

Turning Solution for High Precision Machining of Micro Components

AUTO TOOLS





Contents

AUTO TOOLS

• Features	04
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ISO Type

• Features	06
• Inserts	10
• Holders	16



Blade Type

• Features	19
• Inserts	25
• Holders	26



For Multi Utility

• Features	27
• Inserts	29
• Holders	31



KGT/MGT Type

• Features	32
• KGT Inserts/Holders	34
• MGT Inserts/Holders	35



MSB Tools

• Features	38
• MSB tools	40
• Sleeve	45

Auto Tools

Auto Tools



An automatic lathe, or a Swiss-type lathe refers to a multi-operational machine where different tools such as turning inserts, milling inserts, and drills can be mounted for automated high precision machining of micro components. It can be fed workpieces automatically by a bar feed system. It is possible to produce automatically large volumes of micro components under Ø30 such as electrical/electronics instruments and medical instruments. Automatic lathes can produce parts 24 hours a day. Generally, a maximum of 6 pieces of turning tools, a back plate, single sided drills, milling tools and drills can be mounted on the inner turrets.

Many industrial products are getting smaller, lighter and more precise, while the demand grows for composite hard-to-cut materials, such as titanium alloy, nickel alloy, Inconel, etc. These parts require exacting requirements for sharp cutting edges with high class tolerances while reducing production cost and time.

Auto Tools KF / KM are ISO type positive grooving inserts with class an E tolerance. These were designed for high feed or high depth of cut machining of both external and internal diameters. Sharp cutting edges produced by the highest quality grinding technology reduces cutting forces and provides an excellent surface finish.

Auto Tools VP1 is a ground type insert for high precision machining. Its sharp cutting edges reduce cutting force and improve surface finish. The optimized chip breaker design provides smooth chip evacuation in hard to control applications with low depths of cut and low feeds.

Auto Tools Blade type and multifunctional type are for high precision external machining of small parts. 4 types of inserts are available each for parting off, grooving, back turning, and threading. All can be clamped on a single holder for easy and fast tool changes, while also reducing inventory requirements.

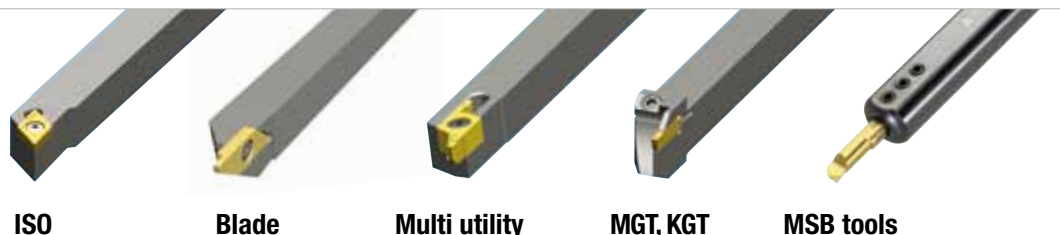
Auto Tools KGT/MGT are for parting off. Both provide a strong clamping system to improve stable and precise machining. They provide a wide selection of chip breakers in different cutting conditions ranging from low feed to high feed, and from continuous to interrupted machining.

Auto Tools MSB is for internal machining of small diameters. Its high hardness grade provides excellent surface finish and long tool life. A wide application range is possible such as internal boring, grooving, threading, chamfering, etc.

Features

- High precision machining of small parts and complex forms, etc.
- High quality products through stable machining
- Exclusive insert for automatic lathes

Type



ISO

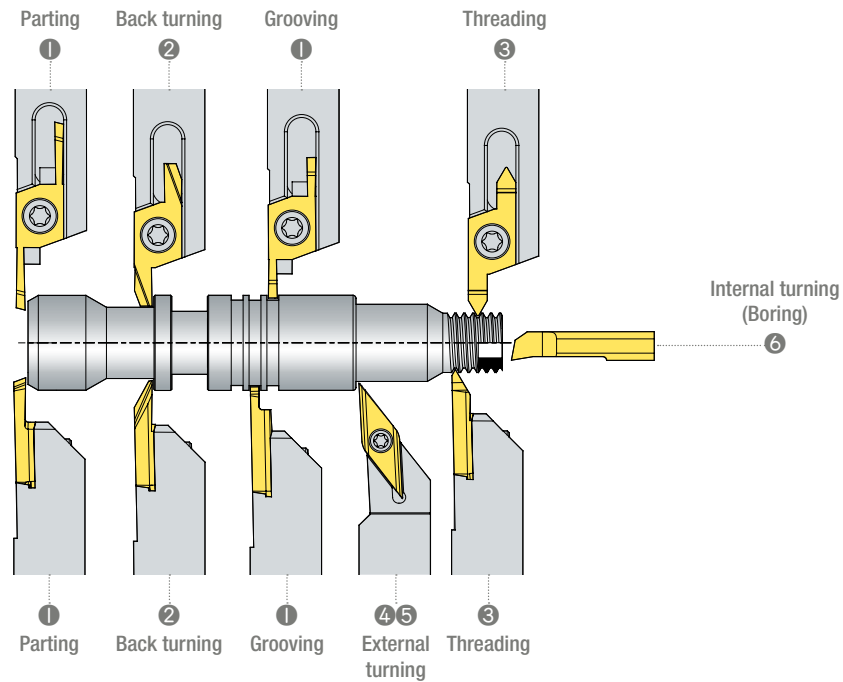
Blade

Multi utility

MGT, KGT

MSB tools

Application example



Index

Specification	① Parting and Grooving						② Back turning		
Holder	SXGNR/L	SXGNR/L	KGEHR/L	SBHR/L	SBHR/L	MGEHR/L	SXGNR/L	SXGNR/L	SBHR/L
Insert	SG	SC	KGMN	SBG	SBC	MGMN	SB	SGB	SBB
Holder size	10-25mm	10-25mm	10-16mm	10-16mm	10-16mm	10-16mm	10-25mm	10-25mm	10-16mm
Insert shape									
Cutting width	1-3mm	1-3mm	1.5-2.5mm	0.7-2.0mm	0.7-2.0mm	1.5-2.5mm	2-4mm	2-3mm	3.2mm
ØDmax	Ø18	Ø18	Ø32	Ø16	Ø16	Ø32	Tmax 8.0	Tmax 8.5	Tmax 8.0

Specification	③ Threading	
Holder	SXGNR/L	SBHR/L
Insert	ST	SBT
Holder size	10-25mm	10-16mm
Insert shape		
Screw ranges	Pitch ranges 0.5-1.5/ 1.5-3.0	Pitch ranges 0.2-1.5/ 1.0-2.0

Specification	④ External turning and Copy machining				⑤ External turning and Facing		
Holder	SDJCR/L	SDNCN	SVJBR/L	SVJCR/L	SCACR/L	SCLCR/L	STACR/L
Insert	DC□T	DC□T	VB□T	VC□T	CC□T	CC□T	TC□T
Holder size	8-16mm	8-16mm	10-16mm	10-16mm	8-16mm	8-16mm	8-10mm
Insert shape							
Feature	Offset "0"				Offset "0"		

Specification	⑥ Internal turning (Boring)				
Holder	SCLCR/L	STUBR/L	STUPR/L	SWUBR/L	MSB
Insert	CC□T	TB□T	TP□T	WB□T	-
Holder size	Ø4-10	Ø8	Ø8	Ø5-8	Ø4-6
Insert shape					
ØDmax	Ø5	Ø8	Ø10	Ø5	Ø3.2

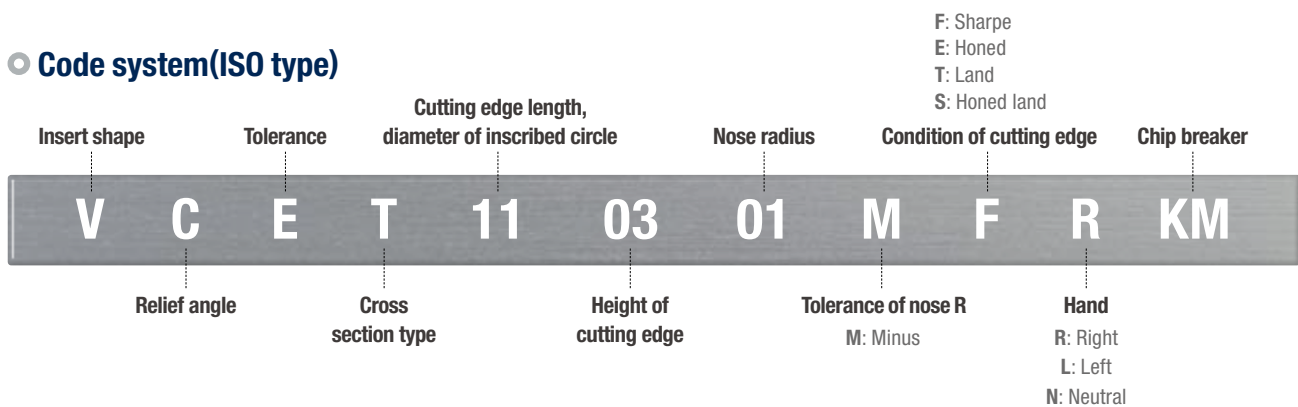
Auto Tools

(ISO Type)

Features

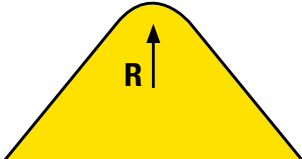
- ISO inserts for automatic lathes
- Precise R shape with the use of minus tolerance of nose R
- Tolerance class precise enough in no need for adjusting tools with the use of accurate cutting edge height
- Sharp blade for excellent chip control and surface roughness with low cutting force
- High precision tools for electrical/ electronics instruments and medical instruments

Code system(ISO type)



Only for Premium Classes

Nose R(Tolerance of Corner R)



Symbol	Tolerance	No
M	-0.02	Tolerance of Corner R

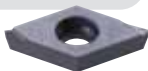
Cutting edge condition

Symbol	Shape	Edge prep State
F		Sharp Selection
E		Honing Selection
T		Land
S		Land & Honing

Hand of insert

Symbol	Shape
R	
L	
N	

KF (E & G class tolerance)



- For finishing
- Low cutting loads with sharp cutting edges
- Longer tool life due to lower chip evacuation resistance at high speed
- Excellent surface roughness

KM (E & G class tolerance)



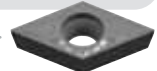
- For medium cutting to finishing
- Better chip flow due to wide chip pockets
- Longer tool life and better cutting action due to improved chip evacuation
- Excellent surface roughness

VP1 (G class tolerance)



- Finish and medium machining
- Sharp edges for low cutting load and low cutting heat
- Wide range machining
- Smooth and stable chip evacuation

MS (G class tolerance)

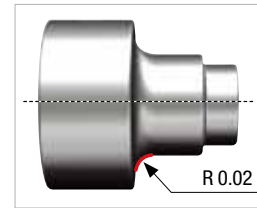
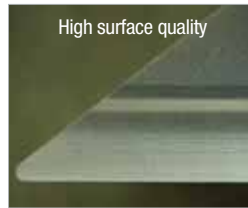
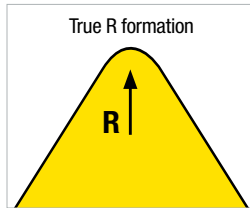
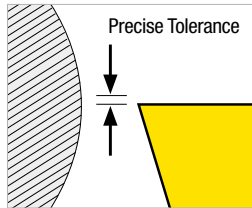


- Sharp cutting edges for medium cutting
- Less built-up edge in Titanium machining
- Better chip evaluation in high feed machining
- Shape for good chip control protects cutting edge.

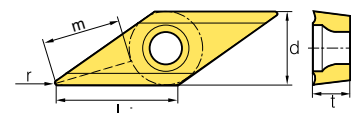


Insert Tolerance

- Grinding inserts with inscribed circle, height of cutting edge and M measurement tolerance within ± 0.001 are classified as premium class, featured with corner nose R less than 0.008(0.004, 0.002R), a high degree of fixation and high quality.
- The tolerance of nose R should be managed as “-”, because the size of nose R 0.008 may expand after machining in case of non-maintained inserts are used.

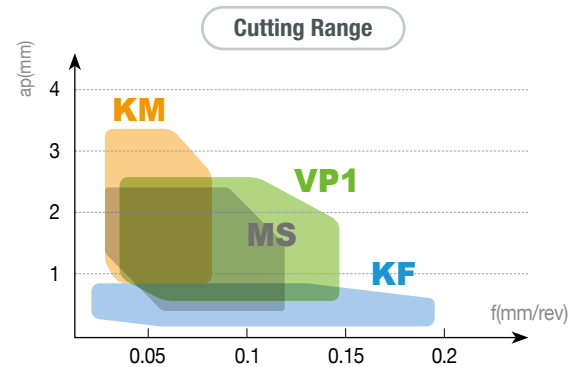
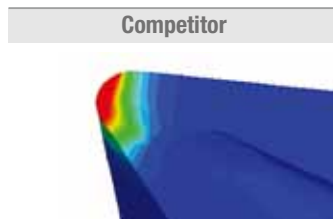


Symbol	d Inscribed circle	t Thickness	m Refer to figure	r Nose Radius
G	± 0.025	± 0.04	± 0.025	-
G+MFN (high precision)	± 0.02	± 0.02	± 0.02	0 ~ -0.02
E+MFN (high precision)	± 0.013	± 0.02	± 0.013	0 ~ -0.02



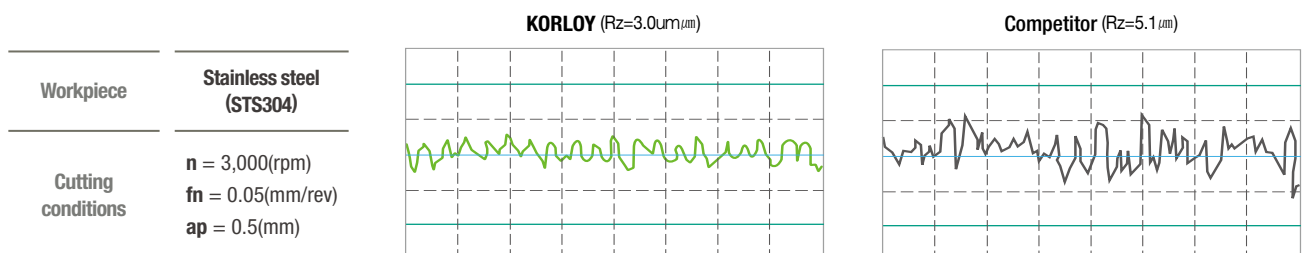
Sharp Cutting Edge

- To minimize cutting load and heat, extremely sharp and stable cutting edges have been realized by high technology(without full abrasive honing)



Precise Cutting Process and Superior Surface Roughness

- Compared to other competitors our insert provides a sharper cutting edge, which helps ensure a uniform surface roughness.



