

C

MULTI-FUNCTIONAL TOOLS

Korloy Multi-functional tools can be used for machining in grooving, parting-off, facing and forming applications. Its design ensures superior machinability and productivity.



Application Example

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KGT

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MGT

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Grooving / Parting off

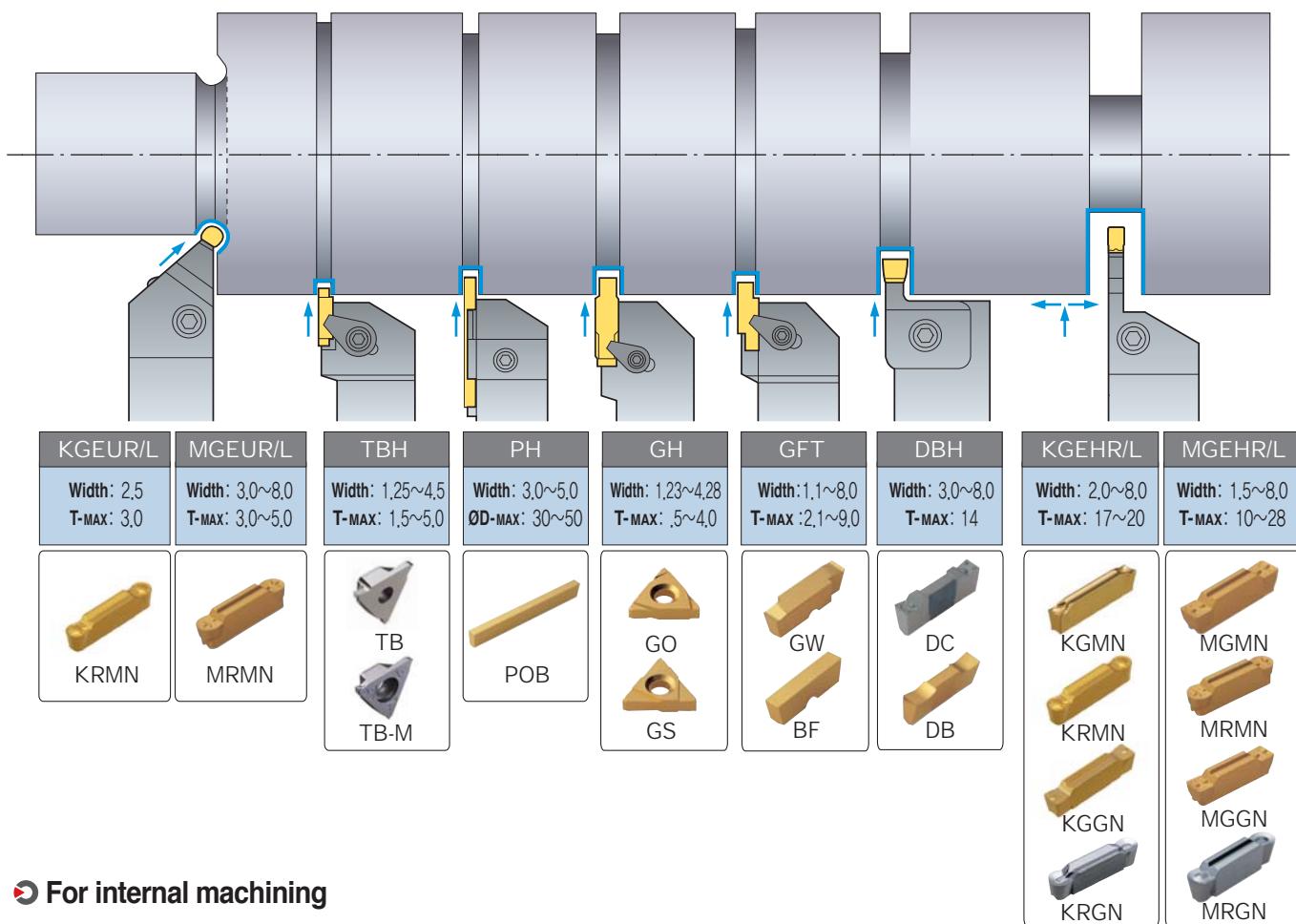
- C57 IGH
- C57 DBH
- C58 GFT
- C58 GFIP
- C59 GH
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- C60 EH
- C60 PH

Special Order Form

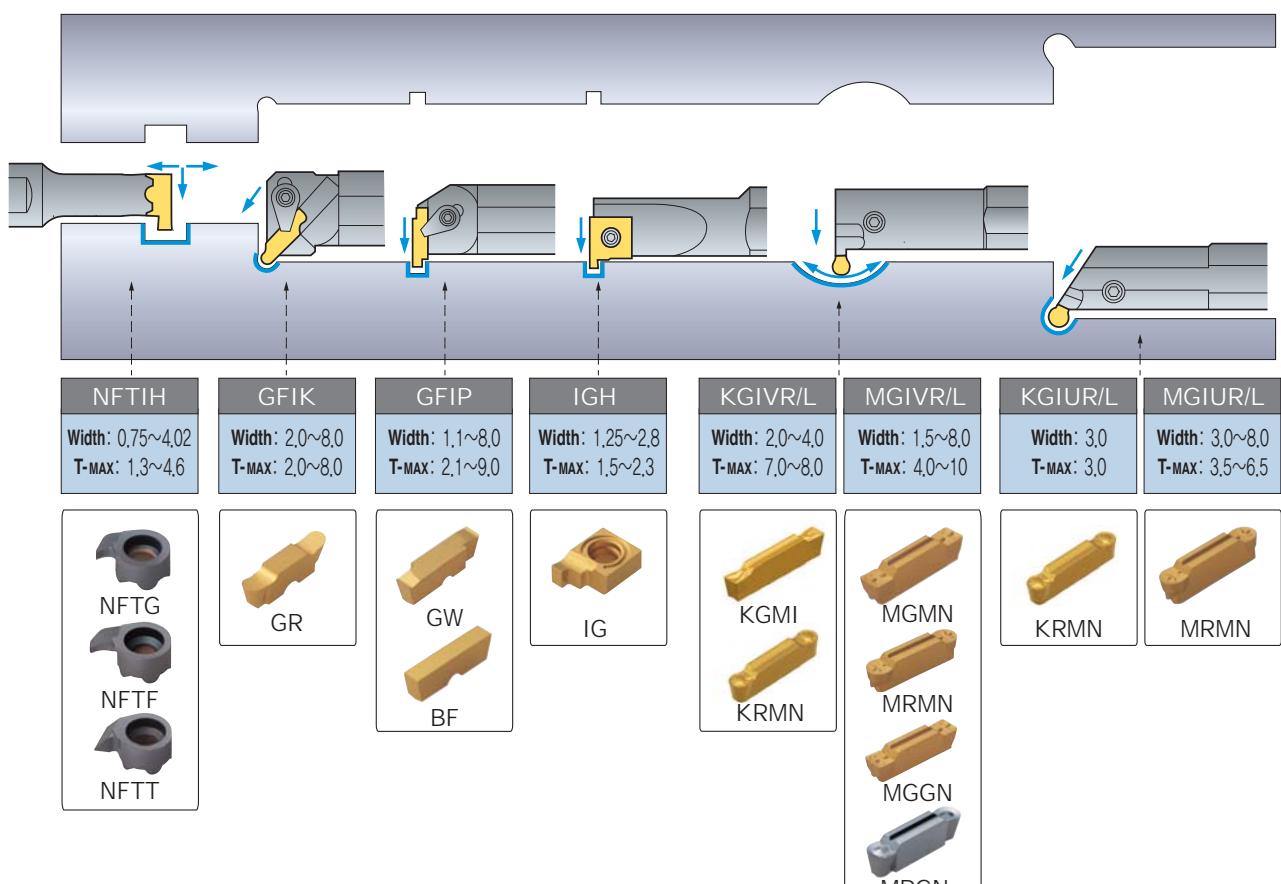
- C61 MGT Special Order Form for MGT
- C62 Special Order Form for V-Pulley Insert

C Application Example

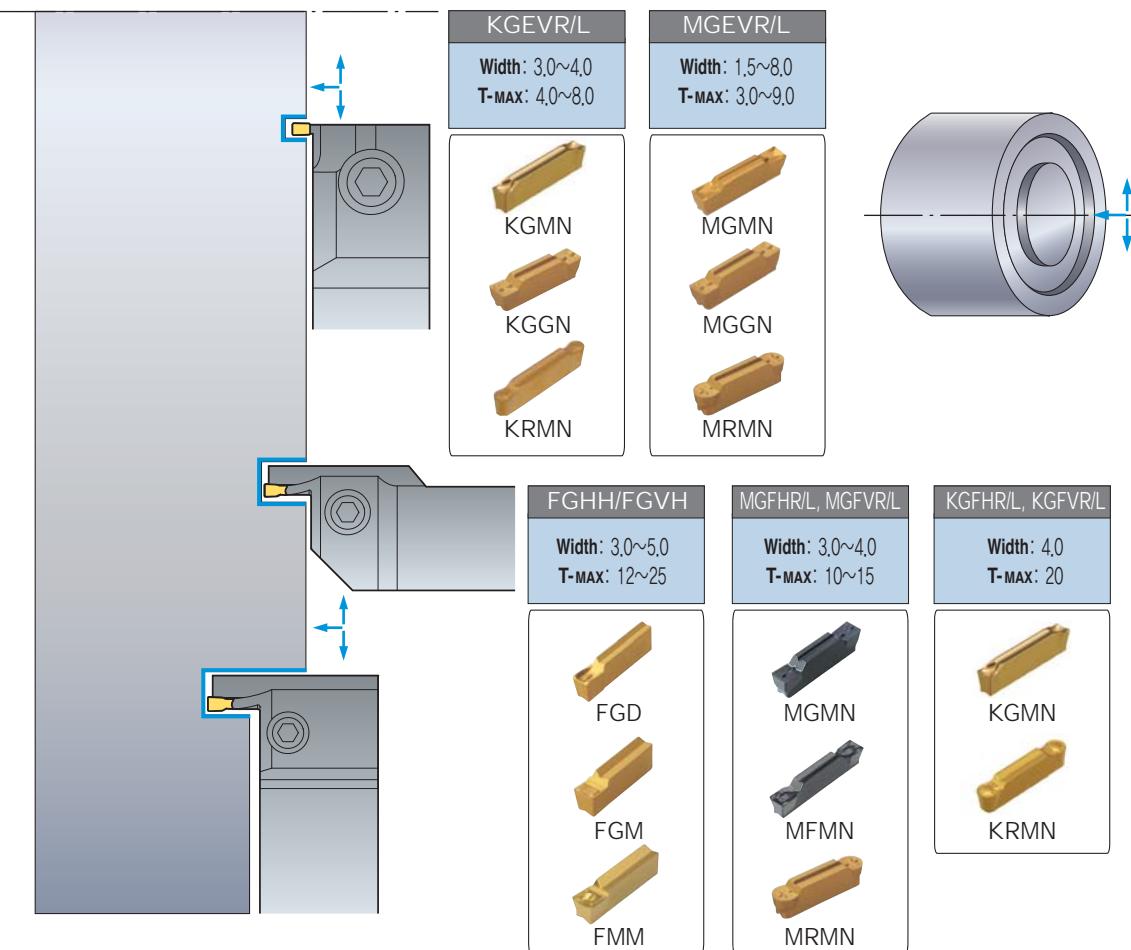
For external machining



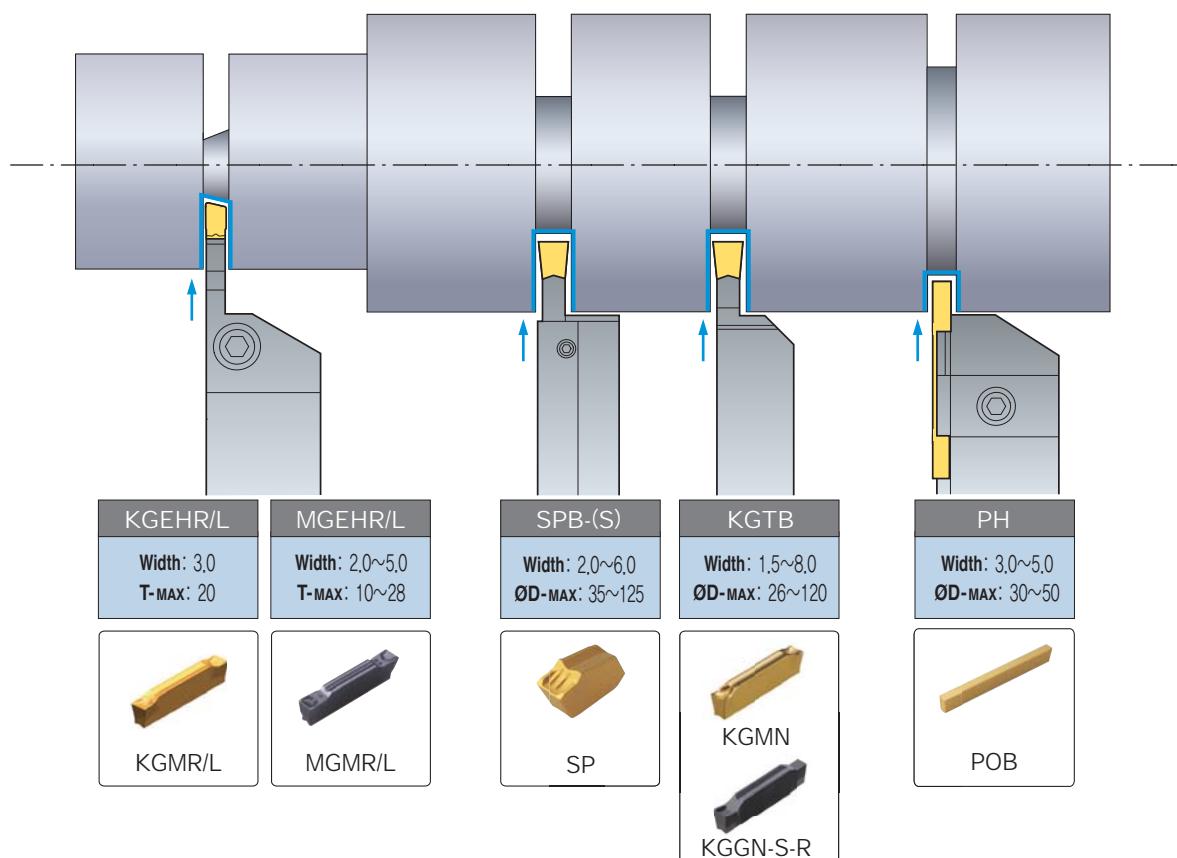
For internal machining



For face grooving



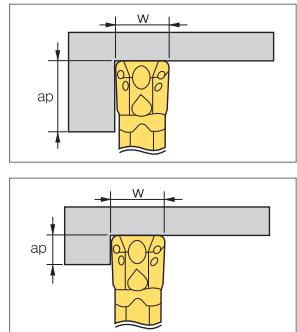
For parting off



Turning and Grooving

Selection of insert

- Feed rate
 - Decide maximum feed rate after considering the insert's characteristics and machine capabilities ($F_{max} = W \times 0.075$)
 - Max feed rate should not be larger than the corner radius of the insert
 - In grooving applications, chip evacuation problems can be remedied by using step feed methods at small intervals
- Depth of cut
 - The minimum depth of cut should be bigger than corner radius of insert
 - When deciding on the max depth of cut please consider the machine's cutting load
 - Depending on the shape of the insert, deflection of work piece and clearance angle can be changed



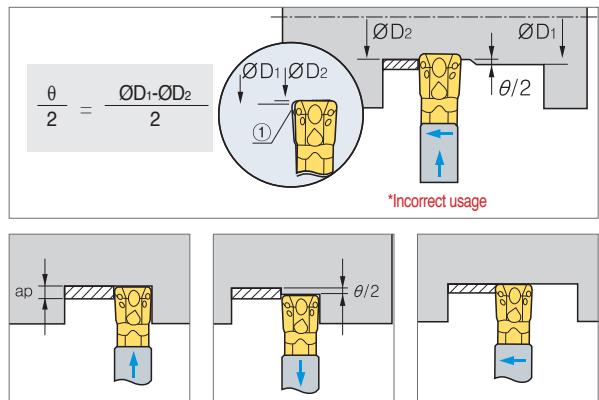
Notice for turning

- KGT/MGT tools are designed to incur side cutting force from its clearance angle; this feature gives you advantage over a standard ISO insert
- The standard MGT insert also provides a "wiper" effect to improve surface roughness

Notice for finishing (offset need final quality)

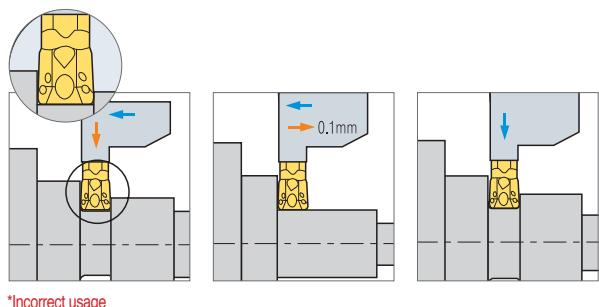
- After desired diameter is grooved, continuous turning operation might cause some deflection of the workpiece. In these cases follow the given formula, offsetting these factors enables the desired diameter that you want

$$\frac{\theta}{2} = \frac{\varnothing D_1 - \varnothing D_2}{2}$$
 - To eliminate the difference in the machined diameter by utilizing the clearance angle (which is commonly generated during the final turning operation) follow the directions above when machining
- To obtain a good surface roughness without offsetting in an application follows the directions below
- 1) Groove to the desired diameter
 - 2) Pull the tool backs a total distance of $\theta/2$
 - 3) Continue the external turning operation to desired diameter

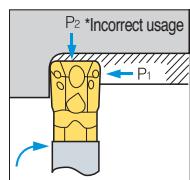


Notice for MGT turning applications

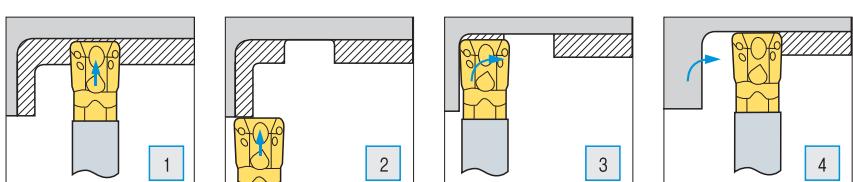
- KGT/MGT tools are available for grooving and turning as a multifunctional tool. When using a M.G.T tool keep in mind that the tool imitates a standard ISO turning application. The application uses a positive clearance angle where a tool's cutting force and depth of cut are all applied in an application. This might create normal wear on the insert, after turning, a grooving process might not meet the desired diameter on the work piece. To off set this, adjust the tool 0.004 inches and return to the original position of the grooving application



Machining workpiece with a radius bigger than the insert's corner radius

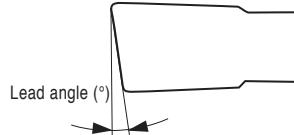


Stabilize your tool pressure. KGT/MGT tools create a cutting load when machining a workpiece with a radius larger than the corner radius of insert (shown in the picture). The unequal cutting force might initially break the insert or holder



Parting off & Grooving

Insert

Lead angle applications	Lead angle 0° (Neutral)	Lead angle 4°~8°	Lead angle 8°~15°
 <ul style="list-style-type: none"> • 4°- Pipe (Tubing and hollow bar) • 6°- Pipe and solid bar • 8°- Solid bar • 15°- Small diameter Solid bar 	 <ul style="list-style-type: none"> • Parting off on solid bar type • Occurring the center stub when parting off • Prevent to be deflected workpiece by cutting direction during parting off • Available for use deep parting depth 	 <ul style="list-style-type: none"> • Reduce the center stub when parting off on solid bar type • Reduce the burr when parting off on tubing or hollow bar type 	 <ul style="list-style-type: none"> • Parting off on small diameter and hollow bar type • Reduce the burr and center stub when parting off on small diameter solid bar type
<p>※ Available Inserts: MGMR/L□□□ - □□ - LP/RP, KGMR/L□□□ - □□ - PS/PT (Lead angle)</p>			

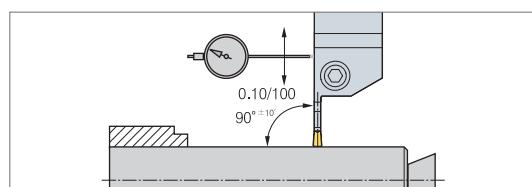
Selection of Insert

- To properly match the insert and cutting condition, the following factors should be considered
 - Width of insert • Chip breaker • Grade and nose R
- The relationship between the cutting width and cutting depth
 - Neutral type, inserts with a 0-degree lead angle are best when used an applications maximum depth of cut
 - In general alloy steel, the maximum depth of cut = W x 0.8
- Insert with lead angle
 - To reduce burrs, we recommend using insert with a lead angle.
 - Insert that have larger lead angles reduce burrs but will also decreases tool life
 - In the case where burrs are acceptable, we recommend using a neutral type insert



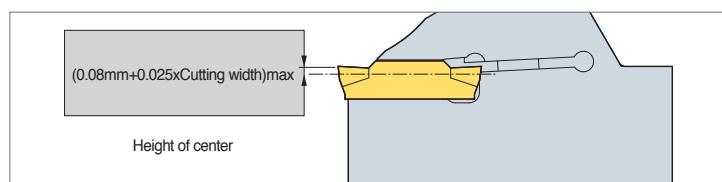
Setting of holders

- The cutting position should be exactly mounted on machined axis in order to create a perpendicular direction or 90 to minimize vibration



Setting of parting off

- The edge height of an insert should be set within ±0.1mm based on the center line
 - Parting off should be done as close to the chuck as possible to minimize vibration



Notice

- Keep a consistent cutting speed and feed
- Use proper amounts of coolant for better performance
- Properly clean the insert pocket before mounting insert

Usage

- If insert is worn, immediately replace with a new insert. This is to prevent the damage on the workpiece
- If the holder seat is worn or damaged replace with a new one immediately for stable clamping
- Do not grind or reground the holder seat

Selection of chip breaker

- Our chip breakers are designed to narrow chips during grooving operations. Narrow chips usually offer the following advantages
- Decreases friction between chips and the workpiece. This usually gives a better surface roughness finish
- With better chip flow, a machinist is able to increase feed rates due to a reduced cutting load

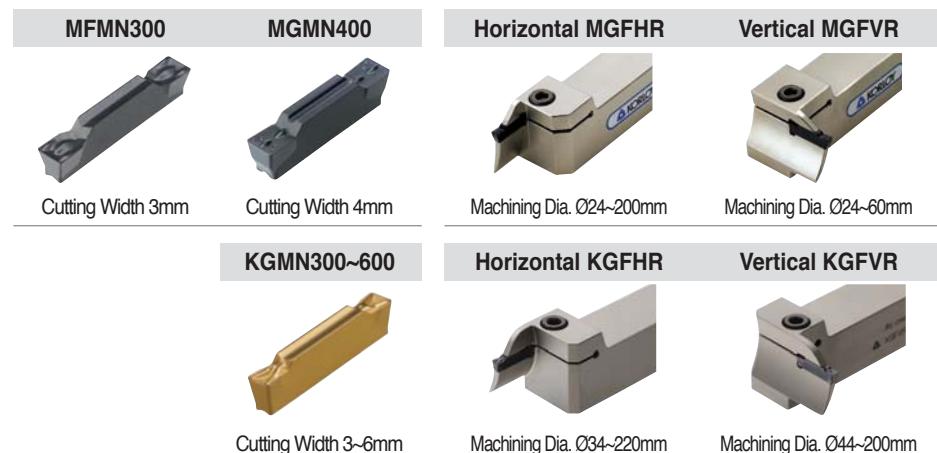


C Technical Information for Multi-Functinal Tools Series

Face grooving tools

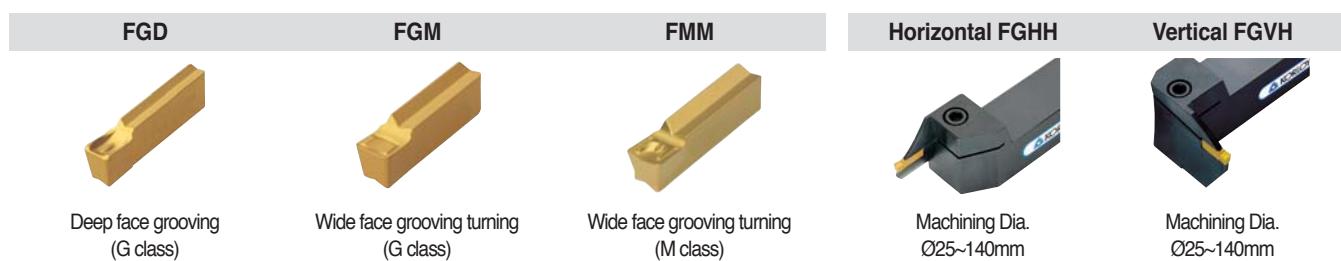
For shallow grooving

- Economical tools utilizing a double ended cutting edge system
- Newly designed chip breakers that help ensure chip control for various face grooving applications
- Korloy face grooving tools provide various holder line-ups to give you more options and benefits

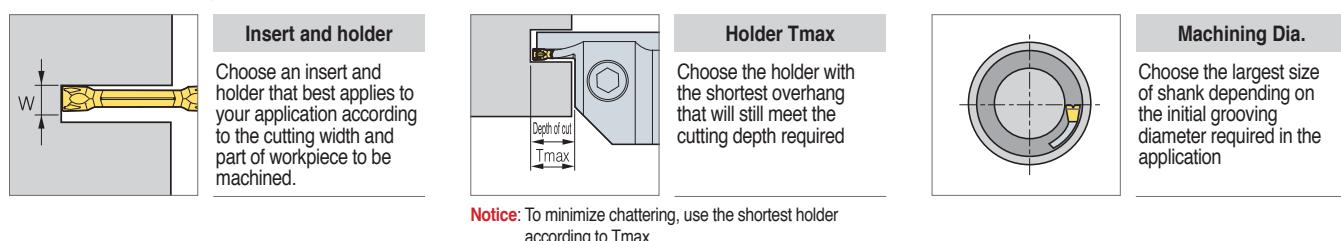


For deep grooving

- These tools are suitable for deep grooving with a single cutting edge (T_{max} 25mm)
- A variety of chip breakers enable a machinist to apply a wide range of functions in machining
- A variety of holders ensures multiple application ranges

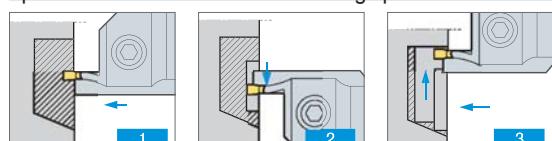


Selection system of holder



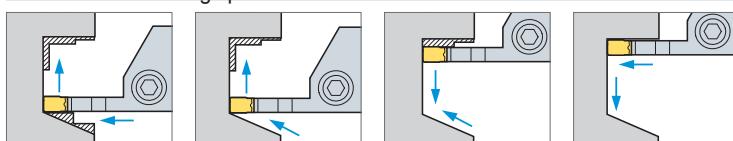
Optimization of face grooving

Roughing: When face grooving decreases the cutting speed 40% below a normal face turning operation



