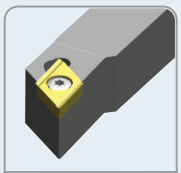
Technical Information

■ Features

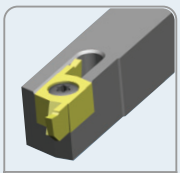
- Excellent for precision machining
- Excellent for complicated machining
- Excellent for small part machining
- Available for various types of machining
- Whole inserts can be clamped on only one FGT holders
- ISO whole holders Offset "0"



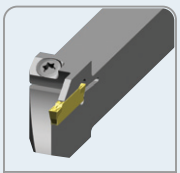
■ Type



ISO



FGT



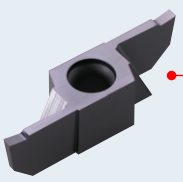
MGT



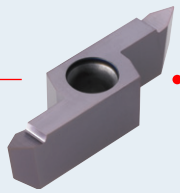
BEM

■ Multi functional auto tool(FGT)

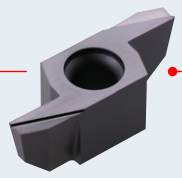
Possible to clamp on only one holder (Ex : 06 size whole inserts - Clamping on the 06 size holder)



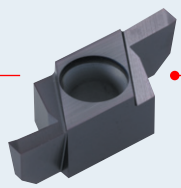
SG : Grooving



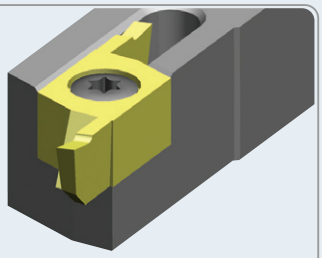
ST : Threading



SB : Back-turning



SGB : Grooving & Back-turning



SC : Parting off

■ 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

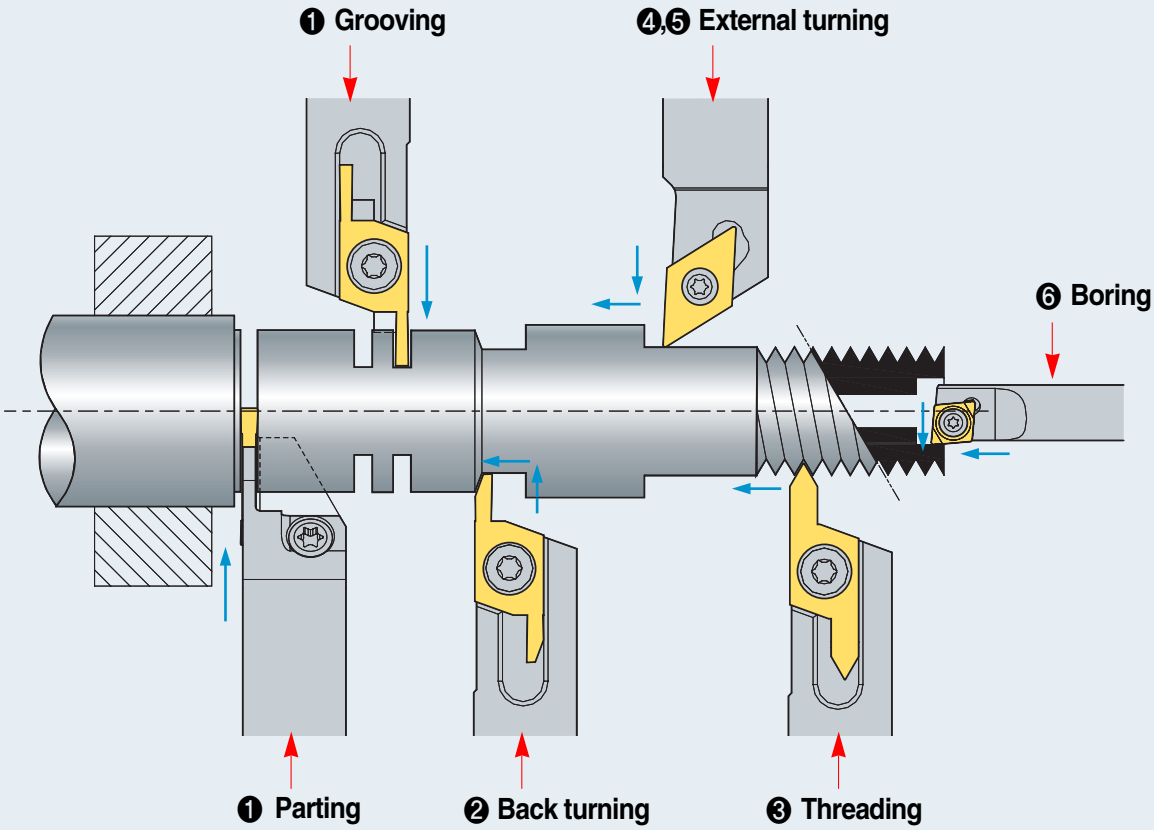
S	G	R	06	06	10	(15 – 10)	–	R05
①	②	③	④	⑤	⑥	⑦	⑧	⑨

