

Turning Chip Breakers

- B02 Application range of KORLOY Main Chip Breakers
- B04 Recommended Chip Breakers for workpiece
- B12 Feature of Chip Breakers

Inserts

- B26 Turning Insert Code System (ISO)
- B28 Turning Insert (Negative)
- B66 Turning Insert (Positive)
- B90 Aluminum Insert (Positive)
- B98 cBN Insert
- B102 PCD Insert

SAVE TURN

- B104 Technical Information for Save Turn
- B105 Save Turn Insert
- B106 Save Turn Holder
- B109 Save Turn Boring Bar

Auto Tools

- B111 Technical Information for Auto Tools
- B112 ISO Type
- B117 KHP
- B121 Blade Type
- B124 Multi Utility Type
- B127 KGT/MGT Type
- B130 MSB Tool
- B136 Sleeve

Multi Turn

- B137 Technical Information for Multi Turn
- B139 Multi Turn

Bearing Solutions

- B140 Technical Information for Bearing Solution
- B141 Bearing Solution
- B147 Special Order Form for Bearing Inserts



External Tool Holder

- B148 External Tool Holder Code System (ISO)
- B149 Index for External Holder
- B152 Instruction of External Holder
- B153 Features of Double Clamp / Lever lock System
- B154 Double Clamp System
- B159 Lever Lock System
- B167 Wedge Clamp System
- B169 Clamp On System
- B171 Multi Lock System
- B178 Screw On System
- B185 Ceramic Holder

High Pressure Coolant

- B187 Technical Information for KHP
- B189 KHP

Boring Bar

- B191 Boring Bar Code System (ISO)
- B192 Index for Boring Bar

Boring Bar

- B194 Instruction of Boring Bar assembly
- B195 Double Clamp System
- B197 Lever Lock System
- B201 Clamp On System
- B202 Multi Lock System
- B204 Screw On System
- B214 Compact Mini

HSK/KM Tooling System

- B217 Technical Information for HSK / KM Tooling System
- B219 Index for HSK / KM Tooling System
- B220 HSK Tooling System
- B226 KM Tooling System

Cartridges

- B230 Cartridge Code System (ISO)
- B231 Index for Cartridge
- B232 Clamp On System
- B234 Screw On System



TURNING

Korloy turning tools cover a wide application range with a full line-up of ISO tools that produce high quality and high precision parts for all manufacturers' requirements.

B

B Turning Chip Breakers

Applications range of chip breakers

➤ Negative inserts

Workpiece P
Steel

Heavy	GH	VH	VT
Roughing	GR		
Medium cutting	VM	MP	HM
Medium to finishing	VC	LP	VQ
Finishing	VL	VB	VF

[Recommended]

Workpiece K
Cast iron

Roughing	VR	RK	MA
Medium cutting		MK	
Medium to finishing		MK	B25
Finishing		MP	

[Recommended]

Workpiece M
Stainless steel

Roughing		RM	
Medium cutting	MP	MM	
Medium to finishing		VP2	
Finishing			

[Recommended]

Workpiece N
Aluminum alloy

Roughing			
Medium cutting			
Medium to finishing		HA	
Finishing			

[Recommended]

Workpiece S
Heat resistant alloy

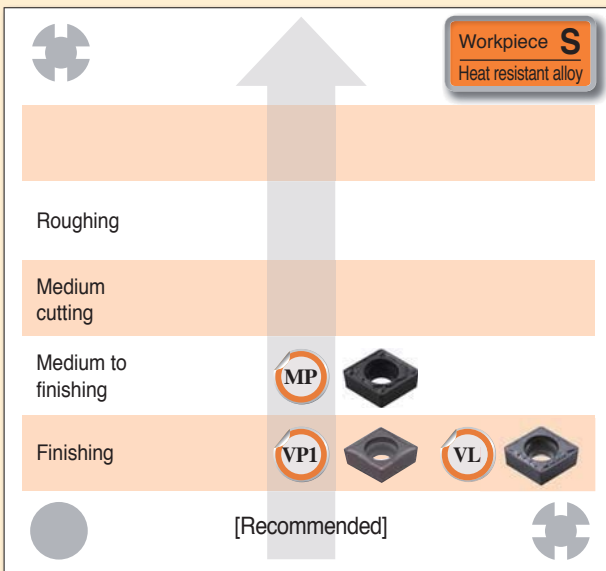
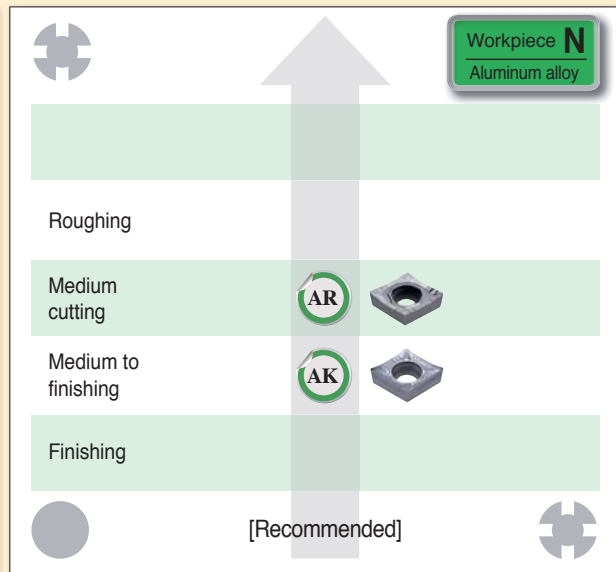
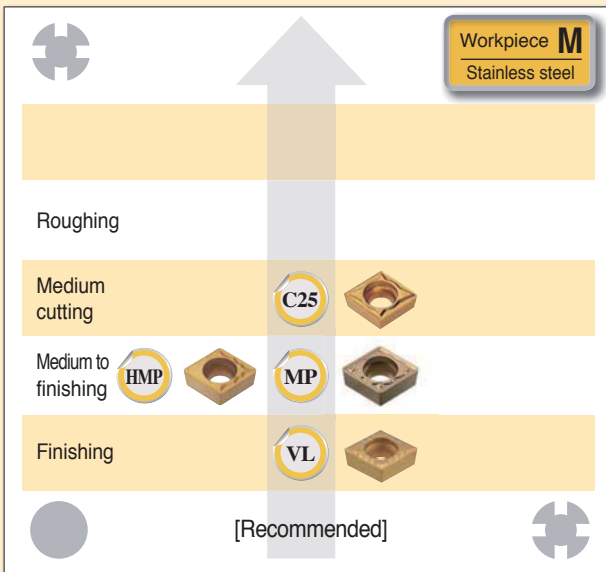
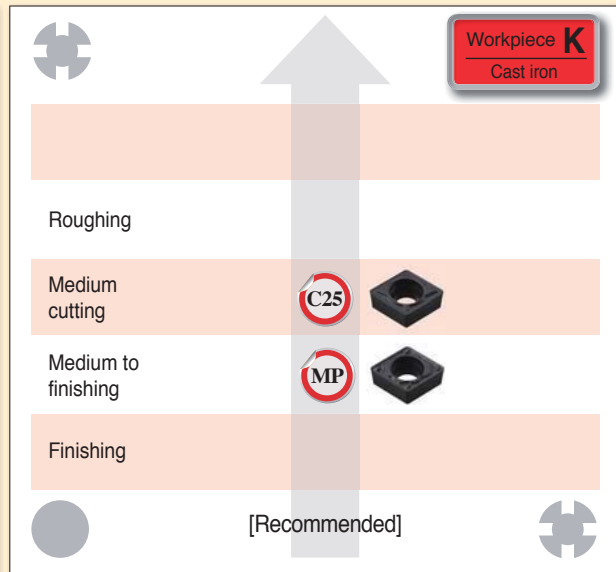
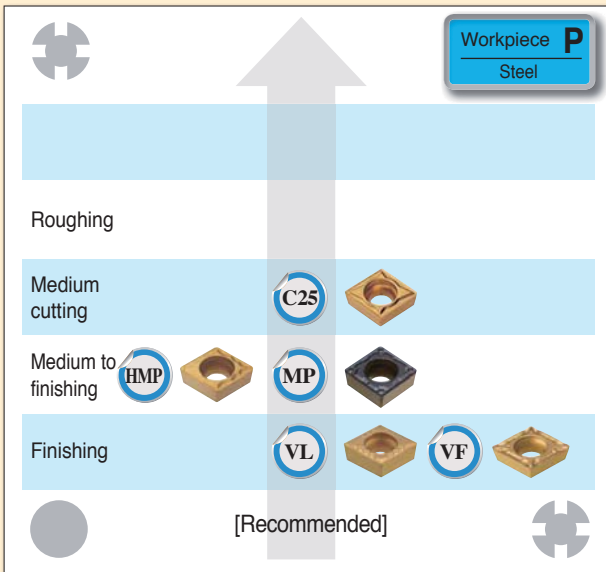
Roughing		VP4	
Medium cutting		VP3	
Medium to finishing		VP2	
Finishing		VP1	

[Recommended]



Applications range of chip breakers

Positive inserts



B Turning Chip Breakers

Recommended chip breaker for workpiece

Workpiece
P
Steel

Materials: SM10C, SM15C, SM25C, SS400, SCr415, SCM415, etc. Soft steel

Hardness: under 180HB

Depth of cut (mm)	C/B	Cutting edge	Feed (mm/rev)	Grades	Cutting Speed (m/min)	Insert shape					
						80°	55°	90°	60°	35°	80°
Negative	0.2 ~ 0.8 ~ 1.5 Finishing	VL	0.10 ~ 0.20 ~ 0.35	NC3215 NC3225 CN1500 CN2500	305 250 260 230	CNMG p. B29	DNMG p. B37	SNMG p. B46	TNMG p. B55	VNMG p. B60	WNMG p. B62
	0.5 ~ 1.0 ~ 2.0 Finishing	VB	0.15 ~ 0.20 ~ 0.40	NC3215 NC3225 CN1500 CN2500	340 250 240 210	CNMG p. B28	DNMG p. B36		TNMG p. B54		WNMG p. B62
	0.5 ~ 1.0 ~ 1.5 Finishing	VF	0.05 ~ 0.15 ~ 0.35	NC3215 NC3220 NC3225 NC5330	305 270 270 210	CNMG p. B28	DNMG p. B37	SNMG p. B46	TNMG p. B55	VNMG p. B60	WNMG p. B62
	0.5 ~ 1.5 ~ 3.5 Medium to finishing	VC	0.12 ~ 0.25 ~ 0.45	NC3215 NC3220 NC3225 NC5330	285 250 255 200	CNMG p. B29	DNMG p. B38	SNMG p. B46	TNMG p. B55	VNMG p. B60	WNMG p. B63
	0.5 ~ 1.0 ~ 2.5 Medium to finishing	LP	0.10 ~ 0.25 ~ 0.40	NC3215 NC3225 NC5330	300 250 200	CNMG p. B29	DNMG p. B38	SNMG p. B46	TNMG p. B55	VNMG p. B60	WNMG p. B63
	0.5 ~ 1.3 ~ 3.5 Medium to finishing	VQ	0.12 ~ 0.28 ~ 0.42	NC3215 NC3225 NC5330	300 250 200	CNMG p. B30	DNMG p. B38	SNMG p. B47	TNMG p. B56	VNMG p. B61	WNMG p. B63
	0.5 ~ 1.5 ~ 4.5 Medium cutting	MP	0.15 ~ 0.30 ~ 0.45	NC3215 NC3225 NC5330	300 265 200	CNMG p. B31	DNMG p. B39	SNMG p. B48	TNMG p. B56	VNMG p. B61	WNMG p. B64
	1.0 ~ 2.5 ~ 5.0 Medium cutting	VM	0.10 ~ 0.25 ~ 0.50	NC3215 NC3220 NC3225 NC5330 CN1500 CN2500	295 260 260 205 220 200	CNMG p. B32	DNMG p. B40	SNMG p. B48	TNMG p. B57	VNMG p. B61	WNMG p. B64
	1.5 ~ 2.5 ~ 5.5 Medium cutting	HM	0.12 ~ 0.28 ~ 0.52	NC3215 NC3225 NC5330	300 265 200	CNMG p. B30	DNMG p. B39	SNMG p. B47	TNMG p. B56	VNMG p. B61	WNMG p. B63
	1.0 ~ 3.0 ~ 4.5 Roughing	GR	0.20 ~ 0.35 ~ 0.50	NC3125 NC3225 NC5330	180~370 150~330 130~280	CNMG p. B33	DNMG p. B41	SNMG p. B49	TNMG p. B58		WNMG p. B64
5.0 ~ 8.0 ~ 3.5 Heavy	GH		NC3125 NC3225 NC5330	180~370 150~330 130~280	CNMM p. B35		SNMM p. B51				
6.0 ~ 10.0 ~ 15.0 Heavy (General)	VH		NC3215 NC3030 NC500H NC5330	50~250 50~150 50~150 50~150	CNMM p. B35		SNMM p. B51				
7.0 ~ 12.0 ~ 17.0 Heavy (High feed cutting)	VT		NC3215 NC3030 NC500H NC5330	50~250 50~150 50~150 50~150	CNMM p. B35		SNMM p. B51				

• The first recommended cutting condition



Workpiece
P
Steel

Recommended chip breaker for workpiece

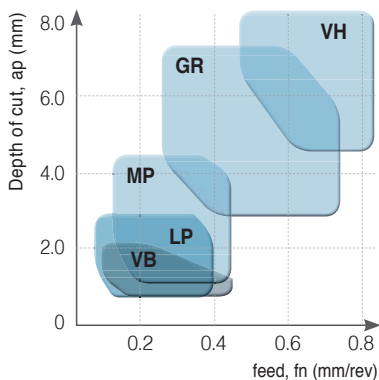
Materials: SM10C, SM15C, SM25C, SS400, SCr415, SCM415, etc. Soft steel

Hardness: under 180HB

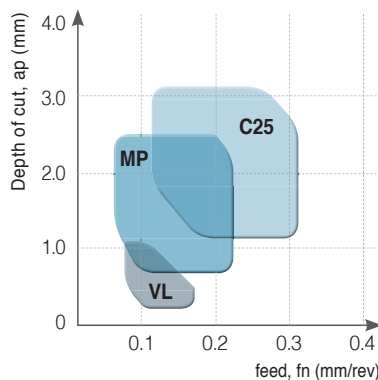
Depth of cut (mm)	C/B	Cutting edge	Feed (mm/rev)	Grades	Cutting Speed (m/min)	Insert shape					
						80°	55°	90°	60°	35°	80°
Positive	VL		0.05 ~ 0.10 ~1.0 Finishing	NC3215 NC3220 NC3225 NC5330 CN1500 CN2500	305 270 270 210 260 240	CCMT p. B68	DCMT p. B73	SCMT p. B75	TCMT p. B79	VB(C)MT p. B85	
	VF		0.05 ~ 0.15 ~1.5 Finishing	NC3215 NC3220 NC3225 NC5330 CC1500 CN1500 CN2500	305 270 270 210 260 250 230	CCMT p. B68	DCMT p. B72	SCMT p. B74	TC(P)MT p. B79	VB(C)MT p. B84	
	HMP		0.08 ~ 0.20 ~3.0 Medium to finishing	NC3215 NC3220 NC3225 NC5330 CN1500 CN2500	320 285 285 225 240 220	CCMT p. B69	DCMT p. B73	SCMT p. B75	TCMT p. B79	VB(C)MT p. B85	
	MP		0.10 ~ 0.20 ~3.0 Medium to finishing	NC3215 NC3225 CN1500 CN2500	300 250 240 200	CCMT p. B69	DCMT p. B73	SCMT p. B75	TC(P)MT p. B79	VB(C)MT p. B84	
	C25		0.10 ~ 0.25 ~3.0 Medium cutting	NC3215 NC3220 NC3225 NC5330 CN1500 CN2500	320 285 285 225 230 210	CCMT p. B69	DCMT p. B73	SCMT p. B75	TCMT p. B80		

• The first recommended cutting condition

P Negative



P Positive



B Turning Chip Breakers

Recommended chip breaker for workpiece

Workpiece
P
Steel

Materials: SM45C, SM55C, SCM430, SCM440, etc. General steel

Hardness: under 180~260HB

Depth of cut (mm)	C/B	Cutting edge	Feed (mm/rev)	Grades	Cutting Speed (m/min)	Insert shape					
						80°	55°	90°	60°	35°	80°
Negative	0.5 ~ 1.0 ~2.0 Finishing	VB	0.15 ~ 0.20 ~0.40	NC3215 NC3225 CN1500 CN2500	340 250 230 190	CNMG p. B28	DNMG p. B36		TNMG p. B54		WNMG p. B62
	0.5 ~ 1.0 ~1.5 Finishing	VF	0.05 ~ 0.15 ~0.35	NC3215 NC3225 NC5330	305 270 250	CNMG p. B28	DNMG p. B37	SNMG p. B46	TNMG p. B55	VNMG p. B60	WNMG p. B62
	0.5 ~ 1.5 ~3.5 Medium to finishing	VC	0.12 ~ 0.25 ~0.45	NC3215 NC3220 NC3225 NC5330	285 255 250 200	CNMG p. B29	DNMG p. B38	SNMG p. B46	TNMG p. B55	VNMG p. B60	WNMG p. B63
	0.5 ~ 1.0 ~2.5 Medium to finishing	LP	0.10 ~ 0.25 ~0.40	NC3215 NC3225 NC5330	300 250 200	CNMG p. B29	DNMG p. B38	SNMG p. B46	TNMG p. B55	VNMG p. B60	WNMG p. B63
	0.5 ~ 1.5 ~4.5 Medium cutting	MP	0.15 ~ 0.30 ~0.45	NC3215 NC3225 NC5330	300 250 200	CNMG p. B31	DNMG p. B39	SNMG p. B48	TNMG p. B56	VNMG p. B61	WNMG p. B64
	1.0 ~ 2.5 ~5.0 Medium cutting	VM	0.10 ~ 0.25 ~0.50	NC3215 NC3220 NC3225 NC5330 CN1500 CN2500	260 245 245 205 210 170	CNMG p. B32	DNMG p. B40	SNMG p. B48	TNMG p. B57	VNMG p. B61	WNMG p. B64
	1.0 ~ 3.0 ~4.5 Roughing	GR	0.20 ~ 0.35 ~0.50	NC3125 NC3225 NC5330	180~370 150~330 130~280	CNMG p. B33	DNMG p. B41	SNMG p. B49	TNMG p. B58		WNMG p. B64
	6.0 ~ 10.0 ~15.0 Heavy (General)	VH	0.70 ~ 1.00 ~1.40	NC3215 NC3030 NC500H NC5330	50~250 50~150 50~150 50~150	CNMM p. B35		SNMM p. B51			
	7.0 ~ 12.0 ~17.0 Heavy (High feed cutting)	VT	0.75 ~ 1.20 ~1.60	NC3215 NC3030 NC500H NC5330	50~250 50~150 50~150 50~150	CNMM p. B35		SNMM p. B51			
	Positive	0.1 ~ 0.5 ~1.0 Finishing	VL	0.05 ~ 0.10 ~0.20	NC3215 NC3220 NC3225 NC5330 CN1500 CN2500	345 310 310 240 250 210	CCMT p. B68	DCMT p. B73	SCMT p. B75	TCMT p. B79	VB(C)MT p. B85
0.1 ~ 0.5 ~1.5 Finishing		VF	0.05 ~ 0.15 ~0.25	NC3215 NC3220 NC3225 NC5330 CC1500 CN1500 CN2500	265 300 300 230 260 240 210	CCMT p. B68	DCMT p. B72	SCMT p. B74	TC(P)MT p. B79	VCMT p. B84	
0.3 ~ 1.5 ~3.0 Medium to finishing		MP	0.05 ~ 0.15 ~0.35	NC3215 NC3225	300 250	CCMT p. B69	DCMT p. B73	SCMT p. B75	TC(P)MT p. B80	VB(C)MT p. B85	
1.0 ~ 2.0 ~3.0 Medium cutting		C25	0.10 ~ 0.15 ~0.35	NC3215 NC3220 NC3225 NC5330 CN1500 CN2500	320 285 285 225 230 200	CCMT p. B69	DCMT p. B73	SCMT p. B75	TCMT p. B80		

• The first recommended cutting condition

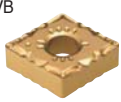



















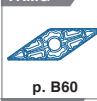

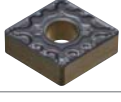





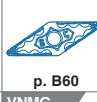















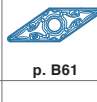




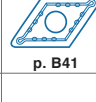
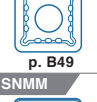
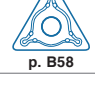








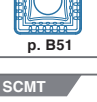
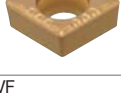





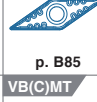







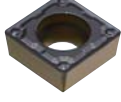





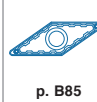








Workpiece
P
 Steel

Recommended chip breaker for workpiece

Materials: SNC415, SNC815, SNCM240, SNCM439, STS12, STS61, etc
 SCM440, Hardened steel

Hardness: 260~350HB

Depth of cut (mm)	C/B	Cutting edge	Feed (mm/rev)	Grades	Cutting Speed (m/min)	Insert shape					
						80°	55°	90°	60°	35°	80°
Negative	0.5 ~ 1.0 ~2.0 Finishing			0.15 ~ 0.20 ~0.40	NC3215 200 NC3225 148 CN1500 220 CN2500 200	CNMG  p. B28	DNMG  p. B36		TNMG  p. B55		WNMG  p. B62
	0.5 ~ 1.0 ~1.5 Finishing			0.08 ~ 0.15 ~0.30	NC3215 180 NC3220 159 NC3225 159	CNMG  p. B28	DNMG  p. B37	SNMG  p. B46	TNMG  p. B55	VNMG  p. B60	WNMG  p. B62
	0.5 ~ 1.5 ~3.5 Medium to finishing			0.12 ~ 0.25 ~0.45	NC3215 168 NC3220 148 NC3225 150 NC5330 200	CNMG  p. B29	DNMG  p. B38	SNMG  p. B46	TNMG  p. B55	VNMG  p. B60	WNMG  p. B63
	0.5 ~ 1.0 ~2.5 Medium to finishing			0.10 ~ 0.25 ~0.40	NC3215 250 NC3225 200 NC5330 200	CNMG  p. B29	DNMG  p. B38	SNMG  p. B46	TNMG  p. B55	VNMG  p. B60	WNMG  p. B63
	0.5 ~ 1.5 ~4.5 Medium cutting			0.15 ~ 0.30 ~0.45	NC3215 250 NC3225 200 NC5330 200	CNMG  p. B31	DNMG  p. B39	SNMG  p. B48	TNMG  p. B56	VNMG  p. B61	WNMG  p. B64
	1.0 ~ 2.5 ~5.0 Medium cutting			0.15 ~ 0.25 ~0.50	NC3215 174 NC3220 153 NC3225 153 CN1500 120 CN2500 100	CNMG  p. B32	DNMG  p. B40	SNMG  p. B48	TNMG  p. B57	VNMG  p. B61	WNMG  p. B64
	1.0 ~ 3.0 ~4.5 Roughing			0.20 ~ 0.35 ~0.50	NC3125 180~370 NC3225 150~330 NC5330 130~280	CNMG  p. B33	DNMG  p. B41	SNMG  p. B49	TNMG  p. B58		WNMG  p. B64
	6.0 ~ 10.0 ~15.0 Heavy (General)			0.70 ~ 1.00 ~1.40	NC3215 50~250 NC3030 50~150 NC500H 50~150 NC5330 50~150	CNMM  p. B35		SNMM  p. B51			
7.0 ~ 12.0 ~17.0 Heavy (High feed cutting)			0.75 ~ 1.20 ~1.60	NC3215 50~250 NC3030 50~150 NC500H 50~150 NC5330 50~150	CNMM  p. B35		SNMM  p. B51				
Positive	0.1 ~ 0.5 ~1.0 Finishing			0.05 ~ 0.10 ~0.20	NC3215 305 NC3220 310 NC3225 310 NC5330 240 CN1500 210 CN2500 190	CCMT  p. B68	DCMT  p. B73	SCMT  p. B75	TCMT  p. B79	VB(C)MT  p. B85	
	0.1 ~ 0.5 ~1.5 Finishing			0.05 ~ 0.15 ~0.25	NC3215 330 NC3220 300 NC3225 300 NC5330 230 CC1500 260 CN1500 250 CN2500 240	CCMT  p. B68	DCMT  p. B72	SCMT  p. B74	TC(P)MT  p. B79	VB(C)MT  p. B84	
	0.3 ~ 1.5 ~3.0 Medium to finishing			0.05 ~ 0.15 ~0.35	NC3215 305 NC3225 285 NC5300 225 CN1500 240 CN2500 220	CCMT  p. B69	DCMT  p. B73	SCMT  p. B75	TC(P)MT  p. B80	VB(C)MT  p. B85	
	1.0 ~ 2.0 ~3.0 Medium cutting			0.10 ~ 0.15 ~0.35	NC3215 320 NC3220 285 NC3225 285 NC5330 225 CN1500 100 CN2500 80	CCMT  p. B69	DCMT  p. B73	SCMT  p. B75	TCMT  p. B80		

• The first recommended cutting condition

B Turning Chip Breakers

Recommended chip breaker for workpiece

Workpiece
M
Stainless steel

Materials: STS304, STS316, STS430, STS630

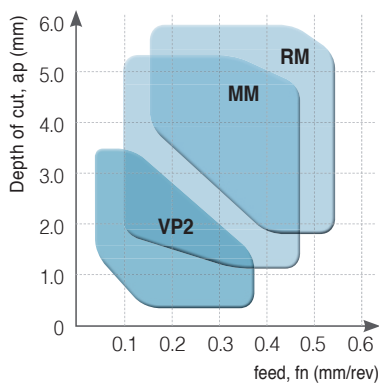
Ferrite, austenite, martensite, precipitation hardening stainless steels

Hardness: 135~300HB

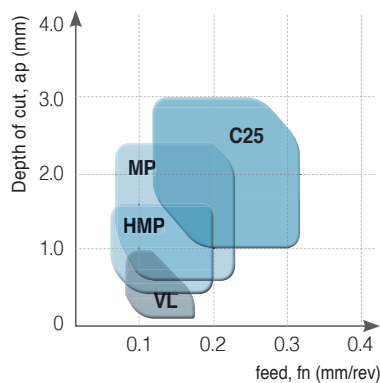
Depth of cut (mm)	C/B	Cutting edge	Feed (mm/rev)	Grades	Cutting Speed (m/min)	Insert shape					
						80°	55°	90°	60°	35°	80°
Negative 0.5 ~ 1.5 ~ 4.0 Medium to finishing	VP2		0.10 ~ 0.20 ~ 0.40	PC8105 PC8110 PC8115 PC5300 PC5400	185 170 160 135 120	CNMG p. B30	DNMG p. B38	SNMG p. B46	TNMG p. B55	WNMG p. B63	
	MP		0.15 ~ 0.23 ~ 0.45	PC8105 PC8110 PC8115 PC5300 PC5400	175 160 150 130 110	CNMG p. B31	DNMG p. B39	SNMG p. B48	TNMG p. B56	VNMG p. B61 WNMG p. B64	
	MM		0.12 ~ 0.25 ~ 0.45	NC9115 NC9125 NC9135 PC8110 PC8115 PC5300	190 170 130 160 150 130	CNMG p. B31	DNMG p. B39	SNMG p. B47	TNMG p. B56	VNMG p. B61 WNMG p. B63	
	RM		0.15 ~ 0.30 ~ 0.55	NC9115 NC9125 NC9135 PC8110 PC8115 PC5300	190 170 130 160 150 130	CNMG p. B33	DNMG p. B42	SNMG p. B50	TNMG p. B58	VNMG p. B61 WNMG p. B65	
Positive 0.1 ~ 0.5 ~ 1.0 Finishing	VL		0.05 ~ 0.10 ~ 0.20	PC8105 PC8110 PC8115 PC5300 PC5400 NC5330 NC9025	215 195 190 165 135 165 165	CCMT p. B68	DCMT p. B73	SCMT p. B75	TCMT p. B79	VB(C)MT p. B85	
	HMP		0.05 ~ 0.10 ~ 0.25	PC8105 PC8110 PC8115 PC5300 PC5400 NC5330 NC9025	190 175 170 135 120 150 150	CCMT p. B69	DCMT p. B73	SCMT p. B75	TCMT p. B79	VB(C)MT p. B85	
	MP		0.05 ~ 0.15 ~ 0.35	PC8105 PC8110 PC8115 PC5300 PC5400 NC5330 NC9025	190 175 170 135 120 150 150	CCMT p. B69	DCMT p. B73	SCMT p. B75	TC(P)MT p. B80	VB(C)MT p. B85	
	C25		0.08 ~ 0.13 ~ 0.25	PC8110 PC9030	170 155	CCMT p. B69	DCMT p. B73	SCMT p. B75	TCMT p. B80		

• The first recommended cutting condition

M Negative



M Positive



Workpiece
K
Cast iron

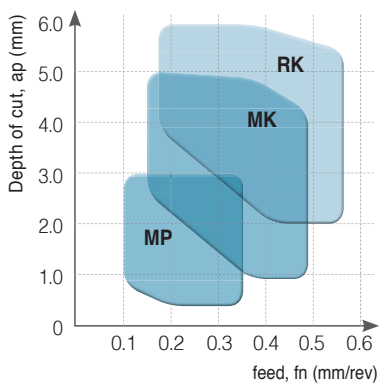
Recommended chip breaker for workpiece

Materials: GC250, GC300, GCD400, GCD700, etc : Gray cast iron, Ductile cast iron
Hardness: 135~185HB
Tensile strengt: under 450N/mm²

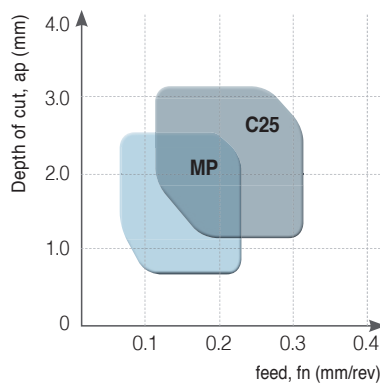
Depth of cut (mm)	C/B	Cutting edge	Feed (mm/rev)	Grades	Cutting Speed (m/min)	Insert shape					
						80°	55°	90°	60°	35°	80°
Negative	1.0 ~ 3.0 ~4.5 Roughing	VR	0.20 ~ 0.35 ~0.60	NC6310	220~420	CNMG p. B34	DNMG p. B42	SNMG p. B50	TNMG p. B58		WNMG p. B65
	1.5 ~ 3.0 ~6.0 Roughing	RK	0.20 ~ 0.30 ~0.60	NC6310	350~550	CNMG p. B33	DNMG p. B41	SNMG p. B49	TNMG p. B58		WNMG p. B65
	1.0 ~ 2.5 ~6.0 Roughing	C/B 無	0.15 ~ 0.30 ~0.60	DBNX10 DBN500 DBN700 NC6310 NC6315	150~200 200~500 500~2000 140~420 120~290	CNMA p. B28	DNMA p. B36	SNMA p. B45	TNMA p. B54		
	1.0 ~ 2.5 ~5.0 Medium to finishing	MK	0.10 ~ 0.25 ~0.50	NC6310	350~550	CNMG p. B30	DNMG p. B39	SNMG p. B47	TNMG p. B56	VNMG p. B61	WNMG p. B63
	0.5 ~ 2.0 ~3.5 Medium to finishing	B25	0.20 ~ 0.35 ~0.60	NC6310 NC6315	140~380 120~290	CNMG p. B32	DNMG p. B41	SNMG p. B49	TNMG p. B57		
	0.5 ~ 1.0 ~2.5 Finishing	MP	0.10 ~ 0.25 ~0.45	NC6310 NC6315	140~380 120~290	CNMG p. B31	DNMG p. B39	SNMG p. B48	TNMG p. B56	VNMG p. B61	WNMG p. B64
Positive	0.3 ~ 1.5 ~3.0 Medium to finishing	MP	0.10 ~ 0.20 ~0.35	NC6310	225~290	CCMT p. B69	DCMT p. B73	SCMT p. B75	TC(P)MT p. B80	VB(C)MT p. B85	
	1.0 ~ 2.0 ~3.5 Medium cutting	C25	0.10 ~ 0.25 ~0.40	NC6310 NC6315	285~340 200	CCMT p. B69	DCMT p. B73	SCMT p. B75	TCMT p. B80		

●: The first recommended cutting condition

K Negative



K Positive



B Turning Chip Breakers

Workpiece
N
Aluminum alloy

Recommended chip breaker for workpiece

Materials: Aluminum alloy

Hardness: 20~110HB

Depth of cut (mm)	C/B	Cutting edge	Feed (mm/rev)	Grades	Cutting Speed (m/min)	Insert shape					
						80°	55°	90°	60°	35°	80°
Negative 0.5 ~ 2.0 ~ 6.0 Medium to finishing	HA		0.10 ~ 0.20 ~ 0.50	H01	500	CNMG	DNMG	SNMG	TNMG	VNMG	WNMG
Positive 0.1 ~ 1.0 ~ 4.0 Medium to finishing 0.5 ~ 1.5 ~ 4.0 Medium cutting	AK		0.03 ~ 0.20 ~ 0.40	H01	1000	CCGT	DCGT	SCGT	TCGT	VB(C)GT	RCGT
	AR		0.05 ~ 0.30 ~ 0.50	H01	1000	CCGT	DCGT	SCGT	TCGT	VB(C)GT	RCGT

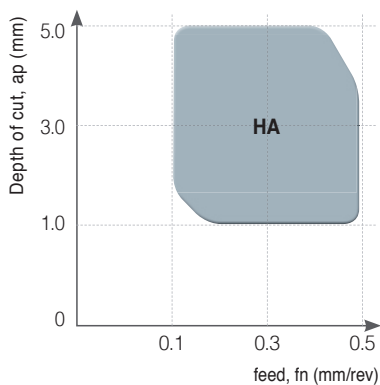
Materials: Copper Bronze alloy

Hardness: 20~110HB

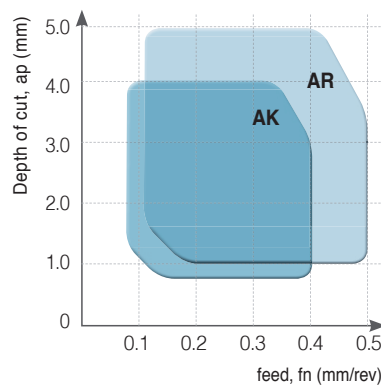
Depth of cut (mm)	C/B	Cutting edge	Feed (mm/rev)	Grades	Cutting Speed (m/min)	Insert shape					
						80°	55°	90°	60°	35°	80°
Negative 0.5 ~ 2.0 ~ 4.0 Medium to finishing	HA		0.10 ~ 0.20 ~ 0.50	H01	1000	CNMG	DNMG	SNMG	TNMG	VNMG	WNMG
Positive 0.1 ~ 1.0 ~ 3.0 Medium to finishing 0.5 ~ 1.5 ~ 3.0 Medium cutting	AK		0.03 ~ 0.20 ~ 0.30	H01	1000	CCGT	DCGT	SCGT	TCGT	VB(C)GT	RCGT
	AR		0.05 ~ 0.25 ~ 0.40	H01	1000	CCGT	DCGT	SCGT	TCGT	VB(C)GT	RCGT

• The first recommended cutting condition

N Negative



N Positive



Workpiece
S
Heat resistant alloy

Recommended chip breaker for workpiece

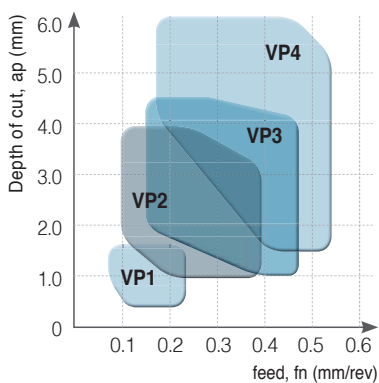
Materials: Inconel, Nimonic, Stellite, Ti alloy

Hardness: 160~350HB

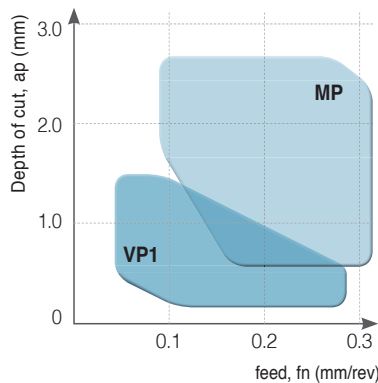
Depth of cut (mm)	C/B	Cutting edge	Feed (mm/rev)	Grades	Cutting Speed (m/min)	Insert shape					
						80°	55°	90°	60°	35°	80°
Negative 0.1 ~ 0.5 ~ 1.5 Finishing 0.5 ~ 1.5 ~ 4.0 Medium to finishing 0.05 ~ 2.0 ~ 3.0 Medium cutting 1.0 ~ 2.5 ~ 4.0 Roughing	VP1		0.05 ~ 0.10 ~ 0.20	PC8110 PC5300 NC5330	60 50 50	CNGG p. B28	DNGG p. B36				
	VP2		0.10 ~ 0.20 ~ 0.40	PC8110 PC5300	60 45	CNMG p. B30	DNMG p. B38	SNMG p. B46	TNMG p. B55		WNMG p. B63
	VP3		0.05 ~ 0.15 ~ 0.25	PC8110 PC5300	60 40	CNMG p. B32	DNMG p. B40	SNMG p. B48	TNMG p. B57	VNMG p. B61	WNMG p. B64
	VP4		0.15 ~ 0.20 ~ 0.35	PC8115	60 40	CNMG p. B34	DNMG p. B42	SNMG p. B50	TNMG p. B58		WNMG p. B65
Positive 0.1 ~ 0.5 ~ 1.5 Finishing 0.1 ~ 0.5 ~ 1.0 Finishing 0.5 ~ 1.0 ~ 3.0 Medium to finishing	VP1		0.05 ~ 0.10 ~ 0.20	PC8110 PC5300	60 45	CCGT p. B67	DCGT p. B72			VCGT p. B86	
	VL		0.05 ~ 0.10 ~ 0.20	PC8110 PC8115	60 50	CCMT p. B68	DCMT p. B73	SCMT p. B75	TCMT p. B79		VCMT p. B87
	MP		0.10 ~ 0.20 ~ 0.35	PC8110 PC8115	60 50	CCMT p. B69	DCMT p. B73	SCMT p. B75	TC(P)MT p. B80		VB(C)MT p. B85(B87)

●: The first recommended cutting condition

S Negative



S Positive



Features of Chip Breaker

LP Chip Breaker new [For medium to finishing]

- Chip breaker for forged steel of automobile parts and normal steel
- Quad dots improve productivity through efficient chip control at high feed
- Angle land minimizes cutting force

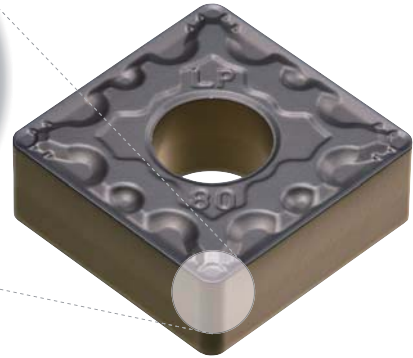
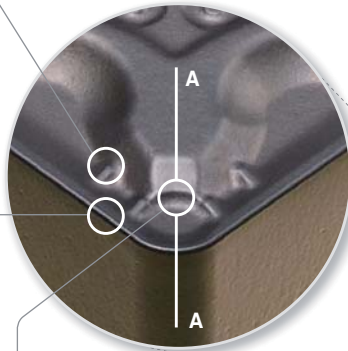
Features of LP chip breaker

▶ Front dot

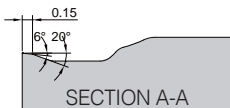
- Higher stability of chip curls at high feed
- Excellent chip control when copying
- Lower cutting force at low depth of cut and high feed

▶ Variable land

- Less crater wear
- Prevents chipping on minor cutting edge

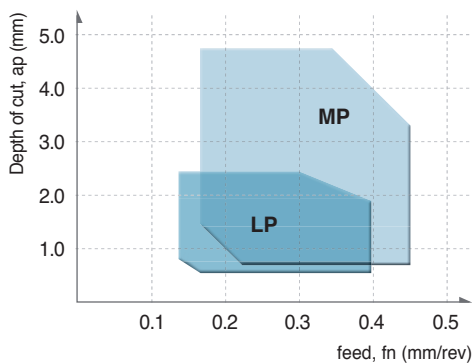


▶ Flat zone



- Larger chip pocket for better chip evacuation at high feed
- Reduced cutting force with larger contact surface of chips

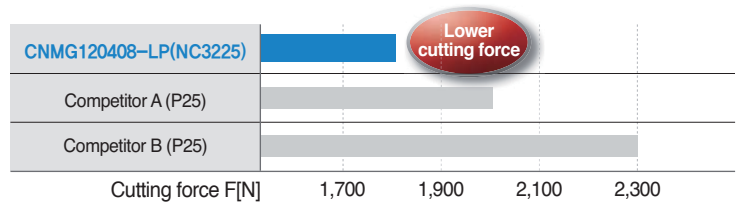
Application range



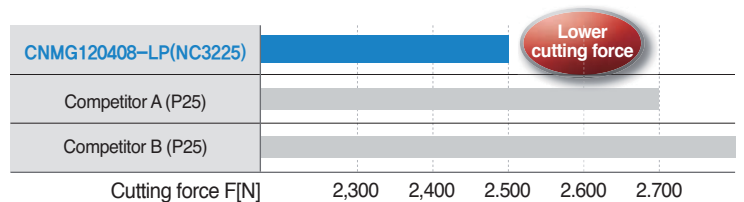
Performance evaluation (Evaluation of cutting force)

- **Workpiece** SM45C, Ø100, External machining
- **Cutting condition** v_c (m/min) = 250, a_p (mm) = 1.0, f_n (mm/rev) = 0.25/0.40, wet
- **Tools** CNMG120408-□□

Medium feed (0.25 mm/rev)



High feed (0.40 mm/rev)



Features of Chip Breaker

MP Chip Breaker new [For medium cutting]

- Chip breaker for forged steel of automobile parts and all other steels
- Quad dots improve productivity through efficient chip control at high feed
- Angle land minimizes cutting force

Features of MP chip breaker

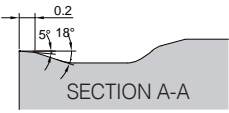
▶ Front two step dot

- Higher stability of chip curls at high feed
- Excellent chip control when copying
- Lower cutting force at high depth of cut

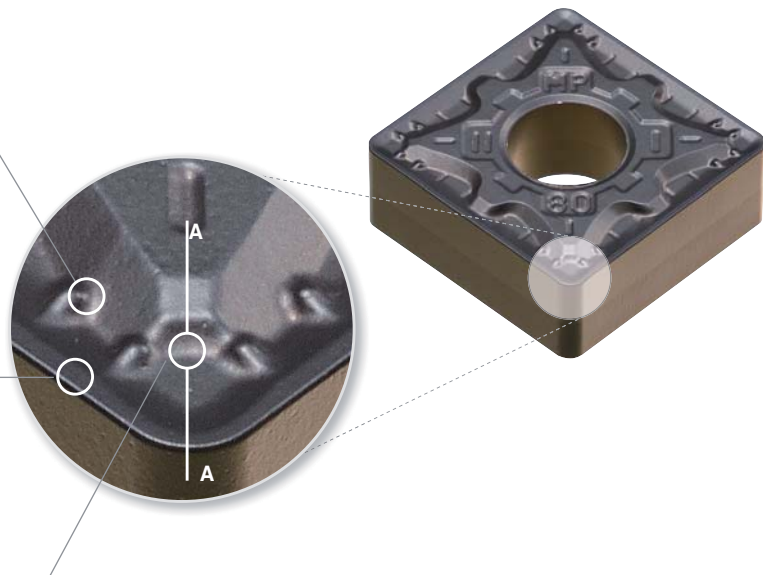
▶ Variable land

- Less crater wear
- Prevents chipping on minor cutting edge
- Higher toughness at high depth of cut and interrupted cutting

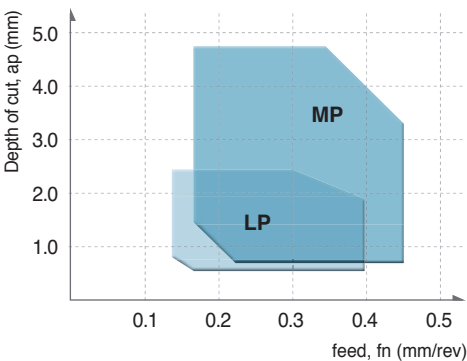
▶ Flat zone



- Larger chip pocket for better chip evacuation at high feed
- Reduced cutting force with larger contact surface of chips

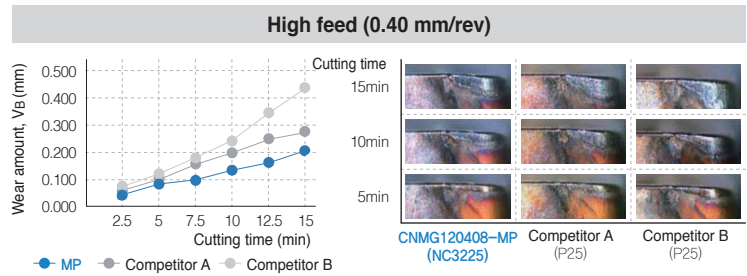
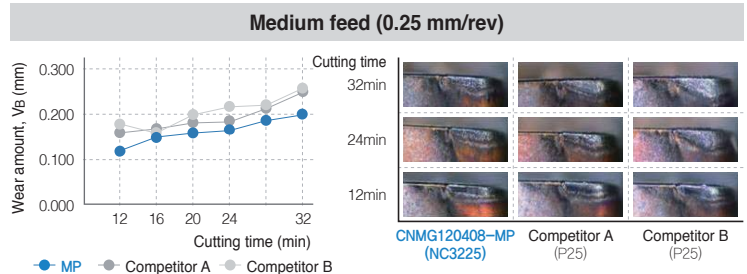


Application range



Performance evaluation

- **Workpiece** SCM440 (Alloy steel), Ø100, External machining
- **Cutting condition** vc (m/min) = 280, ap (mm) = 1.5, fn (mm/rev) = 0.25/0.40, wet
- **Tools** CNMG120408-□□



Features of Chip Breaker

MM Chip Breaker new [For medium cutting]

- The 1st recommended chip breaker for stainless steel machining
- Change to: A dual land achieves sharp cutting performance and insert toughness
- Wide chip pockets for stable chip evacuation at high feeds/depths of cut

Features of MM chip breaker

▶ Variable Land

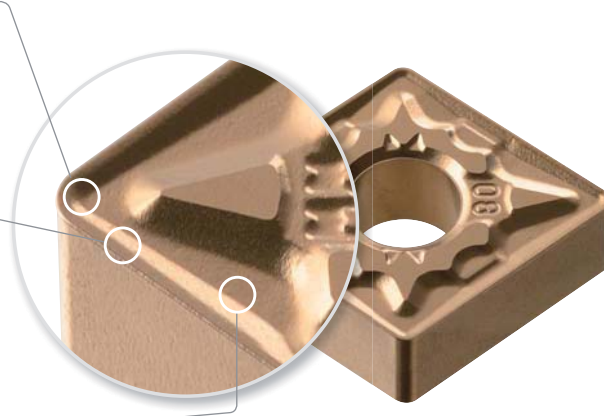
- Excellent chip control and sharp cutting at low depths of cut
- Delays crater wear
- Prevents plastic deformation

▶ Dual Land

- Balance between requirements of sharp and tough cutting edges
- Sharp cutting edge for high speed machining
- Prevents chipping in interrupted machining

▶ Wide Chip Pocket

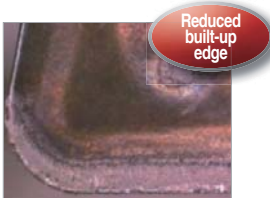
- Stable chip evacuation at high speeds/feeds
- Improved surface finishes by reduced workpiece scratches caused by work-hardened chips at high depths of cut
- Prevents built-up edge



Performance evaluation

Built-up edge

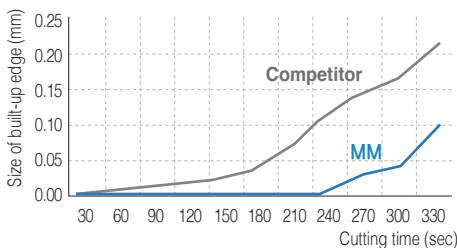
- **Workpiece** STS405 (Ferrite)
- **Cutting condition** vc (m/min) = 180, fn (mm/rev) = 0.3, ap (mm) = 3.0, wet
- **Tools** **Insert** : CNMG120408-MM (NC9125)
Holder : PCLNL2525-M12



MM(NC9125)



Competitor

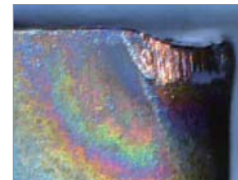


Plastic deformation

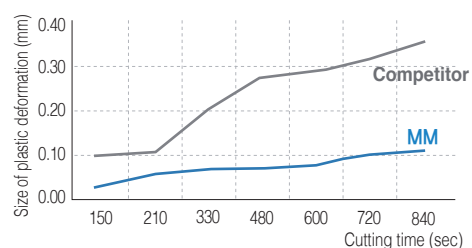
- **Workpiece** STS316 (Austenite)
- **Cutting condition** vc (m/min) = 200, fn (mm/rev) = 0.35, ap (mm) = 2.0, dry
- **Tools** **Insert** : CNMG120408-MM (NC9135)
Holder : PCLNL2525-M12



MM(NC9135)



Competitor



Features of Chip Breaker

RM Chip Breaker new [For roughing]

- The 1st recommended chip breaker for rough and interrupted machining of stainless steel
- Prevents notch wear and burrs at high feeds and depths of cut
- Reduced cutting force extends tool life in high feed machining

Features of RM chip breaker

▶ Variable Land

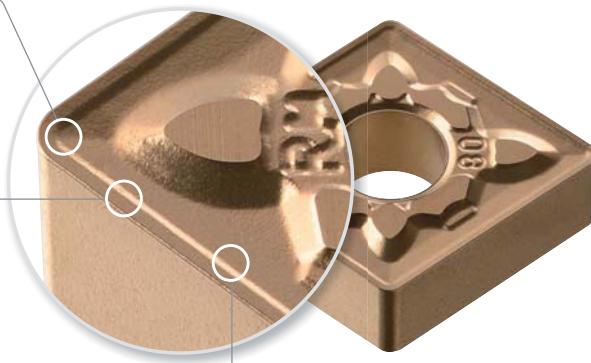
- Excellent chip control and sharp cutting at low depths of cut
- Delays crater wear
- Prevents plastic deformation

▶ Wide land & Gentle front angle

- Sharp cutting edges and a wide land reduce cutting force
- Reduced burrs
- Dispersed cutting load enables higher toughness

▶ Stepped Design

- Stepped design makes chip evacuation easier
- Smooth chip evacuation prevents plastic deformation



Performance evaluation

Notch wear

- **Workpiece** STS410 (Martensite)
- **Cutting condition** vc (m/min) = 150, fn (mm/rev) = 0.25, ap (mm) = 3.0, wet
- **Tools** **Insert** : CNMG120408-RM (NC9115)
Holder : PCLNL2525-M12

Burr

- **Workpiece** Duplex
- **Cutting condition** vc (m/min) = 120, fn (mm/rev) = 0.2, ap (mm) = 2.0, dry
- **Tools** **Insert** : CNMG120408-RM (NC9125)
Holder : PCLNL2525-M12



RM (NC9115)



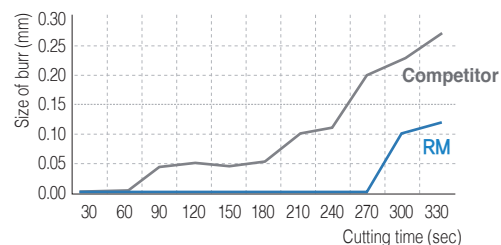
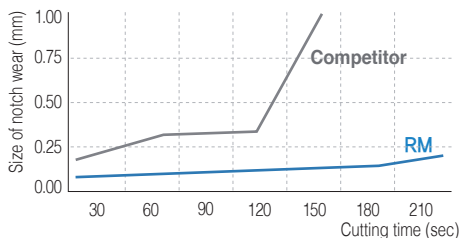
Competitor



RM (NC9125)



Competitor



Features of Chip Breaker

MK Chip Breaker new [For medium cutting]

- Ideally suited for continuous cutting of ductile cast iron and gray cast iron
- Angle lands provide upgraded surface finish

Features of MK chip breaker

Angle land



- Angle lands provide sharper cutting performance
- Maximized wear resistance in continuous cutting
- High quality results in surface finish

Wide supporting area

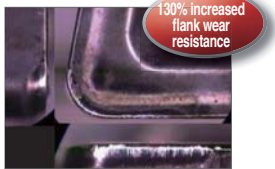
- Higher clamping stability
- Prevents chipping at vibrations during operation



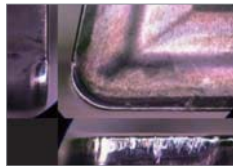
Performance evaluation

Wear resistance test

- **Workpiece** GCD500(KS), Ø90 (Spherical tube) → Ø30 machining
- **Cutting conditions** vc (m/min) = 400, fn (mm/rev) = 0.35, ap (mm) = 2.5, wet
- **Cutting time** 30 passes with results of normal wear on rake/flank surface
- **Tools** Insert : CNMG120408-MK (NC6315)
Holder : DCLNR2525-M12



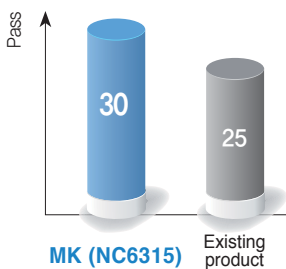
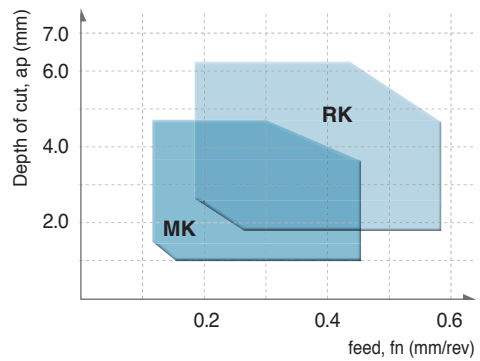
MK (NC6315)



Existing product

130% increased flank wear resistance

Recommended cutting range



Features of Chip Breaker

RK Chip Breaker new [For roughing]

- Ideally suited for high speed / high feed cutting of ductile cast iron and gray cast iron
- Flat lands provide upgraded toughness and chipping resistance

Features of RK chip breaker

Flat land



- Flat lands provide upgraded toughness and chipping resistance
- Stable machining availability under high cutting loads at high depth of cuts or interrupted cutting
- Optimized land width for high feed machining

Wide supporting area

- Higher clamping stability
- Minimizes vibration and chipping.



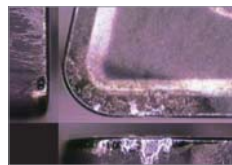
Performance evaluation

Impact resistance test

- **Workpiece** GCD500(KS), Ø90 (Triangular tube) → Ø30 machining
- **Cutting conditions** vc (m/min) = 380, fn (mm/rev) = 0.35, ap (mm) = 2, wet
- **Cutting time** 15 passes with results of normal rake surface wear and good chipping resistance
- **Tools** Insert : CNMG120408-RK (NC6315)
Holder : DCLNR2525-M12

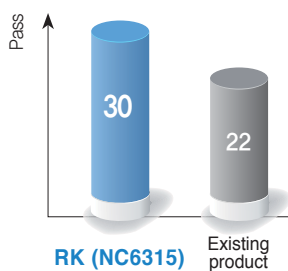


RK (NC6315)

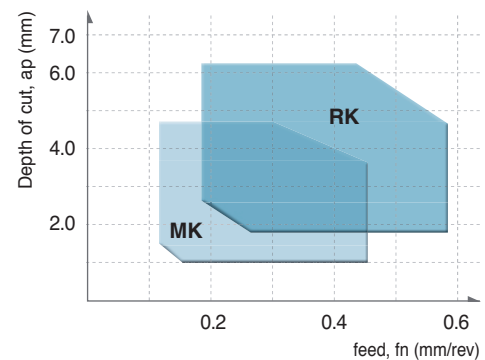


Existing product

125% increased chipping resistance



Recommended cutting range



Features of Chip Breaker

VP1 Chip Breaker [For finishing]

- Cutting edges designed in high-positive
 - Reduced contact area between rake surface and chip minimizes cutting heat and improved tool life
- Recommended cutting conditions: f_n (mm/rev) = 0.05~0.2, a_p (mm) = 0.1~1.5

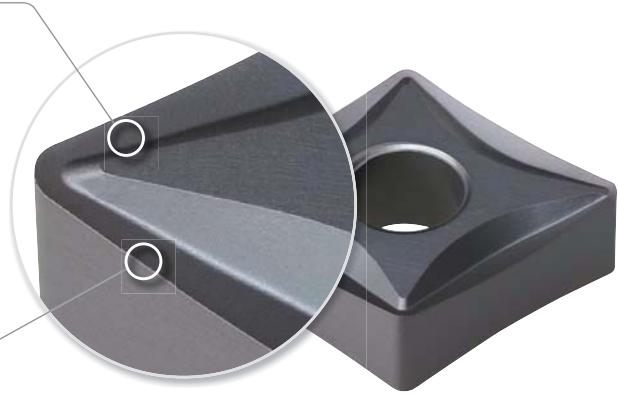
Optimized design for finishing



- Obtains excellent cutting performance and quality surface finish at low depth of cut and high speed

High-positive blade design

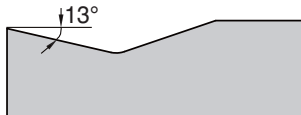
- Minimizes cutting heat by reducing the contact area between flank surface and chips
- Prevents built-up edge and extends tool life



VP2 Chip Breaker [For medium to finishing]

- High-positive cutting edge design/Side rake angle applied
 - Stable chip control improves machinability when ball machining at variable depths of cut
- Recommended cutting conditions: f_n (mm/rev) = 0.1~0.4, a_p (mm) = 0.5~4.5

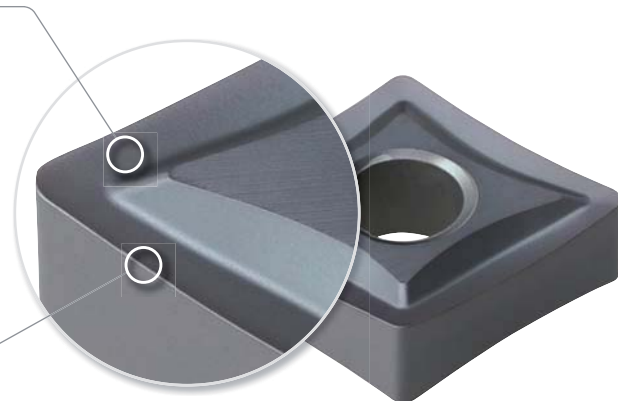
Sharp blades and wide chip pockets



- Increase productivity
- Ideal for medium to finish cutting

High-positive blade design

- Improves cutting performance with its stable chip control at varying depth of cuts

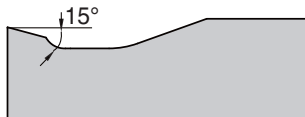


Features of Chip Breaker

VP3 Chip Breaker [For medium cutting]

- High-positive cutting edge design/Wide land applied
 - Improved stability at interrupted cutting when toughness is required. Stable chip control and machinability at high depth of cut
- Recommended cutting conditions: f_n (mm/rev) = 0.1~0.45, a_p (mm) = 0.5~5.0

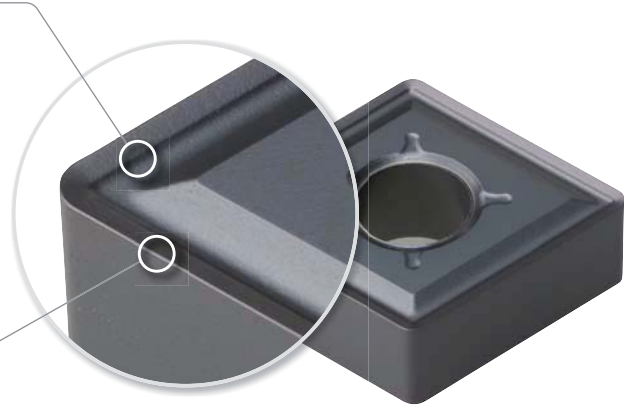
Chip pocket design leading to a R-shaped cutting edge



- Creates a stepped space between edge and land to make smooth chip flow at low and high depth of cuts

High-positive blade design / Wide land

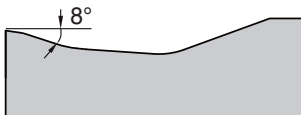
- Minimize heat concentration at high depth of cut
- Improves stability in interrupted machining of a tough workpiece



VP4 Chip Breaker **new** [For roughing]

- The 1st recommended chip breakers for machining Inconel which remains highly resistant to and hard at high temperature
- Rough machining stability resulting from reinforced cutting edges and wide chip pockets

Rake angle design resistant to high hardness cutting



- Reinforces cutting edges and prevents notch wear in rough surface machining
- Prevents chipping in interrupted cutting

Wide chip pockets

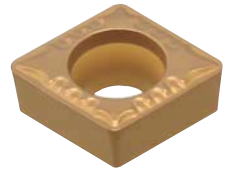
- Reduce cutting loads and improve stability even at high depth of cut in roughing



Features of Chip Breaker

Single-sided VL Chip Breaker

[For finishing]



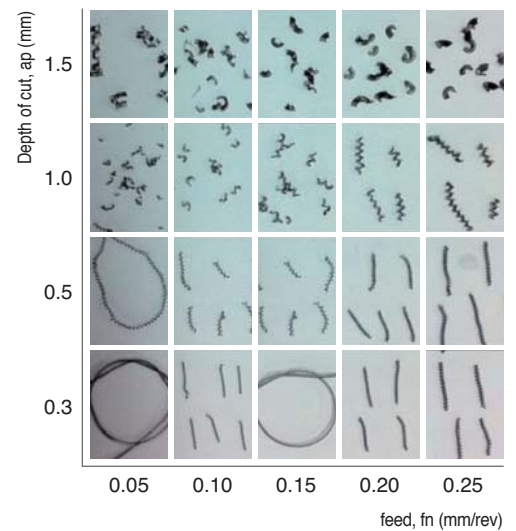
- The sharp flank surface and the chip breaker design significantly improve chip control when machining tough materials such as low carbon steel, pipe steel, and iron plates
- Sharp cutting edges reduce cutting resistance and provide excellent chip control at low depth of cuts, leading to stable machining on automated production lines

Features of VL chip breaker

- **Sharp cutting edges**
 - High rake cutting edges provide improved surface finishes
 - Low cutting resistance reduces cutting heat
- **2-step rear rake angle**
 - Stable chip control regardless of varying feed rates
 - Excellent machinability even when machining mild workpieces

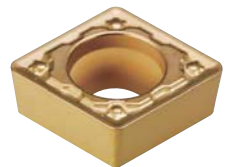
Chip control test

- **Workpiece** SCM440(Alloy steel), Ø50, Internal diameter turning
- **Cutting condition** $vc = 250$ m/min, $ap = 0.3\sim 1.5$ mm, $fn = 0.05\sim 0.25$ mm/rev
- **Tools** CCMT09T304-VL



Single-sided MP Chip Breaker

[For medium to finishing]



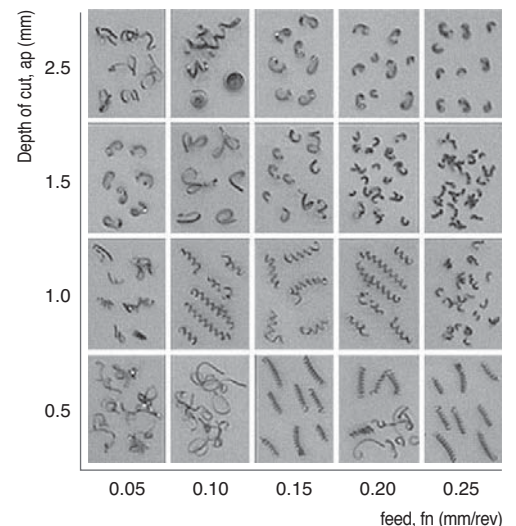
- For continuous cutting of forged steel at high feed
- Turning insert for internal machining of automobile components

Features of MP chip breaker

- **Three-dimensional 2 step chip breaker**
 - Stable chip control in unstable internal machining
 - Prevents chip blocking at internal diameter at varying depth of cut and feed.
- **Stronger cutting edge and wide chip pocket**
 - Increased chipping resistance in unstable internal machining

Chip control test

- **Workpiece** SCM440
- **Cutting condition** $vc = 200$ m/min, $ap = 0.5\sim 2.5$ mm, $fn = 0.05\sim 0.25$ mm/rev
- **Tools** CCMT09T304-MP



Features of Chip Breaker

VL Chip Breaker [For finishing]

- Improved chip control for machining material that have high toughness such as low carbon steel, pipe, steel plate etc
- Improved chip control and decreased cutting load on external, facing, and copying applications
- Improved strength of the cutting edge for measurable efficiency in automated production

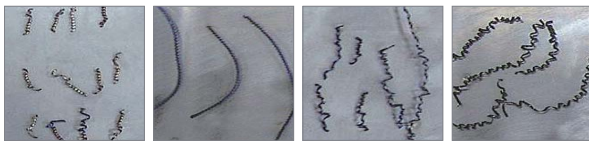


Features of VC chip breaker

- **2 steps designed chip-breaker** - Suitable Mild steel
- Stable chip control on the low feed and cutting depth
- **Designed with special dots** - Stable chip breaking on the low cutting depth
- **Applied side rake angle** - Improved chip control on facing, copying applications
- Decreased cutting load and better surface finish

Chip control test

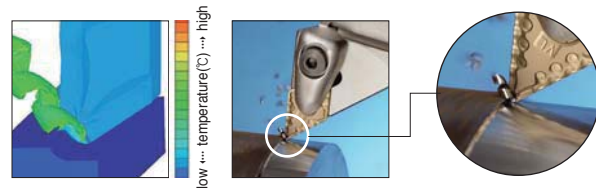
- **Workpiece** SM20C
- **Cutting conditions** $vc = 250$ m/min, $ap = 0.5$ mm
 $fn = 0.2$ mm/rev (Side), wet
- **Tools** DNMG150408-VL



VL
Chip Breakers

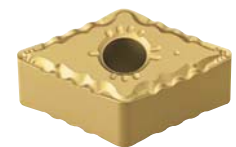
FEM Cutting simulation analysis in the design

- For design of geometry, chip shapes and chip flow are predictable
- Optimal chip breaker design by various cutting conditions and workpieces



VB Chip Breaker [For finishing]

- Excellent chip evacuation in continuous and high speed machining of various workpieces
- 3-dimensional chip breaker achieves lower cutting resistance, high rigidity of the cutting edge, and longer tool life
- Stable chip control in copying and internal machining



Features of VB chip breaker

- **6 bumps on the insert corner** - Superior chip control and chip cutting in copying with various depths of cut
- **Side rake angle** - Superb chip cutting in facing and copying. Superior tool life due to improved surface roughness and lower cutting resistance
- **Cutting edge on 100° part for medium machining (For CNMG)** - Excellent chip evacuation and toughness in machining with high depth of cut

Performance

Better machining Better Chip control Longer tool life



VB Chip Breakers



Conventional chip breaker

B Turning Chip Breakers

Features of Chip Breaker

VC Chip Breaker [For medium to finishing]

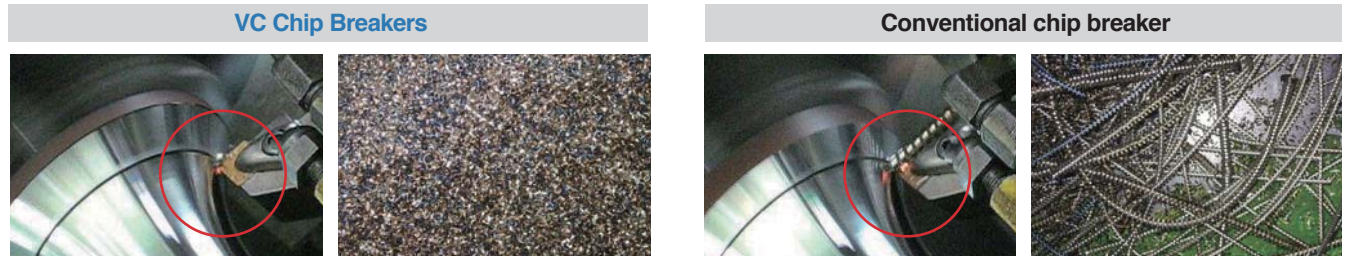


- Superior chip evacuation in high speed and continuous machining of various workpieces (carbon steel, alloy steel etc.)
- Korloy 3 dimensional chip breaker ensures longer tool life due to low cutting load and improved cutting edge strength
- Stable chip control in copying and internal machining

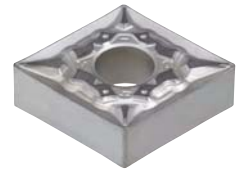
Features of VC chip breaker

- 4 bums on the insert corner
 - Excellent chip control in various depths of cut and superb chip cutting in external, internal, copy machining and facing

Evaluation of chip control (Copying)



VQ Chip Breaker [For medium to finishing_For cermet]



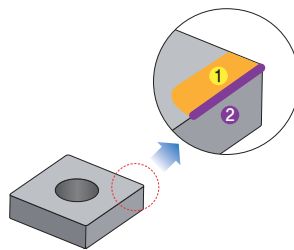
- Excellent cutting performance and reinforced cutting edges
- Improved chip control at low depth of cuts

Features of VQ chip breaker

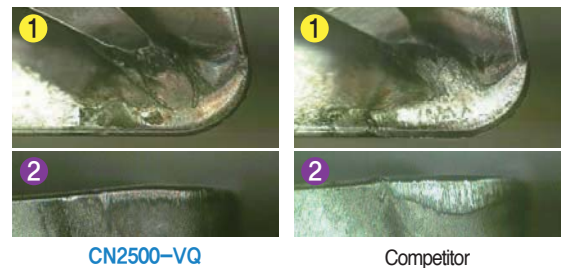
- | | |
|--|---|
| <ul style="list-style-type: none"> • Three dimensional rake angle <ul style="list-style-type: none"> - Improved surface finish thanks to sharp cutting performance - Less cutting heat and longer tool life thanks to low cutting resistance | <ul style="list-style-type: none"> • Beveled protruding structure <ul style="list-style-type: none"> - Smooth chip flow at low depth of cuts - Wide application range |
|--|---|

Performance evaluation

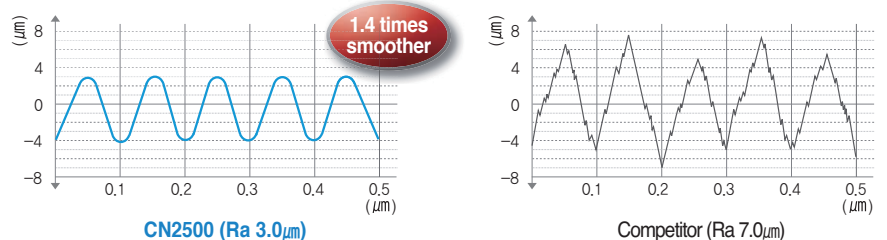
- **Workpiece** SCM440(Alloy steel), Ø100, External diameter turning
- **Cutting condition** vc = 280 m/min, ap = 1.5 mm, fn = 0.25 mm/rev
- **Tools** CNMG120408-VQ



Wear comparison



Surface roughness comparison



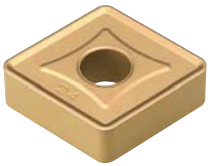
Features of Chip Breaker

VH/VT Chip Breaker [For heavy duty machining]

- Heavy duty chip breaker suitable for Heavy machining in the ship building and power plant industries
- Suitable for large vertical machines when machining shafts, rollers, rotors and optimal for the big flange machining

Features of VH chip breaker

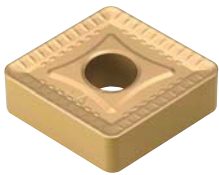
For good chip control in heavy machining (comprehensive type)



- Designed from the study of heavy cutting mechanism
- Smooth chip control from the high rake angle
- Wider cutting edge land provides stronger cutting
- Unique cutting edge treatment provides smooth cutting
- Optimized chip pocket design provides smooth chip flow

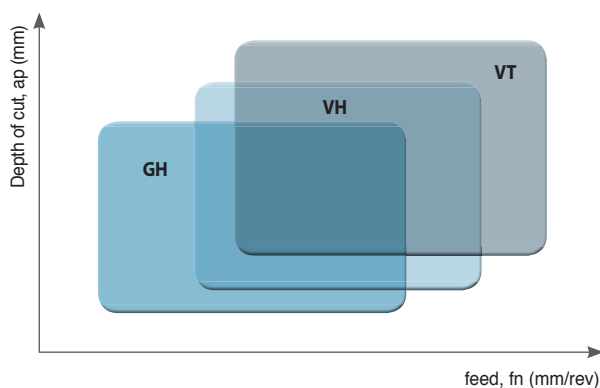
Features of VT chip breaker

For long tool life and stable cutting (higher feeds, big depth) in heavy machining



- Designed from the study of heavy cutting mechanism
- Strong edge design provides long and stable cutting (2 step rake angle of cutting edge)
- Varied cutting edge land strengthens the cutting edge
- The positioning of the chip breaking convex dot deflect the machining heat, optimizes inserts wear & absorb shock

Applications range of Chip breakers



GH : $ap(\text{mm}) = 5.0\sim 12.0$, $fn(\text{mm/rev}) = 0.55\sim 1.20$

VH : $ap(\text{mm}) = 6.0\sim 15.0$, $fn(\text{mm/rev}) = 0.70\sim 1.40$

VT : $ap(\text{mm}) = 7.0\sim 17.0$, $fn(\text{mm/rev}) = 0.75\sim 1.60$

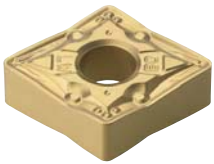
B Turning Chip Breakers

Features of Chip Breaker

LW/VW Chip Breaker [For high feed cutting]

- Improved productivity with higher feed rates and surface finishes
- Improved wear resistance and toughness

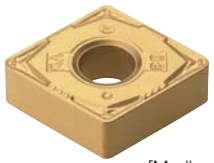
Features of LW chip breaker



[For medium cutting]

- **Curvilinear cutting edge** - Reduces cutting force
- **Cutting edge design able to handle deeper depth of cuts** - lower cutting load & reduces heat
- **Greater chip control at shallow depths of cuts** - Chip pocket design improves smooth chip flow
- **For shallow depth cutting and low speed machining** - 3D design at the corner

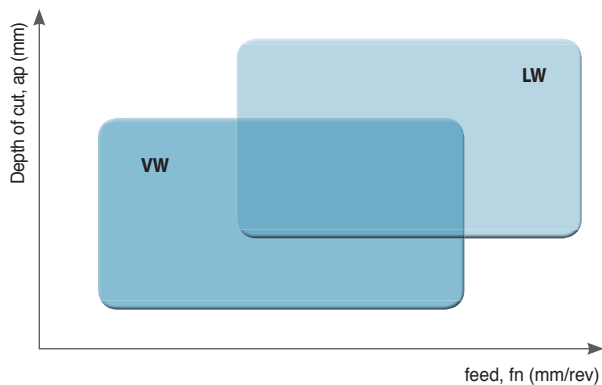
Features of VW chip breaker



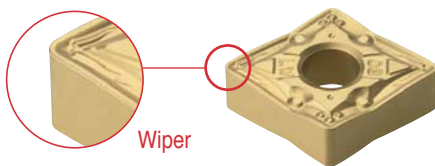
[Medium to finishing]

- **Excellent Finishing applications** - Excellent chip control
- **Insert design great for stable clamping** - Chip breaker designed close to the cutting edge
- **Similar cutting edge to C/B for medium** - strong cutting edge
- **3 Dimensional dot design on cutting corner** - reduces cutting force and good chip control at shallow depth of cut

Applications range of Chip breakers

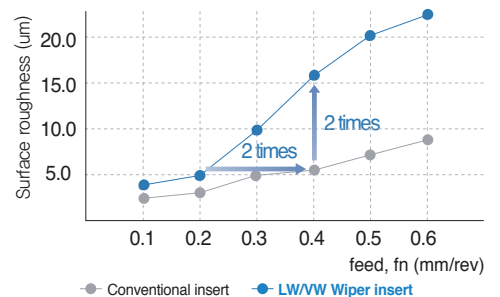


Wiper Insert



Wiper

- High productivity
- Improved surface roughness
- High feed-reducing machining time
- Improved tool life due to reduce cutting force

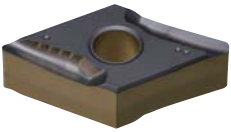


Features of Chip Breaker

SR/SH Chip Breaker new [For machining a shaft]

- Specialized for machining slender bars and thin walls
- High rake helix angle to reduce cutting resistance
- For machining steel and stainless steel

➤ The features of chip breaker, SR



[For finishing]

- The first recommended chip breaker for machining a shaft
- For continuous finishing
- Improved chip and heat evacuation due to high rake cutting edge and 3-dimensional shape
- Good surface finish
- Preventing fracture due to chamfering on the cutting edge

➤ The features of chip breaker, SH



[For medium cutting]

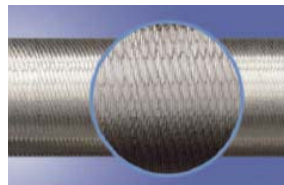
- Specialized for interrupted and medium cutting
- Efficient heat evacuation due to concave shaped back side of insert

Surface finish evaluation



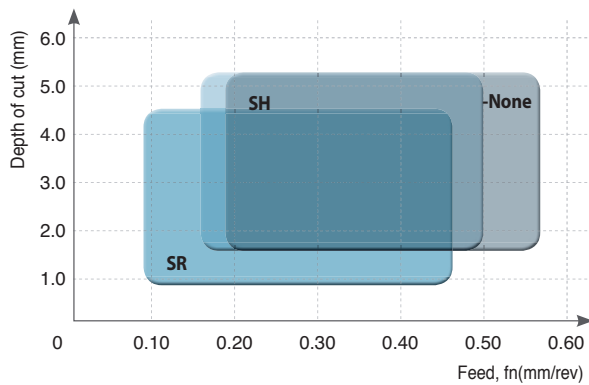
Chip breaker SR

Improved surface finish



Other chip breakers

Applications range of Chip breakers



Machining	C/B	ap(mm)	fn(mm/rev)
Medium to rough cutting	-None	1.5 ~ 5.0	0.20 ~ 0.55
Medium cutting	SH	1.5 ~ 5.0	0.15 ~ 0.50
Finish cutting	SR	1.0 ~ 4.5	0.12 ~ 0.45

B Turning Insert Code System (ISO)



1 Insert Shape

C N M G 12 04 08 - MP

C D E K L
R S T V W

2 Relief Angle

C N M G 12 04 08 - MP

B C D E
F N P O

3 Tolerance

C N M G 12 04 08 - MP

d : Inscribed circle
t : Thickness
m : Refer to figure

Code	d (mm)	m (mm)	t (mm)
A	±0.025	±0.005	±0.025
C	±0.025	±0.013	±0.025
H	±0.013	±0.013	±0.025
E	±0.025	±0.025	±0.025
G	±0.025	±0.025	±0.13
J*	±0.05 ~ ±0.15	±0.005	±0.025
K*	±0.05 ~ ±0.15	±0.013	±0.025
L*	±0.05 ~ ±0.15	±0.025	±0.025
M*	±0.05 ~ ±0.15	±0.08 ~ ±0.20	±0.13
N*	±0.05 ~ ±0.15	±0.08 ~ ±0.18	±0.025
U*	±0.08 ~ ±0.25	±0.13 ~ ±0.38	±0.13

* Sides are based on unground insert

Tolerance on C, H, R, T, W Insert Shape (Exceptional case)

d	Tolerance on d		Tolerance on m	
	J, K, L, M, N	U	M, N	U
6.35	±0.05	±0.08	±0.08	±0.13
9.525	±0.05	±0.08	±0.08	±0.13
12.7	±0.08	±0.13	±0.13	±0.20
15.875	±0.10	±0.18	±0.15	±0.27
19.05	±0.10	±0.18	±0.15	±0.27
25.4	±0.13	±0.25	±0.18	±0.38

Tolerance on D Insert Shape (Exceptional case)

d	Tolerance on d		Tolerance on m	
6.35	±0.05		±0.11	
9.525	±0.05		±0.11	
12.7	±0.08		±0.15	
15.875	±0.10		±0.18	
19.05	±0.10		±0.18	

4 Cross Section Type

C N M G 12 04 08 - MP

A B C
F G H
J M N
Q R T
U W X



04

08

-

MP

6

Height of Cutting Edge

7

Nose "r"

8

Chip Breaker for Turning

5 Cutting Edge Length, Diameter of Inscribed Circle

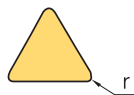
C N M G 12 04 08 - MP

Symbol							Inch	IC d(mm)
C	d	S	T	R	V	W		
03	04	03	06	03	-	02	1.2(5)	3.97
04	05	04	08	04	08	S3	1.5(6)	4.76
05	06	05	09	05	09	03	1.8(7)	5.56
-	-	-	-	06	-	-	-	6.00
06	07	06	11	06	11	04	2	6.35
08	09	07	13	07	13	05	2.5	7.94
-	-	-	-	08	-	-	-	8.00
09	11	09	16	09	16	06	3	9.525
-	-	-	-	10	-	-	-	10.00
11	13	11	19	11	19	07	3.5	11.11
-	-	-	-	12	-	-	-	12.00
12	15	12	22	12	22	08	4	12.70
14	17	14	24	14	24	09	4.5	14.29
16	19	15	27	15	27	10	5	15.875
-	-	-	-	16	-	-	-	16.00
17	21	17	30	17	30	11	5.5	17.46
19	23	19	33	19	33	13	6	19.05
-	-	-	-	20	-	-	-	20.00
22	27	22	38	22	38	15	7	22.225
-	-	-	-	25	-	-	-	25.00
25	31	25	44	25	44	17	8	25.40
32	38	31	54	31	54	21	10	31.75
-	-	-	-	32	-	-	-	32.00

() Symbol for small size insert

7 Nose "r"

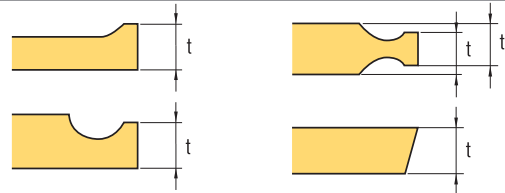
C N M G 12 04 08 - MP



Symbol		Nose "r"	
Metric	Inch	Metric	Inch
003	0.1	0.1	0.004
005	0.13	0.2	0.008
01	0.2	0.4	1/64
02	0.5	0.8	1/32
04	1	1.2	3/64
08	2	1.6	1/16
12	3	2.0	5/64
16	4	2.4	3/32
20	5	2.8	7/64
24	6	3.2	1/8
28	7	Round insert (Inch)	
32	8	Round insert (Metric)	
00	-		
M0	-		

6 Height of Cutting Edge

C N M G 12 04 08 - MP



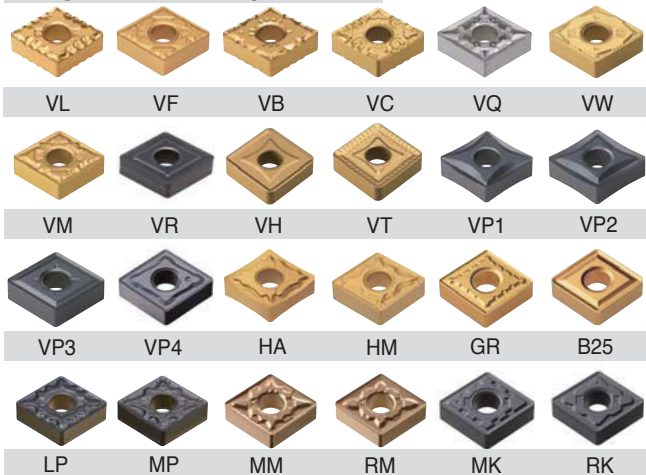
Symbol		Height of Cutting Edge (t)	
mm	Inch	mm	Inch
01	1(2)	1.59	1/16
T0	1.125	1.79	9/128
T1	1.2	1.98	5/64
02	1.5(3)	2.38	3/32
T2	1.75	2.78	7/64
03	2	3.18	1/8
T3	2.5	3.97	5/32
04	3	4.76	3/16
05	3.5	5.56	7/32
06	4	6.35	1/4
07	5	7.94	5/16
09	6	9.52	3/8
11	7	11.11	7/16
12	8	12.70	1/2

() Symbol for small size insert

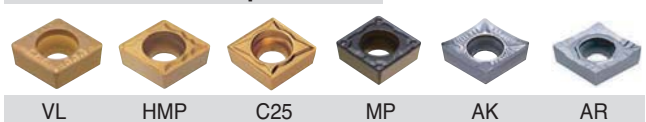
8 Chip Breaker for Turning

C N M G 12 04 08 - MP

Negative Insert Chip Breaker



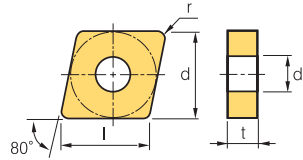
Positive Insert Chip Breaker



B Turning Insert (Negative)

CN○○○

 Rhombic **80° Negative**




Dimensions (mm)			
Size	d	t	d ₁
09	9.525	3.18	3.81
12	12.7	4.76	5.16
16	15.875	6.35	6.35
19	19.05	6.35	7.93

Workpiece	Material		Machining types															
	Symbol	Color	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Steel	P	Blue	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	M	Yellow	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	K	Red	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	N	Green	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	S	Orange	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	H	Grey	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

● Continuous cutting
 ● General cutting
 ● Interrupted cutting

	Inserts	Designation	Cermet		Coated		Coated										Uncoated		Cutting Condition									
			CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)	
Finishing	VP1	CNMG 120402-VP1																								0.01-0.10	0.10-1.00	
		120404-VP1																									0.05-0.15	0.10-1.50
		120408-VP1																									0.07-0.20	0.10-1.50
Medium cutting	VP3	CNMG 120404-VP3																								0.05-0.30	0.10-3.00	
		120408-VP3																								0.10-0.40	0.50-4.50	
		120412-VP3																								0.12-0.50	0.50-5.00	
Roughing	CNMA	090308																								0.10-0.30	0.50-3.00	
		120404																								0.15-0.60	1.00-5.00	
		120408																								0.15-0.60	1.00-6.00	
		120412																								0.15-0.70	1.50-6.00	
		120416																									0.20-0.80	2.00-6.00
		160608																									0.15-0.70	2.00-6.00
		160612																									0.15-0.70	2.00-6.00
		160616																									0.15-0.70	2.00-6.00
		190608																									0.15-0.70	2.00-10.00
		190612																									0.15-0.70	2.00-10.00
190616																									0.20-1.00	3.00-10.00		
Finishing	VB	CNMG 120404-VB	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.15-0.35	0.30-2.00	
		120408-VB	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.15-0.45	0.50-2.00	
		120412-VB																									0.20-0.50	0.50-2.00
Finishing	VF	CNMG 090304-VF						●	●																	0.07-0.30	0.50-1.50	
		090308-VF																									0.10-0.30	0.50-1.50
		120404-VF							●		●																0.07-0.30	0.50-1.50
		120408-VF										●															0.10-0.40	0.50-1.50
		120412-VF																									0.10-0.50	0.60-1.50
Finishing	VP1	CNMG 120404-VP1																								0.05-0.15	0.10-1.50	
		120408-VP1																								0.07-0.20	0.10-1.50	

 Cutting edge geometry A52~A61
  Recommended chip breaker B04~B11
  Code system B26~B27
 ● : Stock item

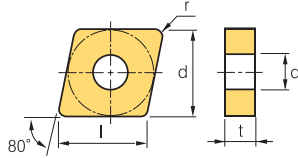
Available tool holders			
Designation	Page	Designation	Page
MCKNR/L	B171	MCRNR/L	B172
MCLNR/L	B171	PCBNR/L	B159
MCMNN	B171	PCLNR/L	B160



CN○○○

Rhombic **80° Negative**

Dimensions (mm)			
Size	d	t	d ₁
09	9.525	3.18	3.81
12	12.7	4.76	5.16



Workpiece		Machining types																				
		P	M	K	N	S	H															
Steel		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal																						
Heat resistant alloy, Titanium alloy																						
Hardened steel																						