- Grooving at the initial diameter
- Face turning away from center
- Face turning to center

Finishing: When face grooving decreases the cutting speed 40% below a normal face turning operation



- Grooving at the initial diameter to the final cutting depth and face turning away from center
- Radius operation toward final dimension at the bottom
- Face turning to center
- Grooving for the right dimension you want

Notice for face grooving

- Before machining, check and adjust the following holder position



- For better surface roughness, set up the insert in order to perpendicular at center line

Multi-functional machining with strong clamping system and new technology

KGT

- Double-sided inserts of KGT reduces machining cost
- Strong clamping system ensures stable and accurate machining
- New grade and new technology provide superior tool life
- Various tooling solutions of the KGT improve productivity
- The foreside and clearance face of the KGT insert having cutting edges are optimal for grooving, parting-off, turning and facing with reducing processing time
- Three-dimensional chip breaker ensures excellent chip control in various applications
- The KGT inserts with various chip breakers are available for wide application range
- Special cutting edges are available for quotation

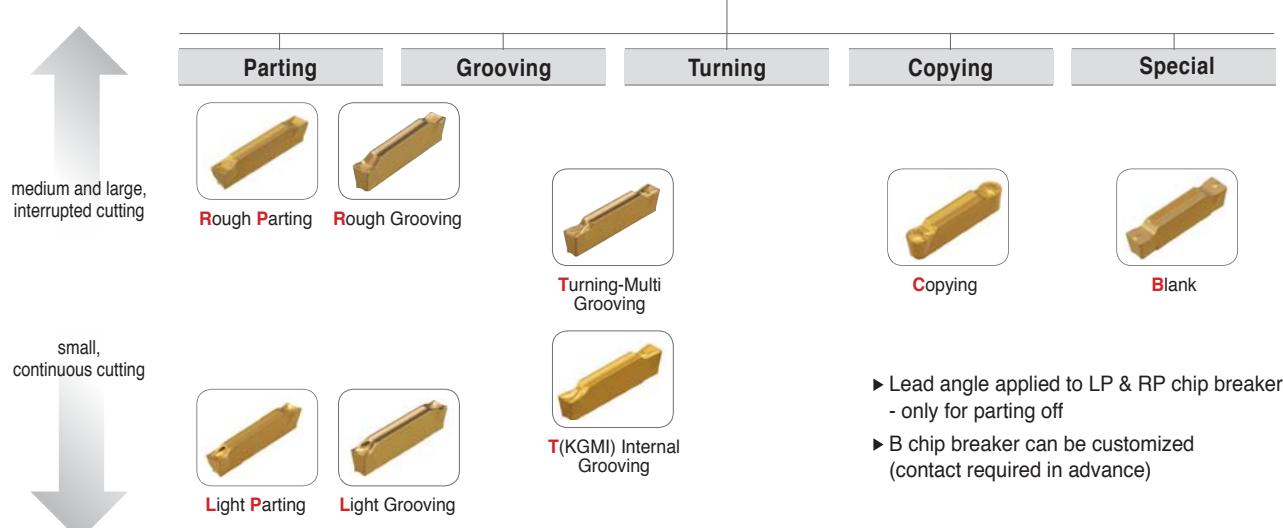
▶ Insert code system

KG	M	N	300	- (s)	04	- T
KG SYSTEM (KORLOY Grooving)	Tolerance M class G class	Hand N: Neutral R: Right L: Left I: Internal	Width of cutting edge 2.0~8.0 mm	1 corner	Nose Radius 0.2 mm 0.3 mm 0.4 mm 0.8 mm	Chip Breaker L/R/T/C /LP/RP/B/A

▶ Holder code system

KG	E	H	R/L	2525 - 3	T20	
KG SYSTEM (KORLOY Grooving)	Working Style E: External Process I: Internal Process F: Facing Process	Holder Style H: Horizontal V: Vertical U: Undercut	Hand R: Right L: Left	Shank standard Height 25 mm Width 25 mm (For Internal machining : Minimum diameter for machining)	Cutting Width 2.0~8.0 mm	Maximum Depth 8~36 mm

▶ KGT line up



C

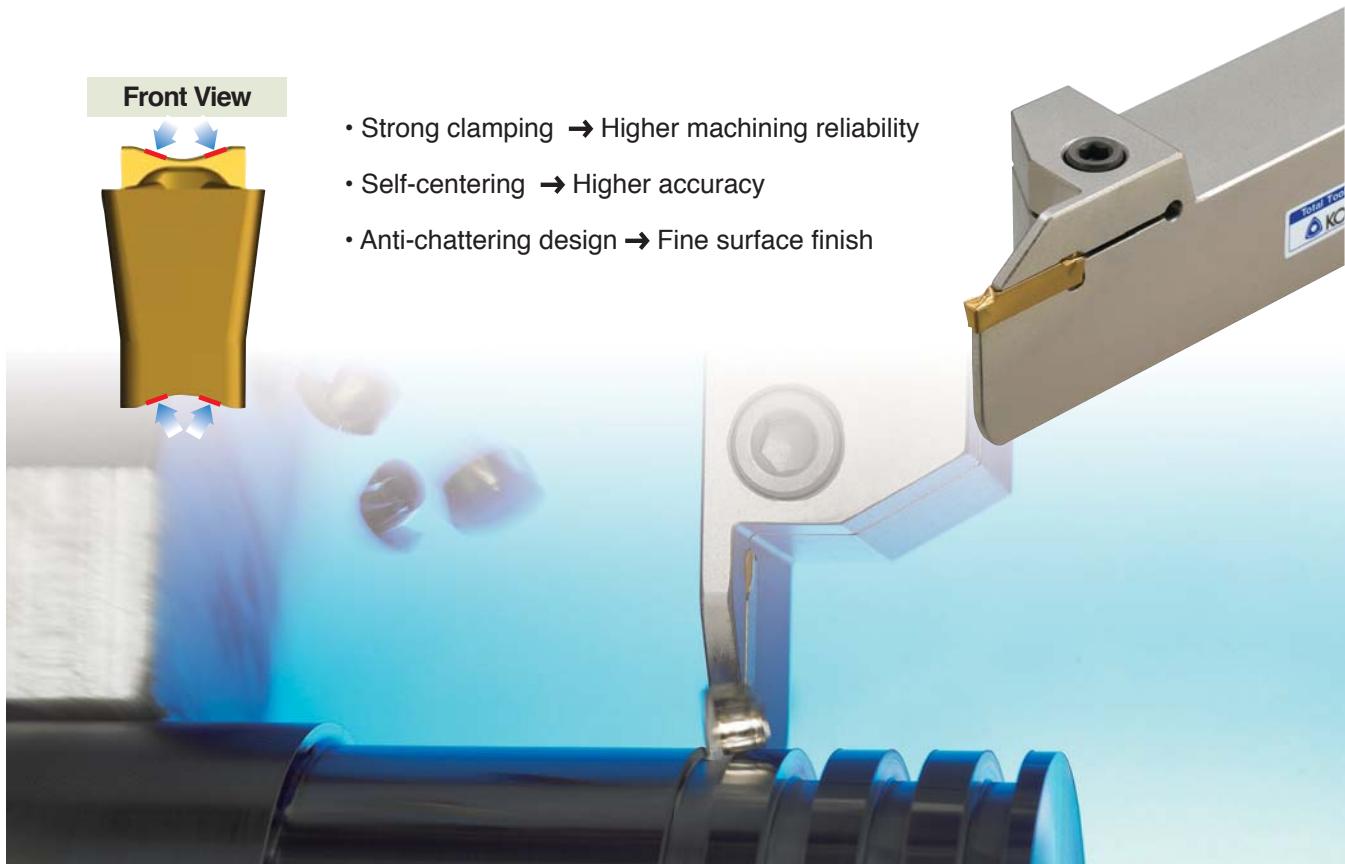
Technical Information for KGT

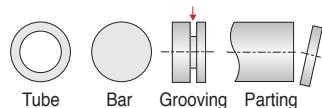
Recommended insert

Designation	Geometry	Picture	Application								
			For external machining			For face grooving		For Internal machining		Copying	For relieving
			Parting	Grooving	Turning	Grooving	Turning	Grooving	Turning	Copying	Special
KGMN	L Light Grooving		○	○		○					
	R Rough Grooving		○	○		○					
	T Turning-Multi Grooving		○	○	○	○	○				
KGMI	T Internal Grooving							○	○		
KRMN	C Copying									○	○
KGMR/L	LP Light Parting		○								
	RP Rough Parting		○								
KGGN	B Blank			○							○
	A Aluminum Grooving		○	○	○						
KRGN	A Aluminum Profiling									○	○

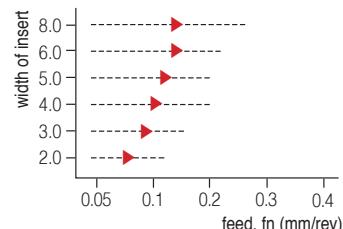
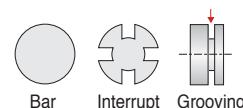
○ First choice, ◎ Second choice

Features



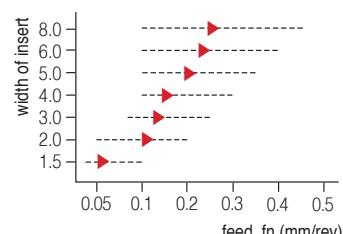
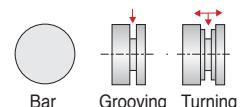
C/C/B guide**L For Light Grooving**

- Sharp cutting edge
- Low feed machining
- Small diameter component
- Low carbon steel
- Alloy steel
- Stainless

**R For Rough Grooving**

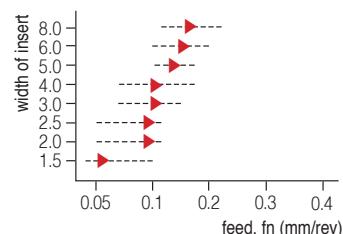
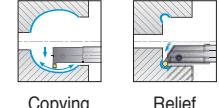
- Strong cutting edge
- High feed machining
- Interrupted cutting

- Carbon steel
- Alloy steel
- Stainless
- Cast iron

**T For Turning and Multi Grooving**

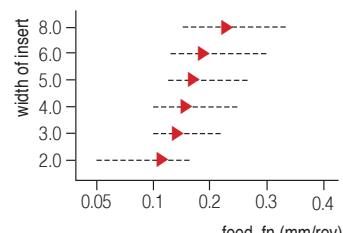
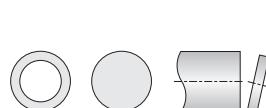
- Sharp cutting edge
- Improved chip control
- Turning & grooving machining

- Carbon steel
- Alloy steel
- Stainless
- Cast iron

**C For Copying and Relief**

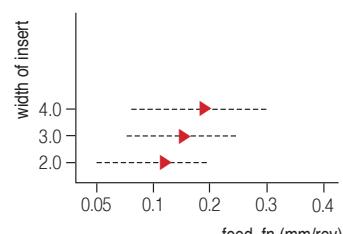
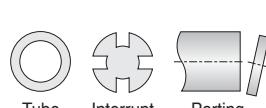
- Improved chip control
- Copying
- Relief

- Carbon steel
- Alloy steel
- Stainless
- Cast iron

**LP For Light Parting**

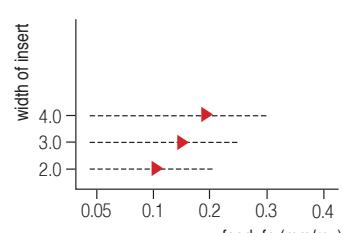
- Sharp cutting edge
- Low feed machining
- Small diameter component
- Right/left handed

- Low carbon steel
- Carbon steel
- Alloy steel
- Stainless

**RP For Rough Parting**

- Strong cutting edge
- High feed machining
- Interrupted cutting
- Right/left handed

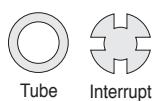
- Carbon steel
- Alloy steel
- Cast iron



C

Technical Information for KGT

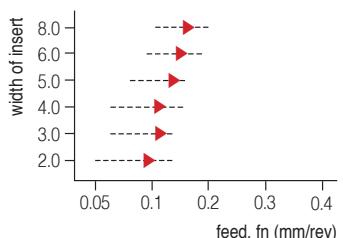
B For Precision Grooving



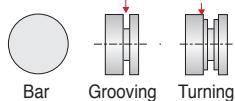
Tube Interrupt

- Ground insert
- Precise tolerance
- Various cutting edge length, Nose R

- Carbon steel
- Alloy steel
- Stainless
- Cast iron

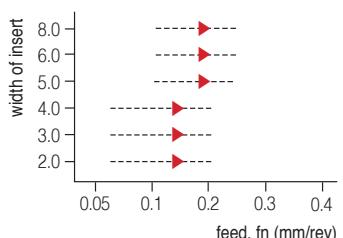


A For Aluminum Grooving



- Sharp cutting edge
- Precise tolerance

- Aluminum alloy
- Copper alloy



► Grades for recommended application range

Workpiece	Grade	Order of recommended grade	Recommended cutting speed (m/min)					800
			50	100	150	200		
P Steel	PC5300	1		70	120			
	NC3225	2			130		220	
	NC5330	3			120		200	
P Alloy Steel	PC5300	1		60	105			
	NC3225	2			130		200	
	NC5330	3		90		180		
M Stainless steel	PC5300	1		70	120			
	PC9030	2		70	115			
	NC5330	3		75	125			
K Cast iron	PC5300	1		55	90			
	NC5330	2		95		160		
N Non-ferrous metal	H01	1					200	790
S HRSA	PC5300	1	20	35				



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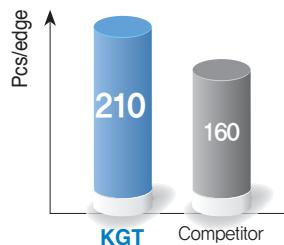
Multi functional Tools

Application examples

Multi-function machining

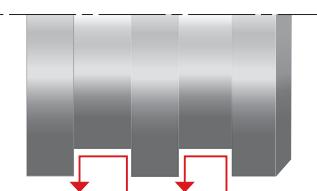
Optimized geometry for turning + grooving - High efficiency.

■ Workpiece	SM45C
■ Cutting condition	vc = 170 (m/min) fn = 0.15 (mm/rev) ap = 2 mm W = 3 mm wet
■ Designation	KGMN300-04-T (PC5300)



Turning + Grooving repetition

30% Up



Grooving

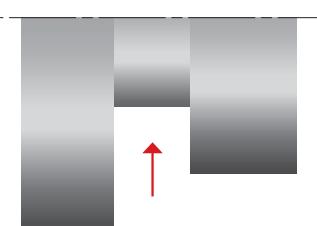
Tough geometry for interrupted and deep grooving.

■ Workpiece	X5CrNi18-9
■ Cutting condition	vc = 120 (m/min) fn = 0.12 (mm/rev) ap = 5 mm W = 4 mm wet
■ Designation	KGMN400-03-R (PC5300)



Shoulder Grooving

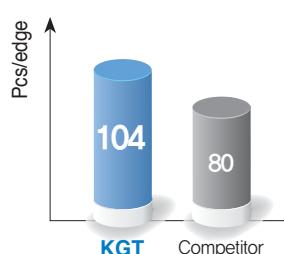
30% Up



Shaft machining

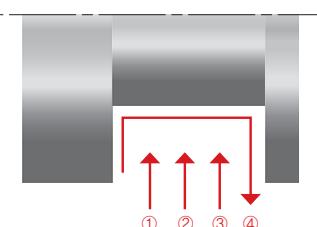
Excellent chip control for higher efficiency.

■ Workpiece	42CrMo4
■ Cutting condition	vc = 150 (m/min) fn = 0.15 (mm/rev) ap = 5 mm W = 3 mm x 3 wet
■ Designation	KGMN300-04-T (PC5300)



Grooving (Roughing) & Turning (Finishing)

30% Up

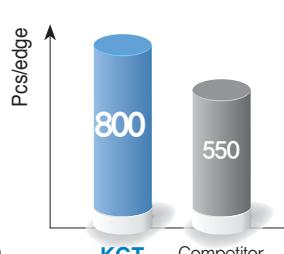


Parting off

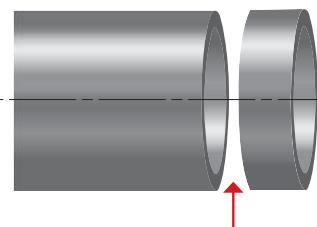
Pipe Parting-off

Exclusive parting-off chip breaker for longer tool life. / Sharp geometry for less burr.

■ Workpiece	X5CrNi18-9
■ Cutting condition	vc = 140 (m/min) fn = 0.15 (mm/rev) ap = 2 mm W = 3 mm wet
■ Designation	KGMR300-6D-LP (PC5300)



45% Up



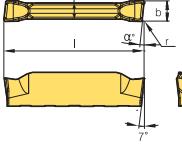
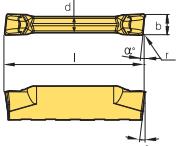
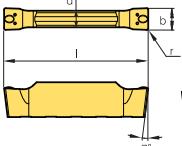
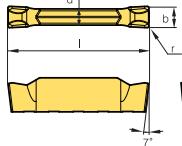
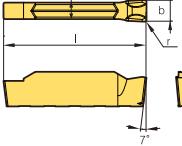
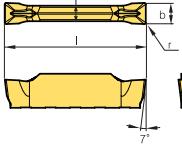
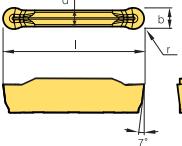
C Available Insert for KGT

● Insert

Application	Picture	Designation	Coated				Dimensions (mm)				Configuration	Page
			NC3215	NC3225	NC5330	PC5300	PC9030	b	r	l		
Grooving	KGMN-L	KGMN 200-02-L	●	●	●	●		2.0	0.2	20	1.7	-
		300-02-L	●	●	●	●		3.0	0.2	20	2.3	-
		400-02-L	●	●	●	●		4.0	0.2	20	3.3	-
		500-03-L	●	●	●	●		5.0	0.3	25	4.1	-
		600-03-L	●	●	●	●		6.0	0.3	25	5.1	-
Grooving · Parting off	KGMN-R	KGMN 150-015-R	●	●	●			1.5	0.15	16	1.2	-
		200-02-R	●	●	●	●		2.0	0.2	20	1.7	-
		300-02-R	●	●	●	●		3.0	0.2	20	2.3	-
		400-03-R	●	●	●	●		4.0	0.3	20	3.3	-
		500-03-R	●	●	●			5.0	0.3	25	4.1	-
		600-03-R	●	●	●			6.0	0.3	25	5.1	-
		800-04-R	●	●	●			8.0	0.4	30	6.1	-
Grooving · Turning	KGMN-T	KGMN 150-015-T	●	●	●			1.5	0.15	16	1.2	-
		200-02-T	●	●	●	●		2.0	0.2	20	1.7	-
		250-02-T	●	●	●	●		2.5	0.2	20	2.0	-
		300-02-T	●	●	●	●		3.0	0.2	20	2.3	-
		300-04-T	●	●	●	●		3.0	0.4	20	2.3	-
		400-04-T	●	●	●	●		4.0	0.4	20	3.3	-
		400-08-T	●	●	●	●		4.0	0.8	20	3.3	-
		500-04-T	●	●	●	●		5.0	0.4	25	4.1	-
		500-08-T	●	●	●	●		5.0	0.8	25	4.1	-
		600-04-T	●	●	●	●		6.0	0.4	25	5.1	-
		600-08-T	●	●	●	●		6.0	0.8	25	5.1	-
		800-08-T	●	●	●			8.0	0.8	30	6.1	-
Profiling	KRMN-C	KRMN 200-C	●	●	●			2.0	1.0	20	1.7	-
		300-C	●	●	●			3.0	1.5	20	2.2	-
		400-C	●	●	●			4.0	2.0	20	3.2	-
		500-C	●	●	●			5.0	2.5	25	4.0	-
		600-C	●	●	●			6.0	3.0	25	5.0	-
		800-C	●	●	●			8.0	4.0	30	6.0	-
Grooving · Internal	KGMI-T	KGMI 200-02-T			●			2.0	0.2	20	1.7	-
		300-04-T			●			3.0	0.4	20	2.3	-
		400-04-T			●			4.0	0.4	20	3.3	-
Parting off (Right handed)	KGMR-LP	KGMR 200-6D-LP		●	●			2.0	0.2	20	1.7	6
		200-8D-LP			●			2.0	0.2	20	1.7	8
		200-15D-LP		●	●			2.0	0.2	20	1.7	15
		300-6D-LP		●	●			3.0	0.2	20	2.3	6
		300-15D-LP		●	●			3.0	0.2	20	2.3	15
		400-4D-LP		●	●			4.0	0.3	20	3.3	4
		400-15D-LP		●	●			4.0	0.3	20	3.3	15
		500-4D-LP			●			5.0	0.3	25	4.1	4
Parting off (Right handed)	KGMR-RP	KGMR 200-6D-RP			●	●		2.0	0.2	20	1.7	6
		200-8D-RP			●			2.0	0.2	20	1.7	8
		200-15D-RP		●	●			2.0	0.2	20	1.7	15
		300-6D-RP		●	●			3.0	0.2	20	2.3	6
		300-15D-RP		●	●			3.0	0.2	20	2.3	15
		400-4D-RP		●	●			4.0	0.3	20	3.3	4
		400-15D-RP		●	●			4.0	0.3	20	3.3	15
		500-4D-RP			●			5.0	0.3	25	4.1	4

● : Stock item

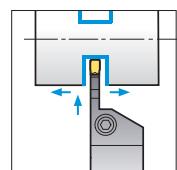
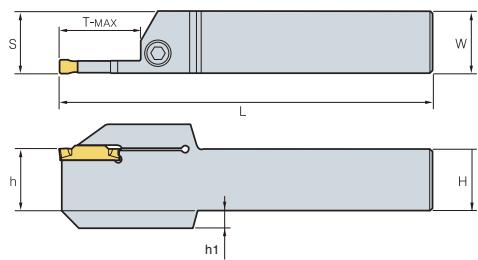
 Insert

Application	Picture	Designation	Coated		Uncoated		Dimensions (mm)					Configuration	Page		
			NC3215	NC5330	PC5300	PC9030	H01	H05	b	r	l	d			
Parting off (Left handed)		KGML	200-6D-LP						2.0	0.2	20	1.7	6		C14 C16
			200-15D-LP						2.0	0.2	20	1.7	15		
			300-6D-LP						3.0	0.2	20	2.3	6		
			300-15D-LP						3.0	0.2	20	2.3	15		
			400-4D-LP						4.0	0.2	20	3.3	4		
			400-15D-LP						4.0	0.2	20	3.3	15		
Parting off (Left handed)		KGML	200-6D-RP						2.0	0.2	20	1.7	6		C14 C16
			200-15D-RP						2.0	0.2	20	1.7	15		
			300-6D-RP						3.0	0.2	20	2.3	6		
			300-15D-RP						3.0	0.2	20	2.3	15		
			400-4D-RP						4.0	0.2	20	3.3	4		
			400-15D-RP						4.0	0.2	20	3.3	15		
Grooving(Ground insert)		KGGN	265-015-B						2.65	0.15	20	2.3	-		C14 C16 C17
			300-020-B						3.0	0.20	20	2.3	-		
			300-040-B						3.0	0.40	20	2.3	-		
			315-015-B						3.15	0.15	20	2.3	-		
			400-040-B						4.0	0.40	20	3.3	-		
			400-080-B						4.0	0.80	20	3.3	-		
			415-015-B						4.15	0.15	20	3.3	-		
			478-055-B						4.78	0.55	20	3.3	-		
			500-080-B						5.0	0.80	25	4.1	-		
			515-015-B						5.15	0.15	25	4.1	-		
			600-080-B						6.0	0.80	25	5.1	-		
			600-120-B						6.0	1.20	25	5.1	-		
			800-080-B						8.0	0.80	30	6.1	-		
			800-120-B						8.0	1.20	30	6.1	-		
Grooving · Parting off (Ground insert)		KGGN	200-02-R new						2.0	0.2	20	1.7	-		C14~20
			300-02-R						3.0	0.2	20	2.3	-		
			400-03-R						4.0	0.3	20	3.3	-		
			500-03-R						5.0	0.3	25	4.1	-		
			600-03-R						6.0	0.3	25	5.1	-		
			800-04-R						8.0	0.4	30	6.1	-		
Grooving · Parting off (Single insert)		KGGN	200S-02-R new	●					2.0	0.2	19.9	1.7	-		C23
			300S-02-R	●					3.0	0.2	19.9	2.3	-		
			400S-03-R	●					4.0	0.3	19.9	3.3	-		
			500S-03-R	●					5.0	0.3	24.9	4.1	-		
			600S-03-R	●					6.0	0.3	24.9	5.1	-		
			800S-04-R	●					8.0	0.4	24.9	6.1	-		
Aluminum Grooving		KGGN	200-02-A new		●				2.0	0.2	20	1.7	-		C14~20
			300-02-A		●				3.0	0.2	20	2.3	-		
			400-04-A		●				4.0	0.4	20	3.3	-		
			500-04-A		●				5.0	0.4	25	4.1	-		
			600-04-A		●				6.0	0.4	25	5.1	-		
Aluminum Profiling		KRGN	300-A new		●				3.0	1.5	20	2.3	-		C14~19
			400-A		●				4.0	2.0	20	3.3	-		
			500-A		●				5.0	2.5	25	4.1	-		
			600-A		●				6.0	3.0	25	5.1	-		
			800-A		●				8.0	4.0	30	6.1	-		

• Chip breaker 'B' : User self-grind type.

