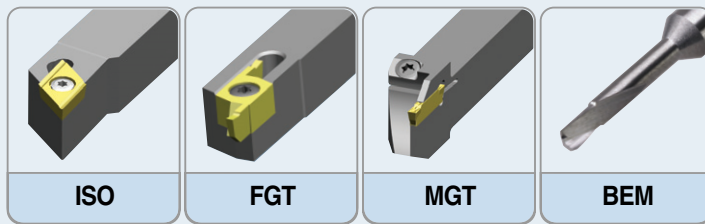


## Technical Information

### ■ Features

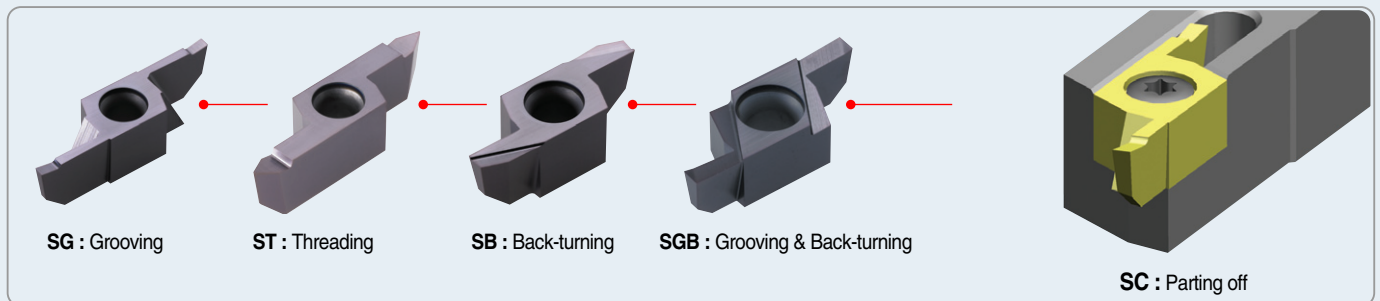
- ▶ Excellent for precision machining
- ▶ Excellent for complicated machining
- ▶ Excellent for small part machining
- ▶ Available for various types of machining
- ▶ Whole inserts can be clamped on only one FGT holders
- ▶ ISO whole holders Offset "0"

### ■ Type



### ■ Multi functional auto tool(FGT)

Possible to clamp on only one holder (Ex : 06 size whole inserts - Clamping on the 06 size holder)



### ■ Insert code system

- ① Small Auto Tool
- ② B : Back-turning    G : Grooving  
C : Parting-off    T : Threading  
GB : Grooving & Back-turning
- ③ R : RH  
L : LH
- ④ Height of cutting edge
- ⑤ Depth of cut