● Continuous cutting
● General cutting
✱ Interrupted cutting

	Inserts	Designation	Cermet		Coated		Coated											Uncoated		Cutting Condition											
			CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)				
Finishing	 [Mild steel]	CNMG 120404-VL	●		●																								0.05~0.25	0.10~1.00	
		CNMG 120408-VL	●		●			●		●																				0.10~0.35	0.20~1.50
		CNMG 120412-VL						●																						0.10~0.35	0.20~1.50
Finishing	 [wiper]	CNMG 120404-VW																											0.10~0.30	0.50~3.00	
		CNMG 120408-VW							●																					0.15~0.50	0.50~4.00
		CNMG 120412-VW																												0.20~0.55	1.00~4.50
Medium to finishing		CNMG 120404-HA																							●	●			0.05~0.20	0.80~3.50	
		CNMG 120408-HA																							●	●			0.10~0.40	0.80~3.50	
		CNMG 120412-HA																								●	●			0.13~0.55	0.80~3.50
Medium to finishing		CNMG 090304-LP																											0.07~0.30	0.30~1.50	
		CNMG 090308-LP								●		●																		0.10~0.30	0.30~1.50
		CNMG 120404-LP																												0.10~0.35	0.30~2.00
		CNMG 120408-LP								●		●			●															0.10~0.40	0.50~2.50
		CNMG 120412-LP								●		●			●															0.13~0.45	0.80~3.00
Medium to finishing		CNMG 120404-VC								●		●																	0.10~0.35	0.30~2.00	
		CNMG 120408-VC								●		●																	0.15~0.40	0.50~3.00	
		CNMG 120412-VC								●		●																	0.15~0.45	0.50~3.00	

Cutting edge geometry **A52~A61**
 Recommended chip breaker **B04~B11**
 Code system **B26~B27**
 ● : Stock item

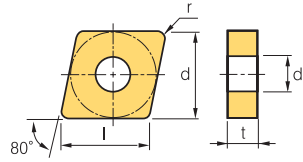
Available tool holders			
Designation	Page	Designation	Page
MCKNR/L	B171	MCRNR/L	B172
MCLNR/L	B171	PCBNR/L	B159
MCMNN	B171	PCLNR/L	B160



B Turning Insert (Negative)

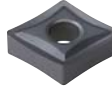
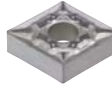


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 Rhombic **80° Negative**



Dimensions (mm)			
Size	d	t	d ₁
09	9.525	3.18	3.81
12	12.7	4.76	5.16
16	15.875	6.35	6.35
19	19.05	6.35	7.93

Workpiece	Material													Machining types				
	Steel	Stainless steel	Cast iron	Non-ferrous metal	Heat resistant alloy, Titanium alloy	Hardened steel	P	M	K	N	S	H	●	●	●	●	●	●
Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Inserts	Designation	Cermet		Coated		Coated										Uncoated		Cutting Condition										
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)		
Medium to finishing 	CNMG 120404-VP2							●									●	●	●	●	●				0.05-0.30	0.10-3.00		
	CNMG 120408-VP2																●	●	●	●	●				0.10-0.40	0.50-4.50		
	CNMG 160618-VP2																									0.12-0.45	0.80-5.00	
	CNMG 190608-VP2																									0.12-0.50	1.00-5.20	
	CNMG 190612-VP2																										0.15-0.50	1.20-5.50
	CNMG 190616-VP2																										0.18-0.50	1.50-5.50
Medium to finishing  [Cermet]	CNMG 090304-VQ																									0.05-0.30	0.50-3.50	
	CNMG 090308-VQ																										0.08-0.30	0.80-4.00
	CNMG 090408-VQ										●																0.05-0.30	0.50-3.50
	CNMG 090412-VQ										●																0.08-0.30	0.80-4.00
	CNMG 120404-VQ	●	●	●	●	●																					0.05-0.30	0.80-4.00
	CNMG 120408-VQ	●	●	●	●	●																					0.08-0.40	0.80-4.00
	CNMG 120412-VQ																										0.10-0.40	0.80-4.00
Medium cutting 	CNMG 090304-HM										●															0.12-0.40	0.50-3.80	
	CNMG 120404-HM								●	●	●											●				0.05-0.30	0.90-5.00	
	CNMG 120408-HM								●	●	●					●						●				0.10-0.50	1.00-5.00	
	CNMG 120412-HM							●															●				0.18-0.50	1.00-5.00
	CNMG 190612-HM																										0.13-0.60	1.30-7.00
Medium cutting 	CNMG 120404-MK																									0.05-0.30	0.90-4.00	
	CNMG 120408-MK																										0.10-0.50	1.00-5.00
	CNMG 120412-MK																										0.13-0.60	1.30-5.00
	CNMG 120416-MK																										0.15-0.60	1.30-5.00
	CNMG 160608-MK																										0.28-0.70	1.80-7.00
	CNMG 160612-MK																										0.28-0.72	2.00-8.00
	CNMG 160616-MK																										0.28-0.74	2.00-8.00
	CNMG 190608-MK																										0.33-0.78	2.50-9.00
	CNMG 190612-MK																										0.35-0.78	2.60-9.50
CNMG 190616-MK																										0.35-0.80	2.60-10.00	

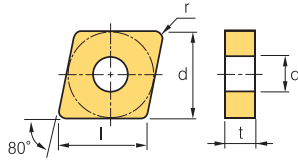
 Cutting edge geometry A52~A61
  Recommended chip breaker B04~B11
  Code system B26~B27
 ● : Stock item

Available tool holders			
Designation	Page	Designation	Page
MCKNR/L	B171	MCRNR/L	B172
MCLNR/L	B171	PCBNR/L	B159
MCMNN	B171	PCLNR/L	B160





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Rhombic 80° Negative



Dimensions (mm)			
Size	d	t	d ₁
09	9.525	3.18	3.81
12	12.7	4.76	5.16
16	15.875	6.35	6.35
19	19.05	6.35	7.93

Workpiece	Material	Code	Machining types															
			● Continuous cutting				● General cutting				● Interrupted cutting							
Steel	P	● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●																
Stainless steel	M	● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●																
Cast iron	K	● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●																
Non-ferrous metal	N	● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●																
Heat resistant alloy, Titanium alloy	S	● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●																
Hardened steel	H	● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●																

Inserts	Designation	Cermet		Coated		Coated											Uncoated		Cutting Condition							
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)
Medium cutting 	CNMG 090304-MM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.08~0.35	0.50~5.00
	CNMG 090308-MM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.40	0.50~5.00
	CNMG 090312-MM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.12~0.45	0.50~5.00
	CNMG 090404-MM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.08~0.35	0.50~5.00
	CNMG 090408-MM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.40	0.50~5.00
	CNMG 090412-MM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.12~0.45	0.50~5.00
	CNMG 120404-MM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.40	0.50~5.50
	CNMG 120408-MM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.12~0.45	0.50~5.50
	CNMG 120412-MM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.15~0.60	0.50~5.50
	CNMG 120416-MM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.20~0.65	0.50~5.50
	CNMG 160608-MM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.12~0.45	0.50~7.00
	CNMG 160612-MM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.15~0.60	0.50~7.00
	CNMG 160616-MM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.18~0.65	0.50~7.00
	CNMG 190608-MM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.12~0.45	0.50~8.50
CNMG 190612-MM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.15~0.60	0.50~8.50	
CNMG 190616-MM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.18~0.65	0.50~8.50	
Medium cutting 	CNMG 090304-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.40	0.40~3.80	
	CNMG 090308-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.15~0.40	0.50~4.00	
	CNMG 090312-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.15~0.50	0.80~4.20	
	CNMG 090404-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.40	0.40~3.80	
	CNMG 090408-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.15~0.40	0.50~4.00	
	CNMG 090412-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.15~0.50	0.80~4.20	
	CNMG 120404-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.40	0.40~4.00	
	CNMG 120408-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.15~0.45	0.50~4.50	
	CNMG 120412-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.15~0.50	0.80~5.00	
	CNMG 120416-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.28~0.55	1.00~5.00	
	CNMG 160608-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.15~0.50	0.50~7.00	
	CNMG 160612-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.18~0.60	0.80~7.00	
	CNMG 160616-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.15~0.60	1.00~7.00	
	CNMG 190608-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.15~0.60	0.50~8.50	
CNMG 190612-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.40	0.40~3.80		
CNMG 190616-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.15~0.40	0.50~4.00		

Cutting edge geometry A52~A61
 Recommended chip breaker B04~B11
 Code system B26~B27
 ● : Stock item

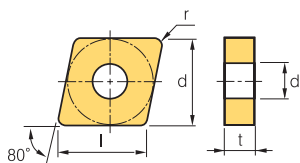
Available tool holders			
Designation	Page	Designation	Page
MCKNR/L	B171	MCRNR/L	B172
MCLNR/L	B171	PCBNR/L	B159
MCMNN	B171	PCLNR/L	B160



B Turning Insert (Negative)

CN○○○

Rhombic **80° Negative**



Dimensions (mm)			
Size	d	t	d ₁
09	9.525	3.18	3.81
12	12.7	4.76	5.16
16	15.875	6.35	6.35
19	19.05	6.35	7.93
25	25.4	9.52	9.12

Workpiece	Material Compatibility													Machining types				
	Steel	Stainless steel	Cast iron	Non-ferrous metal	Heat resistant alloy, Titanium alloy	Hardened steel	P	M	K	N	S	H	●	●	●	●	●	●
Steel							●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel							●	●	●	●	●	●	●	●	●	●	●	●
Cast iron							●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal							●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy							●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel							●	●	●	●	●	●	●	●	●	●	●	●

Inserts	Designation	Cermets		Coated		Coated										Uncoated		Cutting Condition												
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)				
Medium cutting 	CNMG 090304-VM																									0.05~0.30	0.90~3.50			
	CNMG 090308-VM							●		●																	0.10~0.45	1.00~3.50		
	CNMG 120404-VM	●	●	●				●	●	●						●	●					●					0.05~0.30	0.90~5.00		
	CNMG 120408-VM	●	●	●				●	●	●	●					●	●			●		●					0.10~0.50	1.00~5.00		
	CNMG 120412-VM							●		●	●					●	●			●							0.13~0.60	1.30~5.00		
	CNMG 120416-VM										●																	0.20~0.60	1.50~5.50	
	CNMG 160608-VM											●																0.10~0.50	1.00~6.70	
	CNMG 160612-VM																												0.13~0.60	1.30~6.70
	CNMG 190608-VM											●																	0.13~0.65	1.30~7.00
	CNMG 190612-VM												●																0.15~0.70	1.50~7.00
CNMG 190616-VM																												0.18~0.75	1.80~7.00	
Medium cutting 	CNMG 120404-VP3																●	●	●	●	●			●	●	0.05~0.30	0.10~3.00			
	CNMG 120408-VP3																●	●	●	●	●			●	●	0.10~0.40	0.50~4.50			
	CNMG 120412-VP3																●	●	●	●	●			●	●	0.12~0.50	0.50~5.00			
	CNMG 120416-VP3																											0.25~0.45	1.00~4.00	
	CNMG 160608-VP3																											0.15~0.35	0.80~6.00	
	CNMG 160612-VP3																											0.20~0.40	1.00~6.00	
	CNMG 160616-VP3																											0.20~0.40	1.00~6.00	
	CNMG 190608-VP3																												0.20~0.50	1.00~7.00
	CNMG 190612-VP3																												0.25~0.55	1.00~8.00
	CNMG 190616-VP3																												0.30~0.60	1.00~8.00
Medium cutting 	CNMG 120408-LW							●	●	●																	0.15~0.60	1.00~5.00		
	CNMG 120412-LW							●	●																			0.20~0.70	1.00~6.00	
General 	CNMG 120404-B25	●	●	●				●	●	●	●					●											0.17~0.45	1.00~5.00		
	CNMG 120408-B25	●	●	●				●	●	●	●					●	●			●		●					0.23~0.60	1.50~5.00		
	CNMG 120412-B25			●				●	●	●	●																	0.25~0.60	2.00~5.00	
	CNMG 160608-B25							●	●	●	●																	0.25~0.60	2.00~6.50	
	CNMG 160612-B25							●	●	●	●																	0.27~0.60	2.00~6.50	
	CNMG 160616-B25							●	●	●	●																	0.27~0.60	2.00~6.50	
	CNMG 190604-B25										●	●																0.20~0.45	3.00~8.00	
	CNMG 190608-B25								●	●	●	●																0.25~0.60	3.00~8.00	
	CNMG 190612-B25								●	●	●	●					●	●			●							0.30~0.60	3.00~8.00	
	CNMG 190616-B25								●	●																		0.23~0.70	3.00~8.00	

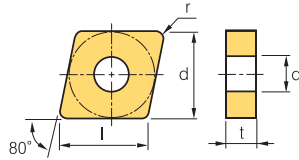
Cutting edge geometry A52~A61 Recommended chip breaker B04~B11 Code system B26~B27 ● : Stock item

Available tool holders			
Designation	Page	Designation	Page
MCKNR/L	B171	MCRNR/L	B172
MCLNR/L	B171	PCBNR/L	B159
MCMNN	B171	PCLNR/L	B160



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Rhombic **80° Negative**



Dimensions (mm)			
Size	d	t	d ₁
12	12.7	4.76	5.16
16	15.875	6.35	6.35
19	19.05	6.35	7.93
25	25.4	9.52	9.12

Workpiece	Material	Grade	Machining types																
			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
Steel		P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel		M	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron		K	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal		N	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy		S																	
Hardened steel		H																	

Inserts	Designation	Cermet		Coated		Coated										Uncoated		Cutting Condition										
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)		
GR 	CNMG 120408-GR					●	●	●	●	●																0.20~0.50	1.00~7.00	
	120412-GR						●	●	●	●																	0.25~0.50	1.30~7.00
	120416-GR																										0.25~0.60	1.80~6.00
	160608-GR									●																	0.20~0.70	1.00~8.00
	160612-GR							●	●	●	●																0.25~0.70	1.30~8.00
	160616-GR									●																	0.25~0.75	1.80~8.00
	190608-GR							●		●	●																0.20~0.70	1.70~10.00
	190612-GR							●	●	●	●	●															0.30~0.75	1.70~10.00
	190616-GR								●	●	●	●															0.30~0.80	1.80~10.00
	190624-GR																										0.35~0.85	2.00~12.00
	250724-GR																										0.40~1.00	2.30~15.00
250924-GR								●		●	●															0.40~1.00	2.30~15.00	
RK 	CNMG 120404-RK																									0.20~0.47	1.30~6.00	
	120408-RK											●	●														0.20~0.50	1.50~6.00
	120412-RK											●	●														0.28~0.53	1.80~6.00
	120416-RK												●														0.28~0.63	2.00~6.00
	160608-RK												●														0.28~0.70	1.80~7.00
	160612-RK												●														0.28~0.72	2.00~8.00
	160616-RK												●	●													0.28~0.74	2.00~8.00
	190612-RK													●													0.35~0.78	2.60~9.50
	190616-RK													●													0.35~0.80	2.60~10.00
RM 	CNMG 120404-RM													●	●	●					●	●				0.10~0.50	2.00~6.00	
	120408-RM													●	●	●	●					●	●	●			0.15~0.55	2.00~6.00
	120412-RM													●	●	●	●					●	●	●			0.20~0.60	2.00~6.00
	120416-RM														●	●	●					●					0.25~0.70	2.00~6.00
	160608-RM														●	●	●					●					0.15~0.55	2.00~8.00
	160612-RM														●	●	●					●					0.20~0.60	2.00~8.00
	160616-RM														●	●	●					●					0.25~0.70	2.00~8.00
	190608-RM															●	●	●					●				0.15~0.55	2.00~10.00
	190612-RM															●	●	●					●				0.20~0.60	2.00~10.00
	190616-RM															●	●	●					●				0.25~0.70	2.00~10.00
	250924-RM																●	●	●					●			0.40~1.20	4.00~14.00

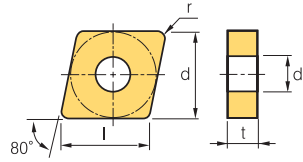
Cutting edge geometry **A52~A61**
 Recommended chip breaker **B04~B11**
 Code system **B26~B27**
 ● : Stock item

Available tool holders			
Designation	Page	Designation	Page
MCKNR/L	B171	MCRNR/L	B172
MCLNR/L	B171	PCBNR/L	B159
MCMNN	B171	PCLNR/L	B160

B Turning Insert (Negative)


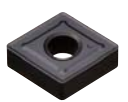


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 Rhombic **80° Negative**



Dimensions (mm)			
Size	d	t	d ₁
12	12.7	4.76	5.16
16	15.875	4.76~6.35	6.35
19	19.05	6.35	7.93

Workpiece	Machining types															
	P	M	K	N	S	H										
Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Inserts	Designation	Cermet		Coated		Coated										Uncoated		Cutting Condition									
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)	
Roughing 	CNMG 120408-VP4																								0.15~0.35	1.00~4.00	
	120412-VP4																									0.20~0.40	1.00~4.00
	160608-VP4																									0.20~0.45	1.00~6.50
	160612-VP4																									0.25~0.50	1.50~6.50
	190608-VP4																									0.15~0.45	1.00~8.00
	190612-VP4																									0.20~0.50	1.20~8.50
Roughing 	CNMG 120404-VR																								0.20~0.50	1.00~6.50	
	120408-VR																									0.25~0.55	1.20~7.00
	120412-VR																									0.30~0.60	1.50~7.00
	120416-VR																									0.35~0.65	1.70~7.00
	120508-VR																									0.25~0.55	1.20~7.00
	120512-VR																									0.30~0.60	1.50~7.00
	160612-VR																									0.35~0.70	2.00~8.00
	160616-VR																									0.35~0.75	2.20~8.00
190612-VR						●	●																		0.35~0.70	2.00~10.00	
190616-VR						●	●																		0.35~0.75	2.20~10.00	
Medium to finishing 	CNMM 120408-HA																								0.10~0.40	0.80~3.50	
Roughing 	CNMM 120408-GR																								0.20~0.50	1.00~7.00	
	120412-GR																									0.25~0.50	1.30~7.00
	190612-GR								●																	0.30~0.75	1.70~10.00
	190616-GR																									0.30~0.80	1.80~10.00

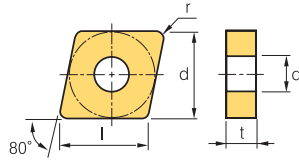
 Cutting edge geometry A52~A61
  Recommended chip breaker B04~B11
  Code system B26~B27
 ● : Stock item

Available tool holders			
Designation	Page	Designation	Page
MCKNR/L	B171	MCRNR/L	B172
MCLNR/L	B171	PCBNR/L	B159
MCMNN	B171	PCLNR/L	B160



CN○○○

◻ Rhombic 80° Negative



Dimensions (mm)			
Size	d	t	d ₁
12	12.7	4.76	5.16
16	15.875	4.76~6.35	6.35
19	19.05	6.35	7.93
25	25.4	7.94~9.52	9.12

Workpiece	Steel	P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Machining types		
	Stainless steel	M	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	● Continuous cutting ● General cutting ● Interrupted cutting
	Cast iron	K	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
	Non-ferrous metal	N	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
	Heat resistant alloy, Titanium alloy	S	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
	Hardened steel	H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		

Inserts	Designation	Cermet		Coated		Coated											Uncoated		Cutting Condition								
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)	
Heavy 	CNMM 120408-GH							●	●	●															0.30~0.60	2.50~8.00	
	120412-GH						●	●	●																0.30~0.70	2.50~8.00	
	160412-GH																								0.30~0.70	2.50~8.00	
	160424-GH																								0.30~1.20	2.50~8.00	
	160612-GH									●															0.30~0.90	2.50~8.00	
	160616-GH																								0.30~1.20	2.50~8.00	
	160624-GH																								0.30~1.50	2.50~8.00	
	190608-GH										●															0.30~0.60	2.50~8.00
	190612-GH						●	●		●	●															0.30~0.70	3.00~8.00
	190616-GH						●	●		●	●															0.45~0.90	3.00~8.00
	190624-GH						●	●		●																0.55~1.20	4.00~9.00
	250716-GH																									0.50~1.00	4.50~10.00
	250724-GH						●	●																		0.55~1.20	5.00~12.00
	250924-GH						●	●		●	●															0.55~1.20	5.00~12.00
250950-GH																									0.65~1.30	6.00~12.00	
Heavy [General]	CNMM 190612-VH					●																			0.50~0.90	5.00~10.00	
	190616-VH					●																				0.50~1.10	5.00~10.00
	190624-VH					●																				0.60~1.20	6.00~12.00
	250724-VH					●																				0.70~1.40	6.00~15.00
	250924-VH					●																				0.70~1.40	6.00~15.00
Heavy [High feed cutting]	CNMM 190612-VT					●			●	●															0.60~1.00	6.00~13.00	
	190616-VT					●																				0.60~1.10	5.00~10.00
	190624-VT					●																				0.60~1.60	7.00~13.00
	250724-VT					●																				0.75~16.0	7.00~17.00
	250924-VT					●																				0.75~16.0	7.00~17.00

Cutting edge geometry **A52~A61**
 Recommended chip breaker **B04~B11**
 Code system **B26~B27**
● : Stock item

Available tool holders			
Designation	Page	Designation	Page
MCKNR/L	B171	MCRNR/L	B172
MCLNR/L	B171	PCBNR/L	B159
MCMNN	B171	PCLNR/L	B160

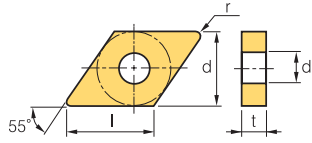


B Turning Insert (Negative)

DN

Dimensions (mm)			
Size	d	t	d ₁
11	9.525	3.18~4.76	3.81
15	12.7	4.76~6.35	5.16

Rhombic **55° Negative**



Workpiece	Material		Machining types																
	Symbol	Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Steel		P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel		M	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron		K	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal		N																	
Heat resistant alloy, Titanium alloy		S																	
Hardened steel		H																	

● Continuous cutting
 ● General cutting
 ● Interrupted cutting

Inserts	Designation	Cermet		Coated		Coated										Uncoated		Cutting Condition										
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)		
Finishing 	DNGG	150404-VP1																								0.05-0.15	0.10-1.50	
		150408-VP1																									0.07-0.20	0.10-1.50
		150604-VP1																									0.05-0.15	0.10-1.50
		150608-VP1																									0.07-0.20	0.10-1.50
Medium cutting 	DNGG	150404-VP3																								0.05-0.30	0.10-3.00	
		150408-VP3																									0.10-0.45	0.50-5.00
		150412-VP3																									0.12-0.50	0.50-5.00
		150604-VP3																									0.05-0.30	0.10-3.00
		150608-VP3																									0.10-0.45	0.50-5.00
		150612-VP3																									0.12-0.50	0.50-5.00
Roughing 	DNMA	110408																								0.17-0.45	0.80-3.00	
		150404																									0.17-0.55	0.40-4.00
		150408																									0.25-0.55	0.80-4.00
		150412											●														0.25-0.65	0.50-4.00
		150604																									0.17-0.55	0.40-4.00
		150608											●														0.25-0.55	0.80-4.00
		150612											●														0.25-0.65	1.20-4.00
		190608																									0.30-0.80	2.50-13.00
Finishing 	DNMG	110404-VB																								0.05-0.25	0.30-2.00	
		150404-VB	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		0.10-0.35	0.30-2.00
		150408-VB	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		0.15-0.45	0.50-2.00
		150412-VB																									0.15-0.45	0.50-2.00
		150604-VB	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		0.10-0.35	0.30-2.00
		150608-VB	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		0.15-0.45	0.50-2.00
		150612-VB																									0.20-0.50	0.50-2.50

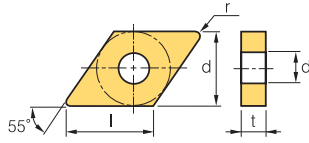
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27** ● : Stock item

Available tool holders			
Designation	Page	Designation	Page
MCKNR/L	B171	MCRNR/L	B172
MCLNR/L	B171	PCBNR/L	B159
MCMNN	B171	PCLNR/L	B160



DN

Dimensions (mm)			
Size	d	t	d ₁
11	9.525	3.18~4.76	3.81
15	12.7	4.76~6.35	5.16



Rhombic **55° Negative**

Workpiece	Material		Machining types																	
	Color	Code	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Steel	P		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	M																			
Cast iron	K		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	N																			
Heat resistant alloy, Titanium alloy	S																			
Hardened steel	H																			

	Inserts	Designation	Cermet		Coated		Coated										Uncoated		Cutting Condition									
			CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)	
Finishing		DNMG 110402-VF																								0.05~0.20	0.20~1.00	
		110404-VF									●																0.07~0.30	0.50~1.50
		110408-VF																									0.10~0.40	0.50~1.50
		150404-VF																									0.07~0.30	0.50~1.50
		150408-VF																									0.10~0.40	0.50~1.50
		150412-VF																									0.15~0.50	0.60~1.50
		150604-VF								●			●														0.13~0.30	0.50~1.50
		150608-VF								●				●													0.10~0.40	0.50~1.50
150612-VF																									0.15~0.50	0.60~1.50		
Finishing		DNMG 110408-VL																								0.05~0.20	0.10~1.00	
		150404-VL									●		●														0.05~0.25	0.10~1.50
		150408-VL								●		●		●													0.05~0.30	0.20~1.50
		150412-VL																									0.10~0.30	0.25~1.50
		150604-VL								●																	0.05~0.25	0.10~1.50
		150608-VL								●		●		●													0.05~0.30	0.20~1.50
150612-VL																									0.10~0.30	0.25~1.50		
Finishing		DNMG 150404-VP1																			●	●	●	●	0.05~0.15	0.10~1.50		
		150408-VP1																				●	●	●	●	0.07~0.20	0.10~1.50	
		150604-VP1																					●	●	●	●	0.05~0.15	0.10~1.50
		150608-VP1																					●	●	●	●	0.07~0.20	0.10~1.50
Finishing		DNMG 150404-VW																								0.10~0.35	0.30~3.00	
		150408-VW																								0.10~0.40	0.30~3.00	
		150604-VW																								0.10~0.35	0.30~3.00	
		150608-VW																								0.10~0.40	0.30~3.00	
Medium to finishing		DNMG 150404-HA																				●	●	●	0.05~0.30	0.80~3.50		
		150408-HA																					●	●	●	0.10~0.40	0.80~3.50	
		150604-HA																						●	●	●	0.05~0.30	0.80~3.50
		150608-HA																						●	●	●	0.10~0.40	0.80~3.50

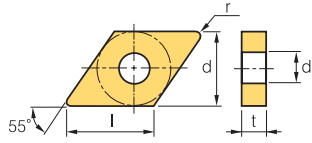
Cutting edge geometry **A52~A61**
 Recommended chip breaker **B04~B11**
 Code system **B26~B27**
 ● : Stock item

Available tool holders			
Designation	Page	Designation	Page
MCKNR/L	B171	MCRNR/L	B172
MCLNR/L	B171	PCBNR/L	B159
MCMNN	B171	PCLNR/L	B160



B Turning Insert (Negative)





DN ○○



Dimensions (mm)			
Size	d	t	d ₁
11	9.525	4.76	3.81
15	12.7	4.76~6.35	5.16

Rhombic 55° Negative

Workpiece	Material	Machining types																
		● Continuous cutting ● General cutting ⊛ Interrupted cutting																
Steel	P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	M	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	K	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	N																	
Heat resistant alloy, Titanium alloy	S																	
Hardened steel	H																	

Inserts	Designation	Cermet		Coated		Coated														Uncoated		Cutting Condition					
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)	
Medium to finishing 	DNMG 110402-LP																									0.06~0.30	0.25~1.20
	110404-LP						●	●																		0.07~0.30	0.30~1.50
	110408-LP																									0.10~0.40	0.30~1.50
	110504-LP																									0.07~0.30	0.30~1.50
	110508-LP																									0.10~0.40	0.30~1.50
	150404-LP						●	●	●																	0.10~0.35	0.30~2.00
	150408-LP						●	●	●																	0.10~0.40	0.50~2.50
	150412-LP						●	●	●																	0.13~0.45	0.80~3.00
	150604-LP						●	●	●																	0.10~0.35	0.30~2.00
	150608-LP						●	●	●																	0.10~0.40	0.50~2.50
150612-LP						●	●	●																	0.13~0.45	0.80~3.00	
Medium to finishing 	DNMG 150404-VC					●	●																		0.10~0.35	0.30~2.00	
	150408-VC					●	●	●																		0.15~0.40	0.50~3.00
	150412-VC					●	●	●																		0.15~0.45	0.50~3.00
	150604-VC					●	●	●																		0.10~0.35	0.30~2.00
	150608-VC					●	●	●																		0.15~0.40	0.50~3.00
150612-VC					●	●	●																		0.15~0.45	0.50~3.00	
Medium to finishing 	DNMG 150404-VP2															●	●	●	●	●	●	●	●	●	0.05~0.30	0.10~3.00	
	150408-VP2															●	●	●	●	●	●	●	●	●	0.10~0.40	0.50~4.50	
	150604-VP2															●	●	●	●	●	●	●	●	●	0.05~0.30	0.10~3.00	
	150608-VP2									●						●	●	●	●	●	●	●	●	●	0.10~0.40	0.50~4.50	
Medium to finishing  [Cermet]	DNMG 110404-VQ	●		●																					0.05~0.30	0.50~3.50	
	110408-VQ			●																						0.08~0.40	0.80~4.00
	110412-VQ																									0.10~0.40	1.00~4.00
	150404-VQ	●	●	●	●	●																				0.05~0.30	0.80~3.50
	150408-VQ	●		●	●	●																				0.08~0.40	0.80~4.00
	150412-VQ																									0.10~0.40	0.50~4.20
	150604-VQ	●	●	●	●	●																				0.05~0.30	0.80~4.00
	150608-VQ	●	●	●	●	●																				0.08~0.40	0.80~4.00
150612-VQ																									0.10~0.40	0.50~4.20	

➡ Cutting edge geometry A52~A61
 ➡ Recommended chip breaker B04~B11
 ➡ Code system B26~B27
 ● : Stock item

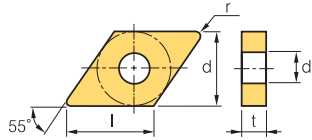
Available tool holders			
Designation	Page	Designation	Page
MCKNR/L	B171	MCRNR/L	B172
MCLNR/L	B171	PCBNR/L	B159
MCMNN	B171	PCLNR/L	B160



B Turning Insert (Negative)




DN ○ ○

 Rhombic **55° Negative**



Dimensions (mm)			
Size	d	t	d ₁
11	9.525	4.76	3.81
15	12.7	4.76~6.35	5.16

Workpiece	Material	Machining types																				
		● Continuous cutting ● General cutting ✦ Interrupted cutting																				
Steel	P	●	●	✦	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	M	●	●	✦	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	K	●	●	✦	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	N																					
Heat resistant alloy, Titanium alloy	S																					
Hardened steel	H																					

Inserts	Designation	Cermets		Coated		Coated										Uncoated		Cutting Condition										
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)		
Medium cutting 	DNMG 110404-VM																									0.05~0.30	0.90~4.00	
	110408-VM						●			●																	0.10~0.50	1.00~4.00
	110412-VM																										0.13~0.50	1.30~4.00
	150404-VM	●								●						●	●										0.05~0.30	0.90~5.00
	150408-VM	●		●						●	●					●	●										0.10~0.50	1.00~5.00
	150412-VM	●									●					●	●										0.13~0.60	1.30~5.00
	150604-VM	●		●				●		●	●					●	●						●				0.05~0.30	0.90~5.00
	150608-VM	●						●	●	●	●					●	●						●				0.10~0.50	1.00~5.00
	150612-VM										●					●	●											0.13~0.60
Medium cutting 	DNMG 150404-VP3																●	●	●	●	●		●	●	●	0.05~0.30	0.10~3.00	
	150408-VP3																●	●	●	●	●		●	●	●	●	0.10~0.45	0.50~5.00
	150412-VP3																●	●	●	●	●		●	●	●	●	0.12~0.50	0.50~5.00
	150604-VP3																●	●	●	●	●		●	●	●	●	0.05~0.30	0.10~3.00
	150608-VP3																●	●	●	●	●		●	●	●	●	0.10~0.45	0.50~5.00
	150612-VP3																●	●	●	●	●		●	●	●	●	0.12~0.50	0.50~5.00
Medium cutting  [wiper]	DNMG 150408-LW																									0.15~0.50	0.70~4.50	
	150412-LW																										0.20~0.60	1.00~5.00
	150608-LW							●		●																	0.15~0.50	0.70~4.50
	150612-LW							●		●																	0.20~0.60	1.00~5.00

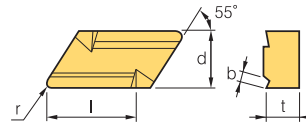
 Cutting edge geometry **A52~A61**
 Recommended chip breaker **B04~B11**
 Code system **B26~B27**
● : Stock item

Available tool holders			
Designation	Page	Designation	Page
MCKNR/L	B171	MCRNR/L	B172
MCLNR/L	B171	PCBNR/L	B159
MCMNN	B171	PCLNR/L	B160



KN○○○

Dimensions (mm)		
Size	d	t
16	9.525	4.76



Parallelogram **55° Negative**

Workpiece	Machining types											
	P	M	K	N	S	H						
Steel	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●

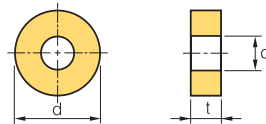
Inserts	Designation	Cermet		Coated		Coated										Uncoated		Cutting Condition											
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	fn (mm/rev)	ap (mm)			
Medium cutting	11	KNUX	160405R-11				●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.20~0.35	1.00~6.00		
			160410R-11				●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.30~0.60	1.50~6.00	
			160405L-11				●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.20~0.35	1.00~6.00
			160410L-11				●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.30~0.60	1.50~6.00
Roughing	12	KNUX	160405R-12				●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.25~0.35	1.50~6.00		
			160410R-12				●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.40~0.70	1.50~6.00	
			160405L-12				●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.25~0.35	1.50~6.00
			160410L-12				●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.40~0.70	1.50~6.00

Cutting edge geometry **A52~A61**
 Recommended chip breaker **B04~B11**
 Code system **B26~B27**
 ● : Stock item

Available tool holders			
Designation	Page	Designation	Page
CKJNR/L	B169	CKUNR/L	B201
CKNNR/L	B169		

RN○○○

Dimensions (mm)			
Size	d	t	d ₁
09	9.525	3.18	3.81
12	12.7	4.76	5.16
15	15.875	6.35	6.35
19	19.05	6.35	7.93
25	25.4	6.35~9.52	9.12
31	31.75	9.52	12.7



Round **Negative**

Workpiece	Machining types											
	P	M	K	N	S	H						
Steel	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●

Inserts	Designation	Cermet		Coated		Coated										Uncoated		Cutting Condition											
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	fn (mm/rev)	ap (mm)			
General	B25	RNMG 090300-B25																							0.90~4.50	0.09~0.90			
		120400-B25								●																1.20~4.80	0.12~1.20		
		150600-B25								●																	1.15~1.50	1.50~7.50	
		190600-B25																										1.90~7.60	0.19~1.90
		250600-B25																										2.50~10.0	0.25~2.50
		250900-B25																										2.50~10.0	0.25~2.50
		310900-B25																										3.50~13.0	0.30~2.50

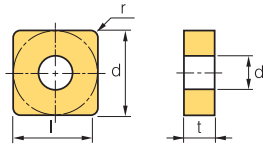
Cutting edge geometry **A52~A61**
 Recommended chip breaker **B04~B11**
 Code system **B26~B27**
 ● : Stock item



B Turning Insert (Negative)

SN ○ ○

□ Square **90° Negative**



Dimensions (mm)			
Size	d	t	d ₁
09	9.525	3.18	3.81
12	12.7	4.76	5.16
15	15.875	6.35	6.35
19	19.05	6.35	7.93

Workpiece	Machining types															
	P	M	K	N	S	H										
Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

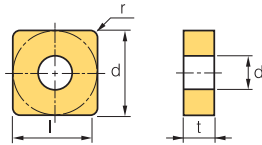
Inserts	Designation	Cermet		Coated		Coated														Uncoated		Cutting Condition							
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	fn (mm/rev)	ap (mm)			
Roughing	SNGA	090304																								0.17-0.50	0.50-4.50		
		090308																									0.17-0.50	0.50-4.50	
		120404																									0.15-0.60	1.50-8.00	
		120408																									0.15-0.60	1.50-8.00	
		120412																									0.20-0.80	1.50-8.00	
		150608																									0.20-0.80	2.00-10.00	
		150616																									0.20-0.90	2.00-10.00	
		190608																										0.15-0.60	3.00-12.00
		190612																										0.20-0.80	3.00-12.00
Medium cutting	SNGG	090304R																								0.12-0.35	1.00-3.00		
		090308R																									0.15-0.35	1.00-3.00	
		120404R	●																								0.15-0.35	1.00-4.00	
		120408R																									0.15-0.35	1.00-4.00	
		120412R																									0.15-0.35	1.00-4.00	
		090304L																									0.12-0.35	1.00-3.00	
		090308L																										0.15-0.35	1.00-3.00
		120404L																										0.15-0.35	1.00-4.00
		120408L																										0.15-0.35	1.00-4.00
120412L																										0.15-0.35	1.00-4.00		
Medium cutting	SNGG	120404-VP3																	●	●	●		●			0.05-0.30	0.10-3.00		
		120408-VP3																	●	●	●		●			0.10-0.45	1.00-5.00		
		120412-VP3																	●	●	●		●			0.12-0.50	1.00-5.00		

Cutting edge geometry **A52~A61**
 Recommended chip breaker **B04~B11**
 Code system **B26~B27**
● : Stock item

Available tool holders					
Designation	Page	Designation	Page	Designation	Page
MSBNR/L	B173	MSRNR/L	B174	PSDNN	B163
MSDNN	B173	MSSNR/L	B175	PSKNR/L	B164, 199
MSKNR/L	B174	PSBNR/L	B163	PSSNR/L	B164



SNOO



Size	Dimensions (mm)		
	d	t	d ₁
09	9.525	3.18	3.81
12	12.7	3.18~4.76	5.16
15	15.875	4.76~6.35	6.35
19	19.05	4.76~6.35	7.93
25	25.4	6.35~9.52	9.12

O Square **90° Negative**

Workpiece	Material		Machining types																						
	Symbol	Color	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Steel	P	P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	M	M	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	K	K	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	N	N	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	S	S	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	H	H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Inserts	Designation	Cermets		Coated		Coated											Uncoated		Cutting Condition										
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)			
Roughing		SNGN	090302																						0.05~0.30	0.50~4.00			
			090304																								0.10~0.35	0.50~4.00	
			090308																								0.10~0.40	1.00~4.00	
			120304																								0.13~0.50	1.30~5.00	
			120308																								0.15~0.60	1.50~6.00	
			120312																								0.17~0.60	1.70~6.00	
			120402																								0.10~0.45	1.00~5.00	
			120404																									0.13~0.50	1.30~5.00
			120408																									0.15~0.60	1.50~6.00
			120412																									0.17~0.60	1.70~6.00
			120424																									0.20~0.65	2.00~6.00
			150402																									0.10~0.50	0.50~6.00
			150408																									0.15~0.60	1.50~8.00
			150412																									0.17~0.60	2.00~8.00
			150416																									0.20~0.65	2.50~8.50
			190402																									0.10~0.60	2.00~8.50
			190412																									0.17~0.70	2.50~10.00
190416																									0.20~0.75	2.50~10.00			
250604																									0.30~0.80	3.00~12.00			
250616																									0.35~1.00	4.00~12.00			
Medium cutting		SNGX	120408R																							0.15~0.35	1.00~4.00		
Roughing		SNMA	090304																							0.10~0.45	0.50~4.50		
			090308																								0.15~0.50	0.50~4.50	
			090312																								0.20~0.50	0.50~4.50	
			120402																								0.10~0.50	1.00~4.50	
			120404																									0.15~0.60	1.00~5.00
			120408													●												0.15~0.70	1.00~6.00
			120412													●												0.20~0.80	1.50~6.00
			120416													●												0.30~1.00	2.00~6.00
			120430																									0.30~0.70	2.50~5.00
			150612																									0.20~0.80	2.00~8.00
			150616														●											0.25~0.85	2.50~10.00
			190608																									0.20~0.80	2.00~10.00
			190612														●											0.20~0.80	2.00~10.00
			190616														●	●										0.25~0.85	2.50~10.00
			190624																									0.35~0.90	3.00~10.00
250724																									0.40~1.00	3.00~13.00			
250924																									0.40~1.00	3.00~13.00			

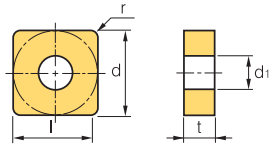
↻ Cutting edge geometry **A52~A61**
 ↻ Recommended chip breaker **B04~B11**
 ↻ Code system **B26~B27**
 ● : Stock item

Available tool holders					
Designation	Page	Designation	Page	Designation	Page
MSBNR/L	B173	MSRNR/L	B174	PSDNN	B163
MSDNN	B173	MSSNR/L	B175	PSKNR/L	B164, 199
MSKNR/L	B174	PSBNR/L	B163	PSSNR/L	B164



B Turning Insert (Negative)

SN ○ ○



Dimensions (mm)			
Size	d	t	d ₁
09	9.525	3.18	3.81
12	12.7	3.18~4.76	5.16

○ Square **90° Negative**

Workpiece	Machining types											
	P	M	K	N	S	H						
Steel	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●

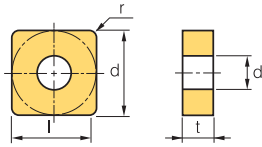
Inserts	Designation	Cermets		Coated		Coated										Uncoated		Cutting Condition										
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)		
Finishing	VB	SNMG 120404-VB	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.15~0.35	0.30~2.00	
		120408-VB	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.15~0.40	0.50~2.00
Finishing	VF	SNMG 090304-VF	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.07~0.30	0.50~1.50	
		090308-VF	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.07~0.30	0.50~1.50	
		120404-VF	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.07~0.30	0.50~1.50
		120408-VF	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.40	0.50~1.50
		120412-VF	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.20~0.50	0.50~1.50
Finishing	VL	SNMG 120408-VL	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.35	0.20~1.50	
Medium to finishing	HA	SNMG 120404-HA	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.35	0.80~3.50	
		120408-HA	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.40	0.80~3.50	
		120412-HA	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.13~0.55	0.80~3.50
Medium to finishing	LP	SNMG 090308-LP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.30	0.30~1.50	
		090408-LP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.30	0.30~1.50	
		120404-LP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.35	0.30~2.00	
		120408-LP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.40	0.50~2.50	
		120412-LP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.13~0.45	0.80~3.00
Medium to finishing	VC	SNMG 120408-VC	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.15~0.40	0.50~3.50	
Medium to finishing	VP2	SNMG 120404-VP2	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.05~0.35	0.10~3.00	
		120408-VP2	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.45	0.50~4.50	
		120412-VP2	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.50	0.50~5.00	

🔄 Cutting edge geometry A52~A61 🔄 Recommended chip breaker B04~B11 🔄 Code system B26~B27 ● : Stock item

Available tool holders					
Designation	Page	Designation	Page	Designation	Page
MSBNR/L	B173	MSRNR/L	B174	PSDNN	B163
MSDNN	B173	MSSNR/L	B175	PSKNR/L	B164, 199
MSKNR/L	B174	PSBNR/L	B163	PSSNR/L	B164



SN



Dimensions (mm)			
Size	d	t	d ₁
09	9.525	3.18	3.81
12	12.7	3.18~4.76	5.16
15	15.875	4.76~6.35	6.35
19	19.05	4.76~6.35	7.93
25	25.4	6.35~9.52	9.12

Square **90° Negative**

Workpiece	Material Groups																Machining types								
	Steel	P	M	K	N	S	H	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Inserts	Designation	Cermet		Coated		Coated										Uncoated		Cutting Condition									
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)	
Medium to finishing [Cermet]	SNMG 090304-VQ																								0.05~0.30	0.50~3.50	
	SNMG 090408-VQ																									0.08~0.30	0.80~4.00
	SNMG 090412-VQ																									0.10~0.30	1.00~4.00
	SNMG 120404-VQ	●		●																						0.05~0.30	0.80~4.00
	SNMG 120408-VQ	●		●																						0.08~0.40	0.80~4.00
Medium cutting 	SNMG 120404-HM																								0.15~0.42	0.60~4.20	
	SNMG 120408-HM						●	●		●		●													0.10~0.50	1.00~5.00	
	SNMG 120412-HM						●																		0.18~0.50	1.00~5.00	
Medium cutting 	SNMG 090308-MK																								0.17~0.45	0.80~3.50	
	SNMG 120404-MK																								0.08~0.45	0.80~4.00	
	SNMG 120408-MK																								0.10~0.50	1.00~5.00	
	SNMG 120412-MK																								0.13~0.60	1.30~5.00	
	SNMG 120416-MK																								0.15~0.63	1.50~6.00	
	SNMG 150608-MK																								0.25~0.60	1.80~6.00	
	SNMG 150612-MK																								0.20~0.70	1.80~7.00	
	SNMG 150616-MK																									0.23~0.70	2.00~7.50
	SNMG 190608-MK																									0.31~0.75	2.30~9.50
	SNMG 190612-MK																									0.33~0.78	2.50~10.00
SNMG 190616-MK																									0.35~0.78	2.70~10.00	
Medium cutting 	SNMG 090304-MM																								0.08~0.35	0.50~5.00	
	SNMG 090308-MM																								0.10~0.40	0.50~5.00	
	SNMG 090312-MM																								0.12~0.45	0.50~5.00	
	SNMG 090404-MM																								0.08~0.35	0.50~5.00	
	SNMG 090408-MM																								0.10~0.40	0.50~5.00	
	SNMG 120404-MM																●	●	●	●					0.10~0.40	0.50~6.40	
	SNMG 120408-MM																●	●	●	●			●	●	0.12~0.45	0.50~6.40	
	SNMG 120412-MM																●	●	●						0.15~0.60	0.50~6.40	
	SNMG 120416-MM																								0.18~0.65	0.50~6.40	
	SNMG 150608-MM																								0.12~0.45	0.50~8.00	
	SNMG 150612-MM																●	●	●						0.15~0.60	0.50~8.00	
	SNMG 150616-MM																●	●							0.18~0.65	0.50~8.00	
	SNMG 190608-MM																●	●	●						0.12~0.45	0.50~9.50	
	SNMG 190612-MM																●	●	●						0.15~0.60	0.50~9.50	
	SNMG 190616-MM																●	●							0.18~0.65	0.50~9.50	
SNMG 250924-MM																●								0.20~0.80	1.00~10.00		

Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27** ● : Stock item

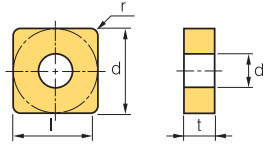
Available tool holders					
Designation	Page	Designation	Page	Designation	Page
MSBNR/L	B173	MSRNR/L	B174	PSDNN	B163
MSDNN	B173	MSSNR/L	B175	PSKNR/L	B164, 199
MSKNR/L	B174	PSBNR/L	B163	PSSNR/L	B164



B Turning Insert (Negative)

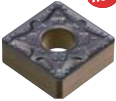


SN ○ ○

□ Square 90° Negative



Dimensions (mm)			
Size	d	t	d ₁
09	9.525	3.18	3.81
12	12.7	4.76	5.16
15	15.875	6.35	6.35
19	19.05	6.35	7.93
25	25.4	7.94	9.12

Workpiece	Material Groups																Machining types			
	P	M	K	N	S	H														
Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Inserts	Designation	Cermets		Coated		Coated										Uncoated		Cutting Condition											
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)			
Medium cutting 	SNMG 090304-MP						●	●	●																	0.10-0.40	0.40-3.80		
	090308-MP						●	●	●																		0.15-0.40	0.50-4.00	
	090312-MP																										0.15-5.00	0.80-4.20	
	090404-MP																										0.10-0.40	0.40-3.80	
	090408-MP																										0.15-0.40	0.50-4.00	
	090412-MP																										0.15-0.50	0.80-4.20	
	120404-MP							●	●	●				●	●	●			●	●							0.10-0.40	0.40-4.00	
	120408-MP							●	●	●				●	●	●			●	●							0.15-0.45	0.50-4.50	
	120412-MP							●	●	●				●	●	●												0.15-0.50	0.80-5.00
	120416-MP							●	●	●																		0.18-0.60	0.80-7.00
	150608-MP																											0.15-5.00	0.50-7.00
	150612-MP																											0.18-0.60	0.80-8.50
	190608-MP																											0.15-0.50	0.50-8.50
	190612-MP																											0.18-0.60	0.80-8.50
Medium cutting 	SNMG 090304-VM																										0.05-0.30	0.90-3.50	
	090308-VM																											0.10-5.00	1.00-3.50
	120404-VM	●							●							●	●										0.05-0.30	0.90-5.00	
	120408-VM	●						●	●	●						●	●			●		●					0.10-0.50	1.00-5.00	
	120412-VM									●						●	●											0.13-0.60	1.30-5.00
	190612-VM																											0.25-0.60	2.50-7.50
190616-VM																											0.25-0.60	2.50-7.50	
Medium cutting 	SNMG 120404-VP3															●	●	●	●	●			●	●		0.05-0.30	0.10-3.00		
	120408-VP3															●	●	●	●	●			●	●		0.10-0.45	1.00-5.00		
	120412-VP3															●	●	●	●	●			●	●		0.12-0.50	1.00-5.00		
	120416-VP3																										0.25-0.45	0.50-4.00	
	160608-VP3																										0.15-0.35	0.80-6.00	
	160612-VP3																										0.20-0.40	1.00-6.00	
	160616-VP3																										0.20-0.40	1.00-6.00	
	190608-VP3																											0.15-0.35	0.80-7.00
	190612-VP3																											0.20-0.40	1.00-7.00
	190616-VP3																											0.25-0.45	1.00-7.00

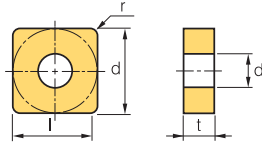
🔄 Cutting edge geometry A52~A61 🔄 Recommended chip breaker B04~B11 🔄 Code system B26~B27 ● : Stock item

Available tool holders					
Designation	Page	Designation	Page	Designation	Page
MSBNR/L	B173	MSRNR/L	B174	PSDNN	B163
MSDNN	B173	MSSNR/L	B175	PSKNR/L	B164, 199
MSKNR/L	B174	PSBNR/L	B163	PSSNR/L	B164






SN ○ ○

○ Square **90° Negative**



Dimensions (mm)			
Size	d	t	d ₁
09	9.525	3.18	3.81
12	12.7	4.76	5.16
15	15.875	6.35	6.35
19	19.05	6.35	7.93
25	25.4	7.94	9.12

Workpiece	Material	Grade	Machining types																						
			General cutting			Continued cutting			Interrupted cutting			General cutting			Continued cutting			Interrupted cutting							
Steel		P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel		M	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron		K	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal		N	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy		S																							
Hardened steel		H																							

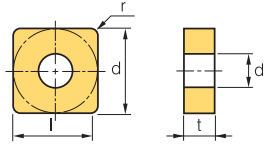
Inserts	Designation	Cermets		Coated		Coated														Uncoated		Cutting Condition																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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B25		<table border="0"> <tr> <td>SNMG 090308-B25</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.17~0.45</td><td>0.80~3.50</td> </tr> <tr> <td>120404-B25</td><td>●</td><td></td><td>●</td><td></td><td></td><td></td><td></td><td>●</td><td></td><td>●</td><td>●</td><td>●</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.17~0.45</td><td>1.00~3.50</td> </tr> <tr> <td>120408-B25</td><td>●</td><td></td><td>●</td><td></td><td></td><td></td><td></td><td>●</td><td></td><td>●</td><td>●</td><td>●</td><td></td><td></td><td></td><td></td><td></td><td></td><td>●</td><td>●</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.23~0.60</td><td>1.50~5.00</td> </tr> <tr> <td>120412-B25</td><td></td><td></td><td>●</td><td></td><td></td><td></td><td></td><td>●</td><td></td><td>●</td><td>●</td><td>●</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.25~0.60</td><td>2.00~5.00</td> </tr> <tr> <td>120416-B25</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>●</td><td></td><td>●</td><td>●</td><td>●</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.35~0.70</td><td>2.50~5.00</td> </tr> <tr> <td>120420-B25</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>●</td><td>●</td><td>●</td><td>●</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.40~0.70</td><td>3.00~5.00</td> </tr> <tr> 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150612-GR												●	●	●																												0.29~0.75	1.40~7.00																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
190608-GR														●																												0.30~0.80	1.70~9.00																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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190616-GR												●	●	●	●																											0.31~0.82	1.90~12.30																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27** ● : Stock item

Available tool holders					
Designation	Page	Designation	Page	Designation	Page
MSBNN/L	B173	MSRNN/L	B174	PSDNN	B163
MSDNN	B173	MSSNN/L	B175	PSKNR/L	B164, 199
MSKNR/L	B174	PSBNR/L	B163	PSSNR/L	B164

B Turning Insert (Negative)

SN



Dimensions (mm)			
Size	d	t	d ₁
12	12.7	4.76	5.16
15	15.875	6.35	6.35
19	19.05	6.35	7.93
25	25.4	7.94~9.52	9.12

Square **90° Negative**

Workpiece	Machining types															
	P	M	K	N	S	H										
Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

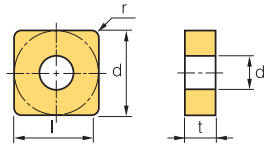
Inserts	Designation	Cermets		Coated		Coated										Uncoated		Cutting Condition									
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)	
Roughing 	SNMG 120404-RM												●	●	●	●					●				0.10~0.50	2.00~6.00	
	120408-RM												●	●	●	●					●	●	●			0.15~0.55	2.00~6.00
	120412-RM													●	●	●					●					0.20~0.60	2.00~6.00
	120416-RM																					●				0.25~0.70	2.00~6.00
	150608-RM																									0.20~0.60	0.20~6.00
	150612-RM													●	●	●						●				0.20~0.60	2.00~8.00
	150616-RM																									0.25~0.70	2.00~8.00
	190608-RM														●	●	●					●				0.20~0.60	2.00~10.00
	190612-RM														●	●	●					●				0.20~0.60	2.00~10.00
	190616-RM																									0.27~0.70	2.00~10.00
	190624-RM																									0.30~0.75	3.00~10.00
250924-RM																									0.40~1.20	4.00~14.00	
Roughing 	SNMG 120408-VP4																								0.15~0.35	1.00~4.00	
	120412-VP4																									0.20~0.40	1.00~4.00
	150612-VP4																									0.20~0.45	1.00~5.00
	190608-VP4																									0.20~0.50	1.00~9.00
	190612-VP4																									0.23~0.55	1.00~9.00
	190616-VP4																									0.27~0.60	1.00~9.00
Roughing 	SNMG 120408-VR																									0.25~0.55	1.20~7.00
	120412-VR																									0.30~0.60	1.50~7.00
	120416-VR																									0.35~0.60	2.00~7.00
	190612-VR						●	●																		0.35~0.70	2.00~10.00
	190616-VR						●	●																		0.35~0.75	2.20~10.00
Roughing 	SNMM 120408-GR																									0.20~0.50	1.00~7.00
	120412-GR								●																	0.25~0.65	1.30~7.00
	190612-GR								●																	0.25~0.65	1.30~11.50
	190616-GR																									0.32~0.85	1.80~11.50

Cutting edge geometry **A52~A61**
 Recommended chip breaker **B04~B11**
 Code system **B26~B27**
● : Stock item

Available tool holders					
Designation	Page	Designation	Page	Designation	Page
MSBNR/L	B173	MSRNR/L	B174	PSDNN	B163
MSDNN	B173	MSSNR/L	B175	PSKNR/L	B164, 199
MSKNR/L	B174	PSBNR/L	B163	PSSNR/L	B164




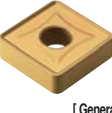

SN



Dimensions (mm)			
Size	d	t	d ₁
12	12.7	4.76	5.16
15	15.875	6.35	6.35
19	19.05	6.35	7.93
25	25.4	7.94~9.52	9.12

○ Square **90° Negative**

Workpiece	Machining types															
	P	M	K	N	S	H										
Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Inserts	Designation	Cermet		Coated		Coated										Uncoated		Cutting Condition									
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)	
Heavy 	SNMM 120408-GH								●	●															0.30~0.60	2.50~8.00	
	120412-GH								●	●																0.30~0.70	2.50~8.00
	150612-GH								●	●																0.30~0.70	2.50~8.00
	190612-GH						●	●		●	●															0.30~0.70	3.00~8.00
	190616-GH						●	●		●	●															0.45~1.00	4.00~9.00
	190624-GH						●	●		●	●															0.55~1.20	4.00~9.00
	250724-GH						●	●		●	●															0.55~1.20	5.00~12.00
	250924-GH						●	●		●	●															0.55~1.20	5.00~12.00
250932-GH																										0.55~1.20	5.00~12.00
Heavy 	SNMM 190612-VH						●																		0.50~0.90	5.00~10.00	
	190616-VH						●																			0.50~1.10	5.00~10.00
	190624-VH						●																			0.60~1.20	6.00~12.00
	250716-VH																									0.70~1.40	6.00~15.00
	250724-VH						●			●																0.70~1.40	6.00~15.00
	250920-VH																									0.70~1.40	6.00~15.00
	250924-VH									●																0.70~1.50	6.00~14.00
Heavy 	SNMM 190612-VT						●			●															0.60~1.00	6.00~13.00	
	190616-VT						●			●																0.60~1.10	6.00~13.00
	190624-VT						●																			0.60~1.60	7.00~13.00
	250716-VT																									0.75~1.60	7.00~15.00
	250724-VT						●			●																0.75~1.60	7.00~15.00
	250920-VT																									0.75~1.60	7.00~15.00
	250924-VT									●	●															0.75~1.60	7.00~17.00

Cutting edge geometry **A52~A61**
 Recommended chip breaker **B04~B11**
 Code system **B26~B27**
 ● : Stock item

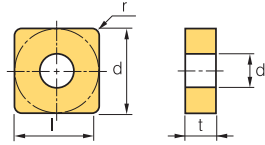
Available tool holders					
Designation	Page	Designation	Page	Designation	Page
MSBNR/L	B173	MSRNR/L	B174	PSDNN	B163
MSDNN	B173	MSSNR/L	B175	PSKNR/L	B164, 199
MSKNR/L	B174	PSBNR/L	B163	PSSNR/L	B164



B Turning Insert (Negative)



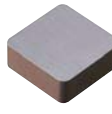
SN ○○

 Square **90° Negative**



Dimensions (mm)			
Size	d	t	d ₁
12	12.7	3.18~4.76	5.16
15	15.875	4.76	-
19	19.05	4.76	-
25	25.4	7.94	-

Workpiece	Material												Machining types			
	Steel	Stainless steel	Cast iron	Non-ferrous metal	Heat resistant alloy, Titanium alloy	Hardened steel	P	M	K	N	S	H	●	⊙	⊛	
Steel							●	⊙	⊛	●	⊙	⊛	●	⊙	⊛	
Stainless steel							●	⊙	⊛	●	⊙	⊛	●	⊙	⊛	
Cast iron							●	⊙	⊛	●	⊙	⊛	●	⊙	⊛	
Non-ferrous metal										●	⊙	⊛	●	⊙	⊛	
Heat resistant alloy, Titanium alloy										●	⊙	⊛	●	⊙	⊛	
Hardened steel													●	⊙	⊛	

Inserts	Designation	Cermets		Coated		Coated										Uncoated		Cutting Condition													
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)					
Medium to roughing		SNMN	120304																							0.17~0.45	1.00~3.50				
			120308																								0.23~0.60	1.50~6.00			
			120312																									0.25~0.60	2.00~5.00		
			120404																									0.17~0.45	1.00~3.50		
			120408																									0.23~0.60	1.50~5.00		
			120412																										0.25~0.60	2.00~5.00	
			150404																										0.20~0.50	1.50~6.00	
			150408																											0.25~0.60	1.50~6.00
			150412																											0.25~0.60	2.00~6.00
			190416																											0.35~0.70	2.00~6.00
Medium cutting		SNMX	120408R																								0.15~0.35	1.00~4.00			
Medium to roughing		SNUN	120408																								0.23~0.60	1.50~5.00			
			120412																									0.25~0.60	2.00~5.00		
			190412																										0.30~1.00	3.00~10.00	
			120412TN																										0.25~0.60	2.00~5.00	
			250724TN																										0.30~1.20	3.00~12.00	

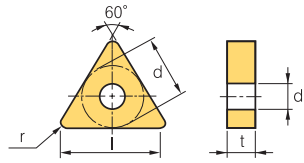
 Cutting edge geometry **A52~A61**
 Recommended chip breaker **B04~B11**
 Code system **B26~B27**
● : Stock item

Available tool holders					
Designation	Page	Designation	Page	Designation	Page
MSBNR/L	B173	MSRNR/L	B174	PSDNN	B163
MSDNN	B173	MSSNR/L	B175	PSKNR/L	B164, 199
MSKNR/L	B174	PSBNR/L	B163	PSSNR/L	B164





Triangular 60° Negative



Dimensions (mm)			
Size	d	t	d ₁
11	6.35	3.18	2.40
16	9.525	3.18-4.76	3.81
22	12.7	4.76	5.16
27	15.875	6.35	6.35

Workpiece	Steel	P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Machining types	
	Stainless steel	M																	●
Cast iron	K	●	●	●	●													●	●
Non-ferrous metal	N																	●	●
Heat resistant alloy, Titanium alloy	S																	●	●
Hardened steel	H																	●	●

● Continuous cutting
● General cutting
✱ Interrupted cutting

Inserts	Designation	Cermet		Coated		Coated										Uncoated		Cutting Condition										
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)		
Roughing	TNGA	110302																								0.05~0.30	0.20~3.00	
		110304																								0.05~0.30	0.40~3.00	
		160304																								0.10~0.35	0.40~4.00	
		160402																								0.10~0.30	0.20~4.00	
		160404																								0.10~0.35	0.40~5.00	
		160408																								0.12~0.40	0.50~5.00	
		220304																								0.10~0.35	0.50~5.00	
		220402																									0.05~0.30	0.20~3.00
		220404																									0.10~0.35	0.40~5.00
		220408																									0.10~0.40	0.50~5.00
		220412																									0.12~0.45	1.00~5.50
		270612																									0.12~0.45	1.00~7.00
270624																									0.20~0.55	2.00~7.00		
Finishing	TNGG	160402R-SC		●																						0.03~0.20	0.10~1.50	
		160404R-SC		●																						0.05~0.25	0.30~2.00	
		160402L-SC																								0.03~0.20	0.10~1.50	
		160404L-SC																								0.05~0.25	0.30~2.00	
Medium cutting	TNGG	110304R																								0.05~0.30	0.50~2.50	
		160402R		●																						0.08~0.30	0.50~3.50	
		160404R		●	●																					0.12~0.30	1.00~3.50	
		160408R			●																					0.15~0.35	1.30~3.50	
		220404R			●																					0.12~0.30	1.00~5.00	
		220408R			●																					0.15~0.35	1.30~5.00	
		220412R																								0.17~0.40	1.50~5.00	
		110304L																									0.05~0.30	0.50~2.50
		160402L																									0.08~0.30	0.50~3.50
		160404L		●	●																						0.12~0.30	1.00~3.50
		160408L			●																						0.15~0.35	1.30~3.50
		220404L																									0.12~0.30	1.00~5.00
220408L																									0.15~0.35	1.30~5.00		
220412L																									0.17~0.40	1.50~5.00		
Medium cutting	TNGG	160404-VP3																	●	●	●	●			0.05~0.30	0.10~3.00		
		160408-VP3																	●	●	●	●			0.10~0.45	0.50~5.00		

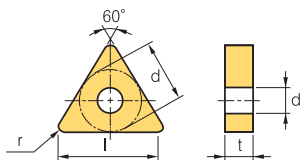
➤ Cutting edge geometry A52~A61 ➤ Recommended chip breaker B04~B11 ➤ Code system B26~B27 ● : Stock item

Available tool holders					
Designation	Page	Designation	Page	Designation	Page
MTENN	B175	PTFNR/L	B165, 199	WTJNR/L	B167
MTFNR/L	B175	PTGNR/L	B165	WTXNR/L	B167
MTGNR/L	B176	PTTNR/L	B166		
MTJNR/L	B176	WTENN	B167		

B Turning Insert (Negative)

TN ○ ○

Triangular 60° Negative



Dimensions (mm)			
Size	d	t	d ₁
11	6.35	3.18	2.40
16	9.525	3.18~4.76	3.81
22	12.7	4.76	5.16
27	15.875	6.35	6.35
33	19.05	9.52	7.93

Workpiece	Material	Symbol	Machining types															
			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Steel	P		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Stainless steel	M		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Cast iron	K		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Non-ferrous metal	N																	
Heat resistant alloy, Titanium alloy	S																	
Hardened steel	H																	

Inserts	Designation	Cermets		Coated		Coated													Uncoated		Cutting Condition							
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)		
Medium cutting 	TNGN	110302																								0.05-0.25	0.20-2.50	
		110304																									0.10-0.30	0.50-2.50
		110308																									0.10-0.30	0.80-2.50
		160302																									0.05-0.30	0.20-3.00
		160304																									0.10-0.30	0.50-4.00
		160308																									0.10-0.40	0.80-4.00
		160404																									0.10-0.40	0.50-4.00
		160408																									0.10-0.40	1.00-4.00
		160412																									0.10-0.50	1.50-4.50
		220404																									0.10-0.35	1.00-4.00
		220408																									0.15-0.40	1.50-5.00
		220412																									0.20-0.50	1.50-5.00
		220416																									0.25-0.55	1.50-5.00
		220424																									0.30-0.65	2.00-5.00
		270630																									0.35-0.70	2.00-5.00
Roughing 	TNMA	110308																								0.05-0.30	0.50-3.00	
		160404																									0.10-0.30	1.00-4.00
		160408																									0.10-0.40	1.00-4.00
		160412																									0.10-0.50	1.50-4.50
		160416																									0.15-0.55	1.50-4.50
		220404																									0.10-0.35	1.00-4.00
		220408																									0.15-0.40	1.50-5.00
		220412																									0.20-0.50	1.50-5.00
		220416																									0.25-0.55	1.50-5.00
		220420																									0.30-0.65	2.00-5.00
		220432																									0.35-0.70	2.00-5.00
		270608																									0.20-0.45	2.00-7.00
		270612																									0.25-0.55	3.00-7.00
		270616																									0.30-0.65	3.00-7.00
	330924																									0.35-0.75	3.00-9.00	
Finishing 	TNMG	160404-VB	●		●	●	●	●	●	●																0.10-0.35	0.30-1.50	
		160408-VB	●		●	●	●	●	●	●	●																0.15-0.45	0.50-7.00
		160412-VB								●	●																0.15-0.45	0.50-2.50
		220408-VB								●	●																0.15-0.45	0.50-2.50
		220412-VB								●	●																0.20-0.50	0.70-2.50

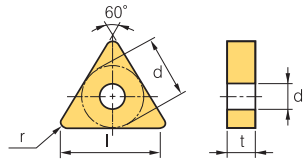
Cutting edge geometry A52~A61 Recommended chip breaker B04~B11 Code system B26~B27 ● : Stock item

Available tool holders					
Designation	Page	Designation	Page	Designation	Page
MTENN	B175	PTFNR/L	B165, 199	WTJNR/L	B167
MTFNR/L	B175	PTGNR/L	B165	WTXNR/L	B167
MTGNR/L	B176	PTTNR/L	B166		
MTJNR/L	B176	WTENN	B167		



TN ○ ○

Triangular 60° Negative



Dimensions (mm)			
Size	d	t	d ₁
11	6.35	3.18	2.40
16	9.525	4.76	3.81
22	12.7	4.76	5.16

Workpiece	Material													Machining types				
	Steel	Stainless steel	Cast iron	Non-ferrous metal	Heat resistant alloy, Titanium alloy	Hardened steel	P	M	K	N	S	H	●	●	●	●	●	●
Steel							●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel																		
Cast iron																		
Non-ferrous metal																		
Heat resistant alloy, Titanium alloy																		
Hardened steel																		

Inserts	Designation	Cermets		Coated		Coated										Uncoated		Cutting Condition										
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	HO1	HO5	f _n (mm/rev)	a _p (mm)		
Finishing	VL	TNMG 160404-VL	●				●																				0.05~0.25	0.10~1.00
		TNMG 160408-VL	●				●		●																		0.10~0.35	0.20~1.50
		TNMG 160412-VL					●																				0.15~0.40	0.20~1.50
		TNMG 220408-VL																									0.10~0.35	0.20~1.50
		TNMG 220412-VL																									0.10~0.35	0.50~2.00
Finishing	VF	TNMG 110304-VF	●	●																							0.05~0.20	0.20~1.00
		TNMG 160404-VF	●					●													●						0.07~0.30	0.50~1.50
		TNMG 160408-VF						●	●																		0.10~0.40	0.50~1.50
		TNMG 160412-VF																									0.15~0.50	0.50~1.50
		TNMG 220404-VF																				●					0.10~0.40	0.50~1.50
		TNMG 220408-VF																									0.10~0.40	0.50~1.50
Finishing	VW	TNMG 160404-VW																									0.10~0.35	0.30~3.00
		TNMG 160408-VW																									0.10~0.40	0.30~3.00
Medium to finishing	HA	TNMG 160404-HA																									0.05~0.30	0.80~3.50
		TNMG 160408-HA																									0.10~0.40	0.80~3.50
		TNMG 160412-HA																									0.13~0.55	0.80~3.50
		TNMG 220408-HA																									0.10~0.40	0.80~5.30
Medium to finishing	LP	TNMG 110304-LP																									0.07~0.30	0.30~1.50
		TNMG 110308-LP																									0.10~0.30	0.30~1.50
		TNMG 160404-LP							●	●		●															0.10~0.35	0.30~2.00
		TNMG 160408-LP							●	●		●															0.10~0.40	0.50~2.50
		TNMG 160412-LP							●	●																	0.13~0.45	0.80~3.00
Medium to finishing	VC	TNMG 160404-VC						●	●		●																0.10~0.35	0.30~2.00
		TNMG 160408-VC						●	●		●																0.15~4.00	0.50~3.00
		TNMG 160412-VC							●	●		●															0.15~4.50	0.50~3.00
		TNMG 220408-VC							●	●																	0.15~0.40	0.50~3.00
		TNMG 220412-VC							●	●																	0.15~0.45	0.50~3.00
Medium to finishing	VP2	TNMG 160404-VP2																●	●	●	●	●	●				0.05~0.30	0.10~3.00
		TNMG 160408-VP2																●	●	●	●	●	●				0.10~0.45	0.50~5.00
		TNMG 160412-VP2																	●	●	●	●	●				0.13~0.55	0.80~3.30
		TNMG 220404-VP2																	●	●							0.05~0.30	0.80~5.00
		TNMG 220408-VP2																	●	●							0.10~0.40	0.80~5.00

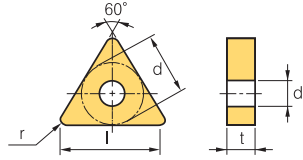
Cutting edge geometry **A52~A61**
 Recommended chip breaker **B04~B11**
 Code system **B26~B27**
● : Stock item

Available tool holders					
Designation	Page	Designation	Page	Designation	Page
MTENN	B175	PTFNR/L	B165, 199	WTJNR/L	B167
MTFNR/L	B175	PTGNR/L	B165	WTXNR/L	B167
MTGNR/L	B176	PTTNR/L	B166		
MTJNR/L	B176	WTENN	B167		

B Turning Insert (Negative)

TN ○ ○

Triangular 60° Negative



Dimensions (mm)			
Size	d	t	d ₁
11	6.35	3.18	2.40
16	9.525	3.18~4.76	3.81
22	12.7	4.76	5.16
27	15.875	6.35	6.35

Workpiece	Machining types											
	P	M	K	N	S	H						
Steel	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●

Inserts	Designation	Cermets		Coated		Coated										Uncoated		Cutting Condition									
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)	
Medium to finishing [Cermets]	TNMG 110304-VQ																								0.05~0.30	0.50~3.00	
	160404-VQ	●	●	●	●	●																				0.05~0.30	0.80~3.50
	160408-VQ	●		●	●	●																				0.08~0.40	0.80~3.50
	160412-VQ																									0.10~0.40	0.80~3.50
	220404-VQ																									0.05~0.35	0.80~4.00
Medium cutting 	TNMG 110308-HM							●																	0.17~0.40	1.50~3.00	
	160404-HM							●	●	●						●						●			0.05~0.30	0.90~4.00	
	160408-HM						●	●	●	●													●		0.10~0.50	1.00~4.00	
	160412-HM																						●		0.13~0.60	1.30~4.00	
	220404-HM							●	●	●															0.15~0.45	0.60~5.00	
220408-HM								●																	0.18~0.48	0.80~5.80	
Medium cutting 	TNMG 160404-MK											●	●												0.05~0.30	0.90~3.50	
	160408-MK												●												0.10~0.50	1.00~4.00	
	160412-MK												●												0.12~0.60	1.20~4.50	
	160416-MK												●												0.13~0.60	1.20~4.50	
	220404-MK																								0.17~0.45	1.50~5.00	
	220408-MK																								0.21~0.50	1.30~5.50	
	220412-MK																								0.23~0.52	1.40~5.50	
	220416-MK																								0.25~0.53	1.60~6.00	
270612-MK																								0.25~0.55	3.00~7.00		
Medium cutting 	TNMG 160404-MM												●	●	●	●				●	●	●			0.10~0.40	0.50~4.80	
	160408-MM												●	●	●	●				●	●	●			0.12~0.45	0.50~4.80	
	160412-MM													●	●	●						●			0.18~0.65	0.50~4.80	
	160416-MM													●	●	●							●		0.18~0.65	0.50~4.80	
	220404-MM																								0.10~0.40	0.50~6.50	
	220408-MM													●	●	●						●	●		0.12~0.45	0.50~6.50	
	220412-MM													●	●	●						●	●		0.15~0.60	0.50~6.50	
	220416-MM														●	●	●					●	●		0.18~0.65	0.50~6.50	
Medium cutting 	TNMG 110308-MP							●	●																0.15~0.42	0.50~3.50	
	160404-MP							●	●	●	●			●	●	●				●	●				0.10~0.40	0.40~3.50	
	160408-MP							●	●	●	●			●	●	●				●	●				0.15~0.45	0.50~4.00	
	160412-MP							●	●	●	●			●	●	●				●	●				0.15~0.50	0.80~4.50	
	160616-MP																								0.18~0.50	1.00~4.50	
	220404-MP							●	●	●	●			●	●	●									0.10~0.35	0.40~5.00	
	220408-MP							●	●	●	●			●	●	●									0.15~0.45	0.50~5.50	
	220412-MP							●	●	●	●			●	●	●									0.15~0.50	0.80~6.00	
	220416-MP							●	●	●	●														0.20~0.55	1.00~6.00	
	270612-MP																								0.28~0.60	1.20~8.00	

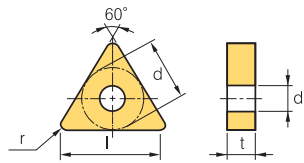
Cutting edge geometry A52~A61
 Recommended chip breaker B04~B11
 Code system B26~B27
 ● : Stock item

Available tool holders					
Designation	Page	Designation	Page	Designation	Page
MTENN	B175	PTFNR/L	B165, 199	WTJNR/L	B167
MTFNR/L	B175	PTGNR/L	B165	WTXNR/L	B167
MTGNR/L	B176	PTTNR/L	B166		
MTJNR/L	B176	WTENN	B167		



TN ○ ○

Triangular 60° Negative



Dimensions (mm)			
Size	d	t	d ₁
11	6.35	3.18	2.40
16	9.525	4.76	3.81
22	12.7	4.76	5.16
27	15.875	6.35	6.35
33	19.05	7.94~9.52	7.93

Workpiece	Material Groups													Machining types			
	Steel	P	M	K	N	S	H										
Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

● Continuous cutting
 ● General cutting
 ✱ Interrupted cutting

Inserts	Designation	Cermert		Coated		Coated											Uncoated		Cutting Condition									
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)		
Medium cutting	VM	TNMG 110308-VM																								0.05~0.30	0.80~4.00	
		160404-VM	●					●		●	●						●	●								0.05~0.30	0.90~5.00	
		160408-VM	●		●			●	●	●	●	●					●	●					●			0.10~0.50	1.00~5.00	
		160412-VM	●					●	●								●	●								0.13~0.60	1.30~5.00	
		220404-VM															●	●								0.05~0.30	0.90~6.60	
		220408-VM								●			●				●	●				●				0.10~0.50	1.00~6.60	
		220412-VM															●	●								0.13~0.60	1.30~6.60	
Medium cutting	VP3	TNMG 160404-VP3															●	●	●	●	●		●	●	0.05~0.30	0.10~3.00		
		160408-VP3															●	●	●	●	●		●	●	0.10~0.45	0.50~5.00		
		160412-VP3																								0.20~0.40	0.50~3.50	
		220404-VP3																								0.20~0.30	0.80~4.00	
		220408-VP3																								0.25~0.35	0.80~5.00	
		220412-VP3																								0.30~0.40	1.00~5.00	
		220416-VP3																									0.30~0.40	1.00~5.00
Medium cutting	LW	TNMG 160408-LW																							0.15~0.50	0.70~4.50		
		160412-LW																								0.20~0.60	1.00~5.00	
General	B25	TNMG 110308-B25																							0.17~0.40	1.50~3.00		
		160404-B25	●		●			●		●	●	●											●			0.17~0.45	2.00~3.50	
		160408-B25	●		●			●		●	●	●														0.17~0.55	2.00~3.50	
		160412-B25			●			●		●		●														0.25~0.55	2.00~3.50	
		160416-B25																								0.30~0.60	2.50~3.00	
		220404-B25								●		●	●	●												0.17~0.45	1.50~5.00	
		220408-B25								●		●	●	●												0.17~0.55	2.00~5.00	
		220412-B25								●		●	●	●												0.25~0.55	2.00~5.00	
		220416-B25								●		●		●													0.30~0.60	2.00~5.00
		220424-B25																									0.35~0.70	3.00~7.00
		220432-B25																									0.40~0.75	3.50~7.00
		270608-B25																									0.17~0.55	2.00~5.00
		270612-B25																									0.25~0.55	3.00~7.00
		270616-B25																									0.30~0.60	3.00~7.00
		330716-B25																									0.35~0.70	3.00~9.00
330924-B25																									0.40~0.80	3.00~9.00		

↻ Cutting edge geometry **A52~A61**
 ↻ Recommended chip breaker **B04~B11**
 ↻ Code system **B26~B27**
 ● : Stock item

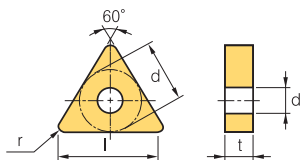
Available tool holders					
Designation	Page	Designation	Page	Designation	Page
MTENN	B175	PTFNR/L	B165, 199	WTJNR/L	B167
MTFNR/L	B175	PTGNR/L	B165	WTXNR/L	B167
MTGNR/L	B176	PTTNR/L	B166		
MTJNR/L	B176	WTENN	B167		



B Turning Insert (Negative)

TN○○○

Triangular 60° Negative



Dimensions (mm)			
Size	d	t	d ₁
16	9.525	4.76	3.81
22	12.7	4.76	5.16
27	15.875	6.35	6.35
33	19.05	7.94~9.52	7.93

Workpiece	Machining types															
	P	M	K	N	S	H										
Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Inserts	Designation	Cermet		Coated		Coated											Uncoated		Cutting Condition									
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)		
Roughing GR	TNMG 160408-GR							●	●																0.20~0.50	1.00~7.00		
	160412-GR							●																		0.23~0.54	1.20~8.00	
	220408-GR							●	●	●	●															0.22~0.61	1.10~7.80	
	220412-GR							●	●	●																0.28~0.78	1.20~7.80	
	220416-GR									●																0.31~0.75	1.50~7.80	
	270608-GR									●																0.31~0.75	1.50~7.80	
	270612-GR									●	●															0.31~0.75	1.50~7.80	
	270616-GR									●	●																0.36~1.00	1.60~7.80
330924-GR									●																	0.40~1.00	2.00~9.00	
Roughing RK	TNMG 160408-RK																									0.23~0.53	1.50~5.00	
	160412-RK																										0.28~0.53	1.80~5.00
	160416-RK																										0.28~0.53	1.80~5.00
	220408-RK																										0.23~0.53	1.50~6.00
	220412-RK																										0.28~0.53	1.80~6.00
	220416-RK																										0.28~0.63	2.00~6.00
Roughing RM	TNMG 160404-RM																									0.10~0.50	2.00~5.50	
	160408-RM																									0.15~0.55	2.00~5.50	
	160412-RM																									0.20~0.60	2.00~5.50	
	220408-RM																									0.10~0.50	2.00~7.50	
	220412-RM																									0.15~0.55	2.00~7.50	
	220416-RM																									0.25~0.70	2.00~7.50	
Roughing VP4	TNMG 160408-VP4																									0.15~0.35	1.00~4.00	
	160412-VP4																									0.20~0.40	1.00~4.00	
Roughing VR	TNMG 160404-VR																									0.20~0.50	0.80~7.00	
	160408-VR																									0.25~0.55	1.20~7.00	
	160412-VR																									0.35~0.65	1.70~7.00	
	160416-VR																									0.35~0.70	2.00~10.0	
	220408-VR																									0.35~0.70	2.00~10.0	
	220412-VR																									0.35~0.70	2.00~10.0	
	220416-VR																									0.35~0.75	2.20~10.0	

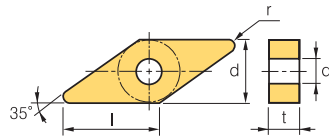
🔄 Cutting edge geometry A52~A61
🔄 Recommended chip breaker B04~B11
🔄 Code system B26~B27
● : Stock item

Available tool holders					
Designation	Page	Designation	Page	Designation	Page
MTENN	B175	PTFNR/L	B165, 199	WTJNR/L	B167
MTFNR/L	B175	PTGNR/L	B165	WTXNR/L	B167
MTGNR/L	B176	PTTNR/L	B166		
MTJNR/L	B176	WTENN	B167		



B Turning Insert (Negative)

VN○○○



Dimensions (mm)			
Size	d	t	d ₁
16	9.525	4.76	3.81

Rhombic 35° Negative

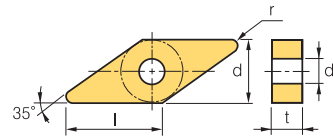
Workpiece			Machining types																				
			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Steel	P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	M	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	K	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	N																						
Heat resistant alloy, Titanium alloy	S																						
Hardened steel	H																						

Inserts	Designation	Cermet		Coated		Coated												Uncoated		Cutting Condition							
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)	
Medium to finishing 	VNMG 160408-HA																									0.10-0.40	0.80-3.50
Medium cutting 	VNMG 160404-VP3 160408-VP3																									0.05-0.30 0.10-0.45	0.10-3.00 0.50-5.00
Finishing 	VNMG 160404-VB 160408-VB 160412-VB	●		●	●	●	●	●	●																	0.10-0.35 0.15-0.45 0.20-0.45	0.30-1.50 0.50-2.00 0.80-2.50
Finishing 	VNMG 160402-VF 160404-VF 160408-VF 160412-VF		●				●	●	●																	0.06-0.20 0.08-0.30 0.10-0.40 0.15-0.50	0.30-1.00 0.50-1.50 0.50-1.50
Finishing 	VNMG 160404-VL 160408-VL 160412-VL	●	●			●	●	●																		0.05-0.20 0.10-0.25 0.15-0.30	0.10-1.00 0.20-1.50 0.50-2.00
Medium to finishing 	VNMG 160404-HA 160408-HA																						●			0.08-0.35 0.10-0.40	0.50-3.00 0.80-3.50
Medium to finishing 	VNMG 160404-LP 160408-LP 160412-LP						●	●																		0.10-0.35 0.10-0.40 0.10-0.45	0.30-1.50 0.50-2.00 0.80-2.50
Medium to finishing 	VNMG 160404-VC 160408-VC 160412-VC	●		●		●	●																			0.10-0.35 0.15-4.00 0.15-0.40	0.30-2.00 0.50-3.00 0.80-3.00

➤ Cutting edge geometry A52~A61 ⚙ Recommended chip breaker B04~B11 ➤ Code system B26~B27 ● : Stock item

Available tool holders			
Designation	Page	Designation	Page
MVJNR/L	B176	MVVNN	B177
MVQNR/L	B177	MVUNR/L	B203





Dimensions (mm)			
Size	d	t	d ₁
16	9.525	4.76	3.81
22	12.7	4.76	5.16

Rhombic **35° Negative**

Workpiece	Steel	P	●	⬮	⬮	●	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	Machining types
	Stainless steel	M	●	⬮	⬮	●	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	
Cast iron	K	●	⬮	⬮	⬮	●	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	⬮	
Non-ferrous metal	N																									
Heat resistant alloy, Titanium alloy	S																									
Hardened steel	H																									

Inserts	Designation	Cermets		Coated		Coated													Uncoated		Cutting Condition							
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)		
Medium to finishing [Cermets]	VNMG 160404-VQ	●	●	●	●																					0.10~0.40	0.50~3.50	
	160408-VQ	●		●	●																						0.12~0.45	0.50~3.50
	160412-VQ																										0.15~0.45	0.80~3.50
Medium cutting 	VNMG 160404-HM						●		●																	0.13~0.40	0.80~3.80	
	160408-HM						●		●																	0.20~0.45	0.80~4.50	
	160412-HM							●																		0.10~0.60	1.00~4.00	
Medium cutting new	VNMG 160404-MK													●												0.08~0.45	0.50~3.00	
	160408-MK													●	●											0.10~0.50	1.00~3.50	
	160412-MK													●												0.20~0.50	1.50~4.00	
Medium cutting new	VNMG 160404-MM													●	●	●					●	●				0.10~0.40	0.50~4.80	
	160408-MM													●	●	●					●	●				0.12~0.45	0.50~4.80	
	160412-MM																					●	●			0.15~0.60	0.50~4.00	
Medium cutting new	VNMG 160404-MP						●	●	●					●	●	●					●	●				0.10~0.40	0.40~3.50	
	160408-MP						●	●	●	●				●	●	●					●	●				0.15~0.45	0.50~4.00	
	160412-MP						●	●	●																	0.15~0.50	0.80~4.50	
	160616-MP																									0.18~0.50	1.00~4.50	
Medium cutting new	VNMG 160404-RM																									0.10~0.50	2.00~5.00	
	160408-RM																									0.15~0.55	2.00~5.00	
	160412-RM																									0.20~0.60	2.00~5.00	
Medium cutting 	VNMG 160404-VM	●							●	●						●	●									0.08~0.45	0.50~3.50	
	160408-VM	●						●	●	●						●	●									0.10~0.50	1.00~4.00	
	160412-VM																									0.20~0.50	1.50~4.00	
	220404-VM																									0.08~0.45	1.00~5.00	
	220408-VM																									0.10~0.50	1.50~5.00	
Medium cutting 	VNMG 160404-VP3															●	●	●	●	●		●				0.05~0.30	0.10~3.00	
	160408-VP3															●	●	●	●	●		●	●			0.10~0.45	0.50~5.00	
	160412-VP3																									0.20~0.40	0.50~3.50	

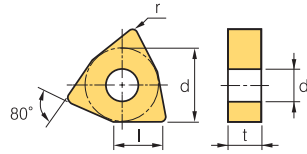
➡ Cutting edge geometry **A52~A61**
 ➡ Recommended chip breaker **B04~B11**
 ➡ Code system **B26~B27**
 ● : Stock item

Available tool holders			
Designation	Page	Designation	Page
MVJNR/L	B176	MVVNN	B177
MVQNR/L	B177	MVUNR/L	B203



B Turning Insert (Negative)

WN ○ ○



Dimensions (mm)			
Size	d	t	d ₁
06	9.525	4.76	3.81
08	12.7	4.76	5.16

Trigon 80° Negative

Workpiece	Material		Machining types																			
	Symbol	Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Steel	P		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	M		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	K		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	N																					
Heat resistant alloy, Titanium alloy	S																					
Hardened steel	H																					