● : Stock item

KGEHR/L



KGGN KGMN
KGMR/L KRMN
KRGN

• R type insert
(mm)

Designation		H = (h)	W	L	S	h1	T-MAX	Inserts	Screw	Wrench
KGEHR/L	1616-1.5-T14	16	16	100	16.2	-	14	KGMN150-□-□	MHA0512	HW40L
	2020-1.5-T14	20	20	125	20.2	-	14			
	2525-1.5-T14	25	25	150	25.2	-	14			
1212-2-T08	1616-2-T08	12	12	100	12.2	-	8	KGMMN200-□-□ KGMR/L200-□-□ KRMN200-C KGGN200-□-□	MHA0512	HW40L
	2020-2-T08	16	16	100	16.2	-	8			
	2525-2-T08	20	20	125	20.2	-	8			
	1616-2-T12	25	25	150	25.2	-	8			
	2020-2-T12	16	16	100	16.2	-	12			
	2525-2-T12	20	20	125	20.2	-	12			
	1616-2-T17	25	25	150	25.2	-	12			
	2020-2-T17	16	16	100	16.2	-	17			
	2525-2-T17	20	20	125	20.2	-	17			
1616-2.5-T17	2020-2.5-T17	16	16	100	16.3	-	17	KGMMN250-□-□	MHA0512	HW40L
	2525-2.5-T17	20	20	125	20.3	-	17			
	1616-3-T10	25	25	150	25.3	-	17			
1616-3-T10	2020-3-T10	16	16	100	16.4	-	10	KGMMN300-□-□ KGMR/L300-□-□ KRMN300-C KGGN300-□-□ KRGN300-□	MHA0512	HW40L
	2525-3-T10	20	20	125	20.4	-	10			
	3232-3-T10	25	25	150	25.4	-	10			
	1616-3-T13	32	32	170	32.4	-	10			
	2020-3-T13	16	16	100	16.4	-	13			
	2525-3-T13	20	20	125	20.4	-	13			
	1616-3-T20	25	25	150	25.4	-	13			
	2020-3-T20	16	16	100	16.4	-	20			
	2525-3-T20	20	20	125	20.4	-	20			
1616-4-T10	2020-4-T10	25	25	150	25.4	-	10	KGMMN400-□-□ KGMR/L400-□-□ KRMN400-C KGGN400-□-□ KRGN400-□	BHA0616	HW50L
	3232-4-T10	16	16	100	16.4	-	10			
	1616-4-T15	32	32	150	32.4	-	15			
	2020-4-T15	16	16	100	16.4	-	15			
	2525-4-T15	20	20	125	20.4	-	15			
	1616-4-T20	25	25	150	25.4	-	15			
	2020-4-T20	16	16	100	16.4	-	20			
	2525-4-T20	20	20	125	20.4	-	20			
	1616-4-T25	25	25	150	25.4	-	20			
1616-4-T25	2020-4-T25	16	16	100	16.4	-	25	KGMMN400-□-□ KGMR/L400-□-□ KRMN400-C KGGN400-□-□ KRGN400-□	BHA0616	HW50L
	2525-4-T25	20	20	125	20.4	-	25			
	1616-4-T25	25	25	150	25.4	-	25			
	2020-4-T25	16	16	100	16.4	-	25			
	2525-4-T25	20	20	125	20.4	-	25			

Applicable inserts C12~C13

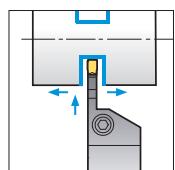
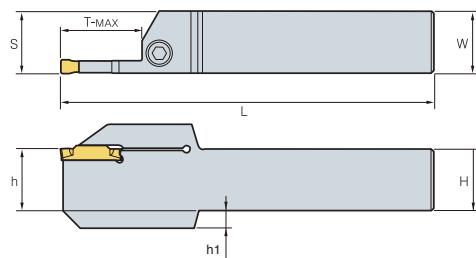


C

Multi functional Tools

KGEHR/L

For Grooving, Turning, Parting off, Reliefing machining



KGHN
KGMR/L
KRGN

KGMN
KRMN

• R type insert
(mm)

Designation		H = (h)	W	L	S	h1	T-MAX	Inserts	Screw	Wrench
KGEHR/L	2020-5-T12	20	20	125	20.5	-	12	KGMN500-□-□ KRMN500-C KGHN500-□-□ KRGN500-□	BHA0616	HW50L
	2525-5-T12	25	25	150	25.5	-	12			
	2020-5-T15	20	20	125	20.55	-	15			
	2525-5-T15	25	25	150	25.55	-	15			
	3232-5-T15	32	32	170	32.55	-	15			
	2020-5-T20	20	20	125	20.5	-	20			
	2525-5-T20	25	25	150	25.5	-	20			
	3232-5-T20	32	32	170	32.5	-	20			
	2525-5-T32	25	25	150	25.5	7	32	KGMN600-□-□ KRMN600-C KGHN600-□-□ KRGN600-□	BHA0620	HW50L
	2020-6-T12	20	20	125	20.5	-	12			
	2525-6-T12	25	25	150	25.5	-	12			
	2525-6-T15	25	25	150	25.55	-	15			
	3232-6-T15	32	32	170	32.55	-	15			
	2020-6-T20	20	20	125	20.5	-	20			
	2525-6-T20	25	25	150	25.5	-	20			
	3232-6-T20	32	32	170	32.5	-	20			
	2525-6-T32	25	25	150	25.5	7	32	KGMN800-□-□ KRMN800-C KGHN800-□-□ KRGN800-□	BHA0620	HW50L
	2525-8-T16	25	25	150	26	-	16			
	3232-8-T16	32	32	170	33.05	-	16			
	2525-8-T25	25	25	150	26	-	25			
	3232-8-T25	32	32	170	33	-	25			
	2525-8-T36	25	25	150	26	7	36			
	3232-8-T36	32	32	170	33	-	36			

② Applicable inserts C12~C13

C KGT Holder

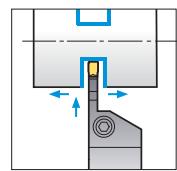
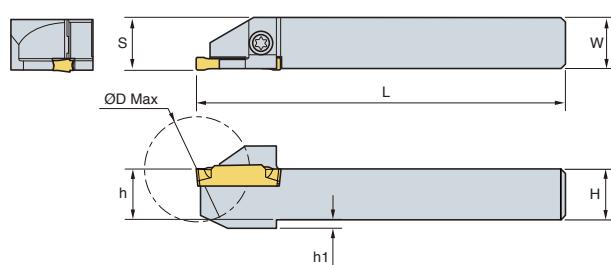
KGEHR/L-D00A (Auto Tool)

For Grooving, Turning, Parting off machining



KGNN
KGMR/L
KRGN

KGMN



• R type insert
(mm)

Designation	H = (h)	W	L	S	h1	ØD Max	Inserts	Screw	Wrench	
KGEHR/L	1010-2-D20A	10	10	125	10.2	2	20	KGMMN200-□-□ KGMR/L200-□-□ KRMN200-C KGNN200-□-□	ETNA0412 TW15L	
	1212-2-D25A	12	12	125	12.2	2	25			
	1414-2-D25A	14	14	125	14.2	-	25			
	1616-2-D32A	16	16	125	16.2	-	32			
	1212-3-D25A	12	12	125	12.4	2	25	KGMMN300-□-□ KGMR/L300-□-□ KRMN300-C KGNN300-□-□		
	1616-3-D32A	16	16	125	16.4	-	32			

⇒ Applicable inserts C12~C13

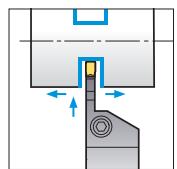
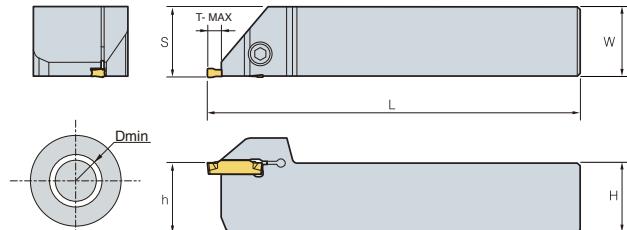
KGEHR/L-T00

For Grooving, Turning, Face grooving machining



KGMN
KGNN

KRMN
KRGN



• R type insert
(mm)

Designation	H = (h)	W	L	S	ØD Min	T-MAX	Inserts	Screw	Wrench
KGEHR/L	1616-3-T00	16	16	100	16.4	80	4.8	KGMMN300-□-□ KRMN300-C KGNN300-□-□ KRGN300-□	MHA0512 HW40L
	2020-3-T00	20	20	125	20.4	80	4.8		
	2525-3-T00	25	25	150	25.4	80	4.8		
	1616-4-T00	16	16	100	16.4	80	4.8		
	2020-4-T00	20	20	125	20.4	80	4.8	KGMMN400-□-□ KRMN400-C KGNN400-□-□ KRGN400-□	BHA0616 HW50L
	2525-4-T00	25	25	150	25.4	80	4.8		
	2020-6-T00	20	20	125	20.5	80	6.0		
	2525-6-T00	25	25	150	25.5	80	6.0		

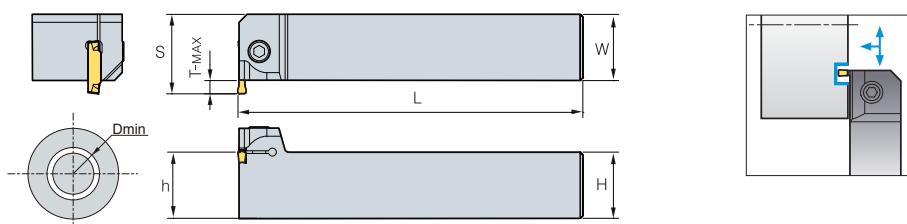
⇒ Applicable inserts C12~C13



C

KGEVR/L-T00

For Grooving, Turning, Face grooving machining

KGMM
KRGNKRMN
KGGN

• R type insert

(mm)

Designation		H = (h)	W	L	S	ØD Min	T-MAX	Inserts	Screw	Wrench
KGEVR/L	2020-1.5 -T00	20	20	125	23.5	120	3			
	2525-1.5 -T00	25	25	150	28.5	120	3	KGMN150-□-□	MHA0512	HW40L
	3232-1.5 -T00	32	32	170	35.5	120	3			
	2020-2 -T00	20	20	125	23.5	120	3	KGMN200-□-□		
	2525-2 -T00	25	25	150	28.5	120	3	KRMN200-C	MHA0512	HW40L
	3232-2 -T00	32	32	170	35.5	120	3	KGGN200-□-□-□		
	2020-2.5 -T00	20	20	125	24.5	80	4			
	2525-2.5 -T00	25	25	150	29.5	80	4	KGMN250-□□	MHA0512	HW40L
	3232-2.5 -T00	32	32	170	36.5	80	4			
	2020-3-T00	20	20	125	25	80	4.8	KGMN300-□-□		
	2525-3-T00	25	25	150	30	80	4.8	KRMN300-C	MHA0512	HW40L
	3232-3 -T00	32	32	170	37	80	4.8	KGGN300-□-□		
	2020-4-T00	20	20	125	25	80	4.8	KRGN300-□		
	2525-4-T00	25	25	150	30	80	4.8	KGMN400-□-□		
	3232-4 -T00	32	32	170	37	80	4.8	KRMN400-C	BHA0616	HW50L
	2020-5 -T00	20	20	125	29.5	60	6	KGGN400-□-□		
	2525-5 -T00	25	25	150	31.5	60	6	KRGN400-□	BHA0616	HW50L
	3232-5 -T00	32	32	170	38.5	60	6	KGMN500-□-□		
	2020-6 -T00	20	20	125	26.5	60	6	KRMN500-C		
	2525-6-T00	25	25	150	31.5	80	6	KGGN500-□-□	BHA0616	HW50L
	3232-6 -T00	32	32	170	38.5	60	6	KRGN500-□		
	2525-8 -T00	25	25	150	33.5	50	8	KGMN600-□-□		
	3232-8 -T00	32	32	170	38.5	50	8	KRMN600-C	BHA0616	HW50L
							KGGN600-□-□			
							KRGN600-□			
							KGMN800-□-□			
							KRMN800-C			
							KGGN800-□-□			
							KRGN800-□			

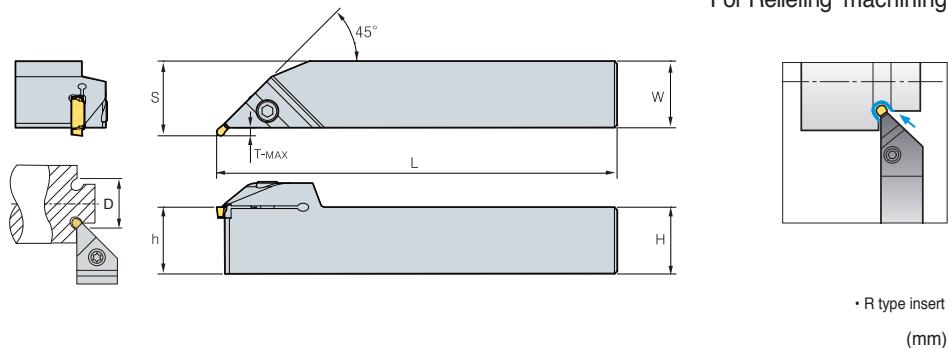
② Applicable inserts C12~C13

C KGT Holder

KGEUR/L



KRMN
KRGN



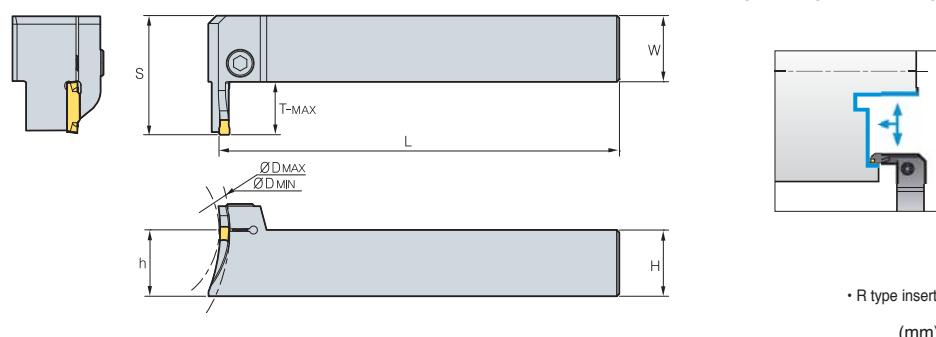
Designation	H = (h)	W	L	S	ØD Min	T-MAX	Inserts	Screw	Wrench
KGEUR/L 1616-3	16	16	100	19	40	2.8	KRMN300-C KRGN300-□	MHA0512	HW40L
2020-3	20	20	125	23	40	2.8			
2525-3	25	25	150	28	40	2.8			
3232-3	32	32	170	35	40	2.8			
1616-4	16	16	100	19	40	2.8	KRMN400-C KRGN400-□	BHA0616	HW50L
2020-4	20	20	125	23	40	2.8			
2525-4	25	25	150	28	40	2.8			
3232-4	32	32	170	35	40	2.8			
2020-5	20	20	125	23.5	50	3.3	KRMN500-C KRGN500-□	BHA0616	HW50L
2525-5	25	25	150	28.5	50	3.3			
3232-5	32	32	170	35.5	50	3.3			
2020-6	20	20	125	23.5	50	3.3			
2525-6	25	25	150	28.5	50	3.3	KRMN600-C KRGN600-□	BHA0616	HW50L
3232-6	32	32	170	35.5	50	3.3			
2525-8	25	25	150	28.5	65	3.3			
3232-8	32	32	170	35.5	65	3.3			

Applicable inserts C12~C13



C

Multi functional Tools

KGFVR/LKGMM
KGGNKRMN
KRGN

Designation		H = (h)	W	L	S	T-MAX	ØD		Inserts	Screw	Wrench
							Min	Max			
KGFVR/L	325-34/50-T10	25	25	150	36	10	34	50	KGMN300-□-□	MHA0512	HW40L
	325-44/60-T15	25	25	150	41	15	44	60	KRMN300-C		
	325-54/85-T15	25	25	150	41	15	54	85	KGGN300-□-□		
	425-32/50-T15	25	25	150	41	15	32	50	KRGN300-□		
	425-42/60-T15	25	25	150	41	15	42	60	KGMN400-□-□	BHA0616	HW50L
	425-44/70-T20	25	25	150	45.5	20	44	70	KRMN400-C		
	425-52/85-T15	25	25	150	41	15	52	85	KGGN400-□-□		
	425-60/120-T20	25	25	150	45.5	20	60	120	KRGN400-□		
	425-112/200-T20	25	25	150	45.5	20	112	200	KGMN500-□-□	BHA0616	HW50L
	525-50/80-T20	25	25	150	46	20	50	80	KRMN500-C		
	525-70/110-T20	25	25	150	46	20	70	110	KGGN500-□-□		
	525-100/150-T20	25	25	150	46	20	100	150	KRGN500-□		
	525-140/200-T20	25	25	150	46	20	140	200	KGMN600-□-□	BHA0616	HW50L
	525-200-T20	25	25	150	46	20	200	∞	KRMN600-C		
	625-48/85-T20	25	25	150	46	20	48	85	KGGN600-□-□		
	625-73/150-T20	25	25	150	46	20	73	150	KRGN600-□		
	625-138/250-T20	25	25	150	46	20	138	250	KGMN600-□-□	BHA0616	HW50L
	625-250-T20	25	25	150	46	20	250	∞	KRMN600-C		

Applicable inserts C12-C13



C KGT Holder

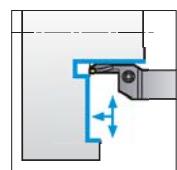
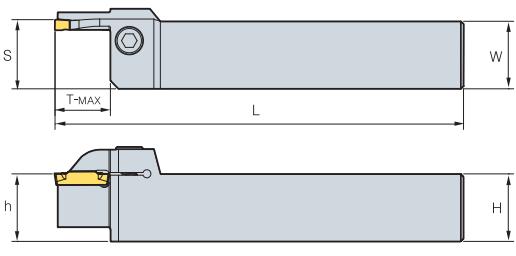
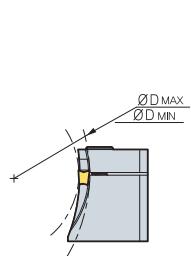
KGFHR/L

For Face grooving machining



KGMN
KGGN

KRMN
KRGN



• R type insert

(mm)

Designation	H = (h)	W	L	S	T-MAX	ØD		Inserts	Screw	Wrench
						Min	Max			
KGFHR/L	320-34/50-T10	20	20	150	20.5	10	34	50	KGMN300-□-□ KRMN300-C KGGN300-□-□ KRGN300-□	MHA0512 HW40L
	320-44/70-T15	20	20	150	20.5	15	44	70		
	320-64/100-T15	20	20	150	20.5	15	64	100		
	325-34/50-T10	25	25	150	25.5	10	34	50		
	325-44/70-T15	25	25	150	25.5	15	44	70		
	325-64/100-T15	25	25	150	25.5	15	64	100		
	420-34/50-T16	20	20	150	20.5	16	34	50	KGMN400-□-□ KRMN400-C KGGN400-□-□ KRGN400-□	BHA0616 HW50L
	420-42/70-T16	20	20	150	20.5	16	42	70		
	420-62/120-T16	20	20	150	20.5	16	62	120		
	420-112/200-T16	20	20	150	20.5	16	112	200		
	425-34/50-T20	25	25	150	25.6	20	34	50		
	425-40/60-T10	25	25	150	25.6	10	40	60		
	425-44/70-T20	25	25	150	25.6	20	44	70		
	425-84/92-T20	25	25	150	25.6	20	84	92		
	425-60/120-T20	25	25	150	25.6	20	60	120		
	425-112/200-T20	25	25	150	25.6	20	112	200		
	425-200-T20	25	25	150	25.6	20	200	∞		
	525-50/80-T15	25	25	150	25.6	15	50	80	KGMN500-□-□ KRMN500-C KGGN500-□-□ KRGN500-□	BHA0616 HW50L
	525-50/80-T25	25	25	150	25.6	25	50	80		
	525-70/110-T15	25	25	150	25.6	15	70	110		
	525-70/110-T25	25	25	150	25.6	25	70	110		
	525-100/150-T25	25	25	150	25.6	25	100	150		
	525-140/200-T25	25	25	150	25.6	25	140	200		
	525-190/220-T10	25	25	150	25.6	10	190	200		
	525-200-T25	25	25	150	25.6	25	200	∞		
	625-170/190-T10	25	25	150	25.6	10	170	190	KGMN600-□-□ KRMN600-C KGGN600-□-□ KRGN600-□	BHA0616 HW50L
	625-190/220-T10	25	25	150	25.6	10	190	200		

→ Applicable inserts C12~C13

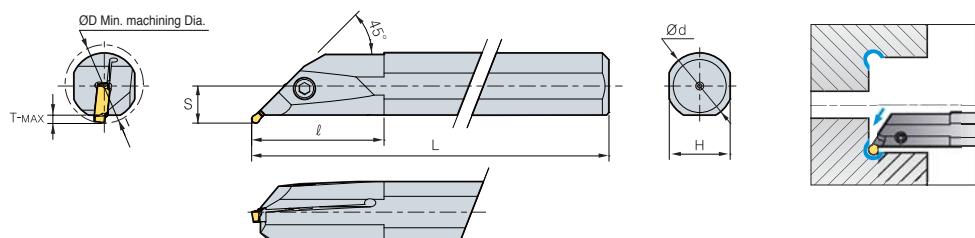


C

Multi functional Tools

KGIUR/LKRMN
KRGN

For Relieving machining



• R type insert

(mm)

Designation		ØD	Ød	L	l	T-MAX	H	S	Inserts	Screw	Wrench
KGIUR/L	3520-3	35	20	150	45	3.5	18	13	KRMN300-C KRGN300-□	MHA0512	HW40L
	4025-3	40	25	200	50	3.5	23	15.5			
	5032-3	50	32	250	65	3.5	30	19			
	3520-4	35	20	150	45	3.5	18	13	KRMN400-C KRGN400-□	MHA0512	HW40L
	4025-4	40	25	200	50	3.5	23	15.5			
	5032-4	50	32	250	65	3.5	30	19			
	4025-5	40	25	200	50	3.5	23	15.5	KRMN500-C KRGN500-□	MHA0512	HW40L
	5032-5	50	32	250	65	3.5	30	19			
	4025-6	40	25	200	50	3.5	23	15.5	KRMN600-C KRGN600-□	MHA0512	HW40L
	5032-6	50	32	250	65	3.5	30	19			
	4025-8	40	25	200	50	3.5	23	18.5	KRMN800-C KRGN800-□	MHA0512	HW40L
	5032-8	50	32	250	65	3.5	30	22			

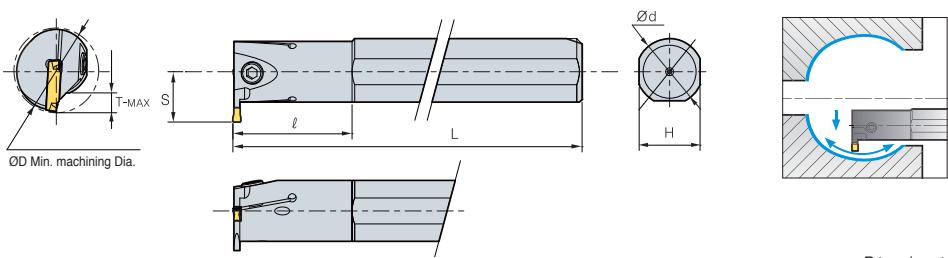
② Applicable inserts C12~C13

KGIVR/L



KGMI
KGMN

For Grooving, Turning, Profiling machining



• R type insert

(mm)

Designation	ØD	Ød	L	l	T-MAX	H	S	Inserts	Screw	Wrench
KGIVR/L	2016-1.5	20	16	125	35	4	15	12	MHB0410	
	2520-1.5	25	20	150	45	6	18	15.5	MHB0410	HW30L
	3225-1.5	32	25	200	45	7	23	19	MHA0512	HW40L
	2516-2	25	16	125	35	6.5	15	14	MHB0410	HW30L
	2520-2	25	20	150	45	6.5	18	15.5	MHB0512	HW40L
	3225-2	32	25	200	45	7	23	19	MHB0410	HW30L
	2516-2.5	25	16	125	35	6.5	15	14	MHA0512	HW40L
	2520-2.5	25	20	150	45	6.5	18	15.5	MHB0410	HW30L
	3225-2.5	32	25	200	45	7	23	19	MHA0512	HW40L
	2520-3	25	20	150	45	6.5	18	15.5	MHB0410	HW30L
	3225-3	32	25	200	45	7	23	19	MHA0512	HW40L
	4032-3	40	32	250	55	7.5	30	22.5	BHA0616	HW50L
	2520-4	25	20	150	45	6.5	18	15.5	MHB0410	HW30L
	3225-4	32	25	200	45	7	23	19	MHA0512	HW40L
	4032-4	40	32	250	55	7.5	30	22.5	BHA0616	HW50L
	3225-5	32	25	200	45	7.5	23	19.5	MHA0512	HW40L
	4032-5	40	32	250	55	8.5	30	23.5	BHA0616	HW50L
	3225-6	32	25	200	45	7.5	23	19.5	MHA0512	HW40L
	4032-6	40	32	250	55	8.5	30	23.5	BHA0616	HW50L
	4032-8	40	32	250	55	8.5	30	23.5	BHA0616	HW50L
	4540-8	45	40	300	70	8.5	37	26.5	BHA0616	HW50L

➔ Applicable inserts C12~C13

• External insert: Min. machining Dia (ØD) is over 50 mm.