VP1 Cutting Performance

Wear Resistance(SUS316) - External Machining

• $vc = 100\text{m/min}$ • $fn = 0.07\text{mm/rev}$ • $ap = 0.5\text{mm}$, Wet • etc = External 30mm, Dia. $\varnothing 20\text{mm}$, Machining 20 Pass

DCGT11T302MFN-VP1(PC8110)

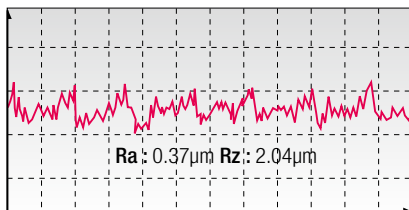


Competitor

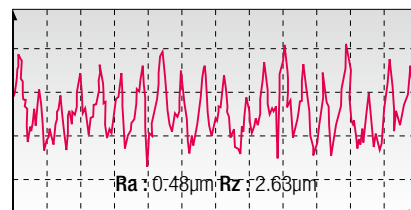


Roughness(SUS316) - External Machining

• $vc = 100\text{m/min}$ • $fn = 0.07\text{mm/rev}$ • $ap = 0.5\text{mm}$, Wet



DCGT 11T302MFN-VP1

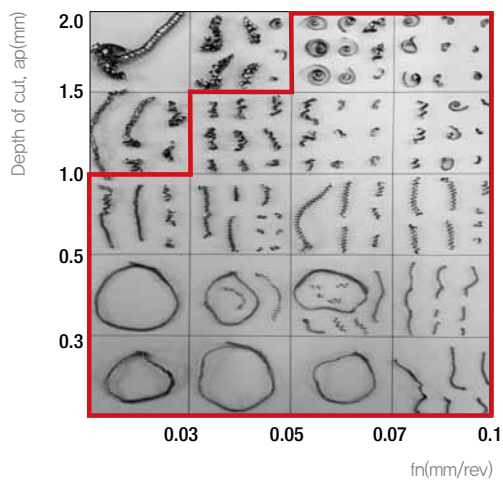


DCGT 11T302

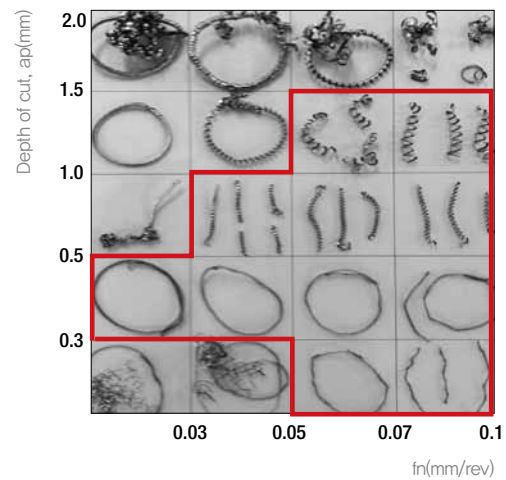
Chip Breaking(SUS316) - External Machining

• $vc = 100\text{m/min}$ • $fn = 0.03 \sim 0.1\text{mm/rev}$ • $ap = 0.3 \sim 2.0\text{mm}$, Wet

DCGT11T302MFN-VP1(PC8110)



Competitor





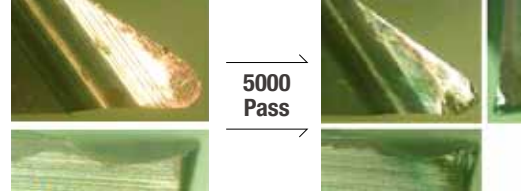
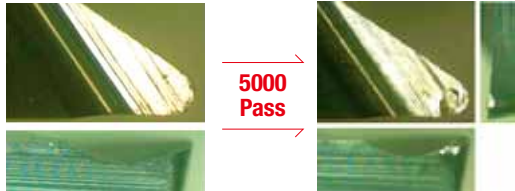
● KF Cutting Performance

Wear Resistance(SUS304) - External Machining

• $n = 5000\text{rpm}$ • $f_n = 0.05\text{mm/rev}$ • $a_p = 0.5\text{mm}$, Wet • etc = External 30mm, Dia, 20mm, Machining 20 Pass

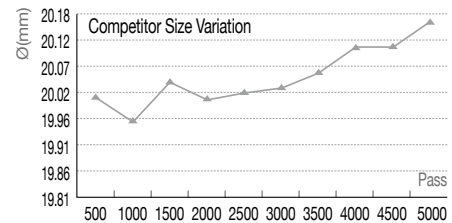
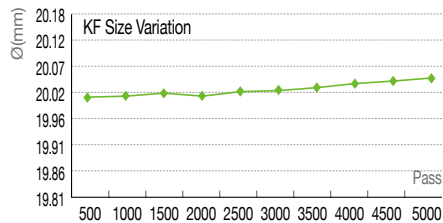
VPET080202MFR-KF(PC8110)

Competitor



W/P size variation(SUS304) - External Machining

• $n = 5000\text{rpm}$ • $f_n = 0.05\text{mm/rev}$ • $a_p = 0.5\text{mm}$, Wet

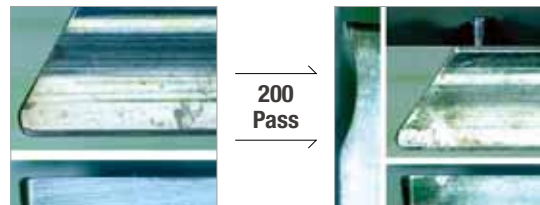
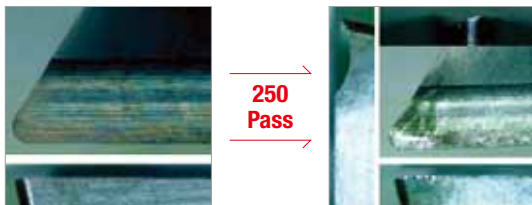


Wear Resistance(SUS316) - External Machining

• $n = 5000\text{rpm}$ • $f_n = 0.05\text{mm/rev}$ • $a_p = 0.5\text{mm}$, Wet • etc = External 30mm, Dia, 20mm, Machining 20 Pass

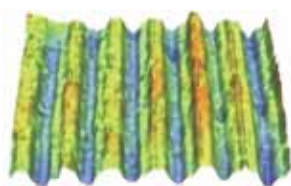
DCET11T302MFR-KM(PC8110)

Competitor

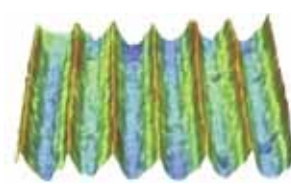


Roughness(SUS316) - External Machining

• $n = 5000\text{rpm}$ • $f_n = 0.05\text{mm/rev}$ • $a_p = 0.5\text{mm}$, Wet

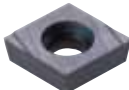
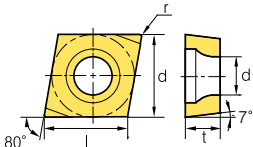
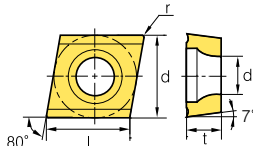
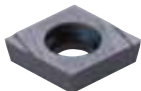
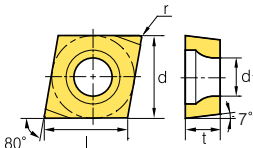


Rz : 2.71 μm



Rz : 4.62 μm

● Applicable inserts

Insert														
Type	C/B	Designation	Coated					Uncoated	Dimensions(mm)					Configuration
	Picture		PC5300	PC8105	PC8110	PC8115	PC9030	H01	l	Ød	t	r	Ød ¹	
Finishing		CCET	0602005MFR-KF	●	●				6.6	6.35	2.38	0.05	2.8	
			060201MFR-KF	●	●				6.4	6.35	2.38	0.1	2.8	
			060202MFR-KF	●	●				6.2	6.35	2.38	0.2	2.8	
			09T3005MFR-KF	●	●				9.8	9.525	3.97	0.05	4.4	
			09T301MFR-KF	●	●				9.6	9.525	3.97	0.1	4.4	
			09T302MFR-KF	●	●				9.2	9.525	3.97	0.2	4.4	
			0602005MFL-KF	●	●				6.6	6.35	2.38	0.05	2.8	
			060201MFL-KF	●	●				6.4	6.35	2.38	0.1	2.8	
			060202MFL-KF	●	●				6.2	6.35	2.38	0.2	2.8	
			09T3005MFL-KF	●	●				9.8	9.525	3.97	0.05	4.4	
			09T301MFL-KF	●	●				9.6	9.525	3.97	0.1	4.4	
			09T302MFL-KF	●	●				9.2	9.525	3.97	0.2	4.4	
Medium to finishing		CCET	0602005MFR-KM	●	●				6.6	6.35	2.38	0.05	2.8	
			060201MFR-KM	●	●				6.4	6.35	2.38	0.1	2.8	
			060202MFR-KM	●	●				6.2	6.35	2.38	0.2	2.8	
			09T3005MFR-KM	●	●				9.8	9.525	3.97	0.05	4.4	
			09T301MFR-KM	●	●				9.6	9.525	3.97	0.1	4.4	
			09T302MFR-KM	●	●				9.2	9.525	3.97	0.2	4.4	
			0602005MFL-KM	●	●				6.6	6.35	2.38	0.05	2.8	
			060201MFL-KM	●	●				6.4	6.35	2.38	0.1	2.8	
			060202MFL-KM	●	●				6.2	6.35	2.38	0.2	2.8	
			09T3005MFL-KM	●	●				9.8	9.525	3.97	0.05	4.4	
			09T301MFL-KM	●	●				9.6	9.525	3.97	0.1	4.4	
			09T302MFL-KM	●	●				9.2	9.525	3.97	0.2	4.4	
Finishing		CCGT	0602005R-KF						6.6	6.35	2.38	0.05	2.8	
			060201R-KF						6.4	6.35	2.38	0.1	2.8	
			060202R-KF						6.2	6.35	2.38	0.2	2.8	
			09T3005R-KF						9.8	9.525	3.97	0.05	4.4	
			09T301R-KF						9.6	9.525	3.97	0.1	4.4	
			09T302R-KF						9.2	9.525	3.97	0.2	4.4	
			0602005L-KF						6.6	6.35	2.38	0.05	2.8	
			060201L-KF						6.4	6.35	2.38	0.1	2.8	
			060202L-KF						6.2	6.35	2.38	0.2	2.8	
			09T3005L-KF						9.8	9.525	3.97	0.05	4.4	
			09T301L-KF						9.6	9.525	3.97	0.1	4.4	
			09T302L-KF						9.2	9.525	3.97	0.2	4.4	

● : Stock item

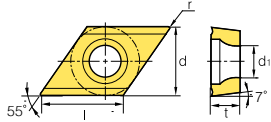
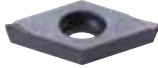
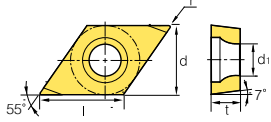
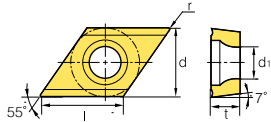


Insert

Type	C/B	Designation	Coated					Uncoated					Dimensions(mm)					Configuration
	Picture		PC5300	PC8105	PC8110	PC8115	PC9030	H01					l	Ød	t	r	Ød ¹	
Medium to finishing		CCGT	0602005R-KM										6.6	6.35	2.38	0.05	2.8	
			060201R-KM										6.4	6.35	2.38	0.1	2.8	
			060202R-KM										6.2	6.35	2.38	0.2	2.8	
			09T3005R-KM										9.8	9.525	3.97	0.05	4.4	
			09T301R-KM										9.6	9.525	3.97	0.1	4.4	
			09T302R-KM										9.2	9.525	3.97	0.2	4.4	
			0602005L-KM										6.6	6.35	2.38	0.05	2.8	
			060201L-KM										6.4	6.35	2.38	0.1	2.8	
			060202L-KM										6.2	6.35	2.38	0.2	2.8	
			09T3005L-KM										9.8	9.525	3.97	0.05	4.4	
			09T301L-KM										9.6	9.525	3.97	0.1	4.4	
			09T302L-KM										9.2	9.525	3.97	0.2	4.4	
Finishing		CCGT	60201-VP1	●	●	●	●		●				6.6	6.35	2.38	0.1	2.8	
			60202-VP1	●	●	●	●		●				6.4	6.35	2.38	0.2	2.8	
			60204-VP1	●	●	●	●		●				6.2	6.35	2.38	0.4	2.8	
			09T301-VP1	●	●	●	●		●				9.8	9.525	3.97	0.1	4.4	
			09T302-VP1	●	●	●	●		●				9.6	9.525	3.97	0.2	4.4	
			09T304-VP1	●	●	●	●		●				9.2	9.525	3.97	0.4	4.4	
			060201MFN-VP1	●		●							6.6	6.35	2.38	0.1	2.8	
			060202MFN-VP1	●		●							6.4	6.35	2.38	0.2	2.8	
			060204MFN-VP1	●		●							6.2	6.35	2.38	0.4	2.8	
			09T301MFN-VP1	●		●							9.8	9.525	3.97	0.1	4.4	
			09T302MFN-VP1	●		●							9.6	9.525	3.97	0.2	4.4	
			09T304MFN-VP1	●		●							9.2	9.525	3.97	0.3	4.4	
Finishing		DCET	0702005MFR-KF	●	●								7.8	6.35	2.38	0.05	2.8	
			070201MFR-KF	●	●								7.8	6.35	2.38	0.1	2.8	
			070202MFR-KF	●	●								7.8	6.35	2.38	0.2	2.8	
			11T3005MFR-KF	●	●								11.6	9.525	3.97	0.05	4.4	
			11T301MFR-KF	●	●								11.6	9.525	3.97	0.1	4.4	
			11T302MFR-KF	●	●								11.6	9.525	3.97	0.2	4.4	
			0702005MFL-KF	●	●								7.8	6.35	2.38	0.05	2.8	
			070201MFL-KF	●	●								7.8	6.35	2.38	0.1	2.8	
			070202MFL-KF	●	●								7.8	6.35	2.38	0.2	2.8	
			11T3005MFL-KF	●	●								11.6	9.525	3.97	0.05	4.4	
			11T301MFL-KF	●	●								11.6	9.525	3.97	0.1	4.4	
			11T302MFL-KF	●	●								11.6	9.525	3.97	0.2	4.4	

● : Stock item

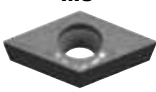
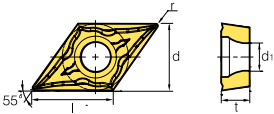
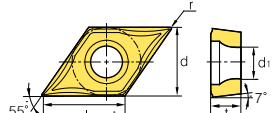
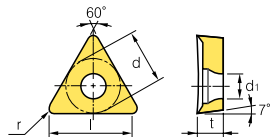
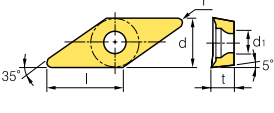
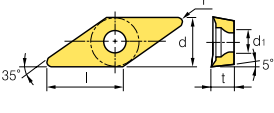
Insert