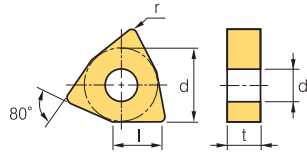
Inserts	Designation	Cermets		Coated		Coated														Uncoated		Cutting Condition								
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)				
Medium cutting	VP3	WNMG	080404-VP3																							0.10-0.45	0.50-5.00			
Roughing	VNMA	060404	060404																							0.10-0.30	0.50-3.00			
			060408																								0.10-0.30	0.50-3.00		
			060412																									0.10-0.40	1.00-3.00	
			080404																									0.15-0.60	1.00-5.00	
			080408																										0.15-0.60	1.00-6.00
			080412																										0.15-0.70	1.50-6.00
			080416																										0.15-0.70	1.50-6.00
Finishing	VNB	WNMG	080404-VB																								0.10-0.35	0.30-1.50		
			080408-VB																									0.15-0.45	0.50-2.00	
			080412-VB																										0.18-0.45	0.80-2.50
Finishing	VNF	WNMG	060404-VF																									0.07-0.30	0.50-1.50	
			060408-VF																										0.10-0.40	0.50-1.50
			080404-VF																										0.07-0.30	0.50-1.50
			080408-VF																										0.10-0.40	0.50-1.50
			080412-VF																											0.20-0.50
Finishing	VNL	WNMG	060404-VL																									0.05-0.25	0.20-1.50	
			080404-VL																										0.05-0.25	0.10-1.00
			080408-VL																										0.10-0.35	0.20-1.50
Finishing	VNW	WNMG	060404-VW																									0.05-0.30	0.40-3.00	
			060408-VW																										0.08-0.30	0.40-3.50
			080404-VW																										0.10-0.30	0.50-3.00
			080408-VW																										0.15-0.50	0.50-4.00
			080412-VW																										0.18-0.50	1.00-4.00
Medium to finishing	HA	WNMG	060404-HA																									0.05-0.30	0.10-3.00	
			060408-HA																										0.10-0.40	0.80-3.50
			080404-HA																										0.05-0.30	0.80-3.50
			080408-HA																										0.10-0.40	0.80-3.50
			080412-HA																										0.13-0.55	0.80-3.50

🔄 Cutting edge geometry A52~A61
🔄 Recommended chip breaker B04~B11
🔄 Code system B26~B27
● : Stock item

Available tool holders			
Designation	Page	Designation	Page
MWLN/L	B177	WWLN/L	B168
PWLN/L	B200		



WN ○ ○



Dimensions (mm)			
Size	d	t	d ₁
06	9.525	4.76	3.81
08	12.7	4.76	5.16

Trigon **80° Negative**

Workpiece			Machining types																					
	Steel	Stainless steel	Continuous cutting	General cutting	Interrupted cutting																			
Steel	P		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	M		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	K		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	N		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	S		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	H		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Inserts	Designation	Cermets		Coated		Coated											Uncoated		Cutting Condition								
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)	
Medium to finishing 	WNMG 06T308-LP																								0.70~0.30	0.30~1.50	
	060404-LP																									0.07~0.30	0.30~1.50
	060408-LP						●	●																		0.10~0.30	0.30~1.50
	080404-LP						●	●	●																	0.10~0.35	0.30~2.00
	080408-LP						●	●	●	●																0.10~0.40	0.50~2.50
	080412-LP						●	●	●	●																0.13~0.45	0.80~3.00
Medium to finishing 	WNMG 080404-VC						●	●																	0.15~0.40	0.15~4.00	
	080408-VC						●	●																		0.15~0.45	0.15~4.50
	080412-VC						●	●	●																	0.15~0.45	0.15~4.50
Medium to finishing 	WNMG 080404-VP2															●	●		●						0.10~0.45	0.50~5.00	
	080408-VP2								●							●	●	●	●	●	●		●		0.12~0.50	0.50~5.00	
	080412-VP2															●	●	●	●	●	●		●		0.05~0.30	0.10~3.00	
Medium to finishing 	WNMG 060404-VQ																								0.05~0.30	0.50~4.00	
	060408-VQ																									0.08~0.30	0.80~4.00
	060412-VQ																									0.10~0.30	1.00~4.00
	080404-VQ	●	●	●	●																				0.05~0.30	0.50~4.00	
	080408-VQ	●	●	●	●																					0.08~0.40	0.80~4.00
080412-VQ																									0.10~0.35	0.80~3.50	
Medium cutting 	WNMG 060404-HM																								0.15~0.43	0.42~3.00	
	060408-HM								●	●													●		0.10~0.50	1.00~4.00	
	080404-HM								●	●	●												●		0.15~0.42	0.50~4.20	
	080408-HM							●	●	●	●	●											●		0.10~0.50	1.00~5.00	
	080412-HM																							●		0.10~0.50	1.00~5.00
Medium cutting 	WNMG 060408-MK															●	●								0.08~0.30	0.80~2.50	
	080404-MK															●	●								0.10~0.45	1.00~3.00	
	080408-MK															●	●								0.10~0.50	1.00~3.50	
	080412-MK															●	●								0.10~0.50	1.00~4.00	
	080416-MK																									0.13~0.50	1.20~4.20
Medium cutting 	WNMG 06T304-MM																								0.08~0.35	0.50~4.00	
	06T308-MM																									0.10~0.40	0.50~4.00
	06T312-MM																									0.12~0.45	0.50~4.00
	060404-MM																									0.08~0.35	0.50~4.00
	060408-MM															●	●						●		0.10~0.40	0.50~4.00	
	060412-MM															●	●						●		0.12~0.45	0.50~4.00	
	080404-MM															●	●	●					●	●	0.10~0.40	0.50~4.00	
	080408-MM															●	●	●	●				●	●	0.12~0.45	0.50~4.00	
080412-MM															●	●	●	●				●	●	0.15~0.60	0.50~4.00		

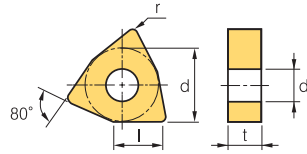
Cutting edge geometry **A52~A61**
 Recommended chip breaker **B04~B11**
 Code system **B26~B27**
 ● : Stock item

Available tool holders			
Designation	Page	Designation	Page
MWLN/L	B177	WWLN/L	B168
PWLN/L	B200		



B Turning Insert (Negative)

WN○○○



Dimensions (mm)			
Size	d	t	d ₁
06	9.525	4.76	3.81
08	12.7	4.76	5.16
13	19.05	6.35	7.93

Trigon 80° Negative

Workpiece	Material Compatibility													Machining types				
	Steel	Stainless steel	Cast iron	Non-ferrous metal	Heat resistant alloy, Titanium alloy	Hardened steel	P	M	K	N	S	H	●	●	●	●	●	●
Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Inserts	Designation	Cermets		Coated		Coated										Uncoated		Cutting Condition										
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)		
Medium cutting MP	WNMG 06T304-MP																									0.10-0.40	0.40-2.80	
	06T308-MP																										0.15-0.45	0.50-3.00
	060404-MP						●	●	●				●													0.10-0.40	0.40-2.80	
	060408-MP						●	●	●	●			●													0.15-0.45	0.50-3.00	
	060412-MP																									0.15-0.50	0.80-3.20	
	080404-MP						●	●	●				●	●	●				●	●	●					0.10-0.40	0.40-4.00	
	080408-MP						●	●	●				●	●	●				●	●	●					0.15-0.45	0.50-4.50	
	080412-MP						●	●	●				●	●	●				●	●						0.15-0.50	0.80-5.00	
	080416-MP						●	●	●																		0.18-0.55	0.10-5.00
Medium cutting VM	WNMG 060404-VM									●						●	●									0.10-0.45	1.00-3.50	
	060408-VM							●	●	●						●	●									0.10-0.50	1.00-4.00	
	060412-VM																									0.13-0.60	1.30-4.00	
	080404-VM							●		●						●	●									0.05-0.30	0.90-5.00	
	080408-VM							●	●	●	●					●	●			●		●				0.10-0.50	1.00-5.00	
	080412-VM							●		●						●	●									0.10-0.50	1.00-5.00	
Medium cutting VP3	WNMG 060408-VP3																									0.60-0.38	0.40-3.50	
	060412-VP3																									0.60-0.38	0.40-3.50	
	080404-VP3															●	●	●	●	●		●	●			0.10-0.45	0.50-5.00	
	080408-VP3															●	●	●	●	●		●	●			0.12-0.50	0.50-5.00	
	080412-VP3															●	●	●	●	●		●	●			0.05-0.30	0.10-3.00	
	130612-VP3																									0.20-0.40	1.00-5.00	
Medium cutting LW	WNMG 060408-LW						●	●					●													0.15-0.60	0.50-3.50	
	060412-LW																									0.20-0.70	0.80-3.50	
	080408-LW						●	●	●				●													0.15-0.60	1.00-5.00	
	080412-LW																									0.20-0.70	1.00-6.00	
General B25	WNMG 080404-B25						●	●	●																	0.17-0.45	1.00-5.00	
	080408-B25						●	●	●	●																0.23-0.60	1.50-5.00	
	080412-B25						●	●	●																	0.25-0.60	2.00-5.00	
Roughing GR	WNMG 080404-GR							●	●	●	●															0.15-0.50	0.08-6.00	
	080408-GR							●	●	●	●															0.20-0.50	1.00-7.00	
	080412-GR							●	●	●	●															0.25-0.50	1.30-7.00	
	080416-GR																									0.25-0.60	1.80-6.00	

🔄 Cutting edge geometry A52~A61
 🔄 Recommended chip breaker B04~B11
 🔄 Code system B26~B27
 ● : Stock item

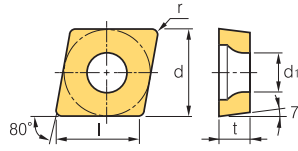
Available tool holders			
Designation	Page	Designation	Page
MWLNLR/L	B177	WWLNLR/L	B168
PWLNLR/L	B200		



B Turning Insert (Positive)



Rhombic 80° Positive
Relief Angle: 7°



Dimensions (mm)			
Size	d	t	d ₁
03	3.5	1.39	1.9
04	4.3	1.79	2.3
06	6.35	2.38	2.8
09	9.525	3.97	4.4

Workpiece	Machining types															
	P	M	K	N	S	H										
Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

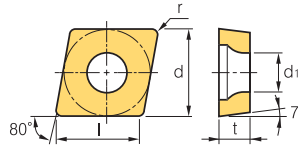
Inserts	Designation	Cermets		Coated		Coated										Uncoated		Cutting Condition											
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	fn (mm/rev)	ap (mm)			
Finishing	CCET	0301005R																								0.01~0.05	0.10~0.30		
		030101R																									0.01~0.05	0.10~0.30	
		030102R																									0.01~0.05	0.10~0.30	
		030104R																									0.01~0.05	0.10~0.30	
		0401005R																									0.01~0.10	0.10~0.50	
		040101R																									0.01~0.10	0.10~0.50	
		040102R																									0.01~0.10	0.10~0.50	
		040104R																									0.01~0.10	0.10~0.50	
		0301005L																										0.01~0.05	0.10~0.30
		030101L																										0.01~0.05	0.10~0.30
		030102L		●																					●	●		0.01~0.05	0.10~0.30
		030104L																										0.01~0.05	0.10~0.30
		0401005L																										0.01~0.10	0.10~0.50
		040101L																										0.01~0.10	0.10~0.50
		040102L		●																					●	●		0.01~0.10	0.10~0.50
040104L																										0.01~0.10	0.10~0.50		
Finishing	CCET	0602005MFR-KF															●			●						0.01~0.06	0.04~1.30		
		060201MFR-KF															●			●						0.02~0.08	0.05~1.50		
		060202MFR-KF															●			●						0.03~0.11	0.06~1.70		
		09T3005MFR-KF															●			●						0.02~0.08	0.05~1.50		
		09T301MFR-KF															●			●						0.03~0.11	0.06~1.70		
		09T302MFR-KF															●			●						0.04~0.15	0.08~2.00		
		0602005MFL-KF															●			●						0.01~0.06	0.04~1.30		
		060201MFL-KF															●			●						0.02~0.08	0.05~1.50		
		060202MFL-KF															●			●						0.03~0.11	0.06~1.70		
		09T3005MFL-KF															●			●						0.02~0.08	0.05~1.50		
		09T301MFL-KF															●			●						0.03~0.11	0.06~1.70		
		09T302MFL-KF															●			●						0.04~0.15	0.08~2.00		
Medium to finishing	CCET	0602005MFR-KM															●			●						0.01~0.06	0.04~1.30		
		060201MFR-KM															●			●						0.02~0.08	0.05~1.50		
		060202MFR-KM															●			●						0.03~0.11	0.06~1.70		
		09T3005MFR-KM															●			●						0.02~0.08	0.05~1.50		
		09T301MFR-KM															●			●						0.03~0.11	0.06~1.70		
		09T302MFR-KM															●			●						0.04~0.15	0.08~2.00		
		0602005MFL-KM															●			●						0.01~0.06	0.04~1.30		
		060201MFL-KM															●			●						0.02~0.08	0.05~1.50		
		060202MFL-KM															●			●						0.03~0.11	0.06~1.70		
		09T3005MFL-KM															●			●						0.02~0.08	0.05~1.50		
		09T301MFL-KM															●			●						0.03~0.11	0.06~1.70		
		09T302MFL-KM															●			●						0.04~0.15	0.08~2.00		

↻ Cutting edge geometry A52~A61
 ↻ Recommended chip breaker B04~B11
 ↻ Code system B26~B27
 ● : Stock item

Available tool holders			
Designation	Page	Designation	Page
SCACR/L	B113, 178	SCLCR/L	B113, 178, 204, 214



B Turning Insert (Positive)



Dimensions (mm)			
Size	d	t	d ₁
06	6.35	2.38	2.8
09	9.525	3.97	4.4
12	12.7	4.76	5.5

Rhombic **80° Positive**
Relief Angle: 7°

Workpiece	Machining types											
	P	M	K	N	S	H						
Steel	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●

Inserts	Designation	Cermet		Coated		Coated										Uncoated		Cutting Condition												
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)				
Medium to finishing 	CCGT	0602003R-KM																									0.01-0.06	0.04-1.30		
		060201R-KM																										0.02-0.08	0.05-1.50	
		060202R-KM																					●					0.03-0.11	0.06-1.70	
		09T3003R-KM																										0.02-0.08	0.06-1.50	
		09T301R-KM																										0.03-0.11	0.06-1.70	
		09T302R-KM																										0.04-0.15	0.08-2.00	
		0602003L-KM																										0.01-0.06	0.04-1.30	
		060201L-KM																											0.02-0.08	0.05-1.50
		060202L-KM																											0.03-0.11	0.06-1.70
		09T3003L-KM																											0.02-0.08	0.06-1.50
		09T301L-KM																											0.03-0.11	0.06-1.70
	09T302L-KM																											0.04-0.15	0.08-2.00	
Finishing 	CCMT	060202-VF						●									●			●							0.05-0.20	0.30-1.00		
		060204-VF	●		●				●								●			●								0.10-0.25	0.30-1.00	
		09T302-VF							●																			0.04-0.16	0.80-1.50	
		09T304-VF	●	●	●				●								●			●								0.05-0.20	0.30-1.50	
		09T308-VF	●		●				●	●							●											0.10-0.25	0.30-1.50	
		120404-VF							●																			0.07-0.22	0.10-2.00	
Finishing 	CCMT	060202-VL																									0.04-0.18	0.20-1.40		
		060204-VL	●		●	●	●	●	●	●			●	●	●	●	●	●	●	●	●	●					0.04-0.10	0.08-0.90		
		060208-VL						●	●	●				●	●													0.06-0.12	0.10-1.00	
		09T304-VL	●	●	●	●	●	●	●	●				●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.05-0.10	0.10-1.00	
		09T308-VL	●	●	●	●	●	●	●	●				●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.08-0.15	0.10-1.00	
		120404-VL																										0.06-0.12	0.30-1.50	
		120408-VL																										0.08-0.15	0.30-1.50	
	120412-VL																										0.08-0.15	0.30-1.50		
Finishing 	CCMT	060204-VP1																									0.06-0.12	0.10-1.50		
		09T304-VP1																										0.06-0.20	0.10-1.50	
		09T308-VP1																										0.08-0.20	0.50-2.00	
		120404-VP1																										0.08-0.22	0.20-2.00	
		120408-VP1																										0.10-0.25	0.50-2.00	
		120412-VP1																										0.10-0.30	0.80-2.50	

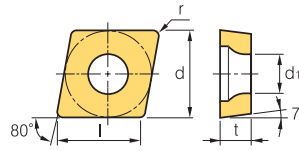
Cutting edge geometry A52~A61
 Recommended chip breaker B04~B11
 Code system B26~B27
 ● : Stock item

Available tool holders			
Designation	Page	Designation	Page
SCACR/L	B113, 178	SCLCR/L	B113, 178, 204, 214





Rhombic 80° Positive
Relief Angle: 7°



Dimensions (mm)			
Size	d	t	d ₁
06	6.35	2.38	2.8
08	7.94	3.18	3.4
09	9.525	3.97	4.4
12	12.7	4.76	5.5

Workpiece	Steel	P	M	K	N	S	H	Machining types													
	Stainless steel	Cast iron	Non-ferrous metal	Heat resistant alloy, Titanium alloy	Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Inserts	Designation	Cermet		Coated		Coated										Uncoated		Cutting Condition										
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)		
Medium to finishing 	CCMT 060202-HMP	●																								0.03~0.12	0.10~1.50	
	060204-HMP	●		●				●	●	●							●			●	●					0.06~0.17	0.20~2.40	
	060208-HMP							●	●	●							●			●	●					0.08~0.23	0.40~2.40	
	09T302-HMP		●																		●	●				0.07~0.22	0.10~2.00	
	09T304-HMP			●					●	●	●		●				●			●	●					0.08~0.23	0.30~3.00	
	09T308-HMP			●					●	●	●						●			●	●					0.10~0.30	0.50~3.00	
	120404-HMP								●	●							●				●	●				0.09~0.27	0.30~3.60	
	120408-HMP								●	●	●						●				●	●				0.24~0.36	1.00~3.60	
120412-HMP																					●	●				0.14~0.43	0.70~3.60	
Medium to finishing 	CCMT 060202-MP	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.04~0.12	0.20~1.50
	060204-MP	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.05~0.15	0.30~1.50
	060208-MP												●													0.07~0.15	0.50~2.00	
	09T302-MP	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.07~0.15	0.30~2.00
	09T304-MP	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.08~0.25	0.50~2.50
	09T308-MP	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.30	0.50~2.50
	120404-MP								●	●			●	●												0.10~0.30	0.50~3.50	
	120408-MP								●	●	●		●	●													0.15~0.35	0.80~3.50
120412-MP														●	●											0.25~0.40	1.00~3.50	
Medium cutting 	CCMT 060202-C25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.03~0.12	0.40~2.00
	060204-C25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.05~0.15	0.60~2.30
	060208-C25	●		●					●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.07~0.20	0.80~2.30
	080308-C25																									0.08~0.25	0.80~2.30	
	09T302-C25																									0.05~0.20	0.50~2.50	
	09T304-C25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.08~0.25	0.80~3.00
	09T308-C25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.30	1.00~3.00
	120404-C25								●	●							●	●			●	●				0.10~0.32	0.80~3.00	
	120408-C25	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.12~0.36	1.20~3.50
120412-C25								●	●																	0.15~0.40	1.40~3.50	

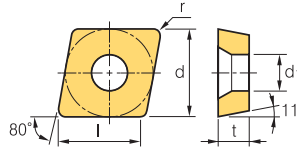
Cutting edge geometry **A52~A61**
 Recommended chip breaker **B04~B11**
 Code system **B26~B27**
 ● : Stock item

Available tool holders			
Designation	Page	Designation	Page
SCACR/L	B113, 178	SCLCR/L	B113, 178, 204, 214

B Turning Insert (Positive)


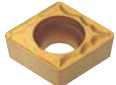



CP○○○

 Rhombic **80° Positive**
Relief Angle: 11°



Dimensions (mm)			
Size	d	t	d ₁
06	6.35	2.38	2.8
08	7.94	2.38	3.4
09	9.525	3.18	4.4

Workpiece	Material		Machining types																	
	Symbol	Material	●	⊙	⊛	●	⊙	⊛	●	⊙	⊛	●	⊙	⊛	●	⊙	⊛	●	⊙	⊛
Steel		P	●	⊙	⊛	●	⊙	⊛	●	⊙	⊛	●	⊙	⊛	●	⊙	⊛	●	⊙	⊛
Stainless steel		M	●	⊙	⊛	●	⊙	⊛	●	⊙	⊛	●	⊙	⊛	●	⊙	⊛	●	⊙	⊛
Cast iron		K	●	⊙	⊛	●	⊙	⊛	●	⊙	⊛	●	⊙	⊛	●	⊙	⊛	●	⊙	⊛
Non-ferrous metal		N																		
Heat resistant alloy, Titanium alloy		S																		
Hardened steel		H																		

Inserts	Designation	Cermets		Coated		Coated										Uncoated		Cutting Condition									
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)	
Finishing		CPGT 080202																								0.06-0.20	0.10-2.00
		080204	●	●																						0.08-0.20	0.30-2.00
		080208																								0.10-0.25	0.50-2.00
		090302																								0.04-0.20	0.30-1.50
		090304	●	●																						0.06-0.25	0.50-2.00
		090308																								0.08-0.30	0.70-2.50
Medium to finishing		CPGT 090308-HMP																							0.05-0.20	0.70-2.00	
Finishing		CPMT 080204-VF																							0.05-0.20	0.30-1.20	
		080208-VF																							0.10-0.25	0.30-1.20	
		090304-VF								●															0.05-0.20	0.30-1.50	
		090308-VF								●															0.10-0.25	0.30-1.50	
Finishing		CPMT 080204-VL																						0.03-0.08	0.08-1.00		
		080208-VL																							0.04-0.12	0.10-1.00	
		090304-VL																							0.05-0.10	0.10-1.00	
		090308-VL																							0.08-0.15	0.10-1.00	
Medium cutting		CPMT 060204-C25																						0.05-0.15	0.60-2.30		

Cutting edge geometry A52~A61
 Recommended chip breaker B04~B11
 Code system B26~B27
 ● : Stock item

Available tool holders			
Designation	Page	Designation	Page
SCLPR/L	B205		

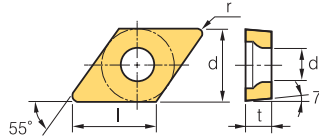


DC



Rhombic 55° Positive

Relief Angle: 7°



Dimensions (mm)			
Size	d	t	d ₁
07	6.35	2.38	2.8
11	9.525	3.97	4.4

Workpiece	Material														Machining types			
	Steel	Stainless steel	Cast iron	Non-ferrous metal	Heat resistant alloy, Titanium alloy	Hardened steel	P	M	K	N	S	H	●	⊙	⊛	⊚	⊘	
Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

● Continuous cutting
 ⊙ General cutting
 ⊛ Interrupted cutting

Inserts	Designation	Cermet		Coated		Coated										Uncoated		Cutting Condition										
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)		
Finishing [High precision]	DCET	0702005MFR-KF														●										0.01~0.06	0.04~1.30	
			070201MFR-KF													●											0.02~0.08	0.05~1.50
			070202MFR-KF													●											0.03~0.11	0.06~1.70
			11T3005MFR-KF													●											0.02~0.08	0.05~1.50
			11T301MFR-KF													●											0.03~0.11	0.06~1.70
			11T302MFR-KF													●											0.04~0.15	0.08~2.00
			0702005MFL-KF													●											0.01~0.06	0.04~1.30
			070201MFL-KF													●											0.02~0.08	0.05~1.50
			070202MFL-KF													●											0.03~0.11	0.06~1.70
			11T3005MFL-KF													●											0.02~0.08	0.05~1.50
			11T301MFL-KF													●											0.03~0.11	0.06~1.70
			11T302MFL-KF													●											0.04~0.15	0.08~2.00
Medium to finishing [High precision]	DCET	0702005MFR-KM														●										0.01~0.06	0.04~1.30	
			070201MFR-KM													●											0.02~0.08	0.05~1.50
			070202MFR-KM													●											0.03~0.11	0.06~1.70
			11T3005MFR-KM													●											0.02~0.08	0.05~1.50
			11T301MFR-KM													●											0.03~0.11	0.06~1.70
			11T302MFR-KM													●											0.04~0.15	0.08~2.00
			0702005MFL-KM													●											0.01~0.06	0.04~1.30
			070201MFL-KM													●											0.02~0.08	0.05~1.50
			070202MFL-KM													●											0.03~0.11	0.06~1.70
			11T3005MFL-KM													●											0.02~0.08	0.05~1.50
			11T301MFL-KM													●											0.03~0.11	0.06~1.70
			11T302MFL-KM													●											0.04~0.15	0.08~2.00
Finishing 	DCGT	0702003R-KF																								0.01~0.06	0.04~1.30	
			070201R-KF																								0.02~0.08	0.05~1.50
			070202R-KF																								0.03~0.11	0.06~1.50
			11T3003R-KF																								0.02~0.08	0.05~1.50
			11T301R-KF																								0.03~0.11	0.06~1.70
			11T302R-KF																				●			0.04~0.15	0.08~2.00	
			0702003L-KF																								0.01~0.06	0.04~1.30
			070201L-KF																								0.02~0.08	0.05~1.50
			070202L-KF																								0.03~0.11	0.06~1.50
			11T3003L-KF																								0.02~0.08	0.05~1.50
			11T301L-KF																								0.03~0.11	0.06~1.70
			11T302L-KF																								0.04~0.15	0.08~2.00

🔄 Cutting edge geometry A52~A61
🔄 Recommended chip breaker B04~B11
🔄 Code system B26~B27
● : Stock item

Available tool holders			
Designation	Page	Designation	Page
SDACR/L	B178	SDQCR/L	B206
SDJCR/L	B113, 179	SDUCR/L	B207
SDNCN	B114, 179	SDZCR/L	B208

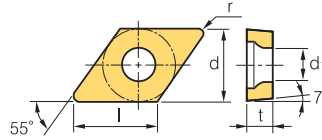


B Turning Insert (Positive)

DC ○ ○ ○



Rhombic **55° Positive**
Relief Angle: 7°



Dimensions (mm)			
Size	d	t	d ₁
07	6.35	2.38	2.8
11	9.525	3.97	4.4

Workpiece	Machining types											
	P	M	K	N	S	H						
Steel	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●

● Continuous cutting
● General cutting
● Interrupted cutting

Inserts	Designation	Cermets		Coated		Coated										Uncoated		Cutting Condition																	
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)									
Finishing 	DCGT	070201-VP1														●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.03-0.06	0.06-1.00		
		070202-VP1														●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.03-0.10	0.08-1.50		
		070204-VP1														●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.05-0.12	0.10-1.50		
		11T301-VP1														●			●													0.03-0.13	0.06-1.00		
		11T302-VP1														●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.04-0.15	0.08-1.50		
		11T304-VP1														●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.06-0.20	0.10-1.50		
Finishing [High precision]	DCGT	070201MFN-VP1														●			●													0.03-0.06	0.06-1.00		
		070202MFN-VP1														●			●														0.03-0.10	0.08-1.50	
		070204MFN-VP1														●			●														0.05-0.12	0.10-1.50	
		11T301MFN-VP1														●			●														0.03-0.13	0.06-1.00	
		11T302MFN-VP1														●		●	●	●	●	●	●	●	●	●	●	●	●	●	●		0.04-0.15	0.08-1.50	
		11T304MFN-VP1														●		●	●	●	●	●	●	●	●	●	●	●	●	●	●		0.06-0.20	0.10-1.50	
Medium to finishing 	DCGT	0702003R-KM																															0.01-0.06	0.04-1.30	
		070201R-KM																																0.02-0.08	0.05-1.50
		070202R-KM																																0.03-0.11	0.06-1.50
		11T3003R-KM																																0.02-0.08	0.05-1.50
		11T301R-KM																																0.03-0.11	0.06-1.70
		11T302R-KM																																0.04-0.15	0.08-2.00
		0702003L-KM																																0.01-0.06	0.04-1.30
		070201L-KM																																0.02-0.08	0.05-1.50
		070202L-KM																																0.03-0.11	0.06-1.50
		11T3003L-KM																																0.02-0.08	0.05-1.50
		11T301L-KM																																0.03-0.11	0.06-1.70
		11T302L-KM																																0.04-0.15	0.08-2.00
Finishing [High precision]	DCMT	070202-VF		●					●																								0.03-0.10	0.06-1.00	
		070204-VF		●	●				●							●				●														0.05-0.20	0.30-1.20
		11T302-VF	●							●																								0.04-0.15	0.08-1.50
		11T304-VF	●	●	●					●							●				●													0.05-0.20	0.30-1.50
		11T308-VF	●		●												●				●													0.10-0.25	0.30-1.50

➤ Cutting edge geometry A52~A61 ➤ Recommended chip breaker B04~B11 ➤ Code system B26~B27 ● : Stock item

Available tool holders			
Designation	Page	Designation	Page
SDACR/L	B178	SDQCR/L	B206
SDJCR/L	B113, 179	SDUCR/L	B207
SDNCN	B114, 179	SDZCR/L	B208

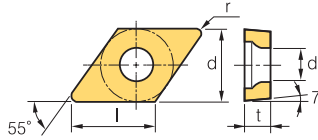


DC



Rhombic 55° Positive

Relief Angle: 7°



Dimensions (mm)			
Size	d	t	d ₁
07	6.35	2.38	2.8
11	9.525	3.97	4.4

Workpiece	Machining types											
	P	M	K	N	S	H						
Steel	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●

Inserts	Designation	Cermet		Coated		Coated										Uncoated		Cutting Condition									
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)	
Finishing VL	DCMT 070202-VL																								0.02~0.10	0.06~0.80	
	DCMT 070204-VL	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.04~0.10	0.08~0.90
	DCMT 070208-VL						●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.06~0.12	0.10~1.00
	DCMT 11T302-VL																									0.03~0.10	0.07~0.80
	DCMT 11T304-VL	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.05~0.10	0.10~1.00
	DCMT 11T308-VL	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.08~0.15	0.10~1.00
	DCMT 11T312-VL																									0.08~0.15	0.30~1.50
Finishing VP1	DCMT 070204-VP1																									0.05~0.12	0.10~1.50
	DCMT 11T304-VP1																									0.06~0.20	0.10~1.50
	DCMT 11T308-VP1																									0.08~0.23	0.10~1.50
Medium to finishing HMP	DCMT 070202-HMP									●																0.03~0.12	0.10~1.50
	DCMT 070204-HMP									●	●	●					●			●	●					0.06~0.17	0.20~2.30
	DCMT 070208-HMP									●	●									●	●					0.08~0.23	0.40~2.30
	DCMT 11T302-HMP										●									●	●					0.04~0.22	0.10~2.00
	DCMT 11T304-HMP			●							●	●	●	●						●	●					0.08~0.23	0.30~3.00
	DCMT 11T308-HMP										●	●	●							●	●					0.10~0.30	0.50~3.00
Medium to finishing MP	DCMT 070202-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.04~0.12	0.12~1.80
	DCMT 070204-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.05~0.15	0.30~1.80
	DCMT 070208-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.08~0.22	0.30~1.80
	DCMT 11T302-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.04~0.15	0.30~2.00
	DCMT 11T304-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.08~0.20	0.50~2.30
	DCMT 11T308-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.30	0.50~2.30
	DCMT 11T312-MP																									0.25~0.35	0.80~3.00
Medium cutting C25	DCMT 070202-C25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.03~0.15	0.30~2.00
	DCMT 070204-C25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.05~0.20	0.50~2.50
	DCMT 070208-C25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.06~0.25	0.80~2.50
	DCMT 11T302-C25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.04~0.25	0.50~2.50
	DCMT 11T304-C25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.08~0.30	0.80~3.00
	DCMT 11T308-C25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.30	1.00~3.00

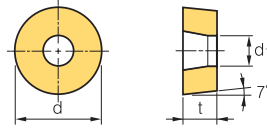
🔄 Cutting edge geometry A52~A61
🔄 Recommended chip breaker B04~B11
🔄 Code system B26~B27
● : Stock item

Available tool holders			
Designation	Page	Designation	Page
SDACR/L	B178	SDQCR/L	B206
SDJCR/L	B113, 179	SDUCR/L	B207
SDNCN	B114, 179	SDZCR/L	B208



B Turning Insert (Positive)

RC



Dimensions (mm)			
Size	d	t	d ₁
08	8.0	3.18	3.35
10	10.0	3.97	3.6
12	12.0	4.76	4.2
16	16.0	6.35	5.2
20	20.0	6.35	6.5
25	25.0	7.94	7.25
32	32.0	9.52	9.55

Round **R° Positive**
Relief Angle: 7°

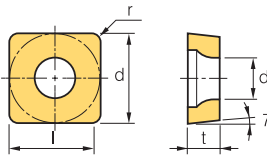
Workpiece	Machining types											
	P	M	K	N	S	H	●	●	●	●	●	●
Steel	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●

Inserts	Designation	Cermert		Coated										Uncoated		Cutting Condition													
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)			
Medium cutting	VM	RCMT	0803M0-VM																							0.05~0.30	0.80~2.50		
		10T3M0-VM																									0.05~0.35	0.90~3.00	
		1204M0-VM																										0.10~0.50	1.00~3.50
		1606M0-VM																										0.13~0.60	1.30~6.50
Medium cutting	RCMX	1003M0						●	●	●	●	●															0.25~0.50	1.50~4.00	
		1204M0						●	●	●	●	●	●														0.30~0.60	2.50~5.00	
		1606M0							●	●	●	●	●														0.40~0.70	3.00~7.00	
		2006M0								●	●	●	●														0.48~0.90	3.50~9.00	
		2507M0									●	●	●														0.55~1.20	4.00~12.00	
		3209M0									●	●	●														0.65~1.50	5.00~15.00	

➤ Cutting edge geometry A52~A61 ➤ Recommended chip breaker B04~B11 ➤ Code system B26~B27 ● : Stock item

Available tool holders			
Designation	Page	Designation	Page
PRDCN	B162	PRGCR/L	B162

SC



Dimensions (mm)			
Size	d	t	d ₁
09	9.525	3.97	4.4

Square **90° Positive**
Relief Angle: 7°

Workpiece	Machining types											
	P	M	K	N	S	H	●	●	●	●	●	●
Steel	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●

Inserts	Designation	Cermert		Coated										Uncoated		Cutting Condition											
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)	
Finishing	VF	SCMT	09T304-VF						●							●										0.05~0.20	0.30~1.50

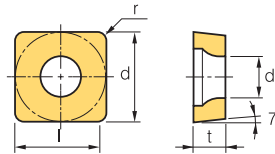
➤ Cutting edge geometry A52~A61 ➤ Recommended chip breaker B04~B11 ➤ Code system B26~B27 ● : Stock item

Available tool holders			
Designation	Page	Designation	Page
SSBCR/L	B180	SSKCR/L	B181, 208
SSDCN	B180	SSSCR/L	B181, 234



SC

Square **90° Positive**
Relief Angle: 7°



Dimensions (mm)			
Size	d	t	d ₁
06	6.35	2.38	2.8
09	9.525	3.97	4.4
12	12.7	4.76	5.5

Workpiece	Machining types															
	P	M	K	N	S	H										
Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Inserts	Designation	Cermets		Coated		Coated										Uncoated		Cutting Condition								
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)
Finishing 	SCMT 09T304-VL	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.05~0.10	0.10~1.00
	09T308-VL	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.08~0.15	0.10~1.00
Medium to finishing 	SCMT 09T304-HMP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.08~0.23	0.30~3.00
	09T308-HMP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.30	0.50~3.00
	120404-HMP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.09~0.27	0.30~3.60
	120408-HMP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.12~0.36	0.60~3.60
Medium to finishing 	SCMT 09T304-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.05~0.25	0.30~2.80
	09T308-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.30	0.50~2.80
	120404-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.30	0.50~2.80
	120408-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.15~0.35	0.80~3.50
	120412-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.25~0.40	1.00~3.50
Medium cutting 	SCMT 060204-C25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.08~0.25	0.40~2.50
	09T304-C25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.08~0.25	0.60~3.00
	09T308-C25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.30	1.00~3.00
	120404-C25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.30	0.80~3.80
	120408-C25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.12~0.38	1.20~3.80

Cutting edge geometry **A52~A61**
 Recommended chip breaker **B04~B11**
 Code system **B26~B27**
 ● : Stock item

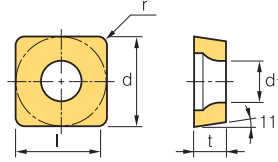
Available tool holders			
Designation	Page	Designation	Page
SSBCR/L	B180	SSKCR/L	B181, 208
SSDCN	B180	SSSCR/L	B181, 234



B Turning Insert (Positive)


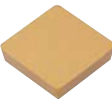
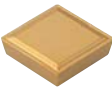
SP ○○

 Square **90° Positive**
Relief Angle: 11°



Dimensions (mm)			
Size	d	t	d ₁
06	6.35	2.38	2.8
07	7.94	2.38	-
09	9.525	3.18	3.4
12	12.7	4.76	-
15	15.875	4.76	-
19	19.05	4.76	-

Workpiece	Material	Grade	Machining types															
			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Steel		P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Stainless steel		M	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Cast iron		K	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Non-ferrous metal		N																
Heat resistant alloy, Titanium alloy		S																
Hardened steel		H																

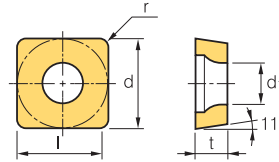
Inserts	Designation	Cermets		Coated		Coated										Uncoated		Cutting Condition											
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)			
Medium to finishing	SPGA 	060204																								0.50-0.25	0.50-2.00		
		090308T	●	●																							0.10-0.25	0.70-3.00	
		090308T-Z <small>(Z = Special Nega land)</small>		●																								0.10-0.25	0.70-3.00
Medium to finishing	SPGN 	070202																									0.03-0.10	0.50-2.00	
		070208																										0.10-0.25	0.70-3.00
		090302																										0.03-0.10	0.50-3.00
		090304																										0.08-0.20	0.70-3.50
		090308																										0.10-0.25	0.70-3.50
		120302																										0.03-0.20	0.50-3.00
		120304																										0.08-0.20	1.00-5.00
		120308								●																		0.10-0.25	1.00-5.00
		120312																										0.15-0.30	1.00-5.00
		120316																										0.18-0.33	1.00-5.00
		120402																										0.03-0.20	0.50-3.00
		120404																										0.08-0.20	1.00-5.00
		120408																										0.10-0.25	1.00-5.00
		120412																										0.15-0.30	1.00-5.00
		120416																										0.18-0.33	1.00-5.00
		120430																										0.20-0.60	2.00-5.00
		120440																										0.25-0.70	3.00-5.00
		150404																										0.08-0.20	1.50-7.00
		150408																										0.10-0.25	1.50-7.00
		150412																										0.15-0.30	1.50-7.00
150416																										0.18-0.33	1.50-7.00		
150420																										0.20-0.45	1.50-7.00		
190404																										0.08-0.20	1.50-9.00		
190408																										0.10-0.25	1.50-9.00		
190412																										0.15-0.45	1.50-9.00		
190416																										0.18-0.60	1.50-9.00		
190424																										0.25-0.70	2.50-9.00		
Finishing	SPGR 	090304-F																									0.05-0.20	0.30-2.00	
		120304-F																									0.10-0.25	0.50-2.00	

 Cutting edge geometry **A52~A61**
 Recommended chip breaker **B04~B11**
 Code system **B26~B27**
● : Stock item

Available tool holders			
Designation	Page	Designation	Page
CSDPN	B169	SSKPR/L	B208
CSKPR/L	B170		



SP



Dimensions (mm)			
Size	d	t	d ₁
09	9.525	3.18	3.4~4.4
12	12.7	3.18	-
15	15.875	4.76	-
19	19.05	4.76	-
25	25.4	6.35	-

Square **90° Positive**
Relief Angle: 11°

Workpiece	Material Groups																Machining types					
	Steel	Stainless steel	Cast iron	Non-ferrous metal	Heat resistant alloy, Titanium alloy	Hardened steel	P	M	K	N	S	H	●	●	●	●	●	●	●	●	●	●
Steel							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal																						
Heat resistant alloy, Titanium alloy																						
Hardened steel																						

● Continuous cutting
 ● General cutting
 ● Interrupted cutting

	Inserts	Designation	Cermet		Coated		Coated										Uncoated		Cutting Condition										
			CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)		
Medium cutting	M	SPGR	090308-M																								0.10~0.40	1.00~3.50	
			120308-M																									0.20~0.40	1.50~4.00
Medium to finishing		SPGT	090304R																								0.08~0.23	0.30~3.00	
			090308R																									0.10~0.30	0.50~3.00
			090304L		●																							0.08~0.23	0.30~3.00
			090308L																									0.10~0.30	0.50~3.00
Finishing	F	SPMR	090304-F																								0.05~0.20	0.30~2.00	
			120304-F							●	●																0.10~0.25	0.50~2.00	
Finishing	VL	SPMT	09T304-VL																								0.04~0.18	0.20~1.40	
			09T308-VL																									0.08~0.22	0.20~1.40
Finishing	VF	SPMT	090304-VF																								0.05~0.20	0.30~1.50	
			090308-VF																									0.10~0.25	0.30~1.50
Medium cutting	M	SPMR	090308-M							●	●																0.10~0.40	1.00~3.50	
			120308-M							●	●																0.10~0.40	1.50~4.00	
			120312-M								●																	0.20~0.40	1.50~4.00
Medium to finishing		SPUN	120304																								0.10~0.30	1.00~5.00	
			120308																									0.15~0.40	1.00~5.00
			120308SN																									0.15~0.40	1.00~5.00
			150412																									0.20~0.50	1.00~5.00
			190412									●																0.20~0.50	1.50~7.00
			190416																									0.25~0.60	2.00~7.00
			250620																									0.30~0.80	3.00~10.0

Cutting edge geometry **A52~A61**
 Recommended chip breaker **B04~B11**
 Code system **B26~B27**
 ● : Stock item

Available tool holders			
Designation	Page	Designation	Page
CSDPN	B169	SSKPR/L	B208
CSKPR/L	B170		

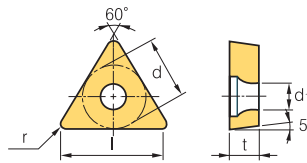


B Turning Insert (Positive)

TB ○○



Triangular **60° Positive**
Relief Angle: 5°



Dimensions (mm)			
Size	d	t	d ₁
06	3.97	1.59	2.16

Workpiece	Machining types																							
	P	M	K	N	S	H	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05
Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Inserts	Designation	Cermets		Coated												Uncoated		Cutting Condition									
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)	
Finishing	TBGT	060102L	●																					●	●	0.05~0.20	0.10~1.30
		060104L	●																								0.08~0.20
Finishing	TBMT	060102-VL																								0.03~0.06	0.05~0.60

Cutting edge geometry **A52~A61**
 Recommended chip breaker **B04~B11**
 Code system **B26~B27**
 ● : Stock item

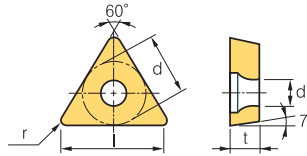
Available tool holders			
Designation	Page	Designation	Page
STUBR/L	B214		



TC



Triangular 60° Positive
Relief Angle: 7°



Dimensions (mm)			
Size	d	t	d ₁
08	4.76	2.38	2.3
09	5.56	2.38	2.5
11	6.35	2.38	2.8
16	9.523	3.97	4.4

Workpiece	Machining types											
	●	●	●	●	●	●	●	●	●	●	●	●
Steel	P	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	M	●	●	●	●	●	●	●	●	●	●	●
Cast iron	K	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	N	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	S	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	H	●	●	●	●	●	●	●	●	●	●	●

Inserts	Designation	Cermet		Coated		Coated										Uncoated		Cutting Condition										
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)		
Finishing 	TCGT	0802003R-KF																								0.01~0.06	0.04~1.30	
		080201R-KF																									0.02~0.08	0.05~1.50
		080202R-KF																									0.03~0.11	0.06~1.70
		0802003L-KF																									0.01~0.06	0.04~1.30
		080201L-KF																									0.02~0.08	0.05~1.50
		080202L-KF																									0.03~0.11	0.06~1.70
Finishing 	TCGT	090204-VP1																								0.04~0.18	0.10~1.00	
		16T304-VP1																								0.06~0.20	0.10~1.50	
		16T308-VP1																								0.08~0.23	0.10~1.50	
Finishing 	TCMT	110202-VF																								0.03~0.13	0.06~0.70	
		110204-VF		●													●									0.05~0.20	0.30~1.20	
		110208-VF															●									0.10~0.25	0.30~1.20	
		16T302-VF															●									0.05~0.15	0.10~1.30	
		16T304-VF								●		●					●									0.05~0.20	0.30~1.50	
Finishing 	TCMT	090208-VL																								0.08~0.20	0.10~1.20	
		110204-VL																								0.05~0.15	0.10~1.30	
		110208-VL																								0.08~0.20	0.10~1.30	
		16T304-VL	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.05~0.20	0.30~1.50	
		16T308-VL	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.05~0.20	0.30~1.50	
Finishing 	TCMT	16T304-VP1																								0.06~0.20	0.10~1.50	
		16T308-VP1																								0.08~0.23	0.10~1.50	
Medium to finishing 	TCMT	090204-HMP								●													●			0.06~0.17	0.20~2.30	
		090208-HMP																								0.08~0.23	0.40~2.30	
		110202-HMP																								0.03~0.15	0.10~1.50	
		110204-HMP			●				●	●	●	●					●			●			●			0.06~0.19	0.20~2.50	
		110208-HMP									●						●						●			0.09~0.26	0.40~2.50	
		16T304-HMP			●				●	●	●						●						●			0.08~0.23	0.30~3.00	
	16T308-HMP							●	●	●						●						●			0.10~0.30	0.50~3.00		

↻ Cutting edge geometry **A52~A61**
 ↻ Recommended chip breaker **B04~B11**
 ↻ Code system **B26~B27**
 ● : Stock item

Available tool holders			
Designation	Page	Designation	Page
STACR/L	B114, 181	STTCR/L	B182, 235
STFCR/L	B182, 234	STWCR/L	B235
STGCR/L	B182		

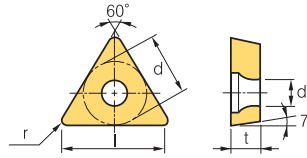


B Turning Insert (Positive)

TC ○○



Triangular **60° Positive**
Relief Angle: 7°



Dimensions (mm)			
Size	d	t	d ₁
09	5.56	2.38	2.5
11	6.35	2.38	2.8
16	9.523	3.97	4.4

Workpiece	Machining types											
	P	M	K	N	S	H						
Steel	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●

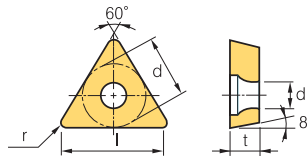
Inserts	Designation	Cermet		Coated										Uncoated		Cutting Condition												
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)		
Medium to finishing 	TCMT 090204-MP 090208-MP 110202-MP 110204-MP 110208-MP 16T302-MP 16T304-MP 16T308-MP 16T312-MP 220408-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.05~0.18	0.10~1.00		
		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.08~0.20	0.10~1.20	
		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.03~0.12	0.20~1.50	
		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.05~0.15	0.20~15.0
		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.28	0.25~2.00
		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.08~0.25	0.20~1.50
		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.08~0.20	0.30~2.50
		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.10~0.30	0.50~2.50
		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.20~0.40	0.50~2.50
Medium cutting 	TCMT 090204-C25 090208-C25 110202-C25 110204-C25 110208-C25 16T304-C25 16T308-C25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.06~0.18	0.40~2.50		
		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.08~0.25	0.80~2.50	
		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.04~0.12	0.40~2.00	
		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.06~0.20	0.60~2.50
		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.08~0.25	0.80~2.50
		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.08~0.28	0.80~3.00

🔄 Cutting edge geometry A52~A61 🔄 Recommended chip breaker B04~B11 🔄 Code system B26~B27 ● : Stock item

TO ○○



Triangular **60° Positive**
Relief Angle: 8°



Dimensions (mm)			
Size	d	t	d ₁
06	3.97	1.59	2.15
09	5.56	2.38	2.8
14	8.2	3.0	3.8

Workpiece	Machining types											
	P	M	K	N	S	H						
Steel	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●

Inserts	Designation	Cermet		Coated										Uncoated		Cutting Condition											
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)	
Medium to finishing 	TOEH 060102L 090204L 140304L	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.05~0.17	0.10~1.50	
		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.05~0.20	0.30~2.50
		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.05~0.25	0.30~2.50

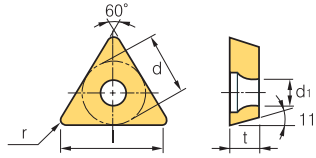
🔄 Cutting edge geometry A52~A61 🔄 Recommended chip breaker B04~B11 🔄 Code system B26~B27 ● : Stock item



TP



Triangular 60° Positive
Relief Angle: 11°



Dimensions (mm)			
Size	d	t	d ₁
08	4.76	2.38	2.3
09	5.56	2.38	-
11	6.35	2.38~3.18	3.4
16	9.525	3.18~4.76	4.4
22	12.7	4.76	-
27	15.875	4.76~6.35	-

Workpiece	Material										Machining types				
	Steel	Stainless steel	Cast iron	Non-ferrous metal	Heat resistant alloy, Titanium alloy	Hardened steel	P	M	K	N	S	H	Continuous cutting	General cutting	Interrupted cutting
Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Inserts	Designation	Cermet		Coated		Coated										Uncoated		Cutting Condition										
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)		
Finishing	TPGH	080202L	●																							0.01~0.12	0.06~1.70	
		080204L	●	●																						0.01~0.15	0.08~1.70	
		110202L																									0.01~0.12	0.06~2.00
		110204L																									0.01~0.15	0.08~2.00
Medium to finishing	TPGN	090204																								0.07~0.20	0.70~2.00	
		110302																								0.05~0.15	0.50~2.00	
		110304								●														●		0.07~0.20	0.70~3.00	
		110308								●														●		0.10~0.25	1.00~3.00	
		160302																								0.05~0.18	1.00~5.00	
		160304								●	●													●		0.07~0.20	1.00~5.00	
		160308								●	●													●		0.10~0.25	1.00~5.00	
		160310																									0.10~0.25	1.00~5.00
		160312																									0.15~0.30	1.00~5.00
		160316																									0.15~0.30	1.00~5.00
		160404																									0.07~0.20	1.00~5.00
		220404									●																0.07~0.20	1.50~7.00
		220408									●	●															0.10~0.25	1.50~7.00
		220412									●																0.15~0.30	1.50~7.00
		220430																									0.30~0.45	1.50~7.00
220440																									0.30~0.50	1.50~7.00		
270408																									0.15~0.25	3.00~8.00		
270608																									0.15~0.25	3.00~8.00		
Finishing	TPGR	110302-F																								0.05~0.15	0.10~1.50	
		110304-F																								0.05~0.20	0.30~1.50	
		160304-F																								0.08~0.25	0.50~2.00	
Medium cutting	TPGR	110308-M																								0.13~0.30	1.00~3.00	
		160308-M																								0.13~0.30	1.00~5.00	


➡ Cutting edge geometry A52~A61
➡ Recommended chip breaker B04~B11
➡ Code system B26~B27
● : Stock item

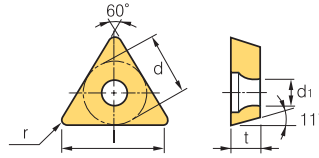
Available tool holders			
Designation	Page	Designation	Page
STFPR/L	B210	STUPR/L	B215
CTFPR/L	B170	CTGPR/L	B170



B Turning Insert (Positive)

TP ○○



 Triangular **60° Positive**
Relief Angle: 11°



Dimensions (mm)			
Size	d	t	d ₁
08	4.76	2.38	2.3
09	5.56	2.38	3.0
11	6.35	3.18	3.4
16	9.525	3.18~4.76	4.4
22	12.7	4.76	-

Workpiece	Machining types															
	P	M	K	N	S	H										
Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Inserts	Designation	Cermets		Coated		Coated										Uncoated		Cutting Condition											
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)			
Medium to finishing	TPGT	080202R																								0.05-0.20	0.30-1.50		
		110302R																									0.05-0.20	0.30-1.50	
		110304R	●																								0.05-0.20	0.50-2.00	
		110308R																									0.07-0.25	0.50-2.00	
		160404R	●																								0.05-0.20	0.70-3.00	
		160408R																									0.05-0.20	0.70-3.00	
		080202L	●																				●	●			0.05-0.20	0.30-1.50	
		110302L																										0.05-0.20	0.30-1.50
		110304L	●	●																								0.05-0.20	0.50-2.00
		110308L																										0.07-0.25	0.50-2.00
		160404L	●																									0.05-0.20	0.70-3.00
		160408L																										0.05-0.20	0.70-3.00
Medium to finishing	TPGX	090202L																								0.10-0.20	0.30-1.00		
		090204L		●																						0.10-0.25	0.50-1.00		
		090208L																								0.10-0.30	1.00-1.00		
		110304L																								0.10-0.25	0.50-1.20		
Finishing	TPMR	090202-F																								0.05-0.15	0.10-1.00		
		090204-F																								0.05-0.15	0.10-1.00		
		110302-F																								0.05-0.15	0.10-1.50		
		110304-F						●	●	●													●			0.05-0.20	0.30-1.50		
		110308-F																									0.05-0.25	0.30-1.50	
		160304-F																					●	●			0.08-0.25	0.50-2.00	
160308-F																									0.08-0.25	0.50-3.00			
Medium cutting	TPMR	110304-M																								0.10-0.25	0.70-3.00		
		110308-M									●		●													0.13-0.30	1.00-3.00		
		160304-M										●		●												0.10-0.25	1.00-5.00		
		160308-M								●	●	●		●												0.13-0.30	1.00-5.00		
		160312-M										●															0.15-0.35	1.00-5.00	
		220408-M										●															0.13-0.30	1.50-7.00	

 Cutting edge geometry A52~A61
  Recommended chip breaker B04~B11
  Code system B26~B27
 ● : Stock item

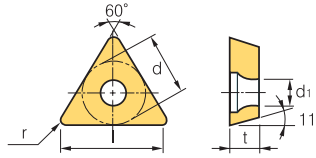
Available tool holders			
Designation	Page	Designation	Page
STFPR/L	B210	STUPR/L	B215
CTFPR/L	B170	CTGPR/L	B170



TP



Triangular 60° Positive
Relief Angle: 11°



Dimensions (mm)			
Size	d	t	d ₁
09	5.56	3.18	-
11	6.35	3.18	3.4
16	9.525	3.18~4.76	4.4
22	12.7	4.76	-
33	19.05	6.35	-

Workpiece	Machining types															
	P	M	K	N	S	H	1	2	3	4	5	6	7	8	9	10
Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Inserts	Designation	Cermet		Coated		Coated										Uncoated		Cutting Condition										
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)		
Finishing 	TPMT	110304-VF	●					●	●								●									0.05~0.20	0.30~1.50	
			110308-VF					●	●											●						0.10~0.25	0.30~1.50	
			160404-VF																								0.05~0.20	0.30~2.00
			160408-VF																								0.10~0.25	0.30~2.00
Finishing 	TPMT	090204-VL																								0.04~0.10	0.10~0.90	
			090208-VL																								0.06~0.12	0.10~1.00
			110304-VL	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.05~0.15	0.10~1.30
			110308-VL					●						●	●												0.08~0.20	0.10~1.30
			160404-VL																								0.05~0.20	0.30~1.50
			160408-VL																								0.05~0.20	0.30~1.50
Medium to finishing 	TPMT	090202-MP																								0.03~0.15	0.10~1.00	
			090204-MP																								0.05~0.18	0.10~1.00
			110302-MP																								0.03~0.12	0.20~1.50
			110304-MP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.05~0.20	0.20~1.50
			110308-MP					●	●					●	●												0.10~0.28	0.30~2.00
			160402-MP																								0.06~0.20	0.30~2.50
			160404-MP					●	●																		0.08~0.20	0.30~2.50
			160408-MP					●	●																		0.10~0.30	0.50~2.50
Medium to finishing 	TPUN	090308																								0.10~0.30	0.50~2.00	
			110208																								0.15~0.40	1.00~3.00
			110304																								0.10~0.30	1.00~3.00
			110308																								0.15~0.40	1.00~3.00
			160304							●																	0.10~0.30	1.00~5.00
			160308							●								●									0.15~0.40	1.00~5.00
			160308TN																								0.15~0.40	1.00~5.00
			160312																								0.20~0.50	1.50~5.00
			160312TN																								0.20~0.50	1.50~5.00
			220404																								0.10~0.30	1.50~7.00
			220408								●																0.15~0.40	1.50~7.00
			220412																								0.20~0.50	1.50~7.00
			220412TN																								0.20~0.50	1.50~7.00
			330620																								0.30~0.70	3.00~10.00

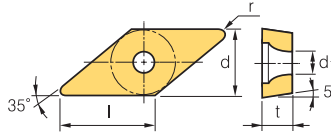
🔄 Cutting edge geometry A52~A61
🔄 Recommended chip breaker B04~B11
🔄 Code system B26~B27
● : Stock item

Available tool holders			
Designation	Page	Designation	Page
STFPR/L	B210	STUPR/L	B215
CTFPR/L	B170	CTGPR/L	B170



B Turning Insert (Positive)







VB



Dimensions (mm)			
Size	d	t	d ₁
11	6.35	3.18	2.8
16	9.525	4.76	4.4

 Rhombic **35° Positive**
Relief Angle: 5°

Workpiece	Machining types											
	P	M	K	N	S	H	●	●	●	●	●	●
Steel	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●

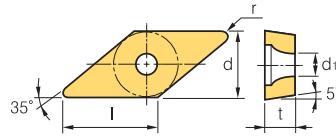
Inserts	Designation	Cermets		Coated		Coated												Uncoated		Cutting Condition									
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)			
Finishing 	VBGT	1103003R-KF																								0.01-0.06	0.04-1.30		
		110301R-KF																									0.02-0.08	0.05-1.50	
		110302R-KF																						●			0.03-0.13	0.06-1.70	
		1103003L-KF																									0.01-0.06	0.04-1.30	
		110301L-KF																									0.02-0.08	0.05-1.50	
		110302L-KF																									0.03-0.13	0.06-1.70	
Finishing 	VBGT	110302-VP1																								0.03-0.10	0.08-1.50		
		160402-VP1																								0.04-0.20	0.16-1.50		
		160404-VP1																								0.05-0.20	0.18-1.80		
Medium to finishing 	VBGT	160404																								0.07-0.20	0.50-1.50		
		160408																									0.15-0.25	0.70-2.00	
Medium to finishing 	VBGT	1103003R-KM																								0.01-0.06	0.04-1.30		
		110301R-KM																									0.02-0.08	0.05-1.50	
		110302R-KM																									0.03-0.13	0.06-1.70	
		160404R-KM																									0.05-0.15	0.50-2.00	
		1103003L-KM																									0.01-0.06	0.04-1.30	
		110301L-KM																									0.02-0.08	0.05-1.50	
		110302L-KM																									0.03-0.13	0.06-1.70	
		160404L-KM																									0.05-0.15	0.50-2.00	
Finishing 	VBMT	110302-VB																								0.05-0.15	0.20-1.20		
		110304-VB																									0.06-0.18	0.20-1.20	
		110308-VB																									0.08-0.20	0.60-1.20	
		160402-VB																									0.06-0.20	0.05-1.00	
		160404-VB	●	●						●																		0.08-0.20	0.20-1.50
		160408-VB	●	●						●																		0.10-0.23	0.50-1.50
		160412-VB																										0.12-0.25	0.80-1.50
Finishing 		160404-VF	●	●	●				●	●						●				●						0.05-0.20	0.30-1.00		
		160408-VF	●	●	●												●										0.10-0.25	0.30-1.00	

 Cutting edge geometry **A52~A61**
 Recommended chip breaker **B04~B11**
 Code system **B26~B27**
● : Stock item

Available tool holders			
Designation	Page	Designation	Page
SVABR/L	B183	SVVBN	B184
SVHBR/L	B183	SVQBR/L	B211
SVJBR/L	B115, 183	SVUBR/L	B212



VB



Dimensions (mm)			
Size	d	t	d ₁
11	6.35	2.38~3.18	2.8~3.4
16	9.525	4.76	4.4

Rhombic **35° Positive**
Relief Angle: 5°

Workpiece	Material	Machining types																						
		● Continuous cutting ● General cutting ✱ Interrupted cutting																						
Steel	P	●	●	✱	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	M	●	●	✱	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	K	●	●	✱	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	N																							
Heat resistant alloy, Titanium alloy	S																							
Hardened steel	H																							

Inserts	Designation	Cermet		Coated		Coated											Uncoated		Cutting Condition									
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)		
Finishing [Mild steel]	VBMT 110302-VL																									0.03~0.20	0.20~1.20	
	110304-VL																										0.04~0.20	0.20~1.20
	110308-VL																										0.08~0.20	0.20~1.20
	160402-VL																										0.03~0.20	0.30~1.50
	160404-VL	●		●	●	●	●		●		●		●	●	●	●	●	●	●	●	●	●	●	●	●		0.05~0.20	0.30~1.50
	160408-VL	●		●	●	●	●		●		●		●	●	●	●	●	●	●	●	●	●	●	●	●		0.10~0.20	0.30~1.50
	160412-VL														●	●	●			●	●	●					0.10~0.25	0.30~1.50
Finishing 	VBMT 160402-VP1																									0.04~0.20	0.16~1.50	
	160404-VP1																										0.05~0.20	0.18~1.80
	160408-VP1																										0.06~0.20	0.20~1.80
Medium to finishing 	VBMT 160404		●				●		●		●															0.07~0.20	0.50~1.50	
	160408						●	●	●		●																0.15~0.25	0.70~2.00
Medium to finishing 	VBMT 110304-HMP						●															●				0.03~0.20	0.15~2.70	
	110308-HMP						●																				0.05~0.25	0.40~2.70
	160404-HMP						●		●	●		●				●			●			●					0.07~0.20	0.20~2.70
	160408-HMP						●	●	●	●		●				●			●			●					0.09~0.27	0.50~2.70
	160412-HMP																										0.11~0.32	0.50~2.70
Medium to finishing 	VBMT 110302-MP																									0.04~0.14	0.20~1.50	
	110304-MP						●		●						●	●											0.05~0.15	0.20~1.50
	110308-MP						●		●																		0.10~0.28	0.30~2.00
	160402-MP																										0.06~0.16	0.25~2.00
	160404-MP	●		●	●	●	●		●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		0.08~0.20	0.30~2.00
	160408-MP	●		●	●	●	●		●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		0.10~0.25	0.50~2.30
	160412-MP	●		●			●		●		●				●	●	●	●	●	●	●	●	●	●	●		0.10~0.35	0.50~2.30


🔄 Cutting edge geometry A52~A61
🔄 Recommended chip breaker B04~B11
🔄 Code system B26~B27
● : Stock item

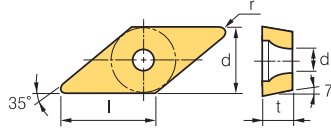
Available tool holders			
Designation	Page	Designation	Page
SVABR/L	B183	SVVBN	B184
SVHBR/L	B183	SVQBR/L	B211
SVJBR/L	B115, 183	SVUBR/L	B212



B Turning Insert (Positive)







VC ○ ○

 Rhombic **35° Positive**
Relief Angle: 7°



Dimensions (mm)			
Size	d	t	d ₁
11	6.35	3.18	2.8~3.4
16	9.525	4.76	4.4

Workpiece	Machining types											
	P	M	K	N	S	H						
Steel	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●

Inserts	Designation	Cermets		Coated		Coated										Uncoated		Cutting Condition												
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)				
Finishing  [High precision]	VCET	1103005MFR-KF														●										0.01~0.06	0.04~1.30			
		110301MFR-KF															●				●							0.02~0.08	0.05~1.50	
		110302MFR-KF															●				●							0.03~0.11	0.06~1.70	
		1103005MFL-KF															●											0.01~0.06	0.04~1.30	
		110301MFL-KF															●											0.02~0.08	0.05~1.50	
		110302MFL-KF															●				●							0.03~0.11	0.06~1.70	
Medium to finishing  [High precision]	VCET	1103005MFR-KM																									0.02~0.08	0.05~1.50		
		110301MFR-KM															●				●							0.03~0.11	0.06~1.70	
		110302MFR-KM																			●							0.04~0.15	0.08~2.00	
		1103005MFL-KM															●											0.02~0.08	0.05~1.50	
		110301MFL-KM																										0.03~0.11	0.06~1.70	
		110302MFL-KM																										0.04~0.15	0.08~2.00	
Finishing 	VCGT	1103003R-KF																									0.01~0.06	0.04~1.30		
		110301R-KF																										0.02~0.08	0.05~1.50	
		110302R-KF																						●				0.03~0.13	0.06~1.70	
		1103003L-KF																										0.01~0.06	0.04~1.30	
		110301L-KF																											0.02~0.08	0.05~1.50
		110302L-KF																											0.03~0.13	0.06~1.70
Finishing 	VCGT	110301-VP1														●	●	●	●	●	●	●	●	●	●	●	0.02~0.15	0.05~0.50		
		110302-VP1														●	●	●	●	●	●	●	●	●	●	●	0.02~0.18	0.10~1.00		
		110304-VP1														●	●	●	●	●	●	●	●	●	●	●	0.03~0.18	0.15~1.20		
		160404-VP1									●																	0.05~0.20	0.18~1.80	
		160408-VP1									●																	0.06~0.20	0.20~1.80	
		Finishing  [High precision]	VCGT	110301MFN-VP1														●				●							0.02~0.15	0.05~0.50
110302MFN-VP1																●				●								0.02~0.18	0.10~1.00	
110304MFN-VP1																●				●								0.03~0.18	0.15~1.20	
1203008FN-VP1																	●											0.03~0.12	0.06~1.20	
120301FN-VP1																												0.04~0.13	0.08~1.20	
120302FN-VP1																												0.04~0.15	0.08~1.20	
120304FN-VP1																										0.06~0.20	0.10~1.50			
Medium to finishing 	VCGT	1103003R-KM																									0.01~0.06	0.04~1.30		
		110301R-KM																										0.02~0.08	0.05~1.50	
		110302R-KM																						●				0.03~0.13	0.06~1.70	
		1103003L-KM																										0.01~0.06	0.04~1.30	
		110301L-KM																										0.02~0.08	0.05~1.50	
		110302L-KM																										0.03~0.13	0.06~1.70	

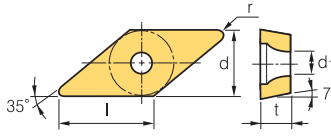
 Cutting edge geometry A52~A61
  Recommended chip breaker B04~B11
  Code system B26~B27
 ● : Stock item

Available tool holders			
Designation	Page	Designation	Page
SVJCR/L	B115, 184, 211	SVQCR/L	B212
SVVCN	B184	SVUCR/L	B212



VC ○ ○

Rhombic 35° Positive
Relief Angle: 7°



Dimensions (mm)			
Size	d	t	d ₁
08	4.76	2.38	2.3
11	6.35	3.18	2.8~3.4
12	7.5	3.18	2.8
16	9.525	4.76	4.4

Workpiece	Steel	P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Machining types
	Stainless steel	M	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Cast iron	K	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	● Continuous cutting ● General cutting ● Interrupted cutting
Non-ferrous metal	N																		
Heat resistant alloy, Titanium alloy	S																		
Hardened steel	H																		

Inserts	Designation	Cermet		Coated		Coated										Uncoated		Cutting Condition										
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)		
Finishing [High precision]	VCGX	120300MFR-VP1															●									0.02~0.10	0.05~0.50	
		120301MFR-VP1															●										0.02~0.15	0.05~0.50
		120302MFR-VP1															●										0.02~0.18	0.10~1.00
		120304MFR-VP1															●										0.03~0.20	0.12~1.20
		120308MFR-VP1															●										0.05~0.20	0.15~1.20
Finishing 	VCMT	080202-VF																									0.05~0.20	0.30~1.00
		080204-VF																									0.10~0.25	0.30~1.00
		110304-VF									●																0.03~0.18	0.15~1.20
		160404-VF									●		●														0.04~0.20	0.15~1.50
Finishing [Mild steel]	VCMT	080202-VL					●		●		●						●									0.03~0.08	0.10~0.80	
		080204-VL					●		●		●						●									0.04~0.10	0.10~0.90	
		160404-VL					●		●		●						●									0.05~0.20	0.30~1.50	
		160408-VL					●		●		●		●	●	●						●	●				0.05~0.20	0.30~1.50	
		160412-VL					●		●		●		●	●	●						●	●					0.10~0.25	0.30~1.50
Finishing 	VCMT	160404-VP1																									0.05~0.20	0.18~1.80
		160408-VP1																									0.06~0.20	0.20~1.80
Medium to finishing 	VCMT	160404-HMP									●		●				●					●					0.10~0.25	0.30~2.60
		160408-HMP									●		●				●					●					0.13~0.33	0.60~2.60
Medium to finishing new	VCMT	080202-MP						●		●																	0.03~0.15	0.10~1.00
		080204-MP						●		●																	0.05~0.18	0.10~1.00
		110302-MP																									0.06~0.18	0.20~1.80
		110304-MP																									0.06~0.18	0.20~1.80
		160404-MP							●		●			●	●	●	●					●	●				0.08~0.18	0.30~2.00
		160408-MP							●		●			●	●	●	●					●	●				0.10~0.23	0.50~2.30
		160412-MP							●		●			●	●	●					●	●					0.10~0.33	0.50~2.30

Cutting edge geometry **A52~A61**
 Recommended chip breaker **B04~B11**
 Code system **B26~B27**
 ● : Stock item

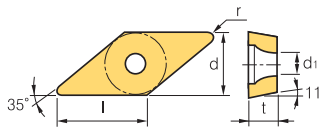
Available tool holders			
Designation	Page	Designation	Page
SVJCR/L	B115, 184, 211	SVQCR/L	B212
SVVCN	B184	SVUCR/L	B212



B Turning Insert (Positive)





VP ○○

 Rhombic **35° Positive**
Relief Angle: 11°



Dimensions (mm)			
Size	d	t	d ₁
08	6.35	2.38	2.3
11	6.35	3.18	2.8

Workpiece	Machining types																							
	P	M	K	N	S	H	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05
Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Inserts	Designation	Cermet		Coated		Coated												Uncoated		Cutting Condition								
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)		
Finishing  [High precision]	VPET	0802005MFR-KF															●			●						0.01~0.12	0.05~0.50	
		080201MFR-KF																●			●						0.02~0.15	0.05~0.50
		080202MFR-KF																●			●						0.02~0.18	0.10~1.00
		0802005MFL-KF																●			●						0.01~0.12	0.05~0.50
		080201MFL-KF																●			●						0.02~0.15	0.05~0.50
		080202MFL-KF																●			●						0.02~0.18	0.10~1.00
Medium to finishing  [High precision]	VPET	0802005MFR-KM															●			●						0.01~0.12	0.05~0.50	
		080201MFR-KM																●			●						0.02~0.15	0.05~0.50
		080202MFR-KM																●			●						0.02~0.18	0.10~1.00
		0802005MFL-KM																●			●						0.01~0.12	0.05~0.50
		080201MFL-KM																●			●						0.02~0.15	0.05~0.50
		080202MFL-KM																●			●						0.02~0.18	0.10~1.00
Finishing  [High precision]	VPGT	110301-VP1															●		●	●	●		●			0.02~0.15	0.05~0.50	
		110302-VP1																●		●	●	●		●			0.02~0.18	0.10~1.00
		110304-VP1																●		●	●	●		●			0.03~0.18	0.15~1.20
Finishing  [High precision]	VPGT	110301MFN-VP1															●		●							0.02~0.15	0.05~0.50	
		110302MFN-VP1																●		●							0.02~0.18	0.10~1.00
		110304MFN-VP1																●		●							0.03~0.18	0.15~1.20

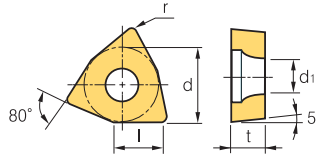
 Cutting edge geometry **A52~A61**
 Recommended chip breaker **B04~B11**
 Code system **B26~B27**
● : Stock item

Available tool holders			
Designation	Page	Designation	Page
SVABR/L	B183	SVVBN	B184
SVJBR/L	B115, 183		



WB○○○

Dimensions (mm)			
Size	d	t	d ₁
02	3.97	1.59	2.2
S3	4.76	2.38	2.4



Trigon 80° Positive
Relief Angle: 5°

Workpiece	Machining types															
	P	M	K	N	S	H	1	2	3	4	5	6	7	8	9	10
Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous metal	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat resistant alloy, Titanium alloy	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hardened steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

● Continuous cutting
 ● General cutting
 ✦ Interrupted cutting

Inserts	Designation	Cermet		Coated		Coated										Uncoated		Cutting Condition									
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	f _n (mm/rev)	a _p (mm)	
Medium to finishing	WBGT 020102R																								0.01~0.05	0.10~0.30	
	S30204R																									0.01~0.10	0.10~0.50
	020102L	●																				●	●		0.01~0.08	0.10~0.40	
	S30202L																									0.01~0.08	0.10~0.40
	S30204L																									0.01~0.10	0.10~0.50

↻ Cutting edge geometry **A52~A61**
 ↻ Recommended chip breaker **B04~B11**
 ↻ Code system **B26~B27**
 ● : Stock item

Available tool holders			
Designation	Page	Designation	Page
SWUBR/L	B216		

Technical Information for Aluminum

AK special chip breaker for aluminum

- Unique and 3-dimensional rake angle controls chip breaking and chip flow ensuring longer tool life and reducing cutting load
- High rake angle at cutting edge part reduces cutting load to increase tool life
- Buffed finish on top face controls chip flow reducing built-up edge



- 1 High rake angle & tabby pattern chip pocket - Low cutting load
- 2 Unique rake angle design - Effective chip breaking and good chip flow
- 3 Unique and 3-dimensional top face - Longer tool life & Excellent surface roughness
- 4 Tabby pattern & Sharp cutting edge - Distributing cutting load, long tool life
- 5 Buffed on top face - Excellent machining, Reducing built-up edge, Excellent chip flow

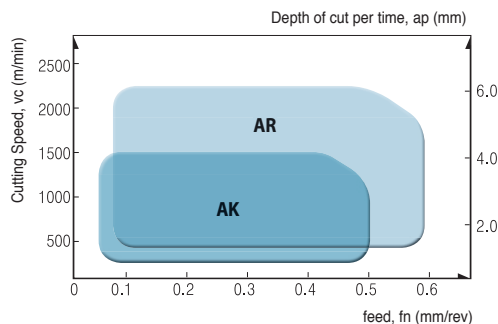
AR special chip breaker for aluminum

- AR chip breaker ensures reliability and good cutting performance at high feed, speed and interrupted machining

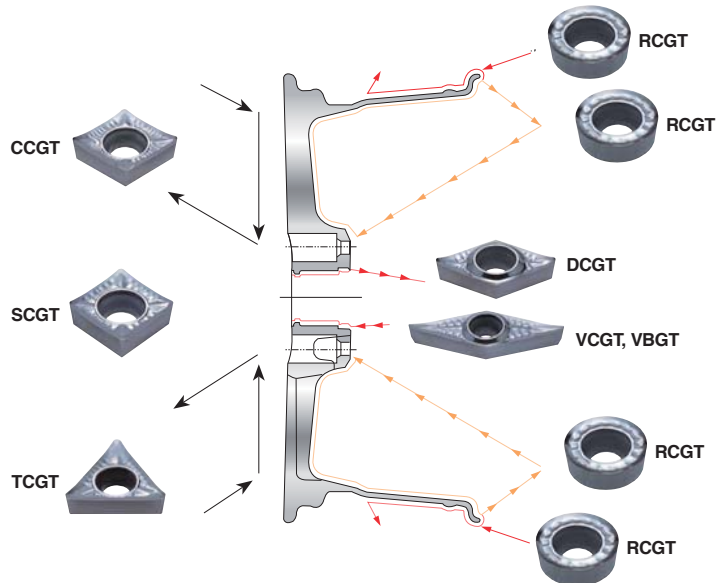


- 1 Flat corner cutting edge improved productivity at high feed machining and ensures good surface roughness and reliability owing to strong cutting edge
- 2 Specially buffed on top face controls chip flow reducing built-up edge
- 3 KORLOY's own technology applied for cutting edge and corner shape controlling chip flow ensures longer tool life
- 4 KORLOY special chip breaker design controls chip flow at high speed machining

AK and AR chip breaker specially developed for aluminum



	Recommendation range	Grades
AK	ap=0.1~5.0 mm fn=0.03~0.5 mm/rev	H01 (Uncoated cemented carbides K10~K20) ND1000 (Diamond coating) PD1000 (DLC coating)
AR	ap=0.5~6.0 mm fn=0.05~0.6 mm/rev	H01 (Uncoated cemented carbides K10~K20) ND1000 (Diamond coating) PD1000 (DLC coating)



Features of H01 and cutting conditions

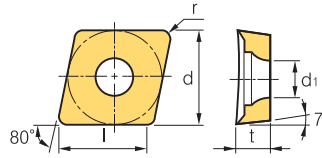
- Good for aluminum and alloy steel machining - Surface treatment reduces built-up edge
- 3-dimensional design reduces cutting resistance and ensures high machinability in high feed and speed machining

Workpiece		Hardness (HB)	kc (MPa)	vc (m/min)	fn (mm/rev)
Aluminum alloy (forged)	before heat treatment	50~70	500~600	1000~2500	0.1~0.6
	after heat treatment	90~110	700~900	300~1000	0.1~0.5
Aluminum alloy (cast)	before heat treatment	70~80	700~800	300~1000	0.1~0.6
	after heat treatment	80~100	800~950	200~600	0.1~0.4
Copper alloy	-	90~110	700	250~600	0.1~0.5
Non-ferrous metal, etc	-	100	1700	150~300	0.1~0.6



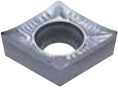
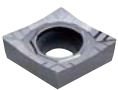
CC ○ ○

 Rhombic **80° Positive**
Relief Angle: 7°



Dimensions (mm)			
Size	d	t	d ₁
06	6.35	2.38	2.8
09	9.525	3.97	4.4
12	12.7	4.76	5.5

Workpiece	Steel	P					Machining types	
	Stainless steel	M						<ul style="list-style-type: none"> ● Continuous cutting ● General cutting ✦ Interrupted cutting
	Cast iron	K						
	Non-ferrous metal	N	✦	●	✦	✦		
	Heat resistant alloy, Titanium alloy	S						
Hardened steel	H							

Inserts	Designation	Coated			Uncoated		Cutting Condition		
		PC5040	PD1000	PD1010	H01	H05	fn (mm/rev)	ap (mm)	
AK 	CCGT	060202-AK	●			●	●	0.01~0.12	0.05~3.00
		060204-AK	●		●	●	●	0.02~0.15	0.10~3.00
		060208-AK				●	●	0.02~0.20	0.10~4.00
		09T302-AK	●		●	●	●	0.02~0.20	0.05~3.00
		09T304-AK	●		●	●	●	0.02~0.30	0.10~5.00
		09T308-AK	●			●	●	0.03~0.50	0.10~5.00
		120402-AK				●	●	0.02~0.30	0.05~4.00
		120404-AK	●		●	●	●	0.03~0.50	0.10~5.00
		120408-AK				●	●	0.04~0.80	0.10~5.50
	AR 	CCGT	060202-AR				●	●	0.02~0.30
		060204-AR						0.03~0.35	0.50~4.50
		060208-AR						0.04~0.50	0.50~4.50
		09T302-AR				●	●	0.03~0.45	0.30~4.00
		09T304-AR				●	●	0.04~0.50	0.50~4.50
		09T308-AR				●	●	0.05~0.60	0.50~6.00
		120402-AR						0.04~0.50	0.30~5.00
		120404-AR				●	●	0.05~0.60	0.50~6.00
		120408-AR				●	●	0.06~0.65	0.50~6.00
		120412-AR						0.08~0.70	0.50~6.50

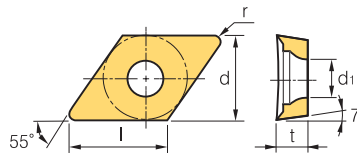
 Cutting edge geometry **A52~A61**
  Recommended chip breaker **B04~B11**
  Code system **B26~B27**
 ● : Stock item

Available tool holders			
Designation	Page	Designation	Page
SCACR/L	B113, 178	SCLCR/L	B113, 178, 204

B Aluminum Insert (Positive)


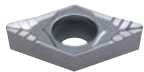
DC ○○




 Rhombic **55° Positive**
Relief Angle: 7°



Dimensions (mm)			
Size	d	t	d ₁
07	6.35	2.38	2.8
11	9.525	3.97	4.4

Workpiece	Steel	P						Machining types	
	Stainless steel	M							● Continuous cutting
Cast iron	K							● General cutting	
Non-ferrous metal	N	✱	●	✱	●	✱		✱ Interrupted cutting	
Heat resistant alloy, Titanium alloy	S								
Hardened steel	H								

Inserts	Designation	Coated			Uncoated		Cutting Condition	
		PC5040	PD1000	PD1010	H01	H05	f _n (mm/rev)	a _p (mm)
AK 	DCGT 070202-AK	●			●	●	0.01~0.20	0.05~3.00
	070204-AK	●		●	●	●	0.02~0.30	0.10~4.00
	070208-AK	●			●	●	0.03~0.40	0.10~4.00
	11T302-AK	●		●	●	●	0.02~0.30	0.05~4.00
	11T304-AK	●	●	●	●	●	0.03~0.50	0.10~5.00
	11T308-AK	●		●	●	●	0.03~0.50	0.10~5.00
	11T312-AK				●	●	0.04~0.60	0.15~5.00
AR 	DCGT 070202-AR				●	●	0.02~0.30	0.30~4.00
	070204-AR				●	●	0.03~0.40	0.50~5.00
	070208-AR				●	●	0.04~0.50	0.50~5.00
	11T302-AR						0.03~0.45	0.30~6.00
	11T304-AR				●	●	0.04~0.50	0.50~6.00
	11T308-AR				●	●	0.05~0.60	0.50~6.00
	11T312-AR				●	●	0.08~0.65	0.50~6.50

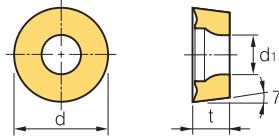
 Cutting edge geometry **A52~A61**
 Recommended chip breaker **B04~B11**
 Code system **B26~B27**
●: Stock item

Available tool holders			
Designation	Page	Designation	Page
SDACR/L	B178	SDQCR/L	B206
SDJCR/L	B113, 179	SDUCR/L	B207
SDNCN	B114, 179	SDZCR/L	B208



RC

Round **Positive**
Relief Angle: 7°



Dimensions (mm)			
Size	d	t	d ₁
06	6.0	2.38	2.8
08	8.0	3.18	3.35
10	10.0	3.18~3.97	4.4
12	12.0	4.76	4.4

Workpiece	Steel	P					Machining types
	Stainless steel	M					
Cast iron	K						<ul style="list-style-type: none"> ● Continuous cutting ● General cutting ✦ Interrupted cutting
Non-ferrous metal	N	✦	●	✦	✦	✦	
Heat resistant alloy, Titanium alloy	S						
Hardened steel	H						

Inserts	Designation	Coated			Uncoated		Cutting Condition		
		PC5040	PD1000	PD1010	H01	H05	f _n (mm/rev)	a _p (mm)	
AK 	RCGT	0602M0-AK			●	●	0.05~0.20	0.50~2.00	
		0803M0-AK			●	●	0.05~0.25	0.50~2.50	
		1003M0-AK			●	●	0.10~0.30	1.00~3.00	
		10T3M0-AK					0.10~0.30	1.00~3.00	
		1204M0-AK				●	●	0.10~0.35	1.00~3.50
AR 	RCGT	0602M0-AR					0.05~0.20	0.50~2.00	
		0803M0-AR					0.05~0.25	0.50~2.50	
		1003M0-AR				●	●	0.10~0.30	1.00~3.00
		10T3M0-AR						0.10~0.30	1.00~3.00
		1204M0-AR						0.10~0.35	1.00~3.50

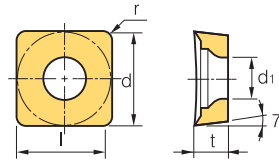
Cutting edge geometry **A52~A61**
 Recommended chip breaker **B04~B11**
 Code system **B26~B27**
 ● : Stock item

Available tool holders			
Designation	Page	Designation	Page
SRDCN	B179	SRGCR/L	B180

B Aluminum Insert (Positive)

SC ○○

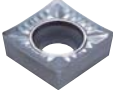
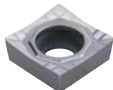
 Square **90° Positive**
Relief Angle: 7°





Dimensions (mm)			
Size	d	t	d ₁
09	9.525	3.97	4.4
12	12.7	4.76	5.5

Workpiece	Machining types					
	P	M	K	N	S	H
Steel	●					
Stainless steel	●					
Cast iron	●					
Non-ferrous metal	✳	●	✳	●	✳	
Heat resistant alloy, Titanium alloy	●					
Hardened steel	●					

● Continuous cutting
 ● General cutting
 ✳ Interrupted cutting

Inserts	Designation	Coated			Uncoated		Cutting Condition	
		PC5040	PD1000	PD1010	H01	H05	f _n (mm/rev)	a _p (mm)
AK 	SCGT 09T302-AK	●				●	0.02~0.30	0.10~4.00
	09T304-AK	●			●	●	0.04~0.40	0.10~5.00
	09T308-AK				●	●	0.03~0.40	0.10~5.00
	120404-AK				●	●	0.03~0.50	0.10~5.00
	120408-AK				●	●	0.04~0.60	0.15~5.50
	120416-AK						0.04~0.60	0.15~5.50
AR 	SCGT 09T302-AR						0.03~0.40	0.50~5.00
	09T304-AR				●	●	0.04~0.50	0.50~6.00
	09T308-AR						0.04~0.50	0.50~6.50
	120404-AR				●	●	0.05~0.60	0.50~6.50
	120408-AR						0.05~0.60	0.50~7.00
	120416-AR						0.05~0.60	0.50~7.00

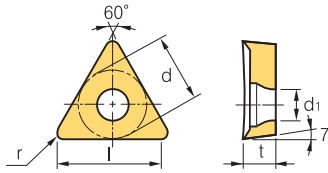
 Cutting edge geometry **A52~A61**
 Recommended chip breaker **B04~B11**
 Code system **B26~B27**
●: Stock item

Available tool holders			
Designation	Page	Designation	Page
SSBCR/L	B180	SSKCR/L	B181
SSDCN	B180	SSSCR/L	B181



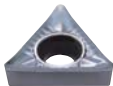
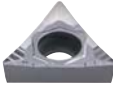
TC



 **Triangular 60° Positive**
Relief Angle: 7°



Dimensions (mm)			
Size	d	t	d ₁
09	5.56	2.38	2.5
11	6.35	2.38	2.8
16	9.525	3.97	4.4

Workpiece	Steel	P						Machining types	
	Stainless steel	M							● Continuous cutting
Cast iron	K							● General cutting	
Non-ferrous metal	N	✱	●	✱	✱	✱		✱ Interrupted cutting	
Heat resistant alloy, Titanium alloy	S								
Hardened steel	H								

Inserts	Designation	Coated		Uncoated		Cutting Condition		
		PC5040	PD1000	H01	H05	f _n (mm/rev)	a _p (mm)	
AK 	TCGT			●	●	0.01~0.12	0.05~3.00	
		090202-AK			●	●	0.02~0.15	0.10~4.00
		090204-AK			●	●	0.02~0.20	0.05~4.00
		110202-AK	●		●	●	0.03~0.30	0.10~4.00
		110204-AK	●		●	●	0.03~0.40	0.10~5.00
		110208-AK			●	●	0.02~0.30	0.05~5.00
		16T302-AK			●	●	0.03~0.40	0.10~5.50
		16T304-AK			●	●	0.03~0.50	0.10~5.50
		16T308-AK			●	●	0.04~0.60	0.15~5.50
		16T312-AK			●	●	0.05~0.80	0.15~5.50
		16T316-AK			●	●	0.06~0.90	0.20~7.00
	16T325-AK							
AR 	TCGT			●	●	0.02~0.18	0.30~3.00	
		090202-AR			●	●	0.02~0.25	0.30~5.00
		090204-AR			●	●	0.02~0.30	0.30~4.00
		110202-AR			●	●	0.03~0.40	0.30~5.00
		110204-AR			●	●	0.04~0.45	0.50~6.00
		110208-AR			●	●	0.03~0.45	0.30~5.00
		16T302-AR			●	●	0.04~0.50	0.50~6.00
		16T304-AR			●	●	0.05~0.60	0.50~6.00
		16T308-AR			●	●	0.06~0.65	0.50~6.00
		16T312-AR					0.08~0.70	0.50~6.50
		16T316-AR					0.10~0.10	0.80~7.00
	16T325-AR							

 Cutting edge geometry **A52~A61**
 Recommended chip breaker **B04~B11**
 Code system **B26~B27**
● : Stock item

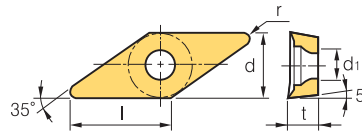
Available tool holders			
Designation	Page	Designation	Page
STACR/L	B114,181	STTCR/L	B182, 235
STFCR/L	B182, 234	STWCR/L	B235
STGCR/L	B182		



B Aluminum Insert (Positive)



VB ○○

 Rhombic **35° Positive**
Relief Angle: 5°



Dimensions (mm)			
Size	d	t	d ₁
11	6.35	3.18	2.8
16	9.525	4.76	4.4

Workpiece	Steel	P					Machining types
	Stainless steel	M					
Cast iron	K						● General cutting
Non-ferrous metal	N	✱	●	✱	●	✱	✱ Interrupted cutting
Heat resistant alloy, Titanium alloy	S						
Hardened steel	H						