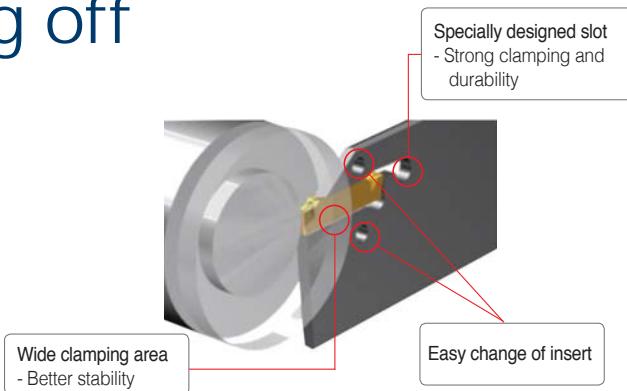


C

KGT Blade for Parting off

Features

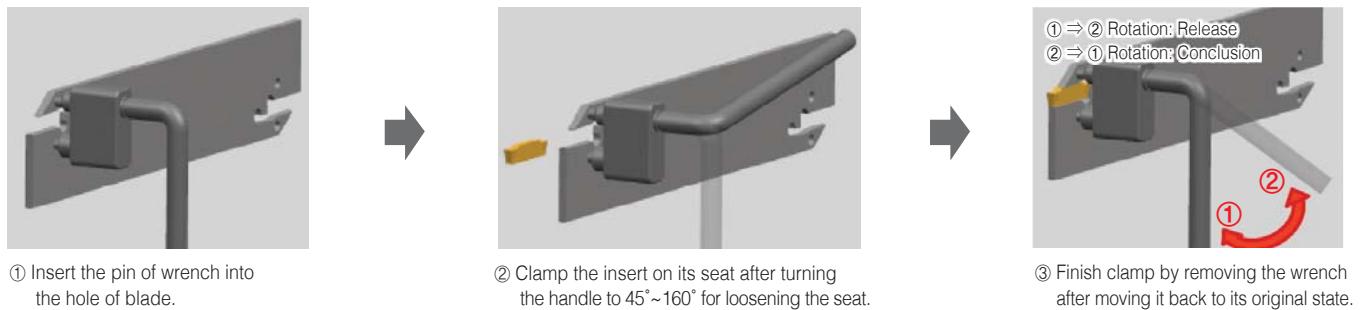
- Parting application with the use of existing KGT inserts
- Economical machining with a double sided insert
- Specially designed slot for strong and stable clamping
- Easy change of insert with the use of exclusive wrench



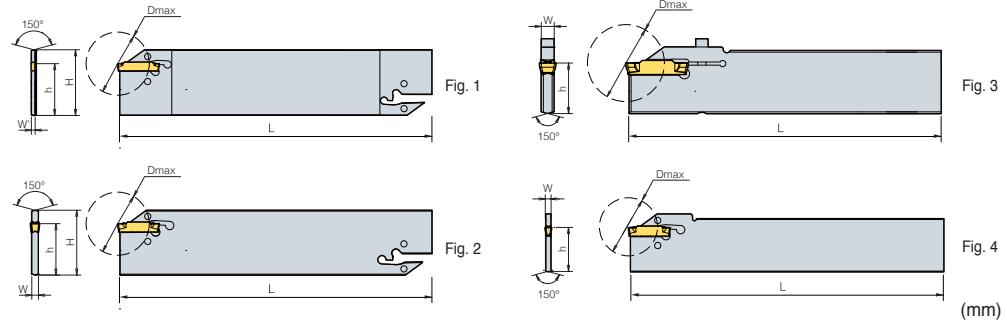
Code system



How to clamp insert



KGTB



Designation	H	W	W'	L	h	ØD Max ⁽²⁾	ØD Max ⁽³⁾	Inserts	Wrench	Fig.
KGTB	1526S	26	2.4	1.0	150	21	-	26	KG□□150-□-□	EW1203 (Separately ordered)
	2026S	26	2.4	1.8	150	21	50	39	KG□□200-□-□ KG□□200S-□-R ⁽⁴⁾	
	3026S	26	2.4	-	150	21	100	39	KG□□300-□-□ KG□□300S-□-R ⁽⁴⁾	
	4026S	26	3.2	-	150	21	100	39	KG□□400-□-□ KG□□400S-□-R ⁽⁴⁾	
	1532	32	2.4	1	150	25	-	26	KG□□150-□-□	
	2032	32	2.4	1.8	150	25	50	39	KG□□200-□-□ KG□□200S-□-R ⁽⁴⁾	
	3032	32	2.4	-	150	25	100	39	KG□□300-□-□ KG□□300S-□-R ⁽⁴⁾	
	4032	32	3.2	-	150	25	100	39	KG□□400-□-□ KG□□400S-□-R ⁽⁴⁾	
	5032	32	4	-	150	25	120	49	KG□□500-□-□ KG□□500S-□-R ⁽⁴⁾	
	6032	32	5.2	-	150	25	120	49	KG□□600-□-□ KG□□600S-□-R ⁽⁴⁾	
	8032S ⁽¹⁾	32	6.2	-	150	25	80	59	KG□□800-□-□ KG□□800S-□-R ⁽⁴⁾	HW30L
										3

Applicable inserts C12~C13

(1) Screw clamping

(2) 1 corner use

(3) 2 corner use

(4) 1 corner insert

Multi functional Tools



Inserts are offered with two edges, for better economical machining

MGT

- Inserts are offered with two edges, for better economical machining
- Multi-function operations - Reduce cycle time & increase productivity with the ability to groove, turn, face or copy in an application
- Shorten time & save on tool cost - Korloy's MGT system allows a machinist to apply one tool against many applications, reducing the number of tools
- Flat Cutting Edge - MGT tools have a flat geometry on its cutting edge to ensure excellent surface finishes. Even in high Feed applications by using a wiper function, Korloy ensures excellent surface finishes in roughing operations

▶ Insert code system

MG	M	N	300	-	04	-	T
System Code	Tolerance	Hand	Cutting Edge Width		Nose Radius (Nose R)		Chip Breaker
MG: Multi Grooving MR: Multi Grooving Round	M: Pressed G: Ground	N: Neutral R: Right L: Left I: Internal	1.5~8.0 mm		0.2 mm 0.3 mm 0.4 mm 0.8 mm		L/R/T/M/ PS/PT/A

▶ Holder code system

MG	E	H	R/L	2525	-	3	T15
System Code	Application	Holder Type	Hand	Shank Size		Cutting Width	Maximum Depth of Cut
MG: Multi Grooving	E: External machining I: Internal machining	H: Horizontal V: Vertical U: Undercut	R: Right L: Left	Height: 25 mm Width: 25 mm (For internal machining: Minimum diameter)		1.5~8.0 mm	15~25 mm

▶ Geometry of chip breaker

MGM(G)N-M	<ul style="list-style-type: none"> Specially designed chip breaker allows a smoother chip flow versus conventional flat-top geometries through the use of a central chip breaker Specifically placed convex dots assists with chip control in external machining, for a smoother chip flow Chip breaker designed for turning & grooving applications 	MGMN-G	<ul style="list-style-type: none"> Specially designed chip breaker allows narrower chips to promote better chip flow Specifically designed for grooving applications 	MRMN-M	<ul style="list-style-type: none"> Full radius geometry for applications that require profiling Available for relief machining 	MFMN300	<ul style="list-style-type: none"> Specially designed chip breaker allows narrower chips to promote better chip flow Chip breaker specially designed for face-grooving
MRGN-A	<ul style="list-style-type: none"> Specially designed high positive geometry, ideal for machining aluminum The chip breaker's super buffed, high rake angle allows optimal chip flow of aluminum 	MGMR-PS	<ul style="list-style-type: none"> Sharply designed cutting edge. Recommended in machining low carbon steel and stainless steel Specially designed chip breaker allows narrower chips to promote better chip flow. Able to machine Feed rates and small diameter cutting 	MGMR-PT	<ul style="list-style-type: none"> Stronger cutting edge with a negative land for tougher applications Able to machine at Feed rates as high and bar stock Chip breaker design helps narrows chips for better flow 	MGGN-A	<ul style="list-style-type: none"> Smooth chip flow Reduced build up on cutting edge
MGMN-L	<ul style="list-style-type: none"> Sharp cutting edge Low cutting resistance For auto CNC machine For small Dia. processing 	MGMN-R	<ul style="list-style-type: none"> Strong cutting edge For high Feed rate processing 	MGMN-T	<ul style="list-style-type: none"> For turning & grooving Reduced chip width & smooth chip control by dot designed on the top corner 		

Parting off (MGMN/MGMR/L)

Workpiece	Cutting Speed (vc = m/min)										Feed (fn = mm/rev)				
	CVD					PVD				Uncoated	Cutting width (mm)				
	NC3120	NC3030	NCM325	NC5330	NC3225	PC8110	PC5300	PC9030	PC6510		2	3	4	5	6
SM□□C	80~180	80~160		80~180	80~200		80~180				0.02~0.15	0.03~0.2	0.08~0.3	0.10~0.4	0.12~0.5
SCM	70~150	70~150	70~150	70~150	70~150		70~150				0.02~0.15	0.03~0.2	0.08~0.3	0.10~0.4	0.12~0.5
GC/GCD				50~100					50~100	50~100	0.05~0.12	0.1~0.25	0.1~0.30	0.1~0.35	0.1~0.40
STS			50~120	50~120		50~120	60~140	60~140			0.02~0.1	0.03~0.15	0.08~0.25	0.1~0.35	0.12~0.40
Non-ferrous metal (Al, Copper)										200~450	0.05~0.1	0.05~0.2	0.05~0.25	0.05~0.30	0.05~0.35

Facing (FGD/FGM/FMM/MFMN/MGMN)

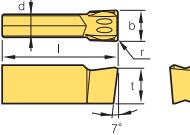
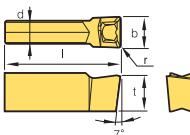
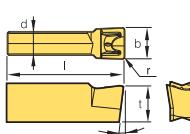
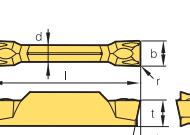
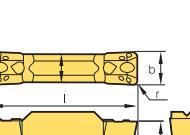
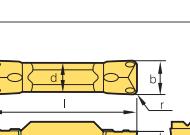
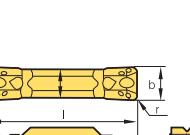
Workpiece	Cutting Speed (vc = m/min)								Feed (fn = mm/rev)			
	CVD				PVD				Uncoated	Cutting width (mm)		
	NC6210	NC3030	NC5330	NC3120	PC3500	PC9030	PC8110	PC5300		3	4	5
SM□□C		80~160	100~160	100~160				80~180		0.05~0.1	0.05~0.12	0.05~0.15
SCM		50~130	50~130	50~130	50~130			70~150	200~800	0.05~0.1	0.05~0.12	0.05~0.15
GC/GCD	100~200		120~150							0.05~0.1	0.05~0.12	0.05~0.15
STS			60~150			60~140	60~120	60~140		0.05~0.1	0.05~0.12	0.05~0.15
Non-ferrous metal (Al, Copper)										0.05~0.15	0.08~0.15	0.08~0.15

Grooving, Turning (MGMN/MRMN)

Workpiece	Cutting Speed (vc = m/min)								Feed (fn = mm/rev)							
	CVD				PVD				Cermet	Uncoated		Cutting width (mm)				
	NC3225	NC3120	NC3030	NC5330	PC9030	PC5300	PC3500	CN20	ST30A	ST20	0.5~1.0	1.0~2.0	2~3	3~4	4~5	6~8
SM□□C	80~200	80~200	80~180	80~200		80~180		80~120		80~120	0.03~0.08	0.04~0.09	0.05~0.1	0.05~0.12	0.05~0.15	0.05~0.2
SCM	80~180	80~180	80~180	80~180		80~160	80~180	80~120	80~120	80~120	0.03~0.07	0.04~0.08	0.05~0.08	0.05~0.1	0.05~0.12	0.05~0.15
GC/GCD				60~130		60~130					0.03~0.07	0.04~0.08	0.05~0.08	0.05~0.1	0.05~0.10	0.05~0.12
STS				60~100	60~140				60~100		0.03~0.08	0.04~0.09	0.05~0.10	0.05~0.12	0.05~0.15	0.05~0.20
Non-ferrous metal (Al, Copper)									150~400		0.05~0.12	0.05~0.15	0.05~0.15	0.08~0.15	0.08~0.15	0.10~0.20

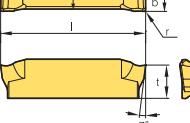
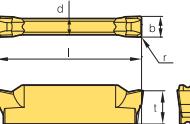
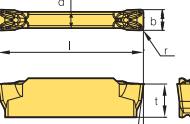
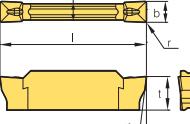
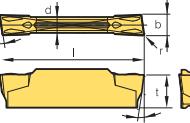
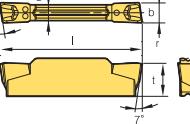
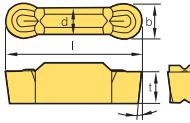
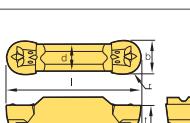
C Available Insert for MGT

Insert

Application	Picture	Designation	Coated						H01	Dimensions (mm)					Configuration	Page
			NC3030	NC3120	NC3225	NC5330	NC6315	PC5300		b	r	l	d	t		
Face Grooving	FGD	300R-03	●							3.0	0.3	15.0	2.0	4.0		C34 C35
		400R-04	●							4.0	0.4	15.0	3.0	4.5		
		500R-04	●							5.0	0.4	15.0	4.0	5.0		
Face Grooving	FGM	300R-03								3.0	0.3	15.0	2.0	4.0		C34 C35
		400R-04	●							4.0	0.4	15.0	3.0	4.5		
		500R-04								5.0	0.4	15.0	4.0	5.0		
Face Grooving	FMM	300R-03	●					●		3.0	0.3	15.0	2.0	3.91		C34 C35
		400R-04	●							4.0	0.4	15.0	3.0	3.96		
		500R-04								5.0	0.4	15.0	4.0	4.42		
Grooving · Turning	MFMN	MFMN 300		●						3.0	0.2	18.0	2.0	3.0		C33 C38
		MFMN														
Grooving · Turning	MGGN	300-02-M								3.0	0.2	21.0	2.35	4.8		C28 C30 C32 C38
		300-04-M								3.0	0.4	21.0	2.35	4.8		
		300-08-M								3.0	0.8	21.0	2.35	4.8		
		400-02-M								4.0	0.2	21.0	3.3	4.8		
		400-04-M								4.0	0.4	21.0	3.3	4.8		
		400-08-M								4.0	0.8	21.0	3.3	4.8		
		500-02-M								5.0	0.2	26.0	4.1	5.8		
		500-04-M								5.0	0.4	26.0	4.1	5.8		
		500-08-M								5.0	0.8	26.0	4.1	5.8		
		600-02-M								6.0	0.2	26.0	5.0	5.8		
		600-04-M								6.0	0.4	26.0	5.0	5.8		
Grooving	MGMN-G	150-G	●			●	●	●		1.5	0.15	16.0	1.2	3.5		C28 C30 C32 C38
		200-G	●	●			●	●		2.0	0.2	16.0	1.6	3.5		
		250-G	●			●	●			2.5	0.2	18.5	2.0	3.85		
		300-G	●	●	●	●	●	●		3.0	0.3	21.0	2.35	4.8		
		400-G	●	●	●		●	●		4.0	0.3	21.0	3.3	4.8		
		500-G								5.0	0.5	26.0	4.1	5.8		
		600-G								6.0	0.8	26.0	5.0	5.8		
Grooving · Turning	MGMN-M	200-M	●	●	●	●	●	●	●	2.0	0.2	16.0	1.6	3.5		C28 C30 C32 C38
		250-M	●	●		●	●	●		2.5	0.2	18.5	2.0	3.85		
		300-02-M			●					3.0	0.2	21.0	2.35	4.8		
		300-M	●	●	●	●	●	●	●	3.0	0.4	21.0	2.35	4.8		
		350-03-M								3.5	0.3	21.0	2.9	4.8		
		400-02-M								4.0	0.2	21.0	3.3	4.8		
		400-M	●	●	●	●	●	●	●	4.0	0.4	21.0	3.3	4.8		
		500-04-M	●							5.0	0.4	26.0	4.1	5.8		
		500-M	●	●	●	●				5.0	0.8	26.0	4.1	5.8		
		600-M	●	●	●	●				6.0	0.8	26.0	5.0	5.8		
		800-M	●		●					8.0	0.8	31.0	6.0	6.5		

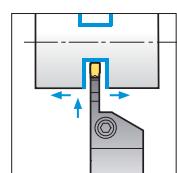
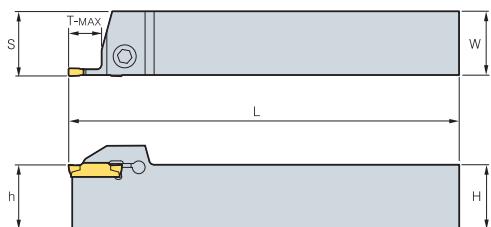
● : Stock item

 Insert

Application	Picture	Designation	Coated		Uncoated		Dimensions (mm)					Configuration	Page					
			NC3030	NC3120	NC3225	NC5330	NC6315	PC5300	PC8100	PC9030	H01	H05	b	r	l	d	t	α°
Grooving		MGMN	200-02-L								2.0	0.2	16	1.60	3.5	-		C28
			300-02-L				●				3.0	0.2	21	2.35	4.8	-		
			400-02-L				●				4.0	0.2	21	3.3	4.8	-		
			200-04-L								2.0	0.4	20	1.7	3.5	-		
			300-04-L								3.0	0.4	20	2.3	4.0	-		
			400-04-L								4.0	0.4	20	3.3	4.0	-		
			500-04-L				●				5.0	0.4	26	4.1	5.8	-		
Grooving · Parting off		MGMN	200-02-R								2.0	0.2	16	1.60	3.5	-		C28
			300-02-R	●			●				3.0	0.2	21	2.35	4.8	-		
			400-02-R	●			●				4.0	0.2	21	3.3	4.8	-		
			200-04-R								2.0	0.4	20	1.7	3.5	-		
			300-04-R								3.0	0.4	20	2.3	4.0	-		
			400-04-R								4.0	0.4	20	3.3	4.0	-		
			500-04-R	●			●				5.0	0.4	26	4.1	5.8	-		
Grooving · Turning		MGMN	200-T								2.0	0.2	16	1.60	3.5	-		C28
			300-T	●			●				3.0	0.4	21	2.35	4.8	-		
			400-T	●			●				4.0	0.4	21	3.3	4.8	-		
			500-T				●				5.0	0.8	26	4.1	5.8	-		
			300-02-A								3.0	0.2	21	2.35	4.8	-		
			300-04-A								3.0	0.4	21	2.35	4.8	-		
			300-08-A								3.0	0.8	21	2.35	4.8	-		
Grooving		MGGN	400-02-A								4.0	0.2	21	3.3	4.8	-		C28
			400-04-A								4.0	0.4	21	3.3	4.8	-		
			400-08-A								4.0	0.8	21	3.3	4.8	-		
			500-02-A								5.0	0.2	26	4.1	5.8	-		
			500-04-A								5.0	0.4	26	4.1	5.8	-		
			500-08-A								5.0	0.8	26	4.1	5.8	-		
			300-02-PS								3.0	0.2	21	2.35	4.8	6		
Parting off		MGMR/L	300-08-PS								3.0	0.2	21	2.35	4.8	8		C28 C30
			300-15D-PS								3.0	0.2	21	2.35	4.8	15		
			400-4D-PS								4.0	0.3	21	3.3	4.8	4		
			500-4D-PS								5.0	0.3	26	4.1	5.8	4		
			200-6D-PT				●				2.0	0.2	16	1.6	3.6	6		C28 C30
			300-6D-PT	●							3.0	0.2	21	2.35	4.8	6		
			300-8D-PT								3.0	0.2	21	2.35	4.8	8		
			300-15D-PT								3.0	0.2	21	2.35	4.8	15		
			400-4D-PT								4.0	0.3	21	3.3	4.8	4		
Aluminum		MRGN	400-A					●			4.0	2.0	21.0	3.3	4.8	-		C28 C29 C31 C32
			500-A								5.0	2.5	26.0	4.1	5.8	-		
			600-A						●		6.0	3.0	26.0	5.0	5.8	-		
			800-A						●		8.0	4.0	31.0	6.0	6.5	-		
			200-M	●	●						2.0	1.0	16.0	1.50	3.5	-		
			300-M	●	●	●	●	●	●		3.0	1.5	21.0	2.35	4.8	-		
			400-M	●	●	●	●	●	●		4.0	2.0	21.0	3.3	4.8	-		
Reliefing Profiling		MRMN	500-M	●							5.0	2.5	26.0	4.1	5.8	-		C28 ~32 C38
			600-M	●			●				6.0	3.0	26.0	5.0	5.8	-		
			800-M	●	●						8.0	4.0	31.0	6.0	6.5	-		

● : Stock item

MGEHR/L



MGMN MGMR
MGGN MRMN
MRGN

For Grooving, Turning, Parting off, Relieving, Profiling machining

• R type insert
(mm)

Designation	H = (h)	W	L	S	T-MAX	Inserts	Screw	Wrench
MGEHR/L 1616-1.5	16	16	100	16.2	14	MGMN150-G	LTX0514	TW20L
2020-1.5	20	20	125	20.2	14			
2525-1.5	25	25	150	25.2	14			
1212-2	12	12	100	14.25	14	MGMN200-G MGMN200-M MGMR200-□□-□□	MHA0512	HW40L
1616-2	16	16	100	16.25	14			
2020-2	20	20	125	20.25	14			
2525-2	25	25	150	25.25	14			
1616-2.5	16	16	100	16.30	16	MGMN250-G MGMN250-M	MHA0512	HW40L
2020-2.5	20	20	125	20.30	16			
2525-2.5	25	25	150	25.30	16			
1616-3	16	16	100	16.35	18	MGMN300-M/T MGGN300-□□-M MRMN300-M MGMR300-□□-□□ MGMN300-□□-L/R	BHA0616	HW50L
2020-3	20	20	125	20.4	18			
2020-3-T10	20	20	125	20.4	10			
2525-3	25	25	150	25.4	18			
2525-3-T10	25	25	150	25.4	10			
3232-3	32	32	170	32.4	18			
3232-3-T10	32	32	170	32.4	10	MGMN400-M/T MGGN400-□□-M MRMN400-M MGMR400-□□-□□ MGMN400-□□-L/R	BHA0616	HW50L
2020-4	20	20	125	20.4	18			
2020-4-T10	20	20	125	20.4	10			
2525-4	25	25	150	25.4	18			
2525-4-T10	25	25	150	25.4	10			
3232-4	32	32	170	32.4	18			
3232-4-T10	32	32	170	32.4	10			
2020-5	20	20	150	20.5	23	MGMN500-M/T MGGN500-□□-M MRMN500-M MGMR500-□□-□□ MGMN500-□□-L/R	BHA0616	HW50L
2020-5-T15	20	20	150	20.5	15			
2525-5	25	25	150	25.5	23			
2525-5-T15	25	25	150	25.5	15			
3232-5	32	32	170	32.5	23			
3232-5-T15	32	32	170	32.5	15			
2020-6	20	20	125	20.6	23	MGMN600-M MGGN600-□□-M MRMN600-M	BHA0616	HW50L
2020-6-T15	20	20	125	20.6	15			
2525-6	25	25	150	25.6	23			
2525-6-T15	25	25	150	25.6	15			
3232-6	32	32	170	32.6	23			
3232-6-T15	32	32	170	32.6	15			
2525-8	25	25	150	26.1	28	MRMN800-M MGMN800-M	BHA0616	HW50L
2525-8-T15	25	25	150	26.1	15			
3232-8	32	32	170	33.1	28	MRGN600-A	BHA0616	HW50L
3232-8-T15	32	32	170	33.1	16			
2525-6A	25	25	150	25.6	23			
2525-6A-T15	25	25	150	25.6	15			
3232-6A	32	32	170	32.6	23			
3232-6A-T15	32	32	170	32.6	15			
2525-8A	25	25	150	26.1	28	MRGN800-A	BHA0616	HW50L
2525-8A-T15	25	25	150	26.1	16			
3232-8A	32	32	170	33.1	28			
3232-8A-T15	32	32	170	33.1	15			

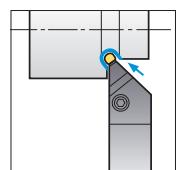
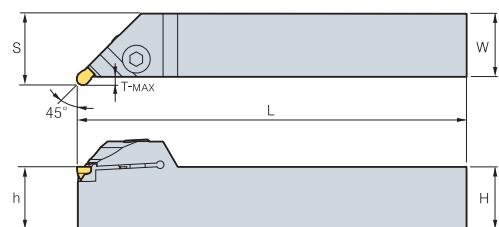
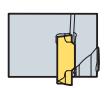
Applicable inserts C26~C27



C

MGEUR/L

For Relieving, Profiling machining

MRMN
MRGN

• R type insert

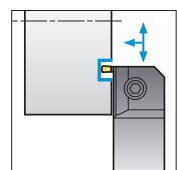
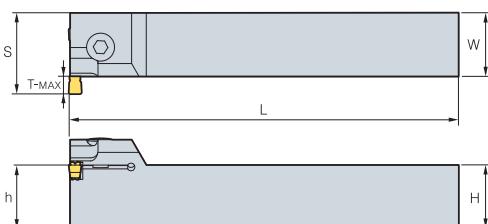
(mm)

Designation		H = (h)	W	L	S	T-MAX	Inserts	Screw	Wrench		
MGEUR/L	2020-3	20	20	125	23	3	MRMN300-M	BHA0616	HW50L		
	2525-3	25	25	150	28	3					
	3232-3	32	32	170	35	3					
	2020-4	20	20	125	23	3	MRMN400-M				
	2525-4	25	25	150	28	3					
	3232-4	32	32	170	35	3					
	2020-5	20	20	125	24	4	MRMN500-M				
	2525-5	25	25	150	29	4					
	3232-5	32	32	170	36	4					
	2020-6	20	20	125	24	4	MRMN600-M				
	2525-6	25	25	150	29	4					
	3232-6	32	32	170	36	4					
	2525-8	25	25	150	30	5	MRMN800-M				
	3232-8	32	32	170	37	5					
	2525-6A	25	25	150	29	4	MRGN600-A				
	3232-6A	32	32	170	36	4					
	2525-8A	25	25	150	30	5	MRGN800-A				
	3232-8A	32	32	170	37	5					

Applicable inserts C26~C27

MGEVR/L

For Grooving, Turning, Profiling machining



MGMN
MRMN MGGN
MRGN

• R type insert

(mm)

Designation		H = (h)	W	L	S	T-MAX	Min. machining Dia. (ØD)	Inserts	Screw	Wrench
MGEVR/L	2020-1.5	20	20	125	23	3	85			
	2525-1.5	25	25	150	28	3	85	MGMN150-G	LTX0514	TW20L
	3232-1.5	32	32	170	35	3	85			
	2020-2	20	20	125	23.5	3.5	65	MGMN200-M MGMN200-G		
	2525-2	25	25	150	28.5	3.5	65			
	3232-2	32	32	170	35.5	3.5	65			
	2020-2.5	20	20	125	24	4	65	MGMN250-M MGMN250-G		
	2525-2.5	25	25	150	29	4	65			
	3232-2.5	32	32	170	36	4	65			
	2020-3	20	20	125	25.5	5	75	MGMN300-M/T MGGN300-□-M MRMN300-M MGMN300-□□-L/R		
	2525-3	25	25	150	30.5	5	75			
	3232-3	32	32	170	37.5	5	75			
	2020-4	20	20	125	25.5	5	70	MGMN400-M/T MGGN400-□□-M MRMN400-M MGMN400-□□-L/R		
	2525-4	25	25	150	30.5	5	70			
	3232-4	32	32	170	37.5	5	70			
	2020-5	20	20	125	27	7	75	MGMN500-M/T MGGN500-□□-M MRMN500-M MGMN500-□□-L/R		
	2525-5	25	25	150	32	7	75			
	3232-5	32	32	170	39	7	75			
	2020-6	20	20	125	27	7	70	MGMN600-M MGGN600-□□-M MRMN600-M		
	2525-6	25	25	150	32	7	70			
	3232-6	32	32	170	39	7	70			
	2525-8	25	25	150	34	9	50	MRMN800-M MGMN800-M		
	3232-8	32	32	170	41	9	50			
	2525-6A	25	25	150	32	7	70	MRGN600-A		
	3232-6A	32	32	170	39	7	70			
	2525-8A	25	25	150	34	9	45	MRGN800-A		
	3232-8A	32	32	170	41	9	45			

Applicable inserts C26~C27

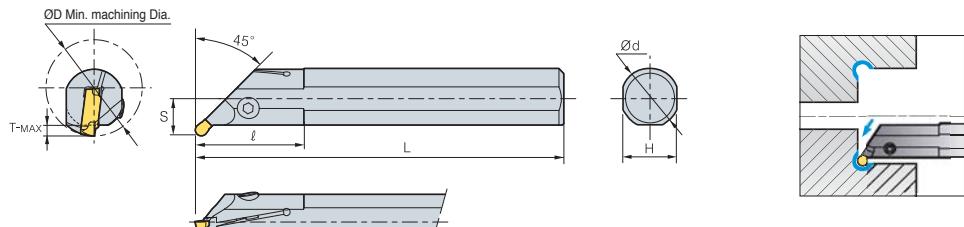
BHA0616 HW50L



C

MGIUR/LMRMN
MRGN

For Relieving, Profiling machining



• R type insert

(mm)