Type	C/B	Designation	Coated					Uncoated	Dimensions(mm)					Configuration
	Picture		PC5300	PC8105	PC8110	PC8115	PC9030	H01	l	Ød	t	r	Ød ¹	
Medium to finishing		DCET	0702005MFR-KM	●	●				7.8	6.35	2.38	0.05	2.8	
			070201MFR-KM	●	●				7.8	6.35	2.38	0.1	2.8	
			070202MFR-KM	●	●				7.8	6.35	2.38	0.2	2.8	
			11T3005MFR-KM		●				11.6	9.525	3.97	0.05	4.4	
			11T301MFR-KM	●	●				11.6	9.525	3.97	0.1	4.4	
			11T302MFR-KM	●	●				11.6	9.525	3.97	0.2	4.4	
			0702005MFL-KM	●	●				7.8	6.35	2.38	0.05	2.8	
			070201MFL-KM	●	●				7.8	6.35	2.38	0.1	2.8	
			070202MFL-KM	●	●				7.8	6.35	2.38	0.2	2.8	
			11T3005MFL-KM	●	●				11.6	9.525	3.97	0.05	4.4	
			11T301MFL-KM	●	●				11.6	9.525	3.97	0.1	4.4	
			11T302MFL-KM	●	●				11.6	9.525	3.97	0.2	4.4	
Finishing		DCGT	0702005R-KF						7.8	6.35	2.38	0.05	2.8	
			070201R-KF						7.8	6.35	2.38	0.1	2.8	
			070202R-KF						7.8	6.35	2.38	0.2	2.8	
			11T3005R-KF						11.6	9.525	3.97	0.05	4.4	
			11T301R-KF						11.6	9.525	3.97	0.1	4.4	
			11T302R-KF						11.6	9.525	3.97	0.2	4.4	
			0702005L-KF						7.8	6.35	2.38	0.05	2.8	
			070201L-KF						7.8	6.35	2.38	0.1	2.8	
			070202L-KF						7.8	6.35	2.38	0.2	2.8	
			11T3005L-KF						11.6	9.525	3.97	0.05	4.4	
			11T301L-KF						11.6	9.525	3.97	0.1	4.4	
			11T302L-KF						11.6	9.525	3.97	0.2	4.4	
Medium to finishing		DCGT	0702005R-KM						7.8	6.35	2.38	0.05	2.8	
			070201R-KM						7.8	6.35	2.38	0.1	2.8	
			070202R-KM						7.8	6.35	2.38	0.2	2.8	
			11T3005R-KM						11.6	9.525	3.97	0.05	4.4	
			11T301R-KM						11.6	9.525	3.97	0.1	4.4	
			11T302R-KM						11.6	9.525	3.97	0.2	4.4	
			0702005L-KM						7.8	6.35	2.38	0.05	2.8	
			070201L-KM						7.8	6.35	2.38	0.1	2.8	
			070202L-KM						7.8	6.35	2.38	0.2	2.8	
			11T3005L-KM						11.6	9.525	3.97	0.05	4.4	
			11T301L-KM						11.6	9.525	3.97	0.1	4.4	
			11T302L-KM						11.6	9.525	3.97	0.2	4.4	

● : Stock item

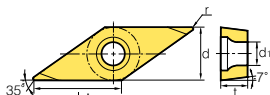
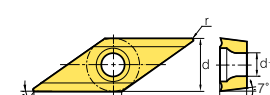
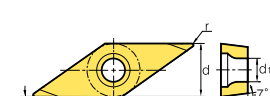
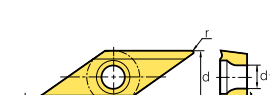
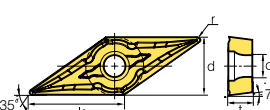
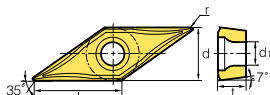


Insert

Type	C/B	Designation	Coated					Uncoated					Dimensions(mm)					Configuration
	Picture		PC5300	PC8105	PC8110	PC8115	PC9030	H01					l	Ød	t	r	Ød ¹	
Medium cutting	MS 	DCGT 11T301-MS											11.6	9.525	3.97	0.09	4.4	
		11T302-MS											11.6	9.525	3.97	0.19	4.4	
		11T304-MS											11.6	9.525	3.97	0.39	4.4	
		11T301MFN-MS	●	●									11.6	9.525	3.97	0.09	4.4	
		11T302MFN-MS	●	●									11.6	9.525	3.97	0.19	4.4	
		11T304MFN-MS	●	●									11.6	9.525	3.97	0.39	4.4	
Finishing	VP1 	DCGT 070201-VP1	●	●	●	●		●					7.8	6.35	2.38	0.1	2.8	
		070202-VP1	●	●	●	●		●					7.8	6.35	2.38	0.2	2.8	
		070204-VP1	●	●	●	●		●					7.8	6.35	2.38	0.4	2.8	
		11T301-VP1	●	●									11.6	9.525	3.97	0.1	4.4	
		11T302-VP1	●	●	●	●		●					11.6	9.525	3.97	0.2	4.4	
		11T304-VP1	●	●	●	●		●					11.6	9.525	3.97	0.4	4.4	
		070201MFN-VP1	●	●									7.8	6.35	2.38	0.1	2.8	
		070202MFN-VP1	●	●									7.8	6.35	2.38	0.2	2.8	
		070204MFN-VP1	●	●									7.8	6.35	2.38	0.4	2.8	
		11T301MFN-VP1	●	●									11.6	9.525	3.97	0.1	4.4	
		11T302MFN-VP1	●	●									11.6	9.525	3.97	0.2	4.4	
		11T304MFN-VP1	●	●									11.6	9.525	3.97	0.3	4.4	
Finishing	KF 	TCGT 0802003R-KF											8.15	4.76	2.38	0.05	2.38	
		080201R-KF											8	4.76	2.38	0.1	2.38	
		080202R-KF											7.7	4.76	2.38	0.2	2.38	
		08020003L-KF											8.15	4.76	2.38	0.05	2.38	
		080201L-KF											8	4.76	2.38	0.1	2.38	
		080202L-KF											7.7	4.76	2.38	0.2	2.38	
Finishing	KF 	VBGT 1103003R-KF											7.8	6.35	2.38	0.05	2.8	
		110301R-KF											7.8	6.35	2.38	0.1	2.8	
		110302R-KF					●						7.8	6.35	2.38	0.2	2.8	
		1103003L-KF											11.6	9.525	3.97	0.05	4.4	
		110301L-KF											11.6	9.525	3.97	0.1	4.4	
		110302L-KF											11.6	9.525	3.97	0.2	4.4	
Medium to finishing	KM 	VBGT 113003R-KM											7.8	6.35	2.38	0.05	2.8	
		110301R-KM											7.8	6.35	2.38	0.1	2.8	
		110302R-KM											7.8	6.35	2.38	0.2	2.8	
		1103003L-KM											11.6	9.525	3.97	0.05	4.4	
		110301L-KM											11.6	9.525	3.97	0.1	4.4	
		110302L-KM											11.6	9.525	3.97	0.2	4.4	

● : Stock item

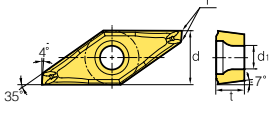
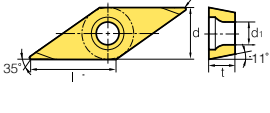
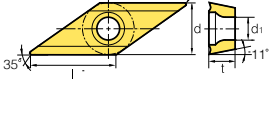
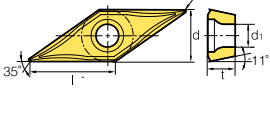
Insert

Type	C/B	Designation	Coated					Uncoated	Dimensions(mm)					Configuration
	Picture		PC3300	PC8105	PC8110	PC8115	PC9030	H01	l	Ød	t	r	Ød¹	
Finishing		VCET	1103005MFR-KF	●	●				11	6.35	3.18	0.05	2.8	
			110301MFR-KF	●	●				11	6.35	3.18	0.1	2.8	
			110302MFR-KF	●	●				11	6.35	3.18	0.2	2.8	
			1103005MFL-KF	●	●				11	6.35	3.18	0.05	2.8	
			110301MFL-KF	●	●				11	6.35	3.18	0.1	2.8	
			110302MFL-KF	●	●				11	6.35	3.18	0.2	2.8	
Medium to finishing		VCET	1103005MFR-KM	●	●				11	6.35	3.18	0.05	2.8	
			110301MFR-KM	●	●				11	6.35	3.18	0.1	2.8	
			110302MFR-KM	●	●				11	6.35	3.18	0.2	2.8	
			11T3005MFL-KM	●	●				11	6.35	3.18	0.05	2.8	
			11T301MFL-KM	●	●				11	6.35	3.18	0.1	2.8	
			11T302MFL-KM	●	●				11	6.35	3.18	0.2	2.8	
Finishing		VCGT	1103003R-KF						11	6.35	3.18	0.03	2.8	
			110301R-KF						11	6.35	3.18	0.1	2.8	
			110302R-KF				●		11	6.35	3.18	0.2	2.8	
			1103003L-KF						11	6.35	3.18	0.03	2.8	
			110301L-KF						11	6.35	3.18	0.1	2.8	
			110302L-KF						11	6.35	3.18	0.2	2.8	
Medium to finishing		VCGT	1103003R-KM						11	6.35	3.18	0.03	2.8	
			110301R-KM						11	6.35	3.18	0.1	2.8	
			110302R-KM				●		11	6.35	3.18	0.2	2.8	
			1103003L-KM						11	6.35	3.18	0.03	2.8	
			110301L-KM						11	6.35	3.18	0.1	2.8	
			110302L-KM						11	6.35	3.18	0.2	2.8	
Medium cutting		VCGT	1203008FN-MS						11.0	7.50	3.00	0.08	2.8	
			120301FN-MS						11.0	7.50	3.00	0.10	2.8	
			120302FN-MS						11.0	7.50	3.00	0.20	2.8	
			120304FN-MS						11.0	7.50	3.00	0.40	2.8	
Finishing		VCGT	110301-VP1	●	●	●	●	●	11	6.35	3.18	0.1	2.8	
			110302-VP1	●	●	●	●	●	11	6.35	3.18	0.2	2.8	
			110304-VP1	●	●	●	●	●	11	6.35	3.18	0.4	2.8	
			110301MFN-VP1	●	●				11	6.35	3.18	0.1	2.8	
			110302MFN-VP1	●	●				11	6.35	3.18	0.2	2.8	
			110304MFN-VP1	●	●				11	6.35	3.18	0.4	2.8	

● : Stock item



Insert

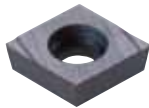
Type	C/B	Designation	Coated					Uncoated					Dimensions(mm)					Configuration
	Picture		PC5300	PC8105	PC8110	PC8115	PC9030	H01					l	Ød	t	r	Ød ¹	
Finishing(High precision)	VP1 (Chamfer type) 	VCGX 120300MFR-VP1	●	●									11	7.50	3.18	0.0	2.8	
		120301MFR-VP1	●	●									11	7.50	3.18	0.1	2.8	
		120302MFR-VP1	●	●									11	7.50	3.18	0.2	2.8	
		120304MFR-VP1	●	●									11	7.50	3.18	0.4	2.8	
		120308MFR-VP1	●	●									11	7.50	3.18	0.8	2.8	
Finishing	KF 	VPET 0802005MFR-KF	●	●									8	6.35	2.38	0.1	2.3	
		080201MFR-KF	●	●									8	6.35	2.38	0.1	2.3	
		080202MFR-KF	●	●									8	6.35	2.38	0.2	2.3	
		0802005MFL-KF	●	●									8	6.35	2.38	0.1	2.3	
		080201MFL-KF	●	●									8	6.35	2.38	0.1	2.3	
		080202MFL-KF	●	●									8	6.35	2.38	0.2	2.3	
Medium to finishing	KM 	VPET 0802005MFR-KM	●	●									8	6.35	3.18	0.05	2.8	
		080201MFR-KM	●	●									8	6.35	3.18	0.1	2.8	
		080202MFR-KM	●	●									8	6.35	3.18	0.2	2.8	
		0802005MFL-KM	●	●									8	6.35	3.18	0.05	2.8	
		080201MFL-KM	●	●									8	6.35	3.18	0.1	2.8	
		080202MFL-KM	●	●									8	6.35	3.18	0.2	2.8	
Finishing	VP1 	VPGT 110301-VP1	●	●	●	●		●					11	6.35	3.18	0.1	2.8	
		110302-VP1	●	●	●	●		●					11	6.35	3.18	0.2	2.8	
		110304-VP1	●	●	●	●		●					11	6.35	3.18	0.4	2.8	
		110301MFN-VP1	●	●									11	6.35	3.18	0.1	2.8	
		110302MFN-VP1	●	●									11	6.35	3.18	0.2	2.8	
		110304MFN-VP1	●	●									11	6.35	3.18	0.4	2.8	

● : Stock item

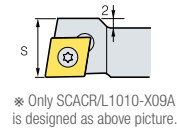
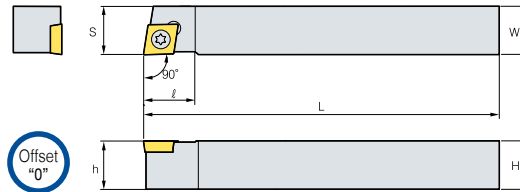
Available tool holders

Holder

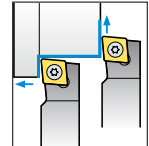
SCACR/L



CC□T



※ Only SCACR/L1010-X09A is designed as above picture.

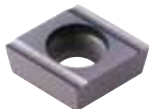


90°

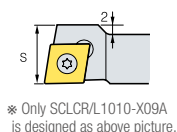
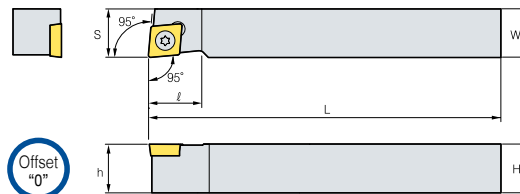
• R type insert

Designation		Stock		Dimensions(mm)						Insert	Screw 	Wrench 
		R	L	H	W	L	S	h	ℓ			
SCACR/L	0808-X06A	●	-	8	8	120	8	8	10	CC□T0602□□	FTKA02565	TW07P
	1010-X06A	-	-	10	10	120	10	10	10			
	1010-X09A	●	-	10	10	120	12	10	13			
	1212-X09A	●	-	12	12	120	12	12	16	CC□T09T3□□	FTKA0410	TW15P
	1616-X09A	●	-	16	16	120	16	16	16			

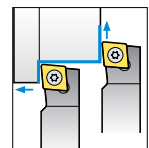
SCLCR/L



CC□T



※ Only SCLCR/L1010-X09A is designed as above picture.

