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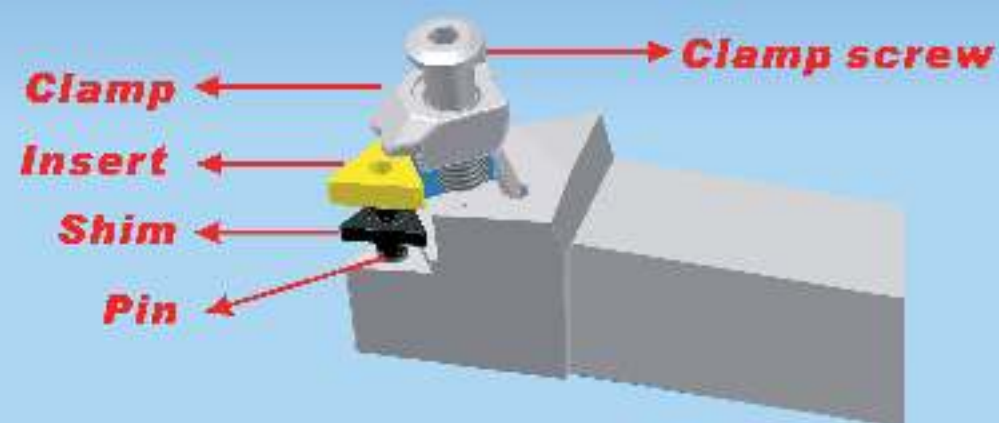
NEW VALUE FRONTI 2013-2014



www.sandhogtools.com

BAO CLAMP HOLDER

Stable & Strong clamping with Bao clamp system



Features

- ★ Simple and powerful clamping system ensures positioning accuracy when inserts clamping.
- ★ Stable structure design and high quality clamp ensures inserts will not move in the high feed processing.
- ★ Optimized design for avoiding chip interference with a powerful clamp, improve inserts life.



BCMNN



BDJNR



BTGNR



BVJNR



BVVNN



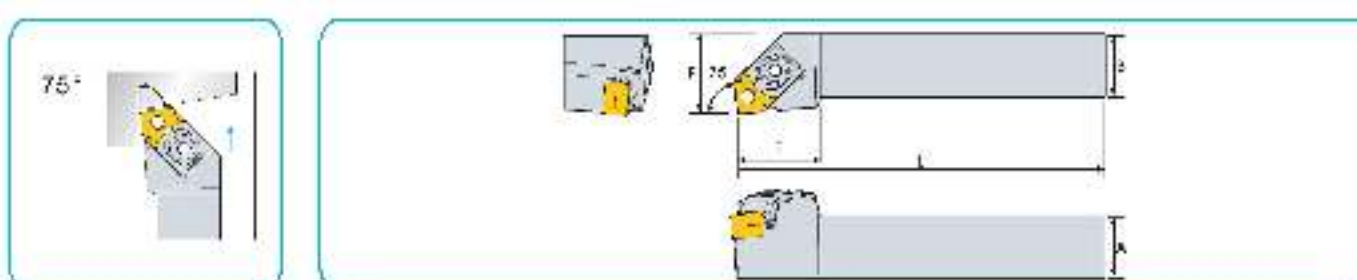
BWLNR

BCBNR/L



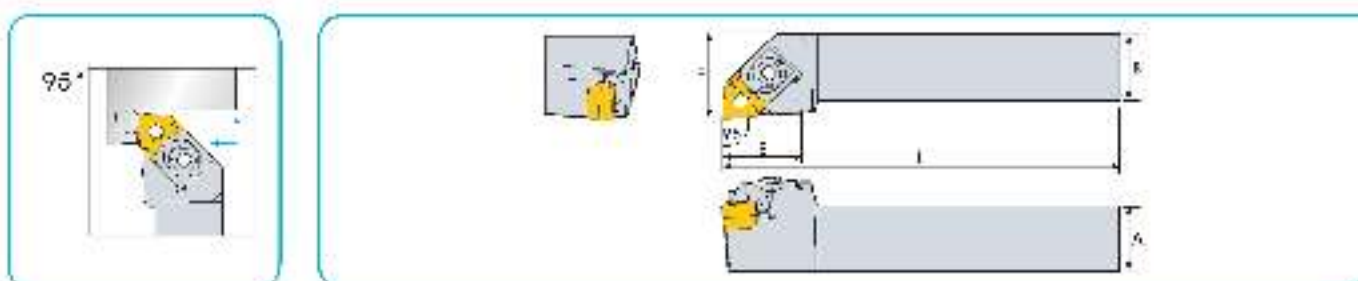
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	R	L	A	B	L	E	F						
BCBNR/L2020K12			90	90	125	32	25						
2525M 2			25	25	150	32	32	CNI 111204	MAC120	CTV6 S	3012-100	BC508	CR07
3232P12			32	32	170	32	40						13.0 L4.0

BCKNR/L



Designation	Stock		Size				Inserts	Shim	Pin	Clamp	Screw	Shim	Wrench
	R	L	A	B	L	E	F						
BCKNR/L2020K12			20	20	125	32	25						
2525M 2			25	25	150	32	32	CNI 111204	MAC120	CTV6 S	3012-100	BC508	CR07
3232P12			32	32	170	32	40						13.0 L4.0

BCLNR/L



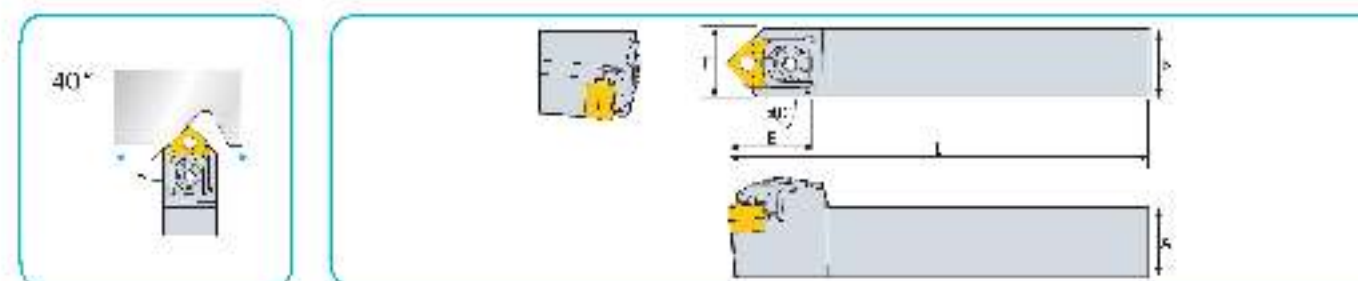
Designation	Stock		Size					Inserts	Shim	Pin	Clamp	Screw	Supporting	Wrench
	R	L	A	B	L	E	F							
BCLNR/L 2020K12	●	●	20	20	125	32	25	CN□□ 1204□□ MC1204 CTM6-S BC12 BCS08 CR07						L3.0 L4.0
2525M12	●	●	25	25	150	32	32							
3232P12	●	●	32	32	170	32	40							
2525M16			25	25	150	32	32	CN□□ 1606□□ MC1604 CTM8-S BC12 BCS08 CR07						L3.0 L4.0
3232P16			32	32	170	32	40							

