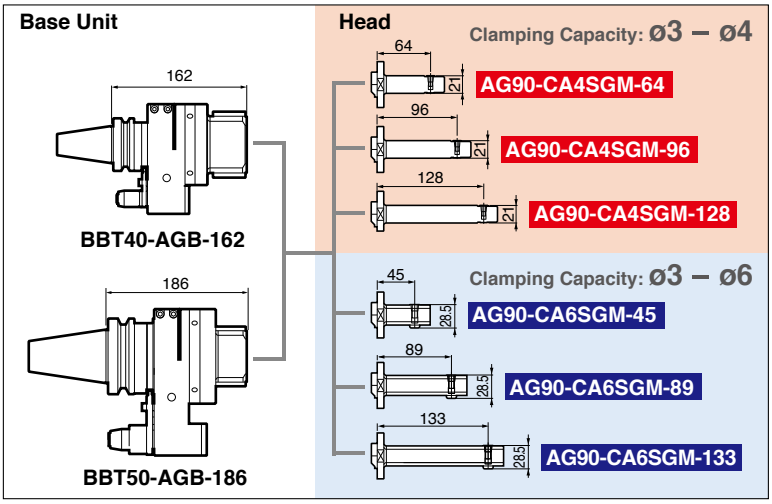


For the precise adjustment of spindle angle or direction.



Angular operation in a ø30mm bore (min.) is possible. Modular heads enhance versatility.
Head is aligned with spindle center for easy programing.

SMALL BORE type



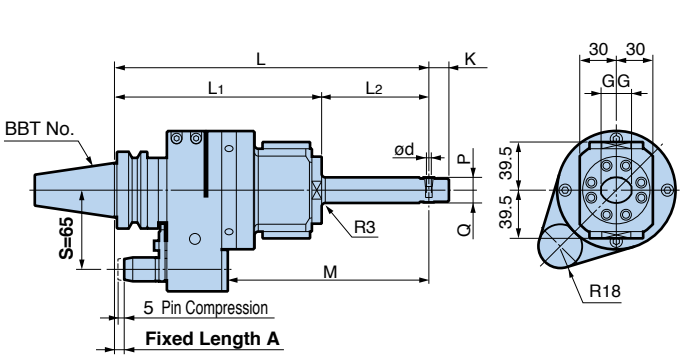


Fig. 1 **MAX.2,000min-1**

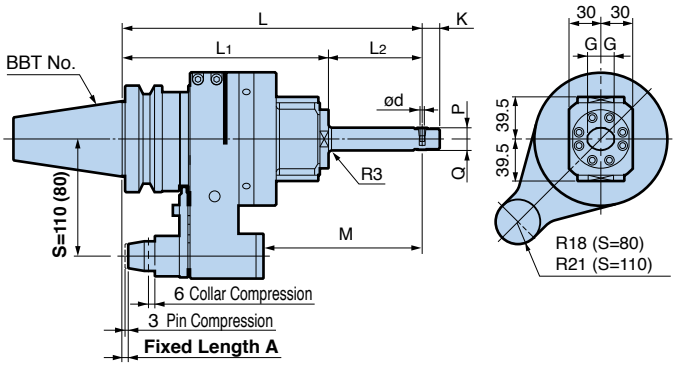


Fig. 2 **MAX.2,000min-1**

BIG-PLUS tools can be used in machining centers with conventional spindles.

● The cutter rotates in the same direction of the machine spindle.

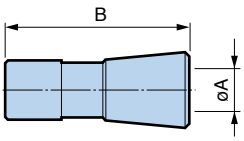
Exclusive STOP BLOCK is required.

Set Model	Base	Head	Fig.	ød	G	K	L	L1	L2	M	P	Q	Speed Ratio	Weight (kg) S=65	S=80	S=110
BBT40-AG90-CA4SGM-226	BBT40-AGB-162	AG90-CA4SGM- 64	1	3 – 4	12.5	16.5	226	170	56	133	10.5	10.5	1:1.06 (Increase)	5.6	–	–
-258		- 96					258		88	165				5.7		
-290		-128					290		120	197				5.8		
-CA6SGM-207		AG90-CA6SGM- 45		3 – 6	15	20	207		37	114	12.5	16	1:0.77 (Decrease)	5.7		
-251		- 89					251		81	158				5.9		
-295		-133					295		125	202				6.1		
BBT50-AG90-CA4SGM-250	BBT50-AGB-186	AG90-CA4SGM- 64	2	3 – 4	12.5	16.5	250	194	56	117	10.5	10.5	1:1.06 (Increase)	–	12.5	11.9
-282		- 96					282		88	149					12.6	12
-314		-128					314		120	181					12.7	12.1
-CA6SGM-231		AG90-CA6SGM- 45		3 – 6	15	20	231		37	98	12.5	16	1:0.77 (Decrease)	–	12.6	12
-275		- 89					275		81	142					12.8	12.2
-319		-133					319		125	186					13	12.4

1. **The standard fixed length A: 40 taper=8mm , 50 taper=6mm.** Other lengths are available upon request.
2. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.
3. Coolant cannot be supplied through the Locating Pin.
4. Exclusive collets should be ordered separately.
5. S=80 type is available for #50 taper models upon request.

For STOP BLOCK G 25

■EXCLUSIVE COLLET



Model	øA	B
CA4-3	3	16.5
-3.5	3.5	
-4	4	

Model	øA	B
CA6-3	3	22
-4	4	
-5	5	
-6	6	

1. Use only a cutting tool shank with exactly the same diameter as the collet bore diameter.
2. Tolerance of the cutting tool shank must be within h7.

ANGLE HEAD

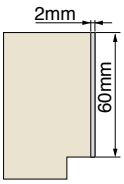
Application example

● AG90 SERIES (BUILD-UP TYPE)

STANDARD

BBT50-AG90/AGH35-230 (with AG35-FMA25.4-20)

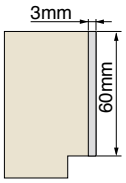
Workpiece : Carbon Steel
S55C (JIS) / C55 (DIN)
Cutter : 80mm Face Mill
Cutting Depth : 2mm
Cutting Width : 60mm
Spindle Speed : 600 min^{-1}
Cutting Speed : 150m/min.
Cutting Feed : 360mm/min.



S TYPE

BBT50-AG90/AGH35-230S (with AG35-FMA25.4-20)

Workpiece : Carbon Steel
S55C (JIS) / C55 (DIN)
Cutter : 80mm Face Mill
Cutting Depth : 3mm
Cutting Width : 60mm
Spindle Speed : 600 min^{-1}
Cutting Speed : 150m/min.
Cutting Feed : 360mm/min.

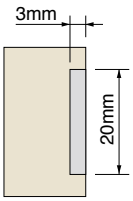


● AG90 SERIES (HMC TYPE)

STANDARD

BBT50-AG90/HMC32-230

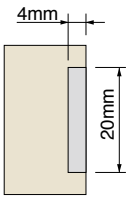
Workpiece : Carbon Steel
S55C (JIS) / C55 (DIN)
Cutter : 20mm Endmill
with 2-flute of H.S.S.
Cutting Depth : 3mm
Spindle Speed : 400 min^{-1}
Cutting Speed : 25m/min.
Cutting Feed : 72mm/min.



S TYPE

BBT50-AG90/HMC32-230S

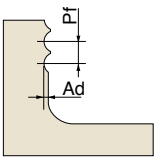
Workpiece : Carbon Steel
S55C (JIS) / C55 (DIN)
Cutter : 20mm Endmill
with 2-flute of H.S.S.
Cutting Depth : 4mm
Spindle Speed : 400 min^{-1}
Cutting Speed : 25m/min.
Cutting Feed : 72mm/min.



● AGU SERIES (AGU30 TYPE)

BBT40-AGU30/NBS13-240

Workpiece : Pre-hardened Steel (HRC40)
Cutter : R5 2-flute carbide ball endmill
Spindle Speed : 6,000 min^{-1}
Cutting Speed : 190m/min.
Cutting Feed : 900mm/min.
Cutting Depth : Ad=0.1mm
Peck Feed : Pf=0.1mm



※Results will vary depending on workpiece, cutting tool, machine model, and other conditions.

All new applications are subject to review by engineering in order to confirm the Angle Head will operate within its capacity.

SPECIAL DESIGNS

Our long experience and expertise enables us to design and manufacture special custom made Angle Heads for almost any customer application.

● SPECIAL ANGLE

● EXTRA LONG

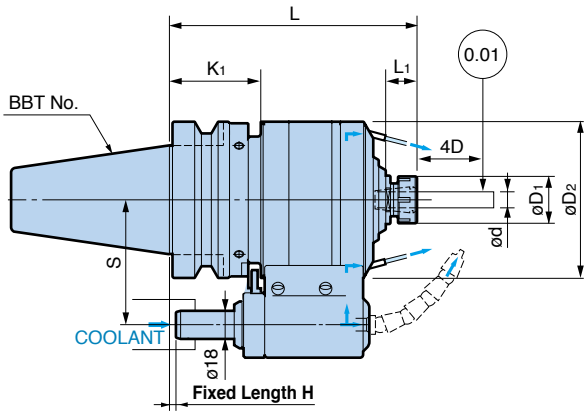
● OIL FEEDER
(SPECIAL ANGLE)

● BBT30

HIGH SPINDLE

GTG Type

Higher spindle speeds are available without excessive load on the machine spindle.



Exclusive STOP BLOCK is required.

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	ød	L	L1	øD1	øD2	K1	S	Collet	Speed Ratio	Max. min-1	Weight (kg)
BBT40-GTG5-10-140	1.5 – 10	140	20	30	80	43	65	NBC10	4.67	20,000	4.8
BBT50-GTG6-10-158	1.5 – 10	158	20	30	100	58	80	NBC10	5.67	20,000	8.8
-GTG4-16-177	2.5 – 16	177	25.5	42	110	58	80	NBC16	3.80	15,000	10.6

1. **The standard Fixed Length H is 6mm.**
2. 1 pce. of maximum size collet (GTG5,6=NBC10-10AA,GTG4=NBC16-16AA) , clamping nut and wrench are included.
3. ⌀ (angle of locating pin to drive key groove) is adjustable to any degree from 0˚ to 360˚.
4. Special Air Purge oil mist lubrication style is available upon request for machining graphite, ceramic, tungsten and other composite materials.
5. Please do not use with neat oil coolant. Using with neat oil coolant carries a risk of fire.

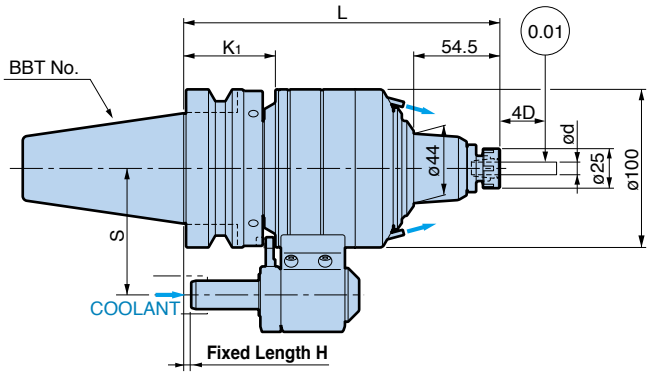
For NEW BABY COLLET G 3
For STOP BLOCK G 27
For LOCATING PINS G 27
For WRENCH A 15

GTX Type

Special design for die & mold.
Long nose design for minimized interference.
Long tool life with grease nipple.

Speed Ratio : 5.67

Exclusive STOP BLOCK is required.



BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	ød	L	K1	S	Collet	Weight (kg)
BBT50-GTX6-8-200	0.5 - 8	200	58	80	NBC8	9.3

1. **The standard Fixed Length H is 6mm.**
2. Clamping nut and wrench are included.
3. Collet must be ordered separately.
4. Please do not use with neat oil coolant. Using with neat oil coolant carries a risk of fire.

For NEW BABY COLLET G 3
For STOP BLOCK G 27
For LOCATING PINS G 27
For WRENCH A 15

AIR TURBINE SPINDLE

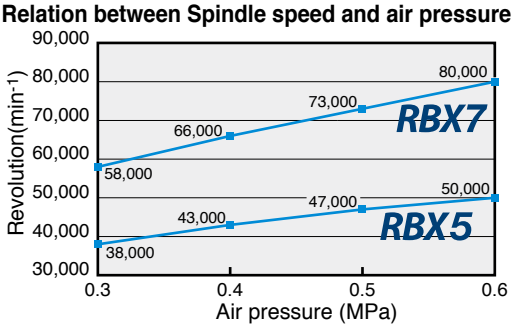
High-speed Micro-Machining can be done on a normal machining center, eliminating the need of an expensive high-speed machine.

Machine Spindle Rotation = 0

MAX. 80,000 min-1

	RBX7	RBX5
Practical spindle speed (min-1)	60,000 - 80,000	40,000 - 50,000
Clamping Range	ø0.45 - ø4.05mm (MEGA4S)	
T.I.R at nose	Less than 1μm	
Air pressure	Less than 0.6MPa	
Air flow	300L/min [ANR](0.6MPa)	

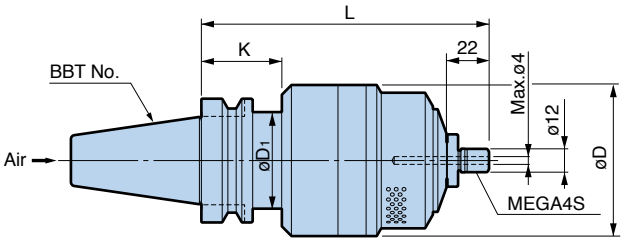
Relation between Spindle speed and air pressure (Reference)



CENTER THROUGH Type

For compressed air through the machine spindle.

For automatic tool change



BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Operating spindle speed(min-1)	Tool diameter	L	øD	øD1	K	Weight (kg)
BBT40- RBX7C-4S-150	60,000 - 80,000	ø1.0 or smaller	150	78	50	43	3.1
-RBX5C-4S-150	40,000 - 50,000	ø1.5 or smaller		96			4.1
BBT50-RBX7C-4S-160	60,000 - 80,000	ø1.0 or smaller	160	78	68	53	6.3
-RBX5C-4S-160	40,000 - 50,000	ø1.5 or smaller		96			7.3

1. Nut and wrenches are included. Collet must be ordered separately.
2. XF1(Air Unit) must be ordered separately. A 65

For MICRO COLLET G 2

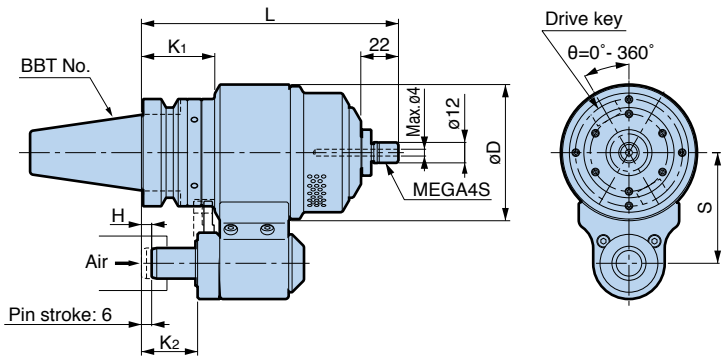
CAUTION

Compressed air to drive the AIR TURBINE SPINDLE must be clean. Therefore, coolant should not be supplied through the spindle on the machine that the AIR TURBINE SPINDLE is used.

SIDE THROUGH Type

The compressed air is supplied through the stop block which also enables automatic tool change.

For automatic tool change



Exclusive STOP BLOCK is required.

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Operating spindle speed(min^{-1})	Tool diameter	L	øD	K1	K2	S	H	Weight (kg)
BBT30-RBX7-4S-152-55	60,000 – 80,000	ø1.0 or smaller	152	80	28	33	55	-10 – 22	2.7
BBT40-RBX7-4S-151-65	60,000 – 80,000	ø1.0 or smaller	151	80	43	33	65	-24 – 21	4.0
-RBX5-4S-151-65	40,000 – 50,000	ø1.5 or smaller		96					5.0
BBT50-RBX7-4S-166-80	60,000 – 80,000	ø1.0 or smaller	166	100	58	48	80	-9 – 36	8.7
-RBX5-4S-166-80	40,000 – 50,000	ø1.5 or smaller							9.7

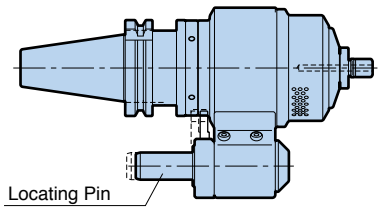
1. Nut and wrenches are included. Collet must be ordered separately.
2. XF1(Air Unit) must be ordered separately. A 65

For MICRO COLLET G 2

SET UP INFORMATION for AIR TURBINE SPINDLE

● Preparing the Stop Block

The BIG AIR TURBINE SPINDLE utilizing a Locating Pin requires the Stop Block, which is mounted to the machine spindle. Please contact a BIG agent for details.

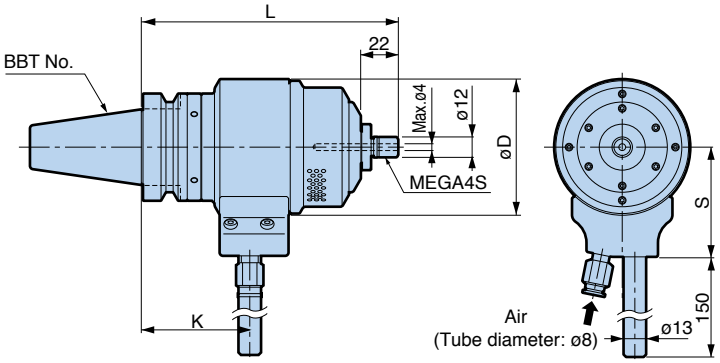


AIR TURBINE SPINDLE

H Type For Manual tool change

Machine Spindle Rotation = 0

Easily mounted on machines without a stop block.



BIG-PLUS tools can be used in machining centers with conventional spindles.

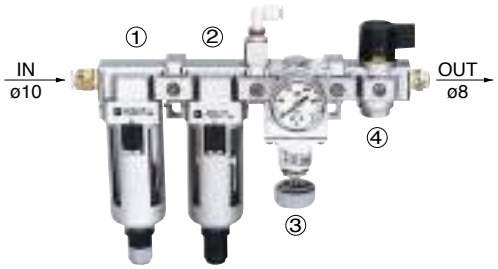
Model	Operating spindle speed(min-1)	Tool diameter	L	øD	K	S	Weight (kg)
BBT30-RBX7-4S-152H	60,000 – 80,000	ø1.0 or smaller	152	80	64.5	65	2.7
BBT40-RBX7-4S-151H	60,000 – 80,000	ø1.0 or smaller	151	80	63	65	4.0
-RBX5-4S-151H	40,000 – 50,000	ø1.5 or smaller		96		71	5.0
BBT50-RBX7-4S-166H	60,000 – 80,000	ø1.0 or smaller	166	100	78	80	8.7
-RBX5-4S-166H	40,000 – 50,000	ø1.5 or smaller					9.7

1. Nut and wrenches are included. Collet must be ordered separately.
2. XF1(Air Unit) must be ordered separately. A 65

For MICRO COLLET G 2

■AIR FILTER REGULATOR for RBX (Contact our agent.)

Air filtering for turbine drive.



Model	XF1

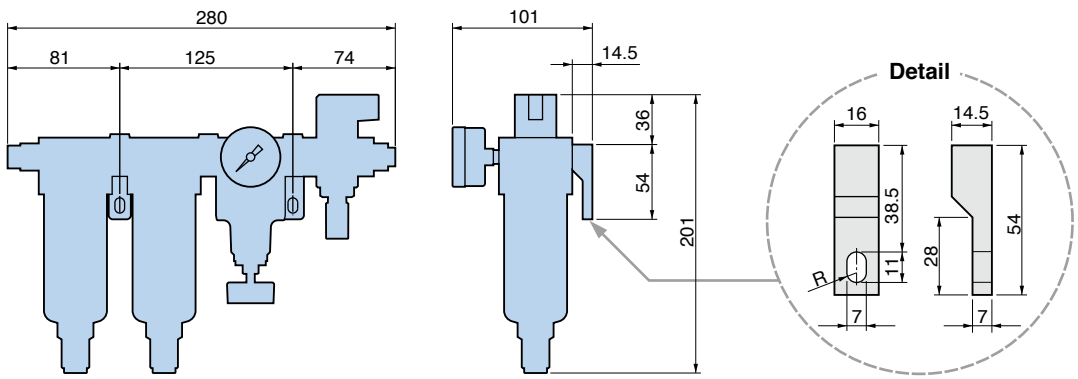
①Mist separator (filtration: 0.3 μm)

②Micro mist separator (filtration: 0.01 μm)

③Precision regulator

④Three ports valves for extracting pressurization (non-grease type)

● **Dimensions**

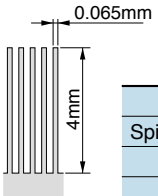


Application example

RBX7

Aluminum
A2017

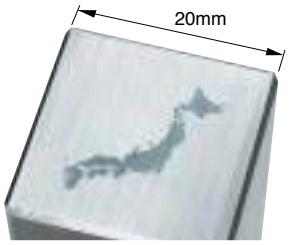
Outstanding runout accuracy permits super thin wall cutting.



Cutter	ø0.5mm Rib-endmill
Spindle speed	70,000min^{-1}
Feed	1,500mm/min
D.O.C	Ad=0.02mm

Prehardened steel
HRC40

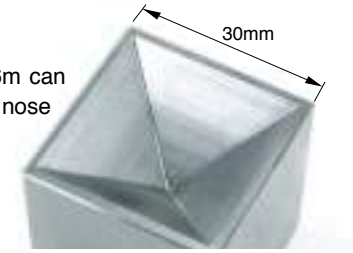
Drastic time reduction by ultra high speed rotation. Excellent dynamic runout accuracy makes DOC of 5μm clearly visible.



Cutter	R0.1mm Ball nose endmill
Spindle speed	80,000min^{-1}
Feed	400mm/min
D.O.C	Ad=0.01mm

Prehardened steel
HRC40

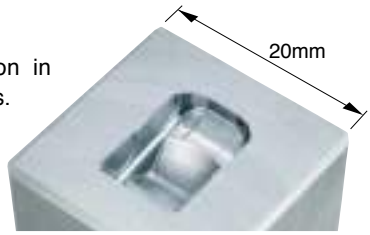
Overall cutting length of 656m can be achieved with one ball nose endmill.
Drastically extended tool life.



Cutter	R0.5mm Ball nose endmill
Spindle speed	65,000min^{-1}
Feed	4,200mm/min
D.O.C	Ad=0.2mm Rd=0.05mm

Prehardened steel
HRC40

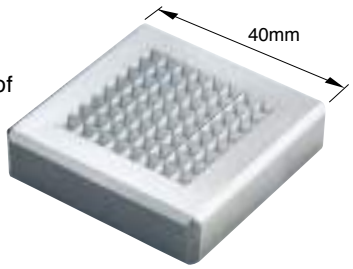
Original 5 hour operation in MC is reduced to 2 hours.



Cutter	R0.2mm Ball nose endmill
Spindle speed	70,000min^{-1}
Feed	1,000mm/min
D.O.C	Ad=0.01mm

Prehardened steel
HRC40

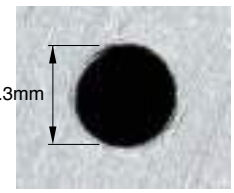
No thermal expansion of spindle results in finely detailed surface finish.



Cutter	R0.5mm Ball nose endmill
Spindle speed	75,000min^{-1}
Feed	400mm/min
D.O.C	Ad=0.02mm

Aluminum
A2017

High-precision drilling is possible without center drill operation.
Even after 3,500 holes, no problems can be found on cutting edge.



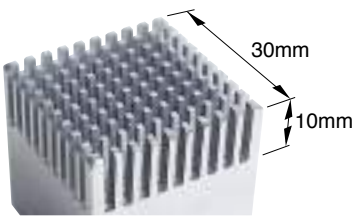
t= 1.5mm

Cutter	ø0.3mm Solid drill
Spindle speed	75,000min^{-1}
Feed	200mm/min
Peck	0.3mm

RBX5

Prehardened steel
HRC40

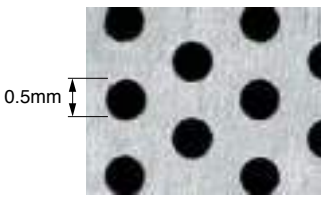
Even a taper endmill that has high cutting forces can achieve stable cutting.



Cutter	ø1.5mm Rib-endmill
Spindle speed	40,000min^{-1}
Feed	1,000mm/min
D.O.C	Ad=0.05mm

Stainless Steel
SUS303

Tool life is doubled with over 1,200 holes and cutting time is reduced to 1/3.



t= 1.7mm

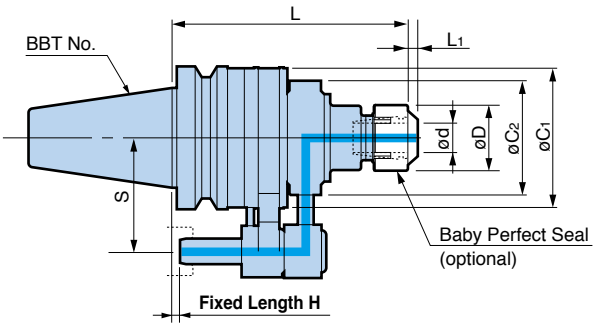
Cutter	ø0.5mm Solid drill
Spindle speed	40,000min^{-1}
Feed	20mm/min
Peck	0.01mm

Hi-JET HOLDER

Bearings in a separate housing from the coolant for extended life.

NEW BABY CHUCK Type

Suitable for small diameter drills, gun drills and end mills due to high precision New Baby Chuck.



BIG-PLUS tools can be used in machining centers with conventional spindles.

Exclusive STOP BLOCK is required.

Model	ød	øD	L	øC1	øC2	S	Collet	Max. min^{-1}	Merit Set 2 pcs. of Merit Ring and 2 pcs. of Merit Plate	Weight (kg)
BBT30-ONBS10N-135	3 – 10	30	138	66	65	☆	NBC10	10,000	MES-40	3.0
-ONBS13N-140	3 – 13	35	143				NBC13			3.1
-ONBS16N-140	3 – 16	42					NBC16			3.3
-ONBS20N-140	3 – 20	46					NBC20			3.3
BBT40-ONBS10N-165	3 – 10	30	168	81.6	73	65	NBC10	10,000	MES-40	3.9
-200			203					8,000		4.1
-ONBS13N-165	3 – 13	35	168				NBC13	10,000		4.0
-200			203					8,000		4.2
-ONBS16N-165	3 – 16	42	168		80		NBC16	8,000	MES-50	4.3
-200			203					6,000		4.6
-ONBS20N-165	3 – 20	46	168				NBC20	8,000		4.3
-200			203					6,000		4.7

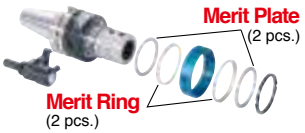
1. **The standard Fixed Length H is 6mm.**
2. Wrench, Collet and Adjusting Screw are optional items.
3. Max. coolant pressure is 2MPa.
4. Clamping Nut is sold separately. Please order BABY PERFECT SEAL(BPS) for your application.

Please do not use with neat oil coolant.
Using with neat oil coolant carries a risk of fire.

5. ☆Please consult with the machine tool builder for the suitable "S" dimension.

MERIT SET

Merit Set includes 2 pcs. each of Merit Plates, Merit Rings, O-Rings and Locking Pads.



For STOP BLOCK G 27
For LOCATING PINS G 27

BIG-PLUS tools can be used in machining centers with conventional spindles.

Exclusive STOP BLOCK is required.

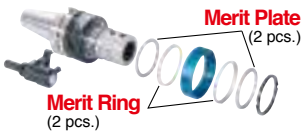
Model	ød	øD	L	øC1	øC2	S	Collet	Max. min-1	Merit Set 2 pcs. of Merit Ring and 2 pcs. of Merit Plate	Weight (kg)
BBT50-ONBS10N-165	3 – 10	30	168	99.6	80	80	NBC10	8,000	MES-50	7.2
-200			203					6,000		7.4
-250			253					4,000		7.6
-ONBS13N-165	3 – 13	35	168				NBC13	8,000		7.3
-200			203					6,000		7.5
-250			253					4,000		7.8
-ONBS16N-165	3 – 16	42	168				NBC16	8,000		7.5
-200			203					6,000		7.8
-250			253					4,000		8.2
-ONBS20N-165	3 – 20	46	168				NBC20	8,000		7.5
-200			203					6,000		7.9
-250			253					4,000		8.2

1. **The standard Fixed Length H is 6mm.**
2. Wrench, Collet and Adjusting Screw are optional items.
3. Max. coolant pressure is 2MPa.
4. Clamping Nut is sold separately. Please order BABY PERFECT SEAL(BPS) for your application.

Please do not use with neat oil coolant.
Using with neat oil coolant carries a risk of fire.

MERIT SET

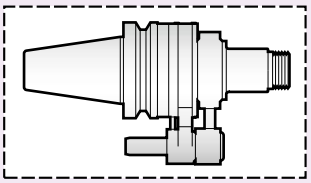
Merit Set includes 2 pcs. each of Merit Plates, Merit Rings, O-Rings and Locking Pads.



For STOP BLOCK G 27
For LOCATING PINS G 27

Order Example

Please specify model numbers of the Hi-Jet Holder, collet and nut when ordering.



Hi-Jet Holder **(Nut is not included.)**
BBT40-ONBS10N-165

+ **Option** (Order separately.)

NEW BABY COLLET
G 3

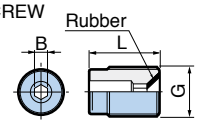
+ **Option** (Order separately.)

Sealing Nut
BABY PERFECT SEAL G 10
BPS10-03035

Through Tools

Jet Through

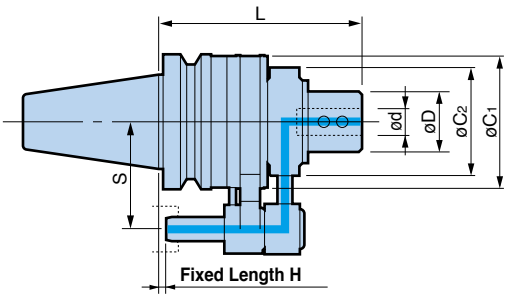
Accessories

WRENCH	NBC COLLET G 3 FOR ENDMILL COLLET G 7	BABY PERFECT SEAL G 10	ADJUSTING SCREW			
						
Model	Model	Model	Model	G	L	B
NBK10	**NBC10-□**	**BPS10- □**	**NBA10B**	M11	16	3
NBK13	**NBC13-□**	**BPS13- □**	**NBA13B**	M14	20	4
NBK16	**NBC16-□**	**BPS16- □**	**NBA16B**	M18	20	4
NBK20	**NBC20-□**	**BPS20- □**	**NBA20B**	M21	20	4

Hi-JET HOLDER

SIDE LOCK Type

Suitable for popular straight shanks with flat.



BIG-PLUS tools can be used in machining centers with conventional spindles.

Exclusive STOP BLOCK is required.

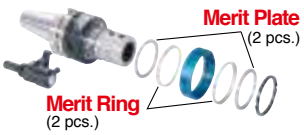
Model	ød	øD	L	øC1	øC2	S	Max. min-1	Merit Set 2 pcs. of Merit Ring and 2 pcs. of Merit Plate	Weight (kg)
BBT40-OSL16N-150	16	48	150	81.6	80	65	8,000	MES-50	4.4
-OSL20N-150	20				80				4.3
-OSL25N-165	25		165						4.4
-OSL32N-165	32	58		99.6	98		6,000	MES-65	5.7
BBT50-OSL16N-150	16	48	150	99.6	80	80	8,000	MES-50	7.5
-OSL20N-150	20				80				7.4
-OSL25N-165	25		165						7.5
-OSL32N-165	32	58			98		6,000	MES-65	7.9
-OSL40N-165	40	64							8.0
-OSL50N-185	50	84	185	129.6	121		4,000	MES-90	11.9

1. **The standard Fixed Length H is 6mm.** 2. Max. coolant pressure is 2MPa.

Please do not use with neat oil coolant.
Using with neat oil coolant carries a risk of fire.

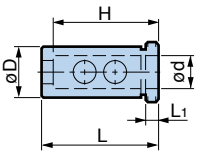
MERIT SET

Merit Set includes 2 pcs. each of Merit Plates, Merit Rings, O-Rings and Locking Pads.



For STOP BLOCK G 27
For LOCATING PINS G 27

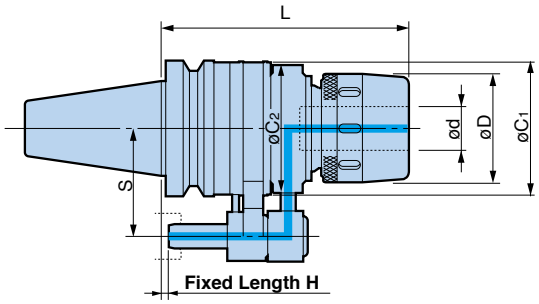
■REDUCTION COLLET



Model	ød	øD	L	L1	H
OSL25-16	16	25	62	5.5	48
-20	20				50
OSL32-16	16	32	66	5.5	48
-20	20				50
-25	25				56
OSL40-16	16	40	76	5.5	48
-20	20				50
-25	25				56
-32	32				60

MILLING CHUCK Type

Suitable for end mills with straight shanks due to superior gripping force.



BIG-PLUS tools can be used in machining centers with conventional spindles.

Exclusive STOP BLOCK is required.

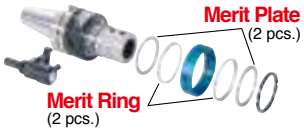
Model	ød	øD	L	øC1	øC2	S	Max. min-1	C-spanner Model	Merit Set 2 pcs. of Merit Ring and 2 pcs. of Merit Plate	Weight (kg)
BBT40-OMC 20N-170	20	60	170	81.6	80	65	8,000	FK58-62	MES-50	4.8
BBT50-OMC 20N-165	20	60	165	99.6	80	80	8,000		MES-50	6.8
OMC 32N-180	32	80	180		98		6,000	FK80-90	MES-65	8.5

1. **The standard Fixed Length H is 6mm.** 2. Max. coolant pressure is 2MPa.
3. Nut for Milling chuck type (OMC) needs to be removed when replacing a merit ring and a merit plate. Contact BIG agent for this.
4. Wrench is included.

Please do not use with neat oil coolant.
Using with neat oil coolant carries a risk of fire.

MERIT SET

Merit Set includes 2 pcs. each of Merit Plates, Merit Rings, O-Rings and Locking Pads.



For STOP BLOCK G 27
For LOCATING PINS G 27

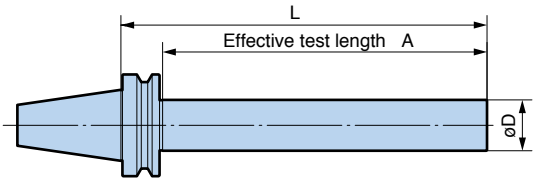
■COOLANT HOLE STRAIGHT COLLET

Model
OCA20- 6, 8, 10, 12, 14, 16
OCA32- 6, 8, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 28

DYNA TEST

BBT Shank

JIS B 6339 (BIG-PLUS)



Precision test bar of the highest quality.

- Periodic inspection of machine tools to control production stability.
- Shorter models are ideal for measuring ATC repeatability.

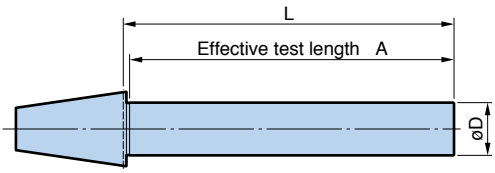
BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	L	A	øD
BBT30-32-L150	150	125	32
-L235	235	210	
BBT40-50-L200	200	170	50
-L350	350	320	
BBT50-50-L200	200	159	
-L360	360	319	

1. Taper length is in accordance with JIS BT standard.

NT Shank

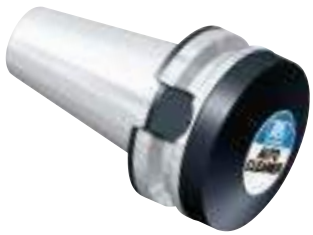
Basic Type (NT Shank) is only suitable for BT shank.

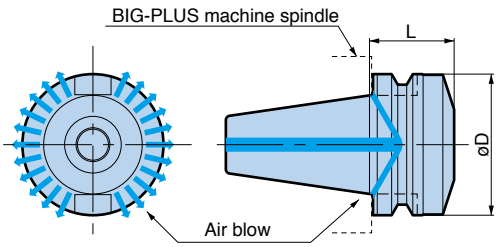


Model	L	A	øD
NT30-32-L150	150	144	32
-L225	225	219	
NT40-50-L200	200	184	50
-L335	335	319	
NT50-50-L200	200	194	
-L335	335	319	

1. Taper length is in accordance with JIS BT standard.

CLEANER





Blowing air cleans the BIG-PLUS machine spindle face.
Oil and dirt is removed from the spindle face.

Model	øD	L
SBT30-ASC-30T	46	30
SBT40-ASC-40T	63	40
SBT50-ASC-60T	100	60

1. When the cleaner is clamped into a BIG-PLUS machine spindle, faces have 1mm clearance.

BDV/DV SHANK

MEGA MICRO CHUCK®

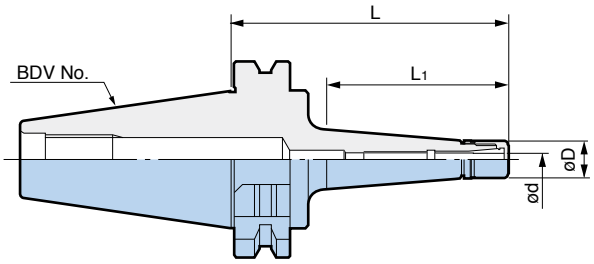
Coolant-through hole

Clamping Range : ø0.45 - ø8.05

Type T

Micro diameter design is ideal for high speed applications in tight areas with small diameter cutting tools.

MAX. 35,000 min-1



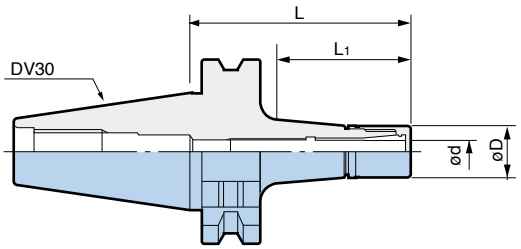
BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Clamping Range ød	øD	L	L1	MAX. min-1	Collet Model	Nut Model	Weight (kg)
BDV40-MEGA3S- 60T	0.45 – 3.25	10	60	30	35,000	NBC3S-□	MGN3S	0.95
- 90T			90	60	28,000			1.02
-120T			120	90	22,000			1.14
-MEGA4S- 60T	0.45 – 4.05	12	60	30	35,000	NBC4S-□	MGN4S	0.95
- 90T			90	60	28,000			1.03
-120T			120	90	22,000			1.17
-MEGA6S- 60T	0.45 – 6.05	14	60	30	35,000	NBC6S-□	MGN6S	0.96
- 90T			90	60	28,000			1.05
-120T			120	90	22,000			1.20

1. MEGA NUT is included.

	Spare Parts	Accessories			
	MEGA NUT 	MEGA WRENCH 	MICRO COLLET G 2 	MICRO COLLET PROTECTIVE CASE 	α TAPER CLEANER 
MEGA MICRO CHUCK	Model	Model	Model	Model	Model
MEGA3S	**MGN3S**	**MGR10**	**NBC3S-□**	**NBB3S**	**SC-NBC3S**
MEGA4S	**MGN4S**	**MGR12**	**NBC4S-□**	**NBB4S**	**SC-NBC4S**
MEGA6S	**MGN6S**	**MGR14**	**NBC6S-□**	**NBB6S**	**SC-NBC6S**
MEGA8S	**MGN8S**	**MGR18**	**NBC8S-□**	—	—

For MICRO SEAL NUT A 2



DV30 SHANK

Model	Clamping Range ød	øD	L	L1	MAX. min-1	Collet Model	Nut Model	Weight (kg)
DV30-MEGA6S- 60T	0.45 – 6.05	14	60	36	25,000	NBC6S-□	MGN6S	0.45
MEGA8S- 75T	2.95 – 8.05	18	75	51	25,000	NBC8S-□	MGN8S	0.55

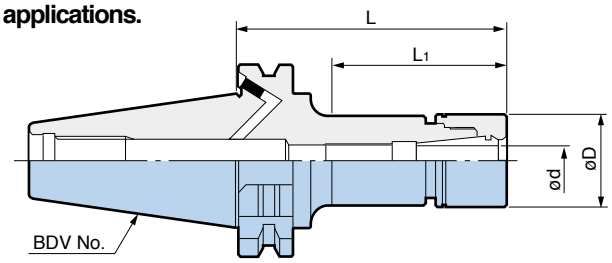
MEGA NEW BABY CHUCK®

Coolant-through hole

Clamping Range : ø0.25 - ø20

Ideal ultra precision holders for high speed machining with carbide drills, reamers and endmills. Wide range of lengths and a variety of collet series sizes covers all machining applications.

MAX. 35,000 min-1



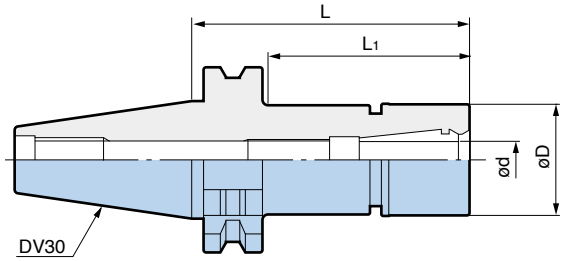
BIG-PLUS tools can be used in machining centers with conventional spindles.

For BDV50, refer to the following page.

Model	Clamping Range ød	øD	L	L1	MAX. min-1	Collet Model	Nut Model	Weight (kg)
BDV40-MEGA 6N- 60	0.25 – 6	20	60	29	35,000	NBC 6-□	MGN 6	1.0
- 90			90	55	35,000			1.1
-135			135	100	20,000			1.2
-165			165	130	14,000			1.2
-200			200	165	9,000			1.3
-MEGA 8N- 60	0.5 – 8	25	60	29	35,000	NBC 8-□	MGN 8	1.0
- 90			90	57	35,000			1.1
-135			135	102	20,000			1.3
-165			165	132	14,000			1.4
-200			200	167	9,000			1.5
-MEGA10N- 60	1.5 – 10	30	60	29	35,000	NBC10-□	MGN10	1.1
- 90			90	59	35,000			1.2
-135			135	104	20,000			1.4
-165			165	134	15,000			1.6
-200			200	169	10,000			1.7
-MEGA13N- 60	2.5 – 13	35	60	33	35,000	NBC13-□	MGN13	1.1
- 90			90	61	35,000			1.3
-135			135	106	20,000			1.6
-165			165	136	15,000			1.8
-200			200	171	10,000			2.0
-MEGA16N- 60	2.5 – 16	42	60	35	30,000	NBC16-□	MGN16	1.2
- 90			90	65	30,000			1.5
-135			135	110	20,000			1.9
-165			165	140	15,000			2.2
-200			200	175	10,000			2.5
-MEGA20N- 60	2.5 – 20	46	60	40	30,000	NBC20-□	MGN20	1.3
- 90			90	70	30,000			1.6
-135			135	115	20,000			2.0
-165			165	145	15,000			2.3
-200			200	180	10,000			2.6

1. MEGA NUT is included.

For NEW BABY COLLET G 3
For MEGA WRENCH B 3
For NEW BABY COLLET for ENDMILL G 7
For ADJUSTING SCREW B 3



DV30 SHANK

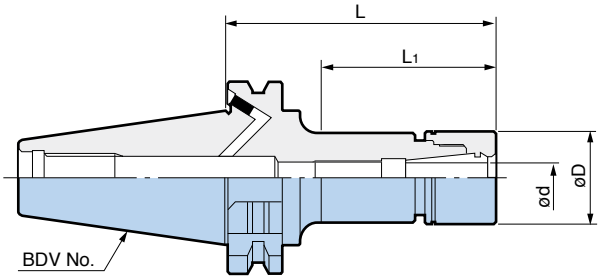
Model	Clamping Range ød	øD	L	L1	MAX. min-1	Collet Model	Nut Model	Weight (kg)
DV30-MEGA10N- 75	1.5 – 10	30	75	54	25,000	NBC10-□	MGN10	0.65

MEGA NEW BABY CHUCK®

Coolant-through hole

Clamping Range : ø0.25 - ø20

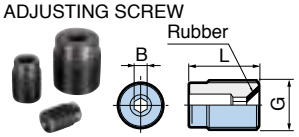
MAX. 20,000 min-1



BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Clamping Range ød	øD	L	L1	MAX. min-1	Collet Model	Nut Model	Weight (kg)
BDV50-MEGA 6N- 90	0.25– 6	20	90	50	20,000	NBC 6-□	MGN 6	3.0
-120			120	80	20,000			3.0
-165			165	125	14,000			3.1
-200			200	160	9,000			3.2
-MEGA 8N- 90	0.5 – 8	25	90	50	20,000	NBC 8-□	MGN 8	3.1
-120			120	80	20,000			3.2
-165			165	125	16,000			3.3
-200			200	160	11,000			3.4
-MEGA10N- 90	1.5 – 10	30	90	55	20,000	NBC10-□	MGN10	3.2
-120			120	80	20,000			3.3
-165			165	125	16,000			3.5
-200			200	160	12,000			3.7
-MEGA13N- 90	2.5 – 13	35	90	55	18,000	NBC13-□	MGN13	3.2
-120			120	80	18,000			3.4
-165			165	125	16,000			3.7
-200			200	160	12,000			3.9
-MEGA16N- 90	2.5 – 16	42	90	55	17,000	NBC16-□	MGN16	3.4
-120			120	85	17,000			3.7
-165			165	130	16,000			4.1
-200			200	165	13,000			4.4
-MEGA20N- 90	2.5 – 20	46	90	55	16,000	NBC20-□	MGN20	3.5
-120			120	85	16,000			3.8
-165			165	130	15,000			4.3
-200			200	165	13,000			4.6

1. MEGA NUT is included.

	Spare Parts	Accessories						
	MEGA NUT 	MEGA WRENCH 	NBC COLLET G 3 FOR ENDMILL COLLET G 7 	SEALING NUT MEGA PERFECT SEAL G 9 	ADJUSTING SCREW 			
MEGA NEW BABY CHUCK	Model	Model	Model	Model	Model	G	L	B
MEGA 6N	**MGN 6**	**MGR20**	**NBC 6-□**	**MPS 6-□**	**NBA 6B**	M 7	12	2
MEGA 8N	**MGN 8**	**MGR25**	**NBC 8-□**	**MPS 8-□**	**NBA 8B**	M 9	13	2.5
MEGA10N	**MGN10**	**MGR30**	**NBC10-□**	**MPS10-□**	**NBA10B**	M11	16	3
MEGA13N	**MGN13**	**MGR35**	**NBC13-□**	**MPS13-□**	**NBA13B**	M14	20	4
MEGA16N	**MGN16**	**MGR42**	**NBC16-□**	**MPS16-□**	**NBA16B**	M18	20	4
MEGA20N	**MGN20**	**MGR46**	**NBC20-□**	**MPS20-□**	**NBA20B**	M21	20	4

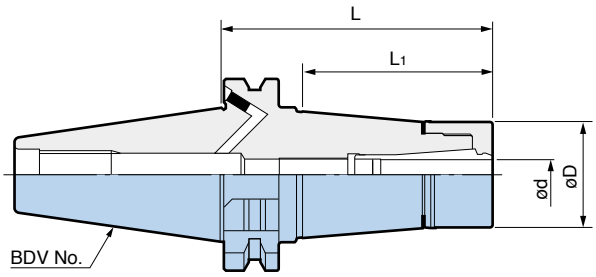
MEGA E CHUCK®

Coolant-through hole

Clamping Range : ø3 - ø12

Exclusively designed with the advanced technology for high speed endmilling. The long gripping length of the collet provides a powerful gripping force.

MAX. 30,000 min-1



BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	ød	øD	L	L1	MAX. min-1	Collet Model	Nut Model	Weight (kg)
BDV40-MEGA 6E- 60	3 – 6	25	60	30	30,000	MEC 6-□	MEN 6	1.1
- 90			90	60	30,000			1.2
-120			120	93	29,000			1.4
-MEGA 8E- 60	3 – 8	30	60	30	30,000	MEC 8-□	MEN 8	1.2
- 90			90	63	30,000			1.3
-120			120	94	29,000			1.5
-MEGA 10E- 60	3 – 10	35	60	33	30,000	MEC10-□	MEN10	1.3
- 90			90	64	30,000			1.4
-120			120	92	29,000			1.7
-MEGA 13E- 60	3 – 12	42	60	35	30,000	MEC13-□	MEN13	1.5
- 90			90	61	30,000			1.7
-120			120	95	29,000			1.9
BDV50-MEGA 6E-120	3 – 6	25	120	90	20,000	MEC 6-□	MEN 6	3.3
-165			165	135	14,000			3.8
-MEGA 8E-120	3 – 8	30	120	90	20,000	MEC 8-□	MEN 8	3.4
-165			165	135	16,000			3.9
-MEGA 10E- 90	3 – 10	35	90	60	20,000	MEC10-□	MEN10	3.3
-120			120	90	20,000			3.6
-165			165	135	16,000			4.1
-MEGA 13E- 90	3 – 12	42	90	60	18,000	MEC13-□	MEN13	3.6
-120			120	90	18,000			3.8
-165			165	137	16,000			4.4

1. MEGA E NUT is included.

Spare Parts

MEGA E NUT

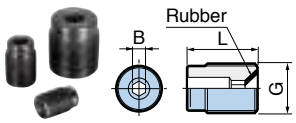
Accessories

MEGA WRENCH

MEGA E COLLET G 11

SEALING NUT
MEGA E PERFECT SEAL G 11

ADJUSTING SCREW



MEGA E CHUCK	Spare Parts: Model	Accessories: MEGA WRENCH Model	MEGA E COLLET Model	SEALING NUT MEGA E PERFECT SEAL Model	ADJUSTING SCREW Model	G	L	B
MEGA 6E	**MEN 6**	**MGR25**	**MEC 6-□**	**EPS 6-□**	**NBA 6B**	M 7	12	2
MEGA 8E	**MEN 8**	**MGR30**	**MEC 8-□**	**EPS 8-□**	**NBA 8B**	M 9	13	2.5
MEGA10E	**MEN10**	**MGR35**	**MEC10-□**	**EPS10-□**	**NBA10B**	M11	16	3
MEGA13E	**MEN13**	**MGR42**	**MEC13-□**	**EPS13-□**	**NBA13B**	M14	20	4

MEGA DOUBLE POWER CHUCK®

Coolant-through hole

Clamping Range : ø16 - ø42

Type DS For coolant to cutting tool periphery

Close to integral rigidity and precision of a solid toolholder. Flange contacting nut assures highest rigidity.

MAX. 25,000 min-1

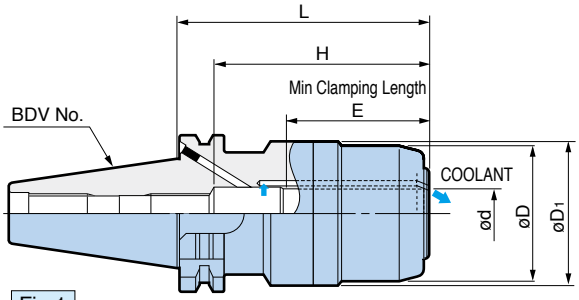


Fig.1

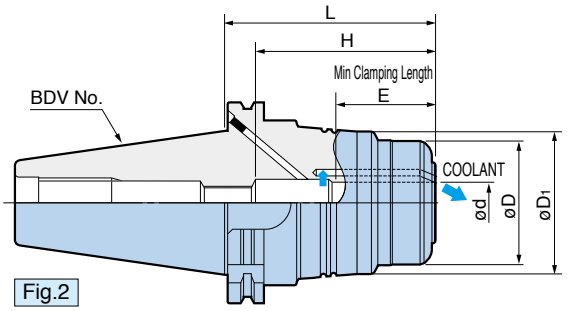


Fig.2

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Fig.	ød	øD	øD1	L	H	E	MAX. min-1	Weight (kg)
BDV40-MEGA16DS- 90A	1	16	42	52.6	92	73	57	25,000	1.8
-MEGA20DS-100		20	55	55.7	102.5	71 – 81	58	22,000	2.1
-MEGA25DS-100A		25	62	62.7	102	73 – 83	59	18,000	2.4
-MEGA32DS-100		32	70	70.7	102.5	78 – 88	67	12,000	2.5
BDV50-MEGA16DS- 70	2	16	46	55	72.5	73	52	20,000	3.5
-MEGA20DS-100		20	60	69	102.5	71 – 81	58	20,000	4.9
-MEGA25DS-105		25	70	77	107.5	78 – 88	67	18,000	5.4
-MEGA32DS-105		32	80	86	107.5	80 – 97	73	15,000	5.7
-MEGA42DS-105	1	42	99	99.7	107.5	90 –107		12,000	6.6

1. Wrench is ordered separately.
2. "H" indicates the adjustment length with an Adjusting Screw.

For STRAIGHT COLLET G 15

Accessories

MEGA DOUBLE POWER CHUCK	MEGA WRENCH Model	ADJUSTING SCREW Model	øD	L	L1	G	W
BDV40-MEGA16DS	**MGR42L**	—	—	—	—	—	—
-MEGA20DS	**MGR55L**	**HMA-M16**	19	27	6	M16P1.5	8
-MEGA25DS	**MGR62L**	**HMA-M16**					
-MEGA32DS	**MGR70L**	**HMA-M16S**					10
BDV50-MEGA16DS	**MGR46L**	—	—	—	—	—	—
-MEGA20DS	**MGR60L**	**HMA-M16**	19	27	6	M16P1.5	8
-MEGA25DS	**MGR70L**	**HMA-M16**					
-MEGA32DS	**MGR80L**	**HMA-M24**	30	36	9.5	M24P1.5	10
-MEGA42DS	**MGR99L**	**HMA-M24**					

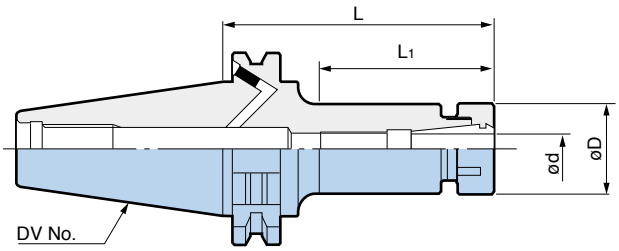
NEW BABY CHUCK

Coolant-through hole

Clamping Range : ø0.25 - ø20

Great variety in length in order to support high precision machining.

※MAX. 20,000 min-1



For DV50, refer to the following page.

Model	Clamping Range ød	øD	L	L1	Collet Model	Nut Model	Weight (kg)
DV40-NBS 6- 60	0.25 – 6	20	60	29	NBC 6-□	NBN 6	1.0
- 90			90	55			1.1
-135			135	100			1.2
-165			165	130			1.2
-200			200	165			1.3
-NBS 8- 60	0.5 – 8	25	60	29	NBC 8-□	NBN 8	1.0
- 90			90	57			1.1
-135			135	102			1.3
-165			165	132			1.4
-200			200	167			1.5
-NBS10- 60	1.5 – 10	30	60	29	NBC10-□	NBN10	1.1
- 90			90	59			1.2
-135			135	104			1.4
-165			165	134			1.6
-200			200	169			1.8
-NBS13- 60	2.5 – 13	35	60	32	NBC13-□	NBN13	1.1
- 90			90	61			1.3
-135			135	106			1.6
-165			165	136			1.8
-200			200	171			2.0
-NBS16- 60	2.5 – 16	42	60	34	NBC16-□	NBN16	1.2
- 90			90	64			1.5
-135			135	109			1.9
-165			165	139			2.2
-200			200	174			2.5
-NBS20- 60	2.5 – 20	46	60	40	NBC20-□	NBN20	1.3
- 90			90	70			1.6
-135			135	115			2.0
-165			165	145			2.3
-200			200	180			2.6

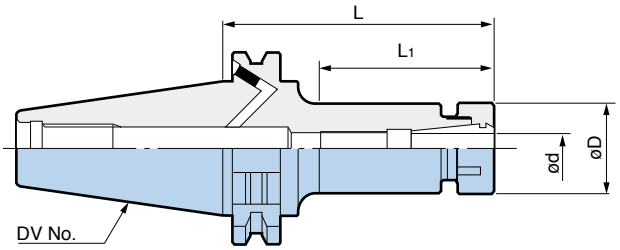
1. NEW BABY NUT is included.
2. ※Max. 20,000 min-1 is valid for DV40 with L = 60 or 90mm.

For NEW BABY COLLET G 3
For NEW BABY COLLET for ENDMILL G 7
For WRENCH B 7
For ADJUSTING SCREW B 7
For TAP DRIVING BACK STOP G 8

NEW BABY CHUCK

Coolant-through hole

Clamping Range : ø0.25 - ø20



Model	Clamping Range ød	øD	L	L1	Collet Model	Nut Model	Weight (kg)
DV50-NBS 6- 90	0.25 – 6	20	90	50	NBC 6-□	NBN 6	3.0
-120			120	80			3.0
-165			165	125			3.1
-200			200	160			3.2
-NBS 8- 90	0.5 – 8	25	90	50	NBC 8-□	NBN 8	3.1
-120			120	80			3.2
-165			165	125			3.3
-200			200	160			3.4
-NBS10- 90	1.5 – 10	30	90	50	NBC10-□	NBN10	3.2
-120			120	80			3.3
-165			165	125			3.5
-200			200	160			3.7
-NBS13- 90	2.5 – 13	35	90	55	NBC13-□	NBN13	3.3
-120			120	80			3.4
-165			165	125			3.7
-200			200	160			3.9
-NBS16- 75	2.5 – 16	42	75	40	NBC16-□	NBN16	3.5
- 90			90	55			3.6
-120			120	85			3.9
-165			165	130			4.3
-200			200	165			4.6
-NBS20- 75	2.5 – 20	46	75	40	NBC20-□	NBN20	3.5
- 90			90	55			3.7
-120			120	85			4.0
-165			165	130			4.5
-200			200	165			4.8

1. NEW BABY NUT is included.

Spare Parts

NEW BABY NUT

Accessories

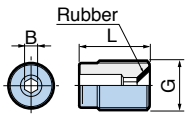
WRENCH

NBC COLLET G 3

FOR ENDMILL COLLET G 7

BABY PERFECT SEAL G 10

ADJUSTING SCREW



NEW BABY CHUCK	Spare Parts Model	Accessories Model	Model	Model	Model	G	L	B
NBS 6	**NBN 6**	**NBK 6**	**NBC 6-□**	**BPS 6-□**	**NBA 6B**	M 7	12	2
NBS 8	**NBN 8**	**NBK 8**	**NBC 8-□**	**BPS 8-□**	**NBA 8B**	M 9	13	2.5
NBS10	**NBN10**	**NBK10**	**NBC10-□**	**BPS10-□**	**NBA10B**	M11	16	3
NBS13	**NBN13**	**NBK13**	**NBC13-□**	**BPS13-□**	**NBA13B**	M14	20	4
NBS16	**NBN16**	**NBK16**	**NBC16-□**	**BPS16-□**	**NBA16B**	M18	20	4
NBS20	**NBN20**	**NBK20**	**NBC20-□**	**BPS20-□**	**NBA20B**	M21	20	4

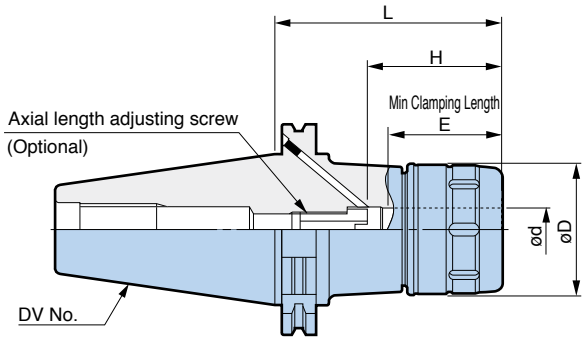
For TAP DRIVING BACK STOP G 8

NEW Hi-POWER MILLING CHUCK

Coolant-through hole

Clamping Range : ø20 - ø42

BIG's original design of slit structure supports heavy and finish end milling with high power and precision.



Model	ød	øD	L	H	Min. Clamping Length E	C-Spanner Model	Weight (kg)
DV40-HMC20S- 85	20	50	85	69 – 79	56	FK45- 50L	1.6
-105			105				1.8
-120			120				2.0
-HMC25S- 95	25	59	95	71 – 81	57	FK58- 62L	1.9
-105			105				2.1
-HMC32S- 95	32	68	95		64	FK68- 75L	2.0
-105			105	79 – 89			2.2
-135			135				2.7
DV50-HMC20-105	20	60	105	69 – 79	56	FK58- 62	4.6
-135			135				5.2
-HMC25-105	25	62	105	74 – 84	65	FK58- 62	4.6
-135			135				5.3
-HMC32-105	32	80	105	78 – 95	71	FK80- 90	5.2
-135			135				6.3
-165			165				7.4
-HMC42-105	42	99	105	93 –105	73	FK92-100	6.0
-135			135				7.4
-165			165				9.1

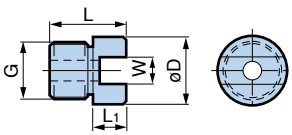
1. Wrench and Axial Adjusting Screw are ordered separately.
2. "H" indicates the adjustment length with an Adjusting Screw.

For STRAIGHT COLLET G 15

Accessories

C-SPANNER

ADJUSTING SCREW



NEW Hi-POWER MILLING CHUCK	Model	Model	øD	L	L1	G	W
DV40-HMC20S	**FK45- 50L**	**HMA-M16**	19	27	6	M16P1.5	8
-HMC25S	**FK58- 62L**	**HMA-M16**	19	27	6	M16P1.5	8
-HMC32S	**FK68- 75L**	**HMA-M16S**	19	27	6	M16P1.5	10
DV50-HMC20	**FK58- 62**	**HMA-M16**	19	27	6	M16P1.5	8
-HMC25	**FK58- 62**	**HMA-M16**	19	27	6	M16P1.5	8
-HMC32	**FK80- 90**	**HMA-M24**	30	36	9.5	M24P1.5	10
-HMC42	**FK92-100**	**HMA-M24**	30	36	9.5	M24P1.5	10

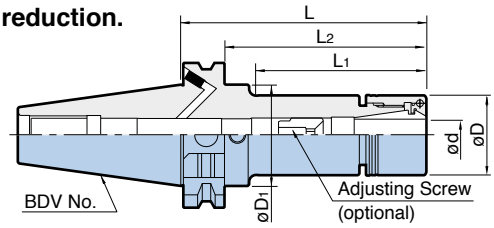
MEGA ER® GRIP

Coolant-through hole

Clamping Range : ø1.9 - ø20

High precision collet, nut and body that outperforms standard ER systems. Reliable and stable runout accuracy will also tremendously contribute to improving machining capability and cost reduction.

MAX. 35,000 min-1



BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	ød	øD	øD1	L	L1	L2	H	Nut Model	MAX. min-1	Weight (kg)
BDV40-MEGAER16- 60	1.9 – 10.0	30	44.7	60	29	41	35 – 45	MERN16	35,000	1.3
- 90				90	57	71	35 – 47		35,000	1.5
-105				105	72	86			20,000	1.5
-135				135	102	116			20,000	1.7
-165				165	132	146			15,000	1.8
-MEGAER20- 60	2.75 – 13.0	35	44.7	60	30	41	42 – 57	MERN20	35,000	1.3
- 90				90	58	71	42 – 62		35,000	1.5
-105				105	73	86			20,000	1.6
-135				135	103	116			20,000	1.8
-165				165	133	146			15,000	2.0
-MEGAER25- 65	2.75 – 16.0	42	44.7	65	35	46	44 – 60	MERN25	30,000	1.4
- 90				90	60	71	44 – 67		30,000	1.6
-105				105	75	86			20,000	1.8
-135				135	105	116			20,000	2.0
-165				165	135	146			15,000	2.3
-MEGAER32- 70	2.75 – 20.0	50	–	70	–	51	50 – 64	MERN32	30,000	1.6
- 90				90		71	50 – 68		30,000	1.8
-105				105		86			20,000	2.0
-135				135		116			20,000	2.3
-165				165		146			15,000	2.7
BDV50-MEGAER16- 75	1.9 – 10.0	30	70.1	75	39	56	35 – 47	MERN16	20,000	3.8
-105				105	69	86			20,000	3.9
-135				135	99	116			20,000	4.0
-165				165	129	146			16,000	4.2
-MEGAER20- 75	2.75 – 13.0	35	70.1	75	39	56	42 – 62	MERN20	18,000	3.8
-105				105	69	86			18,000	4.0
-135				135	99	116			18,000	4.2
-165				165	129	146			16,000	4.4
-MEGAER25- 75	2.75 – 16.0	42	70.1	75	39	56	44 – 66	MERN25	17,000	3.9
-105				105	69	86	44 – 67		17,000	4.1
-135				135	99	116			17,000	4.4
-165				165	129	146			16,000	4.6
-MEGAER32- 75	2.75 – 20.0	50	70.1	75	39	56	50 – 66	MERN32	16,000	4.0
-105				105	69	86	50 – 68		16,000	4.3
-135				135	99	116			16,000	4.6
-165				165	129	146			15,000	5.0

1. Mega ER Nut is included. Adjusting screw, collet and wrench must be ordered separately.
2. "H" indicates the adjustment length with an adjusting screw.
3. Balance screws are not included.
4. Mega ER Grip is not able to use DIN6499 Form-A collets and ESX collets.

Caution To maintain the accuracy of the tool assembly, do not use collets and nuts manufactured by another company with the chuck body of BIG's Mega ER Grip. Also, we cannot guarantee the accuracy statement for our collets if they are assembled on the chuck body of another manufacturer.

Spare Parts

MEGA ER NUT

MEGA ER GRIP	Model
MEGA ER16	**MERN16**
MEGA ER20	**MERN20**
MEGA ER25	**MERN25**
MEGA ER32	**MERN32**

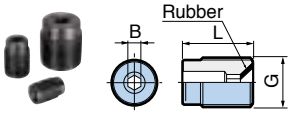
Accessories

MEGA WRENCH

ER COLLET G 13

SEALING NUT
MEGA ER PERFECT SEAL G 14

ADJUSTING SCREW

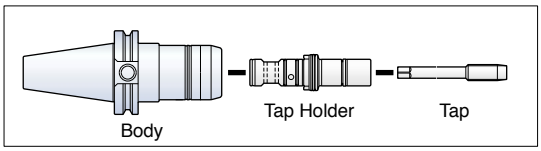


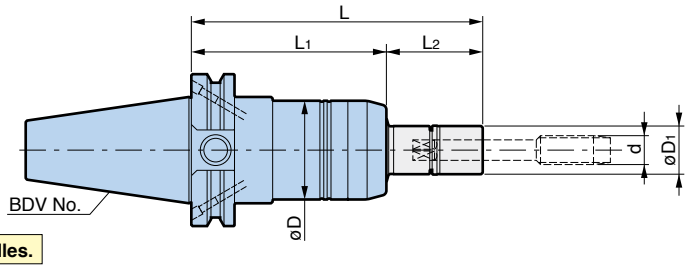
Model	Model	Model	Model	G	L	B
MGR30L	**ERC16-□**	**MERPS16-□**	**NBA10B**	M11	16	3
MGR35L	**ERC20-□**	**MERPS20-□**	**NBA13B**	M14	20	4
MGR42L	**ERC25-□**	**MERPS25-□**	**NBA16B**	M18	20	4
MGR50L	**ERC32-□**	**MERPS32-□**	**NBA20B**	M21	20	4

MEGA SYNCHRO® Tapping Holder

Coolant-through hole

Tapping Range : M2 - M20





BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Tap Holder Model	Tapping Range d	øD	øD1	L	L1	L2	Weight (kg)
BDV40-MGT 6- 80	MGT 6-d- 30	M2 – M6 No.3 – U1/4	36	16	110	80	30	1.4
	- 70				150		70	
	-100				180		100	
-MGT12- 80	MGT12-d- 30	M6 – M12 U1/4 – U7/16 P1/8	41	20	110	80	30	1.5
	- 70				150		70	
	-100				180		100	
-MGT20-105	MGT20-d- 35	M12 – M20 U1/2 – U3/4 P1/4 – P3/8	54	30	140	105	35	1.9
	- 85				190		85	
	-115				220		115	
BDV50-MGT 6- 85	MGT 6-d- 30	M2 – M6 No.3 – U1/4	36	16	115	85	30	3.6
	- 70				155		70	
	-100				185		100	
-MGT12- 85	MGT12-d- 30	M6 – M12 U1/4 – U7/16 P1/8	41	20	115	85	30	3.7
	- 70				155		70	
	-100				185		100	
-MGT20-105	MGT20-d- 35	M12 – M20 U1/2 – U3/4 P1/4 – P3/8	54	30	140	105	35	4.2
	- 85				190		85	
	-115				220		115	

1. Tap Holder and wrench are ordered separately.
2. Coolant through flange is standard on all BDV40 & 50 Bodies.
Rigid tapping function is required on the machine tool.

For TAP HOLDER A 33–A 36
For MEGA WRENCH A 32

●Tapping Range for DIN & ISO Standard

MGT Size	DIN Standard			ISO Standard	
	DIN371	DIN376	DIN353	ISO529	ISO2284
MGT 6	M3-M6	M5-M8		M3-M5	
MGT12	M5-M8	M8-M12	1/8	M6,M8,M12	1/8
MGT20	M10	M12-M20	1/4-1/2	M10-M20	1/4-3/8

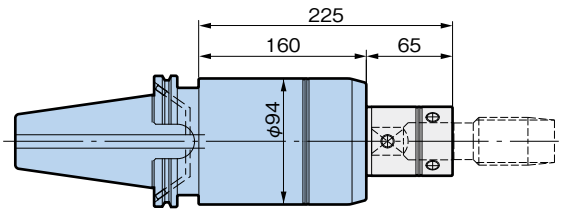
For detail of TAP HOLDER A 35–A 36

For Large Tap MGT36

Coolant-through hole

Tapping Range : M22 - M36

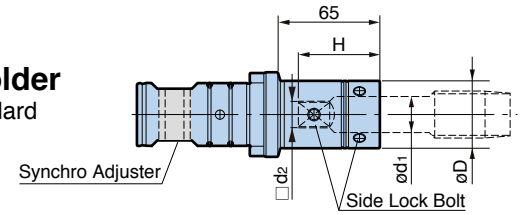
BIG-PLUS tools can be used in machining centers with conventional spindles.



Model	BDV50-MGT36-160

■Tap Holder

DIN standard



Tap Holder Model	Tap size		ød1	□d2	H	øD	Weight (kg)
	DIN376	DIN353					
MGT36-180145-65	M22,24	P5/8	18	14.5	45	38	1.4
-200160-65	M27	P3/4	20	16	51	40	1.4
-220180-65	M30	P7/8	22	18	53	42	1.5
-250200-65	M33	P1	25	20	58	49	1.6
-280220-65	M36		28	22	62	52	1.6

For JIS TAP HOLDER A 37

FACE MILL ARBOR Type FMC

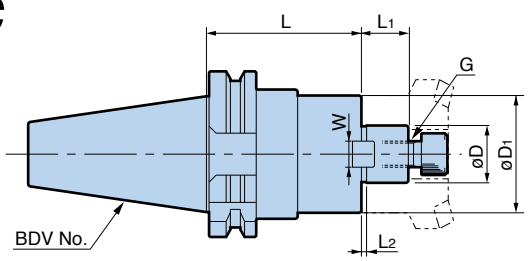


Fig. 1

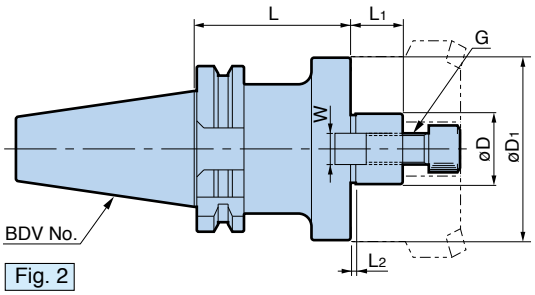


Fig. 2

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Fig.	Cutter Dia.	øD	øD1	L	L1	L2	W	G	Weight (kg)
BDV40-FMC16- 60	1	40	16	32	60	16	5	8	M 8	1.2
- 90					90					1.6
-FMC22- 60		50, 63	22	45	60	18	5	10	M10	1.4
- 90					90					1.7
-FMC27- 60	2	80	27	70	60	20	6	12	M12	2.0
- 90					90					2.6
-FMC32- 60		100	32	85	60	22	7	14	M16	2.1
- 90					90					2.5
BDV50-FMC22- 60	1	50, 63	22	45	60	18	5	10	M10	4.0
- 90					90					4.4
-150					150					4.8
-FMC27- 60		80	27	70	60	20	6	12	M12	4.3
- 90					90					5.1
-150					150					6.9
-FMC32- 60	2	100	32	85	60	22	7	14	M16	4.7
- 90					90					6.0
-150					150					8.0

1. Clamp Bolt (Cap Screw) is included.
2. By utilizing a clamping bolt with a hole through, coolant is supplied through the bolt.

ANGLE HEAD

AG90 NBS type SPINDLE ANGLE : 90˚

It is the outstanding rigidity and accuracy of the NEW BABY CHUCK, used for holding the cutting tool, that produces high precision with less runout. Available in various sizes to meet specific production requirements.

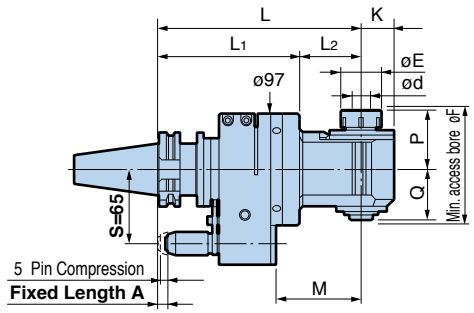


Fig. 1

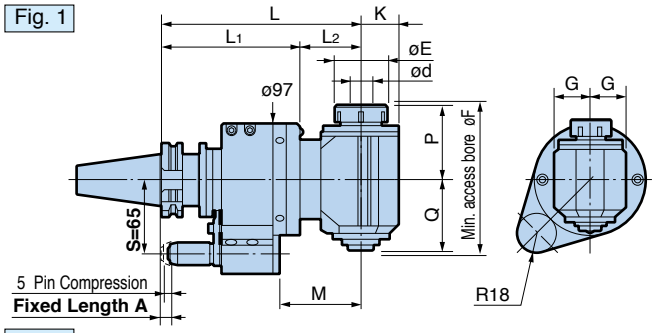


Fig. 2

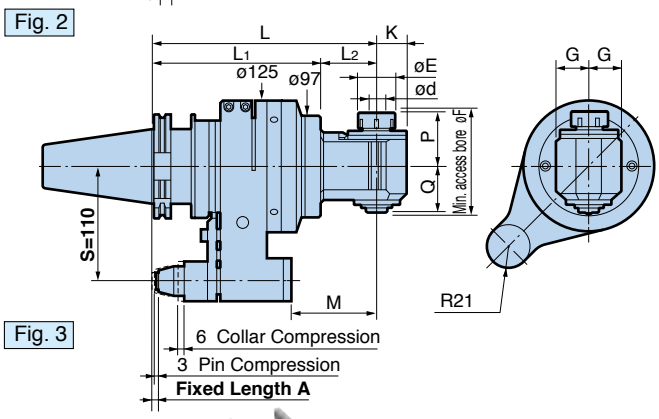
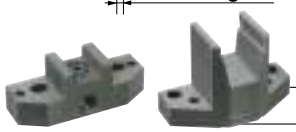


Fig. 3



Exclusive STOP BLOCK is required.

BIG-PLUS tools can be used in machining centers with conventional spindles.

● The rotation of the cutting tool is in reverse direction of the machine spindle.(Speed Ratio 1:1)

Model	Fig.	ød	øE	G	K	L	L1	L2	M	P	Q	øF	Collet	Max. min-1	Weight (kg)
BDV40-AG90/NBS 6 -180	1	0.25 – 6	20	21	17	180	125	55	77	33	29	67	NBC 6	6,000	5.1
-210						210		85	107						5.3
-240						240		115	137						5.5
-270						270		145	167						5.7
-AG90/NBS10 -180	1	1.5 – 10	30	30	25	180	125	55	77	45	43	91	NBC10	6,000	5.5
-210						210		85	107						5.9
-240						240		115	137						6.2
-AG90/NBS13 -180	1	2.5 – 13	35	31	28	180	125	55	77	52	45	101	NBC13	6,000	5.6
-210						210		85	107						6.0
-240						240		115	137						6.3
-AG90/NBS20S-175S	2	2.5 – 20	46	35	33	175	122	53	72	65	62	132	NBC20	3,000	8.0
BDV50-AG90/NBS 6 -215	3	0.25 – 6	20	21	17	215	160	55	82	33	29	67	NBC 6	6,000	12.6
-245						245		85	112						12.8
-275						275		115	142						13.0
-305						305		145	172						13.2
-AG90/NBS10 -215	3	1.5 – 10	30	30	25	215	160	55	82	45	43	91	NBC10	6,000	13.0
-245						245		85	112						13.4
-275						275		115	142						13.7
-AG90/NBS13 -215	3	2.5 – 13	35	31	28	215	160	55	82	52	45	101	NBC13	6,000	13.1
-245						245		85	112						13.5
-275						275		115	142						13.8
-AG90/NBS20 -230	3	2.5 – 20	46	35	35	230	160	70	97	65	62	132	NBC20	3,000	14.2

1. **The shortest Fixed Length A: 40 taper = 8mm, 50 taper = 6mm** Other lengths are available upon request.
2. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.
3. Clamping nut and wrench are included. Collet must be ordered separately.
4. New Baby Collet for endmill model NBC□-□EAA cannot be used.

For NEW BABY COLLET G 3
For STOP BLOCK G 25

ANGLE HEAD

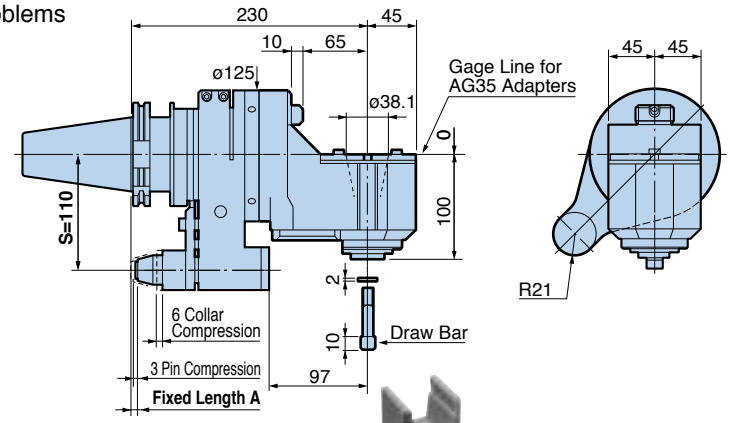
Spindle head is equipped with a short taper for quick changing of various adapters.

AG90 BUILD-UP type

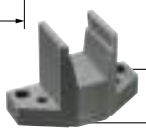
SPINDLE ANGLE : 90˚

[STANDARD TYPE]

Designed for greater rigidity by having the face of the spindle bore in line with the center of the machine spindle. Also helps to minimize interference problems with ATC and storage problems within the magazine.



MAX.3,000 min^{-1}



Exclusive STOP BLOCK for ANGLE HEAD is required.

BIG-PLUS tools can be used in machining centers with conventional spindles.

● The cutter rotates in the same direction of the machine spindle.

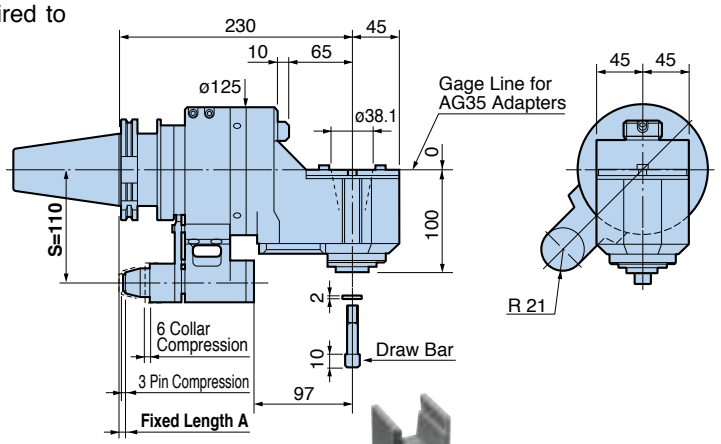
Model	Weight (kg)
BDV50-AG90/AGH35-230	15.0

1. **The standard Fixed Length A is 6mm.** Other lengths are available upon request.
2. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.

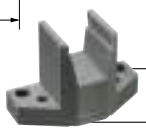
For STOP BLOCK G 25

[HIGH RIGIDITY TYPE]

Provided with a steel housing and reinforced locating pin assembly for applications where increased rigidity is required to perform various types of heavier machining.



MAX.3,000 min^{-1}



Exclusive STOP BLOCK for ANGLE HEAD is required.

BIG-PLUS tools can be used in machining centers with conventional spindles.

● The cutter rotates in the same direction of the machine spindle.

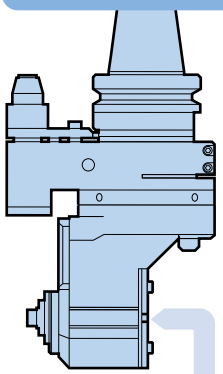
Model	Weight (kg)
BDV50-AG90/AGH35-230S	16.3

1. **The standard Fixed Length A is 6mm.** Other lengths are available upon request.
2. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.

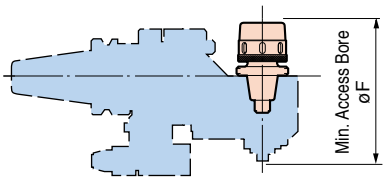
S=80 type is available upon request.

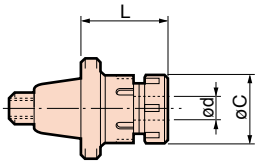
For STOP BLOCK G 25

BUILD-UP TYPE **AG35 ADAPTER SERIES**



øF= Minimum bore size that an AG35 adapter can fit into, excluding the cutting tool.



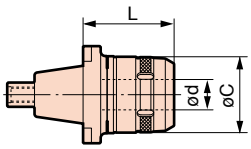


NEW BABY CHUCK

Model	ød	L	øC	øF	Weight (kg)
AG35-NBS10	1.5 - 10	47	30	162	0.6
-NBS13	2.5 - 13	54	35	168	0.7
-NBS16	2.5 - 16		42	170	0.8
-NBS20	2.5 - 20		46		0.9

Collet and wrench must be ordered separately.

For NEW BABY COLLET G 3
For WRENCH A 15

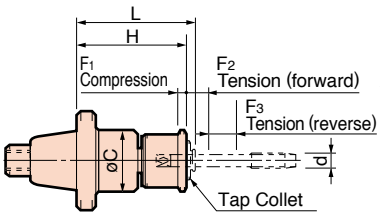


NEW HI-POWER MILLING CHUCK

Model	ød	L	øC	øF	Weight (kg)
AG35-HMC20S	20	60	50	178	1.5

Wrench(FK45-50L) is included.

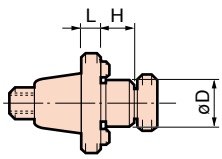
For STRAIGHT COLLET G 15



AUTO TAPPER TYPE B (Automatic depth control)

Model	d	L	øC	H	F_1	F_2	F_3	Weight (kg)
AG35-ATB12E	M4 - M12	80	40.5	72	0.5	5	4	1.0
-ATB20E	M8 - M20	115	57.5	102.5		6.5	5	1.7

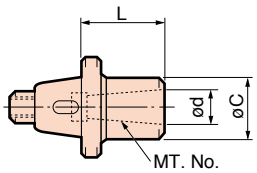
For Tap Collets, please contact BIG agent.



FACE MILL ARBOR

Model	øD	L	H	Weight (kg)
AG35-FMA25.4-20	25.4	20	22	1.0
AG35-FMH22 -30	22	30	18	1.0
-FMH27 -20	27	20	20	1.0

Cutter face protrudes by 7.5mm from the 125mm diameter housing with the following combinations;
AG35-FMA25.4-20 + 50mm thick cutter, AG35-FMH22-30 + 40mm thick cutter
AG35-FMH27-20 + 50mm thick cutter



MORSE TAPER ADAPTER

Model	ød	MT.No.	L	øC	øF	Weight (kg)
AG35-MT1	12.065	1	50	24	164	0.6
-MT2	17.78	2	60	32	180	0.7

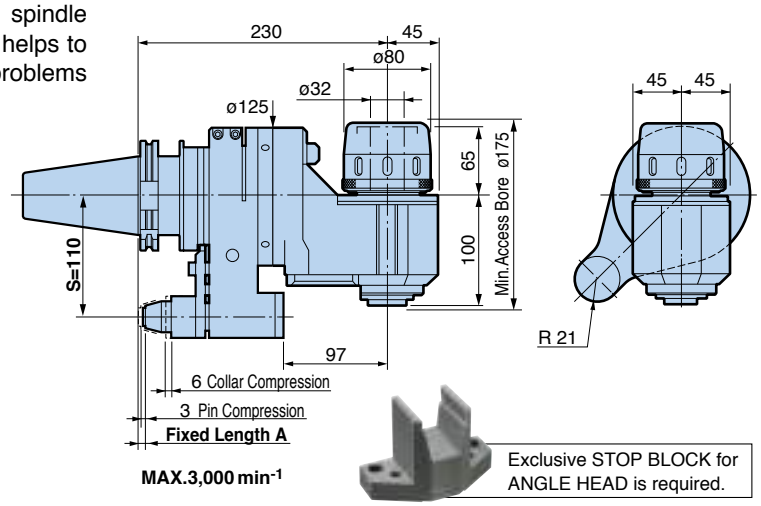
ANGLE HEAD

Improved versatility is achieved from the 32mm capacity Milling Chuck by using parallel reduction collets and other accessories.

AG90 HMC type SPINDLE ANGLE : 90˚

[STANDARD TYPE]

Designed for greater rigidity by having the face of the spindle bore in line with the center of the machine spindle. Also helps to minimize interference problems with ATC and storage problems within magazine.



BIG-PLUS tools can be used in machining centers with conventional spindles.

● The cutter rotates in the same direction of the machine spindle.

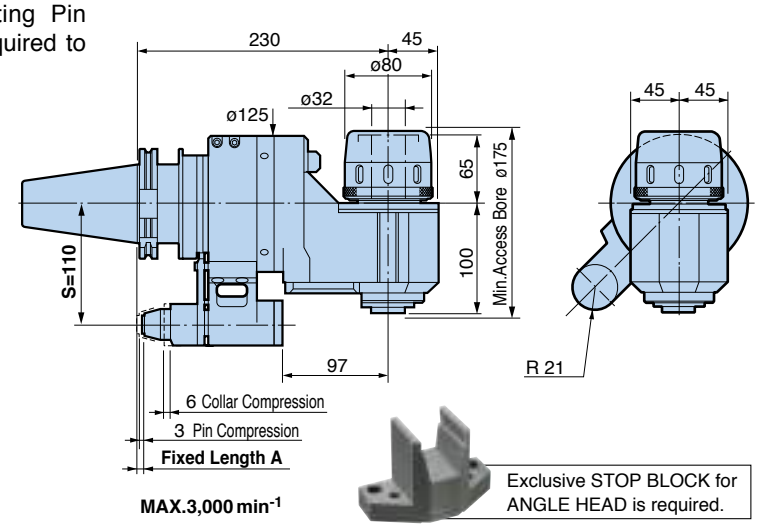
Model	Weight (kg)
BDV50-AG90/HMC32-230	16.8

1. **The standard Fixed Length A is 6mm.** Other lengths are available upon request.
2. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.
3. Wrench (FK80-90) is included.

For STOP BLOCK G 25
For STRAIGHT COLLET G 15

[HIGH RIGIDITY TYPE]

Provided with a steel housing and reinforced Locating Pin assembly for applications where increased rigidity is required to perform various types of heavier machining.



BIG-PLUS tools can be used in machining centers with conventional spindles.

● The cutter rotates in the same direction of the machine spindle.

Model	Weight (kg)
BDV50-AG90/HMC32-230S	18.1

1. **The standard Fixed Length A is 6mm.** Other lengths are available upon request.
2. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.
3. Wrench (FK80-90) is included.

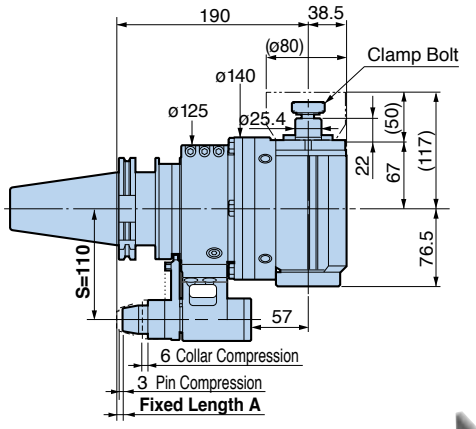
S=80 type is available upon request.

For STRAIGHT COLLET G 15
For STOP BLOCK G 25

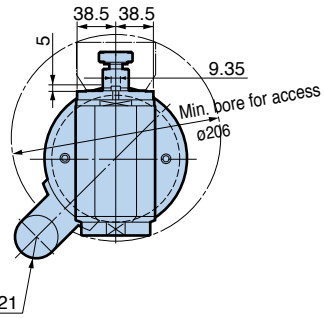
High rigidity bearings and substantial spindle design.
Max. power transmission 20Kw. (at 1,500min^{-1})

AG90 FACE MILL type

SPINDLE ANGLE : 90˚



MAX.1,500 min^{-1}



Exclusive STOP BLOCK for ANGLE HEAD is required.

Simple 90˚ indexing of the cutter direction.
(Accuracy ±5')

BIG-PLUS tools can be used in machining centers with conventional spindles.

● The rotation of the cutting tool is in reverse direction of the machine spindle.

Model	Weight (kg)
BDV50-AG90-FMA25.4S-190S	19.2

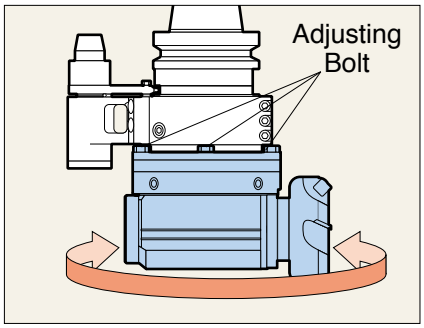
Figures in ( ) indicate dimensions when 80mm diameter and 50mm high face mill cutter is mounted.

1. **The standard Fixed Length A is 6mm.** Other lengths are available upon request.
2. Coolant cannot be supplied through the Locating Pin.
3. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.

For STOP BLOCK G 25

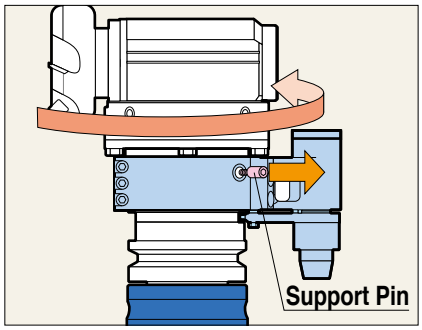
■ Cutter head adjustable through 360˚ to any angle

Following the release of the Adjusting Bolts (8 positions), the cutter direction can be easily adjusted.



■ Indexing through 90˚

Cutter head is quickly indexable to 90˚ increments. (The Support Pin should be removed.)



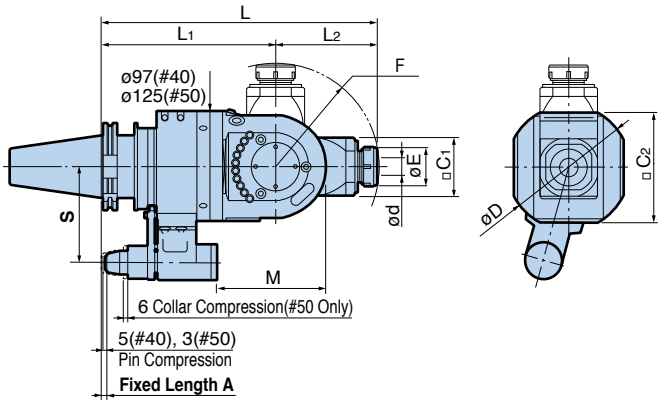
⚠CAUTION : Indexing should not take place within the machine.

ANGLE HEAD

Suitable for all cutting angles. In addition to the cutter head being adjustable a full 360˚, the spindle also becomes easily and precisely adjustable from 0˚ to 90˚ by 1˚ increments.

AGU UNIVERSAL type

SPINDLE ANGLE : 0˚ to 90˚



BIG-PLUS tools can be used in machining centers with conventional spindles.