**S**   **G**   **R**   **06**   **06**   **10**   **(15 - 10)**   **-**   **R05**

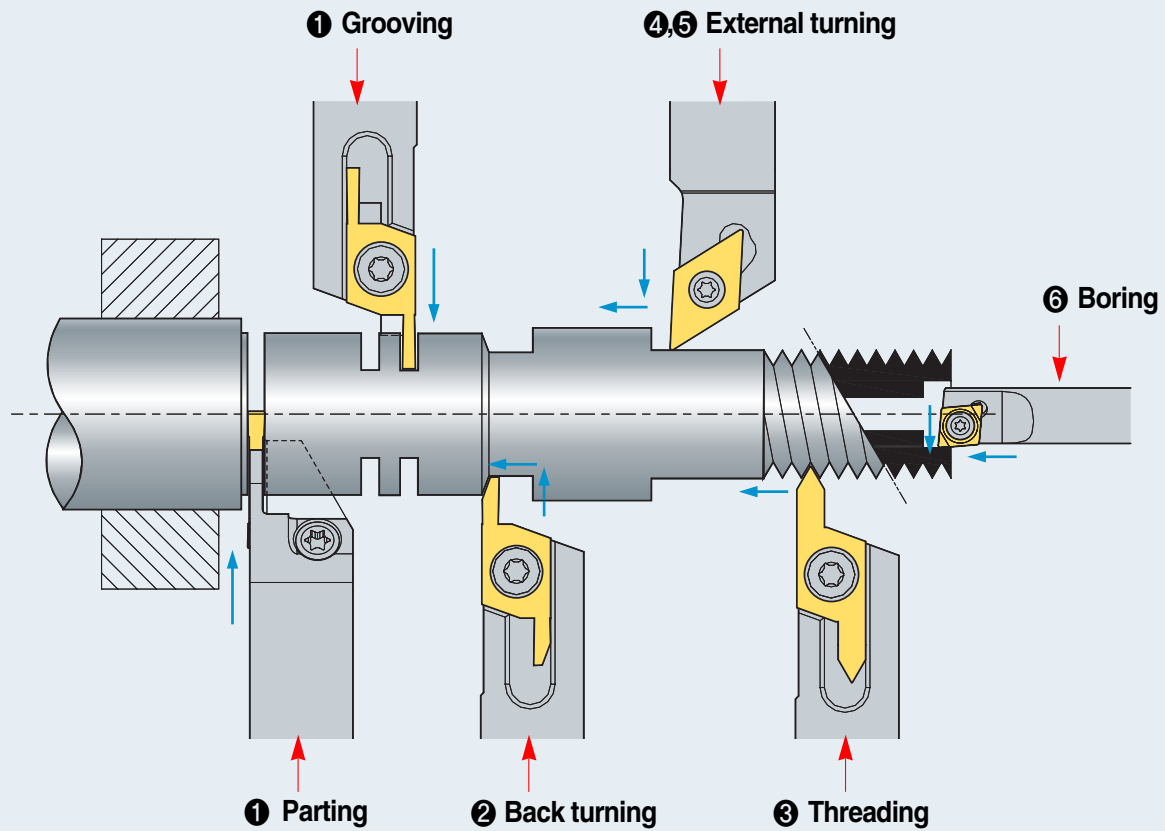
①   ②   ③   ④   ⑤   ⑥   ⑦   ⑧   ⑨

- ⑥ Width of cutting edge
- ⑦ Pitch
- ⑧ Back turning insert initial width of cutting
- ⑨ Nose R

### ■ Recommended cutting condition

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

## Application Example



## Index

	① Parting and Grooving			② Back turning		③ Threading
<b>Holder</b>	SXGNR/L	SXGNR/L	MGEHR/L	SXGNR/L	SXGNR/L	SXGNR/L
<b>Insert</b>	SG	SC	MGMN	SB	SGB	ST
<b>Holder size</b>	10 ~ 20mm	10 ~ 20mm	10 ~ 16mm	10 ~ 20mm	10 ~ 20mm	10 ~ 20mm
<b>Insert shape</b>						
<b>Cutting width</b>	1 ~ 3mm	1 ~ 3mm	1.5~2.5mm	2 ~ 4mm	2 ~ 3mm	Pitch ranges
<b>ØDmax</b>	Ø18	Ø18	Ø32	Tmax8	Tmax8.5	0.5-1.5/1.5-3.0
<b>Page</b>	<b>B119</b>	<b>B119</b>	<b>B121</b>	<b>B119</b>	<b>B119</b>	<b>B119</b>

	④ External turning and Copy machining			
<b>Holder</b>	SDJCR/L	SDNCN	SVJBR/L	SVJCR/L
<b>Insert</b>	DC□T	DC□T	VB□T	VC□T
<b>Holder size</b>	8 ~ 16mm	8 ~ 16mm	10 ~ 16mm	10 ~ 16mm
<b>Insert shape</b>				
<b>Feature</b>	Offset "0"			
<b>Page</b>	<b>B117</b>	<b>B118</b>	<b>B118</b>	<b>B118</b>