BCMNN



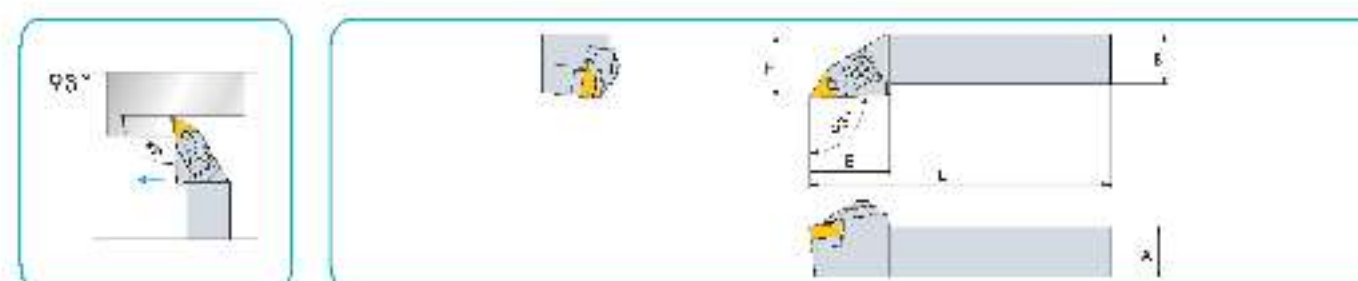
Designation	Stock		Size					Inserts	Shim	Pin	Clamp	Screw	Supporting	Wrench
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BCMNN2020K12	●	●	20	20	125	32	25	CN□□ 1204□□ MC1204 CTM6-S BC12 BCS08 CR07						L3.0 L4.0
2525M12	●	●	25	25	150	32	32							
3232P12			32	32	170	32	40							

BCMNN-100



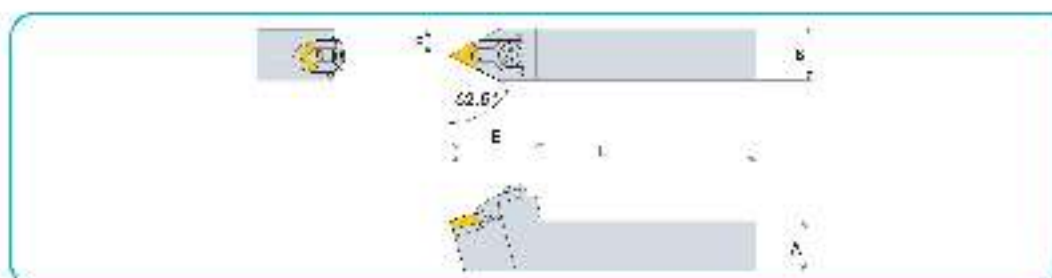
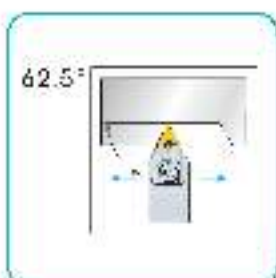
Designation	Stock		Size					Inserts	Shim	Pin	Clamp	Screw	Supporting	Wrench
	R	L	A	B	L	E	F							
BCMNN2020K12-100	●	●	20	20	125	32	25	CN□□ 204□□ MC1204 CTM6-S BC12-100 BCS08 CR07						L3.0 L4.0
2525M12-100	●	●	25	25	150	32	32							
3232P12-100			32	32	170	32	40							

BDJNR



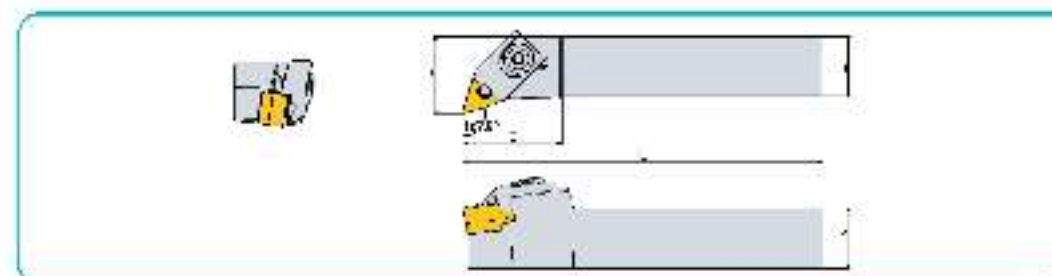
Designation	Stock		Size					Inserts	Shim	Pin	Clamp	Screw	Supporting	Wrench
	R	L	A	B	L	E	F							
BDJNR/L 1616H11	●	●	16	16	100	36	20	DN□□ 1104□□ MC1103 CTM5-S BD11 BCS06 CR05						L2.5, L3.0
2020K11	●	●	20	20	125	36	25							
2525M11	●	●	25	25	150	36	32							
2020K15	●	●	20	20	125	40	25	DN□□ 1506□□ MC1504 CTM6-L BD15 BCS08 CR07						L3.0, L4.0
2525M15	●	●	25	25	150	40	32							
3232P15	●	●	32	32	170	40	40							

BDPNN



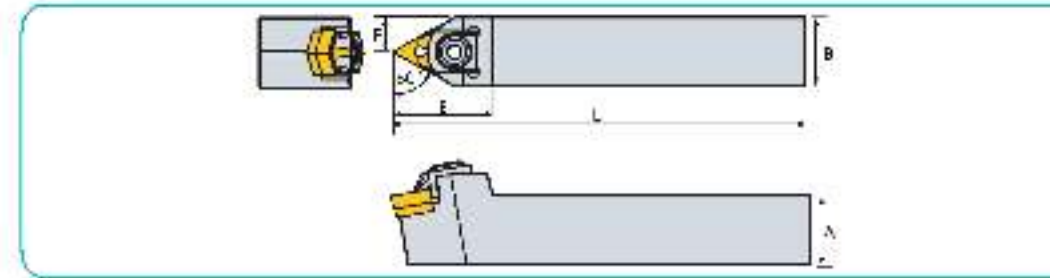
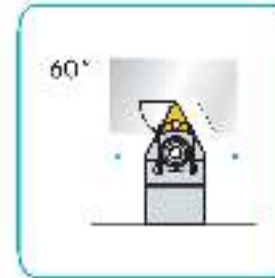
Designation	Stock		Size				Inserts							
	R	L	A	B	L	F		F	Shim	Pin	Clamp	Screw	Supporting	Wrench
BDPNN 2020K15			20	20	25	45	10							
2025M15			25	25	50	45	25	DN□□ 1506□□	MD1504	CTM6-L	BD15	BCS06	CR07	L3.0, L4.0
3232P15			32	32	70	45	16							