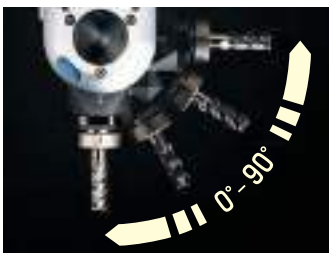
● The rotation of the cutting tool is in reverse direction of the machine spindle.

Exclusive STOP BLOCK is required.

Model	ød	øE	øD	□C1	□C2	L	L1	L2	M	F	S	Collet	Max. min-1	Weight (kg)
BDV40-AGU/NBS13-280	2.5 – 13	35	115	51	97	280	180	100	124	102	65	NBC13	6,000	9.7
BDV50-AGU/NBS20-315	2.5 – 20	46	140	65	125	315	200	115	125	118	110	NBC20	4,000	20.8

1. **The standard fixed length A: 40 taper=8mm , 50 taper=6mm.** Other lengths are available upon request.
2. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.
3. Clamping nut and wrench are included. Collet must be ordered separately.

For NEW BABY COLLET G 3
For STOP BLOCK G 25



EASILY ADJUSTABLE SPINDLE ANGLE FROM 0˚ to 90˚.

PRECISE ANGLE ADJUSTMENT

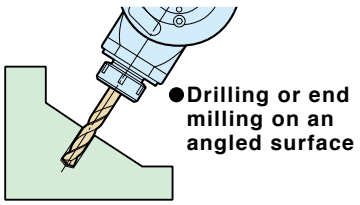
Unique setting mechanism enables the spindle angle to be precisely set at 1˚ increments.

EXCLUSIVE CLAMPING BOLTS AND NUTS

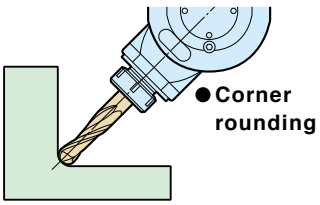
Specially selected materials and special design for clamping the head guarantee rigidity for even end milling applications.

Application example

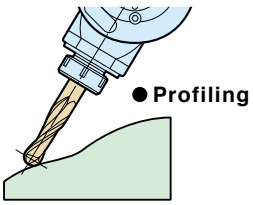
Adjustable AGU Universal Series expands Angle Head capabilities to accomplish various angular machining applications.



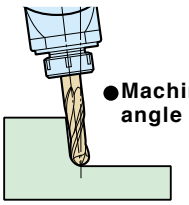
●Drilling or end milling on an angled surface



●Corner rounding



●Profiling



●Machining draft angle of a mold

AIR TURBINE SPINDLE

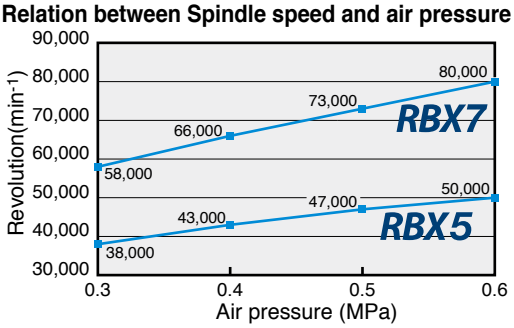
High-speed Micro-Machining can be done on a normal machining center, eliminating the need of an expensive high-speed machine.

Machine Spindle Rotation = 0

MAX. 80,000 min-1

	RBX7	RBX5
Practical spindle speed (min-1)	60,000 - 80,000	40,000 - 50,000
Clamping Range	ø0.45 - ø4.05mm (MEGA4S)	
T.I.R at nose	Less than 1μm	
Air pressure	Less than 0.6MPa	
Air flow	300L/min [ANR](0.6MPa)	

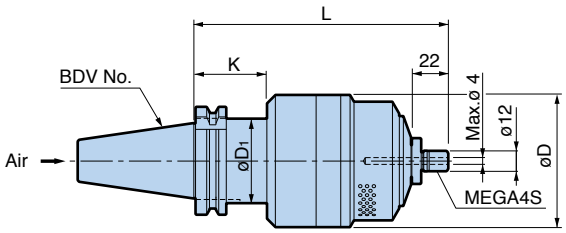
Relation between Spindle speed and air pressure (Reference)



CENTER THROUGH Type

For compressed air through the machine spindle.

For automatic tool change



BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Operating spindle speed(min-1)	Tool diameter	L	øD	øD1	K	Weight (kg)
BDV40-RBX7C-4S-150	60,000 – 80,000	ø1.0 or smaller	150	78	49.6	43	3.1
-RBX5C-4S-150	40,000 – 50,000	ø1.5 or smaller		96			4.1
BDV50-RBX7C-4S-145	60,000 – 80,000	ø1.0 or smaller	145	78	68	38	5.8
-RBX5C-4S-145	40,000 – 50,000	ø1.5 or smaller		96			6.8

1. Nut and wrenches are included. Collet must be ordered separately.
2. XF1(Air Unit) must be ordered separately. A 65

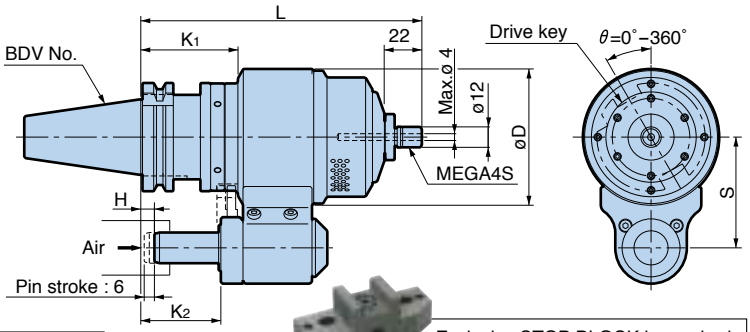
For MICRO COLLET G 2

CAUTION

Compressed air to drive the AIR TURBINE SPINDLE must be clean. Therefore, coolant should not be supplied through the spindle on the machine that the AIR TURBINE SPINDLE is used.

SIDE THROUGH Type

For automatic tool change



Exclusive STOP BLOCK is required.

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Operating spindle speed(min-1)	Tool diameter	L	øD	K1	K2	S	H	Weight (kg)
BDV40-RBX7-4S-165-65	60,000 – 80,000	ø1.0 or smaller	165	80	57	47	65	-10 – 35	4.0
-RBX5-4S-165-65	40,000 – 50,000	ø1.5 or smaller		96					5.0
BDV50-RBX7-4S-170-80	60,000 – 80,000	ø1.0 or smaller	170	100	62	52	80	-5 – 40	8.7
-RBX5-4S-170-80	40,000 – 50,000	ø1.5 or smaller							9.7

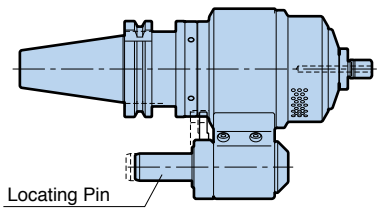
1. Nut and wrenches are included. Collet must be ordered separately.
2. XF1(Air Unit) must be ordered separately. A 65

For MICRO COLLET G 2

SET UP INFORMATION for AIR TURBINE SPINDLE

● Preparing the Stop Block

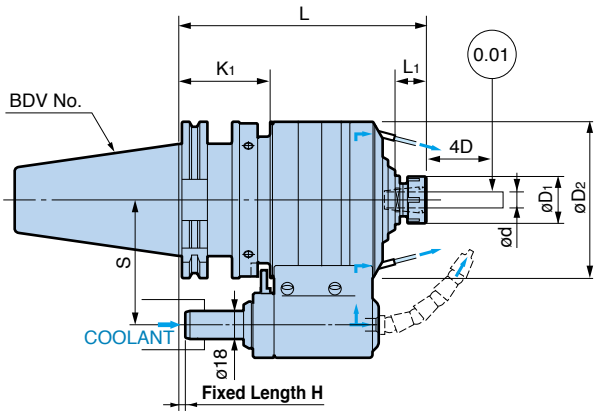
The BIG AIR TURBINE SPINDLE utilizing a Locating Pin requires the Stop Block, which is mounted to the machine spindle. Please contact a BIG agent for details.



HIGH SPINDLE

GTG Type

Higher spindle speeds are available without excessive load on the machine spindle.



Exclusive STOP BLOCK is required.

BIG-PLUS tools can be used in machining centers with conventional spindles.

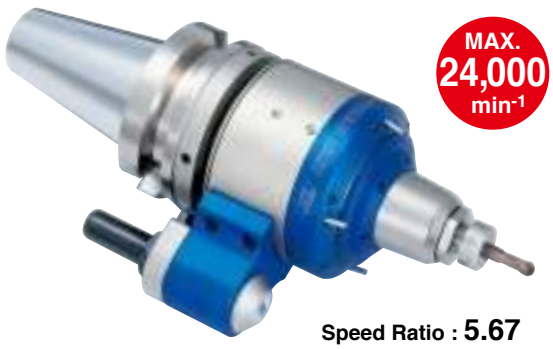
Model	ød	L	L1	øD1	øD2	K1	S	Collet	Speed Ratio	Max. min-1	Weight (kg)
BDV40-GTG5-10-155	1.5 – 10	155	20	30	80	58	65	NBC10	4.67	20,000	5.0
BDV50-GTG6-10-163	1.5 – 10	163	20	30	100	63	80	NBC10	5.67	20,000	9.0
-GTG4-16-182	2.5 – 16	182	25.5	42	110	63	80	NBC16	3.80	15,000	10.8

1. **The standard Fixed Length H is 6mm.**
2. 1 pce. of maximum size collet (GTG5,6=NBC10-10AA,GTG4=NBC16-16AA) , clamping nut and wrench are included.
3. ℓ (angle of locating pin to drive key groove) is adjustable to any degree from 0˚ to 360˚.
4. Special Air Purge oil mist lubrication style is available upon request for machining graphite, ceramic, tungsten and other composite materials.
5. Please do not use with neat oil coolant. Using with neat oil coolant carries a risk of fire.

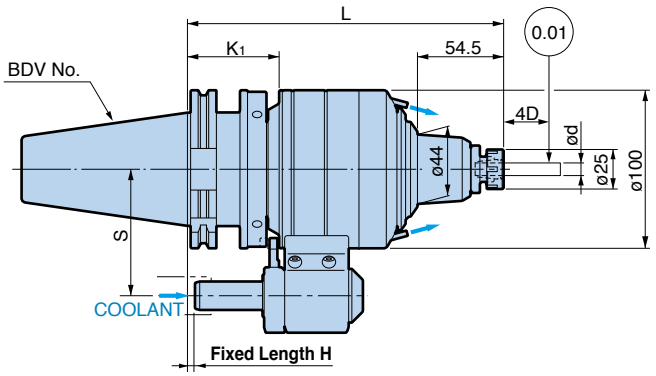
For NEW BABY COLLET G 3
For STOP BLOCK G 27
For LOCATING PINS G 27
For WRENCH A 15

GTX Type

Special design for die & mold.
Long nose design for minimized interference.
Long tool life with grease nipple.



Speed Ratio : **5.67**



Exclusive STOP BLOCK is required.

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	ød	L	K1	S	Collet	Weight (kg)
BDV50-GTX6-8-205	0.5 – 8	205	62	80	NBC8	9.5

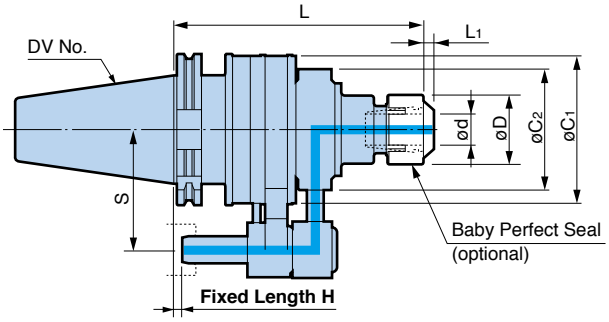
1. **The standard Fixed Length H is 6mm.**
2. Clamping nut and wrench are included.
3. Collet must be ordered separately.
4. Please do not use with neat oil coolant. Using with neat oil coolant carries a risk of fire.

For NEW BABY COLLET G 3
For STOP BLOCK G 27
For LOCATING PINS G 27
For WRENCH A 15

Hi-JET HOLDER

NEW BABY CHUCK Type

Suitable for small diameter drills, gun drills and end mills due to high precision New Baby Chuck.



Exclusive STOP BLOCK is required.

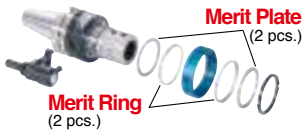
Model	ød	øD	L	øC1	øC2	S	Collet	Max. min^{-1}	Merit Set 2 pcs. of Merit Ring and 2 pcs. of Merit Plate	Weight (kg)
DV40-ONBS13N-165	2.5 – 13	35	165	81.6	73	65	NBC13	10,000	MES-40	4.0
ONBS16N-165	2.5 – 16	42			80		NBC16	8,000	MES-50	4.3
-ONBS20N-165	2.5 – 20	46					NBC20	8,000		4.3
DV50-ONBS13N-165	2.5 – 13	35	165	99.6	80	80	NBC13	8,000	MES-50	7.3
ONBS16N-165	2.5 – 16	42					NBC16			7.3
-ONBS20N-165	2.5 – 20	46					NBC20			7.5

1. **The standard Fixed Length H is 6mm.**
2. Wrench, Collet and Adjusting Screw are optional items.
3. Max. coolant pressure is 2MPa.
4. Clamping Nut is sold separately. Please order BABY PERFECT SEAL(BPS) for your application.

Please do not use with neat oil coolant.
Using with neat oil coolant carries a risk of fire.

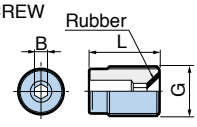
MERIT SET

Merit Set includes 2 pcs. each of Merit Plates, Merit Rings, O-Rings and Locking Pads.



For STOP BLOCK G 27
For LOCATING PINS G 27

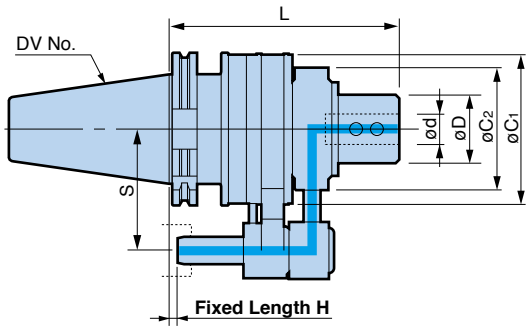
Accessories

WRENCH	NBC COLLET G 3 / FOR ENDMILL COLLET G 7	BABY PERFECT SEAL G 10	ADJUSTING SCREW			
						
Model	Model	Model	Model	G	L	B
NBK13	**NBC13-□**	**BPS13- □**	**NBA13B**	M14	20	4
NBK16	**NBC16-□**	**BPS16- □**	**NBA16B**	M18	20	4
NBK20	**NBC20-□**	**BPS20- □**	**NBA20B**	M21	20	4

Hi-JET HOLDER

SIDE LOCK Type

Suitable for popular straight shanks with flat.



Exclusive STOP BLOCK is required.

Model	ød	øD	L	øC1	øC2	S	Max. min-1	Merit Set 2 pcs. of Merit Ring and 2 pcs. of Merit Plate	Weight (kg)
DV40-OSL16N-150	16	48	150	81.6	80	65	8,000	MES-50	4.4
-OSL20N-150	20				80				4.3
-OSL25N-165	25		165						4.4
-OSL32N-165	32	58		99.6	98		6,000	MES-65	5.7
DV50-OSL16N-150	16	48	150	99.6	80	80	8,000	MES-50	7.5
-OSL20N-150	20				80				7.4
-OSL25N-165	25		165						7.5
-OSL32N-165	32	58			98		6,000	MES-65	7.9
-OSL40N-165	40	64							8.0
-OSL50N-185	50	84	185	129.6	121		4,000	MES-90	11.9

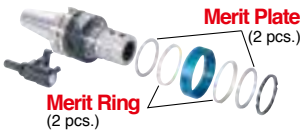
1. **The standard Fixed Length H is 6mm.** 2. Max. coolant pressure is 2MPa.

Please do not use with neat oil coolant.
Using with neat oil coolant carries a risk of fire.

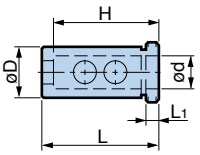
For STOP BLOCK G 27 For LOCATING PINS G 27

MERIT SET

Merit Set includes 2 pcs. each of Merit Plates, Merit Rings, O-Rings and Locking Pads.



■REDUCTION COLLET



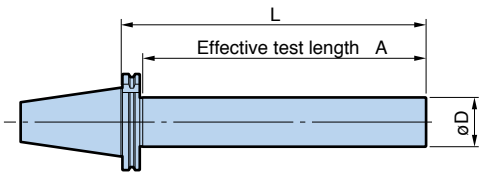
Model	ød	øD	L	L1	H
OSL25-16	16	25	62	5.5	48
-20	20				50
OSL32-16	16	32	66	5.5	48
-20	20				50
-25	25				56

Model	ød	øD	L	L1	H
OSL40-16	16	40	76	5.5	48
-20	20				50
-25	25				56
-32	32				60

DYNA TEST

Precision test bar of the highest quality.

- Periodic inspection of machine tools to control production stability.
- Shorter models are ideal for measuring ATC repeatability.



BIG-PLUS tools can be used in machining centers with conventional spindles.

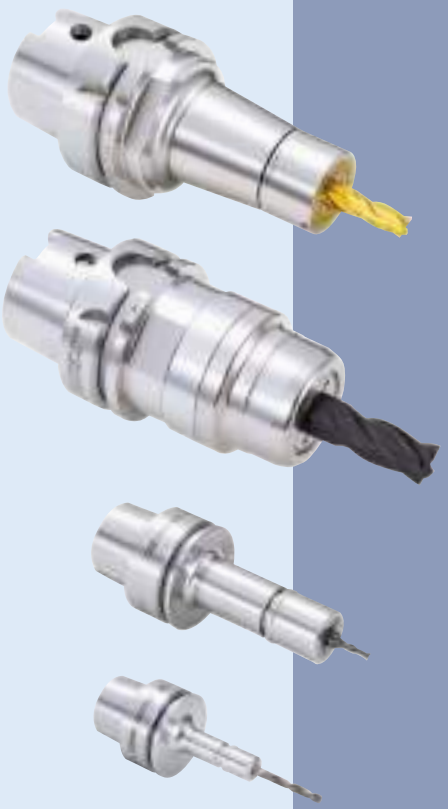
Model	L	A	øD
BDV40-50-L200SD	200	170	50
-L340SD	340	310	
BDV50-50-L200SD	200	178	
-L340SD	340	318	

HSK SHANK

Form A

Form E

Form F



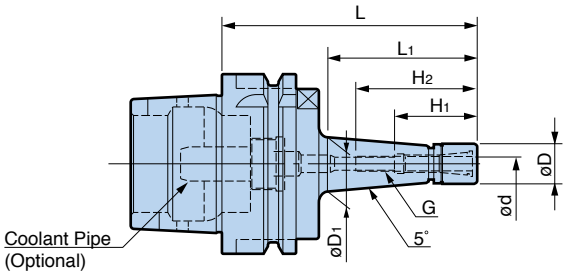
MEGA MICRO CHUCK®

Clamping Range : ø0.45 - ø8.05

Type T

Taper-off design minimizes interference and maximizes rigidity.

MAX. 35,000 min-1



Model	Clamping Range ød	øD	øD1	L	L1	H1	H2	G	Max. min-1	Collet Model	Weight (kg)
HSK-A40-MEGA3S- 75T	0.45 – 3.25	10	16.0	75	44	22	38	M4 P0.7	32,000	NBC 3S-□	0.28
- 90T			18.0	90	60				28,000		0.31
-MEGA4S- 60T	0.45 – 4.05	12	13.9	60	27	26.5	44	M5 P0.8	35,000	NBC 4S-□	0.27
- 75T			16.7	75	43		47		32,000		0.30
- 90T			20.0	90	60				28,000		0.33
-105T			23.0	105	76				25,000		0.37
-MEGA6S- 60T ※	0.45 – 6.05	14	16.0	60	29	28.5	40	–	35,000	NBC 6S-□	0.28
- 75T			19.0	75	45		49	M7 P0.75	32,000		0.31
- 90T			21.1	90	60				28,000		0.34
-105T			25.0	105	76				25,000		0.39
HSK-A50-MEGA3S-105T	0.45 – 3.25	10	18.9	105	66	22	38	M4 P0.7	28,000	NBC 3S-□	0.55
-MEGA4S-105T	0.45 – 4.05	12	20.6	105	66	26.5	47	M5 P0.8	25,000	NBC 4S-□	0.58
-MEGA6S-105T	0.45 – 6.05	14	22.2	105	66	28.5	49	M7 P0.75	25,000	NBC 6S-□	0.60
HSK-A63-MEGA3S- 75T	0.45 – 3.25	10	13.6	75	36	22	38	M4 P0.7	32,000	NBC 3S-□	0.8
- 90T			16.2	90	51				28,000		0.8
-120T			21.5	120	81				25,000		0.9
-MEGA4S- 60T	0.45 – 4.05	12	13.0	60	23	26.5	37	M5 P0.8	35,000	NBC 4S-□	0.8
- 75T			15.4	75	36		47		32,000		0.8
- 90T			18.0	90	51				28,000		0.9
-105T			20.6	105	66				25,000		0.9
-120T			23.3	120	81				22,000		0.9
-135T			25.9	135	96				20,000		1.0
-MEGA6S- 60T	0.45 – 6.05	14	15.4	60	23	28.5	37	M7 P0.75	35,000	NBC 6S-□	0.8
- 75T			17.0	75	36		48		32,000		0.8
- 90T			19.6	90	51		49		28,000		0.9
-105T			22.2	105	66				25,000		0.9
-120T			24.8	120	81				22,000		1.0
-135T			27.5	135	96				20,000		1.0
-MEGA8S- 90T	2.95 – 8.05	18	23.3	90	51	31	50.5	M9 P0.75	30,000	NBC 8S-□	0.89
-120T			28.5	120	81				22,000		1.03

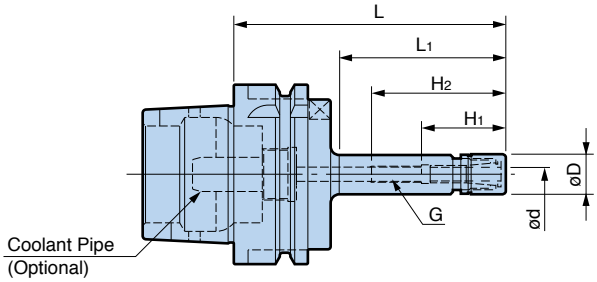
1. MEGA NUT is included.
2. Coolant pipe is ordered separately.
3. For models with the mark of ※, there is no internal thread (G).

For COOLANT PIPE C 51

Type S

Micro diameter design is ideal for high speed applications in tight areas with small diameter cutting tools.

MAX. 30,000 min-1



Model	Clamping Range ød	øD	L	L1	H1	H2	G	Max. min-1	Collet Model	Weight (kg)
HSK-A40-MEGA3S- 60	0.45 – 3.25	10	60	26	22	39	M4 P0.7	30,000	NBC 3S-□	0.26
-MEGA4S- 60	0.45 – 4.05	12	60	27	26.5	44	M5 P0.8	30,000	NBC 4S-□	0.26
- 90			90	57		47		25,000		0.29
-MEGA6S- 60 ※	0.45 – 6.05	14	60	28	28.5	40	–	30,000	NBC 6S-□	0.27
- 90			90	58		49	M7 P0.75	25,000		0.30
HSK-A50-MEGA3S- 75	0.45 – 3.25	10	75	36	22	38	M4 P0.7	30,000	NBC 3S-□	0.49
-MEGA4S- 75	0.45 – 4.05	12	75	36	26.5	47	M5 P0.8	30,000	NBC 4S-□	0.50
-MEGA6S- 75	0.45 – 6.05	14	75	36	28.5	49	M7 P0.75	30,000	NBC 6S-□	0.51
HSK-A63-MEGA3S- 60	0.45 – 3.25	10	60	22	22	35	M4 P0.7	30,000	NBC 3S-□	0.8
-MEGA4S- 75	0.45 – 4.05	12	75	36	26.5	48	M5 P0.8	30,000	NBC 4S-□	0.8
-105			105	61		47		25,000		0.8
-MEGA6S- 75	0.45 – 6.05	14	75	36	28.5	48	M7 P0.75	30,000	NBC 6S-□	0.8
-105			105	61		49		25,000		0.9
-MEGA8S- 90	2.95 – 8.05	18	90	48	31	50.5	M9 P0.75	30,000	NBC 8S-□	0.87

1. MEGA NUT is included.
2. Coolant pipe is ordered separately.
3. For models with the mark of ※, there is no internal thread (G).

For COOLANT PIPE C 51

	Spare Parts	Accessories			
	MEGA NUT 	MEGA WRENCH 	MICRO COLLET G 2 	MICRO COLLET PROTECTIVE CASE 	α TAPER CLEANER 
MEGA MICRO CHUCK	Model	Model	Model	Model	Model
MEGA3S	**MGN3S**	**MGR10**	**NBC3S-□**	**NBB3S**	**SC-NBC3S**
MEGA4S	**MGN4S**	**MGR12**	**NBC4S-□**	**NBB4S**	**SC-NBC4S**
MEGA6S	**MGN6S**	**MGR14**	**NBC6S-□**	**NBB6S**	**SC-NBC6S**
MEGA8S	**MGN8S**	**MGR18**	**NBC8S-□**	—	—

For MICRO SEAL NUT A 2

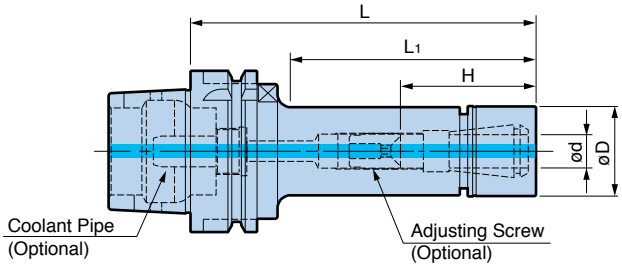
MEGA NEW BABY CHUCK®

Coolant-through hole

Clamping Range : ø0.25 - ø20

The Body, Collet, Nut and Wrench are specifically designed to be ideal for high speed operations.

MAX. 35,000 min-1



Model	Clamping Range ød	øD	L	L1	H	Max. min-1	Collet Model	Weight (kg)
HSK-A40-MEGA 6N- 60 ※	0.25 – 6	20	60	30	33	35,000	NBC 6-□	0.31
- 75			75	45	23 – 38	30,000		0.34
- 90			90	60	23 – 43	30,000		0.37
-MEGA 8N- 60 ※	0.5 – 8	25	60	30	41	35,000	NBC 8-□	0.35
- 75			75	45	26 – 38	30,000		0.39
- 90			90	60	26 – 44	30,000		0.44
-MEGA10N- 60 ※	1.5 – 10	30	60	26	40	35,000	NBC10-□	0.42
- 75 ※			75	39	55	30,000		0.49
- 90			90	54	38 – 48	30,000		0.56
-MEGA13N- 75 ※	2.5 – 13	35	75	55	55	25,000	NBC13-□	0.55
- 90 ※			90	70	64	25,000		0.64
-MEGA16N- 75 ※	2.5 – 16	42	75	55	53	20,000	NBC16-□	0.65
- 90 ※			90	70	63	15,000		0.78
-MEGA20N- 90 ※	2.5 – 20	46	90	70	66	15,000	NBC20-□	0.86

1. MEGA NUT is included.
2. Coolant pipe is ordered separately.
3. "H" indicates the adjustment length with an Adjusting Screw.
4. Adjusting screws can not be used with ※ marked models.

For COOLANT PIPE C 51

Spare Parts

MEGA NUT

Accessories

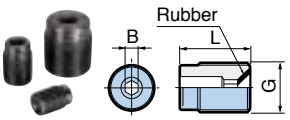
MEGA WRENCH

NBC COLLET G 3

For ENDMILL COLLET G 7

SEALING NUT
MEGA PERFECT SEAL G 9

ADJUSTING SCREW



MEGA NEW BABY CHUCK	Spare Parts: Model	Accessories: MEGA WRENCH Model	NBC COLLET Model	SEALING NUT MEGA PERFECT SEAL Model	ADJUSTING SCREW Model	G	L	B
MEGA 6N	MGN 6	MGR20	NBC 6-□	MPS 6-□	NBA 6B	M 7	12	2
MEGA 8N	MGN 8	MGR25	NBC 8-□	MPS 8-□	NBA 8B	M 9	13	2.5
MEGA10N	MGN10	MGR30	NBC10-□	MPS10-□	NBA10B	M11	16	3
MEGA13N	MGN13	MGR35	NBC13-□	MPS13-□	NBA13B	M14	20	4
MEGA16N	MGN16	MGR42	NBC16-□	MPS16-□	NBA16B	M18	20	4
MEGA20N	MGN20	MGR46	NBC20-□	MPS20-□	NBA20B	M21	20	4

For HSK-A63 & A100, refer to the following pages.

Model	Clamping Range ød	øD	L	L1	H	Max. min-1	Collet Model	Weight (kg)
HSK-A50-MEGA 6N- 60	0.25 – 6	20	60	25	23 – 28	35,000	NBC 6-□	0.5
- 75			75	37	23 – 43	30,000		0.6
-100			100	60		25,000		0.6
-120			120	80		23,000		0.7
-135			135	93		20,000		0.7
-165			165	123		15,000		0.8
-MEGA 8N- 60 ※	0.5 – 8	25	60	26	34	35,000	NBC 8-□	0.5
- 75			75	37	26 – 37	30,000		0.6
-100			100	62	26 – 45	28,000		0.7
-120			120	82		25,000		0.8
-135			135	96		20,000		0.8
-165			165	125		15,000		0.9
-MEGA10N- 60 ※▲	1.5 – 10	30	60	27	35	35,000	NBC10-□	0.6
- 75 ※			75	38	46	33,000		0.7
-100			100	63	38 – 48	25,000		0.8
-120			120	83				0.9
-135			135	98		20,000		1.0
-165			165	128		15,000		1.1
-MEGA13N- 65 ※▲	2.5 – 13	35	65	30	39	30,000	NBC13-□	0.7
- 75 ※			75	40	46	28,000		0.7
-100			100	65	44 – 56	25,000		0.9
-120			120	85	44 – 63	20,000		1.0
-135			135	100		18,000		1.1
-165			165	130		15,000		1.4
-MEGA16N- 75 ※	2.5 – 16	42	75	49	48	28,000	NBC16-□	1.0
-100			100	74	48 – 55	20,000		1.1
-120			120	94	48 – 68	15,000		1.3
-135			135	109				1.4
-165			165	139		10,000		1.7
-MEGA20N- 75 ※▲	2.5 – 20	46	75	49	47	20,000	NBC20-□	0.9
-100			100	74	51 – 54	15,000		1.3
-120			120	94	51 – 68	13,000		1.6
-135			135	109		10,000		1.8
-165			165	139		8,000		2.2

1. MEGA NUT is included.
2. Coolant pipe is ordered separately.
3. "H" indicates the adjustment length with an Adjusting Screw.
4. Adjusting screws can not be used with ※ marked models.
5. NBC-E collet can not be used with ▲ marked models.

For COOLANT PIPE C 51

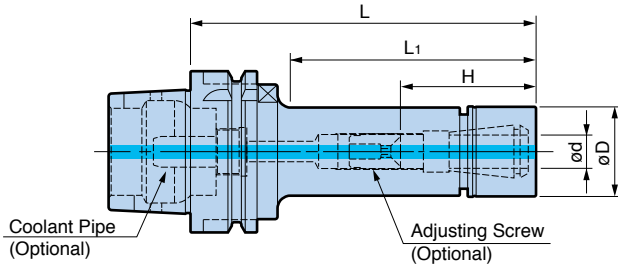
MEGA NEW BABY CHUCK®

Coolant-through hole

Clamping Range : ø0.25 - ø20

The Body, Collet, Nut and Wrench are specifically designed to be ideal for high speed operations.

MAX. 35,000 min-1



Model	Clamping Range ød	øD	L	L1	H	Max. min-1	Collet Model	Weight (kg)
HSK-A63-MEGA 6N- 75	0.25 – 6	20	75	35	23 – 38	35,000	NBC 6-□	0.9
- 90			90	48	23 – 43	30,000		0.9
-105			105	63		30,000		0.9
-120			120	76		25,000		1.0
-135			135	91		20,000		1.0
-165			165	121		15,000		1.0
-MEGA 8N- 75	0.5 – 8	25	75	35	26 – 38	35,000	NBC 8-□	0.9
- 90			90	50	26 – 45	30,000		1.0
-105			105	63		30,000		1.0
-120			120	76		25,000		1.1
-135			135	91		20,000		1.1
-165			165	121		15,000		1.2
-MEGA10N- 75 ※	1.5 – 10	30	75	36	50	33,000	NBC10-□	1.0
- 90			90	50	38 – 45	33,000		1.0
-105			105	65	38 – 48	25,000		1.1
-120			120	80		25,000		1.2
-135			135	93		20,000		1.3
-165			165	123		15,000		1.4
-MEGA13N- 75 ※	2.5 – 13	35	75	37	49	30,000	NBC13-□	1.0
- 90 ※			90	51	64	30,000		1.1
-105			105	66	44 – 56	25,000		1.2
-120			120	81	44 – 63	20,000		1.3
-135			135	96		20,000		1.4
-165			165	125		15,000		1.7
-MEGA16N- 75 ※	2.5 – 16	42	75	39	48	30,000	NBC16-□	1.1
- 90 ※			90	54	63	25,000		1.3
-105			105	69	48 – 54	20,000		1.4
-120			120	84	48 – 68	15,000		1.5
-135			135	99		15,000		1.7
-165			165	129		10,000		2.0
-200			200	164		8,000		2.4
-MEGA20N- 75 ※	2.5 – 20	46	75	39	51	30,000	NBC20-□	1.2
- 90 ※			90	54	61	25,000		1.4
-105			105	69	51 – 54	20,000		1.5
-120			120	84	51 – 68	15,000		1.7
-135			135	99		15,000		1.8
-165			165	129		10,000		2.3
-200			200	164		8,000		2.7

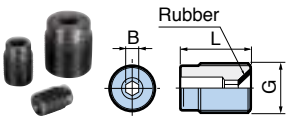
1. MEGA NUT is included.
2. Coolant pipe is ordered separately.
3. "H" indicates the adjustment length with an Adjusting Screw.
4. Adjusting screws can not be used with ※ marked models.

For COOLANT PIPE C 51

Model	Clamping Range ød	øD	L	L1	H	Max. min-1	Collet Model	Weight (kg)
HSK-A100-MEGA 6N- 90	0.25 – 6	20	90	43	23 – 43	20,000	NBC 6- □	2.5
-105			105	58		18,000		2.5
-120			120	73		18,000		2.5
-135			135	88		14,000		2.5
-165			165	113		12,000		2.6
-MEGA 8N- 90	0.5 – 8	25	90	43	26 – 45	20,000	NBC 8- □	2.5
-105			105	58		18,000		2.6
-120			120	73		18,000		2.6
-135			135	88		14,000		2.7
-165			165	113		14,000		2.7
-MEGA10N- 90	1.5 – 10	30	90	43	38 – 45	20,000	NBC10- □	2.6
-105			105	58	38 – 48	18,000		2.7
-120			120	73		18,000		2.7
-135			135	88		14,000		2.8
-165			165	113		14,000		3.0
-MEGA13N- 90 ※	2.5 – 13	35	90	43	55	18,000	NBC13- □	2.7
-105 ※			105	58	70	16,000		2.8
-120			120	73	44 – 63	16,000		2.9
-135			135	88		14,000		3.0
-165			165	118		14,000		3.2
-200			200	148		10,000		3.5
-MEGA16N- 90 ※	2.5 – 16	42	90	47	55	15,000	NBC16- □	2.8
-105 ※			105	58	70	14,000		2.9
-120			120	73	48 – 68	14,000		3.1
-135			135	88		13,000		3.2
-165			165	118		13,000		3.6
-200			200	151		10,000		4.0
-MEGA20N- 90 ※	2.5 – 20	46	90	47	55	15,000	NBC20- □	2.9
-105 ※			105	58	70	14,000		3.0
-120			120	73	51 – 68	14,000		3.2
-135			135	88		13,000		3.3
-165			165	118		13,000		3.8
-200			200	153		10,000		4.3

1. MEGA NUT is included.
2. Coolant pipe is ordered separately.
3. "H" indicates the adjustment length with an Adjusting Screw.
4. Adjusting screws can not be used with ※ marked models.

For COOLANT PIPE C 51

	Spare Parts	Accessories						
	MEGA NUT 	MEGA WRENCH 	NBC COLLET G 3 For ENDMILL COLLET G 7 	SEALING NUT MEGA PERFECT SEAL G 9 	ADJUSTING SCREW 			
MEGA NEW BABY CHUCK	Model	Model	Model	Model	Model	G	L	B
MEGA 6N	MGN 6	MGR20	NBC 6- □	MPS 6- □	NBA 6B	M 7	12	2
MEGA 8N	MGN 8	MGR25	NBC 8- □	MPS 8- □	NBA 8B	M 9	13	2.5
MEGA10N	MGN10	MGR30	NBC10- □	MPS10- □	NBA10B	M11	16	3
MEGA13N	MGN13	MGR35	NBC13- □	MPS13- □	NBA13B	M14	20	4
MEGA16N	MGN16	MGR42	NBC16- □	MPS16- □	NBA16B	M18	20	4
MEGA20N	MGN20	MGR46	NBC20- □	MPS20- □	NBA20B	M21	20	4

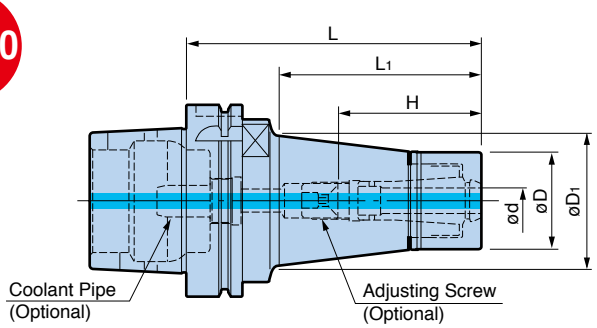
MEGA E CHUCK®

Coolant-through hole

Clamping Range : ø3.0 - ø12

Collet chuck designed exclusively for endmilling with high concentricity and rigidity.

MAX. 35,000 min-1



Model	Clamping Range ød	øD	øD1	L	L1	H	Max. min-1	Collet Model	Weight (kg)
HSK-A40-MEGA 6E- 60 ※	3 – 6	25	25.6	60	24	41	35,000	MEC 6-□	0.39
- 75 ※			28.2	75	39	55	35,000		0.45
- 90			28.3	90	54	37 – 45	25,000		0.52
-MEGA 8E- 65 ※	3 – 8	30	33.6	65	30	44	35,000	MEC 8-□	0.46
- 75 ※			33.6	75	40	54	30,000		0.51
- 90			33.6	90	55	42 – 51	25,000		0.61
-MEGA 10E- 70 ※	3 – 10	35	35	70	35	48	30,000	MEC10-□	0.52
- 90			35	90	55	48 – 52	25,000		0.67
-MEGA 13E- 70 ※	3 – 12	42	42	70	35	50	30,000	MEC13-□	0.62
- 90 ※			42	90	55	67	25,000		0.81
HSK-A50-MEGA 6E- 75	3 – 6	25	28.5	75	37	37 – 43	30,000	MEC 6-□	0.6
-100			32.8	100	64	37 – 45	28,000		0.8
-MEGA 8E- 75 ※	3 – 8	30	33	75	40	42	30,000	MEC 8-□	0.7
-100			36.2	100	57	42 – 51	28,000		0.9
-MEGA 10E- 75 ※	3 – 10	35	38	75	40	48	30,000	MEC10-□	0.8
-100			39.8	100	57	48 – 58	25,000		0.9
-MEGA 13E- 75 ※	3 – 12	42	–	75	49	50	30,000	MEC13-□	0.9
-100			–	100	74	50 – 55	25,000		1.1
HSK-A63-MEGA 6E- 65 ※	3 – 6	25	26.2	65	28	43	30,000	MEC 6-□	0.9
- 90			30	90	51	37 – 45			1.0
-105			32.6	105	66		29,000		1.1
-120			36	120	82				1.2
-135			39	135	99		27,000		1.4
-MEGA 8E- 67 ※	3 – 8	30	31.3	67	30	45	30,000	MEC 8-□	0.9
- 90			35	90	52	37 – 45			1.1
-105			38	105	68	42 – 51	29,000		1.2
-120			40.4	120	83		28,000		1.4
-135			44	135	100		27,000		1.6
-MEGA 10E- 75 ※	3 – 10	35	37.4	75	37	48	30,000	MEC10-□	1.1
- 90 ※			40	90	53	64			1.2
-105			42.8	105	69	48 – 58	29,000		1.4
-120			46	120	85		28,000		1.5
-135			42.8	135	99		27,000		1.7
-MEGA 13E- 75 ※	3 – 12	42	44	75	31	49	30,000	MEC13-□	1.2
- 90 ※			44.8	90	46	64			1.4
-105			45.7	105	61	50 – 57	29,000		1.6
-120			47.3	120	77		28,000		1.8
-135			46.6	135	92		26,000		1.9

1. MEGA E NUT is included.
2. Coolant pipe is ordered separately.
3. "H" indicates the adjustment length with an Adjusting Screw.
4. Adjusting screws can not be used with ※ marked models.

For COOLANT PIPE C 51

Model	Clamping Range ød	øD	øD1	L	L1	H	Max. min-1	Collet Model	Weight (kg)
HSK-A100-MEGA 6E- 75 ※	3 – 6	25	28	75	33	46	24,000	MEC 6-□	2.5
- 90			29.5	90	48	37 – 45	20,000		2.6
-105			32.1	105	63				2.7
-120			34.7	120	78		18,000		2.8
-135			37.4	135	93		14,000		2.9
-165			42.6	165	123				3.2
-MEGA 8E- 75 ※	3 – 8	30	33	75	33	46	24,000	MEC 8-□	2.5
- 90			34.2	90	48	42 – 51	20,000		2.6
-105			36.9	105	63				2.8
-120			39.5	120	78		18,000		2.9
-135			42.1	135	93		16,000		3.1
-165			47.4	165	123				3.4
-MEGA 10E- 80 ※	3 – 10	35	37.4	80	38	51	22,000	MEC10-□	2.6
- 90 ※			39.1	90	48	61	20,000		2.7
-105			41.8	105	63	48 – 58			2.9
-120			44.4	120	78		18,000		3.1
-135			47	135	93		16,000		3.3
-165			52.3	165	123				3.7
-MEGA 13E- 82 ※	3 – 12	42	44.4	82	40	50	20,000	MEC13-□	2.8
- 90 ※			45.8	90	48		18,000		2.9
-105			48.5	105	63	50 – 61			3.1
-120			51.1	120	78		16,000		3.3
-135			53.7	135	93		14,000		3.6
-165			59	165	123				4.2

1. MEGA E NUT is included.
2. Coolant pipe is ordered separately.
3. "H" indicates the adjustment length with an Adjusting Screw.
4. Adjusting screws can not be used with ※ marked models.

For COOLANT PIPE C 51

Spare Parts

MEGA E NUT

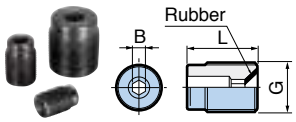
Accessories

MEGA WRENCH

MEGA E COLLET G 11

SEALING NUT
MEGA E PERFECT SEAL G 11

ADJUSTING SCREW



MEGA E CHUCK	Spare Parts Model	Accessories Model	Model	Model	Model	G	L	B
MEGA 6E	**MEN 6**	**MGR25**	**MEC 6-□**	**EPS 6-□**	**NBA 6B**	M 7	12	2
MEGA 8E	**MEN 8**	**MGR30**	**MEC 8-□**	**EPS 8-□**	**NBA 8B**	M 9	13	2.5
MEGA10E	**MEN10**	**MGR35**	**MEC10-□**	**EPS10-□**	**NBA10B**	M11	16	3
MEGA13E	**MEN13**	**MGR42**	**MEC13-□**	**EPS13-□**	**NBA13B**	M14	20	4

MEGA DOUBLE POWER CHUCK®

Coolant-through hole

Clamping Range : ø16 - ø42

Type D

Close to integral rigidity and precision of a solid toolholder.
Flange contacting nut assures highest rigidity.

MAX. 28,000 min-1

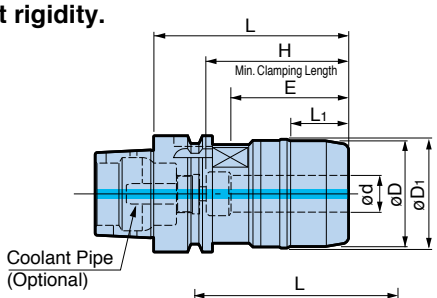


Fig. 1

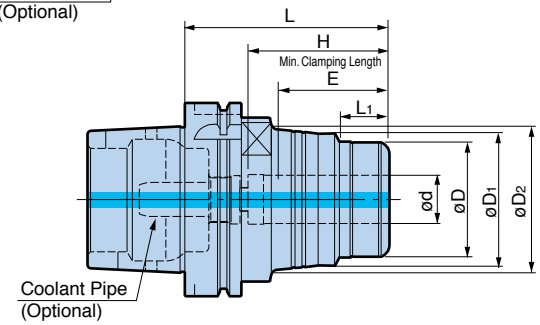


Fig. 2

Model	Fig .	ød	øD	øD1	øD2	L	L1	H	E	Max. min-1	Weight (kg)
HSK-A 40-MEGA16D- 80	1	16	46	–	–	80	25.5	62	50	12,000	0.75
HSK-A 50-MEGA16D- 85	1	16	46	–	–	85	25.5	62	50	25,000	1.0
-MEGA20D- 85 ※		20	50			86	30.5	63	51	20,000	1.05
HSK-A 63-MEGA16D- 80A	2	16	42	52.6	–	80	25	55	50	28,000	1.3
- 90A						90		65	55	28,000	1.5
-105A						105		71		26,000	1.8
-135A ○						135				22,000	2.3
-165A ○						165				22,000	2.8
-MEGA20D- 90	2	20	55	55.7	–	90	33	65	56	28,000	1.7
-105						105		80		26,000	1.6
-120						120		85		25,000	2.2
-135						135				22,000	2.5
-165 △						165				20,000	3.1
-MEGA25D-100A	1	25	62	62.7	–	100	39	75	57	24,000	2.0
-135A △						135		80		20,000	2.8
-MEGA32D-105A	1	32	70	70.7	–	105	33.5	80	64	24,000	2.2
-135A						135		90		20,000	2.9
HSK-A100-MEGA16D-105	2	16	46	55	63	105	23.5	71	50	18,000	3.5
-135 ○						135				16,000	4.1
-165 ○						165				12,000	4.7
-MEGA20D-105	2	20	60	69	74	105	25.5	73	56	18,000	4.1
-135						135		85		16,000	5.0
-165 △						165				15,000	5.9
-MEGA25D-105	2	25	70	77	85	105	32	73	65	18,000	4.5
-135						135		90		16,000	5.6
-165 △						165				15,000	6.8
-MEGA32D-115	2	32	80	86	–	115	39.5	83	71	18,000	5.0
-135						135		103		16,000	5.8
-165						165		105		14,000	7.1
-MEGA42D-115	1	42	99	99.7	–	115	40	83	78	14,000	5.5
-135						135		97		10,000	6.9

1. Wrench is ordered separately.
2. Coolant pipe is ordered separately.
3. The dimension H shows how deep a tool can be inserted.
4. As a back stop of cutting tools, optional Adjusting Screw is available for models marked with △. Please refer to the following page.
   For the models marked with ○, commecially available hex socket head screws can be used.
   However, please contact a BIG agent when the screw needs to be used with coolant through the body.
5. ※Straight Collet Type AC cannot be mounted in the HSK-A50-MEGA20D-85.
   Other collets such as Type C and PJC are available.

For STRAIGHT COLLET G 15
For COOLANT PIPE C 51

Coolant-through hole

Type DS

For coolant to cutting tool periphery

MAX. 25,000 min-1

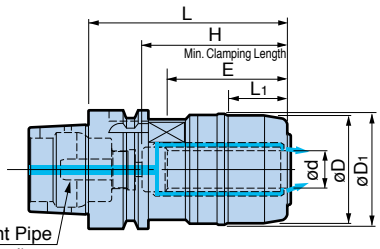


Fig. 1

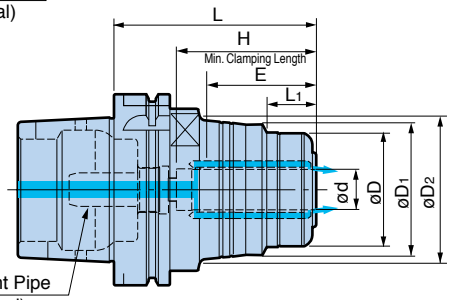


Fig. 2

Model	Fig.	ød	øD	øD1	øD2	L	L1	H	E	Max. min-1	Weight (kg)
HSK-A 40-MEGA16DS- 80	1	16	46	–	–	82.5	28	64	52	12,000	0.75
HSK-A 50-MEGA16DS- 85	1	16	46	–	–	87.5	28	64	52	25,000	1.0
-MEGA20DS- 85		20	50	–	–	88.5	33	65	53	20,000	1.05
HSK-A 63-MEGA16DS- 80A	2	16	42	52.6	–	82	27	57	52	25,000	1.3
-MEGA20DS- 90		20	55	55.7	–	92.5	35.5	67	58	25,000	1.7
-120						122.5		87		23,000	2.2
-MEGA25DS-100A	1	25	62	62.7	–	102	41	77	59	22,000	2.0
-MEGA32DS-105A		32	70	70.7	–	107	35	81	66	22,000	2.2
HSK-A100-MEGA16DS-105	2	16	46	55	63	107.5	26	73	52	18,000	3.5
-135 ○						137.5				16,000	4.1
-MEGA20DS-105		20	60	69	74	107.5	28	75	58	18,000	4.1
-135						137.5		87		16,000	5.0
-165 △						167.5				15,000	5.9
-MEGA25DS-105		25	70	77	85	107.5	34.5	75	67	18,000	4.5
-135						137.5		92		16,000	5.6
-165 △						167.5				15,000	6.8
-MEGA32DS-115		32	80	86	–	117.5	42	85	73	18,000	5.0
-135						137.5		105		16,000	5.8
-165						167.5		107		14,000	7.1
-MEGA42DS-115	1	42	99	99.7	–	117	42	85	80	14,000	5.5

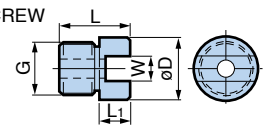
1. Wrench is ordered separately.
2. Coolant pipe is ordered separately.
3. The dimension H shows how deep a tool can be inserted.
4. **Type DS provides coolant around the cutting tool periphery, even if used with a cutting tool with a through hole.**
5. As a back stop of cutting tools, optional Adjusting Screw is available for models marked with △.
   For the models marked with ○, commecially available hex socket head screws can be used.
   However, please contact a BIG agent when the screw needs to be used with coolant through the body.

For COOLANT PIPE C 51

Accessories

MEGA WRENCH

ADJUSTING SCREW



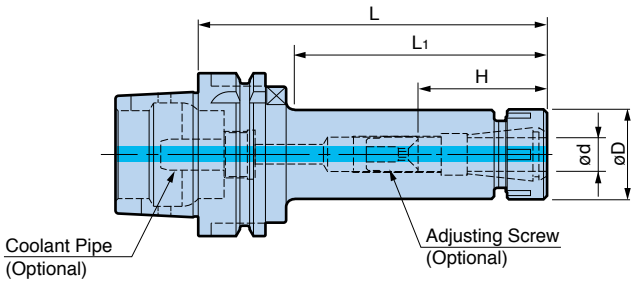
MEGA DOUBLE POWER CHUCK	Model	Model	øD	L	L1	G	W
HSK-A 40-MEGA16D,16DS	MGR46L	—	—	—	—	—	—
HSK-A 50-MEGA16D,16DS	MGR46L	—	—	—	—	—	—
-MEGA20D,20DS	MGR50L	—	—	—	—	—	—
HSK-A 63-MEGA16D,16DS	MGR42L	—	—	—	—	—	—
-MEGA20D,20DS	MGR55L	HMA-M16	19	27	6	M16P1.5	8
-MEGA25D,25DS	MGR62L	HMA-M16	19	27	6	M16P1.5	8
-MEGA32D,32DS	MGR70L	—	—	—	—	—	—
HSK-A100-MEGA16D,16DS	MGR46L	—	—	—	—	—	—
-MEGA20D,20DS	MGR60L	HMA-M16	19	27	6	M16P1.5	8
-MEGA25D,25DS	MGR70L	HMA-M16	19	27	6	M24P1.5	8
-MEGA32D,32DS	MGR80L	—	—	—	—	—	—
-MEGA42D,42DS	MGR99L	—	—	—	—	—	—

NEW BABY CHUCK

Coolant-through hole

Clamping Range : ø0.25 - ø20

Great variety in length in order to support high precision machining



Model	Clamping Range ød	øD	L	L1	H	Collet Model	Weight (kg)
HSK-A63-NBS 6- 75	0.25 – 6	20	75	35	20 – 35	NBC 6-□	0.9
-105			105	63	20 – 40		0.9
-135			135	91			1.0
-165			165	121			1.0
-NBS 8- 75	0.5 – 8	25	75	35	23 – 37	NBC 8-□	0.9
-105			105	61	23 – 42		1.0
-135			135	91			1.1
-165			165	121			1.2
-NBS10- 75 ※	1.5 – 10	30	75	35	48	NBC10-□	1.0
-105			105	63	35 – 45		1.1
-135			135	93			1.3
-165			165	123			1.4
-NBS13- 75 ※	2.5 – 13	35	75	35	48	NBC13-□	1.0
-105			105	65	41 – 55		1.2
-135			135	95	41 – 60		1.5
-165			165	125			1.7
-NBS16- 75 ※	2.5 – 16	42	75	37	45	NBC16-□	1.1
-105			105	67	45 – 55		1.4
-135			135	97	45 – 65		1.8
-165			165	127			2.0
-200			200	162			2.4
-NBS20- 75 ※	2.5 – 20	46	75	39	48	NBC20-□	1.2
-105			105	69	48 – 53		1.5
-135			135	99	48 – 65		1.9
-165			165	129			2.3
-200			200	164			2.7

1. NEW BABY NUT is included.
2. "H" indicates the adjustment length with an Adjusting Screw.
3. Adjusting screws can not be used with ※ marked models.
4. Coolant pipe is ordered separately.

For COOLANT PIPE C 51

Model	Clamping Range ød	øD	L	L1	H	Collet Model	Weight (kg)
HSK-A100-NBS 6- 90	0.25 – 6	20	90	43	20 – 40	NBC 6-□	2.5
-120			120	68			2.5
-165			165	113			2.6
-NBS 8- 90	0.5 – 8	25	90	43	23 – 42	NBC 8-□	2.5
-120			120	73			2.6
-165			165	113			2.7
-NBS10- 90	1.5 – 10	30	90	43	35 – 45	NBC10-□	2.6
-120			120	73			2.7
-165			165	113			2.9
-NBS13- 90 ※	2.5 – 13	35	90	43	58	NBC13-□	2.7
-120			120	73	41 – 60		2.9
-165			165	113			3.2
-200			200	148			3.4
-NBS16- 90 ※	2.5 – 16	42	90	43	58	NBC16-□	2.8
-120			120	73	45 – 65		3.1
-165			165	118			3.5
-200			200	151			3.9
-NBS20- 90 ※	2.5 – 20	46	90	47	56	NBC20-□	2.9
-120			120	73	48 – 65		3.3
-165			165	118			3.8
-200			200	153			4.2

1. NEW BABY NUT is included.
2. "H" indicates the adjustment length with an Adjusting Screw.
3. Adjusting screws can not be used with ※ marked models.
4. Coolant pipe is ordered separately.

For COOLANT PIPE C 51

Spare Parts

NEW BABY NUT

Accessories

WRENCH

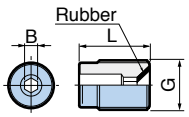
NBC COLLET G 3

For ENDMILL COLLET G 7

BABY PERFECT SEAL

G 10

ADJUSTING SCREW



NEW BABY CHUCK	Spare Parts Model	Accessories Model	Model	Model	Model	G	L	B
NBS 6	**NBN 6**	**NBK 6**	**NBC 6-□**	**BPS 6- □**	**NBA 6B**	M 7	12	2
NBS 8	**NBN 8**	**NBK 8**	**NBC 8-□**	**BPS 8- □**	**NBA 8B**	M 9	13	2.5
NBS10	**NBN10**	**NBK10**	**NBC10-□**	**BPS10- □**	**NBA10B**	M11	16	3
NBS13	**NBN13**	**NBK13**	**NBC13-□**	**BPS13- □**	**NBA13B**	M14	20	4
NBS16	**NBN16**	**NBK16**	**NBC16-□**	**BPS16- □**	**NBA16B**	M18	20	4
NBS20	**NBN20**	**NBK20**	**NBC20-□**	**BPS20- □**	**NBA20B**	M21	20	4

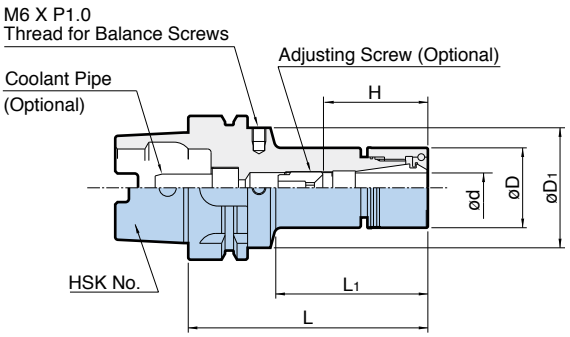
For TAP DRIVING BACK STOP G 8

MEGA ER® GRIP

Coolant-through hole

Clamping Range : ø1.9 - ø20.0

MAX. 33,000 min-1



Model	ød	øD	øD1	L	L1	H	Nut Model	Max. min-1	Weight (kg)
HSK-A63-MEGA ER16- 70 ※	1.9 – 10.0	30	52.6	70	32	45	MERN16	33,000	1.0
- 90				90	49	35 – 47		33,000	1.1
-105				105	64			25,000	1.1
-135				135	94			20,000	1.3
-165				165	124			15,000	1.4
-MEGA ER20- 70 ※	2.75 – 13.0	35	52.6	70	32	45	MERN20	30,000	1.0
- 90 ※				90	49	63		30,000	1.1
-105				105	64	42 – 54		25,000	1.2
-135				135	94	42 – 62		20,000	1.4
-165				165	124			15,000	1.6
-MEGA ER25- 70 ※	2.75 – 16.0	42	52.6	70	32	45	MERN25	30,000	1.1
- 90 ※				90	50	62		25,000	1.2
-105				105	65	44 – 55		20,000	1.4
-135				135	95	44 – 67		15,000	1.7
-165				165	125			10,000	1.9
-MEGA ER32- 75 ※	2.75 – 20.0	50	52.6	75	33	50	MERN32	30,000	1.3
- 90 ※				90	47	61		25,000	1.5
-105				105	62	50 – 54		20,000	1.7
-135				135	92	50 – 68		15,000	2.0
-165				165	122			10,000	2.4

1. Mega ER Nut is included. Adjusting screw, collet and wrench must be ordered separately.
2. "H" indicates the adjustment length with an adjusting screw.
3. Adjusting screws cannot be used with models marked ※.
4. Balance screws are not included.
5. Coolant pipe must be ordered separately.
6. Mega ER Grip is not able to use DIN6499 Form-A collets and ESX collets.
7. Coolant pipe is ordeered separately.

Caution To maintain the accuracy of the tool assembly, do not use collets and nuts manufactured by another company with the chuck body of BIG's Mega ER Grip. Also, we cannot guarantee the accuracy statement for our collets if they are assembled on the chuck body of another manufacturer.

For COOLANT PIPE C 51

Model	ød	øD	øD1	L	L1	H	Nut Model	Max. min-1	Weight (kg)
HSK-A100-MEGA ER16- 75※	1.9 – 10.0	30	85	75	31	46.5	MERN16	20,000	3.3
-105				105	59	35 – 47		18,000	3.4
-135				135	89			14,000	3.6
-165				165	119			14,000	3.7
-MEGA ER20- 75※	2.75 – 13.0	35	85	75	31	45	MERN20	18,000	3.4
-105				105	59	42 – 54		16,000	3.5
-135				135	89	42 – 62		14,000	3.7
-165				165	119			14,000	3.9
-MEGA ER25- 75※	2.75 – 16.0	42	85	75	32	44	MERN25	15,000	3.4
-105				105	59	44 – 50		14,000	3.7
-135				135	89	44 – 67		13,000	4.0
-165				165	119			13,000	4.2
-MEGA ER32- 80※	2.75 – 20.0	50	85	80	36	49	MERN32	15,000	3.6
-105※				105	59	71		14,000	3.9
-135				135	89	50 – 68		13,000	4.3
-165				165	119			13,000	4.7

1. Mega ER Nut is included. Adjusting screw, collet and wrench must be ordered separately.
2. "H" indicates the adjustment length with an adjusting screw.
3. Adjusting screws cannot be used with models marked ※.
4. Balance screws are not included.
5. Coolant pipe must be ordered separately.
6. Mega ER Grip is not able to use DIN6499 Form-A collets and ESX collets.
7. Coolant pipe is ordeered separately.

Caution To maintain the accuracy of the tool assembly, do not use collets and nuts manufactured by another company with the chuck body of BIG's Mega ER Grip. Also, we cannot guarantee the accuracy statement for our collets if they are assembled on the chuck body of another manufacturer.

For COOLANT PIPE C 51

Spare Parts

MEGA ER NUT

MEGA ER GRIP	Model
MEGA ER16	**MERN16**
MEGA ER20	**MERN20**
MEGA ER25	**MERN25**
MEGA ER32	**MERN32**

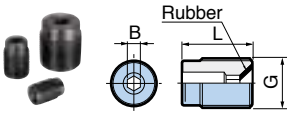
Accessories

MEGA WRENCH

ER COLLET G 13

SEALING NUT
MEGA ER PERFECT SEAL G 14

ADJUSTING SCREW



Model	Model	Model	Model	G	L	B
MGR30L	**ERC16-□**	**MERPS16-□**	**NBA10B**	M11	16	3
MGR35L	**ERC20-□**	**MERPS20-□**	**NBA13B**	M14	20	4
MGR42L	**ERC25-□**	**MERPS25-□**	**NBA16B**	M18	20	4
MGR50L	**ERC32-□**	**MERPS32-□**	**NBA20B**	M21	20	4

NEW Hi-POWER MILLING CHUCK

Coolant-through hole

Clamping Range : ø20 - ø42

S Type

BIG's original design of slit structure supports heavy and finish end milling with high power and precision.

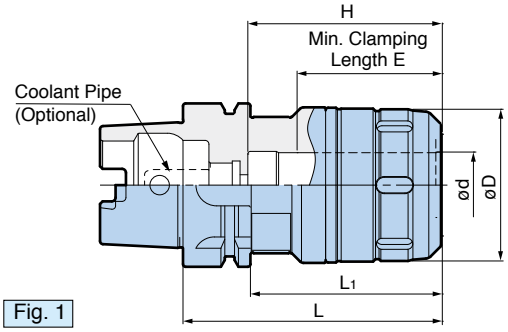


Fig. 1

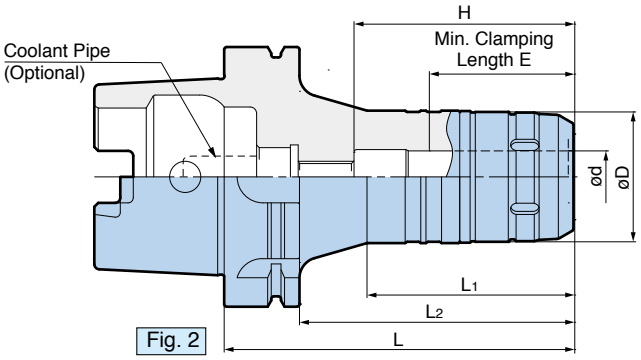


Fig. 2

Model	Fig.	ød	øD	L	L1	L2	H	E	C-spanner Model	Weight (kg)
HSK-A 40-HMC20S- 85	1	20	50	85	65	–	66	56	FK45-50L	0.9
HSK-A 50-HMC20S- 90	1	20	50	90	64	–	66	56	FK45-50L	1.2
HSK-A 63-HMC20S- 90	1	20	50	90	64	–	65	56	FK45-50L	1.5
-120 ○				120	94		85			1.9
-HMC25S-100	1	25	59	100	74	–	75	57	FK58-62L	1.9
-135 △				135	109		80			2.5
-HMC32S-110	1	32	68	110	84	–	85	64	FK68-75L	2.3
-135 ○				135	109		90			2.6
-165 △				165	139					3.2
HSK-A100-HMC20S-105	1	20	50	105	76	–	73	56	FK45-50L	3.0
-135 □	2			135	80	106	85			3.5
-165 △				165	100	136				4.1
-HMC25S-105	1	25	59	105	76	–	73	57	FK58-62L	3.3
-135 □				135	106		90			3.9
-165 △	2			165	105	136				4.8
-HMC32S-115	1	32	68	115	86	–	83	72	FK68-75L	3.9
-135				135	106		103			4.4
-165 □	2			165	105	136	105			5.4
-200 △				200	130	171				6.4
-300 △				300	200	271				9.3
-HMC42S-115	1	42	85	115	86	–	83	73	FK80-90L	4.9
-135				135	106		103			5.5
-165 □				165	136		107			6.8

1. Wrench is ordered separately.
2. △ Axial length adjusting screw is available as option.
   ○/□ Commercially available hex socket head screws can be used as a back stop (○=M8 / □=M12).
   Coolant is blocked by utilizing these commercial screws. Contact BIG agent when coolant flow is required.
3. "H" is the max. tool shank length that can be inserted into the holder.
4. Coolant pipe is ordered separately.

For COOLANT PIPE C 51

Accessories

	C-SPANNER 		C-SPANNER 
NEW Hi-POWER MILLING CHUCK	Model	NEW Hi-POWER MILLING CHUCK	Model
HSK-A63-HMC20S	**FK45-50L**	HSK-A100-HMC20S	**FK45-50L**
-HMC25S	**FK58-62L**	-HMC25S	**FK58-62L**
-HMC32S	**FK68-75L**	-HMC32S	**FK68-75L**
		-HMC42S	**FK80-90L**

HYDRAULIC CHUCK

For high precision machining in Automotive, Aerospace, Medical and Die & Mold

SUPER SLIM Type

Coolant-through hole

Clamping Range : ø4 - ø12

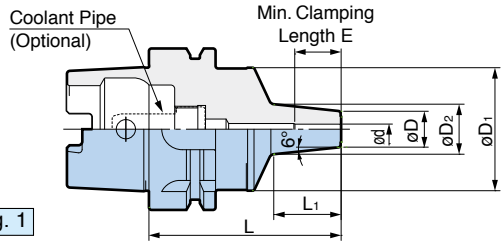


Fig. 1

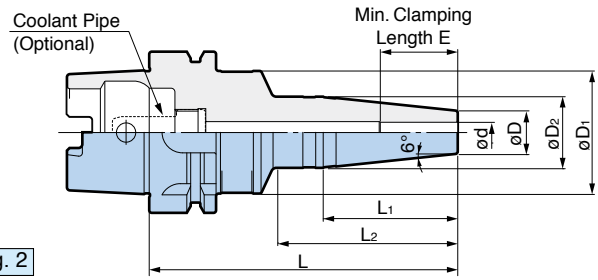


Fig. 2

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Fig.	ød	øD	øD1	øD2	L	L1	L2	E	Weight (kg)
HSK-A63-HDC 4S- 75	1	4	14	48	20	75	26	—	19	1.0
-HDC 6S-120	2	6			26	120	57	70	25	1.1
-HDC 8S-120		8	17		28		52		30	1.2
-HDC10S-120		10	19		30				32	1.2
-HDC12S-120		12	21		32				35	1.2

1. Adjusting Screw cannot be used. 2. Coolant pipe is ordered separately.

For COOLANT PIPE C 51 For INNER BORE CLEANER G 19

Caution

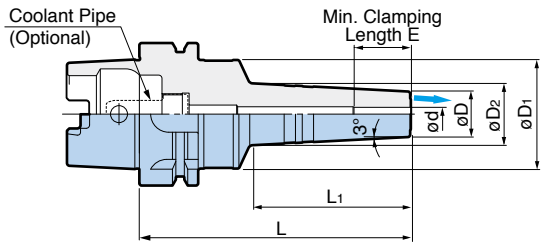
- Use only cutting tools that have a shank torelance within h6.
- Roughing endmills are not recommended for use with Hydraulic Chucks.
- Do not use with cutting tools made with a flat on the shank. (ie: Weldon type shank)
- Do not tighten the clamping screw without first inserting a cutting tool into the Hydraulic Chuck.
- Always insert the cutting tool into the Hydraulic Chuck beyond min. clamping length E.

JET THROUGH Type

Coolant-through hole

Clamping Range : ø4 - ø20

NEW



Model	ød	øD	øD1	øD2	L	L1	E	Weight (kg)
HSK-A63-HDC 4J- 75	4	20	48	23	75	29	19	1.0
-HDC 6J-120	6			28	120	70	25	1.2
-HDC 8J-120	8	22		30			30	1.2
-HDC10J-120	10	24		32			32	1.3
-HDC12J-120	12	26		34			35	1.3
-HDC16J-120	16	34		43		76	42	1.5
-HDC20J-120	20	38						1.5

1. Adjusting Screw cannot be used. 2. Coolant pipe is ordered separately.

For COOLANT PIPE C 51 For INNER BORE CLEANER G 19

Caution

- Use only cutting tools that have a shank torelance within h6.
- Roughing endmills are not recommended for use with Hydraulic Chucks.
- Do not use with cutting tools made with a flat on the shank. (ie: Weldon type shank)
- Do not tighten the clamping screw without first inserting a cutting tool into the Hydraulic Chuck.
- Always insert the cutting tool into the Hydraulic Chuck beyond min. clamping length E.

HYDRAULIC CHUCK

Coolant-through hole

STANDARD Type Clamping Range : ø4 - ø32

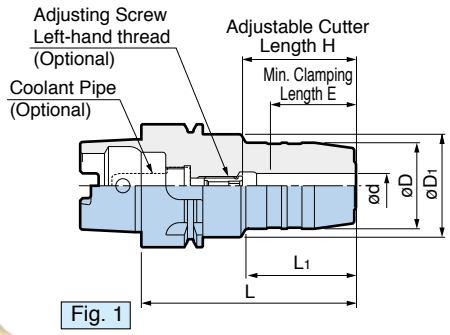


Fig. 1

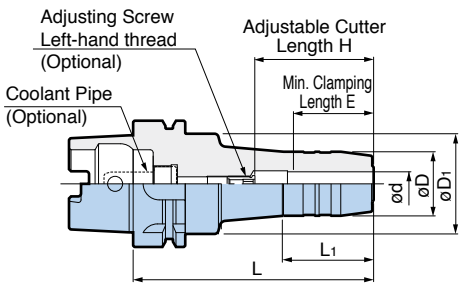


Fig. 2

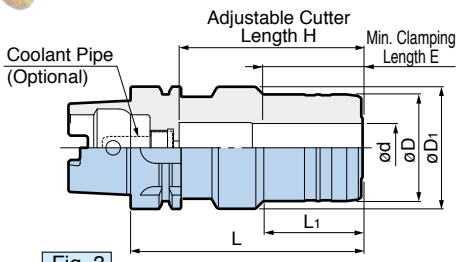


Fig. 3

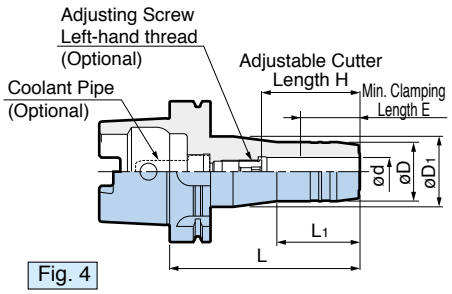


Fig. 4

Model	Fig.	ød	øD	øD1	L	L1	H	E	Adjusting Screw (Optional)	Weight (kg)
HSK-A40-HDC 6- 70	1	6	26	33.6	70	36	28–36	28	HDA 6-05013	0.47
-HDC 8- 70		8	28						HDA 8-06013	0.48
-HDC10- 75		10	30		75	41	33–41	33		0.50
-HDC12- 80		12	32		80	46	38–45	38		0.55
HSK-A50-HDC 6- 75	1	6	26	41.6	75	32	28–37	28	HDA 6-05013	0.7
-HDC 8- 75		8	28						HDA 8-06013	0.7
-HDC10- 80		10	30		80	37	33–41	33	HDA10-08015	0.7
-HDC12- 85		12	32		85	42	38–46	38		0.8
-HDC16- 90▲		16	38		90	48	43–51	43		0.9
-HDC20- 90▲		20	42	—		64				0.9
-HDC25- 90※ ▲		25	55	62.9		23	62	52	—	1.3
HSK-A63-HDC 6- 70※	2	6	26	50	70	24	46	28	—	1.0
-120					120	44	28–48		HDA 6-05032	1.2
-150					150					1.4
-HDC 7-120		7	27		120	44	28-48		HDA 6-05032	1.3
-HDC 8- 70※		8	28		70	24	46		—	1.0
-120					120	44	28-48		HDA 8-06032	1.3
-150					150					1.5
-HDC 9-120		9	29		120	44	28-48		HDA 8-06032	1.3

Model	Fig.	ød	øD	øD1	L	L1	H	E	Adjusting Screw (Optional)	Weight (kg)
HSK-A63-HDC10- 80※	2	10	30	50	80	35	55	33	—	1.1
-120					120	45	33–53		HDA10-08032	1.3
-150					150					1.6
-HDC11-120		11	31		120	45	33-53		HDA10-08032	1.4
-HDC12- 85※		12	32		85	40	60		—	1.1
-120					120	45	38–58	38	HDA12-10025	1.4
-150					150					1.6
-HDC13-120	2	13	33	50	120	45	38-58	38	HDA12-10025	1.4
-HDC14- 85※		14	34		85	40	60		—	1.2
-120					120	45	38-58		HDA12-10025	1.4
-150					150					1.7
-HDC15-120		15	37		120	45	58–68	43	HDA16-12015	1.5
-HDC16- 90※		16	38		90	46	65		—	1.3
-120					120		58–68		HDA16-12015	1.5
-150					150		43–68		HDA16-12037	1.9
-HDC18- 90※		18	40		90	46	65	43	—	1.3
-120					120		58–68		HDA20-16015	1.6
-150					150		43–68		HDA25-16039	2.0
-HDC20- 90※		20	42		90	48	65		—	1.3
-120					120		58–68		HDA20-16015	1.6
-150					150		43–68		HDA25-16039	2.0
-HDC25-120※	3	25	55	63	120	51	95	52	—	2.1
-HDC32-125※		32	60	69	125	59	100	56	—	2.4
HSK-A100-HDC 6- 75 ※	4	6	26	50	75	26	46	28	—	2.4
-120					120	44	28–48		HDA 6-05032	2.6
-165					165					2.9
-HDC 8- 75 ※		8	28		75	26	46		—	2.4
-120					120	44	28–48		HDA 8-06032	2.6
-165					165					3.0
-HDC10- 90 ※		10	30		90	42	61	33	—	2.5
-120					120	45	33–53		HDA10-08032	2.7
-165					165					3.1
-HDC12- 95 ※		12	32		95	47	63	38	—	2.5
-120					120		38–58		HDA12-10025	2.7
-165					165				HDA12-10032	3.1
-HDC16-100 ※		16	38		100	53	68	43	—	2.6
-135					135		43–68		HDA16-12030	3.0
-165					165				HDA16-12037	3.3
-HDC20-105 ※		20	42		105	59	73		—	2.7
-135					135		58–68		HDA20-16015	3.1
-165					165		43–68		HDA25-16039	3.6
-HDC25-110 ※		25	55	63	110	62	78	52	—	3.3
-HDC32-110 ※		32	64	75				56	—	3.7

1. H indicates the adjustment length with an Adjusting Screw.
2. Adjusting Screws cannot be used with ※ marked models.
3. H length is equal to the max. insertion length.
4. Straight Collet cannot be used with ▲ mark.
5. Coolant pipe is ordered separately.
6. Add the letter "W" to Adjusting Screw model number for hexagon sockets on both sides.
   (e.g. HDA12-10025W)

For STRAIGHT COLLET G 16
For INNER BORE CLEANER G 19
For COOLANT PIPE C 51

Caution

- Use only cutting tools that have a shank tolerance within h6.
- Do not use with cutting tools made with a flat on the shank (i.e.: Weldon type shank)
- Roughing endmills are not recommended for use with Hydraulic Chucks.
- Do not tighten the clamping screw without first inserting a cutting tool into the toolholder.
- Always insert the cutting tool into the Hydraulic Chuck beyond min. clamping length E.

SHRINK CHUCK

Coolant-through hole

Clamping Range : ø6 - ø20

SLIM Type

Slim design avoids interference with the side wall and draft of the mold.

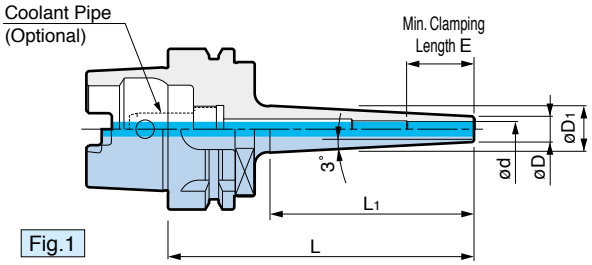


Fig.1

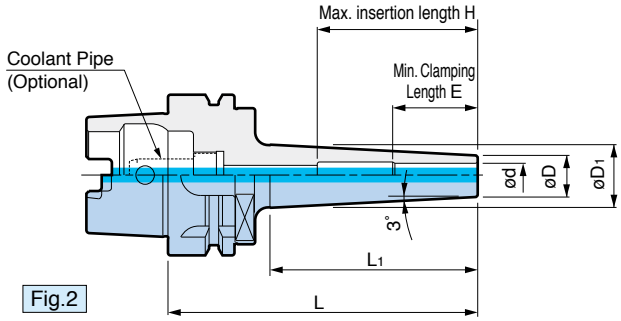


Fig.2

Model	Fig.	ød	øD	øD1	L	L1	E	H	Weight (kg)
HSK-A40-SRC 6S-105	2	6	10	17.5	105	74	26	52	0.32
-SRC 8S-105		8	13	21.0		74		52	0.35
-SRC10S-105		10	16	24.0		76	32	62	0.39
-SRC12S-105		12	19	26.0		68	36	75	0.46
HSK-A50-SRC 6S-105	1	6	10	17.0	105	66	26	–	0.62
-SRC 8S-105	2	8	13	20.0				52	0.65
-SRC10S-105		10	16	23.0			32	62	0.68
-SRC12S-105		12	19	27.0		68	36	72	0.71
HSK-A63-SRC 6S-120	1	6	10	19.0	120	81	26	–	0.9
-165				23.0	165	121			1.0
-SRC 8S-120	2	8	13	22.0	120	81		52	0.9
-165				26.0	165	123			1.1
-SRC10S-120		10	16	25.0	120	81	32	62	1.0
-165				29.0	165	123			1.1
-SRC12S-120		12	19	28.0	120	81	36	72	1.0
-165				32.0	165	125			1.2

1. Use carbide cutter within a tolerance of h6.
2. Coolant pipe is ordered separately.

For COOLANT PIPE C 51

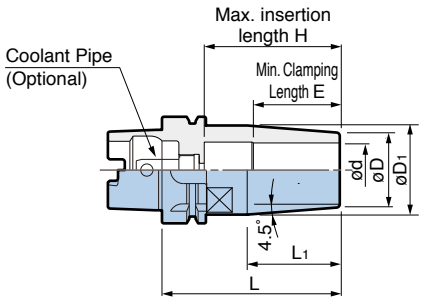
α **Wiper Cleaner** is recommended to clean the clamping bore. G 19

Please refer to the operation manual of heating / cooling equipment, as some equipments may not be compatible.

For ø32mm Straight Shank

ø32mm Straight Shank Type

D 7



Model	ød	øD	øD1	L	L1	Min. Clamping Length E	Max. insertion length H	Weight (kg)
HSK-A 63-SRC32D-105	32	44	52.6	105	54	51	80	1.4
HSK-A100-SRC32D-115			56.3	115	72		82	2.9

1. Designed for center through coolant application when used with coolant through cutting tools.
2. Coolant pipe is ordered separately.

For COOLANT PIPE C 51

STANDARD Type

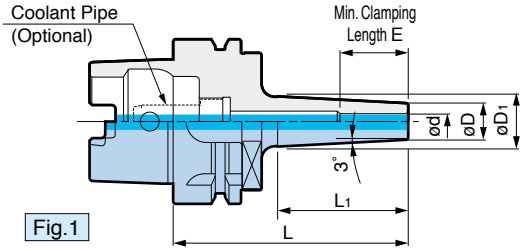


Fig.1

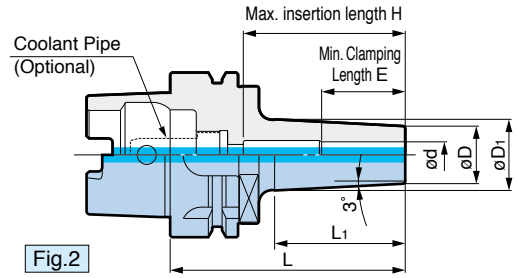


Fig.2

Model	Fig.	ød	øD	øD1	L	L1	E	H	Weight (kg)
HSK-A 40-SRC 4- 60 ※	2	4	10	12.8	60	26.5	16	44	0.27
- 70 ※				14.0	70	37		54	0.28
-SRC 6- 75		6	14	19.0	75	45	26	52	0.31
-SRC 8- 75		8	18	23.0		46			0.34
-SRC10- 75		10	22	26.0		37	32	56	0.42
-SRC12- 75		12	24	28.0		38	36		0.43
HSK-A 50-SRC 4- 75 ※	2	4	10	14.0	75	36	16	55	0.51
-SRC 6- 75	1	6	14	18.0			26	–	0.61
-SRC 8- 75	2	8	18	22.0				52	0.64
-SRC10- 75		10	22	25.5		35	32		0.67
-SRC12- 75		12	24	28.0		37	36		0.69
-SRC16- 75		16	28	32.0		38			0.71
HSK-A 63-SRC 4- 90 ※	2	4	10	15.0	90	46	16	68	0.85
-SRC 6- 90	1	6	14	20.0		51	26	–	0.9
-150				26.0	150	108			1.04
-SRC 8- 90	2	8	18	24.0	90	51		–	0.9
-150				30.0	150	110			1.15
-SRC10- 90		10	22	28.0	90	51	32	62	1.0
-150				34.0	150	111			1.29
-SRC12- 90		12	24	30.0	90	51	36	65	1.0
-150				36.0	150	112		72	1.33
-SRC16- 90		16	28	34.0	90	51	38	65	1.0
-165				41.0	165	119		80	1.7
-SRC20- 90		20	34	40.0	90	53	42	65	1.1
-165				47.0	165	122		100	1.9
HSK-A100-SRC 6-105	1	6	14	20.0	105	58	26	–	2.5
-165				27.0	165	118			2.7
-SRC 8-105		8	18	24.0	105	58			2.5
-165				31.0	165	118			2.8
-SRC10-105		10	22	28.0	105	58	32		2.6
-165				35.0	165	118			2.9
-SRC12-105	2	12	24	30.0	105	58	36	72	2.6
-165				37.0	165	118			3.0
-SRC16-105		16	28	34.0	105	58	38		2.7
-165				41.0	165	118		80	3.1
-SRC20-105		20	34	40.0	105	58	42	72	2.8
-165				47.0	165	118		100	3.4

1. Use carbide cutter within a tolerance of h6.
2. ※ Use carbide cutter within a tolerance of h5.
3. Coolant pipe is ordered separately.

Please refer to the operation manual of heating / cooling equipment, as some equipment may not be compatible.

α **Wiper Cleaner** or **TK Cleaner** is reccomended to clean the clamping bore. G 19

For COOLANT PIPE C 51

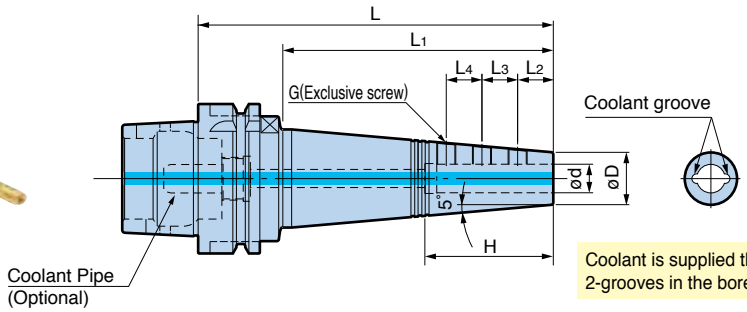
MOLD CHUCK

Coolant-through hole

Clamping Range : ø3 - ø16

MAX. 15,000 min-1

Precision side lock holder to meet minimum interference, accuracy and high speed requirements.



Coolant is supplied through 2-grooves in the bore.

Model	ød	øD	L	L1	L2	L3	L4	H	G	Max min-1	Weight (kg)
HSK-A 63-SSL 3-135	3	10	135	99	6	6	–	–	M 3	15,000	1.0
-SSL 4-135	4	11				7			M 4		1.0
-SSL 6-135	6	13			12	13			M 6		1.1
-SSL 8-135	8	15			13.5	18		40			1.1
-SSL10-150	10	17	150	114	15	20		48		13,000	1.3
-SSL12-150	12	22		115		16	16	60	M 8		1.5
-SSL16-150	16	26				20	22	70			1.6

1. H dimension without values in the above table indicates that those models have a larger diameter hole behind the bore.
2. Coolant pipe is ordered separately.

For COOLANT PIPE C 51

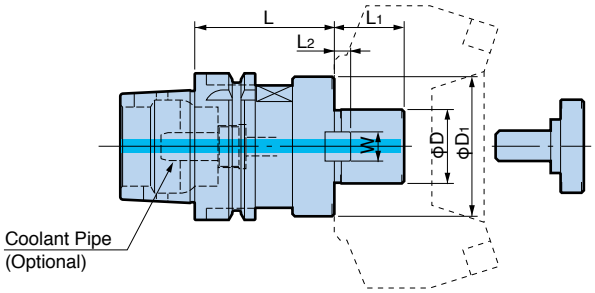
● BIG genuine side lock screws must be used as they are made to an exclusive design and different from other screws on the market.

■SIDE LOCK SCREWS

Model	Screw size	Screw Length / Quantity	Chuck Model
H0304FS	M3 P0.5	4mm / 2pcs.	SSL3
H0404FS	M4 P0.5	4mm / 2pcs.	SSL4
H06FSA	M6 P0.75	4.5 , 5mm / 1pce. each	SSL6
H06FSB		4.5 , 6mm / 1pce. each	SSL8,10
H08FSA	M8 P0.75	6mm / 2pcs. 8mm / 1pce.	SSL12
H08FSB		6, 8, 10mm / 1pce. each	SSL16

1. Each model consists of 1 set of screws required for 1 Mold Chuck.

FACE MILL ARBOR Type A and C

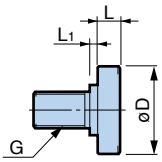


Model	øD	øD1	L	L1	L2	W	Clamp Bolt	Weight (kg)
HSK-A 40-FMA25.4 - 50	25.4	50	50	22	5	9.5	MBA-M12	0.6
HSK-A 50-FMA25.4 - 60	25.4	50	60	22	5	9.5	MBA-M12	1.0
-FMA31.75- 60	31.75	60		30	7	12.7	MBA-M16	1.2
HSK-A 63-FMA25.4 - 60	25.4	50	60	22	5	9.5	MBA-M12	1.3
- 90			90					1.7
-FMA31.75- 60	31.75	60	60	30	7	12.7	MBA-M16	1.5
HSK-A100-FMA25.4 -105	25.4	50	105	22	5	9.5	MBA-M12	4.5
-135			135					5.3
-195			195					7.1
-FMA31.75-105	31.75	60	105	30	7	12.7	MBA-M16	4.8
-135			135					5.6
-195			195					7.0
-FMA38.1 - 90	38.1	80	90	34	9	15.9	MBA-M20	4.9
-FMA50.8 - 75	50.8	100	75	36	10	19.05	MBA-M24	5.3
HSK-A 50-FMC22 - 60	22	45	60	18	5	10	M10-30L ※	0.9

1. Standard Clamp Bolt (MBA-M□□) is included.
2. To supply coolant through the arbor, Clamping Bolt with a hole through (TMBA-M□□) is required.
3. ※M10-30L is a cap screw.
4. Coolant pipe is ordered separately.

For COOLANT PIPE C 51

■CLAMP BOLT

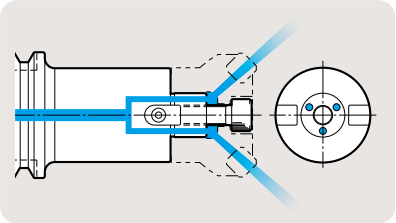


Standard Clamp Bolt (accessory)	Clamp Bolt with a hole through (option)				
Model	Model	øD	L	L1	G
MBA-M12	TMBA-M12	33	10	2	12
-M12H	—			—	
-M16	-M16	40	10	6	16
-M16H	—			—	
-M20	-M20	50	14	6	20
-M20H	—			—	
-M24	-M24	65		10	24

FACE MILL ARBOR Type FMH

Coolant-through hole

For cutters that require a coolant hole through the pilot.



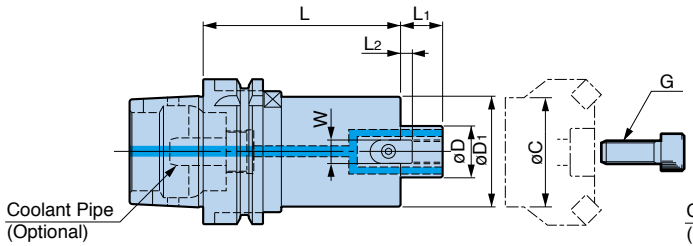


Fig.1

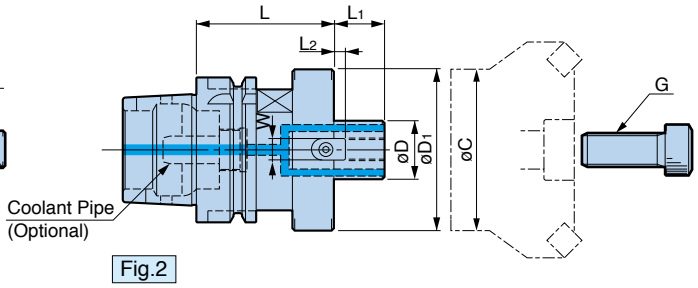


Fig.2

Model	Fig.	øD (h6)	øD1	L	L1	Drive keys L2	Drive keys W	G	Weight (kg)	øC Min.
HSK-A 50-FMH22 - 47- 60	2	22	47	60	18	5	10	M10	0.8	36
- 90				90					1.2	
-FMH27 - 60- 60	2	27	60	60	20	6	12	M12	1.0	46
- 90				90					1.3	
HSK-A 63-FMH16 - 37- 45	1	16	37	45	16	4	8	M 8	1.0	32
-FMH22 - 47- 45		22	47		18	5	10	M10	1.1	43
- 60				60					1.3	36
- 90				90					1.7	
-150				150					2.5	
-FMH27 - 60- 60	2	27	60	60	20	6	12	M12	1.6	46
- 90				90					2.3	
-FMH22.225- 47- 45	1	22.225	47	45	17	3.5	8	M10	1.1	39
- 60				60					1.3	
- 90				90					1.7	
-150				150					2.5	
-FMH25.4 - 70- 60	2	25.4	70	60	22	5	9.5	M12	1.8	55
- 90				90					2.5	
-150				150					4.1	
-FMH31.75 - 76- 60	2	31.75	76	60	30	7	12.7	M16	2.0	63
- 90				90					2.7	

1. By utilizing a clamping bolt with a hole through, coolant is supplied through the bolt.
2. Hexagon Socket Head Cap Screw is included.
3. Coolant pipe is ordered separately.