Inserts	Designation	Coated			Uncoated		Cutting Condition	
		PC5040	PD1000	PD1010	H01	H05	fn (mm/rev)	ap (mm)
 AK	VBGT 110302-AK				●	●	0.02~0.15	0.05~3.00
	110304-AK				●	●	0.02~0.15	0.10~4.00
	110308-AK					●	0.03~0.18	0.10~5.00
	160402-AK					●	0.03~0.30	0.05~4.00
	160404-AK				●	●	0.03~0.40	0.10~5.00
	160408-AK				●	●	0.03~0.50	0.10~5.00
	160412-AK					●	0.05~0.60	0.10~5.50
 AR	VBGT 110302-AR						0.02~0.35	0.30~3.00
	110304-AR						0.03~0.45	0.30~4.00
	110308-AR						0.03~0.50	0.50~6.00
	160402-AR						0.04~0.45	0.30~5.00
	160404-AR				●	●	0.04~0.50	0.50~6.00
	160408-AR				●	●	0.05~0.60	0.50~6.00
	160412-AR						0.05~0.70	0.50~6.50

➤ Cutting edge geometry A52~A61

➤ Recommended chip breaker B04~B11

➤ Code system B26~B27

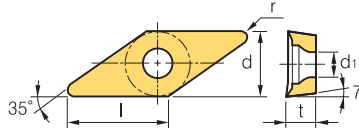
●: Stock item

Available tool holders			
Designation	Page	Designation	Page
SVABR/L	B183	SVVBN	B184
SVHBR/L	B183	SVQBR/L	B211
SVJBR/L	B115, 183	SVUBR/L	B212



VC ○○

Rhombic 35° Positive
Relief Angle: 7°



Dimensions (mm)			
Size	d	t	d ₁
11	6.35	3.18	2.8
13	7.94	3.18	3.4
16	9.525	4.76	4.4
22	12.7	5.56	5.6

Workpiece	Steel	P						Machining types	
	Stainless steel	M							● Continuous cutting
Cast iron	K							● General cutting	
Non-ferrous metal	N	✱	●	✱	✱	✱		✱ Interrupted cutting	
Heat resistant alloy, Titanium alloy	S								
Hardened steel	H								

Inserts	Designation	Coated			Uncoated		Cutting Condition		
		PC5040	PD1000	PD1010	H01	H05	f _n (mm/rev)	a _p (mm)	
AK 	VC GT	110301-AK			●		0.02~0.15	0.05~3.00	
		110302-AK	●		●	●	0.02~0.20	0.05~3.00	
		110304-AK	●		●	●	0.02~0.25	0.10~4.00	
		110308-AK			●	●	0.03~0.30	0.10~5.00	
		130302-AK	●			●	●	0.02~0.35	0.10~5.00
		130304-AK	●			●	●	0.03~0.35	0.10~5.00
		130308-AK						0.04~0.40	0.10~5.00
		160402-AK				●	●	0.02~0.30	0.05~5.00
		160404-AK		●	●	●	●	0.03~0.40	0.10~5.00
		160408-AK			●	●	●	0.03~0.50	0.10~5.00
		160412-AK				●	●	0.03~0.50	0.10~5.00
		220516-AK				●	●	0.03~0.60	0.10~7.00
		220525-AK					●	0.05~0.70	0.10~7.00
		220530-AK				●	●	0.08~1.00	0.10~7.00
AR 	VC GT	110301-AR					0.02~0.20	0.10~3.00	
		110302-AR				●	●	0.02~0.25	0.30~3.00
		110304-AR				●	●	0.03~0.35	0.30~4.00
		110308-AR						0.04~0.45	0.50~6.00
		130302-AR					●	0.02~0.40	0.50~3.00
		130304-AR				●	●	0.03~0.45	0.50~4.00
		130308-AR						0.04~0.50	0.50~5.00
		160402-AR				●	●	0.03~0.40	0.30~5.00
		160404-AR				●	●	0.04~0.50	0.50~6.00
		160408-AR				●	●	0.05~0.60	0.50~6.00
		160412-AR						0.06~0.65	0.50~6.50
		220516-AR						0.10~0.65	0.80~6.50
		220525-AR						0.10~0.70	0.80~7.00
		220530-AR				●	●	0.12~0.75	1.00~7.00

Cutting edge geometry **A52~A61**
 Recommended chip breaker **B04~B11**
 Code system **B26~B27**
 ● : Stock item



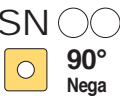
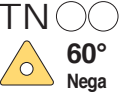

Available tool holders			
Designation	Page	Designation	Page
SVJCR/L	B115, 184, 211	SVQCR/L	B212
SVVCN	B184	SVUCR/L	B212



cBN

Multi-Corner Type (Negative)

Dimensions (mm)			
Size	d	t	d ₁
12	12.7	4.76	5.16
15	12.7	4.76~6.358	3.4
16	9.525	4.76	3.81

Inserts	Designation	Coated			Uncoated						Available tool holders						
		DNC250	DNC350	DNC400	DB1000	DB2000	DBN400	DBN250	DBN300	DBN700A	DBN20	Designation		Page			
 CN○○ 80° Nega	2NU-CNGA	120404	●	●		●	●				●	DCBNR/L	DCLNR/L	B154	B154		
		120404F	●				●						MCKNR/	MCLNR/L	B171	B171	
		120404T	●				●	●					MCMNN	PCBNR/L	B171	B159	
		120404W	●										PCLNR/L		B160		
		120404WF	●														
		120408	●	●			●	●				●					
		120408F	●				●	●									
		120408T	●				●	●									
		120408W	●	●			●	●				●					
		120408WF	●				●	●									
		120408WT					●	●									
		120412	●	●													
		120412F	●														
		120412T	●														
		120412W	●				●	●				●					
	120412WF	●					●										
	120412WT					●	●										
	T-2NU-CNGA	120408	●														
2NU-CNMA	120404							●									
	120408							●									
 DN○○ 55° Nega	2NS-DNGA	150404	●	●		●	●		●	●	DDJNR/L	MDJNR/L	B155	B172			
		150404F	●				●					MDNNN	MDQNR/L	B172	B173		
		150404T	●				●	●				MDUNR/L	PDJNR/L	B202	B160		
		150408	●	●			●	●		●	●	PDNNR/L	PDSNR/L	B161	B197		
		150408F	●				●	●				PDUNR/L		B198			
		150408T	●				●	●									
		150412	●	●													
		150412F	●														
		150412T	●														
		150608										●					
		T-2NU-DNGA	150412	●													
		 SN○○ 90° Nega	4NU-SNGA	120404	●			●	●			●	DSBNR/L	MSBNR/L	B155	B173	
				120404F					●					MSDNN	MSKNR/L	B173	B174
				120404T					●	●				MSRRR/L	MSSNR/L	B174	B175
				120408	●				●	●			●	PSBNR/L	PSDNN	B163	B163
120408F							●	●				PSKNR/L		B164			
120408T							●	●									
120412												●					
2NS-SNGA	120408				●			●									
 TN○○ 60° Nega	3NU-TNGA		160404	●	●		●	●		●	●	MTENN	MTFNR/L	B175	B175		
			160404F	●				●					MTGNR/	MTJNR/L	B176	B176	
			160404T	●				●	●				PTFNR/L	PTGNR/L	B165	B165	
			160408	●	●			●	●			●	PTTNR/L	WTENN	B166	B167	
		160408F	●				●	●				WTJNR/L	WTXNR/L	B167	B167		
		160408T	●				●	●									
		160412		●													
		2NS-TNGA	160408			●			●								
 VN○○ 35° Nega	2NU-VNGA	160404	●	●		●	●		●	●	MVJNR/L		B176				
		160404F	●				●					MVQNR/L		B177			
		160404T	●				●	●				MVUNR/L		B203			
		160408	●	●			●	●		●	●	MVVNN		B177			
		160408F	●				●	●									
		160408T	●				●	●									
		2NS-VNGA	160408			●			●								


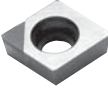

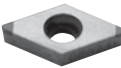

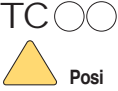

● : Stock item



cBN

Multi-Corner Type (Positive)

Dimensions (mm)			
Size	d	t	d ₁
06	6.35	2.38	2.8
07	6.35	2.38	2.8
09	9.525	3.97	4.4
11	9.525	3.97	4.4

Inserts	Designation	Coated			Uncoated						Available tool holders			
		DNC250	DNC350	DNC400	DB1000	DB2000	DBN400	DBN250	DBN300	DBN700A	DBNX20	Designation	Page	
 	2NU-CCGW	060202	●									SCACR/L	B178	
		060202F	●										SCLCR/L	B178
		060202T	●											
		060204	●			●	●							
		060204F	●				●							
		060204T	●			●	●							
		060208				●	●							
		060208F					●							
		060208T				●	●							
		09T304	●	●		●	●		●		●			
		09T304F	●				●							
		09T304T	●			●	●							
		09T308	●	●		●	●		●		●			
		09T308F	●				●							
		09T308T	●			●	●							
		09T308W	●											
		09T308WF	●											
 	2NU-DCGW	070204				●	●					SDACR/L	B178	
		070204F					●						SDJCR/L	B179
		070204T					●	●					SDNCN	B179
		070208					●	●					SDQCR/L	B206
		070208F						●					SDUCR/L	B207
		070208T					●	●					SDZCR/L	B208
		11T304	●	●		●	●		●		●			
		11T304F	●				●							
		11T304T	●			●	●							
		11T308	●	●		●	●		●		●			
		11T308F	●				●							
		11T308T	●			●	●							
	T-2NU-DCGW	11T304	●											
 	3NU-TCGW	090204	●									STACR/L	B181	
		090204F	●										STFCR/L	B182
		090204T	●										STGCR/L	B182
													STTCR/L	B182






●: Stock item



cBN

Multi-Corner Type (Positive)

Dimensions (mm)			
Size	d	t	d _i
11	6.35	3.18	2.4
16	9.525	4.76	3.81

Inserts	Designation	Coated			Uncoated						Available tool holders			
		DNC250	DNC350	DNC400	DB1000	DB2000	DBN400	DBN250	DBN300	DBN700A	DBN20	Designation	Page	
 <p>TP 60° Posi</p>	3NU-TPGB	110304	●					●				CTFPR/L	B170	
		110304F	●										CTGPR/L	B170
		110304T	●											
		110308	●						●					
		110308F	●											
		110308T	●											
 <p>TP 60° Posi</p>	3NU-TPGN	110304				●	●					CTFPR/L	B170 B201	
		110304F						●				CTGPR/L	B170	
		110304T					●	●						
		110308					●	●						
		110308F						●						
		110308T					●	●						
		160304	●	●										
160308	●	●												
 <p>TPG 35° Posi</p>	3NU-TPGW	110304	●	●		●	●				●			
		110304F	●					●						
		110304T	●				●	●						
		110308	●	●			●	●				●		
		110308F	●					●						
		110308T	●				●	●						
 <p>VB 35° Posi</p>	2NU-VBGW	160404	●	●		●	●		●		●	SVABR/L	B183	
		160404F	●					●					SVHBR/L	B183
		160404T	●				●	●					SVJBR/L	B183
		160408	●	●			●	●		●		●	SVQBR/L	B211
		160408F	●					●					SVUBR/L	B212
		160408T	●				●	●						
 <p>VC 35° Posi</p>	2NU-VCGW	160404	●	●		●	●				●			
		160404F	●					●						
		160404T	●				●	●						
		160408	●	●			●	●				●		
		160408F	●					●						
		160408T	●				●	●						

● : Stock item

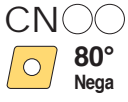


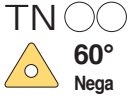

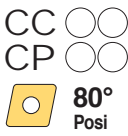
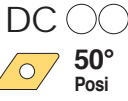
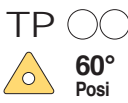



cBN

Regrinding Type (Negative/Positive)

Dimensions (mm)			
Size	d	t	d ₁
09	9.525	3.97	4.4
11	6.35~9.525	3.8~3.97	3.4~4.4
12	12.7	4.76	5.16

Dimensions (mm)			
Size	d	t	d ₁
15	12.7	4.76	5.16
16	9.525	4.76	3.81~4.4

Inserts	Designation	Coated			Uncoated							Available tool holders			
		DNC250	DNC350	DNC400	DB1000	DB2000	DBN400	DBN250	DBN300	DBN700A	DBNX20	Designation		Page	
 CN ○○ 80° Nega	CNMA	120404						●				DCBNR/L	MCKNR/L	B154	B171
		120408						●			●	DCLNR/L	MCLNR/L	B154	B171
	T-CNMA	120408						●				PCBNR/L	MCMNN	B159	B171
												PCLNR/L		B160	
 DN ○○ 55° Nega	DNMA	150404						●				DDJNR/L	MDJNR/L	B155	B172
		150408						●	●			MDNNN	MDQNR/L	B172	B173
												MDUNR/L	PDJNR/L	B202	B160
												PDNNR/L	PDSNR/L	B161	B197
												PDUNR/L		B198	
 SN ○○ 90° Nega	SNMA	120404						●				DSBNR/L	MSBNR/L	B155	B173
		120408						●				MSDNN	MSKNR/L	B173	B174
												MSRNR/L	MSSNR/L	B174	B175
												PSBNR/L	PSDNN	B163	B163
												PSKNR/L		B164	
 TN ○○ 60° Nega	TNMA	160404						●				MTENNS	MTFNR/L	B175	B175
		160408						●				MTGNR/L	MTJNR/L	B176	B176
												PTFNR/L	PTGNR/L	B165	B165
												PTTNR/L	WTENN	B166	B167
												WTJNR/L	WTXNR/L	B167	B167
 VN ○○ 35° Nega	VNMA	160404						●				MVJNR/L		B176	
		160408						●				MVQNR/L		B177	
	T-VNMA	160404						●				MVUNR/L		B203	
												MVVNN		B177	
 CC ○○ CP ○○ 80° Posi (CCMW)	CCMW	09T304						●				SCACR/L		B178	
												SCLCR/L		B178	
 DC ○○ 50° Posi	DCGW	11T308						●				SDACR/L		B178	
	T-DCGW	11T308						●				SDJCR/L		B179	
												SDNCN		B179	
 TP ○○ 60° Posi	TPGB	110304						●	●			CTFPR/L		B170	B201
		110308						●				CTGPR/L		B170	
 VB ○○ 35° Posi	VBMW	160404						●				SVABR/L		B183	
		160408						●				SVHBR/L		B183	
												SVJBR/L		B183	
												SVQBR/L		B211	
												SVUBR/L		B212	

●: Stock item

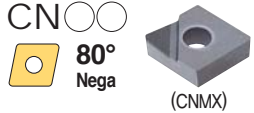
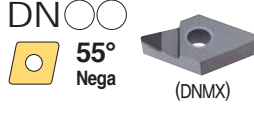
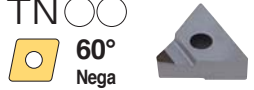

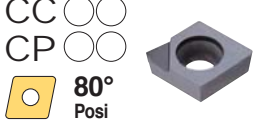
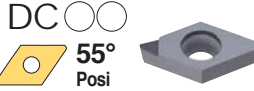
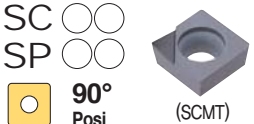


PCD

Insert (Negative/Positive)

Dimensions (mm)			
Size	d	t	d ₁
06	6.35	2.38	2.8
07	6.35	2.38	2.8
08	7.94	2.38	3.4
09	9.525	3.18	4.4

Dimensions (mm)			
Size	d	t	d ₁
11	9.525	3.97	4.4
12	12.7	4.76	5.16
15	12.7	4.76	5.16
16	9.525	4.76	3.81

Inserts	Designation	PCD			Available tool holders				
		DP90	DP150	DP200	Designation		Page		
 CN ○○○ 80° Nega (CNMX)	CNMM	120404	●		DCBNR/L	DCLNR/L	B154	B154	
		120408	●		MCKNR/L	MCLNR/L	B171	B171	
		120412			MCMNN	PCBNR/L	B171	B159	
	CNMX	120404				PCLNR/L		B160	
		120408							
		120412							
 DN ○○○ 55° Nega (DNMX)	DNMM	150404	●		DDJNR/L	MDJNR/L	B155	B172	
		150408	●		MDNNN	MDQNR/L	B172	B173	
		150412			MDUNR/L	PDJNR/L	B202	B160	
	DNMX	150404				PDNNR/L	PDSNR/L	B161	B197
		150408				PDUNR/L		B198	
		150412							
 TN ○○○ 60° Nega	TNMX	160404			MTENN	MTFNR/L	B175	B175	
		160408			MTGNR/L	MTJNR/L	B176	B176	
		160412			PTFNR/L	PTGNR/L	B165	B165	
					PTTNR/L	WTENN	B166	B167	
					WTJNR/L	WTXNR/L	B167	B167	
 VN ○○○ 35° Nega	VNMX	160404			MVJNR/L		B176		
		160408			MVQNR/L		B177		
		160412			MVUNR/L		B203		
					MVVNN		B177		
 CC ○○○ CP ○○○ 80° Posi	CCMT	060202		●	SCACR/L		B178		
		060204		●	SCLCR/L		B178		
		060208							
		09T304		●					
		09T308		●					
	CPMT	09T312							
		080204							
		080208							
		080212							
		090304							
		090308							
 DC ○○○ 55° Posi	DCMT	070202		●	SDACR/L		B178		
		070204		●	SDJCR/L		B179		
		070208			SDNCN		B179		
		11T302			SDQCR/L		B206		
		11T304		●	SDUCR/L		B207		
		11T308		●	SDZCR/L		B208		
 SC ○○○ SP ○○○ 90° Posi (SCMT)	SCMT	09T304			SSBCR/L		B180		
		09T308			SSDCN		B180		
		09T312			SSKCR/L		B181		
	SPGW	090302			SSSCR/L		B181		
		090304							
		090308							

● : Stock item







PCD

Insert (Positive)

Dimensions (mm)			
Size	d	t	d ₁
06	3.97	1.59	2.8
08	4.76	2.38	2.4
09	5.56~9.525	2.38~3.18	2.55

Dimensions (mm)			
Size	d	t	d ₁
11	9.525	3.97	4.4
12	6.35	2.38~3.18	2.8~3.4
16	12.7	3.18	4.4

Inserts	Designation	PCD			Available tool holders				
		DP90	DP150	DP200	Designation	Page			
<p>TB ○○ TC ○○ TP ○○</p> 	TBGW	060102 060104				STUBR/L B214			
	TCMT	090201 090202 090204 110201 110202 110204				STACR/L STFCR/L STFPR/L STGCR/L STTCR/L B181 B182 B210 B182 B182			
	TPGB	080204 080208 090204 090208 110304 110308		●					
	TPGW	080202 080204 090204 090208 110302 110304 110308 160404 160408		●					
	TPGT	110302 110304					STFPR/L STUPR/L B210 B215		
	<p>VB ○○ VC ○○</p> 	VBMT	110302 110304 110308 160402 160404 160408 160412	●			SVABR/L SVHBR/L SVJBR/L SVQBR/L SVUBR/L B183 B183 B183 B211 B212		
		VCMT	110302 110304 110308 160404 160408 160412	●			SVJCR SVVCN B184 B184		
		<p>TP ○○</p> 	TPGN	090204 090208 110302 110304 110308 160302 160304 160308	●			CTFPR/L CTGPR/L B170 B170	
			<p>SP ○○</p> 	SPGN	090304 090308 120304 120308	●			CSDPN CSKPR/L B169 B170

●: Stock item



B Technical Information for Save Turn

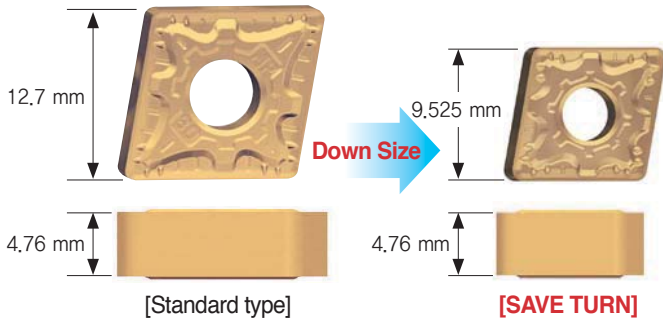
Economical small insert with powerful cutting performance

SAVE TURN

- Strongly recommended turning insert for machining smaller diameter than $\varnothing 100$
- Small but powerful and economical insert which performs the same like standard-sized inserts under the depth of cut of 3.0 mm

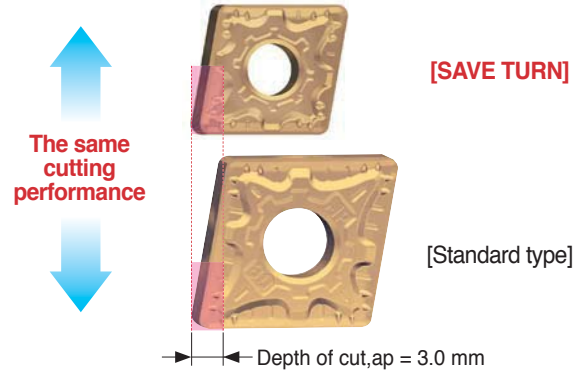
Features

Comparison of insert sizes






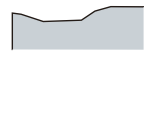

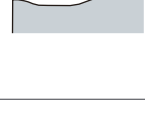
- Optimized size of the same performance like the standard type

Comparison of cutting performance

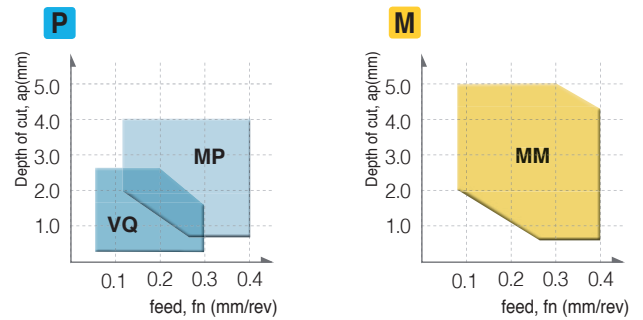


- Performs the same like standard type inserts under the depth of cut of 3.0 mm

Features of chip breaker

Insert shape	Cutting edge	Features
		<ul style="list-style-type: none"> • For finishing steel • Efficient chip breaking and low cutting resistance • Various application available at low depth of cut • Recommended depth of cut: 0.5~2.5 mm
		<ul style="list-style-type: none"> • For medium cutting of steel • 4 dots for improved chip control in medium cutting to finishing • Stable chip evacuation at high depth of cut • Stable tool life due to lower cutting loads at high feed • Recommended depth of cut: 0.5~4.0 mm
		<ul style="list-style-type: none"> • For medium cutting of stainless steel • Limits plastic deformation caused by heat • Stable tool life thanks to the balanced cutting performance and toughness • Stable chip flow at high speeds and feeds • Recommended depth of cut: 0.5~5.0 mm

Application area of chip breaker



VQ : Depth of cut, ap = 0.5~2.5 mm / feed, fn = 0.05~0.30 mm/rev

MP : Depth of cut, ap = 0.5~4.0 mm / feed, fn = 0.15~0.40 mm/rev

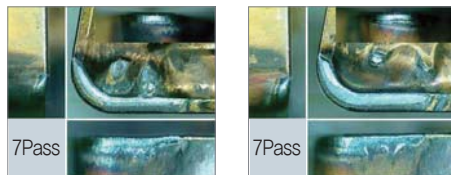
MM : Depth of cut, ap = 0.5~5.0 mm / feed, fn = 0.10~0.40 mm/rev

Application example

Alloy steel (SCM440)

- **Cutting conditions** vc (m/min) = 250, fn (mm/rev) = 0.25
ap (mm) = 2.0~3.0, continuous cutting, wet

- **Cutting Result**



CNMG090408-HM
SAVE TURN

CNMG120408-HM
Standard type

Alloy steel (SCM440)

- **Cutting conditions** vc (m/min) = 250, fn (mm/rev) = 0.25
ap (mm) = 2.0~3.0, interrupted cutting, wet

- **Cutting Result**

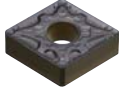


CNMG090408-HM
SAVE TURN

CNMG120408-HM
Standard type





Type	Picture	Designation	Coated					Dimensions (mm)				cutting conditions		Configuration	Available tool holders page
			NC9215	NC9225	NC5330	NC9125	NC9135	PC9030	d	t	r	d ₁	ap (mm)		
C type		CNMG 090408-VQ			●			9.525	4.76	0.8	3.81	0.50~2.50	0.08~0.30		B106 B109
		CNMG 090412-VQ			●			9.525	4.76	1.2	3.81	0.50~2.50	0.10~0.30		
		CNMG 090404-MP						9.525	4.76	0.4	3.81	0.50~4.00	0.10~0.40		B106 B109
		CNMG 090408-MP						9.525	4.76	0.8	3.81	0.50~4.00	0.15~0.40		
		CNMG 090412-MP						9.525	4.76	1.2	3.81	0.50~4.00	0.15~0.45		
		CNMG 090404-MM						9.525	4.76	0.4	3.81	0.50~5.00	0.08~0.35		B106 B109
		CNMG 090408-MM						9.525	4.76	0.8	3.81	0.50~5.00	0.10~0.40		
		CNMG 090412-MM						9.525	4.76	1.2	3.81	0.50~5.00	0.12~0.45		
	D type		DNMG 110508-VQ			●			9.525	5.56	0.4	3.81	0.50~2.50	0.08~0.30	
DNMG 110512-VQ					●			9.525	5.56	0.8	3.81	0.50~2.50	0.10~0.30		
		DNMG 110504-MP						9.525	5.56	0.4	3.81	0.50~4.00	0.10~0.40		B106 B107 B109 B110
		DNMG 110508-MP						9.525	5.56	0.8	3.81	0.50~4.00	0.15~0.40		
		DNMG 110512-MP						9.525	5.56	1.2	3.81	0.50~4.00	0.15~0.45		
		DNMG 110504-MM						9.525	5.56	0.4	3.81	0.50~5.00	0.08~0.35		B106 B107 B109 B110
		DNMG 110508-MM						9.525	5.56	0.8	3.81	0.50~5.00	0.10~0.40		
		DNMG 110512-MM						9.525	5.56	1.2	3.81	0.50~5.00	0.12~0.45		
S type			SNMG 090408-VQ			●			9.525	4.76	0.4	3.81	0.50~2.50	0.08~0.30	
	SNMG 090412-VQ				●			9.525	4.76	0.8	3.81	0.50~2.50	0.10~0.30		
		SNMG 090404-MP						9.525	4.76	0.4	3.81	0.50~4.00	0.10~0.40		B107 B108 B110
		SNMG 090408-MP						9.525	4.76	0.8	3.81	0.50~4.00	0.15~0.40		
		SNMG 090412-MP						9.525	4.76	1.2	3.81	0.50~4.00	0.15~0.45		
		SNMG 090404-MM						9.525	4.76	0.4	3.81	0.50~5.00	0.08~0.35		B107 B108 B110
		SNMG 090408-MM						9.525	4.76	0.8	3.81	0.50~5.00	0.10~0.40		
		SNMG 090412-MM						9.525	4.76	1.2	3.81	0.50~5.00	0.12~0.45		
	W type		WNMG 060404-VQ						9.525	4.76	0.4	3.81	0.30~2.00	0.06~0.30	
WNMG 060408-VQ								9.525	4.76	0.8	3.81	0.50~2.00	0.08~0.30		
WNMG 060412-VQ								9.525	4.76	1.2	3.81	0.50~2.00	0.10~0.30		
		WNMG 060404-MP	●	●	●	●		9.525	4.76	0.4	3.81	0.50~3.50	0.10~0.40		B109 B110
		WNMG 060408-MP	●	●	●	●		9.525	4.76	0.8	3.81	0.50~3.50	0.15~0.40		
		WNMG 060412-MP						9.525	4.76	1.2	3.81	0.50~3.50	0.15~0.45		
		WNMG 060404-MM						9.525	4.76	0.4	3.81	0.50~4.00	0.08~0.35		B109 B110
		WNMG 060408-MM			●	●	●	9.525	4.76	0.8	3.81	0.50~4.00	0.10~0.40		
		WNMG 060412-MM			●	●	●	9.525	4.76	1.2	3.81	0.50~4.00	0.12~0.45		

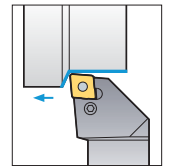
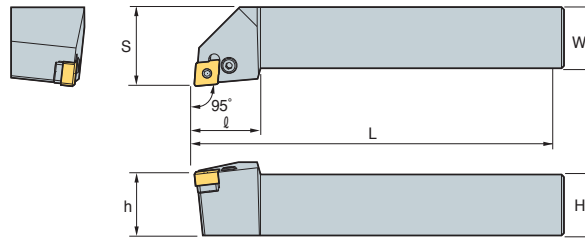


B SAVE TURN Holder

PCLNR/L



CN□□



95°

• R type insert (mm)

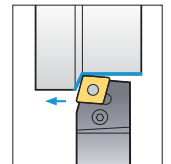
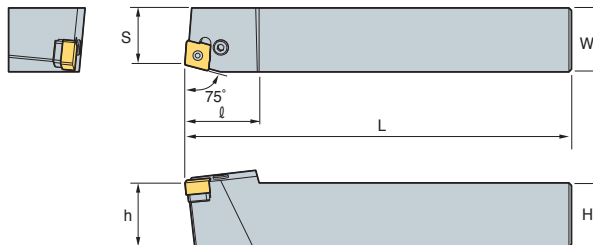
Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PCLNR/L 1616-H09-4N	16	16	100	20	16	20	CN□□ 0904□□						
2020-K09-4N	20	20	125	25	20	25							
2525-M09-4N	25	25	150	32	25	27							

➔ Applicable inserts B105

PCBNR/L



CN□□



75°

• R type insert (mm)

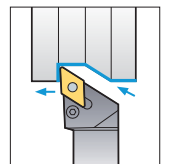
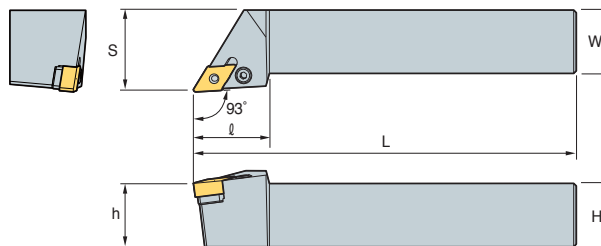
Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PCBNR/L 2020-K09-4N	20	20	125	17	20	27	CN□□ 0904□□						
2525-M09-4N	25	25	150	22	25	29							

➔ Applicable inserts B105

PDJNR/L



DN□□



93°

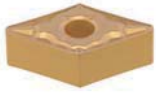
• R type insert (mm)

Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PDJNR/L 2020-K11-5N	20	20	125	25	20	25	DN□□ 1105□□						
2525-M11-5N	25	25	150	32	25	30							

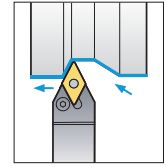
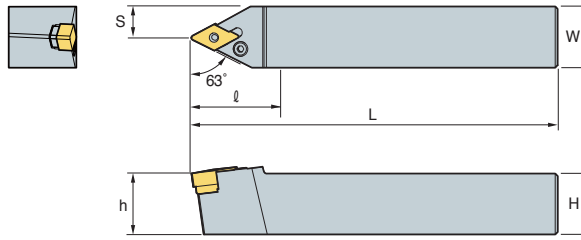
➔ Applicable inserts B105



PDNNR/L



DN□□



63°

• R type insert
(mm)

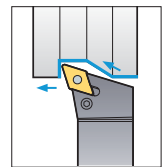
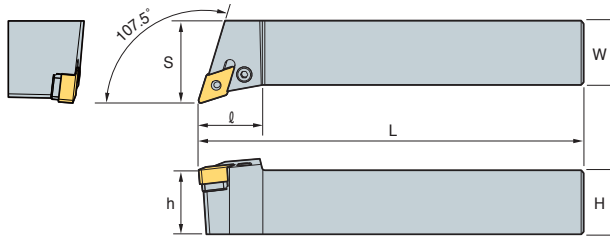
Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PDNNR/L 2020-K11-5N	20	20	125	25	20	30	DN□□1105□□						
2525-M11-5N	25	25	150	32	25	30							

↻ Applicable inserts **B105**

PDQNR/L



DN□□



107.5°

• R type insert
(mm)

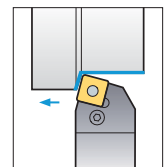
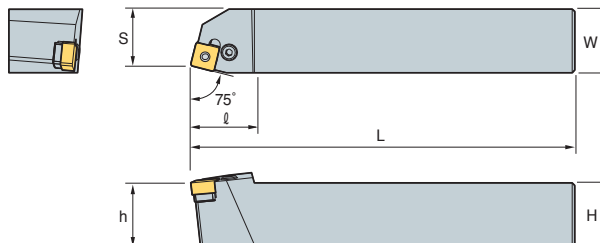
Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PDQNR/L 2020-K11-5N	20	20	125	25	20	30	DN□□1105□□						
2525-M11-5N	25	25	150	32	25	30							

↻ Applicable inserts **B105**

PSBNR/L



SN□□



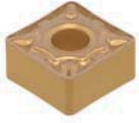
75°

• R type insert
(mm)

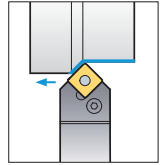
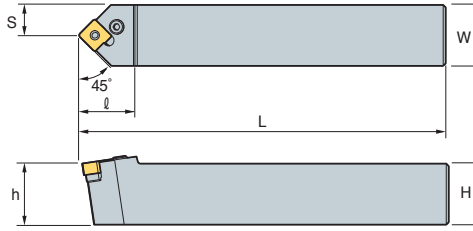
Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PSBNR/L 2020-K09-4N	20	20	125	17	20	25	SN□□0904□□						
2525-M09-4N	25	25	150	22	25	25							

↻ Applicable inserts **B105**

PSDNN



SN□□



45°

• R type insert (mm)

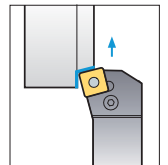
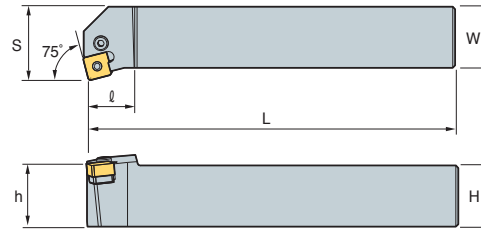
Designation	H	W	L	S	h	l	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PSDNN 2020-K09-4N	20	20	125	17	20	25	SN□□0904□□						
2525-M09-4N	25	25	150	22	25	25							

↻ Applicable inserts B105

PSKNR/L



SN□□



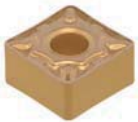
75°

• R type insert (mm)

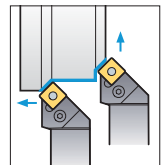
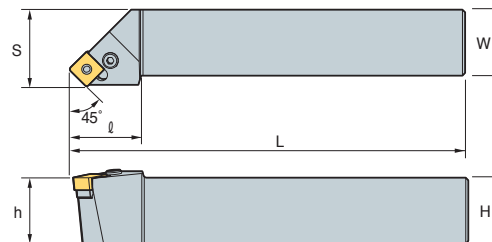
Designation	H	W	L	S	h	l	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PSKNR/L 2020-K09-4N	20	20	125	17	20	25	SN□□0904□□						
2525-M09-4N	25	25	150	22	25	25							

↻ Applicable inserts B105

PSSNR/L



SN□□



45°

• R type insert (mm)

Designation	H	W	L	S	h	l	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PSSNR/L 2020-K09-4N	20	20	125	17	20	25	SN□□0904□□						
2525-M09-4N	25	25	150	22	25	25							

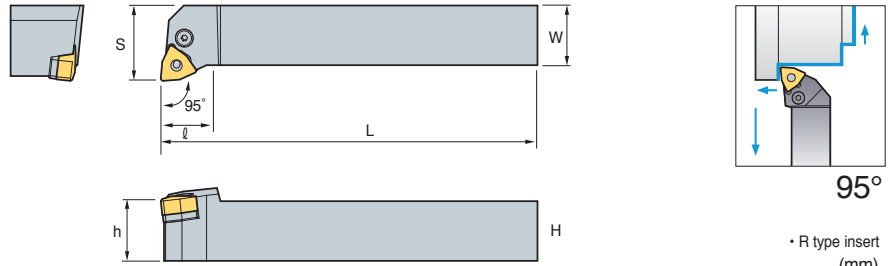
↻ Applicable inserts B105



PWLNRL



WN□□



• R type insert (mm)

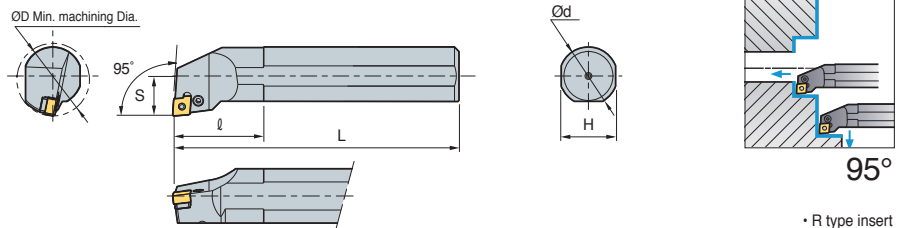
Designation	H	W	L	S	h	l	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PWLNRL 1616-H06	16	16	100	20	16	20	WN□□0604□□						
2020-K06	20	20	125	25	20	20							
2525-M06	25	25	150	32	25	20							

↻ Applicable inserts B105

PCLNR/L



CN□□



• R type insert (mm)

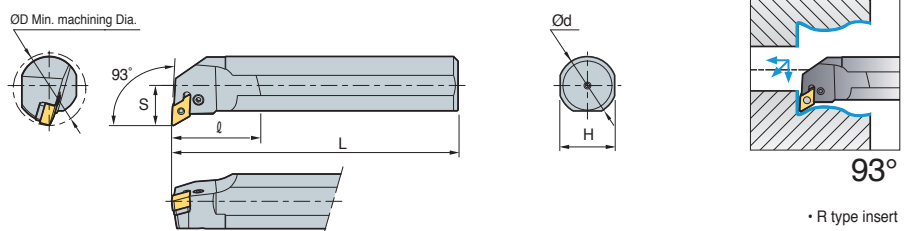
Designation	ØD	Ød	H	L	S	l	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
S20Q-PCLNR/L-09-4N	25	20	18	180	13	50	CN□□0904□□						
S25R-PCLNR/L-09-4N	32	25	23	200	17	50							
S32S-PCLNR/L-09-4N	40	32	30	250	22	50							

↻ Applicable inserts B105

PDUNR/L



DN□□



• R type insert (mm)

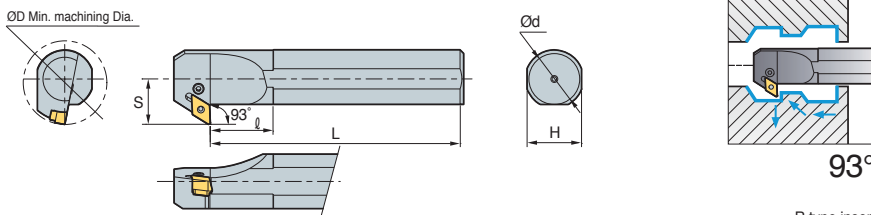
Designation	ØD	Ød	H	L	S	l	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
S32S-PDUNR/L-11-5N	40	32	30	250	22	30	DN□□1105□□						
S40T-PDUNR/L-11-5N	50	40	38	300	27	50							

↻ Applicable inserts B105

PDZNR/L



DN□□

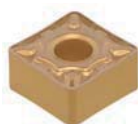


• R type insert (mm)

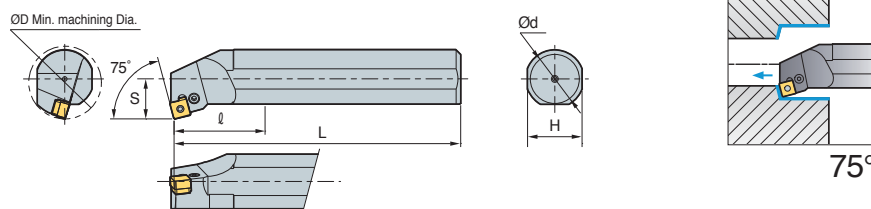
Designation	ØD	Ød	H	L	S	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
S32S-PDZNR/L-11-5N	40	32	30	250	22	30	DN□□1105□□						
S40T-PDZNR/L-11-5N	50	40	38	300	27	50							

↻ Applicable inserts B105

PSKNR/L



SN□□

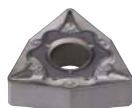


• R type insert (mm)

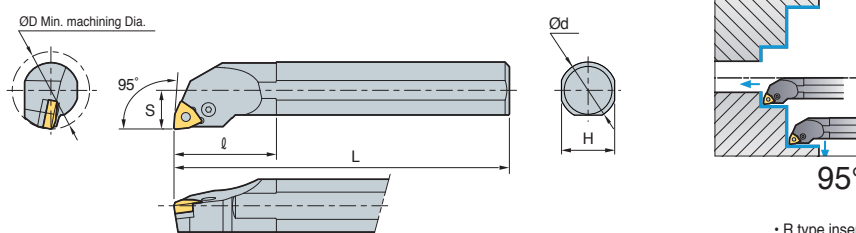
Designation	ØD	Ød	H	L	S	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
S25R-PSKNR/L-09-4N	32	25	23	200	17	32	SN□□0904□□						
S32S-PSKNR/L-09-4N	40	32	30	250	22	32							

↻ Applicable inserts B105

PWLNR/L



WN□□



• R type insert (mm)

Designation	ØD	Ød	H	L	S	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch						
S20S-PWLNR/L-06	25	20	18	250	13	40	WN□□0604□□												
S25R-PWLNR/L-06	32	25	23	200	17	40								LV3B	VHX0512B	-	-	-	-
S32S-PWLNR/L-06	44	32	30	250	22	45								LV3B	VHX0617B	SW317	SW317	HW25L	LSPS3

↻ Applicable inserts B105



Excellent for precision machining

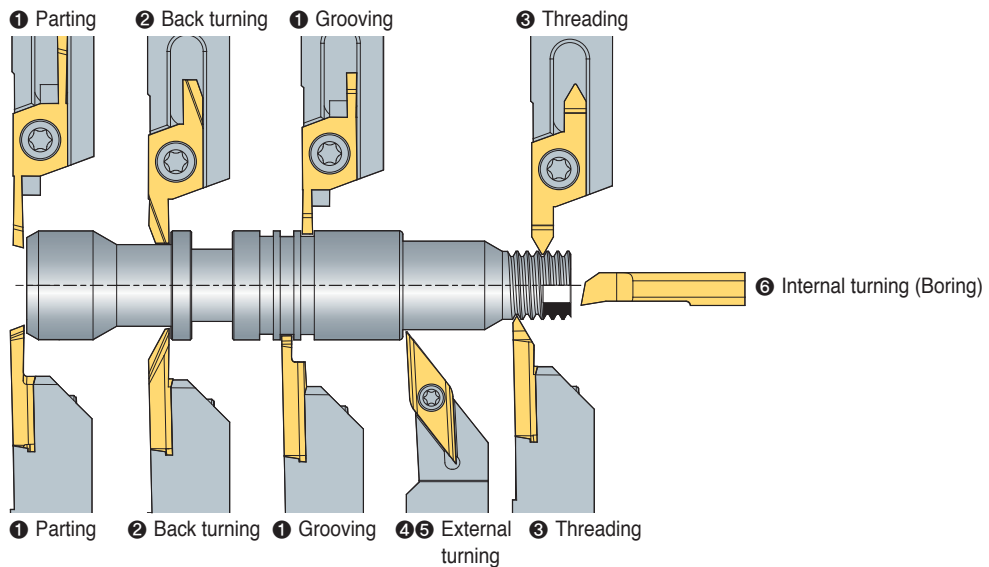
Auto Tools

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

Type



Application example



Index

Specification	① Parting and Grooving						② Back turning			Specification	③ Threading	
Holder	SXGNR/L	SXGNR/L	SBHR/L	SBHR/L	MGEHR/L	KGEHR/L	SXGNR/L	SXGNR/L	SBHR/L	Holder	SXGNR/L	SBHR/L
Insert	SG	SC	SBG	SBC	MGMN	KGMM	SB	SGB	SBB	Insert	ST	SBT
Holder size	10~20mm	10~20mm	10~16mm	10~16mm	10~16mm	10~16mm	10~20mm	10~20mm	10~16mm	Shank diameter	10~20mm	10~16mm
Insert shape										Insert shape		
Cutting width	1~3mm	1~3mm	0.7~2.0mm	0.7~2.0mm	1.5~2.5mm	1.5~2.5mm	2~4mm	2~3mm	3.18mm	ØDmin	Pitch ranges 0.5~1.5 / 1.5~3.0	Pitch ranges 0.2~1.5 / 1.0~2.0
ØDmax	Ø18	Ø18	Ø16	Ø16	Ø32	Ø32	Tmax 8.0	Tmax 8.5	Tmax 8.0	Page	B125	B122
Page	B125	B125	B122	B122	B129	B129	B125	B125	B122			

Specification	④ External turning and Copy machining				⑤ External turning and Facing			Specification	⑥ Internal turning (Boring)				
Holder	SDJCR/L	SDNCN	SVJBR/L	SVJCR/L	SCACR/L	SCLCR/L	STACR/L	Holder	SCLCR/L	STUBR/L	STUPR/L	SWUBR/L	MSB
Insert	DC□T	DC□T	VB□T	VC□T	CC□T	CC□T	TC□T	Insert	CC□T	TB□T	TP□T	WB□T	-
Holder size	8~16mm	8~16mm	10~16mm	10~16mm	8~16mm	8~16mm	8~10mm	Shank diameter	Ø4~Ø10	Ø8	Ø8	Ø5~Ø8	Ø4~Ø6
Insert shape								Insert shape					
Feature	Offset "0"				Offset "0"			ØDmin	Ø5	Ø8	Ø10	Ø5.5	Ø3.2
Page	B113	B114	B115	B115	B113	B113	B114	Page	B214	B214	B215	B216	B132~B136

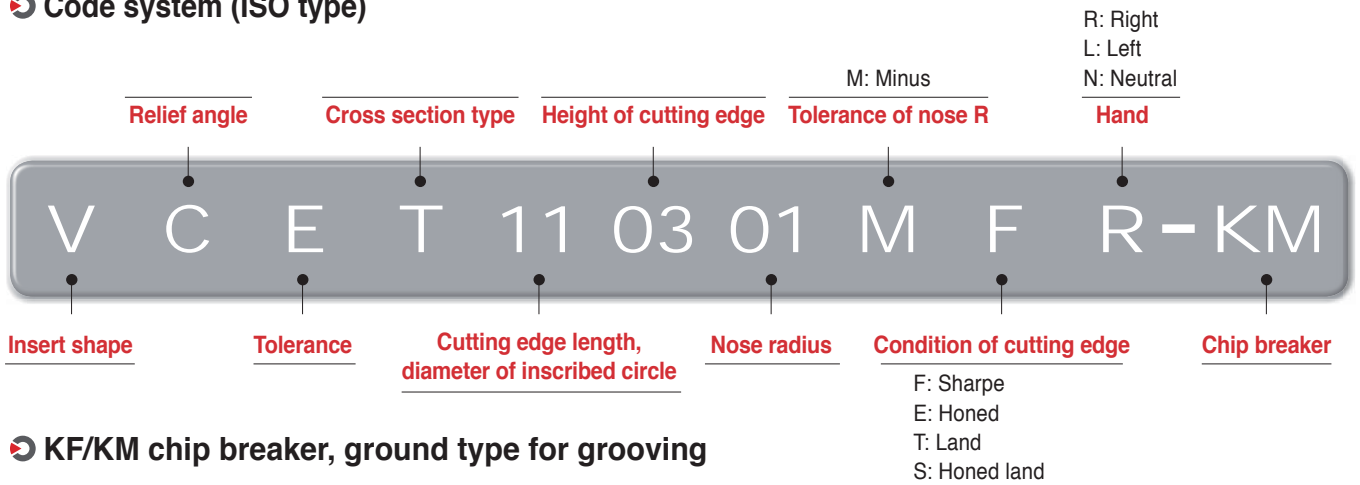
B Auto Tools (ISO type)

Auto Tools (ISO type)

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

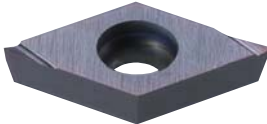
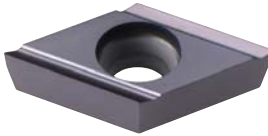


Code system (ISO type)




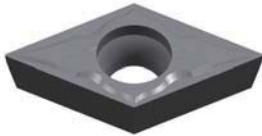
KF/KM chip breaker, ground type for grooving

- Ground chip breaker with sharp cutting edge
- High precision insert of E-class tolerance with accurate nose radius

KF	KM
 <ul style="list-style-type: none"> • For finishing • Low cutting loads with sharp cutting edges • Longer tool life due to lower chip evacuation resistance at high speed • Excellent surface roughness 	 <ul style="list-style-type: none"> • For medium cutting to finishing • Better chip flow due to wide chip pockets • Longer tool life and better cutting action due to improved chip evacuation • Excellent surface roughness

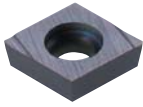
VP1/MS chip breaker

- Exclusive chip breaker for hard-to-cut materials such as titanium alloy, Inconel, stainless steel, etc.
- Minimized cutting heat by reducing contact area between chips and rake surface with the use of high positive blade

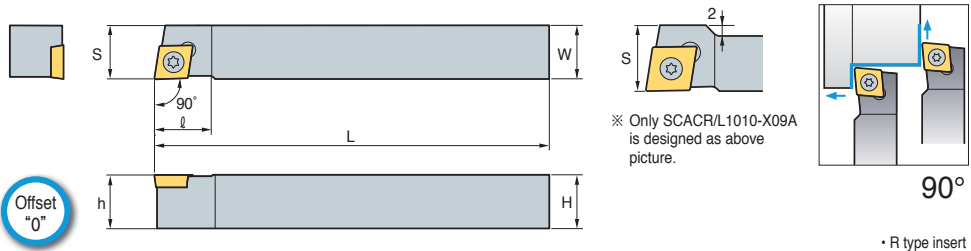
VP1	MS
 <ul style="list-style-type: none"> • Hard cutting edge for medium cutting • Optimal width of chip breaker by each depth of cuts realizes wide workpiece machining. 	 <ul style="list-style-type: none"> • Good surface finish for medium cutting • Preventing welding in Titanium machining • Increasing chip evacuation in high feed machining • Protecting cutting edge due to structure for good chip evacuation



SCACR/L



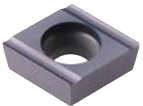
CC□T



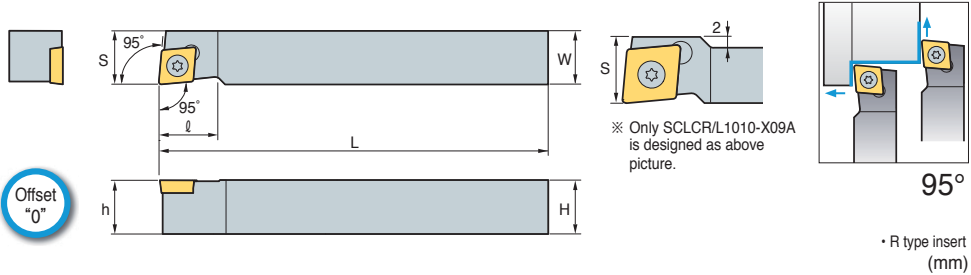
Designation	H	W	L	S	h	l	Insert	Screw	Wrench
SCACR/L 0808-X06A	8	8	120	8	8	10	CC□T0602□□	FTKA02565	TW07P
1010-X06A	10	10	120	10	10	10			
1010-X09A	10	10	120	12	10	13			
1212-X09A	12	12	120	12	12	16	CC□T09T3□□	FTKA0410	TW15P
1616-X09A	16	16	120	16	16	16			

➔ Applicable inserts B66~B69, B91

SCLCR/L



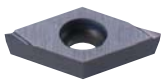
CC□T



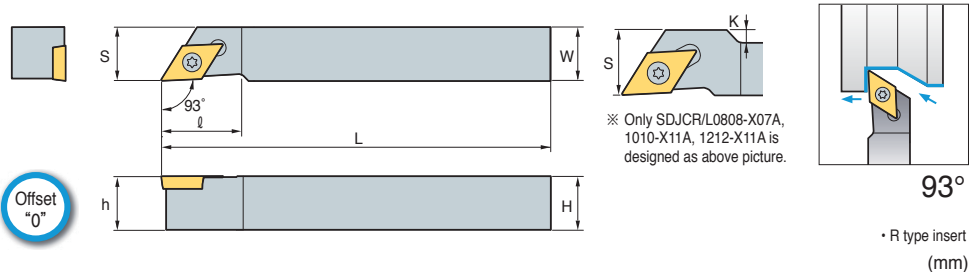
Designation	H	W	L	S	h	l	Insert	Screw	Wrench
SCLCR/L 0808-X06A	8	8	120	8	8	10	CC□T0602□□	FTKA02565	TW07P
1010-X06A	10	10	120	10	10	10			
1010-X09A	10	10	120	12	10	13			
1212-X09A	12	12	120	12	12	16	CC□T09T3□□	FTKA0410	TW15P
1616-X09A	16	16	120	16	16	16			

➔ Applicable inserts B66~B69, B91

SDJCR/L



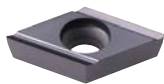
DC□T



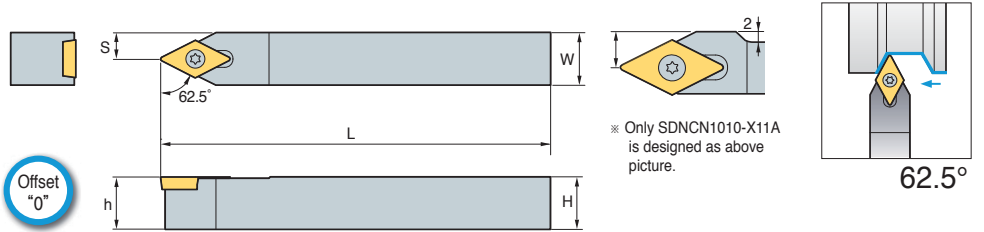
Designation	H	W	L	S	h	K	l	Insert	Screw	Wrench
SDJCR/L 0808-X07A	8	8	120	10	8	2	18	DC□T0702□□	FTKA02565	TW07P
1010-X07A	10	10	120	10	10	-	15			
1010-X11A	10	10	120	14	10	4	18			
1212-X11A	12	12	120	14	12	2	18	DC□T11T3□□	FTKA0410	TW15P
1616-X11A	16	16	120	16	16	-	22			

➔ Applicable inserts B71~B73, B92

SDNCN



DC□T



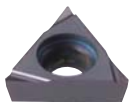
62.5°

• R type insert (mm)

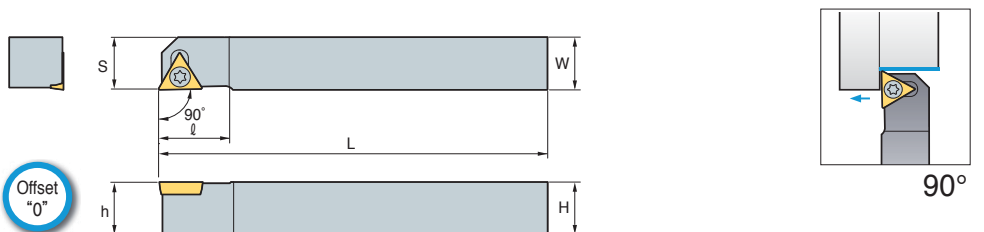
Designation	H	W	L	S	h	Insert	Screw	Wrench
SDNCN 0808-X07A	8	8	120	4	8	DC□T0702□□	FTKA02565	TW 07P
	10	10	120	5	10			
	10	10	120	7	10			
SDNCN 1212-X11A	12	12	120	6	12	DC□T11T3□□	FTKA0410	TW 15P
SDNCN 1616-X11A	16	16	120	8	16			

➔ Applicable inserts B71~B73, B92

STACR/L



TC□T



90°

• R type insert (mm)

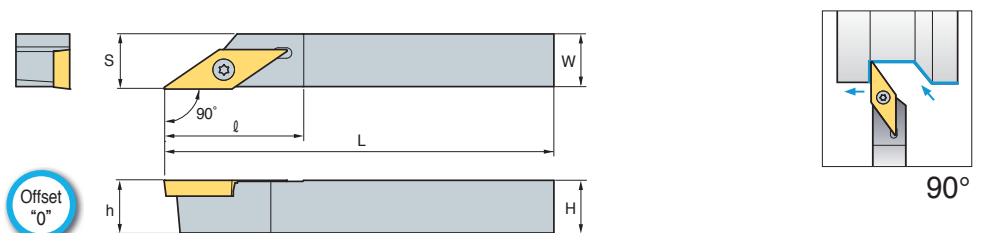
Designation	H	W	L	S	h	K	ℓ	Insert	Screw	Wrench
STACR/L 0808-X08A	8	8	120	8	8	1	12	TC□T0802□□	FTNA 0206	TW 06P
	10	10	120	10	10	3	12			

➔ Applicable inserts B79~B80

SVACR/L



VC□□



90°

• R type insert (mm)

Designation	H	W	L	S	h	ℓ	Insert	Screw	Wrench
SVACR/L 0808-X12A	8	8	120	8.5	8	26	VP□T1203□□	FTKA 02565	TW 07P
	10	10	120	10.5	10	26			
	12	12	120	12.5	12	26			
	16	16	120	16.5	16	26			
SVACR/L 0808-X12C	8	8	120	8.5	8	26	VC□X1203□□R/L	FTKA 02565	TW 07P
	10	10	120	10.5	10	26			
	12	12	120	12.5	12	26			
	16	16	120	16.5	16	26			

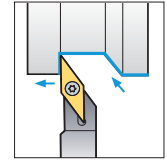
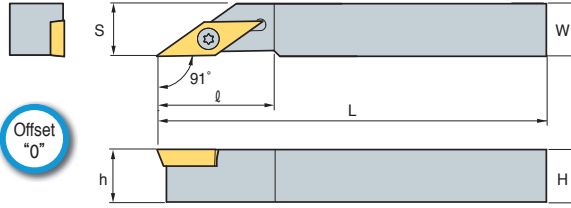
➔ Applicable inserts B86~B87, B97



SVAPR/L



VP□T



91°

• R type insert

(mm)

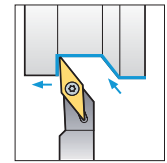
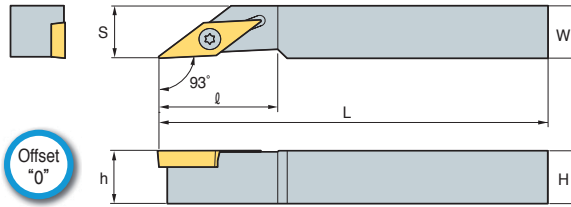
Designation	H	W	L	S	h	ℓ	Insert	Screw	Wrench
SVAPR/L 0808-X11A	8	8	120	8	8	22	VP□T1103□□	FTKA 02565	TW 07P
1010-X11A	10	10	120	10	10	22			
1212-X11A	12	12	120	12	12	22			
1616-X11A	16	16	120	16	16	24			

➔ Applicable inserts B88

SVJBR/L



VB□T



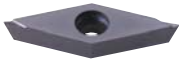
93°

• R type insert
(mm)

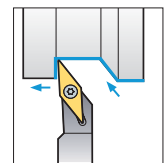
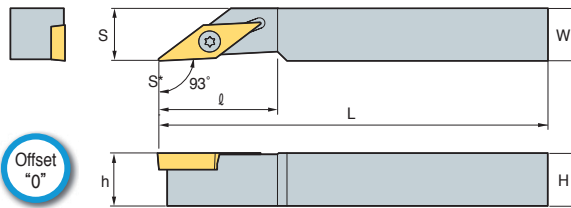
Designation	H	W	L	S	h	ℓ	Insert	Screw	Wrench
SVJBR/L 1010-X11A	10	10	120	10	10	22	VB□T1103□□	FTKA 02565	TW 07P
1212-X11A	12	12	120	12	12	22			
1616-X11A	16	16	120	16	16	24			

➔ Applicable inserts B84~B85, B96

SVJCR/L



VC□T



93°

• R type insert
(mm)

Designation	H	W	L	S	h	ℓ	Insert	Screw	Wrench
SVJCR/L 1010-X11A	10	10	120	10	10	22	VC□T1103□□	FTKA 02565	TW 07P
1212-X11A	12	12	120	12	12	22			
1616-X11A	16	16	120	16	16	24			
0810-X12A	8	10	120	10	8	26	VP□T1203□□	FTKA 02565	TW 07P
1010-X12A	10	10	120	10	10	26			
1212-X12A	12	12	120	12	12	26			
1616-X12A	16	16	120	16	16	26			
SVJCR/L 0810-X12C	8	10	120	10	8	26	VC□X1203□□R/L	FTKA 02565	TW 07P
1010-X12C	10	10	120	10	10	26			
1212-X12C	12	12	120	12	12	26			
1616-X12C	16	16	120	16	16	26			

➔ Applicable inserts B86~B87, B97

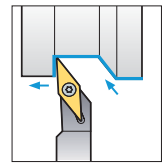
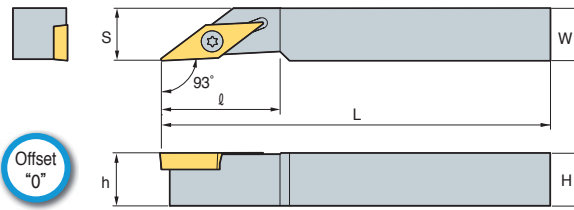


B Auto Tools (ISO Type)

SVJPR/L



VP□T



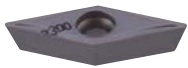
93°

• R type insert (mm)

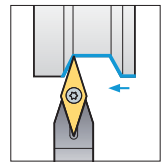
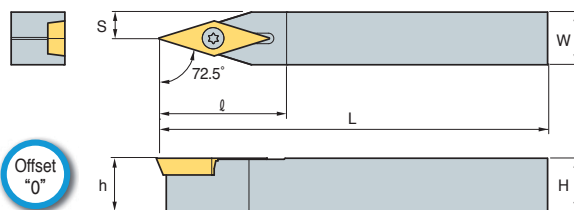
Designation		H	W	L	S	h	ℓ	Insert	Screw	Wrench
SVJPR/L	0810-X11A	8	10	120	8	10	22	VP□T1103□□	FTKA 02565	TW 07P
	1010-X11A	10	10	120	10	10	22			
	1212-X11A	12	12	120	12	12	22			
	1616-X11A	16	16	120	16	16	24			

➔ Applicable inserts B88

SVVPN



VP□T



72.5°

• R type insert (mm)

Designation		H	W	L	S	h	ℓ	Insert	Screw	Wrench
SVVPN	0808-X11A	8	8	120	4	8	24	VP□T1103□□	FTKA 02565	TW 07P
	1010-X11A	10	10	120	5	10	24			
	1212-X11A	12	12	120	6	12	24			
	1616-X11A	16	16	120	8	16	28			

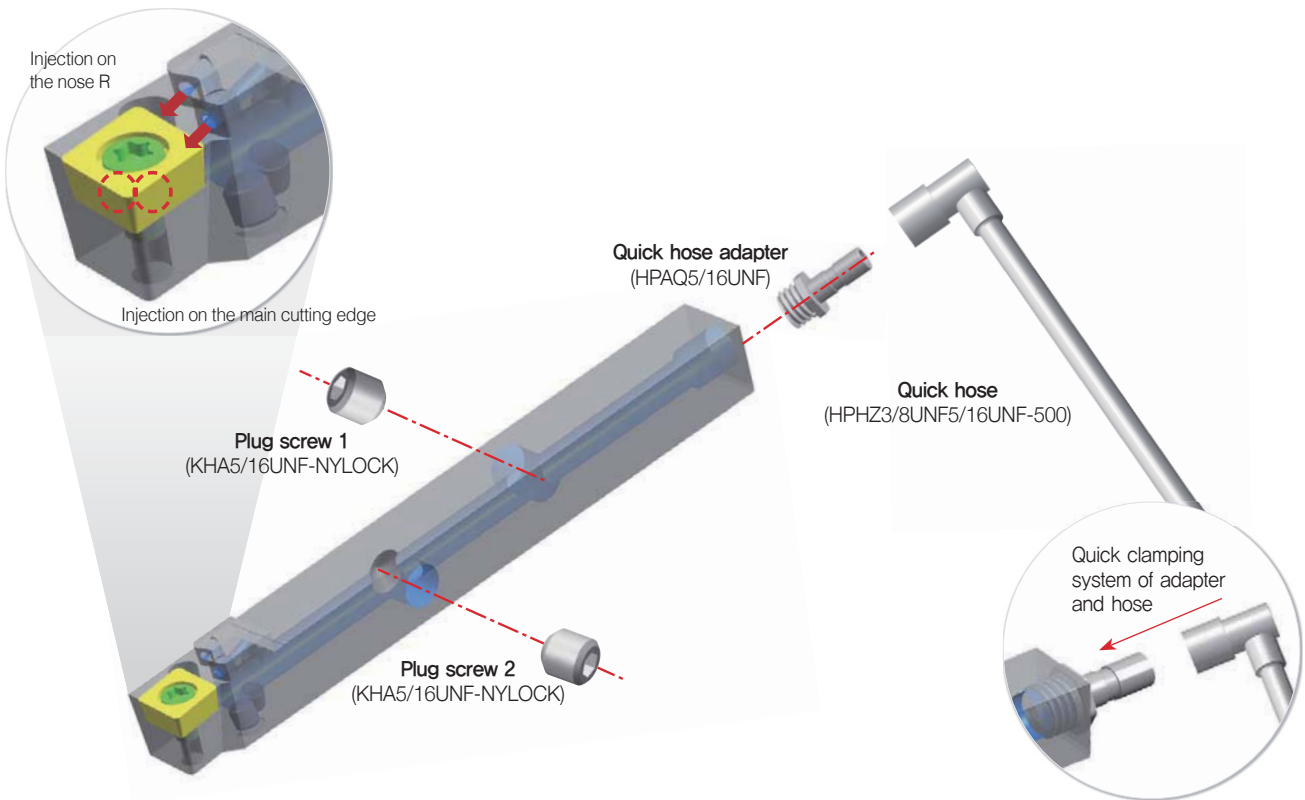
➔ Applicable inserts B88



Auto Tools (KHP)

- KORLOY Coolant holder for high productivity of automatic lathe
- Injecting coolant through two holes to the main cutting edge and nose R concentrically improves cooling and chip control.
- Two holes with different injection angles each other increase chip control
- Easy clamping system of quick hose adapter and quick hose provides convenient using

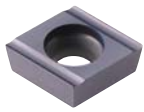
Structure of coolant



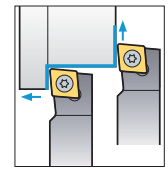
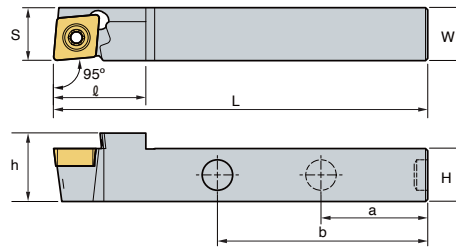
Parts

	Shape	Configuration	Length	Q clamping dimensions	S clamping dimensions
Straight quick hose	HPHZ5/16UNF3/8UNF 500 		500 mm	5/16 UNF	3/8 UNF
Quick hose adapter	HPAQ5/16UNF 		18.5 mm	5/16 UNF	

SCLCR/L



CC□T



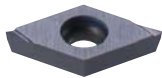
95°

• R type insert (mm)

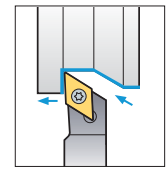
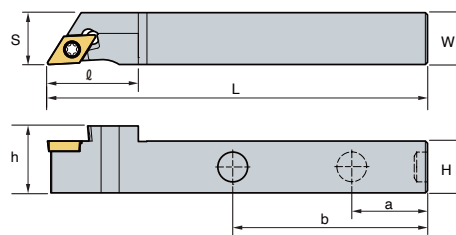
Designation	H	W	L	S	h	ℓ	a	b	Insert	Screw	Screw plug	Wrench
SCLCR/L 1212-X09A-KHP	12	12	120	12	15.5	21	40	70	CC□T09T3□□	FTKA0410	KHA0404-NYLOCK	TW15P

➔ Applicable inserts B66~69, B91

SDJCR/L



DC□T



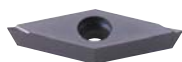
93°

• R type insert (mm)

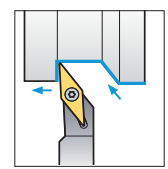
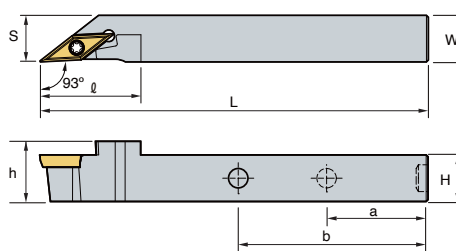
Designation	H	W	L	S	h	ℓ	a	b	Insert	Screw	Screw plug	Wrench
SCLCR/L 1212-X07A-KHP	12	12	120	14	15.5	21	40	70	DC□T0702□□	FTKA02565	KHA0404-NYLOCK	TW07P
1212-X11A-KHP	12	12	120	14	15.5	29.8	40	70	DC□T11T3□□	FTKA0410	KHA0404-NYLOCK	TW15P

➔ Applicable inserts B71~73, B92

SVJCR/L



VC□T



93°

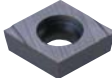
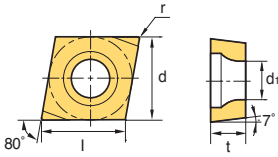
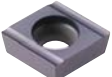
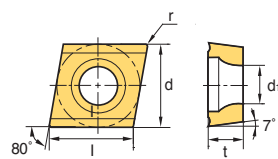

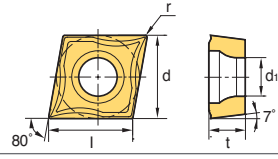

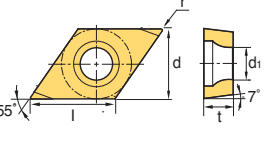

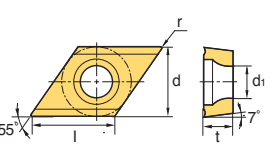

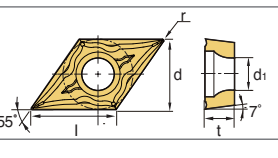

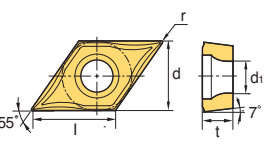
• R type insert (mm)

Designation	H	W	L	S	h	ℓ	a	b	Insert	Screw	Screw plug	Wrench
SVJCR/L 1212-X11A-KHP	12	12	120	12	15.5	26	40	70	VC□T1103□□	FTKA02565	KHA0404-NYLOCK	TW07P
1212-X12A-KHP	12	12	120	12	15.5	26	40	70	VC□T1203□□	FTKA02565	KHA0404-NYLOCK	TW07P

➔ Applicable inserts B86~87, B97




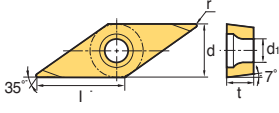

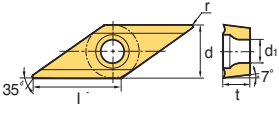

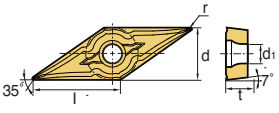

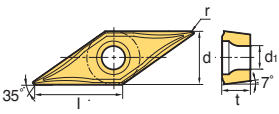

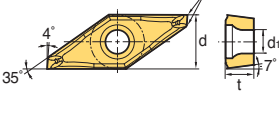

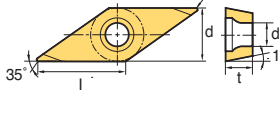

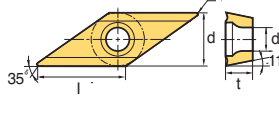

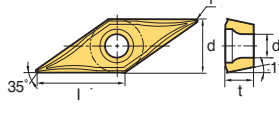
Insert

Picture	Designation	Coated				Uncoated	Dimensions (mm)					Configuration
		PC5300	PC8105	PC8110	PC8115	H01	l	d	t	r	d ₁	
 Finishing (High precision)	0602005MFR-KF	●		●			6.6	6.35	2.38	<0.05	2.8	
	060201MFR-KF	●		●			6.4	6.35	2.38	<0.1	2.8	
	060202MFR-KF	●		●			6.2	6.35	2.38	<0.2	2.8	
	09T3005MFR-KF	●		●			9.8	9.525	3.97	<0.05	4.4	
	09T301MFR-KF	●		●			9.6	9.525	3.97	<0.1	4.4	
	09T302MFR-KF	●		●			9.2	9.525	3.97	<0.2	4.4	
	0602005MFL-KF	●		●			6.6	6.35	2.38	<0.05	2.8	
	060201MFL-KF	●		●			6.4	6.35	2.38	<0.1	2.8	
	060202MFL-KF	●		●			6.2	6.35	2.38	<0.2	2.8	
	09T3005MFL-KF	●		●			9.8	9.525	3.97	<0.05	4.4	
	09T301MFL-KF	●		●			9.6	9.525	3.97	<0.1	4.4	
	09T302MFL-KF	●		●			9.2	9.525	3.97	<0.2	4.4	
 Medium to finishing (High precision)	0602005MFR-KM	●		●			6.6	6.35	2.38	<0.05	2.8	
	060201MFR-KM	●		●			6.4	6.35	2.38	<0.1	2.8	
	060202MFR-KM	●		●			6.2	6.35	2.38	<0.2	2.8	
	09T3005MFR-KM	●		●			9.8	9.525	3.97	<0.05	4.4	
	09T301MFR-KM	●		●			9.6	9.525	3.97	<0.1	4.4	
	09T302MFR-KM	●		●			9.2	9.525	3.97	<0.2	4.4	
	0602005MFL-KM	●		●			6.6	6.35	2.38	<0.05	2.8	
	060201MFL-KM	●		●			6.4	6.35	2.38	<0.1	2.8	
	060202MFL-KM	●		●			6.2	6.35	2.38	<0.2	2.8	
	09T3005MFL-KM	●		●			9.8	9.525	3.97	<0.05	4.4	
	09T301MFL-KM	●		●			9.6	9.525	3.97	<0.1	4.4	
	09T302MFL-KM	●		●			9.2	9.525	3.97	<0.2	4.4	
 Finishing (High precision)	060201MFN-VP1	●		●			6.6	6.35	2.38	<0.1	2.8	
	060202MFN-VP1	●		●			6.4	6.35	2.38	<0.2	2.8	
	060204MFN-VP1	●		●			6.2	6.35	2.38	<0.4	2.8	
	09T301MFN-VP1	●		●			9.8	9.525	3.97	<0.1	4.4	
	09T302MFN-VP1	●		●			9.6	9.525	3.97	<0.2	4.4	
	09T304MFN-VP1	●		●			9.2	9.525	3.97	<0.4	4.4	
 Finishing (High precision)	0702005MFR-KF	●		●			7.8	6.35	2.38	<0.05	2.8	
	070201MFR-KF	●		●			7.8	6.35	2.38	<0.1	2.8	
	070202MFR-KF	●		●			7.8	6.35	2.38	<0.2	2.8	
	11T3005MFR-KF	●		●			11.6	9.525	3.97	<0.05	4.4	
	11T301MFR-KF	●		●			11.6	9.525	3.97	<0.1	4.4	
	11T302MFR-KF	●		●			11.6	9.525	3.97	<0.2	4.4	
	0702005MFL-KF	●		●			7.8	6.35	2.38	<0.05	2.8	
	070201MFL-KF	●		●			7.8	6.35	2.38	<0.1	2.8	
	070202MFL-KF	●		●			7.8	6.35	2.38	<0.2	2.8	
	11T3005MFL-KF	●		●			11.6	9.525	3.97	<0.05	4.4	
	11T301MFL-KF	●		●			11.6	9.525	3.97	<0.1	4.4	
	11T302MFL-KF	●		●			11.6	9.525	3.97	<0.2	4.4	
 Medium to finishing (High precision)	0702005MFR-KM	●		●			7.8	6.35	2.38	<0.05	2.8	
	070201MFR-KM	●		●			7.8	6.35	2.38	<0.1	2.8	
	070202MFR-KM	●		●			7.8	6.35	2.38	<0.2	2.8	
	11T3005MFR-KM	●		●			11.6	9.525	3.97	<0.05	4.4	
	11T301MFR-KM	●		●			11.6	9.525	3.97	<0.1	4.4	
	11T302MFR-KM	●		●			11.6	9.525	3.97	<0.2	4.4	
	0702005MFL-KM	●		●			7.8	6.35	2.38	<0.05	2.8	
	070201MFL-KM	●		●			7.8	6.35	2.38	<0.1	2.8	
	070202MFL-KM	●		●			7.8	6.35	2.38	<0.2	2.8	
	11T3005MFL-KM	●		●			11.6	9.525	3.97	<0.05	4.4	
	11T301MFL-KM	●		●			11.6	9.525	3.97	<0.1	4.4	
	11T302MFL-KM	●		●			11.6	9.525	3.97	<0.2	4.4	
 Medium (High precision)	11T301MFN-MS	●		●			11.6	9.525	3.97	<0.1	4.4	
	11T302MFN-MS	●		●			11.6	9.525	3.97	<0.2	4.4	
	11T304MFN-MS	●		●			11.6	9.525	3.97	<0.4	4.4	
 Finishing (High precision)	070201MFN-VP1	●		●			7.8	6.35	2.38	<0.1	2.8	
	070202MFN-VP1	●		●			7.8	6.35	2.38	<0.2	2.8	
	070204MFN-VP1	●		●			7.8	6.35	2.38	<0.4	2.8	
	11T301MFN-VP1	●		●			11.6	9.525	3.97	<0.1	4.4	
	11T302MFN-VP1	●		●			11.6	9.525	3.97	<0.2	4.4	
	11T304MFN-VP1	●		●			11.6	9.525	3.97	<0.4	4.4	

●: Stock item



Insert

Picture	Designation	Coated				Uncoated	Dimensions (mm)					Configuration
		PC5300	PC8105	PC8110	PC8115	H01	l	d	t	r	d ₁	
 Finishing (High precision)	1103005MFR-KF	●		●			11.0	6.35	3.18	<0.05	2.8	
	110301MFR-KF	●		●			11.0	6.35	3.18	<0.1	2.8	
	110302MFR-KF	●		●			11.0	6.35	3.18	<0.2	2.8	
	1103005MFL-KF	●		●			11.0	6.35	3.18	<0.05	2.8	
	110301MFL-KF	●		●			11.0	6.35	3.18	<0.1	2.8	
	110302MFL-KF	●		●			11.0	6.35	3.18	<0.2	2.8	
 Medium to finishing (High precision)	1103005MFR-KM	●		●			11.0	6.35	3.18	<0.05	2.8	
	110301MFR-KM	●		●			11.0	6.35	3.18	<0.1	2.8	
	110302MFR-KM	●		●			11.0	6.35	3.18	<0.2	2.8	
	1103005MFL-KM	●		●			11.0	6.35	3.18	<0.05	2.8	
	110301MFL-KM	●		●			11.0	6.35	3.18	<0.1	2.8	
	110302MFL-KM	●		●			11.0	6.35	3.18	<0.2	2.8	
 Medium to finishing (High precision)	1203008FN-MS						11.0	7.50	3.00	<0.08	2.8	
	120301FN-MS						11.0	7.50	3.00	<0.1	2.8	
	120302FN-MS						11.0	7.50	3.00	<0.2	2.8	
	120304FN-MS						11.0	7.50	3.00	<0.4	2.8	
 Finishing (High precision)	110301MFN-VP1	●		●			11.0	6.35	3.18	<0.1	2.8	
	110302MFN-VP1	●		●			11.0	6.35	3.18	<0.2	2.8	
	110304MFN-VP1	●		●			11.0	6.35	3.18	<0.4	2.8	
 Finishing (High precision)	120300MFR-VP1	●		●			11.0	7.50	3.18	<0.0	2.8	
	120301MFR-VP1	●		●			11.0	7.50	3.18	<0.1	2.8	
	120302MFR-VP1	●		●			11.0	7.50	3.18	<0.2	2.8	
	120304MFR-VP1	●		●			11.0	7.50	3.18	<0.4	2.8	
	120308MFR-VP1	●		●			11.0	7.50	3.18	<0.8	2.8	
 Finishing (High precision)	0802005MFR-KF	●		●			8.0	6.35	2.38	<0.1	2.3	
	080201MFR-KF	●		●			8.0	6.35	2.38	<0.1	2.3	
	080202MFR-KF	●		●			8.0	6.35	2.38	<0.2	2.3	
	0802005MFL-KF	●		●			8.0	6.35	2.38	<0.1	2.3	
	080201MFL-KF	●		●			8.0	6.35	2.38	<0.1	2.3	
	080202MFL-KF	●		●			8.0	6.35	2.38	<0.2	2.3	
 Medium to finishing (High precision)	0802005MFR-KM	●		●			8.0	6.35	2.38	<0.1	2.3	
	080201MFR-KM	●		●			8.0	6.35	2.38	<0.1	2.3	
	080202MFR-KM	●		●			8.0	6.35	2.38	<0.2	2.3	
	0802005MFL-KM	●		●			8.0	6.35	2.38	<0.1	2.3	
	080201MFL-KM	●		●			8.0	6.35	2.38	<0.1	2.3	
	080202MFL-KM	●		●			8.0	6.35	2.38	<0.2	2.3	
 Finishing (High precision)	110301MFN-VP1	●		●			11.0	6.35	3.18	<0.1	2.8	
	110302MFN-VP1	●		●			11.0	6.35	3.18	<0.2	2.8	
	110304MFN-VP1	●		●			11.0	6.35	3.18	<0.4	2.8	

● : Stock item



Auto tools (Blade type) new

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

Code system of Auto Tools insert (Blade type)

Turning <small>(Back turning)</small>	SB	B	R	25	10		
	Small blade	Back turning	Hand <small>R: Right L: Left</small>	Length of insert	Nose radius		
Grooving	SB	G	R	25	20		
	Small blade	Grooving	Hand <small>R: Right L: Left</small>	Length of insert	Width of cutting edge		
Threading	SB	T	R	25	60	N	010
	Small blade	Threading	Hand <small>R: Right L: Left</small>	Length of insert	Angle of thread	Hand of thread <small>R: Right L: Left N: Neutral</small>	Nose radius
Parting	SB	C	R	25	20	16	N
	Small blade	Cut off / Parting	Hand <small>R: Right L: Left</small>	Length of insert	Width of cutting edge	Max. machining diameter	Hand of thread <small>R: Right L: Left N: None</small>

Code system of Auto Tools holder (Blade type)

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

Types of blade insert

Possible to apply various types of blade inserts to one holder

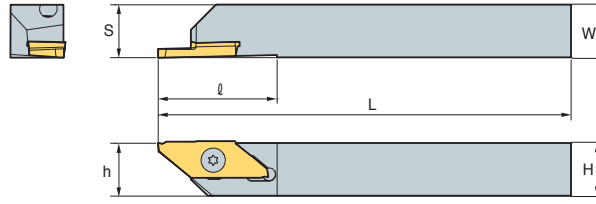
			
SBB: For back turning	SGB: For grooving	SBT: For threading	SBC: For cut off/Parting
<ul style="list-style-type: none"> • Approach angle: 59° • Max. cutting depth: 4 mm • Nose R: 0.05, 0.1, 0.2 mm 	<ul style="list-style-type: none"> • Width: 0.5~2.5 mm • Nose R: 0.05 mm 	<ul style="list-style-type: none"> • V profile: 60° • Pitch: 0.2~1.0 mm • Nose R: 0.05 mm 	<ul style="list-style-type: none"> • Cutting width: 0.7~2.0 • D Max.: 16 mm • Nose R: 0.05 mm

B Auto Tools (Blade Type)

SBHR/L



SBBR SBGR
SBTR SBCR

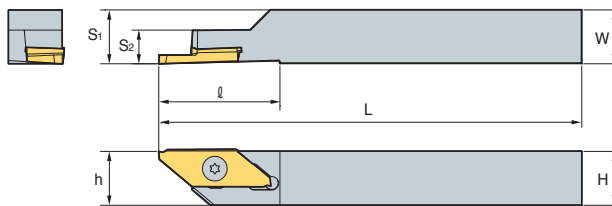


Designation		H	W	L	S	h	l	Insert	Screw	Wrench
SBHR/L	1010-K25	10	10	125	10	10	27	SB□R/L25	FTKA0409S	T9
	1212-K25	12	12	125	12	12	27			
	1616-K25	16	16	125	16	16	27			

SBHR/L-X (Sub spindle)



SBBR SBGR
SBTR SBCR



Designation		H	W	L	S1	S2	h	l	Insert	Screw	Wrench
SBHR/L	1010-K25-X	10	10	125	10	7.5	10	27	SB□R/L25	FTKA0407S	T9
	1212-K25-X	12	12	125	12	7.5	12	27			


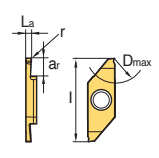
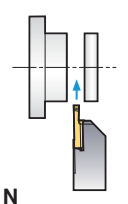
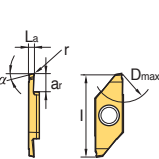
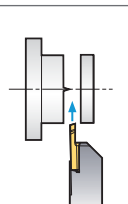
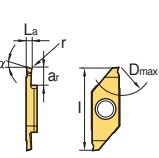
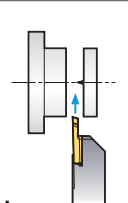
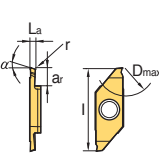
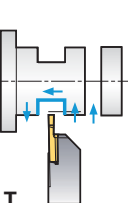
Insert

Application	Picture	Designation	Coated				Dimensions (mm)										Configuration	Feed direction		
			PC8110		PC5300		l	α	t	r	La	ar	f	D-MAX	Pitch range					
			R	L	R	L									Min.	Max.				
Back turning		SBBR/L 25005	●	●	●	●	25	59	3.18	0.05	-	-	-	-	-	-	-	-		
		25010	●	●	●	●	25	59	3.18	0.10	-	-	-	-	-	-	-	-		
		25020	●	●	●	●	25	59	3.18	0.20	-	-	-	-	-	-	-	-		
Grooving		SBGR/L 2505	●	●	●	●	25	-	-	0.05	0.5	1.35	-	-	-	-	-	-		
		2510	●	●	●	●	25	-	-	0.05	1.0	2.75	-	-	-	-	-	-		
		2515	●	●	●	●	25	-	-	0.05	1.5	3.75	-	-	-	-	-	-		
		2520	●	●	●	●	25	-	-	0.05	2.0	3.75	-	-	-	-	-	-		
		2525	●	●	●	●	25	-	-	0.05	2.5	3.75	-	-	-	-	-	-		
Threading		SBTR/L 2560-N-005	●	●	●	●	25	-	-	0.05	-	-	1.59	-	0.2	2.0	-	-		
		2560-N-010	●	●	●	●	25	-	-	0.10	-	-	1.59	-	1.0	2.0	-	-		
		2560-R-005	●	●	●	●	25	-	-	0.05	-	-	0.6	-	0.2	1.5	-	-		
		2560-R-010	●	●	●	●	25	-	-	0.10	-	-	0.6	-	1.0	1.5	-	-		
		2560-L-005	●	●	●	●	25	-	-	0.05	-	-	0.6	-	0.2	1.5	-	-		
		2560-L-010	●	●	●	●	25	-	-	0.10	-	-	0.6	-	1.0	1.5	-	-		

● : Stock item



Insert

Application	Picture	Designation	Coated				Dimensions (mm)										Configuration	Feed direction
			PC8110		PC5300		l	α	t	r	La	ar	f	D-MAX	Pitch range			
			R	L	R	L									Min.	Max.		
Parting off SBCR/L		SBCR/L 250708-N	●	●	●	●	25	0	-	0.05	0.70	4.3	-	8	-	-		
		251012-N	●	●	●	●	25	0	-	0.05	1.00	6.3	-	12	-	-		
		251512-N	●	●	●	●	25	0	-	0.05	1.50	6.3	-	12	-	-		
		252016-N	●	●	●	●	25	0	-	0.05	2.00	8.3	-	16	-	-		
		250708-R	●	●	●	●	25	15	-	0.05	0.70	4.3	-	8	-	-		
		251012-R	●	●	●	●	25	15	-	0.05	1.00	6.3	-	12	-	-		
		251512-R	●	●	●	●	25	15	-	0.05	1.50	6.3	-	12	-	-		
		252016-R	●	●	●	●	25	15	-	0.05	2.00	8.3	-	16	-	-		
		250708-L	●	●	●	●	25	15	-	0.05	0.70	4.3	-	8	-	-		
		251012-L	●	●	●	●	25	15	-	0.05	1.00	6.3	-	12	-	-		
		251512-L	●	●	●	●	25	15	-	0.05	1.50	6.3	-	12	-	-		
		252016-L	●	●	●	●	25	15	-	0.05	2.00	8.3	-	16	-	-		
		251012-T	●	●	●	●	25	0	-	0.05	1.00	6.3	-	12	-	-		
		251512-T	●	●	●	●	25	0	-	0.05	1.50	6.3	-	12	-	-		
		252016-T	●	●	●	●	25	0	-	0.05	2.00	8.3	-	16	-	-		

● : Stock item



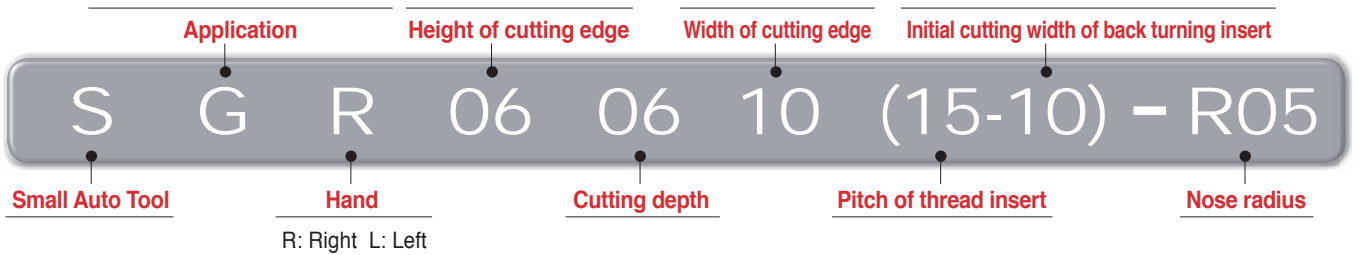
B Auto Tools (For multi utility)

Auto Tools (For multi utility)

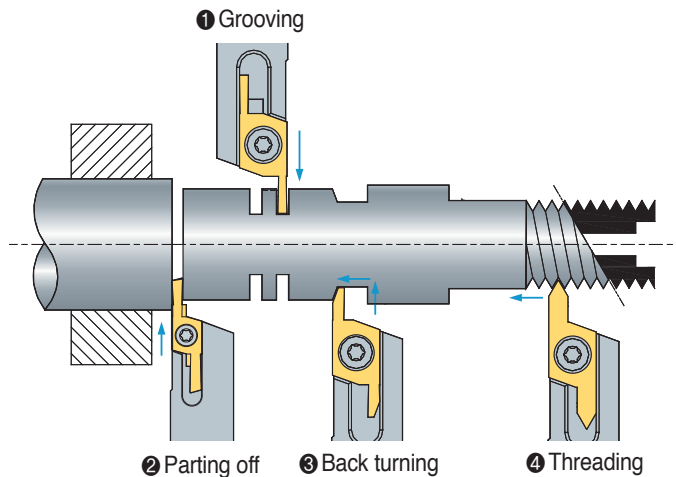
- Multifunctional insert for automatic lathes
- For external machining of precise small parts
- 5 types - SB(for back turning), SG(for grooving), ST(for threading), SC(for parting off), SGB(for grooving and back turning)
- Convenient use of one holder to all inserts
- Offset "0" to all ISO type holders

Insert code system (Multi utility type)

B: Back turning G: Grooving
 C: Parting off T: Threading
 GB: Grooving and back turning

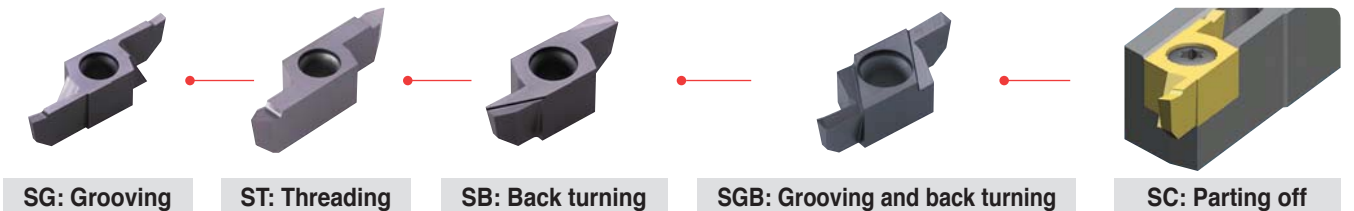


Application example



Types of multifunctional insert

Possible to apply various types of blade inserts to one holder (Ex: All designations of 06 size inserts can be applied to one 06 size holder.)