BDQNR/L



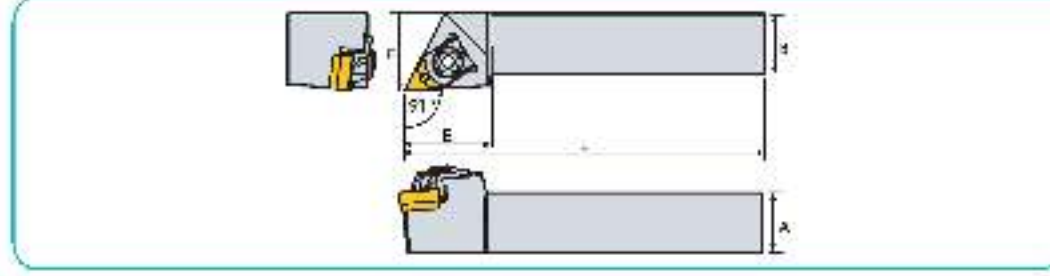
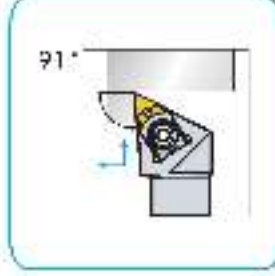
Designation	Stock		Size				Inserts							
	R	L	A	B	L	E								F
BDQNR/L 2020K15			20	20	125	36	25	DNI II II 506 II I WD 504		CTM6 L	BD15	BCS06	CR07	13.0,14.0
2025M15			25	25	150	36	32							
3232P15			32	32	175	36	40							

BTENN



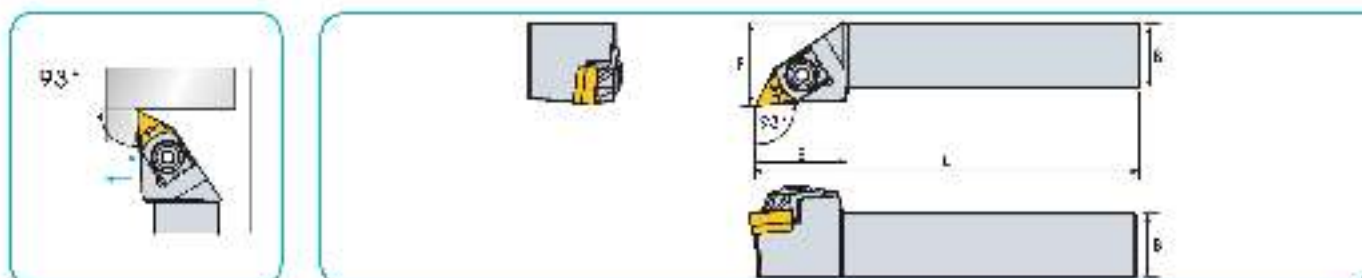
Designation	Stock			Size				Inserts	 Shim	 Pin	 Clamp	 Screw	 Supporting	 Wrench
	R	L	A	B	L	E	F							
BTENN 2020K16	●	●	20	20	125	32	0							
2025M16	●	●	25	25	150	32	25	TN1111604	MT16-S	CTM5-S	BT16	BCS06	CR07	L2.5, L4.0
3232P16			32	32	175	32	16							

BTGNR/L



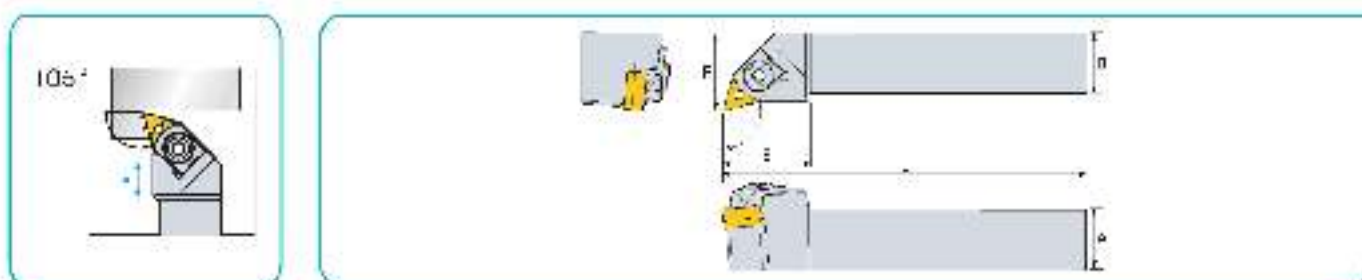
Designation	Stock		Size				Inserts							
	R	L	A	B	L	E								F
BTGNR/L1616H16	●	●	16	16	100	32	20	TN1111604-111	MT16-S	CTM5-S	BT16	BCS06	CR06	L2.5,L3.0
2020K16	●	●	20	20	125	32	25					BCS06	CR06	L2.5,L3.0
2025M16	●	●	25	25	150	32	32					BCS06	CR07	L2.5,L4.0
3232P16			32	32	175	32	40							

BTJNR/L



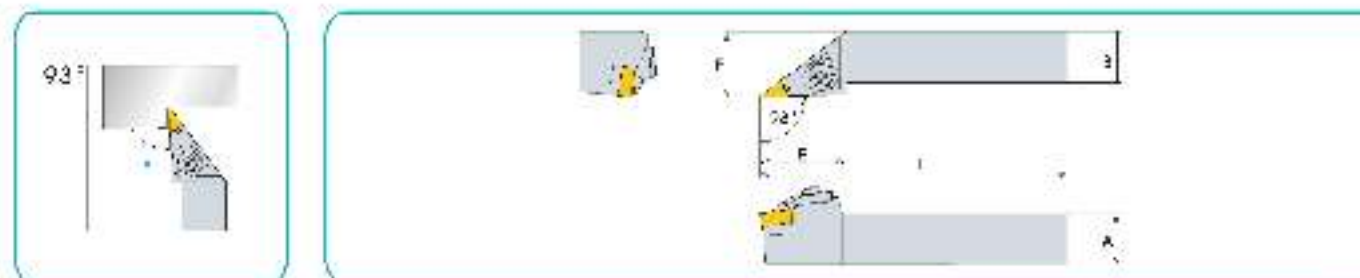
Designation	Stock		Size					Inserts	Pin	Clamp	Screw	Supporting	Wrench
	R	L	A	B	L	E	F						
BTJNR/L 616K16	●	●	16	16	125	30	20	VN□□ 604□□ MV1603 CTM5-S	BT16	BCS06	CR05	L2.5, L3.0	
2020K16	●	●	20	20	125	32	25						
2525M16	●	●	25	25	150	32	32						
3232P16	●	●	32	32	170	32	40						

BTQNR/L



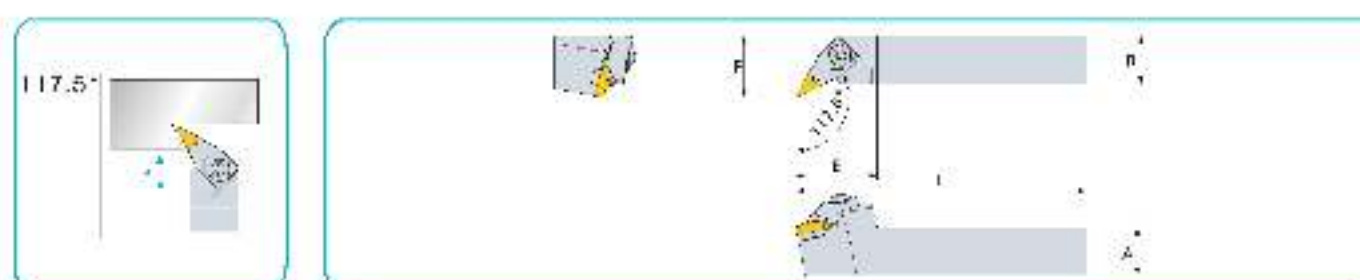
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	R	L	A	B	L	E	F							
BTQNR/L 2020K16	●	●	20	20	125	32	25	VN□□ 604□□ MV1603 CTM5-S	BT16	BCS06	CR07	L2.5, L3.0		
2525M16	●	●	25	25	150	32	32							
3232P16	●	●	32	32	170	32	40							