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

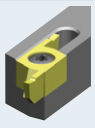
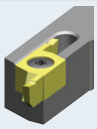
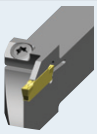
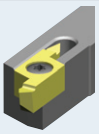
■ Recommended cutting condition

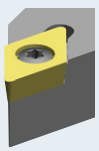
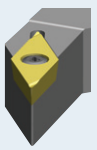
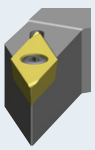
	Turning		Grooving		Parting off		Back-turning	
Workpiece	Cutting Speed(m/min)	Feed(mm/rev)	Cutting Speed(m/min)	Feed(mm/rev)	Cutting Speed(m/min)	Feed(mm/rev)	Cutting Speed(m/min)	Feed(mm/rev)
Stainless steel	50 ~ 120	0.02 ~ 0.20	30 ~ 120	0.02 ~ 0.05	30 ~ 120	0.02 ~ 0.05	30 ~ 120	0.02 ~ 0.20
Carbon steel	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

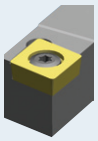
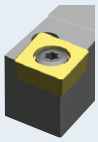
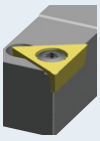
Application Example



Index

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

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

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

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

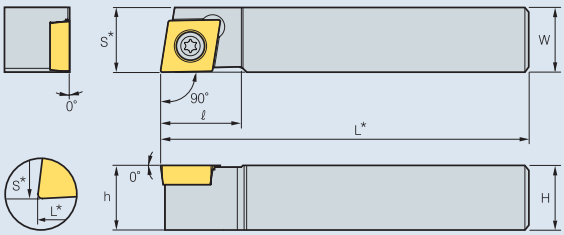
SCACR/L

New

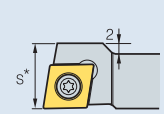
offset "0"



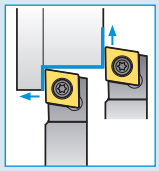
CCGT



90°



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



• R type insert

(mm)

Designation	Stock R	Stock L	H	W	L*	S*	h	ℓ	Parts: Insert	Screw	Wrench
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	CCGT 09T3□□	FTKA0410	TW 15P
1212-X09A	○		12	12	120	12	12	16			
1616-X09A	○		16	16	120	16	16	16			

• Applicable inserts, see pages **B**37

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

● : Stock item ○ : Under preparing for stock

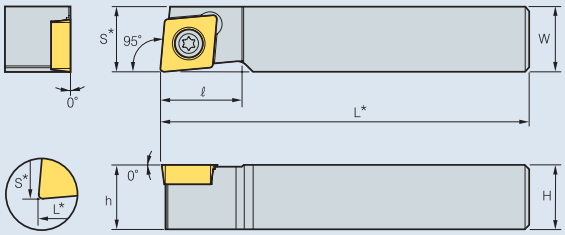
SCLCR/L

New

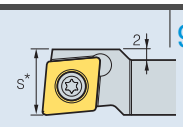
offset "0"



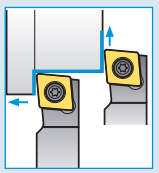
CCGT



95°



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



• R type insert

(mm)

Designation	Stock R	Stock L	H	W	L*	S*	h	ℓ	Parts: Insert	Screw	Wrench
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	CCGT 09T3□□	FTKA0410	TW 15P
1212-X09A	○		12	12	120	12	12	16			
1616-X09A	○		16	16	120	16	16	16			