For COOLANT PIPE C 51

Model	Fig.	øD (h6)	øD1	L	L1	Drive keys L2	Drive keys W	G	Weight (kg)	øC Min.
HSK-A100-FMH22 - 47-105	1	22	47	105	18	5	10	M10	3.4	36
-150				150					4.0	
-200				200					4.7	
-250				250					5.4	
-FMH22 - 60- 60	1	22	60	60	18	5	10	M10	2.9	49
-105				105					3.9	
-150				150					5.4	
-200				200					6.1	
-250				250					7.2	
-FMH27 - 60- 60	1	27	60	60	20	6	12	M12	2.9	46
- 90				90					3.7	
-150				150					5.0	
-FMH27 - 76- 60	1	27	76	60	20	6	12	M12	3.2	62
- 90				90					4.3	
-150				150					6.5	
-FMH32 - 96- 60	2	32	96	60	22	7	14	M16	3.8	80
- 90				90					5.5	
-150				150					8.9	
-FMH40 -100- 75	2	40	100	75	26	8.5	16	M20 (MBA-M20)	4.9	80
-105				105					6.8	
-FMH22.225- 47-105	1	22.225	47	105	17	3.5	8	M10	3.4	39
-150				150					4.0	
-200				200					4.7	
-250				250					5.3	
-FMH22.225- 60- 60	1	22.225	60	60	17	3.5	8	M10	2.9	53
-105				105					3.9	
-150				150					4.9	
-200				200					6.1	
-250				250					7.2	
-FMH25.4 - 70- 60	1	25.4	70	60	22	5	9.5	M12	3.2	55
- 90				90					4.1	
-150				150					5.9	
-200				200					7.4	
-FMH31.75 - 76- 60	1	31.75	76	60	30	7	12.7	M16	3.6	63
- 90				90					4.5	
-105				105					5.0	
-150				150					6.6	
-200				200					8.4	
-FMH31.75 - 96- 60	2	31.75	96	60	30	7	12.7	M16	3.9	84
- 90				90					5.5	
-105				105					6.4	
-150				150					9.0	
-200				200					11.8	
-FMH38.1 -100- 60	2	38.1	100	60	34	9	15.9	M20 (MBA-M20H)	4.1	89
- 90				90					5.9	85
-105				105					6.8	
-150				150					9.6	

1. By utilizing a clamping bolt with a hole through, coolant is supplied through the bolt.
2. Hexagon Socket Head Cap Screw is included.
3. Coolant pipe is ordered separately.

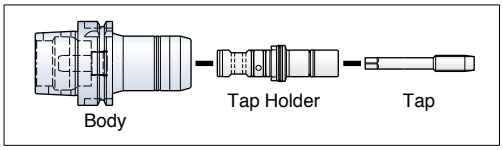
For COOLANT PIPE C 51

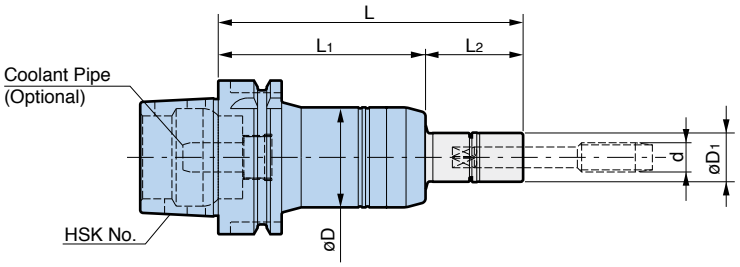
MEGA SYNCHRO® Tapping Holder

Coolant-through hole

Tapping Range : M2 - M20

Available in short, long and extra long length (150mm, 200mm) to meet all production requirements.





Model	Tap Holder Model	Tapping Range d	øD	øD1	L	L1	L2	Weight (kg)
HSK-A 40-MGT 6- 80	MGT 6-d- 30	M2 – M6 No.3 – U1/4	36	16	110	80	30	0.6
	- 70				150		70	
	-100				180		100	
-MGT12- 85	MGT12-d- 30	M6 – M12 U1/4 – U7/16 P1/8	41	20	115	85	30	0.7
	- 70				155		70	
	-100				185		100	
HSK-A 50-MGT 6- 85	MGT 6-d- 30	M2 – M6 No.3 – U1/4	36	16	115	85	30	0.8
	- 70				155		70	
	-100				185		100	
-MGT12- 85	MGT12-d- 30	M6 – M12 U1/4 – U7/16 P1/8	41	20	115	85	30	0.9
	- 70				155		70	
	-100				185		100	
-MGT20-125	MGT20-d- 35	M12 – M20 U1/2 – U3/4 P1/4 – P3/8	54	30	160	125	35	1.6
	- 85				210		85	
	-115				240		115	
HSK-A 63-MGT 6- 85	MGT 6-d- 30	M2 – M6 No.3 – U1/4	36	16	115	85	30	1.1
	- 70				155		70	
	-100				185		100	
-MGT12- 85	MGT12-d- 30	M6 – M12 U1/4 – U7/16 P1/8	41	20	115	85	30	1.2
	- 70				155		70	
	-100				185		100	
-MGT20-110	MGT20-d- 35	M12 – M20 U1/2 – U3/4 P1/4 – P3/8	54	30	145	110	35	1.8
	- 85				195		85	
	-115				225		115	

1. Tap Holder and wrench are ordered separately.
2. Coolant Pipe is ordered separately.

Rigid tapping function is required on the machine tool.

For TAP HOLDER A33–A36

For COOLANT PIPE C 51

Model	Tap Holder Model	Tapping Range d	øD	øD1	L	L1	L2	Weight (kg)
HSK-A100-MGT 6- 95	MGT 6-d- 30	M2 – M6 No.3 – U1/4	36	16	125	95	30	2.6
	- 70				165		70	
	-100				195		100	
-MGT12- 95	MGT12-d- 30	M6 – M12 U1/4 – U7/16 P1/8	41	20	125	95	30	2.7
	- 70				165		70	
	-100				195		100	
-MGT20-115	MGT20-d- 35	M12 – M20 U1/2 – U3/4 P1/4 – P3/8	54	30	150	115	35	3.3
	- 85				200		85	
	-115				230		115	

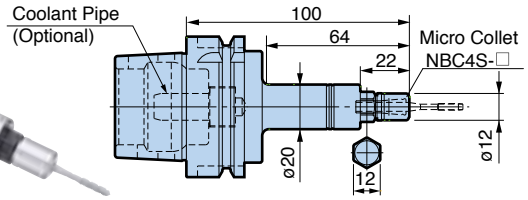
1. Tap Holder and wrench are ordered separately.
2. Coolant Pipe is ordered separately.
Rigid tapping function is required on the machine tool.

For TAP HOLDER A 33–A 36
For MEGA WRENCH A 32
For ACCESSORIES A 32
For COOLANT PIPE C 51

For small Tap MGT3

Coolant-through hole

Tapping Range : M1 - M3



Model	HSK-A63-MGT3-100

1. Nut is included. Wrench and collet are ordered separately.
2. 12mm common spanner is also required to hold the hex portion of the body when clamping/unclamping the tap.
- **Rigid tapping function is required on the machine tool.**
- **Not capable of supplying coolant through the holder body.**

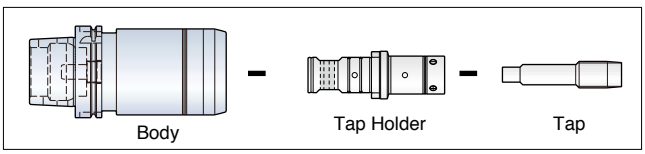
For MGT3 ACCESSORIES A 31

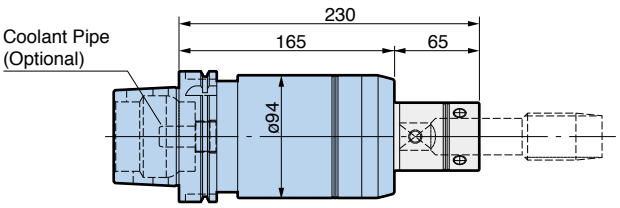
For Large Tap MGT36

Coolant-through hole

Tapping Range : M20 - M36

Compensation for synchronization error eliminates heavy thrust load of large diameter tapping.





Model	HSK-A100-MGT36-165

Weight : 8.2kg

For MGT36 TAP HOLDER A 37, B 10
For MGT36 ACCESSORIES A 37
For COOLANT PIPE C 51

ANGLE HEAD

It is the outstanding rigidity and accuracy of the NEW BABY CHUCK, used for holding the cutting tool, that produces high precision with less runout. Available in various sizes to meet specific production requirements.

AG90 NBS type

SPINDLE ANGLE : 90˚

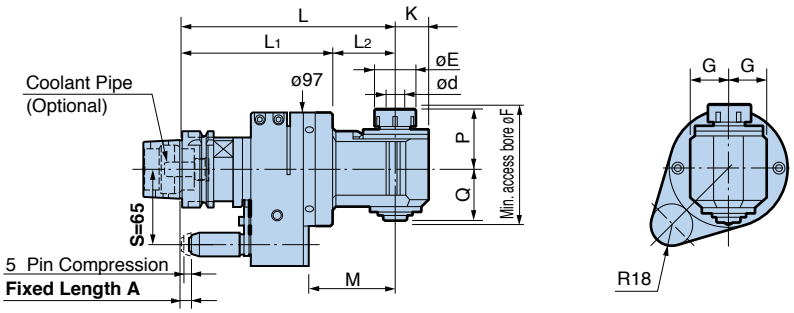


Fig. 1

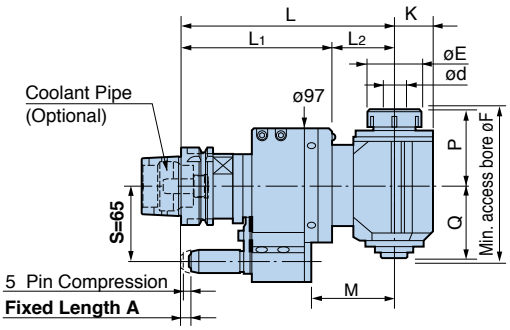


Fig. 2

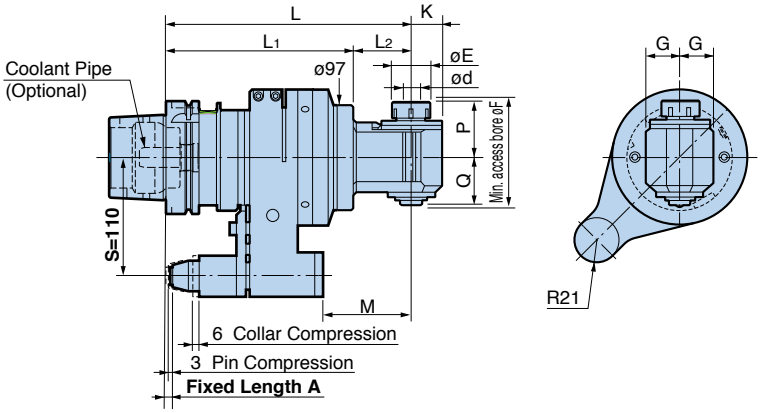
Exclusive STOP BLOCK is required.

● The rotation of the cutting tool is in reverse direction of the machine spindle.(Speed Ratio 1:1)

Model	Fig.	ød	øE	G	K	L	L1	L2	M	P	Q	øF	Collet	Max. min-1	Weight (kg)
HSK-A63-AG90/NBS 6 -185	1	0.25 – 6	20	21	17	185	130	55	77	33	29	67	NBC 6	6,000	5.0
-215						215		85	107						5.2
-245						245		115	137						5.4
-275						275		145	167						5.6
-AG90/NBS10 -185	1	1.5 – 10	30	30	25	185	130	55	77	45	43	91	NBC10	6,000	5.4
-215						215		85	107						5.8
-245						245		115	137						6.1
-AG90/NBS13 -185	1	2.5 – 13	35	31	28	185	130	55	77	52	45	101	NBC13	6,000	5.5
-215						215		85	107						5.9
-245						245		115	137						6.2
-AG90/NBS20S -180 S	2	2.5 – 20	46	35	33	180	127	53	72	65	62	132	NBC20	3,000	7.9

1. **The standard Fixed Length A is 8mm.** Other lengths are available upon request.
2. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.
3. Clamping nut and wrench are included. Collet must be ordered separately.
4. New Baby Collet for endmill model NBC□-□EAA cannot be used.
5. Coolant Pipe is ordered separately. (Coolant is supplied through the Locating Pin, not the Coolant Pipe.)

For NEW BABY COLLET G 3
For STOP BLOCK G 25
For COOLANT PIPE C 51



Exclusive STOP BLOCK for ANGLE HEAD is required.

● The rotation of the cutting tool is in reverse direction of the machine spindle.(Speed Ratio 1:1)

Model	ød	øE	G	K	L	L1	L2	M	P	Q	øF	Collet	Max. min-1	Weight (kg)
HSK-A100-AG90/NBS6-225	0.25 – 6	20	21	17	225	170	55	82	33	29	67	NBC 6	6,000	11.8
-255					255		85	112						12.0
-285					285		115	142						12.2
-315					315		145	172						12.4
-AG90/NBS10 -225	1.5 – 10	30	30	25	225	170	55	82	45	43	91	NBC10	6,000	12.2
-255					255		85	112						12.6
-285					285		115	142						12.9
-AG90/NBS13 -225	2.5 – 13	35	31	28	225	170	55	82	52	45	101	NBC13	6,000	12.3
-255					255		85	112						12.7
-285					285		115	142						13.0
-AG90/NBS20 -240	2.5 – 20	46	35	35	240	170	70	97	65	62	132	NBC20	3,000	13.4

1. **The standard Fixed Length A is 6mm.** Other lengths are available upon request.
2. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.
3. Clamping nut and wrench are included. Collet must be ordered separately.
4. New Baby Collet for endmill model NBC□-□EAA cannot be used.
5. Coolant Pipe is ordered separately. (Coolant is supplied through the Locating Pin, not the Coolant Pipe.)

S=80 type is available upon request.

For NEW BABY COLLET G 3
For STOP BLOCK G 25
For COOLANT PIPE C 51

ANGLE HEAD

Compact and lightweight design combined with the accuracy required for drilling.
Ideal size for small machining centers.

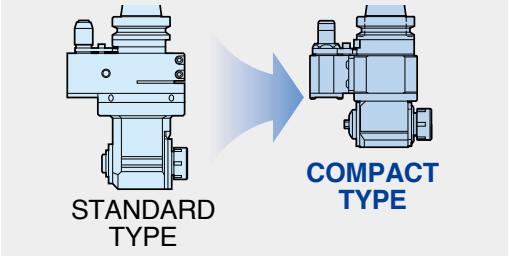
AG90 COMPACT type SPINDLE ANGLE : 90˚

For drilling

High quality components

- **High precision New Baby Collet**
- **Spiral bevel gears and angular contact bearings**
- **Advanced non-contact sealing structure**

■ Case & head sizes are substantially reduced.



Light & Compact

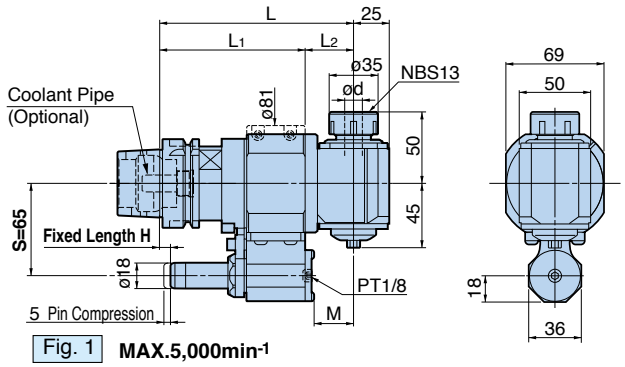


Fig. 1 **MAX.5,000min^{-1}**

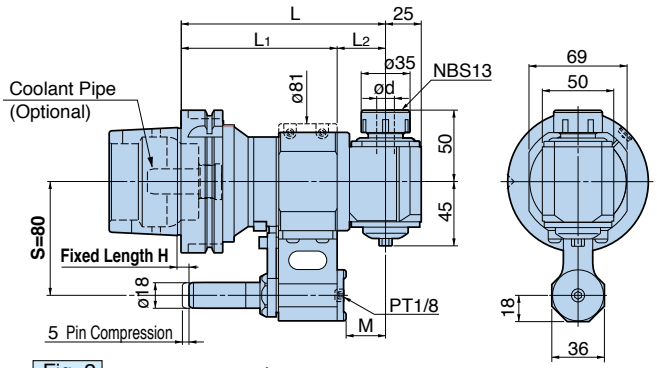


Fig. 2 **MAX.5,000min^{-1}**

Exclusive STOP BLOCK is required.
Exclusive STOP BLOCK for compact type is the same as HIGH SPINDLE & Hi JET HOLDER.

● The rotation of the cutting tool is in reverse direction of the machine spindle.

Model	Fig.	ød	L	L1	L2	M	Collet	Speed Ratio	Weight (kg)
HSK-A 63-AG90-13-135	1	2.5 – 13	135	101	34	27.85	NBC13	1 : 1	4.4
-185			185		84	77.85			5.4
HSK-A100-AG90-13-145	2	2.5 – 13	145	111	34	27.85	NBC13	1 : 1	6.8
-195			195		84	77.85			7.8

1. Clamping nut and wrench are included. Collet must be ordered separately.
2. New Baby Collet for endmill model NBC13-□EAA cannot be used.
3. Fixed Length H and angle θ vary depending on machine models. Please specify your required dimensions.
4. A tapped hole (PT1/8) is prepared at the bottom cover of the Locating Pin housing so that a pipe for coolant can be connected.
5. Coolant Pipe is ordered separately. (Coolant is supplied through the Locating Pin, not the Coolant Pipe.)

For NEW BABY COLLET G 3 For STOP BLOCK G 25 For COOLANT PIPE C 51

Application example

High rigidity and runout accuracy provides stable machining.

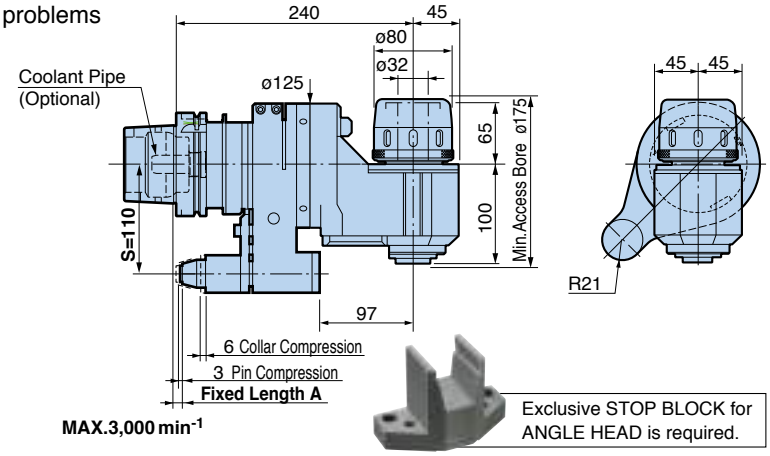
	Drilling
Cutter	ø12 carbide drill
Workpiece	C50(S50C)
Cutting Speed	70m/min
Cutting Feed	372mm/min
	0.2mm/rev
Spindle Speed	1,860min^{-1}

Improved versatility is achieved from the 32mm capacity Milling Chuck by using parallel reduction collets and other accessories.

AG90 HMC type SPINDLE ANGLE : 90˚

[STANDARD TYPE]

Designed for greater rigidity by having the face of the spindle bore in line with the center of the machine spindle. Also helps to minimize interference problems with ATC and storage problems within magazine.



MAX.3,000 min^{-1}

● The cutter rotates in the same direction of the machine spindle.

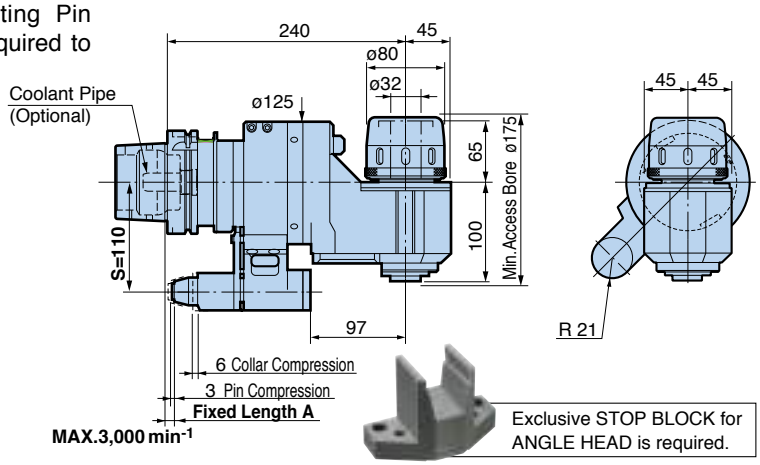
Model	Weight (kg)
HSK-A100-AG90/HMC32-240	16.0

1. **The standard Fixed Length A is 6mm.** Other lengths are available upon request.
2. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.
3. Wrench (FK80-90) is included.
4. Coolant Pipe is ordered separately. (Coolant is supplied through the Locating Pin, not the Coolant Pipe.)

For STRAIGHT COLLET G 15 For STOP BLOCK G 25
For COOLANT PIPE C 51

[HIGH RIGIDITY TYPE]

Provided with a steel housing and reinforced Locating Pin assembly for applications where increased rigidity is required to perform various types of heavier machining.



MAX.3,000 min^{-1}

● The cutter rotates in the same direction of the machine spindle.

Model	Weight (kg)
HSK-A100-AG90/HMC32-240S	17.3

1. **The standard Fixed Length A is 6mm.** Other lengths are available upon request.
2. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.
3. Wrench (FK80-90) is included.
4. Coolant Pipe is ordered separately. (Coolant is supplied through the Locating Pin, not the Coolant Pipe.)

S=80 type is available upon request.

For STRAIGHT COLLET G 15 For STOP BLOCK G 25
For COOLANT PIPE C 51

ANGLE HEAD

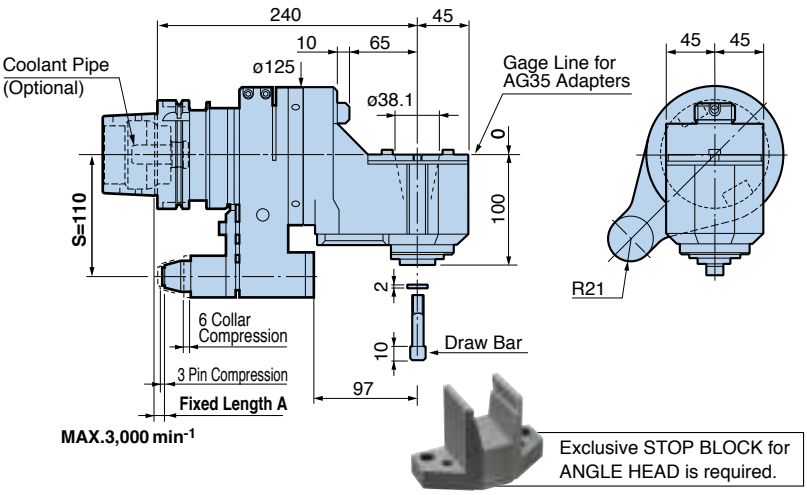
Spindle head is equipped with a short taper for quick changing of various adapters.

AG90 BUILD-UP type

SPINDLE ANGLE : 90˚

[STANDARD TYPE]

Designed for greater rigidity by having the face of the spindle bore in line with the center of the machine spindle. Also helps to minimize interference problems with ATC and storage problems within the magazine.



● The cutter rotates in the same direction of the machine spindle.

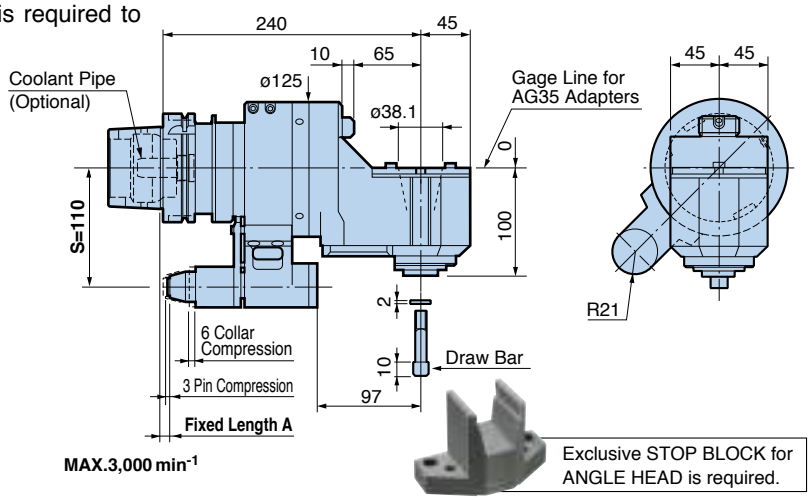
Model	Weight (kg)
HSK-A100-AG90/AGH35-240	14.2

1. **The standard Fixed Length A is 6mm.** Other lengths are available upon request.
2. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.
3. Coolant Pipe is ordered separately. (Coolant is supplied through the Locating Pin, not the Coolant Pipe.)

For AG35 ADAPTER A 54 For STOP BLOCK G 25
For COOLANT PIPE C 51

[HIGH RIGIDITY TYPE]

Provided with a steel housing and reinforced Locating Pin assembly for applications where increased rigidity is required to perform various types of heavier machining.



● The cutter rotates in the same direction of the machine spindle.

Model	Weight (kg)
HSK-A100-AG90/AGH35-240S	15.5

1. **The standard Fixed Length A is 6mm.** Other lengths are available upon request.
2. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚
3. Coolant Pipe is ordered separately. (Coolant is supplied through the Locating Pin, not the Coolant Pipe.)

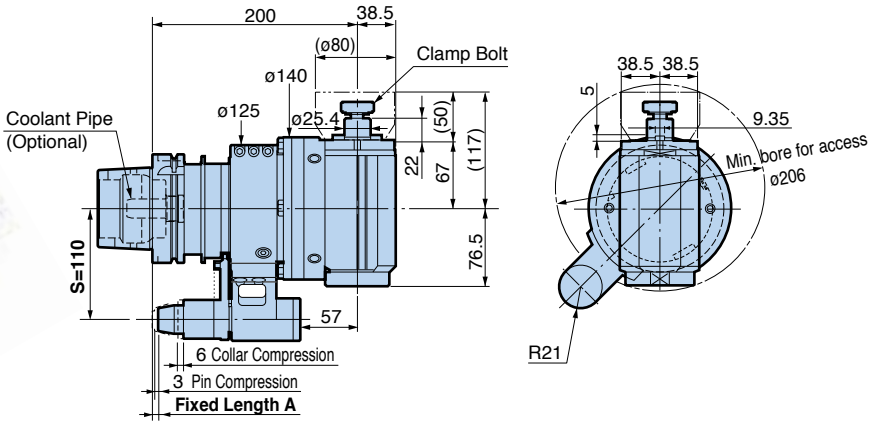
S=80 type is available upon request.

For AG35 ADAPTER A 54 For STOP BLOCK G 25
For COOLANT PIPE C 51

High rigidity bearings and substantial spindle design.
Max. power transmission 20Kw. (at 1,500min^{-1})

AG90 FACE MILL type

SPINDLE ANGLE : 90˚



MAX.1,500 min^{-1}

Exclusive STOP BLOCK for ANGLE HEAD is required.

Simple 90˚ indexing of the cutter direction.
(Accuracy ±5')

● The rotation of the cutting tool is in reverse direction of the machine spindle.

Model	Weight (kg)
HSK-A100-AG90-FMA25.4S-200S	18.4

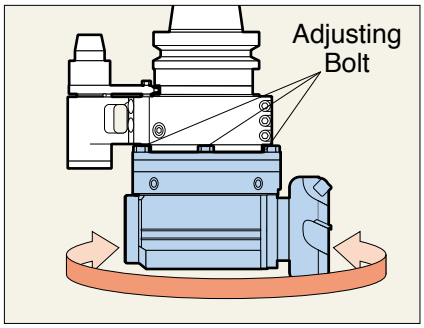
Figures in ( ) indicate dimensions when 80mm diameter and 50mm high face mill cutter is mounted.

1. **The standard Fixed Length A is 6mm.** Other lengths are available upon request.
2. Coolant cannot be supplied through the Locating Pin.
3. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.
4. Coolant Pipe is ordered separately. (Coolant is not supplied through the Coolant Pipe.)

For STOP BLOCK G 25 For COOLANT PIPE C 51

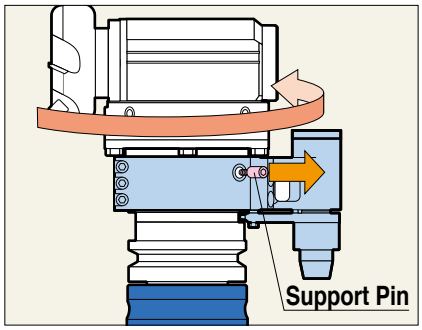
■ Cutter head adjustable through 360˚ to any angle

Following the release of the Adjusting Bolts (8 positions), the cutter direction can be easily adjusted.



■ Indexing through 90˚

Cutter head is quickly indexable to 90˚ increments. (The Support Pin should be removed.)

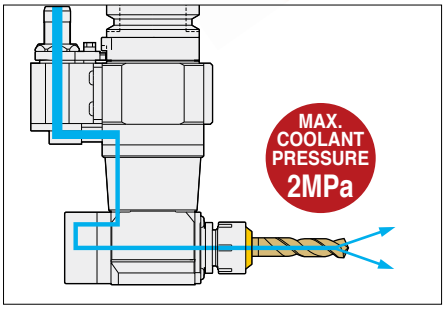


⚠CAUTION : Indexing should not take place within the machine.

ANGLE HEAD

AG90 OAG type SPINDLE ANGLE : 90˚

For drilling Secure coolant supply through tool!



Coolant is supplied from the Stop Block through the cutting tool.

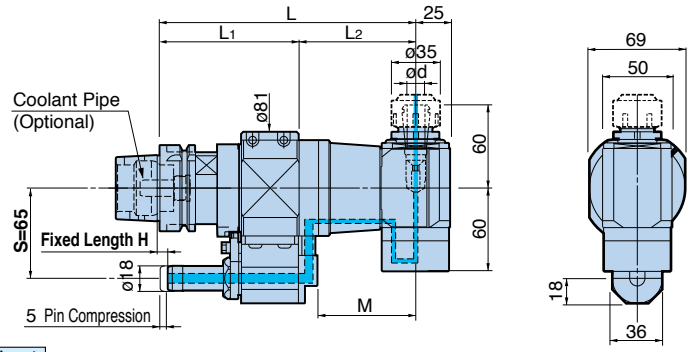


Fig. 1 **MAX.5,000min-1**

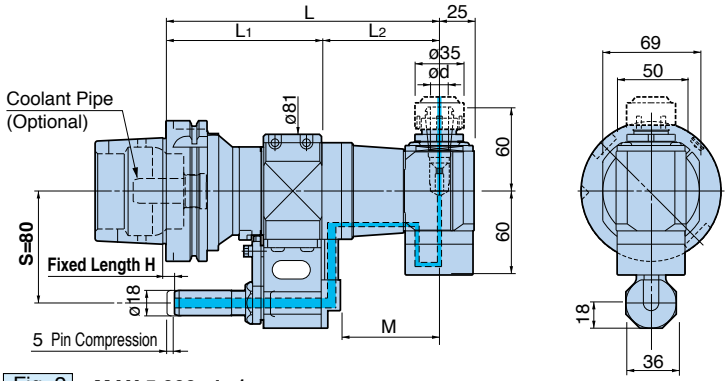


Fig. 2 **MAX.5,000min-1**

Exclusive STOP BLOCK is required.
Exclusive STOP BLOCK for OAG type is the same as HIGH SPINDLE & Hi JET HOLDER.

● The rotation of the cutting tool is in reverse direction of the machine spindle.

Model	Fig.	ød	L	L1	L2	M	Collet	NUT	Speed Ratio	Weight (kg)
HSK-A 63-OAG90-13-185	1	2.5 – 13	185	101	84	70.5	NBC13	BPS13	1 : 1	5.9
HSK-A100-OAG90-13-195	2		195	111						8.4

1. Designed to be used with coolant. Never run dry.
2. Clamping nut must be ordered separately. Please order BABY PERFECT SEAL (BPS) for your application.
3. Coolant Pipe is ordered separately. (Coolant is supplied through the Locating Pin, not the Coolant Pipe.)
4. Adjusting screw and wrench are included.
5. Fixed Length H and angle θ vary depending on machine models. Please specify your required dimensions.

For STOP BLOCK G 25
For NEW BABY COLLET G 3
For BABY PERFECT SEAL G 10
For COOLANT PIPE C 51

A special head case, angled at 45°, insures an accurate cutting angle.
Utilizes NEW BABY CHUCK to assure high accuracy and versatility.

AG45 NBS type

SPINDLE ANGLE : 45˚

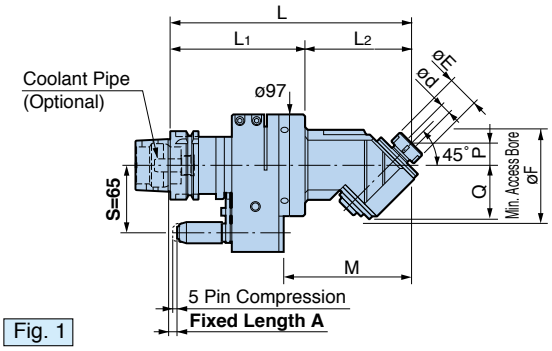


Fig. 1
MAX.6,000min^{-1}

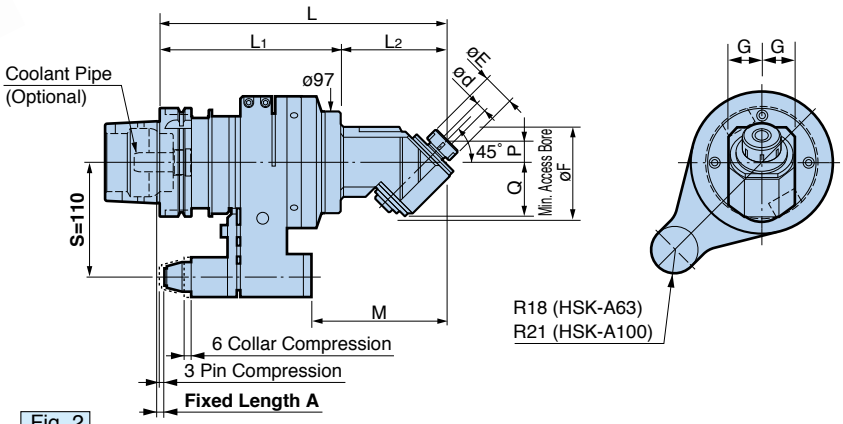


Fig. 2
MAX.6,000 min^{-1}

Exclusive STOP BLOCK is required.

● The rotation of the cutting tool is in reverse direction of the machine spindle.

Model	Fig.	ød	øE	G	L	L1	L2	M	P	Q	øF	Collet	Speed Ratio	Weight (kg)
HSK-A63 -AG45/NBS10-230	1	1.5 – 10	30	30	230	130	100	122	20	51.5	90	NBC10	1 : 1	5.6
-AG45/NBS13-235		2.5 – 13	35		235		105	127	25			NBC13		5.7
HSK-A100-AG45/NBS10-270	2	1.5 – 10	30	30	270	170	100	127	20	51.5	90	NBC10	1 : 1	12.4
-AG45/NBS13-275		2.5 – 13	35		275		105	132	25			NBC13		12.5

1. **The standard fixed length A: A63=8mm , A100=6mm.**
   Other lengths are available upon request.
2. Clamping nut and wrench are included. Collet must be ordered separately.
3. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.
4. New Baby Collet for endmill model NBC□-□EAA cannot be used.
5. Coolant Pipe is ordered separately. (Coolant is supplied through the Locating Pin, not the Coolant Pipe.)

For NEW BABY COLLET G 3
For STOP BLOCK G 25
For COOLANT PIPE C 51

ANGLE HEAD

Suitable for all cutting angles. In addition to the cutter head being adjustable a full 360˚, the spindle also becomes easily and precisely adjustable from 0˚ to 90˚ by 1˚ increments.

AGU UNIVERSAL type SPINDLE ANGLE : 0˚ to 90˚

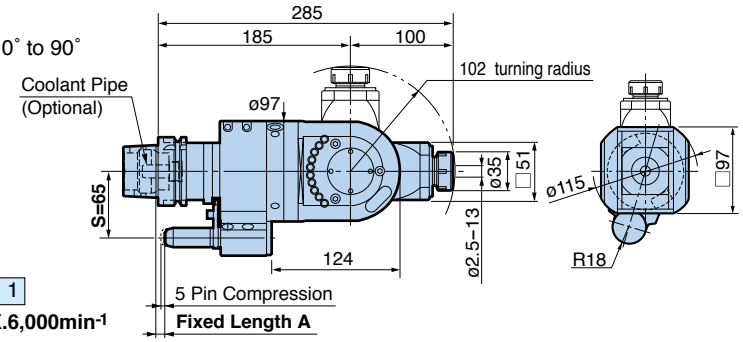


Fig. 1
MAX.6,000min-1

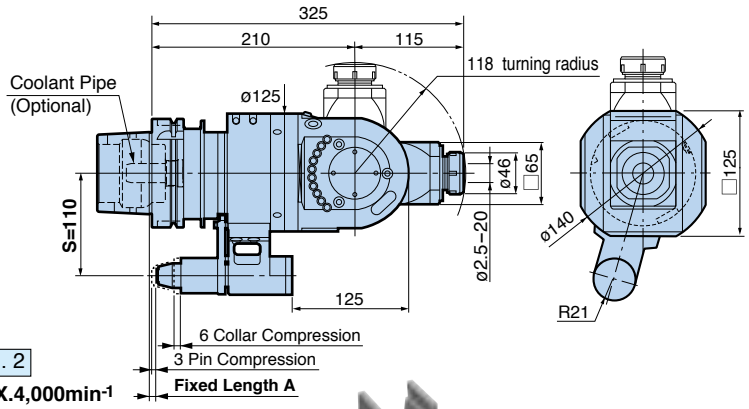
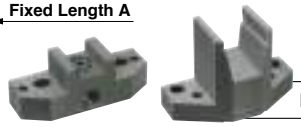


Fig. 2
MAX.4,000min-1



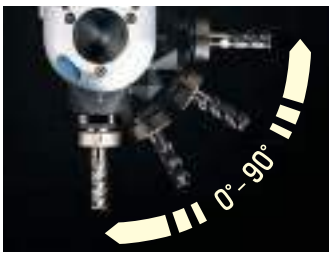
Exclusive STOP BLOCK is required.

● The rotation of the cutting tool is in reverse direction of the machine spindle.

Model	Fig.	Collet	Speed Ratio	Weight (kg)
HSK-A 63-AGU/NBS13-285	1	NBC13	1 : 1	9.6
HSK-A100-AGU/NBS20-325	2	NBC20	1 : 1	20.0

1. **The standard fixed length A: A63=8mm , A100=6mm.**
   Other lengths are available upon request.
2. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.
3. Clamping nut and wrench are included. Collet must be ordered separately.
4. Coolant Pipe is ordered separately.
   (Coolant is supplied through the Locating Pin, not the Coolant Pipe.)

For NEW BABY COLLET G 3
For STOP BLOCK G 25
For COOLANT PIPE C 51



EASILY ADJUSTABLE SPINDLE ANGLE FROM 0˚ to 90˚.

PRECISE ANGLE ADJUSTMENT

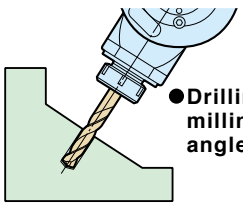
Unique setting mechanism enables the spindle angle to be precisely set at 1˚ increments.

EXCLUSIVE CLAMPING BOLTS AND NUTS

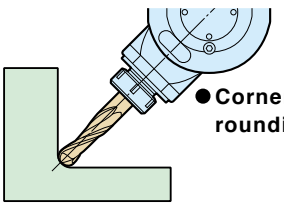
Specially selected materials and special design for clamping the head guarantee rigidity for even end milling applications.

Application example

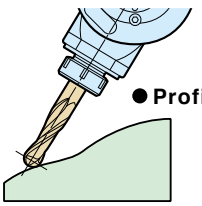
Adjustable AGU Universal Series expands Angle Head capabilities to accomplish various angular machining applications.



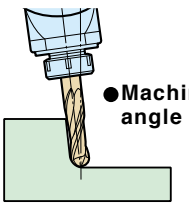
●Drilling or end milling on an angled surface



●Corner rounding



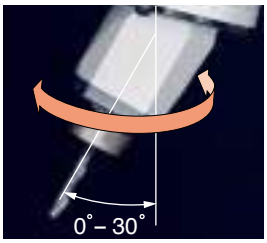
●Profiling



●Machining draft angle of a mold

Spindle angle is adjustable from 0 to 30 .
Large swivel flange assures high rigidity.

AGU AGU30 type SPINDLE ANGLE : 0˚ to 30˚



Angle adjustment by aligning divisions

Spindle angle is easily adjustable from 0˚to 30˚using the scale indication on the body.

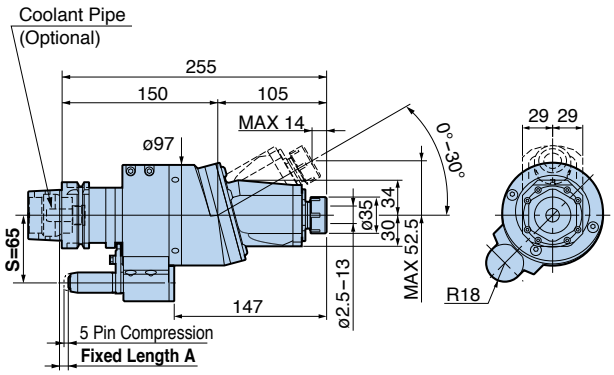


Fig. 1
MAX.6,000min-1

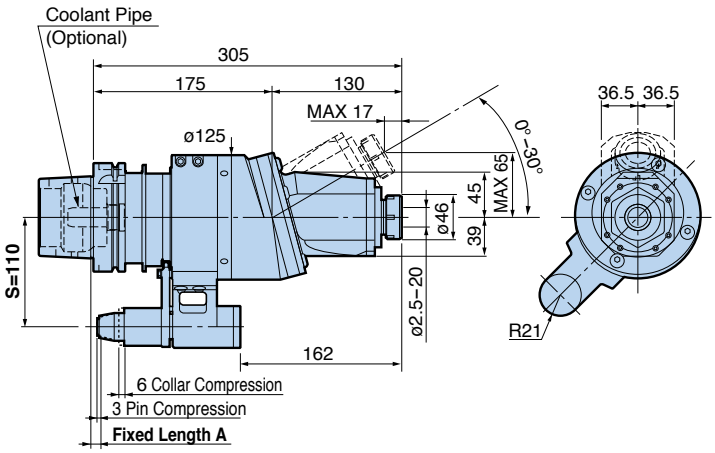


Fig. 2
MAX.4,000min-1

● The cutter rotates in the same direction of the machine spindle.

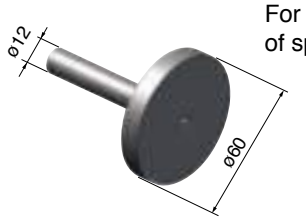
Model	Fig.	Collet	Speed Ratio	Weight (kg)
HSK-A 63-AGU30/NBS13-255	1	NBC13	1 : 1	6.8
HSK-A100-AGU30/NBS20-305	2	NBC20	1 : 1	15.3

1. **The standard fixed length A: A63=8mm , A100=6mm.**
   Other lengths are available upon request.
2. Clamping nut and wrench are included. Collet must be ordered separately.
3. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.
4. Coolant Pipe is ordered separately.
   (Coolant is supplied through the Locating Pin, not the Coolant Pipe.)

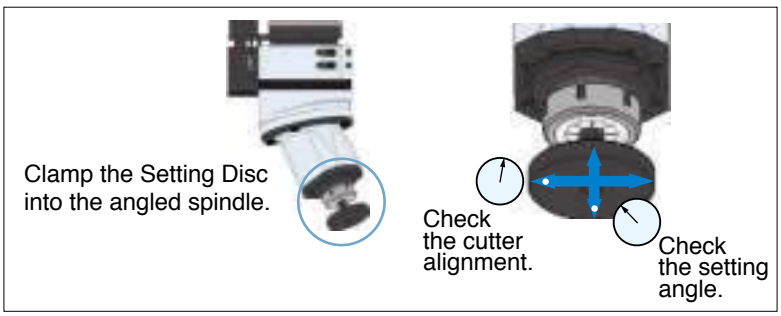
For NEW BABY COLLET G 3
For STOP BLOCK G 25
For COOLANT PIPE C 51

Exclusive STOP BLOCK is required.

■SETTING DISK (included accessory)



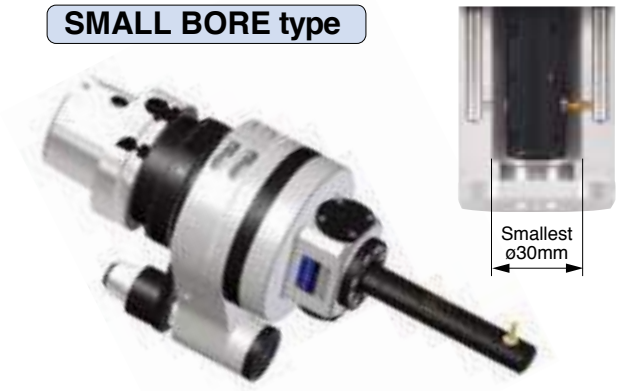
For the precise adjustment of spindle angle or direction.

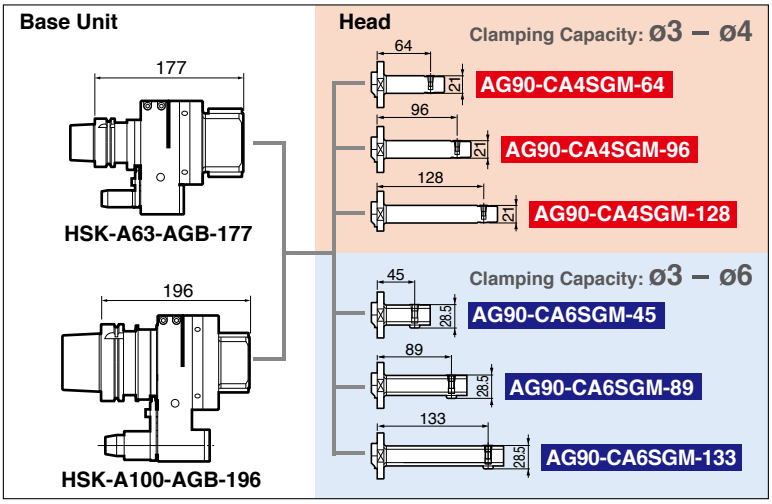


ANGLE HEAD

Angular operation in a ø30mm bore (min.) is possible. Modular heads enhance versatility.
Head is aligned with spindle center for easy programing.

SMALL BORE type





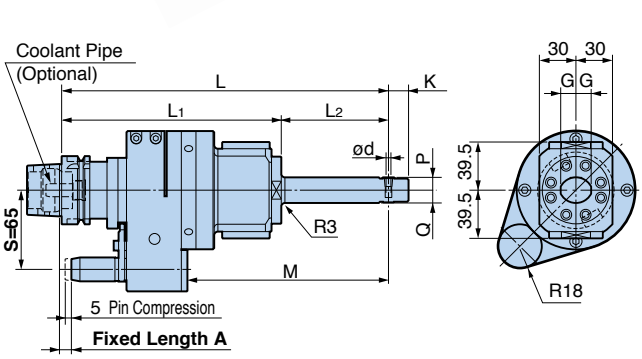


Fig. 1 **MAX.2,000min-1**

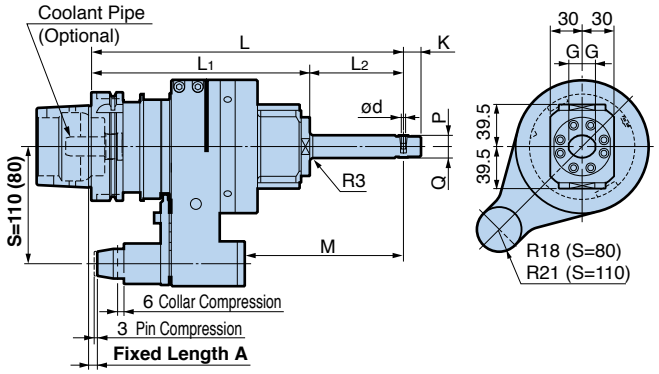


Fig. 2 **MAX.2,000min-1**

Exclusive STOP BLOCK is required.

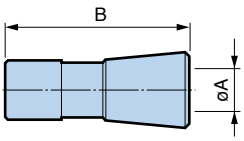
● The cutter rotates in the same direction of the machine spindle.

Set Model	Base	Head	Fig.	ød	G	K	L	L1	L2	M	P	Q	Speed Ratio	Weight (kg) S=65	S=80	S=110
HSK-A63-AG90-CA4SGM-241	HSK-A63-AGB-177	AG90-CA4SGM- 64	1	3 – 4	12.5	16.5	241	185	56	133	10.5	10.5	1:1.06 (Increase)	5.5	–	–
-273		- 96					273		88	165				5.6		
-305		-128					305		120	197				5.7		
-CA6SGM-222		AG90-CA6SGM- 45		3 – 6	15	20	222		37	114	12.5	16	1:0.77 (Decrease)	5.6		
-266		- 89					266		81	158				5.8		
-310		-133					310		125	202				6.0		
HSK-A100-AG90-CA4SGM-260	HSK-A100-AGB-196	AG90-CA4SGM- 64	2	3 – 4	12.5	16.5	260	204	56	117	10.5	10.5	1:1.06 (Increase)	–	11.7	11.1
-292		- 96					292		88	149					11.8	11.2
-324		-128					324		120	181					11.9	11.3
-CA6SGM-241		AG90-CA6SGM- 45		3 – 6	15	20	241		37	98	12.5	16	1:0.77 (Decrease)	–	11.8	11.2
-285		- 89					285		81	142					12.0	11.4
-329		-133					329		125	186					12.2	11.6

1. **The standard fixed length A: A63=8mm , A100=6mm.** Other lengths are available upon request.
2. The angles of positioning pin to drive key groove and direction of cutting edge are adjustable from 0˚ to 360˚.
3. Coolant cannot be supplied through the Locating Pin.
4. Exclusive collets should be ordered separately.
5. S=80 type is available for HSK-A100 models upon request.
6. Coolant Pipe is ordered separately. (Coolant is not supplied through the Coolant Pipe.)

For STOP BLOCK G 25 For COOLANT PIPE C 51

■EXCLUSIVE COLLET



Model	øA	B
CA4-3	3	16.5
-3.5	3.5	
-4	4	

Model	øA	B
CA6-3	3	22
-4	4	
-5	5	
-6	6	

1. Use only a cutting tool shank with exactly the same diameter as the collet bore diameter.
2. Tolerance of the cutting tool shank must be within h7.

AIR TURBINE SPINDLE

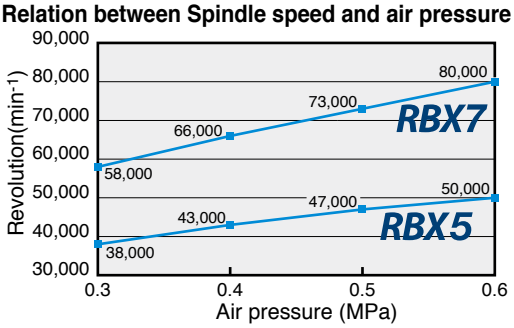
HIgh-speed Micro-Machining can be done on a normal machining center, eliminating the need of an expensive high-speed machine.

Machine Spindle Rotation = 0

MAX. 80,000 min-1

	RBX7	RBX5
Practical spindle speed (min-1)	60,000 - 80,000	40,000 - 50,000
Clamping Range	ø0.45 - ø4.05mm (MEGA4S)	
T.I.R at nose	Less than 1μm	
Air pressure	Less than 0.6MPa	
Air flow	300L/min [ANR](0.6MPa)	

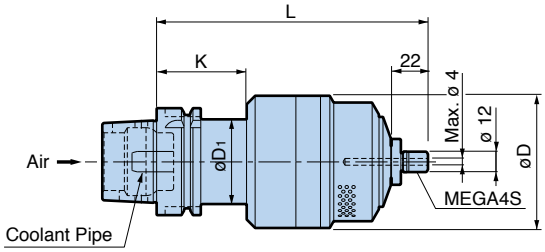
Relation between Spindle speed and air pressure (Reference)



CENTER THROUGH Type

For compressed air through the machine spindle.

For automatic tool change



Model	Operating spindle speed(min-1)	Tool diameter	L	øD	øD1	K	Weight (kg)
HSK-A 63-RBX7C-4S-160	60,000 – 80,000	ø1.0 or smaller	160	78	50	53	2.9
-RBX5C-4S-160	40,000 – 50,000	ø1.5 or smaller		96			3.9
HSK-A100-RBX7C-4S-165	60,000 – 80,000	ø1.0 or smaller	165	78	68	58	4.9
-RBX5C-4S-165	40,000 – 50,000	ø1.5 or smaller		96			5.9

1. Nut and wrenches are included. Collet must be ordered separately.
2. XF1(Air Unit) must be ordered separately. A 65
3. Coolant Pipe is included.

For MICRO COLLET G 2

For COOLANT PIPE C 51

CAUTION

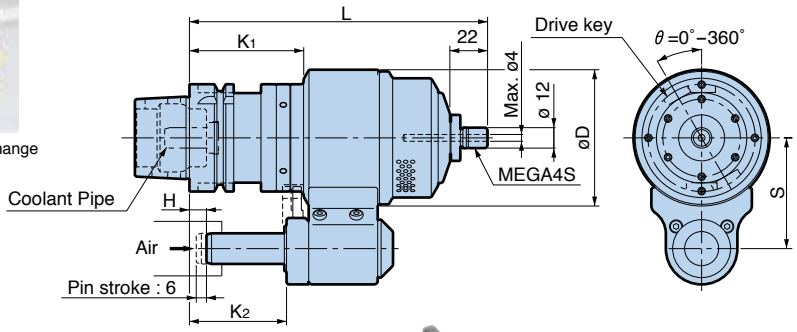
Compressed air to drive the AIR TURBINE SPINDLE must be clean. Therefore, coolant should not be supplied through the spindle on the machine that the AIR TURBINE SPINDLE is used.

AIR TURBINE SPINDLE

SIDE THROUGH Type

The compressed air is supplied through the stop block which also enables automatic tool change.

For automatic tool change



Exclusive STOP BLOCK is required.

Model	Operating spindle speed(min-1)	Tool diameter	L	øD	K1	K2	S	H	Weight (kg)
HSK-A 63-RBX7-4S-175-65	60,000 – 80,000	ø1.0 or smaller	175	80	67	57	65	0 – 45	3.8
-RBX5-4S-175-65	40,000 – 50,000	ø1.5 or smaller		96					4.8
HSK-A100-RBX7-4S-180-80	60,000 – 80,000	ø1.0 or smaller	180	100	72	62	80	5 – 50	8.4
-RBX5-4S-180-80	40,000 – 50,000	ø1.5 or smaller							9.4

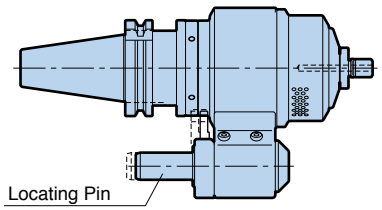
1. Nut and wrenches are included. Collet must be ordered separately.
2. XF1(Air Unit) must be ordered separately. A 65
3. Coolant Pipe is included.

For MICRO COLLET G 2
For COOLANT PIPE C 51

SET UP INFORMATION for AIR TURBINE SPINDLE

● Preparing the Stop Block

The BIG AIR TURBINE SPINDLE utilizing a Locating Pin requires the Stop Block, which is mounted to the machine spindle. Please contact a BIG agent for details.



[For manual tool change]

Easily mounted on machines without a stop block.

When ordering, please exchange the end of model number H.

Order Example
HSK-A63-RBX7-4S-175-65
↓
HSK-A63-RBX7-4S-175H

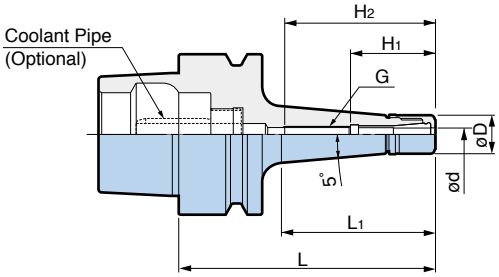
MEGA MICRO CHUCK®

Clamping Range : ø0.45 - ø8.05

Type T

Extremely slim design of body and nut provides superior balance and concentricity and is ideal for reaching into confined areas.

MAX. 50,000 min-1



Model	Clamping Range ød	øD	L	L1	H1	H2	G	Max. min-1	Collet Model	Weight (kg)
HSK-E25-MEGA3S- 45T※	0.45 – 3.25	10	45	32	22	32	–	50,000	NBC3S-□	0.06
- 60T			60	48		38	M4 P0.7	40,000		0.08
-MEGA4S- 45T※	0.45 – 4.05	12	45	33	26.5	32	–	50,000	NBC4S-□	0.07
- 60T			60	49		41	M5 P0.8	40,000		0.10
-MEGA6S- 45T※	0.45 – 6.05	14	45	33	28.5	31	–	50,000	NBC6S-□	0.08
- 60T			60	49		40	M7 P0.75	40,000		0.10
HSK-E32-MEGA3S- 60T	0.45 – 3.25	10	60	35	22	38	M4 P0.7	40,000	NBC3S-□	0.15
- 75T			75	50		38		40,000		0.17
-MEGA4S- 45T※	0.45 – 4.05	12	45	23	26.5	26	–	50,000	NBC4S-□	0.14
- 60T			60	35		46	M5 P0.8	40,000		0.16
-MEGA6S- 45T※	0.45 – 6.05	14	45	23	28.5	28	–	50,000	NBC6S-□	0.14
- 60T			60	36		38	M7 P0.75	40,000		0.17
-MEGA8S- 60T※	2.95 – 8.05	18	60	38	31	(43)	–	40,000	NBC8S-□	0.20
HSK-E40-MEGA3S- 60T	0.45 – 3.25	10	60	35	22	39	M4 P0.7	40,000	NBC3S-□	0.23
- 75T			75	50		38		40,000		0.25
-MEGA4S- 60T	0.45 – 4.05	12	60	35	26.5	44	M5 P0.8	40,000	NBC4S-□	0.24
- 75T			75	50		47		40,000		0.27
-MEGA6S- 60T※	0.45 – 6.05	14	60	35	28.5	(42)	–	40,000	NBC6S-□	0.24
- 75T			75	50		49	M7 P0.75	40,000		0.28
- 90T			90	65		49		40,000		0.32
HSK-E50-MEGA3S- 80T	0.45 – 3.25	10	80	49	22	38	M4 P0.7	40,000	NBC3S-□	0.46
-MEGA4S- 80T	0.45 – 4.05	12		48	26.5	47	M5 P0.8	40,000	NBC4S-□	0.47
-MEGA6S- 80T	0.45 – 6.05	14		49	28.5	49	M7 P0.75	40,000	NBC6S-□	0.48

1. MEGA NUT is included.
2. For models with the mark of ※, there is no internal thread (G).
3. Coolant pipe is ordered separately.

For COOLANT PIPE C 51

	Spare Parts	Accessories			
	MEGA NUT 	MEGA WRENCH 	MICRO COLLET G 2 	MICRO COLLET PROTECTIVE CASE 	α TAPER CLEANER 
MEGA MICRO CHUCK	Model	Model	Model	Model	Model
MEGA3S	**MGN3S**	**MGR10**	**NBC3S-□**	**NBB3S**	**SC-NBC3S**
MEGA4S	**MGN4S**	**MGR12**	**NBC4S-□**	**NBB4S**	**SC-NBC4S**
MEGA6S	**MGN6S**	**MGR14**	**NBC6S-□**	**NBB6S**	**SC-NBC6S**
MEGA8S	**MGN8S**	**MGR18**	**NBC8S-□**	–	–

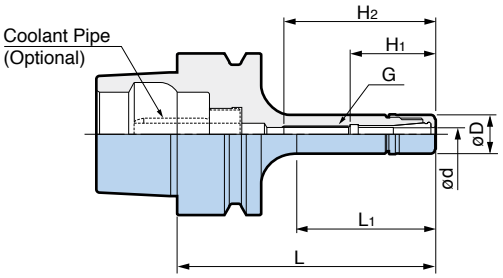
For MICRO SEAL NUT A 2

MEGA MICRO CHUCK®

Clamping Range : ø0.45 - ø6.05

Type S

MAX. 50,000 min-1



Model	Clamping Range ød	øD	L	L1	H1	H2	G	Max. min-1	Collet Model	Weight (kg)
HSK-E25-MEGA4S-45※	0.45 – 4.05	12	45	31	26.5	32	–	50,000	NBC4S-□	0.06
-60			60	46		42	M5 P0.8	40,000		0.08
-MEGA6S-45※	0.45 – 6.05	14	45	32	28	31	–	50,000	NBC6S-□	0.07
-60			60	47	28.5	41	M7 P0.75	40,000		0.08
HSK-E32-MEGA3S-45※	0.45 – 3.25	10	45	23	22	31	–	50,000	NBC3S-□	0.13
-MEGA4S-45	0.45 – 4.05	12	45	22	26.5	31	M5 P0.8	50,000	NBC4S-□	0.14
-60			60	34		46		40,000		0.15
-MEGA6S-45※	0.45 – 6.05	14	45	22	28.5	28	–	50,000	NBC6S-□	0.14
-60			60	35		38	M7 P0.75	40,000		0.15
HSK-E40-MEGA3S-40※	0.45 – 3.25	10	40	19	22	24	–	50,000	NBC3S-□	0.21
-MEGA4S-60	0.45 – 4.05	12	60	34	26.5	44	M5 P0.8	40,000	NBC4S-□	0.23
-MEGA6S-45※	0.45 – 6.05	14	45	23	27.5	27	–	50,000	NBC6S-□	0.22
-60※			60	35	28.5	42	–	40,000		0.23
HSK-E50-MEGA3S-50※	0.45 – 3.25	10	50	20	22	30	–	45,000	NBC3S-□	0.42
-MEGA4S-50※	0.45 – 4.05	12	50	21	26.5	30	–	45,000	NBC4S-□	0.43
-80			80	44		47	M5 P0.8	40,000		0.45
-MEGA6S-55※	0.45 – 6.05	14	55	26	28.5	35	–	45,000	NBC6S-□	0.44
-80			80	44		49	M7 P0.75	40,000		0.46

1. MEGA NUT is included.
2. For models with the mark of ※, there is no internal thread (G).
3. Coolant pipe is ordered separately.

For COOLANT PIPE C 51

	Spare Parts	Accessories			
	MEGA NUT 	MEGA WRENCH 	MICRO COLLET  G 2	MICRO COLLET PROTECTIVE CASE 	α TAPER CLEANER 
MEGA MICRO CHUCK	Model	Model	Model	Model	Model
MEGA3S	MGN3S	MGR10	NBC3S-□	NBB3S	SC-NBC3S
MEGA4S	MGN4S	MGR12	NBC4S-□	NBB4S	SC-NBC4S
MEGA6S	MGN6S	MGR14	NBC6S-□	NBB6S	SC-NBC6S

For MICRO SEAL NUT A 2

MEGA NEW BABY CHUCK®

Coolant-through hole

Clamping Range : ø0.25 - ø20

MAX. 40,000 min-1

High speed design utilizes ultra precision New Baby Collet which guarantees a runout at the collet nose of less than 1 micron.

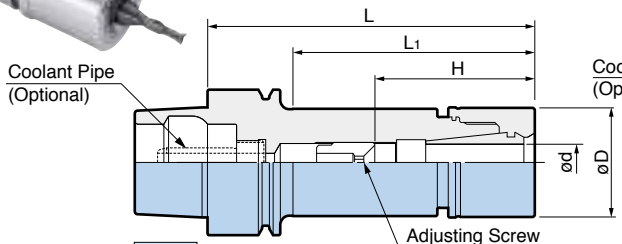


Fig.1

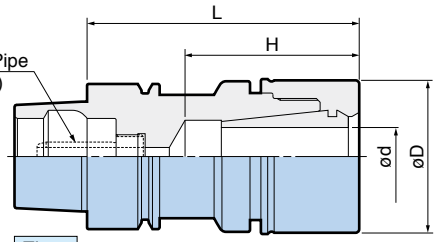


Fig.2

Model	Fig.	Clamping Range ød	øD	L	L1	H	Max. min-1	Collet Model	Weight (kg)
HSK-E25-MEGA 6N- 40 ※	1	0.25 – 6	20	40	29	25	30,000	NBC 6-□	0.10
8N- 45 ※	2	0.5 – 8	25	45	—	30	25,000	NBC 8-□	0.12
10N- 60 ※▲		1.5 – 10	30	60	—	45	20,000	NBC10-□	0.17
HSK-E32-MEGA 6N- 45 ※	1	0.25 – 6	20	45	24	28	40,000	NBC 6-□	0.17
- 60				60	37	23 – 27	35,000		0.20
-MEGA 8N- 50 ※	1	0.5 – 8	25	50	29	33	40,000	NBC 8-□	0.22
- 65				65	44	26 – 32	35,000		0.27
-MEGA10N- 65 ※	2	1.5 – 10	30	65	—	47	30,000	NBC10-□	0.28
-MEGA13N- 70 ※		2.5 – 13	35	70	—	44	25,000	NBC13-□	0.31
HSK-E40-MEGA 6N- 50 ※	1	0.25 – 6	20	50	26	31	40,000	NBC 6-□	0.26
- 60				60	34	23 – 26	35,000		0.28
- 75				75	49	23 – 41	30,000		0.31
- 90				90	64	23 – 43	28,000		0.35
-120				120	94		25,000		0.41
-MEGA 8N- 55 ※	1	0.5 – 8	25	55	31	36	40,000	NBC 8-□	0.31
- 75				75	51	26 – 41	30,000		0.38
- 90				90	66	26 – 45	28,000		0.43
-MEGA10N- 60 ※	1	1.5 – 10	30	60	37	40	35,000	NBC10-□	0.39
- 75 ※				75	52	55	30,000		0.46
- 90				90	67	38 – 48	28,000		0.53
-MEGA13N- 65 ※	1	2.5 – 13	35	65	44	44	30,000	NBC13-□	0.45
- 75 ※				75	54	55	25,000		0.53
- 90				90	69	44 – 48			0.62
-120				120	99	44 – 63	20,000		0.80
-150				150	129		15,000		1.00
-MEGA16N- 65 ※▲	2	2.5 – 16	42	65	—	46	25,000		0.43
- 75 ※				75		48	20,000	NBC16-□	0.60

1. MEGA NUT is included.
2. Adjusting screws can not be used with ※ marked models.
3. "H" indicates the adjustment length with an Adjusting Screw.
4. Coolant pipe is ordered separately.
5. NBC-E collet can not be used with ▲ marked models.

For COOLANT PIPE C 51

Spare Parts

MEGA NUT

Accessories

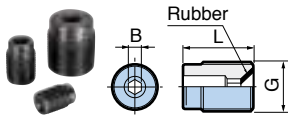
MEGA WRENCH

NBC COLLET G 3

For ENDMILL COLLET G 7

SEALING NUT
MEGA PERFECT SEAL G 9

ADJUSTING SCREW



MEGA NEW BABY CHUCK	Model	Model	Model	Model	Model	G	L	B
MEGA 6N	MGN 6	MGR20	NBC 6-□	MPS 6-□	NBA 6B	M 7	12	2
MEGA 8N	MGN 8	MGR25	NBC 8-□	MPS 8-□	NBA 8B	M 9	13	2.5
MEGA10N	MGN10	MGR30	NBC10-□	MPS10-□	NBA10B	M11	16	3
MEGA13N	MGN13	MGR35	NBC13-□	MPS13-□	NBA13B	M14	20	4
MEGA16N	MGN16	MGR42	NBC16-□	MPS16-□	NBA16B	M18	20	4
MEGA20N	MGN20	MGR46	NBC20-□	MPS20-□	NBA20B	M21	20	4

MEGA NEW BABY CHUCK®

Coolant-through hole

Clamping Range : ø0.25 - ø20

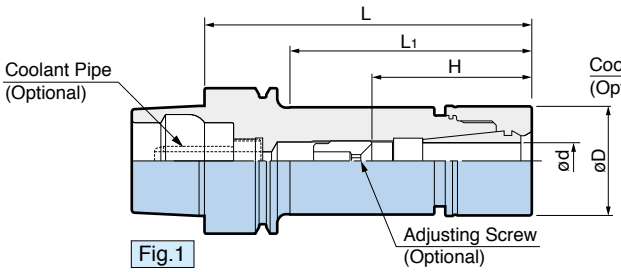


Fig.1

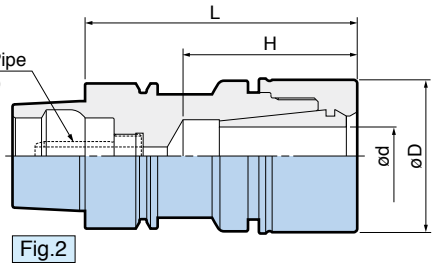


Fig.2

Model	Fig.	Clamping Range ød	øD	L	L1	H	Max. min-1	Collet Model	Weight (kg)
HSK-E50-MEGA 6N- 55※	1	0.25 – 6	20	55	27	35	40,000	NBC 6-□	0.47
- 70				70	38	23 – 39	30,000		0.50
-100				100	64	23 – 43	25,000		0.56
-130				130	94		20,000		0.63
-MEGA 8N- 60※	1	0.5 – 8	25	60	30	37	40,000	NBC 8-□	0.52
- 90				90	56	26 – 45	30,000		0.62
-MEGA10N- 60※▲	1	1.5 – 10	30	60	30	35	35,000	NBC10-□	0.56
- 90				90	58	38 – 48	30,000		0.70
-MEGA13N- 70※	1	2.5 – 13	35	70	40	45	28,000	NBC13-□	0.67
- 90				90	60	44 – 47	25,000		0.80
-120				120	90	44 – 63	20,000		1.00
-150				150	120		15,000		1.24
-MEGA16N- 75※	1	2.5 – 16	42	75	48	52	28,000	NBC16-□	0.85
- 90※				90	63	65	25,000		1.00
-MEGA20N- 75※▲	2	2.5 – 20	46	75	—	49	25,000	NBC20-□	0.80
-100				100	—	51 – 54	20,000		1.10
-130				130	—	51 – 68	18,000		1.50
-160				160	—		15,000		1.80

1. MEGA NUT is included.
2. Adjusting screws can not be used with ※ marked models.
3. "H" indicates the adjustment length with an Adjusting Screw.
4. Coolant pipe is ordered separately.
5. NBC-E collet can not be used with ▲ marked models.

For COOLANT PIPE C 51

Spare Parts

MEGA NUT

Accessories

MEGA WRENCH

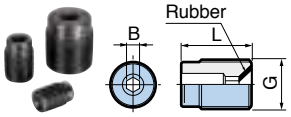
NBC COLLET G 3

For ENDMILL COLLET G 7

SEALING NUT
MEGA PERFECT SEAL

G 9

ADJUSTING SCREW



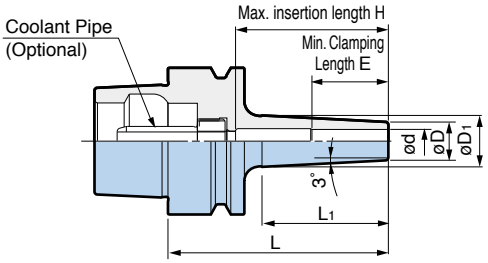
MEGA NEW BABY CHUCK	Spare Parts Model	Accessories Model	Model	Model	Model	G	L	B
MEGA 6N	MGN 6	MGR20	NBC 6-□	MPS 6-□	NBA 6B	M 7	12	2
MEGA 8N	MGN 8	MGR25	NBC 8-□	MPS 8-□	NBA 8B	M 9	13	2.5
MEGA10N	MGN10	MGR30	NBC10-□	MPS10-□	NBA10B	M11	16	3
MEGA13N	MGN13	MGR35	NBC13-□	MPS13-□	NBA13B	M14	20	4
MEGA16N	MGN16	MGR42	NBC16-□	MPS16-□	NBA16B	M18	20	4
MEGA20N	MGN20	MGR46	NBC20-□	MPS20-□	NBA20B	M21	20	4

SHRINK CHUCK

Coolant-through hole

Clamping Range : ø4 - ø12

Slim design avoids interference with the side wall and draft of the mold.



Model	ød	øD	øD1	L	L1	E	H	Weight (kg)
HSK-E25-SRC 4S- 45 ※	4	7	10.0	45	29	16	18	0.06
-SRC 6S- 60	6	10	15.0	60	46	26	46	0.08
-SRC 8S- 60	8	13	18.0		48			0.10
HSK-E32-SRC 4S- 60 ※	4	7	10.0	60	33	16	18	0.14
-SRC 6S- 60	6	10	13.5		34	26	43	0.15
-SRC 8S- 60	8	13	16.5					0.16
-SRC10S- 60	10	16	20.0		36	32		0.18
-SRC12S- 60	12	19	23.0		37	35		0.19
HSK-E40-SRC 4S- 60 ※	4	7	10.0	60	34	16	44	0.22
-SRC 6S- 75	6	10	15.0	75	49	26	52	0.24
-SRC 8S- 75	8	13	18.0					0.26
-SRC10S- 75	10	16	21.0			32	56	0.29
-SRC12S- 75	12	19	24.0			36		0.31
HSK-E50-SRC 6S- 75	6	10	14.5	75	43	26	55	0.45
-SRC 8S- 75	8	13	17.5				52	0.46
-SRC10S- 75	10	16	20.5			32	52	0.48
-SRC12S- 75	12	19	23.5			36		0.51

1. Use carbide cutter within a tolerance of h6.
2. ※ Use carbide cutter within a tolerance of h5.
3. Coolant pipe is ordered separately.

α Wiper Cleaner is recommended to clean the clamping bore. G 19

Please refer to the operation manual of heating / cooling equipment, as some equipment may not be compatible.

For COOLANT PIPE C 51

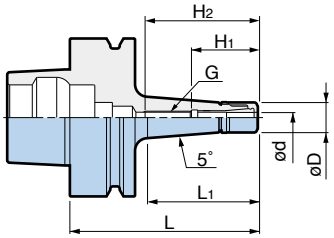
MEGA MICRO CHUCK®

Clamping Range : ø0.45 - ø6.05

Type T

Extremely slim design of body and nut provides superior balance and concentricity and is ideal for reaching into confined areas.

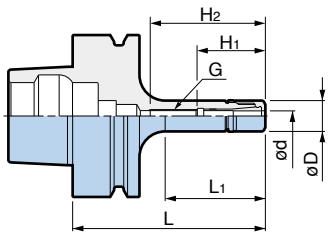
MAX. 32,000 min-1



Model	Clamping Range ød	øD	L	L1	H1	H2	G	Max. min-1	Collet Model	Weight (kg)
HSK-F63-MEGA4S- 75T	0.45 – 4.05	12	75	44	26.5	41	M5 P0.8	32,000	NBC4S-□	0.7
-MEGA6S- 75T	0.45 – 6.05	14	75	44	28.5	41	M7 P0.75	32,000	NBC6S-□	0.7

1. MEGA NUT is included.
2. Please contact BIG agent for HSK-F coolant pipe.

Type S



Model	Clamping Range ød	øD	L	L1	H1	H2	G	Max. min-1	Collet Model	Weight (kg)
HSK-F63-MEGA4S- 75	0.45 – 4.05	12	75	39	26.5	41	M5 P0.8	30,000	NBC4S-□	0.7
-105			105	76		47		25,000		0.7
-MEGA6S- 75	0.45 – 6.05	14	75	46	28.5	41	M7 P0.75	30,000	NBC6S-□	0.7
- 90			90	61		49		27,000		0.71
-105			105	76		49		25,000		0.75

1. MEGA NUT is included.
2. Please contact BIG agent for HSK-F coolant pipe.

	Spare Parts	Accessories			
	MEGA NUT 	MEGA WRENCH 	MICRO COLLET G 2 	MICRO COLLET PROTECTIVE CASE 	α TAPER CLEANER 
MEGA MICRO CHUCK	Model	Model	Model	Model	Model
MEGA4S	**MGN4S**	**MGR12**	**NBC4S-□**	**NBB4S**	**SC-NBC4S**
MEGA6S	**MGN6S**	**MGR14**	**NBC6S-□**	**NBB6S**	**SC-NBC6S**

For MICRO SEAL NUT A 2

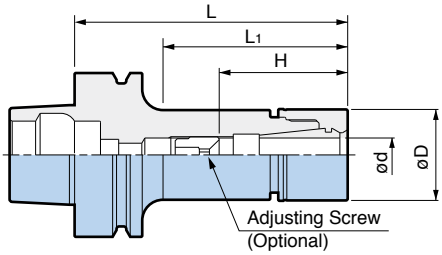
MEGA NEW BABY CHUCK®

Coolant-through hole

Clamping Range : ø0.25 - ø20

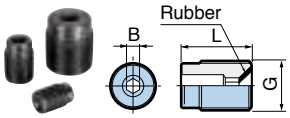
The Body, Collet, Nut and Wrench are specifically designed to be ideal for high speed operations.

MAX. 35,000 min-1



Model	Clamping Range ød	øD	L	L1	H	Max. min-1	Collet Model	Weight (kg)
HSK-F63-MEGA 6N- 75	0.25 – 6	20	75	42	23 – 31	35,000	NBC 6-□	0.7
- 90			90	53	23 – 43	30,000		0.8
-105			105	69		25,000		0.8
-135			135	99		20,000		0.9
-MEGA 8N- 75	0.5 – 8	25	75	43	26 – 38	32,000	NBC 8-□	0.8
- 90			90	54	26 – 45	30,000		0.9
-105			105	69				0.9
-120			120	84		25,000		0.9
-135			135	99		20,000		1.0
-165			165	129		15,000		1.1
-MEGA10N- 75※	1.5 – 10	30	75	43	48	32,000	NBC10-□	0.9
- 90			90	54	38 – 48	30,000		0.9
-105			105	69		25,000		1.0
-120			120	84				1.1
-MEGA13N- 75※	2.5 – 13	35	75	43	47	30,000	NBC13-□	0.9
- 90※			90	56	61			1.0
-105			105	71	44 – 53	25,000		1.1
-120			120	86	44 – 63	20,000		1.2
-165			165	131		15,000		1.6
-MEGA16N- 75※	2.5 – 16	42	75	43	48	30,000	NBC16-□	1.0
- 90※			90	58	61	25,000		1.2
-105			105	73	48 – 56	20,000		1.3
-MEGA20N- 75※	2.5 – 20	46	75	45	51	30,000	NBC20-□	1.1
- 90※			90	60	61	25,000		1.3
-105			105	75	51 – 58	20,000		1.4

1. MEGA NUT is included.
2. Adjusting screws can not be used with ※marked models.
3. "H" indicates the adjustment length with an Adjusting Screw.
4. Please contact BIG agent for HSK-F coolant pipe.

	Spare Parts	Accessories						
	MEGA NUT 	MEGA WRENCH 	NBC COLLET G 3 For ENDMILL COLLET G 7 	SEALING NUT MEGA PERFECT SEAL G 9 	ADJUSTING SCREW 			
MEGA NEW BABY CHUCK	Model	Model	Model	Model	Model	G	L	B
MEGA 6N	MGN 6	MGR20	NBC 6-□	MPS 6-□	NBA 6B	M 7	12	2
MEGA 8N	MGN 8	MGR25	NBC 8-□	MPS 8-□	NBA 8B	M 9	13	2.5
MEGA10N	MGN10	MGR30	NBC10-□	MPS10-□	NBA10B	M11	16	3
MEGA13N	MGN13	MGR35	NBC13-□	MPS13-□	NBA13B	M14	20	4
MEGA16N	MGN16	MGR42	NBC16-□	MPS16-□	NBA16B	M18	20	4
MEGA20N	MGN20	MGR46	NBC20-□	MPS20-□	NBA20B	M21	20	4

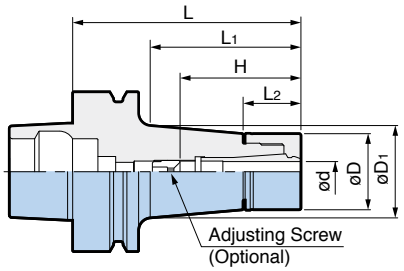
MEGA E CHUCK®

Coolant-through hole

Clamping Range : ø3 - ø12

Collet chuck designed exclusively for endmilling with high concentricity and rigidity.

MAX. 30,000 min-1



Model	Clamping Range ød	øD	øD1	L	L1	L2	H	Max. min-1	Collet Model	Weight (kg)
HSK-F63-MEGA 6E- 65※	3 – 6	25	28.1	65	34	21	39	30,000	MEC 6-□	0.8
- 90			31.2	90	58		37 – 45			0.9
-MEGA 8E- 65※	3 – 8	30	32.8	65	34	22.5	41	30,000	MEC 8-□	0.8
- 90			36.2	90	59		42 – 47			1.0
-MEGA10E- 75※	3 – 10	35	38.4	75	44	23	48	30,000	MEC10-□	1.0
- 90※			41.1	90	59		67			1.2
-105			43.9	105	75		48 – 58	29,000		1.3
-120			46.7	120	91					1.6
-135			48.9	135	107			27,000		1.8
-MEGA13E- 75※	3 – 12	42	45.7	75	47	25	50	30,000	MEC13-□	1.1
- 90※			48.3	90	62		64			1.4
-105			51	105	78		50 – 58	29,000		1.6
-135			51.8	135	108		50 – 60	26,000		2.0

1. MEGA E NUT is included.
2. Adjusting screws can not be used with ※ marked models.
3. "H" indicates the adjustment length with an Adjusting Screw.
4. Please contact BIG agent for HSK-F coolant pipe.

Spare Parts

MEGA E NUT

Accessories

MEGA WRENCH

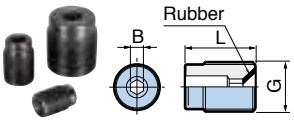
MEGA E COLLET

G 11

SEALING NUT
MEGA E PERFECT SEAL

G 11

ADJUSTING SCREW



MEGA E CHUCK	Spare Parts Model	Accessories Model	Accessories Model	Accessories Model	Accessories Model	G	L	B
MEGA 6E	MEN 6	MGR25	MEC 6-□	EPS 6-□	NBA 6B	M 7	12	2
MEGA 8E	MEN 8	MGR30	MEC 8-□	EPS 8-□	NBA 8B	M 9	13	2.5
MEGA10E	MEN10	MGR35	MEC10-□	EPS10-□	NBA10B	M11	16	3
MEGA13E	MEN13	MGR42	MEC13-□	EPS13-□	NBA13B	M14	20	4

MEGA DOUBLE POWER CHUCK®

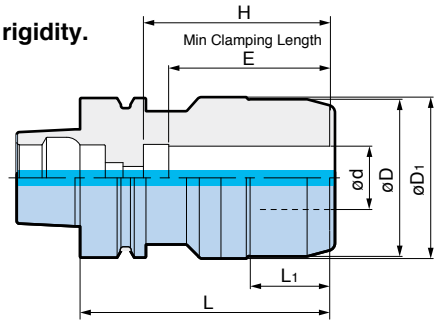
Coolant-through hole

Clamping Range : ø16 - ø32

Type D

Close to integral rigidity and precision of a solid toolholder.
Flange contacting nut assures highest rigidity.

MAX. 28,000 min-1



Model	ød	øD	øD1	L	L1	H	E	Max. min-1	Weight (kg)
HSK-F63-MEGA16D- 80A	16	42	52.6	80	25	55	50	28,000	1.2
-MEGA20D- 90A	20	50	55	90	34	65	56	28,000	1.4
-MEGA25D-100A	25	62	62.7	100	39	75	57	25,000	1.8
-MEGA32D-105A	32	70	70.7	105	33.5	80	64	24,000	2.0

1. Wrench is ordered separately.
2. Please contact BIG agent for HSK-F coolant pipe.

For STRAIGHT COLLET G 15

Accessories

	MEGA WRENCH 
MEGA DOUBLE POWER CHUCK	Model
HSK-F63-MEGA16D	**MGR42L**
-MEGA20D	**MGR50L**
-MEGA25D	**MGR62L**
-MEGA32D	**MGR70L**

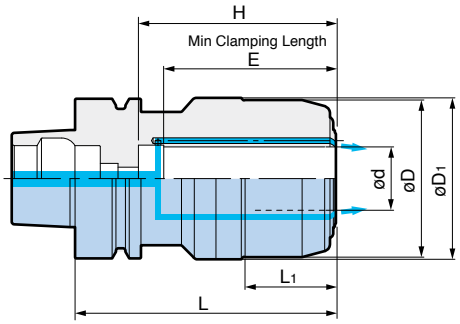
MEGA DOUBLE POWER CHUCK®

Coolant-through hole

Clamping Range : ø16 - ø32

Type DS

For coolant to cutting tool periphery



Model	ød	øD	øD1	L	L1	H	E	Max. min-1	Weight (kg)
HSK-F63-MEGA16DS- 80A	16	42	52.6	82	27	57	52	28,000	1.2
-MEGA20DS- 90A	20	50	55	92	36	67	58	28,000	1.4
-MEGA25DS-100A	25	62	62.7	102	41	77	59	25,000	1.8
-MEGA32DS-105A	32	70	70.7	107	35.5	82	66	24,000	2.0

1. Wrench is ordered separately.
2. Please contact BIG agent for HSK-F coolant pipe.

For STRAIGHT COLLET G 15

Accessories

MEGA WRENCH

MEGA DOUBLE POWER CHUCK	Model
HSK-F63-MEGA16DS	**MGR42L**
-MEGA20DS	**MGR50L**
-MEGA25DS	**MGR62L**
-MEGA32DS	**MGR70L**

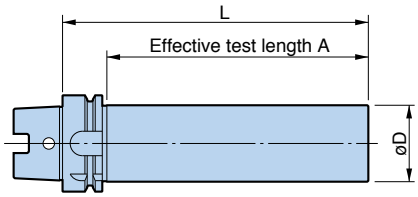
DYNA TEST

For inspection and adjustment of machine spindle.

Aluminum box

With in Aluminum box for strage.

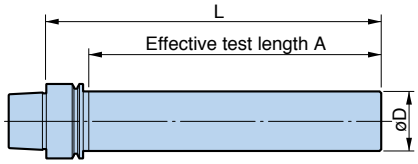
HSK-A Type [DIN 69893-1 & ISO 12164-1]



Model	L	A	øD
HSK-A 40-32-L180SD	180	157	32
-A 50-32-L240SD	240	211	
-A 63-50-L200SD	200	171	50
-L350SD	350	321	
-A100-50-L200SD	200	168	
-L350SD	350	318	

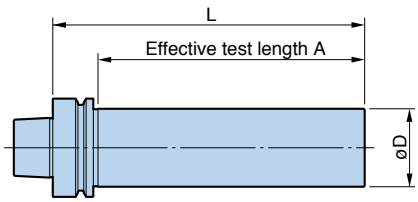
1.The drive key slots are symmetrical to allow the HSK form A Dyna Test Bar to be indexed 180 degrees.

HSK-E Type [DIN 69893-5]



Model	L	A	øD
HSK-E25-20-L175	175	163	20
-E32-20-L180	180	158	
-E40-32-L180		157	32
-E50-32-L240	240	211	

HSK-F Type [DIN V 69893-6]



Model	L	A	øD
HSK-F63-50-L200	200	171	50
-L350	350	321	

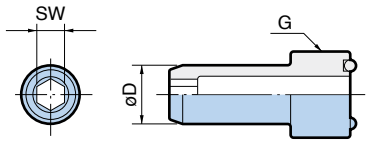
COOLANT PIPE For Form A and Form E

Form A Form E

Please contact BIG agent for HSK-F coolant pipe.

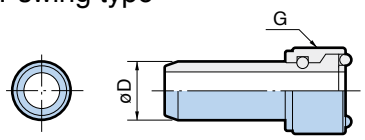
Caution For machines capable of supplying coolant through spindle, the Coolant Pipe should be fitted to all HSK holders to protect against accidental selection of coolant.

● Mono block type

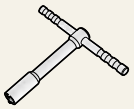


Model	øD	G	⬡ SW
HSK 25-CP	5	M 8×P1	2.5
32-CP	6	M10×P1	3
40-CP	8	M12×P1	4
50-CP	10	M16×P1	5
63-CP	12	M18×P1	6
80-CP	14	M20×P1.5	8
100-CP	16	M24×P1.5	8

● 1° swing type



Model	øD	G	Wrench (Optional)
HSK 40-CPM	8	M12×P1	CPW 40
50-CPM	10	M16×P1	CPW 50
63-CPM	12	M18×P1	CPW 63
80-CPM	14	M20×P1.5	CPW 80
100-CPM	16	M24×P1.5	CPW100

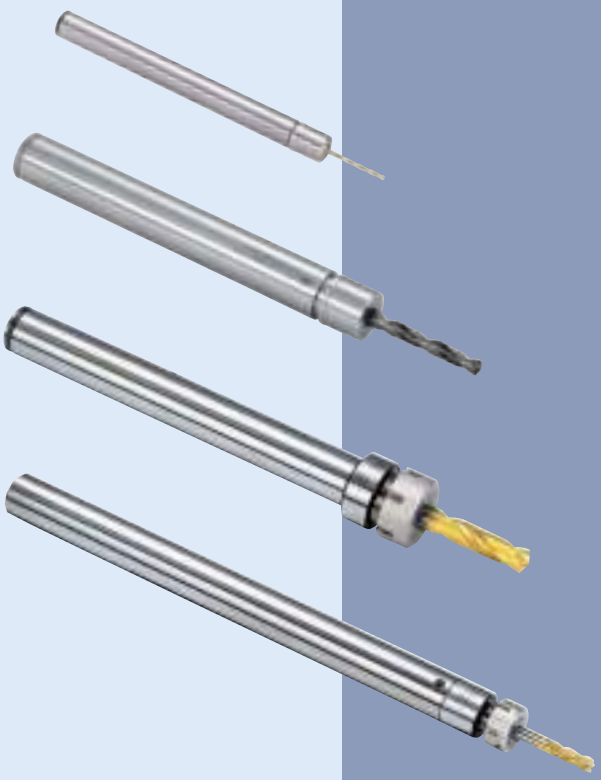


HSK Turning tools HSK-T63, T100 (ISO 12164-3)

Revolutionary!
The very first modular tooling system for Turning application.

E 11 - E18

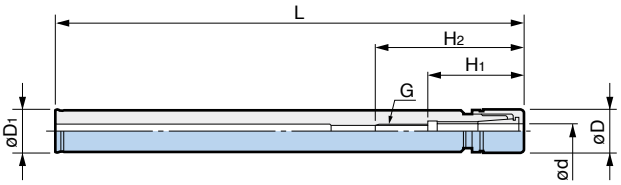
CYLINDRICAL SHANK



MEGA MICRO CHUCK®

Clamping Range : ø0.45 - ø8.05

ø10 ultra small dia. to avoid interference.
High precision is maintained by combination with MEGA NEW BABY CHUCK.



Model	Clamping Range ød	øD	øD1	L	H1	H2	G	Collet Model	Nut Model	Weight (kg)
ST10-MEGA3S-120	0.45 – 3.25	10	10	120	22	38	M4 P0.7	NBC3S-□	MGN3S	0.06
ST12-MEGA4S-130	0.45 – 4.05	12	12	130	26.5	47	M5 P0.8	NBC4S-□	MGN4S	0.11
-160				160						0.13
ST14-MEGA6S-160	0.45 – 6.05	14	14	160	28.5	49	M7 P0.75	NBC6S-□	MGN6S	0.18
-200				200						0.21
ST16-MEGA8S-160	2.95 – 8.05	18	16	160	31	50.5	M9 P0.75	NBC8S-□	MGN8S	0.23

1. MEGA NUT is included.

	Spare Parts	Accessories			
	MEGA NUT 	MEGA WRENCH 	MICRO COLLET G 2 	MICRO COLLET PROTECTIVE CASE 	α TAPER CLEANER 
MEGA MICRO CHUCK	Model	Model	Model	Model	Model
MEGA3S	**MGN3S**	**MGR10**	**NBC3S-□**	**NBB3S**	**SC-NBC3S**
MEGA4S	**MGN4S**	**MGR12**	**NBC4S-□**	**NBB4S**	**SC-NBC4S**
MEGA6S	**MGN6S**	**MGR14**	**NBC6S-□**	**NBB6S**	**SC-NBC6S**
MEGA8S	**MGN8S**	**MGR18**	**NBC8S-□**	—	—

■ MEGA MICRO CHUCK SET

Including convenient storage case.