BVJNR/L



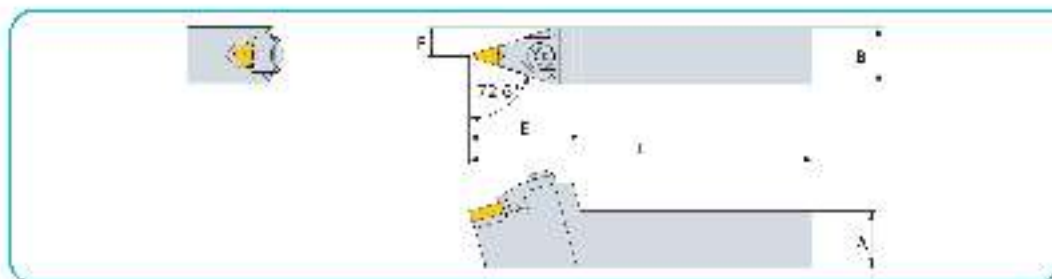
Designation	Stock		Size					Inserts	Pin	Clamp	Screw	Supporting	Wrench
	R	L	A	B	L	E	F						
BVJNR/L 2020K16	●	●	20	20	125	45	25	VN□□ 604□□ MV1603 CTM5-S	BV16	BCS06	CR05	L2.5, L3.0	
2525M16	●	●	25	25	150	45	32						
3232P16	●	●	32	32	170	45	40						

BVQNR/L



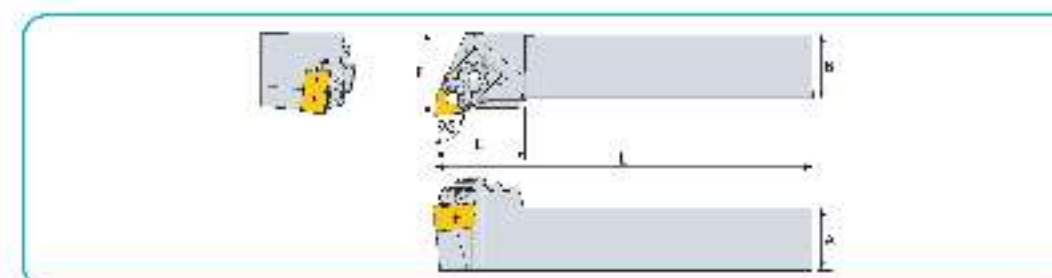
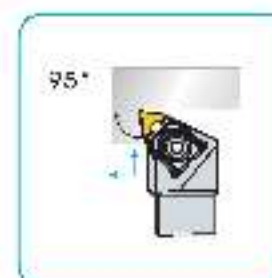
Designation	Stock		Size					Inserts	Pin	Clamp	Screw	Supporting	Wrench
	R	L	A	B	L	E	F						
BVQNR/L 2020K16	●	●	20	20	125	42	25	VN□□ 604□□ MV1603 CTM5-S	BV16	BCS06	CR05	L2.5, L3.0	
2525M16	●	●	25	25	150	42	32						
3232P16	●	●	32	32	170	42	40						

BVVNN



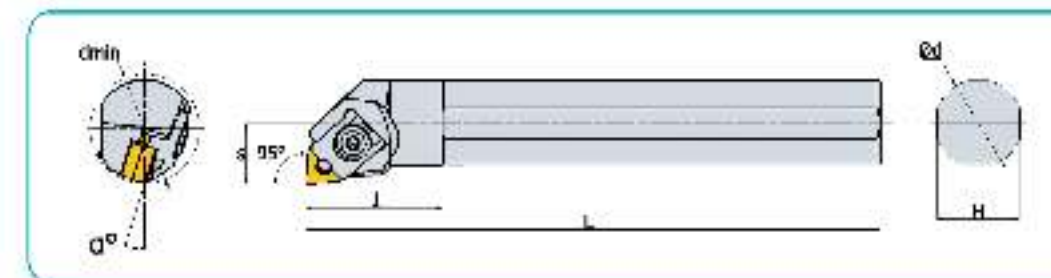
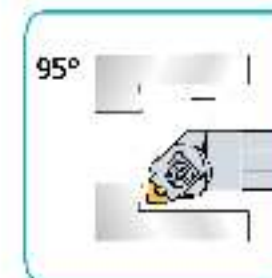
Designation	Stock		Size					Inserts	Shim	Pin	Clamp	Screw	Washer	Wrench
	R	L	A	B	C	D	E							
BVVNN 2020K16	●	●	20	20	125	48	10	VN□□1604□□ M91603 CTM6-S	BW16	BCS06	CR06	12.0, 13.0		
2525M16	●	●	25	25	150	48	12.5							
3232P 6			32	32	170	48	16							

BWLNR/L



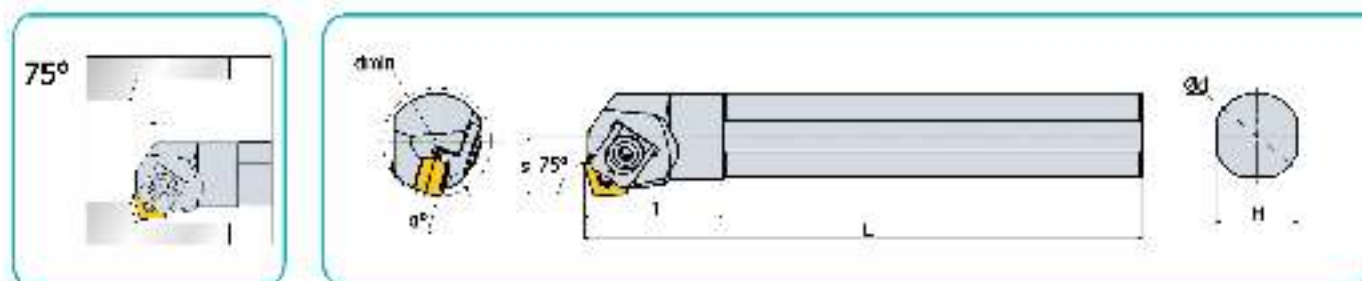
Designation	Stock		Size					Inserts	Shim	Pin	Clamp	Screw	Washer	Wrench
	R	L	A	B	C	D	E							
BWLNR/L 1616H06	●	●	16	16	100	32	20	WN□□0604□□ M90603 CTM6-S	BW06	BCS06	CR06	12.0, 13.0		
2020K06	●	●	20	20	125	32	25							
2525M06	●	●	25	25	150	32	32							
3232P06	●	●	32	32	170	32	40							
2020K08	●	●	20	20	125	32	25							
2525M08	●	●	25	25	150	32	32	WN□□1604□□ M90604 CTM6-S	BW08	BCS08	CR07	13.0, 14.0		
3232P08	●	●	32	32	170	32	40							