Recommended cutting conditions

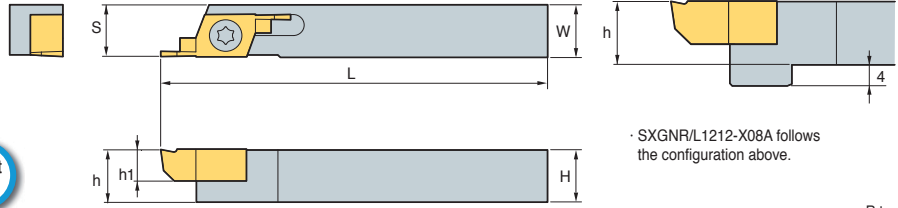
Workpiece	Turning		Grooving		Parting off		Back turning	
	Cutting speed, vc (m/min)	Feed, fn (mm/rev)	Cutting speed, vc (m/min)	Feed, fn (mm/rev)	Cutting speed, vc (m/min)	Feed, fn (mm/rev)	Cutting speed, vc (m/min)	Feed, fn (mm/rev)
Stainless steel	50~120	0.02~0.20	30~120	0.02~0.05	30~120	0.02~0.05	30~120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



SXGNR/L



SBR, SGBR
SCR, STR, SGR



· SXGNR/L1212-X08A follows the configuration above.

· R type insert (mm)

Designation	H	W	L	S	h	h1	Insert	Screw	Wrench
SXGNR/L	1010-X06A	10	10	125	10	10	S□R/L 06	FTNA 0408	TW 15P
	1212-X06A	12	12	125	12	12			
	1616-X06A	16	16	125	16	16			
	2020-X06A	20	20	125	20	20			
SXGNR/L	1212-X08A	12	12	130	12	12	S□R/L 08	FTNA 0411	TW 15P
	1616-X08A	16	16	130	16	16			
	2020-X08A	20	20	130	20	20			

Insert

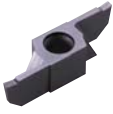
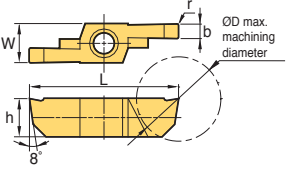
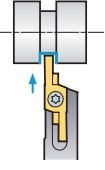
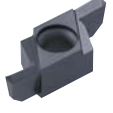
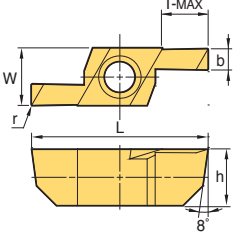
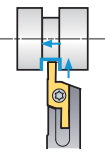

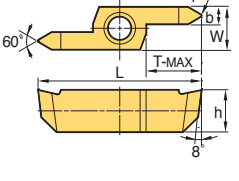
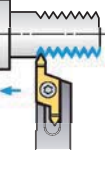
Application	Picture	Designation	Coated		Dimensions (mm)								Configuration	Feed direction
			PC9030		b ₁	b	W	L	r	h	T-MAX	ØD		
			R	L										
Back turning		SBR/L	060520-10-R00		1	2	8	22	0	6	5.5	-		
		060520-10-R05		1	2	8	22	0.05	6	5.5	-			
		060520-10-R10		1	2	8	22	0.1	6	5.5	-			
		060630-20-R00		2	3	8	24	0	6	6.5	-			
		060630-20-R05		2	3	8	24	0.05	6	6.5	-			
		060630-20-R10		2	3	8	24	0.1	6	6.5	-			
		080630-20-R00		2	3	8	23	0	8	6.5	-			
		080630-20-R05		2	3	8	23	0.05	8	6.5	-			
		080630-20-R10		2	3	8	23	0.1	8	6.5	-			
		080840-20-R00		2	4	8	27	0	8	8.5	-			
		080840-20-R05		2	4	8	27	0.05	8	8.5	-			
080840-20-R10		2	4	8	27	0.1	8	8.5	-					
Parting off		SCR/L	060610-R00		-	1	8	24	0	6	-	11		
		060610-R05	●	-	1	8	24	0.05	6	-	11			
		060610-R10	●	-	1	8	24	0.1	6	-	11			
		060615-R00		-	1.5	8	24	0	6	-	11			
		060615-R05	●	-	1.5	8	24	0.05	6	-	11			
		060615-R10	●	-	1.5	8	24	0.1	6	-	11			
		060620-R00		-	2	8	24	0	6	-	11			
		060620-R05	●	-	2	8	24	0.05	6	-	11			
		060620-R10	●	-	2	8	24	0.1	6	-	11			
		081015-R00		-	1.5	8	31	0	8	-	18			
		081015-R05		-	1.5	8	31	0.05	8	-	18			
		081015-R10		-	1.5	8	31	0.1	8	-	18			
		081020-R00		-	2	8	31	0	8	-	18			
		081020-R05		-	2	8	31	0.05	8	-	18			
		081020-R10	●	-	2	8	31	0.1	8	-	18			
		081025-R00		-	2.5	8	31	0	8	-	18			
		081025-R05	●	-	2.5	8	31	0.05	8	-	18			
081025-R10	●	-	2.5	8	31	0.1	8	-	18					
081030-R00		-	3	8	31	0	8	-	18					
081030-R05	●	-	3	8	31	0.05	8	-	18					
081030-R10		-	3	8	31	0.1	8	-	18					

● : Stock item



B Auto Tools (For multi utility)

Insert

Application	Picture	Designation	Coated		Dimensions (mm)								Configuration	Feed direction
			PC9030		b	W	L	r	h	T-MAX	ØD	Pitch		
			R	L										
Grooving		SGR/L	060610-R00		1	8	24	0	6	-	11	-		
			060610-R05	●	1	8	24	0.05	6	-	11	-		
			060610-R10	●	1	8	24	0.1	6	-	11	-		
			060615-R00		1.5	8	24	0	6	-	11	-		
			060615-R05	●	1.5	8	24	0.05	6	-	11	-		
			060615-R10	●	1.5	8	24	0.1	6	-	11	-		
			060620-R00		2	8	24	0	6	-	11	-		
			060620-R05	●	2	8	24	0.05	6	-	11	-		
			060620-R10	●	2	8	24	0.1	6	-	11	-		
			081015-R00		1.5	8	31	0	8	-	18	-		
			081015-R05		1.5	8	31	0.05	8	-	18	-		
			081015-R10		1.5	8	31	0.1	8	-	18	-		
			081020-R00		2	8	31	0	8	-	18	-		
			081020-R05	●	2	8	31	0.05	8	-	18	-		
			081020-R10		2	8	31	0.1	8	-	18	-		
			081025-R00		2.5	8	31	0	8	-	18	-		
			081025-R05		2.5	8	31	0.05	8	-	18	-		
			081025-R10		2.5	8	31	0.1	8	-	18	-		
081030-R00		3	8	31	0	8	-	18	-					
081030-R05		3	8	31	0.05	8	-	18	-					
081030-R10		3	8	31	0.1	8	-	18	-					
Grooving and back turning		SGBR/L	0604520-R00		2	8	22	0	6	4.5	-	-		
			0604520-R05		2	8	22	0.05	6	4.5	-	-		
			0604520-R10		2	8	22	0.1	6	4.5	-	-		
			0604525-R00		2.5	8	22	0	6	4.5	-	-		
			0604525-R05		2.5	8	22	0.05	6	4.5	-	-		
			0604525-R10		2.5	8	22	0.1	6	4.5	-	-		
			0605530-R00		3	8	24	0	6	5.5	-	-		
			0605530-R05		3	8	24	0.05	6	5.5	-	-		
			0605530-R10		3	8	24	0.1	6	5.5	-	-		
			0805525-R00		2.5	8	24	0	8	5.5	-	-		
			0805525-R05		2.5	8	24	0.05	8	5.5	-	-		
			0805525-R10		2.5	8	24	0.1	8	5.5	-	-		
			0806530-R00		3	8	26	0	8	6.5	-	-		
0806530-R05		3	8	26	0.05	8	6.5	-	-					
0806530-R10		3	8	26	0.1	8	6.5	-	-					
Threading		STR/L	06073215		3.2	8	25	0.06	6	7	-	0.5-1.5		
			06073230		3.2	8	25	0.19	6	7	-	1.5-3.0		
			08103215		3.2	8	31	0.06	8	10.5	-	0.5-1.5		
			08103230		3.2	8	31	0.19	8	10.5	-	1.5-3.0		

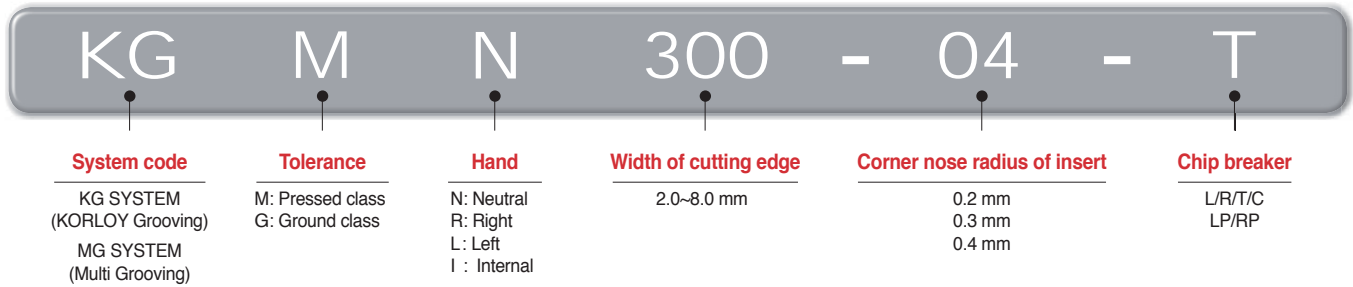
● : Stock item



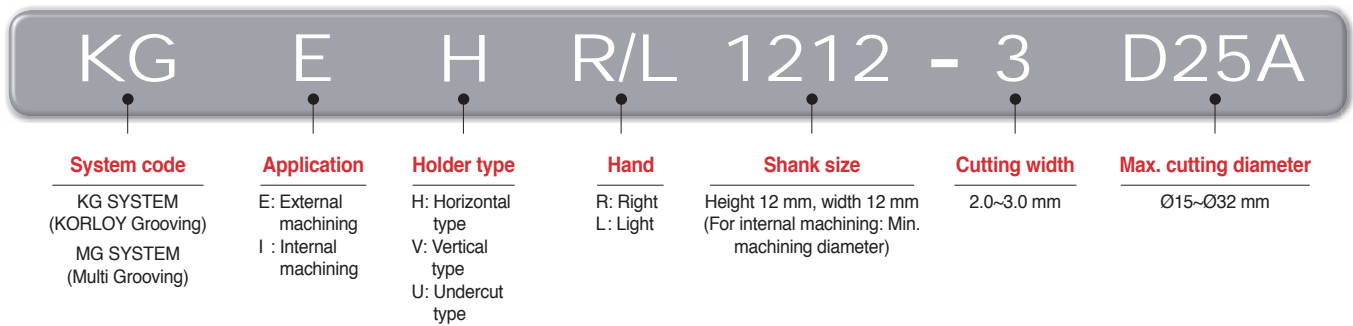
AutoTools (KGT/MGT type)

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

Insert code system (KGT/MGT type)









Holder code system (KGT/MGT type)





Chip breaker line-up

KGT Type

KGMMN-L  <ul style="list-style-type: none"> • Sharp cutting edge • For low feed machining • For small diameter parts 	KGMMN-R  <ul style="list-style-type: none"> • Reinforced cutting edge • For high feed machining • For interrupted cutting 	KGMMN-T  <ul style="list-style-type: none"> • Sharp cutting edge • Stronger chip control • For turning and grooving
KGMR/L-LP  <ul style="list-style-type: none"> • Sharp cutting edge • For low feed machining • Small diameter component • Right/Left handed • Low carbon steel 	KGMR/L-RP  <ul style="list-style-type: none"> • Strong cutting edge • For high feed machining • For interrupted cutting • Right/Left handed 	KRMN-C  <ul style="list-style-type: none"> • Improved chip control • Copying • Relief

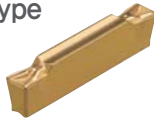
MGT Type

MGM(G)N-M  <ul style="list-style-type: none"> • Easier chip control by narrowing chip width with the use of chip breaker on rake surface center • Smooth chip flow by small dots in external machining • Available for both external machining and grooving 	MGMN-G  <ul style="list-style-type: none"> • Specially designed chip breaker allows narrower chips to promote better chip flow with the use of center dots • Exclusive chip breaker for grooving
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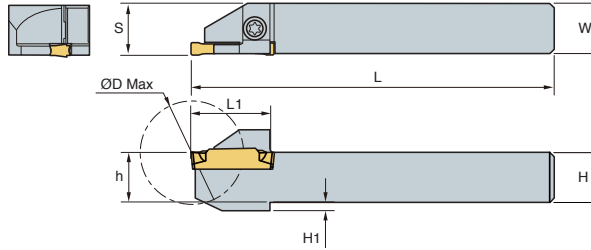
B Auto Tools (KGT/MGT type)

KGEHR/L-D00A

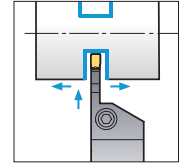
Compact type



KGGN KGMN KGMR/L
KRGN KRMN



Grooving, turning, parting off

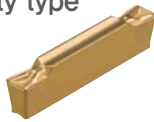


• R type insert (mm)

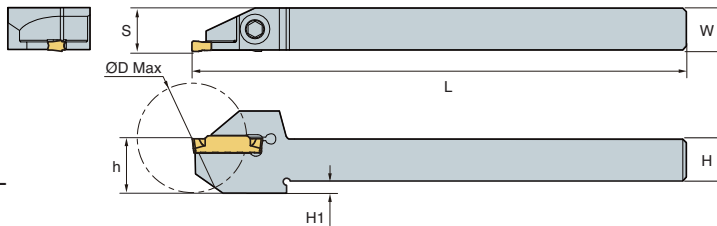
Designation	Dimensions (mm)							Insert	Screw	Wrench	
	H	W	L1	L	S	h1	ØD_MAX				
KGEHR/L	1010-2-D20A	10	10	19	125	10.2	2	20	KGMN200-□-□ KGMR/L200-□-□ KRMN200-C KRGN200-□-□	ETNA0412	TW15L
	1212-2-D25A	12	12	19	125	12.2	2	25			
	1414-2-D25A	14	14	19	125	14.2	-	25			
	1616-2-D32A	16	16	24	125	16.2	-	32			
	1212-3-D25A	12	12	19	130	12.4	2	25	KGMN300-□-□ KGMR/L300-□-□ KRMG300-C KRGN300-□-□		
	1616-3-D32A	16	16	24	130	16.4	-	32			

KGEHR/L-D00B

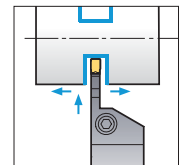
High rigidity type



KGGN KGMN KGMR/L
KRGN KRMN



Grooving, turning, parting off



• R type insert (mm)

Designation	Dimensions (mm)						Insert	Screw	Wrench	
	H	W	L	S	h1	ØD_MAX				
KGEHR/L	1010-2-D30B	10	10	125	10.2	6.6	30	KGMN200-□-□ KGMR/L200-□-□ KRMN200-C KGGN200-□-□	MHA0512	HW40L
	1212-2-D25B	12	12	125	12.5	3.5	25			
	1212-2-D30B	12	12	125	12.2	3.5	30			
	1616-2-D32B	16	16	125	16.2	-	32			
	1212-3-D25B	12	12	125	12.4	3.5	25			
	1212-3-D32B	12	12	125	12.4	3.5	32			
1616-3-D32B	16	16	125	16.4	-	32	KGMN300-□-□ KGMR/L300-□-□ KRMN300-C KGGN300-□-□			


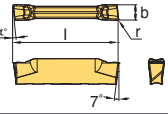

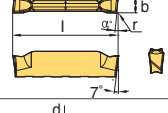

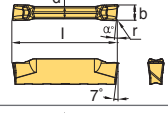

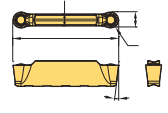

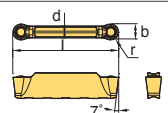
➤ KGT Insert

Application	Picture	Designation	Coated						Dimensions (mm)					Configuration
			NC3120	NC3225	NC5330	NC6315	PC5300	PC9030	b	r	l	d	α °	
Grooving		KGMN 200-02-L	●	●	●	●	●	2.0	0.2	20	1.7	-		
		300-02-L	●	●	●	●	●	3.0	0.2	20	2.3	-		
Grooving·Parting off		KGMN 200-02-R	●	●	●	●	●	2.0	0.2	20	1.7	-		
		300-02-R	●	●	●	●	●	3.0	0.2	20	2.3	-		
Grooving·turning		KGMN 200-02-T	●	●	●	●	●	2.0	0.2	20	1.7	-		
		300-02-T	●	●	●	●	●	3.0	0.2	20	2.3	-		
		300-04-T	●	●	●	●	●	3.0	0.4	20	2.3	-		
Parting off (Right handed)		KGMR 200-6D-LP		●	●			2.0	0.2	20	-	6		
		200-15D-LP		●	●			2.0	0.2	20	-	15		
		300-6D-LP		●	●			3.0	0.2	20	-	6		
		300-15D-LP		●	●			3.0	0.2	20	-	15		

● : Stock item

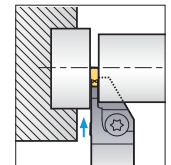
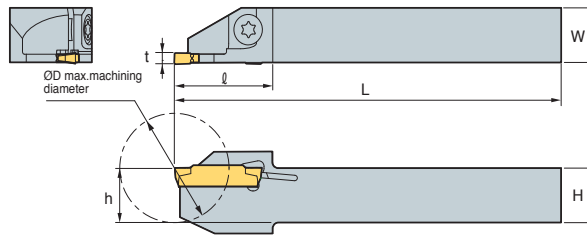
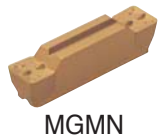


KGT Insert

Application	Picture	Designation	Coated						Dimensions (mm)					v	
			NC3120	NC3225	NC5330	NC6315	PC5300	PC9030	b	r	l	d	a °		
Parting off (Right handed)		KGMR	200-6D-RP			●		●		2.0	0.2	20	-	6	
			200-15D-RP			●		●		2.0	0.2	20	-	15	
			300-6D-RP			●		●		3.0	0.2	20	-	6	
			300-15D-RP			●		●		3.0	0.2	20	-	15	
Parting off (Left handed)		KGML	200-6D-LP						2.0	0.2	20	1.7	6		
			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		
Parting off (Left handed)		KGML	200-6D-RP						2.0	0.2	20	1.7	6		
			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		
Copying		KRMI	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	-		
Copying		KRMN	200-C	●	●	●	●		2.0	1.0	20	1.7	-		
			300-C	●	●			●		3.0	1.5	20	2.2		-

● : Stock item


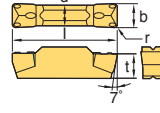

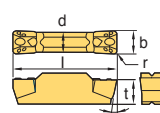
MGEHR/L



• R type insert (mm)

Designation		ØD	H=h	W	L	ℓ	t	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			
	1212-X20A	25	12	12	125	19.5	2	MGMN200-M MGMN200-G		
	1616-X20A	32	16	16	125	25	2			
	1010-X25A	20	10	10	125	20	2.5	MGMN250-M MGMN250-G		
	1212-X25A	25	12	12	125	20	2.5			
	1616-X25A	32	16	16	125	25	2.5			

MGT Insert

Application	Picture	Designation	Coated						Uncoated			Dimensions (mm)					Configuration	
			NC3120	NC3225	NC5330	NC6315	NC3030	PC5300	PC9030	H01	G10	STA30	b	r	l	d		t
Grooving		MGMN	150-G	●				●	●	●	●		1.5	0.15	16.0	1.2	3.5	
			200-G	●	●			●	●	●	●		2.0	0.2	16.0	1.6	3.5	
			250-G	●				●	●	●	●		2.5	0.2	18.5	2.0	3.85	
Grooving		MGMN	200-M	●	●	●		●	●	●	●		2.0	0.2	16.0	1.6	3.5	
			250-M	●	●			●	●	●	●		2.5	0.2	18.5	2.0	3.85	

● : Stock item



B Auto Tool (MSB tool)

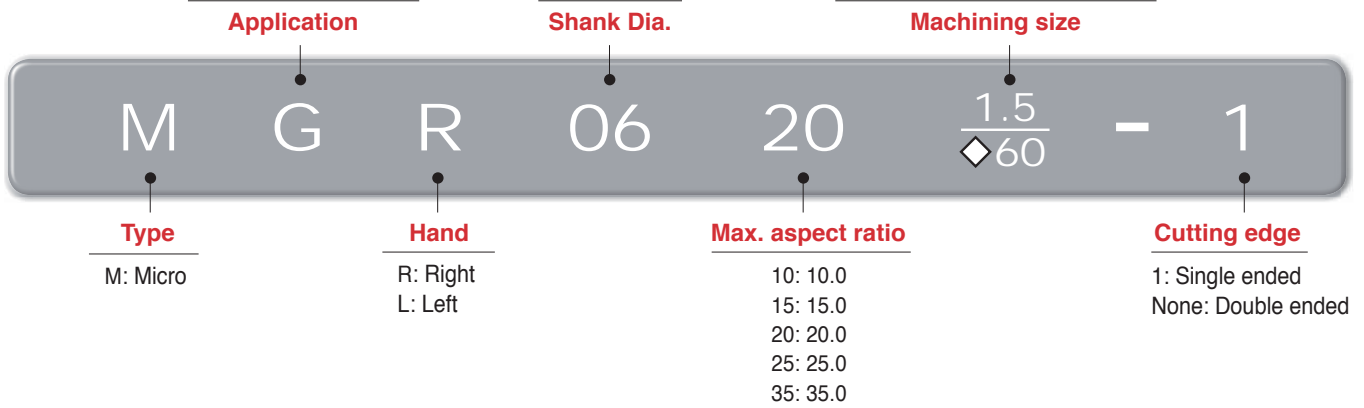
Auto Tool (MSB tool)

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

Code system

B	: Boring	
BC	: Copying	
BB	: Back Boring	
BF	: Chamfering	03: 3.0
G	: Square Grooving	04: 4.0
GR	: Round Grooving	06: 6.0
GF	: Face Grooving	08: 8.0
T	: Threading	10: 10.0

Boring	No Code		
Copying	Width of Groove		
Threading	60°	55°	
	Pitch	tpi	
◇	F	0.25~1.0	72~24
	A	0.5~1.5	48~16
	AG	0.5~3.0	48~8



MSB tool code system

Types		Application	Designation	
01	Boring	Boring	MBR/LOO☆☆	
02		Copying	MBCR/LOO☆☆	
03		Back Boring	MBBR/LOO☆☆	
04		Chamfering	MBFR/LOO☆☆	
05	Grooving	Square Grooving	MGR/LOO☆☆-□□	
06		Round Grooving	MGRR/LOO☆☆-□□	
07		Face Grooving	MGFR/LOO00-□□	
08	Threading	Partial	60°	MTR/LOO☆☆-◇60
			55°	MTR/LOO☆☆-◇55

Details

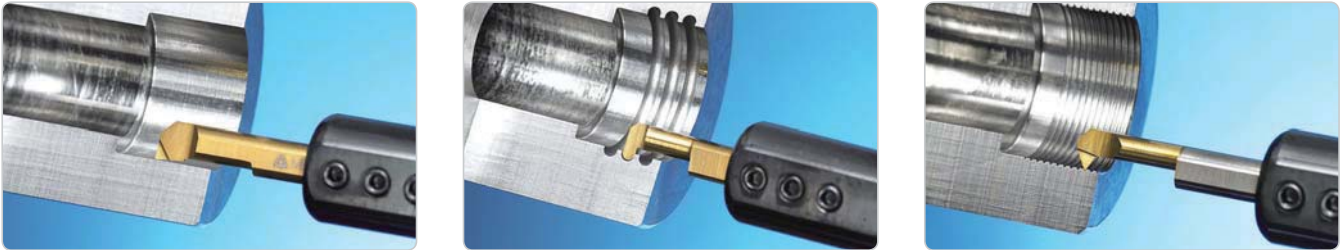
Marks	○○	Shank Dia.			
	☆☆	Max. depth of boring			
	□□	Width of groove			
	◇	Pitch / tpi	F	0.25~1.0	72~24
			A	0.5~1.5	48~16
AG			0.5~3.0	48~8	



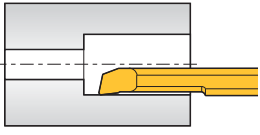
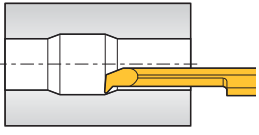
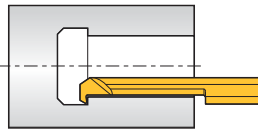
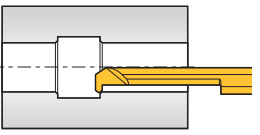
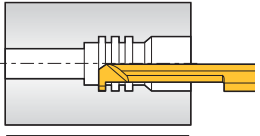
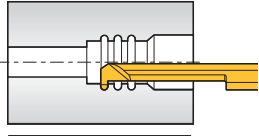
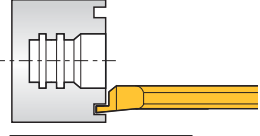
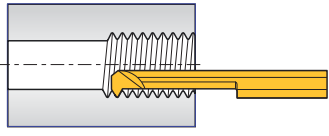
Grades

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

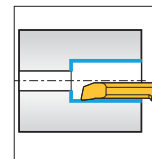
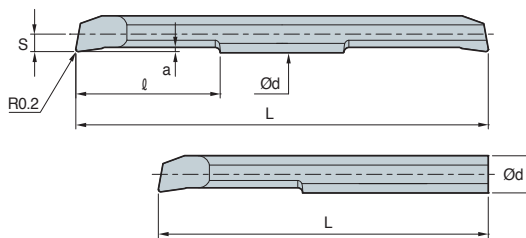
Machining types



Types

Boring	 <p>Boring Min. dia. of machining: Ø3.2</p>	 <p>Copying Min. dia. of machining: Ø4.2</p>	 <p>Back Boring Min. dia. of machining: Ø3.2</p>	 <p>Chamfering Min. dia. of machining: Ø4.2</p>
Grooving	 <p>Square Grooving Min. dia. of machining: Ø3.2</p>	 <p>Round Grooving Min. dia. of machining: Ø3.2</p>	 <p>Face Grooving Min. dia. of machining: Ø6.0</p>	
Threading	 <p>Threading Min. dia. of machining: Ø3.3</p>			

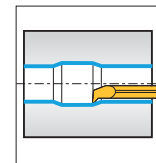
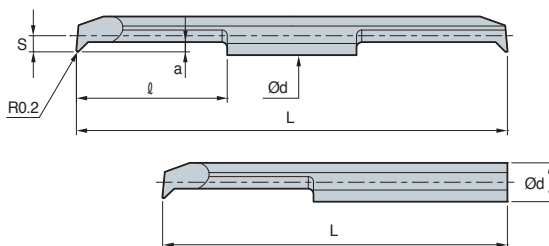
Boring



Twin Edge			Single Edge			Ød	Min.dia. of machining	ℓ	Overall length		Detailed cutting edge	
Designation	Coated	Uncoated	Designation	Coated	Uncoated				L		a	S
	PC30M	Z12M		PC30M	Z12M				Double ended	Single ended		
MBR	0310	●	MBR	0310-1		3.0	3.2	10	40	35	0.5	1.4
	0315	●		0315-1				15	50	45		
	0410	●		0410-1				10	40	35		
	0415	●		0415-1		4.0	4.2	15	50	45	0.6	1.9
	0420	●		0420-1				20	60	50		
	0610			0610-1				10	45	40		
	0615	●		0615-1		6.0	6.2	15	55	45	0.75	2.9
	0620	●		0620-1				20	65	50		
	0810			0810-1				10	50	45		
	0820	●		0820-1		8.0	8.2	20	70	60	0.8	3.9
	0830			0830-1				30	80	70		
	1015			1015-1				15	60	60		
	1025	●		1025-1		10.0	10.2	25	80	70	1.0	4.9
1035		1035-1		35	100			80				

● : Stock item

Copying

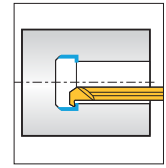
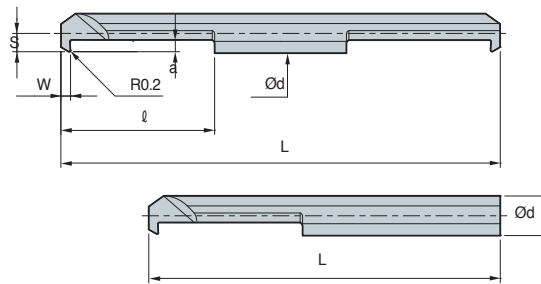


Twin Edge			Single Edge			Ød	Min.dia. of machining	ℓ	Overall length		Detailed cutting edge	
Designation	Coated	Uncoated	Designation	Coated	Uncoated				L		a	S
	PC30M	Z12M		PC30M	Z12M				Double ended	Single ended		
MBCR	0410		MBCR	0410-1		4.0	4.2	10	40	35	1.0	1.9
	0415	●		0415-1				15	50	45		
	0420	●		0420-1				20	60	50		
	0610			0610-1		6.0	6.2	10	45	40	1.3	2.9
	0615	●		0615-1				15	55	45		
	0620	●		0620-1				20	60	50		

● : Stock item



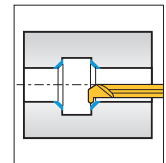
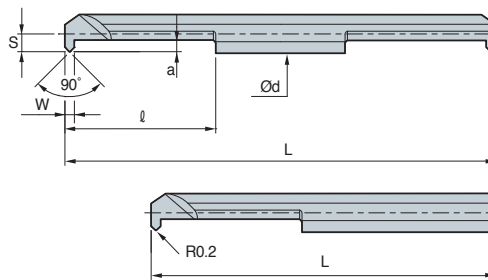
Back Boring



Twin Edge			Single Edge			Ød	Min.dia. of machining	ℓ	Overall length		Detailed cutting edge		
Designation	Coated	Uncoated	Designation	Coated	Uncoated				L		W	a	S
	PC30M	Z12M		PC30M	Z12M				Double ended	Single ended			
MBBR	0310		MBBR	0310-1		3.0	3.2	10	40	35	1.5	0.8	1.4
	0315			0315-1					15	45			
	0410			0410-1		4.0	4.2	10	40	35	2.0	1.3	1.9
	0415			0415-1					15	45			
	0420			0420-1					20	50			
	0610			0610-1		6.0	6.2	10	45	40	2.0	1.9	2.9
	0615			0615-1					15	45			
	0620			0620-1					20	50			

● : Stock item

Chamfering

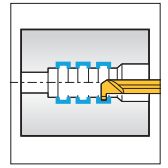
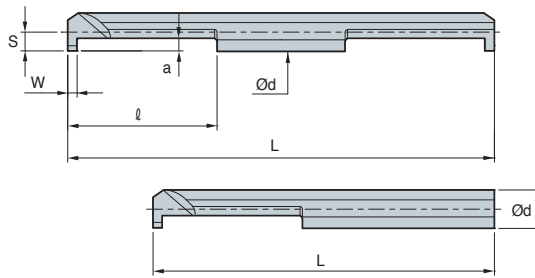


Twin Edge			Single Edge			Ød	Min.dia. of machining	ℓ	Overall length		Detailed cutting edge		
Designation	Coated	Uncoated	Designation	Coated	Uncoated				L		W	a	S
	PC30M	Z12M		PC30M	Z12M				Double ended	Single ended			
MBFR	0410		MBFR	0410-1		4.0	4.2	10	40	35	0.8	1.0	1.9
	0415			0415-1					15	45			
	0420			0420-1					20	50			
	0610			0610-1		6.0	6.2	10	45	40	1.4	1.2	2.9
	0615			0615-1					15	45			
	0620			0620-1					20	50			

● : Stock item



Square Grooving

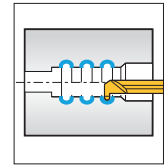
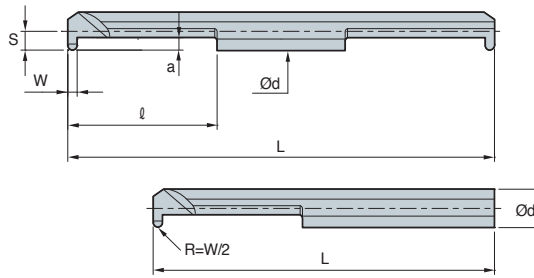


Twin Edge			Single Edge			Ød	Min.dia. of machining	l	Overall length		Detailed cutting edge		
Designation	Coated	Uncoated	Designation	Coated	Uncoated				L		W	a	S
	PC30M	Z12M		PC30M	Z12M				Double ended	Single ended			
MGR 0310-1.0			MGR 0310-1.0-1			3.0	3.2	10	40	35	1.0	0.8	1.4
0315-1.0			0315-1.0-1					15	50	45			
0310-1.5			0310-1.5-1					10	40	35	1.5		
0315-1.5			0315-1.5-1					15	50	45			
0410-1.0			0410-1.0-1			4.0	4.2	10	40	35	1.0	1.4	1.9
0420-1.0			0420-1.0-1					20	60	50			
0410-1.5			0410-1.5-1					10	40	35	1.5		
0420-1.5			0420-1.5-1					20	60	50			
0410-2.0			0410-2.0-1			6.0	6.2	10	40	35	2.0	1.8	2.9
0420-2.0			0420-2.0-1					20	60	50			
0610-1.0	●		0610-1.0-1					10	45	40	1.0		
0620-1.0	●		0620-1.0-1					20	65	50			
0610-1.5			0610-1.5-1			10	45	40	1.5				
0620-1.5			0620-1.5-1			20	65	50					
0610-2.0			0610-2.0-1			10	45	40	2.0				
0620-2.0			0620-2.0-1			20	65	50					
0610-2.5			0610-2.5-1			8.0	8.2	20	70	60	1.5	2.5	3.9
0620-2.5			0620-2.5-1										
0820-1.5			0820-1.5-1								2.5		
0820-2.0			0820-2.0-1								3.0		
0820-2.5			0820-2.5-1			10.0	10.2	25	80	70	1.5	2.5	4.9
0820-3.0			0820-3.0-1										
1025-1.5			1025-1.5-1								2.5		
1025-2.0			1025-2.0-1								3.0		
1025-2.5			1025-2.5-1			1.5	2.5	3.5	3.5				
1025-3.0			1025-3.0-1							2.0			

● : Stock item



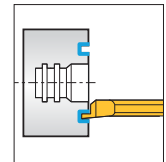
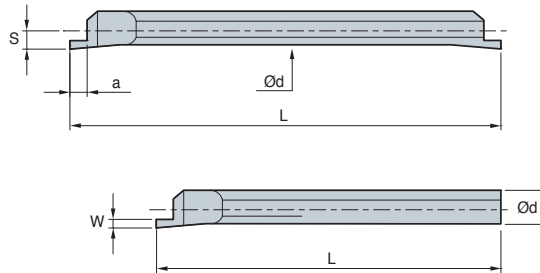
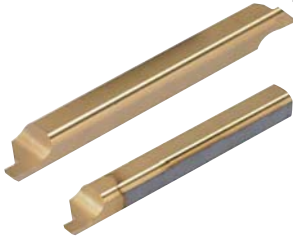
Round Grooving



Twin Edge			Single Edge			Ød	Min.dia. of machining	l	Overall length		Detailed cutting edge		
Designation	Coated	Uncoated	Designation	Coated	Uncoated				L		W	a	S
	PC30M	Z12M		PC30M	Z12M				Double ended	Single ended			
MGRR	0310-0.8		MGRR	0310-0.8-1		3.0	3.2	10	40	35	0.8	0.8	1.4
	0315-0.8			0315-0.8-1					15	45			
	0410-1.0			0410-1.0-1		4.0	4.2	10	40	35	1.0	1.0	1.9
	0420-1.0			0420-1.0-1					20	60			
	0610-1.0			0610-1.0-1		6.0	6.2	10	45	40	1.0	2.0	2.9
	0620-1.0			0620-1.0-1					20	65			
	0610-1.5			0610-1.5-1					10	45	40		
	0620-1.5			0620-1.5-1					20	65	50		
	0610-2.0			0610-2.0-1		8.0	8.2	20	45	40	2.0	2.3	3.9
	0620-2.0			0620-2.0-1					10	45			
	0820-1.0			0820-1.0-1					20	70	60		
	0820-1.5			0820-1.5-1		10.0	10.2	25	80	70	1.5	2.8	4.9
	0820-2.0			0820-2.0-1							2.0		
	1025-1.0			1025-1.0-1							1.0		
	1025-1.5			1025-1.5-1							1.5		
	1025-2.0			1025-2.0-1							2.0		

● : Stock item

Face Grooving

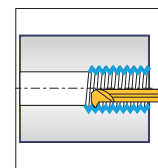
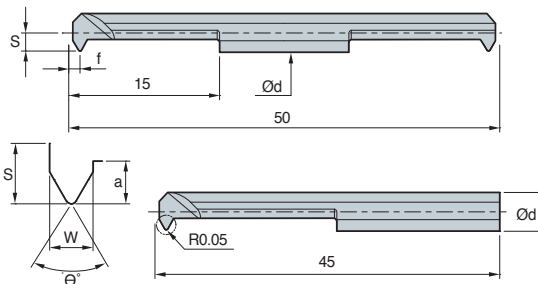
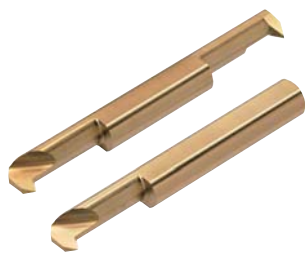


Twin Edge			Single Edge			Ød	Min.dia. of machining	Overall length		Detailed cutting edge		
Designation	Coated	Uncoated	Designation	Coated	Uncoated			L		W	a	S
	PC30M	Z12M		PC30M	Z12M			Double ended	Single ended			
MGFR	0400-1.0		MGFR	0400-1.0-1		4.0	6.0	50	45	1.0	1.5	1.8
	0400-1.5			0400-1.5-1						1.5	2.0	
	0600-1.0			0600-1.0-1		6.0	8.5	50	45	1.0	1.5	2.9
	0600-1.5			0600-1.5-1						1.5	2.0	
	0600-2.0	●		0600-2.0-1		8.0	10.4	70	60	2.0	2.5	3.9
	0800-1.0	●		0800-1.0-1						1.0	1.5	
	0800-1.5	●		0800-1.5-1						1.5	2.0	
	0800-2.0	●		0800-2.0-1						2.0	2.5	
	0800-2.5	●		0800-2.5-1	●	10.0	12.4	80	70	2.5	3.0	4.9
	0800-3.0	●		0800-3.0-1	●					3.0	3.5	
				0800-3.5-1	●					3.5	4.0	
	1000-2.0			1000-2.0-1						2.0	2.5	
	1000-2.5			1000-2.5-1						2.5	3.0	
	1000-3.0			1000-3.0-1						3.0	3.5	
	1000-3.5			1000-3.5-1						3.5	4.0	
	1000-4.0			1000-4.0-1						4.0	4.5	
1000-4.5		1000-4.5-1		4.5	5.0							

● : Stock item



Threading

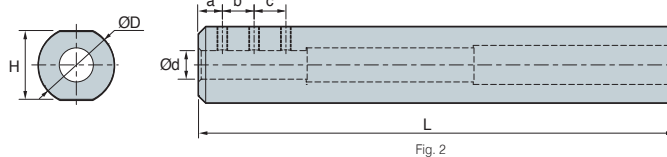
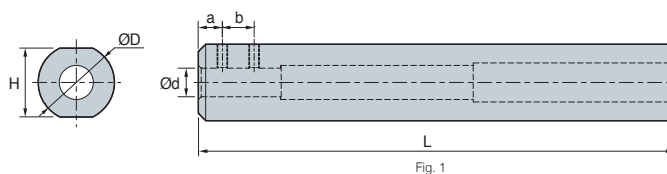


Twin Edge			Single Edge			Ød	Min.dia. of machining	Threading			Detailed cutting edge		
Designation	Coated PC30M	Uncoated Z12M	Designation	Coated PC30M	Uncoated Z12M			W	Pitch / tpi	θ°	S	a	f
MTR	0315-F60		MTR	0315-F60-1		3.0	3.3	1.2	0.5~1.0	60°	1.45	1.2	0.6
	0415-F60			0415-F60-1		4.0	4.3				1.95		
	0615-A60			0615-A60-1		6.0	6.2				2.0		
	0315-F55			0315-F55-1		3.0	3.3	1.2	48~24	55°	1.45	1.2	0.6
	0415-F55			0415-F55-1		4.0	4.3				1.95		
	0615-A55			0615-A55-1		6.0	6.2				2.0		

● : Stock item

SLEEVE

SL (SLEEVE)



(mm)

Designation	Ød	a	b	c	ØD	H	L	Screw	Wrench	Fig.
SL1603	3	5	-	-	16	14	100	M3	HW15L	1
SL1604	4	5	6	-	16	14	100	M4	HW20L	
SL1605	5	5	8	-	16	14	100	M4	HW20L	
SL1606	6	5	6	6	16	14	100	M4	HW20L	2
SL1607	7	5	6	8	16	14	100	M4	HW20L	
SL2008	8	5	10	10	20	18	100	M4	HW20L	2
SL2010	10	5	10	10	20	18	100	M5	HW20L	

* Fine tolerance and surface roughness

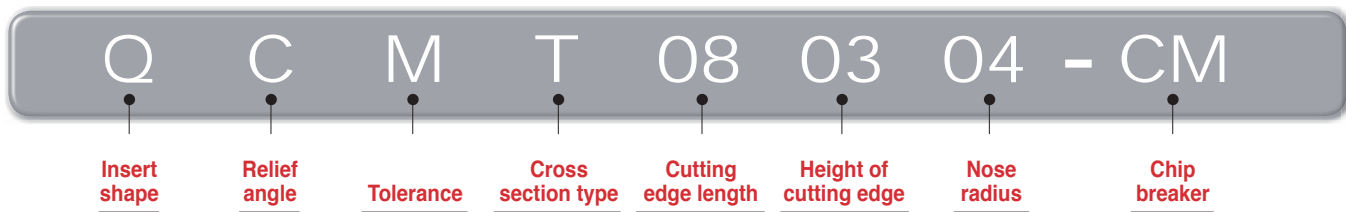


Multi Turn

Holder code system



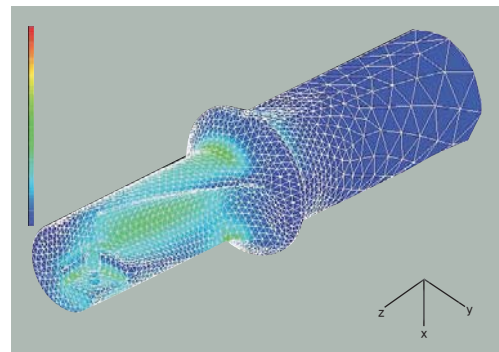
Insert code system



Tool design by FEM analysis

- Double coolant system
- Excellent chip evacuation and tool life
- Ideal flute design minimizing stress concentrations

※ Notice: Clamp an insert shown as in the picture



• Minimized stress during cutting, prevented damage from vibration and longer tool life
Optimized design

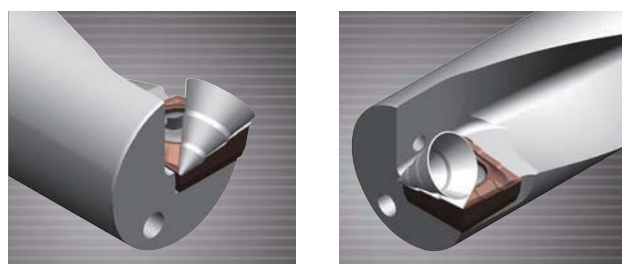
Creative stepping cutting edge

Drilling edge (Drilling) Turning edge (Internal, external and face turning)

Multi-Turn

L1 L2

- Special chip formed by edge geometry better chip
- evacuation due to small radius width of chip curl

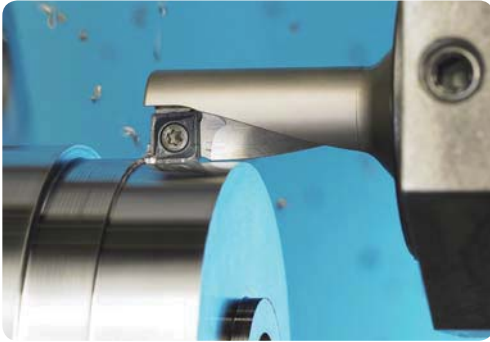


Comparison	Multi turn	Competitor A	Competitor B
v_{fn} (mm/rev) = 0.08			
Feed f_n (mm/rev) = 0.10			
Chip width (rate)	80%	100%	120%

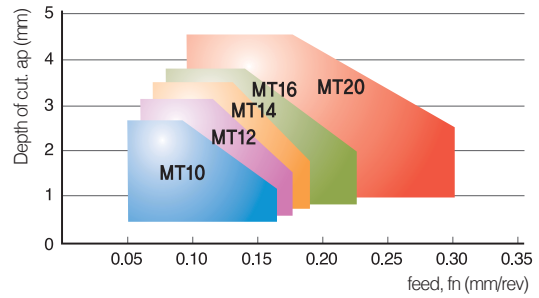
B Technical Information for Multi Turn

🔗 User's guide

External / Internal turning



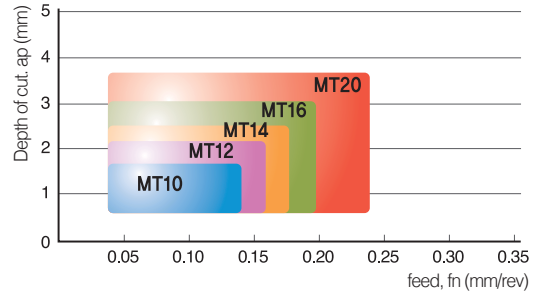
● Application range



Facing



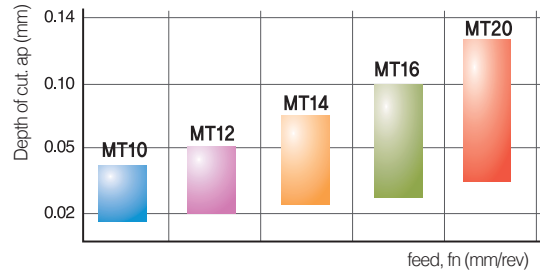
● Application ranges of facing



Drilling

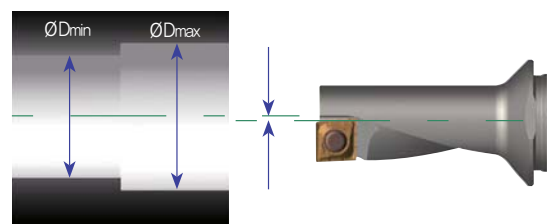


● Drilling feed range by designation



Offset (Diameter compensation)

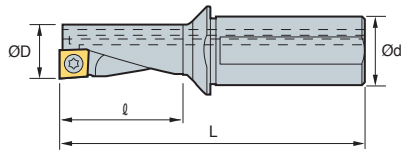
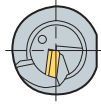
Disignation	Machined diameter (mm)	ØDmin (mm)	ØDmax (mm)
MT10R/L-2.25D	10	9.85	10.35
MT12R/L-2.25D	12	11.85	12.35
MT14R/L-2.25D	14	13.85	14.35
MT16R/L-2.25D	16	15.85	16.35
MT20R/L-2.25D	20	19.85	20.35
MT25R/L-2.25D	25	24.85	25.35
MT32R/L-2.25D	32	31.85	32.35



Drill diameter is adjustable by the offset compensation



MT (Multi-Turn)



Designation		ØD	Ød	l	L	Insert	Screw	Wrench
MT	10R/L-2.25D	10	12	22.5	69.5	QC□T050204	FTNA0204S	TW06P
	12R/L-2.25D	12	16	27.0	78.0	QC□T060204	FTNA02205S	TW06P
	14R/L-2.25D	14	16	31.5	83.5	QC□T070304	FTKA02555	TW07P
	16R/L-2.25D	16	20	36.0	94.0	QC□T080304	FTNA0306	TW09P
	20R/L-2.25D	20	25	45.0	111.0	QC□T10T304	FTNA03508	TW15P
	25R/L-2.25D	25	32	56.5	130.0	QC□T130408	FTNC04509	TW20S
	32R/L-2.25D	32	40	72.0	160.0	QC□T170508	FTNC04511	TW20S

(mm)

Insert

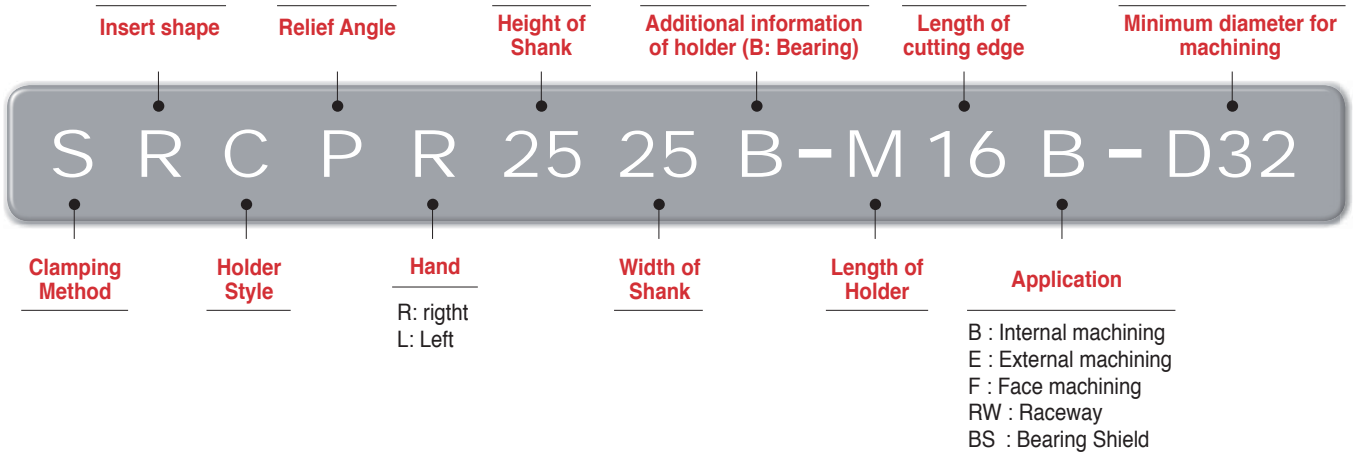
Picture	Designation	Coated				Uncoated		Dimensions (mm)					Configuration
		NC3120	NC3225	NC6315	PC5300	H01	H05	l	d	t	r	Ød ₁	
	QCMT 050204-CM		●	●	●			5.0	5.4	2.10	0.4	2.3	
	060204-CM		●	●	●			6.0	6.4	2.38	0.4	2.5	
	070304-CM		●	●	●			7.0	7.4	3.18	0.4	2.8	
	080304-CM		●	●	●			8.0	8.4	3.18	0.4	3.4	
	10T304-CM		●		●			10.0	10.4	3.97	0.4	4.0	
	130408-CM		●		●			12.7	13.5	4.76	0.8	5.5	
	QCMT 170508-CM		●	●	●			16.7	17.5	5.56	0.8	5.5	
	QCGT 050204-CA					●		5.0	5.4	2.10	0.4	2.3	
	060204-CA					●		6.0	6.4	2.38	0.4	2.5	
	070304-CA					●		7.0	7.4	3.18	0.4	2.8	
	080304-CA					●		8.0	8.4	3.18	0.4	3.4	
	10T304-CA					●		10.0	10.4	3.97	0.4	4.0	
130408-CA					●		12.7	13.5	4.76	0.8	5.5		
170508-CA					●		16.7	17.5	5.56	0.8	5.5		

● : Stock item

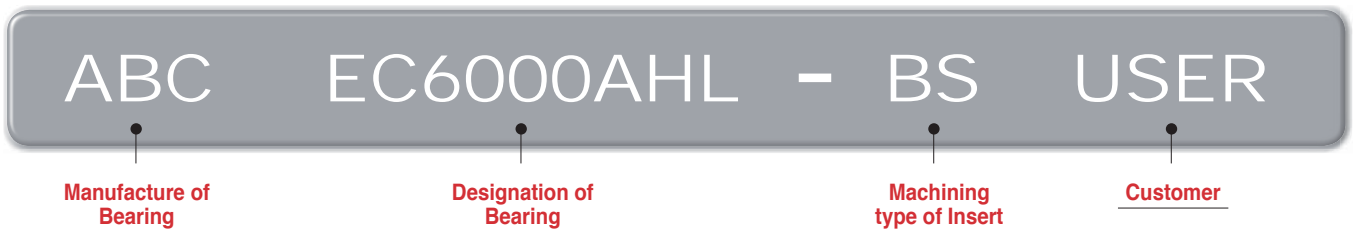


Bearing Solution

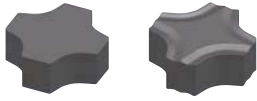
Holder code system



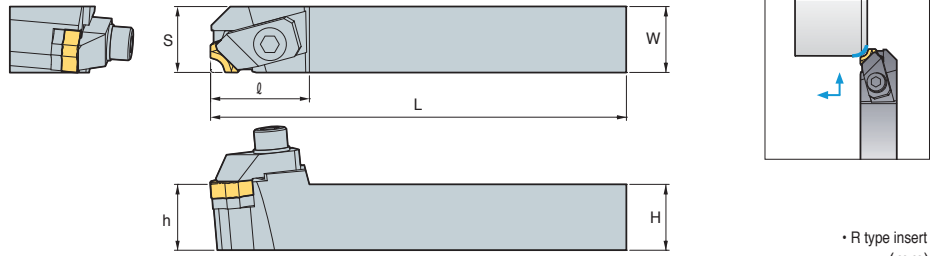
Insert code system for race way and bearing shield machining



CMSN...F Type



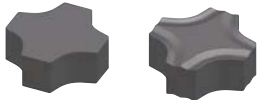
MC12□□ MC12□□-BR
MC15□□



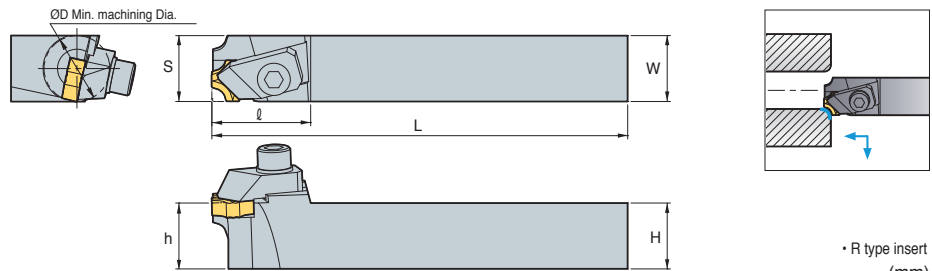
• R type insert (mm)

Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Wrench	
CMSNR/L	2020B-L12F	20	20	140	21	20	33	MC12□□	CH6R/L1B	BHA0620	SX42CB	SS0308	HW50L
	2023B-L12F	20	23	140	24	20	33	MC12□□-BR					
	2525B-L15F	25	25	140	26	25	35	MC15□□					

CMSN...B Type



MC12□□ MC12□□-BR



• R type insert (mm)

Designation	ØD	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Wrench					
CMSNR/L	2020B-L12B-D28	28	20	20	140	21	20	33	MC12□□	CH6R/L1B	BHA0620	SX42CB	SS0308	HW50L				
	2525B-L12B-D28	28	25	25	140	26	25	33										
	1620B-L12B-D20	20	16	20	140	18	16	32							MC12□□-BR	-	-	-
	2023B-L12B-D28	28	20	23	140	24	20	33							CH6R/L1B	BHA0620	SX42CB	SS0308

Insert

Application	Picture	Designation	Cermet	Dimensions (mm)					Configuration
			CN2000	R	θ°	B	d	t	
R-Chamfering ^{3D}		MC0906		0.6	12	1.8	9.525	3.18	
		MC0910		1.0	12	2.4	9.525	3.18	
		MC1206		0.6	18	1.8	12.7	4.76	
		MC1210		1.0	18	2.4	12.7	4.76	
		MC1212		1.2	18	2.2	12.7	4.76	
		MC1215		1.5	18	3.0	12.7	4.76	
		MC1220		2.0	18	3.8	12.7	4.76	
		MC1225		2.5	18	2.8	12.7	4.76	
		MC1525		2.5	18	4.0	15.875	5.56	
		MC1530		3.0	18	4.7	15.875	5.56	
	MC1540		4.0	20	4.7	15.875	5.56		
		MC1206-BR		0.6	18	1.8	12.7	4.76	
		MC1210-BR		1.0	18	2.4	12.7	4.76	
		MC1212-BR		1.2	18	2.2	12.7	4.76	
		MC1215-BR		1.5	18	3.0	12.7	4.76	
		MC1220-BR		2.0	18	3.2	12.7	4.76	
MC1230-BR			3.0	18	3.7	12.7	4.76		
MC1235-BR		3.5	18	3.9	12.7	4.76			

● : Stock item

Special order-form

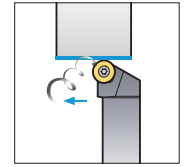
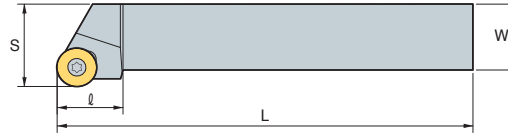
	Designation	CN1000	CN2000	R	θ°	B	d	t	Configuration
	MC...								



SRGP...E Type



RPGT1203M0
RPGT1604M0
RPGT2004M0



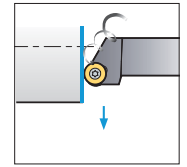
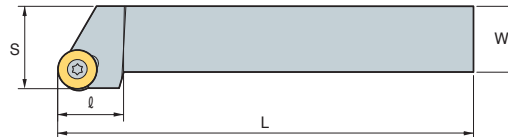
• R type insert
(mm)

Designation	H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench
SRGPR/L	2020B-L12E	20	20	140	25	20	RPGT1203M0	FTKA0410	SR1203S	SHXN0609F	TW15P
	2020B-L16E	20	20	140	25	20	RPGT1604M0	FTNA0513	SR16T3S	SHXN0712F	TW20P
	2525B-L20E	25	25	140	32	25	RPGT2004M0	FTNA0513	SR20T3S	SHXN0712F	TW20P

SRGP...F Type



RPGT1203M0
RPGT1604M0
RPGT2004M0



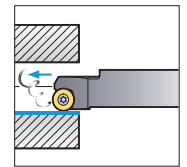
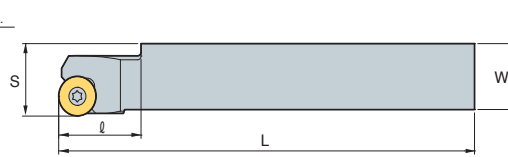
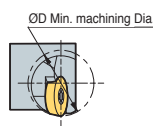
• R type insert
(mm)

Designation	H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench
SRGPR/L	2020B-L12F	20	20	140	25	20	RPGT1203M0	FTKA0410	SR1203S	SHXN0609F	TW15P
	2020B-L16F	20	20	140	25	20	RPGT1604M0	FTNA0513	SR16T3S	SHXN0712F	TW20P
	2525B-L20F	25	25	140	32	25	RPGT2004M0	FTNA0513	SR20T3S	SHXN0712F	TW20P

SRCP...B Type



RPGT0802M0
RPGT1203M0
RPGT1604M0



• R type insert
(mm)

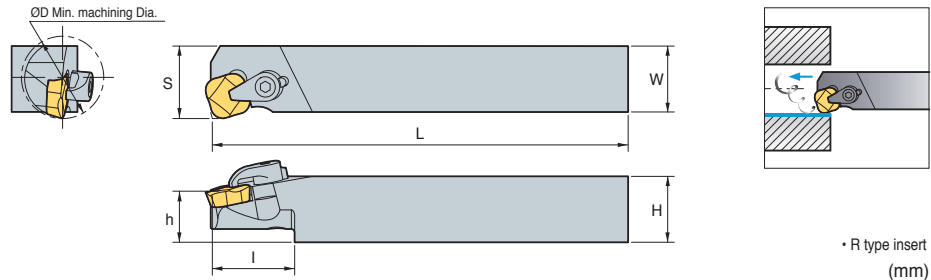
Designation	ØD	H	W	L	S	h	ℓ	Insert	Screw	Wrench
SRCPR/L	2020B-L08B-D12	12	20	20	140	21.5	15.5	RPGT0802M0	FTKA0305	TW09P
	1919B-L12B-D15	15	19	19	140	21	16	RPGT1203M0	FTNA0408	TW15P
	2020B-L12B-D20	20	20	20	140	22	15.5	RPGT1203M0	FTNA0408	TW15P
	2525B-L16B-D32	32	25	25	140	27	20	RPGT1604M0	FTKA0510	TW20P



CSKP...B Type



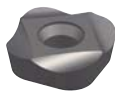
SPGR120440L



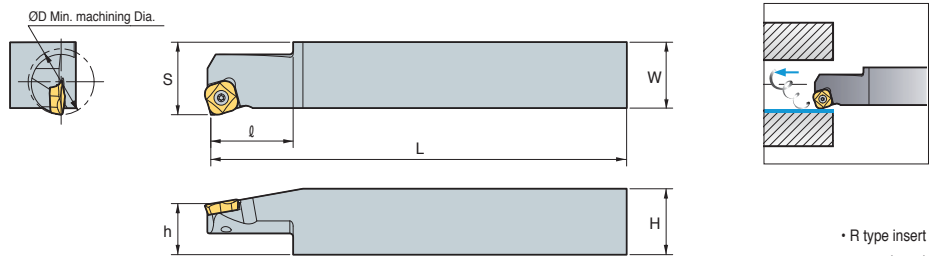
• R type insert (mm)

Designation	ØD	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Wrench
CSKPR/L 2022B-L12B-D30	30	20	22	140	27	20	37	SPGR120440R/L	CH5R1	CHX0510	HW30L

SSKP...B Type



SPGH090330L



• R type insert (mm)

Designation	ØD	H	W	L	S	h	ℓ	Insert	Screw	Wrench
SSKPR/L 2020B-L09B-D12	12	20	20	140	21.7	19	20	SPGH090330R/L	FTNA0307	TW09P
2020B-L09B-D13	13	20	20	140	21.7	19	20			
2020B-L09B-D20	20	20	20	140	21.7	19	20			

Insert

Application	Picture	Designation	Cermet	Dimensions (mm)				Configuration	
			CN2000	r	d	d ₁	t		
Internal turning		RPGT0802M0		-	8	3.4	2.38		
		RPGT1203M0		-	12	4.4	3.18		
		RPGT1604M0		-	16	5.5	4.76		
		RPGT2004M0		-	20	5.5	4.76		
		SPGR120440L			4.0	12..7	-	4.76	
		SPGH090330L			3.0	9.525	3.4	3.18	

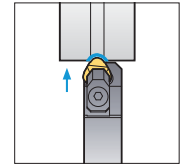
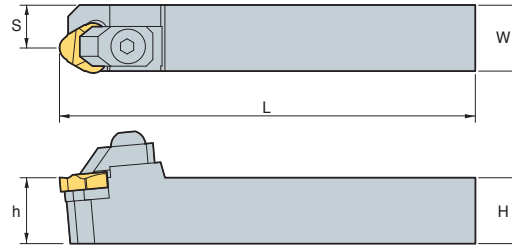
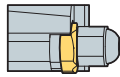


B Bearing Solution

CKFN...RW Type



KORIC



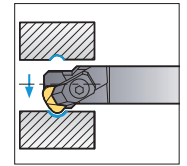
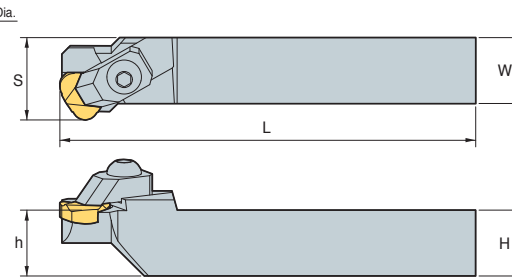
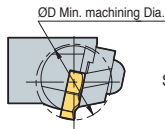
• R type insert (mm)

Designation	H	W	L	S	h	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Wrench
CKFNRL 2020B-L22RW	20	20	140	12.5	20	KORIC2204R/L	CH6N1B	BHA0620	ST42CB	SS0408	HW50L
2022B-L27RW	20	22	140	13	20	KORIC2704R/L	CH8R/L1B	BHA0820	ST52CB	SS0408	HW60L
2025B-L33RW	20	25	140	16	20	KORIC3306R/L	CH8R/L1B	BHA0820	ST62CB	SS0408	HW60L
2533B-L44RW	25	33	140	21	25	KORIC4408R/L	CH8R/L1B	BHA0820	ST82CB	SS0408	HW60L

CKGN...RW Type



KORIC



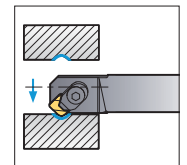
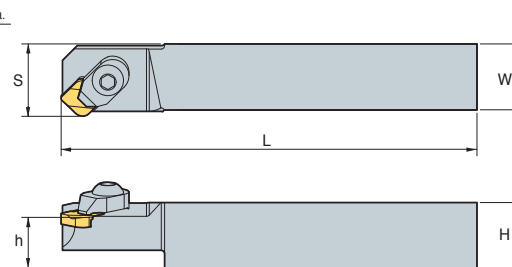
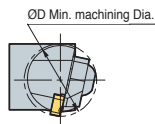
• R type insert (mm)

Designation	ØD	H	W	L	S	h	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Wrench
CKGNRL 2022B-L22RW-D23	23	20	22	140	30	20	KORIC2204R/L	CH6R/L3B	BHA0620	ST42CB	SS0408	HW50L
2022B-L27RW-D29	29	20	22	140	34	20	KORIC2704R/L	CH6R/L7B	BHA0620	ST52CB	SS0408	HW50L
2025B-L33RW-D38	38	20	25	140	33	20	KORIC3306R/L	CH6R/L5B	BHA0620	ST62CB	SS0408	HW50L
2528B-L38RW-D50	50	25	28	140	46	25	KORIC3806R/L	CH8R/L2B	BHA0820	ST72CB	SS0408	HW60L
2528B-L44RW-D52	52	25	28	140	50	25	KORIC4408R/L	CH8R/L2B	BHA0820	ST82CB	SS0408	HW60L

CSGN...RW Type



SNGN

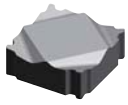


• R type insert (mm)

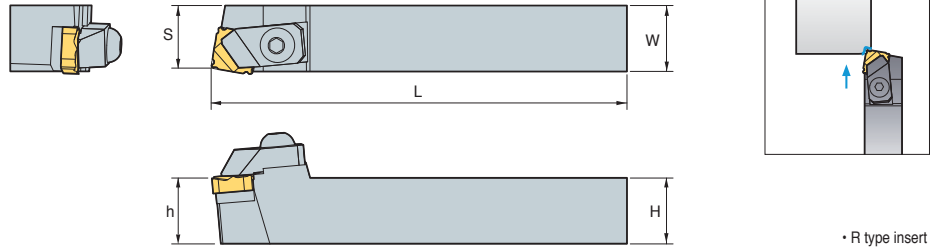
Designation	ØD	H	W	L	S	h	Insert	Clamp	Clamp Screw	Wrench
CSGNRL 2020B-L09RW-D17	17	20	20	140	22	20	SNGN0903WR/L	CH5R1	CHX0510	HW30L
2020B-L09RW-D22	22	20	20	140	22	20	SNGN0903WR/L	CH5R1	CHX0510	HW30L



CSBN...BS Type



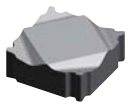
SNGN



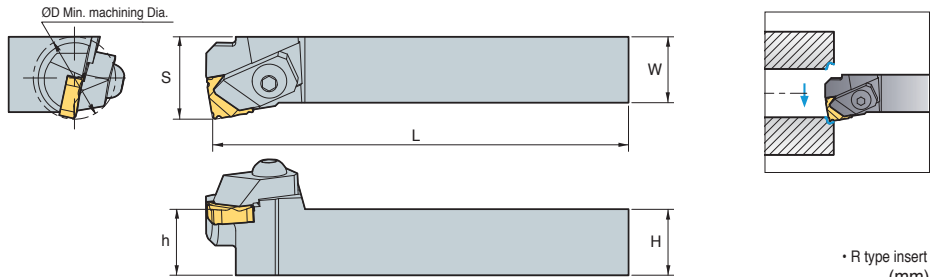
• R type insert (mm)

Designation	H	W	L	S	h	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Wrench
CSBNR/L 2023B-L12BS	20	23	140	21	20	SNGN1204SR/L	CH6N1B	BHA0620	SS42CB	SS0308	HW50L
2525B-L15BS	25	25	140	23	25	SNGN1504SR/L	CH6N1B	BHA0620	SS52CB	SS0408	HW50L

CSKN...BS Type



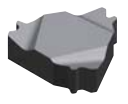
SNGN



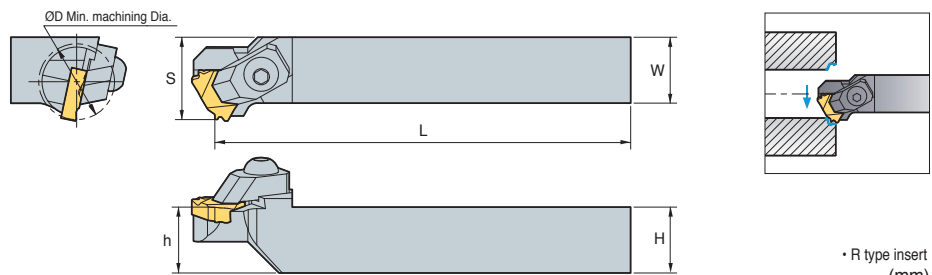
• R type insert (mm)

Designation	ØD	H	W	L	S	h	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Wrench
CSKNR/L 1622B-L09BS-D14	14	16	22	140	16	16	SNGN0903SR/L	CH6R/L2B	BHA0620	-	-	HW50L
2022B-L12BS-D26	26	20	22	140	27	20	SNGN1204SR/L	CH6R/L1B	BHA0620	SS42CB	SS0308	HW50L
2525B-L15BS-D35	35	25	25	140	31	25	SNGN1504SR/L	CH6R/L3B	BHA0620	SS52CB	SS0408	HW50L

CTGN...BS Type



TNGN

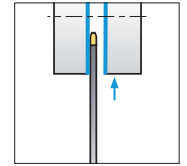
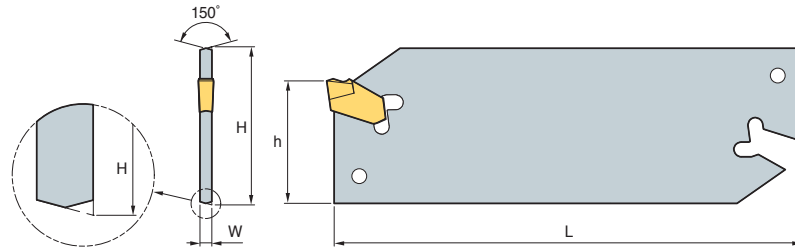


• R type insert (mm)

Designation	ØD	H	W	L	S	h	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Wrench
CTGNR/L 2021B-K22BS-D25	25	20	21	140	30	20	TNGN2204SR/L	CH6R/L7B	BHA0620	ST42CB	SS0408	HW50L



SPB-S Type



(mm)

Designation	H	W	L	h	Insert	Wrench	
SPB	1626-S	26	1.3	110	21	SP160	SW15S
	1632-S	32	1.3	150	25		
	1826-S	26	1.5	110	21	SP180	
	1832-S	32	1.5	150	25		
	226-S	26	1.6	110	21	SP200, SP200R/L	
	232-S	32	1.6	150	25		
	326-S	26	2.4	110	21	SP300, SP300R/L	
	332-S	32	2.4	150	25		
	426-S	26	3.2	110	21	SP400, SP400R/L	
	432-S	32	3.2	150	25		
	526-S	26	4.0	110	21	SP500, SP500R/L	
	532-S	32	4.0	150	25		
	626-S	26	5.2	110	21	SP600, SP600R/L	
	632-S	32	5.2	150	25		

Insert

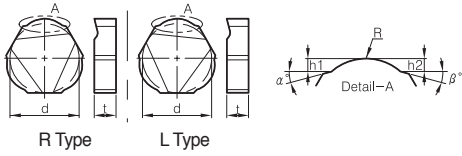
Application	Picture	Designation	Coated										Un-coated	Dimensions (mm)			Configuration
			NCM325	NC3120	NC3225	NC3030	NC5330	PC3035	PC8105	PC8110	PC5300	PC9030	STA30	W	l	r	
Parting tools		SP 160												1.6	7.8	0.16	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>R type</p> </div> <div style="text-align: center;"> <p>Standard</p> </div> </div> <div style="margin-top: 10px;"> <p>L type</p> </div> <div style="margin-top: 10px;"> </div>
		SP 180												1.8	9.3	0.16	
		SP 200	●		●	●	●			●	●	●		2.2	9.3	0.2	
		SP 200R					●					●		2.2	9.3	0.2	
		SP 200L										●		2.2	9.3	0.2	
		SP 300	●	●	●	●	●			●	●	●	●	3.1	11.3	0.2	
		SP 300R	●		●	●				●				3.1	11.3	0.2	
		SP 300L				●								3.1	11.3	0.2	
		SP 400	●	●	●	●	●			●	●	●		4.1	11.3	0.25	
		SP 400R				●				●				4.1	11.3	0.25	
		SP 400L				●								4.1	11.3	0.25	
		SP 500	●			●	●			●	●			5.1	11.4	0.3	
		SP 500R												5.1	11.4	0.3	
		SP 500L												5.1	11.4	0.3	
		SP 600				●	●				●			6.4	11.4	0.35	
		SP 600R												6.4	11.4	0.35	
SP 600L												6.4	11.4	0.35			

● : Stock item



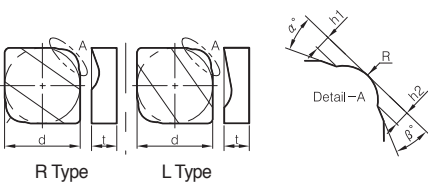
Machining Race-way

KORIC... R/L Type



		d	t	R	h ₁	h ₂	α°	β°
KORIC	2204R/L	12.7	4.76					
	2704R/L	15.875	4.76					
	3306R/L	19.05	6.0					
	3806R/L	22.225	6.0					
	4408R/L	25.4	8.0					

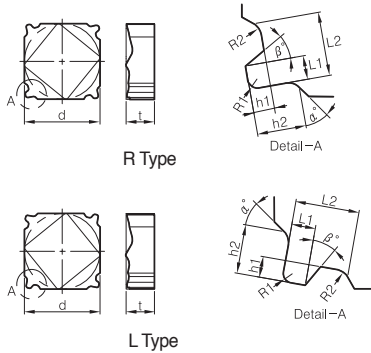
SNGN... WR/L Type



		d	t	R	h ₁	h ₂	α°	β°
SNGN	0903WR/L	9.525	3.18					
	1504WR/L	15.875	4.76					
	1905WR/L	19.05	5.56					

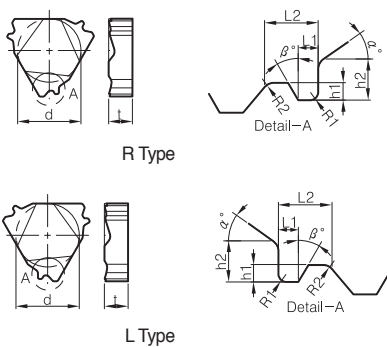
Machining for Bearing shield

KORIC... R/L Type



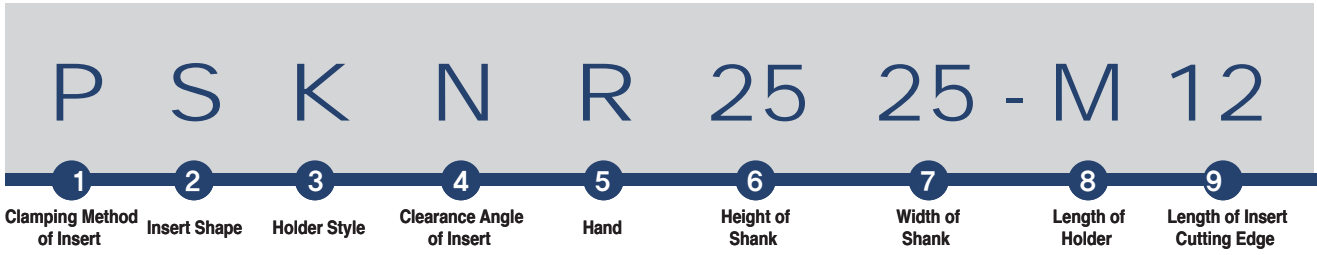
		d	t	L ₁	L ₂	h ₁	h ₂	R ₁	R ₂	α°	β°
SNGN	0903SR/L	9.525	3.18								
	1204SR/L	12.7	4.76								
	1504SR/L	15.875	4.76								

TNGN...SR/L Type



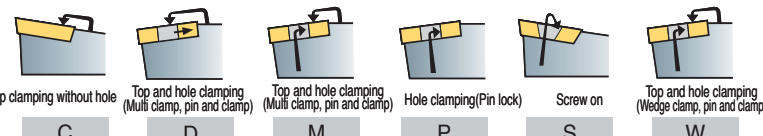
		d	t	L ₁	L ₂	h ₁	h ₂	R ₁	R ₂	α°	β°
TNGN	02204SR/L	12.7	4.76								

B External tool Holder Code System(ISO)



1 Clamping Method of Insert

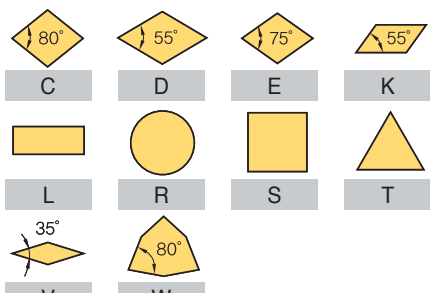
P S K N R 25 25 - M 12



Top clamping without hole (C) Top and hole clamping (Multi clamp, pin and clamp) (D) Top and hole clamping (Multi clamp, pin and clamp) (M) Hole clamping (Pin lock) (P) Screw on (S) Top and hole clamping (Wedge clamp, pin and clamp) (W)

2 Insert Shape

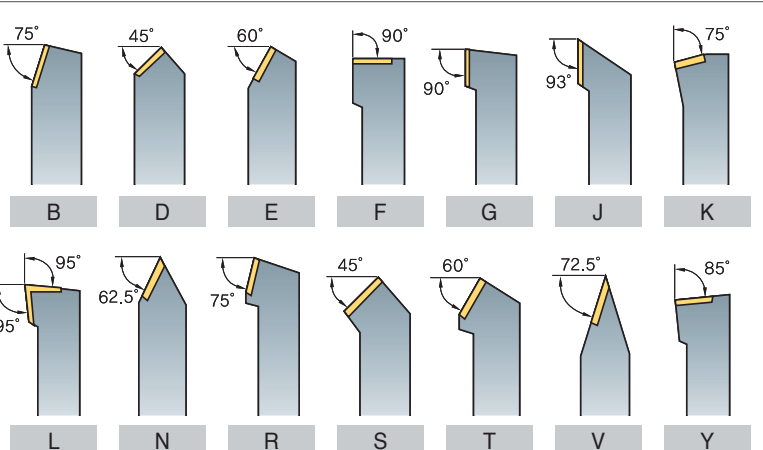
P S K N R 25 25 - M 12



C (80°) D (55°) E (75°) K (55°)
 L R S T
 V (35°) W (80°)

3 Holder Style

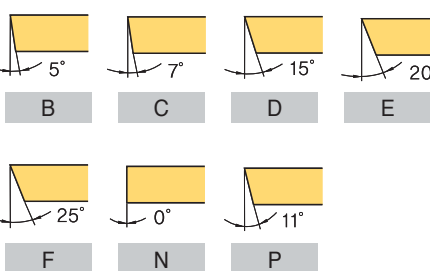
P S K N R 25 25 - M 12



B (75°) D (45°) E (60°) F (90°) G (90°) J (93°) K (75°)
 L (95°) N (62.5°) R (75°) S (45°) T (60°) V (72.5°) Y (85°)

4 Clearance Angle of Insert

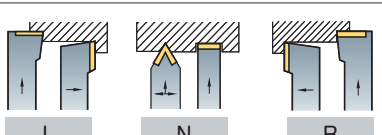
P S K N R 25 25 - M 12



B (5°) C (7°) D (15°) E (20°)
 F (25°) N (0°) P (11°)

5 Hand

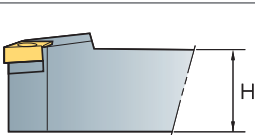
P S K N R 25 25 - M 12



L N R

6 Height of Shank

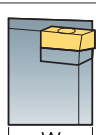
P S K N R 25 25 - M 12



H

7 Width of Shank

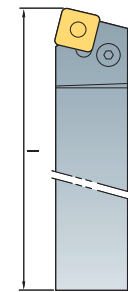
P S K N R 25 25 - M 12



W

8 Length of Holder

P S K N R 25 25 - M 12

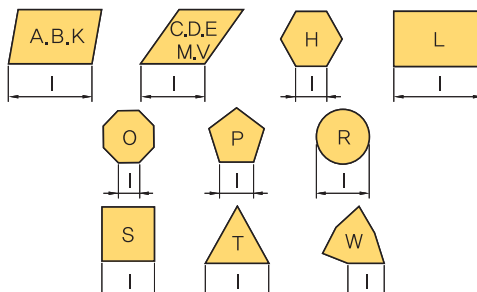


A - 32	H - 100	Q - 180
B - 40	J - 110	R - 200
C - 50	K - 125	S - 250
D - 60	L - 140	T - 300
E - 70	M - 150	U - 350
F - 80	N - 160	V - 400
G - 90	P - 170	W - 450

X-Special Item

9 Length of Insert Cutting Edge

P S K N R 25 25 - M 12



l



Double Clamp System

Cutting Shape										
Designation	DCBNR/L	DCKNR/L	DCLNR/L	DDJNR/L	DSBNR/L	DSDNN	DSKNR/L	DSSNR/L	DTFNR/L	DTGNR/L
Approach angle	75°	75°	95°	93°	75°	45°	75°	45°	90°	90°
Page	B154	B154	B154	B155	B155	B156	B156	B156	B157	B157
Turning	●		●	●	●	●		●		●
Copying				●						
Facing		●	●				●	●	●	
Chamfering						●				
Back turning			●	●						
Cutting Shape										
Designation	DVJNR/L	DVVNN	DWLNR/L							
Approach angle	93°	72.5°	95°							
Page	B157	B158	B158							
Turning	●	●	●							
Copying	●	●								
Facing			●							
Chamfering										
Back turning	●		●							

Lever Lock System

Cutting Shape										
Designation	PCBNR/L	PCKNR/L	PCLNR/L	PDJNR/L	PDNNR/L	PRDCN	PRGCR/L	PSBNR/L	PSDNN	PSKNR/L
Approach angle	75°	75°	95°	93°	62.5°	-	-	75°	45°	75°
Page	B159	B159	B160	B160	B161	B162	B162	B163	B163	B164
Turning	●	●	●	●	●	●	●	●	●	
Copying				●	●	●	●			
Facing			●							●
Chamfering										
Back turning			●	●						
Cutting Shape										
Designation	PSSNR/L	PTFNR/L	PTGNR/L	PTTNR/L	PWLNR/L					
Approach angle	45°	90°	90°	60°	95°					
Page	B164	B165	B165	B166	B166					
Turning	●		●	●	●					
Copying										
Facing	●	●			●					
Chamfering				●						
Back turning					●					

B Index for External Holder

Wedge Clamp System

Cutting Shape										
Designation	WTENN	WTJNR/L	WTXNR/L	WWLNR/L						
Approach angle	60°	93°	105°	95°						
Page	B167	B167	B167	B168						
Turning	●	●	●	●						
Copying	●	●	●							
Facing				●						
Chamfering										
Back turning		●	●	●						