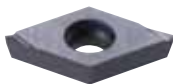


95°

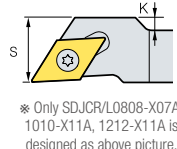
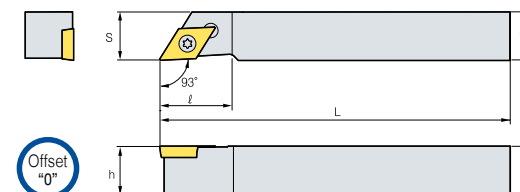
• R type insert

Designation		Stock		Dimensions(mm)						Insert	Screw 	Wrench 
		R	L	H	W	L	S	h	ℓ			
SCLCR/L	0808-X06A	-	-	8	8	120	8	8	10	CC□T0602□□	FTKA02565	TW07P
	1010-X06A	●	-	10	10	120	10	10	10			
	1010-X09A	-	-	10	10	120	12	10	13			
	1212-X09A	●	-	12	12	120	12	12	16	CC□T09T3□□	FTKA0410	TW15P
	1616-X09A	-	-	16	16	120	16	16	16			

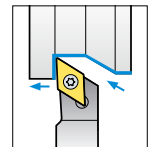
SDJCR/L



DC□T



※ Only SDJCR/L0808-X07A, 1010-X11A, 1212-X11A is designed as above picture.



93°

• R type insert

Designation	Stock		치수(mm)							Insert	Screw	Wrench
	R	L	H	W	L	S	h	K	ℓ			
SDJCR/L	0808-X07A	-	-	8	8	120	10	8	2	DC□T0702□□	FTKA02565	TW07P
	1010-X07A	●	-	10	10	120	10	10	-			
	1010-X11A	●	-	10	10	120	14	10	4			
	1212-X11A	●	-	12	12	120	14	12	2	DC□T11T3□□	FTKA0410	TW15P
	1616-X11A	-	-	16	16	120	16	16	-			

● : Stock item

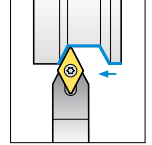
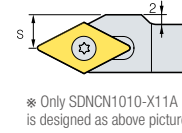
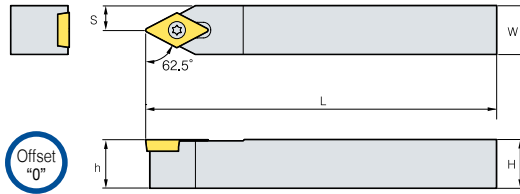


Holders

SDNCN



DC□T

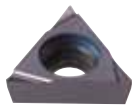


62.5°

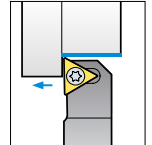
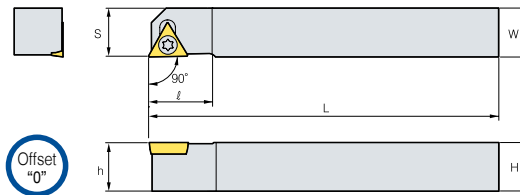
• R type insert

Designation	Stock		Dimensions(mm)							Insert	Screw	Wrench
	R	L	H	W	L	S	h					
SDNCN	0808-X07A	-	-	8	8	120	4	8		DC□T0702□□	FTKA02565	TW07P
	1010-X07A	-	-	10	10	120	5	10				
	1010-X11A	-	-	10	10	120	7	10				
	1212-X11A	●	-	12	12	120	6	12		DC□T11T3□□	FTKA0410	TW15P
	1616-X11A	●	-	16	16	120	8	16				

STACR/L



TC□T



90°

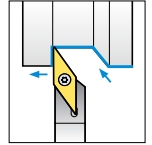
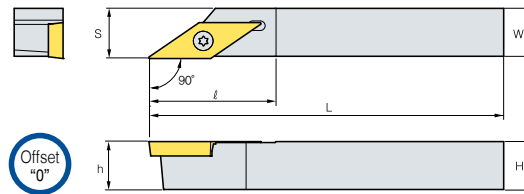
• R type insert

Designation		Stock		Dimensions(mm)							Insert		
		R	L	H	W	L	S	h	K	ℓ			
STACR/L	0808-X08A	-	-	8	8	120	8	8	1	18	TC□T0802□□	FTKA0206	TW06P
	1010-X08A	-	-	10	10	120	10	10	3	15			

SVACR/L



VC□□



90°

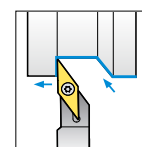
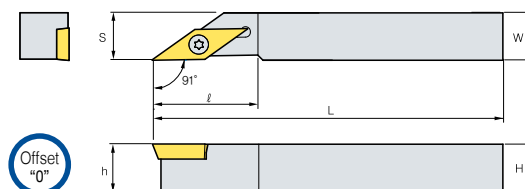
• R type insert

Designation	Stock		Dimensions(mm)							Insert	Screw	Wrench
	R	L	H	W	L	S	h	ℓ				
SVACR/L	0808-X12A	-	-	8	8	120	8.5	8	26	VC□T1203	FTKA02565	TW07P
	1010-X12A	-	-	10	10	120	10.5	10	26			
	1212-X12A	-	-	12	12	120	12.5	12	26			
	1616-X12A	-	-	16	16	120	16.5	16	26			
SVACR/L	0808-X12C	-	-	8	8	120	8.5	8	26	VC□X1203□□R/L	FTKA02565	TW07P
	1010-X12C	-	-	10	10	120	10.5	10	26			
	1212-X12C	-	-	12	12	120	12.5	12	26			
	1616-X12C	-	-	16	16	120	16.5	16	26			

● : Stock item

Holders

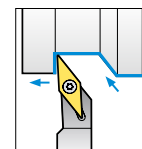
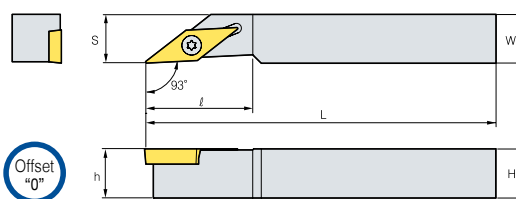
SVAPR/L


VP□T

91°

• R type insert

Designation		Stock		Dimensions(mm)						Insert	Screw	Wrench
		R	L	H	W	L	S	h	ℓ			
SVAPR/L	0808-X11A	●	-	8	8	120	8	8	22	VP□T1103□□	FKTA02565	TW07P
	1010-X11A	●	-	10	10	120	10	10	22			
	1212-X11A	●	-	12	12	120	12	12	22			
	1616-X11A	●	-	16	16	120	16	16	24			

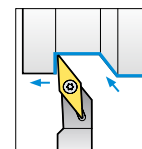
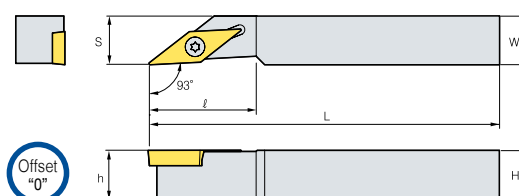
SVJBR/L


VB□T

93°

• R type insert

Designation		Stock		Dimensions(mm)						Insert	Screw	Wrench
		R	L	H	W	L	S	h	ℓ			
SVJBR/L	1010-X11A	-	-	10	10	120	10	10	22	VB□T1103□□	FKTA02565	TW07P
	1212-X11A	●	-	12	12	120	12	12	22			
	1616-X11A	-	-	16	16	120	16	16	24			

SVJCR/L


VC□T

93°

• R type insert

Designation		Stock		Dimensions(mm)						Insert	Screw	Wrench
		R	L	H	W	L	S	h	ℓ			
SVJCR/L	1010-X11A	-	-	10	10	120	10	10	22	VC□T1103□□	FKTA02565	TW07P
	1212-X11A	●	-	12	12	120	12	12	22			
	1616-X11A	-	-	16	16	120	16	16	24			
	0810-X12A	-	-	8	10	120	10	8	26	VC□T1203	FKTA02565	TW07P
	1010-X12A	-	-	10	10	120	10	10	26			
	1212-X12A	-	-	12	12	120	12	12	26			
	1616-X12A	-	-	16	16	120	16	16	26			
SVJCR/L	0810-X12C	-	-	8	10	120	10	8	26	VC□X1203□□R/L	FKTA02565	TW07P
	1010-X12C	-	-	10	10	120	10	10	26			
	1212-X12C	-	-	12	12	120	12	12	26			
	1616-X12C	-	-	16	16	120	16	16	26			

● : Stock item

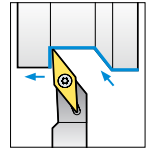
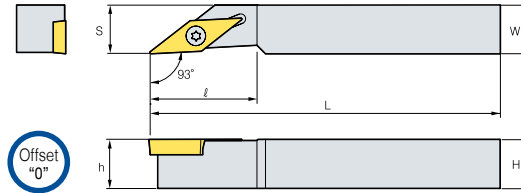


Holders

SVJPR/L



VP□T



93°

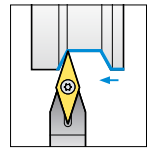
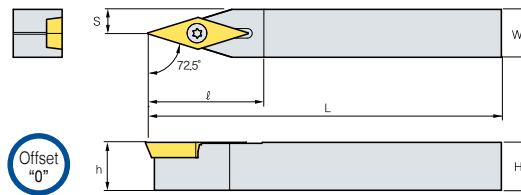
• R type insert

Designation		Stock		Dimensions(mm)						Insert		
		R	L	H	W	L	S	h	ℓ			
SVJPR/L	0810-X11A	●	-	8	10	120	8	10	22	VP□T1103□□	FKTA02565	TW07P
	1010-X11A	●	-	10	10	120	10	10	22			
	1212-X11A	●	-	12	12	120	12	12	22			
	1616-X11A	●	-	16	16	120	16	16	24			

SVVPN



VP□T



72.5°

• R type insert

Designation		Stock		Dimensions(mm)						Insert		
		R	L	H	W	L	S	h	ℓ			
SVVPN	0808-X11A	●	-	8	8	120	4	8	24	VP□T1103□□	FTKA02565	TW07P
	1010-X11A	●	-	10	10	120	5	10	24			
	1212-X11A	●	-	12	12	120	6	12	24			
	1616-X11A	●	-	16	16	120	8	16	28			

● : Stock item



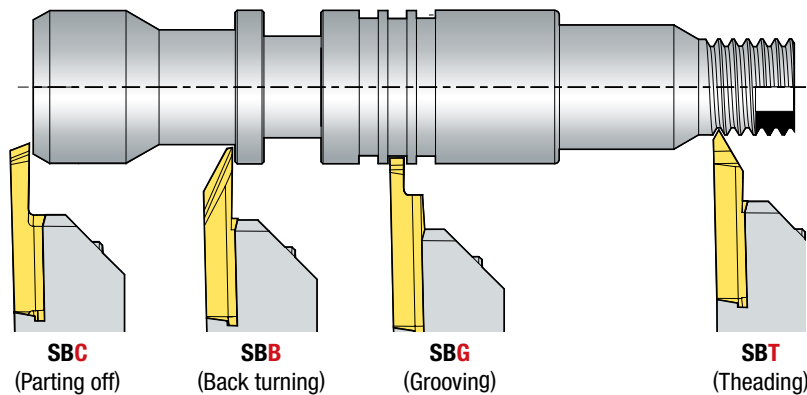
Auto tools

(Blade Type)

- Blade insert for automatic lathes
- For external machining of precise small parts
- 4types - SSB(for back turning), SGB(for grooving), SBT(for threading), SBC(for parting off)
- Convenient use of one holder to all blade inserts
- Exclusive holder for close cutting action to the sub spindle

Features

Application Example



Types of blade insert

SBC - For cut off/Parting

- Cutting width: 0.7~2.0
- D Max.: 16mm
- Nose R: 0.05mm



SBB - For back turning

- Approach angle: 59°
- Max. cutting depth: 4mm
- Nose R: 0.05, 0.1, 0.2mm



SGB - For grooving

- Width: 0.5~2.5mm
- Nose R: 0.05mm



SBT - For threading

- V profile: 60°
- Pitch: 0.2~1.0mm
- Nose R: 0.05mm





Code system of auto tools insert

Turning(Back turning)

SB	B	R	25	005
Small blade	Back turning	Hand R: Right L: Left	Length of insert	Nose R

Grooving

SB	G	R	25	20
Small blade	Grooving	Hand R: Right L: Left	Length of insert	Width of cutting edge

Threading

SB	T	R	25	60	N	010
Small blade	Threading	Hand R: Right L: Left	Length of insert	Angle of thread	Hand of R: Right L: Left N: Neutral	Nose R

Parting

SB	C	R	25	20	16	N
Small blade	Cut off / Parting	Hand R: Right L: Left	Length of insert	Width of cutting edge	Max. machining diameter	Hand of thread R: Right L: Left N: None T: C/B none

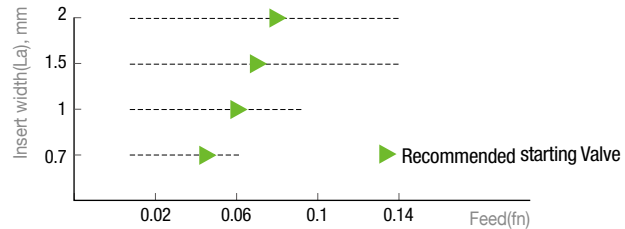
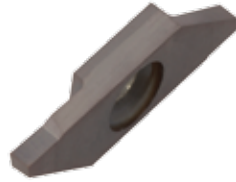
Code system of auto tools holder

Blade

SB	H	R	10	10	-	K25	-	X
Small blade	Holder	Hand R: Right L: Left	Height of shank	Width of shank		Length of insert		Sub spindle

Recommended Cutting Condition

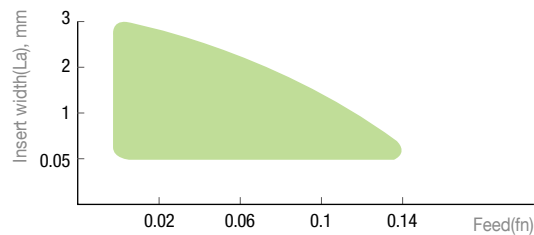
SBCR insert



Parting

- When parting with a sub-spindle it is more productive to use a straight cutting edge. This is a more stable parting method and will generate the best surface finish.
- When parting without a sub-spindle we recommend you use an insert with a maximum 15° front angle to minimise the risk of burr and pips on the component.
- When parting off with 15° front angled inserts we recommend reducing the feed by approximately 30%.