Designation		ØD	Ød	L	l	T-MAX	H	S	Inserts	Screw	Wrench		
MGIUR/L	3520-3	35	20	150	45	3.5	18	13	MRMN300-M	MHA0512	HW40L		
	4025-3	40	25	200	45	3.5	23	15.5					
	5032-3	50	32	250	65	3.5	30	19	MRMN400-M				
	3520-4	35	20	150	45	3.5	18	13					
	4025-4	40	25	200	45	3.5	23	15.5	MRMN500-M				
	5032-4	50	32	250	65	3.5	30	19					
	4025-5	40	25	200	45	3.5	23	15.5	MRMN600-M				
	5032-5	50	32	250	65	3.5	30	19					
	4025-6	40	25	200	45	3.5	23	19	MRMN800-M				
	5032-6	50	32	250	65	3.5	30	19					
	4025-8	40	25	200	45	6.5	23	15.5	MRGN600-A		HW50L		
	5032-8	50	32	250	65	6.5	30	19					
	4025-6A	40	25	200	45	3.5	23	15.5	MRGN800-A				
	5032-6A	50	32	250	65	3.5	30	19					
	4025-8A	40	25	200	45	5.0	23	18.5	MRGN800-A				
	5032-8A	50	32	250	65	6.5	30	22					

② Applicable inserts C26~C27



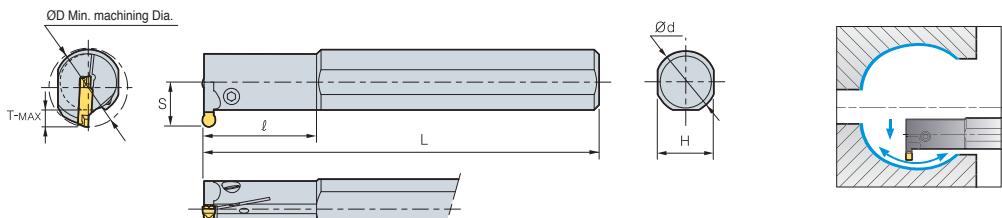
MGIVR/L



MGMN
MGGN

MRMN
MRGN

For Grooving, Turning, Profiling machining



• R type insert

(mm)

Designation	ØD	Ød	L	l	T-MAX	H	S	Inserts	Screw	Wrench	
MGIVR/L	2016-1.5	20	16	125	35	3.5	15	11.3	MGMN150-G	MHB0310	HW25L
	2520-1.5	25	20	150	45	3.5	18	13.1		MHA0512	HW40L
	2925-1.5	29	25	200	45	3.5	23	16.2	MGMN200-G MGMN200-M MRMN200-M	MHB0310	HW25L
	2016-2	20	16	125	35	4.5	15	12.4		MHA0512	HW40L
	2520-2	25	20	150	45	4.5	18	14.0		MHB0310	HW25L
	2925-2	29	25	200	45	4.5	23	17.2		MHA0512	HW40L
	2016-2.5	20	16	125	35	4.5	15	12.5	MGMN250-G MGMN250-M	MHB0310	HW25L
	2520-2.5	25	20	150	45	4.5	18	15.1		MHA0512	HW40L
	2925-2.5	29	25	200	45	4.5	23	18.2	MGMN300-M/G/T MGGN300-□□-M MRMN300-M MGMN300-□□-L/R	MHA0512	HW40L
2520-3	25	20	150	45	5	18	15.6				
3125-3	31	25	200	45	6	23	18.9				
3732-3	37	32	250	65	6	30	21.5				
2520-4	25	20	150	45	6	18	15.6				
3125-4	31	25	200	45	6	23	18.9				
3732-4	37	32	250	65	6	30	21.5				
3125-5	31	25	200	45	8	23	19.4	MGMN500-M/G/T MGGN500-□□-M MRMN500-M MGMN500-□□-L/R	BHA0616		
3732-5	37	32	250	65	8	30	21.5		BHA0620		
3125-6	31	25	200	45	8	23	19.4	MGMN600-MG MGGN600-□□-M MRMN600-M	BHA0616		
3732-6	37	32	250	65	8	30	21.5		BHA0620		
3732-8	37	32	250	65	10	30	23.4		MRMN800-M MGMN800-M	HW50L	
4540-8	45	40	300	70	10	37	27.2			BHA0616	
3125-6A	31	25	200	45	8	23	19.4	MRGN600-A			
3732-6A	37	32	250	65	8	30	21.5			BHA0620	
3732-8A	37	32	250	65	10	30	23.4	MRGN800-A			
4540-8A	45	40	300	70	10	37	27.2				

Applicable inserts C26~C27

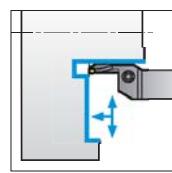
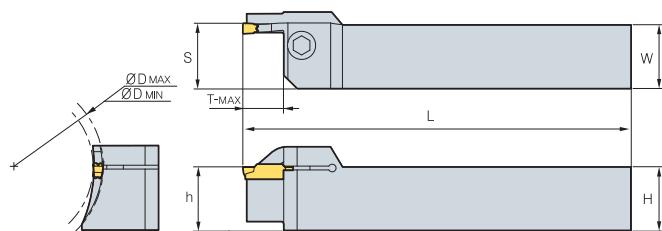


C

Multi functional Tools

MGFHR/L

For Face Grooving machining

MFMN
MGMN

• R type insert

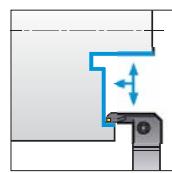
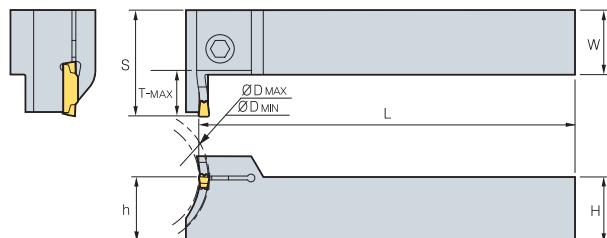
(mm)

Designation		H = (h)	W	L	S	T-MAX	ØD		Inserts	Screw	Wrench
							Min	Max			
MGFHR/L	325-24/35-T10	25	25	150	25.6	10	24	35	MFMN300	BHA0616	HW50L
	325-29/40-T10	25	25	150	25.6	10	29	40			
	325-34/50-T10	25	25	150	25.6	10	34	50			
	325-44/70-T10	25	25	150	25.6	10	44	70			
	325-64/99-T10	25	25	150	25.6	10	64	99			
	425-42/63-T15	25	25	150	25.6	15	42	63			
	425-62/120-T15	25	25	150	25.6	15	62	120			
	425-112/200-T15	25	25	150	25.6	15	112	200			

② Applicable inserts C26~C27

MGFVR/L

For Face Grooving machining

MFMN
MGMN

• R type insert

(mm)

Designation		H = (h)	W	L	S	T-MAX	ØD		Inserts	Screw	Wrench	
							Min	Max				
MGFVR/L	325-24/35-T10	25	25	150	36	10	24	35	MFMN300	MHA0512	HW40L	
	325-29/40-T10	25	25	150	36	10	29	40				
	325-34/50-T10	25	25	150	36	10	34	50				
	325-44/70-T10	25	25	150	36	10	44	70				
	325-64/99T10	25	25	150	36	10	64	99				
	425-44/60-T15	25	25	150	41	15	44	60		MGMN400-M/T MGMN400-□□-L/R	BHA0616	HW50L
	425-60/120-T15	25	25	150	41	15	60	120				
	425-112/200-T15	25	25	150	41	15	112	200				

② Applicable inserts C26~C27

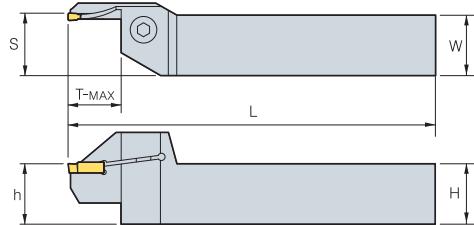
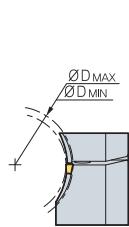


C MGT Holder (Face Grooving)

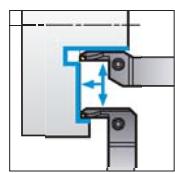
FGHH



FGD FGM FMM



For Face Grooving, Turning machining



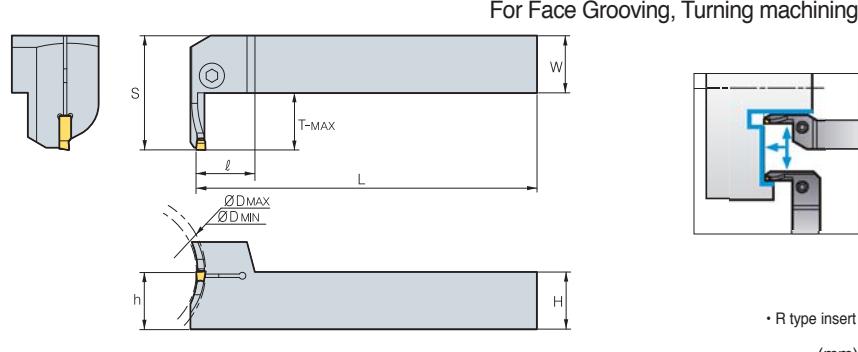
• R type insert
(mm)

Designation	H = (h)	W	L	S	T-MAX	ØD		Inserts	Screw	Wrench
						Min	Max			
FGHH	320R - 25/30	20	20	125	20.6	12	25	30	FMM300R-03	BHA0616 HW50L
	30/35	20	20	125	20.6	12	30	35		
	35/48	20	20	125	20.6	12	35	48		
	48/60	20	20	125	20.6	22	48	60		
	60/75	20	20	125	20.6	22	60	75		
	75/100	20	20	125	20.6	22	75	100		
	100/140	20	20	125	20.6	22	100	140		
	325R - 25/30	25	25	150	25.6	12	25	30		
	30/35	25	25	150	25.6	12	30	35		
	35/48	25	25	150	25.6	12	35	48		
420R - 25/30	48/60	25	25	150	25.6	22	48	60	FMM300R-03	FMM400R-04
	60/75	25	25	150	25.6	22	60	75		
	75/100	25	25	150	25.6	22	75	100		
	100/140	25	25	150	25.6	22	100	140		
	425R - 25/30	20	20	125	20.6	12	25	30		
	30/35	20	20	125	20.6	12	30	35		
	35/48	20	20	125	20.6	12	35	48		
	48/60	20	20	125	20.6	25	48	60		
	60/75	20	20	125	20.6	25	60	75		
	75/100	20	20	125	20.6	25	75	100		
520R - 25/30	100/140	20	20	125	20.6	25	100	140	FMM400R-04	BHA0616 HW50L
	425R - 25/30	25	25	150	25.6	12	25	30		
	30/35	25	25	150	25.6	12	30	35		
	35/48	25	25	150	25.6	12	35	48		
	48/60	25	25	150	25.6	25	48	60		
	60/75	25	25	150	25.6	25	60	75		
	75/100	25	25	150	25.6	25	75	100		
	100/140	25	25	150	25.6	25	100	140		
	525R - 25/30	20	20	125	20.6	12	25	30		
	30/35	20	20	125	20.6	12	30	35		
525R - 25/30	35/40	20	20	125	20.6	20	35	40	FMM500R-04	BHA0616 HW50L
	40/48	20	20	125	20.6	20	40	48		
	48/60	20	20	125	20.6	25	48	60		
	60/75	20	20	125	20.6	25	60	75		
	75/100	20	20	125	20.6	25	75	100		
	100/140	20	20	125	20.6	25	100	140		
	525R - 25/30	25	25	150	25.6	12	25	30		
	30/35	25	25	150	25.6	12	30	35		
	35/40	25	25	150	25.6	20	35	40		
	40/48	25	25	150	25.6	20	40	48		
525R - 25/30	48/60	25	25	150	25.6	25	48	60	FMM500R-04	BHA0616 HW50L
	60/75	25	25	150	25.6	25	60	75		
	75/100	25	25	150	25.6	25	75	100		
	100/140	25	25	150	25.6	25	100	140		
	525R - 25/30	25	25	150	25.6	25	100	140		

Applicable inserts C26~C27

FGVH

FGD FGM FMM



Designation	H = (h)	W	L	S	T-MAX	ØD		Inserts	Screw	Wrench
						Min	Max			
FGVH	320R - 25/30	20	20	125	20.6	12	25	30	FMM300R-03	BHA0616 HW50L
	30/35	20	20	125	20.6	12	30	35		
	35/48	20	20	125	20.6	12	35	48		
	48/60	20	20	125	20.6	22	48	60		
	60/75	20	20	125	20.6	22	60	75		
	75/100	20	20	125	20.6	22	75	100		
325R - 25/30	100/140	20	20	125	20.6	22	100	140	FMM300R-03	BHA0616 HW50L
	30/35	25	25	150	25.6	12	25	30		
	35/48	25	25	150	25.6	12	35	48		
	48/60	25	25	150	25.6	22	48	60		
	60/75	25	25	150	25.6	22	60	75		
	75/100	25	25	150	25.6	22	75	100		
420R - 25/30	100/140	25	25	150	25.6	22	100	140	FMM400R-04	BHA0616 HW50L
	30/35	20	20	125	20.6	12	25	30		
	35/48	20	20	125	20.6	12	35	48		
	48/60	20	20	125	20.6	25	48	60		
	60/75	20	20	125	20.6	25	60	75		
	75/100	20	20	125	20.6	25	75	100		
425R - 25/30	100/140	20	20	125	20.6	25	100	140	FMM400R-04	BHA0616 HW50L
	30/35	25	25	150	25.6	12	25	30		
	35/48	25	25	150	25.6	12	35	48		
	48/60	25	25	150	25.6	25	48	60		
	60/75	25	25	150	25.6	25	60	75		
	75/100	25	25	150	25.6	25	75	100		
520R - 25/30	100/140	25	25	150	25.6	25	100	140	FMM400R-04	BHA0616 HW50L
	30/35	20	20	125	20.6	12	25	30		
	35/40	20	20	125	20.6	20	35	40		
	40/48	20	20	125	20.6	20	40	48		
	48/60	20	20	125	20.6	25	48	60		
	60/75	20	20	125	20.6	25	60	75		
525R - 25/30	75/100	20	20	125	20.6	25	75	100	FMM500R-04	BHA0616 HW50L
	100/140	20	20	125	20.6	25	100	140		
	30/35	25	25	150	25.6	12	25	30		
	35/40	25	25	150	25.6	12	35	40		
	40/48	25	25	150	25.6	20	35	48		
	48/60	25	25	150	25.6	25	48	60		
525R - 25/30	60/75	25	25	150	25.6	25	60	75	FMM500R-04	BHA0616 HW50L
	75/100	25	25	150	25.6	25	75	100		
	100/140	25	25	150	25.6	25	100	140		
	30/35	25	25	150	25.6	12	30	35		
	35/40	25	25	150	25.6	20	35	40		
	40/48	25	25	150	25.6	20	40	48		
525R - 25/30	48/60	25	25	150	25.6	25	48	60	FMM500R-04	BHA0616 HW50L
	60/75	25	25	150	25.6	25	60	75		
	75/100	25	25	150	25.6	25	75	100		
	100/140	25	25	150	25.6	25	100	140		
	30/35	25	25	150	25.6	12	30	35		
	35/40	25	25	150	25.6	20	35	40		
525R - 25/30	40/48	25	25	150	25.6	20	40	48	FMM500R-04	BHA0616 HW50L
	48/60	25	25	150	25.6	25	48	60		
	60/75	25	25	150	25.6	25	60	75		
	75/100	25	25	150	25.6	25	75	100		
	100/140	25	25	150	25.6	25	100	140		
	30/35	25	25	150	25.6	12	30	35		

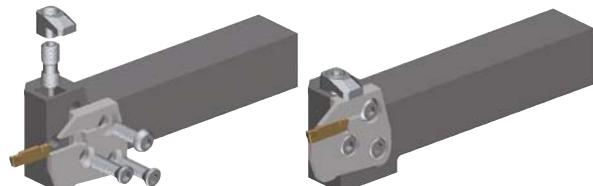
Applicable inserts C26~C27

MGT cartridge

Features

- Compatible and Economical due to divided cartridge & exclusive holder system from existing single body system
- Interchangeable cartridge
 - Various assembly depends on working style
 - Reduce cutting tool costs by over 30%
 - Setting with upper clamp & side screw
- Strong & Stable setting force
 - Simultaneous assembly of insert & cartridge
 - Easy assembly & tool exchange
- Stable assembly system
 - Simple & Superior setting force

Stable Assembly thanks to double screw & clamp



Simple & Strong Setting

Holder code system

MC

H

R/L

25

25

MGT-Cartridge System

Holder Style

Hand

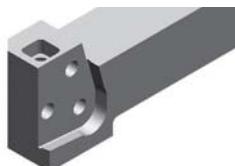
Height (mm)

Width (mm)

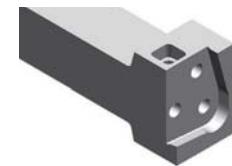
H: Horizontal
V: Vertical

Holder

Horizontal Type



Vertical Type



Available cartridge

External process: MCER
Facing process: MCFL

External process: MCEL
Facing process: MCFR

External process: MCER
Facing process: MCFL

Cartridge code system

MC

F

R/L

3

24/35

T16

MGT-Cartridge System

Working Style

E: External Process
F: Facing Process

Hand

Cutting Width (mm)

Facing Dia. (mm)

Maximum Depth (mm)

Cartridge

External Process



MCER



MCEL

Facing Process



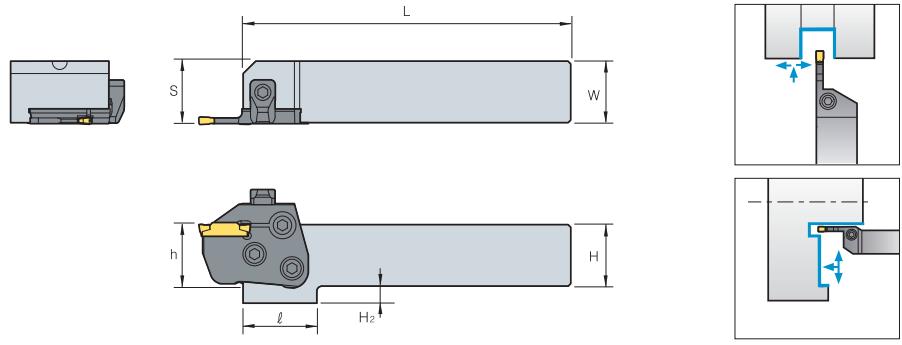
MCFR



MCFL

MCHR/L (Holder)MCER/L
MCFR/L

For Grooving, Turning, Parting off, Relieving, Profiling machining



• R type insert

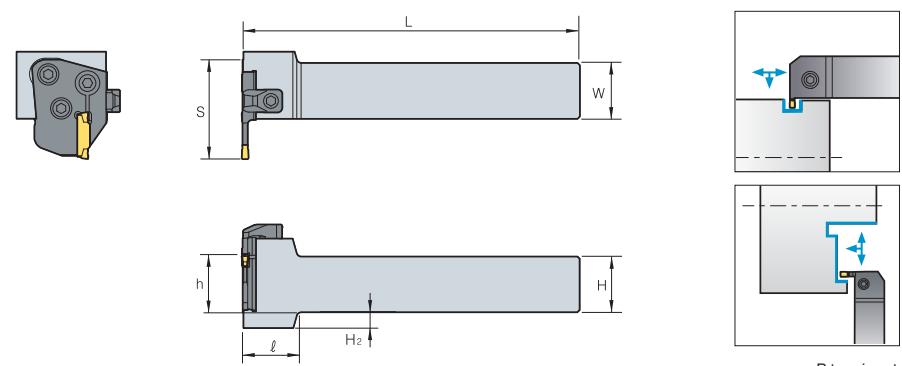
(mm)

Designation		H = (h)	W	L	S	l	H ₂	Cartridge	Clamp	Clamp Screw	Hinge Screw	Clamping Screw	Wrench
MCHR/L	2020	20	20	133	20.7	30	12	MCER/L MCFR/L	CXH8N	DHA0818F	RHA0613	FHGA0618	HW40L
	2525	25	25	133	25.7	30	7						
	3232	32	32	153	32.7	-	-						

② Applicable inserts C38

MCVR/L (Holder)MCER/L
MCFR/L

For Face Grooving, Turning machining



• R type insert

(mm)

Designation		H = (h)	W	L	S	l	H ₂	Cartridge	Clamp	Clamp Screw	Hinge Screw	Clamping Screw	Wrench
MCVR/L	2020	20	20	150	38	30	12	MCER/L MCFR/L	CXH8N	DHA0818F	RHA0613	FHGA0618	HW40L
	2525	25	25	150	43	30	7						
	3232	32	32	170	50	-	-						

② Applicable inserts C38

C MGT Cartridge

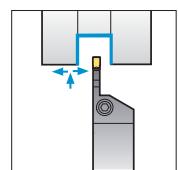
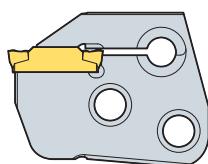
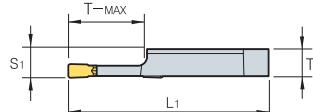
MCER/L (Cartridge)



MGMN MGMR
MGGN MRMN



For Grooving, Turning, Parting off, Relieving, Profiling machining



• R type insert
(mm)

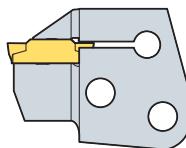
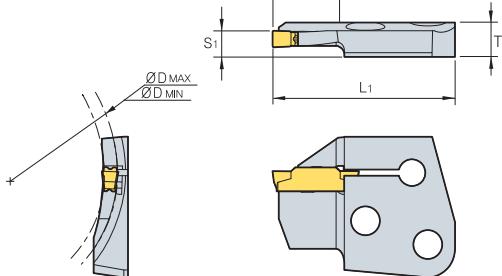
Designation	T	L ₁	S ₁	T-MAX	Inserts		Holder
					Width	Designation	
MCER/L	3-T16	6.00	44.5	6.35	16	3	MCVR/L MCHR/L
	4-T16	5.97	44.5	6.35	16	4	
	5-T20	5.87	48.5	6.35	20	5	
	6-T20	5.82	48.5	6.35	20	6	

④ Applicable inserts C26~C27

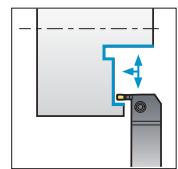
MCFR/L (Cartridge)



MFNM
MGMN



For Face Grooving, Turning machining



• R type insert
(mm)

Designation	T	L ₁	S ₁	T-MAX	OD		Inserts		Holder
					Min	Max	Width	Designation	
MCFR/L	3-24/35-T16	8.00	44.5	6.35	16	24	35	3	MFNM300 MCVR/L MCHR/L MGMN400
	3-29/40-T16	8.00	44.5	6.35	16	29	40	3	
	3-34/50-T16	8.00	44.5	6.35	16	34	50	3	
	3-44/70-T16	8.00	44.5	6.35	16	44	70	3	
	3-64/99-T16	8.00	44.5	6.35	16	64	99	3	
	4-44/60-T16	7.97	44.5	6.35	16	44	60	4	
	4-60/120-T16	7.97	44.5	6.35	16	60	120	4	
	4-112/200-T16	7.97	44.5	6.35	16	112	200	4	

④ Applicable inserts C26~C27



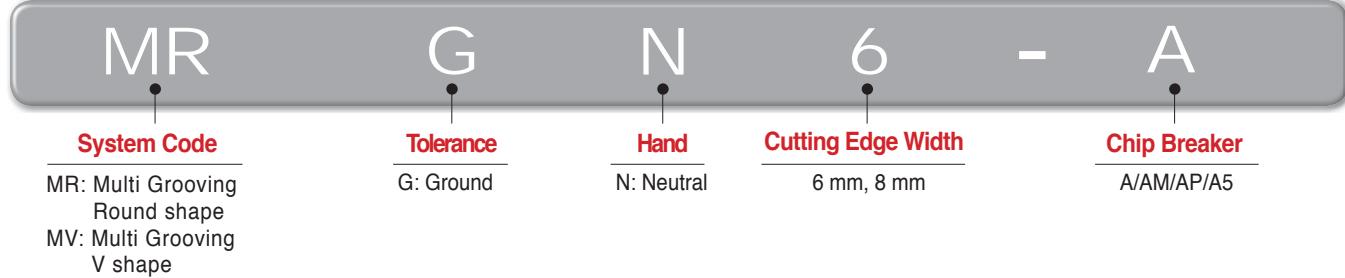
C

MGT - Machining aluminum wheels

Features

- Optimally designed inserts for aluminum wheel machining
- Longer tool life when matched with the best grade for application
- Unique clamping mechanism places a strong clamp over the insert
- A variety of insert types for multi application functions

Insert code system



Holder code system

MG	E	H	R/L	25N	-	8	A - MR
System Code	Application	Holder Type	Hand	Shank Size	Cutting Width	Chip Breaker	Insert Type
MG: Multi Grooving	E: External machining	H: Horizontal	R: Right	Height: 25 mm	1.5~8.0 mm	A/AM/AP/A5	MR: ROUND shape
I: Internal machining	V: Vertical	L: Left		Width: 25 mm (For internal machining: Minimum diameter)			MV: V shape
	I: Internal machining	U: Undercut	X: Special				

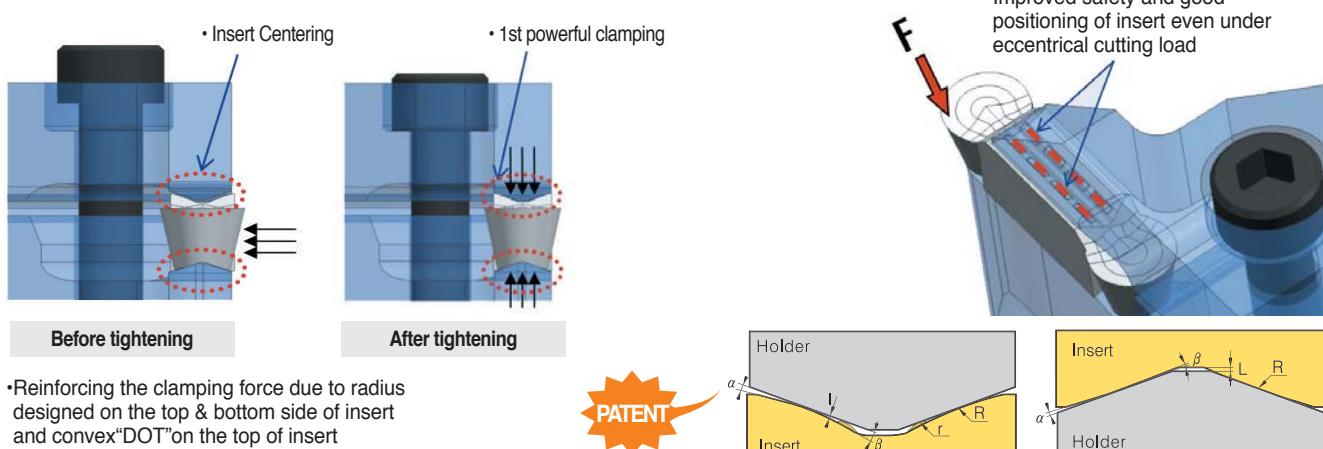
Various insert types

MRGN type : Full "Round" geometry

MRGN-A (For general)	MRGN-A5 (For copying)	MRGN-AM (Medium finishing)	MRGN-AP (PCD)	MVGN-A (For fine finishing)