BCLN95



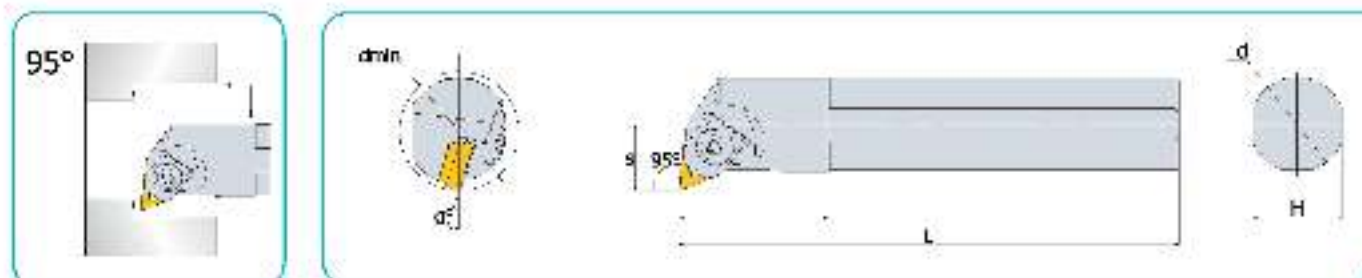
Designation	Stock		Size					Inserts	Shim	Pin	Clamp	Screw	Washer	Wrench
	R	L	min	d	I	L	S							
S32S-BCLNR/L12	●	●	40	32	22	250	14	CN□□1204□□ M1204 CTM6-S BC12 BCS08 CR07 13.0, 14.0						
S32U-BCLNR/L12	●	●	40	328	22	550	14							
S40T-BCLNR/L12	●	●	40	40	27	300	12							
S40W-BCLNR/L12			40	40	27	450	12							
S50U-BCLNR/ 2			40	50	35	550	12							
S50Y-BCLNR/ 12			40	50	35	500	12							

BCKN75



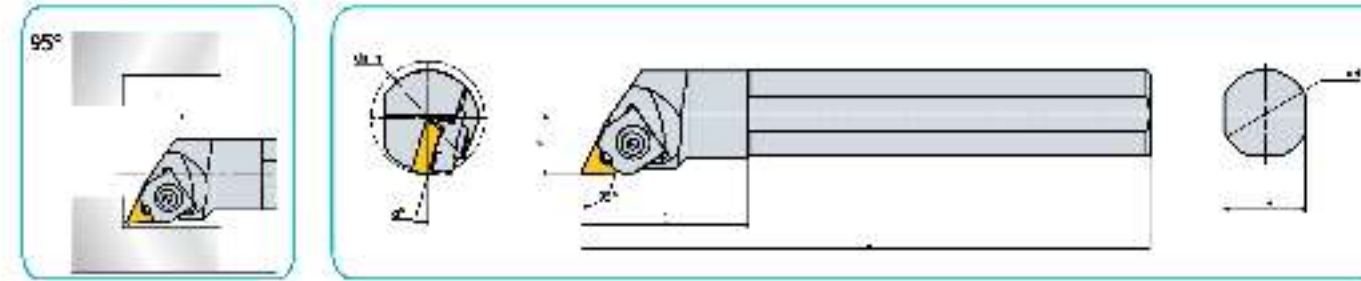
Designation	Stock		Size				Inserts	Shim	Pin	Clamp	Screw	Shimming	Wrench
	R	L	dmin	d	L	S							
S32S-BCKNR/L12			40	32	22	250	14						
S40T-BCKNR/L12			50	40	27	300	12						
S50U-BCKNR/L12			63	50	35	350	12						

BTUN93



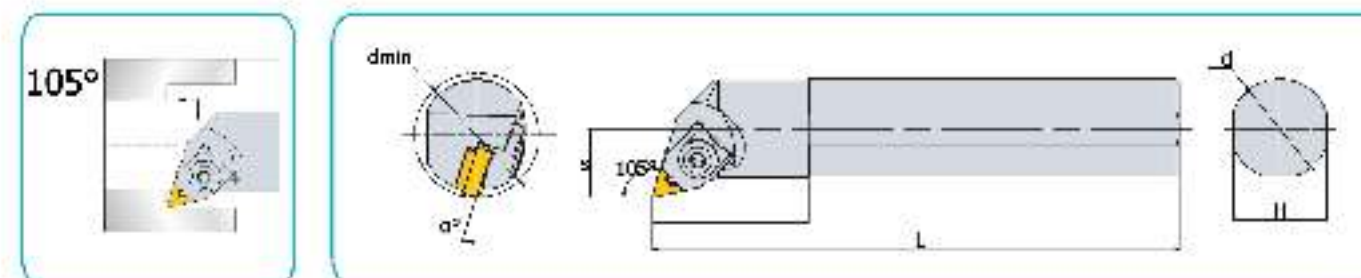
Designation	Stock		Size				Inserts	Shim	Pin	Clamp	Screw	Shimming	Wrench
	R	L	dmin	d	L	S							
S25R-BTUNR/L16			32	25	17	200	12						
S25T-BTUNR/L16			32	25	17	300	12						
S32S-BTUNR/L16			40	32	22	250	10						
S32U-BTUNR/L16			40	32	22	350	10						
S40T-BTUNR/L16			50	40	27	300	10						
S40W-BTUNR/L16			50	40	27	450	10						
S50U-BTUNR/L16			63	50	35	350	8						
S50T-BTUNR/L16			63	50	35	500	8						

BTLN95



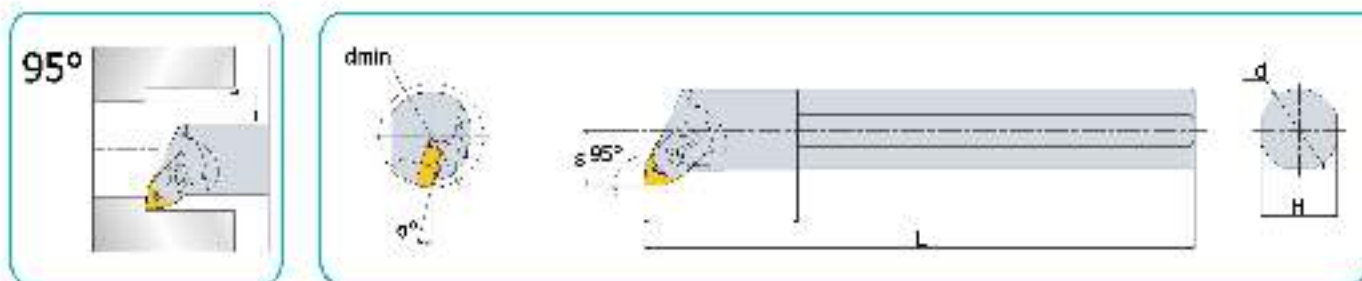
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	R	L	dmin	d	L	S							
S20R-BTLNR/L16			25	20	13	200	17						
S25R-BTLNR/L16			32	25	17	200	12						