Clamp on System

Cutting Shape										
Designation	CKJNR/L	CKNNR/L	CSDPN	CSKPR/L	CTFPR/L	CTGPR/L				
Approach angle	93°	62.5°	45°	75°	90°	90°				
Page	B169	B169	B169	B170	B170	B170				
Turning	●	●	●			●				
Copying	●	●								
Facing				●	●					
Chamfering										
Back turning	●									

Multi Lock System

Cutting Shape										
Designation	MCKNR/L	MCLNR/L	MCMNN	MCRNR/L	MDJNR/L	MDNNN	MDQNR/L	MSBNR/L	MSDNN	MSKNR/L
Approach angle	75°	95°	50°	75°	93°	62.5°	107.5°	75°	45°	75°
Page	B171	B171	B171	B172	B172	B172	B173	B173	B173	B174
Turning		●	●	●	●	●	●	●	●	
Copying					●	●	●			
Facing	●	●								●
Chamfering										
Back turning		●			●		●			

Cutting Shape										
Designation	MSRNR/L	MSSNR/L	MTENN	MTFNR/L	MTGNR/L	MTJNR/L	MVJNR/L	MVQNR/L	MVVNN	MWLNR/L
Approach angle	75°	45°	60°	90°	90°	93°	93°	117.5°	72.5°	95°
Page	B174	B175	B175	B175	B176	B176	B176	B177	B177	B177
Turning	●	●	●		●	●	●	●	●	●
Copying			●			●	●	●	●	
Facing		●		●		●				●
Chamfering										
Back turning						●	●	●		●



Screw on System

Cutting Shape										
Designation	SCACR/L	SCLCR/L	SDACR/L	SDJCR/L	SDNCN	SRDCN	SRGCR/L	SSBCR/L	SSDCN	SSKCR/L
Approach angle	90°	95°	90°	93°	62.5°	-	-	75°	45°	75°
Page	B178	B178	B178	B179	B179	B179	B180	B180	B180	B181
Turning	●	●	●	●	●	●	●	●	●	
Copying			●	●	●	●	●			
Facing		●								●
Chamfering										
Back turning		●		●						

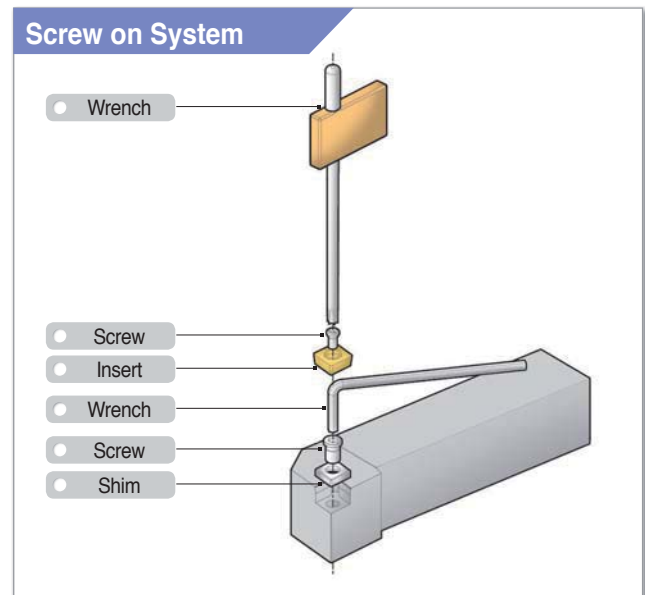
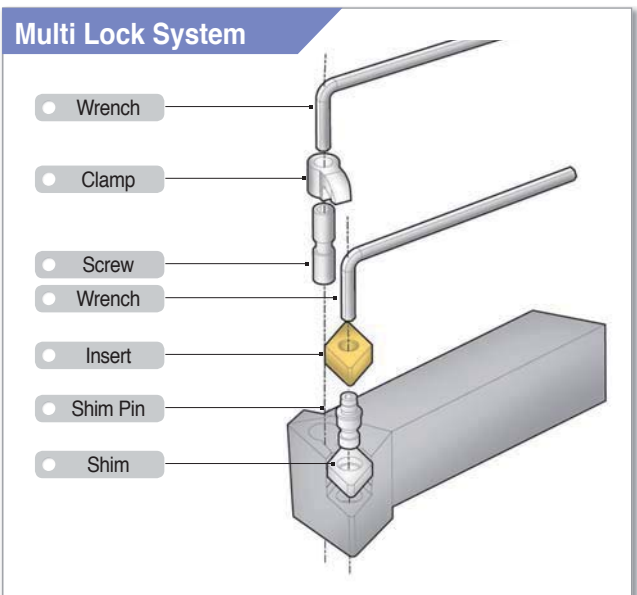
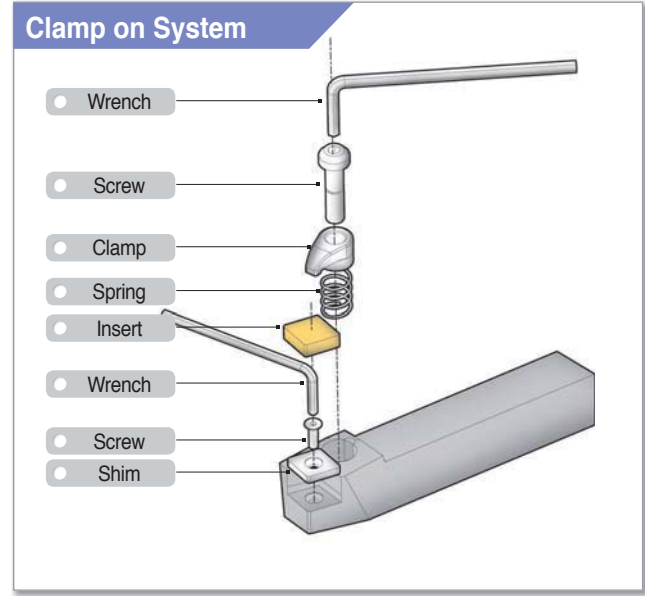
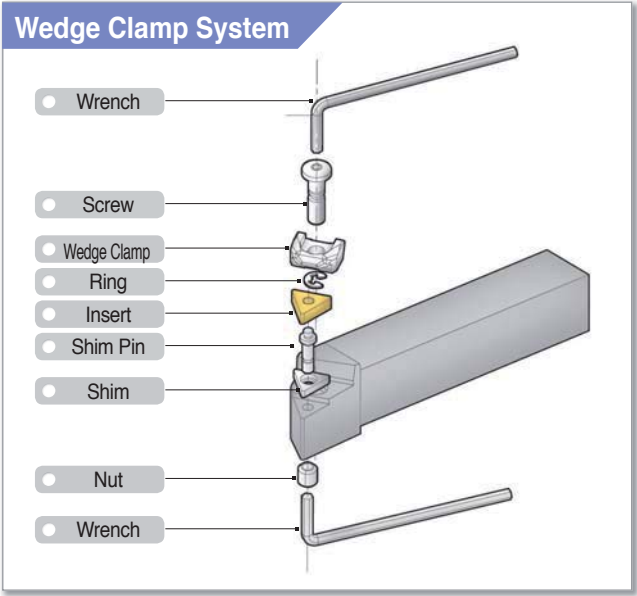
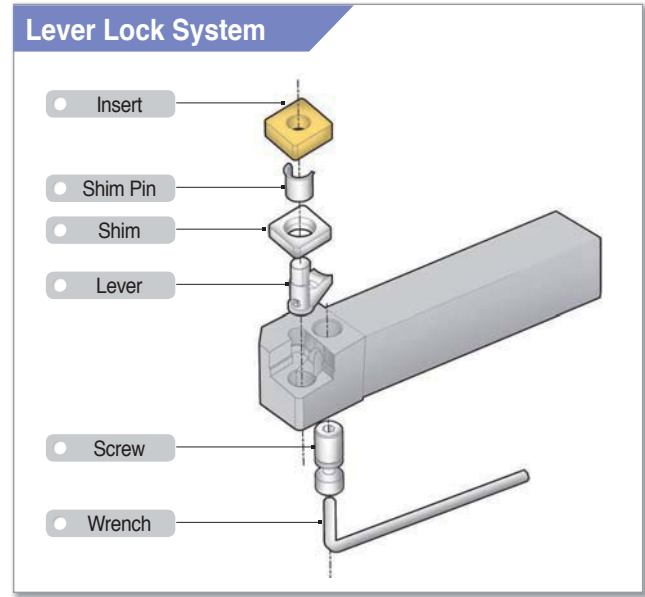
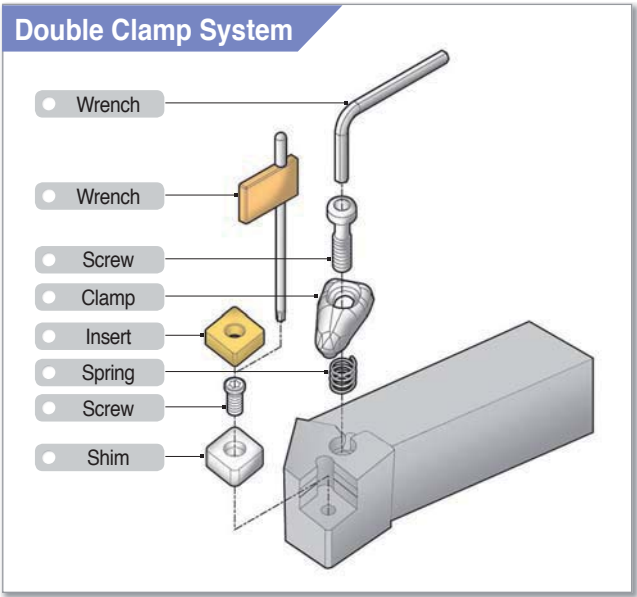
Cutting Shape										
Designation	SSSCR/L	STACR/L	STFCR/L	STGCR/L	STTCR/L	SVABR/L	SVHBR/L	SVJBR/L	SVJCR/L	SVVBN
Approach angle	45°	90°	90°	90°	60°	90°	107.5°	93°	93°	72.5°
Page	B181	B181	B182	B182	B182	B183	B183	B183	B184	B184
Turning	●	●		●	●	●	●	●	●	●
Copying						●	●	●	●	●
Facing	●		●							
Chamfering										
Back turning						●	●	●	●	

Cutting Shape										
Designation	SVVCN									
Approach angle	72.5°									
Page	B184									
Turning	●									
Copying	●									
Facing										
Chamfering										
Back turning										

Ceramic Holder

Cutting Shape										
Designation	CCNLR/L	CRDNN	CRGNR/L	CSDNN	CSKNR/L	CTFNR/L	CTGNR/L			
Approach angle	95°	-	-	45°	75°	90°	90°			
Page	B185	B185	B185	B185	B186	B186	B186			
Turning	●	●	●	●			●			
Copying			●							
Facing	●				●	●				
Chamfering										
Back turning	●									

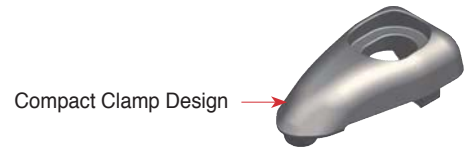
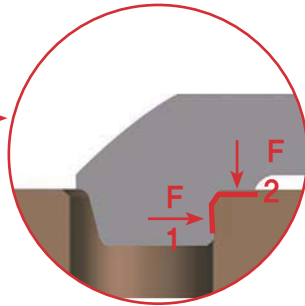
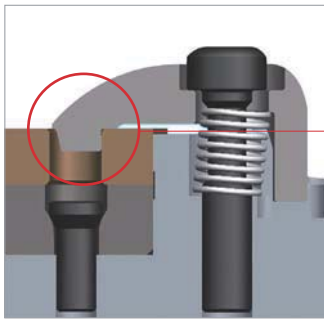
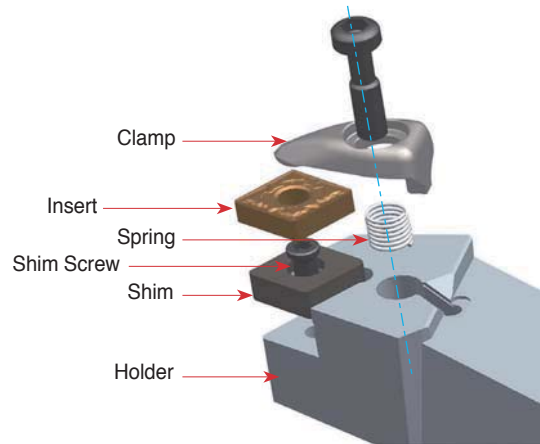
Instruction of External Holder



Double Clamp System

Stable clamping with double clamp system

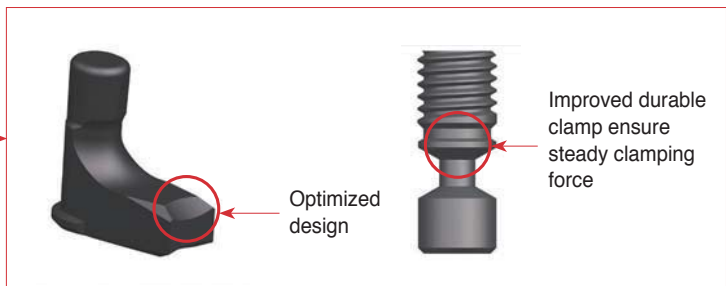
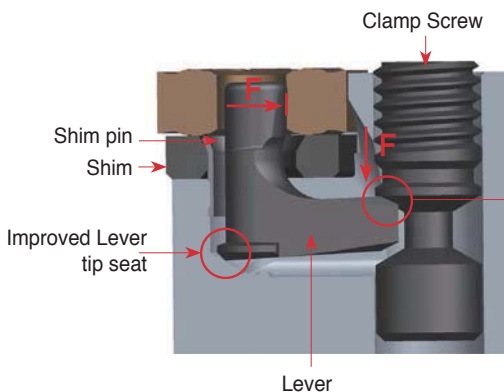
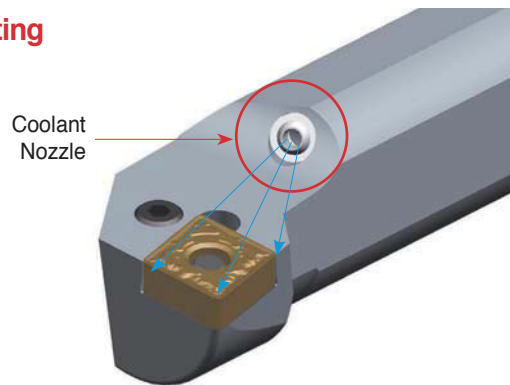
- Features**
- Simple and powerful clamping system operated by only a single clamp screw
 - The powerful double-clamping system (upper and internal) is suitable for machining in very tough cutting conditions
 - The holder offers precision due to the special design in the rear of the clamp
 - Compact and optimized design for avoiding chip interference with a powerful clamp



Lever Lock System

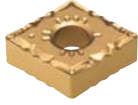
Excellent clamping stability and rigidity compared to existing lever-lock holders and boring bars

- Features**
- The holder offers precision due to the special design due to the improved Lever tip seat
 - The durability of parts has been improved
 - Superior tool life due to powerful clamping system and optimized design of part
 - Part designation on holder body makes it easy to check the right part description for each product
 - Adjustable coolant nozzle gives the option to change the direction of the coolant to optimize chip control and improve tool life

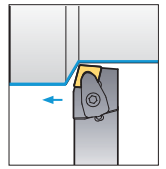
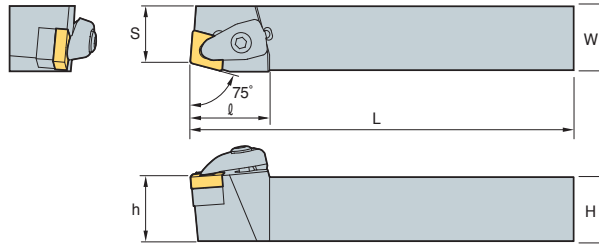


B Double Clamp System

DCBNR/L



CN□□



75°

• R type insert (mm)

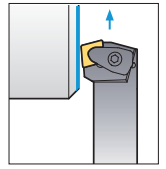
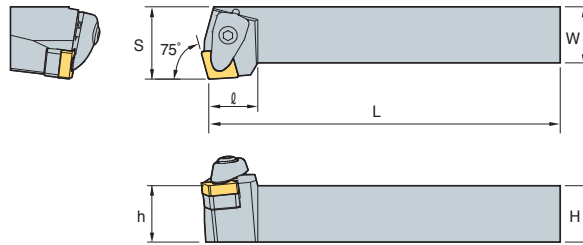
Designation	Stock	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DCBNR/L	2020-K12	20	20	125	17	20	31	CN□□1204□□						
	2525-M12	25	25	150	22	25	31							
	3225-P12	32	25	170	22	32	31							
	2525-M16	25	25	150	22	25	36	CN□□1606□□						
	3232-P16	32	32	170	27	32	36							
	3232-P19	32	32	170	27	32	40							
	4040-S19	40	40	250	35	40	40	CN□□1906□□						

➔ Applicable inserts B28~B35

DCKNR/L



CN□□



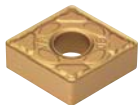
75°

• R type insert (mm)

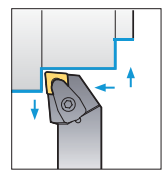
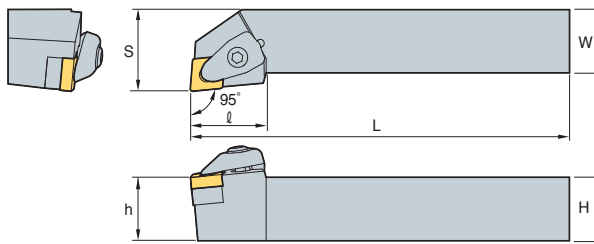
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench	
DCKNR/L	2020-K12	20	20	125	25	20	21	CN□□1204□□						
	2525-M12	25	25	150	32	25	21							
	3225-P12	32	25	170	32	32	21							
	3232-P16	32	32	170	40	32	26	CN□□1606□□						
	4040-S16	40	40	250	50	40	26							

➔ Applicable inserts B28~B35

DCLNR/L



CN□□



95°

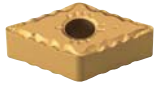
• R type insert (mm)

Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench	
DCLNR/L	2020-K09	20	20	125	25	20	24.5	CN□□0903□□						
	2525-M09	25	25	150	32	25	24.5							
	2020-K12	20	20	125	25	20	30							
	2525-M12	25	25	150	32	25	30	CN□□1204□□						
	3225-P12	32	25	170	32	32	30							
	3232-P12	32	32	170	40	32	30							
	2525-M16	25	25	150	32	25	36	CN□□1606□□						
	3225-P16	32	25	170	32	32	36							
	3232-P16	32	32	170	40	32	36							
	2525-M19	25	25	150	32	25	40	CN□□1906□□						
	3225-P19	32	25	170	32	32	40							
	3232-P19	32	32	170	40	32	40							
	4040-S19	40	40	250	50	40	40							

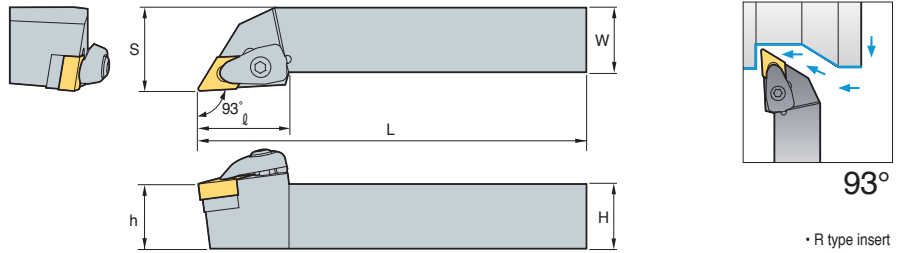
➔ Applicable inserts B28~B35



DDJNR/L



DN□□



• R type insert (mm)

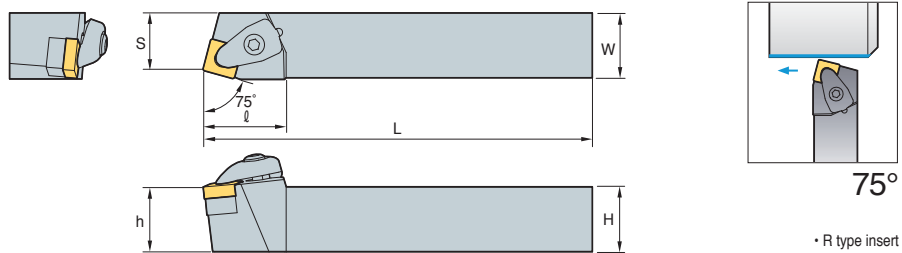
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DDJNR/L 2020-K11	20	20	125	25	20	30	DN□□1104□□						
2525-M11	25	25	150	32	25	30							
3225-P11	32	25	170	32	32	30							
3232-P11	32	32	170	40	32	30	DN□□1506□□						
2020-K15	20	20	125	25	20	35							
2525-M15	25	25	150	32	25	35							
3225-P15	32	25	170	32	32	35							
3232-P15	32	32	170	40	32	35	DN□□1504□□						
2020-K15-3	20	20	125	25	20	35							
2525-M15-3	25	25	150	32	25	35							
3232-P15-3	32	32	170	40	32	35							

↻ Applicable inserts B36~B42

DSBNR/L



SN□□



• R type insert (mm)

Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DSBNR/L 2020-K09	20	20	125	17	20	25	SN□□0903□□						
2525-M09	25	25	150	22	25	25							
2020-K12	20	20	125	17	20	32	SN□□1204□□						
2525-M12	25	25	150	22	25	32							
3225-P12	32	25	170	22	32	32							
3232-P12	32	32	170	27	32	32	SN□□1506□□						
2525-M15	25	25	150	22	25	38							
3225-P15	32	25	170	22	32	38							
3232-P15	32	32	170	27	32	38							
3232-P19	32	32	170	27	32	43	SN□□1906□□						
4040-S19	40	40	250	35	40	43							

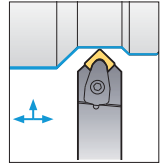
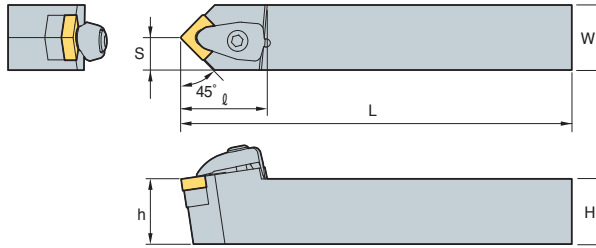
↻ Applicable inserts B44~B52

B Double Clamp System

DSDNN



SN□□



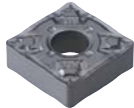
45°

• R type insert (mm)

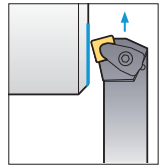
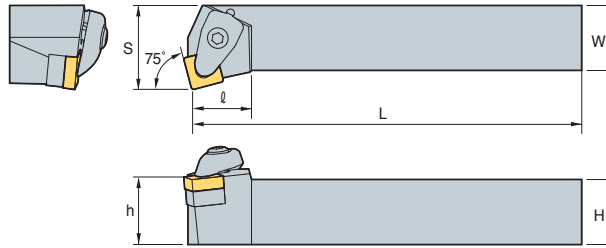
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DSDNN 2020-K09	20	20	125	10	20	26.5	SN□□0903□□	CVH3	CHX0415	SS32V	FTKA0307	SPR0510	HW25P
2020-K12	20	20	125	10	20	33	SN□□1204□□	CVH4	CHX0518	SS44V	FTKA0410	SPR0714	HW30P
2525-M12	25	25	150	12.5	25	33							
3225-P12	32	25	170	12.5	32	33							
3232-P12	32	32	170	16	32	33	SN□□1506□□	CVH5	CHX0622	SS54V	FTNA0511	SPR0811	HW25P
2525-M15	25	25	150	12.5	25	39.4							
3232-P15	32	32	170	16	32	38	SN□□1906□□	CVH6	CHX0622	SS64V	FTNA0511	SPR0811	HW40L
3232-P19	32	32	170	16	32	43							
4040-S19	40	40	250	20	40	45							

↻ Applicable inserts B44~B52

DSKNR/L



SN□□



75°

• R type insert (mm)

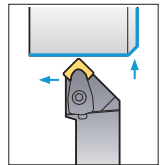
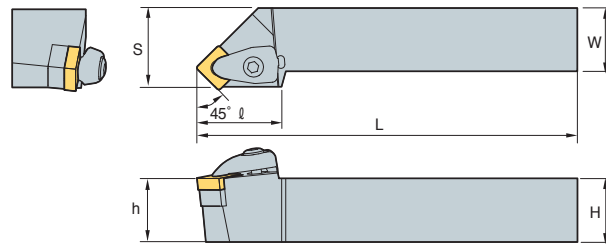
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DSKNR/L 2020-K09	20	20	125	25	20	20	SN□□0903□□	CVH3	CHX0415	SS32V	FTKA0307	SPR0510	HW25P
2020-K12	20	20	125	25	20	23	SN□□1204□□	CVH4	CHX0518	SS44V	FTKA0410	SPR0714	HW30P
2525-M12	25	25	150	32	25	23							
3232-P12	32	32	170	40	32	23							
3232-P15	32	32	170	40	32	28	SN□□1506□□	CVH5	CHX0622	SS54V	FTNA0511	SPR0811	HW40L
3232-P19	32	32	170	40	32	35	SN□□1906□□	CVH6	CHX0622	SC64V	FTNA0511	SPR0811	HW40L
4040-S19	40	40	250	50	40	43							

↻ Applicable inserts B44~B52

DSSNR/L



SN□□



45°

• R type insert (mm)

Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DSSNR/L 2020-K09	20	20	125	25	20	28.5	SN□□0903□□	CVH3	CHX0415	SS32V	FTKA0307	SPR0510	HW25P
2020-K12	20	20	125	25	20	35	SN□□1204□□	CVH4	CHX0518	SS44V	FTKA0410	SPR0714	HW30P
2525-M12	25	25	150	32	25	35							
3225-P12	32	25	170	32	32	35							
3232-P12	32	32	170	40	32	35	SN□□1506□□	CVH5	CHX0622	SS54V	FTNA0511	SPR0811	HW40L
2525-M15	25	25	150	32	25	38.5							
3232-P15	32	32	170	40	32	38.5	SN□□1906□□	CVH6	CHX0622	SS64V	FTNA0511	SPR0811	HW40L
3232-P19	32	32	170	40	32	46							
4040-S19	40	40	250	50	40	46							

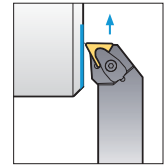
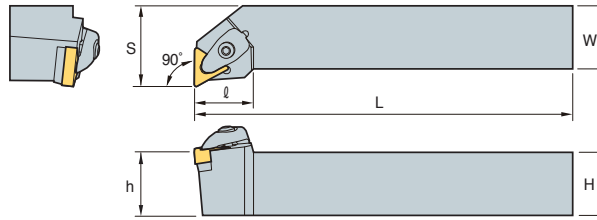
↻ Applicable inserts B44~B52



DTFNR/L



TN□□



90°

• R type insert
(mm)

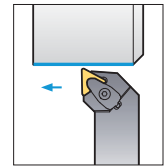
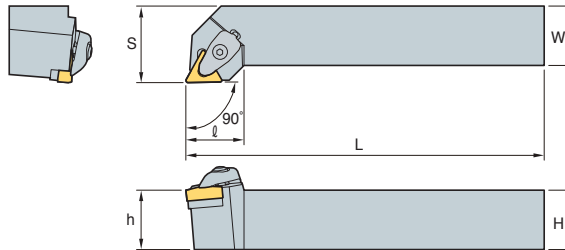
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DTFNR/L 2020-K16	20	20	125	25	20	24.5	TN□□1604□□						
	25	25	150	32	25	24.5							
	32	32	170	40	32	23.5							
DTFNR/L 2525-M22	25	25	150	32	25	33	TN□□2204□□						
DTFNR/L 3225-P22	32	25	170	32	32	33							
DTFNR/L 3232-P22	32	32	170	40	32	33							

➔ Applicable inserts B53~B59

DTGNR/L



TN□□



90°

• R type insert
(mm)

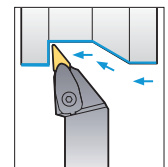
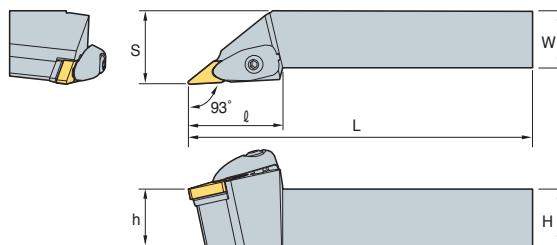
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DTGNR/L 2020-K16	20	20	125	25	20	24.5	TN□□1604□□						
	25	25	150	32	25	24.5							
	32	32	170	40	32	24.5							
DTGNR/L 2525-M22	25	25	150	32	25	32.6	TN□□2204□□						
DTGNR/L 3225-P22	32	25	170	32	32	32.6							
DTGNR/L 3232-P22	32	32	170	40	32	32.6							

➔ Applicable inserts B53~B59

DVJNR/L



VN□□



93°

• R type insert
(mm)

Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DVJNR/L 2020-K16	20	20	125	25	20	41.5	VN□□1604□□						
	25	25	150	32	25	41.5							
	32	32	170	40	32	41.5							
DVJNR/L 2525-M16	25	25	150	32	25	41.5	VN□□1604□□						
DVJNR/L 3232-P16	32	32	170	40	32	41.5							

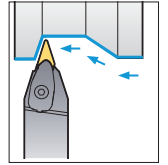
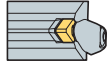
➔ Applicable inserts B60~B61

B Double Clamp System

DVVNN



VN□□



72.5°

· R type insert (mm)

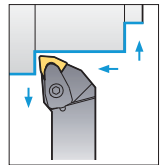
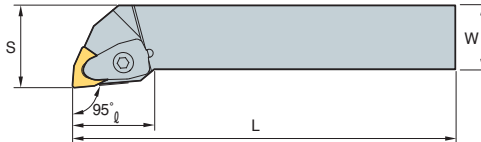
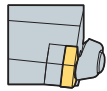
Designation		H	W	L	S	h	l	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DVVNN	2020-K16	20	20	125	10	20	40	VN□□1604□□						
	2525-M16	25	25	150	12.5	25	40		CVH3V	CHX0518	SV32V	FTNA03508	SPR0714	HW30P
	3232-P16	32	32	170	16	32	40							

↻ Applicable inserts B60~B61

DWLNR/L



WN□□



95°

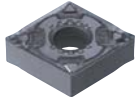
· R type insert (mm)

Designation		H	W	L	S	h	l	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DWLNR/L	2020-K06	20	20	125	25	20	26	WN□□0604□□						
	2525-M06	25	25	150	32	25	26		CVH3	CHX0415	SW32V	FTKA0307	SPR0510	HW25P
	2020-K08	20	20	125	25	20	32	WN□□0804□□						
2525-M08	25	25	150	32	25	32	CVH4		CHX0518	SW44V	FTKA0410	SPR0714	HW30P	

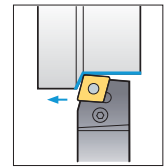
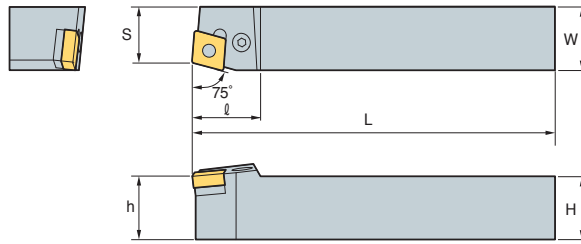
↻ Applicable inserts B62~B65



PCBNR/L



CN□□



75°

• R type insert (mm)

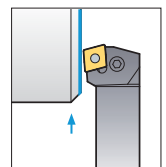
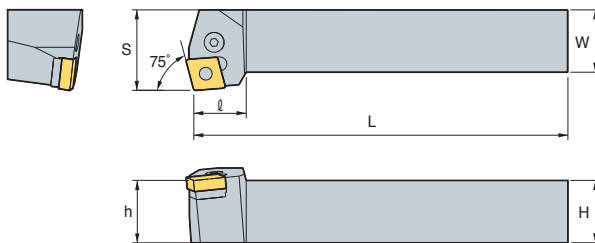
Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PCBNR/L 2020-K12	20	20	125	17	20	27	CN□□ 1204□□	LV4	VHX0821	SC42	SP4	HW30L	LSPS4
2525-M12	25	25	150	22	25	27							
3225-P12	32	25	170	22	32	27							
2525-M16	25	25	150	22	25	33	CN□□ 1606□□	LV5	VHX0825	SC53	SP5	HW30L	LSPS6
3232-P16	32	32	170	27	32	33							
3232-P19	32	32	170	27	32	36	CN□□ 1906□□	LV6N	VHX1027N	SC63N	SP6N	HW40L	LSPS6
4040-S19	40	40	250	35	40	36	CN□□ 2509□□	LV8N	VHX1236N	SC84N	SP8N	HW50L	LSPS8
4040-S25	40	40	250	35	40	47							
4040-S25-5	40	40	250	35	40	47	CN□□ 2507□□	LV8N	VHX1236N	SC84N	SP8N	HW50L	LSPS8
5050-T25	50	50	300	43	50	47							
PCBNR/L 2020-K12N	20	20	125	17	20	27	CN□□ 1204□□	LV4N	VHX0820N	SC42N	SP4N	HW30L	LSPS4
2525-M12N	25	25	150	22	25	27							
3225-P12N	32	25	170	22	32	27							
2525-M16N	25	25	150	22	25	33	CN□□ 1606□□	LV6N	VHX1027N	SC63N	SP6N	HW40L	LSPS8
3232-P16N	32	32	170	27	32	33							
3232-P19N	32	32	170	27	32	36	CN□□ 1906□□	LV6N	VHX1027N	SC63N	SP6N	HW40L	LSPS8

↻ Applicable inserts B28~B35

PCKNR/L



CN□□



95°

• R type insert (mm)

Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PCKNR/L 2020-K12	20	20	125	25	20	27	CN□□ 1204□□	LV4	VHX0821	SC42	SP4	HW30L	LSPS4
2525-M12	25	25	150	32	25	27							
3225-P12	32	25	170	40	32	30							
3232-P16	32	32	170	40	32	26	CN□□ 1606□□	LV5	VHX0825	SC53	SP5	HW30L	HW30L
4040-S16	40	40	250	50	40	25							
PCKNR/L 2020-K12N	20	20	125	25	20	27	CN□□ 1204□□	LV4N	VHX0820N	SC42N	SP4N	HW30L	LSPS4
2525-M12N	25	25	150	32	25	27							
3225-P12N	32	25	170	40	32	30							
3232-P16N	32	32	170	40	32	26	CN□□ 1606□□	LV5N	VHX0820AN	SC53N	SP5N	HW30L	LSPS5

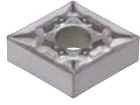
↻ Applicable inserts B28~B35



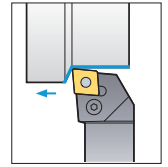
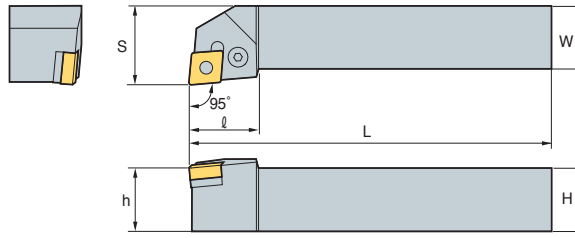
- Improved holders and parts ensure performance and durability
- “N” stand for New type (Holders and parts)

B Lever Lock System

PCLNR/L



CN□□



95°

• R type insert (mm)

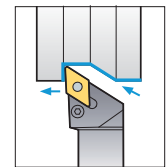
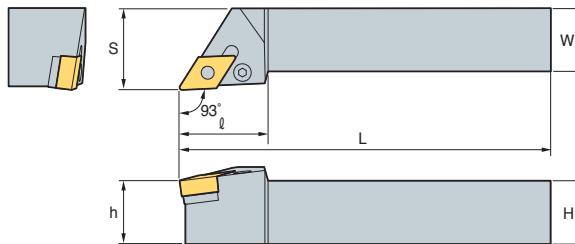
Designation	H	W	L	S	h	l	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch	
PCLNR/L	1616-H09	16	16	100	20	16	20	CN□□ 0903□□	LV3	VHX0617	SC32	SP3	HW25L	LSPS3
	2020-K09	20	20	125	25	20	22							
	2525-M09	25	25	150	32	25	22							
	1616-H12	16	16	100	20	16	28	CN□□ 1204□□	LV4	VHX0821	SC42	SP4	HW30L	LSPS4
	2020-K12	20	20	125	25	20	28							
	2525-M12	25	25	150	32	25	28							
	3225-P12	32	25	170	32	32	28							
	3232-P12	32	32	170	40	32	28							
	2525-M16	25	25	150	32	25	33	CN□□ 1606□□	LV5	VHX0825	SC53	SP5	HW30L	LSPS5
	3232-P16	32	32	170	40	32	33	CN□□ 1906□□	LV6N	VHX1027N	SC63N	SP6N	HW40L	LSPS6
	2525-M19	25	25	150	32	25	36							
	3225-P19	32	25	170	32	32	36							
	3232-P19	32	32	170	40	32	36							
	4040-P19	40	40	170	50	40	36							
	4040-S19	40	40	250	50	40	36	CN□□ 2509□□	LV8N	VHX1236N	SC84N	SP8N	HW50L	LSPS8
4040-S25	40	40	250	50	40	47								
5050-T25	50	50	300	60	50	47								
4040-S25-5	40	40	250	50	40	47	CN□□ 2507□□	LV8N	VHX1236N	SC84N	SP8N	HW50L	LSPS8	
5050-S25-5	50	50	300	60	50	47								
PCLNR/L	1616-H09N	16	16	100	20	16	20	CN□□ 0903□□	LV3N	VHX0617N	SC32N	SP3	HW25L	LSPS3
	2020-K09N	20	20	125	25	20	22							
	2525-M09N	25	25	150	32	25	22							
	1616-H12N	16	16	100	20	16	28	CN□□ 1204□□	LV4N	VHX0817N VHX0820N	SC42N	SP4N	HW30L	LSPS4
	2020-K12N	20	20	125	25	20	28							
	2525-M12N	25	25	150	32	25	28							
	3225-P12N	32	25	170	32	32	28							
	3232-P12N	32	32	170	40	32	28							
	2525-M16N	25	25	150	32	25	33	CN□□ 1606□□	LV5N	VHX0820AN	SC53N	SP5N	HW30L	LSPS5
	3232-P16N	32	32	170	40	32	33	CN□□ 1906□□	LV6N	VHX1027N	SC63N	SP6N	HW40L	LSPS6
	2525-M19N	25	25	150	32	25	38							
	4040-S19N	40	40	250	50	40	36							

➔ Applicable inserts B28~B35

PDJNR/L



DN□□



93°

• R type insert (mm)

Designation	H	W	L	S	h	l	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch	
PDJNR/L	1616-H11	16	16	100	20	16	25	DN□□ 1104□□	LV3	VHX0617	SD317	SP3	HW25L	LSPS3
	2020-K11	20	20	125	25	20	25							
	2525-M11	25	25	150	32	25	30							
	2020-K15	20	20	125	25	20	35	DN□□ 1506□□	LV4B	VHX0821	SD42	SP4	HW30L	LSPS4
	2525-M15	25	25	150	32	25	35							
	3225-P15	32	25	170	32	32	35							
	3232-P15	32	32	170	40	32	35							
	2020-K15-3	20	20	125	25	20	35							
	2525-M15-3	25	25	150	32	25	35	DN□□ 1504□□	LV4	VHX0821	SD42	SP4	HW30L	LSPS4
	3232-P15-3	32	32	170	40	32	35							

➔ Applicable inserts B36~B42



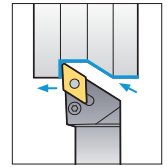
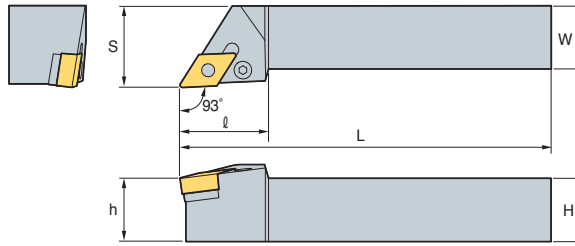
B

Turning

PDJNR/L



DN□□



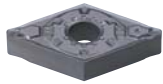
93°

• R type insert (mm)

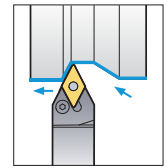
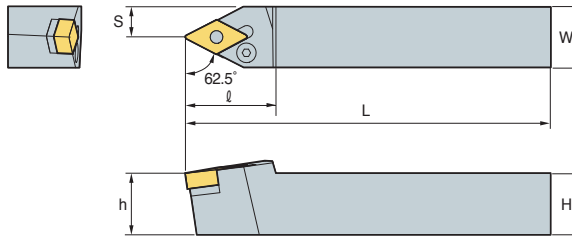
Designation	H	W	L	S	h	l	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch							
PDJNR/L	1616-H11N	16	16	100	20	16	DN□□ 1104□□													
	2020-K11N	20	20	125	25	20								LV3AN	VHX0617N	SD32N	SP3	HW25L	LSPS3	
	2525-M11N	25	25	150	32	25								30						
PDJNR/L	2020-K15N	20	20	125	25	20	DN□□ 1506□□													
	2525-M15N	25	25	150	32	25								35	LV4BN	VHX0821N	SD42N	SP4N	HW30L	LSPS4
	3225-P15N	32	25	170	32	32								35						
	3232-P15N	32	32	170	40	32								35						
PDJNR/L	2020-K15-3N	20	20	125	25	20	DN□□ 1504□□													
	2525-M15-3N	25	25	150	32	25								35	LV4BN	VHX0821N	SD43N	SP4N	HW30L	LSPS4
	3232-P15-3N	32	32	170	40	32								35						

↻ Applicable inserts B36~B42

PDNNR/L



DN□□



62.5°

• R type insert (mm)

Designation	H	W	L	S	h	l	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch							
PDNNR/L	2020-K15	20	20	125	8	20	DN□□ 1506□□													
	2525-M15	25	25	150	12.5	25								37	LV4B	VHX0821	SD42	SP4	HW30L	LSPS4
	3232-P15	32	32	150	16	32								37						
	4025-M15	40	25	170	12.5	32	37	DN□□ 1504□□												
	2525-M15-3	25	25	150	12.5	25	37								LV4	VHX0821	SD42	SP4	HW30L	LSPS4
	4025-M15-3	40	25	150	12.5	25	37													
PDNNR/L	2020-K15N	20	20	125	8	20	DN□□ 1506□□													
	2525-M15N	25	25	150	12.5	25								37	LV4BN	VHX0821N	SD42N	SP4N	HW30L	LSPS4
	3232-P15N	32	32	170	16	32								37						
	2525-M15-3N	25	25	150	12.5	25	37	DN□□ 1504□□												
	3232-P15-3N	32	32	170	16	32	37								LV4BN	VHX0821N	SD43N	SP4N	HW30L	LSPS4

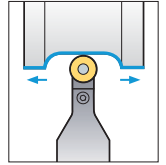
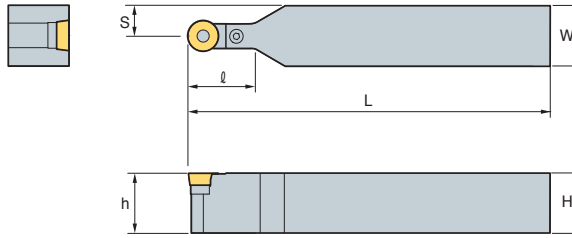
↻ Applicable inserts B36~B42

B Lever Lock System

PRDCN



RCMX



(mm)

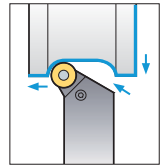
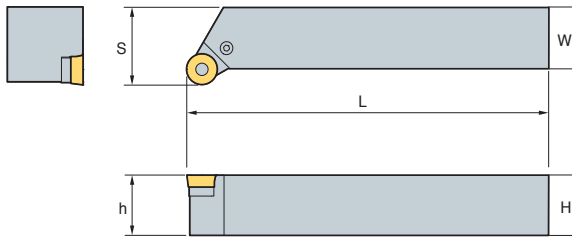
Designation	H	W	L	S	h	l	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PRDCN 2020-M10	20	20	150	10	20	24	RCMX 1003M0	LR10	VHX0514	SR10	SP3	HW20L	LSPS3
	25	25	150	12.5	25	24							
2525-M12	25	25	150	12.5	25	24	RCMX 1204M0	LR12	VHX0617	SR12	SP3	HW25L	LSPS3
2020-K12	20	20	125	10	20	24							
3225-Q12	32	25	180	12.5	32	24	RCMX 1606M0	LR16	VHX0621	SR16	SP4	HW25L	LSPS4
2525-Q16	25	25	180	12.5	25	30							
3225-Q16	32	25	180	12.5	32	30							
3232-Q16	32	32	180	16	32	35							
3232-Q20	32	32	180	16	32	40	RCMX 2006M0	LR20	VHX0823	SR20	SP20	HW30L	LSPS5
4040-S25	40	40	250	20	40	42	RCMX 2507M0	LR25	VHX1030	SR25	SP6N	HW40L	LSPS6
4040-T25	40	40	300	20	40	42							
5050-U32	50	50	350	25	50	52	RCMX 3209M0	LR32	VHX1236	SR32	SP8N	HW50L	LSPS8

Applicable inserts B74

PRGCR/L



RCMX



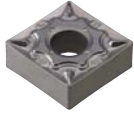
• R type insert
(mm)

Designation	H	W	L	S	h	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PRGCR/L 2020-K10	20	20	125	25	20	RCMX 1003M0	LR10	VHX0514	SR10	SP3	HW20L	LSPS3
	25	25	150	32	25							
2020-K12	20	20	125	25	20	RCMX 1204M0	LR12	VHX0617	SR12	SP3	HW25L	LSPS3
2525-M12	25	25	150	32	25							
3225-P12	32	25	170	32	32	RCMX 1606M0	LR16	VHX0621	SR16	SP4	HW25L	LSPS4
2525-M16	25	25	150	32	25							
3225-P16	32	25	170	32	32							
3232-P20	32	32	170	40	32							
4040-S25	40	40	250	50	40	RCMX 2006M0	LR20	VHX0823	SR20	SP5-1	HW30L	LSPS5
						RCMX 2507M0	LR25	VHX1030	SR25	SP6N	HW40L	LSPS6

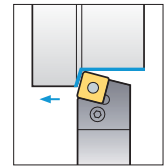
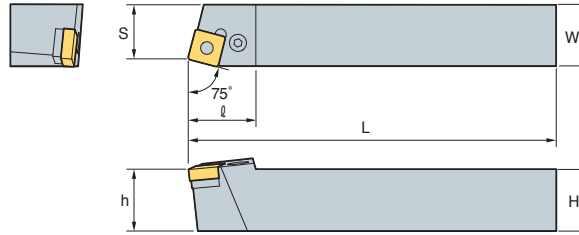
Applicable inserts B74



PSBNR/L



SN□□



75°

• R type insert
(mm)

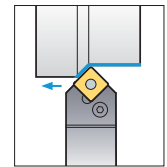
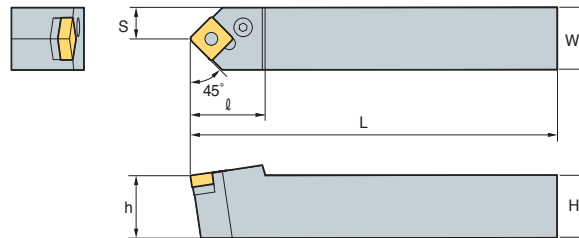
Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch	
PSBNR/L	1616-H09	16	16	100	13	16	21	SN□□ 0903□□	LV3	VHX0617	SS32	SP3	HW25L	LSPS3
	2020-K09	20	20	125	17	20	23	SN□□ 1204□□	LV4	VHX0821	SS42	SP4	HW30L	LSPS4
	2020-K12	20	20	125	17	20	28							
	2525-M12	25	25	150	22	25	28							
	3225-P12	32	25	170	22	32	28	SN□□ 1506□□	LV5	VHX0825	SS53	SP5	HW30L	LSPS5
	3232-P12	32	32	170	27	32	28							
	2525-M15	25	25	150	22	25	35	SN□□ 1906□□	LV6N	VHX1027N	SS63N	SP6N	HW40L	LSPS6
	3232-P15	32	32	170	27	32	35							
	3232-P19	32	32	170	27	32	40	SN□□ 2507□□	LV8N	VHX1236N	SS84N	SP8N	HW50L	LSPS8
	4040-S19	40	40	250	35	40	40							
4040-S25	40	40	250	35	40	50	SN□□ 2509□□	LV8N	VHX1236N	SS84N	SP8N	HW50L	LSPS8	
4040-S25-6	40	40	250	35	40	50	SN□□ 2507□□							
5050-T25	50	50	300	43	50	50	SN□□ 2509□□							
5050-T25-6	50	50	300	43	50	46	SN□□ 2509□□							
PSBNR/L	1616-H09N	16	16	100	13	16	21	SN□□ 0903□□	LV3N	VHX0617N	SS32N	SP3	HW25L	LSPS3
	2020-K09N	20	20	125	17	20	23	SN□□ 1204□□	LV4N	VHX0820N	SS42N	SP4N	HW30L	LSPS4
	2020-K12N	20	20	125	17	20	28							
	2525-M12N	25	25	150	22	25	28							
	3225-P12N	32	25	150	22	25	28	SN□□ 1506□□	LV5N	VHX0820AN	SS53N	SP5N	HW30L	LSPS5
	3232-P12N	32	32	170	27	32	28							
	2525-M15N	25	25	150	22	25	35							

↻ Applicable inserts B44~B52

PSDNN



SN□□



45°

(mm)

Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch	
PSDNN	1616-H09	16	16	100	8	16	23	SN□□ 0903□□	LV3	VHX0617	SS32	SP3	HW25L	LSPS3
	2020-K12	20	20	125	10	20	30	SN□□ 1204□□	LV4	VHX0821	SS42	SP4	HW30L	LSPS4
	2525-M12	25	25	150	12.5	25	30							
	3225-P12	32	25	170	12.5	32	30							
	3232-P12	32	32	170	16	32	40	SN□□ 1506□□	LV5	VHX0825	SS53	SP5	HW30L	LSPS5
	2525-M15	25	25	150	12.5	25	40							
	3232-P15	32	32	170	16	32	40	SN□□ 1906□□	LV6N	VHX1027N	SS63N	SP6N	HW40L	LSPS6
	3225-P19	32	25	170	12.5	32	40							
	3232-P19	32	32	170	16	32	40	SN□□ 2507□□	LV8N	VHX1236N	SS84N	SP8N	HW50L	LSPS8
	4040-S19	40	40	250	20	40	40							
	4040-S25	40	40	250	20	40	50	SN□□ 2509□□	LV8N	VHX1236N	SS84N	SP8N	HW50L	LSPS8
	5050-T25	50	50	300	25	50	50	SN□□ 2509□□						
	4040-S25-6	40	40	250	20	40	50	SN□□ 2509□□						
5050-T25-6	50	50	300	25	50	50								
PSDNN	1616-H09N	16	16	100	8	16	23	SN□□ 0903□□	LV3N	VHX0617N	SS32N	SP3	HW25L	LSPS3
	2020-K12N	20	20	125	10	20	30	SN□□ 1204□□	LV4N	VHX0820N	SS42N	SP4N	HW30L	LSPS4
	2525-M12N	25	25	150	12.5	20	30							
	3225-P12N	32	25	170	12.5	32	30							
	3232-P12N	32	32	170	16	32	40	SN□□ 1506□□	LV5N	VHX0820AN	SS53N	SP5N	HW30L	LSPS5
	2525-M15N	25	25	150	12.5	25	40							
	3232-P15N	32	32	170	16	32	40							

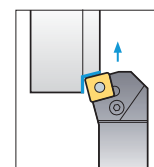
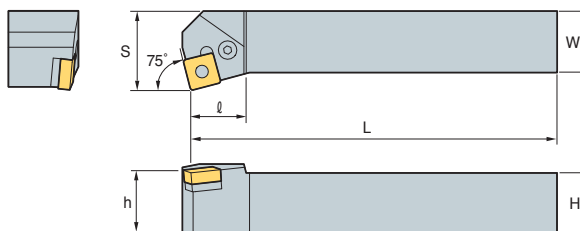
↻ Applicable inserts B44~B52

B Lever Lock System

PSKNR/L



SN□□



75°

• R type insert (mm)

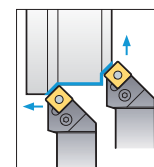
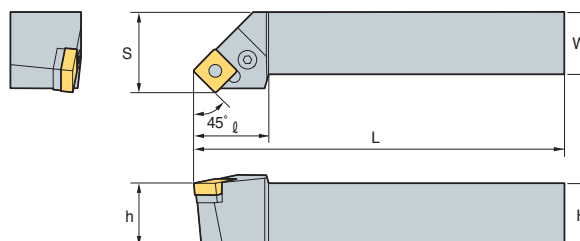
Designation	H	W	L	S	h	l	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch	
PSKNR/L	1616-H09	16	16	100	20	16	17	SN□□0903□□	LV3	VHX0617	SS32	SP3	HW25L	LSPS3
	2020-K09	20	20	125	25	20	20							
	2020-K12	20	20	125	25	20	23	SN□□1204□□	LV4	VHX0821	SS42	SP4	HW30L	LSPS4
	2525-M12	25	25	150	32	25	23							
	3232-P12	32	32	170	40	32	23	SN□□1506□□	LV5	VHX0825	SS53	SP5	HW30L	LSPS5
	2525-M15	25	25	150	32	25	28							
	3232-P15	32	32	170	40	32	28	SN□□1906□□	LV6N	VHX1027N	SS63N	SP6N	HW40L	LSPS6
	3232-P19	32	32	170	40	32	41.5							
	4040-S19	40	40	250	50	40	41.5	SN□□2507□□	LV8N	VHX1236N	SS84N	SP8N	HW50L	LSPS8
	4040-S25	40	40	250	50	40	46							
4040-S25-6	40	40	250	50	40	46	SN□□2509□□	LV8N	VHX1236N	SS84N	SP8N	HW50L	LSPS8	
5050-T25-6	50	50	300	60	50	37.5	SN□□2509□□	LV8N	VHX1236N	SS84N	SP8N	HW50L	LSPS8	
PSKNR/L	1616-H09N	16	16	100	20	16	17	SN□□0903□□	LV3N	VHX0617N	SS32N	SP3	HW25L	LSPS3
	2020-K09N	20	20	125	25	20	20							
	2020-K12N	20	20	125	25	20	26	SN□□1204□□	LV4N	VHX0820N	SS42N	SP4N	HW30L	LSPS4
	2525-M12N	25	25	150	32	25	26							
	3232-P12N	32	32	170	40	32	26	SN□□1506□□	LV5N	VHX0820AN	SS53N	SP5N	HW30L	LSPS5
	2525-M15N	25	25	150	32	25	32							
	3232-P15N	32	32	170	40	32	32							

↻ Applicable inserts B44~B52

PSSNR/L



SN□□



45°

• R type insert (mm)

Designation	H	W	L	S	h	l	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch	
PSSNR/L	1616-H09	16	16	100	20	16	25	SN□□0903□□	LV3	VHX0617	SS32	SP3	HW25L	LSPS3
	2020-K12	20	20	125	25	20	30							
	2525-M12	25	25	150	32	25	36	SN□□1204□□	LV4	VHX0821	SS42	SP4	HW30L	LSPS4
	3225-P12	32	25	170	32	32	36							
	3232-P12	32	32	170	40	32	40	SN□□1506□□	LV5	VHX0825	SS53	SP5	HW30L	LSPS5
	2525-M15	25	25	150	32	25	36							
	3232-P15	32	32	170	40	32	45	SN□□1906□□	LV6N	VHX1027N	SS63N	SP6N	HW40L	LSPS6
	3232-P19	32	32	170	40	32	41.5							
	4040-R19	40	40	200	50	40	41.5	SN□□2507□□	LV8N	VHX1236N	SS84N	SP8N	HW50L	LSPS8
	4040-S19	40	40	250	50	40	41.5							
4040-S25	40	40	250	50	40	48	SN□□2509□□	LV8N	VHX1236N	SS84N	SP8N	HW50L	LSPS8	
4040-S25-6	40	40	250	50	40	48	SN□□2509□□	LV8N	VHX1236N	SS84N	SP8N	HW50L	LSPS8	
PSSNR/L	1616-H09N	16	16	100	20	16	25	SN□□0903□□	LV3N	VHX0617N	SS32N	SP3	HW25L	LSPS3
	2020-K12N	20	20	125	25	20	30							
	2525-M12N	25	25	150	32	25	36	SN□□1204□□	LV4N	VHX0821N	SS42N	SP4N	HW30L	LSPS4
	3225-P12N	32	25	170	32	32	45							
	3232-P12N	32	32	170	40	32	40	SN□□1506□□	LV5N	VHX08209N	SS53N	SP5N	HW30L	LSPS5
	2525-M15N	25	25	150	32	25	36							
	3232-P15N	32	32	170	40	32	45							

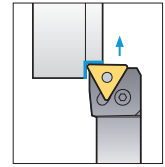
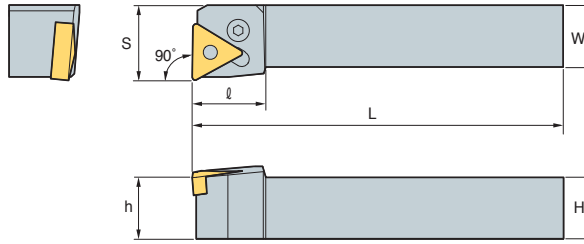
↻ Applicable inserts B44~B52



PTFNR/L



TN□□



90°

• R type insert (mm)

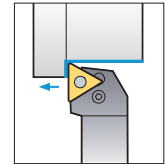
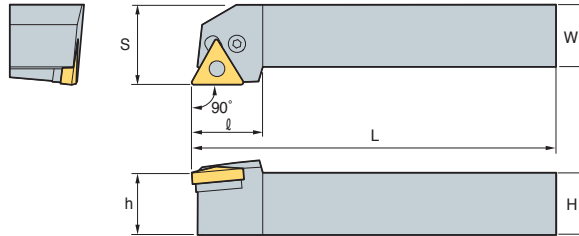
Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch	
PTFNR/L	1616-H16	16	16	100	20	16	TN□□1604□□	LV3	VHX0617	ST317	SP3	HW25L	LSPS3	
	2020-K16	20	20	125	25	20								20
	2525-M16	25	25	150	32	25								20
	2525-M22	25	25	150	32	25	TN□□2204□□	LV4	VHX0821	ST42	SP4	HW30L	LSPS4	
	3232-P22	32	32	170	40	32								25
	3232-P27	32	32	170	40	32	TN□□2706□□	LV5	VHX0825	ST53	SP5	HW30L	LSPS5	
4040-S27	40	40	250	50	40	34								
PTFNR/L	2525-M22N	25	25	150	32	25	TN□□2204□□	LV4N	VHX0820N	ST42N	SP4N	HW30L	LSPS4	
	3232-P22N	32	32	170	40	32	25							
	3232-P27N	32	32	170	40	32	34							
	4040-S27N	40	40	250	50	40	34	TN□□2706□□	LV5AN	VHX0823N	ST53N	SP5N	HW30L	LSPS5

↻ Applicable inserts B53~B59

PTGNR/L



TN□□



90°

• R type insert (mm)

Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch	
PTGNR/L	1212-F11	12	12	80	16	12	TN□□1103□□	LV2	VHX0509B	-	-	HW20L	-	
	1616-H11	16	16	100	20	16								18
	2020-K11	20	20	125	25	20								19
	2525-M11	25	25	150	32	25	TN□□1604□□	LV3	VHX0617	ST317	SP3	HW25L	LSPS3	
	1616-H16	16	16	100	20	16								20
	2020-K16	20	20	125	25	20								20
	2525-M16	25	25	150	32	25								20
	3232-P16	32	32	170	40	32								20
	2525-M22	25	25	150	32	25								28
	3232-P22	32	32	170	40	32								28
3232-P27	32	32	170	40	32	33								
4040-S27	40	40	250	50	40	33	TN□□2706□□	LV5	VHX0825	ST53	SP5	HW30L	LSPS5	
PTGNR/L	2525-M22N	25	25	150	32	25	TN□□2204□□	LV4N	VHX0820N	ST42N	SP4N	HW30L	LSPS4	
	3232-P22N	32	32	170	40	32	28							
	3232-P27N	32	32	170	40	32	33							
	4040-S27N	40	40	250	50	40	33	TN□□2706□□	LV5AN	VHX0823N	ST53N	SP5N	HW30L	LSPS5

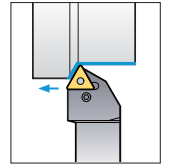
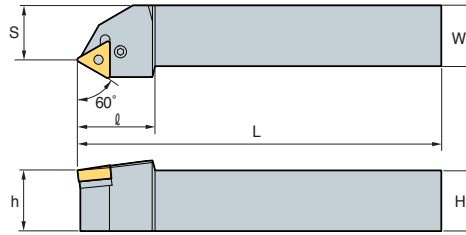
↻ Applicable inserts B53~B59

B Lever Lock System

PTTNR/L



TN□□



60°

• R type insert (mm)

Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch						
PTTNR/L	1616-H16	16	16	100	13	16	TN□□1604□□												
	2020-K16	20	20	125	17	20								LV3	VHX0617	ST317	SP3	HW25L	LSPS3
	2525-M16	25	25	150	22	25								32	LV4	VHX0821	ST42	SP4	HW30L
PTTNR/L	2525-M22N	25	25	150	22	25	32	TN□□2204□□	LV4N	VHX0820N	ST42N	SP4N	HW30L	LSPS4					

Applicable inserts B53~B59

PWLNR/L



WN□□

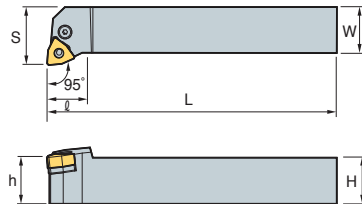


Fig.1

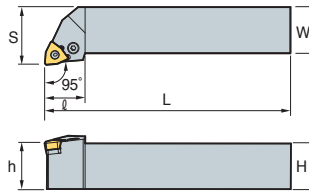
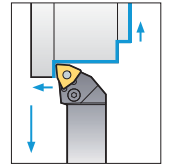


Fig.2



95°

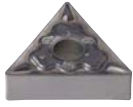
• R type insert (mm)

Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch	Fig.						
PWLNR/L	1616-H06	16	16	100	20	16	WN□□0604□□							1						
	2020-K06	20	20	125	25	20									LV3	VHX0617	SW317	SP3	HW25L	LSPS3
	2525-M06	25	25	150	32	25									20	LV4	VHX0821	SW42	SP4	HW30L
	2020-K08	20	20	125	25	20	26	WN□□0804□□							2					
	2525-M08	25	25	150	32	25	26									LV4	VHX0820N	SW42N	SP4N	HW30L
PWLNR/L	1616-H06N	16	16	100	20	16	WN□□0604□□							1						
	2020-K06N	20	20	125	25	20									LV3N	VHX0617N	SW317N	SP3	HW25L	LSPS3
	2525-M06N	25	25	150	32	25									20	LV4N	VHX0820N	SW42N	SP4N	HW30L
	2020-K08N	20	20	125	25	20	26	WN□□0804□□							2					
	2525-N08N	25	25	150	32	25	26									LV4N	VHX0820N	SW42N	SP4N	HW30L

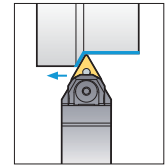
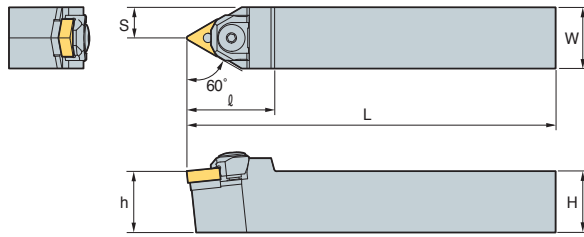
Applicable inserts B62~B65



WTENN



TN□□



60°

• R type insert (mm)

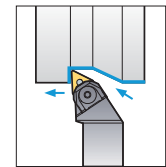
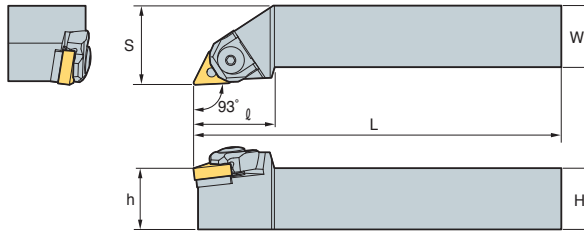
Designation	H	W	L	S	h	ℓ	Insert	Wedge Clamp	Screw	Stopper Ring	Shim	Shim Pin	Nut	Wrench
WTENN 2020-K16	20	20	125	10	20	36	TN□□1604□□							
	25	25	150	12.5	25	36								
	25	25	150	12.5	25	42								
3232-P22	32	32	170	16	32	42	TN□□2204□□							

↻ Applicable inserts B53~B59

WTJNR/L



TN□□



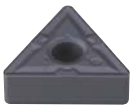
93°

• R type insert (mm)

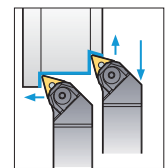
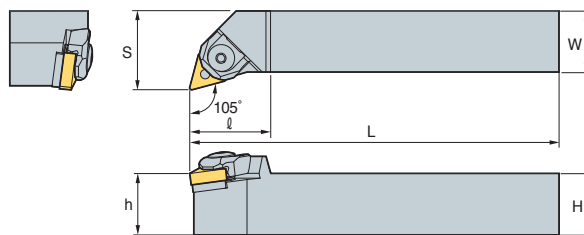
Designation	H	W	L	S	h	ℓ	Insert	Wedge Clamp	Screw	Stopper Ring	Shim	Shim Pin	Nut	Wrench
WTJNR/L 2020-K16	20	20	125	25	20	33	TN□□1604□□							
	25	25	150	32	25	33								
	32	32	170	40	32	33								
2525-M22	25	25	150	32	25	35	TN□□2204□□							
3232-P16	32	32	170	40	32	33								

↻ Applicable inserts B53~B59

WTXNR/L



TN□□



105°

• R type insert (mm)

Designation	H	W	L	S	h	ℓ	Insert	Wedge Clamp	Screw	Stopper Ring	Shim	Shim Pin	Nut	Wrench
WTXNR/L 2020-K16	20	20	125	25	20	30	TN□□1604□□							
	25	25	150	32	25	33								
	32	32	170	40	32	33								
3232-P16	32	32	170	40	32	33	TN□□2204□□							

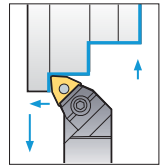
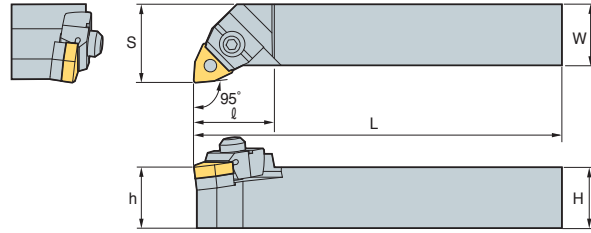
↻ Applicable inserts B53~B59

B Wedge Clamp System

WWLNR/L



WN□□



95°

• R type insert (mm)

Designation	H	W	L	S	h	l	Insert	Wedge Clamp	Screw	Stopper Ring	Shim	Shim Pin	Nut	Wrench	
WWLNR/L 2020-K08	20	20	125	25	20	32	WN□□0804□□								
2525-M08	25	25	150	32	25	33		CMH6R/L3	CMH6R2	MHX0630	CR05	SW43M	SP2M	N0508	HW30L
3232-P08	32	32	170	40	32	33		CMH6R2					SP4M		HW40L

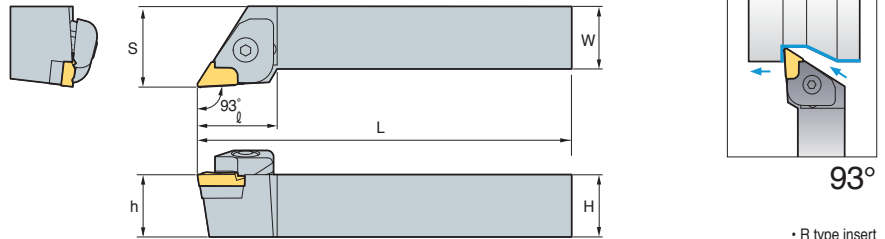
↻ Applicable inserts B62~B65



CKJNR/L



KN□□



• R type insert (mm)

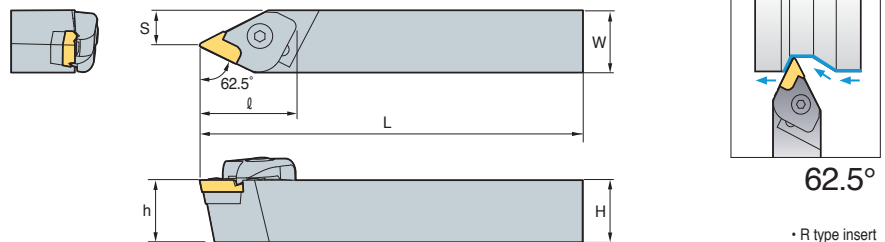
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Spring	Shim	Pin + Spring	Shim Screw	Wrench
CKJNR	2020-K16	20	20	125	25	20	32	KN□□1604□□R							
	2525-M16	25	25	150	32	25	32								
	3225-M16	32	25	150	32	32	32								
	3225-P16	32	25	170	32	32	32								
	3232-P16	32	32	170	40	32	32								
4040-R16	40	40	200	50	40	32	CTH6R1	CHX0625	SR3	SK33C	PN0515 SR4	SHX0310	HW20L HW40L		
CKJNL	2020-K16	20	20	125	25	20	32	KN□□1604□□L							
	2525-M16	25	25	150	32	25	32								
	3232-P16	32	32	170	40	32	32								
	4040-R16	40	40	200	50	40	32								

➔ Applicable inserts B43

CKNNR/L



KN□□

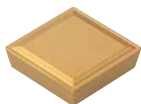


• R type insert (mm)

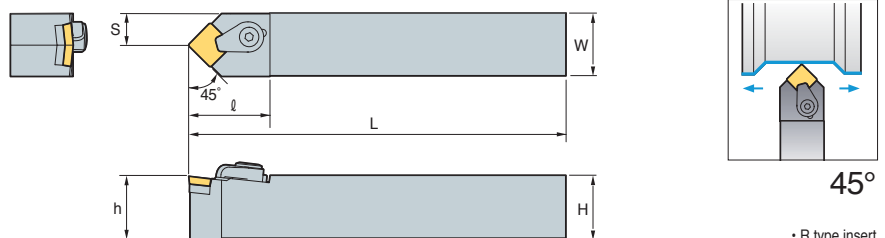
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Spring	Shim	Pin + Spring	Shim Screw	Wrench
CKNNR	2525-M16	25	25	150	14.3	25	37	KN□□ 1604□□R							
	3232-P16	32	32	170	16.8	32	37								
CKNNL	2525-M16	25	25	150	14.3	25	37	KN□□ 1604□□L							
	3232-P16	32	32	170	16.8	32	37								

➔ Applicable inserts B43

CSDPN



SP□R



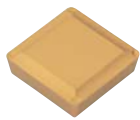
• R type insert (mm)

Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	C-Ring	Wrench
CSDPN	1616-H09	16	16	100	8	16	30	SP□R 0903□□						
	2525-M12	25	25	150	12.5	25	35	SP□R 1203□□	CH53R1	CH0515C	SS32C	SP3C	CR03C	HW25L
									CH6R5	CHX0622C	SS42C	SP3C	CR04C	HW30L

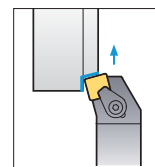
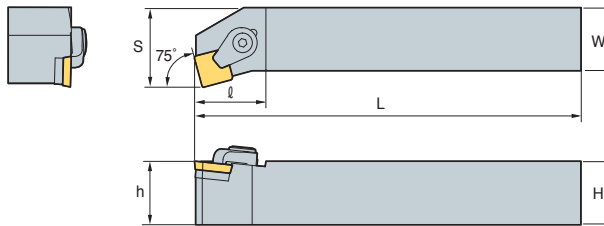
➔ Applicable inserts B76~77

B Clamp on System

CSKPR/L



SP□R



75°

• R type insert (mm)

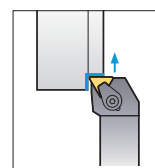
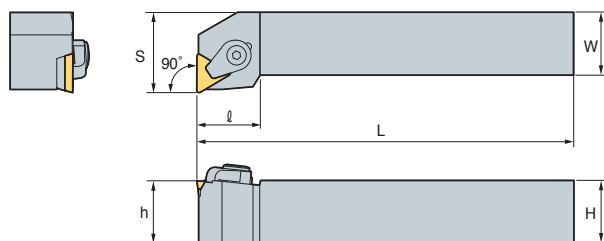
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	C-Ring	Wrench
CSKPR/L 2525-M12	25	25	150	32	20	32	SP□R 1203□□						

➔ Applicable inserts B76~B77

CTFPR/L



TP□R



90°

• R type insert (mm)

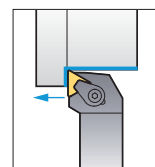
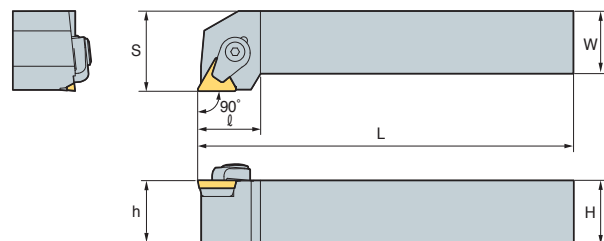
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	C-Ring	Wrench
CTFPR/L 2020-K16	25	25	125	25	20	32	TP□R 1603□□						
2525-M16	25	25	150	32	25	32							

➔ Applicable inserts B81~B83

CTGPR/L



TP□R



90°

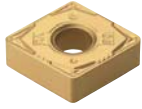
• R type insert (mm)

Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	C-Ring	Wrench
CTGPR/L 1212-F11	12	12	80	16	12	20	TP□R 1103□□						
1616-H11	16	16	100	20	16	20							
2020-K11	20	20	125	25	20	20							
2020-K16	20	20	125	25	20	25	TP□R 1603□□						
2525-M16	25	25	150	32	25	25							
2525-M22	25	25	150	32	25	32	TP□R 2204□□						
3232-P22	32	32	170	40	32	32							

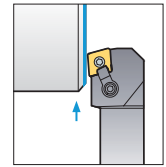
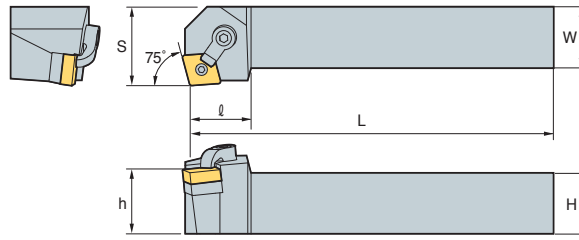
➔ Applicable inserts B81~B83



MCKNR/L



CN□□



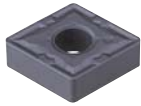
75°

• R type insert
(mm)

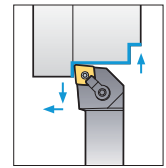
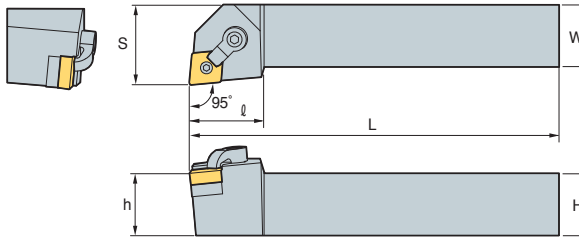
Designation	H	W	L	S	h	l	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MCKNR/L 2020-K12	20	20	125	25	20	32	CN□□1204□□					
2525-M12	25	25	150	32	25	32						
3232-P12	32	32	170	40	32	32						
								CDH6N	DHA1/4-25	SC43D	SP4D	HW31.8L HW23.8L

➔ Applicable inserts B28~B35

MCLNR/L



CN□□



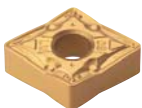
95°

• R type insert
(mm)

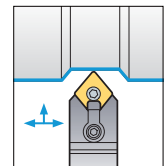
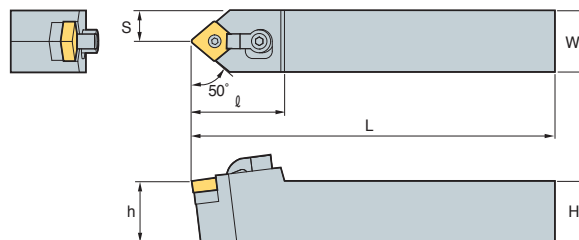
Designation	H	W	L	S	h	l	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MCLNR/L 1616-H09	16	16	100	20	16	25	CN□□0903□□					
2020-K09	20	20	125	25	20	25						
2525-M09	25	25	150	32	25	25						
2020-K12	20	20	125	25	20	32	CN□□1204□□					
2525-M12	25	25	150	32	25	32						
3225-P12	32	25	170	32	32	32						
3232-P12	32	32	170	40	32	32	CN□□1606□□					
2525-M16	25	25	150	32	25	33						
3232-P16	32	32	170	40	32	33						
4040-S16	40	40	250	50	40	33	CN□□1906□□					
2525-M19	25	25	150	32	25	38						
3232-P19	32	32	170	40	32	38						
4040-S19	40	40	250	50	40	38	CN□□2507□□					
4040-S25	40	40	250	50	40	38						
								CDH7N	DHA10-32-19	SC32D	SP3DS	HW23.8L HW19.8L
								CDH6N	DHA1/4-25	SC43D	SP4D	HW31.8L HW23.8L
								CDH8N	DHA5/16-32	SC53D	SP5D	HW39.7L HW31.8L
								CDH8N	DHA5/16-32	SC63D	SP6D	HW39.7L HW35.7L
								CDH8N3	DHA3/8-35	SC84D	SP8D	HW39.7L HW47.6L

➔ Applicable inserts B28~B35

MCMNN



CN□□



50°

• R type insert
(mm)

Designation	H	W	L	S	h	l	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MCMNN 2020-K12	20	20	125	10	20	32	CN□□1204□□					
2525-M12	25	25	150	12.5	25	32						
3232-P12	32	32	170	16	32	32						
2525-M16	25	25	150	12.5	25	40	CN□□1606□□					
3232-P16	32	32	170	16	32	40						
3232-P19	32	32	170	16	32	40						
4040-S19	40	40	250	20	40	32	CN□□1906□□					
								CDH6N	DHA1/4-25	SC43D	SP4D	HW31.8L HW23.8L
								CDH8N	DHA5/16-32	SC53D	SP5D	HW39.7L HW31.8L
								CDH8N	DHA5/16-32	SD63D	SP6D	HW39.7L HW35.7L

➔ Applicable inserts B28~B35

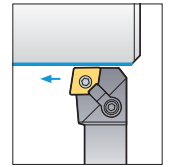
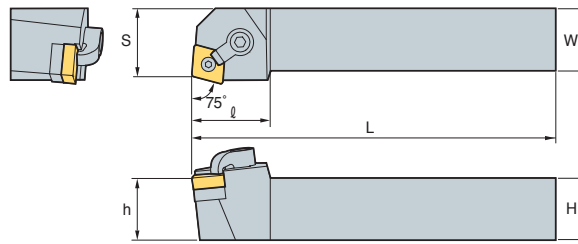


B Multi Lock System

MCRNR/L



CN□□



75°

• R type insert (mm)

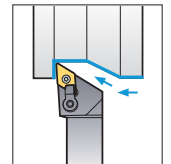
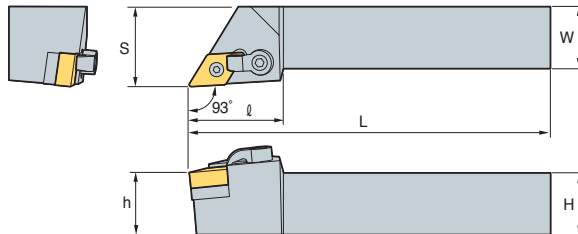
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MCRNR/L 2020-K12	20	20	125	22	20	32	CN□□1204□□					
	25	25	150	27	25	32						
2525-M16	25	25	150	27	25	33	CN□□1606□□					
3232-P16	32	32	170	35	32	33						
3232-P19	32	32	170	35	32	38	CN□□1906□□					
4040-S19	40	40	250	43	40	38						

➔ Applicable inserts B28~B35

MDJNR/L



DN□□



93°

• R type insert (mm)

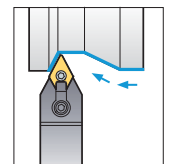
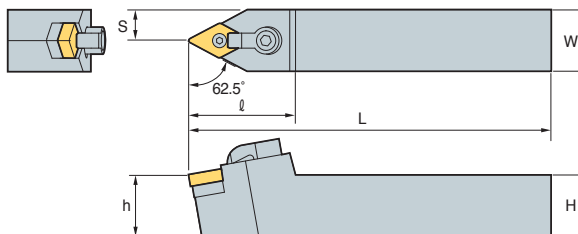
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MDJNR/L 2020-K11	20	20	125	25	20	32	DN□□1204□□					
	25	25	150	32	25	32						
2020-K15-3	20	20	125	25	20	36	DN□□1504□□					
2525-M15-3	25	25	150	32	25	36						
3232-P15-3	32	32	170	40	32	36	DN□□1506□□					
2020-K15	20	20	125	25	20	36						
2525-M15	25	25	150	32	25	36						
3232-P15	32	32	170	40	32	36						

➔ Applicable inserts B36~B42

MDNNN



DN□□



62.5°

(mm)

Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MDNNN 2525-M15-3	25	25	150	12.5	25	41	DN□□1504□□					
	25	25	150	12.5	25	41						
2525-M15	25	25	150	12.5	25	41	DN□□1506□□					

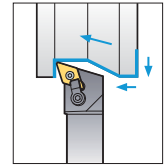
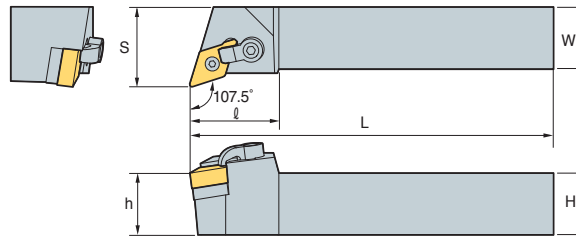
➔ Applicable inserts B36~B42



MDQNR/L



DN□□



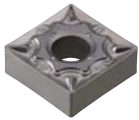
107.5°

• R type insert (mm)

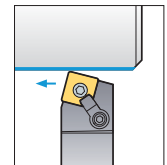
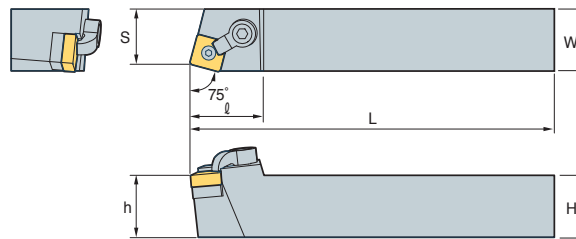
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MDQNR/L 2525-M15-3	25	25	150	32	25	36	DN□□1504□□					
	32	32	170	40	32	36						
2525-M15	25	25	150	32	25	36	DN□□1506□□					
	32	32	170	40	32	36						

➔ Applicable inserts B36~B42

MSBNR/L



SN□□



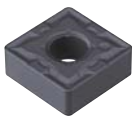
75°

• R type insert (mm)

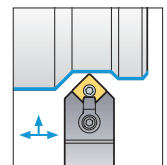
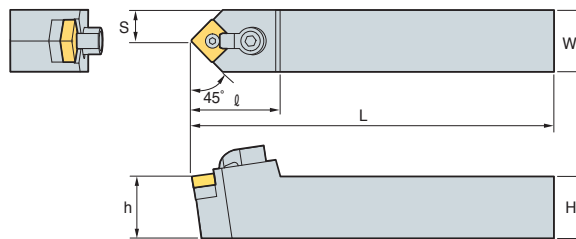
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MSBNR/L 2020-K12	20	20	125	17	20	32	SN□□1204□□					
2525-M12	25	25	150	22	25	32						
2525-M15	25	25	150	22	25	35	SN□□1506□□					
3232-P15	32	32	170	22	32	35						
3232-P19	32	32	170	27	32	40	SN□□1906□□					
4040-S19	40	40	250	35	40	40						

➔ Applicable inserts B44~B52

MSDNN



SN□□



45°

(mm)

Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MSDNN 1616-H09	16	16	100	8	16	28	SN□□0903□□					
	2020-K09	20	20	125	10	20						
2020-K12	20	20	125	10	20	32	SN□□1204□□					
2525-M12	25	25	150	12.5	25	32						
3225-P12	32	25	170	12.5	32	32	SN□□1506□□					
2525-M15	25	25	150	12.5	25	35						
3225-P15	32	25	170	12.5	32	35	SN□□1506□□					
3232-P15	32	32	170	16	32	35						
4040-S15	40	40	250	20	40	35	SN□□1906□□					
3232-P19	32	32	170	16	32	42						
4040-S19	40	40	250	20	40	42	SN□□1906□□					

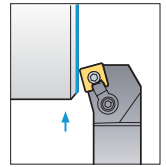
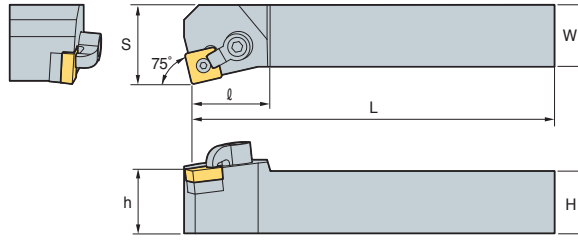
➔ Applicable inserts B44~B52

B Multi Lock System

MSKNR/L



SN□□



75°

• R type insert (mm)

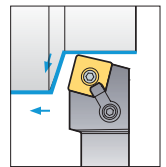
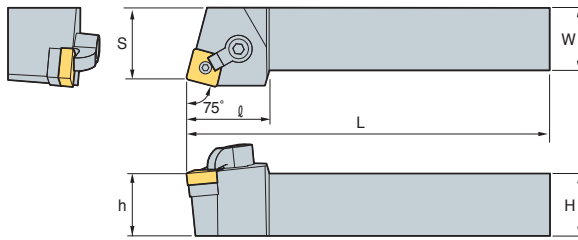
Designation	H	W	L	S	h	l	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MSKNR/L 1616-H09	16	16	100	20	16	28	SN□□0903□□	CDH7N	DHA10-32-19	SS32D	SP3DS	HW19.8L HW23.8L
2020-K09	20	20	125	22	20	28						
2020-K12	20	20	125	25	20	32						
2525-M12	25	25	150	32	25	32	SN□□1204□□	CDH8N1	DHA5/16-32	SS43D	SP4D	HW39.7L HW23.8L
3225-P12	32	25	170	32	32	32						
2525-M15	25	25	150	32	25	35	SN□□1506□□	CDH8N	DHA5/16-32	SS53D	SP5D	HW39.7L HW31.8L
3232-P15	32	32	170	40	32	35						
3232-P19	32	32	170	40	32	40	SN□□1906□□	CDH8N	DHA5/16-32	SS63D	SP6D	HW39.7L HW35.7L
4040-S19	40	40	250	50	40	40						
4040-S25	40	40	250	50	40	40	SN□□2507□□	CDH8N3	DHA3/8-35	SS84D	SP8D	HW47.6L HW39.7L

➔ Applicable inserts B44~B52

MSRNR/L



SN□□



75°

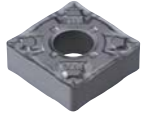
• R type insert (mm)

Designation	H	W	L	S	h	l	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MSRNR/L 1616-H09	16	16	100	17	16	28	SN□□0903□□	CDH7N	DHA10-32-19	SS32D	SP3DS	HW19.8L HW23.8L
2020-K09	20	20	125	22	20	28						
2020-K12	20	20	125	22	20	32						
2525-M12	25	25	150	27	25	32	SN□□1204□□	CDH8N1	DHA5/16-32	SS43D	SP4D	HW39.7L HW23.8L
2525-M15	25	25	150	27	25	35						
3232-P15	32	32	170	35	32	35	SN□□1506□□	CDH8N	DHA5/16-32	SS53D	SP5D	HW39.7L HW31.8L
3225-P19	32	25	170	27	32	40						
3232-P19	32	32	170	35	32	40	SN□□1906□□	CDH8N	DHA5/16-32	SS63D	SP6D	HW39.7L HW35.7L
4040-S19	40	40	250	43	40	40						
4040-S25	40	40	250	43	40	40	SN□□2507□□	CDH8N3	DHA3/8-35	SS84D	SP8D	HW47.6L HW39.7L