	⑤ External turning and Facing		
<b>Holder</b>	SCACR/L	SCLCR/L	STACR/L
<b>Insert</b>	CC□T	CC□T	TC□T
<b>Holder size</b>	8 ~ 16mm	8 ~ 16mm	8 ~ 10mm
<b>Insert shape</b>			
<b>Feature</b>	Offset "0"		
<b>Page</b>	<b>B117</b>	<b>B117</b>	<b>B118</b>

	⑥ Boring				
<b>Holder</b>	SCLCR/L	STUBR/L	STUPR/L	SWUBR/L	BEM
<b>Insert</b>	CC□T	TB□T	TP□T	WB□T	-
<b>Shank diameter</b>	Ø4~10	Ø8	Ø8	Ø5~Ø8	Ø4~Ø6
<b>Insert shape</b>					
<b>ØDmin</b>	Ø5	Ø8	Ø10	Ø5.5	Ø2.2
<b>Page</b>	<b>B107</b>	<b>B107</b>	<b>B107</b>	<b>B108</b>	<b>B121</b>

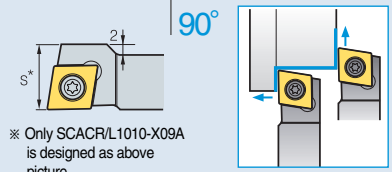
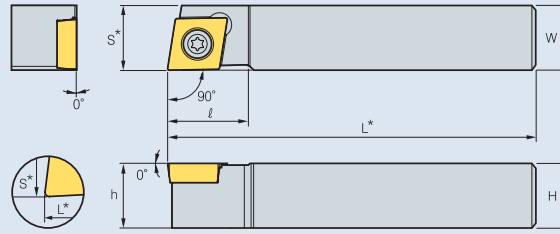
## SCACR/L

**New**



CCGT

offset "0"



• R type insert  
(mm)

Designation	Stock		H	W	L*	S*	h	ℓ	Parts Insert	Screw	Wrench
	R	L									
SCACR/L 0808-X06A	○		8	8	120	8	8	10	CCGT 0602□□	FTKA02565	TW 07P
1010-X06A	○		10	10	120	10	10	10			
1010-X09A	○		10	10	120	12	10	13			
1212-X09A	○		12	12	120	12	12	16	CCGT 09T3□□	FTKA0410	TW 15P
1616-X09A	○		16	16	120	16	16	16			

• Applicable inserts, see pages B37

\* r=0.2(l=09) r=0.1(l=06)

● : Stock item ○ : Under preparing for stock

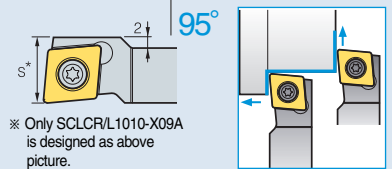
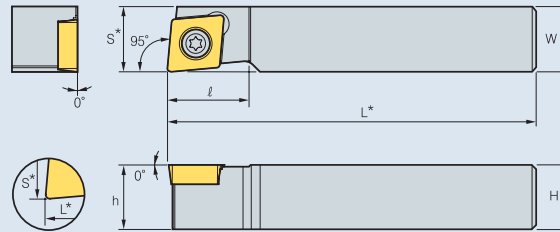
## SCLCR/L

**New**



CCGT

offset "0"



• R type insert  
(mm)

Designation	Stock		H	W	L*	S*	h	ℓ	Parts Insert	Screw	Wrench
	R	L									
SCLCR/L 0808-X06A	○		8	8	120	8	8	10	CCGT 0602□□	FTKA02565	TW 07P
1010-X06A	○		10	10	120	10	10	10			
1010-X09A	○		10	10	120	12	10	13			
1212-X09A	○		12	12	120	12	12	16	CCGT 09T3□□	FTKA0410	TW 15P
1616-X09A	○		16	16	120	16	16	16			

• Applicable inserts, see pages B37

\* r=0.2(l=09) r=0.1(l=06)