BTQN105



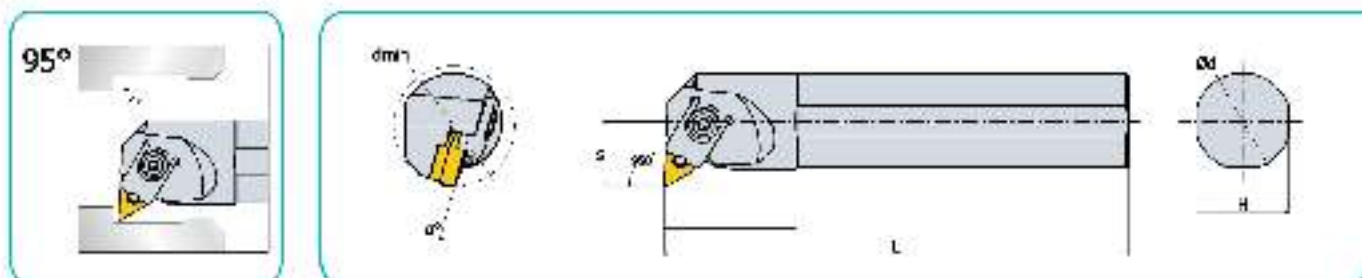
Designation	Stock		Size				Inserts	Shim	Pin	Clamp	Screw	Shimming	Wrench
	R	L	dmin	d	L	S							
S20R-BTQNR/L12			25	20	13	200	17						
S25R-BTQNR/L12			32	25	17	200	12						
S32S-BTQNR/L12			40	32	22	250	10						
S40T-BTQNR/L12			50	40	27	300	10						
S50U-BTQNR/L12			63	50	35	350	8						

BWLN95°



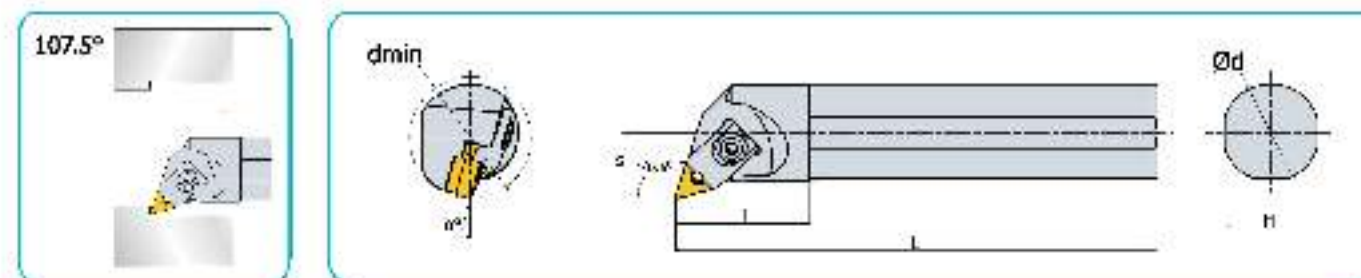
Designation	Stock		Size				Inserts	Shim	Pin	Clamp	Screw	Wrenching	Wrench
	R	L	dmin	d	I	L	S						
S20R-BWLN/R/L06			25	20	13	200	17	WNL II 10604 II I	CTAB-11	BW06	HCS06	CR05	L2.5 L3.0
S25R-BWLN/R/L06			32	25	17	200	14						
S25R-BWLN/R/L08			32	25	17	300	14						
S25T-BWLN/R/L06			32	25	17	300	14						
S32S-BWLN/R/L06			40	32	22	250	14						
S32U-BWLN/R/L06			40	32	22	350	14	WNL II 0604LII I	CTM6-L	BW06	BCS06	CR05	L2.5 L3.0
S40T-BWLN/R/L08			50	40	27	300	12						
S40V-BWLN/R/L08			50	40	27	400	12						
S50U-BWLN/R/L08			63	50	35	350	12						
S50V-BWLN/R/L08			63	50	35	500	12						

BDUN93°



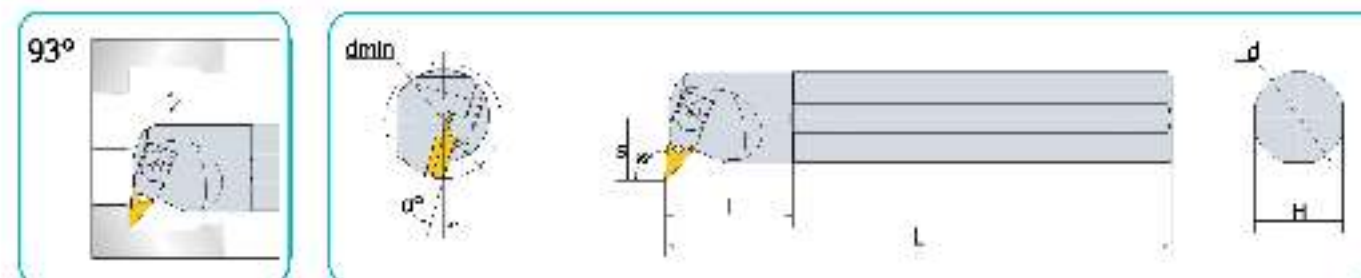
Designation	Stock		Size				Inserts	Shim	Pin	Clamp	Screw	Wrenching	Wrench
	R	L	dmin	d	I	L	S						
S40T-BDUN/R/L15			50	40	27	300	10	DNL II 1504LII I MD1506	CTM6-L	BD15	BCS06	CR07	L2.5 L3.0
S50U-BDUN/R/L15			63	50	35	350	10						
S40T-BDUN/R/L15			50	40	27	300	10						
S50U-BDUN/R/L15			63	50	35	350	10						
S50V-BDUN/R/L15			63	50	35	500	10						

BDQN107.5°



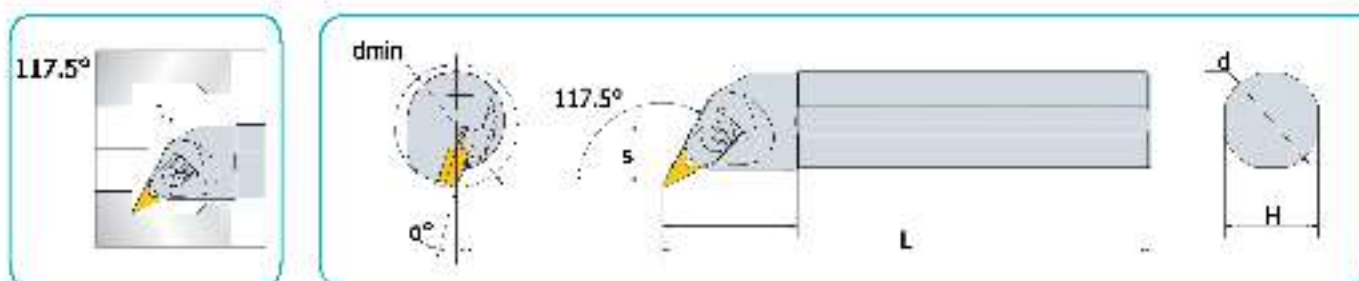
Designation	Stock		Size				Inserts	Shim	Pin	Clamp	Screw	Wrenching	Wrench
	R	L	dmin	d	I	L	S						
S40T-BDQN/R/L15			50	40	27	300	10	DNL II 1504LII I MD1506	CTM6-L	BD15	BCS06	CR07	L2.5 L3.0
S50U-BDQN/R/L15			63	50	35	350	10						
S40T-BDQN/R/L15			50	40	27	300	10						
S50U-BDQN/R/L15			63	50	35	350	10						
S50V-BDQN/R/L15			63	50	35	500	10						