• Applicable inserts, see pages **B**37

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

● : Stock item ○ : Under preparing for stock

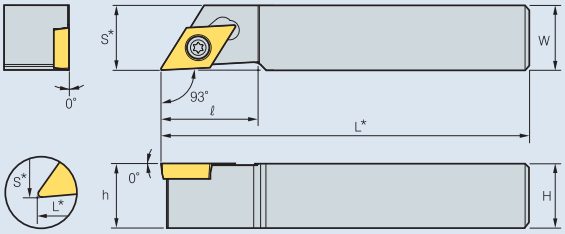
SDJCR/L

New

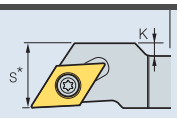
offset "0"



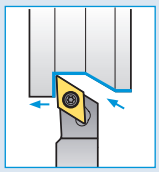
DCGT



93°



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



• R type insert

(mm)

Designation	Stock R	Stock L	H	W	L*	S*	h	K	ℓ	Parts: Insert	Screw	Wrench
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	DCGT 11T3□□	FTKA0410	TW 15P
1212-X11A	○		12	12	120	14	12	2	18			
1616-X11A	○		16	16	120	16	16	-	22			

• Applicable inserts, see pages **B**39

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

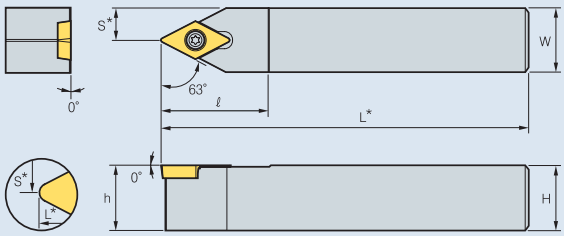
● : Stock item ○ : Under preparing for stock

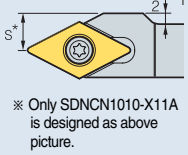
SDNCN

New



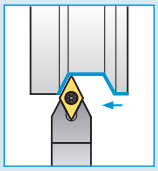
DCGT





※ Only SDNCN1010-X11A is designed as above picture.

63°



• R type insert

(mm)

Designation		Stock	H	W	L*	S*	h	ℓ	Parts / Insert	Screw	Wrench
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	DCGT 11T3□□	FTKA0410	TW 15P
	1212-X11A	○	12	12	120	6	12	30			
	1616-X11A	○	16	16	120	8	16	30			

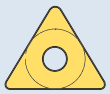
• Applicable inserts, see pages **B**39

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

● : Stock item ○ : Under preparing for stock

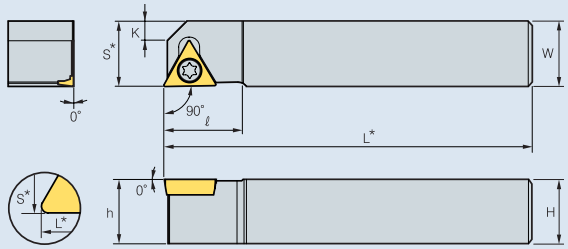
STACR/L

New

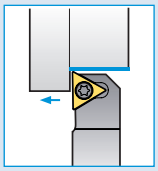


TCGT

offset "0"



90°



• R type insert

(mm)

Designation		Stock R	Stock L	H	W	L*	S*	h	ℓ	K	Parts / Insert	Screw	Wrench
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			

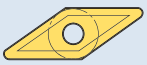
• Applicable inserts, see pages **B**43

* r=0.1(l=08)

● : Stock item ○ : Under preparing for stock

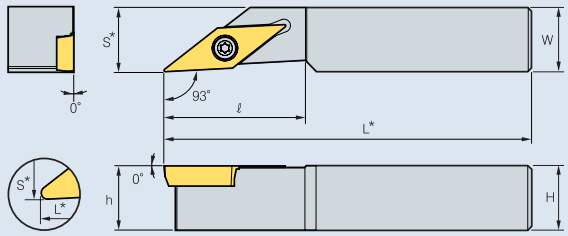
SVJBR/L

New

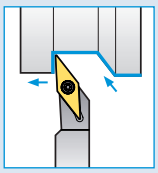


VBGT

offset "0"