● : Stock item ○ : Under preparing for stock

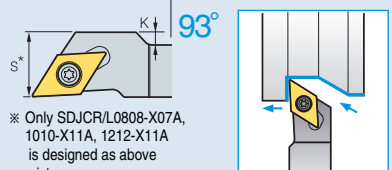
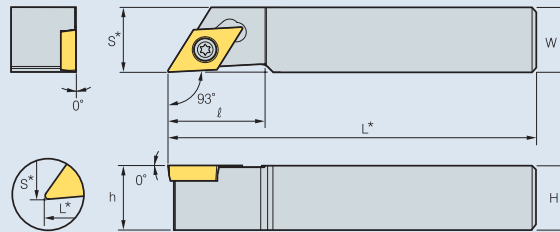
## SDJCR/L

**New**



DCGT

offset "0"



• R type insert  
(mm)

Designation	Stock		H	W	L*	S*	h	K	ℓ	Parts Insert	Screw	Wrench
	R	L										
SDJCR/L 0808-X07A	○		8	8	120	10	8	2	18	DCGT 0702□□	FTKA02565	TW 07P
1010-X07A	○		10	10	120	10	10	-	15			
1010-X11A	○		10	10	120	14	10	4	18			
1212-X11A	○		12	12	120	14	12	2	18	DCGT 11T3□□	FTKA0410	TW 15P
1616-X11A	○		16	16	120	16	16	-	22			

• Applicable inserts, see pages B39

\* r=0.2(l=11) r=0.1(l=07)

● : Stock item ○ : Under preparing for stock

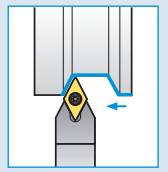
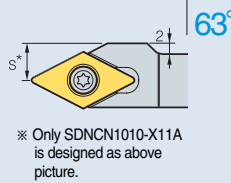
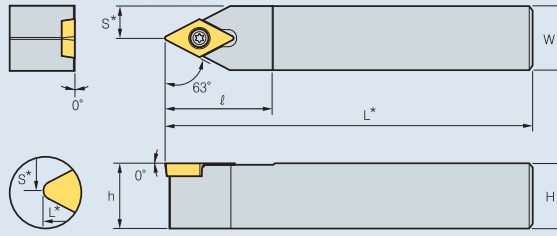
Turning  
 Turning Grades  
 Turning C/B  
 Turning Inserts  
 External Holder  
 Boring Bar  
 Cartridge  
 Auto Tools  
 Carbide Shank Boring Bar

## SDNCN

**New**



DCGT



• R type insert  
(mm)

Designation	Stock	H	W	L*	S*	h	ℓ	Parts		Screw	Wrench
								Insert			
SDNCN 0808-X07A	○	8	8	120	4	8	20	DCGT 0702□□		FTKA02565	TW 07P
1010-X07A	○	10	10	120	5	10	20				
1010-X11A	○	10	10	120	7	10	24				
1212-X11A	○	12	12	120	6	12	30	DCGT 11T3□□		FTKA0410	TW 15P
1616-X11A	○	16	16	120	8	16	30				

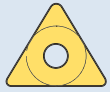
• Applicable inserts, see pages B39

\* r=0.2(l=11) r=0.1(l=07)

● : Stock item ○ : Under preparing for stock

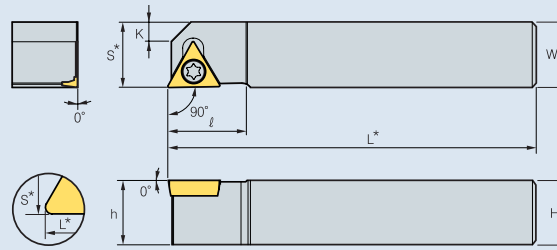
## STACR/L

**New**

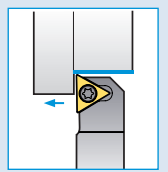


TCGT

offset "0"



90°



• R type insert  
(mm)