BVUN93°



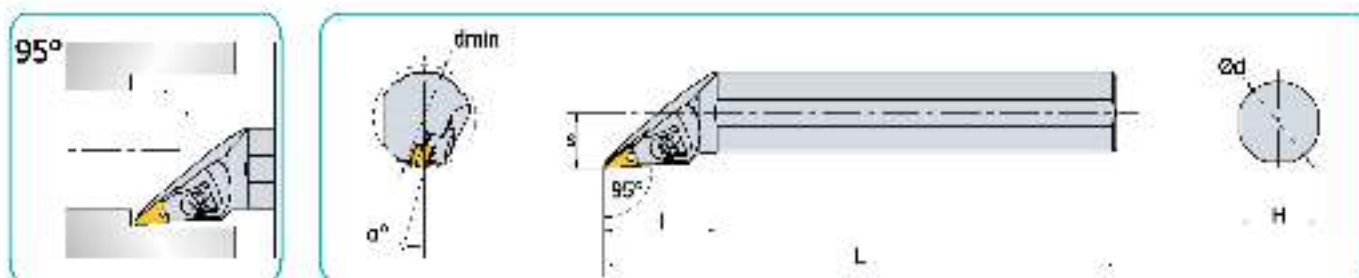
Designation	Stock		Size				Inserts	Shim	Pin	Clamp	Screw	Wrenching	Wrench
	R	L	dmin	d	I	L	S						
S40T-BVUN/R/L15			50	40	26	300	15	VNL II 1604LII I MD1604	CTM6-S	BV16	BCS06	CR05	L2.5 L3.0
S50U-BVUN/R/L15			63	50	32	350	12						

BVQN117.5



Designation	Stock		Size				Inserts	Screw	Pin	Clamp	Screw	Shapering	Wrench
	R	L	dmin	d	L	S							
540T-BVQNR/L16			50	40	26	300	15	VN111 16041 II	M1603 CTM5-S	BV16	BC506	CR05	L2.5 LS.D
550U-BVQNR/L16			63	50	32	350	12						

BVLN95

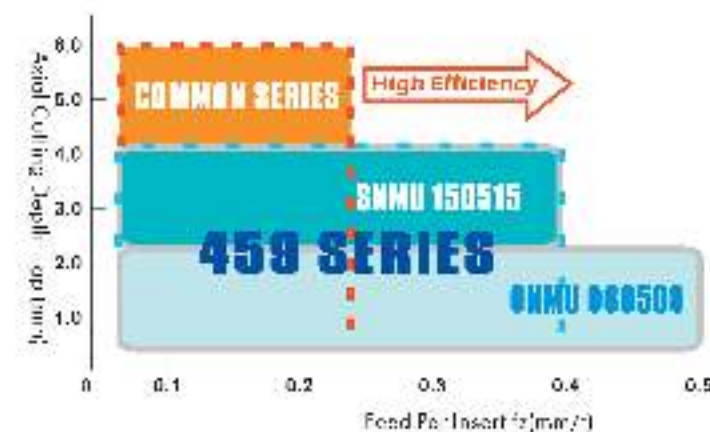


Designation	Stock		Size				Inserts	Screw	Pin	Clamp	Screw	Shapering	Wrench
	R	L	dmin	d	L	S							
540T-BVLNR/L16			50	40	26	300	15	VN111 16041 II	M1603 CTM5-S	BV16	BC506	CR05	L2.5 LS.D
550U-BVLNR/L16			63	50	32	350	12						

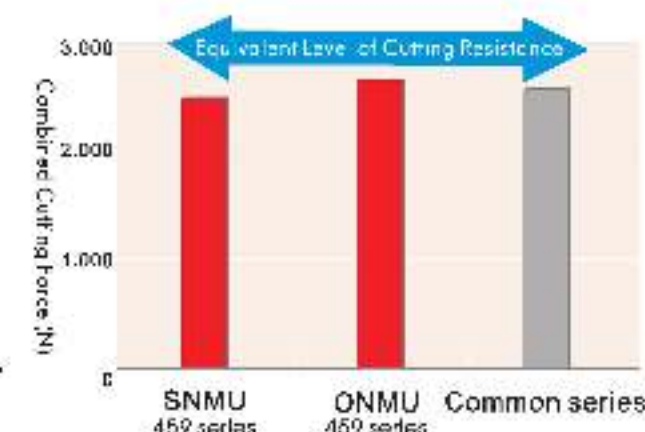
Features of 459 series universal milling cutter

- 459 series universal milling cutter employs double-sided inserts SNMU with 8 corners, it also can employ double-sided inserts ONMU with 16 corners.
- This is general-purpose cutter featuring high cutting edge strength for high efficiency milling.
- Compared with single-sided inserts type, has the same cutting performance and superior economy.
- Achieves level of cutting edge sharpness and machined surface quality equivalent to single-sided cutter at a maximum cutting depth of ap=3mm or shallower.

Recommended conditions for general steel



Cutting Resistance Comparison



- Two types of inserts can be used with a single body depending on milling application to help reduce tool costs.
- 459 series universal milling cutter has strong construction which can process finish milling and rough milling both, achieve to high-efficient production.

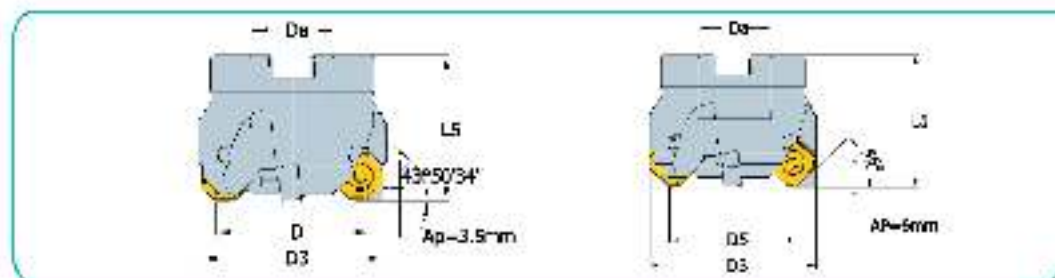
According to the process application can be used 2 types inserts