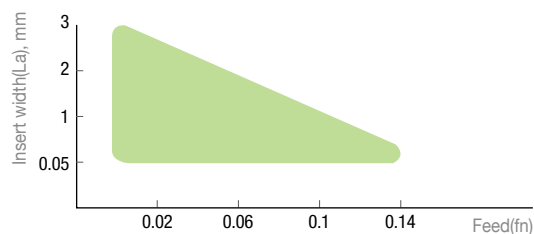
SBGR insert



Grooving

- Try not to use a smaller cutting depth than the nose radius. This will generate higher radial forces and will result in inaccurate dimensions.
- Too low cutting speed will result in inadequate tool life and it is advisable to follow cutting speed recommendations

SBBR insert



Back Turning

- If running with a cutting depth larger than 0.079 inch we recommend you use the insert with 0.008 inch nose radius.
- When using a large cutting depth it is important to reduce the feed as there is a large amount of pressure on the actual insert tip.
- If a larger cutting depth than 0.118 inch is needed switch to the VCGX inserts which have more edge strength.



Grades for Recommended Application Range

Workpiece	Grade	Order of recommended grade	Recommended cutting speed vc(m/min)								
			45	90	140	180	230	270	320	370	410
P	PC8110	1		60			200				
M	PC8110	1		60		180					
N	PC8110	1			90					400	
S	PC8110	1	20	50							

Easy Tool Change with Constant High Precision

Screw holes on both sides

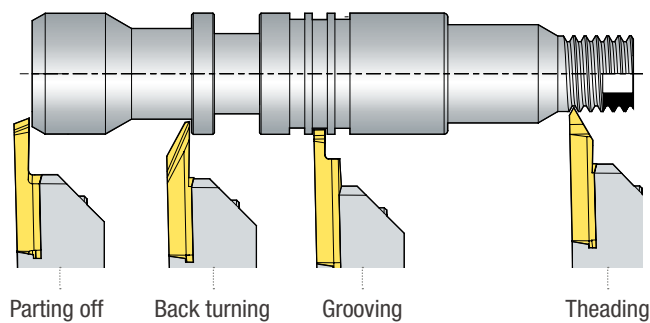
- Easy to exchange inserts → **Improved productivity**

Insert corner change

- Tolerance repetition ± 0.001 within → **Save setting time**



Combination of Inserts and Holders



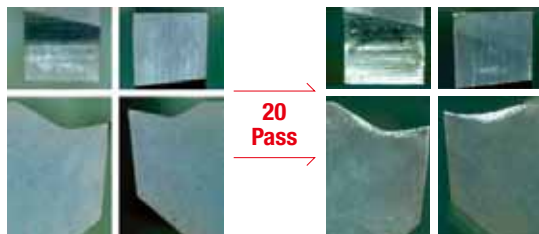
Processed form		Cut off	Back turning	Grooving	Threading
Insert	Designation	SBCR252016-R	SBBR25010	SBGR2515	SBTR2560-R-005
	Nose R	0.05	0.05, 0.1, 0.2	0.05	0.05, 0.1
	Edge width	0.7, 1.0, 1.5, 2.0	3.18	0.5, 1.0, 1.5, 2.0, 2.5	-
Holder	Designation	SBHR1212-K25	SBHR1212-K25	SBHR1212-K25	SBHR1212-K25
	Size	10x10, 12x12, 16x16	10x10, 12x12, 16x16	10x10, 12x12, 16x16	10x10, 12x12, 16x16

● Blade Cutting Performance

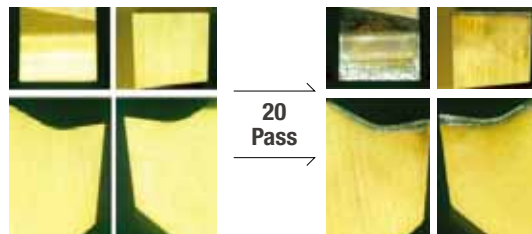
Wear Resistance(SUS304) - External Machining

• $vc = 100\text{m/min}$ • $fn = 0.14\text{mm/rev}$ • $ap = 2.0\text{mm}$, Wet

SBCR252016(PC8110)



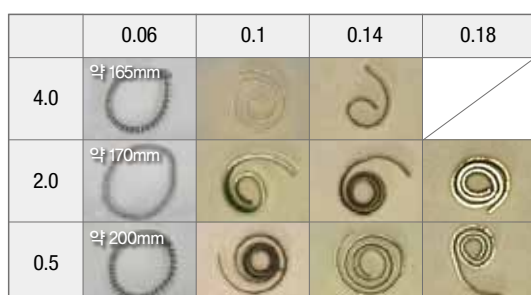
Competitor



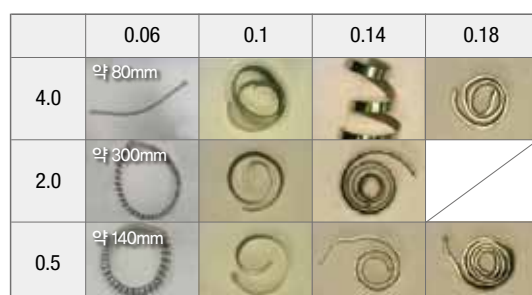
Chip Breaking(SUS304) - External Machining

• $vc = 100\text{m/min}$ • $fn = 0.02 \sim 0.18\text{mm/rev}$ • $ap = 0.5 \sim 4.0\text{mm}$, Wet

SBCR252016(PC8110)



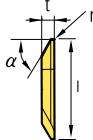
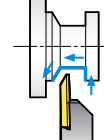
Competitor

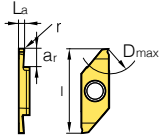
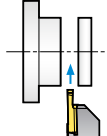
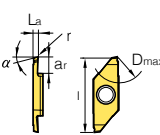
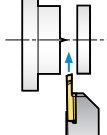
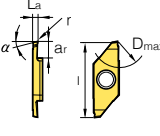
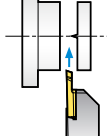
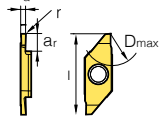
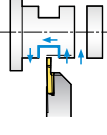


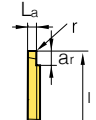
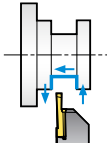


Applicable inserts

Insert

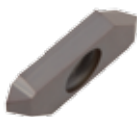
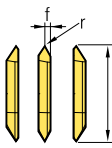
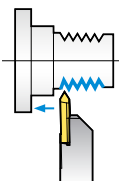
Application	Picture	Designation	Coated		Dimensions(mm)							Configuration	Feed Direction
			PC8110		l	α°	t	r	ar	D _{MAX}			
			R	L									
Back turning		SBBR/L	25005	●	-	25	59	3.18	0.05				
			25010	●	-	25	59	3.18	0.1				
			25020	●	-	25	59	3.18	0.2				

Application	Picture	Designation	Coated		Dimensions(mm)							Configuration	Feed Direction
			PC8110		l	α°	r	La	ar	D _{MAX}			
			R	L									
Parting off		SBCR/L	250708-N	●	-	25	0	0.05	0.1	4.3	8		
			251012-N	●	-	25	0	0.05	1	6.3	12		
			251512-N	●	-	25	0	0.05	1.5	6.3	12		
			252016-N	●	-	25	0	0.05	2	8.3	16		
		250708-R	●	-	25	15	0.05	0.1	4.3	8			
		251012-R	●	-	25	15	0.05	1	6.3	12			
		251512-R	●	-	25	15	0.05	1.5	6.3	12			
		252016-R	●	-	25	15	0.05	2	8.3	16			
		250708-L	●	-	25	15	0.05	0.1	4.3	8			
		251012-L	●	-	25	15	0.05	1	6.3	12			
		251512-L	●	-	25	15	0.05	1.5	6.3	12			
		252016-L	●	-	25	15	0.05	2	8.3	16			
		251012-T	●	-	25	0	0.05	1	6.3	12			
		251512-T	●	-	25	0	0.05	1.5	6.3	12			
		252016-T	●	-	25	0	0.05	2	8.3	16			

Application	Picture	Designation	Coated		Dimensions(mm)						Configuration	Feed Direction
			PC8110		l	r	La	ar	ar	D _{MAX}		
			R	L								
Grooving		SBGR/L	2505	● -	25	0.05	0.5	1.35				
			2510	● -	25	0.05	1	2.75				
			2515	● -	25	0.05	1.5	3.75				
			2520	● -	25	0.05	2	3.75				
			2525	● -	25	0.05	2.5	3.75				

● : Stock item

Insert

Application	Picture	Designation	Coated		Dimensions(mm)					Configuration	Feed Direction	
			PC8110		l	r	f	Pitch range				
			R	L				Min.	Max.			
Threading		SBTR/L	2560-N-005	●	-	25	0.05	1.59	0.2	2		
			2560-N-010	●	-	25	0.1	1.59	1	2		
			2560-R-005	●	-	25	0.05	0.6	0.2	1.5		
			2560-R-010	●	-	25	0.1	0.6	1	1.5		
			2560-L-005	●	-	25	0.05	0.6	0.2	1.5		
			2560-L-010	●	-	25	0.1	0.6	1	1.5		

● : Stock item

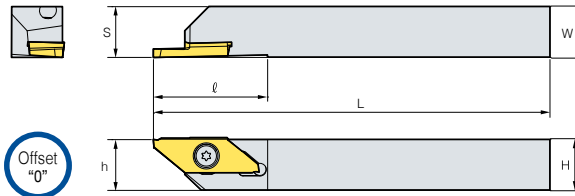
Available tool holders

Holder

SBHR/L



SBBR **SBGR**
SBTR **SBCR**

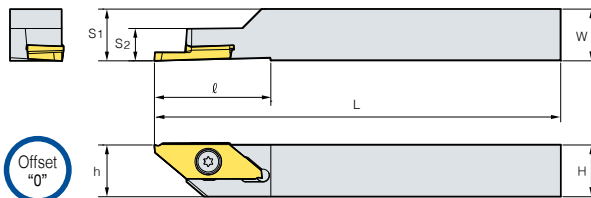


Designation		Stock		Dimensions(mm)						Insert	Screw	Wrench
		R	L	H	W	L	S	h	l			
SBHR/L	1010-X09A	●	-	10	10	125	10	10	27	SB □ R/L25	FTKA0409S	T9
	1212-X09A	●	-	12	12	125	12	12	27			
	1616-X09A	●	-	16	16	125	16	16	27			

SBHR/L-X



SBBR **SBGR**
SBTR **SBCR**



Designation		Stock		Dimensions(mm)							Insert		
		R	L	H	W	L	S ₁	S ₂	h	ℓ			
SBHR/L-X	1010-K25-X	●	-	10	10	125	10	7.5	10	27	SB □ R/L25	FTKA0409S	T9
	1212-K25-X	●	-	12	12	125	12	7.5	12	27			

● : Stock item



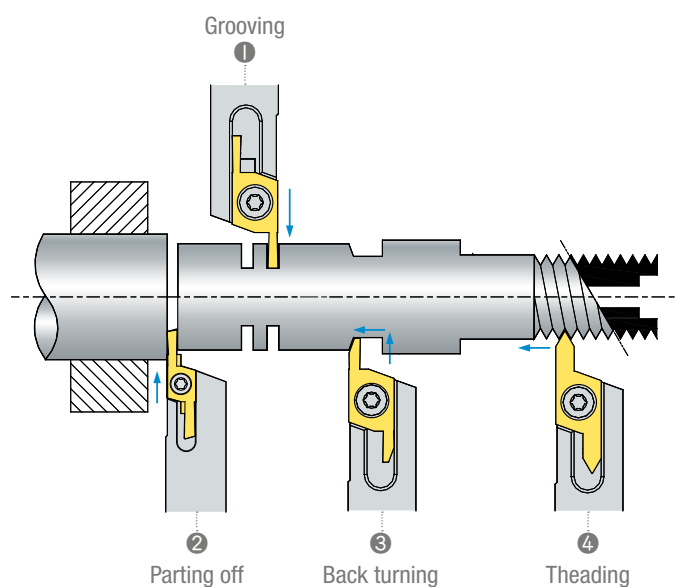
Auto Tools

(Multy Utility)

Features

- Multifunctional insert for automatic lathes
- For external machining of precise small parts
- 5types - SB(for back turning), SG(for grooving), ST(for threading), SC(for parting off), SGB(for grooving and back turning)
- Convenient use of one holder to all inserts
- Offset "0" to all ISO type holders

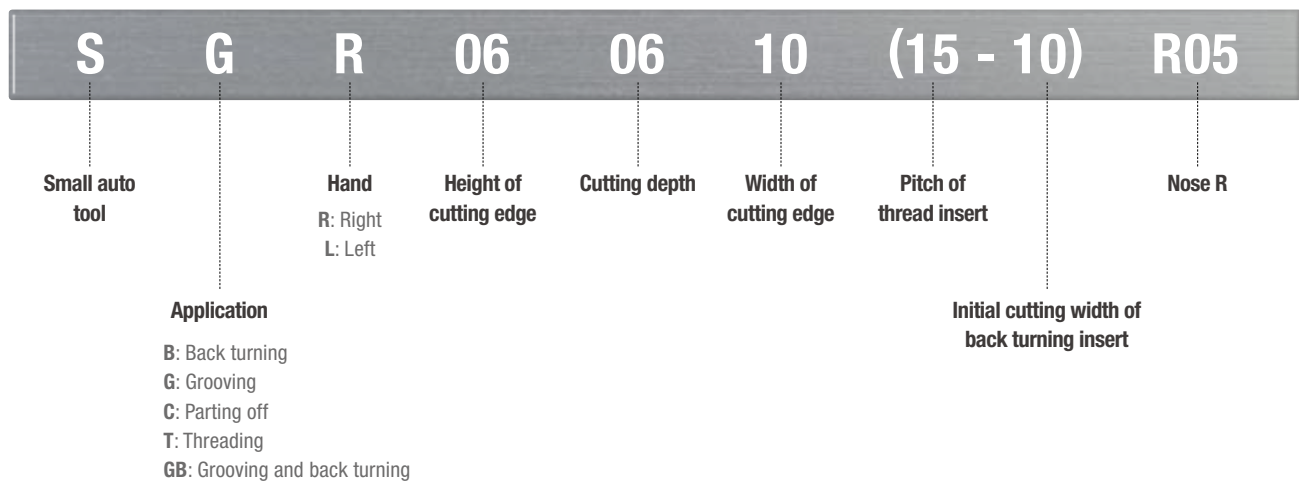
Combination of Inserts and Holders



Types of multifunctional insert



Insert code system (Multi utility type)



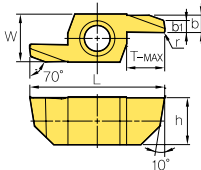
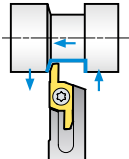
Recommended cutting conditions