93°



• R type insert

(mm)

Designation		Stock R	Stock L	H	W	L*	S*	h	ℓ	Parts / Insert	Screw	Wrench
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			

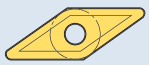
• Applicable inserts, see pages **B**46

* r=0.2(l=11)

● : Stock item ○ : Under preparing for stock

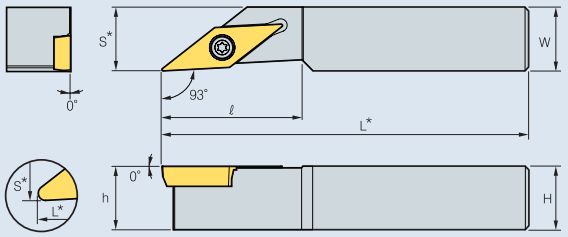
SVJCR/L

New

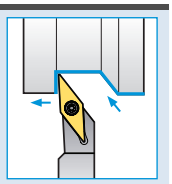


VCGT

offset "0"



93°



• R type insert

(mm)

Designation		Stock R	Stock L	H	W	L*	S*	h	ℓ	Parts / Insert	Screw	Wrench
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 **B**47

* r=0.2(l=11)

● : Stock item ○ : Under preparing for stock

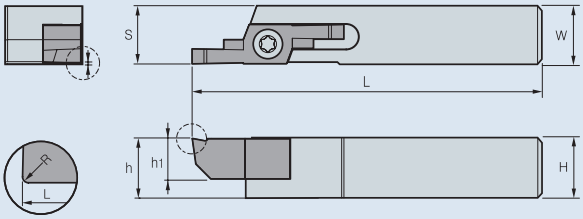
SXGNR/L

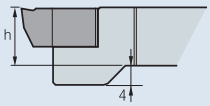
New

Offset "0"



SBR, SGBR
SCR, STR
SGR





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

• R type insert

(mm)

Designation	Stock R	Stock L	H	W	L	S	h	h_1	Parts: Insert	Screw	Wrench
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			

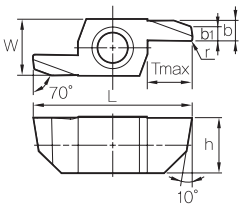
• Applicable inserts, see pages **B**119, **B**120

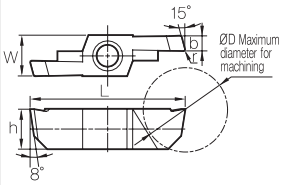
● : Stock item ○ : Under preparing for stock

Available Inserts

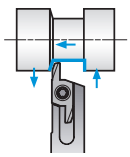
Application	Picture	Designation	Coated PC9030	b_1	b	W	L	r	h	T-max	ØD
Back Turning	SBR/L	SBR/L 060520-10-R00	○	1	2	8	22	0	6	5.5	-
		060520-10-R05	○	1	2	8	22	0.05	6	5.5	-
		060520-10-R10	○	1	2	8	22	0.1	6	5.5	-
		060630-20-R00	○	2	3	8	24	0	6	6.5	-
		060630-20-R05	○	2	3	8	24	0.05	6	6.5	-
	New	060630-20-R10	○	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	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
	New	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

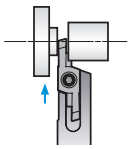
Configuration





Feed Direction



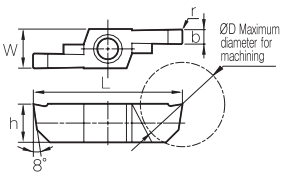
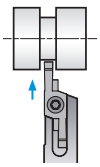
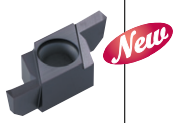
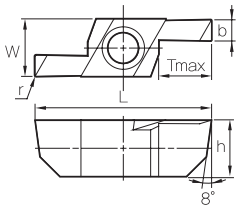
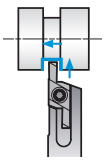
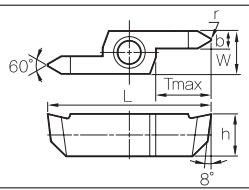
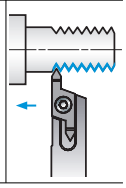