Designation	Stock		H	W	L*	S*	h	ℓ	K	Parts		Screw	Wrench
	R	L								Insert			
STACR/L 0808-X08A	○		8	8	120	8	8	12	1	TCGT 0802□□		FTNA 0206	TW 06P
1010-X08A	○		10	10	120	10	10	12	3				

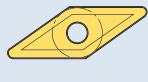
• Applicable inserts, see pages B43

\* r=0.1(l=08)

● : Stock item ○ : Under preparing for stock

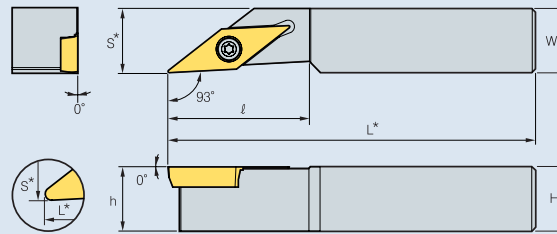
## SVJBR/L

**New**

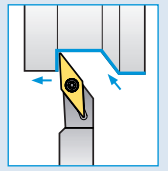


VBGT

offset "0"



93°



• R type insert  
(mm)

Designation	Stock		H	W	L*	S*	h	ℓ	Parts		Screw	Wrench	
	R	L							Insert				
SVJBR/L 1010-X11A	○		10	10	120	10	10	22		VBGT 1103□□		FTKA 02565	TW 07P
1212-X11A	○		12	12	120	12	12	22					
1616-X11A	○		16	16	120	16	16	24					

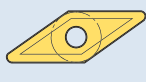
• Applicable inserts, see pages B46

\* r=0.2(l=11)

● : Stock item ○ : Under preparing for stock

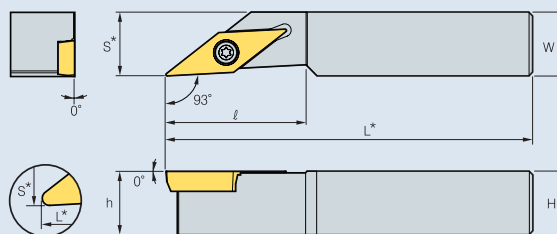
## SVJCR/L

**New**

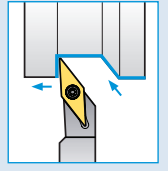


VCGT

offset "0"



93°



• R type insert  
(mm)


Designation	Stock		H	W	L*	S*	h	ℓ	Parts		Screw	Wrench	
	R	L							Insert				
SVJCR/L 1010-X11A	○		10	10	120	10	10	22		VCGT 1103□□		FTKA 02565	TW 07P
1212-X11A	○		12	12	120	12	12	22					
1616-X11A	○		16	16	120	16	16	24					

• Applicable inserts, see pages B47

\* r=0.2(l=11)

● : Stock item ○ : Under preparing for stock

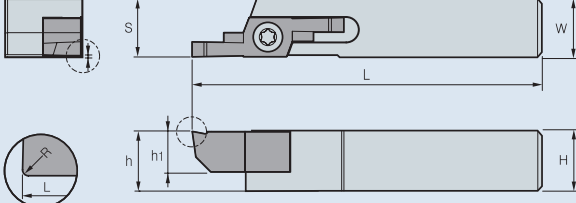
## SXGNR/L




SBR, SGBR  
SCR, STR  
SGR

*New*

offset "0°"





※ Only SXGNR/L1212-X08A is designed as above picture.