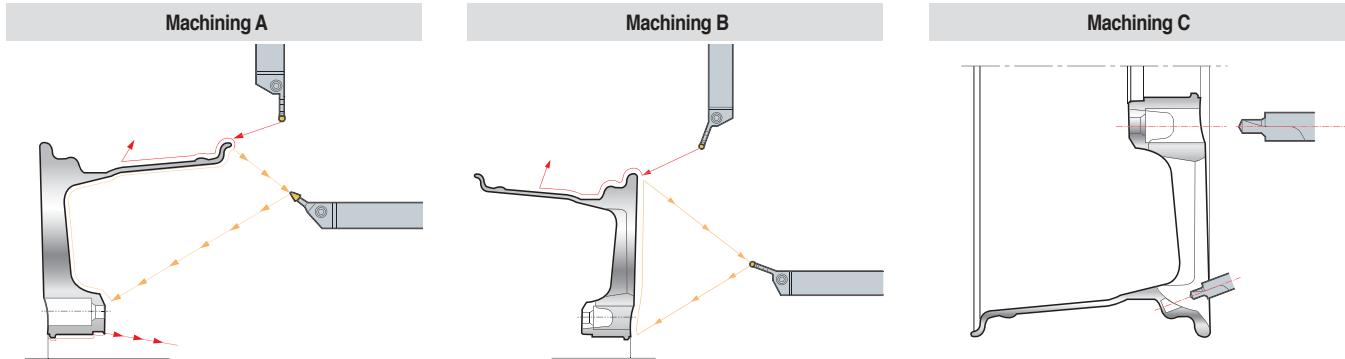
High rake angle, Sharp cutting edge Reinforced clamping force For ductile cast iron Improved chip control High rake and relief angle

New clamping system



C Available Insert for MGT Aluminum Wheel

Application of aluminum wheels



Recommended cutting condition

Workpiece		Hardness Brinell (HB)	kc (MPa)	vc (m/min)	fn (mm/rev)
Aluminum alloy (Forged)	Unhardened	50~70	500~600	1,000~2,500	0.1~0.6
	Hardened	90~110	700~900	300~1,000	0.1~0.5
Aluminum alloy (Cast)	Unhardened	70~80	700~800	300~1,000	0.1~0.5
	Hardened	80~110	800~950	200~600	0.1~0.4
Copper alloy		90~110	700~900	300~800	0.1~0.5
Magnesium alloy		70~80	700~800	300~1,000	0.1~0.5

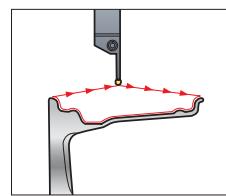
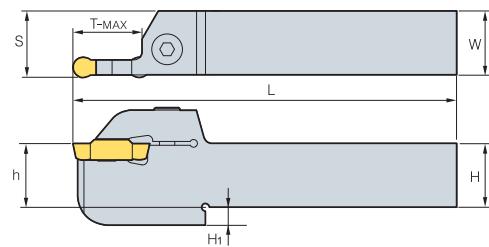
Insert

Application	Picture	Designation	Coated	Uncoated	Dimensions (mm)					Configuration	Page
			DP150	G10	b	r	I	d	t		
For Aluminum Wheel	MVGN	8N-A-R1.2			-	1.2	30.0	6.0	6.9		C40
		8N-A-R1.6			-	1.6	30.0	6.0	6.9		
For Aluminum Wheel	MRGN-A	6N-A	●		6.0	3.0	26.0	5.0	5.9		C39 C40
		6N-AM			6.0	3.0	26.0	5.0	5.9		
		6N-AP			6.0	3.0	26.0	5.0	5.9		
		6N-A5	●		6.0	3.0	26.0	5.0	5.9		
		8N-A			8.0	4.0	30.0	6.0	6.5		
		8N-AM			8.0	4.0	30.0	6.0	6.5		
		8N-AP			8.0	4.0	30.0	6.0	6.5		
		8N-A5	●		8.0	4.0	30.0	6.0	6.5		

● : Stock item

MGEHR/L

MRGN



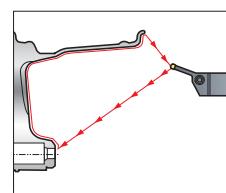
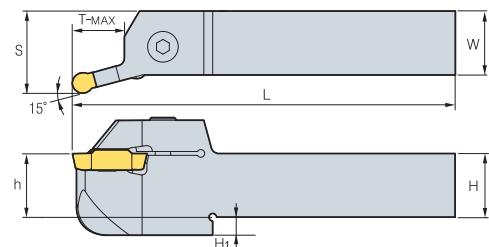
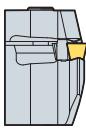
• R type insert
(mm)

Designation	H = (h)	H1	W	L	S	T-MAX	Inserts	Screw	Wrench
MGEHR/L	25N-6A	25	7	25	150	25.55	23.5	MRGN6N-A MRGN6N-AP MRGN6N-AM	BHA0620 HW50L
	32N-6A	32	8	32	150	32.55	27		
	25N-6A5	25	7	25	150	25.55	23.5		
	32N-6A5	32	8	32	150	32.55	27		
	25N-8A	25	7	25	150	25.55	23.5		
	32N-8A	32	8	32	150	32.55	27		
	25N-8A5	25	7	25	150	25.55	23.5		
	32N-8A5	32	8	32	150	32.55	27		

④ Applicable inserts C40

MGEHR/L-15

MRGN



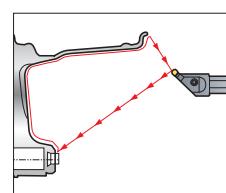
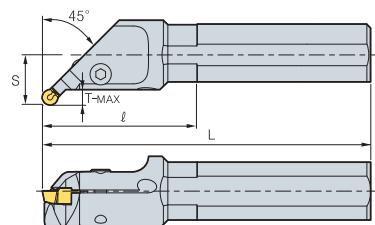
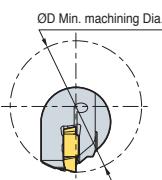
• R type insert
(mm)

Designation	H = (h)	H1	W	L	S	T-MAX	Inserts	Screw	Wrench
MGEHR/L	25N-6A-15	25	7	25	150	32.2	20	MRGN6N-A MRGN6N-AP MRGN6N-AM	BHA0620 HW50L
	32N-6A-15	32	8	32	150	39.2	25		
	25N-6A5-15	25	7	25	150	32.2	20		
	32N-6A5-15	32	8	32	150	39.2	25		
	25N-8A-15	25	7	25	150	32.2	20		
	32N-8A-15	32	8	32	150	39.2	25		
	25N-8A5-15	25	7	25	150	32.2	20		
	32N-8A5-15	32	8	32	150	39.2	25		

④ Applicable inserts C40

MGJUR/L-MR

MRGN



• R type insert
(mm)

Designation	ØD	Ød	L	l	T-MAX	H	S	Inserts	Screw	Wrench
MGJUR/L	6832-8A-MR	68	32	170	65	7	30	26	MRGN8N-A/AM/AP MRGN8N-A5	BHA0620 HW50L
	6832-8A5-MR	68	32	170	65	7	30	26		

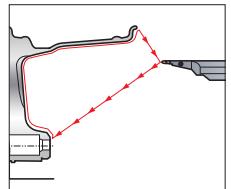
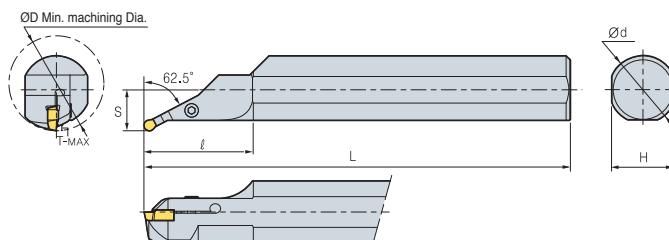
④ Applicable inserts C40

C MGT Aluminum Wheel

MGIXR/L-MR



MRGN



• R type insert
(mm)

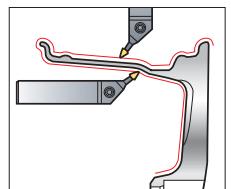
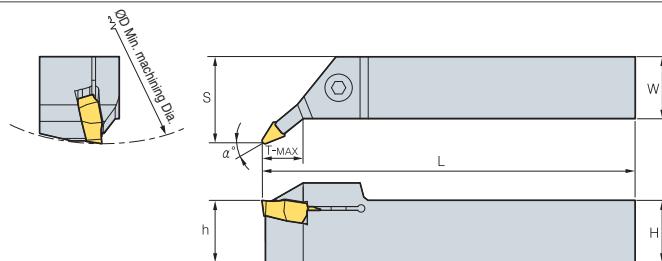
Designation	ØD	Ød	L	l	T-MAX	H	S	Inserts	Screw	Wrench
MGIXR/L	7050-8A-MR	70	50	350	80	5.5	46	30.2	MRGN8N-A/AM/AP MRGN8N-A5	BHA0620 HW50L
	7050-8A5-MR	70	50	350	80	5.5	46	30.2		

④ Applicable inserts C40

MGEXR/L



MVGN



• R type insert
(mm)

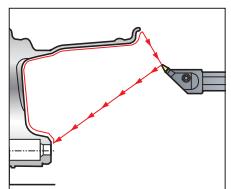
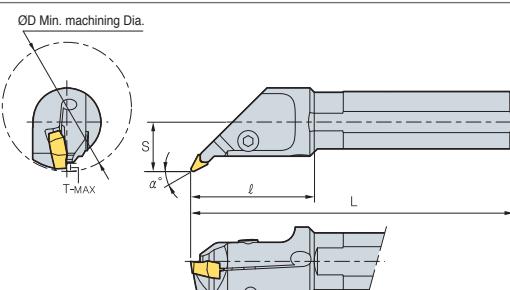
Designation	H = (h)	W	L	S	T-MAX	α°	Inserts	Screw	Wrench
MGEXR/L	25N-8A-5V	25	25	150	29	23.5	5	MVGN8N-A-R1.2 MVGN8N-A-R1.6	BHA0620 HW50L
	25N-8A-22.5V	25	25	150	35	27	22.5		

④ Applicable inserts C40

MGIUR/L-MV



MVGN



• R type insert
(mm)

Designation	ØD	Ød	L	l	T-MAX	H	S	α°	Inserts	Screw	Wrench
MGIUR/L	6832-8A-MV	68	32	170	65	4.5	30	26	MVGN8N-A-R1.2 MVGN8N-A-R1.6	BHA0620	HW50L

④ Applicable inserts C40



C

Economical 3-corner insert for high precision grooving**TB/TB-M**

- Economical 3-corner insert for grooving
- Various cutting edge size ranging from 1.25~4.5mm
- High accuracy ground insert ensures high precision machining
- Stable chip control optimized for automated grooving process

**● Insert code system**

TB	5	150	N	- 010 -	M
Triangle Blade	Inscribed circle	Cutting edge width	Hand	Nose R	Chip breaker
3: 9.525 mm 4: 12.7 mm 5: 15.875 mm		0.5~4.5 mm	N: Neutral R: Right L: Left	0.00~0.40 mm	None M

● Holder code system

TBH	5	25	R
Triangle Blade Holder	Inscribed circle	Shank size	Hand
	3: 9.525 mm 4: 12.7 mm 5: 15.875 mm	10~25 mm	R: Right L: Left

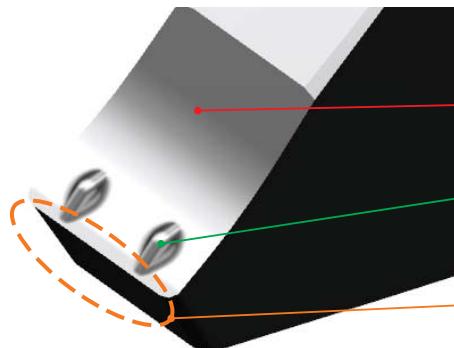
● TB/TB-M

Specification	TB3000R/L, TB4000R/L	TB4000R-M	TB5000N-000-M
Designation	TB3125R/L~TB3430R/L (Inscribed circle of 9.525 mm) TB4125R/L~TB4430R/L (Inscribed circle of 12.7 mm)	TB4150R-M ~TB4450R-M (Inscribed circle of 12.7 mm)	TB5050N-000-M ~ TB5318N-020-M (Inscribed circle of 15.875 mm)
Insert shape			
Features			
Chip breaker	Ground chip breaker	Pressed chip breaker	Pressed chip breaker
Hand	Right/Left-handed	Right-handed	Neutral
Cutting edge width (b)	1.25~4.3 mm	1.5~4.5 mm	0.5~3.18 mm
Depth of cut (T-MAX)	~ 4.5 mm	~ 4.5 mm	~ 6.5 mm
Shape	○	X	X
Cutting edge width	○	○	○
Chip breaker shape			
Application range	P	P, M, K	P, M, K
Grade	CN2000, PC5300	CN2000, PC5300	PC5300



● TB-M chip breaker

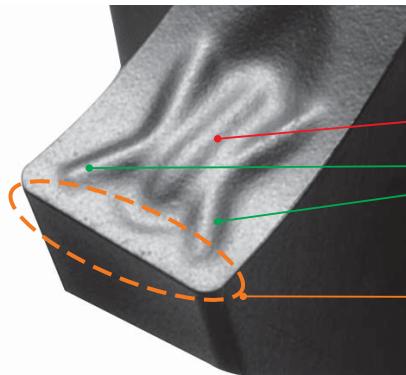
- Minimized cutting force at high speed and high feed → Smooth chip evacuation outside each groove
- High precision cutting performance → Exceptional surface finish and accurate dimensions
- Excellent chip flow and cutting results → Ideal for automated and unmanned production



TB5-M Chip breaker

- Lowered back area:** Minimizes chip frictions to prevent overload when evacuating chips
- Beveled protruding dots:** Facilitate smooth chip evacuation outside each groove. Minimize chip control work load at high depth of cuts. Form chip curls at regular intervals
- Cutting edge land:** Prevents chipping and improves machining stability in interrupted cutting

Designation	TB5050N-M ~TB5120N-M	TB5140N-M ~TB5178N-M	TB5196N-M ~TB5239N-M	TB5247N-M ~TB5287N-M	TB5300N-M ~TB5318N-M
Shape					
Cutting edge width (b)	0.5~1.2 mm	1.40~1.78 mm	1.96~2.39 mm	2.47~2.87 mm	3.0~3.18 mm

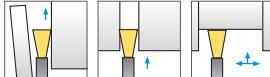


TB4-M Chip breaker

- Sub dots:** Control stability of chip curls at high feed
- Main dots:** Show exceptional chip control in turning and chamfering applications. Facilitate smooth chip evacuation outside each groove . Form chip curls at regular intervals
- Sharp cutting edges:** Deliver sharp cutting performance

Designation	TB4150R-M~TB4185R-M	TB4200R-M~TB4228R-M	TB4300R-M~TB4350R-M	TB4400R-M~TB4450R-M
Shape				
Cutting edge width (b)	1.5~1.85 mm	2.0~2.8 mm	3.0~3.5 mm	4.0~4.5 mm

Guide for TB

TB				TB3/TB4	TB4-M	TB5-M	
Recommended machining method							
Cutting edge width W	Depth of cut T-MAX			Recommended feed rate (mm/rev)			
	TB3/TB4	TB4-M	TB5-M				
0.05	-	-	2.5	0.05 (0.03~0.1)	-	-	●
0.80	-	-	1.6		-	-	●
1.00	-	-	3.5		-	-	●
1.04	-	-	2.0		-	-	●
1.20	-	-	2.0		-	-	●
1.25	2.0	-	2.0		●	-	-
1.40	2.0	-	6.5		●	-	●
1.45	2.0	-	-		●	-	-
1.47	-	-	6.5		-	-	●
1.50	3.5	3.5	6.5		●	●	●
1.57	-	-	6.5		-	-	●
1.70	-	-	6.5		-	-	●
1.75	3.5	3.5	-		●	●	-
1.78	-	-	6.5		-	-	●
1.85	3.5	3.5	-		●	●	-
1.96	-	-	6.5		-	-	●
2.00	3.5	3.5	6.5		●	●	●
2.15	3.5	3.5	-		●	●	-
2.22	6.5	-	6.5		-	-	●
2.30	3.5	3.5	6.5		●	●	●
2.39	-	-	6.5		-	-	●
2.47	-	-	6.5		-	-	●
2.50	4.0	4.0	6.5		●	●	●
2.65	4.0	4.0	6.5		●	●	-
2.70	-	-	6.5		-	-	●
2.80	4.0	4.0	-		●	●	-
2.87	-	-	6.5		-	-	●
3.00	4.0	4.0	6.5		●	●	●
3.15	-	-	6.5	0.15 (0.05~0.2)	-	-	●
3.18	-	-	6.5		-	-	●
3.30	4.0	-	-		●	-	-
3.50	5.0	5.0	-		●	●	-
4.00	5.0	5.0	-		●	●	-
4.30	5.0	5.0	-		●	●	-
4.50	5.0	5.0	-		●	●	-

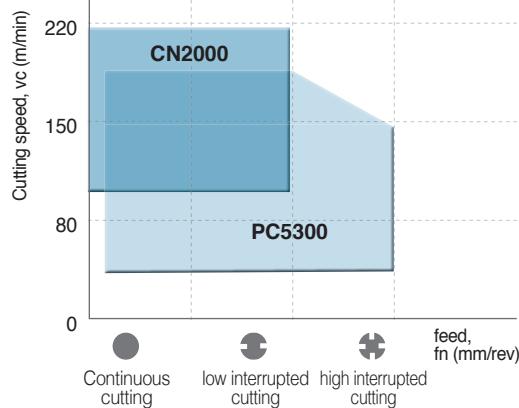
● : Stock item

Recommended cutting conditions

Workpiece	CN2000 (Cermet)			PC5300 (Coated)			
	Min.	Recommended	Max.	Min.	Recommended	Max.	
P	SMOOC type	100	160	220	80	140	200
	SCM type	100	150	200	80	130	180
M	STS type	-	-	-	40	80	150
	GC, GCD type	-	-	-	80	130	180

Recommended cutting speed, vc (m/min)

Recommended cutting range

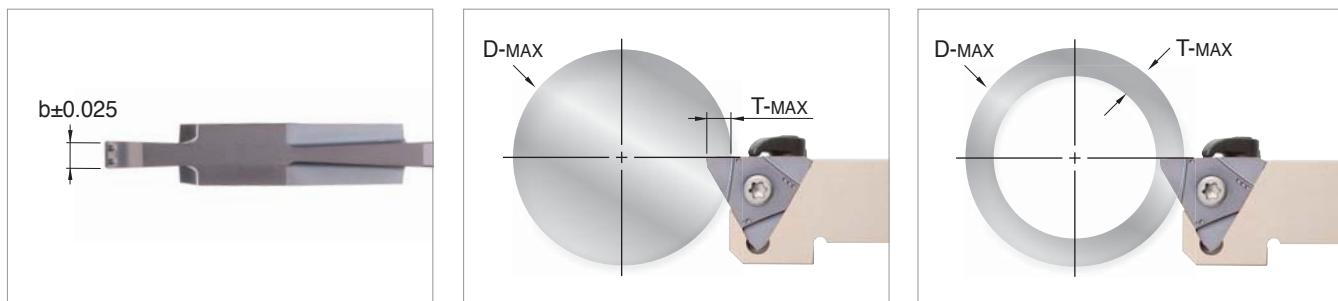


C

Technical Information for TB/TB-M

● TB5-M machining range

- There is a limit to cutting diameters of TB5-M when depth of cuts are over 5 mm
(e.g. When cutting with a TB5200N-020-M insert at the depth of 6.2 mm, Ø60 D-MAX is available)
- N.L = No limit



(mm)

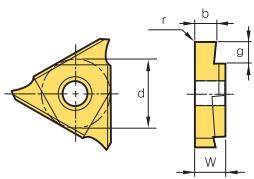
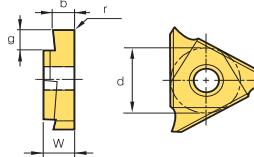
Designation	b	r	g (T-MAX)	ØD-MAX									
				T≤3.0	T≤3.5	T≤4.0	T≤4.5	T≤5.0	T≤5.5	T≤6.0	T≤6.4	T≤6.5	
TB	5050N-000-M	0.50	0.00	1.0	-	-	-	-	-	-	-	-	-
	5050N-004-M	0.50	0.04	2.5	-	-	-	-	-	-	-	-	-
	5080N-000-M	0.80	0.00	1.6	-	-	-	-	-	-	-	-	-
	5100N-006-M	1.00	0.06	3.5	-	-	-	-	-	-	-	-	-
	5104N-000-M	1.04	0.00	2.0	-	-	-	-	-	-	-	-	-
	5120N-000-M	1.20	0.00	2.0	-	-	-	-	-	-	-	-	-
	5140N-000-M	1.40	0.00	6.5	N.L	N.L	N.L	N.L	N.L	Ø300	Ø170	Ø60	Ø40
	5147N-000-M	1.47	0.00	6.5	N.L	N.L	N.L	N.L	N.L	Ø300	Ø170	Ø60	Ø40
	5150N-010-M	1.50	0.10	6.5	N.L	N.L	N.L	N.L	N.L	Ø300	Ø170	Ø60	Ø40
	5150N-015-M	1.50	0.15	6.5	N.L	N.L	N.L	N.L	N.L	Ø300	Ø170	Ø60	Ø40
	5157N-015-M	1.57	0.15	6.5	N.L	N.L	N.L	N.L	N.L	Ø300	Ø170	Ø60	Ø40
	5170N-010-M	1.70	0.10	6.5	N.L	N.L	N.L	N.L	N.L	Ø300	Ø170	Ø60	Ø40
	5178N-018-M	1.78	0.18	6.5	N.L	N.L	N.L	N.L	N.L	Ø300	Ø170	Ø60	Ø40
	5196N-015-M	1.96	0.15	6.5	N.L	N.L	N.L	N.L	N.L	Ø300	Ø170	Ø60	Ø40
	5200N-020-M	2.00	0.20	6.5	N.L	N.L	N.L	N.L	N.L	Ø300	Ø170	Ø60	Ø40
	5222N-015-M	2.22	0.15	6.5	N.L	N.L	N.L	N.L	N.L	Ø300	Ø170	Ø60	Ø40
	5230N-020-M	2.30	0.20	6.5	N.L	N.L	N.L	N.L	N.L	Ø300	Ø170	Ø60	Ø40
	5239N-015-M	2.39	0.15	6.5	N.L	N.L	N.L	N.L	N.L	Ø300	Ø170	Ø60	Ø40
	5247N-020-M	2.47	0.20	6.5	N.L	N.L	N.L	N.L	N.L	Ø300	Ø170	Ø60	Ø40
	5250N-020-M	2.50	0.20	6.5	N.L	N.L	N.L	N.L	N.L	Ø300	Ø170	Ø60	Ø40
	5270N-010-M	2.70	0.10	6.5	N.L	N.L	N.L	N.L	N.L	Ø300	Ø170	Ø60	Ø40
	5287N-020-M	2.87	0.20	6.5	N.L	N.L	N.L	N.L	N.L	Ø300	Ø170	Ø60	Ø40
	5300N-000-M	3.00	0.00	6.5	N.L	N.L	N.L	N.L	N.L	Ø300	Ø170	Ø60	Ø40
	5300N-020-M	3.00	0.20	6.5	N.L	N.L	N.L	N.L	N.L	Ø300	Ø170	Ø60	Ø40
	5300N-040-M	3.00	0.40	6.5	N.L	N.L	N.L	N.L	N.L	Ø300	Ø170	Ø60	Ø40
	5315N-015-M	3.15	0.15	6.5	N.L	N.L	N.L	N.L	N.L	Ø300	Ø170	Ø60	Ø40
	5318N-020-M	3.18	0.20	6.5	N.L	N.L	N.L	N.L	N.L	Ø300	Ø170	Ø60	Ø40



C

Multi functional Tools

 Insert

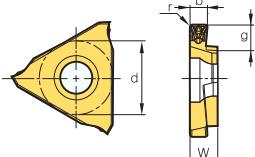
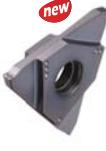
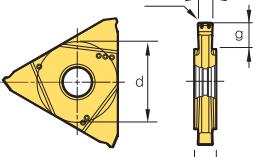
Shape	Designation	Dimensions (mm)					Coated	Cermet	Configuration
		b	g (T-MAX)	r	w	d			
 TB (Right-handed)	3125R	1.25	1.5	0.2	4.76	9.525			
	3145R	1.45							
	3175R	1.75	2.5	0.3	4.76	9.525			
	3185R	1.85							
	3200R	2.00	3.5	0.4	4.76	9.525			
	3230R	2.30							
	3280R	2.80							
	3330R	3.30	3.5	0.2	4.76	12.7			
	3430R	4.30							
	4125R	1.25	2.0	0.2	4.76	12.7	●	●	
	4145R	1.45					●	●	
	4150R	1.50	3.5	0.3	4.76	12.7	●	●	
	4175R	1.75					●	●	
	4185R	1.85	3.5	0.4	4.76	12.7	●	●	
	4200R	2.00					●	●	
	4215R	2.15	4.0	0.3	4.76	12.7	●	●	
	4230R	2.30					●	●	
	4250R	2.50	5.0	0.4	4.76	12.7	●	●	
	4265R	2.65					●	●	
	4280R	2.80	4.0	0.3	4.76	12.7	●	●	
	4300R	3.00					●	●	
	4330R	3.30	5.0	0.4	4.76	12.7	●	●	
	4350R	3.50					●	●	
	4400R	4.00	5.0	0.4	4.76	12.7	●	●	
	4430R	4.30					●	●	
	4450R	4.50					●	●	
 TB (Left-handed)	3125L	1.25	1.5	0.2	4.76	9.525			
	3145L	1.45							
	3175L	1.75	2.5	0.3	4.76	9.525			
	3185L	1.85							
	3200L	2.00	3.5	0.4	4.76	9.525			
	3230L	2.30							
	3280L	2.80	3.5	0.3	4.76	9.525			
	3330L	3.30							
	3430L	4.30	4.0	0.4	4.76	9.525			
	4125L	1.25							
	4145L	1.45	2.0	0.2	4.76	12.7			
	4150L	1.50							
	4175L	1.75	3.5	0.3	4.76	12.7			
	4185L	1.85							
	4200L	2.00	5.0	0.4	4.76	12.7			
	4215L	2.15							
	4230L	2.30	4.0	0.3	4.76	12.7			
	4250L	2.50							
	4265L	2.65	5.0	0.4	4.76	12.7			
	4280L	2.80							
	4300L	3.00	4.0	0.3	4.76	12.7			
	4330L	3.30							
	4350L	3.50	5.0	0.4	4.76	12.7			
	4400L	4.00							
	4430L	4.30							
	4450L	4.50							