Set model	**SST12-MEGA4S-130**

Contents
< SST12 - MEGA4S - 130 >
- BODY/ ST12 - MEGA4S - 130 (with MGN4S nut)
- COLLET/ NBC4S - 3 & 4 (2 pcs.)
- WRENCH/ MGR12

Set model	**SST14-MEGA6S-160**

< SST14 - MEGA6S - 160 >
- BODY/ ST14 - MEGA6S - 160 (with MGN6S nut)
- COLLET/ NBC6S - 3,4,5 & 6 (4 pcs.)
- WRENCH/ MGR14

Set model	**SST16-MEGA8S-160**

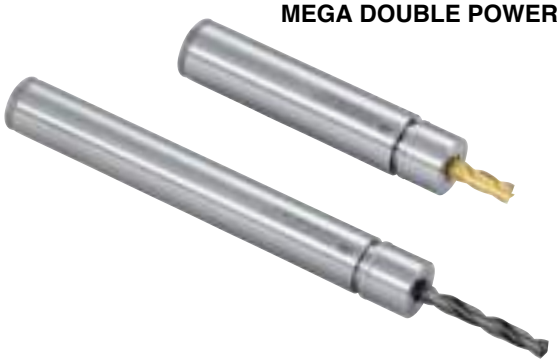
Contents
< SST16 - MEGA8S - 160 >
- BODY/ ST16 - MEGA8S - 160 (with MGN8S nut)
- COLLET/ NBC8S - 3,4,6 & 8 (4 pcs.)
- WRENCH/ MGR18

MEGA NEW BABY CHUCK®

Coolant-through hole

Clamping Range : ø0.25 - ø20

Cylindrical shank models offer flexible solutions against possible interference in combination with MEGA DOUBLE POWER CHUCK.



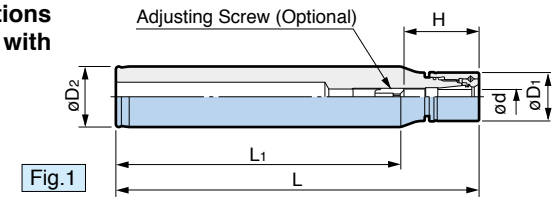


Fig.1

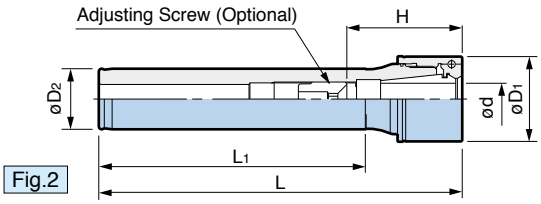


Fig.2

Model	Fig.	Clamping Range ød	øD1	øD2	L	L1	H	Nut Model	Weight (kg)
ST20-MEGA 6N-100	1	0.25 – 6	20	20	100	76	23 – 43	MGON 6	0.2
-150					150	126			0.3
-250					250	226			0.5
-MEGA 8N-100	2	0.5 – 8	25		100	65	26 – 45	MGON 8	0.3
-150					150	115			0.4
-250					250	215			0.6
-MEGA10N-100		1.5 –10	30		100	60	38 – 48	MGON10	0.3
-150					150	110			0.4
-250					250	210			0.6
ST25-MEGA 6N-150	1	0.25 – 6	20	25	150	116	23 – 43	MGON 6	0.5
-MEGA 8N-150		0.5 – 8	25		150	123	26 – 45	MGON 8	0.5
-200					200	173			0.7
-MEGA10N-150	2	1.5 –10	30		150	123	38 – 48	MGON10	0.5
-200					200	173			0.7
-MEGA13N-150		2.5 –13	35		150	110	44 – 63	MGON13	0.6
-200					200	160			0.7
ST32-MEGA 6N-150	1	0.25 – 6	20	32	150	113	23 – 43	MGON 6	0.8
-MEGA 8N-150		0.5 – 8	25		150	111	26 – 45	MGON 8	0.9
-MEGA10N-150		1.5 –10	30		150	123	38 – 48	MGON10	0.8
-200					200	173			1.1
-MEGA13N-150	2	2.5 –13	35		150	120	44 – 63	MGON13	0.9
-200					200	170			1.1
-300					300	270			1.6
-MEGA16N-150		2.5 –16	42		150	110	48 – 68	MGN 16	1.0
-200					200	160			1.2
-300					300	260			1.7
-MEGA20N-150		2.5 –20	46		150	105	51 – 68	MGN 20	1.0
-200					200	155			1.3
-300					300	255			1.9

1. MEGA NUT is included.
2. "H" indicates the adjustment length with an Adjusting Screw.
3. BIG ST LOCK is recommended to mount / release a cutting tool.

For ST LOCK G 18

Spare Parts

MEGA NUT

Accessories

MEGA WRENCH

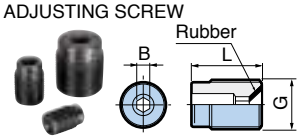
NBC COLLET G 3

For ENDMILL COLLET G 7

SEALING NUT
MEGA PERFECT SEAL

G 9

ADJUSTING SCREW



MEGA NEW BABY CHUCK	Spare Parts: Model	Accessories: Model	Accessories: Model	Accessories: Model	Accessories: Model	G	L	B
MEGA 6N	MGON 6	MGR20	NBC 6-□	MPS 6-□	NBA 6B	M 7	12	2
MEGA 8N	MGON 8	MGR25	NBC 8-□	MPS 8-□	NBA 8B	M 9	13	2.5
MEGA10N	MGON10	MGR30	NBC10-□	MPS10-□	NBA10B	M11	16	3
MEGA13N	MGON13	MGR35	NBC13-□	MPS13-□	NBA13B	M14	20	4
MEGA16N	MGN16	MGR42	NBC16-□	MPS16-□	NBA16B	M18	20	4
MEGA20N	MGN20	MGR46	NBC20-□	MPS20-□	NBA20B	M21	20	4

NEW BABY CHUCK

Clamping Range : ø0.25 - ø20

Avoids interference when used in combination with BIG NEW Hi-POWER MILLING CHUCK.

Fig.1

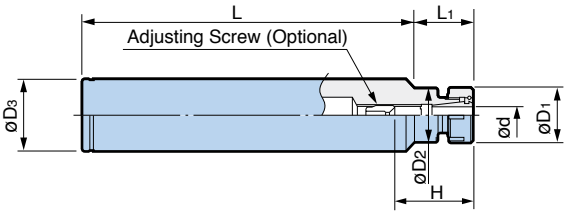
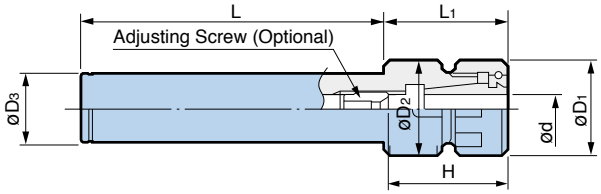


Fig.2



Model	Fig.	Clamping Range ød	øD1	øD2	øD3	L	L1	H	Weight (kg)
ST20-NBS 6-100	1	0.25 – 6	20	19.5	20	100	24	20 – 40	0.27
-150						150			0.39
-250 ※						250			0.64
-NBS 8-100	2	0.5 – 8	25	24.5		100	26	23 – 42	0.29
-150						150			0.41
-250 ※						250			0.66
-NBS10-100		1.5 – 10	30	29.5		100	28	35 – 45	0.32
-150						150			0.44
-250 ※						250			0.69
-350 ※						350			0.93
ST25-NBS 6-150	1	0.25 – 6	20	19.5	25	150	24	20 – 40	0.60
-200 ※						200			0.79
-250 ※						250			0.98
-NBS 8-150		0.5 – 8	25	24.5		150	26	23 – 42	0.62
-200 ※						200			0.81
-250 ※						250			1.00
-NBS10-150	2	1.5 – 10	30	29.5		150	28	35 – 45	0.65
-200 ※						200			0.84
-250 ※						250			1.03
-NBS13-150		2.5 – 13	35	34.5		150	34	41 - 60	0.67
-200 ※						200			0.86
-250 ※						250			1.05
ST32-NBS 6-150	1	0.25 – 6	20	19.5	32	150	24	20 – 40	0.96
-200 ※						200			1.28
-250 ※						250			1.59
-NBS 8-150		0.5 – 8	25	24.5		150	26	23 – 42	0.99
-200 ※						200			1.30
-NBS10-150		1.5 – 10	30	29.5		150	28	35 – 45	1.02
-200 ※						200			1.33
-250 ※						250			1.64
-350 ※						350			1.95
-NBS13-150	2	2.5 – 13	35	34.5		150	34	41 – 60	1.04
-200 ※						200			1.35
-250 ※						250			1.67
-300 ※						300			2.30
-NBS16-150		2.5 – 16	42	41.5		150	34	45 – 65	1.05
-200 ※						200			1.37
-300 ※						300			2.00
-NBS20-150		2.5 – 20	46	45.5		150	34	48 – 65	1.05
-200 ※						200			1.37
-300 ※						300			2.00

1. NEW BABY NUT is included.
2. Models marked with ※ are not equipped with a hole through for coolant.

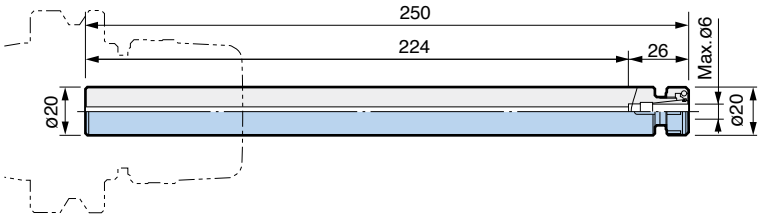
For ST LOCK G 18

NEW BABY CHUCK
CARBIDE CYLINDRICAL SHANK

Coolant-through hole

Clamping Range : ø0.25 - ø6

Reliable solution for deep and narrow access having slim head and solid carbide shank.



Standard Type

Model	ST20W-NBS6-250

< NBN6 Nut included >

Weight : 1.20 kg

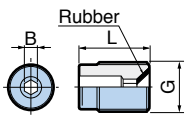
Remarks : Collet and Wrench are not included.

For ST LOCK G 18

Spindle Speed : 1,000 min-1
Cutting Feed : 0.1mm/rev.
Cutting Depth : 0.5mm
Cutter : 5mm Solid Carbide End Mill
Workpiece : Cast Iron G025 (DIN)
FC25 (JIS)

NEW Hi-POWER MILLING CHUCK

NEW Hi-POWER MILLING CHUCK ensures high accuracy, high rigidity and powerful gripping force for Carbide Cylindrical Shank New Baby Chuck.

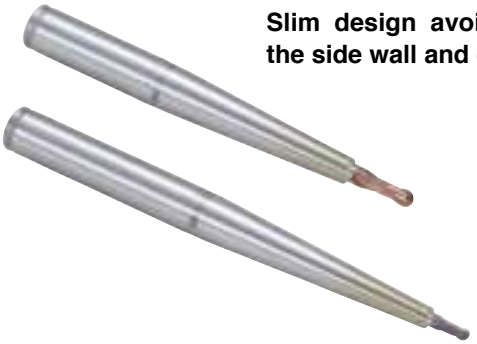
	Spare Parts	Accessories						
	NEW BABY NUT 	WRENCH 	NBC COLLET G 3 For ENDMILL COLLET G 7 	BABY PERFECT SEAL G 10 	ADJUSTING SCREW  			
NEW BABY CHUCK	Model	Model	Model	Model	Model	G	L	B
NBS 6	**NBN 6**	**NBK 6**	**NBC 6-□**	**BPS 6- □**	**NBA 6B**	M 7	12	2
NBS 8	**NBN 8**	**NBK 8**	**NBC 8-□**	**BPS 8- □**	**NBA 8B**	M 9	13	2.5
NBS10	**NBN10**	**NBK10**	**NBC10-□**	**BPS10- □**	**NBA10B**	M11	16	3
NBS13	**NBN13**	**NBK13**	**NBC13-□**	**BPS13- □**	**NBA13B**	M14	20	4
NBS16	**NBN16**	**NBK16**	**NBC16-□**	**BPS16- □**	**NBA16B**	M18	20	4
NBS20	**NBN20**	**NBK20**	**NBC20-□**	**BPS20- □**	**NBA20B**	M21	20	4

SHRINK CHUCK

Coolant-through hole

Clamping Range : ø4 - ø20

SUPER SLIM Type



Slim design avoids interference with the side wall and draft of the mold.

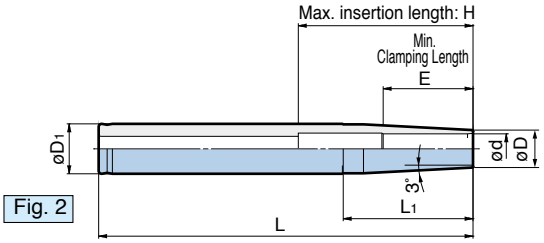


Fig. 2

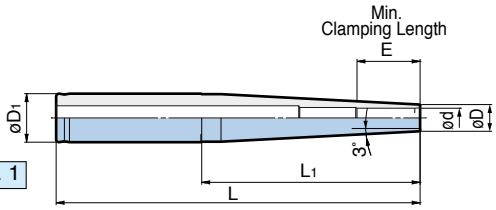


Fig. 1

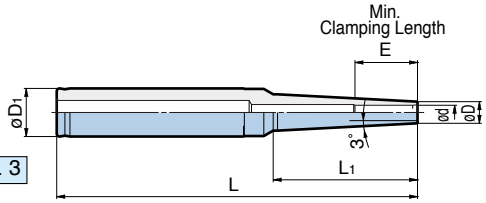


Fig. 3

Model	Fig.	ød	øD	øD1	L	L1	E	H	Weight (kg)
ST12-SRC 4SS-120 ※	1	4	7	12	120	51	16	–	0.10
-SRC 6SS-120	2	6	9			32	26	52	0.10
ST20-SRC 4SS-150-K40 ※	3	4	7	20	150	40	16	–	0.25
-SRC 6SS-150-K60		6	9	20	150	60	26	–	0.25
-200	1				200	110			0.30
-200-K60	3					60			0.30
-250	1				250	110			0.35
-250-K60	3					60			0.40
-SRC 8SS-150	1	8	11	20	150	90	26	–	0.25
-200					200				0.30
-250					250				0.40
-SRC10SS-150	2	10	13	20	150	71	32	60	0.25
-200					200				0.35
-250					250				0.40
-SRC12SS-150		12	15	20	150	52	36	70	0.25
-200					200				0.35
-250					250				0.45

1. Use carbide cutter within a tolerance of h6.
2. ※ Use carbide cutter within a tolerance of h5.

Please refer to the operation manual of heating / cooling equipment, as some equipments may not be compatible.

α **Wiper Cleaner** is recommended to clean the clamping bore. G 19

SLIM Type

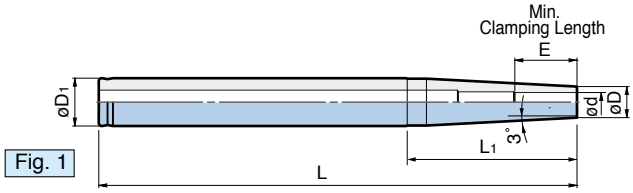


Fig. 1

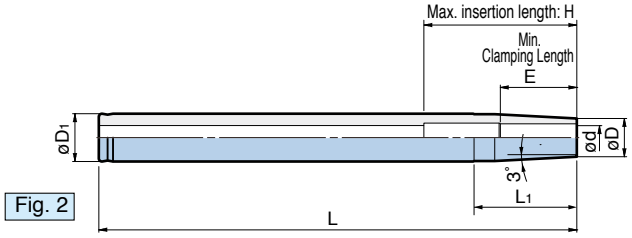


Fig. 2

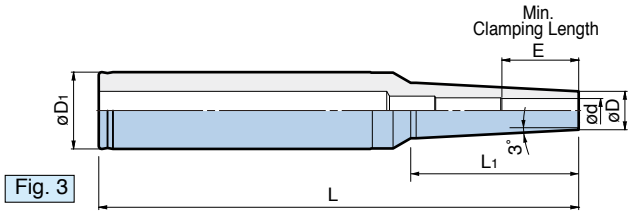


Fig. 3

Model	Fig.	ød	øD	øD1	L	L1	E	H	Weight (kg)
ST20-SRC 8S-150	1	8	13	20	150	71	26	–	0.25
-200					200				0.35
-250					250				0.45
SRC10S-150	2	10	16	20	150	43	32	60	0.25
-200					200				0.35
-250					250				0.45
ST32-SRC10S-150-K70	3	10	16	32	150	70	32	–	0.50
-200-K70					200				0.75
-300-K70					300				1.20
-SRC12S-150-K70		12	19	32	150	70	36	–	0.55
-200-K70					200				0.80
-300	1				300	129			1.20
-300-K70	3					70			1.25
-SRC16S-150	2	16	24	32	150	83	38	70	0.60
-200					200			80	0.85
-300					300				1.30
-SRC20S-150		20	28	32	150	50	38	80	0.60
-200					200				0.85
-300					300				1.30

1. Use carbide cutter within a tolerance of h6.

Please refer to the operation manual of heating / cooling equipment, as some equipments may not be compatible.

α **Wiper Cleaner** is recommended to clean the clamping bore. G 19

SHRINK CHUCK

Coolant-through hole

Clamping Range : ø4 - ø32

STANDARD Type

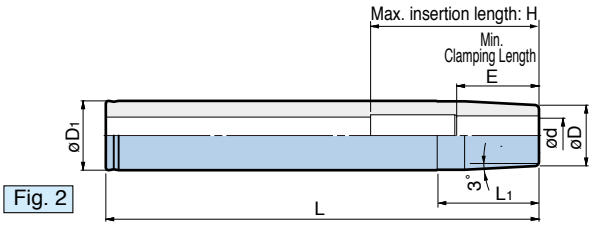


Fig. 2

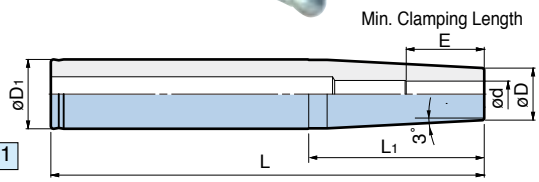


Fig. 1

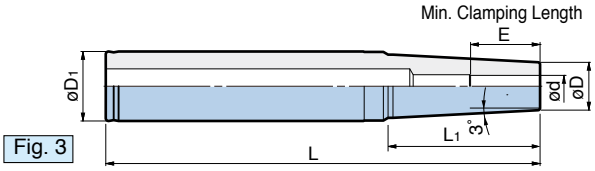


Fig. 3

Model	Fig.	ød	øD	øD1	L	L1	E	H	Weight (kg)
ST20-SRC 4-150-K40 ※	3	4	10	20	150	40	16	–	0.25
-150-K80 ※						80			0.20
-SRC 6-150	1	6	14	20	150	62	26	–	0.30
-200					200				0.35
-250					250				0.45
ST32-SRC10-150-K70	3	10	22	32	150	70	32	–	0.65
-200	1				200	100			0.85
-200-K70	3					70			0.90
-300	1				300	100			1.30
-300-K70	3					70			1.35
SRC12-150	1	12	24	32	150	81	36	–	0.65
-200					200				0.90
-300					300				1.35
SRC16-150	2	16	28	32	150	47	38	70	0.70
-200					200			80	0.90
-300					300				1.35

1. Use carbide cutter within a tolerance of h6.
2. ※ Use carbide cutter within a tolerance of h5.

Please refer to the operation manual of heating / cooling equipment, as some equipments may not be compatible.

α **Wiper Cleaner** is recommended to clean the clamping bore. G 19

For ø32mm Straight Shank

BIG-PLUS®

BBT Type

HSK Type

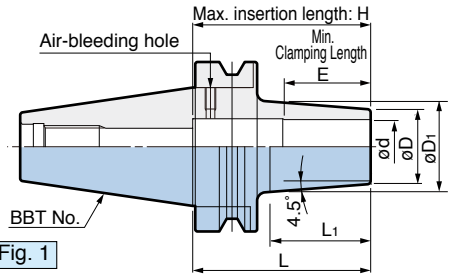


Fig. 1

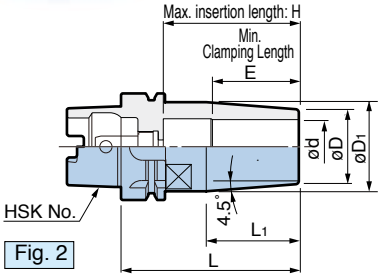


Fig. 2

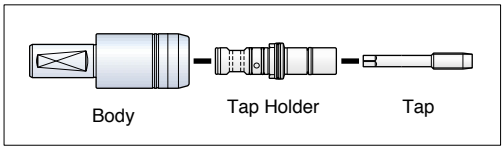
Model	Fig.	ød	øD	øD1	L	L1	E	H	Weight (kg)
BBT40-SRC32D- 95	1	32	44	54	95	65	51	88	1.6
BBT50-SRC32D-105					105	61		105	4.1
HSK-A 63-SRC32D-105	2	32	44	52.6	105	54	51	80	1.4
HSK-A100-SRC32D-115				56.3	115	72		82	2.9

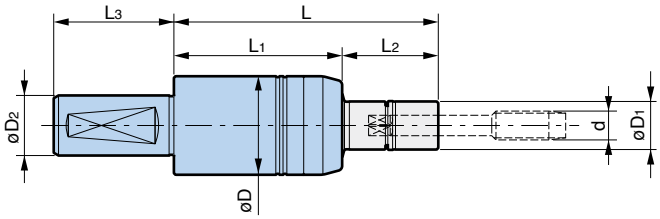
1. Designed for center through coolant application when used with coolant through cutting tools.

MEGA SYNCHRO® Tapping Holder

Coolant-through hole

Tapping Range : M1 - M20





Model	Tap Holder Model	Tapping Range d	øD	øD1	Shank Dia. øD2	L	L1	L2	L3	Weight (kg)
ST20-MGT 6-65	MGT 6-d- 30	M2 – M6 No.3 – U1/4	36	16	20	95	65	30	40	0.5
	- 70					135		70		
	-100					165		100		
ST25-MGT12-70	MGT12-d- 30	M6 – M12 U1/4 – U7/16 P1/8	41	20	25	100	70	30	50	0.8
	- 70					140		70		
	-100					170		100		
ST32-MGT20-90	MGT20-d- 35	M12 – M20 U1/2 – U3/4 P1/4 – P3/8	54	30	32	125	90	35	55	1.5
	- 85					175		85		
	-115					205		115		

1. Tap Holder and wrench are ordered separately.
Rigid tapping function is required on the machine tool.

※BIG Side Lock Holder model TSL is recommended as a basic holder.

For TAP HOLDER A 33–A 36
For ACCESSORIES A 32
For MEGA WRENCH A 32
For SIDE LOCK HOLDER A 39

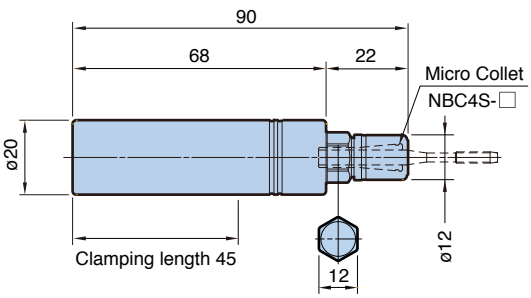
●Tapping Range for DIN & ISO Standard

MGT Size	DIN Standard			ISO Standard	
	DIN371	DIN376	DIN353	ISO529	ISO2284
MGT 6	M3-M6	M5-M8		M3-M5	
MGT12	M5-M8	M8-M12	1/8	M6,M8,M12	1/8
MGT20	M10	M12-M18	1/4-3/8	M10-M20	1/4-3/8

For detail of TAP HOLDER A 33–A 36

For small Tap MGT3

Model
ST20-MGT3-90



1. Nut is included. Wrench and collet are ordered separately.
2.12mm common spanner is also required to hold the body when clamping/unclamping the tap.

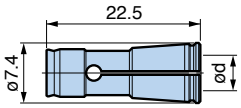
- **Rigid tapping function is required on the machine tool.**
- **Not capable of supplying coolant through the holder body.**

■MEGA Wrench For MGT3

Model	MGR12

1. 12mm common spanner is also required to hold the body when clamping/unclamping the tap.

■MICRO COLLET For MGT3



Model	Tapping Range		Tap Shank ød
	DIN371	ISO529	
NBC4S - 2.5AA	M1 – M1.8	M2	2.5
NBC4S - 2.8AA	M2 – M2.6	M2.2, M2.5	2.8
NBC4S - 3.1AA		M3	3.15
NBC4S - 3.5AA	M3		3.5

Other products with cylindrical shank

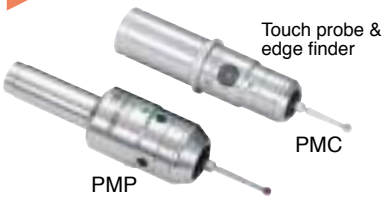
ACCESSORIES

G 21

CLEAN TEC

Full automation of swarf and coolant removal by means of wind pressure.

MASURING TOOLS



POINT MASTER H 1 - H 3

Touch sensors provided with high precision stroke and interchangeable stylus for measuring different applications.

H 3

POINT CENTER

Precise detection of wokpiece position in X & Y axes.

H 5

ACCU CENTER

Simple and precise edge finder offering repeatability within 3μm.

CUTTING TOOLS

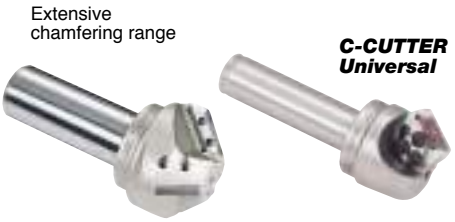
I 2 & I 13

FULLCUT MILL

Shoulder and slot milling cutter with both high radial and axial rake angle.

C-CUTTER MINI I 25

Ultra High Feed Rate!
Increases the feed rate up to 400% using 4 inserts!

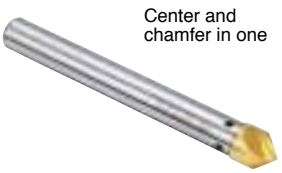


C-CUTTER I 31

Reduced number of tool holders and machining time by wide chamfering range.

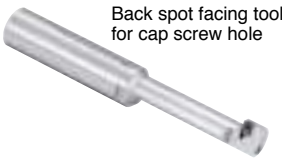
R-CUTTER I 33

Automated R-chamfering. Front & back chamfering are available!



CENTER BOY I 36

Accurate centering and chamfering can be obtained in a single operation !!



BF-CUTTER I 35

Selected spot facing diameters suitable for cap screws.

MILLTURN TOOLING

BBT(BIG-PLUS) SERIES

HSK-T SERIES

BIG CAPTO SERIES

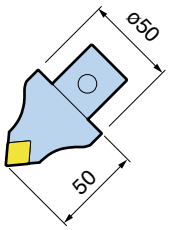
The trademark CAPTO is licensed
from Sandvik Coromant

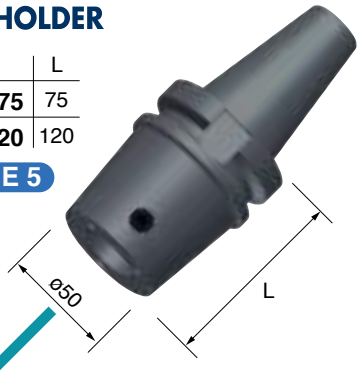
45°

S50
TYPE S BASIC HOLDER

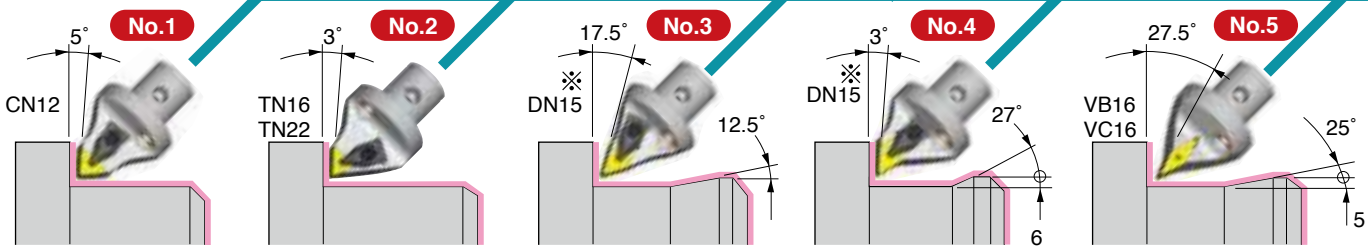
	L
BBT40M-S50- 75	75
BBT50M-S50-120	120

E 5





TYPE S CARTRIDGE E 6



No.1	No.2	No.3	No.4	No.5
S50-DCLNN-00050-12	S50-DTJNR-00050-16 -DTJNL-00050-16 S50-DTJNR-00050-22 -DTJNL-00050-22	S50-DDHNN-00050-15	S50-DDJNR-00050-15 -DDJNL-00050-15	S50-SVQBN-00050-16

For SELECTION GUIDE E 3

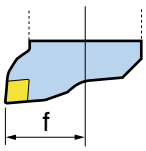
※ In case of DN1506 insert (thickness of 6.35mm), please replace the standard Carbide Shim by DNS1506 (option).

90°

F50 / F63
TYPE F BASIC HOLDER

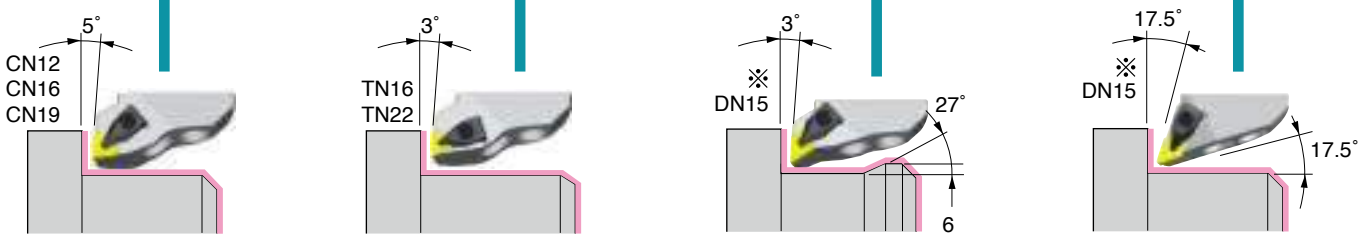
	L	øD
BBT40M-F50- 75	75	50
-105	105	
BBT50M-F63- 70	70	63
-130	130	

E 7



	f
F50	35
F63	45

TYPE F CARTRIDGE E 7



No.10	No.12	No.13	No.14
F50-DCLNR-35035-12(16) -DCLNL-35035-12(16) F63-DCLNR-45035-12(16) -DCLNL-45035-12(16) F63-PCLNR-45045-19 -PCLNL-45045-19	F50-DTJNR-35035-16 -DTJNL-35035-16 F63-DTJNR-45035-16(22) -DTJNL-45035-16(22)	F50-DDJNR-35035-15 -DDJNL-35035-15 F63-DDJNR-45035-15 -DDJNL-45035-15	F63-DDHNR-45040-15 -DDHNL-45040-15

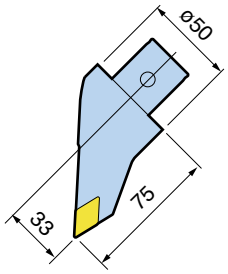
For SELECTION GUIDE E 3

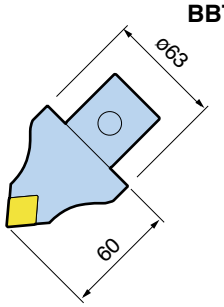
※ In case of DN1506 insert (thickness of 6.35mm), please replace the standard Carbide Shim by DNS1506 (option).

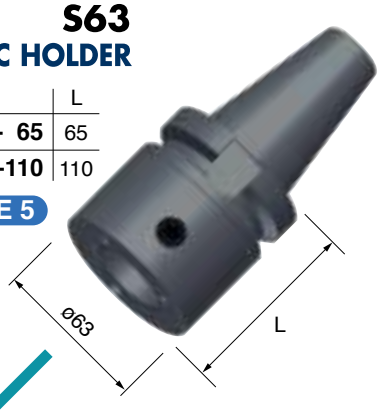
S63
TYPE S BASIC HOLDER

	L
BBT40M-S63- 65	65
BBT50M-S63-110	110

E 5







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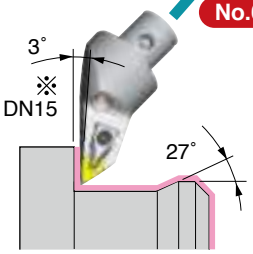
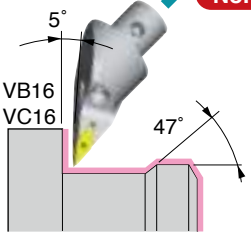


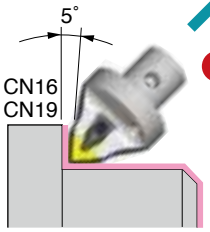
S50-DDJNR-33075-15
-DDJNL-33075-15

No.7



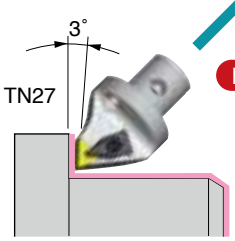
S50-SVLBR-33075-16
-SVLBL-33075-16

No.8



S63-DCLNN-00060-16
-DCLNN-00060-19

No.9



S63-DTJNR-00060-27
-DTJNL-00060-27

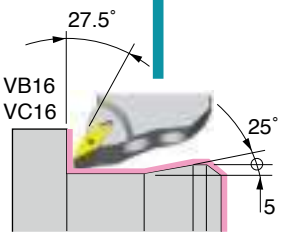
BORING BAR HOLDER

E 10

SQUARE TOOL HOLDER

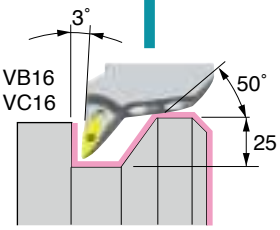
E 9

No.15



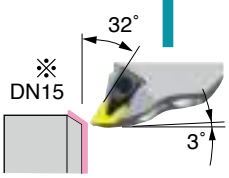
F50-SVQBR-35035-16
-SVQBL-35035-16
F63-SVQBR-45035-16
-SVQBL-45035-16

No.16



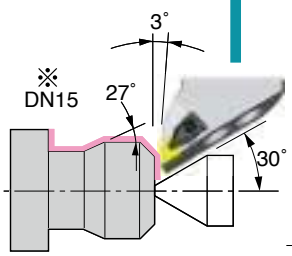
F63-SVJBR-45055-16
-SVJBL-45055-16

No.17



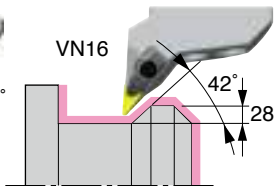
F63-DDUNR-45035-15
-DDUNL-45035-15

No.18



F50-DDJNR-35050-15
-DDJNL-35050-15
F63-DDJNR-45055-15
-DDJNL-45055-15

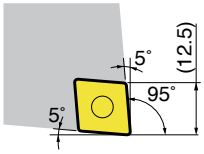
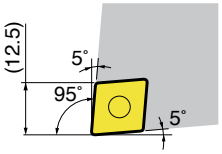
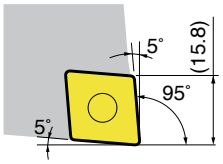
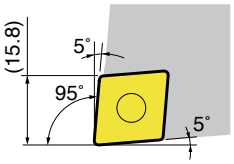
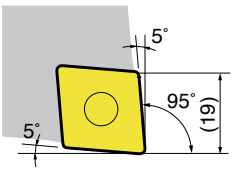
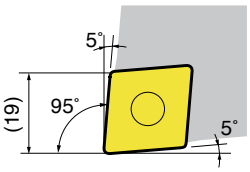
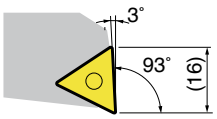
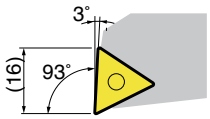
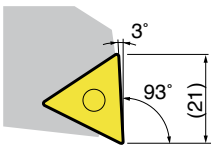
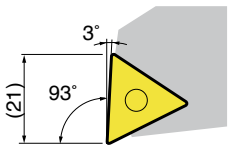
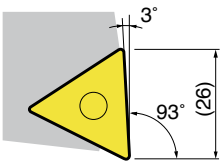
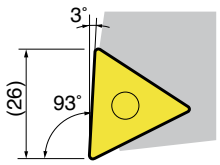
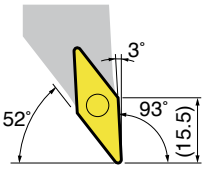
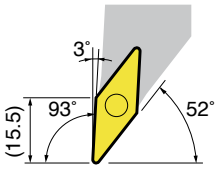
No.19

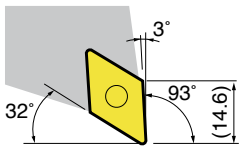
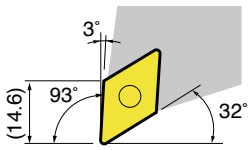
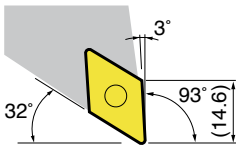
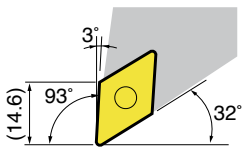
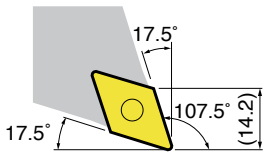
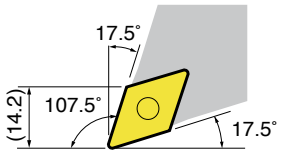
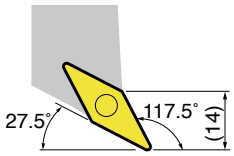
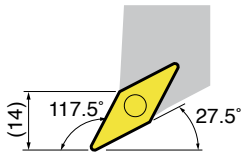
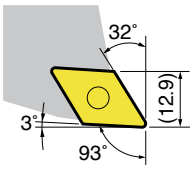
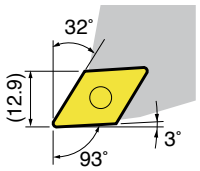
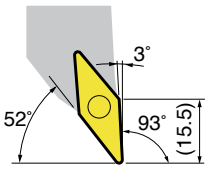
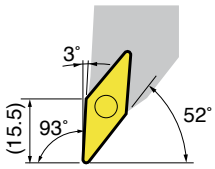


F63-DVJNR-45055-16
-DVJNL-45055-16

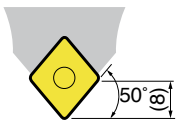
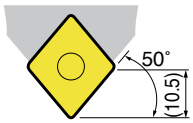
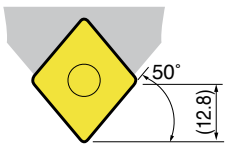
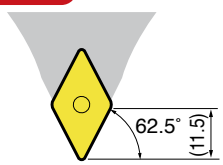
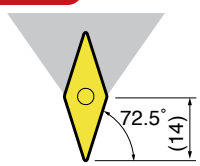
SELECTION GUIDE

※Cartridge No. in this table corresponds to the cartridge No. on page E1 and E2.

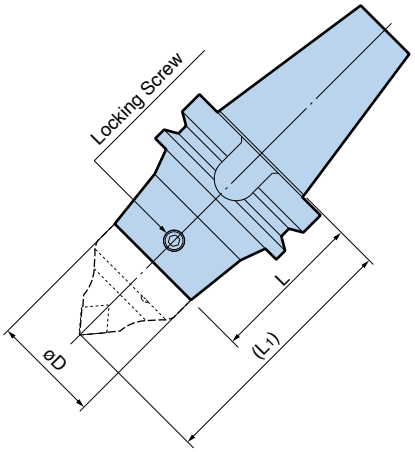
Entering Angle	Insert	Cartridge S type	Cartridge F type	Right hand	Left hand
95°	CN1204	No.1	No.10-1		
	CN1606	No.8-1	No.10-2		
	CN1906	No.8-2	No.10-3		
93°	TN1604	No.2-1	No.12-1		
	TN2204	No.2-2	No.12-2		
	TN2706	No.9			
	VB1604 VC1604	No.7	No.16		

Entering Angle	Insert	Cartridge S type	Cartridge F type	Right hand	Left hand
93°	DN1504 (1506)	No.4	No.13		
	DN1504 (1506)	No.6	No.18		
107.5°	DN1504 (1506)	No.3	No.14		
117.5°	VB1604 VC1604	No.5	No.15		
93°	DN1504 (1506)		No.17		
	VN1604		No.19		

NEUTRAL TYPE

Insert				
CN12	CN16	CN19	DN1504(1506)	VB1604 / VC1604
No.1 	No.8-1 	No.8-2 	No.3 	No.5 

45° BASIC HOLDER Type S

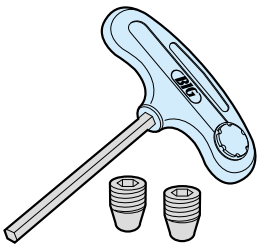


Type	Model	øD	L	(L1)	Locking Screw
S50	**BBT40M-S50- 75**	50	75	125	CK5S
S63	**-S63- 65**	63	65	125	CK6S
S50	**BBT50M-S50-120**	50	120	170	CK5S
S63	**S63-110**	63	110	170	CK6S

1. Basic holders include a locking screw.

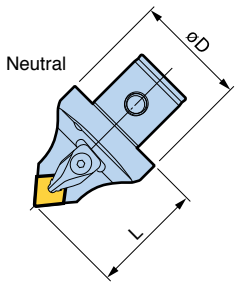
■LOCKING SCREW SET (option)

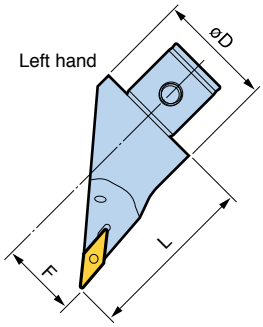
For type S basic holder



Type	Set Model	Screw (2p)	T-Wrench (1p)
S50	**CK5S**	M10 x P1.0	CK-T5
S63	**CK6S**	M12 x P1.0	CK-T6

45° CARTRIDGE Type S





Entering Angle	No.	Hand	Model	Insert	F	L	øD	Clamp Piece
95°	No.1	N	S50-DCLNN-00050-12	CN1204 Rhombic 80°	0	50	50	CP2
	No.8-1	N	S63-DCLNN-00060-16	CN1606 Rhombic 80°	0	60	63	CP3
	No.8-2		-00060-19	CN1906 Rhombic 80°				CP5
93°	No.2-1	R	S50-DTJNR-00050-16	TN1604 Triangle 60°	0	50	50	CP1
		L	-DTJNL-00050-16					
93°	No.2-2	R	S50-DTJNR-00050-22	TN2204 Triangle 60°	0	50	50	CP2
		L	-DTJNL-00050-22					
93°	No.9	R	S63-DTJNR-00060-27	TN2706 Triangle 60°	0	60	63	CP3
		L	-DTJNL-00060-27					
93°	No.4	R	S50-DDJNR-00050-15	DN1504*1 (DN1506) Rhombic 55°	0	50	50	CP2
		L	-DDJNL-00050-15					
	No.6	R	S50-DDJNR-33075-15		33	75		
		L	-DDJNL-33075-15					
107.5°	No.3	N	S50-DDHNN-00050-15		0	50		
95°	No.7	L	S50-SVLBR-33075-16	VB1604*2 VC1604 Rhombic 35°	33	75	50	M3.5*3
		R	-SVLBL-33075-16					
117.5°	No.5	N	S50-SVQBN-00050-16		0	50		

1. Wrench is ordered separately.
2. Inserts are not included. The standard ISO inserts are to be adapted.
3. *1 Carbide Shim for 4.76mm thick DIN1504 insert is included as standard.
   In case of DN1506 insert (thickness of 6.35mm), please replace the standard Carbide Shim by DNS1506 (option).
4. *2 Both VB1604 and VC1604 inserts are suitable.
5. *3 M3.5 is screw-on type.

For SPARE PARTS E 29

Right Hand Left Hand Neutral

[Coding system for cartridge]

S50 - D C L N N - 00 050 - 12

- Insert Size
- Length
- Offset Value
- Hand
- Relief Angle
- Entering Angle
- Insert Shape
- Clamping Method
- Cartridge Type and Size

Clamping Method	
D	Double-Clamp
P	Lever lock
S	Screw-On

Insert Shape	
C	Rhombic 80°
T	Triangle 60°
D	Rhombic 55°
V	Rhombic 35°

Entering Angle	
J	93°
L	95°
H	107.5°
Q	117.5°

Relief Angle	
N	0° Negative
B	5° Positive
C	7° Positive

Hand	
R	Right Hand
L	Left Hand
N	Neutral

90° BASIC HOLDER Type F

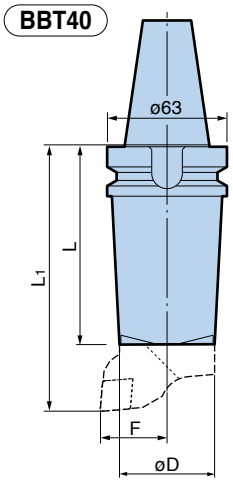


Fig. 1

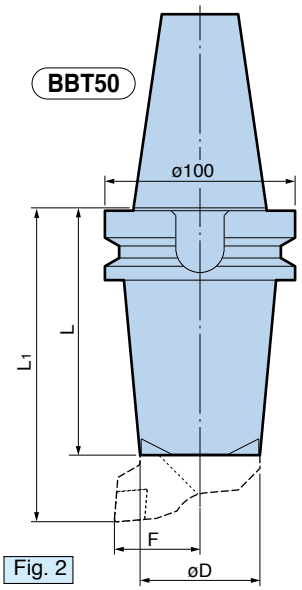
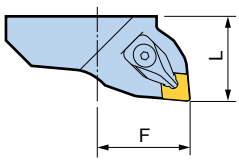


Fig. 2

Type	Model	Fig.	øD	L	L1	F
F50	BBT40M-F50- 75	1	50	75	110	35
	-105			105	140	
F63	BBT50M-F63- 70	2	63	70	105	45
	-130			130	165	

1. Basic holders include M10x22L and M10x25L screws for clamping cartridges.
2. Wrench is ordered separately.

90° CARTRIDGE Type F50



Right Hand

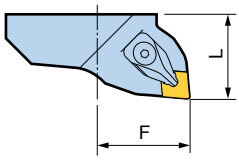
Right Hand
Left Hand

Entering Angle	No.	Hand	Model	Insert	F	L	Clamp Piece
95°	No.10-1	R	F50-DCLNR-35035-12	CN1204 Rhombic 80°	35	35	CP2
		L	-DCLNL-35035-12				
	No.10-2	R	F50-DCLNR-35035-16	CN1606 Rhombic 80°	35	35	CP3
		L	-DCLNL-35035-16				
93°	No.12-1	R	F50-DTJNR-35035-16	TN1604 Triangle 60°	35	35	CP1
		L	-DTJNL-35035-16				
95°	No.13	R	F50-DDJNR-35035-15	DN1504*1 (DN1506) Rhombic 55°	35	35	CP2
		L	-DDJNL-35035-15				
	No.18	R	F50-DDJNR-35050-15		35	50	CP2
		L	-DDJNL-35050-15				
117.5°	No.15	R	F50-SVQBR-35035-16	VB1604*2 Rhombic 35°	35	35	M3.5*3
		L	-SVQBL-35035-16				

1. Wrenches are not included in the cartridges. Please purchase separately.
2. Inserts are not included. The standard ISO inserts are to be adapted.
3. *1 Carbide Shim for 4.76mm thick DIN1504 insert is included as standard.
   In case of DN1506 insert (thickness of 6.35mm), please replace the standard Carbide Shim by DNS1506 (option).
4. *2 Both VB1604 and VC1604 inserts are suitable.
5. *3 M3.5 is screw-on type.

For SPARE PARTS E 29

90° CARTRIDGE Type F63



Right Hand

Right Hand
Left Hand

Entering Angle	No.	Hand	Model	Insert	F	L	Clamp Piece
95°	No.10-1	R	F63-DCLNR-45035-12	CN1204 Rhombic 80°	45	35	CP2
		L	-DCLNL-45035-12				
	No.10-2	R	F63-DCLNR-45035-16	CN1606 Rhombic 80°	45	35	CP3
		L	-DCLNL-45035-16				
	No.10-3	R	F63-PCLNR-45045-19	CN1906 Rhombic 80°	45	45	LEVER LOCK
		L	-PCLNL-45045-19				
93°	No.12-1	R	F63-DTJNR-45035-16	TN1604 Triangle 60°	45	35	CP1
		L	-DTJNL-45035-16				
	No.12-2	R	F63-DTJNR-45035-22	TN2204 Triangle 60°	45	35	CP2
		L	-DTJNL-45035-22				
93°	No.13	R	F63-DDJNR-45035-15	DN1504*1 (DN1506) Rhombic 55°	45	35	CP2
		L	-DDJNL-45035-15				
	No.18	R	F63-DDJNR-45055-15		45	55	CP2
		L	-DDJNL-45055-15				
107.5°	No.14	R	F63-DDHNR-45040-15		45	40	CP2
		L	-DDHNL-45040-15				
93°	No.17	R	F63-DDUNR-45035-15		45	35	CP2
		L	-DDUNL-45035-15				
117.5°	No.15	R	F63-SVQBR-45035-16	VB1604 Rhombic 35°	45	35	M3.5*2
		L	-SVQBL-45035-16				
93°	No.16	R	F63-SVJBR-45055-16		45	55	M3.5*2
		L	-SVJBL-45055-16				
93°	No.19	R	F63-DVJNR-45055-16	VN1604 Rhombic 35°	45	55	CP4
		L	-DVJNL-45055-16				

1. Wrench is ordered separately.
2. Inserts are not included. The standard ISO inserts are to be adapted.
3. *1 Carbide Shim for 4.76mm thick DIN1504 insert is included as standard.
   In case of DN1506 insert (thickness of 6.35mm), please replace the standard Carbide Shim by DNS1506 (option).
4. *2 M3.5 is screw-on type.

For SPARE PARTS E 29

[Coding system for cartridge]

F63 - D C L N R - 45 035 - 12

- Insert Size
- Length
- Offset Value
- Hand
- Relief Angle
- Entering Angle
- Insert Shape
- Clamping Method
- Cartridge Type and Size

Clamping Method	
D	Double-Clamp
P	Lever lock
S	Screw-On

Insert Shape	
C	Rhombic 80°
T	Triangle 60°
D	Rhombic 55°
V	Rhombic 35°

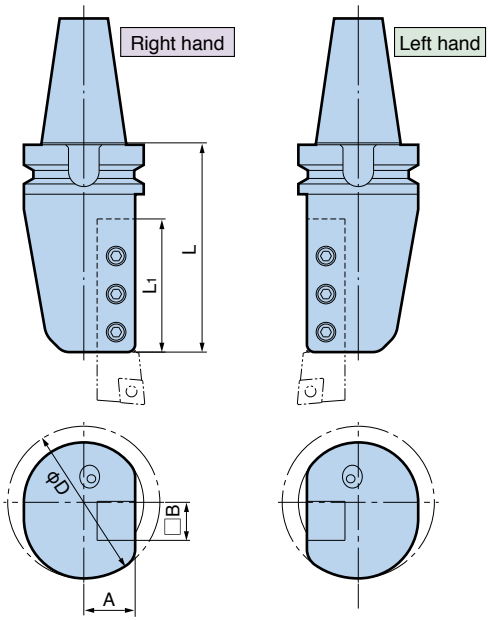
Entering Angle	
J	93°
L	95°
H	107.5°
Q	117.5°
U	93°

Relief Angle	
N	0° Negative
B	5° Positive
C	7° Positive

Hand	
R	Right Hand
L	Left Hand
N	Neutral

SQUARE TOOL HOLDER

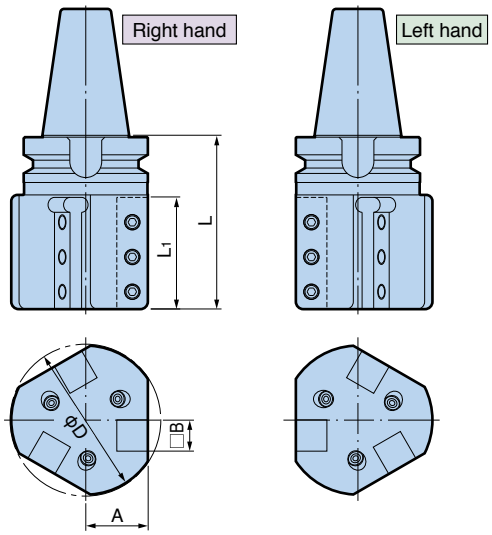
180 Type



Right hand Left hand

Model	Hand	□B	L	L1	A	øD
BBT40M-180-BH20R-110	R	20	110	70	27	80
-BH20L-110	L					
-180-BH25R-130	R	25	130	90	31.5	90
-BH25L-130	L					
BBT50M-180-BH25R-140	R	25	140	90	50	120
-BH25L-140	L					

180 Multi Type



By assembling 3 square holders, ATC time can be reduced.

Right hand Left hand

Model	Hand	□B	L	L1	A	øD
BBT40M-180-3BH20R-110	R	20	110	70	35	90
-3BH20L-110	L					
BBT50M-180-3BH25R-140	R	25	140	90	50	120
-3BH25L-140	L					

Caution
60 degree indexing is required to the machine tool spindle.

BORING BAR HOLDER

Coolant-through hole

Clamping Range : ø6 - ø50

Application: boring and thread cutting

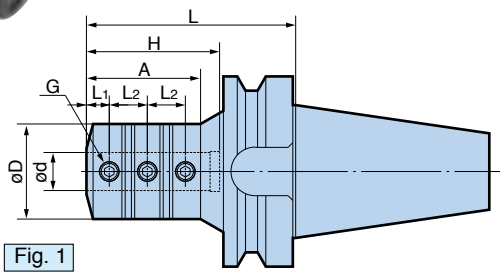


Fig. 1

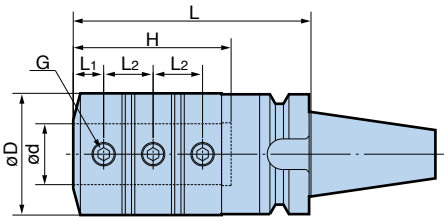
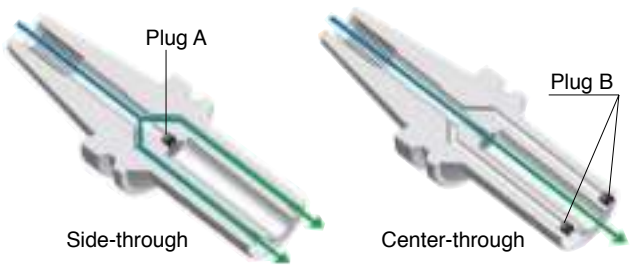


Fig. 2

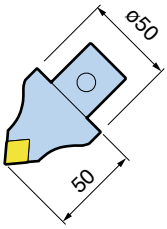
Model	Fig.	ød	øD	L	L_1	L_2	H	A	G	Plug A	Plug B
BBT40M-BSL 8- 75	1	8	25	75	6	10	40	40	M6 P1.0	M6×5L	M4×4L
-BSL10- 80		10	29	80	8	12	50	45	M8 P1.0	M6×5L	M5×5L
-BSL12- 90		12	34	90	8	16	55	53	M8 P1.0	M6×5L	M6×5L
-BSL16-100		16	40	100	10	21	68	65	M10 P1.25	M6×5L	M6×5L
-BSL20-100		20	50	100	12	20	70	67	M10 P1.25	M6×5L	M6×5L
-BSL25-110		25	55	110	14	23	74	83	M12 P1.5	M8×8L	M6×5L
-BSL32-125	2	32	64	125	16	26	83	–	M12 P1.5	M8×8L	M6×5L
-BSL40-150		40	80	150	18	32	98	–	M16 P1.5	M10×10L	M6×5L
BBT50M-BSL 6- 80	1	6	23	80	5	8	30	32	M5 P0.8	M5×5L	M4×4L
-BSL 8- 85		8	25	85	6	10	40	38	M6 P1.0	M6×5L	M4×4L
-BSL10- 90		10	29	90	8	12	50	43	M8 P1.0	M6×5L	M5×5L
-BSL12-100		12	34	100	8	16	55	53	M8 P1.0	M6×5L	M6×5L
-BSL16-105		16	40	105	10	21	68	61	M10 P1.25	M6×5L	M6×5L
-BSL20-110		20	50	110	12	20	70	60	M10 P1.25	M6×5L	M6×5L
-BSL25-120		25	55	120	14	23	74	70	M12 P1.5	M8×8L	M6×5L
-BSL32-125		32	64	125	16	26	83	80	M12 P1.5	M8×8L	M6×5L
-BSL40-135		40	80	135	18	32	98	91	M16 P1.5	M10×10L	M6×5L
-BSL50-145		50	90	145	18	36	115	102	M16 P1.5	M10×10L	M6×5L

Interchangeable between center-through and side-through coolant supply by using plugs.



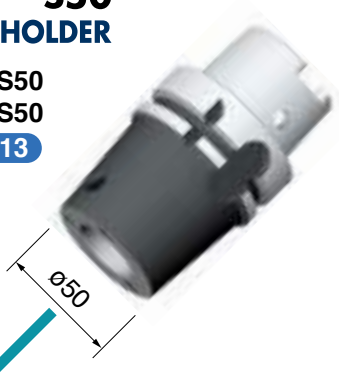
Adjustment for either right hand or left hand is also possible.

45°



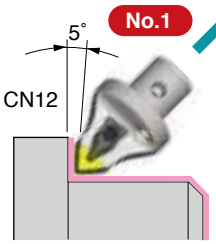
S50
TYPE S BASIC HOLDER

HSK-T 63-S50
HSK-T100-S50
E 13



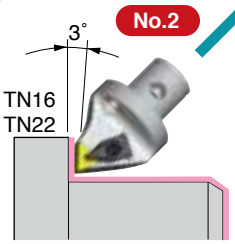
TYPE S CARTRIDGE E 14

No.1



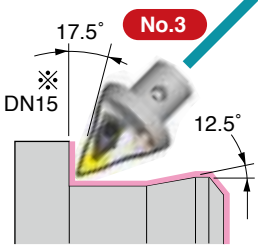
S50-DCLNN-00050-12

No.2



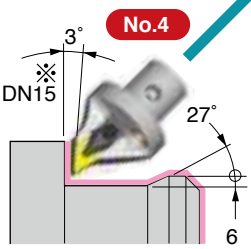
S50-DTJNR-00050-16(22)
-DTJNL-00050-16(22)

No.3



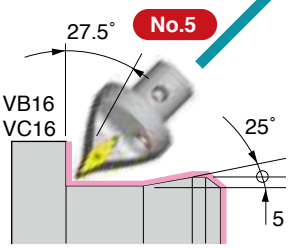
S50-DDHNN-00050-15

No.4



S50-DDJNR-00050-15
-DDJNL-00050-15

No.5

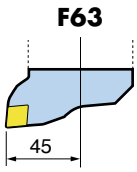


S50-SVQBN-00050-16

For SELECTION GUIDE E 3

※ In case of DN1506 insert (thickness of 6.35mm), please replace the standard Carbide Shim by DNS1506 (option).

90°

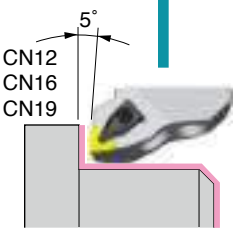


F63
TYPE F BASIC HOLDER

HSK-T 63-F63
HSK-T100-F63
E 15

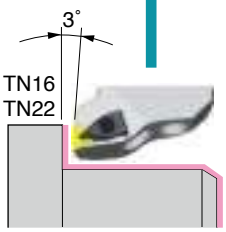
TYPE F CARTRIDGE E 16

No.10



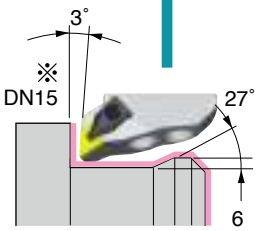
F63-DCLNR-45035-12(16)
-DCLNL-45035-12(16)
F63-PCLNR-45045-19
-PCLNL-45045-19

No.12



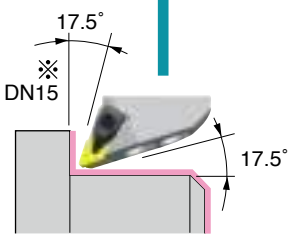
F63-DTJNR-45035-16(22)
-DTJNL-45035-16(22)

No.13



F63-DDJNR-45035-15
-DDJNL-45035-15

No.14



F63-DDHNR-45040-15
-DDHNL-45040-15

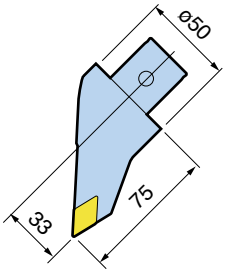
For SELECTION GUIDE E 3

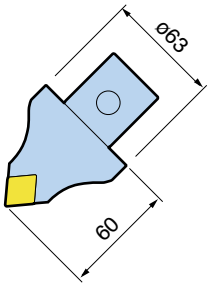
※ In case of DN1506 insert (thickness of 6.35mm), please replace the standard Carbide Shim by DNS1506 (option).

S63
TYPE S BASIC HOLDER

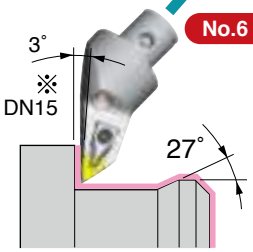
HSK-T 63-S63
HSK-T100-S63

E 13



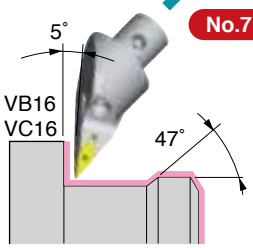


No.6



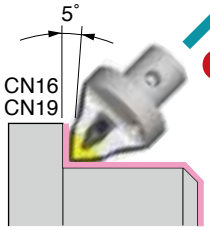
S50-DDJNR-33075-15
-DDJNL-33075-15

No.7



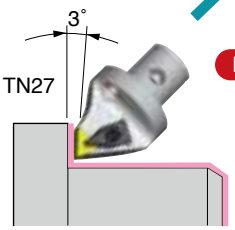
S50-SVLBR-33075-16
-SVLBL-33075-16

No.8



S63-DCLNN-00060-16
-DCLNN-00060-19

No.9



S63-DTJNR-00060-27
-DTJNL-00060-27

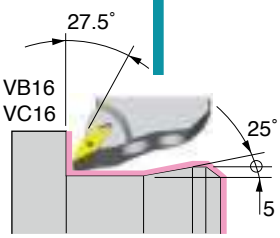
BORING BAR HOLDER

E 18

SQUARE TOOL HOLDER

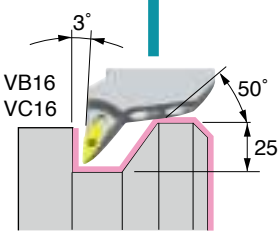
E 17

No.15



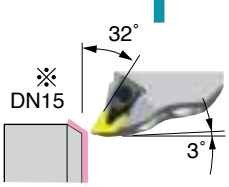
F63-SVQBR-45035-16
-SVQBL-45035-16

No.16



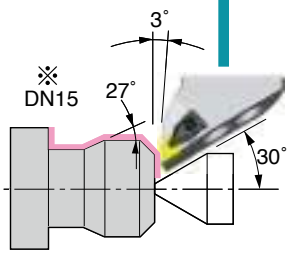
F63-SVJBR-45055-16
-SVJBL-45055-16

No.17



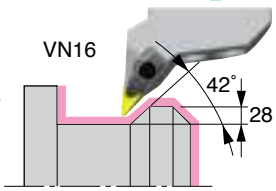
F63-DDUNR-45035-15
-DDUNL-45035-15

No.18



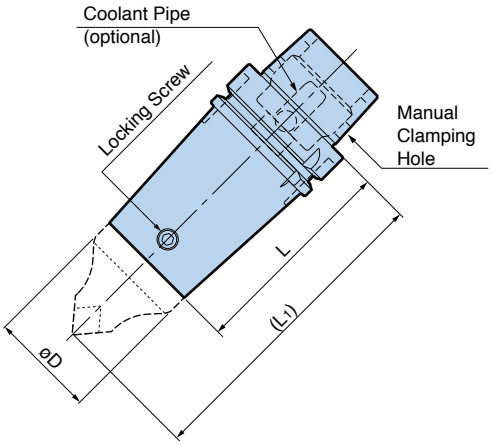
F63-DDJNR-45055-15
-DDJNL-45055-15

No.19



F63-DVJNR-45055-16
-DVJNL-45055-16

45° BASIC HOLDER Type S



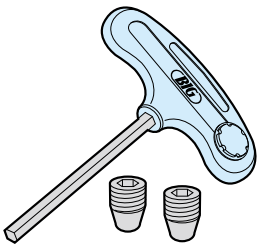
Type	Model	øD	L	(L1)	Locking Screw
S50	**HSK- T63-S50- 60**	50	60	110	CK5S
	- 75		75	125	
	-100		100	150	
S63	**-S63- 70**	63	70	130	CK6S
	- 90		90	150	
S50	**HSK-T100-S50-115**	50	115	165	CK5S
S63	**-S63-105**	63	105	165	CK6S

1. Basic holders include a locking screw.

For COOLANT PIPE C 51

■LOCKING SCREW SET (option)

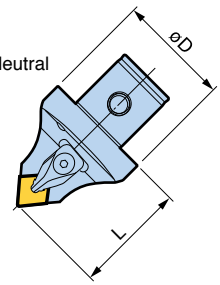
For type S basic holder



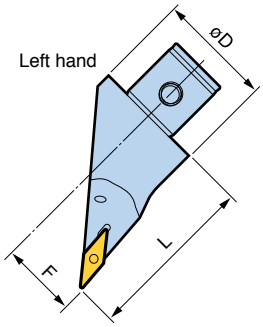
Type	Set Model	Screw (2p)	T-Wrench (1p)
S50	**CK5S**	M10 x P1.0	CK-T5
S63	**CK6S**	M12 x P1.0	CK-T6

45° CARTRIDGE Type S

Neutral



Left hand



Entering Angle	No.	Hand	Model	Insert	F	L	øD	Clamp Piece
95°	No.1	N	S50-DCLNN-00050-12	CN1204 Rhombic 80°	0	50	50	CP2
	No.8-1	N	S63-DCLNN-00060-16	CN1606 Rhombic 80°	0	60	63	CP3
	No.8-2		-00060-19	CN1906 Rhombic 80°				CP5
93°	No.2-1	R	S50-DTJNR-00050-16	TN1604 Triangle 60°	0	50	50	CP1
		L	-DTJNL-00050-16					
93°	No.2-2	R	S50-DTJNR-00050-22	TN2204 Triangle 60°	0	50	50	CP2
		L	-DTJNL-00050-22					
93°	No.9	R	S63-DTJNR-00060-27	TN2706 Triangle 60°	0	60	63	CP3
		L	-DTJNL-00060-27					
93°	No.4	R	S50-DDJNR-00050-15	DN1504*1 (DN1506) Rhombic 55°	0	50	50	CP2
		L	-DDJNL-00050-15					
	No.6	R	S50-DDJNR-33075-15		33	75		
		L	-DDJNL-33075-15					
107.5°	No.3	N	S50-DDHNN-00050-15		0	50		
95°	No.7	L	S50-SVLBR-33075-16	VB1604*2 VC1604 Rhombic 35°	33	75	50	M3.5*3
		R	-SVLBL-33075-16					
117.5°	No.5	N	S50-SVQBN-00050-16		0	50		

1. Wrench is ordered separately.
2. Inserts are not included. The standard ISO inserts are to be adapted.
3. *1 Carbide Shim for 4.76mm thick DIN1504 insert is included as standard.
   In case of DN1506 insert (thickness of 6.35mm), please replace the standard Carbide Shim by DNS1506 (option).
4. *2 Both VB1604 and VC1604 inserts are suitable.
5. *3 M3.5 is screw-on type.

For SPARE PARTS E 29

Right Hand Left Hand Neutral

[Coding system for cartridge]

S50 - D C L N N - 00 050 - 12

- Insert Size
- Length
- Offset Value
- Hand
- Relief Angle
- Entering Angle
- Insert Shape
- Clamping Method
- Cartridge Type and Size

Clamping Method	
D	Double-Clamp
P	Lever lock
S	Screw-On

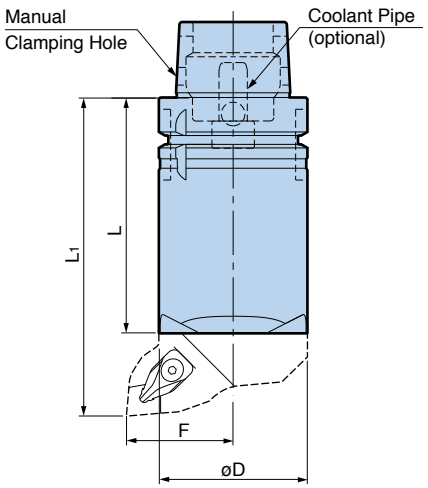
Insert Shape	
C	Rhombic 80°
T	Triangle 60°
D	Rhombic 55°
V	Rhombic 35°

Entering Angle	
J	93°
L	95°
H	107.5°
Q	117.5°

Relief Angle	
N	0° Negative
B	5° Positive
C	7° Positive

Hand	
R	Right Hand
L	Left Hand
N	Neutral

90° BASIC HOLDER Type F

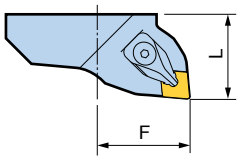


Type	Model	øD	L	L1	F
F63	**HSK-T63-F63- 50**	63	50	85	45
	- 75		75	110	
	-100		100	135	
	-130		130	165	
	-170		170	205	
F63	**HSK-T100-F63-100**	63	100	135	45
	-150		150	185	

1. Basic holders include M10x22L and M10x25L screws for clamping cartridges.
2. Wrench is ordered separately.
3. Coolant pipe is ordered separately.

For COOLANT PIPE C 51

90° CARTRIDGE Type F63



Right Hand

Right Hand
Left Hand

Entering Angle	No.	Hand	Model	Insert	F	L	Clamp Piece
95°	No.10-1	R	F63-DCLNR-45035-12	CN1204 Rhombic 80°	45	35	CP2
		L	-DCLNL-45035-12				
	No.10-2	R	F63-DCLNR-45035-16	CN1606 Rhombic 80°	45	35	CP3
		L	-DCLNL-45035-16				
	No.10-3	R	F63-PCLNR-45045-19	CN1906 Rhombic 80°	45	45	LEVER LOCK
		L	-PCLNL-45045-19				
93°	No.12-1	R	F63-DTJNR-45035-16	TN1604 Triangle 60°	45	35	CP1
		L	-DTJNL-45035-16				
	No.12-2	R	F63-DTJNR-45035-22	TN2204 Triangle 60°	45	35	CP2
		L	-DTJNL-45035-22				
93°	No.13	R	F63-DDJNR-45035-15	DN1504*1 (DN1506) Rhombic 55°	45	35	CP2
		L	-DDJNL-45035-15				
	No.18	R	F63-DDJNR-45055-15		45	55	CP2
		L	-DDJNL-45055-15				
107.5°	No.14	R	F63-DDHNR-45040-15		45	40	CP2
		L	-DDHNL-45040-15				
93°	No.17	R	F63-DDUNR-45035-15		45	35	CP2
		L	-DDUNL-45035-15				
117.5°	No.15	R	F63-SVQBR-45035-16	VB1604 Rhombic 35°	45	35	M3.5*2
		L	-SVQBL-45035-16				
93°	No.16	R	F63-SVJBR-45055-16		45	55	M3.5*2
		L	-SVJBL-45055-16				
93°	No.19	R	F63-DVJNR-45055-16	VN1604 Rhombic 35°	45	55	CP4
		L	-DVJNL-45055-16				

1. Wrench is ordered separately.
2. Inserts are not included. The standard ISO inserts are to be adapted.
3. *1 Carbide Shim for 4.76mm thick DIN1504 insert is included as standard.
   In case of DN1506 insert (thickness of 6.35mm), please replace the standard Carbide Shim by DNS1506 (option).
4. *2 M3.5 is screw-on type.

For SPARE PARTS E 29

[Coding system for cartridge]

F63 - D C L N R - 45 035 - 12

- Insert Size
- Length
- Offset Value
- Hand
- Relief Angle
- Entering Angle
- Insert Shape
- Clamping Method
- Cartridge Type and Size

Clamping Method	
D	Double-Clamp
P	Lever lock
S	Screw-On

Insert Shape	
C	Rhombic 80°
T	Triangle 60°
D	Rhombic 55°
V	Rhombic 35°

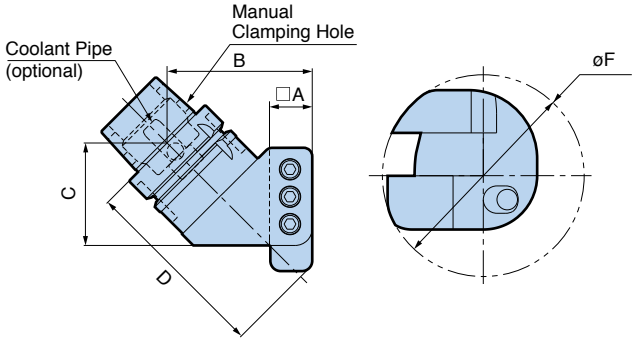
Entering Angle	
J	93°
L	95°
H	107.5°
Q	117.5°
U	93°

Relief Angle	
N	0° Negative
B	5° Positive
C	7° Positive

Hand	
R	Right Hand
L	Left Hand
N	Neutral

SQUARE TOOL HOLDER

45 Type



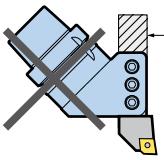
Right hand Left hand

Model	Hand	□A	B	C	D	øF
HSK-T63-45-BH25R-110	R	25	85	60	110	118
-BH25L-110	L					

1. Coolant pipe is ordered separately.

For COOLANT PIPE C 51

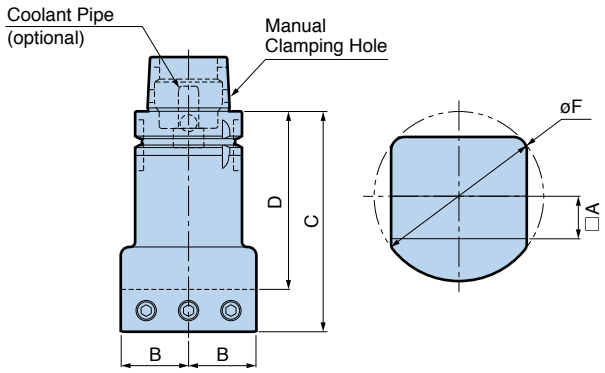
Caution



Projection prohibited

The excess length of a turning tool must be cut off to avoid interference with an ATC arm.

90 Type



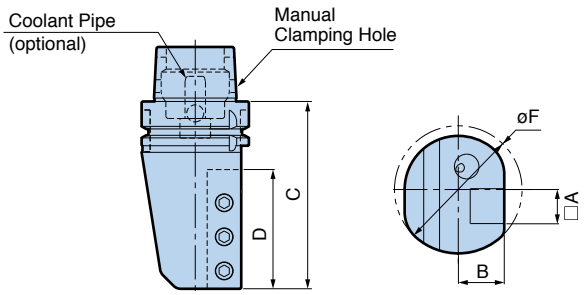
Neutral

Model	Hand	□A	B	C	D	øF
HSK-T 63-90-BH20N- 80	N	20	32	80	60	80
-BH25N-100		25	40	100	75	100
-BH25N-130				130	105	
HSK-T100-90-BH25N-150	N	25	55	150	125	128

1. Coolant pipe is ordered separately.

For COOLANT PIPE C 51

180 Type



Right hand Left hand

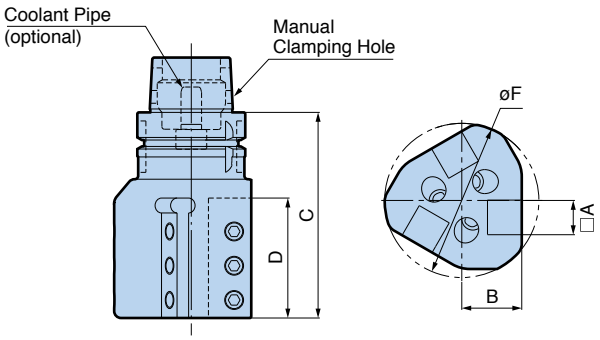
Model	Hand	□A	B	C	D	øF
HSK-T 63-180-BH20R-110	R	20	27	110	70	75
-BH20L-110	L					
HSK-T 63-180-BH25R-115	R	25	29.5	115	80	90
-BH25L-115	L					
HSK-T100-180-BH25R-140	R	25	50	140	90	120
-BH25L-140	L					
-BH25R-180	R	25	50	180	115	120
-BH25L-180	L					

1. Coolant pipe is ordered separately.

For COOLANT PIPE C 51

180 Multi Type

By assembling 3 square holders, ATC time can be reduced.



Right hand Left hand

Model	Hand	□A	B	C	D	øF
HSK-T63-180-3BH20R-120	R	20	35	120	70	90
-3BH20L-120	L					
HSK-T63-180-3BH25R-120	R	25	45	120	80	110
-3BH25L-120	L					

1. Coolant pipe is ordered separately.

For COOLANT PIPE C 51

Caution

60 degree indexing is required to the machine tool spindle.

BORING BAR HOLDER

Coolant-through hole

Clamping Range : ø6 - ø40

Application: boring and thread cutting

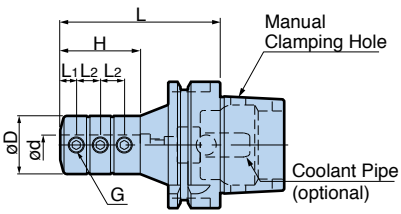


Fig. 1

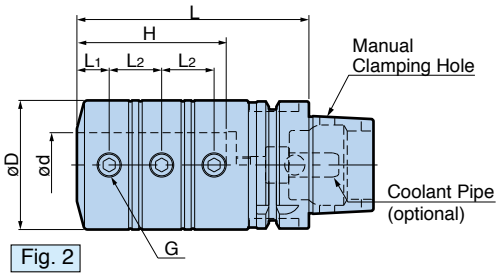


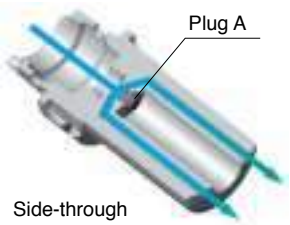
Fig. 2

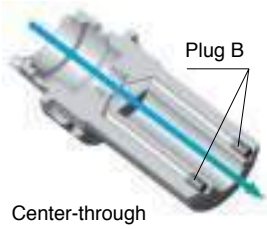
Model	Fig.	ød	øD	L	L_1	L_2	H	G
HSK-T 63-BSL 6- 70	1	6	23	70	5	8	24	M 5 P0.8
-BSL 8- 75		8	25	75	6	10	32	M 6 P1.0
-BSL10- 80		10	29	80	8	12	40	M 8 P1.0
-BSL12- 85		12	34	85	8	16	45	M 8 P1.0
-BSL16-100		16	40	100	10	21	60	M10 P1.25
-BSL20-100	2	20	50	100	12	20	60	M10 P1.25
-BSL25-105		25	55	105	14	23	67	M12 P1.5
-BSL32-115		32	64	115	16	26	74	M12 P1.5
-BSL40-135		40	80	135	18	32	91	M16 P1.5
HSK-T100-BSL16-105	1	16	40	105	10	21	60	M10 P1.25
-BSL20-110		20	50	110	12	20	60	M10 P1.25
-BSL25-120		25	55	120	14	23	67	M12 P1.5
-BSL32-125		32	64	125	16	26	74	M12 P1.5
-BSL40-135		40	80	135	18	32	90	M16 P1.5

1. Coolant pipe is ordered separately.

For COOLANT PIPE C 51

Interchangeable between center-through and side-through coolant supply by using plugs.





Adjustment for either right hand or left hand is also possible.

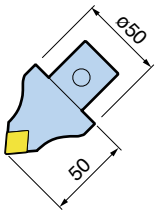
Chuck Model	Plug A	Plug B
BSL 6	M5 P0.8	M4 P0.7
8	M6 P1.0	
10		M5 P0.8
12		M6 P1.0
16		
20	※ M6 P1.0	
25	※ M8 P1.25	
32		
40		

Both plugs are included as standard.
※Button-head bolt.

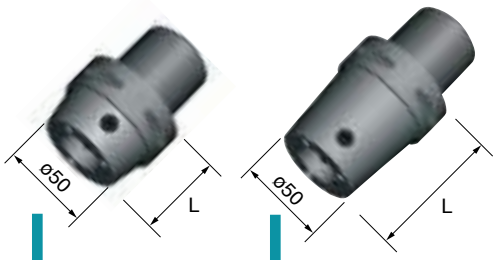
45°

S50
TYPE S BASIC HOLDER

E 21

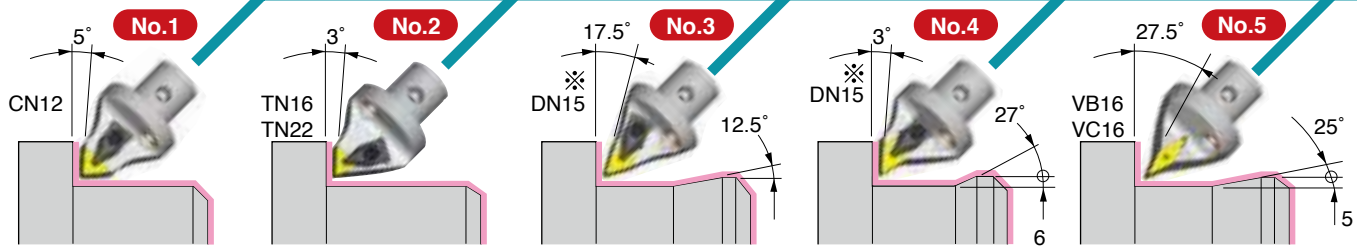


	L
C5-S50-	40
-	55
-	75
-100	
C6-S50-	45
-	75
-100	
C8-S50-	100
-135	



TYPE S CARTRIDGE

E 22



No.1	No.2	No.3	No.4	No.5
S50-DCLNN-00050-12	S50-DTJNR-00050-16 -DTJNL-00050-16 S50-DTJNR-00050-22 -DTJNL-00050-22	S50-DDHNN-00050-15	S50-DDJNR-00050-15 -DDJNL-00050-15	S50-SVQBN-00050-16

For SELECTION GUIDE E 3

※ In case of DN1506 insert (thickness of 6.35mm), please replace the standard Carbide Shim by DNS1506 (option).

90°

F50
TYPE F BASIC HOLDER

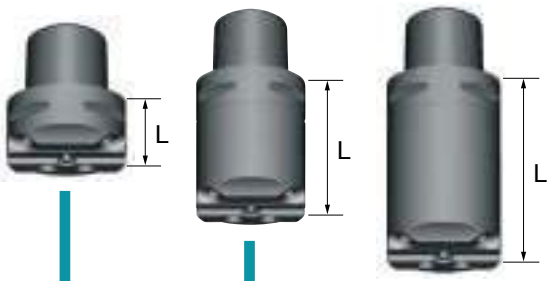
E 23

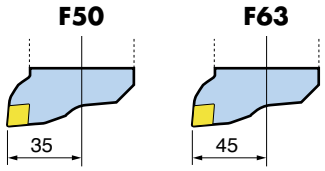
	L
C5-F50-	25
-	50
-	85
-125	

F63
TYPE F BASIC HOLDER

	L
C6-F63-	30
-	75
-100	
-130	
-170	
C8-F63-	45
-100	
-130	
-170	

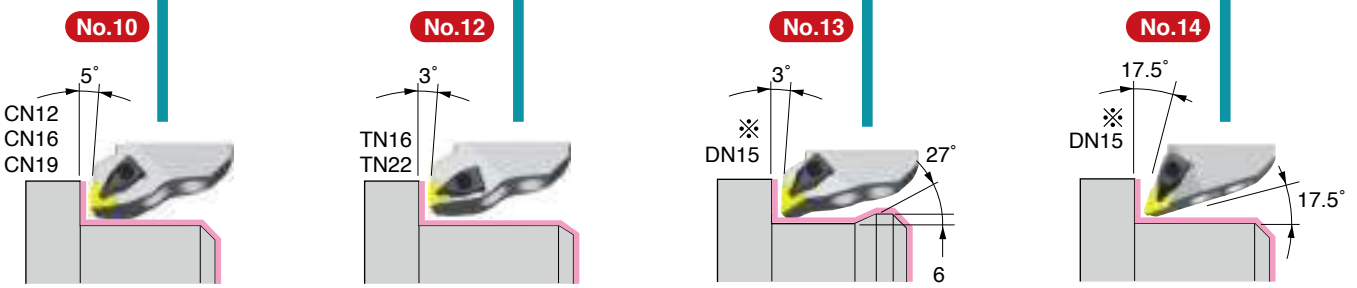
E 23





TYPE F CARTRIDGE

E 23



No.10	No.12	No.13	No.14
F50-DCLNR-35035-12(16) -DCLNL-35035-12(16) F63-DCLNR-45035-12(16) -DCLNL-45035-12(16) F63-PCLNR-45045-19 -PCLNL-45045-19	F50-DTJNR-35035-16 -DTJNL-35035-16 F63-DTJNR-45035-16(22) -DTJNL-45035-16(22)	F50-DDJNR-35035-15 -DDJNL-35035-15 F63-DDJNR-45035-15 -DDJNL-45035-15	F63-DDHNR-45040-15 -DDHNL-45040-15

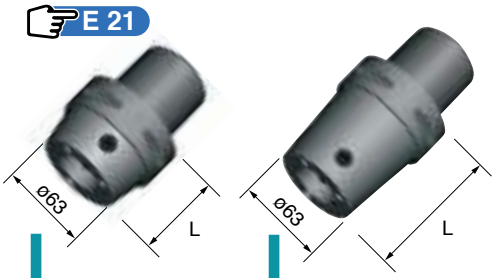
For SELECTION GUIDE E 3

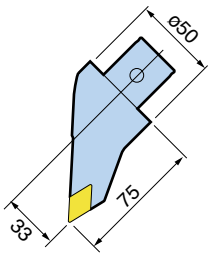
※ In case of DN1506 insert (thickness of 6.35mm), please replace the standard Carbide Shim by DNS1506 (option).

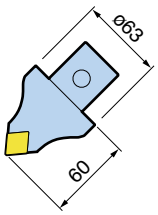
S63
TYPE S BASIC HOLDER

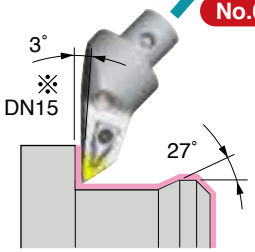
E 21

	L
C6-S63-	50
-	90
C8-S63-	90
	-125

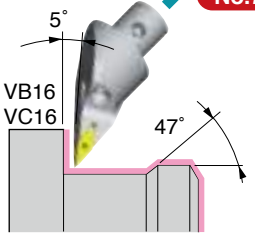




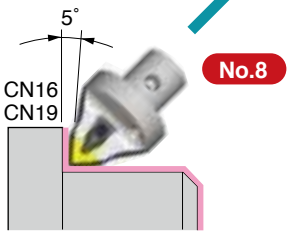




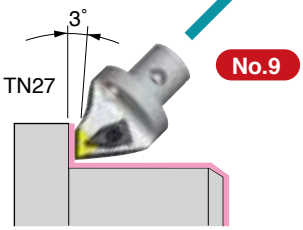
S50-DDJNR-33075-15
-DDJNL-33075-15



S50-SVLBR-33075-16
-SVLBL-33075-16



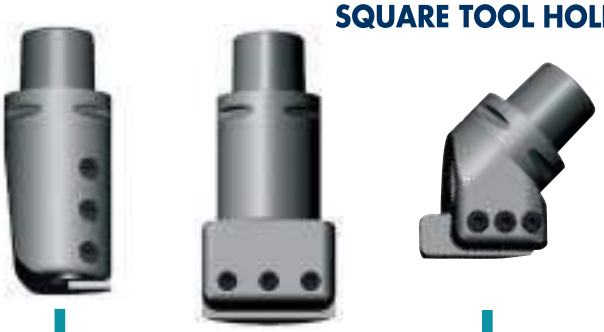
S63-DCLNN-00060-16
-DCLNN-00060-19

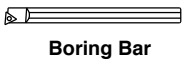


S63-DTJNR-00060-27
-DTJNL-00060-27

SQUARE TOOL HOLDER

E 25



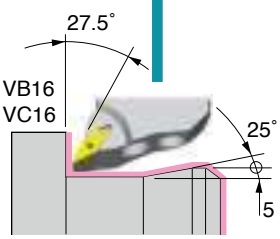


Boring Bar

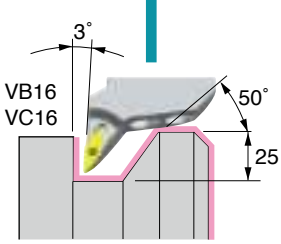
BORING BAR HOLDER

E 27

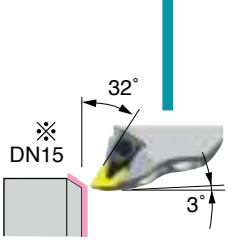
For □ Shank



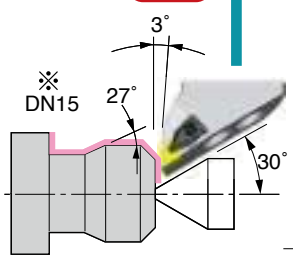
F50-SVQBR-35035-16
-SVQBL-35035-16
F63-SVQBR-45035-16
-SVQBL-45035-16



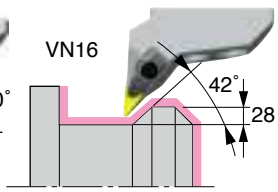
F63-SVJBR-45055-16
-SVJBL-45055-16



F63-DDUNR-45035-15
-DDUNL-45035-15

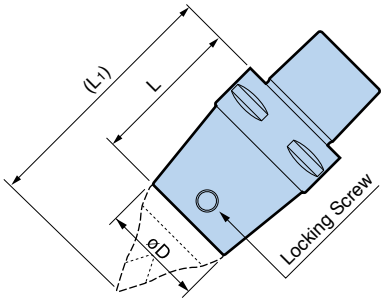


F50-DDJNR-35050-15
-DDJNL-35050-15
F63-DDJNR-45055-15
-DDJNL-45055-15



F63-DVJNR-45055-16
-DVJNL-45055-16

45° BASIC HOLDER Type S

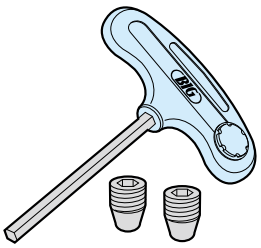


Type	Model	øD	L	(L1)	Locking Screw
S50	**C5-S50 -40**	50	40	90	CK5S
	-55		55	105	
	-75		75	125	
	-100		100	150	
S50	**C6-S50 -45**	50	45	95	CK5S
	-75		75	125	
	-100		100	150	
S63	**-S63 -50**	63	50	110	CK6S
	-90		90	150	
S50	**C8-S50-100**	50	100	150	CK5S
	-135		135	185	
S63	**-S63 -90**	63	90	150	CK6S
	-125		125	185	

1. Basic holders include a locking screw.

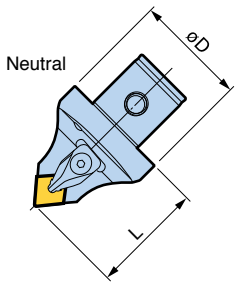
■LOCKING SCREW SET (option)

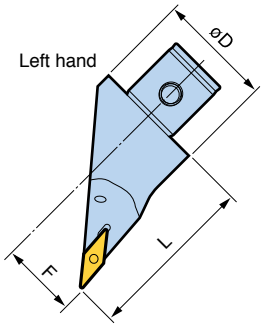
For type S basic holder



Type	Set Model	Screw (2p)	T-Wrench (1p)
S50	**CK5S**	M10 x P1.0	CK-T5
S63	**CK6S**	M12 x P1.0	CK-T6

45° CARTRIDGE Type S





Entering Angle	No.	Hand	Model	Insert	F	L	øD	Clamp Piece
95°	No.1	N	S50-DCLNN-00050-12	CN1204 Rhombic 80°	0	50	50	CP2
	No.8-1	N	S63-DCLNN-00060-16	CN1606 Rhombic 80°	0	60	63	CP3
	No.8-2		-00060-19	CN1906 Rhombic 80°				CP5
93°	No.2-1	R	S50-DTJNR-00050-16	TN1604 Triangle 60°	0	50	50	CP1
		L	-DTJNL-00050-16					
93°	No.2-2	R	S50-DTJNR-00050-22	TN2204 Triangle 60°	0	50	50	CP2
		L	-DTJNL-00050-22					
93°	No.9	R	S63-DTJNR-00060-27	TN2706 Triangle 60°	0	60	63	CP3
		L	-DTJNL-00060-27					
93°	No.4	R	S50-DDJNR-00050-15	DN1504*1 (DN1506) Rhombic 55°	0	50	50	CP2
		L	-DDJNL-00050-15					
	No.6	R	S50-DDJNR-33075-15		33	75		
		L	-DDJNL-33075-15					
107.5°	No.3	N	S50-DDHNN-00050-15		0	50		
95°	No.7	L	S50-SVLBR-33075-16	VB1604*2 VC1604 Rhombic 35°	33	75	50	M3.5*3
		R	-SVLBL-33075-16					
117.5°	No.5	N	S50-SVQBN-00050-16		0	50		

1. Wrench is ordered separately.
2. Inserts are not included. The standard ISO inserts are to be adapted.
3. *1 Carbide Shim for 4.76mm thick DIN1504 insert is included as standard.
   In case of DN1506 insert (thickness of 6.35mm), please replace the standard Carbide Shim by DNS1506 (option).
4. *2 Both VB1604 and VC1604 inserts are suitable.
5. *3 M3.5 is screw-on type.