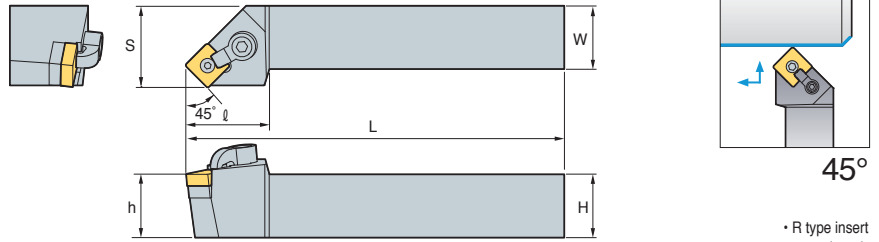
➔ Applicable inserts B44~B52



MSSNR/L



SN□□



45°

• R type insert (mm)

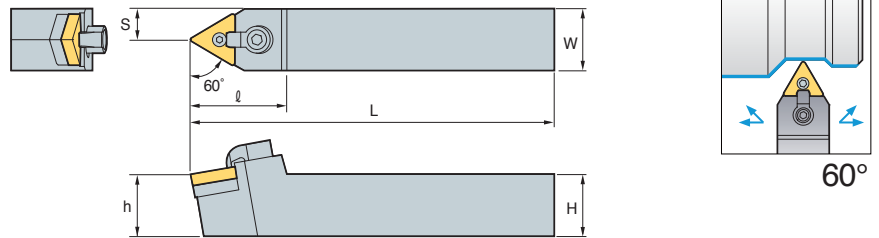
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MSSNR/L 1616-H09	16	16	100	20	16	28	SN□□0903□□					
	20	20	125	25	20	28						
2020-K12	20	20	125	25	20	32	SN□□1204□□					
2525-M12	25	25	150	32	25	32						
2525-M15	25	25	150	32	25	35	SN□□1506□□					
3232-P15	32	32	170	40	32	35						
3232-P19	32	32	170	40	32	40	SN□□1906□□					
4040-S19	40	40	250	50	40	40						

↻ Applicable inserts B44~B52

MTENN



TN□□



60°

(mm)

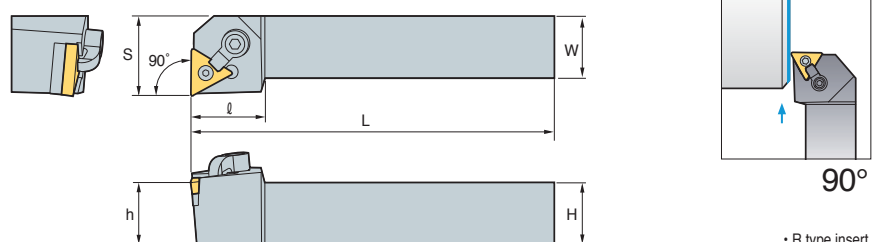
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MTENN 2020-K16	20	20	125	10	20	32	TN□□1604□□					
	25	25	150	12.5	25	32						
2525-M22	25	25	150	12.5	25	35	TN□□2204□□					
3232-P27	32	32	170	16	32	35	TN□□2706□□					
4040-S33	40	40	250	20	40	40	TN□□3307□□					

↻ Applicable inserts B53~B59

MTFNR/L



TN□□



90°

• R type insert (mm)

Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MTFNR/L 1616-H16	16	16	100	20	16	32	TN□□1604□□					
	20	20	125	25	20	32						
2020-K16	20	20	125	25	20	32	TN□□2204□□					
2525-M16	25	25	150	32	25	32						
2525-M22	25	25	150	32	25	32	TN□□2706□□					
3232-P22	32	32	170	40	32	32						
4040-S22	40	40	250	50	40	32	TN□□2706□□					
3232-P27	32	32	170	40	32	35						
4040-S27	40	40	250	50	40	35	TN□□3307□□					
4040-S33	40	40	250	50	40	40						

↻ Applicable inserts B53~B59

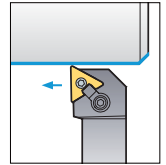
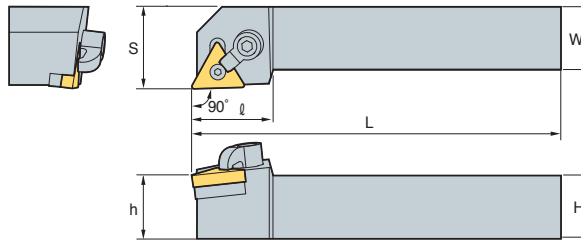


B Multi Lock System

MTGNR/L



TN□□



90°

• R type insert (mm)

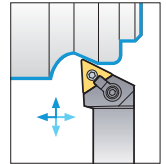
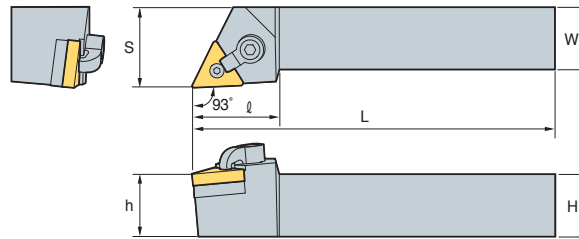
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MTGNR/L 1616-H16	16	16	100	20	16	32	TN□□1604□□					
2020-K16	20	20	125	25	20	32						
2525-M16	25	25	150	32	25	32						
2525-M22	25	25	150	32	25	32	TN□□2204□□					
3232-P22	32	32	170	40	32	32						
3232-P27	32	32	170	40	32	35	TN□□2706□□					
4040-S27	40	40	250	50	40	35						
4040-S33	40	40	250	50	40	40	TN□□3307□□					

➔ Applicable inserts B53~B59

MTJNR/L



TN□□



93°

• R type insert (mm)

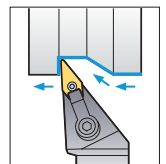
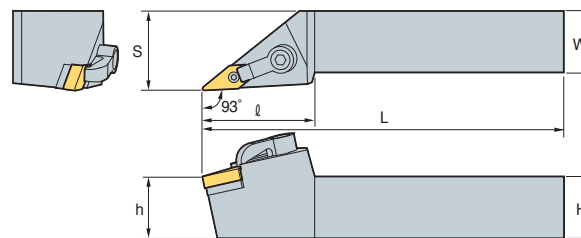
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MTJNR/L 2020-K16	20	20	125	25	20	32	TN□□1604□□					
2525-M16	25	25	150	32	25	32						
2525-M22	25	25	150	32	25	32						
3232-P22	32	32	170	40	32	32	TN□□2204□□					
3232-P27	32	32	170	40	32	35						
4040-S27	40	40	250	50	40	35	TN□□2706□□					
4040-S33	40	40	250	50	40	40						
	40	40	250	50	40	40	TN□□3307□□					

➔ Applicable inserts B53~B59

MVJNR/L



VN□□



93°

• R type insert (mm)

Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MVJNR/L 2020-K16	20	20	125	25	20	37	VN□□1604□□					
2525-M16	25	25	150	32	25	37						
3232-P16	32	32	170	40	32	37						
2525-M22	25	25	150	32	25	50	VN□□2204□□					
3232-P22	32	32	170	40	32	50						
4040-S22	40	40	250	50	40	50						
	40	40	250	50	40	50						

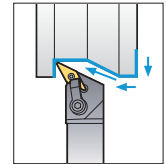
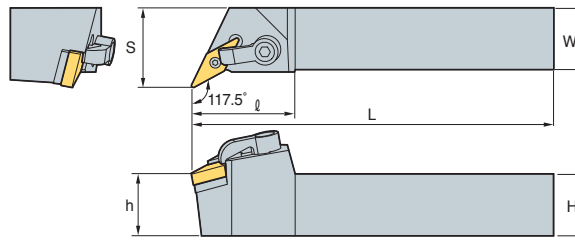
➔ Applicable inserts B60~B61



MVQNR/L



VN□□



117.5°

· R type insert (mm)

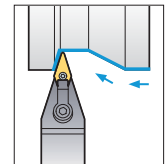
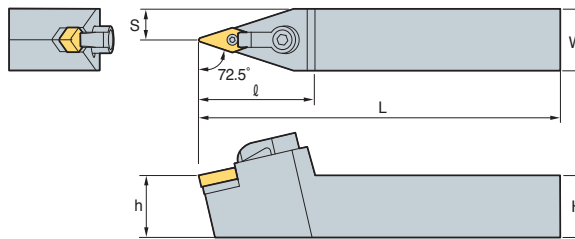
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MVQNR/L 2020-K16	20	20	125	25	20	42	VN□□1604□□					
2525-M16	25	25	150	32	25	42						
3232-P16	32	32	170	40	32	37						
								CDH8N2	DHA5/16-32	SV32D	SP3D	HW39.7L HW19.8L

↻ Applicable inserts B60~B61

MVVNN



VN□□



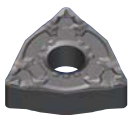
72.5°

(mm)

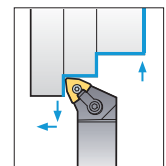
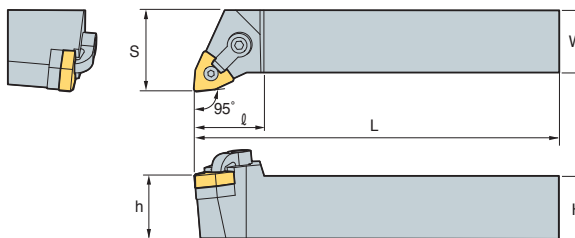
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MVVNN 2020-K16	20	20	125	25	20	42	VN□□1604□□					
2525-M16	25	25	150	32	25	42						
								CDH8N2	DHA5/16-32	SV32D	SP3D	HW39.7L HW19.8L

↻ Applicable inserts B60~B61

MWLNR/L



WN□□



95°

· R type insert (mm)

Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MWLNR/L 2020-K06	20	20	125	25	20	32	WN□□0604□□					
2525-M06	25	25	150	32	25	32						
3232-P06	32	32	170	40	32	32						
2020-K08	20	20	125	25	20	32	WN□□0804□□					
2525-M08	25	25	150	32	25	32						
3232-P08	32	32	170	40	32	32						
								CDH7N	DHA10-32-19	SW32D	SP3D	HW19.8L HW23.8L
								CDH6N	DHA1/4-21	SW43D	SP4D	HW31.8L HW23.8L

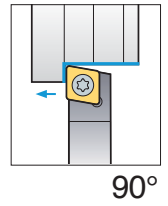
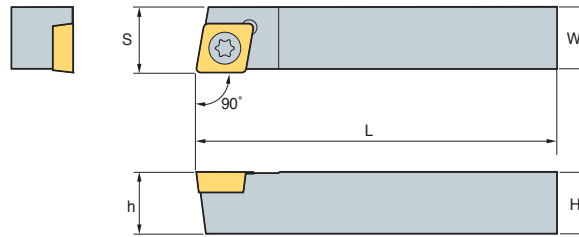
↻ Applicable inserts B62~B65

B Screw on System

SCACR/L



CC□□

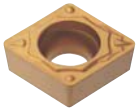


• R type insert (mm)

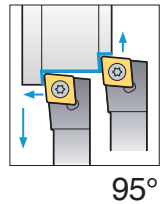
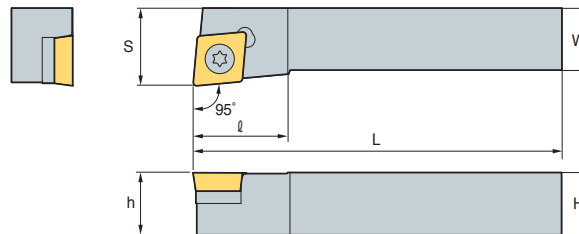
Designation	H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SCACR/L 1010-E06	10	10	70	10.5	10	CC□□0602□□	FTKA02565	-	-	TW07P
1212-F09	12	12	80	12.5	12	CC□□09T3□□	FTKA03508	-	-	TW15P

➔ Applicable inserts B66~B69, B91

SCLCR/L



CC□□



• R type insert (mm)

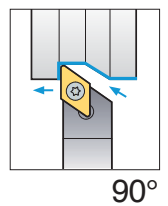
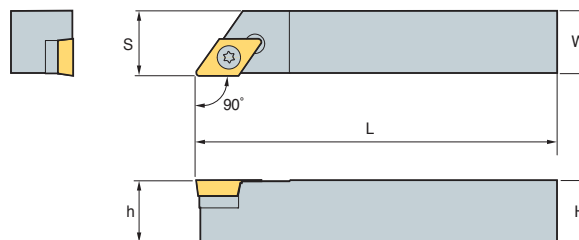
Designation	H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench					
SCLCR/L 0808-D06	08	08	60	10	08	10	CC□□0602□□	FTKA02565	-	-	TW07P					
1010-E06	10	10	70	16	10	10										
1212-F09	12	12	80	20	12	16										
1616-H09	16	16	100	20	16	16	CC□□09T3□□	CDH7N	-	-	TW15P					
2020-K09	20	20	125	25	20	16	CC□□1204□□	FTGA0411F	SC42S	SHXN0610F	TW15P					
2020-K12	20	20	125	25	20	25										
2525-M09	25	25	150	32	25	26						CC□□09T3□□	FTGA03508	-	-	TW15P
2525-M12	25	25	150	32	25	26						CC□□1204□□	FTGA0411F	SC42S	SHXN0610F	HW40L

➔ Applicable inserts B66~B69, B91

SDACR/L



DC□□



• R type insert (mm)

Designation	H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SDACR/L 1010-E07	10	10	70	10.5	10	DC□□0702□□	FTKA02565	-	-	TW07P
1212-F11	12	12	80	12.5	12	DC□□11T3□□	FTKA03508	-	-	TW15P
1616-H11	16	16	100	16.5	16		FTGA03512	SD32S	SHXN0509F	TW15P, HW35L

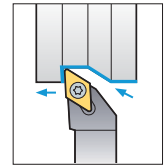
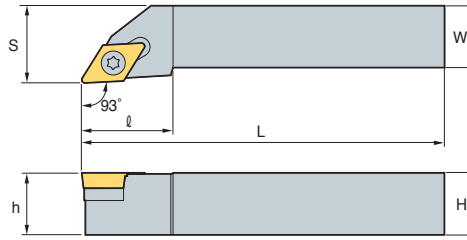
➔ Applicable inserts B71~B73, B92



SDJCR/L



DC□□



93°

• R type insert
(mm)

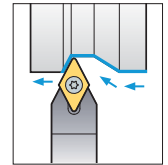
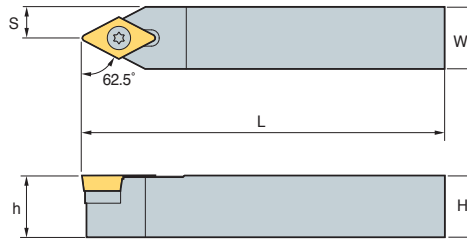
Designation	H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench
SDJCR/L	1010-E07	10	10	70	12	10	DC□□0702□□	FTKA02565	-	-	TW07P
	1212-F07	12	12	80	16	12					
	1616-H07	16	16	100	20	16					
	2020-K07	20	20	125	25	20					
SDJCR/L	1212-F11	12	12	80	16	12	DC□□11T3□□	FTGA03512	-	-	TW15P, HW35L
	1616-H11	16	16	100	20	16					
	2020-K11	20	20	125	25	20					
	2525-M11	25	25	150	32	25					

➔ Applicable inserts B71~B73, B92

SDNCN



DC□□



62.5°

(mm)

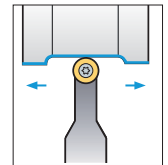
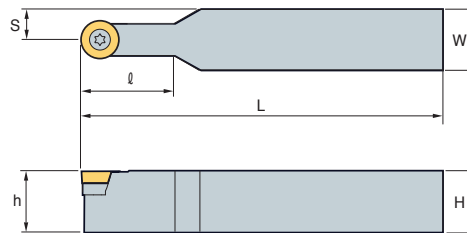
Designation	H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench	
SDNCN	1010-E07	10	10	70	5	10	DC□□0702□□	FTKA02565	-	-	TW07P
	1212-F07	12	12	80	6	12					
	1212-H11	12	12	100	6	12	DC□□11T3□□	FTGA03508	-	-	TW15P
	1616-H11	16	16	100	8	16	DC□□11T3□□	FTGA03512	SD32S	SHXN0509F	TW15P, HW35L
	2020-K11	20	20	125	10	20	DC□□11T3□□	FTGA03512	SD32S	SHXN0509F	TW25P, HW35L
	2020-M11	25	25	150	12.5	25	DCMT□□11T3□□	FTGA03512	SD32S	SHXN0509F	TW25P, HW35L

➔ Applicable inserts B71~B73, B92

SRDCN



RCGT



(mm)

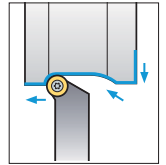
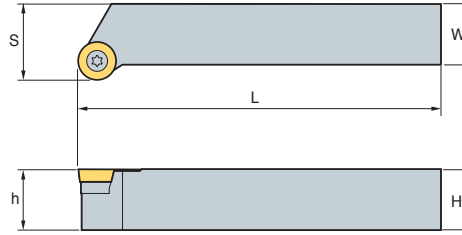
Designation	H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench	
SRDCN	1010-E06	10	10	70	5	10	RCGT 0602M0	FTKA02565	-	-	TW07P	
	1212-F06	12	12	80	6	12						
	1616-H06	16	16	100	8	16						
	2525-M06	25	25	150	12.5	25	20	RCGT 0803M0	FTNA0307	-	-	TW09P
	1616-H08	16	16	100	8	16						
	2020-K08	20	20	125	10	20						
	2525-M08	25	25	150	12.5	25	20	RCGT 1003M0	FTKA03511A	SR10S	SHXN0509F	TW15P HW35L
	1616-H10	16	16	100	8	16						
	2020-K10	20	20	125	10	20						
	2525-M10	25	25	150	12.5	25	25	RCGT 1204M0	FTGA03512	SR12S	SHXN0509F	TW15P HW35L
	2020-K12	20	20	125	10	20						
	2525-M12	25	25	150	12.5	25						

➔ Applicable inserts B93

SRGCR/L



RCYT



• R type insert
(mm)

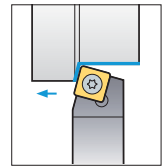
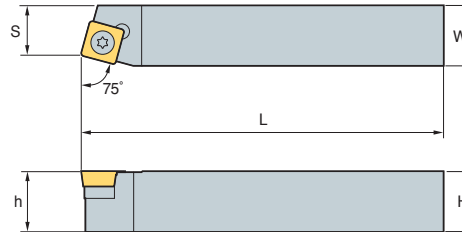
Designation	H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SRGCR/L	1010-E06	10	10	70	12	RCYT 0602M0	FTKA02565	-	-	TW07P
	1212-F06	12	12	80	16					
	1616-H06	16	16	100	20					
SRGCR/L	1616-H08	16	16	100	20	RCYT 0803M0	FTNA0307	-	-	TW09P
	2020-K08	20	20	125	25					
	2525-M08	25	25	150	32					
SRGCR/L	1616-H10	16	16	100	20	RCYT 1003M0	FTKA03511A	SR10S	SHXN0509F	TW15P HW35L
	2020-K10	20	20	125	25					
	2525-M10	25	25	150	32					
SRGCR/L	2020-K12	20	20	125	25	RCYT 1204M0	FTGA03512	SR12S	SHXN0509F	TW15P HW35L
	2525-M12	25	25	150	32					

➔ Applicable inserts B93

SSBCR/L



SC□□



75°

• R type insert
(mm)

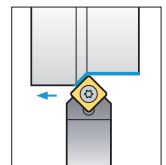
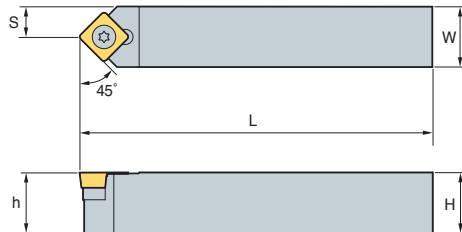
Designation	H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SSBCR/L	1212-F09	12	12	80	11	SC□□09T3□□	FTGA03508	-	-	TW15P
	1616-H09	16	16	100	13					
	2020-K12	20	20	125	17					
SSBCR/L	2020-K12	20	20	125	17	SC□□1204□□	FTGA0411F	SS42S	SHXN0610F	TW15P, HW40L

➔ Applicable inserts B74~B75, B94

SSDCN



SC□□



45°

(mm)

Designation	H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SSDCN	1212-F09	12	12	80	6	SC□□09T3□□	FTGA03508	-	-	TW15P
	1616-H09	16	16	100	8					
SSDCN	1616-H09	16	16	100	8	SC□□1204□□	FTGA03512	SS32S	SHXN0509F	TW15P, HW35L

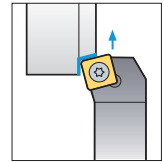
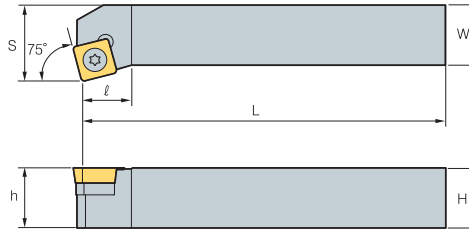
➔ Applicable inserts B74~B75, B94



SSKCR/L



SC□□



75°

• R type insert (mm)

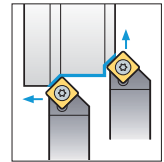
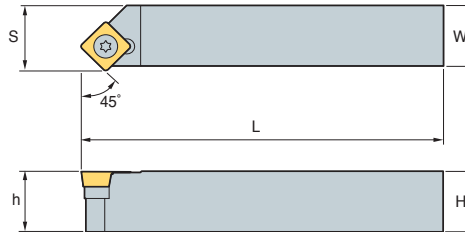
Designation	H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench
SSKCR/L 1616-H09	16	16	100	20	16	13	SC□□09T3□□	FTGA03512	SS32S	SHXN0509F	TW15P, HW35L

➔ Applicable inserts B74~B75, B94

SSSCR/L



SC□□



45°

• R type insert (mm)

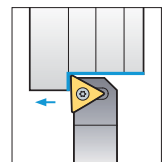
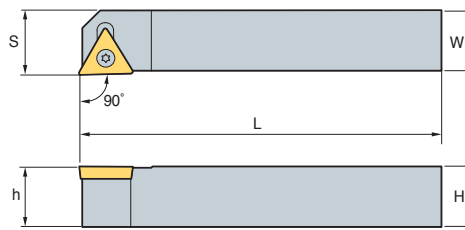
Designation	H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SSSCR/L 1616-H09	16	16	100	17	16	SC□□09T3□□	FTGA03512	SS32S	SHXN0509F	TW15P, HW35L
2020-K12	20	20	125	21	20	SC□□1204□□	FTGA0411F	SS42S	SHXN0610F	TW15P, HW40L
2525-M12	25	25	150	26	25	SC□□1204□□	FTGA0411F	SS42S	SHXN0610F	TW15P, HW40L

➔ Applicable inserts B74~B75, B94

STACR/L



TC□□



90°

• R type insert (mm)

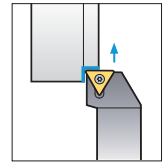
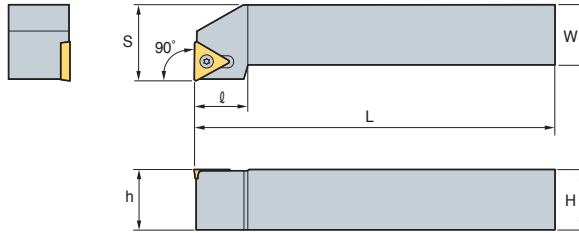
Designation	H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
STACR/L 1010-E09	10	10	70	10.5	10	TC□□0902□□	FTKA02206	-	-	TW06P
1212-F11	12	12	80	12.5	12	TC□□1102□□	FTKA02565	-	-	TW07P

➔ Applicable inserts B79~B80, B95

STFCR/L



TC□□



90°

• R type insert (mm)

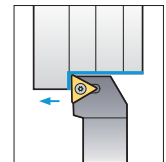
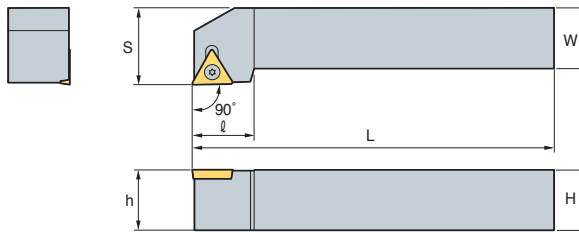
Designation	H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench
STFCR/L 1010-E09	10	10	70	12	10	10	TC□□0902□□	FTKA02206	-	-	TW06P
	12	12	80	16	12	14					
1616-H11	16	16	100	20	16	14	TC□□1102□□	FTKA02565	-	-	TW07P
1616-H16	16	16	100	20	16	19	TC□□16T3□□	FTGA03512	ST32S	SHXN0509F	TW15P, HW35L
2020-K16	20	20	125	25	20	19					
2525-M16	25	25	150	32	25	25.2	TC□□16T3□□	FTGA03512	ST32S	SHXN0509F	TW15P, HW35L

➔ Applicable inserts B79~B80, B95

STGCR/L



TC□□



90°

• R type insert (mm)

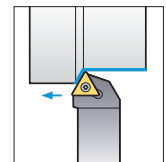
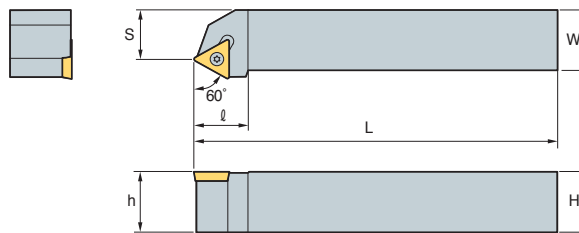
Designation	H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench
STGCR/L 0808-D09	08	08	60	10	08	11	TC□□0902□□	FTKA02206	-	-	TW06P
	10	10	70	12	10	11					
1212-F11	12	12	80	16	12	14	TC□□1102□□	FTKA02565	-	-	TW07P
1616-H11	16	16	100	20	16	16	TC□□16T3□□	FTGA03512	ST32S	SHXN0509F	TW15P, HW35L
1616-H16	16	16	100	20	16	21					
2020-K16	20	20	125	25	20	21	TC□□16T3□□	FTGA03512	ST32S	SHXN0509F	TW15P, HW35L
2525-M16	25	25	150	32	25	21	TC□□16T3□□	FTGA03512	ST32S	SHXN0509F	TW15P, HW35L

➔ Applicable inserts B79~B80, B95

STTCR/L



TC□□



60°

• R type insert (mm)

Designation	H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench
STTCR/L 1616-H11	16	16	100	13	16	14	TC□□1102□□	FTKA02565	-	-	TW07P
	16	16	100	13	16	19					
2020-K16	20	20	125	17	20	19	TC□□16T3□□	FTGA03512	ST32S	SHXN0509F	TW15P, HW35L

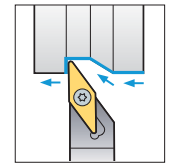
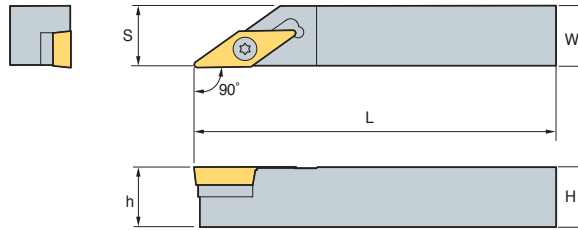
➔ Applicable inserts B79~B80, B95



SVABR/L



VB□□



90°

• R type insert (mm)

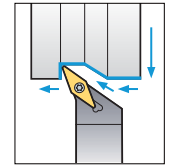
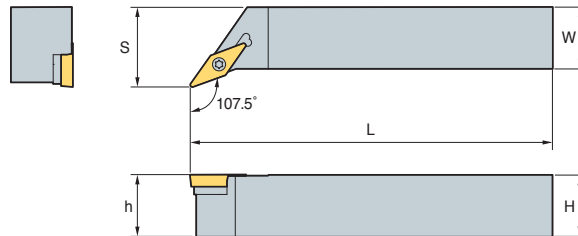
Designation	H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SVABR/L 1616-H16	16	16	100	16.5	16	VB□□1604□□	FTGA03512	SV32S	SHXN0509F	TW15P, HW35L
2020-K16	20	20	125	20.5	20					

➔ Applicable inserts B84~B85, B96

SVHBR/L



VB□□



107.5°

• R type insert (mm)

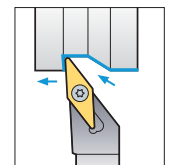
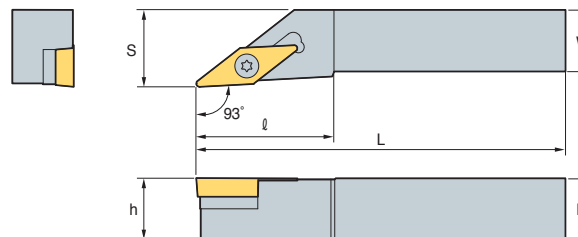
Designation	H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SVHBR/L 2525-M16	25	25	150	32	25	VB□□1604□□	FTGA03512	SV32S	SHXN0509F	TW15P, HW35L
3225-P16	32	25	170	32	32					

➔ Applicable inserts B84~B85, B96

SVJBR/L



VB□□



93°

• R type insert (mm)

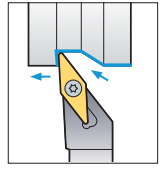
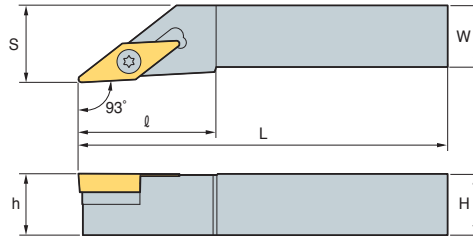
Designation	H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench
SVJBR/L 1212-F11	12	12	80	16	12	27	VB□□1102□□	FTKA02565	-	-	TW07P
1616-H11	16	16	100	20	16	27					
2020-K11	20	20	125	25	20	27					
1616-H16	16	16	100	20	16	36	VB□□1604□□	FTGA03512	SV32S	SHXN0509F	TW15P, HW35L
2020-K16	20	20	125	25	20	41					
2525-M16	25	25	150	32	25	41	VB□□1604□□	FTGA03512	SV32S	SHXN0509F	TW15P, HW35L
3225-P16	32	25	170	32	32	55					
3232-P16	32	32	170	40	33	55					

➔ Applicable inserts B84~B85, B96

SVJCR/L



VC□□



93°

• R type insert (mm)

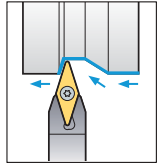
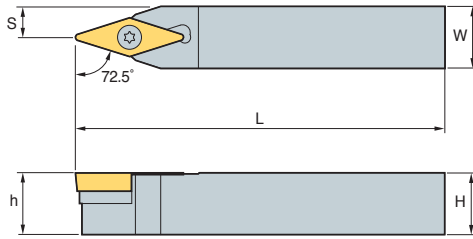
Designation	H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench	
SVJCR/L	1212-F11	12	12	80	16	12	VC□□1103□□	FTKA02565	-	-	TW07P	
	1616-H11	16	16	100	20	16						25
	2020-K11	20	20	125	25	20						25
	1212-F13	12	12	80	16	12	VC□□1303□□	FTKA0307	-	-	TW09P	
	1616-H13	16	16	100	20	16						32
	2020-K13	20	20	125	25	20						32
	1616-H16	16	16	100	20	16	VC□□1604□□	FTGA03512	SV32S	SHXN0509F	TW15P, HW35L	
	2020-K16	20	20	125	25	20						40
	2525-M16	25	25	150	32	25						

⇒ Applicable inserts B86~B87, B97

SVVBN



VB□□



72.5°

(mm)

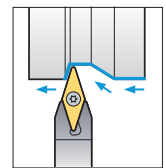
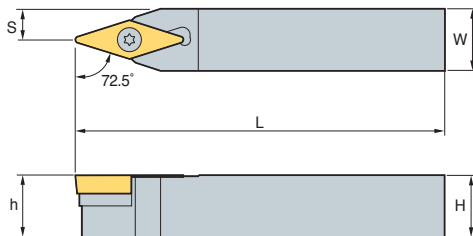
Designation	H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench	
SVVBN	1212-F11	12	12	80	6	12	VB□□1102□□	FTKA02565	-	-	TW07P
	1616-H11	16	16	100	8	16					
	2020-K11	20	20	125	10	20					
	1616-H16	16	16	100	8	16	VB□□1604□□	FTGA03512	SV32S	SHXN0509F	TW15P, HW35L
	2020-K16	20	20	125	10	20					
	2525-M16	25	25	150	12.5	25					
	3225-P16	32	25	170	12.5	32					

⇒ Applicable inserts B84~B85, B96

SVVCN



VC□□



72.5°

(mm)

Designation	H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench	
SVVCN	1212-F11	12	12	80	6	12	VC□□1103□□	FTKA02565	-	-	TW07P
	1616-H11	16	16	100	8	16					
	2020-K11	20	20	125	10	20					
	1212-F13	12	12	80	6	12	VC□□1303□□	FTNA0307	-	-	TW09P
	1616-H13	16	16	100	8	16					
	2020-K13	20	20	125	10	20					
	1616-H16	16	16	100	8	16	VC□□1604□□	FTGA03512	SV32S	SHXN0509F	TW15P, HW35L
	2020-K16	20	20	125	10	20					
	2525-M16	25	25	150	12.5	25					

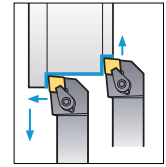
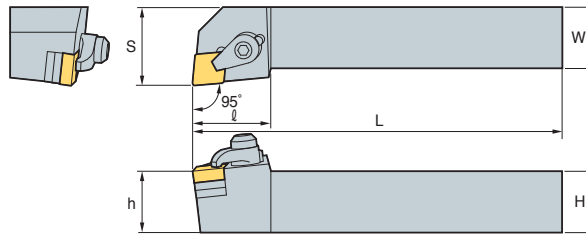
⇒ Applicable inserts B86~B87, B97



CCLNR/L



CN□N



95°

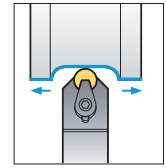
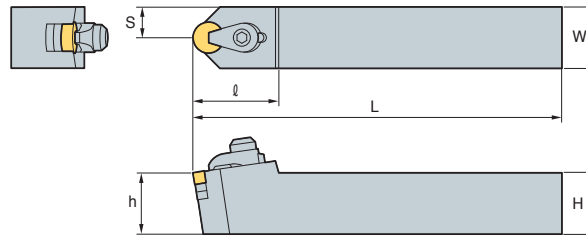
• R type insert
(mm)

Designation	H	W	L	S	h	ℓ	Insert	Clamp	Screw	Shim	Spring	Wrench
CCLNR/L 2525-M12C	25	25	150	32	25	32	CN□N 1204□□ 1207□□	CH6R3	MHX0630 SHX0310	SC42CC	SR3	HW40L HW20L

CRDNN



RN□N



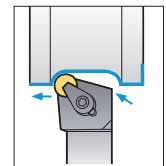
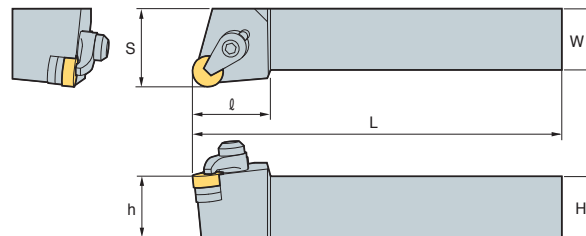
(mm)

Designation	H	W	L	S	h	ℓ	Insert	Clamp	Screw	Shim	Spring	Wrench
CRDNN 2525-M12C	25	25	150	12.5	25	35	RN□N 1204□□ 1207□□	CH6R3	MHX0630 SHX0310	SC42CC	SR3	HW40L HW20L

CRGNR/L



RN□N



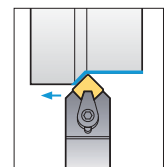
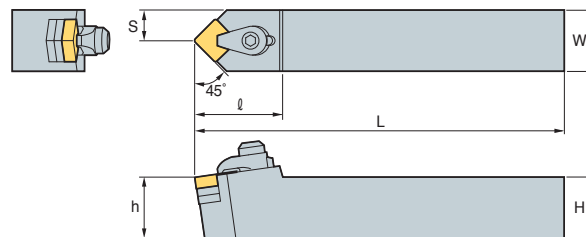
• R type insert
(mm)

Designation	H	W	L	S	h	ℓ	Insert	Clamp	Screw	Shim	Spring	Wrench
CRGNR/L 2525-M12C	25	25	150	32	25	32	RN□N 1204□□ 1207□□	CH6R3	MHX0630 SHX0310	SC42CC	SR3	HW40L HW20L

CSDNN



SN□N



45°

(mm)

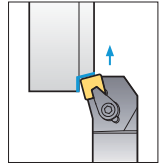
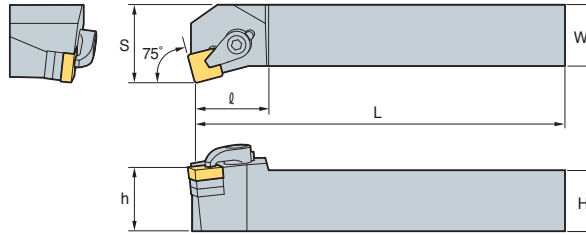
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Screw	Shim	Spring	Wrench
CSDNN 2525-M12C	25	25	125	12.5	25	35	SN□N 1204□□ 1207□□	CH6R3	MHX0630 SHX0310	SS42CC	SR3	HW40L HW20L

B Ceramic Holder

CSKNR/L



SN□N



75°

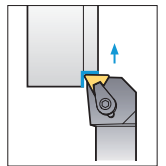
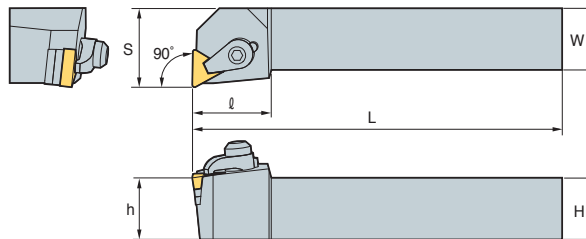
• R type insert (mm)

Designation	H	W	L	S	h	l	Insert	Clamp	Screw	Shim	Spring	Wrench
CSKNR/L 2525-M12C	25	25	150	32	25	28	SN□N 1204□□ 1207□□	CH6R3	MHX0630 SHX0310	SS42CC	SR3	HW40L HW20L

CTFNR/L



TN□N



90°

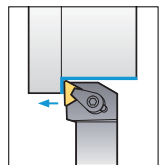
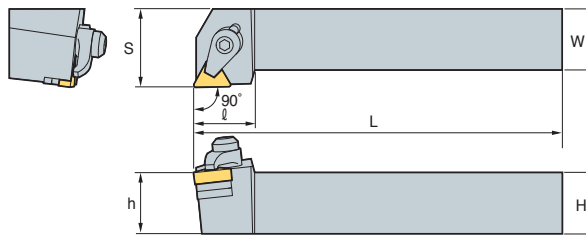
• R type insert (mm)

Designation	H	W	L	S	h	l	Insert	Clamp	Screw	Shim	Spring	Wrench
CTFNR/L 2525-M16C	25	25	150	32	25	32	TN□N 1604□□ 1607□□	CH6R3	MHX0630 SHX0310	ST32CC	SR3	HW40L HW20L

CTGNR/L



TN□N



90°

• R type insert (mm)

Designation	H	W	L	S	h	l	Insert	Clamp	Screw	Shim	Spring	Wrench
CTGNR/L 2525-M16C	25	25	150	32	25	32	TN□N 1604□□ 1607□□	CH6R3	MHX0630 SHX0310	ST32CC	SR3	HW40L HW20L



Note) Generally, two shims are clamped to a Ceramic Holder.

However, only one shim is used in clamping 1207□□ and 1607□□ sized inserts.



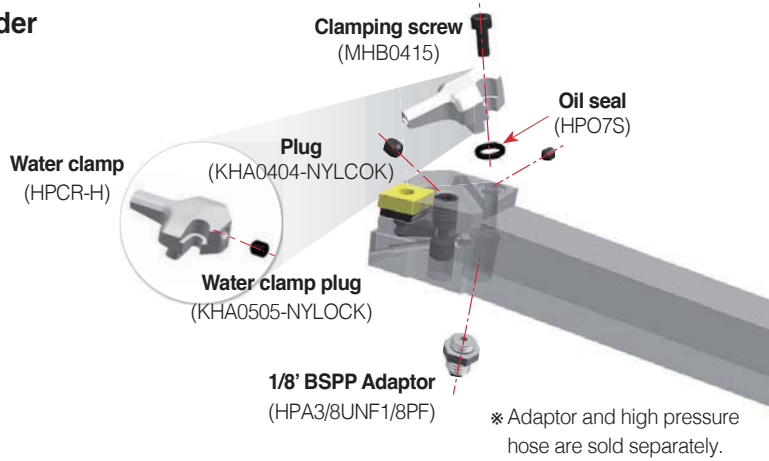
High pressure coolant holder for inconel machining



KORLOY High Pressure Coolant holder

- 300% increased productivity on Inconel machining vs. low pressure coolant system
- Cooling, tool life, and chip control are improved by the high volume coolant multi-directional injection system

Structure of Holder

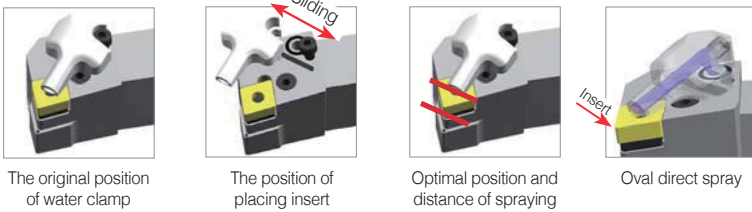


Features

- The optimal distance between the insert and the jet orifice and the ideal place of the jet orifice
- Maximized pressure of coolant due to the streamlined jet orifice
- Easy to clamp an insert for sliding clamp system

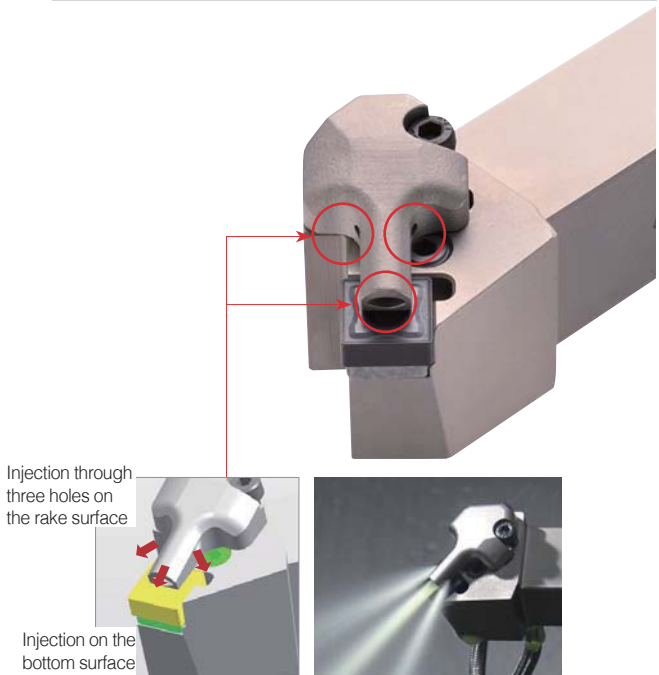
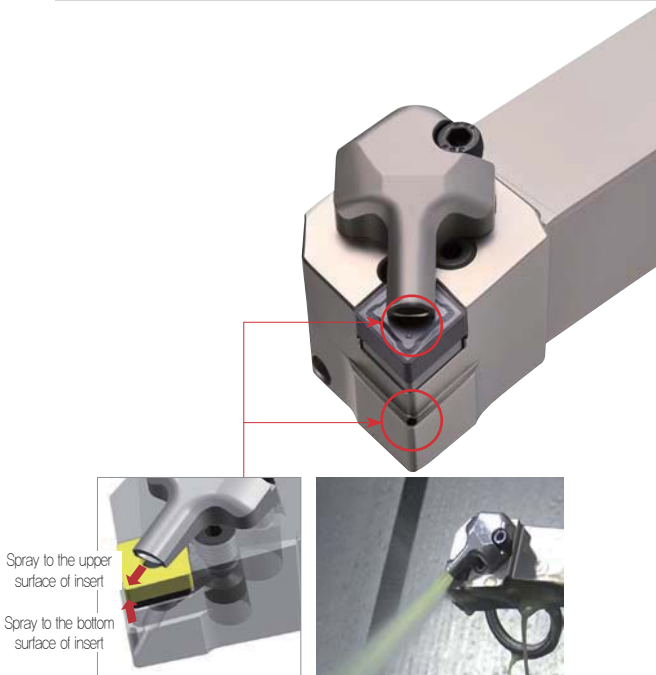
MAX 300 bar

Workpiece	The minimum pressure	The maximum pressure
P	50	300
M	70	
K	60	
N	50	
S	70	



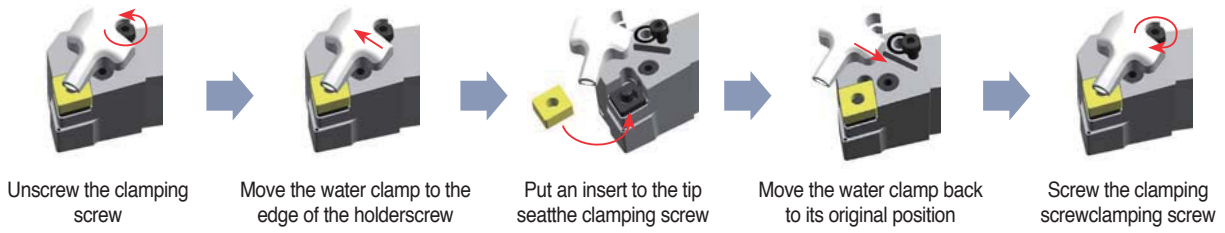
Water clamp with a hole

Water clamp with three holes

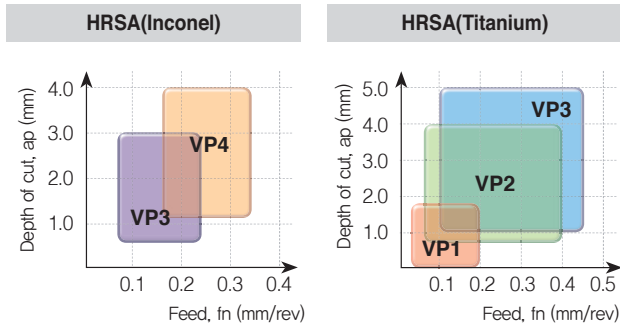


B Technical Information for KHP

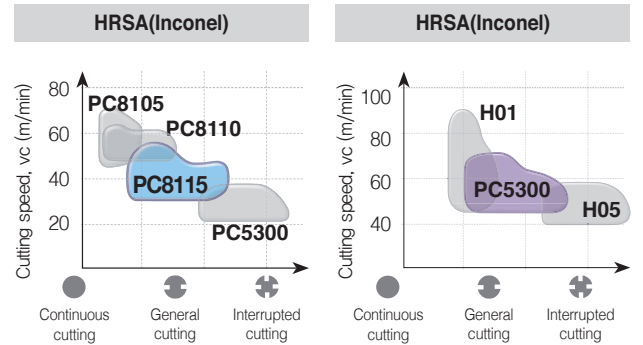
How to use the water clamp



Application range



Grade Line-up



How to clamp the KHP

- Easy to clamp with 3 types of installation system
- The banjo type hose provides wider area for machining



※ Blank including a fixed oil seal provides easy clamping

※ Banjo screws provide easy clamping and clamping a holder to the turning machine with various types of blanks.

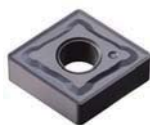
Components of KHP

- The components of high pressure coolant are sold separately
- Various components are available according to different machining sites and uses machining with high pressure coolant

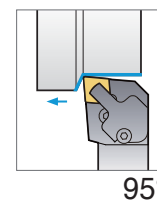
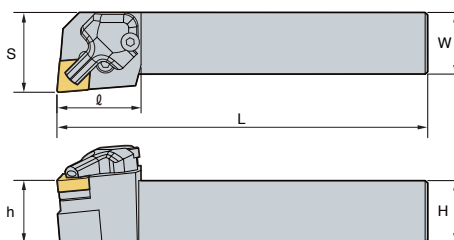
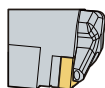
Designation	Shape	Hose length	High pressure hose	Blank	Adaptor	Banjo screw	Copper washer	Pic.
HPH3/8UNF-200-SET	S S	200mm	1 EA	1 EA	2 EA	-	-	1
HPH3/8UNF-250-SET		250mm						
HPH3/8UNF1/8PF-200-SET	S B	200mm	1 EA	1 EA	1 EA	1 EA	3EA	2
HPH3/8UNF1/8PF-250-SET		250mm						
HPH1/8PF-200-SET	B B	200mm	-	-	-	2 EA	5EA	3
HPH1/8PF-250-SET		250mm						



PCLNR/L



CN□□



95°

• R type insert
(mm)

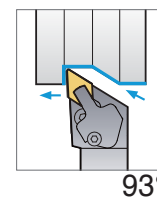
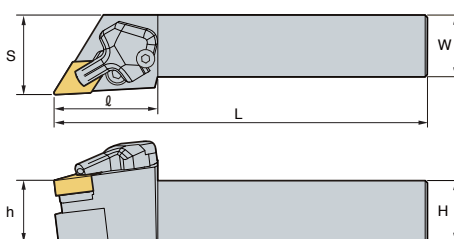
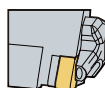
Designation	H	W	L	S	h	l	Insert	Lever	Screw	Shim	Ship pin	Wrench	Shim Pin Punch	Clamp	Clamping screw	Oil seal	Plug
PCLNR/L 2525-M12-KHP	25	25	150	32	25	34	CN□□1204□□										
3232-P12-KHP	32	32	170	40	32	34											

➔ Applicable inserts B28~B35

PDJNR/L



DN□□



93°

• R type insert
(mm)

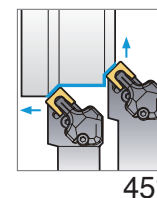
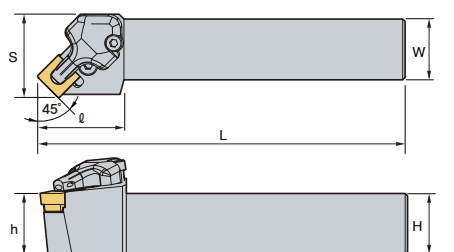
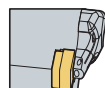
Designation	H	W	L	S	h	l	Insert	Lever	Screw	Shim	Ship pin	Wrench	Shim Pin Punch	Clamp	Clamping screw	Oil seal	Plug										
PDJNR/L 2525-M11-KHP	25	25	150	32.25	25	42	DN□□1104□□																				
2525-M1504-KHP	25	25	150	32.25	25	42	DN□□1504□□											LV3AN	VHX0617N	SD32N	SP3	HW20L HW25L HW30L	LSPS3	HPCR-H	MHB0415	HPO7S	KHA0404- NYLOCK
2525-M1506-KHP	25	25	150	32.25	25	42	DN□□1506□□											LV4BN	VHX0821N	SD43N	SP4N	HW20L HW30L	LSPS4	HPCR-H	MHB0415	HPO7S	KHA0404- NYLOCK
2525-M1506-KHP	25	25	150	32.25	25	42	DN□□1506□□	LV4BN	VHX0821N	SD42N	SP4N	HW20L HW30L	LSPS4	HPCR-H	MHB0415	HPO7S	KHA0404- NYLOCK										

➔ Applicable inserts B36~B42

PSSNR/L



SN□□



45°

• R type insert
(mm)

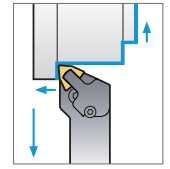
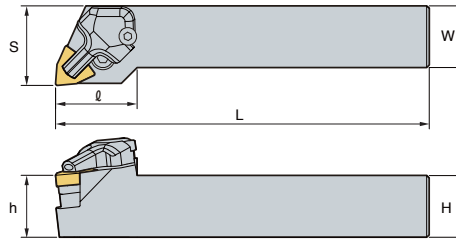
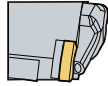
Designation	H	W	L	S	h	l	Insert	Lever	Screw	Shim	Ship pin	Wrench	Shim Pin Punch	Clamp	Screw bolt	Oil seal	Screw plug
PSSNR/L 2525-M12-KHP	25	25	150	34.25	25	34	SN□□1204□□										
PSSNR/L 2525-M12-KHP	25	25	150	34.25	25	34	SN□□1204□□	LV4N	VHX0821	SS42N	SP4N	HW20L HW30L	LSPS4	HPCR-3H	MHB0415	HPO7S	KHA0404- NYLOCK

➔ Applicable inserts B44~B52

PWLNR/L



WN□□



95°

• R type insert
(mm)

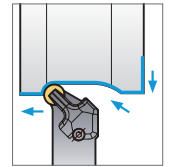
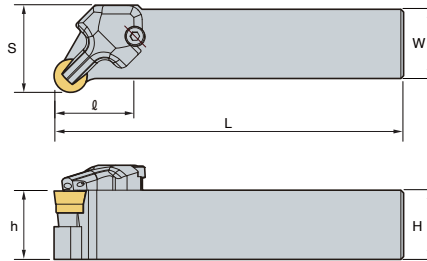
Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch	Clamp	Clamping screw	Oil seal	Plug
PWLNR/L 2525-M08-KHP	25	25	150	32.25	25	33	WN□□0804□□										
3232-P08-KHP	32	32	170	39.25	32	33											

➔ Applicable inserts B62~B65

SRGCR/L



RCGT



• R type insert
(mm)

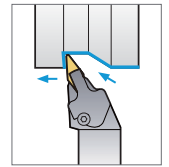
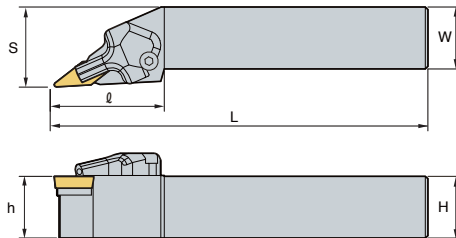
Designation	H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench	Clamp	Clamping screw	Oil seal
SRGCR/L 2525-M12-KHP	25	25	150	31.5	25	-	RCGT1204M0							
								FTGA03512	SR12S	SHXN0509F	HW15P HW30L HW35L	HPCR/L-3H	MHB0415	HPO7S

➔ Applicable inserts B93

SVJBR/L



VB□□



93°

• R type insert
(mm)

Designation	H	W	L	S	h	ℓ	Insert	Screw	Shim Screw	Shim	Wrench	Clamp	Clamping screw	Oil seal
SVJBR/L 2525-M16-KHP	25	25	150	32.5	25	46.5	VB□□1604□□							
								FTGA03512	SHXN0509F	SV32S	TW15P HW30L HW35L	HPCR-H	MHB0415	HPO7S

➔ Applicable inserts B84~B85, B96



S 12 M - S T F P R - 11

1

Type of Bar

2

Bar Diameter

3

Bar Length

4

Method of Mounting Insert

5

Insert Shape

6

Lead Angle of Boring Bar

7

Relief Angle of Insert

8

Hand of Bar

9

Length of Cutting Edge

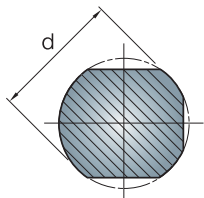
1 Type of Bar

S 12 M - S T F P R - 11

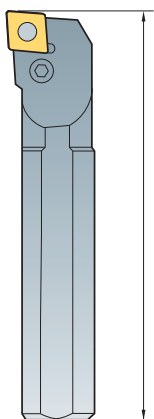
- "A" Steel with coolant hole
- "E" Carbide bar with fixed steel head and coolant hole
- "C" Carbide shank
- "S" Steel shank
- "X" Special type

2 Bar Diameter

S 12 M - S T F P R - 11

**3 Bar Length**

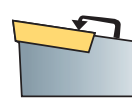
S 12 M S T F P R - 11



Symbol(L)	length(mm)
H	100
J	110
K	125
M	150
N	160
Q	180
R	200
S	250
T	300
U	350
V	400
W	450
Y	500

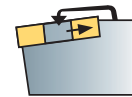
4 Method of Mounting Insert

S 12 M S T F P R - 11



Top clamping

C



Top and hole clamping

D



Top and hole clamping

M



Hole clamping

P

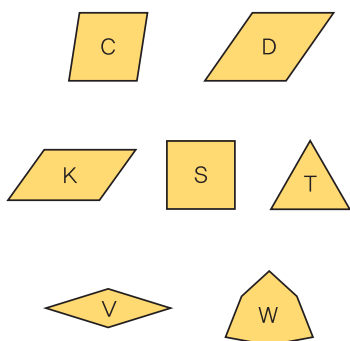


Screw on

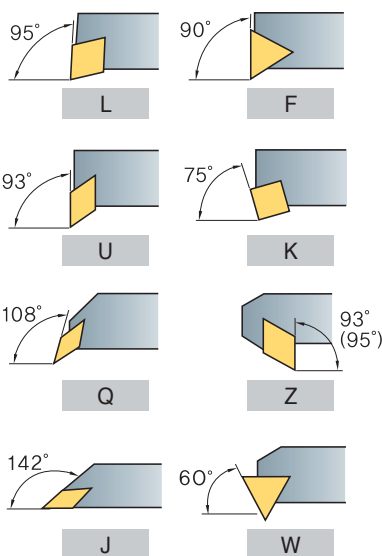
S

5 Insert Shape

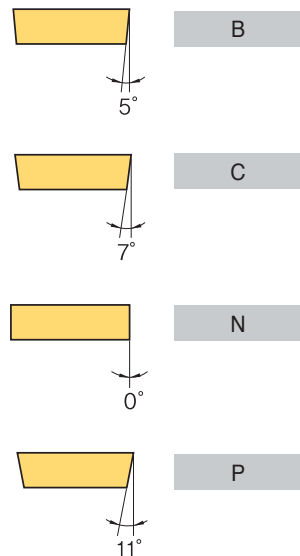
S 12 M - S T F P R - 11

**6 Lead Angle of Boring Bar**

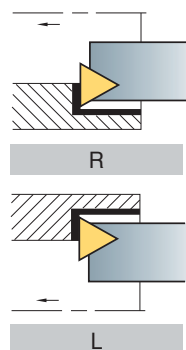
S 12 M - S T F P R - 11

**7 Relief Angle of Insert**

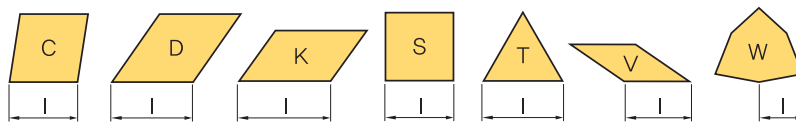
S 12 M - S T F P R - 11

**8 Hand of Bar**

S 12 M - S T F P R - 11

**9 Length of Cutting Edge**

S 12 M - S T F P R - 11



B Index for Boring Bar

Double Clamp System

Cutting Shape								
Designation	DCLNR/L	DDUNR/L	DSKNR/L	DTFNR/L	DWLNR/L			
Approach angle	95°	93°	75°	90°	95°			
Page	B195	B195	B195	B196	B196			
Copying		●						
Facing	●				●			
Back turning		●						
Turning	●	●	●	●	●			

Lever Lock System

Cutting Shape								
Designation	PCLNR/L	PDSNR/L	PDUNR/L	PSKNR/L	PTFNR/L	PWLNR/L		
Approach angle	95°	62.5°	93°	75°	90°	95°		
Page	B197	B197	B198	B199	B199	B200		
Copying		●	●					
Facing	●					●		
Back turning		●	●			●		
Turning	●	●	●	●	●	●		

Clamp on System

Cutting Shape								
Designation	CKUNR/L	CSKPR/L	CTFPR/L					
Approach angle	93°	75°	90°					
Page	B201	B201	B201					
Copying								
Facing								
Back turning	●							
Turning	●	●	●					

Multi Lock System

Cutting Shape								
Designation	MCLNR/L	MDUNR/L	MSKNR/L	MTFNR/L	MVUNR/L	MWLNR/L		
Approach angle	95°	93°	75°	90°	93°	95°		
Page	B202	B202	B202	B203	B203	B203		
Copying		●			●			
Facing	●					●		
Back turning		●			●			
Turning	●	●	●	●	●	●		



Screw on System

Cutting Shape								
Designation	SCLCR/L	SCLPR/L	SDQCR/L	SDUCR/L	SDZCR/L	SSKCR/L	SSKPR/L	STFCR/L
Approach angle	95°	95°	107.5°	93°	93°	75°	75°	90°
Page	B204	B205	B206	B207	B208	B208	B208	B209
Copying			●	●				
Facing	●	●						
Back turning			●	●	●			
Turning	●	●	●	●	●	●	●	●

Cutting Shape								
Designation	STFPR/L	STWPR/L	SVJCR/L	SVQBR/L	SVQCR/L	SVUBR/L	SVUCR/L	SWLCR/L
Approach angle	90°	60°	142°	108°	108°	93°	93°	95°
Page	B210	B211	B211	B211	B212	B212	B212	B213
Copying			●	●	●	●	●	●
Facing								
Back turning				●	●	●	●	●
Turning	●	●	●	●	●	●	●	●

Compact Mini

Cutting Shape								
Designation	SCLCR/L	STUBR/L	STUPR/L	SWUBR/L				
Approach angle	95°	93°	93°	93°				
Page	B214	B214	B215	B216				
Copying								
Facing	●	●						
Back turning			●					
Turning	●	●	●	●				

Carbide Shank Boring Bar

Designation	SCLCR/L	SCLPR/L	SDQCR/L	SDUCR/L	STFCR/L
Approach angle	95°	95°	107.5°	93°	90°
Page	B204	B205	B206	B207	B209

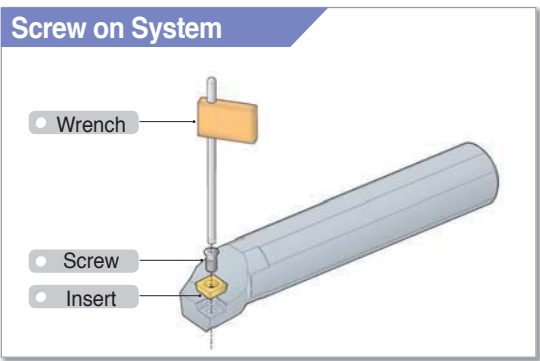
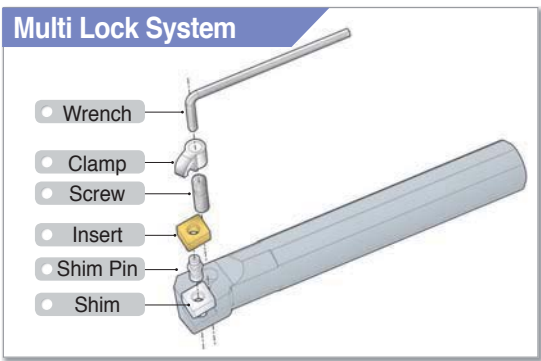
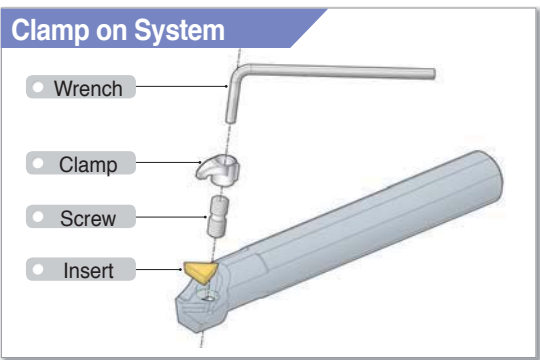
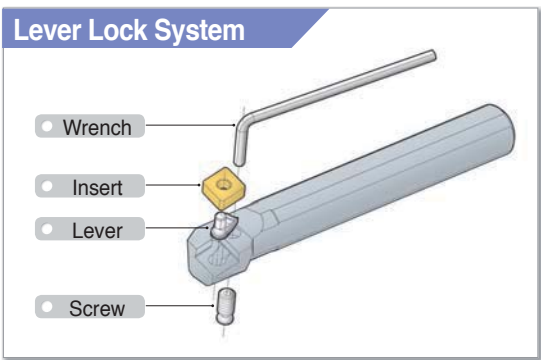
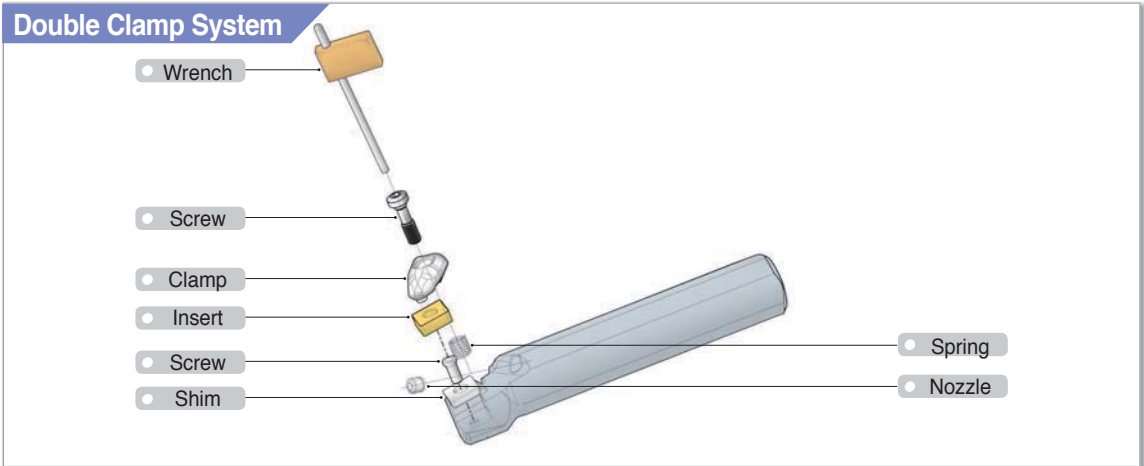
Designation	STFPR/L	STUBR/L	STUPR/L	SWUBR/L	-
Approach angle	90°	93°	93°	93°	-
Page	B210	B214	B215	B216	-

Sleeve

Shape		
Designation	SL	
Page	B136	

B Instructions of Boring Bar assembly

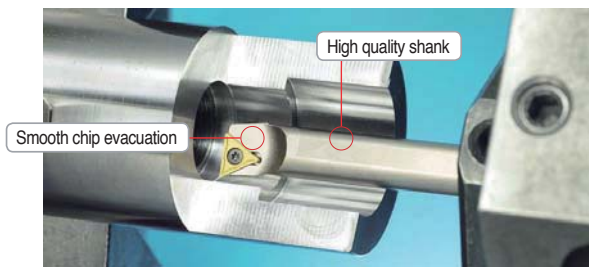
Instructions of Boring Bar assembly



Carbide Shank Boring Bar

- Excellent cutting performance even in internal machining with chattering
- Available for various workpieces such as steel, stainless steel, cast iron, etc.
- Improved tool life and surface roughness

Features



Higher strength and durability than steel shank, special surface treatment applied

Comparison of chipping

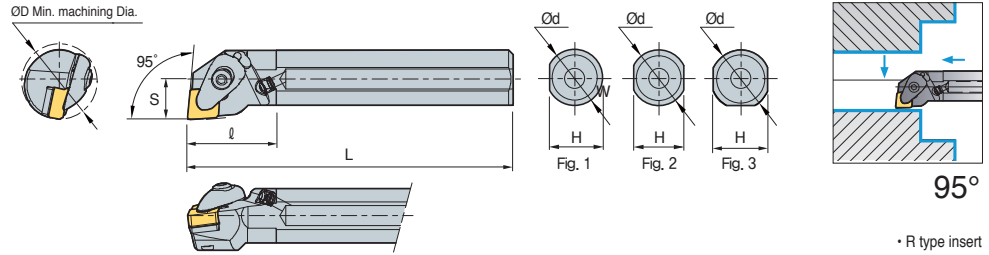
Specifications	Steel boring bar	Carbide boring bar				
	Increased chipping on insert	Stable tool life				
• SCM440						
• v_c : 200 m/min						
• a_p : 0.4 mm						
• f_n : 0.15 mm/rev						
• Cutting depth: 5D						
	R_{max}	R_z	R_a	R_{max}	R_z	R_a
	4.67	3.68	0.62	3.07	2.76	0.53



DCLNR/L



CN□□



95°

· R type insert (mm)

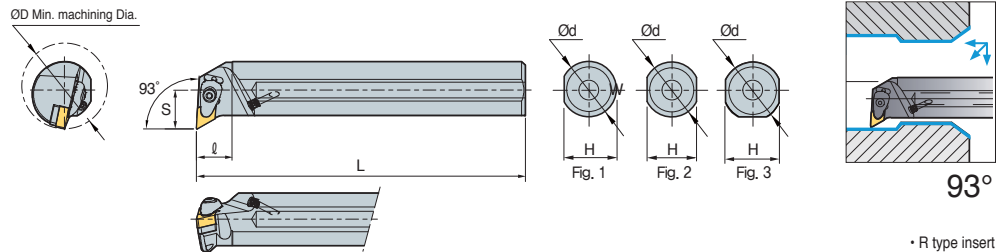
Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Nozzle	Wrench	Fig.
A25R-DCLNR/L-09	32	25	24	200	17	40	CN□□0903□□	CVH3	CHX0415	SC32V	FTKA0307	SPR0510	CN0605	HW25P	1
A25R-DCLNR/L-12	32	25	24	200	17	40	CN□□1204□□	CVH4	CHX0518	SC42V	FTKA0410	SPR0714	CN0605	HW30P	1
A32S-DCLNR/L-12	40	32	30	250	22	50									3
A40T-DCLNR/L-12	50	40	38	300	27	60	CN□□1606□□	CVH5	CHX0622	SC54V	FTNA0511	SPR0811	CN0605	HW40L	3
A50U-DCLNR/L-16	63	50	48	350	35	70									3

↻ Applicable inserts B28~B35

DDUNR/L



DN□□



93°

· R type insert (mm)

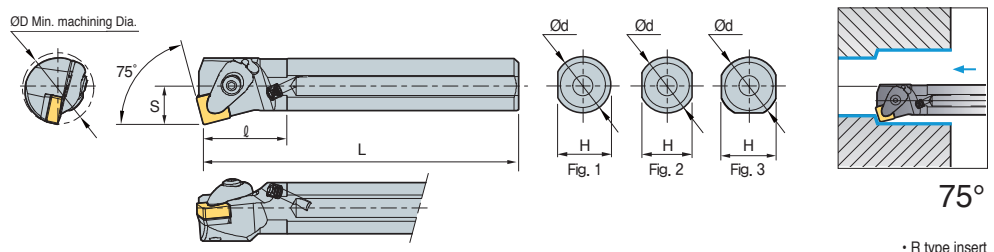
Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Nozzle	Wrench	Fig.
A40T-DDUNR/L-15	50	40	38	300	27	60	DN□□1506□□	CVH4	CHX0518	SD43V	FTKA0410	SPR0714	CN0605	HW30P	3
A50U-DDUNR/L-15	63	50	47	350	35	70									3
A40T-DDUNR/L-15 -3	50	40	38	300	27	60	DN□□1504□□	CVH4	CHX0518	SD44V	FTKA0410	SPR0714	CN0605	HW30P	3
A50U-DDUNR/L-15 -3	63	50	47	350	35	70									3

↻ Applicable inserts B36~B42

DSKNR/L



SN□□



75°

· R type insert (mm)

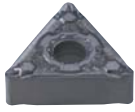
Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Nozzle	Wrench	Fig.
A25R-DSKNR/L-09	32	25	24	200	17	40	SN□□0903□□	CVH3	CHX0415	SS32V	FTKA0307	SPR0510	CN0605	HW25P	1
A25R-DSKNR/L-12	32	25	24	200	17	40	SN□□1204□□	CVH4	CHX0518	SS42V	FTKA0410	SPR0714	CN0605	HW30P	1
A32S-DSKNR/L-12	40	32	30	250	22	50									3
A40T-DSKNR/L-12	50	40	38	300	27	60	SN□□1606□□	CVH5	CHX0622	SS54V	FTNA0511	SPR0811	CN0605	HW40L	3
A50U-DSKNR/L-16	63	50	48	350	35	70									3

↻ Applicable inserts B44~B52

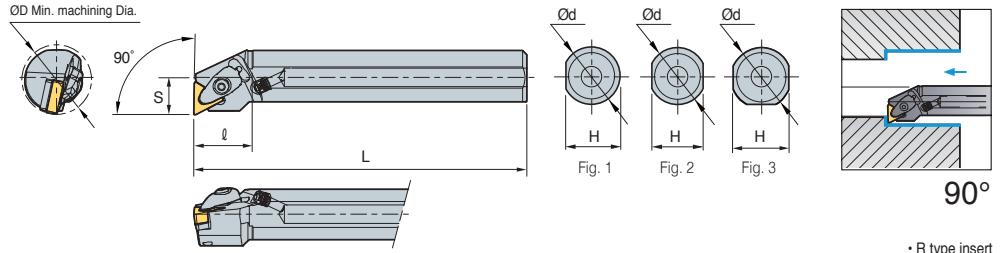


B Double Clamp System

DTFNR/L



TN□□



• R type insert (mm)

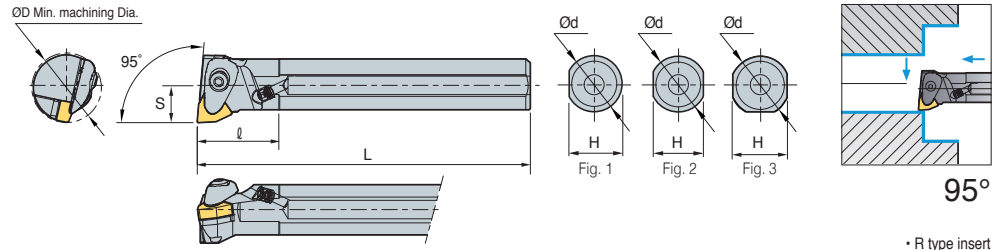
Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Nozzle	Wrench	Fig.
A25R-DTFNR/L-16	32	25	24	200	17	40	TN□□1604□□								1
A32S-DTFNR/L-16	40	32	30	250	22	3									
A40T-DTFNR/L-22	50	40	38	300	27	60									
A50U-DTFNR/L-22	63	50	47	350	35	70	TN□□2204□□								3

↻ Applicable inserts B53~B59

DWLNR/L



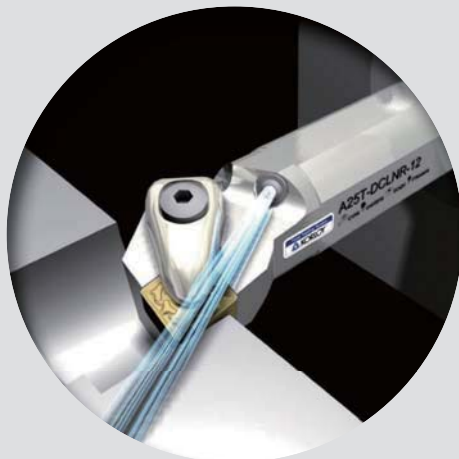
WN□□



• R type insert (mm)

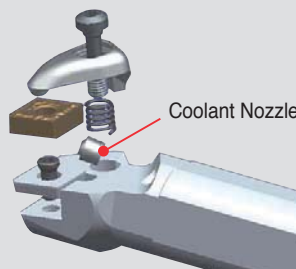
Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Nozzle	Wrench	Fig.
A25R-DWLNR/L-06	32	25	24	200	17	40	WN□□0604□□								1
A32S-DWLNR/L-06	40	32	30	250	22	50									3
A40T-DWLNR/L-06	50	40	38	300	27	60									
A25R-DWLNR/L-08	32	25	24	200	17	40	WN□□0804□□								1
A32S-DWLNR/L-08	40	32	30	250	22	50									3
A40T-DWLNR/L-08	50	40	38	300	27	60									
A50U-DWLNR/L-08	63	50	47	350	35	70									

↻ Applicable inserts B62~B65



Features of Double Clamp (Boring bar)

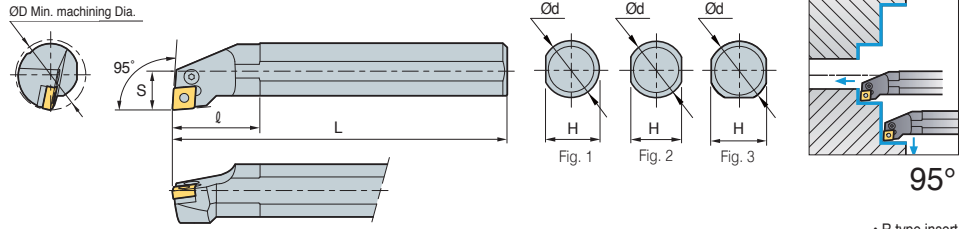
Longer tool life and excellent surface finish can be achieved with the adjustable Coolant Nozzle



PCLNR/L



CN□□



• R type insert (mm)

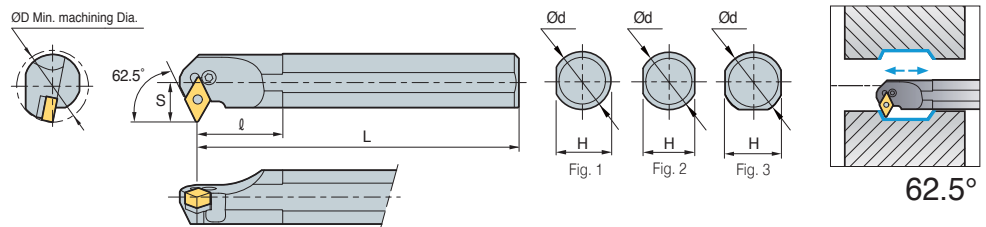
Designation	ØD	Ød	H	L	S	l	Insert	Lever	Screw	Shim	Shim Pin	Shim Pin Punch	Wrench	Fig.					
S16R-PCLNR/L-09	20	16	14	200	11	25	CN□□0903□□	LV3C	VHX0509B	-	-	-	HW20L	2					
S20S-PCLNR/L-09	25	20	18	250	13	32								3					
S25R-PCLNR/L-09	32	25	23	200	17	40	CN□□1204□□	LV4A	VHX0613A	-	-	-	HW25L	3					
S25T-PCLNR/L-12	32	25	23	300	17	40													
S32S-PCLNR/L-12	40	32	30	250	22	50													
S32U-PCLNR/L-12	40	32	30	350	22	50								LV4	VHX0821	SC42B	SP4	LSPS4	HW30L
S40T-PCLNR/L-12	50	40	38	300	27	60													
S50U-PCLNR/L-12	63	50	47	350	35	70													
S50U-PCLNR/L-19	63	50	47	350	35	70	CN□□1906□□	LV6	VHX1027	SC63	SP6	LSPS6	HW40L	3					
A25R-PCLNR/L-12	32	25	24	200	17	40	CN□□1204□□	LV4A	VHX0613A	-	-	-	HW25L	1					
A32S-PCLNR/L-12	40	32	30	250	22	50								3					
A40T-PCLNR/L-12	50	40	38	300	27	60	CN□□1204□□	LV4N	VHX0820N	SC42N	SP4N	LSPS4	HW30L	3					
S16R-PCLNR/L-09N	20	16	14	200	11	25													
S20S-PCLNR/L-09N	25	20	18	250	13	32													
S25R-PCLNR/L-09N	32	25	23	200	17	40													
S25R-PCLNR/L-12N	32	25	23	200	17	40													
S25T-PCLNR/L-12N	32	25	23	300	17	40													
S32S-PCLNR/L-12N	40	32	30	250	22	50													
S32U-PCLNR/L-12N	40	32	30	350	22	50													
S40T-PCLNR/L-12N	50	40	38	300	27	60													
S50U-PCLNR/L-12N	63	50	47	350	35	70													
S50U-PCLNR/L-19N	63	50	47	350	35	70	CN□□1906□□	LV6N	VHX1027N	SC63N	SP6N	LSPS6	HW40L	3					
A16R-PCLNR/L-09N	20	16	14	200	11	25	CN□□0903□□	LV3CN	VHX0509BN	-	-	-	HW20L	1					
A20S-PCLNR/L-09N	25	20	18	250	13	32													
A25R-PCLNR/L-09N	32	25	23	200	17	40	CN□□1204□□	LV4AN	VHX0613N	-	-	-	HW25L	1					
A25R-PCLNR/L-12N	32	25	23	200	17	40													
A32R-PCLNR/L-12N	40	32	30	250	22	50													
A40T-PCLNR/L-12N	50	40	38	300	27	60								LV4N	VHX0820N	SC42N	SP4N	LSPS4	HW30L
A50U-PCLNR/L-12N	63	50	47	350	35	70													
A50U-PCLNR/L-19N	63	50	47	350	35	70													

↻ Applicable inserts B28~B35

PDSNR/L



DN□□



• R type insert (mm)

Designation	ØD	Ød	H	L	S	l	Insert	Lever	Screw	Shim	Shim Pin	Shim Pin Punch	Wrench	Fig.
S32S-PDSNR/L-15	40	32	30	250	22	50	DN□□1506□□	LV4B	VHX0821	SD42	SP4	LSPS4	HW30L	3
S40T-PDSNR/L-15	50	40	38	300	27	60								
S32S-PDSNR/L-15-3	40	32	30	250	22	50	DN□□1504□□	LV4	VHX0821	SD42	SP4	LSPS4	HW30L	
S40T-PDSNR/L-15-3	50	40	38	300	27	60								
A32S-PDSNR/L-15	40	32	30	250	22	50	DN□□1506□□	LV4B	VHX0821	SD42	SP4	LSPS4	HW30L	
A32S-PDSNR/L-15-3	40	32	30	250	22	50	DN□□1504□□	LV4	VHX0821	SD42	SP4	LSPS4	HW30L	

↻ Applicable inserts B36~B42

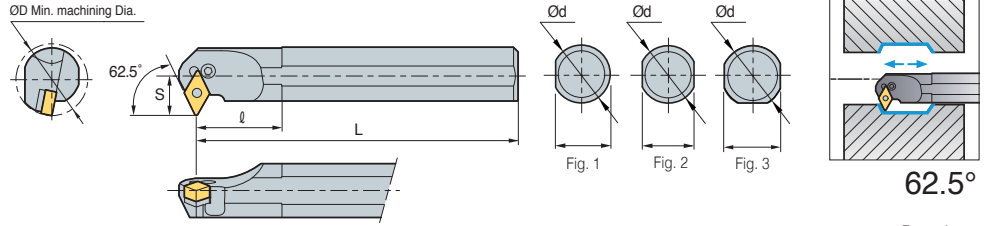


B Lever Lock System

PDSNR/L



DN□□



• R type insert (mm)

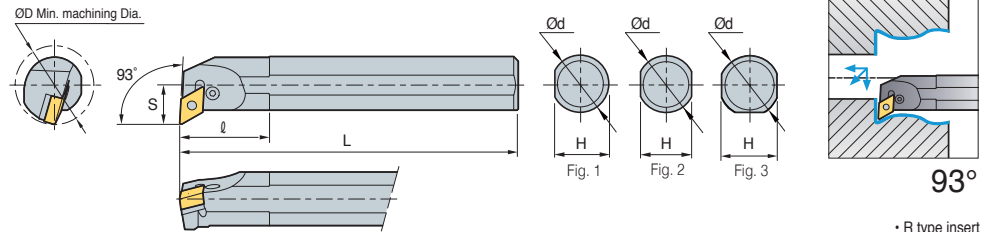
Designation	ØD	Ød	H	L	S	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Shim Pin Punch	Wrench	Fig.
S32S-PDSNR/L-15N	40	32	30	250	22	50	DN□□1506□□	LV4BN	VHX0821	SD42N	SP4N	LSPS4	HW30L	3
S40T-PDSNR/L-15N	50	40	38	300	27	60								
S32S-PDSNR/L-15-3N	40	32	30	250	22	50	DN□□1504□□	LV4BN	VHX0821	SD42N	SP4N	LSPS4	HW30L	
S40T-PDSNR/L-15-3N	50	40	38	300	27	60								
A32S-PDSNR/L-15N	40	32	30	250	22	50	DN□□1506□□	LV4BN	VHX0821	SD42N	SP4N	LSPS4	HW30L	
A40T-PDSNR/L-15N	50	40	38	300	27	60								
A32S-PDSNR/L-15-3N	40	32	30	250	22	50	DN□□1504□□	LV4BN	VHX0821	SD42N	SP4N	LSPS4	HW30L	
A40T-PDSNR/L-15-3N	50	40	38	300	27	60								

↻ Applicable inserts B36-B42

PDUNR/L



DN□□



• R type insert (mm)

Designation	ØD	Ød	H	L	S	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Shim Pin Punch	Wrench	Fig.
S32S-PDUNR/L-11	40	32	30	250	22	50	DN□□1104□□	LV3	VHX0617	SD317	SP3	LSPS3	HW25L	3
S32S-PDUNR/L-15	40	32	30	250	22	50								
S40T-PDUNR/L-15	50	40	38	300	27	60	DN□□1506□□	LV4B	VHX0821	SD42	SP4	LSPS4	HW30L	3
S50U-PDUNR/L-15	63	50	47	350	35	70								
S32S-PDUNR/L-15-3	40	32	30	250	22	50	DN□□1504□□	LV4	VHX0821	SD42	SP4	LSPS4	HW30L	3
S40T-PDUNR/L-15-3	50	40	38	300	27	60								
A32S-PDUNR/L-15	40	32	30	250	22	50	DN□□1506□□	LV4B	VHX0821	SD42	SP4	LSPS4	HW30L	3
A32S-PDUNR/L-15-3	40	32	30	250	22	50								
S20S-PDUNR/L-11N	25	20	18	250	13	32	DN□□1104□□	LV3DN	VHX0512BN	-	-	-	HW20L	2
S25R-PDUNR/L-11N	32	25	23	200	17	40								
S32S-PDUNR/L-11N	40	32	30	250	22	50	DN□□1506□□	LV3AN	VHX0617N	SD32N	SP3	LSPS3	HW30L	3
S32S-PDUNR/L-15N	40	32	30	250	22	50								
S32U-PDUNR/L-15N	40	32	30	350	22	50	DN□□1506□□	LV4BN	VHX0821N	SD42N	SP4N	LSPS4	HW30L	3
S40T-PDUNR/L-15N	50	40	38	300	27	60								
S50U-PDUNR/L-15N	63	50	47	350	35	70	DN□□1504□□	LV4BN	VHX0821N	SD43N	SP4N	LSPS4	HW30L	3
S32S-PDUNR/L-15-3N	40	32	30	250	22	50								
S40T-PDUNR/L-15-3N	50	40	38	300	27	60	DN□□1104□□	LV3DN	VHX0512BN	-	-	-	HW20L	1
A20S-PDUNR/L-11N	25	20	19	250	13	32								
A25R-PDUNR/L-11N	32	25	24	200	17	40	DN□□1104□□	LV3AN	VHX0617N	SD32N	SP3	LSPS3	HW30L	3
A32S-PDUNR/L-11N	40	32	30	250	22	50								
A32S-PDUNR/L-15N	40	32	30	250	22	50	DN□□1506□□	LV4BN	VHX0821N	SD42N	SP4N	LSPS4	HW30L	3
A40T-PDUNR/L-15N	50	40	38	300	27	60								
A50U-PDUNR/L-15N	63	50	47	350	35	70	DN□□1504□□	LV4BN	VHX0821N	SD43N	SP4N	LSPS4	HW30L	3
A32S-PDUNR/L-15-3N	40	32	30	250	22	50								
A40T-PDUNR/L-15-3N	50	40	38	300	27	60								

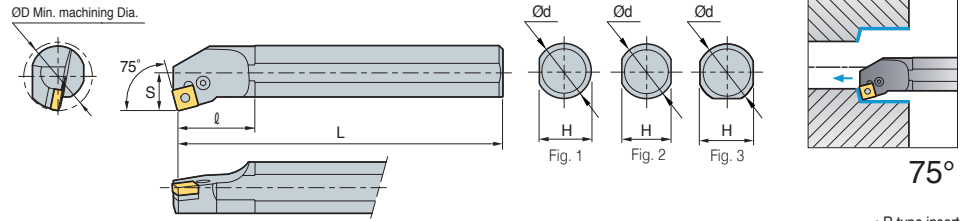
↻ Applicable inserts B36-B42



PSKNR/L



SN□□

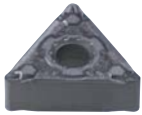


• R type insert (mm)