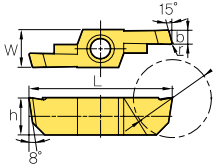
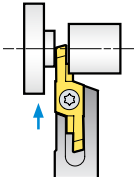
Workpiece	Turning		Grooving		Parting off		Back turning	
	Cutting speed, vc(m/min)	Feed, fn(mm/rev)	Cutting speed, vc(m/min)	Feed, fn(mm/rev)	Cutting speed, vc(m/min)	Feed, fn(mm/rev)	Cutting speed, vc(m/min)	Feed, fn(mm/rev)
Stainless steel	50~120	0.02~0.20	30~120	0.02~0.05	30~120	0.02~0.05	30~120	0.02~0.20
Carbon steel	50~150	0.01~0.25	50~150	0.02~0.08	50~150	0.01~0.08	50~150	0.01~0.25
Free cutting steel	30~150	0.02~0.25	30~150	0.02~0.08	30~150	0.01~0.08	30~150	0.01~0.25
Non-ferrous metal	70~200	0.03~0.25	70~200	0.03~0.10	70~200	0.03~0.10	70~200	0.03~0.30



Applicable inserts

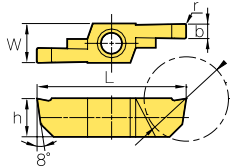
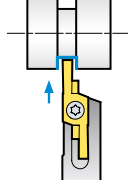
Insert

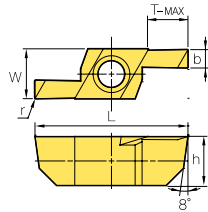
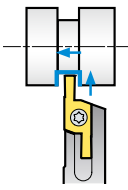
Application	Picture	Designation	Coated		Dimensions(mm)							Configuration	Feed Direction	
			PC9030		b ₁	b ₂	w	L	r	h	T-max			
			R	L										
Back turning		SBR/L	060520-10-R00	-	-	1	2	8	22	0	6	5.5		
			060520-10-R05	-	-	1	2	8	22	0.05	6	5.5		
			060520-10-R10	-	-	1	2	8	22	0.1	6	5.5		
			060630-20-R00	-	-	2	3	8	24	0	6	6.5		
			060630-20-R05	-	-	2	3	8	24	0.05	6	6.5		
			060630-20-R10	-	-	2	3	8	24	0.1	6	6.5		
			080630-20-R00	-	-	2	3	8	23	0	8	6.5		
			080630-20-R05	-	-	2	3	8	23	0.05	8	6.5		
			080630-20-R10	-	-	2	3	8	23	0.1	8	6.5		
			080840-20-R00	-	-	2	4	8	27	0	8	8.5		
			080840-20-R05	-	-	2	4	8	27	0.05	8	8.5		
			080840-20-R10	-	-	2	4	8	27	0.1	8	8.5		

Application	Picture	Designation	Coated		Dimensions(mm)						Configuration	Feed Direction	
			PC9030		b	w	L	r	h	ØD			
			R	L									
Parting off		SCR/L	060610-R00	-	-	1	8	24	0	6	11		
			060610-R05	●	-	1	8	24	0.05	6	11		
			060610-R10	●	-	1	8	24	0.1	6	11		
			060615-R00	-	-	1.5	8	24	0	6	11		
			060615-R05	●	-	1.5	8	24	0.05	6	11		
			060615-R10	●	-	1.5	8	24	0.1	6	11		
			060620-R00	-	-	2	8	24	0	6	11		
			060620-R05	●	-	2	8	24	0.05	6	11		
			060620-R10	●	-	2	8	24	0.1	6	11		
			081015-R00	-	-	1.5	8	31	0	8	18		
			081015-R05	-	-	1.5	8	31	0.05	8	18		
			081015-R10	-	-	1.5	8	31	0.1	8	18		
			081020-R00	-	-	2	8	31	0	8	18		
			081020-R05	-	-	2	8	31	0.05	8	18		
			081020-R10	●	-	2	8	31	0.1	8	18		
			081025-R00	-	-	2.5	8	31	0	8	18		
			081025-R05	●	-	2.5	8	31	0.05	8	18		
			081025-R10	●	-	2.5	8	31	0.1	8	18		
			081030-R00	-	-	3	8	31	0	8	18		
			081030-R05	●	-	3	8	31	0.05	8	18		
			081030-R10	-	-	3	8	31	0.1	8	18		

● : Stock item

Insert

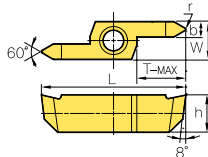
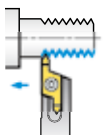
Application	Picture	Designation	Coated		Dimensions(mm)						Configuration	Feed Direction	
			PC9030		b	w	L	r	h	ØD			
			R	L									
Grooving		SGR/L	060610-R00	-	-	1	8	24	0	6	11		
			060610-R05	●	-	1	8	24	0.05	6	11		
			060610-R10	●	-	1	8	24	0.1	6	11		
			060615-R00	-	-	1.5	8	24	0	6	11		
			060615-R05	●	-	1.5	8	24	0.05	6	11		
			060615-R10	●	-	1.5	8	24	0.1	6	11		
			060620-R00	-	-	2	8	24	0	6	11		
			060620-R05	-	-	2	8	24	0.05	6	11		
			060620-R10	-	-	2	8	24	0.1	6	11		
			081015-R00	-	-	1.5	8	31	0	8	18		
			081015-R05	-	-	1.5	8	31	0.05	8	18		
			081015-R10	-	-	1.5	8	31	0.1	8	18		
			081020-R00	-	-	2	8	31	0	8	18		
			081020-R05	●	-	2	8	31	0.05	8	18		
			081020-R10	-	-	2	8	31	0.1	8	18		
			081025-R00	-	-	2.5	8	31	0	8	18		
			081025-R05	-	-	2.5	8	31	0.05	8	18		
			081025-R10	-	-	2.5	8	31	0.1	8	18		
			081030-R00	-	-	3	8	31	0	8	18		
			081030-R05	-	-	3	8	31	0.05	8	18		
			081030-R10	-	-	3	8	31	0.1	8	18		

Application	Picture	Designation	Coated		Dimensions(mm)						Configuration	Feed Direction
			PC9030		b	w	L	r	h	T-max		
			R	L								
Grooving and back turning		SGBR/L 0604520-R00	-	-	2	8	22	0	6	4.5		
		0604520-R05	-	-	2	8	22	0.05	6	4.5		
		0604520-R10	-	-	2	8	22	0.1	6	4.5		
		0604525-R00	-	-	2.5	8	22	0	6	4.5		
		0604525-R05	-	-	2.5	8	22	0.05	6	4.5		
		0604525-R10	-	-	2.5	8	22	0.1	6	4.5		
		0605530-R00	-	-	3	8	24	0	6	5.5		
		0605530-R05	-	-	3	8	24	0.05	6	5.5		
		0605530-R10	-	-	3	8	24	0.1	6	5.5		
		0805525-R00	-	-	2.5	8	24	0	8	5.5		
		0805525-R05	-	-	2.5	8	24	0.05	8	5.5		
		0805525-R10	-	-	2.5	8	24	0.1	8	5.5		
		0806530-R00	-	-	3	8	26	0	8	6.5		
		0806530-R05	-	-	3	8	26	0.05	8	6.5		
		0806530-R10	-	-	3	8	26	0.1	8	6.5		

● : Stock item



Insert

Application	Picture	Designation	Coated		Dimensions(mm)							Configuration	Feed Direction	
			PC9030		b	w	L	r	h	T-max	Pitch			
			R	L										
Threading		STR/L	06073215	-	-	3.2	8	25	0.06	6	7	0.5 ~1.5		
			06073230	-	-	3.2	8	25	0.19	6	7	1.5 ~3.0		
			08103215	-	-	3.2	8	31	0.06	8	10.5	0.5 ~1.5		
			08103230	-	-	3.2	8	31	0.19	8	10.5	1.5 ~3.0		

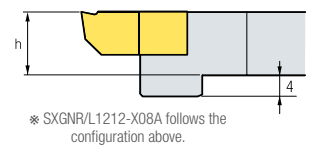
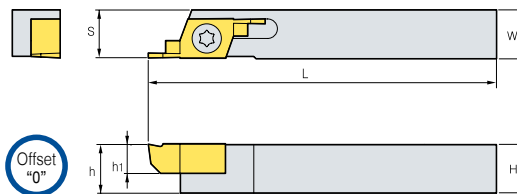
Available tool holders

Holders

SXGNR/L



SBR SGBR
SCR STR SGR



• R type insert

Designation		Stock		Dimensions(mm)						Insert	Screw 	Wrench 
		R	L	H	W	L	S	h	H ₁			
SXGNR/L	1010-X06A	●	-	10	10	125	10	10	6	S□R/L 06	FTNA0408	TW15P
	1212-X06A	●	-	12	12	125	12	12	6			
	1616-X06A	●	-	16	16	125	16	16	6			
	2020-X06A	●	-	20	20	125	20	20	6			
	1212-X08A	●	-	12	12	130	12	12	8	S□R/L 08	FTNA0411	TW15P
	1616-X08A	-	-	16	16	130	16	16	8			
	2020-X08A	-	-	20	20	130	20	20	8			

● : Stock item

Auto tools

(KGT/MGT type)

Features

- Grooving insert for automatic lathes
- Exclusive holder for automatic lathes
- Economic double sided insert
- Strong clamping system secures stable machining and precision.
- A wide selection of chip breakers according to various cutting conditions such as low/high feed, continuous/interrupted machining, etc.

• Chip breaker line-up - KGT insert

KGMM - L

- Sharp cutting edge
- For low feed machining
- For small diameter parts



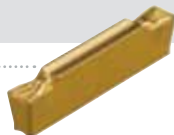
KGMM - R

- Reinforced cutting edge
- For high feed machining
- For interrupted cutting



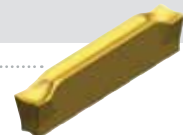
KGMM - T

- Sharp cutting edge
- Stronger chip control
- For turning and grooving



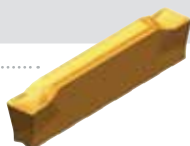
KGMR/L - LP

- Sharp cutting edge
- For low feed machining
- Small diameter component
- Right/Left handed
- Low carbon steel



KGMR/L - RP

- Strong cutting edge
- For high feed machining
- For interrupted cutting
- Right/Left handed



KRMN - C

- Improved chip control
- Copying
- Relief





◉ Chip breaker line-up - MGT insert

MGMN-M

- Easier chip control by narrowing chip width with the use of chip breaker on rake surface center
- Smooth chip flow by small dots in external machining
- Available for both external machining and grooving



MGMN - G

- Specially designed chip breaker allows narrower chips to promote better chip flow with the use of center dots
- Exclusive chip breaker for grooving



◉ Insert code system(KGT)

KG	M	N	300	04	T
System code KG SYSTEM (KORLOY Grooving)	Tolerance M: Pressed class G: Ground class	Hand N: Neutral R: Right L: Light I: Internal	Width of cutting edge 2.0~8.0mm	Corner nose radius of insert 0.2mm 0.3mm 0.4mm	Chip breaker C/L/R/T LP/RP

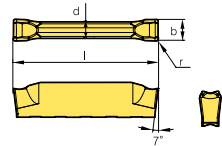
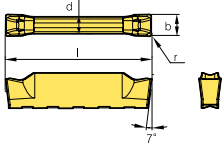
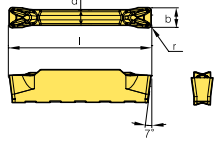
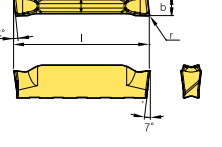
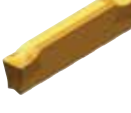
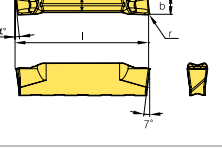
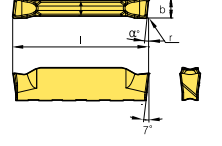
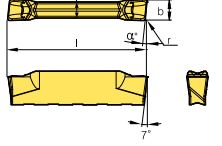
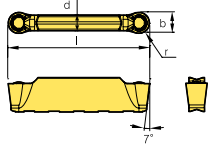
◉ Insert code system(MGT)

MG	M	N	300	04	T
System code MG SYSTEM (Multi Grooving)	Tolerance M: Pressed class G: Ground class	Hand N: Neutral R: Right L: Light I: Internal	Width of cutting edge 2.0~8.0mm	Corner nose radius of insert 0.2mm 0.3mm 0.4mm	Chip breaker M/G L/R/T

◉ Holder code system(KGT/MGT)

KG	E	H	R	1212	3	D25A
System code KGT MGT	Application E: External machining I: Internal machining	Holder type H: Horizontal type V: Vertical type U: Undercut type	Hand R: Right L: Light	Shank size Height 12mm, width 12mm (For internal machining: Min. machining diameter)	Cutting width 2.0~3.0mm	Max. cutting diameter Ø15~32mm A : Compact type B: high rigidity type

○ Applicable inserts(KGT)

Insert														
Application	C/B	Designation	Coated					Dimensions(mm)					Configuration	
	Picture		NC3220	NC3225	NC5330	PC5300	PC9030	b	r	ℓ	d	α°		
Grooving		KGML	200-02-L	●	●	●	●	2	0.2	20	1.7	-		
			300-02-L	●	●	●	●	3	0.2	20	2.3	-		
Grooving Parting off		KGML	200-02-R	●	●	●	●	2	0.2	20	1.7	-		
			300-02-R	●	●	●	●	3	0.2	20	2.3	-		
Grooving turning		KGML	200-02-T	●	●	●	●	2	0.2	20	1.7	-		
			300-02-T	●	●	●	●	3	0.2	20	2.3	-		
			300-04-T	●	●	●	●	3	0.4	20	2.3	-		
Parting off (Right handed)		KGMR	200-6D-LP		●	●		2	0.2	20	1.7	6		
			200-15D-LP		●	●		2	0.2	20	1.7	15		
			300-6D-LP		●	●		3	0.2	20	2.3	6		
			300-15D-LP		●	●		3	0.2	20	2.3	15		
Parting off (Right handed)		KGMR	200-6D-RP		●	●		2	0.2	20	1.7	6		
			200-15D-RP		●	●		2	0.2	20	1.7	15		
			300-6D-RP		●	●		3	0.2	20	2.3	6		
			300-15D-RP		●	●		3	0.2	20	2.3	15		
Parting off (Left handed)		KGML	200-6D-LP					2	0.2	20	1.7	6		
			200-15D-LP					2	0.2	20	1.7	15		
			300-6D-LP					3	0.2	20	2.3	6		
			300-15D-LP					3	0.2	20	2.3	15		
Parting off (Left handed)		KGML	200-6D-RP					2	0.2	20	1.7	6		
			200-15D-RP					2	0.2	20	1.7	15		
			300-6D-RP					3	0.2	20	2.3	6		
			300-15D-RP					3	0.2	20	2.3	15		
Grooving Turning		KRMN	200-C	●	●	●		2	1	20	1.7	-		
			300-C	●	●	●		3	1.5	20	2.2	-		