For SPARE PARTS E 29

Right Hand | Left Hand | Neutral

[Coding system for cartridge]

S50 - D C L N N - 00 050 - 12

- 12 • Insert Size
- 050 • Length
- 00 • Offset Value
- N • Hand
- N • Relief Angle
- L • Entering Angle
- C • Insert Shape
- D • Clamping Method
- S50 • Cartridge Type and Size

Clamping Method	
D	Double-Clamp
P	Lever lock
S	Screw-On

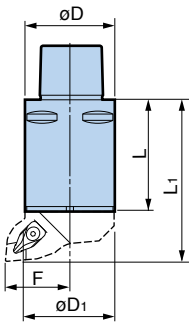
Insert Shape	
C	Rhombic 80°
T	Triangle 60°
D	Rhombic 55°
V	Rhombic 35°

Entering Angle	
J	93°
L	95°
H	107.5°
Q	117.5°

Relief Angle	
N	0° Negative
B	5° Positive
C	7° Positive

Hand	
R	Right Hand
L	Left Hand
N	Neutral

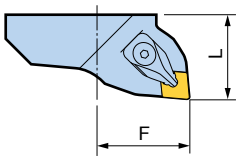
90° BASIC HOLDER Type F



Type	Model	øD	øD1	L	L1	F
F50	C5-F50-25	50	50	25	60	35
	-50			50	85	
	-85			85	120	
	-125			125	160	
F63	C6-F63-30	63	63	30	65	45
	-75			75	110	
	-100			100	135	
	-130			130	165	
	-170			170	205	
F63	C8-F63-45	80	63	45	80	45
	-100			100	135	
	-130			130	165	
	-170			170	205	

1. Basic holders include M10x22L and M10x25L screws for clamping cartridges.
2. Wrench is ordered separately.

90° CARTRIDGE Type F50



Right Hand

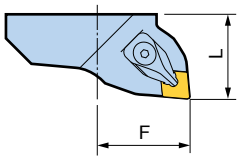
Right Hand
Left Hand

Entering Angle	No.	Hand	Model	Insert	F	L	Clamp Piece
95°	No.10-1	R	F50-DCLNR-35035-12	CN1204 Rhombic 80°	35	35	CP2
		L	-DCLNL-35035-12				
	No.10-2	R	F50-DCLNR-35035-16	CN1606 Rhombic 80°	35	35	CP3
		L	-DCLNL-35035-16				
93°	No.12-1	R	F50-DTJNR-35035-16	TN1604 Triangle 60°	35	35	CP1
		L	-DTJNL-35035-16				
95°	No.13	R	F50-DDJNR-35035-15	DN1504*1 (DN1506) Rhombic 55°	35	35	CP2
		L	-DDJNL-35035-15				
	No.18	R	F50-DDJNR-35050-15		35	50	CP2
		L	-DDJNL-35050-15				
117.5°	No.15	R	F50-SVQBR-35035-16	VB1604*2 Rhombic 35°	35	35	M3.5*3
		L	-SVQBL-35035-16				

1. Wrenches are not included in the cartridges. Please purchase separately.
2. Inserts are not included. The standard ISO inserts are to be adapted.
3. ⋆1 Carbide Shim for 4.76mm thick DIN1504 insert is included as standard.
   In case of DN1506 insert (thickness of 6.35mm), please replace the standard Carbide Shim by DNS1506 (option).
4. ⋆2 Both VB1604 and VC1604 inserts are suitable.
5. ⋆3 M3.5 is screw-on type.

For SPARE PARTS E 29

90° CARTRIDGE Type F63



Right Hand

Right Hand
Left Hand

Entering Angle	No.	Hand	Model	Insert	F	L	Clamp Piece
95°	No.10-1	R	F63-DCLNR-45035-12	CN1204 Rhombic 80°	45	35	CP2
		L	-DCLNL-45035-12				
	No.10-2	R	F63-DCLNR-45035-16	CN1606 Rhombic 80°	45	35	CP3
		L	-DCLNL-45035-16				
	No.10-3	R	F63-PCLNR-45045-19	CN1906 Rhombic 80°	45	45	LEVER LOCK
		L	-PCLNL-45045-19				
93°	No.12-1	R	F63-DTJNR-45035-16	TN1604 Triangle 60°	45	35	CP1
		L	-DTJNL-45035-16				
	No.12-2	R	F63-DTJNR-45035-22	TN2204 Triangle 60°	45	35	CP2
		L	-DTJNL-45035-22				
93°	No.13	R	F63-DDJNR-45035-15	DN1504*1 (DN1506) Rhombic 55°	45	35	CP2
		L	-DDJNL-45035-15				
	No.18	R	F63-DDJNR-45055-15		45	55	CP2
		L	-DDJNL-45055-15				
107.5°	No.14	R	F63-DDHNR-45040-15		45	40	CP2
		L	-DDHNL-45040-15				
93°	No.17	R	F63-DDUNR-45035-15		45	35	CP2
		L	-DDUNL-45035-15				
117.5°	No.15	R	F63-SVQBR-45035-16	VB1604 Rhombic 35°	45	35	M3.5*2
		L	-SVQBL-45035-16				
93°	No.16	R	F63-SVJBR-45055-16		45	55	M3.5*2
		L	-SVJBL-45055-16				
93°	No.19	R	F63-DVJNR-45055-16	VN1604 Rhombic 35°	45	55	CP4
		L	-DVJNL-45055-16				

1. Wrench is ordered separately.
2. Inserts are not included. The standard ISO inserts are to be adapted.
3. *1 Carbide Shim for 4.76mm thick DIN1504 insert is included as standard.
   In case of DN1506 insert (thickness of 6.35mm), please replace the standard Carbide Shim by DNS1506 (option).
4. *2 M3.5 is screw-on type.

For SPARE PARTS E 29

[Coding system for cartridge]

F63 - D C L N R - 45 035 - 12

- Insert Size
- Length
- Offset Value
- Hand
- Relief Angle
- Entering Angle
- Insert Shape
- Clamping Method
- Cartridge Type and Size

Clamping Method	
D	Double-Clamp
P	Lever lock
S	Screw-On

Insert Shape	
C	Rhombic 80°
T	Triangle 60°
D	Rhombic 55°
V	Rhombic 35°

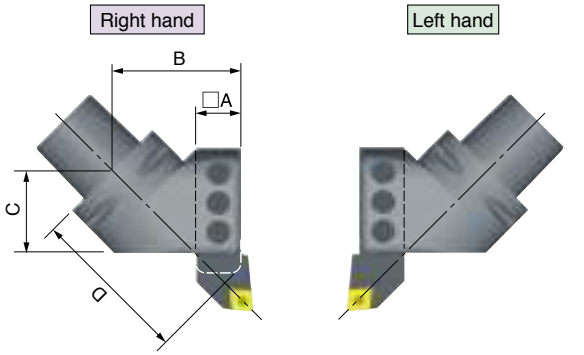
Entering Angle	
J	93°
L	95°
H	107.5°
Q	117.5°
U	93°

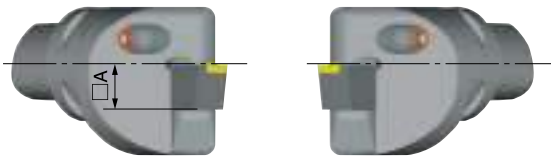
Relief Angle	
N	0° Negative
B	5° Positive
C	7° Positive

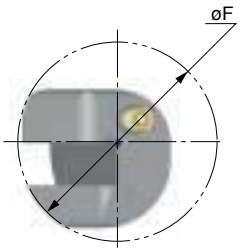
Hand	
R	Right Hand
L	Left Hand
N	Neutral

SQUARE TOOL HOLDER

45 Type



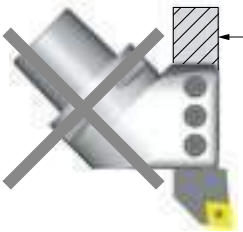




Right hand Left hand

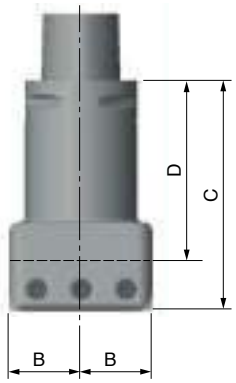
Model	Hand	□A	B	C	D	øF	Weight (kg)
C5-45-BH20R- 5838	R	20	58	38	73	94	1.2
-BH20L- 5838	L						
C6-45-BH25R- 7752	R	25	77	52	100	118	2.5
-BH25L- 7752	L						
C8-45-BH32R-85109	R	32	85	109	145	135	7.3
-BH32L-85109	L						

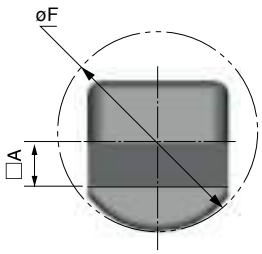
Caution



The excess length of a turning tool must be cut off to avoid interference with an ATC arm.

90 Type



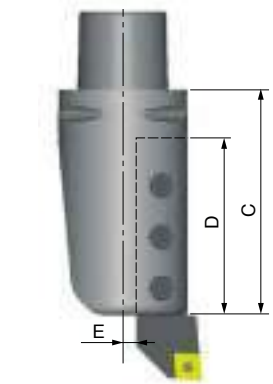


Neutral

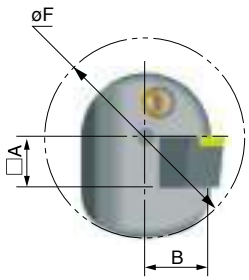
Model	Hand	□A	B	C	D	øF	Weight (kg)
C5-90-BH20N-32105	N	20	32	105	85	80	2.2
C6-90-BH25N-40130	N	25	40	130	105	100	4.2
C8-90-BH32N-51085	N	32	51	85	53	128	6.0
-51165				165	133		8.7

180 Type

Right hand



Left hand

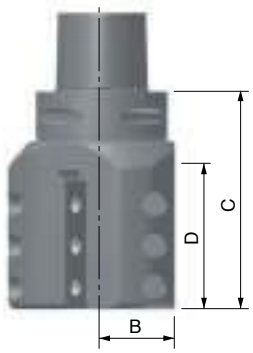


Right hand Left hand

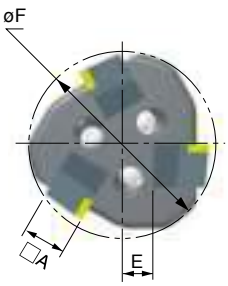
Model	Hand	□A	B	C	D	E	øF	Weight (kg)
C5-180-BH20R- 2590	R	20	25	90	65	5	80	1.6
-BH20L- 2590	L							
C6-180-BH25R-32120S	R	25	29.5	120	80	4.5	90	3.1
-BH25L-32120S	L							
C8-180-BH32R-40125	R	32	40	125	85	8	128	6.0
-BH32L-40125	L							

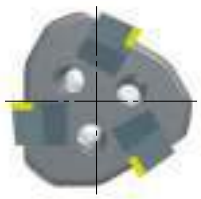
180 Multi Type

Right hand



Left hand





Right hand Left hand

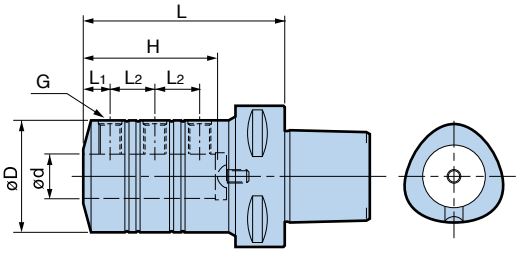
Model	Hand	□A	B	C	D	E	øF	Weight (kg)
C5-180-3BH20R-100	R	20	35	100	70	15	90	2.6
-3BH20L-100	L							
C6-180-3BH20R-105	R	20	35	105	70	15	90	3.2
-3BH20L-105	L							
-3BH25R-110	R	25	45	110	80	20	110	4.6
-3BH25L-110	L							
C8-180-3BH25R-130	R	25	45	130	90	20	110	6.1
-3BH25L-130	L							

BORING BAR HOLDER

Coolant-through hole

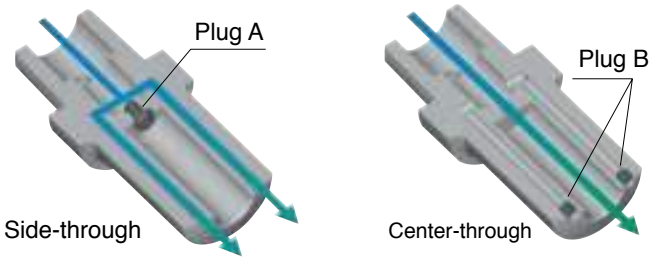
Clamping Range : ø6 - ø40

Application: boring and thread cutting



Model	ød	øD	L	L1	L2	H	G	Weight (kg)
C5-BSL 6- 70	6	23	70	5	8	41	M 5 : P0.8	0.6
-BSL 8- 70	8	25		6	10		M 6 : P1.0	
-BSL10- 70	10	29		8	12	42	M 8 : P1.0	
-BSL12- 80	12	34	80	8	16	53		0.8
-BSL16- 90	16	40	90	10	21	65	M10 : P1.25	1.0
-BSL20- 90	20	50		12	20	60		1.3
-BSL25-100	25	55	100	14	23	70	M12 : P1.5	1.6
-BSL32-110	32	64	110	16	26	78		2.1
-BSL40-130	40	80	130	18	32	93	M16 : P1.5	3.7
C6-BSL 6- 70	6	23	70	5	8	41	M 5 : P0.8	1.4
-BSL 8- 70	8	25		6	10		M 6 : P1.0	1.3
-BSL10- 70	10	29		8	12	42	M 8 : P1.0	
-BSL12- 80	12	34	80		16	53		1.5
-BSL16- 90	16	40	90	10	21	65	M10 : P1.25	1.7
-BSL20- 90	20	50		12	22	60		2.0
-BSL25-100	25	55	100	14	26	70	M12 : P1.5	2.3
-BSL32-110	32	64	110	16	30	78		2.8
-BSL40-130	40	80	130	18	32	93	M16 : P1.5	4.3
C8-BSL 6- 75	6	23	75	5	8	46	M 5 : P0.8	2.6
-BSL 8- 75	8	25		6	10	46	M 6 : P1.0	
-BSL10- 80	10	29	80	8	12	52	M 8 : P1.0	
-BSL12- 80	12	34			16	52		2.7
-BSL16- 90	16	40	90	10	21	65	M10 : P1.25	2.9
-BSL20-100	20	50	100	12	22	70		3.3
-BSL25-110	25	55	110	14	26	80	M12 : P1.5	3.6
-BSL32-120	32	64	120	16	30	88		4.1
-BSL40-130	40	80	130	18	32	93	M16 : P1.5	5.3

Interchangeable between center-through and side-through coolant supply by using plugs.



Adjustment for either right hand or left hand is also possible.

Chuck Model	Plug A	Plug B
BSL 6	M 8 P1.25	M 4 P0.7
8	M10 P1.0	
10	M12 P1.5	M 5 P0.8
12	M14 P1.5	M 6 P1.0
16	M18 P1.5 (C5: M6 P1.0)	
20	M 6 P1.0*	
25		
32	M 8 P1.25*	
40		

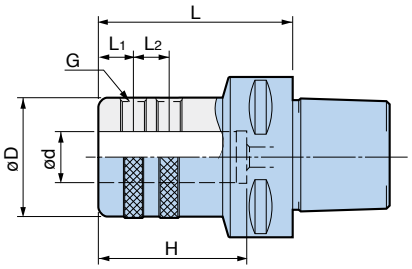
1. Both plugs are included as standard.
2. ★Button-head bolt.

SIDE LOCK HOLDER

Coolant-through hole

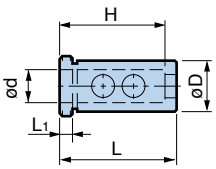
Clamping Range : ø16 - ø40

Application: indexable insert drill



Model	ød	øD	L	L1	L2	H	G	Weight (kg)
C5-TSL16-60	16	48	60	14	14	48	M10	0.8
-TSL20-60	20					50		0.9
-TSL25-75	25		75	20	15	56	M16	0.9
-TSL32-85	32	63	85			60		1.6
C6-TSL16-70	16	48	70	14	14	48	M10	1.7
-TSL20-70	20					50		1.7
-TSL25-70	25			20	15	56	M16	1.6
-TSL32-75	32	63	75			60		2.0
-TSL40-85	40	68	85	25		70		2.2
C8-TSL16-80	16	48	80	14	14	48	M10	3.1
-TSL20-80	20					50		3.1
-TSL25-85	25		85	20	15	56	M16	3.0
-TSL32-90	32	63	90			60		3.5
-TSL40-95	40	68	95	25		70		3.5

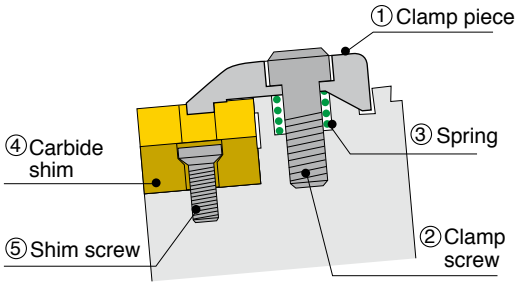
■REDUCTION COLLET



Model	ød	øD	L	L1	H
OSL25-16	16	25	62	5.5	48
-20	20				50
OSL32-16	16	32	66	5.5	48
-20	20				50
-25	25				56
OSL40-16	16	40	76	5.5	48
-20	20				50
-25	25				56
-32	32				60

SPARE PARTS for Cartridge

■DOUBLE CLAMP TYPE



Clamp Piece Set

Set model	①Clamp piece	② Screw	③ Spring	Insert
SCP-1	CP1	M5×20	ø8×10	TN16
SCP-2	CP2			CN12,TN22 DN15
SCP-3	CP3			CN16,TN27
SCP-4	CP4			VN16
SCP-5	CP5			CN19

1. Set includes one each of clamp piece, screw and spring.
2. Wrench is ordered separately (Model: T-4-L70).

Carbide Shim Set

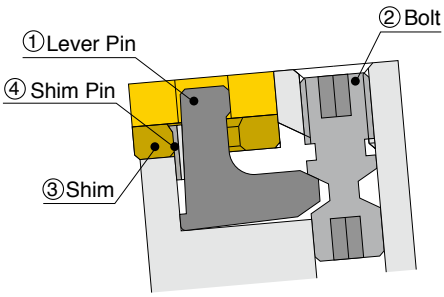
Insert	Set model	④ Shim	⑤Screw	Torx size
TN1604	**STNS1604**	TNS1604	M3×7	T10
TN2204	**STNS2204**	TNS2204	M4×8	T15
TN2706	**STNS2706**	TNS2706	M5×12	T20
DN1504	**SDNS1504**	DNS1504	M4×8	T15
DN1506	**SDNS1506**	DNS1506	M4×8	T15

1. Set includes one each of carbide shim and screw.
2. Wrench is ordered separately (Model: DA-T10, DA-T15, DA-T20).

Insert	Set model	④ Shim	⑤Screw	Torx size
CN1204	**SCNS1204**	CNS1204	M4×8	T15
CN1606	**SCNS1606**	CNS1606	M5×12	T20
CN1906	**SCNS1906**	CNS1906	M5×12	T20
VN1604	**SVNS1604**	VNS1604	M3×7	T10

■LEVER LOCK TYPE

For F63-PCLNR(L)45045-19



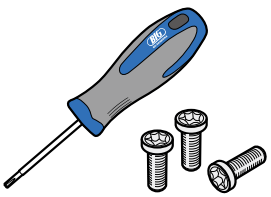
Lever Lock Set

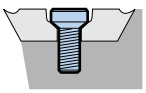
Set model	① Lever	②Bolt	Spanner size
SLCL6	LCL6	LCS6	4mm

Carbide Shim Set

Set model	③ Shim	④ Shim Pin
SLSC63	LSC63	LSP6

■INSERT CLAMPING SCREW SET





For VB16 Insert

Set model	**S3508DS**

Contents

M3.5 screws.....10pcs.
Wrench..... **DA-T15** 1pce.

MEGA MICRO CHUCK®

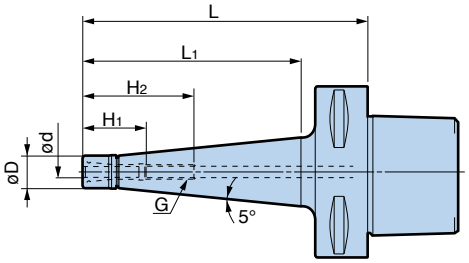
Clamping Range : ø0.45 - ø6.05

MAX. 30,000 min-1

Extremely slim design of body and nut provides superior balance and concentricity and is ideal for reaching into confined areas.

Type T

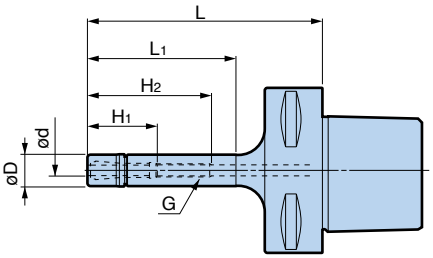
World's original



Model	Clamping Range ød	øD	L	L1	H1	H2	G	Max. min-1	Collet	Weight (kg)
C4 -MEGA3S- 60T	0.45 – 3.25	10	60	35	22	38	M4 P0.7	35,000	NBC3S-□	0.3
-MEGA6S- 60T	0.45 – 6.05	14	60	35	28	47	M7 P0.75	30,000	NBC6S-□	0.3
90T			90	65		49		22,000		0.4
C5 -MEGA3S-105T	0.45 – 3.25	10	105	79	22.5	38.5	M4 P0.7	30,000	NBC3S-□	0.5
-MEGA4S-105T	0.45 – 4.05	12	105	79	26.5	47	M5 P0.8	25,000	NBC4S-□	0.5
-120T			120	94				20,000		0.6
-MEGA6S-105T	0.45 – 6.05	14	105	79	28.5	49	M7 P0.75	25,000	NBC6S-□	0.6
-120T			120	94				20,000		0.6
C6 -MEGA3S-120T	0.45 – 3.25	10	120	92	22.5	38.5	M4 P0.7	25,000	NBC3S-□	1.3
-MEGA4S-120T	0.45 – 4.05	12	120	92	26.5	47	M5 P0.8	22,000	NBC4S-□	1.3
-135T			135	107				20,000		1.4
-MEGA6S-120T	0.45 – 6.05	14	120	92	28.5	49	M7 P0.75	22,000	NBC6S-□	1.3
-135T			135	107				20,000		1.4

1. MEGA NUT is included.

Type S



Model	Clamping Range ød	øD	L	L1	H1	H2	G	Max. min-1	Collet	Weight (kg)
C5 -MEGA3S-75	0.45 – 3.25	10	75	49	22.5	38	M4 P0.7	25,000	NBC3S-□	0.4
-MEGA4S-75	0.45 – 4.05	12		50	26.5	47	M5 P0.8	25,000	NBC4S-□	0.4
-MEGA6S-75	0.45 – 6.05	14		50	28.5	49	M7 P0.75	25,000	NBC6S-□	0.4
C6 -MEGA3S-90	0.45 – 3.25	10	90	50	22.5	38	M4 P0.7	25,000	NBC3S-□	1.1
-MEGA4S-90	0.45 – 4.05	12		58	26.5	47	M5 P0.8	25,000	NBC4S-□	1.2
-MEGA6S-90	0.45 – 6.05	14		58	28.5	49	M7 P0.75	25,000	NBC6S-□	1.2

1. MEGA NUT is included.

	Spare Parts	Accessories			
	MEGA NUT 	MEGA WRENCH 	MICRO COLLET  G 2	COLLET BOX 	α TAPER CLEANER 
MEGA MICRO CHUCK	Model	Model	Model	Model	Model
MEGA3S	MGN3S	MGR10	NBC3S-□	NBB3S	SC-NBC3S
MEGA4S	MGN4S	MGR12	NBC4S-□	NBB4S	-NBC4S
MEGA6S	MGN6S	MGR14	NBC6S-□	NBB6S	-NBC6S

MEGA NEW BABY CHUCK®

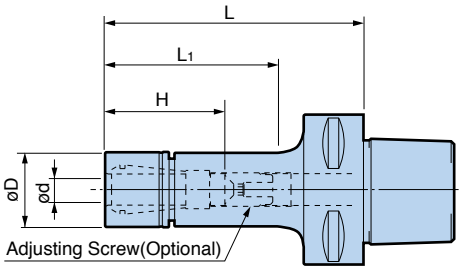
Coolant-through hole

Clamping Range : ø0.25 - ø20

High speed design utilizes ultra precision New Baby Collet which guarantees a runout at the collet nose of less than 1 micron.

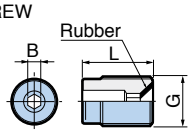
World's original

MAX. 35,000 min-1



Model	Clamping Range ød	øD	L	L1	H	Max. min-1	Collet	Weight (kg)
C5 -MEGA 6N- 60	0.25 – 6	20	60	34	23 – 36	35,000	NBC 6-□	0.5
- 75			75	49	23 – 43	30,000		0.5
- 90			90	62		30,000		0.5
-105			105	77		25,000		0.6
-120			120	90		23,000		0.6
-135			135	105		20,000		0.6
-MEGA 8N- 60	0.5 – 8	25	60	33	26 – 36	35,000	NBC 8-□	0.5
- 75			75	49	26 – 45	30,000		0.6
- 90			90	64		30,000		0.6
-105			105	77		27,000		0.7
-120			120	92		25,000		0.7
-135			135	107		20,000		0.8
-MEGA10N- 55 ※	1.5 – 10	30	55	31	48	35,000	NBC10-□	0.5
- 75			75	49	38 – 48	33,000		0.6
- 90			90	64		30,000		0.7
-105			105	79		27,000		0.8
-120			120	92		25,000		0.9
-135			135	107		20,000		0.9
-MEGA13N- 55 ※	2.5 – 13	35	55	31	48	30,000	NBC13-□	0.6
- 75			75	49	44 – 48	28,000		0.7
- 90			90	64	44 – 63	25,000		0.8
-105			105	79		22,000		0.9
-120			120	94		20,000		1.0
-135			135	109		18,000		1.1
-MEGA16N- 60 ※	2.5 – 16	42	60	38	53	30,000	NBC16-□	0.7
- 75 ※			75	53	68	28,000		0.9
- 90			90	69	48 – 63	23,000		1.0
-105			105	84	48 – 68	20,000		1.1
-120			120	99		15,000		1.3
-135			135	114		15,000		1.4
-MEGA20N- 60 ※	2.5 – 20	46	60	39	51	23,000	NBC20-□	0.8
- 75 ※			75	54	66	20,000		1.0
- 90			90	69	51 – 60	17,000		1.1
-105			105	84	51 – 68	15,000		1.3
-120			120	99		13,000		1.4
-135			135	114		10,000		1.6

1. MEGA NUT is included.
2. "H" indicates the adjustment length with an Adjusting Screw.
3. Adjusting Screw cannot be used with ※marked model. "H" is the max. tool shank length that can be inserted into the holder.

	Spare Parts	Accessories						
	MEGA NUT 	MEGA WRENCH 	COLLET G 3 	MEGA PERFECT SEAL G 9 	ADJUSTING SCREW  			
MEGA NEW BABY CHUCK	Model	Model	Model	Model	Model	G	L	B
MEGA 6N	**MGN 6**	**MGR20**	**NBC 6-□**	**MPS 6-□**	**NBA 6B**	M 7	12	2
MEGA 8N	**MGN 8**	**MGR25**	**NBC 8-□**	**MPS 8-□**	**NBA 8B**	M 9	13	2.5
MEGA10N	**MGN10**	**MGR30**	**NBC10-□**	**MPS10-□**	**NBA10B**	M11	16	3
MEGA13N	**MGN13**	**MGR35**	**NBC13-□**	**MPS13-□**	**NBA13B**	M14	20	4
MEGA16N	**MGN16**	**MGR42**	**NBC16-□**	**MPS16-□**	**NBA16B**	M18	20	4
MEGA20N	**MGN20**	**MGR46**	**NBC20-□**	**MPS20-□**	**NBA20B**	M21	20	4

Model	Clamping Range ød	øD	L	L_1	H	Max. min^{-1}	Collet	Weight (kg)
C6 -MEGA 6N- 60	0.25 – 6	20	60	30	23 – 33	35,000	NBC 6- □	1.2
- 75			75	43	23 – 43	35,000		1.2
- 90			90	58		30,000		1.2
-105			105	73		30,000		1.3
-120			120	88		25,000		1.3
-135			135	103		20,000		1.3
-165			165	128		15,000		1.4
-200			200	163		10,000		1.5
-MEGA 8N- 60	0.5 – 8	25	60	29	26 – 31	35,000	NBC 8- □	1.3
- 75			75	43	26 – 45	35,000		1.3
- 90			90	58		30,000		1.3
-105			105	73		30,000		1.4
-120			120	88		25,000		1.4
-135			135	103		20,000		1.5
-165			165	133		15,000		1.6
-200			200	163		10,000		1.7
-MEGA10N- 60 ※	1.5 – 10	30	60	32	51	35,000	NBC10- □	1.3
- 75			75	43	38 – 45	33,000		1.4
- 90			90	58	38 – 48	30,000		1.4
-105			105	73		25,000		1.5
-120			120	88		25,000		1.6
-135			135	103		20,000		1.6
-165			165	133		15,000		1.8
-200			200	168		12,000		2.0
-MEGA13N- 60 ※	2.5 – 13	35	60	32	51	35,000	NBC13- □	1.3
- 75 ※			75	45	66	32,000		1.4
- 90			90	60	44 – 55	30,000		1.5
-105			105	73	44 – 63	25,000		1.6
-120			120	90		20,000		1.7
-135			135	103		20,000		1.8
-165			165	133		15,000		2.0
-200			200	168		12,000		2.2
-MEGA16N- 65 ※	2.5 – 16	42	65	37	56	32,000	NBC16- □	1.5
- 75 ※			75	47	66	30,000		1.6
- 90			90	60	48 – 57	25,000		1.7
-105			105	75	48 – 68	20,000		1.8
-120			120	90		15,000		2.0
-135			135	105		15,000		2.1
-165			165	135		10,000		2.4
-200			200	170		8,000		2.7
-MEGA20N- 65 ※	2.5 – 20	46	65	37	51	32,000	NBC20- □	1.5
- 75 ※			75	47	65	30,000		1.6
- 90			90	62	51 – 56	25,000		1.8
-105			105	77	51 – 68	20,000		2.0
-120			120	92		15,000		2.1
-135			135	107		15,000		2.3
-165			165	137		10,000		2.6
-200			200	172		8,000		2.9

1. MEGA NUT is included.
2. "H" indicates the adjustment length with an Adjusting Screw.
3. Adjusting Screw cannot be used with ※ marked model. "H" is the max. tool shank length that can be inserted into the holder.

MEGA NEW BABY CHUCK®

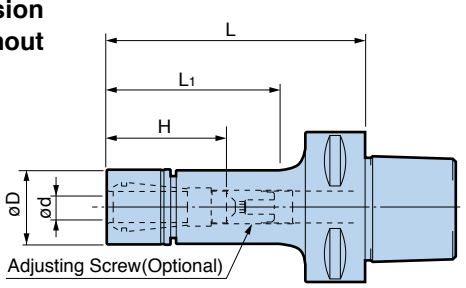
Coolant-through hole

Clamping Range : ø0.25 - ø20

High speed design utilizes ultra precision New Baby Collet which guarantees a runout at the collet nose of less than 1 micron.

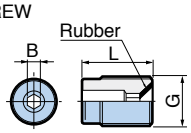
World's original

MAX. 20,000 min-1



Model	Clamping Range ød	øD	L	L1	H	Max. min-1	Collet	Weight (kg)
C8 -MEGA 6N- 90	0.25 – 6	20	90	45	23 – 43	20,000	NBC 6-□	2.4
-105			105	60		18,000		2.5
-120			120	75		17,000		2.6
-135			135	90		15,000		2.6
-165			165	120		12,000		2.7
-200			200	155		10,000		2.7
-MEGA 8N- 90	0.5 – 8	25	90	46	26 – 45	20,000	NBC 8-□	2.6
-105			105	60		18,000		2.6
-120			120	75		17,000		2.7
-135			135	90		15,000		2.7
-165			165	120		13,000		2.8
-200			200	155		12,000		2.9
-MEGA10N- 70	1.5 – 10	30	70	30	38 – 46	22,000	NBC10-□	2.6
- 90			90	45	38 – 48	20,000		2.7
-105			105	60		18,000		2.7
-120			120	75		17,000		2.8
-135			135	90		15,000		2.9
-165			165	120		13,000		3.0
-200			200	155		12,000		3.2
-MEGA13N- 70※	2.5 – 13	35	70	34	70	20,000	NBC13-□	2.6
- 90			90	50	44 – 63	18,000		2.8
-105			105	65		16,000		2.9
-120			120	80		15,000		2.9
-135			135	95		14,000		3.0
-165			165	120		12,000		3.2
-200			200	155		11,000		3.5
-MEGA16N- 70※	2.5 – 16	42	70	34	70	17,000	NBC16-□	2.7
- 90			90	50	48 – 66	15,000		2.9
-105			105	65	48 – 68	14,000		3.0
-120			120	80		14,000		3.2
-135			135	95		13,000		3.3
-165			165	125		13,000		3.6
-200			200	160		10,000		3.9
-MEGA20N- 70※	2.5 – 20	46	70	34	63	16,000	NBC20-□	2.8
- 90			90	50	51 – 68	15,000		3.0
-105			105	65		14,000		3.1
-120			120	80		14,000		3.3
-135			135	95		13,000		3.5
-165			165	125		13,000		3.8
-200			200	160		10,000		4.1

1. MEGA NUT is included.
2. "H" indicates the adjustment length with an Adjusting Screw.
3. Adjusting Screw cannot be used with ※marked model. "H" is the max. tool shank length that can be inserted into the holder.

	Spare Parts	Accessories						
	MEGA NUT 	MEGA WRENCH 	COLLET G 3 	MEGA PERFECT SEAL G 9 	ADJUSTING SCREW  			
MEGA NEW BABY CHUCK	Model	Model	Model	Model	Model	G	L	B
MEGA 6N	**MGN 6**	**MGR20**	**NBC 6-□**	**MPS 6-□**	**NBA 6B**	M 7	12	2
MEGA 8N	**MGN 8**	**MGR25**	**NBC 8-□**	**MPS 8-□**	**NBA 8B**	M 9	13	2.5
MEGA10N	**MGN10**	**MGR30**	**NBC10-□**	**MPS10-□**	**NBA10B**	M11	16	3
MEGA13N	**MGN13**	**MGR35**	**NBC13-□**	**MPS13-□**	**NBA13B**	M14	20	4
MEGA16N	**MGN16**	**MGR42**	**NBC16-□**	**MPS16-□**	**NBA16B**	M18	20	4
MEGA20N	**MGN20**	**MGR46**	**NBC20-□**	**MPS20-□**	**NBA20B**	M21	20	4

MEGA E CHUCK®

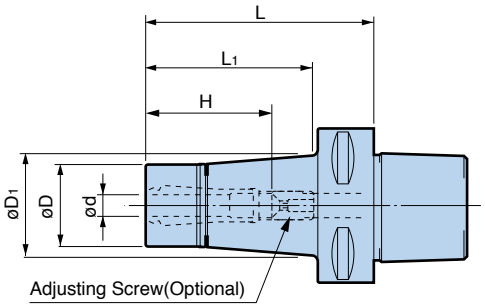
Coolant-through hole

Clamping Range : ø3.0 - ø12

Collet chuck designed exclusively for endmilling with high concentricity and rigidity.

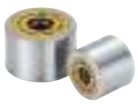
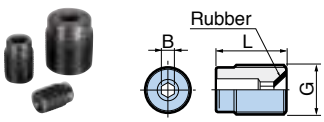
World's original

MAX. 35,000 min-1



Model	Clamping Range ød	øD	øD1	L	L1	H	Max. min-1	Collet	Weight (kg)
C5 -MEGA 6E- 55※	3 – 6	25	26.4	55	29	48	35,000	MEC 6-□	0.5
- 75			29.6	75	49	37 – 45	30,000		0.6
- 90			32.3	90	64		25,000		0.7
-105			35.2	105	81		22,000		0.8
-120			37.9	120	97		20,000		0.9
-135			40.9	135	113		18,000		1.1
-MEGA 8E- 55※	3 – 8	30	31.3	55	31	48	35,000	MEC 8-□	0.6
- 75			34.0	75	51	42 – 51	30,000		0.7
- 90			37.4	90	67		25,000		0.8
-105			40.1	105	82		22,000		1.0
-120			42.8	120	98		20,000		1.1
-135			45.8	135	114		18,000		1.3
-MEGA10E- 60※	3 – 10	35	37.4	60	37	53	30,000	MEC10-□	0.6
- 75			39.9	75	53	48 – 49	30,000		0.8
- 90			42.7	90	69	48 – 58	25,000		0.9
-105			45.3	105	84		20,000		1.1
-120			45.3	120	99		18,000		1.3
-135			44.6	135	114		16,000		1.4
-MEGA13E- 60※	3 – 12	42	44.4	60	39	50	30,000	MEC13-□	0.8
- 75※			44.8	75	54	68	30,000		0.9
- 90			44.8	90	69	50 – 60	25,000		1.1
-105			46.0	105	84		20,000		1.3
-120			45.8	120	99		16,000		1.4
-135			45.0	135	114		13,000		1.6

1. MEGA E NUT is included.
2. "H" indicates the adjustment length with an Adjusting Screw.
3. Adjusting Screw cannot be used with※marked model. "H" is the max. tool shank length that can be inserted into the holder.

	Spare Parts	Accessories						
	MEGA E NUT 	MEGA WRENCH 	MEGA E COLLET G 11 	MEGA E PERFECT SEAL G 11 	ADJUSTING SCREW 			
MEGA E CHUCK	Model	Model	Model	Model	Model	G	L	B
MEGA 6E	**MEN 6**	**MGR25**	**MEC 6-□**	**EPS 6-□**	**NBA 6B**	M 7	12	2
MEGA 8E	**MEN 8**	**MGR30**	**MEC 8-□**	**EPS 8-□**	**NBA 8B**	M 9	13	2.5
MEGA10E	**MEN10**	**MGR35**	**MEC10-□**	**EPS10-□**	**NBA10B**	M11	16	3
MEGA13E	**MEN13**	**MGR42**	**MEC13-□**	**EPS13-□**	**NBA13B**	M14	20	4

MEGA E CHUCK®

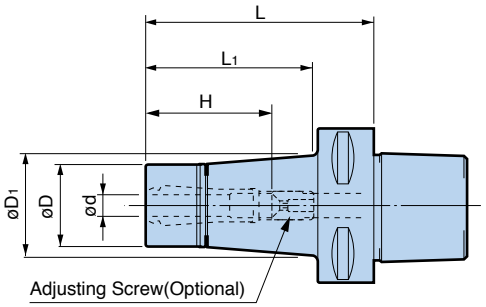
Coolant-through hole

Clamping Range : ø3.0 - ø12

Collet chuck designed exclusively for endmilling with high concentricity and rigidity.

World's original

MAX. 35,000 min-1

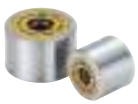
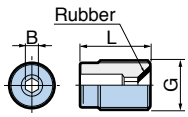


Model	Clamping Range ød	øD	øD1	L	L1	H	Max. min-1	Collet	Weight (kg)
C6 -MEGA 6E- 60 ※	3 – 6	25	27.9	60	33	51	35,000	MEC 6-□	1.2
- 75			29.5	75	48	37 – 45	30,000		1.3
- 90			32.1	90	63		30,000		1.4
-105			34.7	105	78		28,000		1.5
-120			37.3	120	93		25,000		1.6
-135			40.0	135	108		22,000		1.8
-165			45.2	165	138		18,000		2.1
-200			51.7	200	175		15,000		2.7
-MEGA 8E- 60 ※	3 – 8	30	32.7	60	33	51	32,000	MEC 8-□	1.3
- 75			34.2	75	48	42 – 46	30,000		1.4
- 90			36.7	90	63	42 – 51	30,000		1.5
-105			39.5	105	78		28,000		1.7
-120			42.1	120	93		25,000		1.8
-135			44.7	135	108		23,000		1.9
-165			50.3	165	140		20,000		2.4
-200			56.6	200	176		15,000		3.1
-MEGA10E- 65 ※	3 – 10	35	38.4	65	38	56	32,000	MEC10-□	1.4
- 75 ※			39.1	75	48	66	30,000		1.5
- 90			41.6	90	63	48 – 58	30,000		1.6
-105			44.4	105	78		27,000		1.8
-120			47.0	120	93		23,000		2.0
-135			50.0	135	110		20,000		2.2
-165			55.4	165	141		17,000		2.7
-200			56.2	200	176		13,000		3.3
-MEGA13E- 65 ※	3 – 12	42	45.1	65	39	56	30,000	MEC13-□	1.5
- 75 ※			46.0	75	49	66	30,000		1.6
- 90			49.0	90	66	50 – 55	28,000		1.8
-105			51.4	105	80		25,000		2.1
-120			54.2	120	96	50 – 60	22,000		2.3
-135			56.8	135	112		18,000		2.6
-165			62.3	165	141		15,000		3.2
-200			57.8	200	177		10,000		3.6

1. MEGA E NUT is included.
2. "H" indicates the adjustment length with an Adjusting Screw.
3. Adjusting Screw cannot be used with※ marked model. "H" is the max. tool shank length that can be inserted into the holder.

Model	Clamping Range ød	øD	øD1	L	L1	H	Max. min-1	Collet	Weight (kg)
C8 -MEGA 6E- 70	3 – 6	25	28.2	70	30	37 – 45	20,000	MEC 6-□	2.5
- 90			30.7	90	55		20,000		2.6
-105			33.3	105	70		18,000		2.7
-120			35.9	120	85		16,000		2.9
-135			38.5	135	100		14,000		3.0
-165			43.6	165	129		13,000		3.3
-200			49.8	200	165		12,000		3.8
-MEGA 8E- 70	3 – 8	30	30.0	70	30	42 – 47	20,000	MEC 8-□	2.6
- 90			35.4	90	55	42 – 51	20,000		2.7
-105			38.0	105	70		20,000		2.9
-120			40.7	120	85		18,000		3.1
-135			43.3	135	100		16,000		3.2
-165			48.4	165	129		16,000		3.6
-200			54.5	200	165		13,000		4.2
-MEGA10E- 70 ※	3 – 10	35	37.9	70	30	70	22,000	MEC10-□	2.6
- 90			40.3	90	55	48 – 58	20,000		2.8
-105			42.9	105	70		20,000		3.0
-120			45.6	120	85		18,000		3.2
-135			48.2	135	100		16,000		3.4
-165			53.1	165	129		16,000		3.9
-200			59.4	200	165		13,000		4.6
-MEGA13E- 70 ※	3 – 12	42	44.6	70	30	70	20,000	MEC13-□	2.8
- 90			47.0	90	55	50 – 60	18,000		3.0
-105			49.6	105	70		18,000		3.2
-120			52.3	120	85		16,000		3.4
-135			54.9	135	100		14,000		3.7
-165			60.1	165	130		14,000		4.3
-200			66.4	200	166		10,000		5.2

1. MEGA E NUT is included.
2. "H" indicates the adjustment length with an Adjusting Screw.
3. Adjusting Screw cannot be used with※ marked model. "H" is the max. tool shank length that can be inserted into the holder.

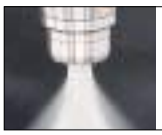
	Spare Parts	**Accessories**						
	MEGA E NUT 	MEGA WRENCH 	MEGA E COLLET G 11 	MEGA E PERFECT SEAL G 11 	ADJUSTING SCREW  			
MEGA E CHUCK	Model	Model	Model	Model	Model	G	L	B
MEGA 6E	**MEN 6**	**MGR25**	**MEC 6-□**	**EPS 6-□**	**NBA 6B**	M 7	12	2
MEGA 8E	**MEN 8**	**MGR30**	**MEC 8-□**	**EPS 8-□**	**NBA 8B**	M 9	13	2.5
MEGA10E	**MEN10**	**MGR35**	**MEC10-□**	**EPS10-□**	**NBA10B**	M11	16	3
MEGA13E	**MEN13**	**MGR42**	**MEC13-□**	**EPS13-□**	**NBA13B**	M14	20	4

MEGA DOUBLE POWER CHUCK®

Coolant-through hole

Clamping Range : ø16 - ø32

Close to integral rigidity and precision of a solid toolholder.
Advanced technology for high speed and heavy duty endmilling.

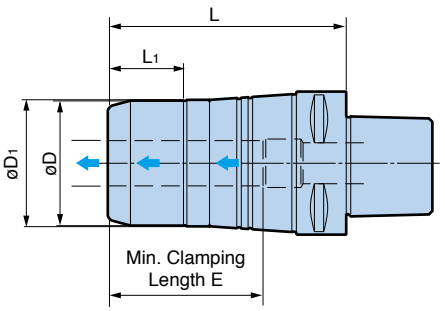


Type DS For coolant to cutting tool periphery

For TYPE DS E 39

Type D For coolant through tools

MAX. 30,000 min-1



Model	Clamping Range ød	øD	øD1	L	L1	E	Max. min-1	Weight (kg)
C5 -MEGA16D- 65	16	46	55	65	23.5	50	30,000	0.9
- 90				90			28,000	1.4
-105				105			25,000	1.8
-MEGA20D- 75	20	55	55.7	75	33	56	30,000	1.2
- 90				90			28,000	1.5
-105				105			25,000	1.8
-MEGA25D- 75	25	62	62.7	75	33	56	25,000	1.4
- 90				90			22,000	1.7
-105				105			20,000	2.0
C6 -MEGA16D- 70A	16	42	52.6	70	25	55	30,000	1.6
- 90A				90			28,000	2.0
-105A				105			25,000	2.3
-135A				135			22,000	2.9
-165A				165			18,000	3.6
-200A				200			15,000	4.2
-MEGA20D- 75	20	55	55.7	75	33	56	30,000	2.0
- 90				90			28,000	2.2
-105				105			25,000	2.5
-135				135			22,000	3.1
-165				165			18,000	3.7
-200				200			15,000	4.3
-MEGA25D- 75A	25	62	62.7	75	39	57	28,000	2.1
- 90A				90			25,000	2.4
-105A				105			23,000	2.8
-135A				135			20,000	3.3
-165A				165			18,000	3.9
-200A				200			15,000	4.8
-MEGA32D- 90	32	70	70.7	90	33.5	65	25,000	2.5
-105				105			22,000	2.9
-135				135			18,000	3.4
-165				165			15,000	3.9
-200				200			12,000	4.5

1. Wrench is ordered separately.

For STRAIGHT COLLET G 15

Model	Clamping Range ød	øD	øD1	L	L1	E	Max. min^{-1}	Weight (kg)
C8 -MEGA16D- 70	16	46	55	70	23.5	50	25,000	2.8
-105				105			20,000	3.5
-135				135			18,000	4.1
-165				165			15,000	4.7
-200				200			12,000	5.6
-MEGA20D- 75	20	60	69	75	25.5	56	25,000	3.3
-105				105			20,000	4.2
-135				135			18,000	5.0
-165				165			15,000	5.9
-200				200			12,000	7.1
-MEGA25D- 75	25	70	77	75	32	65	21,000	3.4
-105				105			18,000	4.5
-135				135			15,000	5.4
-165				165			12,000	6.4
-200				200			10,000	7.8
-MEGA32D- 90	32	80	86	90	39.5	71	20,000	4.3
-105				105			17,000	4.8
-135				135			15,000	6.0
-165				165			12,000	7.3
-200				200			10,000	9.0

1. Wrench is ordered separately.

For STRAIGHT COLLET G 15

Accessories

	MEGA WRENCH 		MEGA WRENCH 
MEGA Double Power Chuck	Model	MEGA Double Power Chuck	Model
C5 -MEGA16D	**MGR46L**	C8 -MEGA16D	**MGR46L**
C6 -MEGA16D	**MGR42L**	-MEGA20D	**MGR60L**
C5 / C6 -MEGA20D	**MGR55L**	-MEGA25D	**MGR70L**
-MEGA25D	**MGR62L**	-MEGA32D	**MGR80L**
-MEGA32D	**MGR70L**		

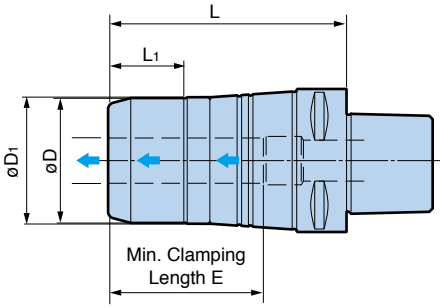
MEGA DOUBLE POWER CHUCK®

Coolant-through hole

Clamping Range : ø16 - ø32

Type DS

For coolant to cutting tool periphery



Model	Clamping Range ød	øD	øD1	L	L1	E	Max. min-1	Weight (kg)
C5 -MEGA16DS- 65	16	46	55	67.5	25.5	52	30,000	0.9
- 90				92.5			28,000	1.4
-105				107.5			25,000	1.8
-MEGA20DS- 75	20	55	55.7	77.5	35.5	58	30,000	1.2
- 90				92.5			28,000	1.5
-105				107.5			25,000	1.8
-MEGA25DS- 75	25	62	62.7	77.5	35	58	25,000	1.4
- 90				92.5			22,000	1.7
-105				107.5			20,000	2.0
C6 -MEGA16DS- 70A	16	42	52.6	72	27	57	30,000	1.6
- 90A				92			28,000	2.0
-105A				107			25,000	2.3
-135A				137			22,000	2.9
-165A				167			18,000	3.6
-200A				202			15,000	4.2
-MEGA20DS- 75	20	55	55.7	77.5	35.5	58	30,000	2.0
- 90				92.5			28,000	2.2
-105				107.5			25,000	2.5
-135				137.5			22,000	3.1
-165				167.5			18,000	3.7
-200				202.5			15,000	4.3
-MEGA25DS- 75A	25	62	62.7	77	41	59	28,000	2.1
- 90A				92			25,000	2.4
-105A				107			23,000	2.8
-135A				137			20,000	3.3
-165A				167			18,000	3.9
-200A				202			15,000	4.8
-MEGA32DS- 90	32	70	70.7	92.5	36	67	25,000	2.5
-105				107.5			22,000	2.9
-135				137.5			18,000	3.4
-165				167.5			15,000	3.9
-200				202.5			12,000	4.5

1. Wrench is ordered separately.
2. Type DS provides coolant around the cutting tool periphery, even if used with a cutting tool with a through hole.

For STRAIGHT COLLET G 15

Model	Clamping Range ød	øD	øD1	L	L1	E	Max. min-1	Weight (kg)
C8 -MEGA16DS- 70	16	46	55	72.5	26	52	25,000	2.8
-105				107.5			20,000	3.5
-135				137.5			18,000	4.1
-165				167.5			15,000	4.7
-200				202.5			12,000	5.6
-MEGA20DS- 75	20	60	69	77.5	28	58	25,000	3.3
-105				107.5			20,000	4.2
-135				137.5			18,000	5.0
-165				167.5			15,000	5.9
-200				202.5			12,000	7.1
-MEGA25DS- 75	25	70	77	77.5	34	67	21,000	3.4
-105				107.5			18,000	4.5
-135				137.5			15,000	5.4
-165				167.5			12,000	6.4
-200				202.5			10,000	7.8
-MEGA32DS- 90	32	80	86	92.5	42	73	20,000	4.3
-105				107.5			17,000	4.8
-135				137.5			15,000	6.0
-165				167.5			12,000	7.3
-200				202.5			10,000	9.0

1. Wrench is ordered separately.
2. Type DS provides coolant around the cutting tool periphery, even if used with a cutting tool with a through hole.

For STRAIGHT COLLET G 15

Accessories

	MEGA WRENCH 
MEGA Double Power Chuck	Model
C5 -MEGA16DS	**MGR46L**
C6 -MEGA16DS	**MGR42L**
C5 / C6 -MEGA20DS	**MGR55L**
-MEGA25DS	**MGR62L**
-MEGA32DS	**MGR70L**

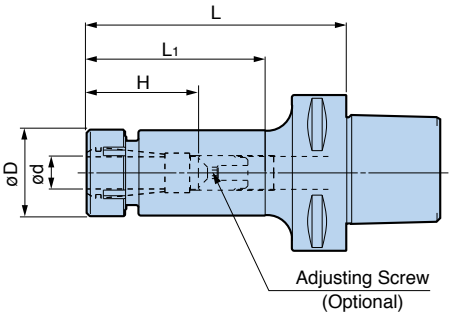
	MEGA WRENCH 
MEGA Double Power Chuck	Model
C8 -MEGA16DS	**MGR46L**
-MEGA20DS	**MGR60L**
-MEGA25DS	**MGR70L**
-MEGA32DS	**MGR80L**

NEW BABY CHUCK

Coolant-through hole

Clamping Range : ø0.25 - ø20

Great variety in length in order to support high precision machining.

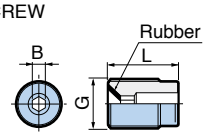


Model	Clamping Range ød	øD	L	L1	H	Collet Model	Weight (kg)
C5-NBS 6- 60	0.25 – 6	20	60	34	20 – 40	NBC 6-□	0.5
- 90			90	62			0.6
-120			120	90			0.6
-135			135	105			0.6
-NBS 8- 60	0.5 – 8	25	60	34	23 – 42	NBC 8-□	0.5
- 90			90	64			0.7
-120			120	92			0.7
-135			135	107			0.8
-NBS10- 60 ※	1.5 – 10	30	60	31	–	NBC10-□	0.6
- 90			90	64	35 – 45		0.7
-120			120	92			0.8
-135			135	109			0.9
-NBS13- 60 ※	2.5 – 13	35	60	31	–	NBC13-□	0.6
- 90			90	64	41 – 60		0.8
-120			120	94			1.0
-135			135	109			1.1
-NBS16- 60 ※	2.5 – 16	42	60	38	–	NBC16-□	0.7
- 90			90	68	45 – 63		0.9
-120			120	98	45 – 65		1.2
-135			135	113			1.4
-NBS20- 60 ※	2.5 – 20	46	60	39	–	NBC20-□	0.8
- 90			90	69	48 – 60		1.1
-120			120	99	48 – 65		1.4
-135			135	114			1.6
C6-NBS 6- 75	0.25 – 6	20	75	43	20 – 40	NBC 6-□	1.2
-105			105	73			1.3
-135			135	103			1.4
-165			165	133			1.4
-200			200	168			1.5
-NBS 8- 75	0.5 – 8	25	75	43	23 – 42	NBC 8-□	1.3
-105			105	73			1.4
-135			135	103			1.5
-165			165	133			1.6
-200			200	168			1.7
-NBS10- 75	1.5 – 10	30	75	43	35 – 45	NBC10-□	1.4
-105			105	73			1.5
-135			135	103			1.7
-165			165	133			1.8
-200			200	168			1.9
-NBS13- 75	2.5 – 13	35	75	45	41 – 57	NBC13-□	1.5
-105			105	73	41 – 60		1.7
-135			135	103			1.9
-165			165	133			2.0
-200			200	168			2.2
-NBS16- 75 ※	2.5 – 16	42	75	47	–	NBC16-□	1.6
-105			105	75	45 – 65		1.9
-135			135	105			2.1
-165			165	135			2.4
-200			200	170			2.7
-NBS20- 75 ※	2.5 – 20	46	75	47	–	NBC20-□	1.7
-105			105	77	48 – 65		2.0
-135			135	107			2.2
-165			165	137			2.6
-200			200	172			3.0

1. NEW BABY NUT is included.
2. Adjusting screws can not be used with ※ marked models.
3. "H" indicates the adjustment length with an Adjusting Screw.

Model	Clamping Range ød	øD	L	L_1	H	Collet Model	Weight (kg)
C8-NBS 6- 90	0.25 – 6	20	90	45	20 – 40	NBC 6-□	2.6
-120			120	75			2.7
-165			165	120			2.7
-200			200	155			2.8
-NBS 8- 90	0.5 – 8	25	90	45	23 – 42	NBC 8-□	2.7
-120			120	75			2.8
-165			165	120			2.9
-200			200	155			2.9
-NBS10- 90	1.5 – 10	30	90	50	35 – 45	NBC10-□	2.7
-120			120	75			2.9
-165			165	120			3.0
-200			200	155			3.2
-NBS13- 90	2.5 – 13	35	90	50	41 – 60	NBC13-□	2.8
-120			120	80			3.0
-165			165	125			3.3
-200			200	160			3.5
-NBS16- 90	2.5 – 16	42	90	50	45 – 65	NBC16-□	3.0
-120			120	80			3.2
-165			165	125			3.6
-200			200	160			3.9
-NBS20- 90	2.5 – 20	46	90	50	48 – 61	NBC20-□	3.1
-120			120	80	48 – 65		3.4
-165			165	125			3.8
-200			200	160			4.2

1. NEW BABY NUT is included.
2. Adjusting screws can not be used with ※ marked models.
3. "H" indicates the adjustment length with an Adjusting Screw.

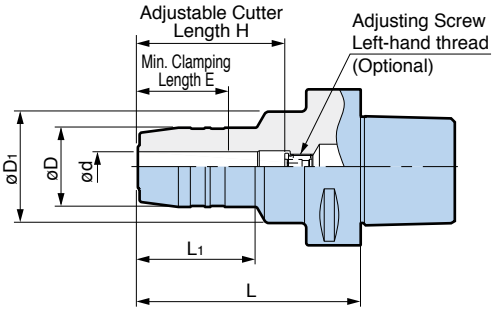
	Spare Parts	**Accessories**						
	NEW BABY NUT 	WRENCH 	COLLET G 3 	BABY PERFECT SEAL G 10 	ADJUSTING SCREW  			
NEW BABY CHUCK	Model	Model	Model	Model	Model	G	L	B
NBS 6	**NBN 6**	**NBK 6**	**NBC 6-□**	**BPS 6-□**	**NBA 6B**	M 7	12	2
NBS 8	**NBN 8**	**NBK 8**	**NBC 8-□**	**BPS 8-□**	**NBA 8B**	M 9	13	2.5
NBS10	**NBN10**	**NBK10**	**NBC10-□**	**BPS10-□**	**NBA10B**	M11	16	3
NBS13	**NBN13**	**NBK13**	**NBC13-□**	**BPS13-□**	**NBA13B**	M14	20	4
NBS16	**NBN16**	**NBK16**	**NBC16-□**	**BPS16-□**	**NBA16B**	M18	20	4
NBS20	**NBN20**	**NBK20**	**NBC20-□**	**BPS20-□**	**NBA20B**	M21	20	4

HYDRAULIC CHUCK

Coolant-through hole

Clamping Range : ø6 - ø32

For high precision machining in Automotive, Aerospace, Medical and Die & Mold



Model	ød	øD	øD1	L	L1	E	H	Adjusting Screw (Optional)	Weight (kg)
C5-HDC 6- 55 ※	6	26	45	55	18	28	48	–	0.8
- 90				90	45		33 – 50	HDA 6-05020	1.0
-120				120			28 – 50	HDA 6-05032	1.2
-HDC 8- 55 ※	8	28	45	55	18	28	48	–	0.8
- 90				90	45		33 – 50	HDA 8-06020	1.1
-120				120			28 – 50	HDA 8-06032	1.3
-HDC10- 60 ※	10	30	45	60	24	33	53	–	0.9
- 90				90	45		43 – 55	HDA10-08015	1.1
-120				120			33 – 54	HDA10-08032	1.3
-HDC12- 60 ※	12	32	46	60	24	38	53	–	0.9
- 90			45	90	48		53 – 60	HDA12-10010 ●	1.1
-120				120			38 – 60	HDA12-10032	1.3
-HDC14- 90	14	34	45	90	48	38	53 – 60	HDA12-10010 ●	1.1
-HDC16- 75 ※	16	38	50	75	35	43	68	–	1.1
- 90 ※			48	90	48		83	–	1.2
-120			46	120			43 – 70	HDA16-12037	1.4
-HDC18- 90 ※	18	40	48	90	48	43	83	–	1.2
-HDC20- 75 ※	20	42	52	75	35	43	68	–	1.1
- 90 ※			50	90	48		83	–	1.2
-120			47	120			43 – 70	HDA16-12037	1.5
-HDC25- 90 ※	25	55	63	90	48	52	83	–	1.7

1. "H" indicates the adjustment length with an Adjusting Screw.
2. Adjusting Screw cannot be used with ※ marked model. "H" is the max. tool shank length that can be inserted into the holder.
3. Add the letter "W" to Adjusting Screw model number for hexagon sockets on both sides. (**e.g. HDA6-05020W**)
   Adjusting Screw with ● indication is not available in W type.

For STRAIGHT COLLET G 16
For INNER BORE CLEANER G 19

Model	ød	øD	øD1	L	L1	E	H	Adjusting Screw (Optional)	Weight (kg)
C6-HDC 6- 60 ※	6	26	45	60	18	28	51	–	1.4
- 90				90	48		33 – 50	HDA 6-05020	1.5
-120				120	45		28 – 50	HDA 6-05032	1.8
-150				150					2.0
-HDC 8- 60 ※	8	28	45	60	18	28	51	–	1.4
- 90				90	48		33 – 50	HDA 8-06020	1.6
-120				120	45		28 – 50	HDA 8-06032	1.8
-150				150					2.0
-HDC10- 65 ※	10	30	45	65	24	33	56	–	1.4
- 90				90	48		43 – 55	HDA10-08015	1.6
-120				120	45		33 – 54	HDA10-08032	1.8
-150				150					2.1
-HDC12- 65 ※	12	32	46	65	24	38	56	–	1.5
- 90			45	90	48		48 – 60	HDA10-08015	1.6
-120				120			38 – 60	HDA10-08032	1.8
-150				150					2.1
-HDC14- 90	14	34	45	90	48	38	53 – 60	HDA12-10010 ●	1.6
-120				120			38 – 60	HDA12-10032	1.9
-HDC16- 75 ※	16	38	50	75	35	43	66	–	1.6
- 90 ※			47	90	48		81		1.7
-120			48	120			43 – 70	HDA16-12037	2.0
-150				150					2.3
-HDC18- 90 ※	18	40	48	90	48	43	66	–	1.7
-120			49	120			43 – 70	HDA16-12037	2.0
-HDC20- 75 ※	20	42	53	75	33	43	66	–	1.7
- 90 ※			50	90	48		72		1.8
-120				120			43 – 70	HDA16-12037	2.1
-150				150					2.4
-HDC25- 90 ※	25	55	63	90	46	52	80	–	2.2
-120				120	51		67 – 79	HDA20-16015	2.8
-150				150	81		52 – 79	HDA25-16039	3.5
-HDC32- 90 ※	32	75	63	90	43	56	81	–	2.8
-120		63	–	120	–		66 – 78	HDA20-16015	3.0

1. "H" indicates the adjustment length with an Adjusting Screw.
2. Adjusting Screw cannot be used with ※ marked model. "H" is the max. tool shank length that can be inserted into the holder.
3. Add the letter "W" to Adjusting Screw model number for hexagon sockets on both sides. (**e.g. HDA6-05020W**)
   Adjusting Screw with ● indication is not available in W type.

For STRAIGHT COLLET G 16
For INNER BORE CLEANER G 19

Caution

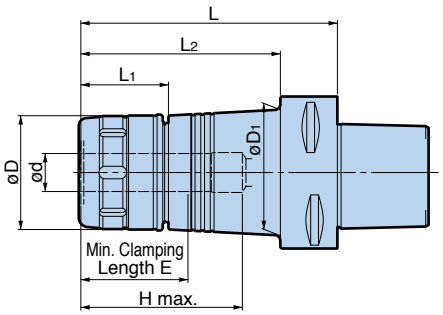
- Use only cutting tools that have a shank tolerance within h6.
- Do not use with cutting tools made with a flat on the shank (i.e.: Weldon type shank)
- Roughing endmills are not recommended for use with Hydraulic Chucks.
- Do not tighten the clamping screw without first inserting a cutting tool into the toolholder.
- Always insert the cutting tool into the Hydraulic Chuck beyond min. clamping length E.

NEW Hi-POWER MILLING CHUCK

Coolant-through hole

Clamping Range : ø16 - ø32

BIG's original design of slit structure supports heavy and finish end milling with high power and precision.



Model	Clamping Range ød	øD	øD1	L	L1	L2	H max.	E	Weight (kg)
C5-HMC16S- 65	16	43	–	65	44	45	58	55	0.8
-HMC20S- 75	20	50	–	75	44	–	68	56	1.0
-105			–	105		–	85		1.4
-HMC25S- 75	25	55	–	75	47	–	68	57	1.3
-105			–	105		–	87		1.7
-HMC32S- 85	32	62	–	85	56	–	78	58	1.6
C6-HMC16S- 70	16	43	–	70	44	48	61	55	1.5
-HMC20S- 75	20	50	–	75	44	53	66	56	1.7
-105			–	105		83	85		2.3
-120			–	120		98			2.5
-HMC25S- 75	25	59	–	75	45	53	66	57	2.0
-105			–	105		83	87		2.5
-135			–	135		113			3.1
-HMC32S- 90	32	68	–	90	54	–	81	64	2.4
-105			–	105		–	90		2.7
-135			–	135		–			3.3
C8-HMC20- 80	20	60	–	80	46	50	80	56	3.3
-105			63	105		75	85		3.9
-135			66	135		105			4.7
-165			69	165		135			5.5
-HMC25- 85	25	62	–	85	55	–	85	65	3.5
-105			65.5	105		75	90		3.9
-135			67	135		105			4.7
-165			70	165		135			5.4
-HMC32- 95	32	80	–	95	63	–	95	71	4.5
-105			–	105		–	105		4.9
-135			–	135		–			5.8
-165			–	165		–			6.8

1. C-Spanner is ordered separately.

For STRAIGHT COLLET G 15

Accessories

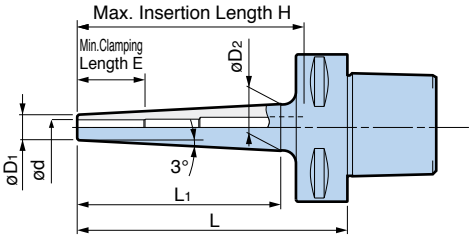
	C-SPANNER 		C-SPANNER 
NEW Hi-POWER MILLING CHUCK	Model	NEW Hi-POWER MILLING CHUCK	Model
C5-HMC16S	FK45-50L	C8-HMC20	FK58- 62
-HMC20S		-HMC25	
-HMC25S	FK52-55	-HMC32	FK80- 90
-HMC32S	FK58-62L		
C6-HMC16S	FK45-50L		
-HMC20S			
-HMC25S	FK58-62L		
-HMC32S	FK68-75L		

SHRINK CHUCK

Coolant-through hole

Clamping Range : ø6 - ø20

Slim design avoids interference with the side wall and draft of the mold.

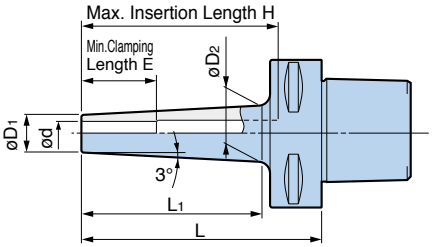


SLIM Type

Model	ød	øD1	øD2	L	L1	E	H	Weight (kg)
C5-SRC 6S-105	6	10	18.3	105	80	26	98	0.5
-SRC 8S-105	8	13	21.3			26		0.5
-SRC10S-105	10	16	24.3			32		0.5
-SRC12S-105	12	19	27.3			36		0.6
C6-SRC 6S-120	6	10	19.5	120	92	26	111	1.2
-165			23.8	165	133		156	1.4
-SRC 8S-120	8	13	22.5	120	92	26	111	1.3
-165			26.8	165	133		156	1.5
-SRC10S-120	10	16	25.5	120	92	32	111	1.3
-165			30.5	165	135		156	1.5
-SRC12S-120	12	19	28.5	120	92	36	111	1.4
-165			33	165	135		156	1.6

1. Use carbide cutter within a tolerance of h6.

Please refer to the operation manual of heating / cooling equipment, as some equipments may not be compatible.



STANDARD Type

Model	ød	øD1	øD2	L	L1	E	H	Weight (kg)
C5-SRC 6- 75	6	14	19.1	75	50	26	68	0.5
-SRC 8- 75	8	18	23.1	75	50	26		0.5
-SRC10- 75	10	22	27.1	75	50	32		0.6
-SRC12- 75	12	24	29.1	75	50	36		0.6
-SRC16- 75	16	28	33.1	75	50	38		0.6
C6-SRC 6- 90	6	14	20.5	90	63	26	81	1.2
-SRC 8- 90	8	18	24.5	90	63	26		1.3
-SRC10- 90	10	22	28.5	90	63	32		1.3
-SRC12- 90	12	24	30.5	90	63	36		1.4
-SRC16- 90	16	28	34.5	90	63	38		1.4
-165			42.4	165	138		80	2.1
-SRC20- 90	20	34	40.5	90	63	42	80	1.5
-165			48.4	165	138		100	2.5
C8 -SRC 6-120	6	14	22.8	120	85	26	120	2.6
-165			27	165	125		165	2.8
-SRC 8-120	8	18	26.8	120	85	26	120	2.6
-165			31	165	125		165	2.9
-SRC10-120	10	22	30.8	120	85	32	120	2.7
-165			35	165	125		165	3.0
-SRC12-120	12	24	32.8	120	85	36	120	2.7
-165			37	165	125		165	3.1
-SRC16-120	16	28	36.8	120	85	38	120	2.8
-165			41	165	125		165	3.3
-SRC20-120	20	34	42.8	120	85	42	100	3.0
-165			47	165	125			3.5

1. Use carbide cutter within a tolerance of h6.

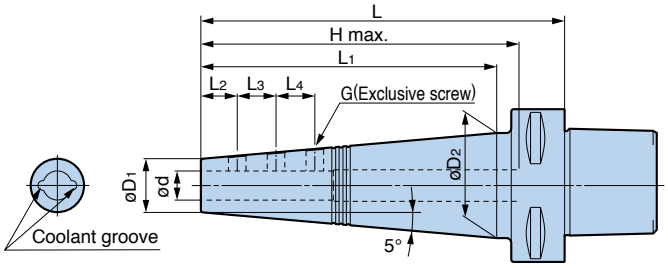
Please refer to the operation manual of heating / cooling equipment, as some equipments may not be compatible.

MOLD CHUCK

Coolant-through hole

Clamping Range : ø3 - ø20

Precision side lock holder to satisfy the requirements for minimum interferece, accuracy and high speed.



Model	ød	øD1	øD2	L	L1	L2	L3	L4	G	H max.	Weight (kg)
C6-SSL 3-135	3	10	29.2	135	111	6	6	–	M3	126	1.3
-SSL 4-135	4	11	30.2			6	7		M4		1.4
-SSL 6-135	6	13	32.2			12	13		M6		1.4
-SSL 8-135	8	15	34			13.5	18				1.5
-SSL10-150	10	17	38.5	150	126	15	20	–	M8	141	1.6
-SSL12-150	12	22	43.3			15	16	16			1.9
-SSL16-150	16	26	47			15	20	22			2.0
C8-SSL 6-150	6	13	33.5	150	118	12	13	–	M6	150	2.7
-SSL 8-150	8	15	35.3			13.5	18				2.8
-SSL10-150	10	17	37.1			15	20				2.9
-SSL12-150	12	22	42			15	16	16	M8		3.0
-SSL16-150	16	26	45.6			15	20	22			3.2
-SSL20-150	20	30	49.6			15	20	25			3.3

BIG genuine side lock screws must be used as they are made to an exclusive design and different from other screws on the market.

■SIDE LOCK SCREWS

Model	Screw size	Screw Length / Quantity	Chuck Model
H0304FS	M3 P0.5	4mm / 2pcs.	SSL3
H0404FS	M4 P0.5	4mm / 2pcs.	SSL4
H06FSA	M6 P0.75	4.5 , 5mm / 1pce. each	SSL6
H06FSB		4.5 , 6mm / 1pce. each	SSL8,10
H08FSA	M8 P0.75	6mm / 2pcs. 8mm / 1pce.	SSL12
H08FSB		6, 8, 10mm / 1pce. each	SSL16,20

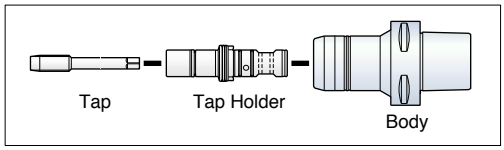
1. Each model consists of 1 set of screws required for 1 Mold Chuck.

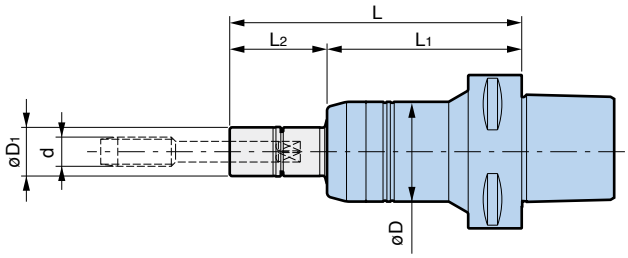
MEGA SYNCHRO® Tapping Holder

Compensates for synchronization errors during rigid tapping. Improves thread quality and tool life by reducing thrust loads caused by synchronization errors up to 90%.

Coolant-through hole

Tapping Range : M2 - M20





Model	Tap Holder Model	Tapping Range d	øD	øD1	L	L1	L2
C5-MGT 6- 75	MGT 6-d- 30	M2 – M6 No.3 – U1/4	36	16	105	75	30
	- 70				145		70
	-100				175		100
-MGT12- 75	MGT12-d- 30	M6 – M12 U1/4 – U7/16 P1/8	41	20	105	75	30
	- 70				145		70
	-100				175		100
-MGT20-100	MGT20-d- 35	M12 – M20 U1/2 – U3/4 P1/4 – P3/8	54	30	135	100	35
	- 85				185		85
	-115				215		115
C6-MGT 6- 80	MGT 6-d- 30	M2 – M6 No.3 – U1/4	36	16	110	80	30
	- 70				150		70
	-100				180		100
-MGT12- 80	MGT12-d- 30	M6 – M12 U1/4 – U7/16 P1/8	41	20	110	80	30
	- 70				150		70
	-100				180		100
-MGT20-100	MGT20-d- 35	M12 – M20 U1/2 – U3/4 P1/4 – P3/8	54	30	135	100	35
	- 85				185		85
	-115				215		115
C8-MGT 6- 80	MGT 6-d- 30	M2 – M6 No.3 – U1/4	36	16	110	80	30
	- 70				150		70
	-100				180		100
-MGT12- 80	MGT12-d- 30	M6 – M12 U1/4 – U7/16 P1/8	41	20	110	80	30
	- 70				150		70
	-100				180		100
-MGT20- 95	MGT20-d- 35	M12 – M20 U1/2 – U3/4 P1/4 – P3/8	54	30	130	95	35
	- 85				180		85
	-115				210		115

1. Tap Holder and wrench are ordered separately.
Rigid tapping function is required on the machine tool.

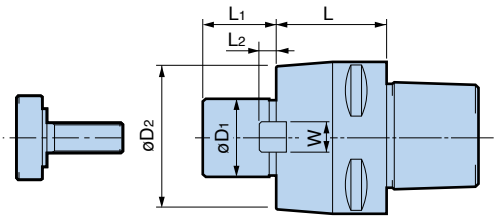
For TAP HOLDER A 33–A36
For MEGA WRENCH A 32

●Tapping Range for DIN & ISO Standard

MGT Size	DIN Standard			ISO Standard	
	DIN371	DIN376	DIN353	ISO529	ISO2284
MGT 6	M3 – M6	M5 – M8		M3 – M5	
MGT12	M5 – M8	M8 – M12	1/8	M6,M8,M12	1/8
MGT20	M10	M12 – M20	1/4 – 1/2	M10 – M20	1/4 – 3/8

For detail of TAP HOLDER A 35 · A 36

FACE MILL ARBOR Type A

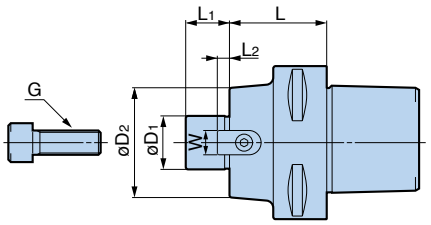


Model	øD1	øD2	L	L1	L2	W	Clamp Bolt	Weight (kg)
C5-FMA25.4 - 40	25.4	50	40	22	5	9.5	MBA-M12	0.9
- 75			75					1.2
C6-FMA25.4 - 40	25.4	50	40	22	5	9.5	MBA-M12	1.4
- 60			60					1.8
- 90			90					2.4
-FMA31.75- 40	31.75	60	40	30	7	12.7	MBA-M16	1.6
- 90			90					2.6
-FMA38.1 - 45	38.1	80	45	34	9	15.9	MBA-M20	2.2
C8-FMA25.4 - 40	25.4	50	40	22	5	9.5	MBA-M12	2.7
- 75			75					3.2
-105			105					3.8
-FMA31.75- 40	31.75	60	40	30	7	12.7	MBA-M16	2.7
- 90			90					4.0
-FMA38.1 - 45	38.1	80	45	34	9	15.9	MBA-M20	3.2

1. Standard Clamp Bolt (MBA-M□□) is included.
2. To supply coolant through the arbor, Clamping Bolt with a hole through (TMBA-M□□) is required.

For CLAMP BOLT A 43

FACE MILL ARBOR Type C



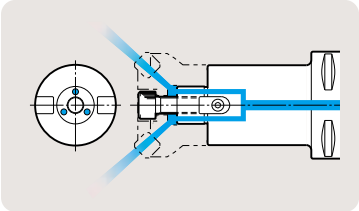
Model	øD1	øD2	L	L1	L2	W	G	Weight (kg)
C5-FMC16-40	16	32	40	16	5	8	M 8	0.5
-FMC22-40	22	45	40	18	5	10	M10	0.7
C6-FMC16-40	16	32	40	16	5	8	M 8	1.3
-FMC22-40	22	45	40	18	5	10	M10	1.4
-FMC27-45	27	62	45	20	6	12	M12	1.6
C8-FMC16-50	16	32	50	16	5	8	M 8	2.5
-FMC22-50	22	45	50	18	5	10	M10	2.7
-FMC27-50	27	62	50	20	6	12	M12	3.0
-FMC32-50	32	80	50	22	7	14	M16	3.2

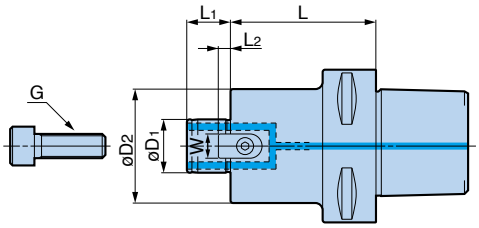
1. Clamp Bolt (Cap Screw) is included.
2. By utilizing a clamping bolt with a hole through, coolant is supplied through the bolt.

FACE MILL ARBOR Type FMH

Coolant-through hole

For cutters that require a coolant hole through the pilot.



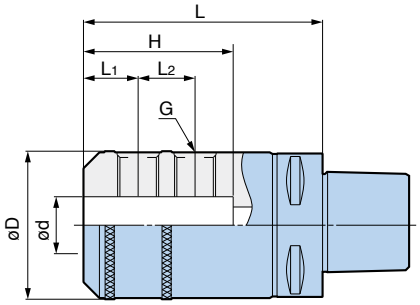


Model	øD1	øD2	L	L1	L2	W	G	Weight (kg)
C5-FMH22 - 47- 45	22	47	45	18	5	10	M10	0.7
- 60			60					0.9
- 90			90					1.4
-FMH22 - 60- 45	22	60	45	18	5	10	M10	0.9
- 60			60					1.1
-FMH27 - 60- 60	27	60	60	20	6	12	M12	1.1
- 90			90					1.6
-FMH25.4 - 70- 45	25.4	70	45	22	5	9.35	M12	1.0
- 60			60					1.2
-FMH31.75- 96- 50	31.75	96	50	30	7	12.55	M16	1.8
C6-FMH22 - 47- 45	22	47	45	18	5	10	M10	1.4
- 60			60					1.6
- 90			90					2.0
- 150			150					2.8
-FMH22 - 60- 45	22	60	45	18	5	10	M10	1.6
- 60			60					2.0
- 90			90					2.6
-FMH27 - 60- 45	27	60	45	20	6	12	M12	1.7
- 60			60					2.0
- 90			90					2.7
-150			150					3.9
-FMH25.4 - 70- 60	25.4	70	60	22	5	9.35	M12	2.1
- 90			90					2.8
-150			150					4.2
-FMH31.75- 96- 60	31.75	96	60	30	7	12.55	M16	2.2
C8-FMH22 - 47- 60	22	47	60	18	5	10	M10	2.8
-105			105					3.4
-150			150					4.0
-200			200					4.7
-FMH22 - 60- 60	22	60	60	18	5	10	M10	3.1
-105			105					4.0
-150			150					5.0
-FMH27 - 60- 60	27	60	60	20	6	12	M12	3.1
-105			105					4.1
-150			150					5.0
-200			200					6.1
-FMH32 - 96- 75	32	96	75	22	7	14	M16	4.6
-105			105					6.8
-150			150					7.5
-FMH25.4 - 70- 60	25.4	70	60	22	5	9.35	M12	3.3
-105			105					4.6
-150			150					6.0
-FMH31.75- 96- 75	31.75	96	75	30	7	12.55	M16	4.5
-105			105					5.1
-150			150					7.3
-FMH38.1 -100- 75	38.1	100	75	34	9	15.8	MBA-M20H	4.7
-105			105					5.8

1. Clamp Bolt (Cap Screw) is included.
2. By utilizing a clamping bolt with a hole through, coolant is supplied through the bolt.

SIDE LOCK ENDMILL HOLDER

Coolant-through hole



Model	ød	øD	L	L1	L2	H	G	Weight (kg)
C6-ISL12- 80	12	42	80	22.5	–	50	M12	1.7
-ISL16- 80	16	48	80	24		52	M14	1.8
-ISL20- 80	20	52	80	25		55	M16	1.9
-ISL25-105	25	63.5	105	24	25	60	M18×2	2.9
-ISL32-115	32	72	115	24	28	90	M20×2	3.5
C8-ISL16- 90	16	48	90	24	–	52	M14	3.1
-ISL20- 90	20	52	90	25		55	M16	3.2
-ISL25-105	25	63.5	105	24	25	60	M18×2	4.0
-ISL32-115	32	72	115	24	28	90	M20×2	4.5
-ISL40-125	40	90	125	30	32	90	M20×2	5.8
-ISL42-125	42	90	125	30	32	90	M20×2	5.9
-ISL50-135	50	99.5	135	35	35	90	M24×2	6.8

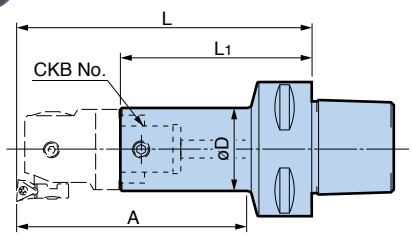
※SIDE LOCK HOLDER for Drill E 28

CK BORING SYSTEM

CK SHANK

Coolant-through hole

CKB modular system with BIG CAPTO shank enhancesthe capability of multi-tasking machines.



1. L and A dimensions on the table are reference figures when EWN Head is mounted. (※indicates figures with EWN150 Head for large diameter. Please note that A-dimension is the distance from the face of the flange to the cutting edge.)
2. Designed to be capable of supplying coolant though the shank.

Licensed product from KAISER PRECISION TOOLING LTD. for limited sales territory, Asia and Oceania.

World's No.1 Modular Boring System

CKB BORING SYSTEM

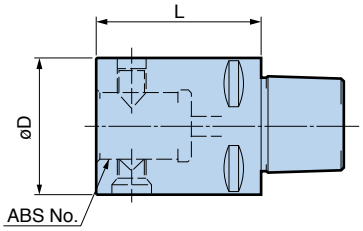
High accurary,high rigidity & wide variations.

BIG DAISHOWA + KAISER

Model	CKB No.	øD	L	L1	A	Weight (kg)
C5-CKB1- 73	1	19	105	72.5	80	0.5
-CKB2- 85	2	24	120	84.5	96	0.6
-CKB3- 55	3	31	95	55	70	0.6
- 80			120	80	95	0.7
-CKB4- 48	4	39	95	48	70	0.6
- 73			120	73	95	0.7
-CKB5- 50	5	50	107	50	87	0.6
- 83			140	83	120	1.3
-CKB6- 50	6	64	121	50	101	1.0
C6-CKB1- 78	1	19	110	77.5	83	1.2
-CKB2- 90	2	24	125	89.5	98	1.3
-CKB3- 65	3	31	105	65	78	1.3
-100			140	100	113	1.5
-CKB4- 58	4	39	105	58	78	1.3
- 93			140	93	113	1.7
-CKB5- 48	5	50	105	48	79	1.3
- 83			140	83	114	1.7
-CKB6- 59	6	64	130	59	108	1.6
- 94			165	94	143	2.3
C8-CKB1-103	1	19	135	102.5	72.5	2.6
-CKB2-115	2	24	150	114.5	105.5	2.7
-CKB3-125	3	31	165	125	130	2.9
-CKB4-118	4	39	165	118	130	3.1
-178			225	178	190	3.7
-CKB5-108	5	50	165	108	130	3.5
-183			240	183	205	4.6
-CKB6- 74	6	64	145	74	110	3.2
-169			240	169	206	5.8
-CKB7- 73	7	90	160※	73	130※	5.0
-123			210※	123	180※	8.4

ABS® SHANK

Coolant-through hole

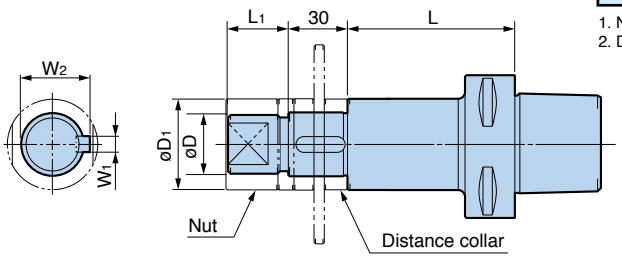


Model	ABS No.	øD	L	Weight (kg)
C5-ABS50- 50	50	50	50	0.7
C6-ABS50- 50	50	50	50	1.4
-ABS63- 63	63	63	60	1.8
C8-ABS50- 50	50	50	50	2.6
-ABS63- 50	63	63	60	2.9
-ABS80- 80	80	80	80	3.7

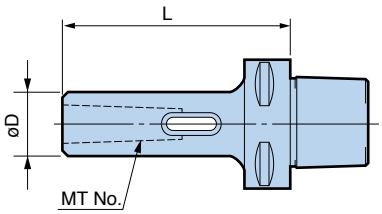
SIDE CUTTER ARBOR

Model	øD	øD1	L	L1	W1	W2	Weight (kg)
C6-SCA25.4 - 75	25.4	40	75	25	6.35	27.78	2.0
-120			120				2.4
-SCA31.75- 75	31.75	46	75	30	7.92	34.92	2.4
C8-SCA25.4 - 90	25.4	40	90	25	6.35	27.78	3.3
-135			135				3.8
-SCA31.75- 90	31.75	46	90	30	7.92	34.92	3.7
-135			135				4.3

1. Nut is included.
2. Distance collars of 5mm, 8mm, 10mm and 12mm are included.

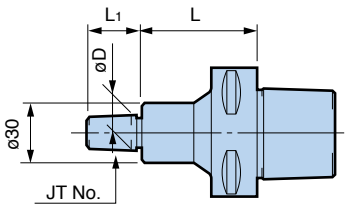


MORSE TAPER HOLDER



Model	MT No.	øD	L	Weight (kg)
C5-MTA1- 95	1	25	95	0.6
-MTA2-110	2	32	110	0.8
-MTA3-130	3	40	130	1.2
C6-MTA1- 95	1	25	95	1.3
-MTA2-110	2	32	110	1.5
-MTA3-130	3	40	130	1.9
C8-MTA1-105	1	25	105	2.6
-MTA2-120	2	32	120	2.8
-MTA3-140	3	40	140	3.2

JACOBS TAPER ARBOR

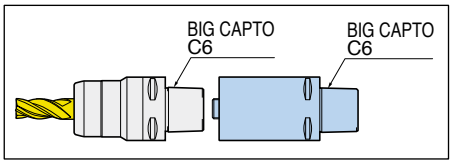


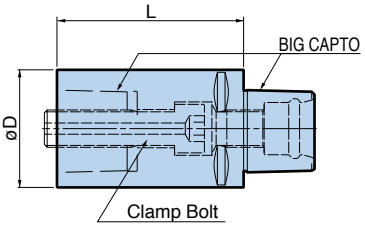
Model	JT No.	øD	L	L1	Weight (kg)
C5-JTA1-40	1	9.754	40	15	0.5
-JTA2-40	2	14.199	40	20	0.5
-JTA6-40	6	17.170	40	24	0.5
C6-JTA1-40	1	9.754	40	15	1.2
-JTA6-40	6	17.170	40	24	1.2
C8-JTA1-50	1	9.754	50	15	2.5
-JTA6-50	6	17.170	50	24	2.5

BIG CAPTO

EXTENSION

Coolant-through hole





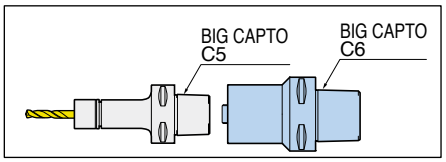
Model	BIG CAPTO	øD	L	Clamp Bolt			Weight (kg)
				Thread Size	Hex.	Tightening Torque	
C6-C6-100	C6	63	100	M20×P2	12mm	170N·m	1.2
C8-C8-100	C8	80					1.7

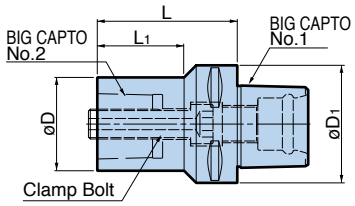
1. A clamp bolt is included.

BIG CAPTO

REDUCTION

Coolant-through hole



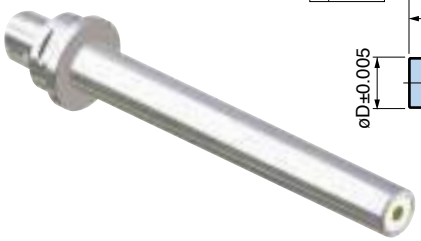


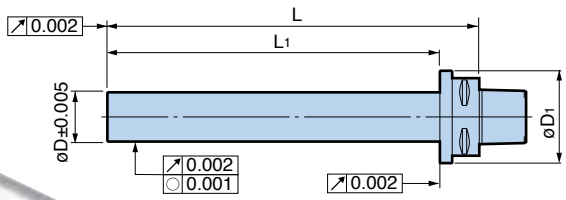
Model	BIG CAPTO No.1	BIG CAPTO No.2	øD	øD1	L	L1	Clamp Bolt			Weight (kg)
							Thread Size	Hex.	Tightening Torque	
C6-C5-75	C6	C5	50	63	75	46	M16×P1.5	12mm	95N·m	0.5
C8-C6-85	C8	C6	63	80	85	50	M20×P2		170N·m	0.8

1. A clamp bolt is included.

Test Bar

DYNA TEST





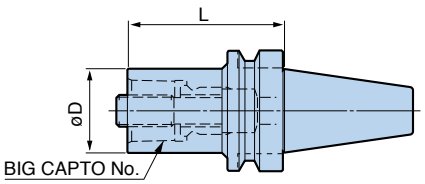
For maintenance of machine tool

Model	øD	øD1	L	L1
C5-32- 150	32	63	180	150
- 215			245	215
-40- 250	40		280	250
C6-40-L150	40	75	182	150
-L200			232	200
-L320			352	320
C8-40-L200	40	85	240	200
-L320			360	320

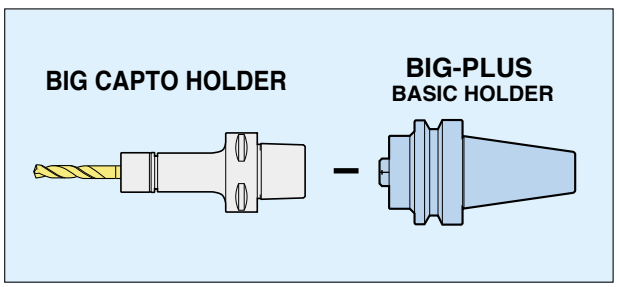
BIG-PLUS BASIC HOLDER

Coolant-through hole

BIG-PLUS®
SPINDLE SYSTEM
DUAL CONTACT

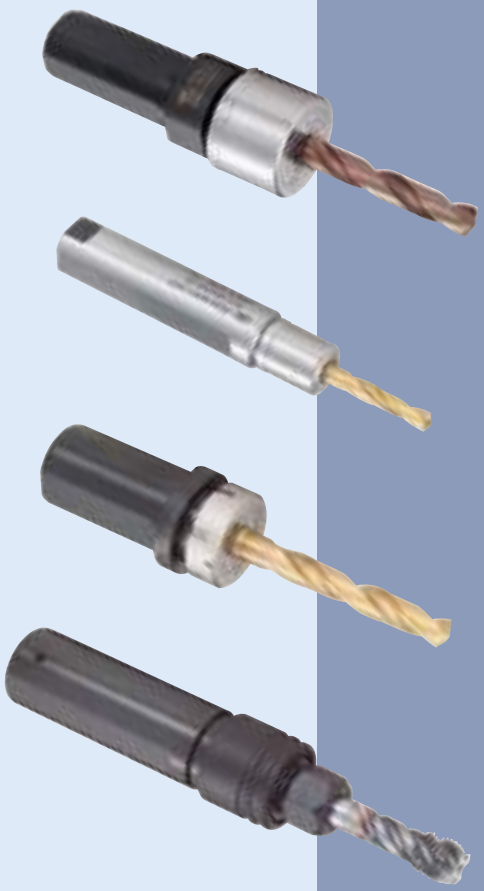


Model	BIG CAPTO	øD	L
BBT40-C3-30	C3	32	30
-C4-40	C4	40	40
-C5-50	C5	50	50
-C6-75	C6	63	75
BBT50-C3-40	C3	32	40
-C4-40	C4	40	
-C5-40	C5	50	
-C6-50	C6	63	50
-C8-70	C8	80	70



Interchangeable with existing standards.
Cost saving dual contact system.
BIG-PLUS is a simple Simultaneous Dual Contact Spindle System maintaining interchangeability with existing machines and toolholders.