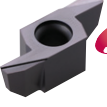
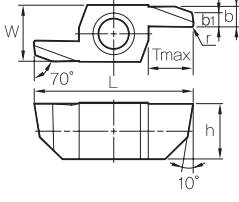
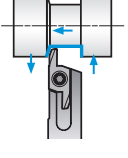

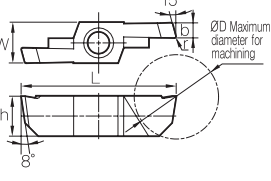
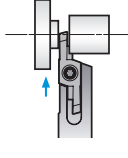
• R type insert (mm)

Designation	Stock		H	W	L	S	h	h <sub>1</sub>	Parts Insert	Screw	Wrench
	R	L									
SXGNR/L 1010-X06A	○		10	10	125	10	10	6	S□R/L 06	FTNA 0408	TW 15P
1212-X06A	○		12	12	125	12	12	6			
1616-X06A	○		16	16	125	16	16	6			
2020-X06A	○		20	20	125	20	20	6			
1212-X08A	○		12	12	130	12	12	8	S□R/L 08	FTNA 0411	TW 15P
1616-X08A	○		16	16	130	16	16	8			
2020-X08A	○		20	20	130	20	20	8			

• Applicable inserts, see pages B119, B120

● : Stock item ○ : Under preparing for stock

### Available Inserts

Application	Picture	Designation	Coated	Dimensions (mm)								Configuration	Feed Direction
			PC9030	b <sub>1</sub>	b	W	L	r	h	T-max	∅D		
Back Turning		SBR/L 060520-10-R00	○	1	2	8	22	0	6	5.5	-		
		060520-10-R05	○	1	2	8	22	0.05	6	5.5	-		
		060520-10-R10	○	1	2	8	22	0.1	6	5.5	-		
		060630-20-R00	○	2	3	8	24	0	6	6.5	-		
		060630-20-R05	○	2	3	8	24	0.05	6	6.5	-		
		060630-20-R10	○	2	3	8	24	0.1	6	6.5	-		
		080630-20-R00	○	2	3	8	23	0	8	6.5	-		
		080630-20-R05	○	2	3	8	23	0.05	8	6.5	-		
		080630-20-R10	○	2	3	8	23	0.1	8	6.5	-		
		080640-20-R00	○	2	4	8	27	0	8	8.5	-		
080640-20-R05	○	2	4	8	27	0.05	8	8.5	-				
080640-20-R10	○	2	4	8	27	0.1	8	8.5	-				
Parting off		SCR/L 060610-R00	○	-	1	8	24	0	6	-	11		
		060610-R05	○	-	1	8	24	0.05	6	-	11		
		060610-R10	○	-	1	8	24	0.1	6	-	11		
		060615-R00	○	-	1.5	8	24	0	6	-	11		
		060615-R05	○	-	1.5	8	24	0.05	6	-	11		
		060615-R10	○	-	1.5	8	24	0.1	6	-	11		
		060620-R00	○	-	2	8	24	0	6	-	11		
		060620-R05	○	-	2	8	24	0.05	6	-	11		
		060620-R10	○	-	2	8	24	0.1	6	-	11		
		081015-R00	○	-	1.5	8	31	0	8	-	18		
		081015-R05	○	-	1.5	8	31	0.05	8	-	18		
		081015-R10	○	-	1.5	8	31	0.1	8	-	18		
		081020-R00	○	-	2	8	31	0	8	-	18		
		081020-R05	○	-	2	8	31	0.05	8	-	18		
		081020-R10	○	-	2	8	31	0.1	8	-	18		
		081025-R00	○	-	2.5	8	31	0	8	-	18		
		081025-R05	○	-	2.5	8	31	0.05	8	-	18		
		081025-R10	○	-	2.5	8	31	0.1	8	-	18		
081030-R00	○	-	3	8	31	0	8	-	18				
081030-R05	○	-	3	8	31	0.05	8	-	18				
081030-R10	○	-	3	8	31	0.1	8	-	18				