● : Stock item

C

Available Insert for TB/TB-M

Insert

Shape	Designation	Dimensions (mm)					Coated	Cermet	Configuration	
		b	g (T-MAX)	r	w	d	PC5300	CN2000		
	TB (Right-handed)	4150R-M	1.50	3.5	0.20	12.7	●	●		
		4175R-M	1.75				●	●		
		4185R-M	1.85				●	●		
		4200R-M	2.00				●	●		
		4215R-M	2.15	4.0	0.30		●	●		
		4230R-M	2.30				●	●		
		4250R-M	2.50				●	●		
		4265R-M	2.65				●	●		
		4280R-M	2.80	5.0	0.40		●	●		
		4300R-M	3.00				●	●		
		4330R-M	3.30				●	●		
		4350R-M	3.50				●	●		
	TB (Neutral)	5050N-000-M	0.50	1.0	0.00	15.875	●			
		5050N-004-M	0.50	2.5	0.04		●			
		5080N-000-M	0.80	1.6	0.00		●			
		5100N-006-M	1.00	3.5	0.06		●			
		5104N-000-M	1.04	2.0	0.00		●			
		5120N-000-M	1.20	2.0	0.00		●			
		5140N-000-M	1.40	6.5	0.00		●			
		5147N-000-M	1.47		0.00		●			
		5150N-010-M	1.50		0.10		●			
		5150N-015-M	1.50		0.15		●			
		5157N-015-M	1.57		0.15		●			
		5170N-010-M	1.70		0.10		●			
		5178N-018-M	1.78		0.18		●			
		5196N-015-M	1.96		0.15		●			
		5200N-020-M	2.00		0.20		●			
		5222N-015-M	2.22		0.15		●			
		5230N-020-M	2.30		0.20		●			
		5239N-015-M	2.39		0.15		●			
		5247N-020-M	2.47		0.20		●			
		5250N-020-M	2.50		0.20		●			
		5270N-010-M	2.70		0.10		●			
		5287N-020-M	2.87		0.20		●			
		5300N-000-M	3.00		0.00		●			
		5300N-020-M	3.00		0.20		●			
		5300N-040-M	3.00		0.40		●			
		5315N-015-M	3.15		0.15		●			
		5318N-020-M	3.18		0.20		●			

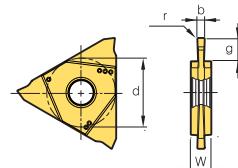
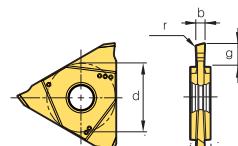
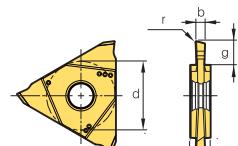
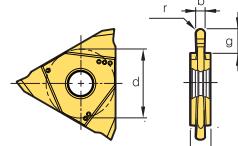
● : Stock item



C

Multi functional Tools

Insert

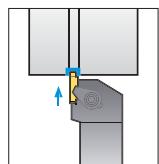
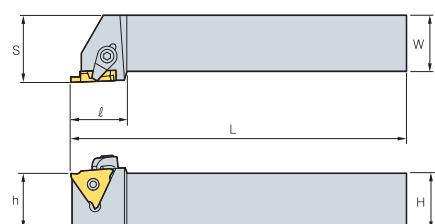
Shape	Designation	Dimensions (mm)						Coated	Cermet	Configuration
		b	g (T-MAX)	r	a°	w	d			
 new	TB (Neutral) 5050N-004-P	0.50	1.0	0.04	-	4.50	15.875			
	5100N-010-P	1.00	3.5	0.10						
	5150N-010-P	1.50	6.5	0.10						
	5150N-020-P	1.50	6.5	0.20						
	5200N-010-P	2.00	6.5	0.10						
	5200N-020-P	2.00	6.5	0.20						
	5239N-015-P	2.39	6.5	0.15						
	5250N-020-P	2.50	6.5	0.20						
	5300N-020-P	3.00	6.5	0.20						
 new	TB (Neutral, Right cutting) 5100R-6D-P	1.00	3.5	0.05	6	4.50	15.875			
	5100R-15D-P	1.00	3.5	0.05	15					
	5150R-6D-P	1.50	6.5	0.05	6					
	5150R-15D-P	1.50	6.5	0.05	15					
	5200R-6D-P	2.00	6.5	0.10	6					
	5200R-15D-P	2.00	6.5	0.10	15					
 new	TB (Neutral, Left cutting) 5100L-6D-P	1.00	3.5	0.05	6	4.50	15.875			
	5100L-15D-P	1.00	3.5	0.05	15					
	5150L-6D-P	1.50	6.5	0.05	6					
	5150L-15D-P	1.50	6.5	0.05	15					
	5200L-6D-P	2.00	6.5	0.10	6					
	5200L-15D-P	2.00	6.5	0.10	15					
 new	TB (Neutral, Round shape) 5157N-079-P	1.57	6.5	0.79	-	4.50	15.875			
	5200N-100-P	2.00	6.5	1.00						
	5239N-120-P	2.39	6.5	1.20						
	5300N-150-P	3.00	6.5	1.50						

C TB/TB-M Holder

TBH



TB3000R/L
TB4000R-M



• R type insert

Fig. 1



TB5000N-000-M

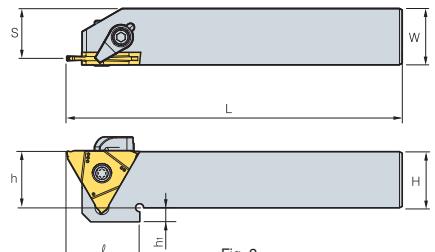


Fig. 2

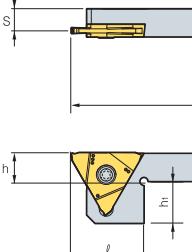


Fig. 3

(mm)

Designation	H = (h)	W	L	l	h1	S	Applicable insert	Clamp	Clamp screw	Screw	Wrench	Fig.
TBH	320R/L-23	20	20	125	25.5	-	25	TB3125~3230R/L	CS6R1	DHA0617	HW30L	1
	320R/L-33	20	20	125	25.5	-	25	TB3280~3330R/L				
	320R/L-43	20	20	125	25.5	-	25	TB3430R/L				
	325R/L-23	25	25	150	25.5	-	30	TB3125~3230R/L				
	325R/L-33	25	25	150	25.5	-	30	TB3280~3330R/L				
	325R/L-43	25	25	150	25.5	-	30	TB3430R/L				
	420R/L-23	20	20	125	25.5	-	25	TB4125~4230R/L				
	420R/L-33	20	20	125	25.5	-	25	TB4250~4330R/L				
	420R/L-45	20	20	125	25.5	-	25	TB4350~4450R/L				
	425R/L-23	25	25	150	25.5	-	30	TB4125~4230R/L				
	425R/L-33	25	25	150	25.5	-	30	TB4250~4330R/L				
	425R/L-45	25	25	150	25.5	-	30	TB4350~4450R/L				
TBH	510R/L	10	10	125	25	15	7.8	TB5050~5318N	-	FTNA0512	TW20L	3
	512R/L	12	12	125	25	13	9.8					
	516R/L	16	16	125	26	9	13.8					
	520R/L	20	20	125	26	5	17.8		CS6R1	DHA0617	FTNA0516	HW30L, TW20L
	525R/L	25	25	150	-	0	22.8					



C

Multi functional Tools

For deep hole grooving/parting off

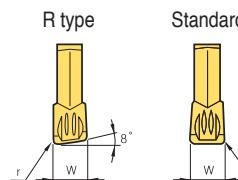
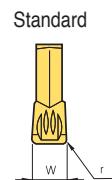
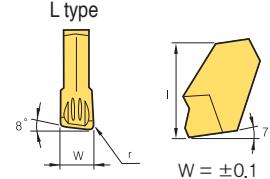
Saw-man

► Features of parting insert

- Possible to machine a wide range of workpieces such as steel, cast iron, stainless steel, etc.
- Extended tool life due to low resistance rake angle
- Minimized burr due to minimal Nose R
- Various lead angle available
- Narrow chip curl due to dots on rake surface of insert

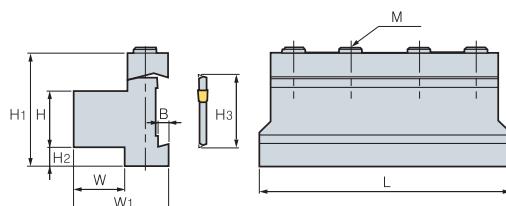
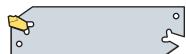
Workpiece	Cutting Speed ($vc = \text{m/min}$)										Feed ($fn = \text{mm/rev}$)					
	CVD					PVD					Uncoated	Cutting width (mm)				
	NC3120	NC3030	NCM325	NC5330	NC3225	PC8110	PC5300	PC9030	PC6510	ST30A		2	3	4	5	6
SM□□C	80~180	80~160		80~180	80~200		80~180				0.02~0.15	0.03~0.2	0.08~0.3	0.10~0.4	0.12~0.5	
SCM	70~150	70~150	70~150	70~150	70~150		70~150				0.02~0.15	0.03~0.2	0.08~0.3	0.10~0.4	0.12~0.5	
GC/GCD				50~100					50~100	50~100	0.05~0.12	0.1~0.25	0.1~0.30	0.1~0.35	0.1~0.40	
STS			50~120	50~120		50~120	60~140	60~140			0.02~0.1	0.03~0.15	0.08~0.25	0.1~0.35	0.12~0.40	
Non-ferrous metal (Al, Copper)										200~450	0.05~0.1	0.05~0.2	0.05~0.25	0.05~0.30	0.05~0.35	

► Insert

Application	Picture	Designation	Coated										Uncoated	Dimensions (mm)			Configuration
			NC3120	NC3225	NC3030	NCM325	NC5330	PC3500	PC8105	PC8110	PC5300	PC9030		ST30A	W	I	r
Parting tools		SP 160												1.6	7.8	0.16	  
		180												1.8	9.3	0.16	
		200	●	●	●		●	●	●					2.2	9.3	0.2	
		200R	●					●						2.2	9.3	0.2	
		200L							●					2.2	9.3	0.2	
		300	●	●	●	●	●	●	●	●				3.1	11.3	0.2	
		300R	●	●	●		●							3.1	11.3	0.2	
		300L	●											3.1	11.3	0.2	
		400	●	●	●	●	●	●	●	●				4.1	11.3	0.25	
		400R	●				●							4.1	11.3	0.25	
		400L	●											4.1	11.3	0.25	
		500	●	●	●		●	●						5.1	11.4	0.3	
		500R												5.1	11.4	0.3	
		500L												5.1	11.4	0.3	
		600		●	●			●						6.4	11.4	0.35	
		600R							●					6.4	11.4	0.35	
		600L												6.4	11.4	0.35	

● : Stock item

SMBB (Block)



SPB□□□(-S)
KGTB□□32

(mm)

Designation		H	W	H3	L	H1	H2	W1	B	M	Blades		Wrench
SMBB	1626	16	12	26	86	43	13	30	5.3	3-M6	SPB□26(-S)	HW50L	
	2026	20	19	26	86	43	9	38	5.3	3-M6			
	2032	20	19	32	100	50	13	38	5.3	4-M6	SPB□32(-S)		
	2526	25	23	26	86	43	4	42	5.3	4-M6	SPB□26(-S)		
	2532	25	23	32	110	50	8	42	5.3	4-M6	SPB□32(-S)		
	3232	32	30	32	110	54	5	48	5.3	4-M6	KGTB□□32		

Applicable inserts C51

SPB/SPB-S (Blades)

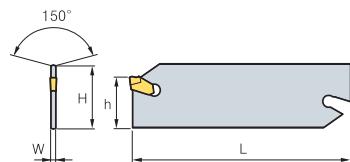


Fig. 1

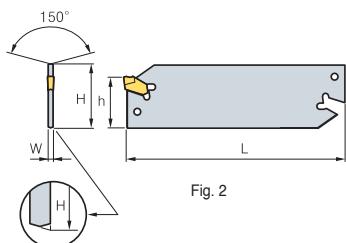
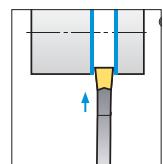


Fig. 2



(mm)

Designation		H	W	L	h	Inserts	Wrench		Fig.
							Icon 1	Icon 2	
SPB	226	26	1.6	110	21	SP200, 200R/L	SW50L	-	1
	326	26	2.4	110	21	SP300, 300R/L			
	426	26	3.2	110	21	SP400, 400R/L			
	526	26	4.0	110	21	SP500, 500R/L			
	626	26	5.2	110	21	SP600, 600R/L			
	232	32	1.6	150	25	SP200, 200R/L			
	332	32	2.4	150	25	SP300, 300R/L			
	432	32	3.2	150	25	SP400, 400R/L			
	532	32	4.0	150	25	SP500, 500R/L			
	632	32	5.2	150	25	SP600, 600R/L			
SPB	226-S	26	1.6	110	21	SP200, 200R/L	-	SW15S (Separately ordered)	2
	326-S	26	2.4	110	21	SP300, 300R/L			
	426-S	26	3.2	110	21	SP400, 400R/L			
	526-S	26	4.0	110	21	SP500, 500R/L			
	626-S	26	5.2	110	21	SP600, 600R/L			
	232-S	32	1.6	150	25	SP200, 200R/L			
	332-S	32	2.4	150	25	SP300, 300R/L			
	432-S	32	3.2	150	25	SP400, 400R/L			
	532-S	32	4.0	150	25	SP500, 500R/L			
	632-S	32	5.2	150	25	SP600, 600R/L			

Applicable inserts C51



C

SPH/SPH-S (Holder)



SP

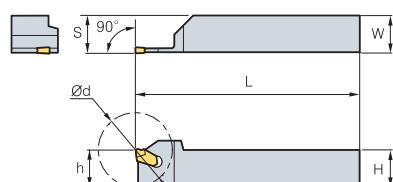


Fig. 1

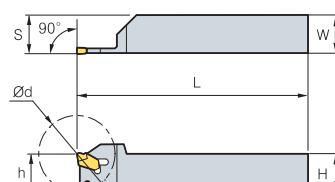
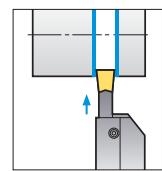


Fig. 2



• R type insert
(mm)

Designation	H = (h)	W	L	Ød	S	Inserts	Wrench		Fig.
SPH	316R/L	16	16	100	32	16.3	SP300, 300R/L		1
	320R/L	20	20	120	40	20.3	SP300, 300R/L		
	420R/L	20	20	120	50	20.4	SP400, 400R/L		
	520R/L	20	20	120	60	20.5	SP500, 500R/L		
	325R/L	25	25	150	50	25.3	SP300, 300R/L		
	425R/L	25	25	150	60	25.4	SP400, 400R/L		
	525R/L	25	25	150	70	25.5	SP500, 500R/L		
SPH	316R/L-S	16	16	100	32	16.3	SP300, 300R/L		2
	320R/L-S	20	20	120	40	20.3	SP300, 300R/L		
	420R/L-S	20	20	120	50	20.4	SP400, 400R/L		
	520R/L-S	20	20	120	60	20.5	SP500, 500R/L		
	325R/L-S	25	25	150	50	25.3	SP300, 300R/L		
	425R/L-S	25	25	150	60	25.4	SP400, 400R/L		
	525R/L-S	25	25	150	70	25.5	SP500, 500R/L		

② Applicable inserts C51



Six kinds of inserts can be used in one holder for various operations

Fine Tools

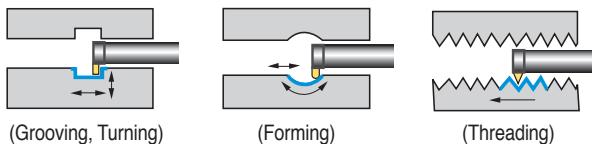
- Strong clamping system and specially designed insert are suitable for small diameter machining
- Six kinds of inserts can be clamped in one holder for various operations
- Guaranteed long tool life due to good toughness substrate with new TiAlN
- High accuracy ground insert ensures high precision machining



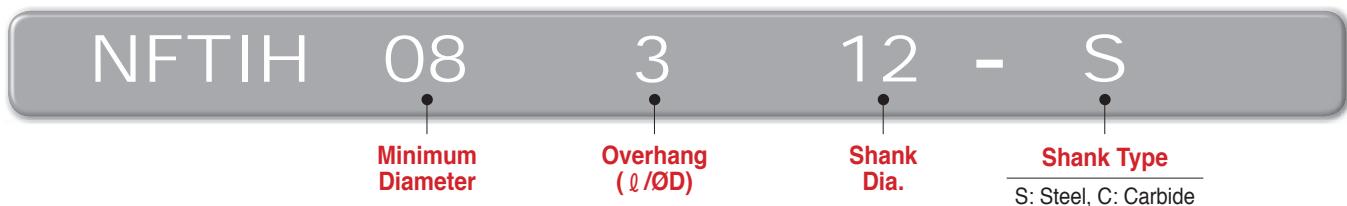
Application range

- Internal grooving, Profiling, Threading and Boring at Ø8 mm~Ø16 mm

Features



Code system



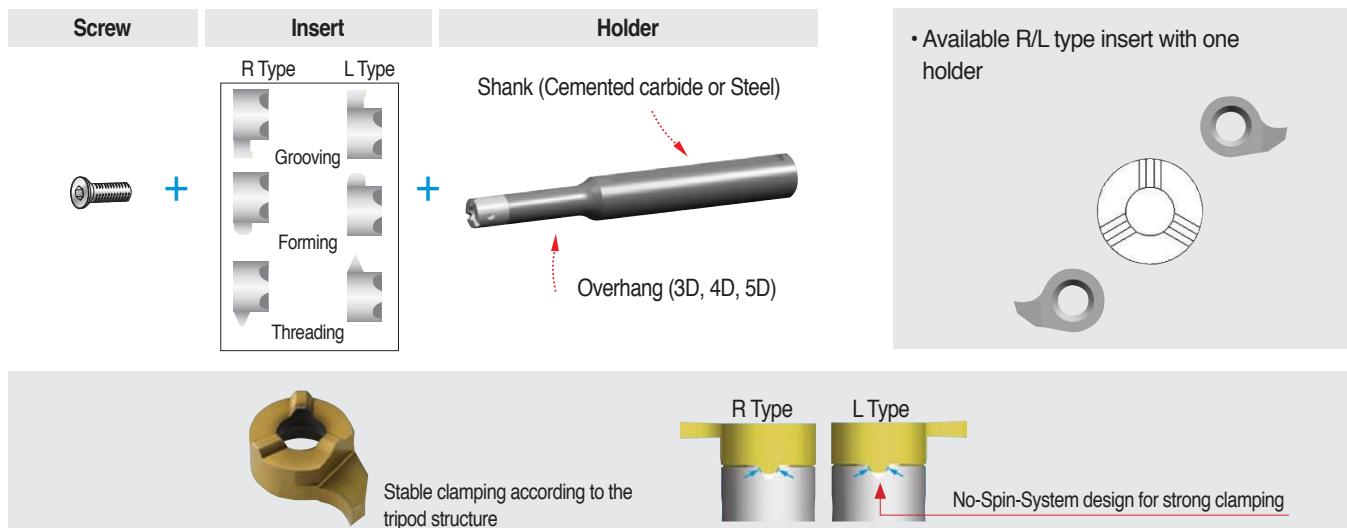
Recommended cutting condition

Workpiece	Grade	Cutting Condition				
		PC130	Ø8	Ø11	Ø14	Ø16
Carbon steel	◎	vc (m/min)	30~80	30~100	30~100	30~100
		fn (m/rev)	0.01~0.04	0.01~0.05	0.02~0.05	0.02~0.06
Alloy steel	◎	vc (m/min)	30~80	30~100	30~100	30~100
		fn (m/rev)	0.01~0.02	0.01~0.04	0.02~0.04	0.02~0.05
Cast iron	○	vc (m/min)	30~80	30~100	30~100	30~100
		fn (m/rev)	0.01~0.05	0.01~0.05	0.02~0.05	0.02~0.05
Non-ferrous alloy	○	vc (m/min)	70~150	100~150	100~150	100~150
		fn (m/rev)	0.02~0.06	0.02~0.06	0.02~0.06	0.02~0.06

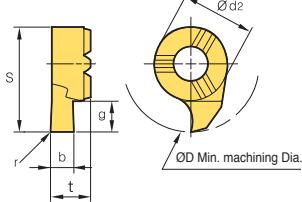
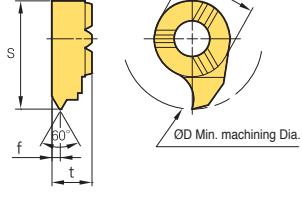
Note

- In case of chattering, reduce the cutting speed and feed
- To find the optimal cutting conditions, advise to gradually increase from the lowest cutting condition of the above recommendation
- In case of the unilateral grooving depth over 1 mm, work to the step feed rate

Clamping system

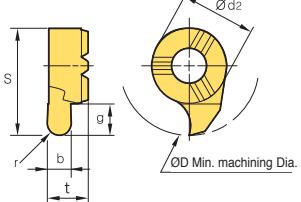


 Insert

Application	Picture	Designation	Coated	Dimensions (mm)									Configuration
				ØD	b	r	S	g	Ød2	t	Pitch	f	
			R L										
Grooving		NFTG 08075R/L	●	8	0.75	-	7.75	1.3	5.9	3.85	-	-	 S g Ød2 Ø Min. machining Dia. r b t
			●	8	0.85	-	7.75	1.3	5.9	3.85	-	-	
			●	8	0.95	-	7.75	1.3	5.9	3.85	-	-	
			●	8	1.21	-	7.75	1.3	5.9	3.85	-	-	
			●	8	1.41	-	7.75	1.3	5.9	3.85	-	-	
			●	8	1.52	-	7.75	1.3	5.9	3.85	-	-	
			●	8	1.71	-	7.75	1.3	5.9	3.85	-	-	
			●	8	2.02	-	7.75	1.3	5.9	3.85	-	-	
			●	11	0.75	-	10.7	1.8	8.0	4.9	-	-	
			●	11	0.85	-	10.7	1.8	8.0	4.9	-	-	
			●	11	0.95	-	10.7	1.8	8.0	4.9	-	-	
			●	11	1.21	-	10.7	2.6	8.0	4.9	-	-	
			●	11	1.41	-	10.7	2.6	8.0	4.9	-	-	
			●	11	1.52	-	10.7	2.6	8.0	4.9	-	-	
			●	11	1.71	-	10.7	2.6	8.0	4.9	-	-	
			●	11	2.02	0.2	10.7	2.6	8.0	4.9	-	-	
			●	11	2.52	-	10.7	2.6	8.0	4.9	-	-	
			●	11	3.02	-	10.7	2.6	8.0	4.9	-	-	
			●	14	0.75	-	13.5	1.8	9.0	5.85	-	-	
			●	14	0.85	-	13.5	1.8	9.0	5.85	-	-	
			●	14	0.95	-	13.5	1.8	9.0	5.85	-	-	
			●	14	1.21	-	13.5	4.3	9.0	5.85	-	-	
			●	14	1.41	-	13.5	4.3	9.0	5.85	-	-	
			●	14	1.52	-	13.5	4.3	9.0	5.85	-	-	
			●	14	1.71	-	13.5	4.3	9.0	5.85	-	-	
			●	14	2.02	-	13.5	4.3	9.0	5.85	-	-	
			●	14	2.52	-	13.5	4.3	9.0	5.85	-	-	
			●	14	3.02	-	13.5	4.3	9.0	5.85	-	-	
			●	16	0.75	-	15.7	1.8	11	5.8	-	-	
			●	16	0.85	-	15.7	1.8	11	5.8	-	-	
			●	16	0.95	-	15.7	1.8	11	5.8	-	-	
			●	16	1.21	-	15.7	4.6	11	5.8	-	-	
			●	16	1.41	-	15.7	4.6	11	5.8	-	-	
			●	16	1.71	-	15.7	4.6	11	5.8	-	-	
			●	16	2.02	-	15.7	4.6	11	5.8	-	-	
			●	16	2.52	-	15.7	4.6	11	5.8	-	-	
			●	16	3.02	-	15.7	4.6	11	5.8	-	-	
			●	16	3.52	-	15.7	4.6	11	5.8	-	-	
			●	16	4.02	-	15.7	4.6	11	5.8	-	-	
Threading		NFTT 0805MR/L	●	8	-	-	7.75	-	6	3.85	0.5	1.0	 S f t Ød2 Ø Min. machining Dia. 60°
			●	8	-	-	7.75	-	6	3.85	1.0	1.0	
			●	8	-	-	7.75	-	6	3.85	1.5	1.2	
			●	11	-	-	10.7	-	8	4.9	1.0	1.2	
			●	11	-	-	10.7	-	8	4.9	1.5	1.2	
			●	11	-	-	10.7	-	8	4.9	2.0	1.2	
			●	11	-	-	10.7	-	8	4.9	2.5	1.2	
			●	14	-	-	13.5	-	9	5.85	1.0	1.2	
			●	14	-	-	13.5	-	9	5.85	1.5	1.2	
			●	14	-	-	13.5	-	9	5.85	2.0	1.2	
			●	14	-	-	13.5	-	9	5.85	2.5	1.2	
			●	16	-	-	15.7	-	11	5.8	1.0	1.2	
			●	16	-	-	15.7	-	11	5.8	1.5	1.2	
			●	16	-	-	15.7	-	11	5.8	2.0	1.2	
			●	16	-	-	15.7	-	11	5.8	2.5	1.2	
			●	16	-	-	15.7	-	11	5.8	3.0	1.5	
			●	16	-	-	15.7	-	11	5.8	3.5	1.6	
			●	16	-	-	15.7	-	11	5.8	4.0	1.8	

● : Stock item

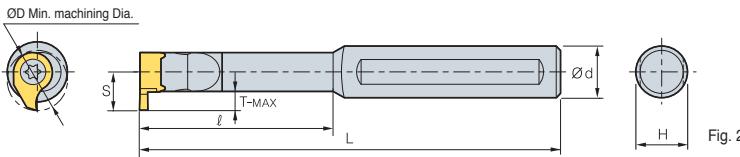
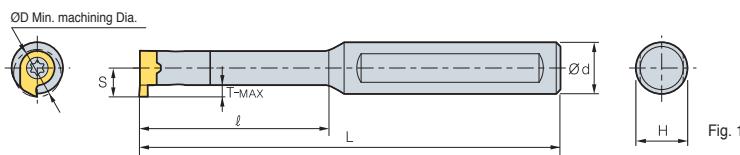
● Insert