N/C LATHE TOOLING



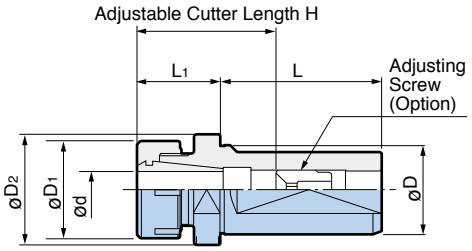
NEW BABY CHUCK

Coolant-through hole

Clamping Range : ø2.5 - ø20

STOPPER Type

Flange as a stopper enables presetting of the tool away from machine and minimizes downtime.
Shank is designed to be directly mounted into the drill holder of turret.



Model	ød	øD	øD1	øD2	L	L1	H
SLS25-NBS13- 30	2.5 – 13	25	35	32	54	30	41 – 60
- 60						60	
SLS32-NBS13- 30	2.5 – 13	32	35	39.5	58	30	41 – 60
- 60						60	
-100						100	
-NBS20- 30	2.5 – 20		46	45.5		30	48 – 65
- 60						60	
-100						100	
SLS40-NBS13- 30	2.5 – 13	40	35	49.5	68	30	41 – 60
- 60						60	
-100						100	
-NBS20- 30	2.5 – 20		46			30	48 – 65
- 60						60	
-100						100	

1. NEW BABY NUT is included.
2. Designed to be capable of supplying coolant through the body.
3. "H" indicates the adjustment length with an Adjusting Screw.

Spare Parts

NEW BABY NUT

NEW BABY CHUCK	Model
NBS 6	**NBN 6**
NBS 8	**NBN 8**
NBS10	**NBN10**
NBS13	**NBN13**
NBS16	**NBN16**
NBS20	**NBN20**

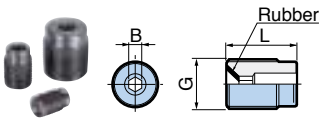
Accessories

WRENCH

COLLET G 3

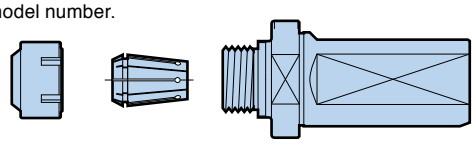
BABY PERFECT SEAL G 10

ADJUSTING SCREW



Model	Model	Model	Model	G	L	B
NBK 6	**NBC 6-□**	**BPS 6- □**	**NBA 6B**	M 7	12	2
NBK 8	**NBC 8-□**	**BPS 8- □**	**NBA 8B**	M 9	13	2.5
NBK10	**NBC10-□**	**BPS10- □**	**NBA10B**	M11	16	3
NBK13	**NBC13-□**	**BPS13- □**	**NBA13B**	M14	20	4
NBK16	**NBC16-□**	**BPS16- □**	**NBA16B**	M18	20	4
NBK20	**NBC20-□**	**BPS20- □**	**NBA20B**	M21	20	4

For applications using the sealed collet nut BABY PERFECT SEAL, please order nut-less version of the NEW BABY CHUCK body by adding **"NL"** after each model number.



BPS13-03035 NBC13-3AA SLS32-NBS13-30/NL

G 10

Order Example

NEW BABY CHUCK model + NL
SLS32-NBS13-30 / NL
(Nut is not included)
SL20-NBS13-40 / NL
(Nut is not included)

+

BABY PERFECT SEAL model
BPS13-03035

STANDARD Type

Versatile as a basic holder for drills, taps, reamers and small tool bits.

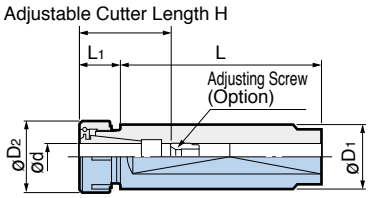


Fig. 1

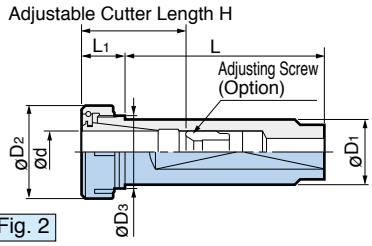


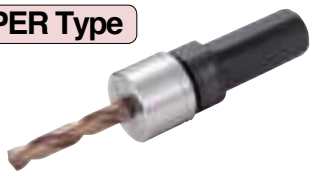
Fig. 2

Model	fig	ød	øD1	øD2	øD3	L	L1	H
SL16 -NBS 6- 40	1	0.25 – 6	16	20	–	40	15	20 – 40
- 80						80		
-NBS 8- 40		0.5 – 8		25		40	16.5	23 – 42
- 80						80		
-NBS10- 40	2	1.5 – 10		30	21	40	37	35 – 45
- 80						80		
SL20 -NBS 6- 40	1	0.25 – 6	20	20	–	40	15	20 – 40
- 80						80		
-NBS 8- 40		0.5 – 8		25		40	16.5	23 – 42
- 80						80		
-NBS10- 40	2	1.5 – 10		30	21	40	18	35 – 45
- 80						80		
-NBS13- 40		2.5 – 13		35	26	40	43	41 – 60
- 80						80		
SL22 -NBS 6- 40	1	0.25 – 6	22	20	–	40	15	20 – 40
- 80						80		
-NBS 8- 40		0.5 – 8		25		40	16.5	23 – 42
- 80						80		
-NBS10- 40		1.5 – 10		30		40	18	35 – 45
- 80						80		
-NBS13- 40	2	2.5 – 13		35	26	40	21.5	41 – 47
- 80						80		41 – 60
SL25 -NBS 6- 80	1	0.25 – 6	25	20	–	80	15	20 – 40
-120						120		
-NBS 8- 80		0.5 – 8		25		80	16.5	23 – 42
-120						120		
-NBS10- 80		1.5 – 10		30		80	18	35 – 45
-120						120		
-NBS13- 80	2	2.5 – 13		35	26	80	21.5	41 – 60
-120						120		
-NBS16- 80		2.5 – 16		42	32	80	48	45 – 65
-120						120		
SL25.4-NBS 6- 80	1	0.25 – 6	25.4	20	–	80	15	20 – 40
-120						120		
-NBS 8- 80		0.5 – 8		25		80	16.5	23 – 42
-120						120		
-NBS10- 80		1.5 – 10		30		80	18	35 – 45
-120						120		
-NBS13- 80	2	2.5 – 13		35	26	80	21.5	41 – 50
-120						120		
-NBS16- 80		2.5 – 16		42	32	80	48	45 – 65
-120						120		
SL32 -NBS13-100	1	2.5 – 13	32	35	–	100	21.5	41 – 60
-150						150		
-NBS16-100		2.5 – 16		42		100		45 – 65
-150						150		
-NBS20-100	2	2.5 – 20		46	36	100		48 – 65
-150						150		

1. NEW BABY NUT is included.
2. Designed to be capable of supplying coolant through the body.
3. "H" indicates the adjustment length with an Adjusting Screw.

MEGA ER® GRIP

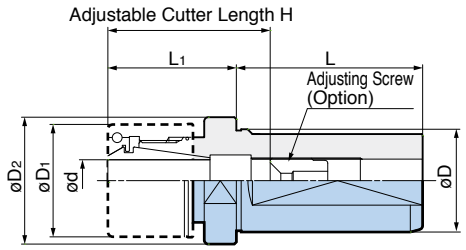
STOPPER Type



Coolant-through hole

Clamping Range : ø2.75 - ø20

High precision components outperform standard ER collet system.



Model	ød	øD	øD1	øD2	L	L1	H	Adjusting Screw
SLS25-MEGA ER20-45/NL	2.75 – 13	25	35	32	54	45	42 – 62	NBA13B
-75/NL						75		
SLS32-MEGA ER20-45/NL	2.75 – 13	32	35	39.5	58	45	42 – 62	NBA13B
-75/NL						75		
-MEGA ER32-45/NL	2.75 – 20		50	50		45	47 – 68	NBA20B
-75/NL						75	50 – 68	
SLS40-MEGA ER20-45/NL	2.75 – 13	40	35	49.5	68	45	42 – 62	NBA13B
-75/NL						75		
-MEGA ER32-45/NL	2.75 – 20		50	50		45	50 – 68	NBA20B
-75/NL						75		

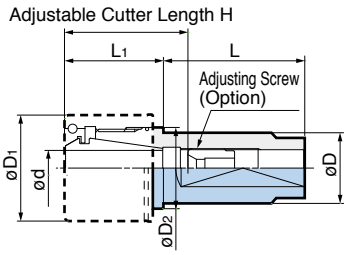
1. Nut is not included. Refer to the "Accessories" table below and select the suitable nut according to applications.
2. Designed to be capable of supplying coolant through the body.
3. "H" indicates the adjustment length with an Adjusting Screw.

STANDARD Type

Coolant-through hole

Clamping Range : ø1.9 - ø16

Flat is provided on the shank to be mounted in the tool post of the NC lathe directly.



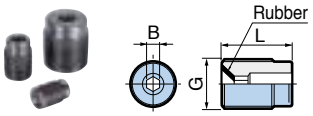
Model	ød	øD	øD1	øD2	L	L1	H	Adjusting Screw
SL16-MEGA ER11- 40/NL	2.75 – 6	16	19	–	40	19	23 – 40	NBA 6B
- 80/NL					80			
SL20-MEGA ER11- 40/NL	2.75 – 6	20	19	–	40	19	23 – 40	NBA 6B
- 80/NL					80			
-MEGA ER16- 40/NL	1.9 – 10	20	30	23	40	28	35 – 47	NBA10B
- 80/NL					80			
SL25-MEGA ER11- 60/NL	2.75 – 6	25	19	–	60	19	23 – 40	NBA 6B
-100/NL					100			
-MEGA ER16- 60/NL	1.9 – 10		30	–	60	28	35 – 47	NBA10B
-100/NL					100			
-MEGA ER20- 60/NL	2.75 – 13	25	35	27	60	30	42 – 62	NBA13B
-100/NL					100			
-MEGA ER25- 60/NL	2.75 – 16		42	33.5	60	48	44 – 67	NBA16B
-100/NL					100			
SL19.05-MEGA ER11- 40/NL	2.75 – 6	19.05	19	–	40	19	23 – 40	NBA 6B
- 80/NL					80			
-MEGA ER16- 40/NL	1.9 – 10	19.05	30	23	40	28	35 – 47	NBA10B
- 80/NL					80			

1. Nut is not included. Refer to the "Accessories" table below and select the suitable nut according to applications.
2. Designed to be capable of supplying coolant through the body.
3. "H" indicates the adjustment length with an Adjusting Screw.

Accessories





MEGA ER GRIP	MEGA ER NUT Model	MEGA ER PERFECT SEAL (G 14) Model	MEGA WRENCH Model	ER NUT Model	C-SPANNER Model	ADJUSTING SCREW Model	G	L	B
MEGA ER11	—	—	—	ERN11	NBK 6	NBA6B	M 7	12	2
MEGA ER16	MERN16	MERPS16-□	MGR30L	ERN16	NBK10	NBA10B	M11	16	3
MEGA ER20	MERN20	MERPS20-□	MGR35L	ERN20	NBK13	NBA13B	M14	20	4
MEGA ER25	MERN25	MERPS25-□	MGR42L	ERN25	NBK16	NBA16B	M18	20	4
MEGA ER32	MERN32	MERPS32-□	MGR50L	ERN32	FK45-50L	NBA20B	M21	20	4

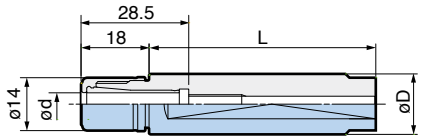
For MEGA ER COLLET G 13

MEGA MICRO CHUCK

Coolant-through hole

Clamping Range : ø0.45 - ø6.05

Smaller nut diameter than body allows installation into toolholder of small lathes from the back side.



Model	ød	øD	L
SL16-MEGA6S- 60	0.45 – 6.05	16	60
SL20-MEGA6S- 40		20	40
- 80			80
SL15.875-MEGA6S- 60		15.875	60

1. MEGA NUT is included.
2. Designed to be capable of supplying coolant through the body.

	Spare Parts	Accessories	
	MEGA NUT 	MEGA WRENCH 	MICRO COLLET  G 2
MEGA MICRO CHUCK	Model	Model	Model
MEGA 6S	**MGN6S**	**MGR14**	**NBC6S-□**

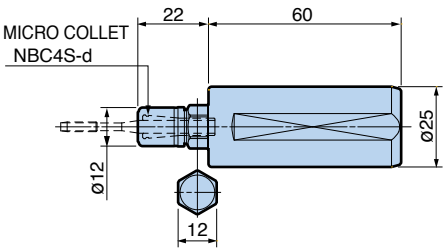
Rigid tapping attachment with error compensation

MEGA SYNCHRO® *Tapping Holder*

Tapping Range: M1 - M3

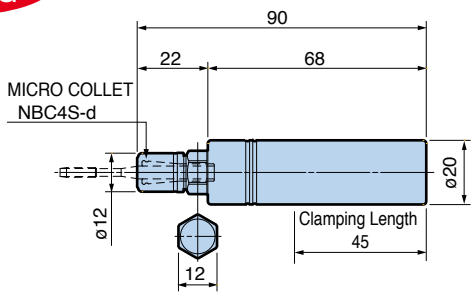
Improves thread quality and tool life by reducing thrust loads caused by synchronization errors up to 90%.

RIGID TAPPING



Model	SLS25-MGT3-22

1. MEGA NUT is included.
2. MEGA WRENCH and common spanner (12mm) are required to clamp/unclamp the tap.



Model	ST20-MGT3-90

1. MEGA NUT is included.
2. There is no flat on the shank.
3. MEGA WRENCH and common spanner (12mm) are required to clamp/unclamp the tap.

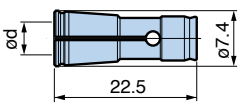
Rigid tapping function is required on the machine tool.

	Spare Parts	Accessories
	MEGA NUT 	MEGA WRENCH 
MEGA SYNCHRO Tapping Holder	Model	Model
MGT3	**MGN4S**	**MGR12**

■MICRO COLLET

Tapping Range: M1 - M3

●Provides high clamping force and accuracy despite the compact size.



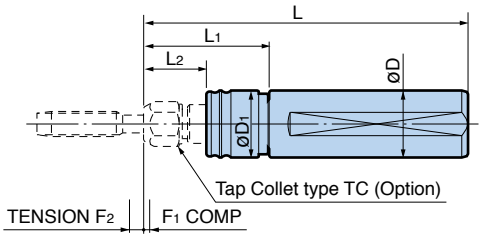
Model	Tapping Range		Tap Shank ød
	DIN371	ISO529	
NBC4S - 2.5AA	M1 – M1.8	M2	2.5
NBC4S - 2.8AA	M2 – M2.6	M2.2, M2.5	2.8
NBC4S - 3.1AA		M3	3.15
NBC4S - 3.5AA	M3		3.5

AUTO TAPPER TYPE B

Tapping Range: M3 - M20

DEPTH CONTROL

Ideal for blind-hole or pipe tapping with depth control.
Designed with minmum projection to clear space limitation on turret.



Model	Max. Tap Size	øD	øD1	L	L1	L2	F1	F2	Tap Collet Model
SLS25-ATB 8- 45	M3 – M 8	25	25.5	130	45	17	0.5	3	TC 8-d
SLS32-ATB12- 60	M3 – M12	32	32	155	60	30		4	TC12-d
SLS40-ATB12- 60		40	32	155	60	25		4	
-ATB20- 70	M8 – M20		44	180	70			5	TC20-d

1.Tap Collet type TC is ordered separately.
2. Not available for left-hand threading.
3. F2 in the table is tension amount to reach neutral position.

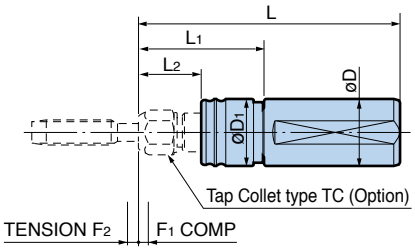
F1: Compression
F2: Tension

SYNCHRO TAPPING HOLDER TYPE R

Tapping Range: M3 - M20

RIGID TAPPING

Radial float eliminates misalignment of center between machine spindle and tap.
Small axial float compensates for synchronization errors and minimizes thrust loads on a tap.



Radial float =±0.5mm/ø

Model	Max. Tap Size	øD	øD1	L	L1	L2	F1	F2	Tap Collet Model
SLS32-ATS12R- 60	M3 – M12	32	32	125	60	30	0.5	0.5	TC12-d
SLS40-ATS12R- 60		40	32	125	60	25	0.5	0.5	
-ATS20R- 70	M8 – M20		44	145	70				TC20-d

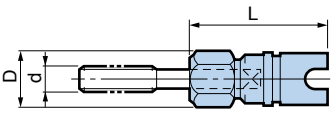
1. Tap Collet type TC is ordered separately.

F1: Compression
F2: Tension

Rigid tapping function is required on the machine tool.

■TAP COLLET

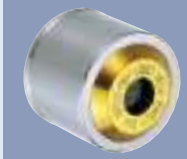
(For Synchro Tapping Holder Type R & Auto Tapper Type B)

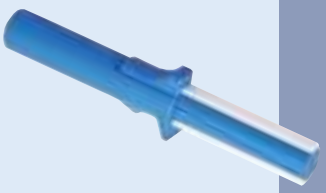


Model	Tapping Range d			D	L	Tapping Attachment
	Metric	Unify	Pipe			
TC 8-d	M 3 – M 4	No. 5 – No.8	–	15.8	40.5	ATB 8
	M 5 – M 8	No.10 – U5/16	–			
TC12-d	M 3 – M12	No. 5 – U1/2	P1/8	22	55	ATB12 , ATS12R
TC20-d	M 8 – M12	U3/8 – U1/2	P1/8	22	63	ATB20 , ATS20R
	M14 – M20	U9/16 – U3/4	P1/4 , P3/8	31		

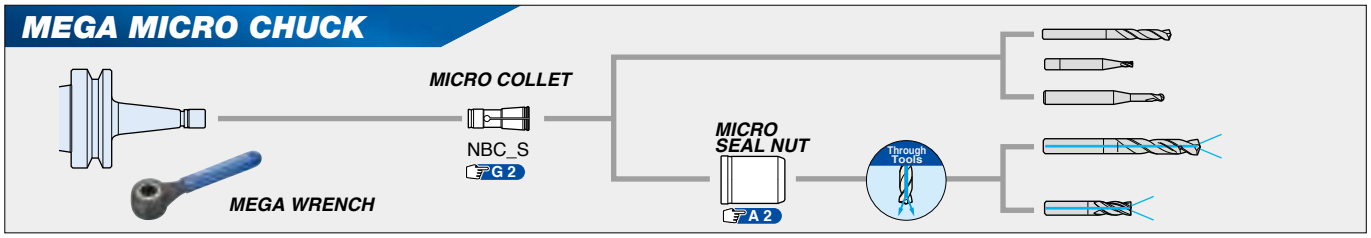
Specify the tap size when ordering. <Order example> For M3: **TC12-M3**

ACCESSORIES

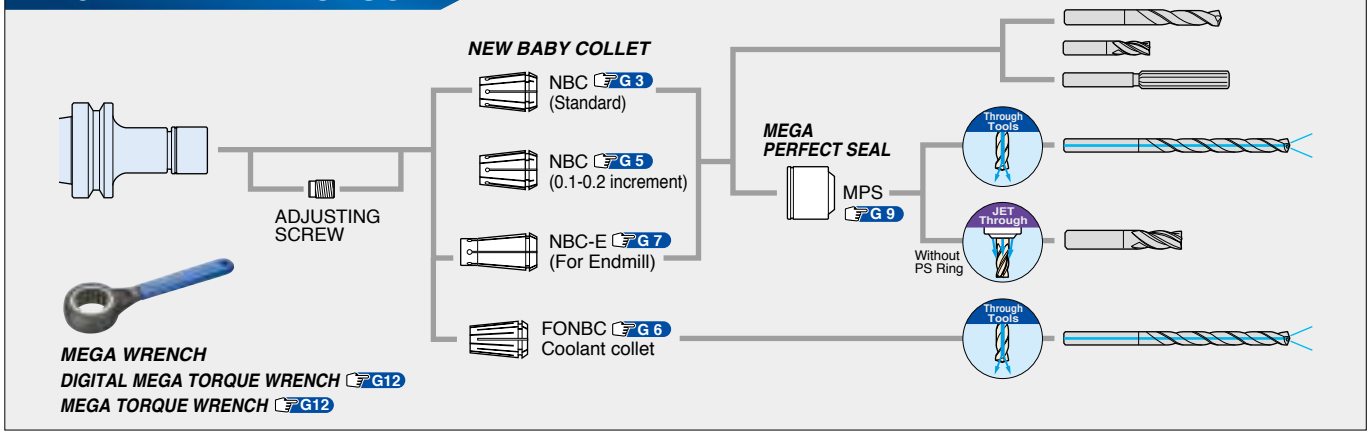




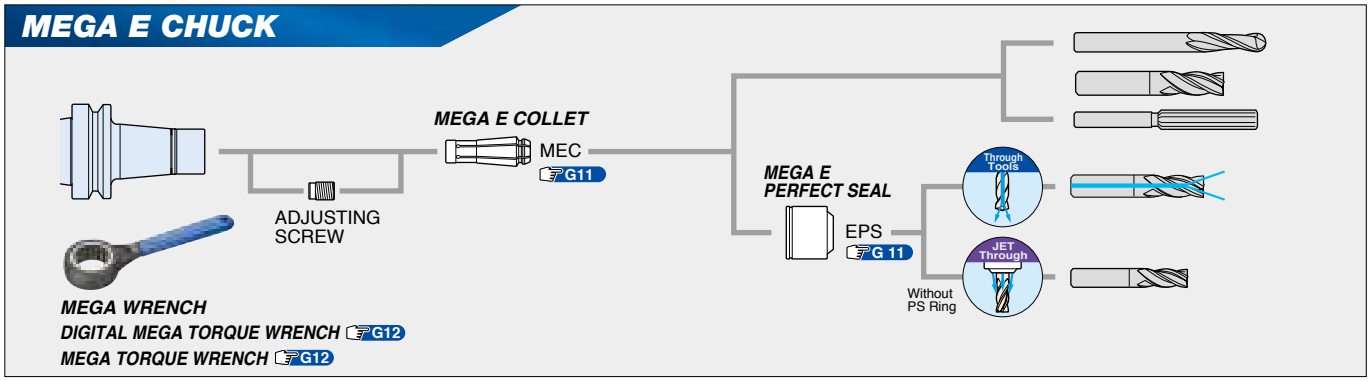
MEGA MICRO CHUCK



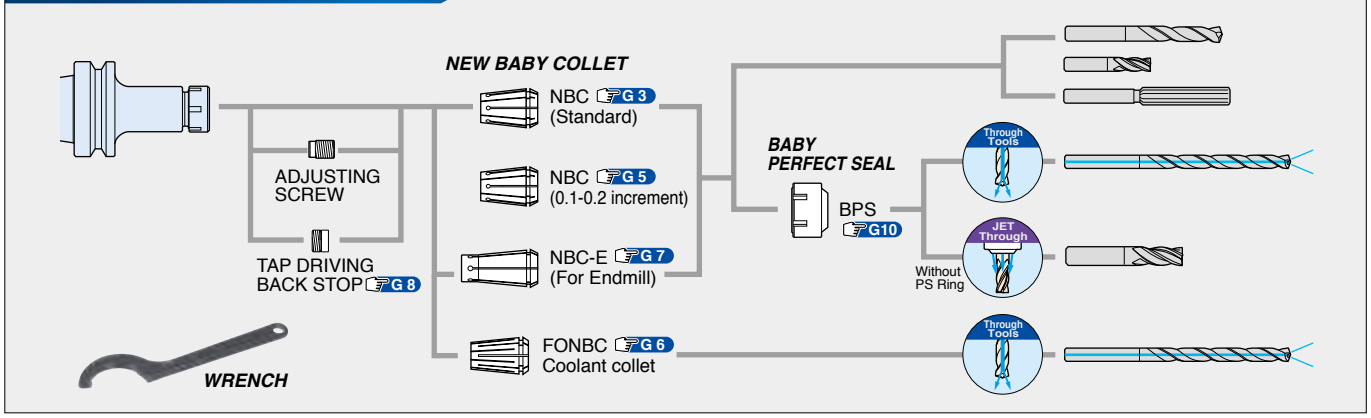
MEGA NEW BABY CHUCK



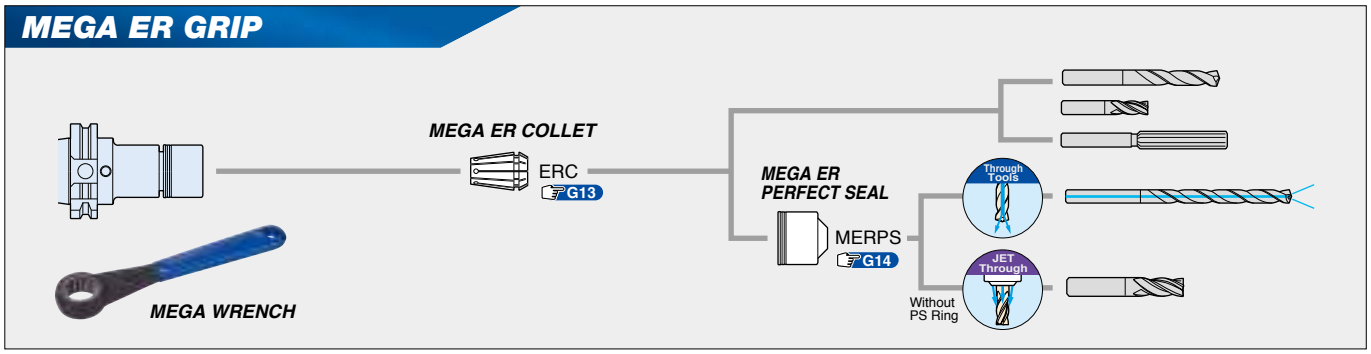
MEGA E CHUCK



NEW BABY CHUCK

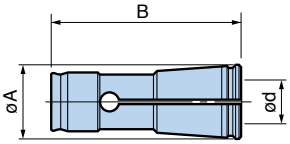


MEGA ER GRIP

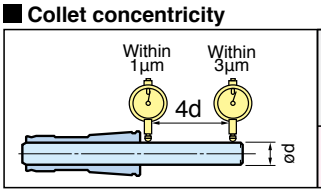


MICRO COLLET For MEGA MICRO CHUCK

Available in 0.1mm diameter increments to suit all the cutting tool shank sizes with maximum accuracy.
Despite their compact size, high clamping force and accuracy are achieved.



■ **Collet concentricity**



Collet Class	Max. Runout	
	At nose	At end of test bar
AA	Within 1µm	Within 3µm

MEGA3S	
Collet Model	Clamping Range ød
NBC3S-0.5 AA	0.45 – 0.55
-0.6 AA	0.55 – 0.65
-0.7 AA	0.65 – 0.75
-0.8 AA	0.75 – 0.85
-0.9 AA	0.85 – 0.95
-1.0 AA	0.95 – 1.05
-1.1 AA	1.05 – 1.15
-1.2 AA	1.15 – 1.25
-1.3 AA	1.25 – 1.35
-1.4 AA	1.35 – 1.45
-1.5 AA	1.45 – 1.55
-1.6 AA	1.55 – 1.65
-1.7 AA	1.65 – 1.75
-1.8 AA	1.75 – 1.85
-1.9 AA	1.85 – 1.95
-2.0 AA	1.95 – 2.05
-2.1 AA	2.05 – 2.15
-2.2 AA	2.15 – 2.25
-2.3 AA	2.25 – 2.35
-2.4 AA	2.35 – 2.45
-2.5 AA	2.45 – 2.55
-2.6 AA	2.55 – 2.65
-2.7 AA	2.65 – 2.75
-2.8 AA	2.75 – 2.85
-2.9 AA	2.85 – 2.95
-3.0 AA	2.95 – 3.05
-3.1 AA	3.05 – 3.15
-3.175AA	3.125 – 3.225
-3.2 AA	3.15 – 3.25

øA=6.06 B=18.8

MEGA4S	
Collet Model	Clamping Range ød
NBC4S-0.5 AA	0.45 – 0.55
-0.6 AA	0.55 – 0.65
-0.7 AA	0.65 – 0.75
-0.8 AA	0.75 – 0.85
-0.9 AA	0.85 – 0.95
-1.0 AA	0.95 – 1.05
-1.1 AA	1.05 – 1.15
-1.2 AA	1.15 – 1.25
-1.3 AA	1.25 – 1.35
-1.4 AA	1.35 – 1.45
-1.5 AA	1.45 – 1.55
-1.6 AA	1.55 – 1.65
-1.7 AA	1.65 – 1.75
-1.8 AA	1.75 – 1.85
-1.9 AA	1.85 – 1.95
-2.0 AA	1.95 – 2.05
-2.1 AA	2.05 – 2.15
-2.2 AA	2.15 – 2.25
-2.3 AA	2.25 – 2.35
-2.4 AA	2.35 – 2.45
-2.5 AA	2.45 – 2.55
-2.6 AA	2.55 – 2.65
-2.7 AA	2.65 – 2.75
-2.8 AA	2.75 – 2.85
-2.9 AA	2.85 – 2.95
-3.0 AA	2.95 – 3.05
-3.1 AA	3.05 – 3.15
-3.175AA	3.125 – 3.225
-3.2 AA	3.15 – 3.25
-3.3 AA	3.25 – 3.35
-3.4 AA	3.35 – 3.45
-3.5 AA	3.45 – 3.55
-3.6 AA	3.55 – 3.65
-3.7 AA	3.65 – 3.75
-3.8 AA	3.75 – 3.85
-3.9 AA	3.85 – 3.95
-4.0 AA	3.95 – 4.05

øA=7.4 B=22.5

MEGA6S			
Collet Model	Clamping Range ød	Collet Model	Clamping Range ød
NBC6S-0.5 AA	0.45 – 0.55	NBC6S-4.1 AA	4.05 – 4.15
-0.6 AA	0.55 – 0.65	-4.2 AA	4.15 – 4.25
-0.7 AA	0.65 – 0.75	-4.3 AA	4.25 – 4.35
-0.8 AA	0.75 – 0.85	-4.4 AA	4.35 – 4.45
-0.9 AA	0.85 – 0.95	-4.5 AA	4.45 – 4.55
-1.0 AA	0.95 – 1.05	-4.6 AA	4.55 – 4.65
-1.1 AA	1.05 – 1.15	-4.7 AA	4.65 – 4.75
-1.2 AA	1.15 – 1.25	-4.7625AA	4.7125 – 4.8125
-1.3 AA	1.25 – 1.35	-4.8 AA	4.75 – 4.85
-1.4 AA	1.35 – 1.45	-4.9 AA	4.85 – 4.95
-1.5 AA	1.45 – 1.55	-5.0 AA	4.95 – 5.05
-1.6 AA	1.55 – 1.65	-5.1 AA	5.05 – 5.15
-1.7 AA	1.65 – 1.75	-5.2 AA	5.15 – 5.25
-1.8 AA	1.75 – 1.85	-5.3 AA	5.25 – 5.35
-1.9 AA	1.85 – 1.95	-5.4 AA	5.35 – 5.45
-2.0 AA	1.95 – 2.05	-5.5 AA	5.45 – 5.55
-2.1 AA	2.05 – 2.15	-5.6 AA	5.55 – 5.65
-2.2 AA	2.15 – 2.25	-5.7 AA	5.65 – 5.75
-2.3 AA	2.25 – 2.35	-5.8 AA	5.75 – 5.85
-2.4 AA	2.35 – 2.45	-5.9 AA	5.85 – 5.95
-2.5 AA	2.45 – 2.55	-6.0 AA	5.95 – 6.05
-2.6 AA	2.55 – 2.65		
-2.7 AA	2.65 – 2.75		
-2.8 AA	2.75 – 2.85		
-2.9 AA	2.85 – 2.95		
-3.0 AA	2.95 – 3.05		
-3.1 AA	3.05 – 3.15		
-3.175AA	3.125 – 3.225		
-3.2 AA	3.15 – 3.25		
-3.3 AA	3.25 – 3.35		
-3.4 AA	3.35 – 3.45		
-3.5 AA	3.45 – 3.55		
-3.6 AA	3.55 – 3.65		
-3.7 AA	3.65 – 3.75		
-3.8 AA	3.75 – 3.85		
-3.9 AA	3.85 – 3.95		
-4.0 AA	3.95 – 4.05		

øA=9.4 B=24.5

MEGA8S							
Collet Model	Clamping Range ød	Collet Model	Clamping Range ød	Collet Model	Clamping Range ød	Collet Model	Clamping Range ød
NBC8S-3.0 AA	2.95 – 3.05	NBC8S-4.4 AA	4.35 – 4.45	NBC8S-5.8 AA	5.75 – 5.85	NBC8S-7.2 AA	7.15 – 7.25
-3.1 AA	3.05 – 3.15	-4.5 AA	4.45 – 4.55	-5.9 AA	5.85 – 5.95	-7.3 AA	7.25 – 7.35
-3.2 AA	3.15 – 3.25	-4.6 AA	4.55 – 4.65	-6.0 AA	5.95 – 6.05	-7.4 AA	7.35 – 7.45
-3.3 AA	3.25 – 3.35	-4.7 AA	4.65 – 4.75	-6.1 AA	6.05 – 6.15	-7.5 AA	7.45 – 7.55
-3.4 AA	3.35 – 3.45	-4.8 AA	4.75 – 4.85	-6.2 AA	6.15 – 6.25	-7.6 AA	7.55 – 7.65
-3.5 AA	3.45 – 3.55	-4.9 AA	4.85 – 4.95	-6.3 AA	6.25 – 6.35	-7.7 AA	7.65 – 7.75
-3.6 AA	3.55 – 3.65	-5.0 AA	4.95 – 5.05	-6.4 AA	6.35 – 6.45	-7.8 AA	7.75 – 7.85
-3.7 AA	3.65 – 3.75	-5.1 AA	5.05 – 5.15	-6.5 AA	6.45 – 6.55	-7.9 AA	7.85 – 7.95
-3.8 AA	3.75 – 3.85	-5.2 AA	5.15 – 5.25	-6.6 AA	6.55 – 6.65	-8.0 AA	7.95 – 8.05
-3.9 AA	3.85 – 3.95	-5.3 AA	5.25 – 5.35	-6.7 AA	6.65 – 6.75		
-4.0 AA	3.95 – 4.05	-5.4 AA	5.35 – 5.45	-6.8 AA	6.75 – 6.85		
-4.1 AA	4.05 – 4.15	-5.5 AA	5.45 – 5.55	-6.9 AA	6.85 – 6.95		
-4.2 AA	4.15 – 4.25	-5.6 AA	5.55 – 5.65	-7.0 AA	6.95 – 7.05		
-4.3 AA	4.25 – 4.35	-5.7 AA	5.65 – 5.75	-7.1 AA	7.05 – 7.15		

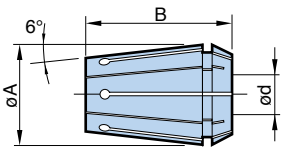
øA=12 B=27

NEW BABY COLLET

For MEGA NEW BABY CHUCK, NEW BABY CHUCK

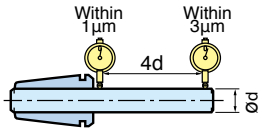
STANDARD Type

Refer to page G5 for Collapsibility 0.1 & 0.2 mm/ø Type.



Collet concentricity

Collet Class	Max. Runout	
	At nose	At end of test bar
AA	Within 1µm	Within 3µm



Clamping diameter: ø0.25 - ø20.0

Collapsibility 0.1 & 0.2 mm/ø Type are also available in the range shown with . Refer to page G5.

Collapsibility 0.25/ø
Collapsibility 0.5/ø

MEGA6N / NBS6	
Collet Model	Clamping Range
NBC6-0.5 AA	0.25 – 0.50
● -0.75AA	0.50 – 0.75
● -1 AA	0.75 – 1.00
● -1.25AA	1.00 – 1.25
● -1.5 AA	1.25 – 1.50
● -1.75AA	1.50 – 1.75
● -2 AA	1.75 – 2.00
● -2.25AA	2.00 – 2.25
● -2.5 AA	2.25 – 2.50
● -2.75AA	2.50 – 2.75
● -3 AA	2.75 – 3.00
-3.175AA	2.925 – 3.175
● -3.25AA	3.00 – 3.25
● -3.5 AA	3.25 – 3.50
● -3.75AA	3.50 – 3.75
● -4 AA	3.75 – 4.00
● -4.25AA	4.00 – 4.25
● -4.5 AA	4.25 – 4.50
● -4.75AA	4.50 – 4.75
● -5 AA	4.75 – 5.00
● -5.25AA	5.00 – 5.25
● -5.5 AA	5.25 – 5.50
● -5.75AA	5.50 – 5.75
● -6 AA	5.75 – 6.00

øA=9.5 B=14

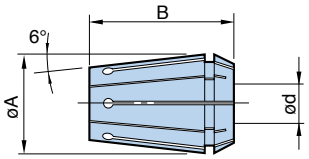
● For NEW BABY COLLET SET G 7

MEGA8N / NBS8	
Collet Model	Clamping Range
● NBC8-0.75AA	0.5 – 0.75
● -1 AA	0.75 – 1.0
● -1.25AA	1.0 – 1.25
● -1.5 AA	1.25 – 1.5
● -1.75AA	1.5 – 1.75
● -2 AA	1.75 – 2.0
● -2.25AA	2.0 – 2.25
● -2.5 AA	2.25 – 2.5
● -2.75AA	2.5 – 2.75
● -3 AA	2.75 – 3.0
-3.175AA	2.675 – 3.175
● -3.5 AA	3.0 – 3.5
● -4 AA	3.5 – 4.0
● -4.5 AA	4.0 – 4.5
● -5 AA	4.5 – 5.0
-5.25AA	4.75 – 5.25
● -5.5 AA	5.0 – 5.5
-5.75AA	5.25 – 5.75
● -6 AA	5.5 – 6.0
● -6.5 AA	6.0 – 6.5
● -7 AA	6.5 – 7.0
● -7.5 AA	7.0 – 7.5
● -8 AA	7.5 – 8.0

øA=12.5 B=18

MEGA10N / NBS10	
Collet Model	Clamping Range
● NBC10- 1.75AA	1.5 – 1.75
● - 2 AA	1.75 – 2.0
● - 2.25AA	2.0 – 2.25
● - 2.5 AA	2.25 – 2.5
● - 2.75AA	2.5 – 2.75
● - 3 AA	2.75 – 3.0
- 3.175AA	2.675 – 3.175
- 3.25AA	2.75 – 3.25
● - 3.5 AA	3.0 – 3.5
- 3.75AA	3.25 – 3.75
● - 4 AA	3.5 – 4.0
- 4.25AA	3.75 – 4.25
● - 4.5 AA	4.0 – 4.5
- 4.75AA	4.25 – 4.75
● - 5 AA	4.5 – 5.0
- 5.25AA	4.75 – 5.25
● - 5.5 AA	5.0 – 5.5
- 5.75AA	5.25 – 5.75
● - 6 AA	5.5 – 6.0
● - 6.5 AA	6.0 – 6.5
● - 7 AA	6.5 – 7.0
● - 7.5 AA	7.0 – 7.5
● - 8 AA	7.5 – 8.0
● - 8.5 AA	8.0 – 8.5
● - 9 AA	8.5 – 9.0
● - 9.5 AA	9.0 – 9.5
● -10 AA	9.5 – 10.0

øA=16.5 B=27



Clamping diameter: ø2.5 - ø20.0

Collapsibility 0.5/ø

MEGA13N / NBS13	
Collet Model	Clamping Range
● NBC13- 3 AA	2.5 – 3.0
- 3.175AA	2.675 – 3.175
- 3.25AA	2.75 – 3.25
● - 3.5 AA	3.0 – 3.5
- 3.75AA	3.25 – 3.75
● - 4 AA	3.5 – 4.0
- 4.25AA	3.75 – 4.25
● - 4.5 AA	4.0 – 4.5
- 4.75AA	4.25 – 4.75
● - 5 AA	4.5 – 5.0
- 5.25AA	4.75 – 5.25
● - 5.5 AA	5.0 – 5.5
- 5.75AA	5.25 – 5.75
● - 6 AA	5.5 – 6.0
● - 6.5 AA	6.0 – 6.5
● - 7 AA	6.5 – 7.0
● - 7.5 AA	7.0 – 7.5
● - 8 AA	7.5 – 8.0
● - 8.5 AA	8.0 – 8.5
● - 9 AA	8.5 – 9.0
● - 9.5 AA	9.0 – 9.5
● -10 AA	9.5 – 10.0
● -10.5 AA	10.0 – 10.5
● -11 AA	10.5 – 11.0
● -11.5 AA	11.0 – 11.5
● -12 AA	11.5 – 12.0
● -12.5 AA	12.0 – 12.5
● -13 AA	12.5 – 13.0

øA=20.5 B=31

MEGA16N / NBS16	
Collet Model	Clamping Range
● NBC16- 3 AA	2.5 – 3.0
- 3.25AA	2.75 – 3.25
● - 3.5 AA	3.0 – 3.5
- 3.75AA	3.25 – 3.75
● - 4 AA	3.5 – 4.0
- 4.25AA	3.75 – 4.25
● - 4.5 AA	4.0 – 4.5
- 4.75AA	4.25 – 4.75
● - 5 AA	4.5 – 5.0
- 5.25AA	4.75 – 5.25
● - 5.5 AA	5.0 – 5.5
- 5.75AA	5.25 – 5.75
● - 6 AA	5.5 – 6.0
● - 6.5 AA	6.0 – 6.5
● - 7 AA	6.5 – 7.0
● - 7.5 AA	7.0 – 7.5
● - 8 AA	7.5 – 8.0
● - 8.5 AA	8.0 – 8.5
● - 9 AA	8.5 – 9.0
● - 9.5 AA	9.0 – 9.5
● -10 AA	9.5 – 10.0
● -10.5 AA	10.0 – 10.5
● -11 AA	10.5 – 11.0
● -11.5 AA	11.0 – 11.5
● -12 AA	11.5 – 12.0
● -12.5 AA	12.0 – 12.5
● -13 AA	12.5 – 13.0
● -13.5 AA	13.0 – 13.5
● -14 AA	13.5 – 14.0
● -14.5 AA	14.0 – 14.5
● -15 AA	14.5 – 15.0
● -15.5 AA	15.0 – 15.5
● -16 AA	15.5 – 16.0

øA=25.5 B=35

MEGA20N / NBS20	
Collet Model	Clamping Range
● NBC20- 3 AA	2.5 – 3.0
- 3.25AA	2.75 – 3.25
● - 3.5 AA	3.0 – 3.5
- 3.75AA	3.25 – 3.75
● - 4 AA	3.5 – 4.0
- 4.25AA	3.75 – 4.25
● - 4.5 AA	4.0 – 4.5
- 4.75AA	4.25 – 4.75
● - 5 AA	4.5 – 5.0
- 5.25AA	4.75 – 5.25
● - 5.5 AA	5.0 – 5.5
- 5.75AA	5.25 – 5.75
● - 6 AA	5.5 – 6.0
● - 6.5 AA	6.0 – 6.5
● - 7 AA	6.5 – 7.0
● - 7.5 AA	7.0 – 7.5
● - 8 AA	7.5 – 8.0
● - 8.5 AA	8.0 – 8.5
● - 9 AA	8.5 – 9.0
● - 9.5 AA	9.0 – 9.5
● -10 AA	9.5 – 10.0
● -10.5 AA	10.0 – 10.5
● -11 AA	10.5 – 11.0
● -11.5 AA	11.0 – 11.5
● -12 AA	11.5 – 12.0
● -12.5 AA	12.0 – 12.5
● -13 AA	12.5 – 13.0
● -13.5 AA	13.0 – 13.5
● -14 AA	13.5 – 14.0
● -14.5 AA	14.0 – 14.5
● -15 AA	14.5 – 15.0
● -15.5 AA	15.0 – 15.5
● -16 AA	15.5 – 16.0
● -16.5 AA	16.0 – 16.5
● -17 AA	16.5 – 17.0
● -17.5 AA	17.0 – 17.5
● -18 AA	17.5 – 18.0
● -18.5 AA	18.0 – 18.5
● -19 AA	18.5 – 19.0
● -19.5 AA	19.0 – 19.5
● -20 AA	19.5 – 20.0

øA= 28.5 B=38

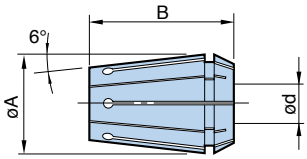
NEW BABY COLLET

For MEGA NEW BABY CHUCK, NEW BABY CHUCK

Collapsibility 0.1 & 0.2mm/ø Type

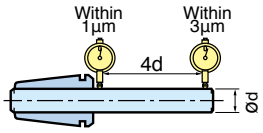
(NBC6, NBC8, NBC10)

0.1 or 0.2mm increments



Collet concentricity

Collet Class	Max. Runout At nose	Max. Runout At end of test bar
AA	Within 1µm	Within 3µm



Collapsibility 0.1/ø

Collapsibility 0.2/ø

Clamping diameter: ø0.4 -

MEGA6N / NBS6			
Collet Model	Clamping Range	Collet Model	Clamping Range
NBC6-0.50AA	0.4 – 0.5	**NBC6-4.10AA**	4.0 – 4.1
-0.60AA	0.5 – 0.6	**-4.20AA**	4.1 – 4.2
-0.70AA	0.6 – 0.7	**-4.30AA**	4.2 – 4.3
-0.80AA	0.7 – 0.8	**-4.40AA**	4.3 – 4.4
-0.90AA	0.8 – 0.9	**-4.50AA**	4.4 – 4.5
-1.00AA	0.9 – 1.0	**-4.60AA**	4.5 – 4.6
-1.10AA	1.0 – 1.1	**-4.70AA**	4.6 – 4.7
-1.20AA	1.1 – 1.2	**-4.80AA**	4.7 – 4.8
-1.30AA	1.2 – 1.3	**-4.90AA**	4.8 – 4.9
-1.40AA	1.3 – 1.4	**-5.00AA**	4.9 – 5.0
-1.50AA	1.4 – 1.5	**-5.10AA**	5.0 – 5.1
-1.60AA	1.5 – 1.6	**-5.20AA**	5.1 – 5.2
-1.70AA	1.6 – 1.7	**-5.30AA**	5.2 – 5.3
-1.80AA	1.7 – 1.8	**-5.40AA**	5.3 – 5.4
-1.90AA	1.8 – 1.9	**-5.50AA**	5.4 – 5.5
-2.00AA	1.9 – 2.0	**-5.60AA**	5.5 – 5.6
-2.10AA	2.0 – 2.1	**-5.70AA**	5.6 – 5.7
-2.20AA	2.1 – 2.2	**-5.80AA**	5.7 – 5.8
-2.30AA	2.2 – 2.3	**-5.90AA**	5.8 – 5.9
-2.40AA	2.3 – 2.4	**-6.00AA**	5.9 – 6.0
-2.50AA	2.4 – 2.5		
-2.60AA	2.5 – 2.6		
-2.70AA	2.6 – 2.7		
-2.80AA	2.7 – 2.8		
-2.90AA	2.8 – 2.9		
-3.00AA	2.9 – 3.0		
-3.10AA	3.0 – 3.1		
-3.20AA	3.1 – 3.2		
-3.30AA	3.2 – 3.3		
-3.40AA	3.3 – 3.4		
-3.50AA	3.4 – 3.5		
-3.60AA	3.5 – 3.6		
-3.70AA	3.6 – 3.7		
-3.80AA	3.7 – 3.8		
-3.90AA	3.8 – 3.9		
-4.00AA	3.9 – 4.0		

øA=9.3 B=13.5

MEGA8N / NBS8	
Collet Model	Clamping Range
NBC8-0.60AA	0.5 – 0.6
-0.70AA	0.6 – 0.7
-0.80AA	0.7 – 0.8
-0.90AA	0.8 – 0.9
-1.00AA	0.9 – 1.0
-1.10AA	1.0 – 1.1
-1.20AA	1.1 – 1.2
-1.30AA	1.2 – 1.3
-1.40AA	1.3 – 1.4
-1.50AA	1.4 – 1.5
-1.60AA	1.5 – 1.6
-1.70AA	1.6 – 1.7
-1.80AA	1.7 – 1.8
-1.90AA	1.8 – 1.9
-2.00AA	1.9 – 2.0
-2.10AA	2.0 – 2.1
-2.20AA	2.1 – 2.2
-2.30AA	2.2 – 2.3
-2.40AA	2.3 – 2.4
-2.50AA	2.4 – 2.5
-2.60AA	2.5 – 2.6
-2.70AA	2.6 – 2.7
-2.80AA	2.7 – 2.8
-2.90AA	2.8 – 2.9
-3.00AA	2.8 – 3.0
-3.20AA	3.0 – 3.2
-3.40AA	3.2 – 3.4
-3.60AA	3.4 – 3.6
-3.80AA	3.6 – 3.8
-4.00AA	3.8 – 4.0
-4.20AA	4.0 – 4.2
-4.40AA	4.2 – 4.4
-4.60AA	4.4 – 4.6
-4.80AA	4.6 – 4.8
-5.00AA	4.8 – 5.0

Refer to page G3 for larger sizes.

øA=12.2 B=17

MEGA10N / NBS10	
Collet Model	Clamping Range
NBC10- 1.60AA	1.5 – 1.6
- 1.70AA	1.6 – 1.7
- 1.80AA	1.7 – 1.8
- 1.90AA	1.8 – 1.9
- 2.00AA	1.9 – 2.0
- 2.10AA	2.0 – 2.1
- 2.20AA	2.1 – 2.2
- 2.30AA	2.2 – 2.3
- 2.40AA	2.3 – 2.4
- 2.50AA	2.4 – 2.5
- 2.60AA	2.5 – 2.6
- 2.70AA	2.6 – 2.7
- 2.80AA	2.7 – 2.8
- 2.90AA	2.8 – 2.9

Refer to page G3 for larger sizes.

øA=16.2 B=26

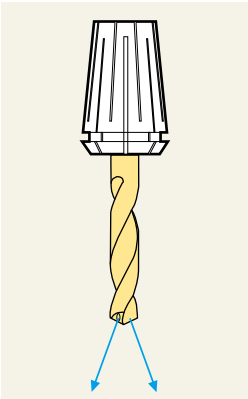
FONBC COOLANT COLLET

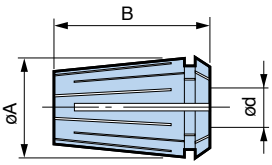
For MEGA NEW BABY CHUCK, NEW BABY CHUCK

MAX. COOLANT PRESSURE 7MPa

For cutters with coolant-through

Optimum collet for center-through coolant applications with coolant-through cutting tools.





MEGA6N / NBS6	
Collet Model	Clamping Range
FONBC 6 - 3 AA	※3.00
- 3.25AA	3.15 – 3.25
- 3.5 AA	3.40 – 3.50
- 3.75AA	3.65 – 3.75
- 4 AA	3.90 – 4.00
- 4.25AA	4.15 – 4.25
- 4.5 AA	4.40 – 4.50
- 4.75AA	4.65 – 4.75
- 5 AA	4.90 – 5.00
- 5.25AA	5.15 – 5.25
- 5.5 AA	5.40 – 5.50
- 5.75AA	5.65 – 5.75
- 6 AA	5.90 – 6.00

øA=9.5 B=14

MEGA8N / NBS8	
Collet Model	Clamping Range
FONBC 8 - 3 AA	2.9 – 3.0
- 3.5AA	3.4 – 3.5
- 4 AA	3.9 – 4.0
- 4.5AA	4.4 – 4.5
- 5 AA	4.9 – 5.0
- 5.5AA	5.4 – 5.5
- 6 AA	5.9 – 6.0
- 6.5AA	6.4 – 6.5
- 7 AA	6.9 – 7.0
- 7.5AA	7.4 – 7.5
- 8 AA	7.9 – 8.0

øA=12.5 B=18

MEGA10N / NBS10	
Collet Model	Clamping Range
FONBC10 - 3 AA	2.9 – 3.0
- 3.5AA	3.4 – 3.5
- 4 AA	3.9 – 4.0
- 4.5AA	4.4 – 4.5
- 5 AA	4.9 – 5.0
- 5.5AA	5.4 – 5.5
- 6 AA	5.9 – 6.0
- 6.5AA	6.4 – 6.5
- 7 AA	6.9 – 7.0
- 7.5AA	7.4 – 7.5
- 8 AA	7.9 – 8.0
- 8.5AA	8.4 – 8.5
- 9 AA	8.9 – 9.0
- 9.5AA	9.4 – 9.5
- 10 AA	9.9 – 10.0

øA=16.5 B=27

MEGA13N / NBS13	
Collet Model	Clamping Range
FONBC13 - 3 AA	※ 3.0
- 3.5AA	3.4 – 3.5
- 4 AA	3.9 – 4.0
- 4.5AA	4.4 – 4.5
- 5 AA	4.9 – 5.0
- 5.5AA	5.4 – 5.0
- 6 AA	5.9 – 6.0
- 6.5AA	6.4 – 6.5
- 7 AA	6.9 – 7.0
- 7.5AA	7.4 – 7.5
- 8 AA	7.9 – 8.0
- 8.5AA	8.4 – 8.5
- 9 AA	8.9 – 9.0
- 9.5AA	9.4 – 9.5
- 10 AA	9.9 – 10.0
- 10.5AA	10.4 – 10.5
- 11 AA	10.9 – 11.0
- 11.5AA	11.4 – 11.5
- 12 AA	11.9 – 12.0
- 12.5AA	12.4 – 12.5
- 13 AA	12.9 – 13.0

øA=20.5 B=31

MEGA16N / NBS16	
Collet Model	Clamping Range
FONBC16 - 5 AA	4.9 – 5.0
- 5.5AA	5.4 – 5.5
- 6 AA	5.9 – 6.0
- 6.5AA	6.4 – 6.5
- 7 AA	6.9 – 7.0
- 7.5AA	7.4 – 7.5
- 8 AA	7.9 – 8.0
- 8.5AA	8.4 – 8.5
- 9 AA	8.9 – 9.0
- 9.5AA	9.4 – 9.5
- 10 AA	9.9 – 10.0
- 10.5AA	10.4 – 10.5
- 11 AA	10.9 – 11.0
- 11.5AA	11.4 – 11.5
- 12 AA	11.9 – 12.0
- 12.5AA	12.4 – 12.5
- 13 AA	12.9 – 13.0
- 13.5AA	13.4 – 13.5
- 14 AA	13.9 – 14.0
- 14.5AA	14.4 – 14.5
- 15 AA	14.9 – 15.0
- 15.5AA	15.4 – 15.5
- 16 AA	15.9 – 16.0

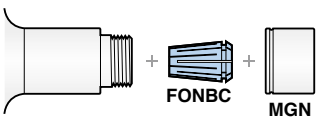
øA=25.5 B=35

MEGA20N / NBS20	
Collet Model	Clamping Range
FONBC20 - 5 AA	4.9 – 5.0
- 5.5AA	5.4 – 5.5
- 6 AA	5.9 – 6.0
- 6.5AA	6.4 – 6.5
- 7 AA	6.9 – 7.0
- 7.5AA	7.4 – 7.5
- 8 AA	7.9 – 8.0
- 8.5AA	8.4 – 8.5
- 9 AA	8.9 – 9.0
- 9.5AA	9.4 – 9.5
- 10 AA	9.9 – 10.0
- 10.5AA	10.4 – 10.5
- 11 AA	10.9 – 11.0
- 11.5AA	11.4 – 11.5
- 12 AA	11.9 – 12.0
- 12.5AA	12.4 – 12.5
- 13 AA	12.9 – 13.0
- 13.5AA	13.4 – 13.5
- 14 AA	13.9 – 14.0
- 14.5AA	14.4 – 14.5
- 15 AA	14.9 – 15.0
- 15.5AA	15.4 – 15.5
- 16 AA	15.9 – 16.0
- 16.5AA	16.4 – 16.5
- 17 AA	16.9 – 17.0
- 17.5AA	17.4 – 17.5
- 18 AA	17.9 – 18.0
- 18.5AA	18.4 – 18.5
- 19 AA	18.9 – 19.0
- 19.5AA	19.4 – 19.5
- 20 AA	19.9 – 20.0

øA=28.5 B=38

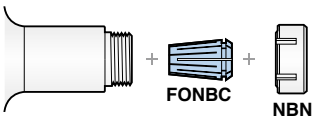
[Note]
Collapsibility is different from standard NBC collet.

● **For MEGA New Baby Chuck:**



Use the standard **MGN** nut.

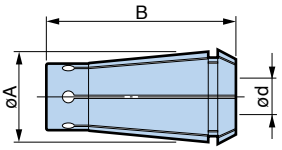
● **For New Baby Chuck:**



Use the standard **NBN** nut.

NEW BABY COLLET For MEGA NEW BABY CHUCK, NEW BABY CHUCK

For ENDMILL Type



MEGA6N / NBS6	
Model	ød
NBC 6-3E AA	3
-4E AA	4
-5E AA	5
-6E AA	6

øA=9.2 B=17

MEGA8N / NBS8	
Model	ød
NBC 8-3E AA	3
-4E AA	4
-5E AA	5
-6E AA	6
-8E AA	8

øA=12 B=20

MEGA10N / NBS10	
Model	ød
NBC10- 3E AA	3
- 4E AA	4
- 5E AA	5
- 6E AA	6
- 8E AA	8
-10E AA	10

øA=16 B=32

MEGA13N / NBS13	
Model	ød
NBC13- 3E AA	3
- 4E AA	4
- 5E AA	5
- 6E AA	6
- 8E AA	8
-10E AA	10
-12E AA	12

øA=20 B=38

MEGA16N / NBS16	
Model	ød
NBC16- 3E AA	3
- 4E AA	4
- 5E AA	5
- 6E AA	6
- 8E AA	8
-10E AA	10
-12E AA	12
-14E AA	14
-16E AA	16

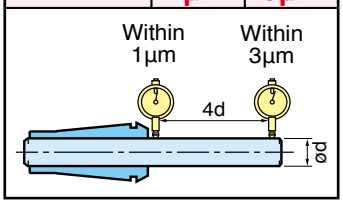
øA=25 B=42

MEGA20N / NBS20	
Model	ød
NBC20- 3E AA	3
- 4E AA	4
- 5E AA	5
- 6E AA	6
- 8E AA	8
-10E AA	10
-12E AA	12
-14E AA	14
-16E AA	16
-20E AA	20

øA=28 B=45

■ **Collet concentricity**

Collet Class	Max. Runout	
	At nose	At end of test bar
AA	Within 1µm	Within 3µm



- Use only a cutting tool shank with exactly the same diameter as the collet bore diameter.
- The tolerance of the cutting tool shank must be within h7.

NEW BABY COLLET SET For MEGA NEW BABY CHUCK, NEW BABY CHUCK

● Contains all the major collet models to cover entire clamping range.

Model	Capacity	Number of Collet	Case Size (Width×Length)	Corresponding Chuck Model
SNBC 6AA-22	0.5 – 6	22	200×170×50	MEGA 6N / NBS 6
SNBC 8AA-20	0.5 – 8	20	200×170×50	MEGA 8N / NBS 8
SNBC10AA-20	1.5 –10	20	200×170×50	MEGA10N / NBS10
SNBC13AA-21	2.5 –13	21	245×210×60	MEGA13N / NBS13
SNBC16AA-27	2.5 –16	27	275×230×65	MEGA16N / NBS16
SNBC20AA-35	2.5 –20	35	310×260×75	MEGA20N / NBS20

Provided in an exclusive storage box.

BOX for NEW BABY COLLET For MEGA NEW BABY CHUCK, NEW BABY CHUCK

● Exclusive case to protect and maintain the high precision collets.

Model	Number of Holes	Case Size (Width×Length)	Corresponding Collet Model
NBB 6	60	200×170×50	NBC 6 / FONBC 6
NBB 8	50	200×170×50	NBC 8 / FONBC 8
NBB10	40	200×170×50	NBC10 / FONBC10
NBB13	35	245×210×60	NBC13 / FONBC13
NBB16	35	275×230×65	NBC16 / FONBC16
NBB20	45	310×260×75	NBC20 / FONBC20

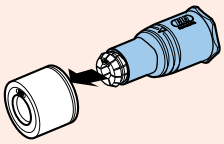
1. The boxes can not be used for New Baby Collet for ENDMILL Type show above.

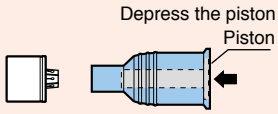
COLLET EJECTOR

Collet Ejector can easily and quickly remove New Baby Collets from MEGA Nuts & NEW BABY Nuts.

●HOW TO ASSEMBLE A COLLET

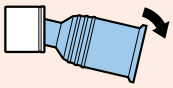
Insert the collet into the Collet Ejector. Then insert it into the nut and depress the piston.



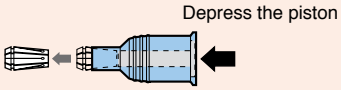


●HOW TO REMOVE A COLLET

1. Tilt the Collet Ejector as shown in the picture to remove the collet from the nut.



2. Finally, depress the piston and the collet will be removed.



■ For NEW BABY COLLET

Model	Nut Model	Collet Model
NBC 6-CE	MGN 6 / NBN 6	NBC 6 / FONBC 6
NBC 8-CE	MGN 8 / NBN 8	NBC 8 / FONBC 8
NBC10-CE	MGN10 / NBN10	NBC10 / FONBC 10
NBC13-CE	MGN13 / NBN13	NBC13 / FONBC 13

■ For NEW BABY ENDMILL COLLET

Model	Nut Model	Collet Model
NBC 6E-CE	MGN 6 / NBN 6	NBC 6E
NBC 8E-CE	MGN 8 / NBN 8	NBC 8E
NBC10E-CE	MGN10 / NBN10	NBC10E
NBC13E-CE	MGN13 / NBN13	NBC13E

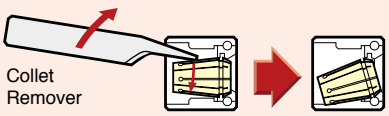
COLLET REMOVER

For MEGA NEW BABY CHUCK, NEW BABY CHUCK & MEGA ER GRIP

Collet Remover eases removal of the collet from the nut.
Especially helpful for small collet series (MEGA6N to 13N).

Model	NBJ

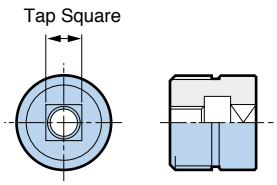
●How to use



TAP DRIVING BACK STOP

For NEW BABY CHUCK

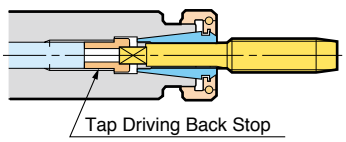
To suit synchronized tapping.



Chuck Model			NBS10	NBS13	NBS16	NBS20
Tap size	Standard	Tap square	Model	Model	Model	Model
M 8	DIN 371	6.2	—	**NBA13-M 8DD**	—	—
	JIS	5.0	**NBA10-M 8**	**NBA13-M 8**	—	—
M10	DIN 371	8.0	—	**NBA13-M14M10DD**	**NBA16-M14M10DD**	—
	JIS	5.5	**NBA10-M10**	**NBA13-M10**	**NBA16-M10**	—
M12	DIN 376	7.0	—	**NBA13-M12D**	**NBA16-M12D**	**NBA20-M12D**
	JIS	6.5	—	**NBA13-M12**	**NBA16-M12**	**NBA20-M12**
M14	DIN 376	9.0	—	—	**NBA16-M14DM16D**	**NBA20-M14DM16D**
	JIS	8.0	—	**NBA13-M14M10DD**	**NBA16-M14M10DD**	**NBA20-M14**
M16	DIN 376	9.0	—	—	**NBA16-M14DM16D**	**NBA20-M14DM16D**
	JIS	10.0	—	—	**NBA16-M16**	**NBA20-M16**
M20	DIN 376	12.0	—	—	—	**NBA20-M20**
	JIS	12.0	—	—	—	

1. Rigid tapping function is required on the machine tool.

The square of the tap is positively located by fitting the Tap Driving Back Stop.



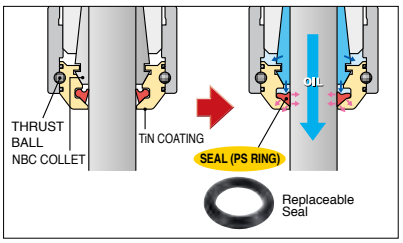
Sealed collet nut for coolant-through tools

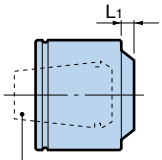
MEGA PERFECT SEAL For MEGA NEW BABY CHUCK

MAX. COOLANT PRESSURE 7MPa

Reliable coolant supply to the tool tip!

Unique design increases sealing performance with higher coolant pressure to create a "perfect seal".
Remove the PS Ring, to supply coolant to the cutting tool periphery.





Standard NBC Collet

Model	Cutter Shank Dia.	L1	Collet Model
MPS 6-03035	3 – 3.5	2.3	NBC 6-3 - 3.75
-0304	3 – 4		-3 - 4.25
-04045	4 – 4.5		-4 - 4.75
-0405	4 – 5		-4 - 5.25
-05055	5 – 5.5		-5 - 5.75
-0506	5 – 6		-5 - 6
MPS 8-03035	3 – 3.5	3.9	NBC 8-3 - 4
-0304	3 – 4		-3 - 4.5
-04045	4 – 4.5		-4 - 5
-0405	4 – 5		-4 - 5.5
-05055	5 – 5.5		-5 - 6
-0506	5 – 6		-5 - 6.5
-06065	6 – 6.5	3.4	-6 - 7
-0607	6 – 7		-6 - 7.5
-07075	7 – 7.5		-7 - 8
-0708	7 – 8		-7 - 8
MPS10-03035	3 – 3.5	3.9	NBC10-3 - 4
-0304	3 – 4		-3 - 4.5
-04045	4 – 4.5		-4 - 5
-0405	4 – 5		-4 - 5.5
-05055	5 – 5.5		-5 - 6
-0506	5 – 6		-5 - 6.5
-06065	6 – 6.5	4.3	-6 - 7
-0607	6 – 7		-6 - 7.5
-07075	7 – 7.5		-7 - 8
-0708	7 – 8		-7 - 8.5
-08085	8 – 8.5	3.5	-8 - 9
-0809	8 – 9		-8 - 9.5
-09095	9 – 9.5		-9 - 10
-0910	9 – 10		-9 - 10
MPS13-03035	3 – 3.5	4.3	NBC13-3 - 4
-0304	3 – 4		-3 - 4.5
-04045	4 – 4.5		-4 - 5
-0405	4 – 5		-4 - 5.5
-05055	5 – 5.5		-5 - 6
-0506	5 – 6		-5 - 6.5
-06065	6 – 6.5	4.6	-6 - 7
-0607	6 – 7		-6 - 7.5
-07075	7 – 7.5		-7 - 8
-0708	7 – 8		-7 - 8.5
-08085	8 – 8.5	4.9	-8 - 9
-0809	8 – 9		-8 - 9.5
-09095	9 – 9.5		-9 - 10
-0910	9 – 10		-9 - 10.5
-10105	10 – 10.5	4.2	-10 - 11
-1011	10 – 11		-10 - 11.5
-11115	11 – 11.5		-11 - 12
-1112	11 – 12		-11 - 12.5
-12125	12 – 12.5		-12 - 13
-1213	12 – 13		-12 - 13

Model	Cutter Shank Dia.	L1	Collet Model
MPS16-03035	3 – 3.5	4.0	NBC16-3 - 4
-0304	3 – 4		-3 - 4.5
-04045	4 – 4.5		-4 - 5
-0405	4 – 5		-4 - 5.5
-05055	5 – 5.5		-5 - 6
-0506	5 – 6		-5 - 6.5
-06065	6 – 6.5	4.3	-6 - 7
-0607	6 – 7		-6 - 7.5
-07075	7 – 7.5		-7 - 8
-0708	7 – 8		-7 - 8.5
-08085	8 – 8.5	4.6	-8 - 9
-0809	8 – 9		-8 - 9.5
-09095	9 – 9.5		-9 - 10
-0910	9 – 10		-9 - 10.5
-10105	10 – 10.5	5.1	-10 - 11
-1011	10 – 11		-10 - 11.5
-11115	11 – 11.5		-11 - 12
-1112	11 – 12		-11 - 12.5
-12125	12 – 12.5	4.1	-12 - 13
-1213	12 – 13		-12 - 13.5
-1314	13 – 14		-13 - 14.5
-1415	14 – 15		-14 - 15.5
-1516	15 – 16		-15 - 16
MPS20-03035	3 – 3.5	4.0	NBC20-3 - 4
-0304	3 – 4		-3 - 4.5
-04045	4 – 4.5		-4 - 5
-0405	4 – 5		-4 - 5.5
-05055	5 – 5.5		-5 - 6
-0506	5 – 6		-5 - 6.5
-06065	6 – 6.5	4.3	-6 - 7
-0607	6 – 7		-6 - 7.5
-07075	7 – 7.5		-7 - 8
-0708	7 – 8		-7 - 8.5
-08085	8 – 8.5	4.6	-8 - 9
-0809	8 – 9		-8 - 9.5
-09095	9 – 9.5		-9 - 10
-0910	9 – 10		-9 - 10.5
-10105	10 – 10.5	5.1	-10 - 11
-1011	10 – 11		-10 - 11.5
-11115	11 – 11.5		-11 - 12
-1112	11 – 12		-11 - 12.5
-12125	12 – 12.5		-12 - 13
-1213	12 – 13		-12 - 13.5
-1314	13 – 14	5.2	-13 - 14.5
-1415	14 – 15		-14 - 15.5
-1516	15 – 16		-15 - 16.5
-1617	16 – 17	4.6	-16 - 17.5
-1718	17 – 18		-17 - 18.5
-1819	18 – 19		-18 - 19.5
-1920	19 – 20		-19 - 20

- 1 pce. of PS Ring is included.
- To supply coolant to the periphery of the cutting tool, Adjusting Screw should not be mounted.

2way coolant

Through Tools

With PS RING

Jet Through

Without PS RING

[PS RING]

- Replaceable seal is installed in the MEGA PERFECT SEAL

(Replacement seal is recommended when coolant leaks due to damage of the PS Ring.)

Model	Corresponding MPS Model	Model	Corresponding MPS Model	Model	Corresponding MPS Model
PS-0304	MPS□-03035,0304	**PS-0809**	MPS□-08085,0809	**PS-1314**	MPS□-1314
0405	04045,0405	**0910**	09095,0910	**1415**	1415
0506	05055,0506	**1011**	10105,1011	**1516**	1516
0607	06065,0607	**1112**	11115,1112	**1617**	1617
0708	07075,0708	**1213**	12125,1213	**1718**	1718
				1819	1819
				1920	1920

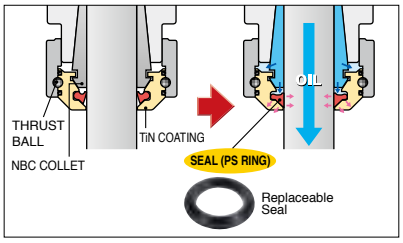
1 package contains 5 pcs. (1 size).

Sealed collet nut for coolant-through tools

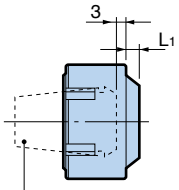
BABY PERFECT SEAL For NEW BABY CHUCK

Reliable coolant supply to the tool tip!

Unique design increases sealing performance with higher coolant pressure to create a "perfect seal".
Remove the PS Ring, to supply coolant to the cutting tool periphery.



MAX. COOLANT PRESSURE 7MPa



Standard NBC Collet

Model	Cutter Shank Dia.	L1	Collet Model
BPS 6-03035	3 – 3.5	2.3	NBC 6-3 - 3.75
-0304	3 – 4		-3 - 4.25
-04045	4 – 4.5		-4 - 4.75
-0405	4 – 5		-4 - 5.25
-05055	5 – 5.5		-5 - 5.75
-0506	5 – 6		-5 - 6
BPS 8-03035	3 – 3.5	3.9	NBC 8-3 - 4
-0304	3 – 4		-3 - 4.5
-04045	4 – 4.5		-4 - 5
-0405	4 – 5		-4 - 5.5
-05055	5 – 5.5		-5 - 6
-0506	5 – 6		-5 - 6.5
-06065	6 – 6.5	3.4	-6 - 7
-0607	6 – 7		-6 - 7.5
-07075	7 – 7.5		-7 - 8
-0708	7 – 8		-7 - 8
BPS10-03035	3 – 3.5	3.9	NBC10-3 - 4
-0304	3 – 4		-3 - 4.5
-04045	4 – 4.5		-4 - 5
-0405	4 – 5		-4 - 5.5
-05055	5 – 5.5		-5 - 6
-0506	5 – 6		-5 - 6.5
-06065	6 – 6.5	4.3	-6 - 7
-0607	6 – 7		-6 - 7.5
-07075	7 – 7.5		-7 - 8
-0708	7 – 8		-7 - 8.5
-08085	8 – 8.5	3.5	-8 - 9
-0809	8 – 9		-8 - 9.5
-09095	9 – 9.5		-9 - 10
-0910	9 – 10		-9 - 10
BPS13-03035	3 – 3.5	4.3	NBC13-3 - 4
-0304	3 – 4		-3 - 4.5
-04045	4 – 4.5		-4 - 5
-0405	4 – 5		-4 - 5.5
-05055	5 – 5.5		-5 - 6
-0506	5 – 6		-5 - 6.5
-06065	6 – 6.5	4.6	-6 - 7
-0607	6 – 7		-6 - 7.5
-07075	7 – 7.5		-7 - 8
-0708	7 – 8		-7 - 8.5
-08085	8 – 8.5	4.9	-8 - 9
-0809	8 – 9		-8 - 9.5
-09095	9 – 9.5		-9 - 10
-0910	9 – 10		-9 - 10.5
-10105	10 – 10.5	4.2	-10 - 11
-1011	10 – 11		-10 - 11.5
-11115	11 – 11.5		-11 - 12
-1112	11 – 12		-11 - 12.5
-12125	12 – 12.5		-12 - 13
-1213	12 – 13		-12 - 13

Model	Cutter Shank Dia.	L1	Collet Model
BPS16-03035	3 – 3.5	4.0	NBC16-3 - 4
-0304	3 – 4		-3 - 4.5
-04045	4 – 4.5		-4 - 5
-0405	4 – 5		-4 - 5.5
-05055	5 – 5.5		-5 - 6
-0506	5 – 6		-5 - 6.5
-06065	6 – 6.5	4.3	-6 - 7
-0607	6 – 7		-6 - 7.5
-07075	7 – 7.5		-7 - 8
-0708	7 – 8		-7 - 8.5
-08085	8 – 8.5	4.6	-8 - 9
-0809	8 – 9		-8 - 9.5
-09095	9 – 9.5		-9 - 10
-0910	9 – 10		-9 - 10.5
-10105	10 – 10.5	5.1	-10 - 11
-1011	10 – 11		-10 - 11.5
-11115	11 – 11.5		-11 - 12
-1112	11 – 12		-11 - 12.5
-12125	12 – 12.5	4.1	-12 - 13
-1213	12 – 13		-12 - 13.5
-1314	13 – 14		-13 - 14.5
-1415	14 – 15		-14 - 15.5
-1516	15 – 16		-15 - 16
BPS20-03035	3 – 3.5	4.0	NBC20-3 - 4
-0304	3 – 4		-3 - 4.5
-04045	4 – 4.5		-4 - 5
-0405	4 – 5		-4 - 5.5
-05055	5 – 5.5		-5 - 6
-0506	5 – 6		-5 - 6.5
-06065	6 – 6.5	4.3	-6 - 7
-0607	6 – 7		-6 - 7.5
-07075	7 – 7.5		-7 - 8
-0708	7 – 8		-7 - 8.5
-08085	8 – 8.5	4.6	-8 - 9
-0809	8 – 9		-8 - 9.5
-09095	9 – 9.5		-9 - 10
-0910	9 – 10		-9 - 10.5
-10105	10 – 10.5	5.1	-10 - 11
-1011	10 – 11		-10 - 11.5
-11115	11 – 11.5		-11 - 12
-1112	11 – 12		-11 - 12.5
-12125	12 – 12.5		-12 - 13
-1213	12 – 13		-12 - 13.5
-1314	13 – 14	5.2	-13 - 14.5
-1415	14 – 15		-14 - 15.5
-1516	15 – 16		-15 - 16.5
-1617	16 – 17	4.6	-16 - 17.5
-1718	17 – 18		-17 - 18.5
-1819	18 – 19		-18 - 19.5
-1920	19 – 20		-19 - 20

- 1 pce. of PS Ring is included.
- To supply coolant to the periphery of the cutting tool, Adjusting Screw should not be mounted.

2way coolant

Through Tools

With PS RING

Jet Through

Without PS RING

[PS RING]

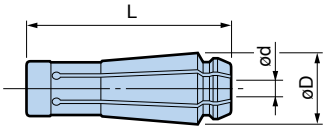
- Replaceable seal is installed in the BABY PERFECT SEAL

(Replacement seal is recommended when coolant leaks due to damage of the PS Ring.)

Model	Corresponding BPS Model	Model	Corresponding BPS Model	Model	Corresponding BPS Model
PS-0304	BPS□-03035,0304	**PS-0809**	BPS□-08085,0809	**PS-1314**	BPS□-1314
0405	04045,0405	**0910**	09095,0910	**1415**	1415
0506	05055,0506	**1011**	10105,1011	**1516**	1516
0607	06065,0607	**1112**	11115,1112	**1617**	1617
0708	07075,0708	**1213**	12125,1213	**1718**	1718
				1819	1819
				1920	1920

1 package contains 5 pcs. (1 size).

MEGA E COLLET For MEGA E CHUCK



MEGA 6E		
Model	ød	Min. Clamping Length
MEC6-3AA	3	19
-4AA	4	22
-5AA	5	25
-6AA	6	27

L=34.9 øD=11.3

MEGA 8E		
Model	ød	Min. Clamping Length
MEC8-3AA	3	19
-4AA	4	22
-5AA	5	25
-6AA	6	28
-7AA	7	29
-8AA	8	31

L=39.4 øD=14.1

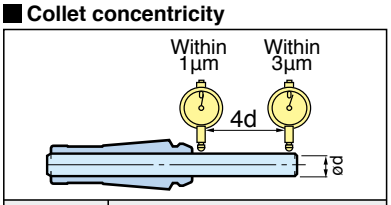
MEGA10E		
Model	ød	Min. Clamping Length
MEC10- 3AA	3	19
- 4AA	4	22
- 5AA	5	25
- 6AA	6	28
- 7AA	7	29.5
- 8AA	8	31
- 9AA	9	33
-10AA	10	37

L=45.7 øD=17.1

MEGA13E		
Model	ød	Min. Clamping Length
MEC13- 3AA	3	19
- 4AA	4	22
- 5AA	5	25
- 6AA	6	28
- 7AA	7	29.5
- 8AA	8	31
- 9AA	9	33
-10AA	10	35
-11AA	11	37
-12AA	12	39

L=47.9 øD=20.6

Collet concentricity

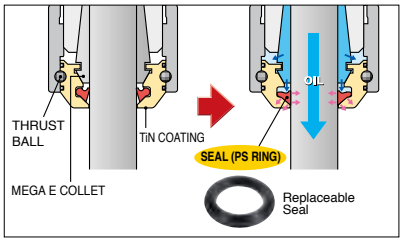


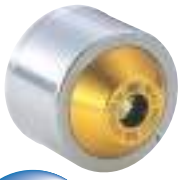
Collet Class	Max. Runout	
	At nose	At end of test bar
AA	Within 1µm	Within 3µm

- Use only a cutting tool shank with exactly the same diameter as the collet bore diamater.
- The tolerance of the cutting tool shank must be within h7.

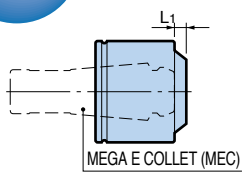
Sealed collet nut for coolant-through tools

MEGA E PERFECT SEAL For MEGA E CHUCK





MAX. COOLANT PRESSURE 7MPa



2way coolant

Through Tools

With PS RING

Jet Through

Without PS RING

Model	Cutter Shank Dia.	L1	Collet Model
EPS 6-03	3	5.6	MEC 6- 3
-04	4	5.2	- 4
-05	5		- 5
-06	6		- 6
EPS 8-03	3	6.4	MEC 8- 3
-04	4	6	- 4
-05	5		- 5
-06	6		- 6
-07	7	5.6	- 7
-08	8		- 8
EPS10-03	3	6.4	MEC10- 3
-04	4	6	- 4
-05	5		- 5
-06	6		- 6
-07	7	6.3	- 7
-08	8		- 8
-09	9	5.7	- 9
-10	10		-10

Model	Cutter Shank Dia.	L1	Collet Model
EPS13-03	3	6.4	MEC13- 3
-04	4	6	- 4
-05	5		- 5
-06	6		- 6
-07	7	6.3	- 7
-08	8	6.5	- 8
-09	9		- 9
-10	10		-10
-11	11	6.2	-11
-12	12		-12

- 1 pce. of PS Ring is included.
- To supply coolant to the periphery of the cutting tool, Adjusting Screw should not be mounted.

[PS RING]

- Replaceable seal is installed in the MEGA E PERFECT SEAL.

(Replacement seal is recommended when coolant leaks due to damage of the PS Ring.)

1 package contains 5 pcs. (1 size).

Model	Chuck Model
PS-0304	EPS □-03
	-04
-0405	-05
-0506	-06
-0607	-07
-0708	-08

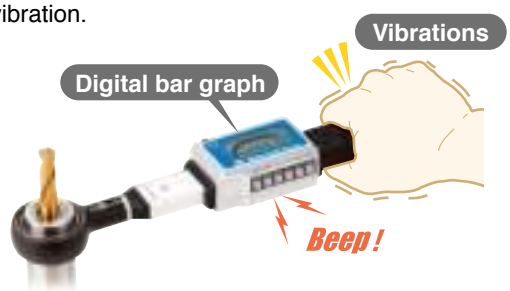
Model	Chuck Model
PS-0809	EPS □-09
-0910	-10
-1011	-11
-1112	-12

DIGITAL MEGA TORQUE WRENCH

For MEGA NEW BABY CHUCK, NEW BABY CHUCK

Informs secure and appropriate tightening with graphic, sound and vibration.

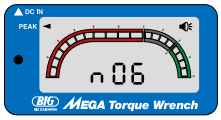
For Asia Only



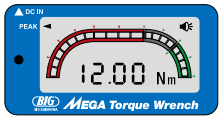
Example: MEGA New Baby Chuck (MEGA6N)

Predetermined torque values

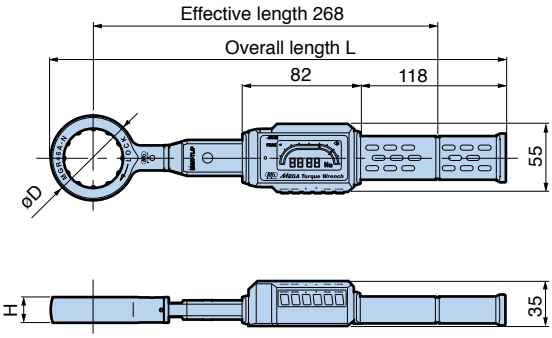
The recommended torque for each collet chuck model is preset. Appropriate tightening torque is available easily and securely by choosing the model to be clamped.



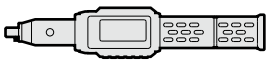
Collet chuck model



Recommended torque value



● Mega Torque Wrench body

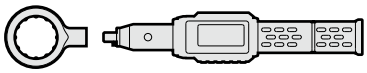


Model	MGR-TL/P
Torque range	10–50N・m
Minimum read (digit)	0.01N・m
Display	7 LCD segments → 4 digits, numerical display 20 LCD segments → bar graph
Basic function	PEAK hold Tightening completion signal → beep emission & vibration Auto power-off (5 minutes)
Power supply	Built-in lithium battery (Approx. 500 times rechargeable)
Operations per charge	4,000 times tightening operations per full charge
Recharging time	Approx. 3 hours (Using the exclusive AC adapter)
Operating temperature	0˚C – 40˚C (Without dew condensing)
Weight	290g (=Torque Wrench Body, excluding Mega Wrench Adapter and AC Adapter)

● Mega Wrench adapter (option)

Model	(mm)			Weight (kg)	Suitable collet chuck	
	L Overall length	øD	H		Mega New Baby Chuck	MEGA E Chuck
MGR20A-N	355	36	16	0.13	**MEGA 6N**	———
MGR25A-N	359	44	20	0.18	**MEGA 8N**	**MEGA 6E**
MGR30A-N	362	50	20	0.22	**MEGA10N**	**MEGA 8E**
MGR35A-N	364.5	55	20	0.23	**MEGA13N**	**MEGA10E**
MGR42A-N	368	62	20	0.25	**MEGA16N**	**MEGA13E**
MGR46A-N	370	66	20	0.27	**MEGA20N**	———

● Set



Model	Set contents
SMGR-TL/P	• Body • Mega Wrench adapters (MGR20A-N thru MGR46A-N) 6 pieces

Exclusive storage case

Easy to store and carry the equipments. (1) Body and (6) Mega Wrench Adapters are fit.

Standard accessory for the body (**MGR-TL/P**) and set (**SMGR-TL/P**) models.

MEGA TORQUE WRENCH

For MEGA CHUCK SERIES

● With torque limiter.

Model	ød	Body		
		MEGA Micro Chuck	MEGA New Baby Chuck	MEGA E Chuck
MGR10TL	10	MEGA3S		
MGR12TL / MGR12TLS ※	12	MEGA4S		
MGR14TL / MGR14TLS ※	14	MEGA6S		
MGR18TL	18	MEGA8S		
MGR20TL / MGR20TLS ※	20		MEGA 6N	
MGR25TL / MGR25TLS ※	25		MEGA 8N	MEGA 6E
MGR30TL	30		MEGA10N	MEGA 8E
MGR35TL	35		MEGA13N	MEGA10E
MGR42TL	42		MEGA16N	MEGA13E
MGR46TL	46		MEGA20N	

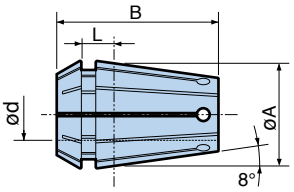
1. TLS models marked with ※ are recommended to tighten 3mm or smaller inner diameter collets.

MEGA ER COLLET

For MEGA ER GRIP

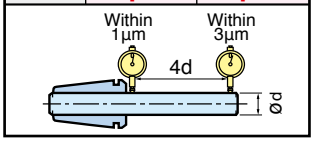
All collets are inspected twice to guarantee the runout accuracy of "AA" quality.
Available in min. 0.1mm increments to suit each cutting tool shank size.

Measurement standards:
In accordance with DIN6499 and ISO15488



■ Collet concentricity

Collet Class	Max. Runout At nose	Max. Runout At end of test bar
AA	Within 1μm	Within 3μm



Collapsibility 0.1/ø Collapsibility 0.25/ø Collapsibility 0.5/ø

MEGA ER 11	
Collet Model	Clamping Range ød
ERC11-3AA	2.75 – 3.0
-3.25AA	3.0 – 3.25
-3.5AA	3.25 – 3.5
-3.75AA	3.5 – 3.75
-4AA	3.75 – 4.0
-4.25AA	4.0 – 4.25
-4.5AA	4.25 – 4.5
-4.75AA	4.5 – 4.75
-5AA	4.75 – 5.0
-5.25AA	5.0 – 5.25
-5.5AA	5.25 – 5.5
-5.75AA	5.5 – 5.75
-6AA	5.5 – 6.0

øA= 11 B= 18 L= 3.8

MEGA ER 16	
Collet Model	Clamping Range ød
ERC16-2AA	1.9 – 2.0
-2.1AA	2.0 – 2.1
-2.2AA	2.1 – 2.2
-2.3AA	2.2 – 2.3
-2.4AA	2.3 – 2.4
-2.5AA	2.4 – 2.5
-2.6AA	2.5 – 2.6
-2.7AA	2.6 – 2.7
-2.8AA	2.7 – 2.8
-2.9AA	2.8 – 2.9
-3AA	2.75 – 3.0
-3.25AA	3.0 – 3.25
-3.5AA	3.25 – 3.5
-3.75AA	3.5 – 3.75
-4AA	3.75 – 4.0
-4.25AA	4.0 – 4.25
-4.5AA	4.25 – 4.5
-4.75AA	4.5 – 4.75
-5AA	4.75 – 5.0
-5.25AA	5.0 – 5.25
-5.5AA	5.25 – 5.5
-5.75AA	5.5 – 5.75
-6AA	5.5 – 6.0
-6.5AA	6.0 – 6.5
-7AA	6.5 – 7.0
-7.5AA	7.0 – 7.5
-8AA	7.5 – 8.0
-8.5AA	8.0 – 8.5
-9AA	8.5 – 9.0
-9.5AA	9.0 – 9.5
-10AA	9.5 – 10.0

øA= 16 B= 27.5 L= 6.26

MEGA ER 20	
Collet Model	Clamping Range ød
ERC20-3AA	2.75 – 3.0
-3.25AA	3.0 – 3.25
-3.5AA	3.25 – 3.5
-3.75AA	3.5 – 3.75
-4AA	3.75 – 4.0
-4.25AA	4.0 – 4.25
-4.5AA	4.25 – 4.5
-4.75AA	4.5 – 4.75
-5AA	4.75 – 5.0
-5.25AA	5.0 – 5.25
-5.5AA	5.25 – 5.5
-5.75AA	5.5 – 5.75
-6AA	5.5 – 6.0
-6.5AA	6.0 – 6.5
-7AA	6.5 – 7.0
-7.5AA	7.0 – 7.5
-8AA	7.5 – 8.0
-8.5AA	8.0 – 8.5
-9AA	8.5 – 9.0
-9.5AA	9.0 – 9.5
-10AA	9.5 – 10.0
-10.5AA	10.0 – 10.5
-11AA	10.5 – 11.0
-11.5AA	11.0 – 11.5
-12AA	11.5 – 12.0
-12.5AA	12.0 – 12.5
-13AA	12.5 – 13.0

øA= 20 B= 31.5 L= 6.36

MEGA ER 25	
Collet Model	Clamping Range ød
ERC25-3AA	2.75 – 3.0
-3.25AA	3.0 – 3.25
-3.5AA	3.25 – 3.5
-3.75AA	3.5 – 3.75
-4AA	3.75 – 4.0
-4.25AA	4.0 – 4.25
-4.5AA	4.25 – 4.5
-4.75AA	4.5 – 4.75
-5AA	4.75 – 5.0
-5.25AA	5.0 – 5.25
-5.5AA	5.25 – 5.5
-5.75AA	5.5 – 5.75
-6AA	5.5 – 6.0
-6.5AA	6.0 – 6.5
-7AA	6.5 – 7.0
-7.5AA	7.0 – 7.5
-8AA	7.5 – 8.0
-8.5AA	8.0 – 8.5
-9AA	8.5 – 9.0
-9.5AA	9.0 – 9.5
-10AA	9.5 – 10.0
-10.5AA	10.0 – 10.5
-11AA	10.5 – 11.0
-11.5AA	11.0 – 11.5
-12AA	11.5 – 12.0
-12.5AA	12.0 – 12.5
-13AA	12.5 – 13.0
-13.5AA	13.0 – 13.5
-14AA	13.5 – 14.0
-14.5AA	14.0 – 14.5
-15AA	14.5 – 15.0
-15.5AA	15.0 – 15.5
-16AA	15.5 – 16.0

øA= 25 B= 34 L= 6.66

MEGA ER 32	
Collet Model	Clamping Range ød
ERC32-3AA	2.75 – 3.0
-3.25AA	3.0 – 3.25
-3.5AA	3.25 – 3.5
-3.75AA	3.5 – 3.75
-4AA	3.75 – 4.0
-4.25AA	4.0 – 4.25
-4.5AA	4.25 – 4.5
-4.75AA	4.5 – 4.75
-5AA	4.75 – 5.0
-5.25AA	5.0 – 5.25
-5.5AA	5.25 – 5.5
-5.75AA	5.5 – 5.75
-6AA	5.5 – 6.0
-6.5AA	6.0 – 6.5
-7AA	6.5 – 7.0
-7.5AA	7.0 – 7.5
-8AA	7.5 – 8.0
-8.5AA	8.0 – 8.5
-9AA	8.5 – 9.0
-9.5AA	9.0 – 9.5
-10AA	9.5 – 10.0
-10.5AA	10.0 – 10.5
-11AA	10.5 – 11.0
-11.5AA	11.0 – 11.5
-12AA	11.5 – 12.0
-12.5AA	12.0 – 12.5
-13AA	12.5 – 13.0
-13.5AA	13.0 – 13.5
-14AA	13.5 – 14.0
-14.5AA	14.0 – 14.5
-15AA	14.5 – 15.0
-15.5AA	15.0 – 15.5
-16AA	15.5 – 16.0
-16.5AA	16.0 – 16.5
-17AA	16.5 – 17.0
-17.5AA	17.0 – 17.5
-18AA	17.5 – 18.0
-18.5AA	18.0 – 18.5
-19AA	18.5 – 19.0
-19.5AA	19.0 – 19.5
-20AA	19.5 – 20.0

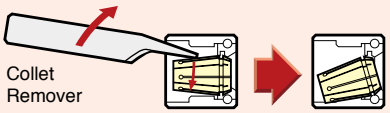
øA= 32 B= 40 L= 7.16

COLLET REMOVER

Collet Remover eases removal of the collet from the nut.