• Applicable holders, see pages B119

● : Stock item ○ : Under preparing for stock



Turning

Turning Grades

Turning C/B

Turning Inserts

External Holder

Boring Bar

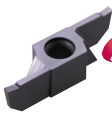
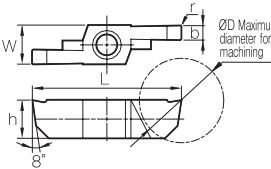
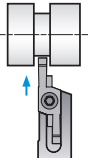
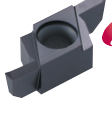
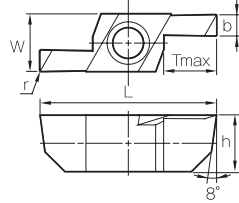
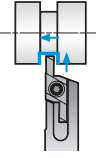

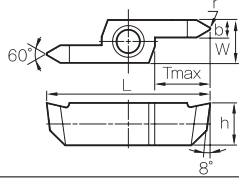
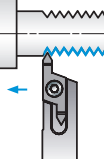
Cartridge

Auto Tools

Cartridge Shank Boring Bar

# Auto Tools - FGT Type

## Available Inserts

Application	Picture	Designation	Coated	Dimensions (mm)								Configuration	Feed Direction
			PC9030	b	W	L	r	h	T-max	ØD	Pitch		
Grooving	 <b>SGR/L</b> <i>New</i>	SGR/L 060610-R00	○	1	8	24	0	6	-	11	-	 W, L, h, 8°, ØD Maximum diameter for machining	
		060610-R05	○	1	8	24	0.05	6	-	11	-		
		060610-R10	○	1	8	24	0.1	6	-	11	-		
		060615-R00	○	1.5	8	24	0	6	-	11	-		
		060615-R05	○	1.5	8	24	0.05	6	-	11	-		
		060615-R10	○	1.5	8	24	0.1	6	-	11	-		
		060620-R00	○	2	8	24	0	6	-	11	-		
		060620-R05	○	2	8	24	0.05	6	-	11	-		
		060620-R10	○	2	8	24	0.1	6	-	11	-		
		081015-R00	○	1.5	8	31	0	8	-	18	-		
		081015-R05	○	1.5	8	31	0.05	8	-	18	-		
		081015-R10	○	1.5	8	31	0.1	8	-	18	-		
		081020-R00	○	2	8	31	0	8	-	18	-		
		081020-R05	○	2	8	31	0.05	8	-	18	-		
		081020-R10	○	2	8	31	0.1	8	-	18	-		
		081025-R00	○	2.5	8	31	0	8	-	18	-		
		081025-R05	○	2.5	8	31	0.05	8	-	18	-		
081025-R10	○	2.5	8	31	0.1	8	-	18	-				
081030-R00	○	3	8	31	0	8	-	18	-				
081030-R05	○	3	8	31	0.05	8	-	18	-				
081030-R10	○	3	8	31	0.1	8	-	18	-				
Grooving & Back Turning	 <b>SGBR/L</b> <i>New</i>	SGBR/L 0604520-R00	○	2	8	22	0	6	5.5	-	-	 W, L, h, 8°, Tmax, b, r	
		0604520-R05	○	2	8	22	0.05	6	5.5	-	-		
		0604520-R10	○	2	8	22	0.1	6	5.5	-	-		
		0604525-R00	○	2.5	8	22	0	6	5.5	-	-		
		0604525-R05	○	2.5	8	22	0.05	6	5.5	-	-		
		0604525-R10	○	2.5	8	22	0.1	6	5.5	-	-		
		0605530-R00	○	3	8	24	0	6	6.5	-	-		
		0605530-R05	○	3	8	24	0.05	6	6.5	-	-		
		0605530-R10	○	3	8	24	0.1	6	6.5	-	-		
		0805525-R00	○	2.5	8	24	0	8	7	-	-		
		0805525-R05	○	2.5	8	24	0.05	8	7	-	-		
		0805525-R10	○	2.5	8	24	0.1	8	7	-	-		
		0806530-R00	○	3	8	26	0	8	8	-	-		
		0806530-R05	○	3	8	26	0.05	8	8	-	-		
0806530-R10	○	3	8	26	0.1	8	8	-	-				
Threading	 <b>STR/L</b> <i>New</i>	STR/L 06073215	○	3.2	8	25	0.06	6	7	-	0.5-1.5	 60°, L, Tmax, h, 8°, W, b, r	
		06073230	○	3.2	8	25	0.19	6	7	-	1.5-3.0		
		08103215	○	3.2	8	31	0.06	8	10.5	-	0.5-1.5		
		08103230	○	3.2	8	31	0.19	8	10.5	-	1.5-3.0		