● : Stock item



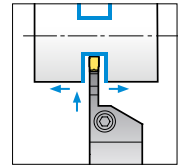
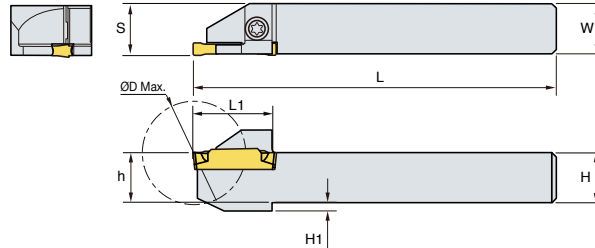
Available tool holders(KGT)

Holders

KGEHR/L (Compact type)



KGGN KGMN KGMR/L
KRGH KRMN



• R type insert

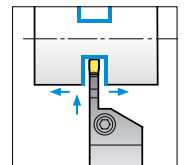
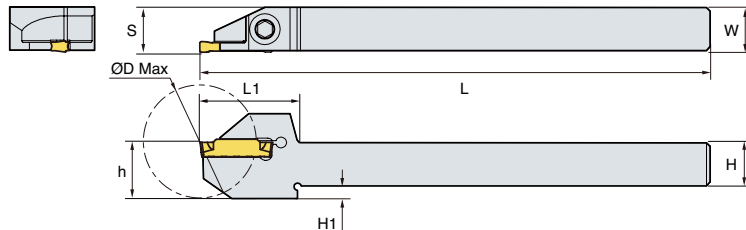
Designation		Stock		Dimensions(mm)							Insert	Screw 	Wrench 
		R	L	H	W	L1	L	S	H1	ØD			
KGEHR/L	1010-2-D20A	●	-	10	10	19	125	10.2	2	20	KGMN200-□-□ KGMR/L200-□-□ KRMN200-C KRGH200-□-□	ETNA0412	TW15L
	1212-2-D25A	●	-	12	12	19	125	12.2	2	25			
	1414-2-D25A	●	-	14	14	19	125	14.2	-	25			
	1616-2-D32A	●	-	16	16	24	125	16.2	-	32			
	1212-3-D25A	●	-	12	12	19	130	12.4	2	25	KGMN300-□-□ KGMR/L300-□-□ KRMG300-C KRGH300-□-□		
	1616-3-D32A	●	-	16	16	24	130	16.4	-	32			

● : Stock item

KGEHR/L (High rigidity type)



KGGN KGMN KGMR/L
KRGH KRMN

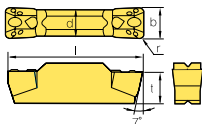
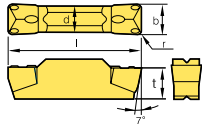
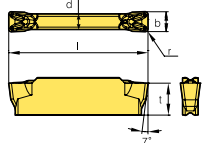
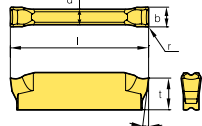
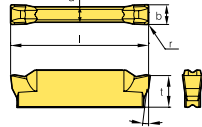


• R type insert

Designation		Stock		Dimensions(mm)							Insert	Screw 	Wrench 
		R	L	H	W	L1	L	S	H1	ØD			
KGEHR/L	1010-2-D30B	●	-	10	10	29.6	140	10.2	6.6	30	KGMN200-□-□ KGMR/L200-□-□ KRMN200-C KRGH200-□-□	MHA0512	HW40L
	1212-2-D25B	●	-	12	12	27.1	140	12.2	3.5	25			
	1212-2-D30B	●	-	12	12	29.6	140	12.2	3.5	30			
	1616-2-D32B	●	-	16	16	30.6	140	16.2	-	32			
	1212-3-D25B	●	-	12	12	27.1	140	12.4	3.5	25	KGMN300-□-□ KGMR/L300-□-□ KRMG300-C KRGH300-□-□		
	1212-3-D32B	●	-	12	12	30.6	140	12.4	3.5	32			
	1616-3-D32B	●	-	16	16	30.6	140	16.4	-	32			

● : Stock item

● Applicable inserts(MGT)

Insert													
Application	C/B	Designation	Coated				Dimensions(mm)					Configuration	
	Picture		NC3030	NC3120	PC5300	PC9030	b	r	l	d	t		
Grooving turning	MGMN-M 	MGMN	200-M	●	●	●	●	2.0	0.15	16.0	1.2	3.50	
			250-M	●	●	●	●	2.5	0.20	18.5	2.0	3.85	
Grooving	MGMN-G 	MGMN	150-G	●	●	●	●	1.5	0.15	16.0	1.2	3.50	
			200-G	●	●	●	●	2.0	0.20	16.0	1.6	3.50	
			250-G	●	●	●	●	2.5	0.20	18.5	2.0	3.85	
Grooving turning	MGMN-T 	MGMN	150-015-T	●		●		1.5	0.15	16.0	1.2	3.50	
			200-T	●		●		2.0	0.20	16.0	1.6	3.50	
			250-T	●		●		2.5	0.20	18.5	2.0	3.85	
Grooving	MGMN-L 	MGMN	200-02-L	●		●		2.0	0.20	16.0	1.6	3.50	
			200-04-L			●		2.0	0.40	16.0	1.7	3.50	
			250-02-L	●		●		2.5	0.20	18.5	2.0	3.85	
Grooving Parting off	MGMN-R 	MGMN	150-015-R	●		●		1.5	0.15	16.0	1.2	3.50	
			200-02-R	●		●		2.0	0.20	16.0	1.6	3.50	
			200-04-R	●		●		2.0	0.40	16.0	1.7	3.50	
			250-02-R	●		●		2.5	0.20	18.5	2.0	3.85	

● : Stock item



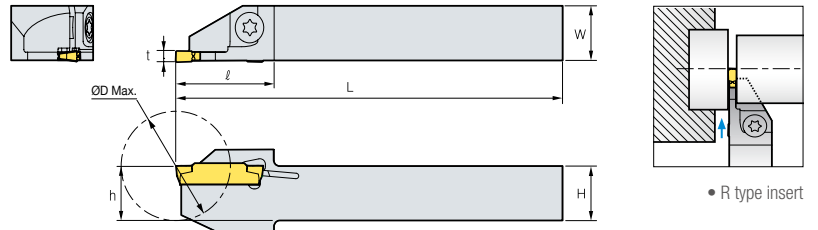
Available tool holders(MGT)

Holders

MGEHR/L



MGGN MGMN



Designation		Stock		Dimensions(mm)						Insert	Screw 	Wrench 
		R	L	H	W	L	l	t	ØD			
MGEHR/L	1010-X15A	●	-	10	10	125	18	1.5	20	MGMN150-G	ETNA0412	TW15L
	1212-X15A	●	-	12	12	125	19.5	1.5	25			
	1010-X20A	●	-	10	10	125	18	2	20	MGMN200-M MGMN200-G	ETNA0412	TW15L
	1212-X20A	●	-	12	12	125	19.5	2	25			
	1616-X20A	-	-	16	16	125	25	2	32	MGMN250-M MGMN250-G	ETNA0412	TW15L
	1010-X25A	●	-	10	10	125	20	2.5	20			
	1212-X25A	●	-	12	12	125	20	2.5	25			
	1616-X25A	-	-	16	16	125	25	2.5	32			

● : Stock item

Auto Tools

(MSB tool)

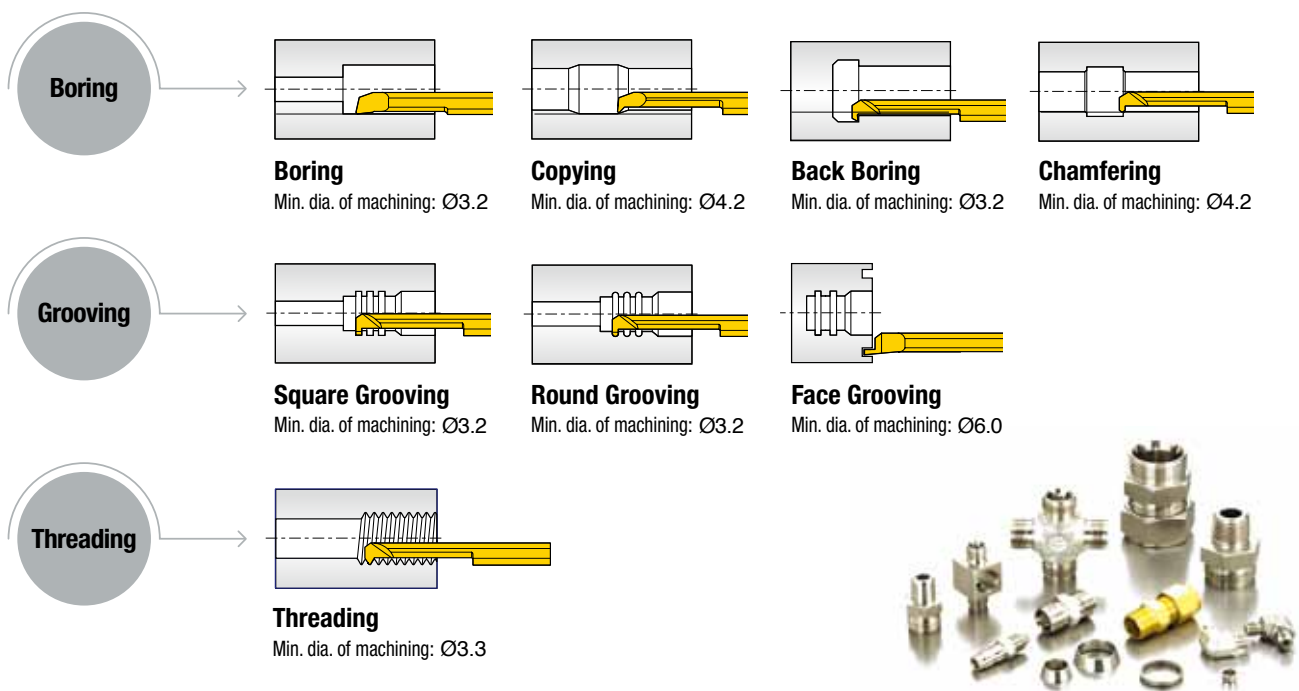
Features

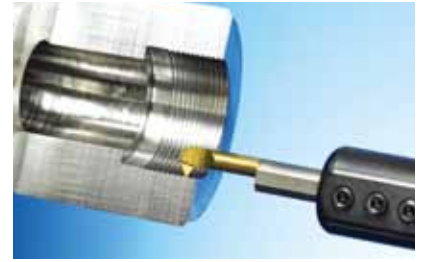
- High hardness grade guarantees longer tool life
- Various kinds of machining(Fitting, Valve, Medical parts, Automobile component, and Semiconductor equipment) are available
- Various types of MSB tools(Boring, Grooving, Threading)

Grades

Grades	Coating	Application and features
Z12M	Carbide	• Ultra fine grain substrate ensures superior wear resistance and toughness • Application: Cast iron, Aluminum alloy and Non-ferrous metals machining
PC30M	TiN coating	• TiN coated ultra fine grain substrate ensures long tool life • Application: Stainless steel, heat resisting alloy and hard-to-cut material machining

Types





Code system

M	G	R	06	06	1.5 ◇ 60	-	1																				
Type		Hand		Max. aspect ratio			Cutting edge																				
M: Micro		R: Right L: Left		10 : 10.0 15 : 15.0 20 : 20.0 25 : 25.0 30 : 30.0			1: Single ended None: Double ended																				
	Application		Shank Dia.		Machining size																						
	B : Boring		03 : 3.0		<table><tr><td>Boring</td><td colspan="2">No Code</td></tr><tr><td>Copying</td><td colspan="2">Width of Groove</td></tr><tr><td rowspan="2">Threading</td><td>60°</td><td>55°</td></tr><tr><td>Pitch</td><td>tpi</td></tr><tr><td rowspan="3">◇</td><td>F</td><td>0.25~1.0</td><td>72~24</td></tr><tr><td>A</td><td>0.5~1.5</td><td>48~16</td></tr><tr><td>AG</td><td>0.5~3.0</td><td>48~8</td></tr></table>	Boring	No Code		Copying	Width of Groove		Threading	60°	55°	Pitch	tpi	◇	F	0.25~1.0	72~24	A	0.5~1.5	48~16	AG	0.5~3.0	48~8	
Boring	No Code																										
Copying	Width of Groove																										
Threading	60°	55°																									
	Pitch	tpi																									
◇	F	0.25~1.0	72~24																								
	A	0.5~1.5	48~16																								
	AG	0.5~3.0	48~8																								
	BC: Copying		04 : 4.0																								
	BB: Back Boring		06 : 6.0																								
	BF: Chamfering		08 : 8.0																								
	G : Square Grooving		10 : 10.0																								
	GR: Round Grooving																										
	GF: Face Grooving																										
	T : Threading																										

MSB tool code system

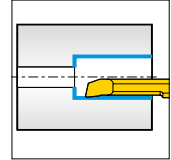
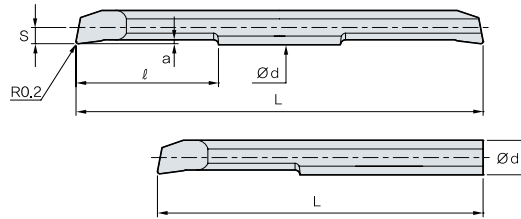
Types		Application		Designation	
01	Boring	Boring		MBR/LA○○○○☆☆☆	
02		Copying		MBCR/LA○○○○☆☆☆	
03		Back Boring		MBBR/LA○○○○☆☆☆	
04		Chamfering		MBFR/LA○○○○☆☆☆	
05	Grooving	Square Grooning		MGR/LA○○○○☆☆☆- □□	
06		Round Grooving		MGRR/LA○○○○☆☆☆- □□	
07		Face Grooving		MGFR/LA○○○○☆☆☆- □□	
08	Threading	Partial	60°	MTR/LA○○○○☆☆☆- ◇60	
			55°	MTR/LA○○○○☆☆☆- ◇55	

Marks	○○○○	Shank Dia.			
	☆☆☆	Max. depth of boring			
	□□	Width of groove			
	◇	Pitch/tpi	F	0.25~1.0	72~24
			A	0.5~1.5	48~16
			AG	0.5~3.0	48~8

● Applicable MSB tools

MSB tools

Boring(MBR)