Model	NBJ

●How to use

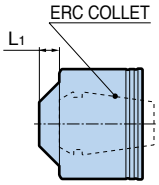


Sealed collet nut for coolant-through tools

MEGA ER PERFECT SEAL For MEGA ER GRIP

MAX. COOLANT PRESSURE 7MPa

Reliable coolant supply to the tool tip.



2way coolant

Through Tools

With PS RING

Jet Through

Without PS RING

Model	L1	Cutter Shank Dia.	Collet Model
MERPS16-030035	4.0	3 – 3.5	ERC16- 3 - 3.75
-035040		3.5 – 4	- 3.5 - 4.25
-040045		4 – 4.5	- 4 - 4.75
-045050		4.5 – 5	- 4.5 - 5.25
-050055		5 – 5.5	- 5 - 6
-055060		5.5 – 6	- 5.5 - 6.5
-060065	4.3	6 – 6.5	- 6 - 7
-065070		6.5 – 7	- 6.5 - 7.5
-070075		7 – 7.5	- 7 - 8
-075080		7.5 – 8	- 7.5 - 8.5
-080085	4.6	8 – 8.5	- 8 - 9
-085090		8.5 – 9	- 8.5 - 9.5
-090095		9 – 9.5	- 9 -10
-095100		9.5 –10	- 9.5 -10
MERPS20-030035	4.0	3 – 3.5	ERC20- 3 - 3.75
-035040		3.5 – 4	- 3.5 - 4.25
-040045		4 – 4.5	- 4 - 4.75
-045050		4.5 – 5	- 4.5 - 5.25
-050055		5 – 5.5	- 5 - 6
-055060		5.5 – 6	- 5.5 - 6.5
-060065	4.3	6 – 6.5	- 6 - 7
-065070		6.5 – 7	- 6.5 - 7.5
-070075		7 – 7.5	- 7 - 8
-075080		7.5 – 8	- 7.5 - 8.5
-080085	4.6	8 – 8.5	- 8 - 9
-085090		8.5 – 9	- 8.5 - 9.5
-090095		9 – 9.5	- 9 -10
-095100		9.5 –10	- 9.5 -10.5
-100105	5.1	10 –10.5	-10 -11
-105110		10.5 –11	-10.5 -11.5
-110115		11 –11.5	-11 -12
-115120		11.5 –12	-11.5 -12.5
-120125		12 –12.5	-12 -13
-125130		12.5 –13	-12.5 -13

1. 1 pce. of PS Ring is included.

Model	L1	Cutter Shank Dia.	Collet Model
MERPS25-030035	4.0	3 – 3.5	ERC25- 3 - 3.75
-035040		3.5 – 4	- 3.5- 4.25
-040045		4 – 4.5	- 4 - 4.75
-045050		4.5 – 5	- 4.5- 5.25
-050055		5 – 5.5	- 5 - 6
-055060		5.5 – 6	- 5.5- 6.5
-060065	4.3	6 – 6.5	- 6 - 7
-065070		6.5 – 7	- 6.5- 7.5
-070075		7 – 7.5	- 7 - 8
-075080		7.5 – 8	- 7.5- 8.5
-080085	4.6	8 – 8.5	- 8 - 9
-085090		8.5 – 9	- 8.5- 9.5
-090095		9 – 9.5	- 9 -10
-095100		9.5 –10	- 9.5-10.5
-100105	5.1	10 –10.5	-10 -11
-105110		10.5 –11	-10.5-11.5
-110115		11 –11.5	-11 -12
-115120		11.5 –12	-11.5-12.5
-120125		12 –12.5	-12 -13
-125130		12.5 –13	-12.5-13
-130140	5.2	13 –14	-13 -14.5
-140150		14 –15	-14 -15.5
-150160		15 –16	-15 -16
MERPS32-030035	4.0	3 – 3.5	ERC32- 3 - 3.75
-035040		3.5 – 4	- 3.5- 4.25
-040045		4 – 4.5	- 4 - 4.75
-045050		4.5 – 5	- 4.5- 5.25
-050055		5 – 5.5	- 5 - 6
-055060		5.5 – 6	- 5.5- 6.5
-060065	4.3	6 – 6.5	- 6 - 7
-065070		6.5 – 7	- 6.5- 7.5
-070075		7 – 7.5	- 7 - 8
-075080		7.5 – 8	- 7.5- 8.5
-080085	4.6	8 – 8.5	- 8 - 9
-085090		8.5 – 9	- 8.5- 9.5
-090095		9 – 9.5	- 9 -10
-095100		9.5 –10	- 9.5-10.5
-100105	5.1	10 –10.5	-10 -11
-105110		10.5 –11	-10.5-11.5
-110115		11 –11.5	-11 -12
-115120		11.5 –12	-11.5-12.5
-120125		12 –12.5	-12 -13
-125130		12.5 –13	-12.5-13.5
-130140	5.2	13 –14	-13 -14.5
-140150		14 –15	-14 -15.5
-150160		15 –16	-15 -16.5
-160170	4.6	16 –17	-16 -17.5
-170180		17 –18	-17 -18.5
-180190		18 –19	-18 -19.5
-190200		19 –20	-19 -20

[PS RING]

- Replaceable seal is installed in the MEGA ER PERFECT SEAL

(Replacement seal is recommended when coolant leaks due to damage of the PS Ring.)

1 package contains 5 pcs. (1 size).

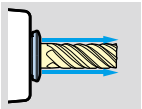
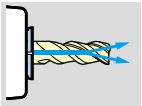
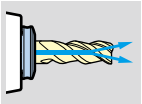
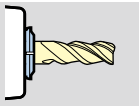
Model	Corresponding MERPS Model
PS-0304	MERPS□-030035, 035040
-0405	-040045, 045050
-0506	-050055, 055060
-0607	-060065, 065070
-0708	-070075, 075080

Model	Corresponding MERPS Model
PS-0809	MERPS□-080085, 085090
-0910	-090095, 095100
-1011	-100105, 105110
-1112	-110115, 115120
-1213	-120125, 125130

Model	Corresponding MERPS Model
PS-1314	MERPS□-130140
-1415	-140150
-1516	-150160
-1617	-160170
-1718	-170180
-1819	-180190
-1920	-190200

STRAIGHT COLLET For MEGA DOUBLE POWER CHUCK, NEW Hi-POWER MILLING CHUCK & HYDRAULIC CHUCK

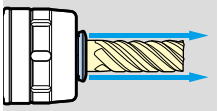
STRAIGHT COLLET SELECTION GUIDE

	PJC COLLET	OCA COLLET	PSC COLLET	AC COLLET
	 Periferical Coolant Supply	 Through Tool Coolant Supply	 Through Tool Coolant Supply	 W/O Center coolant
MEGA DOUBLE POWER CHUCK **MEGA-D**	○	○		○
MEGA DOUBLE POWER CHUCK **MEGA-DS**	○			○
NEW Hi-POWER MILLING CHUCK **HMC**	○	○		○
HYDRAULIC CHUCK **HDC**	○		○	

■PJC COLLET For MEGA-D/DS & HMC & HDC

For coolant to cutting tool periphery

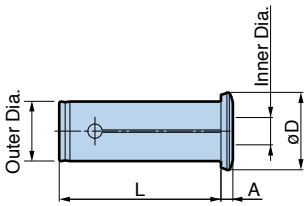
Jet Through



●Model Description

PJC 16 - 6

- 6: Inner Dia.
- 16: Outer Dia.
- PJC: PJC Collet



JET THROUGH COLLET **Coolant shoots out of the collet end face.**

Model	A	øD	L
PJC16-6	6.0	23	54
-8,10,12	6.3		
PJC20-3,4,5,6,	5.2	27	61
-7,8,9,10	5.7		
-11,12	6.4		
-13	6.8		
-14,15,16	7.3		
PJC25-6,8,10,12	5.0	32.5	68
-16	5.4		
-18	5.8		
-20	6.5		

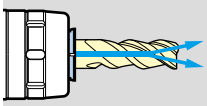
Model	A	øD	L
PJC32-6,8,10,12,14 -16,20	5.0	39	74
-25	5.4		
PJC42-16,20,25,32	5.0	50.5	83

1. For coolant directed to cutting tool periphery.
2. Other sizes are available upon request.

※**With either the Type D or Type DS chuck body, coolant is supplied to cutting tool periphery, not through the tool.**

■OCA COLLET For MEGA-D & HMC

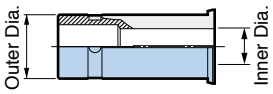
Through Tool



●Model Description

OCA 20 - 6

- 6: Inner Dia.
- 20: Outer Dia.
- OCA: Coolant Feed Straight Collet



Model	Chuck Model
OCA16 - 6, 8, 10, 12	MEGA16D, HMC16(S)
OCA20 - 6, 8, 10, 12, 14, 16	MEGA20D, HMC20(S)
OCA25 - 6, 8, 10, 12, 14, 16, 18, 20	MEGA25D, HMC25(S)
OCA32 - 6, 8, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 28	MEGA32D, HMC32(S)
OCA42 - 6, 8, 10, 12, 16, 19, 20, 24, 25, 31, 32	MEGA42D, HMC42

1. For coolant-through tools

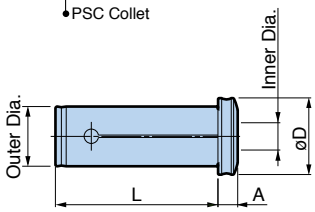
■PSC COLLET For HDC

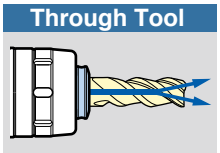
For coolant-through tools

Model Description

PSC 20 - 3

- Inner Dia.
- Outer Dia.
- PSC Collet



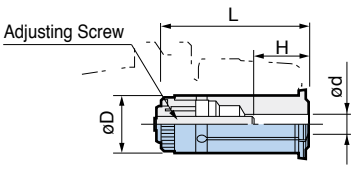


OIL HOLE COLLET

Model	A	øD	L
PSC20-3	7.7	27	61
-4,5,6,	7.5		
-7,8,9,10	8.2		
-11,12,13	8.7		
-14,15,16		28	

Model	A	øD	L
PSC32-6	7.5	38	74
-7,8,9,10	8.2		
-11,12,13,14,15,16	8.7		
-18,19,20,21	9.2		
-22,23,24,25	9.5		

■AC COLLET For MEGA D/DS & HMC



●Model Description

AC 16 - 6

- Inner Dia.
- Outer Dia.
- AC Collet

ADJUSTABLE STRAIGHT COLLET (Type "C")

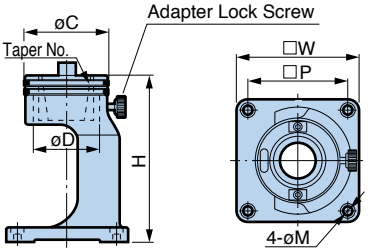
Model	ød	øD	L	H Min.	H Max.
AC16- 6	6	16	58	30	47
- 8	8			32	
-10	10			37	
-12	12				
AC20- 6	6	20	68	30	48
- 8	8			32	
-10	10			37	
-12	12				
-14	14			40	
-16	16			42	
AC25- 6	6	25	78.5	30	58
- 8	8			32	
-10	10			37	
-12	12				
-14	14			40	
-16	16			46	
-18	18			48	
-20	20			52	

Model	ød	øD	L	H Min.	H Max.
AC32- 6	6	32	84	30	62
- 8	8			32	
-10	10			37	
-12	12				
-14	14			40	
-16	16			46	
-18	18			48	
-20	20			52	
-25	25			55	
AC42- 6	6	42	99	30	77
- 8	8			34	
-10	10			37	
-12	12				
-16	16			46	
-20	20			52	
-25	25			55	
-32	32			62	

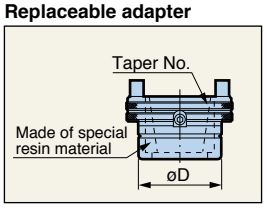
1. For use without coolant supply.
2. Straight Collet without Adjusting Screw is also available.
   Model example: **C32-20**
   Contact BIG agent for details.

TOOLING MATE

For BBT (BT) & BDV (DV)



Replaceable adapter



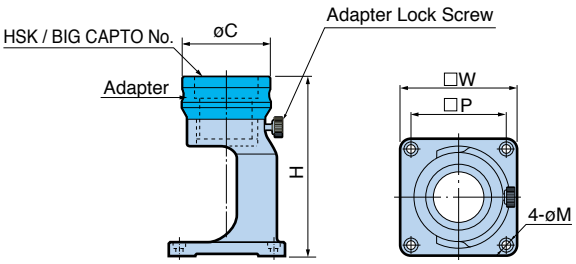
Model	BT / DV No.	øC	øD	H	□W	□P	øM	Adapter Model
TMS40-20	20	76	60	150	110	90	7 (for M6)	TMA40-20
-30	30							-30
-40	40							-40
TMS50-40	40	105	88	190	160	130	9 (for M8)	TMA50-40
-50	50							-50

1. 1pce. of Adapter is included.
2. Adapter can be ordered individually.
3. Adapter Lock Screw is available as a spare part. Model: **RTM0615**
4. 4pcs. of cap bolts to mount on the table are not included.

⚠Caution
TOOLING MATE must be securely fixed to a bench with 4 mounting bolts.

For HSK & BIG CAPTO

Innovative "Two-way clutch needle roller clamping system" assures secure clamping at the tool flange periphery.



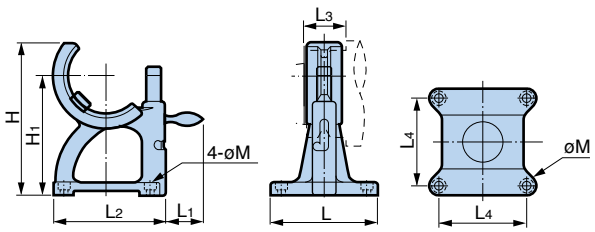
Model	HSK No.	BIG CAPTO No.	øC	H	□W	□P	øM	Adapter Model
TMS40- 32R	32	C3	76	165	110	90	7 (for M6)	TMA40- 32R
- 40R	40	C4	76	165				- 40R
- 50R	50	C5	76	165				- 50R
- 63R	63	C6	87	172				- 63R
TMS50- 80R	80	C8	114	215	160	130	9 (for M8)	TMA50- 80R
-100R	100	–	124	219				-100R

1. 1pce. of Adapter is included.
2. Adapter can be ordered individually.
3. Adapter Lock Screw is available as a spare part. Model: **RTM0615**
4. 4pcs. of cap bolts to mount on the table are not included.

⚠Caution
TOOLING MATE must be securely fixed to a bench with 4 mounting bolts.

HOLDER LOCK

Horizontal tooling fixture.



Horizontal operation prevents small cutting tools from dropping into the toolholder.

Model	BT No.	L	L_1	L_2	L_3	L_4	H	H_1	øM	Fixing cap
HL-BT30	30	82	31	82	26	65	120	100	7 (for M6)	**HL-30CP**
HL-BT40	40	98	33	98	32	80	140	115		**HL-40CP**
HL-BT50	50	124	43	131	44	100	178	140	9 (for M8)	**HL-50CP**

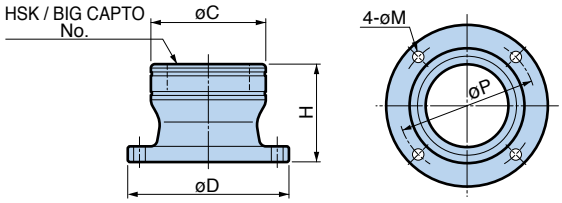
1. Fixing cap is available as a spare part.
2. Exclusive for each size of BBT/BT 30, 40 and 50.
3. 4pcs. of cap bolts to mount on the table are not included.

⚠Caution
HOLDER LOCK must be securely fixed to a bench with 4 mounting bolts.

KOMBI GRIP

Innovative "Two-way clutch needle roller clamping system" assures secure clamping at the tool flange periphery.

For HSK & BIG CAPTO



Model	HSK No.	BIG CAPTO No.	øC	øD	H	øP	øM
KG 25R	25	–	48	79	65	62	7 (for M6)
32R	32	C3	55	85		69	
40R	40	C4	63	93	70	77	
50R	50	C5	75	105		89	
63R	63	C6	88	123.5	75	105.5	9 (for M8)
80R	80	C8	107	142	90	124	
100R	100	–	127	162	100	144	

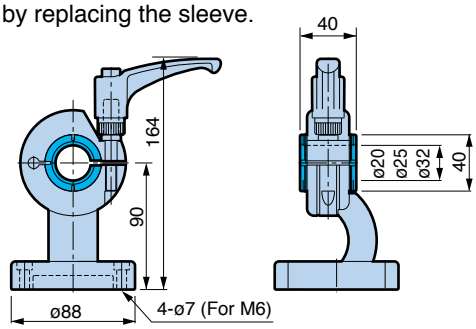
1. 4pcs. of cap bolts to mount on the table are not included.

⚠Caution
KOMBI GRIP must be securely fixed to a bench with 4 mounting bolts.

ST LOCK

Ideal fixture for set-up of cylindrical shank toolholder.
Clamps 20, 25 & 32mm diameter shank holder by replacing the sleeve.

ø20, 25 & 32mm sleeves



Model	STL40

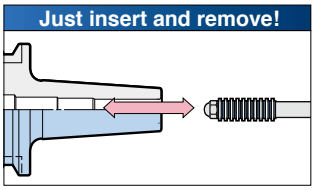
1. 1pce. each of ø20, 25 & 32mm sleeves are included.
2. 4pcs. of cap bolts to mount on the table are not included.

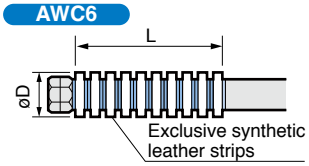
⚠Caution
ST LOCK must be securely fixed to a bench with 4 mounting bolts.

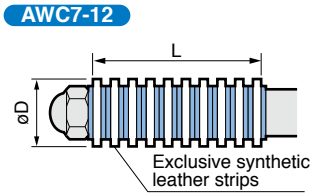
Perfect for Hydraulic Chuck and Shrink Fit Holder

α WIPER CLEANER

Easy cleaning by simply inserting and removing.







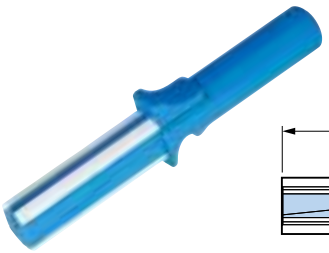
For 6 to 12mm clamping bores

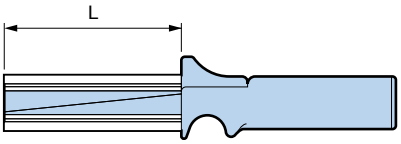
Model	øD	L
AWC 6	6	20
AWC 7	7	
AWC 8	8	
AWC 9	9	26
AWC10	10	
AWC11	11	31
AWC12	12	

Perfect for Hydraulic Chuck and Milling chuck Holder

TK CLEANER

Absolute cleaning of clamping bore by unique "slide" feature.





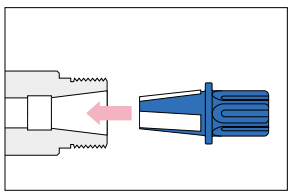
For 13 to 42mm clamping bores

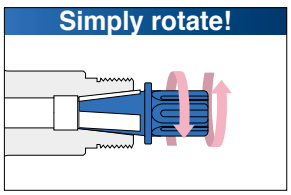
Model	Bore diameter(ø)	L	Leather strips qty
TKC13	13	60	2
14	14		
15	15		
16	16	70	
18	18		
20	20		
25	25	80	3
32	32	100	4
40	40	105	
42	42		

For internal collet taper

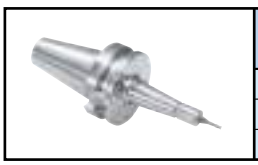
α TAPER CLEANER

Maintain accuracy of high precision collet chucks.





For MEGA MICRO CHUCK



Model	Suitable body
SC-NBC3S	MEGA 3S
SC-NBC4S	MEGA 4S
SC-NBC6S	MEGA 6S

For MEGA E CHUCK

Model	Suitable body
SC-MEC 6	MEGA 6E
SC-MEC 8	MEGA 8E
SC-MEC10	MEGA10E
SC-MEC13	MEGA13E

For MEGA NEW BABY CHUCK & NEW BABY CHUCK

Model	Suitable body	
SC-NBC 6	MEGA 6N	NBS 6
SC-NBC 8	MEGA 8N	NBS 8
SC-NBC10	MEGA10N	NBS10
SC-NBC13	MEGA13N	NBS13
SC-NBC16	MEGA16N	NBS16
SC-NBC20	MEGA20N	NBS20

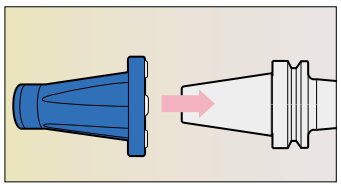
For ER collet chuck

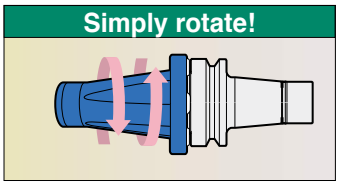
Model	Suitable body
SC-MER11	ER11
SC-MER16	ER16
SC-MER20	ER20
SC-MER25	ER25
SC-MER32	ER32

For tool shank taper and flange

α TOOLING CLEANER

Particles and oil on both taper and flange of 7/24 taper holder are easily removed.





For #30 & #40 tapers

Model	Shank size
SCE-30	No.30
SCE-40	No.40

For machine spindle

SPINDLE CLEANER

Easy cleaning of oil or particles from the machine spindle.

For ISO taper spindle

Model	Taper Size
SC20	#20
SC30	#30
SC40	#40
SC45	#45
SC50	#50

For Morse taper spindle

Model	Taper Size
SC1	MT1
SC2	MT2
SC3	MT3
SC4	MT4
SC5	MT5
SC6	MT6

For HSK spindle

Model	Spindle
SC-HSK 32	HSK-A 32
40	HSK-A 40
50	HSK-A 50
63	HSK-A 63
80	HSK-A 80
100	HSK-A100

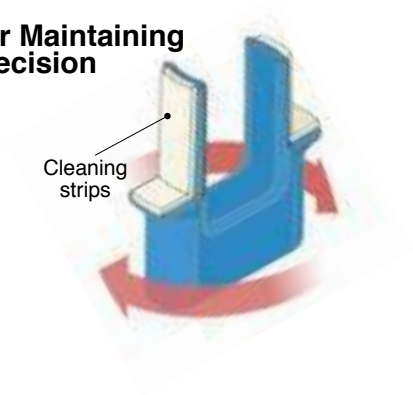
Model	Spindle
SC-HSK25E	HSK-E25
32E	HSK-E32
40E	HSK-E40
50E	HSK-E50

SPINDLE CLEANER For BIG CAPTO

Easy cleaning of BIG CAPTO polygon taper.

Model	BIG CAPTO No.
SC-C3	C3
-C4	C4
-C5	C5
-C6	C6
-C8	C8

For Maintaining Precision

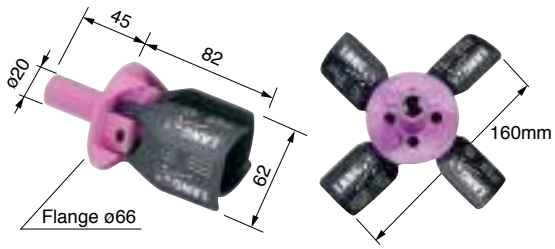


For machine spindle

CLEAN TEC

Full automation of swarf and coolant removal by means of wind pressure.

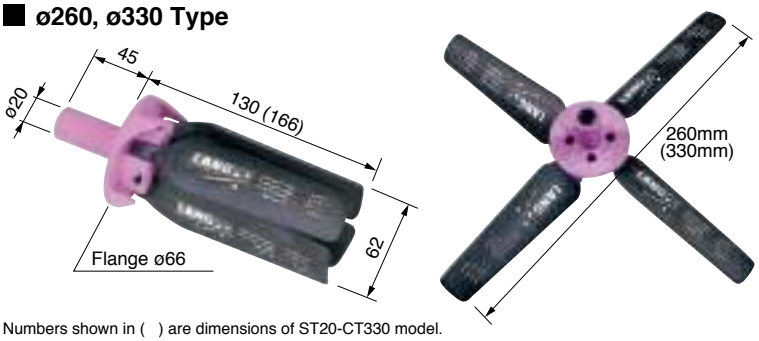
■ ø160 Type



High pressure coolant removes swarf.

Wind pressure cleans workpieces.

■ ø260, ø330 Type



Numbers shown in ( ) are dimensions of ST20-CT330 model.

Model	ST20-CT160	ST20-CT260	ST20-CT330
Starting speed	1,000min^{-1} (1sec) → 2,000min^{-1} (0.5sec) → 3,000min^{-1} (0.5sec) → 4,000min^{-1} (0.5sec)		
Recommended rotation	Min.6,000^{-1} – Max.9,000min^{-1}	Min.4,000 – Max.7,000min^{-1}	Min.3,000 – Max.6,000min^{-1}
Direction of rotation	Clockwise		
Recommended feed	3,000 – 10,000mm/min		

T-SLOT CLEAN

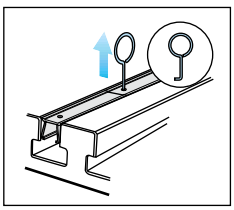
Improve efficiency of table cleaning.
Save you from cleaning T-slots packed with swarf.
Quick discharge of swarf out of a machine.

■Before

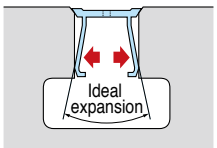
■After

Better machining precision

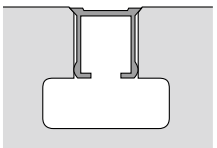
Easy removal with a pin attached.



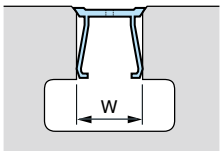
BIG DAISHOWA

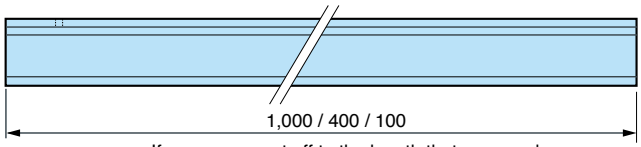


Other manufacturer



Coolant removes heated swarf and avoids thermal displacement of machine.





If necessary, cut off to the length that you need.

SET

Set Model	W	Contents of set
TS14-S	14	400mm×4 pieces 100mm×4 pieces Removal pin×1 piece
TS18-S	18	
TS22-S	22	

400mm SET

Model	W	Contents of set
TS14-400L-100P	14	400mm×100 pieces Removal pin×10 pieces
TS18-400L-100P	18	
TS22-400L-100P	22	

For large machines

1,000mm SET 1000mm (1m) long version is available.

Model	W	Contents of set
TS18-1000L-10P	18	1,000mm×10 pieces Removal pin×1 piece
TS22-1000L-10P	22	

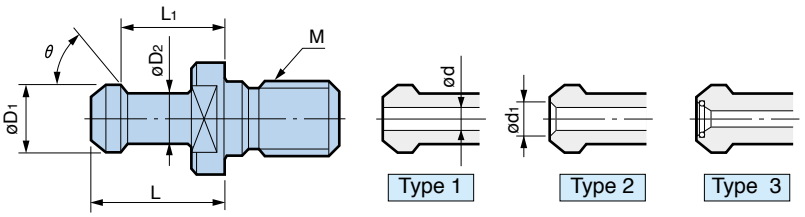
CLEAN TEC

Quicker and more effective by using CLEAN TEC together with T-SLOT CLEAN.

PULLSTUD BOLT

Before ordering

Ensure to check the dimensions of the required pullstud bolt by refering to the specification sheet of the machine tool. In the case of machines with coolant-through-spindle capability especially, provide us a copy of the pullstud bolt drawing, as sealing method may vary even aomong machines with the same model number.



= MEGA PULLSTUD BOLT

Spindle	Model	Standard	øD1	øD2	L	L1	θ	ød	ød1	Hole Type	Specification / Feature
30 (M12)	30PMG	JIS	12	8	23.4	18.4	75	None	–	–	JIS BT30
	30PMGH							4.0	–	1	JIS BT30 with hole
	30PMGH2							2.5	5.5	3	YASDA
	P30T-1MG	MAS-Ⅰ	11	7	23	18	45	None	–	–	MAS-1 BT30
	P30T-1MGH							2.5	–	1	MAS-1 BT30 with hole
	P30T-2MG	MAS-Ⅱ					60	None	–	–	MAS-2 BT30
	P30T-2MGH							2.5	–	1	MAS-2 BT30 with hole
	30P-1MGH	Original	11	8	23	18	45	4.0	–	1	FANUC
	P30T-2MGH3		11	7.5	23	18	60	2.5	–	1	BROTHER
	PMO30MG		11	7	23	18	45	2.5	6.5	3	DMG MORI
40 (M16)	40PMG	JIS	19	14	29	23	75	None	–	–	JIS BT40
	40PMGH							7.0	–	1	JIS BT40 with hole
	40PMGH2							7.0	–	1	MAKINO (Face G) ※1
	40PMGH7							4.0	5.0	2	OKUMA (Face G) ※1
	40PMGH4A							7.0	–	1	YASDA ø3 side hole
	40PMGH11								10.0	3	YASDA
	40PMGH12							5.0	–	1	MITSUI
	P40T-1MG	MAS-Ⅰ	15	10	35	28	45	None	–	–	MAS-1 BT40
	P40T-1MGHA							3.0	–	1	MAS-1 BT40 with hole
	P40T-1MGH1							3.5	5.5	2	
	P40T-1MGH4							3.0	7.0	3	OKUMA
	P40T-1MGH7							4.0	–	1	MAKINO (Face G) ※1
	P40T-1MGH8A							3.0	7.0	3	JTEKT
	P40T-2	MAS-Ⅱ	15	10	35	28	60	None	–	–	MAS-2 BT40
	P40T-2MG										
	P40T-2MGHA							3.0	–	1	MAS-2 BT40 with hole
	P40T-2MGH8							3.5	5.5	2	
	P40T-2MGH1							3.0	7.0	3	OKUMA
	PVD40MG	DIN	19	14	26	20	75	7.0	–	1	DIN 69872 from A
	MP40MG	Original	15	10	25	18	90	None		–	MITSUI
	POM40MG		15	10	35	28	90	None	–	–	DMG MORI w/o hole
	PMO40MG		19	14	29	23	75	7.0	10.0	3	DMG MORI with Hole
	PYN40MG		18.8	14.45	19.11	14.03	45	7.0	–	1	MAZAK

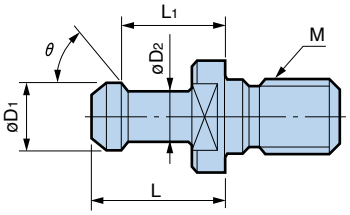
1. Machine tool builders have used many various shapes and sizes of pull stud bolts.
2. The use of the incorrect bolts may result in injury or property damage for your machining center.
※1. End face was grinded for the sealing.
※2. End face has O-ring for the sealing.

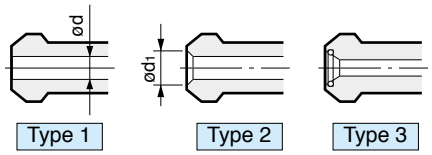
Other sizes are also available.
Contact BIG agent for pullstud bolts not listed above.

MEGA PULLSTUD BOLT

TOOL STEEL X40CrMOV51

MG in the model numbers stand for MEGA PULLSTUD BOLT. Tensile strength is improved by utilizing tool steel. Especially recommended for the BIG-PLUS dual contact applications.

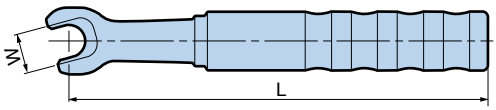




Spindle	Model	Standard	øD1	øD2	L	L1	θ	ød	ød1	Hole Type	Specification / Feature
50 (M24)	**50PH**	JIS	28	21	34	25	75	10.0	–	1	JIS 50 with Hole
	50PMGH										
	50PH2										MAKINO (Face G) ※1
	P50T-1	MAS-Ⅰ	23	17	45	35	45	None	–	–	MAS-1 BT50
	P50T-1MG										
	P50T-1H							8.0	–	1	MAS-1 BT50 with hole
	P50T-1MGH							6.0	–	1	
	P50T-1H1							6.0	–	1	MAKINO (Face G) ※1
	P50T-1H4							6.0	10.4	3	JTEKT
	P50T-1H5							5.5	11.2	3	YASDA
	P50T-1H8							8.0	11.0	3	DMG MORI (Face G) ※1
	P50T-1MGH25							6.0	7.0	2	OKUMA (Face G) ※1
	P50T-1H18							6.0	9.5	3	OKUMA
	P50T-1H19							4.5	–	1	TOSHIBA
	P50T-2	MAS-Ⅱ	23	17	45	35	60	None	–	–	MAS-2 BT40
	P50T-2MG										
	P50T-2H							8.0	–	1	MAS-2 BT40 with hole
	P50T-2MGH25							6.0	–	1	
	P50T-2H4							8.0	11.0	3	DMG MORI (Face G) ※1
	P50T-2H14							6.0	7.0	2	OKUMA (Face G) ※1
	P50T-2MGH14							6.0	7.0	2	
	P50T-2H11							6.0	9.5	3	OKUMA
	P50T-2H15							6.0	10.4	3	JTEKT
	P50T-2H16							5.5	11.2	3	YASDA
	PVD50	DIN	28	21	34	25	75	11.5	–	1	DIN 69872 from A
	MP50	Original	24	18	31	23	90	None	–	–	MITSUI
	MP50H1							8.0	–	1	MITSUI with hole
	POM50		23	17	45	35	90	None	–	–	DMG MORI
	POM50H							8.0	–	1	DMG MORI with hole
	POM50H1							8.0	12.4	3	
	POM50H7		23	17	45	35	90	6.0	9.5	3	OKUMA with hole
	POM50H8		23	17	45	35	90	6.0	–	1	OKK (Face O) ※2
	PYN50-4		28.96	20.83	25.2	17.58	45	10.0	–	1	MAZAK (Face O) ※2
	PYN50-5										MAZAK (Face G) ※1

1. Machine tool builders have used many various shapes and sizes of pull stud bolts.
2. The use of the incorrect bolts may result in injury or property damage for your machining center.
※1. End face was grinded for the sealing.
※2. End face has O-ring for the sealing.

PULLSTUD WRENCH



Taper Size	Model	W	L	Suitable pullstud specification
BBT30	**PLW30**	13	140	JIS, MAS-I, MAS-II, 30P-1MGH, P30T-2MGH3, PMO30MG

If appearance shape is the same, the specification other than above is also usable.

STOP BLOCK For ANGLE HEAD

SET UP INFORMATION

● Preparing the Stop Block

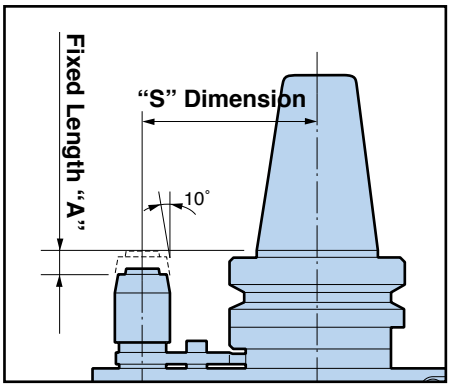
The BIG ANGLE HEAD utilizes a Locating Pin that engages with the Stop Block, which is mounted to the machine spindle to prevent radial movement of the BIG ANGLE HEAD during operation. Therefore, it is necessary to use a Stop Block with the proper dimensions to match the Locating Pin of the BIG ANGLE HEAD.
Please contact a BIG agent if using an existing Stop Block.

1. Standard Setup of the Locating Pin

Please note that the "S" dimension and Fixed Length "A" are not adjustable by the user. If the standard dimensional values shown below are not suitable for your machine, please contact a BIG agent.

《"S" Dimension》
The distance from the centerline of the BIG ANGLE HEAD spindle to the centerline of the Locating Pin.

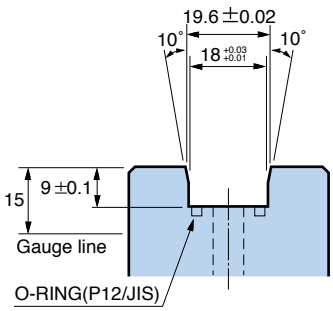
《Fixed Length "A"》
The axial distance from the gauge line to the top of the Locating Pin, when the Locating Pin is properly engaged in the Stop Block.



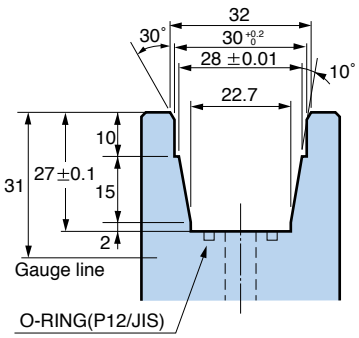
	"S" Dimension	Fixed Length "A"
BDV / BBT40 / HSK-A63	65	8
BDV / BBT50 / HSK-A100	110	6

2. Stop Block Dimensions

Please order a Stop Block from the machine tool builder.
Refer to the following diagrams for the proper Stop Block groove dimensions and configurations for use with a BIG ANGLE HEAD.



《BDV40/BBT40/HSK-A63》



《BDV50/BBT50/HSK-A100》

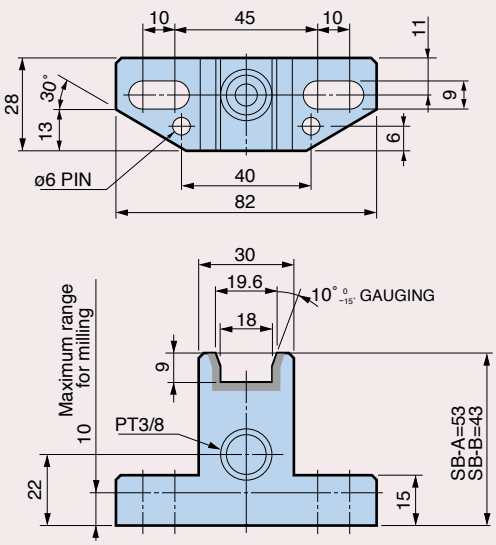
Note : For a BDV50/BBT50/HSK-A100 unit with an 80mm "S" dimension, please use the Stop Block dimensions for BDV40/BBT40/HSK-A63, as the Locating Pin dimension differs from that of a standard unit with a 110mm "S" dimension.

3. Semi-Finished Stop Block

A semi-finished Stop Block has the proper groove form for use with a BIG ANGLE HEAD, as well as additional material to allow the user to machine the block to the correct height.
If a pre-made Stop Block is unobtainable from the machine tool builder, a semi-finished Stop Block can be used. Please consult with the machine tool builder for selection, machining, and mounting of a semi-finished Stop Block.

《BDV40/BBT40/HSK-A63》

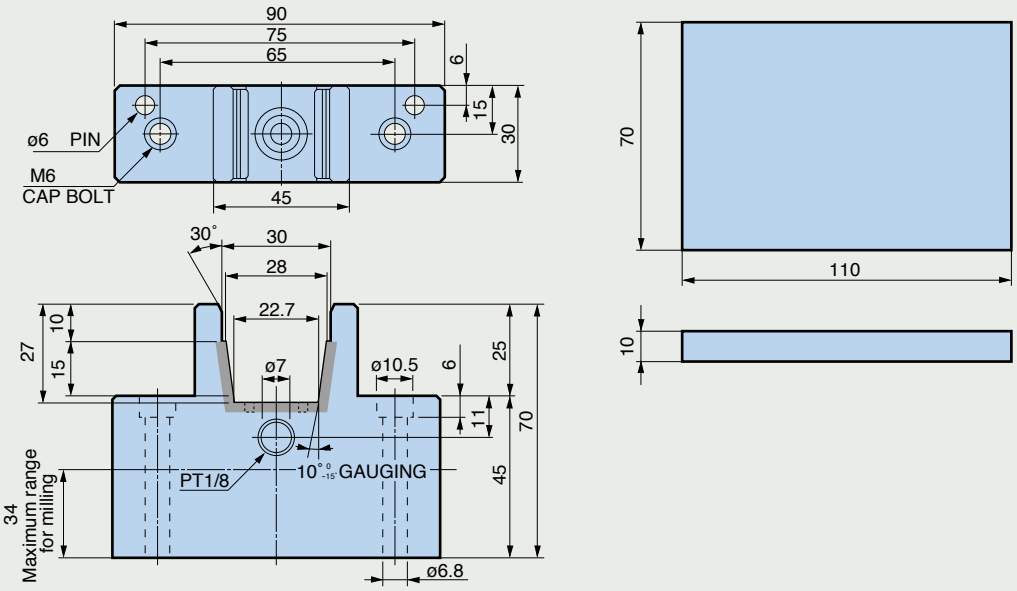
●MODEL : SB-A/SB-B



1. Adjustment to the required height by milling the base.
2. Fix the stop block by inserting two dowel pins (ø6).

《BDV50/BBT50/HSK-A100》

●MODEL : SB-G/E



1. Adjustment to the required height by milling the base. 2. Fix the stop block by inserting two dowel pins (ø6).

Note : on the sketch indicates heat treatment (HRC45−50), all other surfaces can be milled.

STOP BLOCK For HIGH SPINDLE & Hi-JET HOLDER

SET UP INFORMATION

●Preparing the Locating Pin and Stop Block

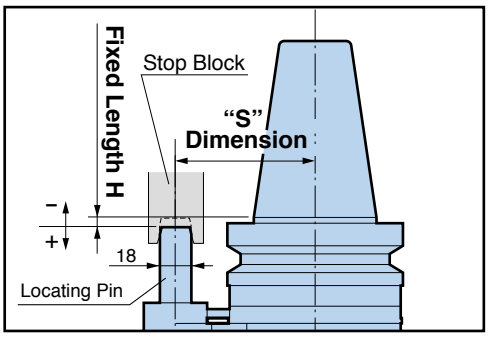
The HIGH SPINDLE and Hi-JET HOLDER utilize a Locating Pin that engages with the Stop Block, which is mounted to the machine spindle. Please refer to the following instructions to select / adjust the Locating Pin, and to prepare for the Stop Block.

1. Standard Setup of the Locating Pin

《"S" Dimension》

The distance from the centerline of the holder to the centerline of the Locating Pin.
Please note that this dimension is not adjustable by the user.

	"S" Dimension
BDV / DV / BBT40	65
BDV / DV / BBT50	80



《Fixed Length "H"》

The axial distance from the gauge line of the spindle to the bottom of the groove on the Stop Block. This dimension is adjustable by the user.

Three (3) Locating Pin models are available: LP-A, LP-B and LP-C. Each Locating Pin is adjustable to provide a different range of Fixed Length "H", as shown in the tables below. Please specify the required Fixed Length "H" when ordering. Otherwise, it will be delivered set at the BIG standard, 6mm.

HIGH SPINDLE

	BDV40	BDV50	BBT40	BBT50
LP-A	−9 / +6	−4 / +11	−24 / −9	−9 / +6
LP-B	+6 / +21	+11 / +26	−9 / +6	+6 / +21
LP-C	+21 / +36	+26 / +41	+6 / +21	+21 / +36

Hi-JET HOLDER

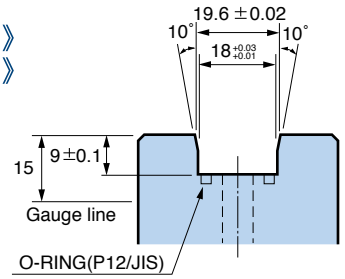
	DV40 BBT·BT40	DV50 BBT·BT50	DV40- OSL32N BBT40- OSL32N	DV50- OSL50N BBT50- OSL50N
LP-A	−6 / +9	−9 / +6	0 / +15	+3 / +18
LP-B	+9 / +24	+6 / +21	+15 / +30	+18 / +33
LP-C	+24 / +39	+21 / +36	+30 / +45	+33 / +48

Note: ▭ indicates adjustable range of the BIG standard setup.

2. Stop Block Dimensions

The diagram on the right shows the proper groove dimensions for a suitable Stop Block for use with BIG HIGH SPINDLE and Hi-JET HOLDER. When ordering a Stop Block from a machine tool builder, please refer to these dimensions.

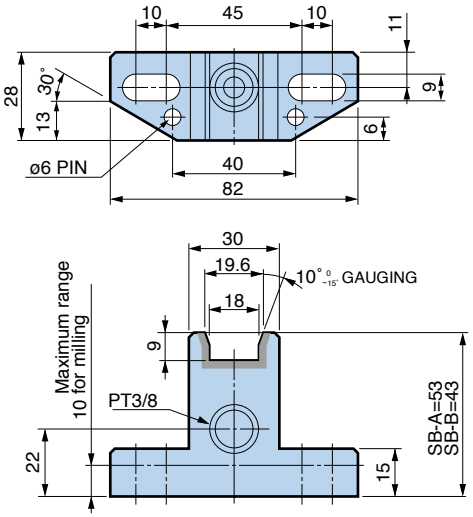
《BDV/DV/BBT40》
《BDV/DV/BBT50》



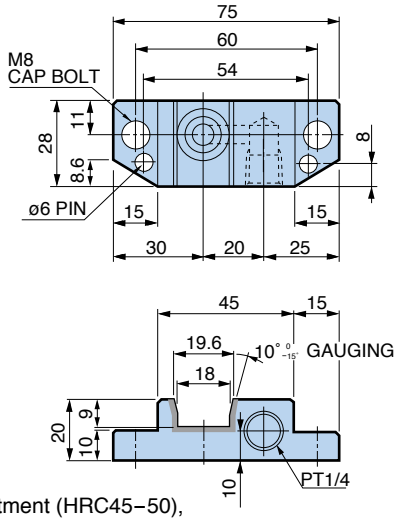
3. Semi-Finished Stop Block

A semi-finished Stop Block has the proper groove form for use with BIG HIGH SPINDLE and Hi-JET HOLDER, as well as additional material to allow the customer to machine the block to the correct height.
(NOTE: Stop Block SB-F is not height-adjustable.)
If a pre-made Stop Block is unobtainable from the machine tool builder, a semi-finished Stop Block can be used.
Please consult with the machine tool builder for selection, machining, and mounting of the semi-finished Stop Block.

●MODEL : SB-A/SB-B

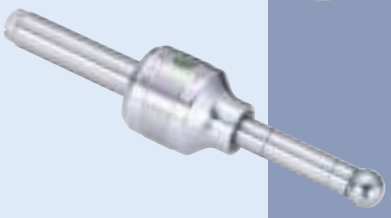


●MODEL : SB-F



Note : ▭ on the sketch indicates heat treatment (HRC45−50), all other surfaces can be milled.

MEASURING TOOLS



POINT MASTER PRO SERIES

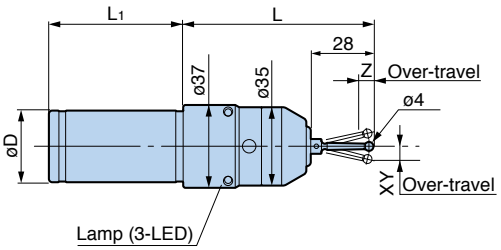
POINT MASTER PRO Series is a precision 3-D touch sensor which will operate in non-conductive as well as conductive applications, resin, ceramic or coated workpieces, machines with ceramic spindle taper or bearings can all be accommodated.

LED Lamp

Touch Probe & Edge Finder

CYLINDRICAL Shank Type

For all materials, including non-conductive cutting tools,workpieces, and machine tools.



Model	øD (h7)	L	L1	Repeatability (Probe)	Over-travel		Measuring Pressure (N)		Battery	Battery life (Continuous use)	Standard Stylus	Weight (kg)
					XY	Z	XY	Z				
PMP-10	10	75	49	±1µm (2σ)	±12	5	0.4	1.5	Panasonic Lithium BR435×1	50 hours	ST28-4R	0.4
-20	20	90	50						LR1×2	50 hours		0.5

1. PMP-10 has one LED only.
2. Above table indicates the specification when using stylus ST28-4R.
3. There is approx 5µm lag in X & Y directions and approx.
   2µm lag in Z direction to illuminate LED lamp when stylus touches workpiece surface.

BBT Shank Type JIS B 6339 (BIG-PLUS)

BIG-PLUS® SPINDLE SYSTEM DUAL CONTACT

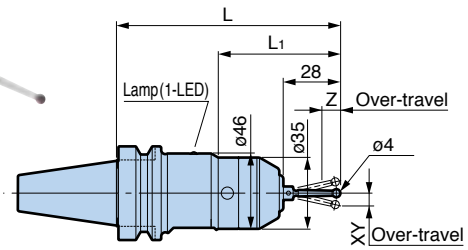


Fig.1

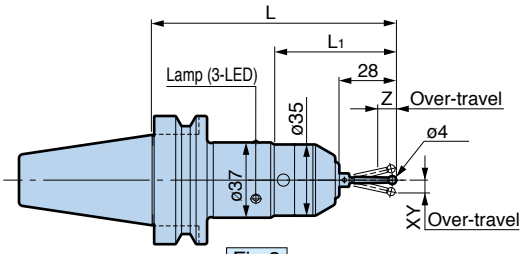


Fig.2

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Fig.	BBT No.	L	L1	Repeatability (Probe)	Over-travel		Measuring Pressure (N)		Battery	Battery life (Continuous use)	Standard Stylus	Weight (kg)
						XY	Z	XY	Z				
BBT30-PMP-115	1	30	115	63	±1µm (2σ)	±12	5	0.4	1.5	CR2×1	90 hours	ST28-4R	0.8
BBT40-PMP-120	2	40	120	60						LR1×2	50 hours		1.3

1. Above table indicates the specification when using stylus ST28-4R.
2. There is approx 5µm lag in X & Y directions and approx.
   2µm lag in Z direction to illuminate LED lamp when stylus touches workpiece surface.

HSK Shank Type ISO 12164(DIN 69893-1) & DIN 69893-5

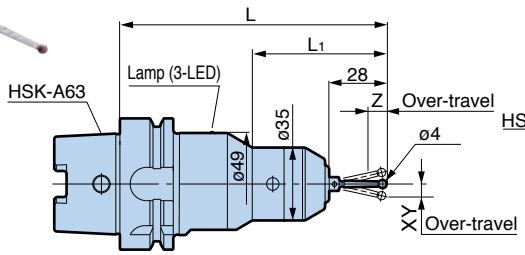


Fig.1

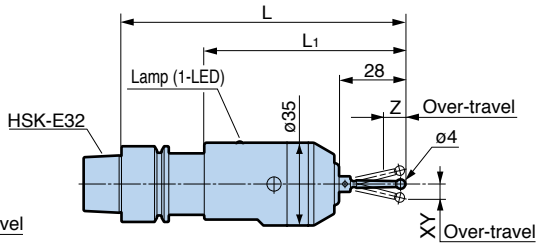


Fig.2

Model	Fig.	HSK No.	L	L1	Repeatability (Probe)	Over-travel		Measuring Pressure (N)		Battery	Battery life (Continuous use)	Standard Stylus	Weight (kg)
						XY	Z	XY	Z				
HSK-A63-PMP-130	1	HSK-A63	130	65	±1μm(2σ)	±12	5	0.4	1.5	CR2×1	90 hours	ST28-4R	1.3
HSK-E32-PMP-120	2	HSK-E32	120	85						SR44×2	24 hours		0.5

1. Above table indicates the specification when using stylus ST28-4R.
2. There is approx 5μm lag in X & Y directions and approx.
   2μm lag in Z direction to illuminate LED lamp when stylus touches workpiece surface.

■ALTERNATIVE STYLUS

The stylus (M3 thread) is replaceable. Please replace when different model of stylus required or if damaged.

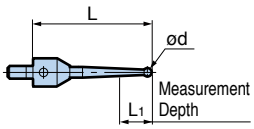


Fig.1

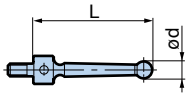


Fig.2

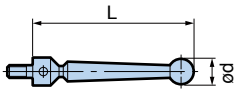


Fig.3

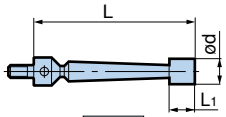
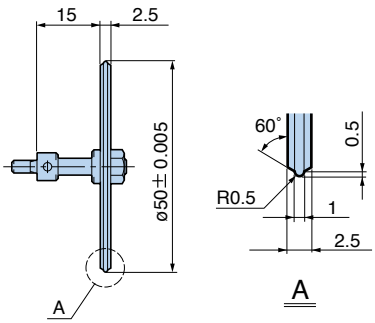


Fig.4



Ideal for peculiarly shaped workpiece or tapered portion of plastic mold.

Model	ST15-50K

* PMC-Series only.

Model	Fig.	L	L1	ød	Material	Series
ST28-1P	1	28	2	1	Carbide	PMC·PMP
-2P			8	2		
-3P	2		—	3		
-4P				4		
ST38-6P	3	38	—	6	Steel (SUS)	PMC
ST38-6×6	4		6	6		PMC□□S
ST28-4R	2	28	—	4	Ruby	PMP

※Stylus model ST38-6×6 is exclusive for PMC-20S.
Runout accuracy may worsen when used on other models.

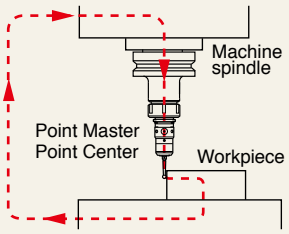
POINT MASTER PMC SERIES

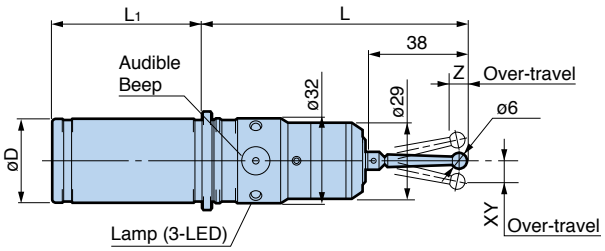
Touch Probe & Edge Finder

POINT MASTER Series is a precision 3-D touch sensor to center and measure the workpiece.
LED lamp illuminates when the stylus touches the workpiece.
Stroke of stylus provides sufficient over-travel for safety.

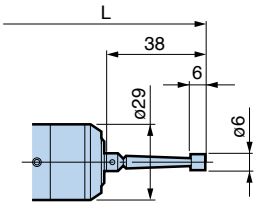
CYLINDRICAL Shank Type

Point Master PMC and Point Center utilize conductivity from the machine, toolholder, Point Master / Point Center through workpiece.
Measurement is not possible with non-conductive machine or workpiece.





with stylus ST38-6P



with stylus ST38-6×6

Model	øD h7	L	L1	Repeatability (Probe)	Over-travel		Measuring Pressure (N)		Battery	Battery life (Continuous use)	Standard Stylus	Weight (kg)
					XY	Z	XY	Z				
PMC-20	20	110	50	±1µm (2σ)	±12	5	0.6	2.7	LR1×2	90 hours	ST38-6P	0.4
PMC-20S	20	110	50								ST38-6×6	0.4

For STYLUS OPTIONS H 12

POINT CENTER

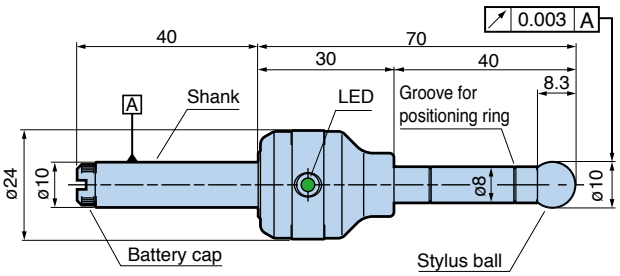
Repeatability ±1µm

Model	PC-10B

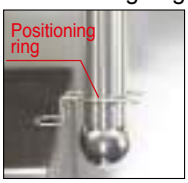
Precise detection of wokpiece position in X & Y axes.

- **Special carbide stylus ball**
- **High-sensitive electronic circuit**
- **Stainless steel body**

For use with conductive cutting tools, workpieces, and machine tools.



● Positioning ring



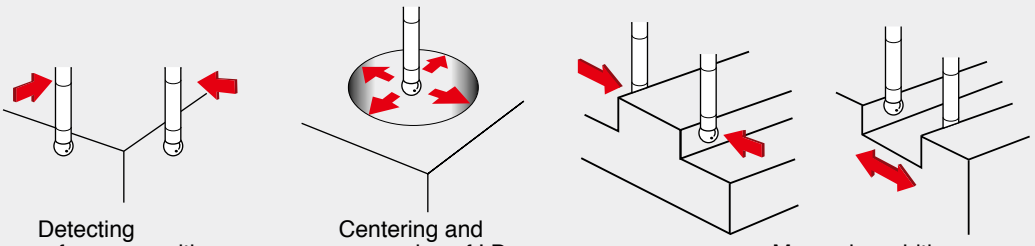
Aids to bring the stylus to the correct Z-axial position.

Stylus ball repeatability	±1µm
Measuring direction	X & Y axes
Overtravel	±2mm
Touch signal	Green LED ON

Battery model	BR435 ※
Battery life	20 hours (continuous use)
Weight	100g
Standard accessory	BR435×1P Positioning ring

※Panasonic lithium battery

Applications



Detecting reference position

Centering and measuring of I.D.

Measuring width

BASE MASTER SERIES

BASE MASTER Series is a precision touch sensor to determine workpiece offsets and tool length.
Mounted on workpiece surface or machine table, LED lamp illuminates immediately when the cutting edge touches the sensor plate and the position is detected.

Tool Offset Sensor

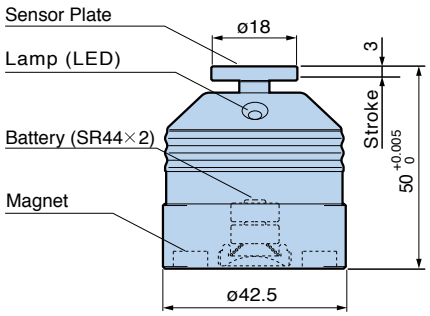
BASE MASTER

The most popular Base Master model with 1µm accuracy.
Operates when a conductive circuit is completed.

LED Lamp

For use with conductive cutting tools, workpieces, and machine tools.

Model	BM-50



Height accuracy	$50^{+0.005}_{0}$ mm
Measureable pressure	3N
Repeatability accurary	±1µm (2σ)
Min. measurable tool diameter	ø1mm
Battery life	10 hours (continuous use)
Weight	0.23kg

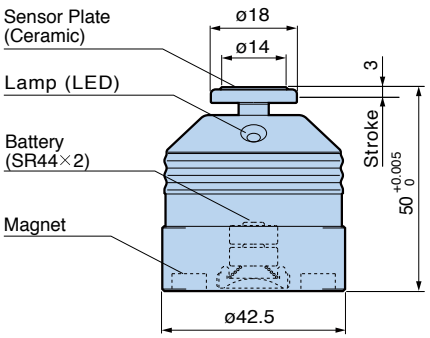
BASE MASTER GOLD

Suitable for various tools and workpieces,
including non-conductive materials such as ceramics.

LED Lamp

For all materials, including non-conductive cutting tools,workpieces, and machine tools.

Model	BM-50G



Height accuracy	$50^{+0.005}_{0}$ mm
Measureable pressure	2N
Repeatability accurary	±1µm (2σ)
Min. measurable tool diameter	ø1mm
Battery life	10hours (continuous use)
Weight	0.24kg

BASE MASTER MICRO

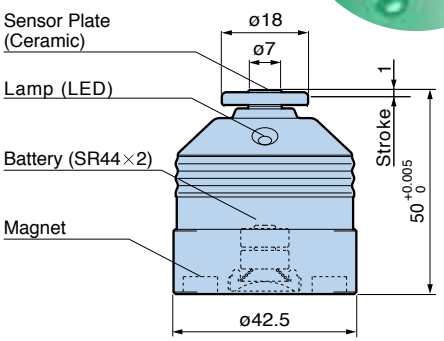
Specifically designed for micro cutting tools.
Low measuring pressure protects the cutting edge.

LED Lamp

Pre-set ø0.05mm tools.
Considerable reduction of set-up time for small dia. tools.

For all materials, including non-conductive cutting tools,workpieces, and machine tools.

Model	BM-50M



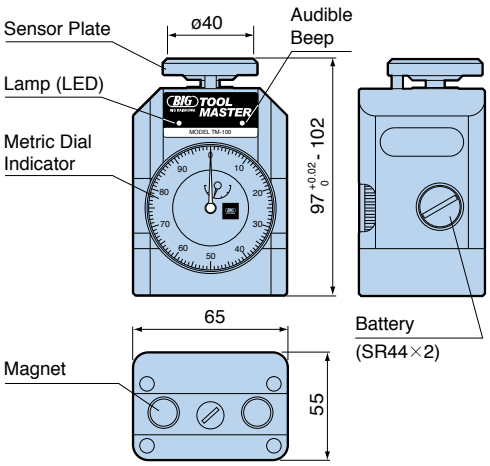
Height accuracy	$50^{+0.005}_{0}$ mm
Measureable pressure	0.3N
Repeatability accurary	±1µm (2σ)
Min. measurable tool diameter	ø0.05mm
Battery life	10 hours (continuous use)
Weight	0.24kg

TOOL MASTER

TOOL MASTER is a precision touch sensor with a large dial gauge. LED lamp and sound pre-indicate approach to 100mm height to ease the detecting operation.

Tool Offset Sensor

Model	TM-100



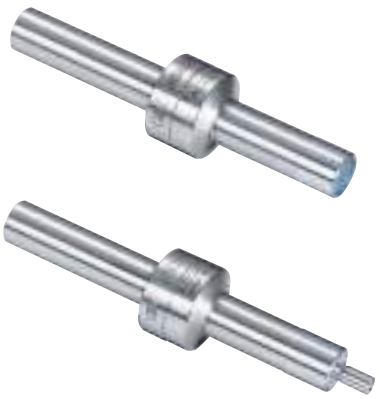
For all materials, including non-conductive cutting tools,workpieces, and machine tools.

Height accuracy		$100^{+0.02}_{0}$mm
Stroke		5mm
Stroke range		97 – 102mm
Measureable pressure		6N (100mm)
Weight		1.2kg
Dial gauge	Graduation	0.01mm
	Indication tolerance	±12µm
	Repeatability	3µm
	Return tolerance	3µm

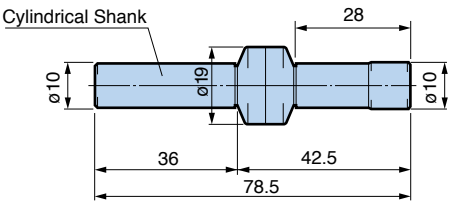
* Dial gauge accuracy in accordance with JISB7503:2011.

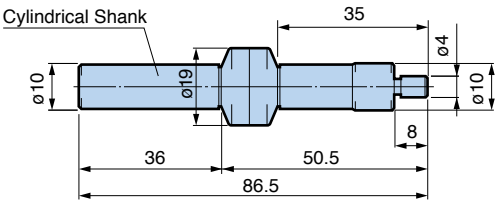
ACCU CENTER

ACCU CENTER is a simple and precise edge finder offering repeatability within 3µm. Hard chrome plated stylus offers extended life.



Suitable for all materials



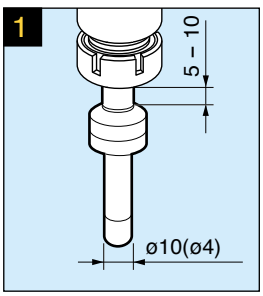


(Not for use with horizontal machine tools)

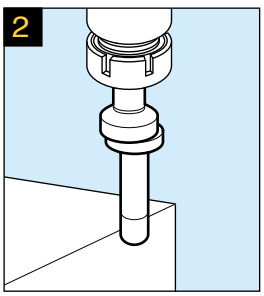
Model	ACCU-C10

Model	ACCU-C104

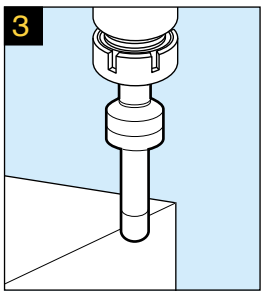
● Operating Instructions



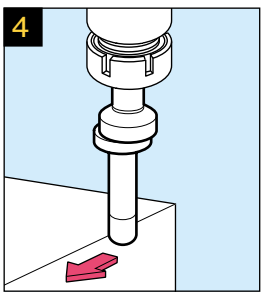
Clamp tool in a Chuck.



Move the stylus off center, and rotate between 400 and 600 min^{-1}.



Bring the tool into contact with the workpiece and advance slowly until the stylus lines up with the body.



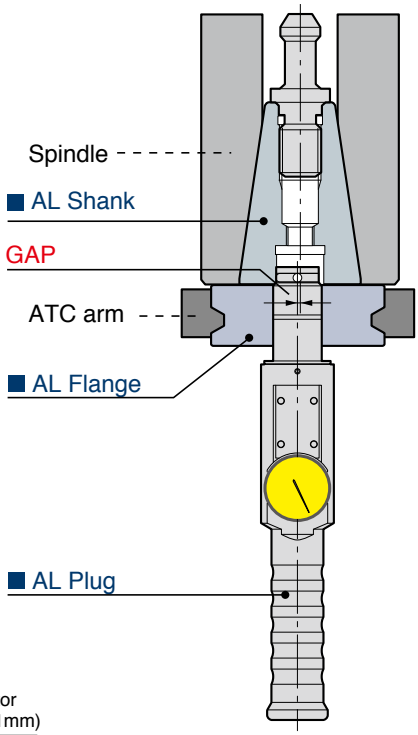
If advanced too far the stylus will again move off center. Be sure to compensate location for half the stylus diameter.

ALIGNMENT TOOL for ATC arm

For maintenance of machine tool spindle!
Measuring equipment of misalignment between the ATC arm and machine tool spindle or magazine pot center. Dial indicator aids quick adjustment.

How to use

1. Load the AL Shank in the machine spindle and mount the AL Flange on the ATC arm.
2. Insert the AL Plug into the AL Flange.
3. Rotate the AL Plug and read the highest and lowest values of the dial indicator.
   This direction is the eccentric direction.
   Half of the gap of the values is the eccentric amount.
4. Ajust the position of the ATC arm so that the front end of the AL Plug will be inserted into the AL Flange fully.



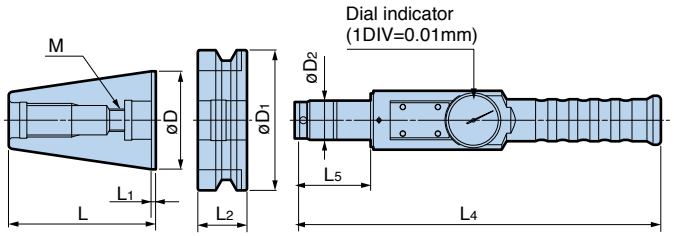


Fig.1

■ AL Shank ■ AL Flange ■ AL Plug

Exclusive storage case

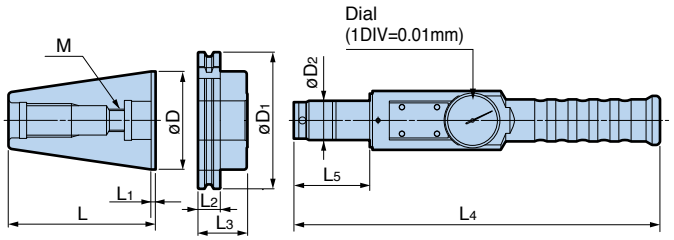


Fig.2

■ AL Shank ■ AL Flange ■ AL Plug

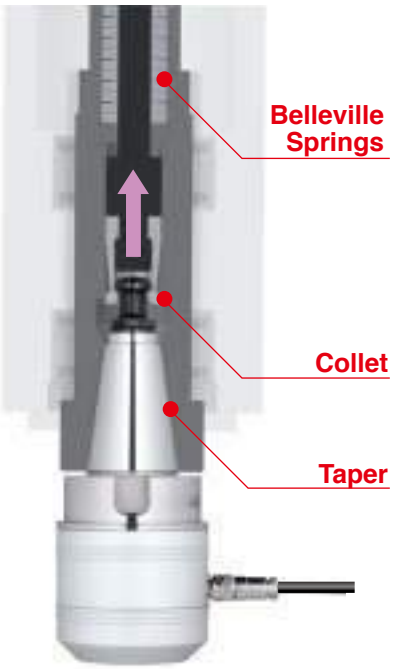
Set model	Fig.	øD	D1	D2	L	L1	L2	L3	L4	L5	M
BT30-ATC18	1	31.75	46.00	18	50.40	2.0	20.0	–	251	44	12
BT40-ATC20		44.45	63.00	20	67.40	2.0	25.0	–	251	44	12
BT50-ATC28		69.85	100.00	28	104.80	3.0	35.0	–	261	54	16
DV40-ATC20	2	44.45	63.55	20	71.60	3.2	15.9	24.3	251	44	12
DV50-ATC28		69.85	97.50	28	104.95	3.2	15.9	35.3	261	54	16

DYNA FORCE

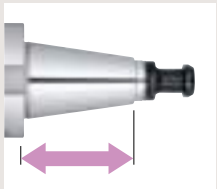
Measuring device for pulling force of machine tool spindle.

■The necessity of machine tool maintenance

Periodical measurement avoids reduced rigidity leading to vibrations, loss of machining quality, shortened tool life, etc.



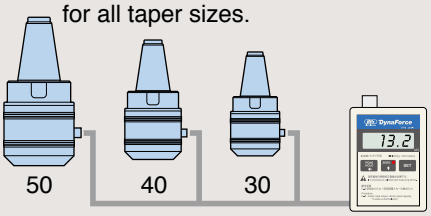
Longer taper shank to enhance reliability



Long taper supports itself in long span and stabilizes the value of measurement.

Only one display for all taper sizes

One common display can be used for all taper sizes.



■Specification

Corresponding JIS, DIN, ANSI

Measuring device

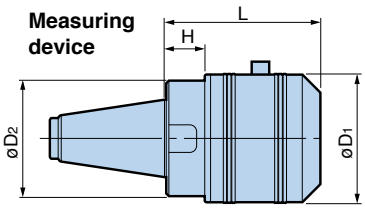


Fig. 1

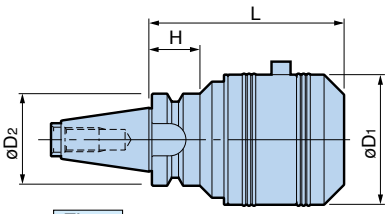


Fig. 2

Display

Cable

Exclusive case

Set Model	Contents of set				Taper size	Rated capacity	øD1	øD2	L	H	Weight (kg)
	Measuring device	Fig.	Display	Cable							
SNT30-DF10	**NT30-DF10**	1	**DFA-1** (AA battery×2)	**DFC-1** (1m)	30	10kN (980kgf)	65	58	80	20	1.5
SBT30-DF10	**BT30-DF10**	2						46	98	26	1.6
SNT40-DF30	**NT40-DF30**	1			40	30kN (2,940kgf)	73	66	90	24	2.5
SNT50-DF50	**NT50-DF50**	1			50	50kN (4,900kgf)	96	90	110	33	6.0
-DF30 ※	**-DF30**	1				30kN (2,940kgf)	73	70	86	20	3.9

1. Each component is also available separately. Measuring Device is provided with the Case.
2. SBT30-DF10 is designed exclusively for machines not capable of automatic tool change.
3. SBT30-DF10 is suitable for BT/BBT30 machines only.
4. Pull stud bolt must be ordered separetly. For DIN, ISO, ANSI & CAT standard machines, exclusive pull stud bolt for Dyna Foce is required.
5. SNT50-DF30 marked with ※ is a light-weight model.

Certificate of calibration and diagram of traceability system are available with charge in order to keep the reliability of the device.

■Exclusive pull stud bolts for DYNA FORCE

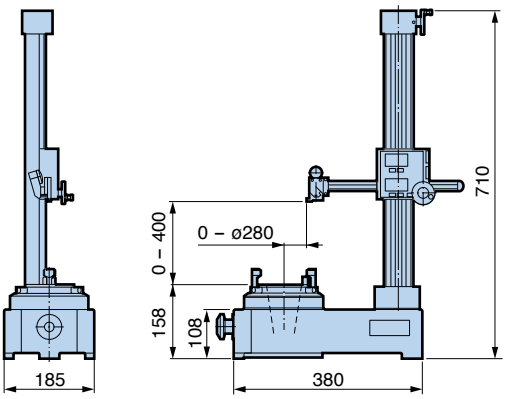
An exclusive pull stud bolt is needed for a machine spindle in DIN, ANSI or CAT standard.
Pull stud bolts in MAS and JIS standards can be used.
These pull stud bolts are not suitable for the SBT30-DF10.

Standard No.		Shank No.		
		30	40	50
DIN69872		**DF-PDV30**	**DF-PDV40A**	**DF-PDV50A**
ISO7388	Type A	–		
	Type B	–	**DF-PAV40**	**DF-PAV50**
ANSI B5.50		**DF-PAV30**		
ASME B5.50		**DF-PCV30**	**DF-PCV40**	**DF-PCV50**

TOOL PRESETTER TYPE TPS

Detects both X and Z axes with 1 stylus for various measuring applications.
Ceramic spindle avoids damage such as indentation,
buldge or corrosion on the taper.
Precise taper contact is maintained.

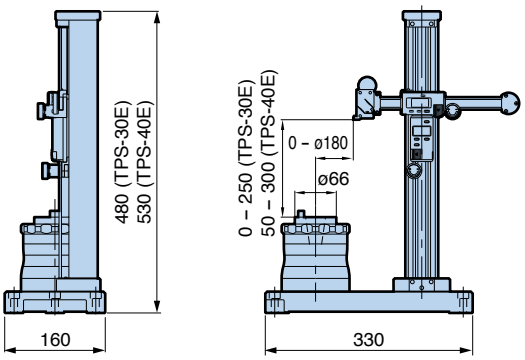
2D Edge Sensor



Model	Taper	Measuring range (mm)	Min. reading	Power supply	Operating temperature	Weight (kg)
TPS-40N	BT40	X : 0 – ø280 Z : 0 – 400	0.01mm	3V lithium battery: 2pcs.	5 – 40°C	38.5
-50N	BT50					41.0
-HSK63-N	HSK-A63					41.0
-HSK100-N	HSK-A100					43.0
-C5N	BIG CAPTO C5					41.0
-C6N	BIG CAPTO C6					41.0

1. Spindle provides zero setting reference.
2. Taper adapter and test bar are ordered separately.
3. HSK form E & F holders, which have no drive key slots, cannot be measured.

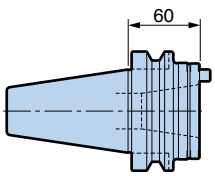
COMPACT Type



Model	Taper	Measuring range (mm)	Min. reading	Power supply	Operating temperature	Weight (kg)
TPS-30E	BT30	X : 0 – ø180 Z : 0 – 250 (BT30) Z : 50 – 300 (BT40)	0.01mm	2 pcs. of 1.55V silver oxide battery (SR44)	5 – 40°C	18.5
-40E	BT40					20.0

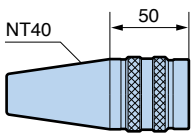
1. Min. reading of the digital counter is 0.01mm for both X and Y axes. When the counter indicates diameter in X axis, the min. reading becomes 0.02mm.
2. 2D Edge Sensor of the TPS-40E does not reach to the spindle surface. For setting reference value, optional Setting Gauge model SG40-50 or similar arbor having 50mm or more dimensions in both X and Z axes as reference dimensions is required.

■ADAPTER (option)



Model	Taper
BT40-30	BT40 → BT30
BT50-30	BT50 → BT30
BT50-40	BT50 → BT40

■SETTING GAUGE (option)



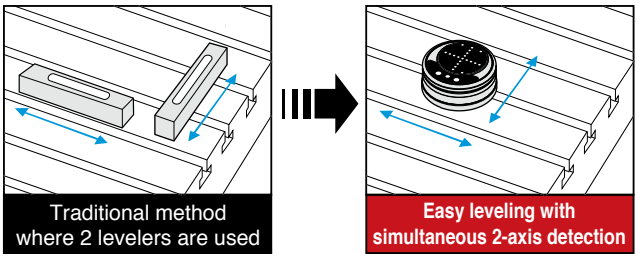
Model
SG40-50

For setting reference value on TPS-40E

LEVEL MASTER

2-axis simultaneous detection leveler.
LED displays level conditions for both axis simultaneously.
LED and buzzer indication when leveling is complete.

Simultaneous 2-axis detection



Simultaneous 2-axis detection saves the extra time & cost of using 2 levelers.

Model	LVM-01
Minimum Read Value	0.01mm Inclination/m
Power Source	Alkaline batteries (AAA x 4 pcs)
Auto Power Off	30 minutes after power is turned on
Operational Temperature	0–40°C(Recommended 20°C ± 5°)
Battery Life	50 hours
Dimensions	ø109mm x 46mm H
Weight	985g

Note: In the case of high precision leveling, we recommend that you check the Level Master in advance on a reference level, such as a level block.

LED & buzzer indicate leveling completion

HIGH Mode
when the required level condition is
within 0.01mm/1m

LOW Mode
when the required level condition is
within 0.1mm/1m

LED (blue) & buzzer are simultaneously activated

Included:

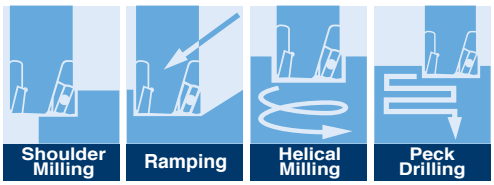
· Level Master · Aluminum case
· Alkaline batteries (AAA x 4 pcs) · Manual
· Warranty · Inspection certificate

CUTTING TOOLS

Ramping and Helical milling

FULLCUT MILL FCR Cutter Dia. ø16 - ø32

Unique inserts designed for ramping make multi-functional cutting possible.

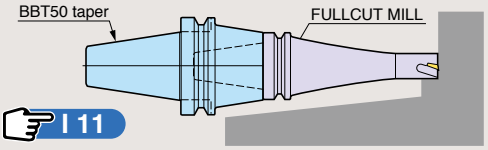


BBT Standard type

JIS B 6339 (BIG-PLUS)

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Adapter for BT50 taper shank (FCR &FCM)



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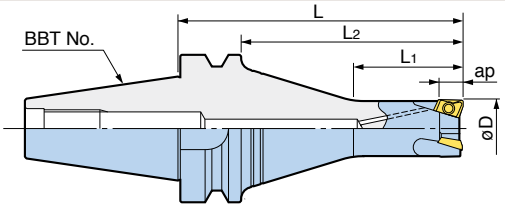


BIG-PLUS tools can be used in machining centers with conventional spindles.

Cutter Dia. øD	Model	ap	L	L1	L2	No. of Insert	Insert Size	Weight (kg)
16	BBT30-FCR16082- 65	8	65	28	43	2	BRG16	0.5
20	-FCR20083- 65		65	28	43	3	BRG20	0.5
25	-FCR25083- 65		65	33	43	3	BRG25	0.6
32	-FCR32103- 65	10	65	40	43	3	BRG32	0.6
16	BBT40-FCR16082- 85	8	85	25	58	2	BRG16	1.3
	-120		120	30	93			1.5
	-135		135	25	108			1.6
20	-FCR20083- 85	8	85	35	58	3	BRG20	1.2
	-120		120	30	93			1.6
	-135		135	30	108			1.7
25	-FCR25083- 85	8	85	40	58	3	BRG25	1.3
	-120		120	45	93			1.6
	-135		135	35	108			1.8
32	-FCR32103- 85	10	85	45	58	3	BRG32	1.4
	-120		120	50	93			1.7
	-135		135	40	108			1.9

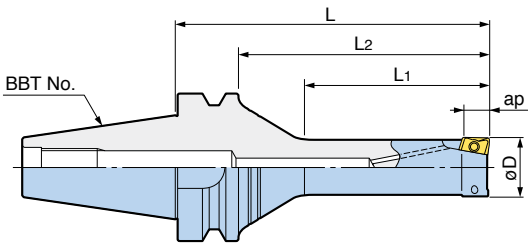
1. Wrench and Anti-seizure Lubricant are included. Inserts are ordered separately.
2. Long nose type shown below is recommended for medium-heavy or heavy slot milling with long projection, exceeding L=120mm for 16 & 20mm diameters / L=135mm for 25 or larger diameters.

For Insert : I 7
For Cutting Condition : I 8

BBT Long nose type

JIS B 6339 (BIG-PLUS)

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT



BIG-PLUS tools can be used in machining centers with conventional spindles.

Cutter Dia. øD	Model	ap	L	L1	L2	No. of Insert	Insert Size	Weight (kg)
16	BBT30-FCR16082L- 85	8	85	45	63	2	BRG16	0.5
20	-FCR20082L- 85		85	50	63	2	BRG20	0.5
25	-FCR25082L- 85		85	50	63	2	BRG25	0.6
32	-FCR32102L- 85	10	85	60	63	2	BRG32	0.7
16	BBT40-FCR16082L-105	8	105	45	78	2	BRG16	1.3
	-120		120	45	93			1.4
20	-FCR20082L-120	8	120	60	93	2	BRG20	1.4
	-135		135	60	108			1.5
25	-FCR25082L-135	8	135	75	108	2	BRG25	1.5
	-150		150	75	123			1.7
32	-FCR32102L-135	10	135	80	108	2	BRG32	1.7
	-150		150	90	123			1.9

1. Wrench and Anti-seizure Lubricant are included. Inserts are ordered separately.

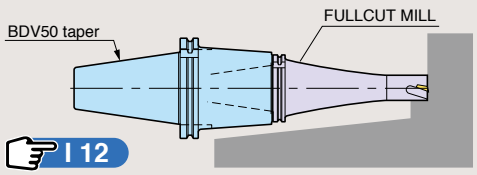
For Insert : I 7
For Cutting Condition : I 8

BDV Standard type

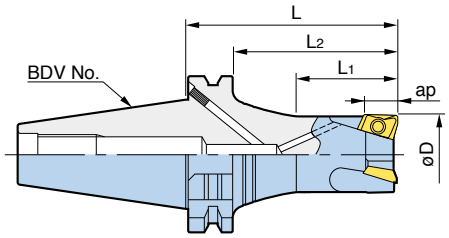
DIN 69871 A/B (BIG-PLUS)

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Adapter for SK50 taper shank (FCR &FCM)



I 12



BIG-PLUS tools can be used in machining centers with conventional spindles.

Cutter Dia. øD	Model	ap	L	L1	L2	No. of Insert	Insert Size	Weight (kg)
16	**BDV40-FCR16082- 85**	8	85	25	65	2	BRG16	1.3
	-120		120	30	100			1.5
	-135		135	25	115			1.6
20	**-FCR20083- 85**	8	85	35	65	3	BRG20	1.2
	-120		120	30	100			1.6
	-135		135	30	115			1.7
25	**-FCR25083- 85**	8	85	40	65	3	BRG25	1.3
	-120		120	45	100			1.6
	-135		135	35	115			1.8
32	**-FCR32103- 85**	10	85	45	65	3	BRG32	1.4
	-120		120	50	100			1.7
	-135		135	40	115			1.9

1. Wrench and Anti-seizure Lubricant are included. Inserts are ordered separately.
2. Long nose type shown below is recommended for medium-heavy or heavy slot milling with long projection, exceeding L=120mm for 16 & 20mm diameters / L=135mm for 25 or larger diameters.

For Insert : I 7
For Cutting Condition : I 8

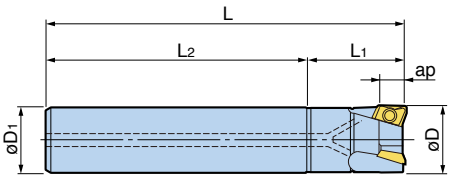
Note The integral version of the FULLCUT MILL provides increased rigidity as a result of the reduced gage length. It is particularly recommended for use in machines having a small spindle taper. Additionally, there is a cost saving as no chuck is necessary.

[OVER SIZE]

Cutter Dia
ø17-ø33

POINT ***øD = øD1+1mm***

1mm larger Cutter Dia. than shank Dia. avoids any interference with work-piece.



Cutter dia øD	Model	øD1	ap	L	L1	L2	No. of Insert	Insert Size	Weight (kg)
17	**ST16-FCR17082-120**	16	8	120	25	95	2	BRG16	0.2
21	**ST20-FCR21082-165**	20	8	165	30	135	2	BRG20	0.4
	-FCR21083-135			135		105	3		0.3
26	**ST25-FCR26082-165**	25	8	165	38	127	2	BRG25	0.6
	-FCR26083-150			150		112	3		0.6
33	**ST32-FCR33102-180**	32	10	180	48	132	2	BRG32	1.1
	-FCR33103-180			180		132	3		1.0

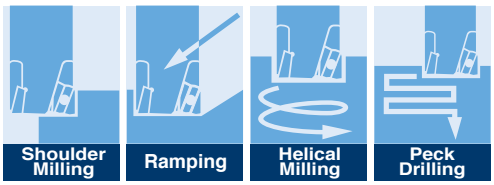
1. Wrench and Anti-seizure Lubricant are included. Inserts are ordered separately.
2. Lower cutting parameters appropriately for applications with either long projection or 3-flutes models.
3. 2-flutes models are recommended for medium-heavy or heavy milling of slot or pocket.
4. For medium-heavy or heavy slot milling or ramping with projection longer than 2.5 times of diameter, 2-flutes models are recommended.

For Insert : I 7
For Cutting Condition : I 8

Ramping and Helical milling

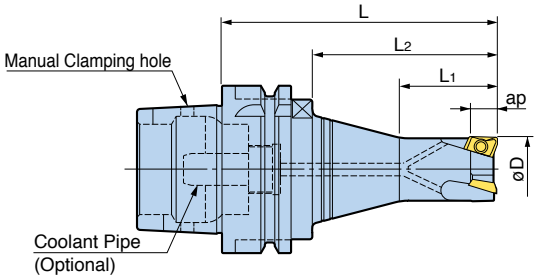
FULLCUT MILL FCR Cutter Dia. ø16 - ø32

Unique inserts designed for ramping make multi-functional cutting possible.



HSK-A Standard type

ISO12164 & DIN 69893-1



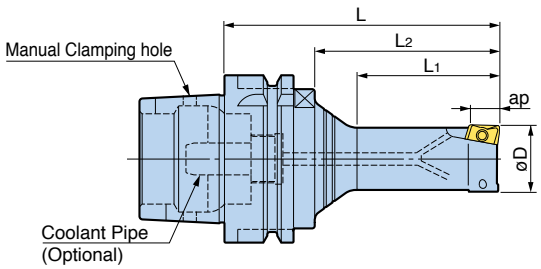
Cutter Dia. øD	Model	ap	L	L1	L2	No. of Insert	Insert Size	Weight (kg)
16	HSK-A50-FCR16082- 75	8	75	27	41	2	BRG16	0.5
20	-FCR20083- 75		75	28	41	3	BRG20	0.6
25	-FCR25083- 75		75	33	41	3	BRG25	0.6
32	-FCR32103- 75	10	75	39	41	3	BRG32	0.7
16	HSK-A63-FCR16082- 85	8	85	25	51	2	BRG16	0.9
	-120		120	30	86			1.1
	-135		135	25	101			1.2
20	-FCR20083- 85	8	85	32	51	3	BRG20	1.0
	-120		120	30	86			1.2
	-135		135	30	101			1.3
25	-FCR25083- 85	8	85	35	51	3	BRG25	1.0
	-120		120	45	86			1.2
	-135		135	35	101			1.4
32	-FCR32103- 85	10	85	40	51	3	BRG32	1.1
	-120		120	50	86			1.4
	-135		135	40	101			1.5

1. Coolant Pipe is ordered separately.

For Insert : I 7
For Cutting Condition : I 8
For COOLANT PIPE C 51

HSK-A Long nose type

ISO12164 & DIN 69893-1



Cutter Dia. øD	Model	ap	L	L1	L2	No. of Insert	Insert Size	Weight (kg)
16	HSK-A63-FCR16082L- 85	8	85	40	51	2	BRG16	0.9
	-120		120	45	86			1.0
20	-FCR20082L-105	8	105	50	71	2	BRG20	1.1
	-120		120	60	86			1.2
25	-FCR25082L-105	8	105	55	71	2	BRG25	1.1
	-120		120	65	86			1.1
32	-FCR32102L-120	10	120	70	86	2	BRG32	1.4
	-135		135	80	101			1.4

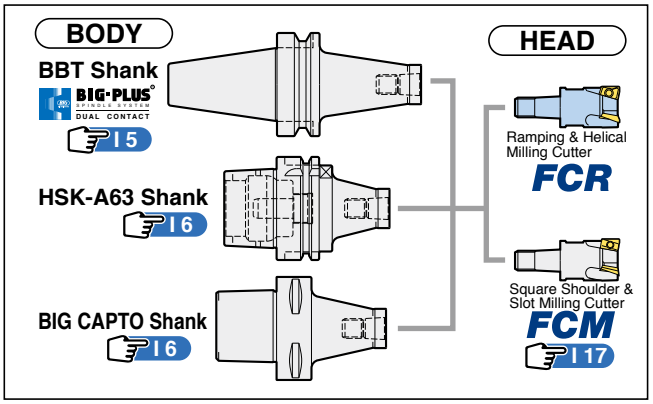
1. Coolant Pipe is ordered separately.

For Insert : I 7
For Cutting Condition : I 8
For COOLANT PIPE C 51

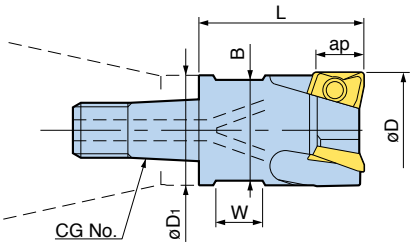
Threaded coupling with taper & face contact

CONTACT GRIP

Offers amazing cutting performance which is superior to the conventional threaded coupling system.



FCR HEAD



Cutter Dia øD	Model	CG No.	øD1	ap	L	No. of Insert	Spanner flats B	Spanner flats W	Insert Size
16	**CG15-FCR16082-25**	CG15	15	8	25	2	12	6.2	BRG16
20	**CG19-FCR20082-32**	CG19	19	8	32	2	17	8.2	BRG20
	-FCR20083-32					3			
25	**CG24-FCR25082-36**	CG24	24	8	36	2	22	10.2	BRG25
	-FCR25083-36					3			
32	**CG31-FCR32102-43**	CG31	31	10	43	2	27	12.2	BRG32
	-FCR32103-43					3			

1. Wrench to clamp insert and Anti-Seizure Lubricant are included.
2. Inserts are ordered separately.
3. Standard single-ended wrench is required to clamp the head.

For Insert : I 7
For Cutting Condition : I 8

Application example

Amazing cutting performance even on #40 taper machine.
(Below application example has been achieved with dry cutting.)