• Applicable holders, see pages B119

● : Stock item ○ : Under preparing for stock

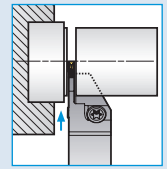
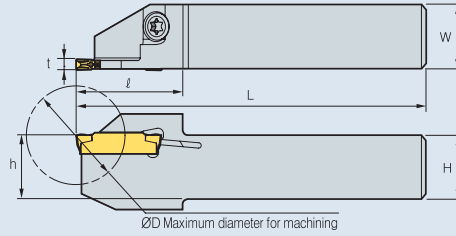
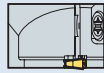
Carbide Shank Boring Bar  
 Auto Tools  
 Cartridge  
 Boring Bar  
 External Holder  
 Turning Inserts  
 Turning C/B  
 Turning Grades  
 Turning

## MGEHR/L

**New**



MGMN



• R type insert  
(mm)

Designation	Stock		ØD	H=h	W	L	l	t	Parts Insert	Screw	Wrench
	R	L									
MGEHR/L 1010-X15A	●		20	10	10	125	18	1.5	MGMN150-G	ETNA 0412	TW 15L
1212-X15A	●		25	12	12	125	19.5	1.5			
1010-X20A	●		20	10	10	125	18	2	MGMN200-M MGMN200-G	ETNA 0412	TW 15L
1212-X20A	●		25	12	12	125	19.5	2			
1616-X20A	○	○	32	16	16	125	25	2			
1010-X25A	●		20	10	10	125	20	2.5	MGMN250-M MGMN250-G	ETNA 0412	TW 15L
1212-X25A	●		25	12	12	125	20	2.5			
1616-X25A	○	○	32	16	16	125	25	2.5			

● : Stock item ○ : Under preparing for stock

### Available Inserts

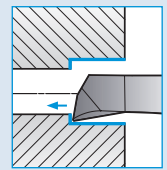
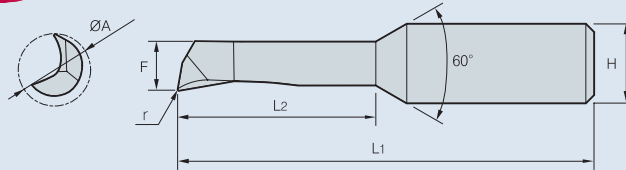
Application	Picture	Designation	Coated						Cermet		Uncoated			Dimensions (mm)					Configuration
			NC3020	NC3120	NC3030	PC3525	PC3535	PC9030	CT10	CN20	H01	G10	U20	b	r	l	d	t	
Grooving - Parting off		MGMN 150-G	●	●			●						1.5	0.15	16	1.2	3.5		
		200-G	●	●				●					2	0.2	16	1.6	3.5		
		200-M	●	●				●					2	0.2	16	1.6	3.5		
		250-G	●	●				●					2.5	0.2	18.5	2	3.85		
		250-M	●	●				●					2.5	0.2	18.5	2	3.85		

● : Stock item ○ : Under preparing for stock

## Auto Tools - BEM

### BEM(For Boring)

**New**



• R type insert  
(mm)

Designation	ØA	H	L1	L2	F	r
BEM Ø2.2-Ø4	Ø2.2	Ø4	40	12	2.08	0.2
Ø3.2-Ø4	Ø3.2	Ø4	40	12	3.02	0.2
Ø4.2-Ø6	Ø4.2	Ø6	40	15	3.98	0.2
Ø5.2-Ø6	Ø5.2	Ø6	40	15	4.92	0.2