Application	Picture	Designation	Coated		Dimensions (mm)						Configuration
			PC5300		D	b	r	S	g	Ød2	
			R	L							
Profiling		NFTF 08082R/L	●	8	0.82	0.41	7.75	1.3	5.9	3.85	 ● : Stock item
		08122R/L	●	8	1.22	0.61	7.75	1.3	5.9	3.85	
		08182R/L	●	8	1.82	0.91	7.75	1.3	5.9	3.85	
		11082R/L	●	11	0.82	0.41	10.7	2.6	8	4.9	
		11122R/L		11	1.22	0.61	10.7	2.6	8	4.9	
		11182R/L		11	1.82	0.91	10.7	2.6	8	4.9	
		11202R/L	●	11	2.02	1.01	10.7	2.6	8	4.9	
		11302R/L	●	11	3.02	1.51	10.7	2.6	8	4.9	
		14122R/L	●	14	1.22	0.61	13.5	4.3	9	5.85	
		14182R/L	●	14	1.82	0.91	13.5	4.3	9	5.85	
		14202R/L	●	14	2.02	1.01	13.5	4.3	9	5.85	
		14222R/L		14	2.22	1.11	13.5	4.3	9	5.85	
		14302R/L		14	3.02	1.51	13.5	4.3	9	5.85	
		16182R/L	●	16	1.82	0.91	15.7	4.6	11	5.8	
		16222R/L	●	16	2.22	1.11	15.7	4.6	11	5.8	
		16302R/L	●	16	3.02	1.51	15.7	4.6	11	5.8	
		16402R/L	●	16	4.02	2.01	15.7	4.6	11	5.8	

NFTIH



NFTF
NFTT
NFTG



• For NFTIH14~
• R type insert

(mm)

Designation	ØD	Ød	L	ℓ	T-MAX	H	S	Inserts	Screw	Wrench	Fig.	
								NFTG: Grooving NFTT: Threading NFTF: Forming				
NFTIH	08206C	8	6	65	-	1.0	4	4.8	NFTG08□□□R/L NFTT08□□□R/L NFTF08□□□R/L	PTKA02508	TW08P	1
	08212C	8	12	70	16	1.0	10	4.8				
	08312C	8	12	80	24	1.0	10	4.8				
	08312S	8	12	80	24	1.0	10	4.8				
	08412C	8	12	90	32	1.0	10	4.8				
	08512C	8	12	100	40	1.0	10	4.8				
	11208C	11	8	80	-	2.3	7	6.7				
	11212C	11	12	75	22	2.3	11	6.7				
	11312C	11	12	95	33	2.3	11	6.7				
	11312S	11	12	95	33	2.3	11	6.7				
	11412C	11	12	110	44	2.3	11	6.7				
	11512C	11	12	120	55	2.3	11	6.7				
	14012C	14	12	75	20	4.0	11	9.0				
	14016C	14	16	75	20	4.0	15	9.0				
	14112C	14	12	100	34	4.0	11	9.0				
	14116C	14	16	100	34	4.0	15	9.0				
	14212C	14	12	110	45	4.0	11	9.0				
	14216C	14	16	110	45	4.0	15	9.0				
	14312C	14	12	130	64	4.0	11	9.0				
	14316C	14	16	130	64	4.0	15	9.0				
	16312C	16	12	130	48	4.3	11	10.2	NFTG16□□□R/L NFTT16□□□R/L NFTF16□□□R/L	PTKA0412	TW15P	2
	16312S	16	12	130	48	4.3	11	10.2				
	16412C	16	12	130	64	4.3	11	10.2				
	16512C	16	12	150	80	4.3	11	10.2				
	16316C	16	16	130	48	4.3	15	10.2				
	16416C	16	16	130	64	4.3	15	10.2				
	16516C	16	16	150	80	4.3	15	10.2				

● Applicable inserts C55~C56

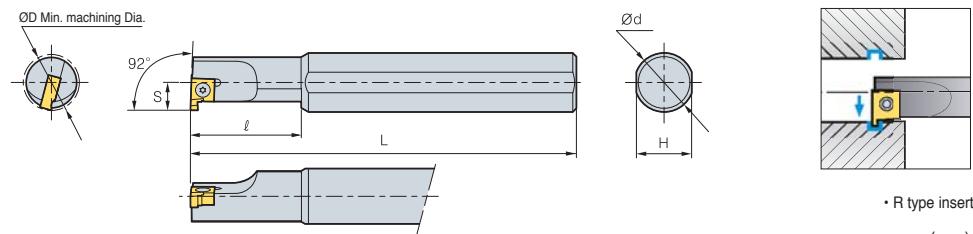
● : Stock item



IGH For Internal grooving



IG



• R type insert
(mm)

Designation		ØD	Ød	H	L	l	S	Inserts	Screw	Wrench
IGH	214R/L	14	16	15	150	25	6.6	IG125~280	FTKA02565	TW07P
	216R/L	16	16	15	150	30	7.6			
	220R/L	20	20	18	200	40	9.6			

• Applicable inserts C57

Insert

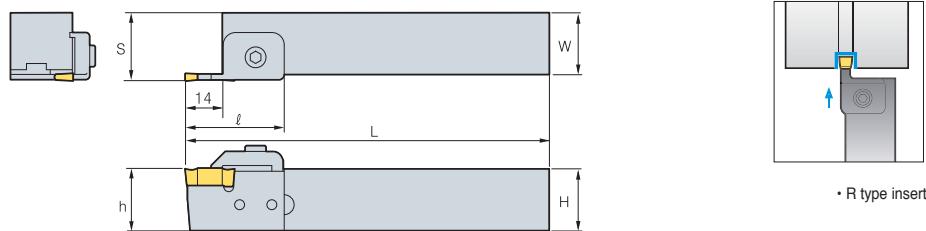
Application	Picture	Designation	Coated			Uncoated		Dimensions (mm)					Configuration	
			NC3215	NC3120	NC3225	H01	G10	ST30A	b	g	t	d	d1	
Internal grooving	IG	125				●			1.25	1.5	3.18	6.35	2.8	
		145				●			1.45	1.5	3.18	6.35	2.8	
		175				●			1.75	1.5	3.18	6.35	2.8	
		200				●			2.0	2.3	3.18	6.35	2.8	
		230				●			2.3	2.3	3.18	6.35	2.8	
		280				●			2.8	2.3	3.18	6.35	2.8	

● : Stock item

DBH For Deep and Wide grooving



DB DC



• R type insert

(mm)

Designation	H = (h)	W	L	l	S		Inserts		Clamp	Clamp Screw	Screw	Locator	Wrench	
					*	**	*	**						
DBH	320R/L	20	20	150	40	22.3	22.8	DB300	DB400	CGH5R1	MHA0512	MHB0410	LD34	HW30L HW40L
	325R/L	25	25	150	40	27.3	27.8	DC300	DC400					
	520R/L	20	20	150	40	23.8	24.3	DB500	DB600	CGH5R2	MHA0512	MHB0410	LD56	HW30L HW40L
	525R/L	25	25	150	40	28.8	29.3	DC500						
	720R/L	20	20	150	40	25.8	26.3	DB700	DB800	CGH5R3	MHA0512	MHB0410	LD78	HW30L HW40L
	725R/L	25	25	150	40	30.8	31.3							

• Applicable inserts C57

Insert

Application	Picture	Designation	Cermet	Coated			Uncoated		Dimensions (mm)				Configuration	
				CN2000	NC3215	NC3120	NC3225	H01	G10	b	l	t	r	
Grooving	DB	300								3.0	20	7.5	0.2	
		400								4.0	20	7.5	0.2	
		500								5.0	20	7.5	0.2	
		600								6.0	20	7.5	0.2	
		700								7.0	20	7.5	0.2	
		800								8.0	20	7.5	0.2	
	DC	300								3.0	20	7.5	0.2	
		400								4.0	20	7.5	0.25	
		500								5.0	20	7.5	0.3	

● : Stock item

Multi functional Tools

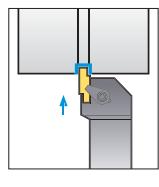
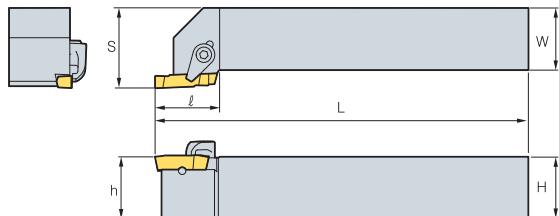
C

C Grooving Tools

GFT For External grooving



GW BF



• R type insert

Designation	H = (h)	W	L	ℓ	S	Inserts	Clamp	Screw	Pin	Wrench	
GFT	320R/L	20	20	125	23.5	25	GW110~300R/L,BF3	CS5R1	DHA0514	PN0310	HW25L
	325R/L	25	25	150	23.5	32					
	525R/L	25	25	150	25.5	32		CS6R1	DHA0617	PN0310	HW30L
	825R/L	25	25	150	28.5	32					

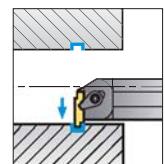
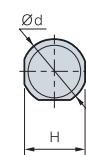
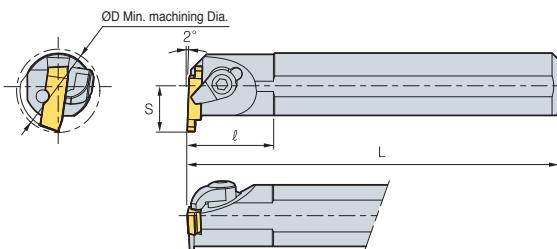
• Applicable inserts C58

• Use right-hand insert for left-hand holder

GFIP For Internal grooving



BF GW



• R type insert

Designation	ØD	Ød	H	L	ℓ	S	Inserts	Clamp	C-ring	Screw	Pin	Wrench	
GFIP	316R/L	20	16	15	150	17	11	GW110~300R/L,BF3	CH5R2	CR04	CHX0513	PN0310	HW25L
	320R/L	26	20	18	150	22	13						
	325R/L	32	25	23	200	22	17		CH6R2	CR05	CHX0616	PN0310	HW30L
	340R/L	50	40	37	300	32	27						
525R/L	32	25	23	200	22	17	GW315~500R/L,BF5	CS8R1	-	DHA0820	PN0314	HW40L	
	540R/L	50	40	37	300	32	27						
	840R/L	50	40	37	300	32	27						

• Applicable inserts C58

• Use right-hand insert for left-hand holder

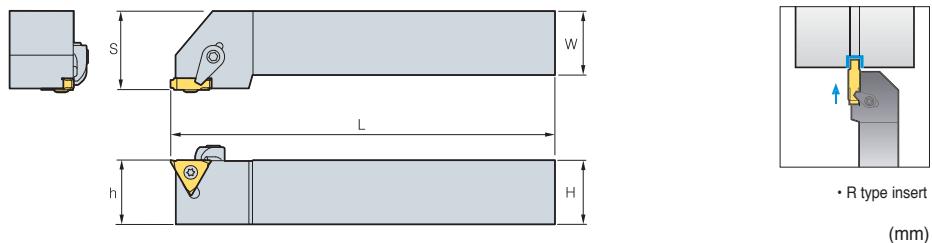
Insert

Application	Picture	Designation	Uncoated ST30A	Dimensions (mm)						Configuration
				b	g	W	I	t	r	
Blank		BF	-3	●		3.1	16.4	5.26	-	
			-5			5.1	22.4	6.26	-	
			-8			8.1	27.4	7.26	-	
Grooving		GW	R	L						
			110R/L	●	●	1.1	2.1	3.1	16	
			130R/L	●	●	1.3	2.3	3.1	16	
			160R/L	●	●	1.6	2.6	3.1	16	
			185R/L	●	●	1.85	2.9	3.1	16	
			215R/L	●	●	2.15	3.2	3.1	16	
			265R/L	●	●	2.65	3.7	3.1	16	
			300R/L	●	●	3.0	4.0	3.1	16	
			315R/L	●	●	3.15	4.2	5.1	22	
			415R/L		●	4.15	5.2	5.1	22	
			500R/L			5.0	6.0	5.1	22	
			600R/L			6.0	7.0	8.1	27	
			800R/L			8.0	9.0	8.1	27	

● : Stock item

GH For O-ring grooving
Snap-ring grooving

GO GS



Designation		H = (h)	W	L	S	Inserts	Clamp	Clamp Screw	Screw	Wrench
GH	2020R/L-3	20	20	125	22	GS125~280	CS6R1	DHA0617	PTMA03508	TW09P-HW30L
	2525R/L-3	25	25	150	27	GO250				
	2020R/L-4	20	20	125	21	GS330 / 430				
	2525R/L-4	25	25	150	26	GO320 / 410				

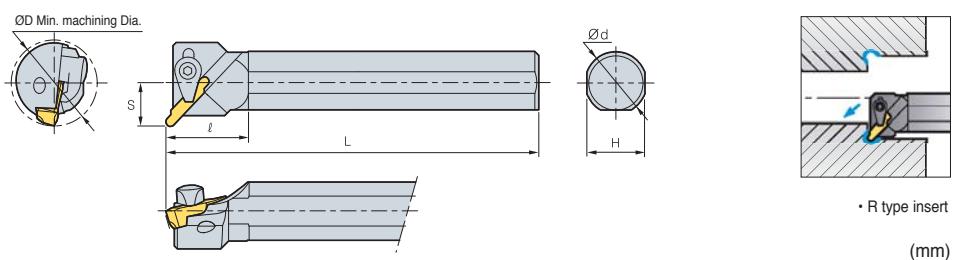
Applicable inserts C59

Insert

Application	Picture	Designation	Coated		Uncoated			Dimensions (mm)					Configuration
			NC3120	NC3225	H01	ST20	ST30A	b	g	W	r	d	
Grooving(Narrow - O-ring - Snap-ring)		GO 250 320 410						2.5	1.5	3.3	0.35	9.525	
								3.2	2.0	3.8	0.35	9.525	
								4.1	2.5	4.5	0.65	9.525	
Grooving(Narrow - O-ring - Snap-ring)		GS 125 145 175 185 200 230 280 330 430			●			1.23	1.5	2.5	0.2	9.525	
					●			1.43	1.5	2.5	0.2	9.525	
					●			1.73	2.0	2.5	0.2	9.525	
								1.83	2.0	2.5	0.2	9.525	
					●			2.03	2.5	2.5	0.2	9.525	
					●			2.28	3.5	2.8	0.2	9.525	
								2.78	3.5	3.3	0.3	9.525	
								3.28	4.0	3.8	0.3	9.525	
								4.28	4.0	4.5	0.4	9.525	
													● : Stock item

GFIK For Relieving

GR



Designation		ØD	Ød	H	L	l	S	Inserts	Clamp	C-ring	Screw	Pin	Wrench
GFIK	316R/L	22	16	15	150	21.5	11	GR3□□	CH5R2	CR04	CHX0513	PN0310	HW25L
	325R/L	32	25	23	200	21.5	17		CS5R1	-	DHA0514	PN0310	HW25L
	340R/L	50	40	37	300	35.4	27	GR5□□	CS6R1	-	DHA0617	PN0314	HW30L
	525R/L	32	25	23	200	27.5	17		CS8R1	-	DHA0820	PN0314	HW40L
	540R/L	50	40	37	300	39.5	27						
	840R/L	50	40	37	300	41.8	27						

Applicable inserts C59

Insert

Application	Picture	Designation	Coated		Uncoated			Dimensions (mm)					Configuration
			NC3120	NC3225	H01	ST20	ST30A	b	g	W	l	t	
Reliefing		GR 310R 315R 520R 525R 830R 840R						2.0	2.0	3.1	15.9	5.0	1.0
								3.0	2.9	3.1	15.9	5.0	1.5
								4.0	4.0	5.1	21.9	6.0	2.0
								5.0	5.0	5.1	21.8	6.0	2.5
								6.0	6.0	8.1	26.8	7.0	3.0
								8.0	8.0	8.1	26.7	7.0	4.0

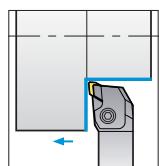
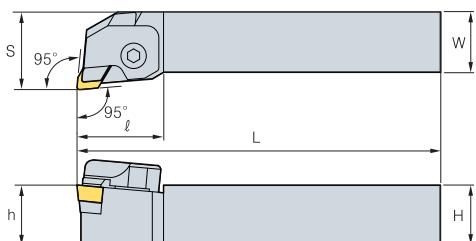
● : Stock item

C Parting off Tools

EH Regrinding type insert



ESB



• R type insert

(mm)

Designation	H = (h)	W	L	l	S	Inserts	Clamp	Clamp Screw	Chip Breaker	Shim	Shim Screw	Wrench
EH 620R	20	20	125	36	27	ESB34	CTH6R2	BHA0616	CB20	SES33C	SHX0310	HW50L
625R	25	25	150	36	32							HW20L

➔ Applicable inserts C60

Insert

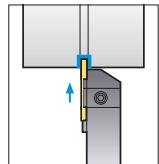
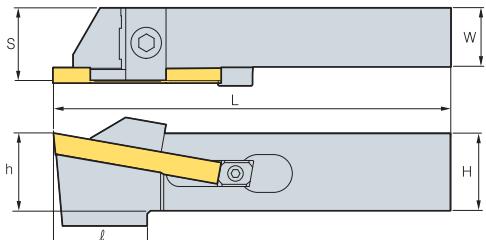
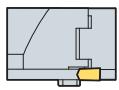
Application	Picture	Designation	Uncoated		Dimensions (mm)			Configuration
			ST10	ST20	W	I	t	
General Machining		ESB 34			9.525	30.0	6.35	

● : Stock item

PH For Parting off Deep grooving



POB



• R type insert

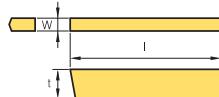
(mm)

Designation	H	W	L	l	S	h	Max (Ø)	Inserts	Clamp	Clamp Screw	Stopper	Stopper Screw	Wrench
PH 320R/L	19	19	150	34	22.25	19	30	POB300	CGH6R1	BHA0616	STP5	KHD0510	HW25L-HW50L
325R/L	25	19	150	34	22.25	25	40						
420R/L	19	19	150	34	23.5	19	30	POB400	CGH6R2	BHA0616	STP5	KHD0510	HW25L-HW50L
425R/L	25	19	150	34	23.5	25	40						
520R/L	19	19	150	34	24.4	19	50	POB500	CTH 6R3	BHA0616	STP5	KHD0510	HW25L-HW50L
525R/L	25	19	150	34	24.4	25	50						

➔ Applicable inserts C60

Insert

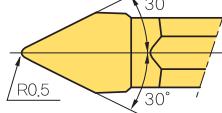
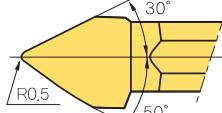
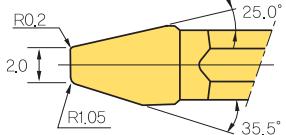
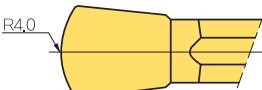
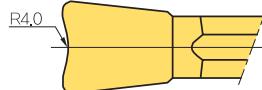
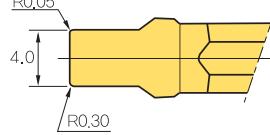
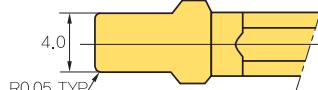
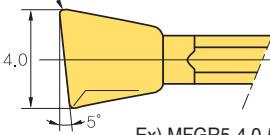
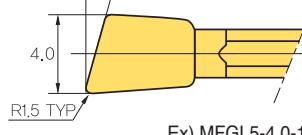
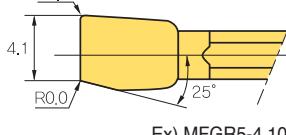
Application	Picture	Designation	Uncoated		Dimensions (mm)			Configuration
			ST10	ST20	W	I	t	
Grooving · Parting off		POB 300	●		3.0	55	6.0	
		400	●		4.0	55	7.0	
		500	●		5.0	55	8.0	



● : Stock item



C

Code system	Configuration
M F G N 4 - 0.5R - 30D <u>①</u> <u>②</u> <u>③</u> <u>④</u> <u>⑤</u> <u>⑥</u> <u>⑦</u> ① Multi ② Forming ④ Feed Direction ⑤ Clamp part: 4 mm ⑦ Degree: 30° ⑥ Nose Radius: 0.5	 Ex) MFGN4-0.5R-30D
MFGN4 - 0.5R - L 50 D - R 30D <u>①</u> <u>②</u> <u>③</u> <u>④</u> <u>⑤</u> <u>⑥</u> ① Refer to No. 1 ② Nose Radius: 0.5 ③ Left ④ Degree: 50° ⑤ Right ⑥ Degree > 30°	 Ex) MFGN4-0.5R-L50D-R30D
MFGN4 - 2.0 - R 020 250 - L 105 335 <u>①</u> <u>②</u> <u>③</u> <u>④</u> <u>⑤</u> <u>⑥</u> <u>⑦</u> <u>⑧</u> ① Refer to No. 1 ② Width of cutting edge: 2.0 mm ③ Right ④ Nose Radius: 0.20 ⑤ Degree: 25.0° ⑥ Left ⑦ Nose Radius: 1.05 ⑧ Degree: 35.5°	 Ex) MFGN4-2.0-R020250-L105335
MFGN5 - 4.0R F <u>①</u> <u>②</u> <u>③</u> ① Refer to No. 1 ② Radius: 4.0 ③ Front (Concave)	 Ex) MFGN5-4.0RF
MFGN5 - 4.0R B <u>①</u> <u>②</u> <u>③</u> ① Refer to No. 1 ② Radius: 4.0 ③ Back (Concave)	 Ex) MFGN5-4.0RB
MFGN5 - 4.0 - R 005 - L 030 <u>①</u> <u>②</u> <u>③</u> <u>④</u> <u>⑤</u> <u>⑥</u> ① Refer to No. 1 ② Width of cutting edge: 4.0 mm ③ Right ④ Nose Radius: 0.05 ⑤ Left ⑥ Nose Radius: 0.30	 Ex) MFGN5-4.0-R005-L030
MFGN5 - 4.0 - 0.05 R <u>①</u> <u>②</u> <u>③</u> ① Refer to No. 1 ② Width of cutting edge: 4.0 mm ③ Nose Radius: 0.05	 Ex) MFGN5-4.0-0.05R
MFG R 5 - 4.0 - 5D - R 002 - L 115 <u>①</u> <u>②</u> <u>③</u> <u>④</u> <u>⑤</u> <u>⑥</u> <u>⑦</u> <u>⑧</u> <u>⑨</u> ① Refer to No. 1 ② Right ③ Clamp part: 5 mm ④ Width of cutting edge: 4.0 mm ⑤ Lead angle: 5° ⑥ Right ⑦ Nose Radius: 0.02 ⑧ Left ⑨ Nose Radius: 1.15	 Ex) MFGR5-4.0-5D-R002-L115
MFG L 5 - 4.0 - 15D - 1.5R <u>①</u> <u>②</u> <u>③</u> <u>④</u> <u>⑤</u> <u>⑥</u> ① Refer to No. 1 ② Left ③ Clamp part: 5 mm ④ Width of cutting edge: 4.0 mm ⑤ Lead angle: 15° ⑥ Right Nose Radius: 1.5	 Ex) MGFL5-4.0-15D-1.5R
MFG R 5 - 4.10 - 25D - R012 - L000 <u>①</u> <u>②</u> <u>③</u> <u>④</u> <u>⑤</u> <u>⑥</u> <u>⑦</u> ① Refer to No. 1 ② Right ③ Clamp part: 5 mm ④ Width of cutting edge: 4.1 mm ⑤ Degree: 25° ⑥ Right Nose Radius: 1.2 ⑦ Left Nose Radius: 0.0	 Ex) MFGR5-4.10-25D-R012-L000



C Special Order Form for V-Pulley Insert

Code system

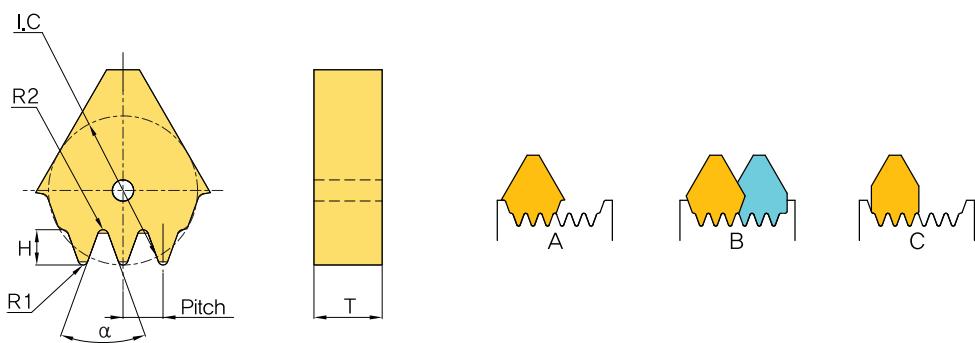
KP	27	064	-	R0.425	N3
KORLOY PULLEY		ØD	W	R1	No. of flutes

■ Ex) **I.C** **T** **R** **Z**

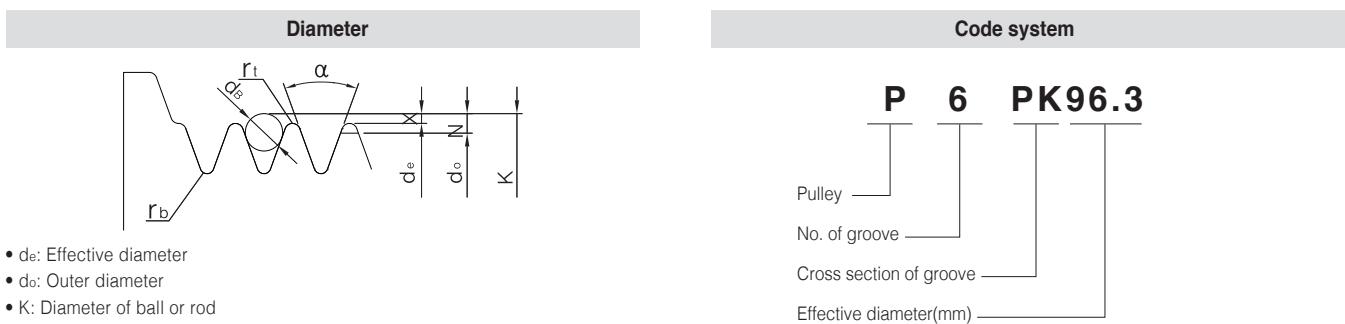
Ø 12.7 **6.4** **0.425** **3**

► Special types are available for quotation

Insert for machining of pulley



► For reference: KS specifications and codes for V-pulley for vehicles(PK)



Cross section		PH	PJ	PK	PL	PM
Pitch of groove		1.6±0.03	2.34±0.03	3.56±0.05	4.7±0.05	9.4±0.08
Groove angle	±0.5°	40°	40°	40°	40°	40°
r _t	Min.	0.15	0.2	0.25	0.4	0.75
r _b	Max.	0.3	0.4	0.5	0.4	0.75
d _B	±0.01	1	1.5	2.5	3.3	6.4
Application		electrical, electronics instrument	Machine with light duty, Compressor, Pump	Vehicles	Small agricultural machine	Large agricultural machine



C

Special Order Form for V-Pulley Insert C

Specifications	Standard designation	Specifications	Standard designation
	KP27064-R0.35-N3 (DF356-3B)		KP27064-R0.43-N3 (DF356-3SR)
	KP27064-R0.35-N4 (DF356-4B)		KP27064-R0.35-N4-A (DF356-4X)
	KP27064-R0.375-N5 (DF356-5B)		UF320
	VF13M522		