Type FCR
Ramping

Machine	Vertical M/C, #40 taper
Contact Grip Head	FCR32 (3-inserts)
Work Material	C50(S50C)
Cutting Speed V (m/min.)	150
Feed Rate f (mm/tooth)	0.1
Axial DOC Ad (mm)	MAX.10 (Ramping Angle 3°)

Ramping and Helical milling

FULLCUT MILL

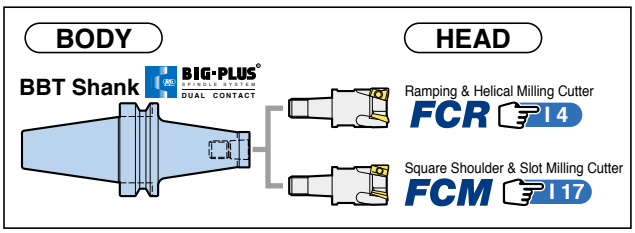
Threaded coupling with taper & face contact

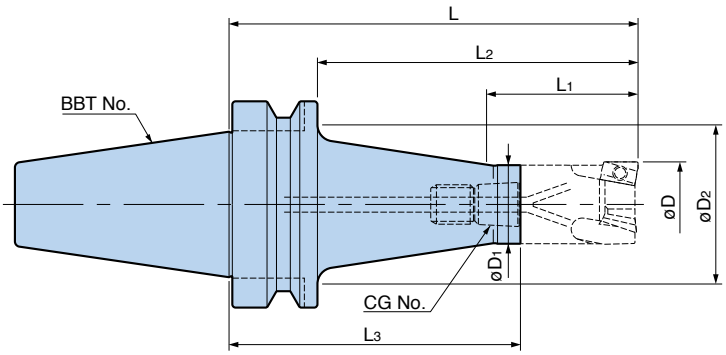
CONTACT GRIP

BBT Holder

Improved rigidity and accuracy from the BIG-PLUS Dual Contact System

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT





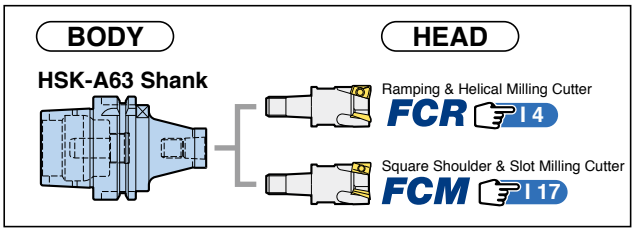
BIG-PLUS tools can be used in machining centers with conventional spindles.

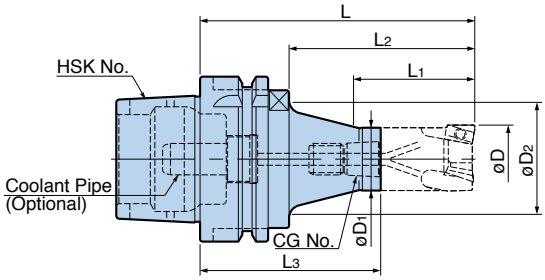
Cutter Dia øD	Model	CG No.	øD1	øD2	L	L1	L2	L3
16	**BBT30-CG15- 50**	CG15	15	40	75	31	53	50
	- 80			40	105	32	83	80
20	**-CG19- 43**	CG19	19	40	75	39	53	43
	- 73			42	105	40	83	73
25	**-CG24- 39**	CG24	24	41	75	45	53	39
	- 69			42	105	45	83	69
32	**-CG31- 32**	CG31	31	41	75	49	53	32
	- 62			40	105	53	83	62
16	**BBT40-CG15- 50**	CG15	15	46	75	30	48	50
	- 80			48	105	32	78	80
	-100			49	125	32	98	100
20	**-CG19- 43**	CG19	19	45	75	36	48	43
	- 73			48	105	40	78	73
	- 93			49	125	40	98	93
25	**-CG24- 39**	CG24	24	39	75	41	48	39
	- 69			48	105	45	78	69
	- 89			49	125	45	98	89
32	**-CG31- 37**	CG31	31	43	80	48	53	37
	- 77			57	120	53	93	77
	- 92			57	135	53	108	92
16	**BBT50-CG15-145**	CG15	15	80	170	45	132	145
20	**-CG19-153**	CG19	19	80	185	60	147	153
25	**-CG24-164**	CG24	24	90	200	75	162	164
32	**-CG31-157**	CG31	31	90	200	90	162	157

1. Standard single-ended wrench is required to clamp the head.

HSK Holder

ISO12164 & DIN69893-1





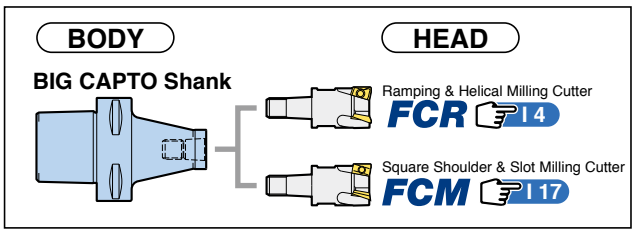
Cutter Dia øD	Model	CG No.	øD1	øD2	L	L1	L2	L3
16	HSK-A63-CG15- 50	CG15	15	36	75	30	41	50
	- 80			45	105	31	71	80
	-100			45	125	32	91	100
20	-CG19- 73	CG19	19	45	105	39	71	73
	- 93			45	125	40	91	93
25	-CG24- 69	CG24	24	45	105	44	71	69
	- 89			45	125	45	91	89
32	-CG31- 77	CG31	31	45	120	53	86	77
	- 92			45	135	53	101	92

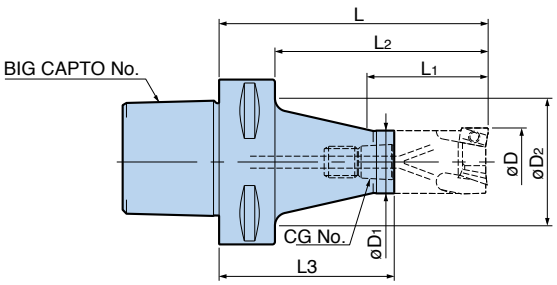
1. Standard single-ended wrench is required to clamp the head.
2. Coolant Pipe is ordered separately.

For COOLANT PIPE C 51

BIG CAPTO Holder

ISO26623-1





Cutter Dia øD	Model	CG No.	øD1	øD2	L	L1	L2	L3
16	C6-CG15- 50	CG15	15	46	75	31	53	50
	- 80			48	105	31	83	80
	-100			49	125	32	103	100
20	-CG19- 43	CG19	19	45	75	39	53	43
	- 73			48	105	39	83	73
	- 93			49	125	40	103	93
25	-CG24- 69	CG24	24	49	105	44	83	69
	- 89			49	125	45	103	89
32	-CG31- 77	CG31	31	57	120	53	98	77
	- 92			57	135	53	113	92

1. Standard single-ended wrench is required to clamp the head.

Ramping and Helical milling

FULLCUT MILL FCR

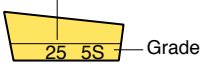
Indexable Inserts

Model Description

BRG16 | 08 | 08 | ACZ350S

- ACZ350S: Grade
- 08: Nose Rd.
- 08: Effective Cutting Length ϕ16 – 25···08 ϕ32···10
- BRG16: Model

Marking Description



1: ACZ310
5S: ACZ350S
2: DS20

Cutter Dia	Insert Model	ap	Nose R	P	M	K	N
				ACZ350S		ACZ310	DS20
ø16, ø17	BRG160808	8	0.8	○		○	○
ø20, ø21	BRG200808	8	0.8	○		○	○
ø25, ø26	BRG250808	8	0.8	○		○	○
ø32, ø33	BRG321008	10	0.8	○		○	○
	BRG321032	10	3.2				○

※**Inserts are available in packets of 10 pcs.**
Please clarify the insert type and grade when ordering.
For example, use ordering code: BRG160808ACZ350S.

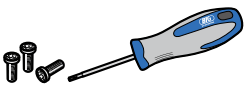
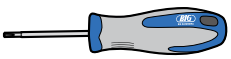
Caution

- **It is important to use the correct insert for the diameter of FULLCUT MILL. Failure to use the correct insert will result in incorrect cutting conditions and poor results.**
- **There is no compatibility with those of FCM type.**

Insert Classifications

ISO	Grade	Material	Coating
P30	ACZ350S	General steel	TiAlN / TiCN
M30		Stainless steel	
K10	ACZ310	Cast Iron	
N20	DS20	Aluminum	DLC

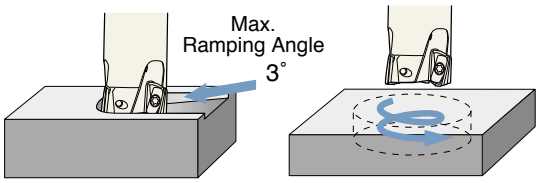
Spare Parts

		Insert Clamping Screw Set	Wrench	Anti-seizure Lubricant
		 (10) screws & (1) wrench		 5g contained
Cutter Dia	Insert	Model	Model	Model
ø16, ø17	BRG1608	S2506DS	DA-T8	BN-5
ø20, ø21	BRG2008			
ø25, ø26	BRG2508			
ø32, ø33	BRG3210	S3508DS	DA-T15	

Note It is recommended to regularly replace clamping screws and wrench to ensure the correct clamping force is maintained.

FCR Recommended Cutting Condition

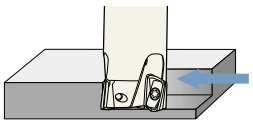
Ramping and helical interpolation



Cutter Dia.	Flat Bottom		Through Hole
	Max. Hole Dia.	Min. Hole Dia.	Min. Hole Dia.
ø16	ø30	ø27	ø22
ø20	ø38	ø36	ø29
ø25	ø48	ø45	ø39
ø32	ø62	ø59	ø48

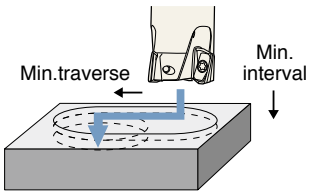
Cutter Dia.	Work Material	Carbon steel Alloy steel	Unalloyed steel	Prehardened steel <HRC40	Stainless steel	Die steel	Cast iron	Aluminium
	Insert Grade	ACZ350S					ACZ310	DS20
	Cutting fluid	Dry		Wet	Dry/Wet	Dry		Dry/Wet
ø16	Speed (m/min)	100 – 200	150 – 220	60 – 80	100 – 150	60 – 80	100 – 180	200 – 1,000
	Feed (mm/tooth)	0.06 – 0.12	0.06 – 0.12	0.05 – 0.08	0.08 – 0.16	0.06 – 0.1	0.08 – 0.18	0.06 – 0.24
ø20 ø25	Speed (m/min)	100 – 200	150 – 200	60 – 100	120 – 150	60 – 100	100 – 180	200 – 1,000
	Feed (mm/tooth)	0.08 – 0.2	0.08 – 0.2	0.05 – 0.1	0.12 – 0.2	0.06 – 0.1	0.02 – 0.18	0.1 – 0.35
ø32	Speed (m/min)	100 – 200	150 – 200	60 – 100	120 – 150	60 – 120	100 – 180	200 – 1,000
	Feed (mm/tooth)	0.08 – 0.2	0.08 – 0.2	0.05 – 0.1	0.12 – 0.2	0.08 – 0.12	0.06 – 0.2	0.1 – 0.35

Shoulder milling and slot milling



Cutter Dia.	Work Material	Carbon steel Alloy steel	Unalloyed steel	Prehardened steel <HRC40	Stainless steel	Die steel	Cast iron	Aluminium
	Insert Grade	ACZ350S					ACZ310	DS20
	Cutting fluid	Dry		Wet	Dry/Wet	Dry		Dry/Wet
ø16 ø20	Speed (m/min)	100 – 200	100 – 200	60 – 80	120 – 180	80 – 120	100 – 180	200 – 1,000
	Feed (mm/tooth)	0.08 – 0.18	0.08 – 0.18	0.05 – 0.1	0.12 – 0.18	0.08 – 0.12	0.08 – 0.18	0.1 – 0.3
ø25 ø32	Speed (m/min)	100 – 200	100 – 200	60 – 100	120 – 180	80 – 120	100 – 180	200 – 1,500
	Feed (mm/tooth)	0.08 – 0.2	0.08 – 0.2	0.05 – 0.1	0.12 – 0.2	0.08 – 0.12	0.08 – 0.2	0.1 – 0.35

Plunge milling



Cutter Dia.	Min.interval	Min.traverse
ø16	0.5	14
ø20	1	18
ø25	1	23
ø32	2	30

Cutter Dia.	Work Material	Carbon steel Alloy steel	Unalloyed steel	Prehardened steel <HRC40	Stainless steel	Die steel	Cast iron	Aluminium
	Insert Grade	ACZ350S					ACZ310	DS20
	Cutting fluid	Air blow		Wet	Air/Wet	Air blow		Air/Wet
ø16	Speed (m/min)	80 – 120	80 – 120	60	80 – 120	60 – 80	80 – 160	200 – 350
	Feed (mm/rev)	0.06 – 0.1	0.06 – 0.1	0.04 – 0.06	0.05 – 0.08	0.05 – 0.08	0.06 – 0.1	0.06 – 0.1
ø20 ø25	Speed (m/min)	100 – 160	100 – 160	60 – 100	100 – 160	60 – 100	80 – 180	200 – 500
	Feed (mm/rev)	0.1 – 0.25	0.1 – 0.25	0.1 – 0.25	0.12 – 0.25	0.1 – 0.2	0.08 – 0.3	0.1 – 0.3
ø32	Speed (m/min)	100 – 160	100 – 160	60 – 100	100 – 160	60 – 100	80 – 180	200 – 600
	Feed (mm/rev)	0.1 – 0.3	0.1 – 0.3	0.1 – 0.3	0.12 – 0.3	0.1 – 0.2	0.08 – 0.4	0.1 – 0.3

Caution

·The table is just a reference to determine cutting conditions. It should be adjusted according to a condition of a machine tool or workpiece.
·Since chips may scatter, utilize safety enclosures.
·Do not use oil-based cutting fluid, or a fire may take place.

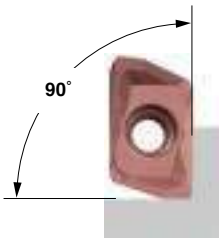
Application example

FULLCUT MILL FCR

■Bore Dia. 38 with Helical milling

For carbon steel of C50, very smooth cutting with feed rate of 1,100mm/min and excellent squareness are achieved.

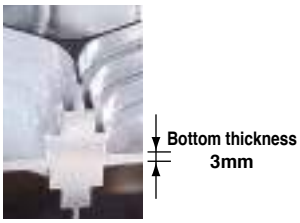
Fullcut Mill	**BBT40-FCR20083-120**
Insert	BRG200808(ACZ350S)
Work Material	C50(S50C) / Air blow
Cutting Speed V (m/min.)	150
Feed Rate f (mm/min.)	1,100
Axial DOC Ad (mm)	2mm × 3 times
Hole dia.	ø38



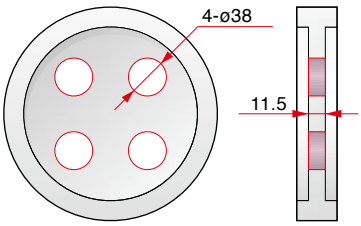
■Honeycombed Pocket with Ramping

For less rigid workpiece with 3mm thickness clamped by a vise, feed rate of 4,300mm/min on both sides of the workpiece is achieved.

Fullcut Mill	**BBT40-FCR20083-85**
Insert	BRG200808(DS20)
Work Material	A2017 Duralumin / Air blow
Cutting Speed V (m/min.)	750
Feed Rate f (mm/min.)	4,300
Axial DOC Ad (mm)	6mm × 3 times
Radial DOC Rd (mm)	MAX. 20



■Helical milling



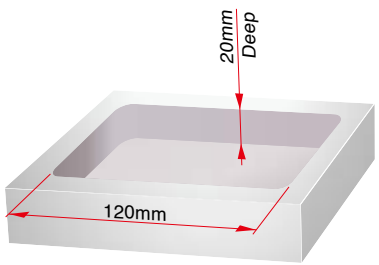
Stable helical milling with 4mm axial DOC on less rigid workpiece.

Fullcut Mill	**BBT40-FCR20083-120**
Insert	BRG200808(ACZ350S)
Work Material	15CrMo5(SCM415)
Cutting Speed V (m/min.)	150
Feed Rate f (mm/min.)	480
Axial DOC Ad (mm)	4mm × 3 times
Hole dia.	ø38

Compared to another manufacturer

Axial DOC	**1.3 times**
Insert life	**2 times**

■Ramping



Example of use of BBT50-BBT40 Adapter.
An improved result is obtained compared to the product from another manufacturer.

Fullcut Mill	**BBT50-BBT40-50** **BBT40-FCR16082-120**
Insert	BRG160808(ACZ350S)
Work Material	C50(S50C)
Cutting Speed V (m/min.)	120
Feed Rate f (mm/min.)	480
Axial DOC Ad (mm)	4mm × 5 times

Compared to another manufacturer

No chatter even at higher resistance corner.

Smooth chip evacuation eliminates re-cutting of the swarf and edge chipping of the inserts.

Square Shoulder and Slot milling

FULLCUT MILL FCM

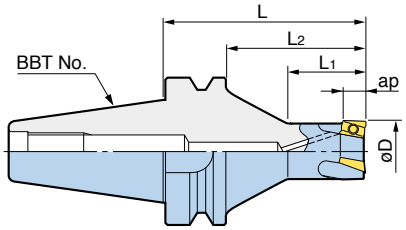
Cutter Dia. ø16 - ø50

The indexable endmill that combines sharpness and rigidity has no match.

Shoulder Milling

BBT Standard type JIS B 6339 (BIG-PLUS)

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT



BIG-PLUS tools can be used in machining centers with conventional spindles.

Cutter Dia. øD	Model	ap	L	L1	L2	No. of Insert	Insert Size	Weight (kg)
16	BBT30-FCM16092- 65	9	65	23	43	2	ARG16	0.5
20	-FCM20093- 65			28	43	3	ARG20	0.5
25	-FCM25093- 65			33	43	3	ARG25	0.5
32	-FCM32113- 65	11		38	43	3	ARG32	0.6
40	-FCM40114- 50		50	25	28	4	ARG40	0.6
50	-FCM50115- 50			28		5		0.7
16	BBT40-FCM16092- 85	9	85	23	58	2	ARG16	1.2
	-105		105	30	78			1.3
	-120		120	25	93			1.4
	-150		150		123			1.7
20	-FCM20093- 85	9	85	28	58	3	ARG20	1.2
	-105		105	35	78			1.3
	-120		120	30	93			1.4
	-150		150		123			1.7
25	-FCM25093- 85	9	85	33	58	3	ARG25	1.2
	-120		120	45	93			1.4
	-135		135	40	108			1.6
	-165		165		138			1.9
32	-FCM32113- 85	11	85	38	58	3	ARG32	1.3
	-120		120	60	93			1.5
	-135		135	50	108			1.7
	-165		165	40	138			2.1
40	-FCM40114- 85	11	85	43	58	4	ARG40	1.4
	-120		120	65	93			1.7
	-135		135	60	108			2.0
	-165		165	50	138			2.4
50	-FCM50115- 70	11	70	38	43	5		1.5
	-120		120	65	93			2.2
	-135		135	60	108			2.4
	-165		165	50	138			3.0

For Insert : I 18
For Cutting Condition : I 19

Square Shoulder and Slot milling

FULLCUT MILL FCM

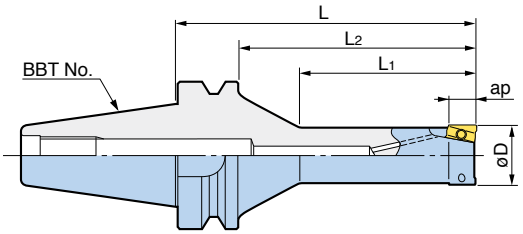
Cutter Dia. ø16 - ø50

The indexable endmill that combines sharpness and rigidity has no match.

Shoulder Milling

BBT Long nose type JIS B 6339 (BIG-PLUS)

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

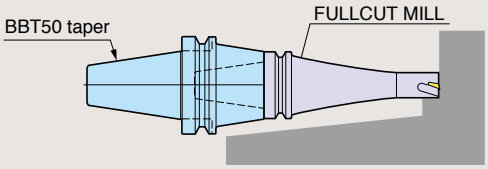


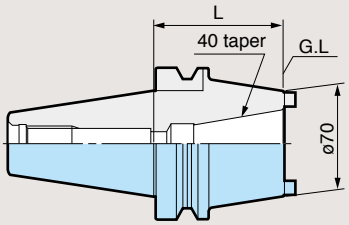
BIG-PLUS tools can be used in machining centers with conventional spindles.

Cutter Dia. øD	Model	ap	L	L1	L2	No. of Insert	Insert Size	Weight (kg)
16	**BBT30-FCM16092L- 85**	9	85	45	63	2	ARG16	0.5
20	**-FCM20092L- 85**			50	63		ARG20	0.5
25	**-FCM25092L- 85**			50	63		ARG25	0.6
32	**-FCM32112L- 85**	11		60	63		ARG32	0.7
16	**BBT40-FCM16092L-105**	9	105	45	78	2	ARG16	1.3
	-120		120		93			1.4
20	**-FCM20092L-120**	9	120	60	93	2	ARG20	1.4
	-135		135		108			1.5
25	**-FCM25092L-135**	9	135	75	108	2	ARG25	1.5
	-150		150		123			1.7
32	**-FCM32112L-135**	11	135	80	93	2	ARG32	1.7
	-150		150	90	123			1.9

For Insert : I 18
For Cutting Condition : I 19

Adapter for BT50 taper shank (FCR &FCM)



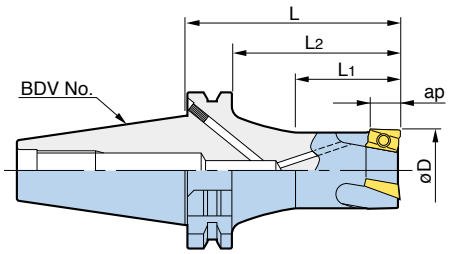


Model	L
BBT50-BBT40-50	50
-90	90

BDV Standard type

DIN 69871 A/B (BIG-PLUS)

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

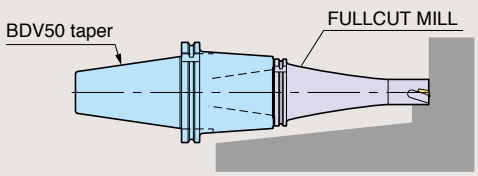


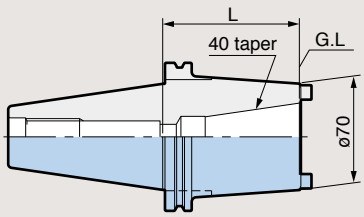
BIG-PLUS tools can be used in machining centers with conventional spindles.

Cutter Dia. øD	Model	ap	L	L_1	L_2	No. of Insert	Insert Size	Weight (kg)
16	**BDV40-FCM16092- 85**	9	85	23	58	2	ARG16	1.2
	-105		105	30	78			1.3
	-120		120	25	93			1.4
20	**-FCM20093- 85**	9	85	28	58	3	ARG20	1.2
	-105		105	35	78			1.3
	-120		120	30	93			1.4
25	**-FCM25093- 85**	9	85	33	58	3	ARG25	1.2
	-120		120	45	93			1.4
	-135		135	40	108			1.6
32	**-FCM32113- 85**	11	85	38	58	3	ARG32	1.3
	-120		120	60	93			1.5
	-135		135	50	108			1.7
40	**-FCM40114- 85**	11	85	43	58	4	ARG40	1.4
	-120		120	65	93			1.7
	-135		135	60	108			2.0
50	**-FCM50115- 70**	11	70	38	43	5	ARG40	1.5
	-120		120	65	93			2.2
	-135		135	60	108			2.4

For Insert : I 18
For Cutting Condition : I 19

Adapter for SK50 taper shank (FCR &FCM)





Model	L
BDV50-BDV40-50	50
-90	90

Square Shoulder and Slot milling

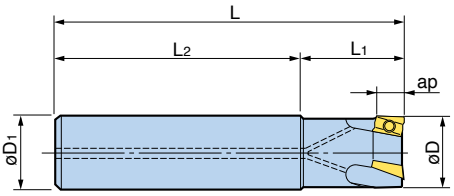
FULLCUT MILL FCM

Cutter Dia. ø16 - ø50

The indexable endmill that combines sharpness and rigidity has no match.

CYLINDRICAL Shank Type

Cutter Dia
ø12 - ø50



Cutter dia øD	Model	øD1	ap	L	L1	L2	No. of Insert	Insert Size	Weight (kg)
12	ST16-FCM12091- 90	16	9	90	15	70	1	ARG16	0.1
14	-FCM14091- 90				17				0.1
16	-FCM16092- 90				25	65	2		0.1
20	ST20-FCM20093-110	20	9	110	30	80	3	ARG20	0.2
25	ST25-FCM25093-120	25	9	120	35	85	3	ARG25	0.4
32	ST32-FCM32113-130	32	11	130	35	95	3	ARG32	0.7
40	-FCM40114-130				40	90	4	ARG40	0.8
	-180			180		140			1.2
50	-FCM50115-130			130		90	5		1.0

For Insert : I 18
For Cutting Condition : I 19

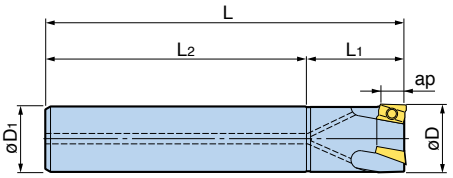
"Trump card" at deep pocket & deep shoulder endmilling

[OVER SIZE]

Cutter Dia
ø17 - ø33

POINT ***øD = øD1+1mm***

1mm larger Cutter Dia. than shank Dia. avoids any interference with work-piece.



Cutter dia øD	Model	øD1	ap	L	L1	L2	No. of Insert	Insert Size	Weight (kg)
17	ST16-FCM17092-120	16	9	120	25	95	2	ARG16	0.2
21	ST20-FCM21092-165	20	9	165	30	135	2	ARG20	0.4
	-FCM21093-135			135		105	3		0.3
26	ST25-FCM26092-165	25	9	165	38	127	2	ARG25	0.6
	-FCM26093-150			150		112	3		0.6
33	ST32-FCM33112-180	32	11	180	48	132	2	ARG32	1.1
	-FCM33113-180			180		132	3		1.0

1. Wrech and Anti-seizure Lubricant are included. Inserts are ordered separately.
2. 2-flutes models are recommended for medium-heavy or heavy slot milling.
3. For medium-heavy or heavy slot milling with projection longer than 2.5 times of diameter, 2-flutes models are recommended.

For Insert : I 18
For Cutting Condition : I 19

To suit FULLCUT MILL cylindrical shank type

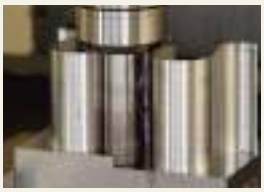
MEGA DOUBLE POWER CHUCK

A9,B5,C9,C48,E37

NEW Hi-POWER MILLING CHUCK

A16,B8,C15,E45

Material: C55 (S55C)



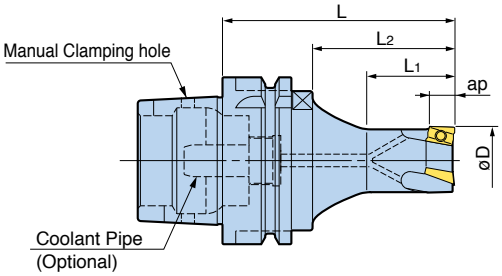
Model	ST32-FCM33112-180
Cutting Speed V (m/min.)	120
Feed Rate f (mm/tooth)	0.1
Axial DOC Ad (mm)	10mm x 10 steps
Radial DOC Rd (mm)	Max. 33mm

Result

Deep shoulder endmilling is achieved with 110mm projection length and 10mm axial depth.

HSK-A Standard type

ISO12164 & DIN 69893-1



Cutter Dia. øD	Model	ap	L	L1	L2	No. of Insert	Insert Size	Weight (kg)
16	HSK-A40-FCM16092- 65	9	65	23	37	2	ARG16	0.3
20	-FCM20093- 65			28		3	ARG20	0.3
25	-FCM25093- 65			35			ARG25	0.4
32	-FCM32113- 65	11					ARG32	0.5
40	-FCM40114- 65			45	—	4	ARG40	0.6
50	-FCM50115- 65					5		0.7
16	HSK-A50-FCM16092- 75	9	75	23	41	2	ARG16	0.6
20	-FCM20093- 75			28		3	ARG20	0.6
25	-FCM25093- 75			33			ARG25	0.6
32	-FCM32113- 75	11		39			ARG32	0.7
40	-FCM40114- 75			48	—	4	ARG40	0.9
50	-FCM50115- 75				—	5		1.0
16	HSK-A63-FCM16092- 85	9	85	23	51	2	ARG16	0.9
	-105		105	30	71			1.0
	-120		120	25	86			1.1
	-150		150	25	116			1.3
20	-FCM20093- 85	9	85	28	51	3	ARG20	1.0
	-105		105	35	71			1.1
	-120		120	30	86			1.2
	-150		150	30	116			1.4
25	-FCM25093- 85	9	85	33	51	3	ARG25	1.0
	-120		120	45	86			1.2
	-135		135	40	101			1.3
	-165		165	40	131			1.5
32	-FCM32113- 85	11	85	38	51	3	ARG32	1.1
	-120		120	60	86			1.3
	-135		135	50	101			1.4
	-165		165	40	131			1.7
40	-FCM40114- 85	11	85	43	51	4	ARG40	1.3
	120		120	65	86			1.5
	135		135	60	101			1.7
	165		165	50	131			2.1
50	-FCM50115- 70	11	70	28	28	5	ARG40	1.3
	-120		120	78	78			1.9
	-135		135	93	93			2.2
	-165		165	123	123			2.8

1. Coolant Pipe is ordered separately.

For Insert : I 18
For Cutting Condition : I 19
For COOLANT PIPE C 51

Square Shoulder and Slot milling

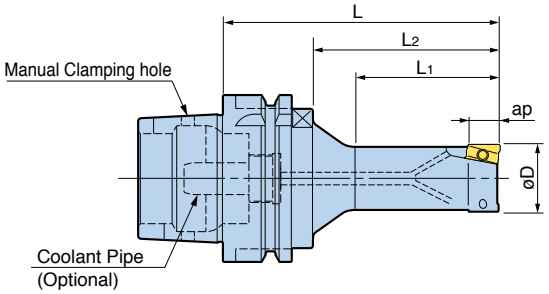
FULLCUT MILL FCM

Cutter Dia. ø12 - ø50

The indexable endmill that combines sharpness and rigidity has no match.

HSK-A Long nose type

ISO12164 & DIN 69893-1



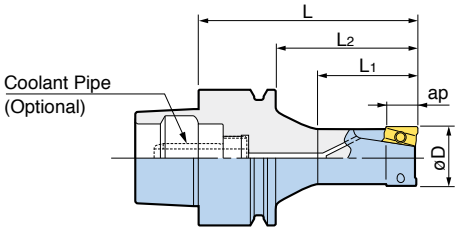
Cutter Dia. øD	Model	ap	L	L_1	L_2	No. of Insert	Insert Size	Weight (kg)
16	HSK-A63-FCM16092L- 85	9	85	40	51	2	ARG16	0.9
	-120		120	45	86			1.0
20	-FCM20092L-105	9	105	50	71	2	ARG20	1.1
	-120		120	60	86			1.2
25	-FCM25092L-105	9	105	55	71	2	ARG25	1.1
	-120		120	65	86			1.2
32	-FCM32112L-120	11	120	70	86	2	ARG32	1.3
	-135		135	80	101			1.4

1. Coolant Pipe is ordered separately.

For Insert : I 18
For Cutting Condition : I 19
For COOLANT PIPE C 51

HSK-E Standard type

DIN 69893-5



Cutter Dia. øD	Model	ap	L	L_1	L_2	No. of Insert	Insert Size	Weight (kg)
16	HSK-E25-FCM16092-45	9	45	23	35	2	ARG16	0.17
	-E32-FCM16092-55		55	23	35			0.20
	-E40-FCM16092-65		65	28	45			0.45

1. Coolant Pipe is ordered separately.

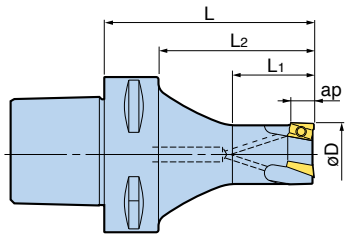
For Insert : I 18
For Cutting Condition : I 19
For COOLANT PIPE C 51

Caution

As HSK-E type interface does not have drive key-ways, there is a possibility that it may slip in machine tool spindles if cutting load exceeds the gripping force of machine tools.
Please ensure to choose proper cutting condition.

BIG CAPTO Standard type

ISO26623-1

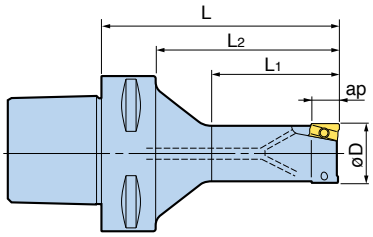


Cutter Dia.øD	Model	ap	L	L1	L2	No. of Insert	Insert Size	Weight (kg)
16	**C5-FCM16092- 65**	9	65	23	45	2	ARG16	0.5
20	**-FCM20093- 65**	9	65	28	45	3	ARG20	0.5
	- 90		90	35	70			0.6
25	**-FCM25093- 65**	9	65	33	45	3	ARG25	0.6
32	**-FCM32113- 65**	11	65	38	45	3	ARG32	0.6
	- 90		90	45	70			0.8
40	**-FCM40114- 50**	11	50	25	30	4	ARG40	0.6
	- 90		90	60	70			1.0
50	**-FCM50115- 50**	11	50	25	30	5		0.7
	- 90		90	65	70			1.0

For Insert : I 18 For Cutting Condition : I 19

BIG CAPTO Long nose type

ISO26623-1



Cutter Dia.øD	Model	ap	L	L1	L2	No. of Insert	Insert Size	Weight (kg)
16	**C6-FCM16092L-105**	9	105	45	83	2	ARG16	1.2
	-120		120		98			1.3
20	**-FCM20092L-110**	9	110	60	88	2	ARG20	1.2
	-135		135		113			1.4
25	**-FCM25092L-135**	9	135	75	113	2	ARG25	1.4
	-150		150		128			1.6
32	**-FCM32112L-135**	11	135	80	113	2	ARG32	1.6
	-150		150	90	128			1.7

For Insert : I 18 For Cutting Condition : I 19

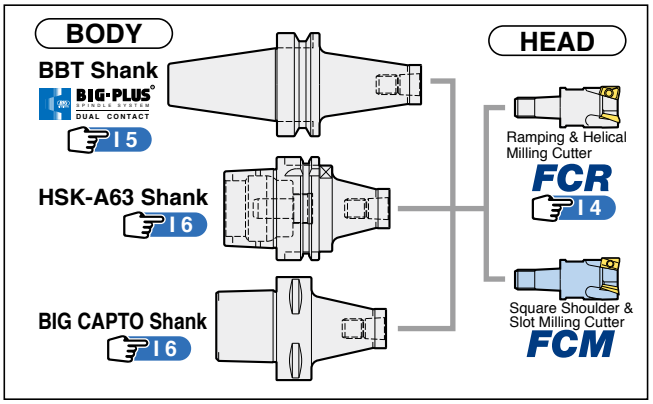
Square Shoulder and Slot milling

FULLCUT MILL FCM

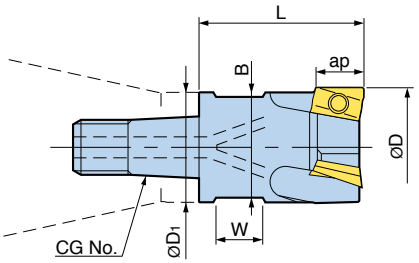
Threaded coupling with taper & face contact

CONTACT GRIP

Offers amazing cutting performance which is superior to the conventional threaded coupling system.



FCM HEAD



Cutter Dia øD	Model	CG No.	øD1	ap	L	No. of Insert	Spanner Flats B	Spanner Flats W	Insert Size
16	**CG15-FCM16092-25**	CG15	15	9	25	2	12	6.2	ARG16
20	**CG19-FCM20092-32**	CG19	19	9	32	2	17	8.2	ARG20
	-FCM20093-32					3			
25	**CG24-FCM25092-36**	CG24	24	9	36	2	22	10.2	ARG25
	-FCM25093-36					3			
32	**CG31-FCM32112-43**	CG31	31	11	43	2	27	12.2	ARG32
	-FCM32113-43					3			

1. Wrench to clamp insert and Anti-Seizure Lubricant are included.
2. Inserts are ordered separately.
3. Standard single-ended wrench is required to clamp the head.

For Insert : I 18

Application example

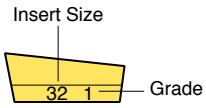
Amazing cutting performance even on #40 taper machine.
(Below application example has been achieved with dry cutting.)

Type FCM
Slot Milling

Machine	Vertical M/C, #40 taper
Contact Grip Head	FCM32 (2-inserts)
Work Material	C50 (S50C)
Cutting Speed V (m/min.)	150
Feed Rate f (mm/tooth)	0.1
Axial DOC Ad (mm)	11

■Indexable Inserts

Marking Description



1: ACZ310
2: DS20
P2: ACP200
P3: ACP300
5S: ACZ350S

Cutter Dia	Insert Model	ap	Nose R	P		M	K	N
				ACP200	ACP300	ACZ350S	ACZ310	DS20
ø12 – ø17	ARG160902	9	0.2		△	○	△	○
	ARG160904		0.4	△	○	○	○	○
ø20 – ø21	ARG200902	9	0.2		△	○	△	○
	ARG200904		0.4	△	○	○	○	○
ø25 – ø26	ARG250902	9	0.2		△	○	△	○
	ARG250904		0.4	△	○	○	○	○
ø32 – ø33	ARG321102	11	0.2		△	○	△	○
	ARG321104		0.4	△	○	○	○	○
ø40 – ø50	ARG401102	11	0.2		△	○	△	○
	ARG401104		0.4	△	○	○	○	○

※**Inserts are available in packets of 10 pcs.**
Please clarify the insert type and grade when ordering.
For example, use ordering code: ARG160904ACP300.

○ : **First choice**
△ : **Suitable**

Caution

- **It is important to use the correct insert for the diameter of FULLCUT MILL. Failure to use the correct insert will result in incorrect cutting conditions and poor results.**
- **There is no compatibility with those of FCR type.**
- **Nose radius 0.2 inserts are suitable for light cutting.**

Insert Classifications

ISO	Grade	Material	Coating
P20	**ACP200**	Prehardened steel	TiAlN / AlCrN
P30	**ACP300**	General steel	
M30	**ACZ350S**	Stainless steel	TiAlN / TiCN
K10	**ACZ310**	Cast Iron	
N20	**DS20**	Aluminum	DLC

Selection between ACP300 and ACP200 for steel.

ACP200 is superior in anti-wear resistance, while ACP300 is superior in its anti-chipping property. ACP300 is the first recommendation for steel cutting.
Choose ACP200 over ACP300 in cases where further speed or wear-resistance is needed. ACP200 is not, however, recommended for either heavily-interrupted or heavy-duty cutting.

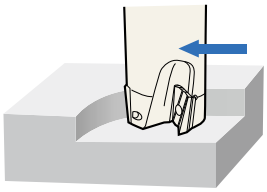
■ Spare Parts

		Insert Clamping Screw Set (10) screws & (1) wrench	Wrench	Anti-seizure Lubricant 5g contained
Cutter Dia	Insert	Model	Model	Model
ø12	ARG1609	S2505DS	DA-T8	BN-5
ø14 ø16 ø17		S2506DS		
ø20 ø21	ARG2009			
ø25 ø26	ARG2509			
ø32 ø33	ARG3211	S3508DS	DA-T15	
ø40	ARG4011			
ø50				

Note It is recommended to regularly replace clamping screws and wrench to ensure the correct clamping force is maintained.

FCM Recommended Cutting Condition

Shoulder milling and slot milling



Caution

FULLCUT MILL, FCM type, cannot be used for feeding in Z-axis such as ramping, plunging and boring.

Finish-light cutting

Cutter Dia.	Work Material	Carbon steel Alloy steel	Unalloyed steel	Prehardened steel <HRC40	Stainless steel	Cast iron	Aluminium
	Insert Grade	ACP300		ACP200	ACZ350S	ACZ310	DS20
	Cutting fluid	Dry			Dry/Wet	Dry	Dry/Wet
ø12 · ø14	Speed (m/min)	150 – 250	180 – 250	80 – 140	140 – 180	100 – 200	200 – 750
	Feed (mm/tooth)	0.1 – 0.2	0.1 – 0.2	0.08 – 0.12	0.12 – 0.18	0.1 – 0.2	0.10 – 0.3
ø16 – ø21	Speed (m/min)	150 – 250	180 – 250	80 – 140	140 – 180	100 – 200	200 – 1,000
	Feed (mm/tooth)	0.1 – 0.2	0.1 – 0.2	0.08 – 0.12	0.12 – 0.18	0.1 – 0.2	0.10 – 0.3
ø25 – ø33	Speed (m/min)	180 – 280	200 – 280	80 – 140	140 – 200	100 – 200	200 – 1,500
	Feed (mm/tooth)	0.1 – 0.24	0.1 – 0.22	0.08 – 0.14	0.12 – 0.2	0.1 – 0.2	0.10 – 0.35
ø40 · ø50	Speed (m/min)	180 – 280	200 – 280	80 – 140	140 – 200	80 – 200	200 – 1,500
	Feed (mm/tooth)	0.1 – 0.24	0.1 – 0.22	0.08 – 0.14	0.12 – 0.2	0.1 – 0.2	0.10 – 0.35

Medium-heavy cutting

Cutter Dia.	Work Material	Carbon steel Alloy steel	Unalloyed steel	Stainless steel	Cast iron	Aluminium
	Insert Grade	ACP300		ACZ350S	ACZ310	DS20
	Cutting fluid	Dry		Dry/Wet	Dry	Dry/Wet
ø12 · ø14	Speed (m/min)	100 – 200	150 – 200	120 – 180	100 – 180	200 – 750
	Feed (mm/tooth)	0.08 – 0.14	0.1 – 0.15	0.12 – 0.15	0.08 – 0.18	0.10 – 0.2
ø16 – ø21	Speed (m/min)	100 – 200	150 – 200	120 – 180	100 – 180	200 – 1,000
	Feed (mm/tooth)	0.08 – 0.14	0.1 – 0.15	0.12 – 0.15	0.08 – 0.18	0.10 – 0.2
ø25 – ø33	Speed (m/min)	100 – 200	160 – 220	120 – 180	100 – 200	200 – 1,500
	Feed (mm/tooth)	0.1 – 0.16	0.1 – 0.15	0.12 – 0.15	0.08 – 0.2	0.10 – 0.3
ø40 · ø50	Speed (m/min)	100 – 200	160 – 220	120 – 180	100 – 220	200 – 1,500
	Feed (mm/tooth)	0.1 – 0.16	0.1 – 0.15	0.12 – 0.15	0.08 – 0.2	0.10 – 0.3

Caution

- ·Nose radius 0.2 inserts are suitable for light cutting. Care should be taken in the selection of both axial & radial depth of cut as well as the feed rate.
- ·This table is a general guideline for cutting data. Please adjust according to machine and workpiece conditions, as well as width of cutting.
- ·Dry cutting (including air blow) is recommended when cutting of steel, except for finishing.
- ·Dry cutting is recommended for stainless steel. However use soluble oil in a case where severe built-up edge occurs.

Finish milling with axial DOC of 0.2mm or smaller.

Cutter Dia.	Work Material	Carbon steel Alloy steel	Unalloyed steel	Stainless steel	Cast iron
	Insert Grade	ACP200		ACZ310	
	Cutting fluid	Wet			
ø12 – ø50	Speed (m/min)	200 – 250			
	Feed (mm/tooth)	0.1 – 0.2			

Caution

- ·For aluminium alloy, same conditions as "Finish-light cutting" shown above should be applied.
- ·For finishing of steel, wet cutting improves both surface finish and insert life. ACZ310 grade extends the life further.

Application example

FULLCUT MILL FCM

■Slot Milling

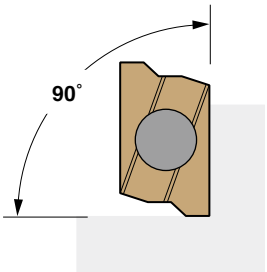
Only FULLCUT MILL was capable of achieving this data in a No.40 spindle taper machine.

Fullcut Mill	**BBT40-FCM32113-85**
Insert	ARG321104(ACP300)
Work Material	C50(S50C)
Cutting Speed V (m/min.)	150
Feed Rate f (mm/tooth)	0.12
Axial DOC Ad (mm)	9

■Shoulder Milling

Excellent perpendicularity is achieved.

Fullcut Mill	**BBT40-FCM32113-85**
Insert	ARG321104(ACP300)
Work Material	C50(S50C)
Cutting Speed V (m/min.)	200
Feed Rate f (mm/tooth)	0.15
Axial DOC Ad (mm)	11
Radial DOC Rd (mm)	5



■Face Milling

Finishing surface roughness was Rz=2.53 at V=200, F=0.15 cutting data.

Fullcut Mill	**BBT40-FCM50115-70**
Insert	ARG401104(ACP300)
Work Material	C50(S50C)
Cutting Speed V (m/min.)	200
Feed Rate f (mm/tooth)	0.15
Axial DOC Ad (mm)	1
Radial DOC Rd (mm)	30

	Surface Roughness Rz
BIG DAISHOWA	**2.53**
Manufacturer A	3.75
Manufacturer B	4.32

■Material of Low Machineability

High efficiency and stable milling (F=1,140mm/min.) is achieved.

Fullcut Mill	**ST25-FCM25093-120**
Holder	BBT50-MEGA25D-105
Insert	ARG250904(ACZ350S)
Work Material	SUS304 Stainless steel
Cutting Speed V (m/min.)	150
Feed Rate f (mm/tooth)	0.2
Axial DOC Ad (mm)	9
Radial DOC Rd (mm)	3

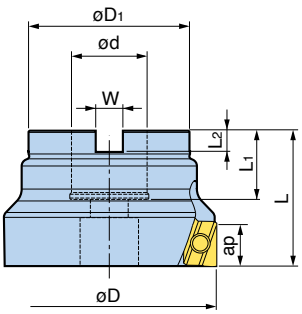
Square Shoulder and Face milling

FULLCUT MILL FCM

Corresponding to Form FMH of new standard face milling adaptor

ARBOR type

Cutter Dia
ø50, ø63, ø80



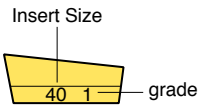
Form FMH / FMC

Cutter dia øD	Model	ap	ød	øD1	L	L1	L2	W	No. of Insert	Insert Size	Weight (kg)
50	**FMH22-FCM50115-40**	11	22	47	40	20	6	10.4	5	ARG40	0.5
63	**-FCM63116-40**		22	47	40	20	6	10.4	6	ARG63	0.7
80	**FMH27-FCM80116-50**		27	60	50	22	7	12.4	6	ARG80	1.2

For FMC Type BBT: A 45
For FMC Type BDV: B 11
For FMH Type BBT: A 46
For FMH Type HSK: C 23

■Indexable Inserts

Marking Description



1: ACZ310
2: DS20
P2: ACP200
P3: ACP300
5S: ACZ350S

Cutter Dia	Insert Model	ap	Nose R	P		M	K	N
				ACP200	ACP300	ACZ350S	ACZ310	DS20
ø50	**ARG401102**	11	0.2		○	○	○	○
	ARG401104	11	0.4	○	○	○	○	○
ø63	**ARG631108**	11	0.8	○	○	○	○	○
ø80	**ARG801108**	11	0.8	○	○	○	○	○

※**Inserts are available in packets of 10 pcs.**
Please clarify the insert type and grade when ordering.
For example, use ordering code: ARG401104ACP300.

⚠Caution

- **It is important to use the correct insert for the diameter of FULLCUT MILL. Failure to use the correct insert will result in incorrect cutting conditions and poor results.**

Insert Classifications

ISO	Grade	Material	Coating
P20	**ACP200**	Prehardened steel	TiAlN / AlCrN
P30	**ACP300**	General steel	
M30	**ACZ350S**	Stainless steel	TiAlN / TiCN
K10	**ACZ310**	Cast Iron	
N20	**DS20**	Aluminum	DLC

Selection between ACP300 and ACP200 for steel.
ACP200 is superior in anti-wear resistance, while ACP300 is superior in its anti-chipping property. ACP300 is the first recommendation for steel cutting.
Choose ACP200 over ACP300 in cases where further speed or wear-resistance is needed. ACP200 is not, however, recommended for either heavily-interrupted or heavy-duty cutting.

■ Spare Parts

		Insert Clamping Screw Set (10) screws & (1) wrench	Wrench	Anti-seizure Lubricant 5g contained
Cutter Dia	Insert	Model	Model	Model
ø50	ARG401102	S3508DS	DA-T15	BN-5
	ARG401104			
ø63	ARG631108			
ø80	ARG801108			

Note It is recommended to regularly replace clamping screws and wrench to ensure the correct clamping force is maintained.

FCM ARBOR type Recommended Cutting Condition

Square Shoulder and Face milling

Caution
FULLCUT MILL, FCM ARBOR type, cannot be used for feeding in Z-axis such as ramping, plunging and boring.

■ Finish-light cutting

Cutter Dia.	Work Material	Carbon steel Alloy steel	Unalloyed steel	Prehardened steel <HRC40	Stainless steel	Cast iron	Aluminium
	Insert Grade	ACP300		ACP200	ACZ350S	ACZ310	DS20
	Cutting fluid	Dry			Dry/Wet	Dry	Dry/Wet
ø50 ø63 ø80	Speed (m/min)	100 – 220	150 – 240	80 – 120	120 – 180	100 – 200	200 – 1500
	Feed (mm/tooth)	0.1– 0.24	0.1 – 0.22	0.08 – 0.14	0.12 – 0.20	0.10 – 0.25	0.10 – 0.35

■ Medium-heavy cutting

Cutter Dia.	Work Material	Carbon steel Alloy steel	Unalloyed steel	Stainless steel	Cast iron	Aluminium
	Insert Grade	ACP300		ACZ350S	ACZ310	DS20
	Cutting fluid	Dry		Dry/Wet	Dry	Dry/Wet
ø50 ø63 ø80	Speed (m/min)	100 – 220	150 – 240	120 – 180	100 – 200	200 – 1500
	Feed (mm/tooth)	0.08 – 0.18	0.08 – 0.16	0.12 – 0.15	0.10 – 0.20	0.10 – 0.30

Caution
- This table is a general guideline for cutting data. Please adjust according to machine and workpiece conditions, as well as width of cutting.
- Dry cutting (including air blow) is recommended when cutting of steel, except for finishing.
- Dry cutting is recommended for stainless steel. However use soluble oil in a case where severe built-up edge occurs.

Indexable Insert Endmill, achieving the excellent squareness and fine surface finish.

Machined by FULLCUT MILL model : FMH22-FCM63116-40
Arbor model : BBT40-FMH22-27-45

Squareness

Cutting Speed V (m/min.)	150
Feed Rate f (mm/tooth)	0.1
Axial DOC Ad (mm)	5
Radial DOC Rd (mm)	0.1

BIG DAISHOWA	10µm
Other manufacture	40µm

Wiper cutting edge

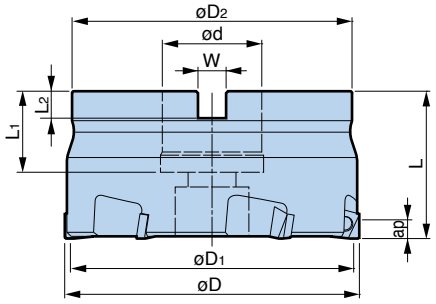
Cutting Speed V (m/min.)	250
Feed Rate f (mm/tooth)	0.2
Axial DOC Ad (mm)	0.1
Radial DOC Rd (mm)	50

BIG DAISHOWA	Ra=0.51µm
Other manufacture	Ra=1.56µm

High speed cutter for aluminum and cast iron

SPEED Finisher

Amazing improvement of surface finish at high speed cutting.



Model	Diameter øD	øD1		øD2	ød	L	L1	L2	W	No. of insert	MAX min-1	Clamp Bolt	Weight (kg)
		DA2200	CBN										
FM22-PLS505-35	50	46.9	44.9	47	22	35	19	6	10.4	5	20,000	M10 Cap Screw	0.4
FM22-PLS636-35	63	59.9	57.9	60	22	35	19	6	10.4	6			0.7
FM27-PLS806-40	80	76.9	74.9	76	27	40	22	7	12.4		16,000	M12 Cap Screw	1.2
FM32-PLS1006-42	100	96.9	94.6	96	32	42	24	8	14.4		12,800	MBA-M16	2.0

1. Wrench and screws are included. Inserts are ordered separately.
2. When using at 12,000min-1 or higher speed, contact BIG agent for balancing of the cutter and arbor assembly.
3. Effective cutting edge length ap varies depending on insert models. Refer to the table for insert shown below.
4. Adjusting amount of cutting edge is 0.1mm. Note this when using reground insert.

■Insert

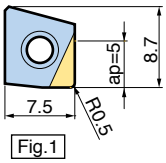


Fig.1

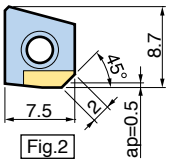


Fig.2

Insert model	Workpiece	Fig.	Material	Cutting edge length
PL0705 DA2200	Aluminum & nonferrous	1	PCD	5.0
PL0705 CBN	Cast iron	2	CBN	0.5

1. Each insert is packed in a case. **[Order example] PL0705 DA2200 5pcs.**
2. Regrinding of the insert is possible only once (grinding amount 0.2mm).
   Early regrinding is recommended, as regrinding becomes unavailable in the case excessive wear or chipping occurs.

■Insert grade

DA2200	CBN
High density sintered material made of ultra-micro diamond particles. Superior hardness comparable to carbide alloy and wear resistance.	Newly designed CBN sintered body with high content rate of CBN improves toughness and thermal conductivity.

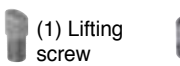
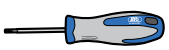
Recommended cutting condition

Workpiece material		Insert material	Cutting speed (m/min)	Feed rate (mm/tooth)	Coolant
Aluminum alloy	Si content 13%≧	DA2200	2,000 – 4,000	0.05 – 0.2	Wet
	Si content 13%<		400 – 800		
Copper alloy		DA2200	500 – 2,500	0.05 – 0.2	Wet
Gray cast iron		CBN	800 – 2,000	0.1 – 0.3	Dry

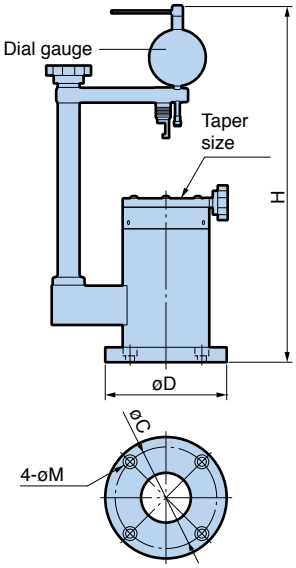
The table is a reference to determine cutting conditions. It should be adjusted according to cutting width, conditions of the machine tool and workpiece.

■Spare parts

Insert clamping screws and wrenches are consumables. Regular replacement and storage are recommended.

● Lifting Screw Set	● Insert Clamping Screw Set	● Wrench	● Anti-seizure Lubricant
 (1) Lifting screw (1) Lifting nut	(10) Screw & (1) Wrench 		 5g contained
Model	Model	Model	Model
LSN35	**S2506DS**	**DA-T8**	**BN-5**

■ PL Presetter



Necessity of cutting edge presetting

●Exclusive presetter for quick adjustment in micron order.
●Each cutting edge height is adjustable within 15 sec.

Model	Taper size	H	øD	øC	øM	Max. tool length	Weight (kg)
PLP-BBT30	BBT30	＞417	122	102	9 (for M8)	150	7.5
-BBT40	BBT40						7.6
-BBT50	BBT50	＞502	172	149	11 (for M10)	160	17.5
-HSK63	HSK-A63	＞417	122	102	9 (for M8)	150	7.7

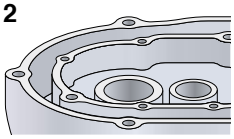
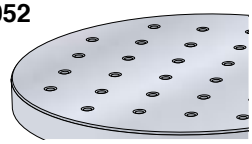
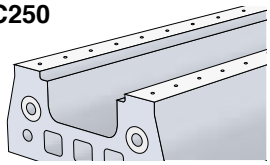
1. Dial gauge and indicator stabilizer (2pcs. AAA batteries included) are standard accessories.
2. Min. reading of the accessory dial gauge is 0.001mm.
3. BT shank cannot be used.
4. Max. tool length indicated in the table is the dimension from the gauge line of the arbor to the cutting edge.
5. Max. cutter diameter is ø160mm.

■ Arbor

Cutter dia.	BBT30	BBT40	BBT50	HSK-A63
ø50	**BBT30-FMH22-47-45**	**BBT40-FMH22-47- 45 - 60 - 90**	**BBT50-FMH22-47- 60 -105**	**HSK-A63-FMH22-47- 45 -60 -90**
ø63		**BBT40-FMH22-60- 45 - 60 - 90**	**BBT50-FMH22-60- 60 -105**	
ø80	**BBT30-FMH27-60-45**	**BBT40-FMH27-76- 60 - 90**	**BBT50-FMH27-76- 45 -90**	**HSK-A63-FMH27-60- 60 -90**
ø100	–	**BBT40-FMH32-96- 60**	**BBT50-FMH32-96- 45 -90**	–

Application example

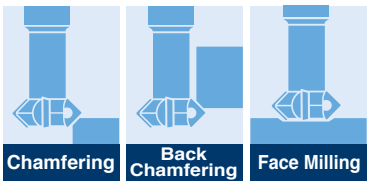
(Cutter diameter : ø80)

Workpiece	Conditions	Surface roughness	Height difference	No. of workpiece	Result
Crankcase ADC12 	Cutting speed : 4,000m/min Spindle speed : 15,900min^{-1} Feed rate : 9,550mm/min Depth of cut : 2.5mm	**Ra=0.08μm Rz=0.55μm**	**Within 1μm**	**24,000**	**Rough & finish processes are combined in a single operation.**
Parts of semiconductor manufacturing equipment A5052 	Cutting speed : 4,000m/min Spindle speed : 15,900min^{-1} Feed rate : 9,550mm/min Depth of cut : 2.0mm	**Ra=0.07μm Rz=0.32μm**	**Within 1μm**	**320**	**Mirror finish is achieved.**
Machine tool bed FC250 	Cutting speed : 1,500m/min Spindle speed : 6,000min^{-1} Feed rate : 3,600mm/min Depth of cut : 0.5mm	**Ra=0.12μm Rz=0.67μm**	**Within 2μm**	**20**	**1 to 2μm flatness is obtained.**

Ultra High Feed Chamfer Mill

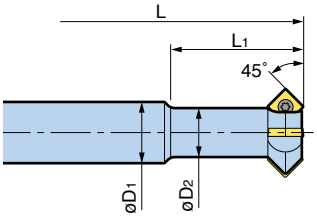
C-CUTTER mini

Front & back chamfering



Multi insert type

World's smallest Hexagon insert



Detailed dimension

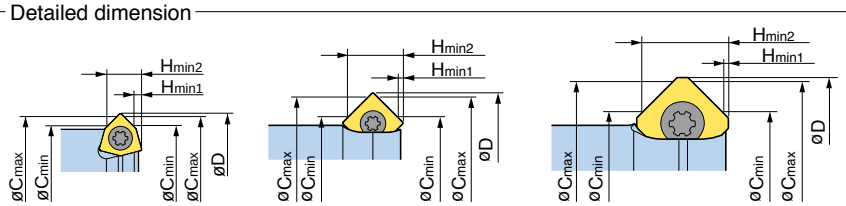


Fig. 1 Fig. 2 Fig. 3

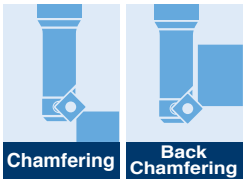
Model	Face Milling	Fig.	øD	øD1	øD2	L	L1	øCmin	øCmax	Hmin1	Hmin2	Insert Model	No. of Insert
ST12-C1012-45B-20	–	1	12.7	12	9	93	20	10	12	1.0	3.7	CM04…	3
-35						108	35						
ST12-C1116-45B-25	–	2	17.1	12	9.6	98	25	11	16	0.4	6.5	CM05…	4
-40						113	40						
ST16-C1520-45B-50	–	2	20.7	16	13.2	123	50	15	20	0.6	6.3		
ST20-C1924-45B-60	–	2	24.7	20	17.2	143	60	19	24	0.6	6.3		
ST20-C2232-45B-50	○	3	32.7	20	19.2	130	50	22	32	0.4	12.4	CM10…	
-80						160	80						
ST32-C3242-45B-65	○	3	42.7	32	30.6	175	65	32	42	0.4	12.4		
-100						211	100						

1. Wrench and screw are included. Inserts are ordered separately (10/pkg).
2. 10 screws and 1 wrench are included in Insert Clamping Screw Set.
3. In case of chamfering with 4 insert type, chatter may occur due to increased cutting resistance when plunge cutting. Please try the different types with less inserts, 1 or 2.

Refer to table A on page I 29 for cutting conditions.

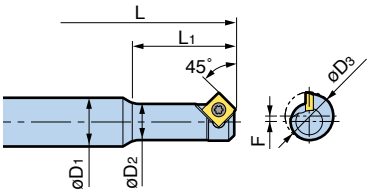
For Insert : I 29

Front & back chamfering

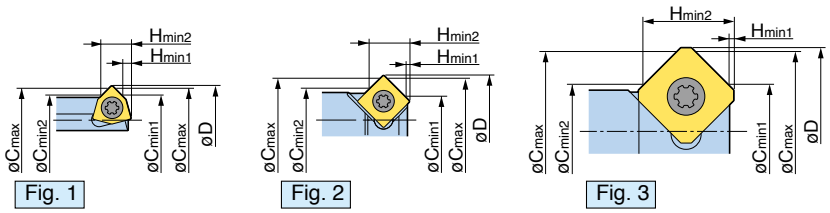


Single insert type

World's smallest
Hexagon insert



Detailed dimension



Model	Fig.	øD	øD1	øD2	øD3	L	L1	øCmin1	øCmin2	øCmax	Hmin1	Hmin2	Offset F	Insert Model
ST10-C0608-45B-16	1	8.8	10	5.7	5.7	78	16	6	6	8	1.0	3.8	1.55	CM04…
ST10-C0409-45B-20	2	9.8	10	5.4	7.7	86	20	4	6	9	0.5	5.4	1.1	CM05…
ST10-C0611-45B-20	2	12.0	10	7.4	9.8	81	20	6	8	11	0.4	5.5	1.1	CM05…
-35						96	35							
ST16-C1222-45B-40	3	22.6	16	11.0	16.9	117	40	12	12	22	0.3	12.4	2.9	CM10…

1. Wrench and screw are included. Inserts are ordered separately (10/pkg).
2. 10 screws and 1 wrench are included in Insert Clamping Screw Set.

Refer to table A on page I 29 for cutting conditions.

For Insert : I 29

Ultra High Feed Chamfer Mill

C-CUTTER mini

Front & back chamfering

Bolt hole & starting hole for tapping type

Tap size : M8 - M20

World's smallest

Hexagon insert

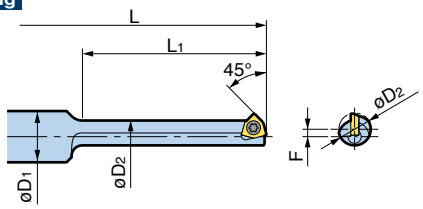
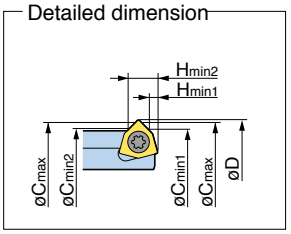


Fig. 1



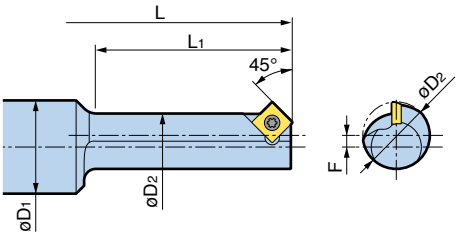
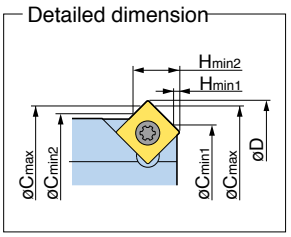


Fig. 2



● in the table indicates Long Type

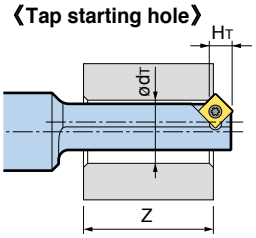
Model	Fig.	øD	øD1	øD2	L	L1	øCmin1	øCmin2	øCmax	Hmin1	Hmin2	Offset F	Insert Model
ST10-CM08-45B-19	1	9.2	10	6.3	81	19	6.4	6.6	8.4	1.0	3.7	1.45	CM04…
-35 ●					97	35							
ST12-CM10-45B-25	2	11.3	12	8.0	99	25	5.5	8.3	10.5	0.5	5.0	1.65	CM05…
-45 ●					119	45							
ST12-CM12-45B-29	2	13.4	12	9.7	102	29	7.6	10.0	12.6	0.5	5.2	1.85	
-53 ●					126	53							
ST16-CM14-45B-33	2	15.5	16	11.5	107	33	9.7	11.8	14.7	0.5	5.3	2.00	
-61 ●					135	61							
ST16-CM16-45B-37	2	17.6	16	13.5	110	37	11.8	13.8	16.8	0.5	5.4	2.05	
-69 ●					142	69							
ST20-CM18-45B-42	2	19.7	20	14.9	126	42	13.9	15.2	18.9	0.5	5.7	2.40	
-78 ●					162	78							
ST20-CM20-45B-46	2	21.8	20	16.9	129	46	16.0	17.2	21.0	0.5	5.8	2.45	
-86 ●					169	86							

1. Wrench and screw are included. Inserts are ordered separately (10/pkg).
2. 10 screws and 1 wrench are included in Insert Clamping Screw Set.
3. For ● Long Type, standard insert is recommended rather than "SE" sharp edge insert to avoid chipping.

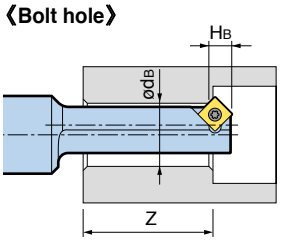
For Insert : I 29

Refer to page I 29 for cutting conditions, **table A** for long models marked with ●, table **B** for other models.

《Tap starting hole》



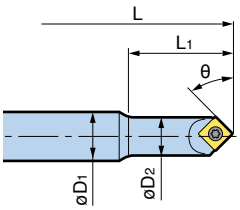
《Bolt hole》



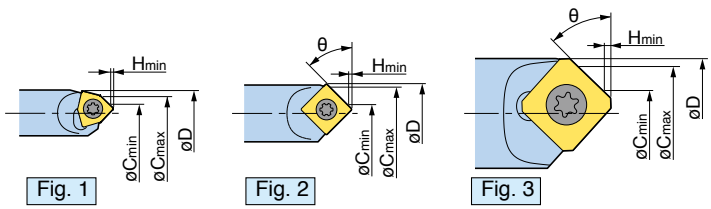
Cutter Type	Tap starting hole		Bolt hole		Z	
	ødT	HT	ødB	HB	Standard type	Long type
CM08	6.8(M8)	3.6	6.6 (M6)	3.7	13	29
CM10	8.5(M10)	4.9	9 (M8)	4.6	17	37
CM12	10.3(M12)	5.0	11 (M10)	4.7	21	45
CM14	12.0(M14)	5.2	–	–	25	53
CM16	14.0(M16)	5.3	14 (M12)	5.3	29	61
CM18	15.5(M18)	5.6	16 (M14)	5.3	33	69
CM20	17.5(M20)	5.6	18 (M16)	5.4	37	77

Front chamfering

World's smallest
Hexagon insert



Detailed dimension



Model	Fig.	θ	øD	øD1	øD2	L	L1	øCmin	øCmax	Hmin	Insert Model
ST10-C0204-45-15	1	45°	6.3	10	6	78	15	2	4	0.4	CM04…
-25						88	25				
ST10-C0207-45-20	2	45°	8.1	10	7.8	81	20	2	7	0.4	CM05…
-35						96	35				
ST16-C0515-45-50	3	45°	15.8	16	15.2	122	50	5	15	0.4	CM10…
ST16-C0214-30-40	3	30°	15.9	16	15.4	105	40	2	14	0.2	CM10…
ST16-C0916-60-40	3	60°	16.5	16	15.6	105	40	9	16	0.8	CM10…

1. Wrench and screw are included. Inserts are ordered separately (10/pkg).
2. 10 screws and 1 wrench are included in Insert Clamping Screw Set.
3. Centering is not possible.

Refer to table A on page I 29 for cutting conditions.

For Insert : I 29

Ultra High Feed Chamfer Mill

C-CUTTER mini

■Indexable Inserts

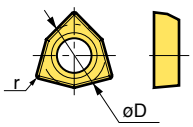


Fig. 1

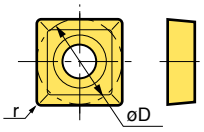


Fig. 2

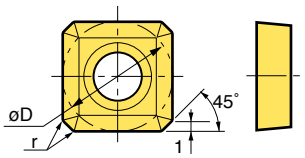
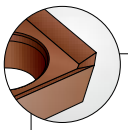


Fig. 3

The suffix **SE** designates a sharp cutting edge version.

Fig.	Insert Model	øD	Nose R	P	M	K	N	Insert Clamping Screw Set
				ACP300	ACP200		DS20	
1	**CM0402**	3.97	0.2	○	–		–	**S2SS-T6**
2	**CM0502**	5	0.2	–	○		○	**S2TS-T6**
	CM0502SE			○	○		–	
3	**CM10C1**	10	0.2	–	○		○	**S4S-T15**
	CM10C1SE			–	○		–	

1. **Inserts are available in packet of 10pcs. Please specify model number and grade. (ie: CM0502-ACP200)**
2. It is recommended to regularly replace clamping screws and wrench to ensure the correct clamping force is maintained.



Sharp cutting edge insert

Sharp cutting edge minimises the generation of burrs. This is especially beneficial when cutting stainless and mild steel materials.

Anti-seizure Lubricant

5g contained

Model	BN-5

Recommended cutting condition

A (Standard conditions)

Work Material	Insert Grade	Cutting Speed Vc (m/min)	Feed rate f (mm/tooth)		Coolant
			Chamfering	Face Milling (CM10 insert only)	
General steel, Alloy steel, High-alloy steel	ACP200 ACP300	100 – 350	0.05 – 0.4	0.05 – 0.2	Dry
Prehardened steel (Less than HRC40)		60 – 100	0.05 – 0.1	0.05 – 0.1	Wet
Stainless steel		100 – 250	0.08 – 0.3	0.08 – 0.2	Dry/Wet
Cast iron		100 – 350	0.1 – 0.5	0.05 – 0.25	Dry
Aluminum, Non-ferrous	DS20, ACP300	100 – 800	0.1 – 0.5	0.05 – 0.3	Dry/Wet

1. The table is just a reference to determine cutting conditions.
   It should be adjusted according to the condition of the machine tool and workpiece.
2. Wet cutting is recommended to obtain the good surface quality.
3. In case built-up edge occurs when cutting aluminum and stainless steel, use soluble oil.

B (For long models of "bolt hole & starting hole for tapping type".)

Work Material	Insert Grade	Cutting Speed Vc (m/min)	Feed rate f (mm/tooth)	Coolant
General steel, Alloy steel, High-alloy steel	ACP200 ACP300	20 – 100	0.03 – 0.12	Wet
Cast iron		50 – 160	0.05 – 0.20	Dry
Aluminum, Non-ferrous		30 – 100	0.03 – 0.12	Wet

1. The table is just a reference to determine cutting conditions.
   It should be adjusted according to the condition of the machine tool and workpiece.
2. For stainless steel and hardened steel, shorter models are recommended.

C-CUTTER mini

■Front & Back chamfering for Stainless

Material : X5CrNi18-9
Chamfer : 3mm x 45˚
Feed : 0.1mm/tooth

	Competitor's tool (with TiAlN coated carbide insert)	C-CUTTER mini (ST20-C2232-45B-50)
Chamfering dia.	ø30	ø28
Number of tooth	1	4
Cutting speed (m/min)	140	180
Spindle speed (min^{-1})	1,490	2,050
Feed (mm/min)	149	819
Result	**5 times better cutting efficiency**	

■Chamfering for Aluminum

Material : Al-Si7Mg(Fe)
Chamfer : 0.5mm x 45˚
Feed : 0.1mm/tooth

	Competitor's tool	C-CUTTER mini (ST12-C1116-45B-25)
Chamfering dia.	ø40	ø12
Number of tooth	3	4
Cutting speed (m/min)	200	600
Spindle speed (min^{-1})	1,590	15,920
Feed (mm/min)	477	6,370
Result	**13 times better cutting efficiency**	

■Front & back chamfering of starting holes for M8 tapping

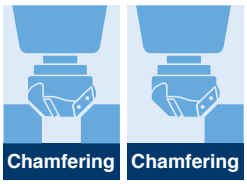
Material : FC250
Tapped hole : ø6.6
Chamfering dia. : ø8.4

	Competitor's tool (with Non-coated carbide insert)	C-CUTTER mini (ST10-CM08-45B-19)
Cutting speed (m/min)	30	150
Spindle speed (min^{-1})	1,140	5,680
Feed per tooth (mm/rev)	0.05	0.1
Feed (mm/min)	57	568

Chamfer cutter

C-CUTTER

Coolant-through hole

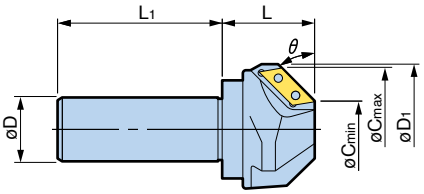


Standard type

30˚& 60˚chamfering types are newly introduced.

One C-Cutter to cover a wide chamfering range.

ø5 - ø25 | ø10 - ø40 | ø30 - ø60 | ø50 - ø100



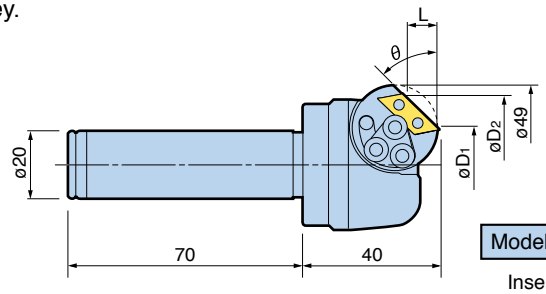
Chamfering angle θ	Chamfer øCmin.	Chamfer øCmax.	Model	øD	øD1	L	L1	No. of Insert	Insert Model	Screw Set	Wrench
30˚	16	52	**ST32-C1652C-30**	32	68	48	80	2	CW19	S3S	FLR-20S
	50	85	**ST42-C5085C-30**	42	96	52	80	3			
45˚	5	25	**ST20-C0525C**	20	33	25	60	1	CW12	S2S-B	FLR-13S
	10	40	**ST25-C1040C**	25	45	35	70	2	CW19	S3S	FLR-20S
	30	60	**ST32-C3060C**	32	65	45	80	3			
	50	100	**ST42-C50100C**	42	106	70	80	3	CW31	S5S	FLR-28S
60˚	14	34	**ST25-C1434C-60**	25	39	37	58	2	CW19	S3S	FLR-20S
	30	50	**ST32-C3050C-60**	32	54	45	80	3			
	45	65	**ST32-C4565C-60**	32	69	50	80	3			

1. Inserts are ordered separately. An Insert Clamping key and Screws are included.
2. 10pcs. of screws and 1pce. of wrench are included in Screw Set.

For Insert : I 32
For Cutting Condition : I 32

Universal type

Easy angle adjustment from 5° to 85° with a hex key.

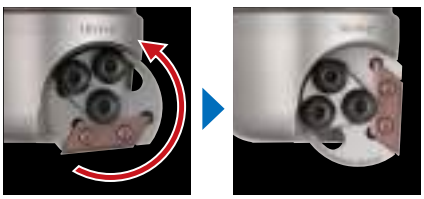


Model	ST20-C5/85A-40

Insert Model : **CW12**

For Insert : I 32
For Cutting Condition : I 32

● Easy angle adjustment with a hex key.

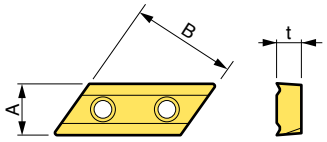


【Chamfering range】

Angle θ	Smallest hole dia. øD1	Largest chamfering dia. øD2	L	Angle θ	Smallest hole dia. øD1	Largest chamfering dia. øD2	L
5°	5.5	33.5	1.2	50°	24.0	42.2	10.8
10°	7.3	34.7	2.4	55°	26.4	42.4	11.4
15°	9.0	36.2	3.6	60°	28.5	42.5	12.1
20°	11.2	37.4	4.7	65°	30.7	42.4	12.5
25°	13.0	38.6	5.9	70°	32.9	42.1	12.6
30°	15.2	39.6	7.0	75°	34.9	41.7	12.7
35°	17.4	40.5	8.0	80°	36.9	41.1	11.9
40°	19.6	41.2	9.0	85°	38.8	40.3	8.6
45°	21.8	41.8	10.0				

Chamfering range and L dimensions are reference figures.

■Indexable Inserts



A=Non-coated **AZX**=TiCN+TiAlN multilayer coating

Insert Model	A	B	t	P30	P20
				A	AZX
CW1206	6.35	12.7	2.7	○	○
CW1909	9.525	19.05	4.5	○	○
CW3115	15.875	31.75	7.0	○	○

1. Insert is available from 1 pce.
2. Insert set is available in packs of 10 pcs. Please add "S" before each model number when ordering.
   Example:**SCW1206A**

Recommended cutting conditions

Cutter Type	Max. Chamfer	Chamfering	General steel Alloy steel		Stainless steel		Cast iron		Aluminum	
			V (m/min)	f (mm/rev)	V (m/min)	f (mm/rev)	V (m/min)	f (mm/rev)	V (m/min)	f (mm/rev)
ST20-C5/85A-40	※2mm	Plunge Cutting	50	0.1	30	0.08	40	0.1	80	0.1
		Side Cutting	80	0.15	60	0.1	50	0.15	100	0.2
C0525C	C2	Plunge Cutting	50	0.1	30	0.08	40	0.1	80	0.1
		Side Cutting	80	0.15	60	0.1	50	0.15	100	0.15
C1040C	C3	Plunge Cutting	90	0.15	40	0.12	60	0.15	100	0.2
C1434C-60 **C1652C-30**	※3mm	Side Cutting	120	0.3	60	0.2	90	0.3	150	0.3
C3060C/C3060	C4	Plunge Cutting	120	0.3	60	0.18	90	0.25	150	0.3
C3050C-60 **C4565C-60** **C5085C-30**	※4mm	Side Cutting	150	0.45	60	0.3	120	0.6	200	0.6
C50100C	C4	Plunge Cutting	150	0.4	80	0.25	120	0.35	180	0.4
		Side Cutting	150	0.45	60	0.36	120	0.6	240	0.6

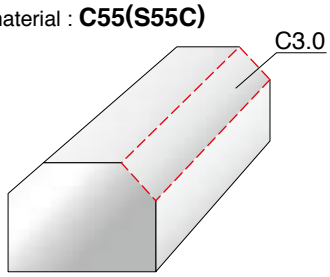
V : Cutting speed (m/min.) f: Feed per revolution (mm/rev.)

1. Cutting condition is the same for both non-coated and coated inserts.
   Coated inserts will achieve better surface finish and extended insert life.
2. Peck feed is necessary in case cutting chips are too long.
3. Reduce cutting speed if a larger chamfer than the max. amount shown in the table is required.
4. A high rigidity toolholder is recommended, such as BIG HMC or MEGA-D Chuck.
5. Max. chamfering amount with ※in 30, 60 degree type and Universal type
   indicates the chamfering length of the longer side.

Application example

■C3 traverse chamfering

Workmaterial : **C55(S55C)**



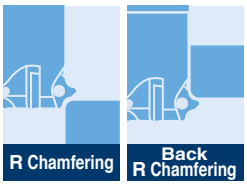
High cutting parameter was achieved without chattering.

C-CUTTER	ST25-C1040
Insert Model	CW1909A
Spindle speed	3,000 min^{-1}
Feed	1,800mm/min

Ultra high feed chamfer mill

R-CUTTER

Front & back R-chamfering are available.
4 inserts multiply feed rate.



Front & back R chamfering

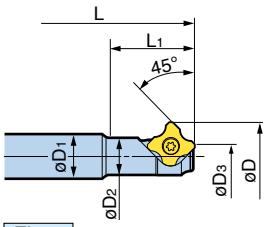


Fig. 1

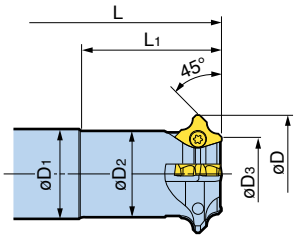
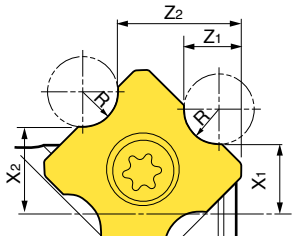


Fig. 2

R-dimensions



Model	Fig.	øD	øD1	øD2	øD3	L	L1	No. of Insert	R	X1	Z1	X2	Z2	Insert Model
ST10-RC061B-15	1	12.3	10	6.6	4.4	78	15	1	0.5	3.61	1.93	4.30	5.58	RC06....
									1	3.35	2.18	4.04	5.33	
									1.5	3.09	2.43	3.78	5.08	
									2	2.83	2.68	3.52	4.83	
ST16-RC121B-30	1	24.4	16	13.3	8.6	103	30	1	1	7.17	3.79	8.56	11.22	RC12....
									2	6.65	4.29	8.03	10.72	
									3	6.13	4.79	7.51	10.22	
									4	5.60	5.29	6.99	9.72	
ST16-RC064B-30	2	21	16	15.2	13.2	101	30	4	0.5	7.89	1.93	8.59	5.78	RC06....
									1	7.64	2.18	8.34	5.53	
									1.5	7.39	2.43	8.09	5.28	
									2	7.13	2.68	7.84	5.03	
ST32-RC124B-50	2	42	32	30.8	26.3	141	50	4	1	15.85	3.79	17.26	11.63	RC12....
									2	15.33	4.29	16.75	11.13	
									3	14.83	4.79	16.24	10.63	
									4	14.31	5.29	15.73	10.13	

■Indexable Inserts

4 corners

Type	Insert model	Radius	Insert Clamping Screw Set
RC06	**RC06050 ACP300**	R0.5	**S2TS-T6**
	RC06100 ACP300	R1.0	
	RC06150 ACP300	R1.5	
	RC06200 ACP300	R2.0	
RC12	**RC12100 ACP300**	R1.0	**S4S-T15**
	RC12200 ACP300	R2.0	
	RC12300 ACP300	R3.0	
	RC12400 ACP300	R4.0	

1. **Inserts are available in packet of 10 pcs.**
2. Material is coated carbide.

Front R chamfering

R Chamfering

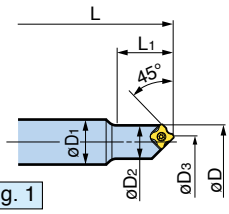


Fig. 1

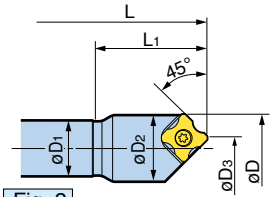
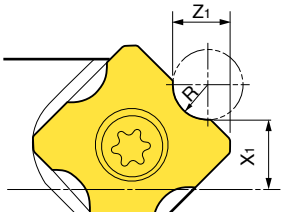


Fig. 2

R-dimensions



Model	Fig.	øD	øD1	øD2	øD3	L	L1	No. of Insert	R	X1	Z1	Insert Model
ST16-RC061-20	1	12.3	16	11.9	4.5	94	20	1	0.5	3.61	1.93	RC06....
									1	3.35	2.18	
									1.5	3.09	2.43	
									2	2.83	2.68	
ST20-RC121-40	2	24.4	20	23.8	8.9	121	40	1	1	7.17	3.79	RC12....
									2	6.65	4.29	
									3	6.13	4.79	
									4	5.60	5.29	

Recommended cutting condition

Workpiece material	Cutting speed (mm/min)	Feed rate (mm/tooth)	Coolant
Structural, carbon or alloy steel	100 – 350	0.05 – 0.2	Dry
Prehardened steel less than HRC40	60 – 80	0.05 – 0.1	Wet
Stainless steel	100 – 250	0.08 – 0.2	Dry / Wet
Cast iron	100 – 350	0.05 – 0.25	Dry
Aluminum	100 – 800	0.05 – 0.25	Dry / Wet

1. The table is a reference to determine cutting conditions. It should be adjusted according to the condition of the machine tool and workpiece.
2. Wet cutting is generally recommended to obtain good surface quality.
3. In case of built-up edge occurs when cutting aluminum and stainless steel, use soluble oil.

Back spot facing tool for cap screw hole

BF-CUTTER

Coolant-through hole

Cap Screw Size : M6 - M16

Selected spot facing diameters suitable for cap screws.

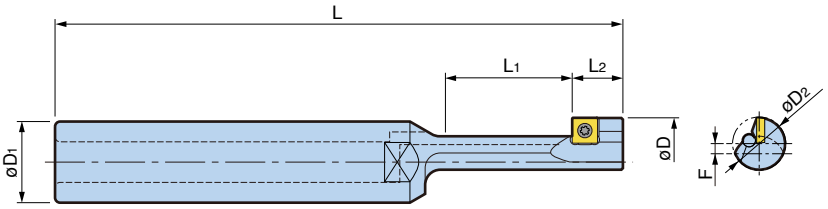


Fig. 1

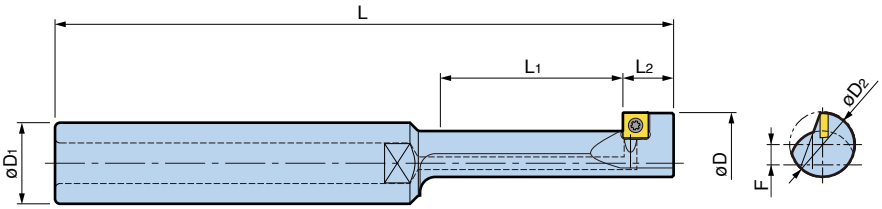
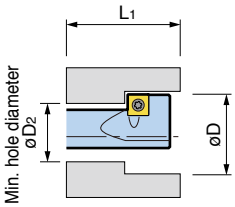


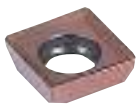
Fig. 2

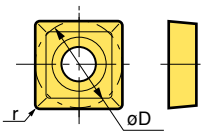


Model	Fig.	Chamfer øD	øD1	Min. hole diameter øD2	L	L1	L2	Offset F	Insert Model
ST16-BFM6 /11-12	1	11	16	6.5	102	12	9	2.40	CM0502
-BFM8 /14-20	1	14	16	8.5	108	20	9	2.90	
-BFM10 /17.5-25	1	17.5	16	10.5	112	25	10	3.65	
-BFM12 /20-36	2	20	16	13	122	36	10	3.65	
ST20-BFM14 /23-49	2	23	20	15	136	49	10	4.15	
-BFM16 /26-56	2	26	20	17	142	56	10	4.65	

1. Wrench and screw are included. Inserts are ordered separately (10/pkg).
2. 10 screws and 1 wrench are included in Insert Clamping Screw Set.

■Indexable Inserts





Model	øD	Nose r	Insert Grade	
			ACP200	DS20
CM0502	ø5	0.2	○	○

■Spare Parts

Cutter Type	Insert Clamping Screw Set	Anti-seizure Lubricant 5g contained
BFM6 / 11	**S2SS-T6**	**BN-5**
BFM8 / 14		
BFM10 / 17.5	**S2TS-T6**	
BFM12 / 20		
BFM14 / 23		
BFM16 / 26		

Recommended cutting condition

Work Material	Insert Grade	Cutting Speed (m/min)	Feed rate (mm/rev)
General steel, High-alloy Steel	ACP200	30	0.03
Cast iron		30	0.03
Aluminum, Non-ferrous	DS20	30 – 50	0.03

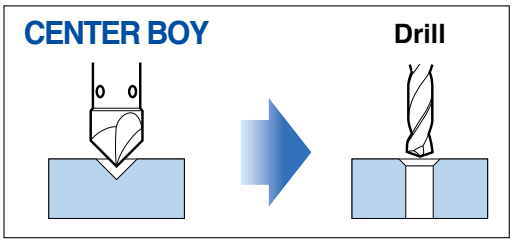
Insert grade

ACP200	DS20
General steel	Aluminum & non-ferrous
High wear-resistant PVD coating on carbide substrate with ultra multilayer TiAlN and AlCrN in micron order.	Ultra smooth and low friction DLC coating on carbide substrate having excellent anti-adhesive property.

Center and Chamfer in one

CENTER BOY

Accurate centering and chamfering can be obtained in a single operation.



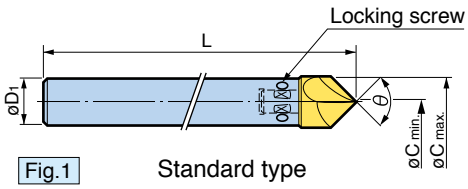


Fig.1 Standard type

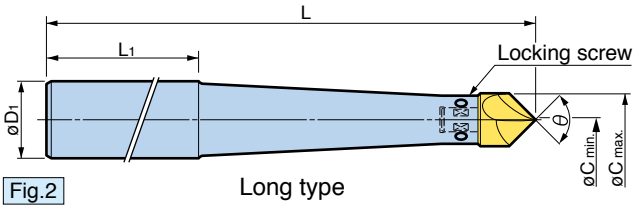


Fig.2 Long type

● in the table indicates Long Type

Chamfering Angle θ	Chamfer øCmin	Chamfer øCmax	Model	Fig.	øD1	L	L1	Insert Model	Spare Locking Screw
90°	0.9	10	**ST10-CBY09010**	1	10	150	–	CBY09010	H0403-5P
	0.9	13	**ST12-CBY09013**		12			CBY09013	
	1.0	16	**ST16-CBY09016**		16	180		CBY09016	H0504-5P
	1.5	22	**ST20-CBY09022**		20			CBY09022	H0505-5P
	0.9	13	**ST20-CBY09013-220** ●	2	20	220	120	CBY09013	H0403-5P
			-260 ●			260			
	1.5	22	**ST32-CBY09022-260** ●		32	260	120	CBY09022	H0505-5P
			-300 ●			300			
120°	0.9	13	**ST12-CBY12013**	1	12	150	–	CBY12013	H0403-5P

1. 2 pcs of Inserts are included as standard accessories.
2. 2 pcs. of Locking Screws are included. Spare Locking Screws are available in a packet of 5 pcs.

⚠ Hand feed is not recommended.

■Insert

Chamfering Angle θ	Model	CENTER BOY
90°	**CBY09010**	ST10-CBY09010
	CBY09013	ST12-CBY09013 / ST20-CBY09013
	CBY09016	ST16-CBY09016
	CBY09022	ST20-CBY09022 / ST32-CBY09022
120°	**CBY12013**	ST12-CBY12013

1. **Inserts are available in packages of 5 pcs.**
2. Insert Grade is HSS with TiN coating.

Highly accurate Replaceable Insert

Recommended cutting condition

Work Material	Cutter Type	Chamfering V (m/min)	Chamfering f (mm/rev)	Centering V (m/min)	Centering f (mm/rev)
General steel Alloy steel	Standard	20 – 35	0.10	25 – 50	0.08
	long	20 – 35	0.08	20 – 50	0.08
Stainless steel	Standard	15 – 30	0.08	20 – 40	0.08
	long	15 – 30	0.06	15 – 30	0.06
Cast iron	Standard	20 – 40	0.12	30 – 45	0.10
	long	20 – 40	0.10	30 – 45	0.10
Aluminum	Standard	45 – 60	0.15	50 – 65	0.15
	long	40 – 60	0.12	40 – 60	0.12

V: Cutting speed (m/min.) f: Feed per revolution (mm/rev.)

1.The table is just a reference to determine cutting conditions. It should be adjusted according to the condition of the machine tool and workpiece.
2. In case vibration occurs, reduce cutting speed V.
3. Projection length should be as short as possible.

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JQA-QM3913
FA Dept.

CATALOG No.EXm400-5-0414-1 H

Subject to technical changes by further developments.