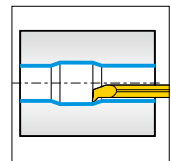
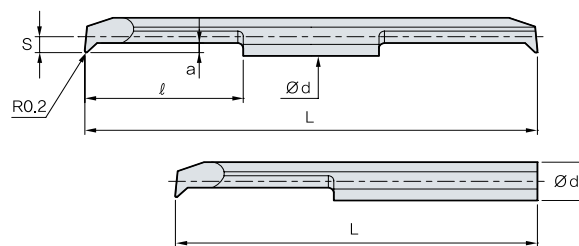


(mm)

Twin Edge			Single Edge			Ød	Min.dia. of ma- chining	ℓ	Overall length		Detailed cutting edge	
Designation	Coated	Designation	Coated	L					a	s		
	PC30M		PC30M	Double ended	Single ended							
MBR	0310	●	MBR	0310-1	-	3.0	3.2	10	40	35	0.5	1.4
	0315	●		0315-1	-			15	50	45		
	0410	●		0410-1	-	4.0	4.2	10	40	35	0.6	1.9
	0415	●		0415-1	-			15	50	45		
	0420	●		0420-1	-			20	60	50		
	0610	-		0610-1	-	6.0	6.2	10	45	40	0.75	2.9
	0615	●		0615-1	-			15	55	45		
	0620	●		0620-1	-			20	65	50		
	0810	-		0810-1	-	8.0	8.2	10	50	45	0.8	3.9
	0820	●		0820-1	-			20	70	60		
	0830	-		0830-1	-			30	80	70		
	1015	-		1015-1	-	10.0	10.2	15	60	60	1.0	4.9
	1025	●		1025-1	-			25	80	70		
	1035	-		1035-1	-			35	100	80		

● : Stock item

Boring(MBCR)



(mm)

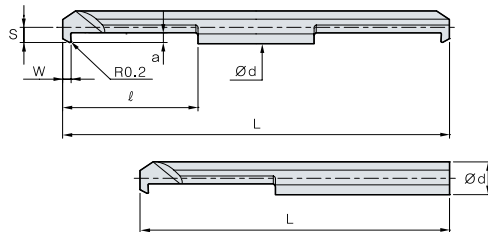
Twin Edge			Single Edge			Ød	Min.dia. of mach- ining	ℓ	Overall length		Detailed cutting edge	
Designation	Coated	Designation	Coated	L					a	s		
	PC30M		PC30M	Double ended	Single ended							
MBCR	0410	-	MBCR	0410-1	-	4.0	4.2	10	40	35	1.0	1.9
	0415	●		0415-1	-			15	50	45		
	0420	●		0420-1	-			20	60	50		
	0610	-		0610-1	-	6.0	6.2	10	45	40	1.3	2.9
	0615	●		0615-1	-			15	55	45		
	0620	●		0620-1	-			20	60	50		

● : Stock item



MSB tools

Back Boring(MBBR)

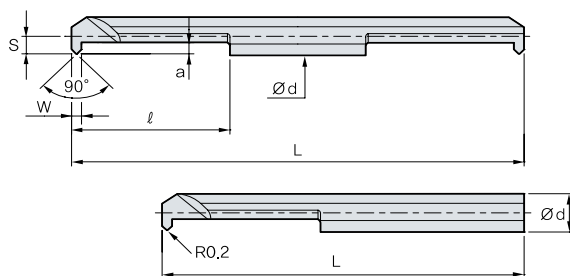


(mm)

Twin Edge			Single Edge			Ød	Min.dia. of ma- chining	ℓ	Overall length		Detailed cutting edge		
Designation	Coated	Designation	Coated	L					W	a	S		
	PC30M		PC30M	Double ended	Single ended								
MBBR	0310	-	MBBR	0310-1	-	3.0	3.2	10	40	35	1.5	0.8	1.4
	0315	-		0315-1	-			15	50	45			
	0410	-		0410-1	-	4.0	4.2	10	40	35	2	1.3	1.9
	0415	-		0415-1	-			15	50	45			
	0420	-		0420-1	-			20	60	50			
	0610	-		0610-1	-	6.0	6.2	10	45	40	2	1.9	2.9
	0615	-		0615-1	-			15	55	45			
	0620	-		0620-1	-			20	65	50			

● : Stock item

Chamfering(MBFR)



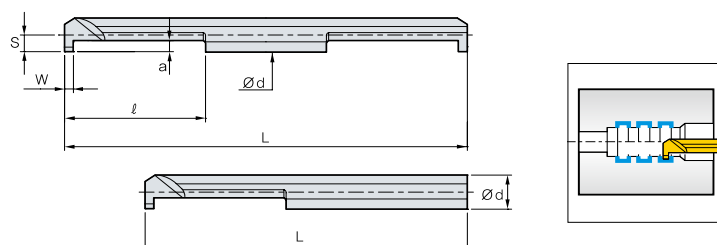
(mm)

Twin Edge			Single Edge			Ød	Min.dia. of mach- ining	ℓ	Overall length		Detailed cutting edge		
Designation	Coated	Designation	Coated	L					W	a	S		
	PC30M		PC30M	Double ended	Single ended								
MBFR	0410	-	MBFR	0410-1	-	4.0	4.2	10	40	35	0.8	1	1.9
	0415	-		0415-1	-			15	50	45			
	0420	-		0420-1	-			20	60	50			
	0610	-	0610-1	-	6.0	6.2	10	45	40	1.4	1.2	2.9	
	0615	-	0615-1	-			15	55	45				
	0620	-	0620-1	-				60	50				

● : Stock item

MSB tools

Square Grooving(MGR)



(mm)

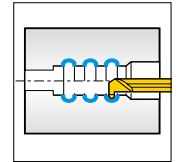
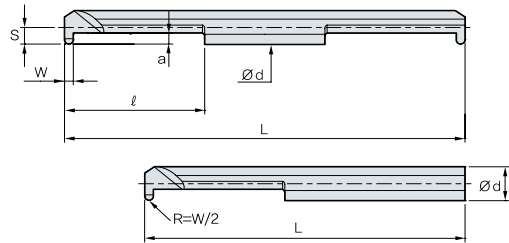
Twin Edge			Single Edge			Ød	Min.dia. of ma- chining	ℓ	Overall length		Detailed cutting edge		
Designation	Coated	Designation	Coated	L					W	a	S		
	PC30M		PC30M	Double ended	Single ended								
MGR	0310-1.0	-	MGR	0310-1.0-1	-	3.0	3.2	10	40	35	1	0.8	1.4
	0310-1.0	-		0310-1.0-1	-			15	50	45			
	0310-1.5	-		0310-1.5-1	-			10	40	35	1.5		
	0315-1.5	-		0315-1.5-1	-			15	50	45			
	0410-1.0	-		0410-1.0-1	-	4.0	4.2	10	40	35	1	1.4	1.9
	0420-1.0	-	0420-1.0-1	-	20			60	50				
	0410-1.5	-	0410-1.5-1	-	10			40	35	1.5			
	0420-1.5	-	0420-2.0-1	-	20			60	50				
	0410-2.0	-	0410-2.0-1	-	10			40	35	2			
	0420-2.0	-	0420-2.0-1	-	20			60	50				
	0610-1.0	-		0610-1.0-1	-	6.0	6.2	10	45	40	1	1.8	2.9
	0620-1.0	-	0620-1.0-1	-	20			65	50				
	0610-1.5	-	0610-1.5-1	-	10			45	40	1.5			
	0620-1.5	-	0620-1.5-1	-	20			65	50				
	0610-2.0	-	0610-2.0-1	-	10			45	40	2			
	0620-2.0	-	0620-2.0-1	-	20			65	50				
	0610-2.5	-	0610-2.5-1	-	10			45	40	2.5			
	0620-2.5	-	0620-2.5-1	-	20			65	50				
	0820-1.5	-		0820-1.5-1	-	8.0	8.2	20	70	60	1.5	0.8	3.9
	0820-2.0	-	0820-2.0-1	-	2								
	0820-2.5	-	0820-2.5-1	-	2.5						1.3		
	0820-3.0	-	0820-3.0-1	-	3								
	1025-1.5	-		1025-1.5-1	-	10.0	10.2	25	80	70	1.5	0.8	4.9
	1025-2.0	-	1025-2.0-1	-	2								
	1025-2.5	-	1025-2.5-1	-	2.5						1.3		
	1025-3.0	-	1025-3.0-1	-	3								

● : Stock item



MSB tools

Round Grooving(MGRR)



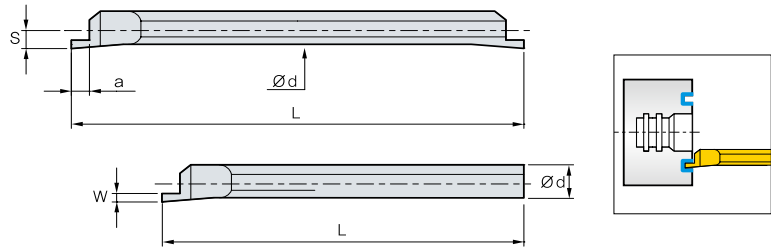
(mm)

Twin Edge			Single Edge			Ød	Min.dia. of ma- chining	ℓ	Overall length		Detailed cutting edge		
Designation	Coated	Designation	Coated	L					W	a	S		
	PC30M		PC30M	Double ended	Single ended								
MGRR	0310-0.8	-	MGRR	0310-0.8-1	-	3.0	3.2	10	40	35	0.8	0.8	1.4
	0315-0.8	-		0315-0.8-1	-			15	50	45			
	0410-1.0	-		0410-1.0-1	-	4.0	4.2	10	40	35	1.0	1.0	1.9
	0420-1.0	-		0420-1.0-1	-			20	60	50			
	0610-1.0	-		0610-1.0-1	-	6.0	6.2	10	45	40	1.0	2.0	2.9
	0620-1.0	-		0620-1.0-1	-			20	65	50			
	0610-1.5	-		0610-1.5-1	-			10	45	40	1.5		
	0620-1.5	-		0620-1.5-1	-			20	65	50			
	0610-2.0	-		0610-2.0-1	-			10	45	40	2		
	0620-2.0	-		0620-2.0-1	-			20	65	50			
	0820-1.0	-		0820-1.0-1	-	8.0	8.2	20	70	60	1	2.3	3.9
	0820-1.5	-		0820-1.5-1	-						1.5		
	0820-2.0	-		0820-2.0-1	-						2		
	1025-1.0	-		1025-1.0-1	-	10.0	10.2	25	80	70	1	2.8	4.9
	1025-1.5	-		1025-1.5-1	-						1.5		
	1025-2.0	-		1025-2.0-1	-						2		

● : Stock item

MSB tools

Face Grooving(MGFR)

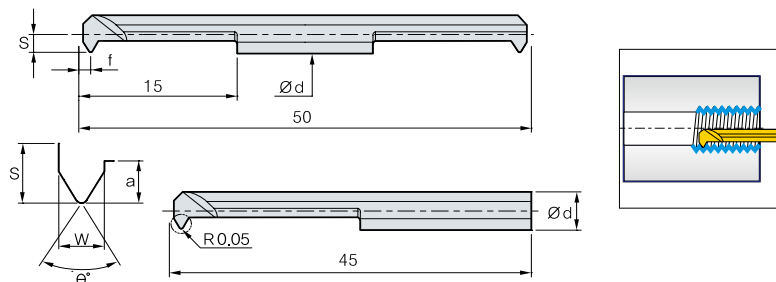


(mm)

Twin Edge			Single Edge			Ød	Min.dia. of ma- chining	Overall length		Detailed cutting edge		
Designation	Coated	Designation	Coated	L				W	a	S		
	PC30M		PC30M	Double ended	Single ended							
MGFR	0400-1.0	-	MBFR	0400-1.0-1	-	4.0	6	50	45	1	1.5	1.8
	0400-1.5	-		0400-1.5-1	-					1.5	2	
	0600-1.0	-		0600-1.0-1	-	6.0	8.5	50	45	1	1.5	2.9
	0600-1.5	-		0600-1.5-1	-					1.5	2	
	0600-2.0	-		0622-2.0-1	-					2	2.5	
	0800-1.0	-		0800-1.0-1	-	8.0	10.4	70	60	1	1.5	3.9
	0800-1.5	-		0800-1.5-1	-					1.5	2	
	0800-2.0	-		0800-2.0-1	-					2	2.5	
	1000-2.0	-		1000-2.0-1	-	10.0	12.4	80	70	2	2.5	4.9
	1000-2.5	-		1000-2.5-1	-					2.5	3	
	1000-3.0	-		1000-3.0-1	-					3	3.5	
	1000-3.5	-		1000-3.5-1	-					3.5	4	
	1000-4.0	-		1000-4.0-1	-					4	4.5	
	1000-4.5	-		1000-4.5-1	-					4.5	5	

● : Stock item

Threading(MTR)



(mm)

Twin Edge			Single Edge			Ød	Min.dia. of mach- ining	Threading			Detailed cutting edge		
Designation	Coated	Designation	Coated	W	Pitch /tpi			θ°	S	a	f		
	PC30M		PC30M										
MTR	0315-F60	-	MTR	0315-F60-1	-	3.0	3.3	1.2	0.5~1.0	60°	1.45	1.2	0.6
	0415-F80	-		0415-F80-1	-	4.0	4.3				1.95		
	0615-A60	-		0615-A60-1	-	6.0	6.2				2.9		
	0315-F55	-		0315-F55-1	-	3.0	3.3	1.2	48~24	55°	1.45	1.2	0.6
	0415-F55	-		0415-F55-1	-	4.0	4.3				1.95		
	0615-A55	-		0615-A55-1	-	6.0	6.2				2		

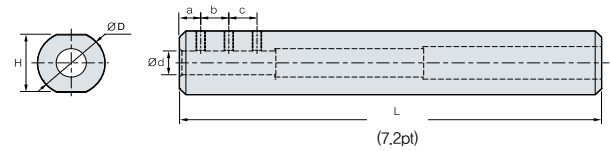
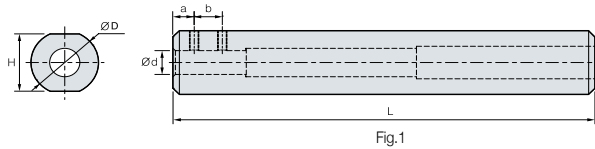
● : Stock item



● Applicable Sleeve

Sleeve

Sleeve(SL)



(mm)

Designation		Stock	Dimensions(mm)							Screw 	Wrench 	Fig.
			Ød	a	B	c	ØD	H	L			
SL	1603	●	3	5	-	-	16	14	100	M3	HW15L	1
	1604	●	4	5	6	-	16	14	100	M4	HW20L	
	1605	●	5	5	8	-	16	14	100	M4	HW20L	
	1606	●	6	5	6	6	16	14	100	M4	HW20L	3
	1607	●	7	5	6	8	16	14	100	M4	HW20L	
	2008	●	8	5	10	10	20	18	100	M4	HW20L	
	2010	●	10	5	10	10	20	18	100	M5	HW20L	

● : Stock item

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