The diameter range for the milling cutter is 40-315mm



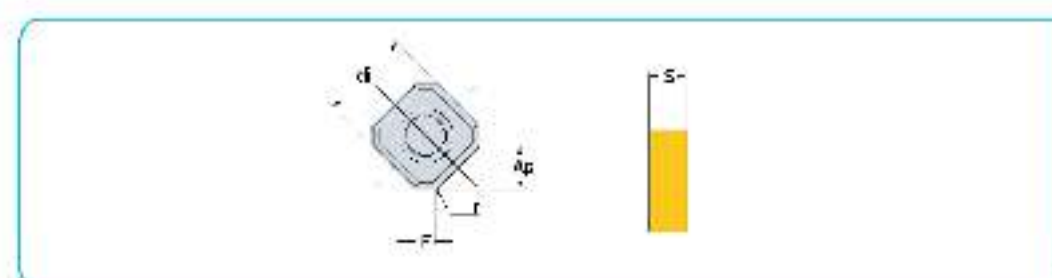
459 SERIES



Group	Designation	D	D5	D3	Z	L	L5	Da	Kg
312.459	010A04RS45SOFB	40	37.65	50.4	4	40	41.2	16	0.39
	050A04RS45SOFB	50	47.65	60.4	4	40	41.2	22	0.46
	050A06RS45SOFM	50	47.65	60.4	6	40	41.2	22	0.46
	063A06RS45SOFB	53	60.65	73.4	6	40	41.2	22	0.72
	063A08RS45SOFM	53	60.65	73.4	8	40	41.2	22	0.72
	080A07RS45SOFB	80	77.65	90.4	7	50	51.2	27	1.09
	080A10RS45SOFM	80	77.65	90.4	10	50	51.2	27	1.09
	100B08RS45SOFB	100	97.65	110.4	8	50	51.2	32	1.62
	100B12RS45SOFM	100	97.65	110.4	12	50	51.2	32	1.62
	125B10RS45SOFB	125	122.65	135.6	10	63	64.2	40	2.80
	125B16RS45SOFM	125	122.65	135.6	16	63	64.2	40	2.80
	160B12RS45SOFB	160	157.65	170.4	12	63	64.2	40	4.16
	200C14RS45SOFB	200	197.65	210.4	14	63	64.2	60	5.85
	250C16RS45SOFB	250	247.65	260.4	16	63	64.2	60	8.56
	315D20RS45SOFB	315	312.65	325.4	20	63	64.2	60	14.42



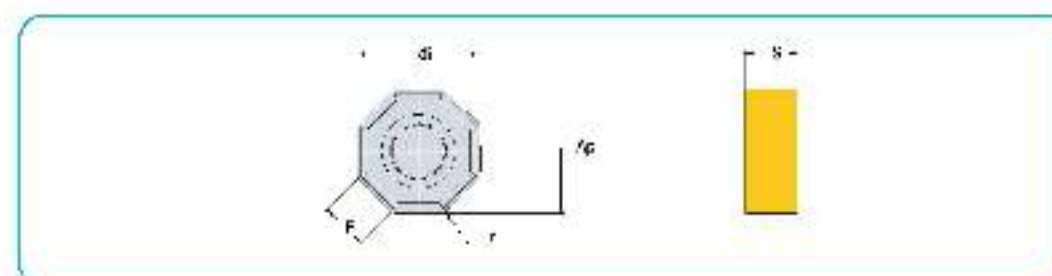
459 SERIES



Designation	d1	ap	S	F	r	SMG308	SMG318
SNMU150S15-T	13	6	6.2	3	0.5		●



459 SERIES

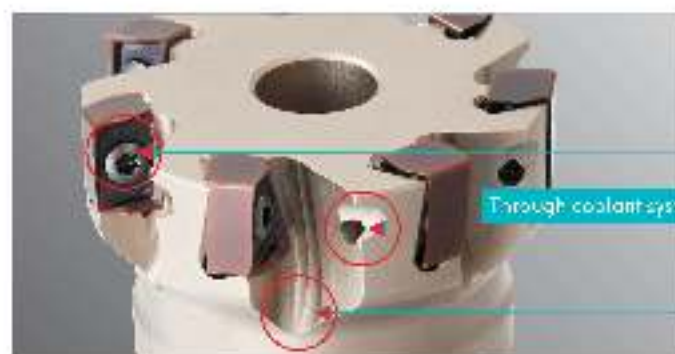


Designation	d1	ap	S	F	r	SMG308	SMG318
ONMU060506-T	13	3.5	5.5	5	0.5		●

Features of the 458 series double-sided helical edges milling cutters

- New 458 series milling cutter as a multi functional milling tool, offers economical 4 helical corners by using innovative double sided.
- Dovetail pocket utilizes very rigid clamping
- Thick insert design can ensure the maximum cutting depth is more than 10mm
- Special designed chip breaker consists of high rake angle and strong cutting edge to decrease the cutting load.
- New 458 series milling cutter can cover facing, side cutting, shouldering, slotting, ramping & helical cutting.

200% MORE PRODUCTIVITY

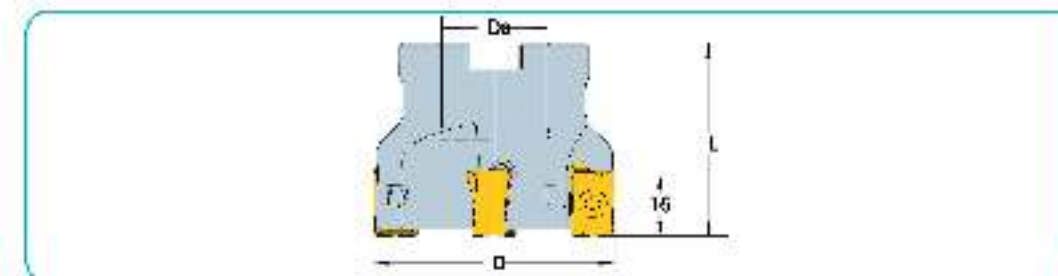


Simple screw on system

Through coolant system longer tool life due to direct cooling injection into the cutting edge of insert

Wide chip pocket for better chip evacuation

458 SERIES



Group	Designation	D	Da	Z	L	A ²	Kg	Available Insert
312, 458	040A03RS90AN17B	40	16	3	40	16.75	0.20	ANKX1706 □ □ ANCX1706 □ □
	050A03RS90AN17B	50	22	3	40		0.45	
	050A04RS90AN17M	50	22	4	40		0.45	
	063A04RS90AN17B	63	22	4	50		0.95	
	063A06RS90AN17M	63	22	6	50		0.25	
	080A05RS90AN17B	80	27	5	50		0.80	
	080A07RS90AN17M	80	27	7	50		0.80	
	100B05RS90AN17B	100	32	5	50		1.40	
	100B08RS90AN17M	100	32	8	50		1.50	
	125B07RS90AN17B	125	40	7	63		2.20	
	125B10RS90AN17M	125	40	10	63		2.10	
	160C08RS90AN17B	160	40	8	63		3.60	
	160C12RS90AN17M	160	40	12	63		4.10	
	200C10RS90AN17B	200	60	10	63		6.70	
	250C12RS90AN17B	250	60	12	63		9.30	
	315D16RS90AN17B	315	60	16	63		17.00	