• Applicable holders, see pages **B**119

● : Stock item ○ : Under preparing for stock

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	SGR/L 	SGR/L 060610-R00	○	1	8	24	0	6	-	11	-		
		060610-R05	○	1	8	24	0.05	6	-	11	-		
		060610-R10	○	1	8	24	0.1	6	-	11	-		
		060615-R00	○	1.5	8	24	0	6	-	11	-		
		060615-R05	○	1.5	8	24	0.05	6	-	11	-		
		060615-R10	○	1.5	8	24	0.1	6	-	11	-		
		060620-R00	○	2	8	24	0	6	-	11	-		
		060620-R05	○	2	8	24	0.05	6	-	11	-		
		060620-R10	○	2	8	24	0.1	6	-	11	-		
		081015-R00	○	1.5	8	31	0	8	-	18	-		
		081015-R05	○	1.5	8	31	0.05	8	-	18	-		
		081015-R10	○	1.5	8	31	0.1	8	-	18	-		
		081020-R00	○	2	8	31	0	8	-	18	-		
		081020-R05	○	2	8	31	0.05	8	-	18	-		
		081020-R10	○	2	8	31	0.1	8	-	18	-		
		081025-R00	○	2.5	8	31	0	8	-	18	-		
		081025-R05	○	2.5	8	31	0.05	8	-	18	-		
		081025-R10	○	2.5	8	31	0.1	8	-	18	-		
		081030-R00	○	3	8	31	0	8	-	18	-		
		081030-R05	○	3	8	31	0.05	8	-	18	-		
		081030-R10	○	3	8	31	0.1	8	-	18	-		
Grooving & Back Turning	SGBR/L 	SGBR/L 0604520-R00	○	2	8	22	0	6	5.5	-	-		
		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	STR/L 	STR/L 06073215	○	3.2	8	25	0.06	6	7	-	0.5-1.5		
		06073230	○	3.2	8	25	0.19	6	7	-	1.5-3.0		
		08103215	○	3.2	8	31	0.06	8	10.5	-	0.5-1.5		
		08103230	○	3.2	8	31	0.19	8	10.5	-	1.5-3.0		

• Applicable holders, see pages **B**119

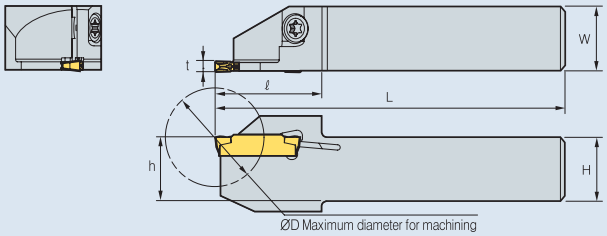
● : Stock item ○ : Under preparing for stock

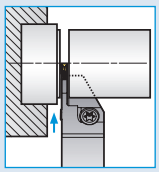
MGEHR/L

New



MGMN





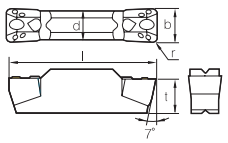
• R type insert

(mm)

Designation	Stock R	Stock L	ØD	H=h	W	L	ℓ	t	Parts: Insert	Screw	Wrench
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

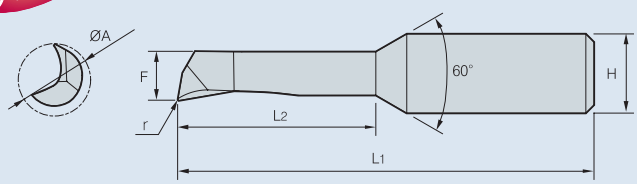
Application	Picture	Designation		Coated NC3020	Coated NC3120	Coated NC3030	Coated PC3525	Coated PC3535	Coated PC9030	Cermet CT10	Cermet CN20	Uncoated H01	Uncoated G10	Uncoated U20	Dimensions b	r	l	d	t (mm)	Configuration
Grooving · Parting off	MGMN 	MGMN	150-G	●	●			●							1.5	0.15	16	1.2	3.5	
			200-G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

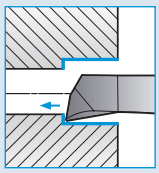
● : Stock item ○ : Under preparing for stock

Auto Tools - BEM

BEM(For Boring)

New





• R type insert

(mm)

Designation		ØA	H	L_1	L_2	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