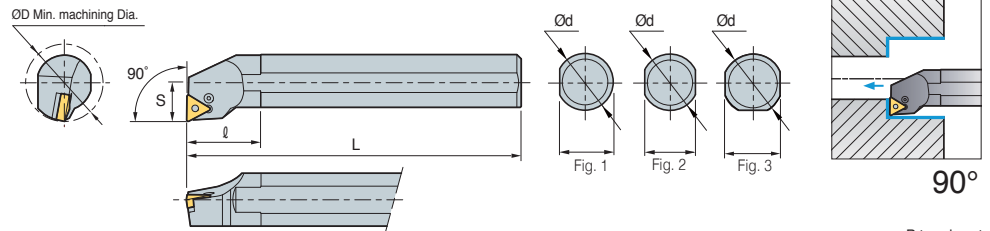
Designation	ØD	Ød	H	L	S	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Shim Pin Punch	Wrench	Fig.
S25R-PSKNR/L-12	32	25	23	200	17	40	SN□□1204□□	LV4A	VHX0613A	-	-	-	HW30L	3
S32S-PSKNR/L-12	40	32	30	250	22	50		LV4	VHX0821	SS42B	SP4	LSPS4	HW30L	
S40T-PSKNR/L-12	50	40	38	300	27	60		LV4A	VHX0613A	-	SP4	-	HW25L	
A25R-PSKNR/L-12	32	25	24	200	17	40	SN□□1204□□	LV4	VHX0821	SS42B	SP4	LSPS4	HW30L	3
A32S-PSKNR/L-12	40	32	30	250	22	50		LV4AN	VHX0613N	-	-	-	HW25L	3
S25R-PSKNR/L-12N	32	25	23	200	17	40		LV4N	VHX0821N	SS42N	SP4N	LSPS4	HW30L	
S32S-PSKNR/L-12N	40	32	30	250	22	50	LV4AN	VHX0613N	-	-	-	HW25L	1	
S40T-PSKNR/L-12N	50	40	38	300	27	60	SN□□1204□□	LV4N	VHX0821N	SS42N	SP4N	LSPS4	HW30L	3
A25R-PSKNR/L-12N	32	25	24	200	17	40		LV4AN	VHX0613N	-	-	-	HW25L	1
A32S-PSKNR/L-12N	40	32	30	250	22	50		LV4N	VHX0821N	SS42N	SP4N	LSPS4	HW30L	3
A40T-PSKNR/L-12N	50	40	38	300	27	60								

↻ Applicable inserts B44~B52

PTFNR/L



TN□□



• R type insert (mm)

Designation	ØD	Ød	H	L	S	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Shim Pin Punch	Wrench	Fig.
S16R-PTFNR/L-11	20	16	23	200	11	25	TN□□1103□□	LV2	VHX0509B	-	-	-	HW25L	1
S20S-PTFNR/L-11	25	20	30	250	13	32		LV3B	VHX0512B	-	-	-	HW20L	3
S25R-PTFNR/L-11	32	25	38	200	17	40		LV3	VHX0617	ST317B	SP3	LSPS3	HW25L	1
S25R-PTFNR/L-16	32	25	23	200	17	40	TN□□1604□□	LV3	VHX0617	ST317B	SP3	LSPS3	HW25L	1
S32S-PTFNR/L-16	40	32	30	250	22	50		LV3	VHX0617	ST317B	SP3	LSPS3	HW25L	3
S40T-PTFNR/L-16	50	40	38	300	27	60		LV3	VHX0617	ST317B	SP3	LSPS3	HW25L	3
A25R-PTFNR/L-16	32	25	24	200	17	40								
A32S-PTFNR/L-16	40	32	30	250	22	50								

↻ Applicable inserts B53~B59

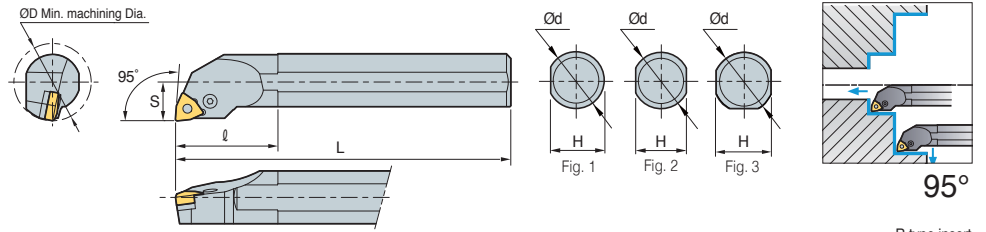


B Lever Lock System

PWLNR/L



WN□□



• R type insert (mm)

Designation	ØD	Ød	H	L	S	l	Insert	Lever	Screw	Shim	Shim Pin	Shim Pin Punch	Wrench	Fig.
S16R-PWLNR/L-06	20	16	14	200	11	25	WNMG060408	LV3B	VHX0512B	-	-	-	HW20L	2
S20S-PWLNR/L-06	25	20	18	250	13	32	WN□□0604□□	LV3B	VHX0512B	-	-	-	HW20L	2
S25R-PWLNR/L-06	32	25	23	200	17	40		LV3	VHX0617	SW317	SP3	LSPS3	HW25L	3
S32S-PWLNR/L-06	40	32	30	250	22	50	WN□□0804□□	LV4A	VHX0613A	-	-	-	HW25L	3
S25R-PWLNR/L-08	32	25	23	200	17	40		LV4	VHX0821	SW42	SP4	LSPS3	HW30L	
S32S-PWLNR/L-08	40	32	30	250	22	50	WN□□0604□□	LV3N	VHX0617N	SW317N	SP3	LSPS3	HW25L	3
S25R-PWLNR/L-08N	32	25	23	200	17	40	WN□□0804□□	LV4AN	VHX0613N	-	-	-	HW25L	
S32S-PWLNR/L-08N	40	32	30	250	22	50	WN□□0804□□	LV4N	VHX0820N	SW42N	SP4N	LSPS4	HW30L	

➔ Applicable inserts B62-B65



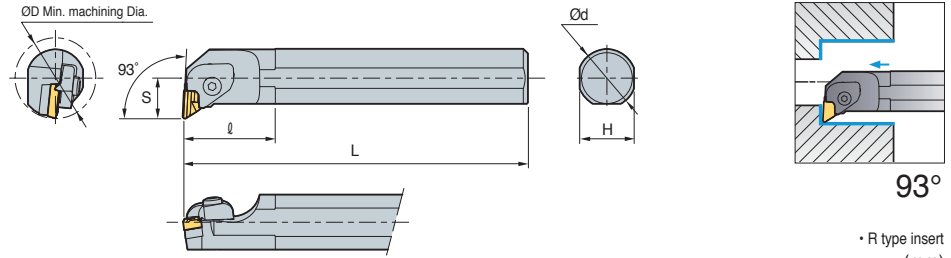
- Improved holders and parts ensure performance and durability
- “N” stand for New type (parts)



CKUNR/L



KN□□



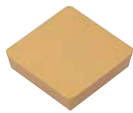
93°
• R type insert (mm)

Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Spring	Shim	Pin+Spring	Shim Screw	Wrench							
S32S-CKUNR-16	40	32	30	250	22	70	KN□□1604□□L														
S40T-CKUNR-16	50	40	37	300	27	60									CTH6LI	CHX0625	SR3	SK33CL	PN0515 SR4	SHX0310	HW40L HW20L
S50U-CKUNR-16	63	50	43	350	35	55															
S32S-CKUNL-16	40	32	30	250	22	70	KN□□1604□□R														
S40T-CKUNL-16	50	40	37	300	27	60									CTH6RI	CHX0625	SR3	SK33C	PN0515 SR4	SHX0310	HW40L HW20L
S50U-CKUNL-16	63	50	43	350	35	55															

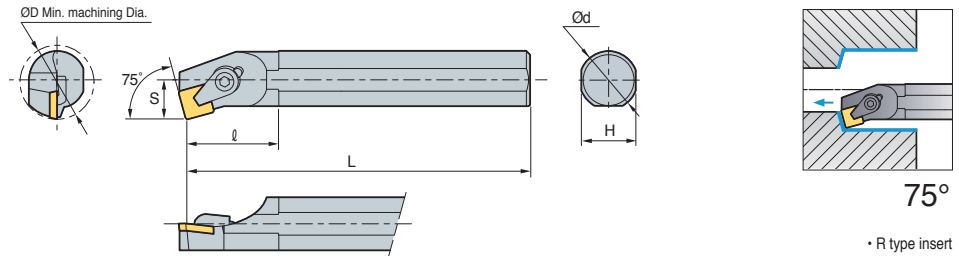
➔ Applicable inserts **B43**

• Use left handed insert for right handed holder

CSKPR/L



SP□□



75°
• R type insert (mm)

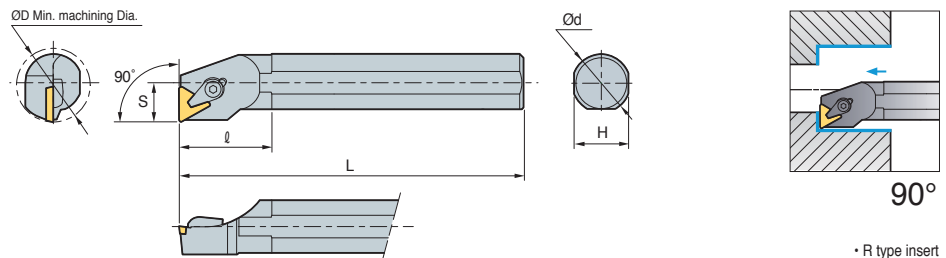
Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	C-ring	Wrench
S16R-CSKPR/L-09	20	16	15	200	11	30	SP□□0903□□				
S20S-CSKPR/L-09	25	20	18	250	13	36					
S20S-CSKPR/L-12	25	20	18	250	13	28	SP□□1203□□				
S25R-CSKPR/L-12	32	25	23	300	17	40					
S25R-CSKPR/L-12	32	25	23	300	17	40					

➔ Applicable inserts **B76~B77**

CTFPR/L



TP□□



90°
• R type insert (mm)

Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	C-ring	Shim	Shim Pin	Wrench						
S12M-CTFPR/L-11	16	12	11	150	9	26	TP□□1103□□L												
S16R-CTFPR/L-11	20	16	15	200	11	40								CH4R1C	CHX0414C	CR02C	-	-	HW25L
S20S-CTFPR/L-11	25	20	18	250	13	40													
S16R-CTFPR/L-16	20	16	15	200	11	40	TP□□1603□□L												
S20S-CTFPR/L-16	25	20	18	250	13	40								CH5R5C	CHX0519C	CR03C	-	-	HW30L
S25R-CTFPR/L-16	32	25	23	200	17	40													
S32S-CTFPR/L-16	40	32	30	250	22	45	TP□□2204□□L												
S40T-CTFPR/L-16	50	40	37	300	27	60								CH6R5	CHX0622C	CR04C	ST32C	SP3C	
S40T-CTFPR/L-22	50	40	37	300	27	60													
S40T-CTFPR/L-22	50	40	37	300	27	60													

➔ Applicable inserts **B81~B83**

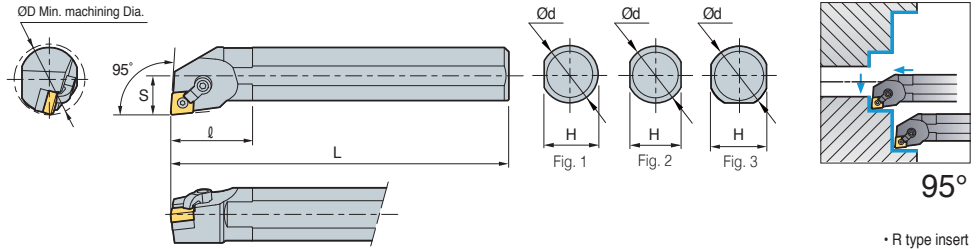


B Multi Lock System

MCLNR/L



CN□□



• R type insert (mm)

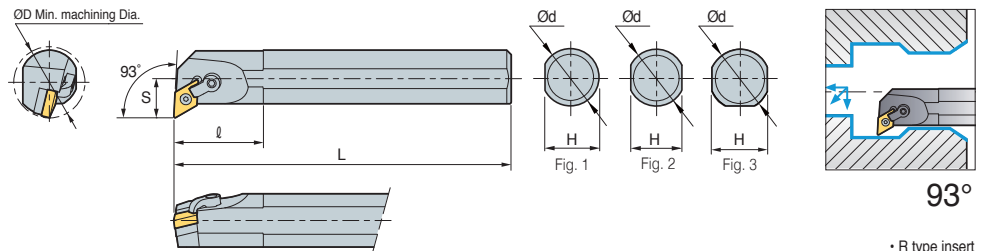
Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench	Fig.
S20S-MCLNR/L-09	25	20	18	200	13	32	CN□□0903□□	CDH7N	DHA10/32-19	-	SP3D3	HW19.8L HW23.8L	2
S25R-MCLNR/L-09	32	25	23	250	17	40							3
S25R-MCLNR/L-12	32	25	23	200	17	40	CN□□1204□□	CDH6N	DHA1/4-21	SC43D	SP4DS	HW31.8L HW23.8L	3
S32S-MCLNR/L-12	40	32	30	250	22	50							3
S40T-MCLNR/L-12	50	40	38	300	27	60	CN□□1204□□	CDH6N	DHA1/4-21	SC43D	SP4DS	HW31.8L HW23.8L	1
A25R-MCLNR/L-12	32	25	24	200	17	40							3
A32S-MCLNR/L-12	40	32	31	250	22	50							

➔ Applicable inserts B28~B35

MDUNR/L



DN□□



• R type insert (mm)

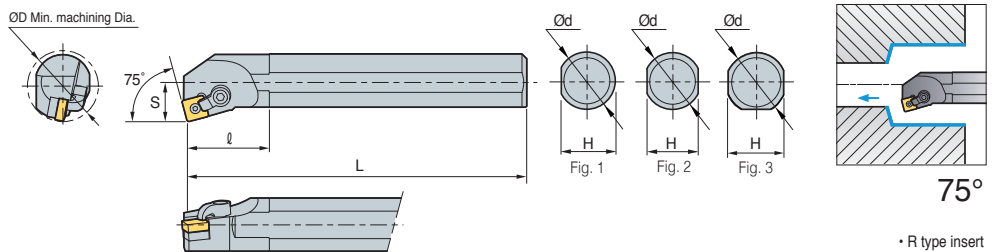
Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench	Fig.
S32S-MDUNR/L-15-3	40	32	30	250	22	50	DN□□1504□□	CDH6N	DHA1/4-21	SD43D	SP4D	HW31.8L HW23.8L	3
S40T-MDUNR/L-15-3	50	40	38	300	27	60							3
A32S-MDUNR/L-15-3	40	32	30	250	22	50							3

➔ Applicable inserts B36~B42

MSKNR/L



SN□□



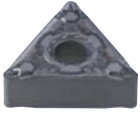
• R type insert (mm)

Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench	Fig.
S25R-MSKNR/L-12	32	25	23	200	17	40	SN□□1204□□	CDH8N1	DHA5/16-28	-	SP4DS	HW39.7L HW23.8L	3
S32S-MSKNR/L-12	40	32	30	250	22	50							3
S40T-MSKNR/L-12	50	40	38	300	27	60	SN□□1204□□	CDH8N1	DHA5/16-28	SS43D	SP4D	HW39.7L HW23.8L	1
A25R-MSKNR/L-12	32	25	23	200	17	40							3
A32S-MSKNR/L-12	40	32	30	250	22	50							
A40T-MSKNR/L-12	50	40	38	300	27	60							

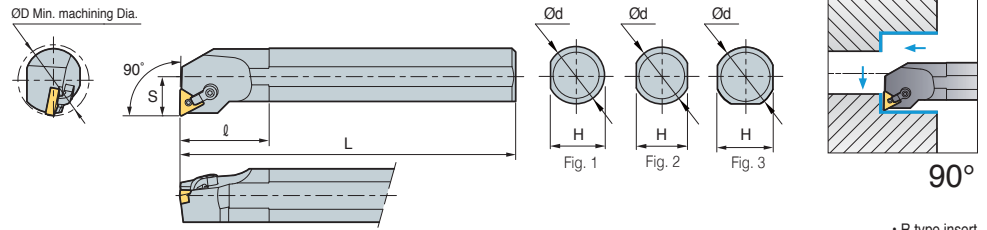
➔ Applicable inserts B44~B52



MTFNR/L



TN□□



90°

• R type insert (mm)

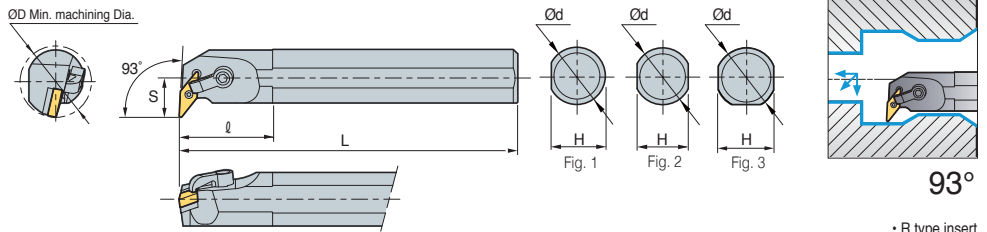
Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench	Fig.
S25R-MTFNR/L-16	32	25	23	200	17	40	TN□□1604□□	CDH7N1	DHA10-32-19	-	SP3D3	HW23.8L	3
S32S-MTFNR/L-16	40	32	30	250	22	50							
S40T-MTFNR/L-16	50	40	38	300	27	60	TN□□1604□□	CDH7N1	DHA10-32-19	-	SP3D3	HW23.8L	1
A25R-MTFNR/L-16	32	25	24	200	17	40							
A32S-MTFNR/L-16	40	32	30	250	22	50							

➔ Applicable inserts B53~B59

MVUNR/L



VN□□



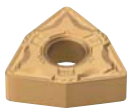
93°

• R type insert (mm)

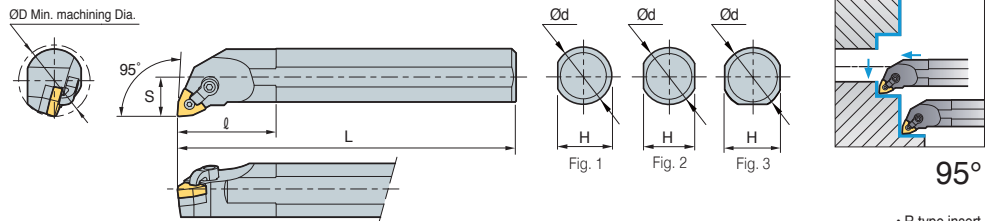
Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench	Fig.
S32S-MVUNR/L-16	40	32	30	250	22	50	VN□□1604□□	CDH8N2	DHA5/16-28	SV32D	SP3D	HW39.7L	3
S40T-MVUNR/L-16	50	40	38	300	27	60							
A32S-MVUNR/L-16	40	32	30	250	22	50	VN□□1604□□	CDH8N2	DHA5/16-28	SV32D	SP3D	HW39.7L	3
A40T-MVUNR/L-16	50	40	38	300	27	60							

➔ Applicable inserts B60~B61

MWLNR/L



WN□□



95°

• R type insert (mm)

Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench	Fig.
S25R-MWLNR/L-06	32	25	23	200	17	40	WN□□0604□□	CDH7N	DHA10/32-19	-	SP3D3	HW23.8L	3
S32S-MWLNR/L-06	40	32	30	250	22	50							
S40T-MWLNR/L-06	50	40	38	300	27	60	WN□□0804□□	CDH6N	DHA1/4-21	-	SP4DS	HW31.8L	3
S25R-MWLNR/L-08	32	25	23	200	17	40							
S32S-MWLNR/L-08	40	32	30	250	22	50	WN□□0604□□	CDH7N	DHA10/32-19	-	SP3D3	HW31.8L	1
S40T-MWLNR/L-08	50	40	38	300	27	60							
A25R-MWLNR/L-06	32	25	24	200	17	40	WN□□0804□□	CDH6N	DHA1/4-21	-	SP4DS	HW31.8L	1
A32S-MWLNR/L-06	40	32	31	250	22	50							
A25R-MWLNR/L-08	32	25	24	200	17	40							
A32S-MWLNR/L-08	40	32	31	250	22	50							

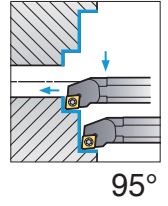
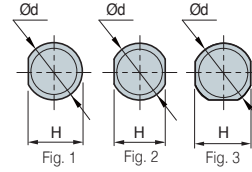
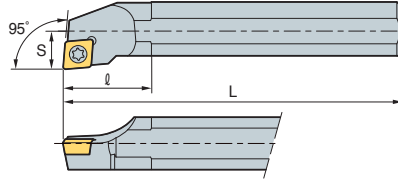
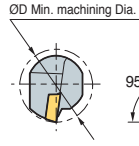
➔ Applicable inserts B62~B65



SCLCR/L



CC□□



• R type insert
(mm)

Steel shank type

Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Shim	Shim Screw	Wrench	Fig.
S08K-SCLCR/L-06	11	8	7.2	125	6	12	CC□□0602□□	FTKA02555			TW07	2
S10K-SCLCR/L-06	13	10	9	125	7	16		FTKA02565	-	-	TW07P	
S10M-SCLCR/L-06	13	10	9	150	7	16						
S12M-SCLCR/L-06	16	12	11	150	9	20						
S16R-SCLCR/L-06	20	16	14	200	11	25	CC□□09T3□□	FTGA03508	-	-	TW15P	2
S12M-SCLCR/L-09	16	12	11	150	9	20		FTGA03510			TW15P	
S16R-SCLCR/L-09	20	16	14	200	11	25						
S20S-SCLCR/L-09	25	20	18	250	13	32						
S25R-SCLCR/L-09	32	25	23	200	17	40	CC□□1204□□	FTGA0411F	-	-	TW15P	3
S25R-SCLCR/L-12	32	25	23	200	17	40		FTGA0411F	SC42S	SHXN0610F	HW40L TW15P	
S32S-SCLCR/L-12	40	32	30	250	22	50						
S40T-SCLCR/L-12	50	40	38	300	27	60						
A08F-SCLCR/L-06	11	8	7.6	80	6	12	CC□□0602□□	FTKA02555	-	-	TW07P	1
A10H-SCLCR/L-06	13	10	9.5	100	7	16		FTKA02565	-	-	TW07P	
A12K-SCLCR/L-06	16	12	11.5	125	9	20	CC□□09T3□□	FTGA03508	-	-	TW15P	1
A12K-SCLCR/L-09	16	12	11.5	125	9	20						
A16M-SCLCR/L-09	20	16	15	150	11	25						
A20Q-SCLCR/L-09	25	20	19	180	13	32						
A25R-SCLCR/L-09	32	25	24	200	17	40	CC□□1204□□	FTGA0411F	-	-	TW15P	1
A25R-SCLCR/L-12	32	25	24	200	17	40		FTGA0411F	SC42S	SHXN0610F	HW40L,TW15P	
A32S-SCLCR/L-12	40	32	31	250	22	50						

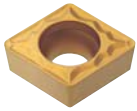
Carbide shank type

Designation	ØD	Ød	H	L	S	Insert	Screw	Wrench	Fig.
C04G-SCLCR/L-03	5	4	3.8	90	2.5	CC□T0301□□	FTNA01633	TW06P	1
C05H-SCLCR/L-03	6	5	4.4	100	3				
C06H-SCLCR/L-04	7	6	5.4	100	3.5	CC□T0401□□	FTNA0238	TW06P	1
C07K-SCLCR/L-04	8	7	6.4	125	4				
C08K-SCLCR/L-06	10	8	7	125	5	CC□T0602□□	FTKA02555	TW07P	2
C10K-SCLCR/L-06	12	10	9	125	6				
C10M-SCLCR/L-06	12	10	9	150	6				
C12M-SCLCR/L-06	14	12	11	150	7				
C12Q-SCLCR/L-06	14	12	11	180	7				
C12M-SCLCR/L-09	15	12	11	150	8				
C12Q-SCLCR/L-09	15	12	11	180	8	CC□T09T3□□	FTGA03508	TW15P	2
C16R-SCLCR/L-09	20	16	15	200	10				
C16S-SCLCR/L-09	20	16	15	250	10				
C20R-SCLCR/L-09	25	20	18	200	13				
C20S-SCLCR/L-09	25	20	18	250	13	CC□T1204□□	FTGA0411F	TW15P	1
C25T-SCLCR/L-12	32	25	23	300	17				
E06H-SCLCR/L-04	7	6	5.4	100	3.5	CC□T0401□□	FTNA0238	TW06P	1
E07K-SCLCR/L-04	8	7	6.4	125	4				
E08K-SCLCR/L-06	10	8	7	125	5	CC□T0602□□	FTKA02555	TW07P	2
E10K-SCLCR/L-06	12	10	9	125	6				
E10M-SCLCR/L-06	12	10	9	150	6				
E12M-SCLCR/L-06	14	12	11	150	7				
E12Q-SCLCR/L-06	14	12	11	180	7				
E12M-SCLCR/L-09	15	12	11	150	8				
E12Q-SCLCR/L-09	15	12	11	180	8	CC□T09T3□□	FTGA03508	TW15P	2
E16R-SCLCR/L-09	20	16	15	200	11				
E16S-SCLCR/L-09	20	16	15	250	10				
E20R-SCLCR/L-09	25	20	18	200	13				
E20S-SCLCR/L-09	25	20	19	250	13	CC□T1204□□	FTGA0411F	TW15P	1
E25T-SCLCR/L-12	32	25	23	300	17				

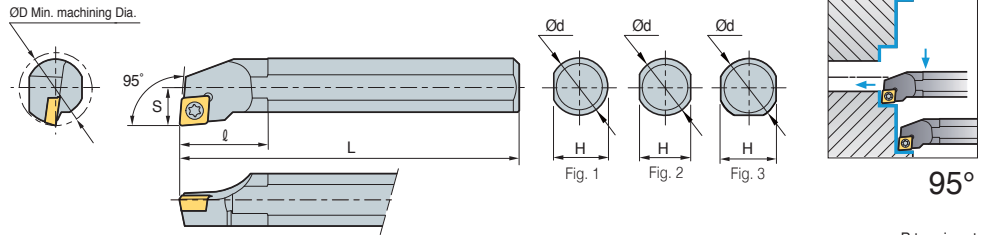
• Applicable inserts B66~B68



SCLPR/L



CP□□



Steel shank type

• R type insert (mm)

Designation	Stock		ØD	Ød	H	L	S	ℓ	Insert	Screw	Wrench	Fig.
	R	L										
S10M-SCLPR/L-08	●		13	10	9	150	7	16	CP□□0802□□	FTNA0305	TW09P	2
S12M-SCLPR/L-08	●		16	12	11	150	9	20		FTNA0307	TW09P	
S16N-SCLPR/L-09	●		20	16	14	160	11	25	CP□□0903□□	FTNA0408	TW15P	2
S16R-SCLPR/L-09	●		20	16	14	200	11	25				
S20N-SCLPR/L-09	●		25	20	18	160	13	32				
S20S-SCLPR/L-09	●		25	20	18	250	13	32				3
A10H-SCLPR/L-08			12	10	9.65	100	6	-	CP□□0802□□	FTNA0305	TW09P	1
A12K-SCLPR/L-08			16	12	11.5	125	9	20		FTNA0307	TW09P	
A16M-SCLPR/L-09			20	16	15.5	150	10	25	CP□□0903□□	FTNA0408	TW15P	1
A20Q-SCLPR/L-09			25	20	19	180	13	32				3

● : Stock item

Carbide shank type

(mm)

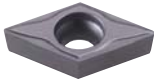
Designation	Stock		ØD	Ød	H	L	S	Insert	Screw	Wrench	Fig.
	R	L									
C10K-SCLPR/L-08	●		12	10	9	125	6	CP□T0802□□	FTNA0305	TW09P	2
C10M-SCLPR/L-08	●		12	10	9	150	6		FTNA0306	TW09P	
C12M-SCLPR/L-08	●		15	12	11	150	7.5	CP□T0903□□	FTNA0408	TW15P	2
C12Q-SCLPR/L-08	●		15	12	11	180	7.5				
C12M-SCLPR/L-09	●		15	12	11	150	8				
C12Q-SCLPR/L-09	●		15	12	11	180	8				
C16R-SCLPR/L-09	●		20	16	15	200	10	CP□T0802□□	FTNA0305	TW09P	2
C16S-SCLPR/L-09	●		20	16	15	250	10				
C20R-SCLPR/L-09	●		25	20	18	200	13				CP□T0903□□
C20S-SCLPR/L-09	●		25	20	18	250	13				
E10K-SCLPR/L-08			12	10	9	125	6	CP□T0802□□	FTNA0305	TW09P	2
E10M-SCLPR/L-08			12	10	9	150	6				
E12M-SCLPR/L-08			15	12	11	150	7.5	CP□T0903□□	FTNA0408	TW15P	2
E12Q-SCLPR/L-08			15	12	11	180	7.5				
E12M-SCLPR/L-09			15	12	11	150	8				
E12Q-SCLPR/L-09			15	12	11	180	8				
E16R-SCLPR/L-09			20	16	15	200	10	CP□T0802□□	FTNA0305	TW09P	2
E16S-SCLPR/L-09			20	16	15	250	10				
E20R-SCLPR/L-09			25	20	18	200	13	CP□T0903□□	FTNA0408	TW15P	2
E20S-SCLPR/L-09	●		25	20	18	250	13				

● : Stock item

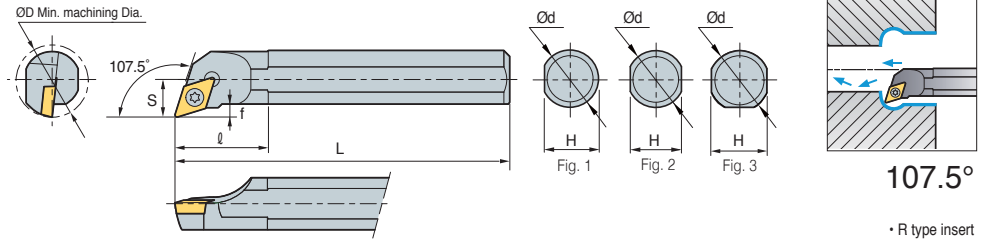
➔ Applicable inserts B70



SDQCR/L



DC□□



Steel shank type

Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Wrench	Fig.
S10M-SDQCR/L-07	13	10	9	150	7	16	DC□□0702□□	FTKA02555	TW07P	2
S12M-SDQCR/L-07	16	12	11	150	9	20		FTKA02565	TW07P	
S16R-SDQCR/L-07	20	16	14	200	11	25		DC□□11T3□□	FTGA03508	TW15P
S16R-SDQCR/L-11	20	16	14	200	11	25	FTGA03510		TW15P	3
S20S-SDQCR/L-11	25	20	18	250	13	32	DC□□0702□□		FTKA02555	TW07P
S25R-SDQCR/L-11	32	25	23	200	17	40		FTKA02565	TW07P	1
A10H-SDQCR/L-07	13	10	9.5	100	7	16	DC□□11T3□□	FTGA03508	TW15P	1
A20Q-SDQCR/L-11	25	20	19	180	13	32		FTGA03510	TW15P	1
A16M-SDQCR/L-11	20	16	15	150	11	25	DC□□11T3□□	FTGA03508	TW15P	1
A25R-SDQCR/L-11	32	25	24	200	17	40		FTGA03510	TW15P	1

Carbide shank type

Designation	ØD	Ød	H	L	S	Insert	Screw	Wrench	Fig.
C08K-SDQCR/L-07	10	8	7	125	6	DC□T0702□□	FTKA02555	TW07P	2
C10K-SDQCR/L-07	13	10	9	125	7		FTKA02565	TW07P	
C12M-SDQCR/L-07	16	12	11	150	9		DC□T11T3□□	FTGA03508	TW15P
C16R-SDQCR/L-07	20	16	15	200	11	FTGA03510		TW15P	
C16R-SDQCR/L-11	20	16	15	200	11	DC□T0702□□		FTKA02555	TW07P
C20R-SDQCR/L-11	25	20	18	200	13		FTKA02565	TW07P	
C20S-SDQCR/L-11	25	20	18	250	13	DC□T11T3□□	FTGA03508	TW15P	2
E08K-SDQCR/L-07	10	8	7	125	6		FTGA03510	TW15P	
E10K-SDQCR/L-07	13	10	9	125	7	DC□T0702□□	FTKA02555	TW07P	2
E12M-SDQCR/L-07	16	12	11	150	9		FTKA02565	TW07P	
E16R-SDQCR/L-07	20	16	15	200	11	DC□T11T3□□	FTGA03508	TW15P	2
E16R-SDQCR/L-11	20	16	15	200	11		FTGA03510	TW15P	
E20R-SDQCR/L-11	25	20	18	200	13	DC□T11T3□□	FTGA03508	TW15P	2
E20S-SDQCR/L-11	25	20	19	250	13		FTGA03510	TW15P	

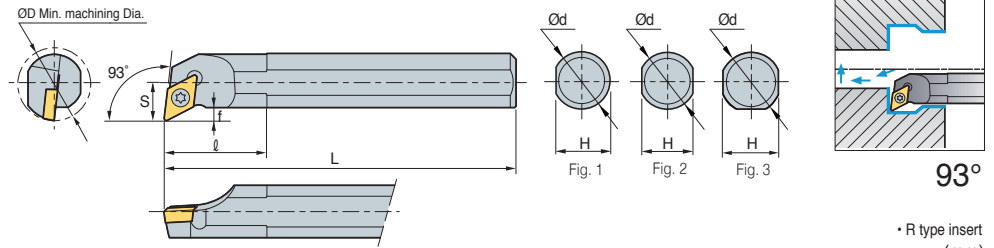
Applicable inserts B71~B73, B92



SDUCR/L



DC□□



Steel shank type

* R type insert (mm)

Designation	ØD	Ød	H	L	S	l	Insert	Screw	Wrench	Fig.
S10M-SDUCR/L-07	13	10	9	150	7	16	DC□□0702□□	FTKA02555	TW07P	2
S12M-SDUCR/L-07	16	12	11	150	9	20		FTKA02565	TW07P	2
S16R-SDUCR/L-07	20	16	14	200	11	25		DC□□11T3□□	FTGA03508	TW15P
S16R-SDUCR/L-11	20	16	14	200	11	25	FTGA03510		TW15P	3
S20S-SDUCR/L-11	25	20	18	250	13	32	DC□□0702□□		FTKA02555	TW07P
S25R-SDUCR/L-11	32	25	23	200	17	40		FTKA02565	TW07P	1
S32S-SDUCR/L-11	40	32	30	250	22	50		FTGA03508	TW15P	1
A25R-SDUCR/L-11	32	25	24	200	17	40	FTGA03510	TW15P	1	

Carbide shank type

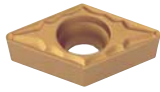
(mm)

Designation	ØD	Ød	H	L	S	Insert	Screw	Wrench	Fig.	
C10K-SDUCR/L-07	13	10	9	125	7	DC□T0702□□	FTKA02555	TW07P	2	
C10M-SDUCR/L-07	13	10	9	150	7		FTKA02565	TW07P		
C12M-SDUCR/L-07	16	12	11	150	9		DC□T11T3□□	FTGA03508		TW15P
C12Q-SDUCR/L-07	16	12	11	180	9			FTGA03510		TW15P
C16R-SDUCR/L-07	20	16	15	200	11			DC□T0702□□		FTKA02555
C16S-SDUCR/L-07	20	16	15	250	11	FTKA02565	TW07P			
C16R-SDUCR/L-11	20	16	15	200	11	DC□T11T3□□	FTGA03508		TW15P	
C16S-SDUCR/L-11	20	16	15	250	11		FTGA03510		TW15P	
C20R-SDUCR/L-11	25	20	18	200	13		DC□T0702□□		FTKA02555	TW07P
C20S-SDUCR/L-11	25	20	18	250	13	FTKA02565		TW07P		
C25T-SDUCR/L-11	32	25	23	300	17	DC□T11T3□□		FTGA03508	TW15P	
E10K-SDUCR/L-07	13	10	9	125	7			FTGA03510	TW15P	
E10M-SDUCR/L-07	13	10	9	150	7			DC□T11T3□□	FTGA03508	TW15P
E12M-SDUCR/L-07	16	12	11	150	9	DC□T0702□□	FTKA02555		TW07P	
E12Q-SDUCR/L-07	16	12	11	180	9		FTKA02565		TW07P	
E16R-SDUCR/L-07	20	16	15	200	11		DC□T11T3□□		FTGA03508	TW15P
E16S-SDUCR/L-07	20	16	15	250	11	FTGA03510			TW15P	
E16R-SDUCR/L-11	20	16	15	200	11	DC□T0702□□		FTKA02555	TW07P	2
E16S-SDUCR/L-11	20	16	15	250	11		FTKA02565	TW07P		
E20R-SDUCR/L-11	25	20	18	200	13		DC□T11T3□□	FTGA03508	TW15P	
E20S-SDUCR/L-11	25	20	18	250	13	FTGA03510		TW15P		
E25T-SDUCR/L-11	32	25	23	300	17					

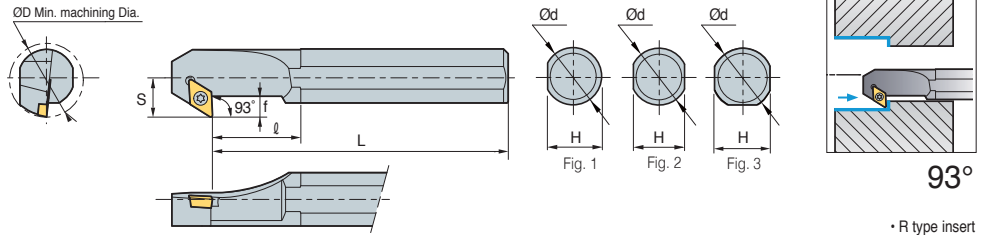
Applicable inserts B71~B73, B92



SDZCR/L



DC□□



• R type insert (mm)

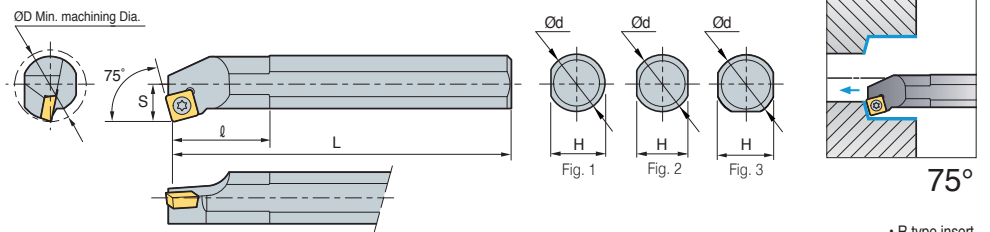
Designation	ØD	Ød	H	L	S	l	f	Insert	Screw	Shim	Shim Screw	Wrench	Fig.
S16R-SDZCR/L-07	20	16	14	200	11	25	6.5	DC□□0702□□	FTKA02565	-	-	TW07P	2
S20S-SDZCR/L-07	25	20	18	250	13	32	7.5		-	-	-	-	-
S25R-SDZCR/L-11	32	25	23	200	17	40	9	DC□□11T3□□	FTGA03510	-	-	TW15P	3
S32S-SDZCR/L-11	40	32	30	250	22	50	11		FTGA03512	SD32S	SHXN0509F	TW15P, HW35L	
S40T-SDZCR/L-11	50	40	38	300	27	60	11		FTGA03510	-	-	TW15P	1
A25R-SDZCR/L-11	32	25	24	200	17	40	9		FTGA03512	SD32S	SHXN0509F	TW15P, HW35L	3
A32S-SDZCR/L-11	40	32	30	250	22	50	11						

➔ Applicable inserts B71~B73, B92

SSKCR/L



SC□□



• R type insert (mm)

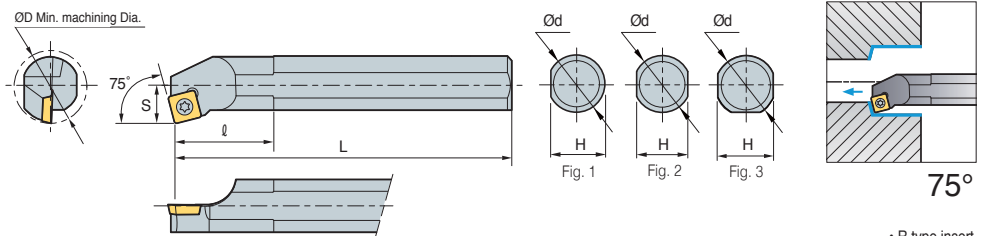
Designation	ØD	Ød	H	L	S	l	Insert	Screw	Shim	Shim Screw	Wrench	Fig.
S12M-SSKCR/L-09	16	12	11	150	9	20	SC□□09T3□□	FTGA03507	-	-	TW15P	2
S16R-SSKCR/L-09	20	16	14	200	11	25		FTGA03508	-	-	TW15P	
S20S-SSKCR/L-09	25	20	18	250	13	32	SC□□1204□□	FTGA0411F	-	-	TW15P	3
S25R-SSKCR/L-12	32	25	23	200	17	40		FTGA0411F	SS42S	SHXN0610F	TW15P, HW40L	
S32S-SSKCR/L-12	40	32	30	250	22	50						
A12K-SSKCR/L-09	16	12	11.5	125	9	20	SC□□09T3□□	FTGA03507	-	-	TW15P	1
A16M-SSKCR/L-09	20	16	15	150	11	25		FTGA03508	-	-	TW15P	
A20Q-SSKCR/L-09	25	20	19	180	13	32	SC□□1204□□	FTGA0411F	-	-	TW15P	3
A25R-SSKCR/L-12	32	25	24	200	17	40		FTGA0411F	SS42S	SFXN0610F	TW15P, HW40L	
A32S-SSKCR/L-12	40	32	30	250	22	50						

➔ Applicable inserts B74~B75, B94

SSKPR/L



SP□□



• R type insert (mm)

Designation	ØD	Ød	H	L	S	l	Insert	Screw	Wrench	Fig.
S12M-SSKPR/L-09	16	12	11	150	9	20	SP□□09T3□□	FTNA0307	TW09P	2
S16N-SSKPR/L-09	20	16	14	160	11	25				
S16R-SSKPR/L-09	20	16	14	200	11	25				
S20N-SSKPR/L-09	25	20	18	160	13	32				
S20S-SSKPR/L-09	25	20	18	250	13	32	SP□□09T3□□	FTNA0307	TW09P	1
A12K-SSKPR/L-09	16	12	11.5	125	9	20				
A16M-SSKPR/L-09	20	16	15	150	11	25				
A20Q-SSKPR/L-09	25	20	19	180	13	32				

➔ Applicable inserts B76~B77

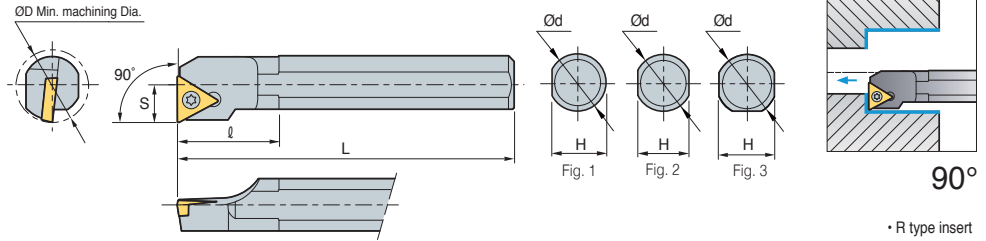
• Use left handed insert for right handed holder



STFCR/L



TC□□



Steel shank type

• R type insert (mm)

Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Shim	Shim Screw	Wrench	Fig.
S10M-STFCR/L-09	13	10	9	150	7	16	TC□□0902□□	FTKA02206	-	-	TW06P	2
S12M-STFCR/L-09	16	12	11	150	9	20	TC□□1102□□	FTKA02565	-	-	TW07P	2
S12M-STFCR/L-11	16	12	11	150	9	20						
S16R-STFCR/L-11	20	16	14	200	11	25	TC□□16T3□□	FTGA03510	-	-	TW15P	2
S20S-STFCR/L-11	25	20	18	250	13	32						3
S20S-STFCR/L-16	25	20	18	250	13	32	TC□□16T3□□	FTGA03512	ST32S	SHXN0509F	TW15P, HW35L	3
S25R-STFCR/L-16	32	25	23	200	17	40						3
S32S-STFCR/L-16	40	32	30	250	22	50	TC□□0902□□	FTKA02206	-	-	TW06P	1
S40T-STFCR/L-16	50	40	38	300	27	60						
A10H-STFCR/L-09	13	10	9.5	100	7	16	TC□□1102□□	FTKA02565	-	-	TW07P	1
A12K-STFCR/L-09	16	12	11.5	125	9	20						
A12K-STFCR/L-11	16	12	11.5	125	9	20	TC□□16T3□□	FTKA03510	-	-	TW15P	1
A16M-STFCR/L-11	20	16	15	150	11	25						
A20Q-STFCR/L-11	25	20	19	180	13	32	TC□□16T3□□	FTGA03512	ST32S	SHXN0509F	TW15P, HW35L	3
A25R-STFCR/L-16	32	25	24	200	17	40						
A32S-STFCR/L-16	40	32	30	250	22	50						

Carbide shank type

(mm)

Designation	ØD	Ød	H	L	S	Insert	Screw	Wrench	Fig.
C08K-STFCR/L-09	10	8	7	125	5	TC□T0902□□	FTKA02206	TW06P	2
C10K-STFCR/L-09	12	10	9	125	6				
C10K-STFCR/L-11	12	10	9	125	6	TC□T1102□□	FTKA02565	TW07P	
C12M-STFCR/L-11	15	12	11	150	8				
C16R-STFCR/L-11	20	16	15	200	10				
C20R-STFCR/L-11	25	20	18	200	13				
C20S-STFCR/L-11	25	20	18	250	13	TC□T16T3□□	FTGA03510	TW15P	
C20R-STFCR/L-16	25	20	18	200	13				
C20S-STFCR/L-16	25	20	18	250	13	TC□T0902□□	FTKA02206	TW06P	2
E08K-STFCR/L-09	10	8	7	125	5				
E10K-STFCR/L-09	12	10	9	125	6	TC□T1102□□	FTKA02565	TW07P	
E10K-STFCR/L-11	12	10	9	125	6				
E12M-STFCR/L-11	15	12	11	150	8				
E16R-STFCR/L-11	20	16	15	200	11				
E20R-STFCR/L-11	25	20	18	200	13	TC□T16T3□□	FTGA03510	TW15P	
E20S-STFCR/L-11	25	20	18	250	13				
E20R-STFCR/L-16	25	20	18	200	13				
E20S-STFCR/L-16	25	20	19	250	13				

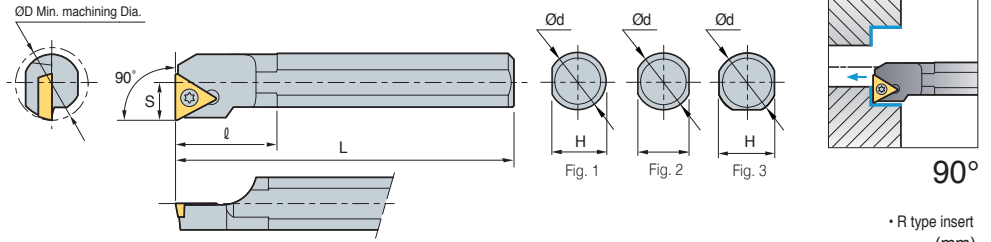
Applicable inserts B79~B80, B95



STFPR/L



TP□□



• R type insert (mm)

Steel shank type

Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Wrench	Fig.
S10M-STFPR/L-11	13	10	9	150	7	16	TP□□1103□□	FTGA03507	TW15P	2
S12M-STFPR/L-11	16	12	11	150	9	20		FTGA03508	TW15P	2
S16N-STFPR/L-11	20	16	14	160	11	25				
S16R-STFPR/L-11	20	16	14	200	11	25	TP□□1604□□	FTGA0411F	TW15P	2
S20N-STFPR/L-16	25	20	18	160	13	32				
S20S-STFPR/L-16	25	20	18	250	13	32				
A10H-STFPR/L-11	13	10	9.5	100	7	16	TP□□1103□□	FTGA03507	TW15P	1
A12K-STFPR/L-11	16	12	11	125	9	20		FTGA03508	TW15P	1
A16M-STFPR/L-11	20	16	15	150	11	25				
A20Q-STFPR/L-16	25	20	19	180	13	32	TP□□1604□□	FTGA0411F	TW15P	1

Carbide shank type

Designation	ØD	Ød	H	L	S	Insert	Screw	Wrench	Fig.
C08K-STFPR/L-08	10	8	7	125	5	TP□T1103□□	FTNA02205	TW06P	2
C10K-STFPR/L-11	12	10	9	125	6		FTNA0305	TW09P	
C10M-STFPR/L-11	12	10	9	150	6				
C12M-STFPR/L-11	15	12	11	150	8				
C12Q-STFPR/L-11	15	12	11	180	8				
C16R-STFPR/L-11	20	16	15	200	10				
C16S-STFPR/L-11	20	16	15	250	10				
C20R-STFPR/L-11	25	20	18	200	13				
C20S-STFPR/L-11	25	20	18	250	13				
C20R-STFPR/L-16	25	20	18	200	13	TP□T1604□□	FTNA0408	TW15P	
C20S-STFPR/L-16	25	20	18	250	13				
C25T-STFPR/L-16	32	25	23	300	17				
E08K-STFPR/L-08	10	8	7	125	5	TP□T1103□□	FTNA02205	TW06P	2
E10K-STFPR/L-11	12	10	9	125	6		FTNA0305	TW09P	
E10M-STFPR/L-11	12	10	9	150	6				
E12M-STFPR/L-11	15	12	11	150	8				
E12Q-STFPR/L-11	15	12	11	180	8				
E16R-STFPR/L-11	20	16	15	200	10				
E16S-STFPR/L-11	20	16	15	250	10				
E20R-STFPR/L-11	25	20	18	200	13				
E20S-STFPR/L-11	25	20	18	250	13				
E20R-STFPR/L-16	25	20	18	200	13	TP□T1604□□	FTNA0408	TW15P	
E20S-STFPR/L-16	25	20	18	250	13				
E25T-STFPR/L-16	32	25	23	300	17				

• Applicable inserts B81~B83

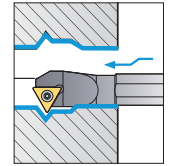
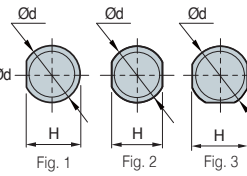
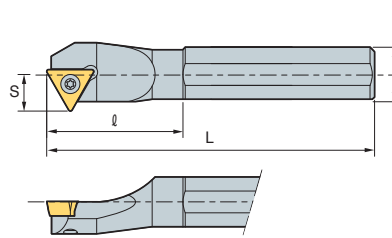
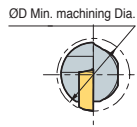
• Use left handed insert for right handed holder



STWPR/L



TP□□



60°

• R type insert (mm)

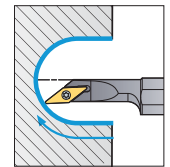
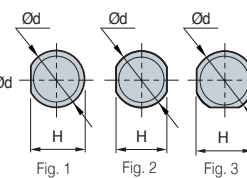
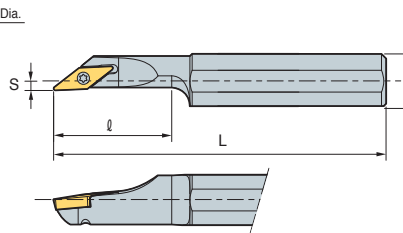
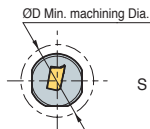
Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Wrench	Fig.
S10M-STWPR/L-11	13	10	7	150	7	16	TPGH1102□□	FTNA0305	TW09P	2
S12M-STWPR/L-11	16	12	9	150	9	20	TPGH1103□□	FTNA0306	TW09P	
S16Q-STWPR/L-11	20	16	14	180	11	25	TPMT1103□□			
S20R-STWPR/L-11	25	20	18	200	13	32				

➔ Applicable inserts B81~B83

SVJCR/L



VC□□



142°

• R type insert (mm)

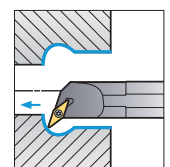
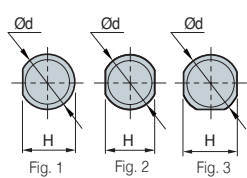
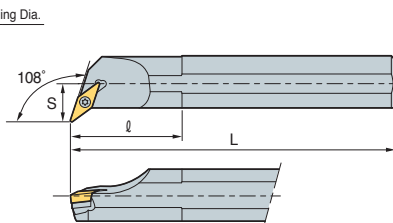
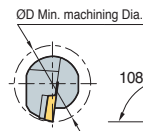
Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Wrench	Fig.
S12M-SVJCR/L-08	16	12	11	150	9	20	VCMT0802□□	FTNA0204	TW06P	2
S16Q-SVJCR/L-08	20	16	14	180	11	25				

➔ Applicable inserts B86~B87, B97

SVQBR/L



VB□□



108°

• R type insert (mm)

Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Shim	Shim Screw	Wrench	Fig.
S32S-SVQBR/L-16	40	32	30	250	22	50	VB□□1604□□	FTGA03512	SV32S	SHXN0509F	TW15P HW35L	3
S40T-SVQBR/L-16	50	40	38	300	27	60						
A32S-SVQBR/L-16	40	32	30	250	22	50						

➔ Applicable inserts B84~B85, B96

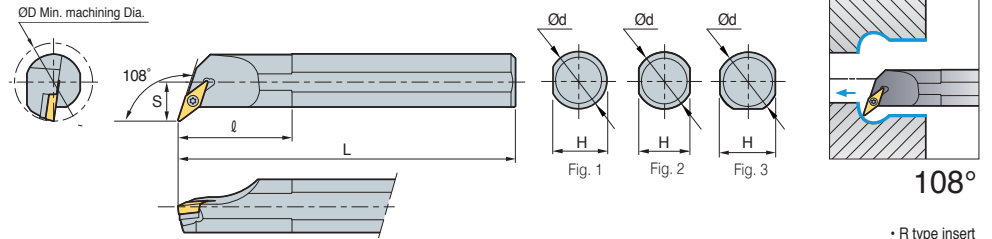


B Screw on System

SVQCR/L



VC□□



• R type insert (mm)

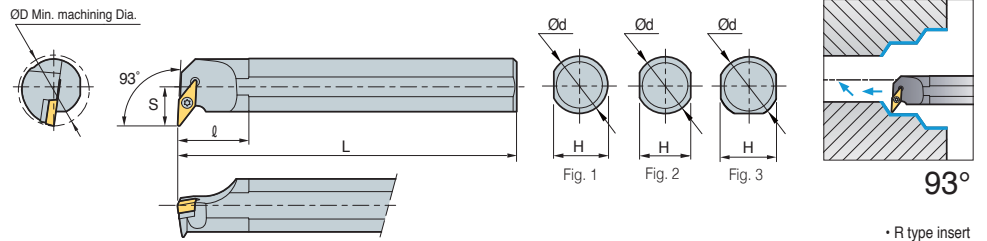
Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Shim	Shim Screw	Wrench	Fig.
S16R-SVQCR/L-11	20	16	14	200	11	25	VC□□1103□□	FTKA02565	-	-	TW07P	2
S20S-SVQCR/L-11	25	20	18	250	13	32						3
S25R-SVQCR/L-11	32	25	23	200	17	40						3
S20S-SVQCR/L-13	25	20	18	250	13	32	VC□□1303□□	FTKA0307	-	-	TW07P	2
S25R-SVQCR/L-13	32	25	23	200	17	40						3
S25R-SVQCR/L-16	32	25	23	200	17	40	VC□□1604□□	FTGA03510	-	-	TW15P	3
S32S-SVQCR/L-16	40	32	30	250	22	50		FTGA03512	SV32S	SHXN0509F	TW15P HW35L	
S40T-SVQCR/L-16	50	40	38	300	27	60						

➔ Applicable inserts B86~B87, B97

SVUBR/L



VB□□



• R type insert (mm)

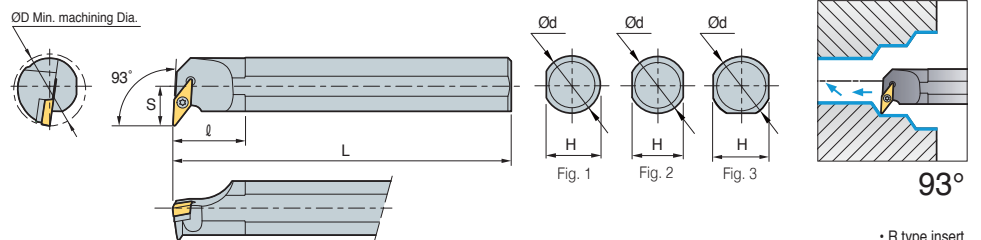
Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Shim	Shim Screw	Wrench	Fig.
S32S-SVUBR/L-16	40	32	30	250	22	50	VB□□1604□□	FTGA03512	SV32S	SHXN0509F	TW15P HW35L	3
S40T-SVUBR/L-16	50	40	38	300	27	60						
A32S-SVUBR/L-16	40	32	30	250	22	50						

➔ Applicable inserts B84~B85, B96

SVUCR/L



VC□□



• R type insert (mm)

Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Shim	Shim Screw	Wrench	Fig.
S16R-SVUCR/L-11	20	16	14	200	11	25	VC□□1103□□	FTKA02565	-	-	TW07P	2
S20S-SVUCR/L-11	25	20	18	250	13	32						3
S25T-SVUCR/L-11	32	25	23	300	17	40						3
S20S-SVUCR/L-13	25	20	18	250	13	32	VC□□1303□□	FTKA0307	-	-	TW09P	2
S25R-SVUCR/L-13	32	25	23	200	17	40						3
S25R-SVUCR/L-16	32	25	23	200	17	40	VC□□1604□□	FTGA03510	-	-	TW15P	3
S32S-SVUCR/L-16	40	32	30	250	22	50		FTGA03512	SV32S	SHXN0509F	TW15P HW35L	
S40T-SVUCR/L-16	50	40	38	300	27	60						

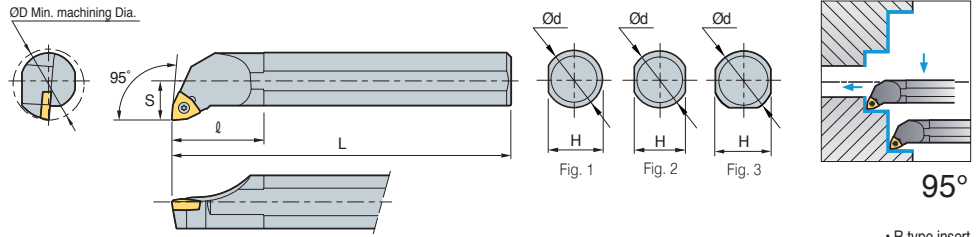
➔ Applicable inserts B86~B87, B97



SWLCR/L



WC□□

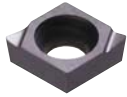


• R type insert (mm)

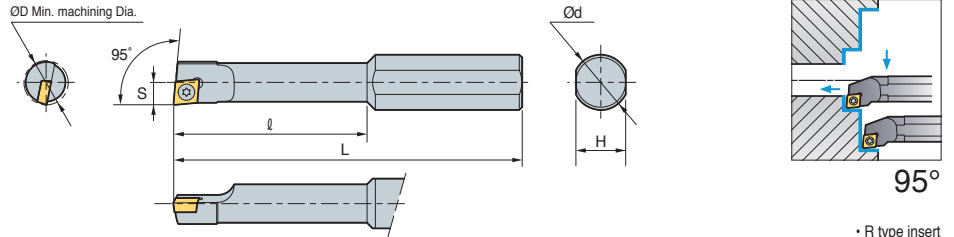
Designation	ØD	Ød	H	L	S	l	Insert	Screw	Wrench	Fig.
S25R-SWLCR/L-08	32	25	23	200	17	40	WC□□0804□□	FTGA0411F	TW15P	3
S32S-SWLCR/L-08	40	32	30	250	22	50				1
A25R-SWLCR/L-08	32	25	24	200	17	40	WC□□0804□□	FTGA0411F	TW15P	3
A32S-SWLCR/L-08	40	32	30	250	22	50				

B Compact Mini

SCLCR/L



CCET



Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Wrench
S10H-SCLCR/L-0305	5	10	9	100	2.5	25	CCET 0301□□	FTNA01633	TW06P
S10H-SCLCR/L-0306	6	10	9	100	3.0	25			
S10J-SCLCR/L-0407	7	10	9	110	3.5	30	CCET 0401□□	FTNA0238	TW06P
S10J-SCLCR/L-0408	8	10	9	110	4.0	30			

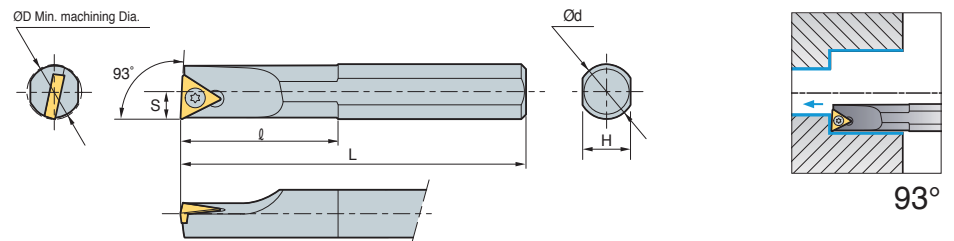
↻ Applicable inserts B66

• Use left handed insert for right handed holder

STUBR/L



TB□□



↻ Steel shank type

Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Wrench
S08K-STUBR/L-06	8	8	7	125	4	30	TB□□0601□□R/L	FTNA0204	TW06P
A08F-STUBR/L-06	8	8	7.5	80	4	30			

↻ Carbide shank type

Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Wrench
C08K-STUBR/L-06	10	8	7	125	5	TB□T0601□□	FTNA0204	TW06P	
C10K-STUBR/L-06	12	10	9	125	6				
E08K-STUBR/L-06	10	8	7	125	5	TB□T0601□□	FTNA0204	TW06P	
E10K-STUBR/L-06	12	10	9	125	6				

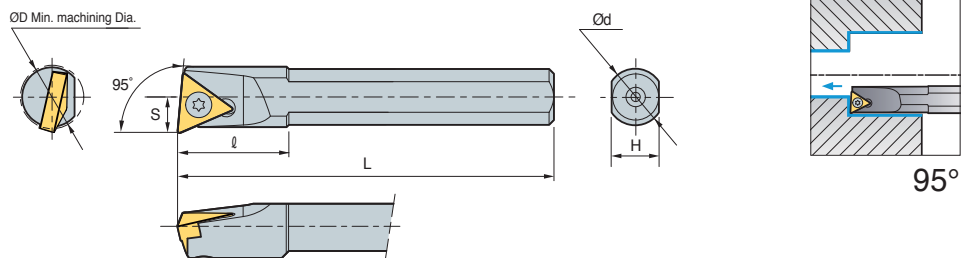
↻ Applicable inserts B78

• Use left handed insert for right handed holder

STLBR/L



TB□□



↻ Steel shank type

Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Wrench
S06H-STLBR/L-06-SP	8	6	5	100	3.8	12	TB□□0601□□R/L	FTNA0204	TW06P

↻ Applicable inserts B78

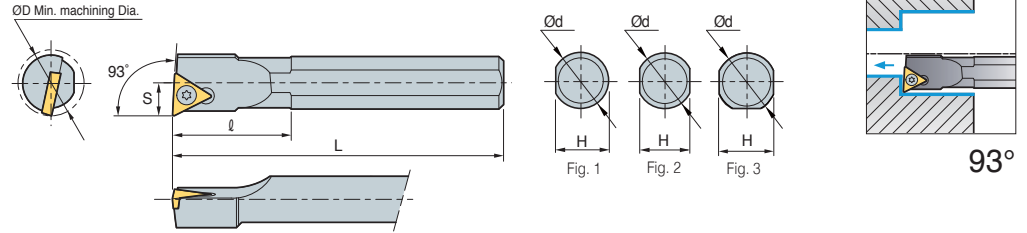
• Use left handed insert for right handed holder



STUPR/L



TP□□



Steel shank type

• R type insert (mm)

Designation	ØD	Ød	H	L	S	l	Insert	Screw	Wrench	Fig.
S08K-STUPR/L-08	10	8	7	125	4	18	TP□□0802□□R/L	FTNA02205	TW06P	2
A08F-STUPR/L-08	10	8	7.5	80	4	18				

Carbide shank type

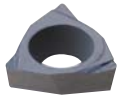
(mm)

Designation	ØD	Ød	H	L	S	l	Insert	Screw	Wrench	Fig.
C08K-STUPR/L-08	10	8	7	125	5		TP□□T0802□□	FTNA02205	TW06P	2
C10K-STUPR/L-11	12	10	9	125	6			FTNA0305	TW09P	
C10M-STUPR/L-11	12	10	9	150	6		TP□□T1103□□	FTNA0307	TW09P	
C12M-STUPR/L-11	15	12	11	150	8					
C12Q-STUPR/L-11	15	12	11	180	8					
C16R-STUPR/L-11	20	16	15	200	10					
C16S-STUPR/L-11	20	16	15	250	10		TP□□T1604□□	FTNA0408	TW15P	
C20R-STUPR/L-11	25	20	18	200	13					
C20S-STUPR/L-11	25	20	18	250	13		TP□□T0802□□	FTNA02205	TW06P	
C20R-STUPR/L-16	25	20	18	200	13					
C20S-STUPR/L-16	25	20	18	250	13		TP□□T1103□□	FTNA0307	TW09P	
C25T-STUPR/L-16	32	25	23	300	17					
E08K-STUPR/L-08	10	8	7	125	5					
E10K-STUPR/L-11	12	10	9	125	6					
E10M-STUPR/L-11	12	10	9	150	6					
E12M-STUPR/L-11	15	12	11	150	8					
E12Q-STUPR/L-11	15	12	11	180	8					
E16R-STUPR/L-11	20	16	15	200	10					
E16S-STUPR/L-11	20	16	15	250	10					
E20R-STUPR/L-11	25	20	18	200	13					TP□□T1604□□
E20S-STUPR/L-11	25	20	18	250	13					
E20R-STUPR/L-16	25	20	18	200	13		TP□□T1604□□	FTNA0408	TW15P	
E20S-STUPR/L-16	25	20	18	250	13					
E25T-STUPR/L-16	32	25	23	300	17					

Applicable inserts B81~B83

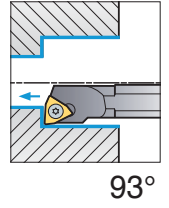
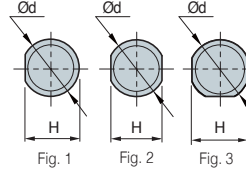
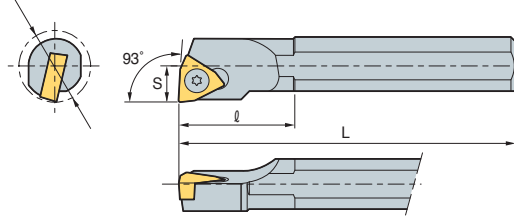
• Use left handed insert for right handed holder

SWUBR/L



WB□T

ØD Min. machining Dia.



93°

• R type insert (mm)

Steel shank type

Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Wrench	Fig
S05H-SWUBR/L-02	5.5	5	4.5	100	2.75	-	WBGT 0201□□R/L	FTNA0203	TW06P	2
S08K-SWUBR/L-02	8	8	7	125	4	30		FTNA02033		
S08K-SWUBR/L-S3	10	8	7	125	5	18	WBGT S302□□R/L	FTNA02205		
A08F-SWUBR/L-02	8	8	7.5	80	4	30	WBGT 0201□□R/L	FTNA0203		
A08F-SWUBR/L-S3	10	8	7.5	80	5	16	WBGT S302□□R/L	FTNA02205		

Carbide shank type

Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Wrench	Fig
C05H-SWUBR/L-02	6	5	4.4	100	3	WB□T0201□□	FTNA0203	TW06P	1	
C06H-SWUBR/L-02	7	6	5.4	100	3.5					
C08K-SWUBR/L-02	9	8	7	125	4.5		FTNA02033	TW06P		
C08K-SWUBR/L-S3	10	8	7	125	4.5	WB□TS301□□	FTNA02205	TW06P	2	
E06H-SWUBR/L-02	7	6	5.4	100	3.5	WB□T0201□□	FTNA0203	TW06P	1	
E08K-SWUBR/L-02	9	8	7	125	4.5		FTNA02033	TW06P	2	
E08K-SWUBR/L-S3	10	8	7	125	5	WB□TS301□□	FTNA02205	TW06P		

Applicable inserts B89

• Use left handed insert for right handed holder

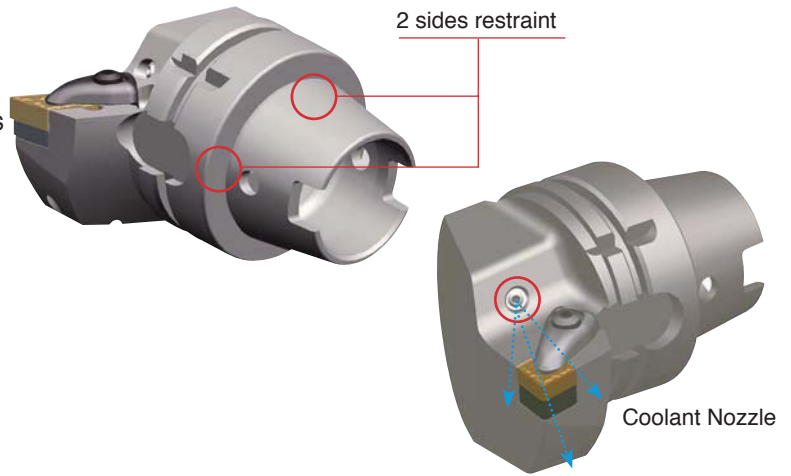


※ See page B136 for applicable sleeves

2 sides restraint - side and taper part

HSK Tooling System [For Multi-task Machines]

- 2 sides restraint - side and taper part
- Toughness guaranteed for static and dynamic movements
- Precision guaranteed on shaft and repeat directions
- Suitable at high speeds
- Suitable for small work pieces
- Coolant Nozzle is easily adjustable



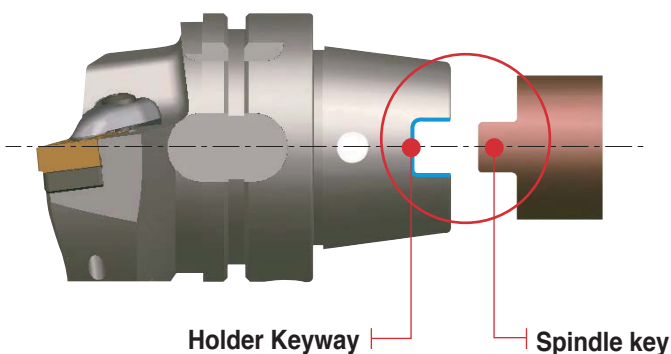
HSK tooling code system

C: 80° Diamond		D: 55° Diamond		N = 0°		DX: 65	
S: 90° Square		T: 60° Triangle		B = 5°		H: 100	
V: 35° Diamond		W: 80° Hexagon				L: 140	
Insert Shape		Clearance angle of insert		Length of tool holder			
H63T D C L N R DX - 12							
Taper design & size	Clamping Type	Holder Style		Hand	Cutting edge Length		
ICTM = HSK standard	D: Double Clamp M: Multi Clamp P: Lever Lock S: Screw On W: Wedge Clamp			R: Right L: Left N: No Hand			

ICTM (Interface committee for turning mill)

• Interface for Multi-task machines turning tool, which is tooling system based on ICTM standard from 17 major Japanese companies cooperation and is compatible with conventional HSK-A type and common to Multi-task machines and machining centers

Tolerance of keyway has been improved: HSK-T63



Tolerance comparison (Example)

Remarks	Maximum Tolerance	Minimum Tolerance
ICTM STANDARD HSK-T63	0.075	0.035
ISO STANDARD HSK-A63	0.33	0.08

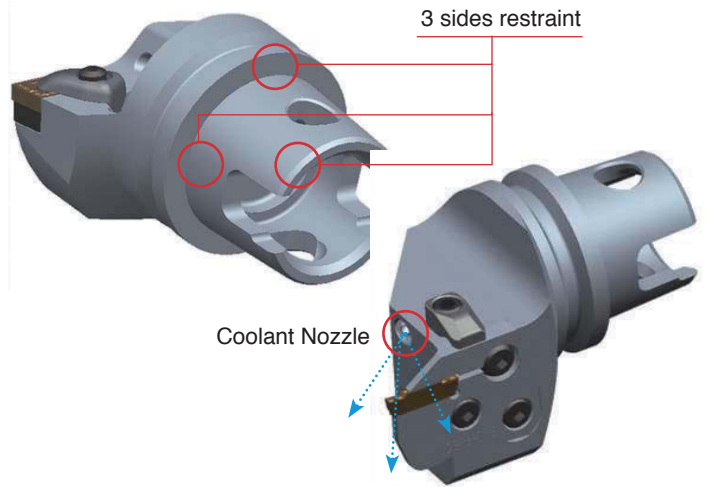
(mm)

B Technical Information for KM Tooling System

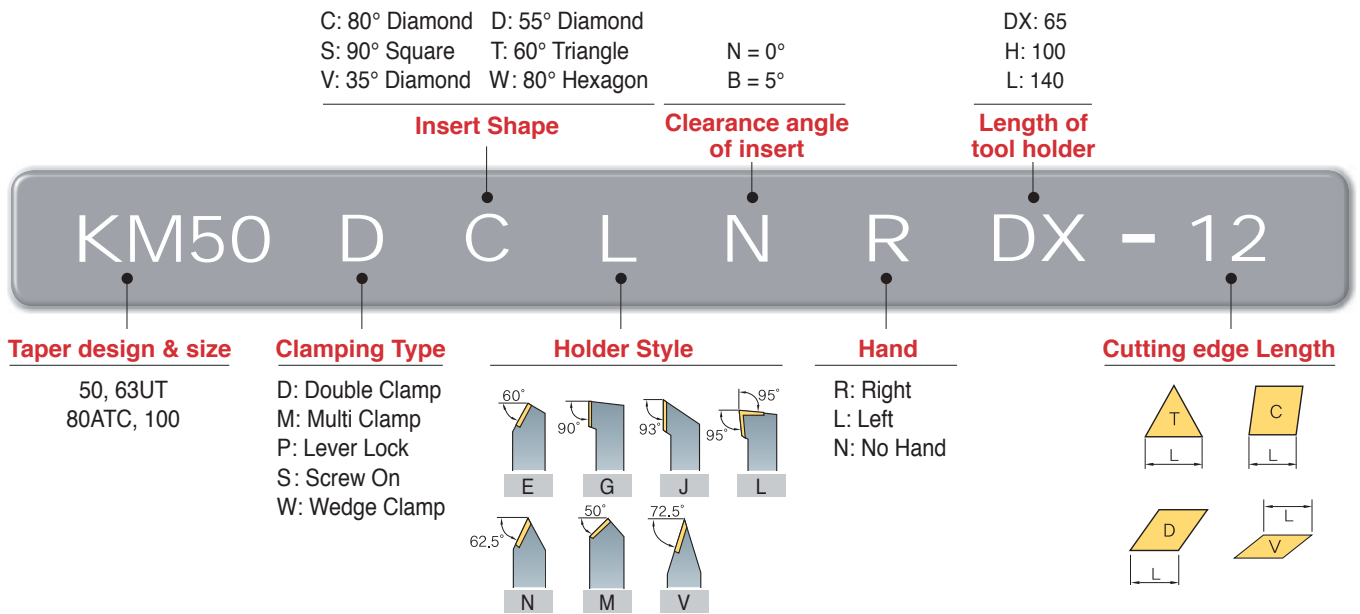
3 Face Binding - Superior precision

KM Tooling System [For Multi-task Machines]

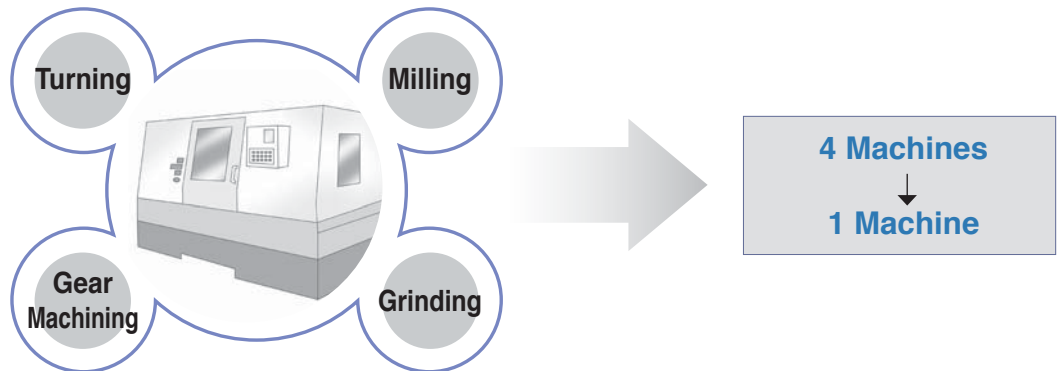
- 3 Face binding / Superior precision
- Flexible clamping system / Superior rigidity
- Various size & style
- Appropriate for turning & milling
- Adjustable coolant direction with coolant nozzle



☞ KM tooling code system



☞ Multi-tasking machine



KM Tooling system is superior for wide application.

External Process	Internal Process	Grooving Process	Drill Process	Parting-off Process
------------------	------------------	------------------	---------------	---------------------

KM50, KM63UT, KM80, KM100 Standard and Special type can be produced.



Index for HSK Tooling System

Cutting Shape								
Designation	H63T-DCLNR/L-DX12	H63T-DCMNN-H/L12	H63T-DDJNR/L-DX15	H63T-DDNNN-H/L15	H63T-PCLNR/L-DX12	H63T-PCMNN-H/L12	H63T-PDJNR/L-DX15	H63T-PDNNN-H/L15
Approach angle	95°	95°	93°	107.5°	95°	95°	93°	107.5°
Page	B220	B220	B220	B220	B221	B221	B221	B221
Turning	●	●	●	●	●	●	●	●
Copying			●	●			●	●
Facing	●	●	●	●	●	●	●	●
Back turning	●	●	●	●	●	●	●	●
Internal turning								

Cutting Shape							
Designation	H63T-PRGCR-DX12	H63T-PRDCN-H/L12	H63T-SVPBR/L-DX16	H63T-SVVBH-H/L16	H63T-A25K/A32L-DCLNR/L-12	H63T-MCFR/L	H63T-MCHR/L
Approach angle	-	-	117.5°	117.5°	95°	-	-
Page	B222	B222	B222	B222	B224	B224	B223
Turning	●	●	●	●	●	●	
Copying	●	●	●	●	●	●	
Facing	●	●	●	●	●	●	●
Back turning	●	●	●	●	●		
Internal turning					●		

Index for KM Tooling System

Cutting Shape						
Designation	KM50-DCLNR/L-C12 KM63UT-DCLNR/L-D12	KM50-DCMNN-C12 KM63UT-DCMNN-D12	KM50-DDJNR/L-C15(-3) KM63UT-DCJNR/L-D15(-3)	KM50-DDNNN-C15(-3) KM63UT-DDNNN-D15(-3)	KM50-A25K-DCLNR/L-12 KM50-A32K-DCLNR/L-12 KM63UT-A25K-DCLNR/L-12 KM63UT-A32L-DCLNR/L-12	KM50-PCLNR/L-C12 KM63UT-PCLNR/L-D12
Approach angle	95°	95°	93°	107.5°	95°	95°
Page	B226	B226	B226	B227	B229	B227
Turning	●	●	●	●	●	●
Copying			●	●		
Facing	●	●	●	●	●	●
Back turning	●	●	●	●	●	●
Internal turning					●	

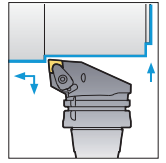
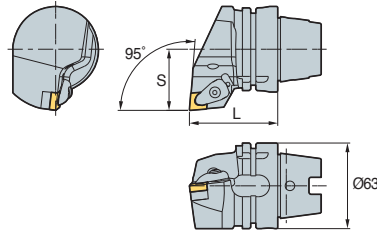
Cutting Shape					
Designation	KM50-PCMNN-C12 KM63UT-PCMNN-D12	KM50-PDJNR/L-C15(-3) KM63UT-PDJNR/L-D15(-3)	KM50-PDNNN-C15(-3) KM63UT-PDNNN-D15(-3)	KM50-MCHR/L KM63UT-MCHR/L	
Approach angle	95°	93°	107.5°	-	
Page	B227	B228	B228	B228	
Turning	●	●	●	●	
Copying		●	●	●	
Facing	●	●	●		
Back turning	●	●	●	●	
Internal turning					



DCLNR/L



CN□□



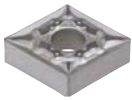
95°

• R type insert
(mm)

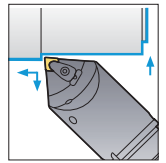
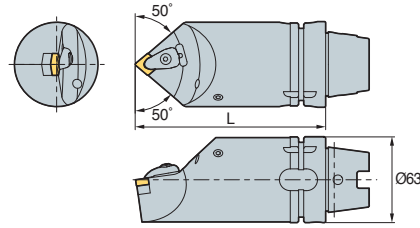
Designation	L	S	Insert	Clamp	Screw	Shim	Shim Screw	Spring	Nozzle	Plug	Wrench	Coolant Pipe
H63T-DCLNR/L-DX12	65	45	CN□□1204□□	CVH4	CHX0518	SC44V	FTKA0410	SPR0714	CN0605	-	HW30P	CP63T

↻ Applicable inserts B28~B35

DCMNN



CN□□



95°

(mm)

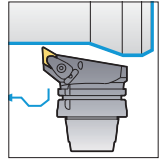
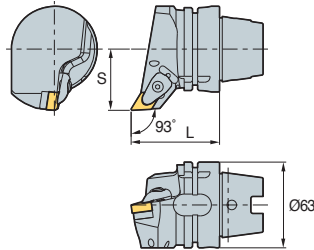
Designation	L	Insert	Clamp	Screw	Shim	Shim Screw	Spring	Nozzle	Plug	Wrench	Coolant Pipe
H63T-DCMNN-H12	100	CN□□1204□□	CVH4	CHX0518	SC44V	FTKA0410	SPR0714	CN0605	KHA0808	HW30P	CP63T
H63T-DCMNN-L12	140										

↻ Applicable inserts B28~B35

DDJNR/L



DN□□



93°

• R type insert
(mm)

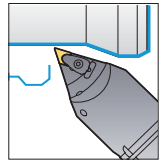
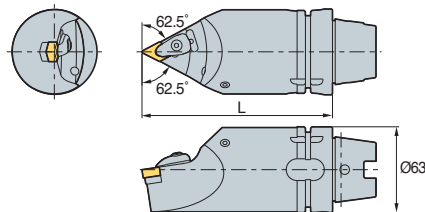
Designation	L	S	Insert	Clamp	Screw	Shim	Shim Screw	Spring	Nozzle	Plug	Wrench	Coolant Pipe
H63T-DDJNR/L-DX15	65	45	DN□□1506□□	CVH4	CHX0518	SD43V	FTKA0410	SPR0714	CN0605	-	HW30P	CP63T
H63T-DDJNR/L-DX15-3	65	45	DN□□1504□□			SD44V						

↻ Applicable inserts B36~B42

DDNNN



DN□□



107.5°

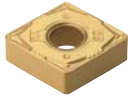
(mm)

Designation	L	Insert	Clamp	Screw	Shim	Shim Screw	Spring	Nozzle	Plug	Wrench	Coolant Pipe
H63T-DDNNN-H15	100	DN□□1506□□	CVH4	CHX0518	SD43V	FTKA0410	SPR0714	CN0605	KHA0808	HW30P	CP63T
H63T-DDNNN-L15	140										
H63T-DDNNN-H15-3	100	DN□□1504□□	CVH4	CHX0518	SD44V	FTKA0410	SPR0714	CN0605	KHA0808	HW30P	CP63T
H63T-DDNNN-L15-3	140										

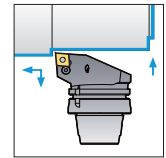
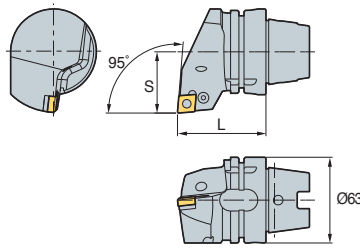
↻ Applicable inserts B36~B42



PCLNR/L



CN□□



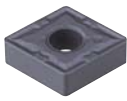
95°

• R type insert
(mm)

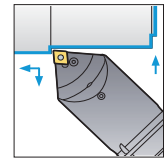
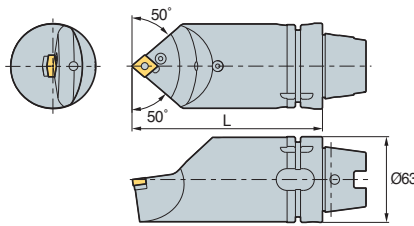
Designation	L	S	Insert	Lever	Screw	Shim	Shim Pin	Punching	Nozzle	Plug	Wrench	Coolant Pipe
H63T-PCLNR/L-DX12	65	45	CN□□1204□□	LV4N	VHX0820N	SC42N	SP4N	LSPS4	CN0605	-	HW30L	CP63T

↻ Applicable inserts B28~B35

PCMNN



CN□□



95°

(mm)

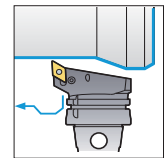
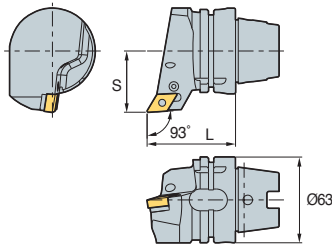
Designation	L	Insert	Lever	Screw	Shim	Shim Pin	Punching	Nozzle	Plug	Wrench	Coolant Pipe
H63T-PCMNN-H12	100	CN□□1204□□	LV4N	VHX0820N	SC42N	SP4N	LSPS4	CN0605	KHA0808	HW30L	CP63T
H63T-PCMNN-L12	140										

↻ Applicable inserts B28~B35

PDJNR/L



DN□□



95°

• R type insert
(mm)

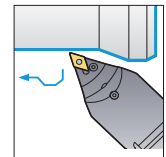
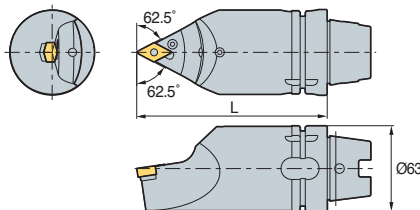
Designation	L	S	Insert	Lever	Screw	Shim	Shim Pin	Punching	Nozzle	Plug	Wrench	Coolant Pipe
H63T-PDJNR/L-DX15	65	45	DN□□1506□□	LV4BN	VHX0821N	SD42N	SP4N	LSPS4	CN0605	-	HW30L	CP63T
H63T-PDJNR/L-DX15-3	65	45	DN□□1504□□			SD43N						

↻ Applicable inserts B36~B42

PDNNN



DN□□



107.5°

(mm)

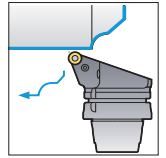
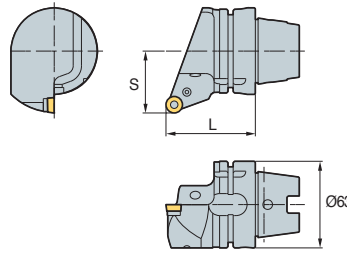
Designation	L	Insert	Lever	Screw	Shim	Shim Pin	Punching	Nozzle	Plug	Wrench	Coolant Pipe
H63T-PDNNN-H15	100	DN□□1506□□	LV4BN	VHX0821N	SD42N	SP4N	LSPS4	CN0605	KHA0808	HW30L	CP63T
H63T-PDNNN-L15	140										
H63T-PDNNN-H15-3	100	DN□□1504□□	LV4BN	VHX0821N	SD43N	SP4N	LSPS4	CN0605	KHA0808	HW30L	CP63T
H63T-PDNNN-L15-3	140										

↻ Applicable inserts B36~B42

PRGCR/L



RCMX1204M0



• R type insert (mm)

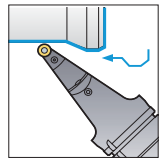
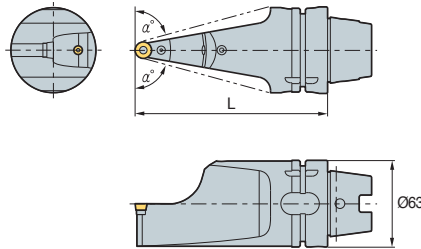
Designation	L	S	Insert	Lever	Screw	Shim	Shim Pin	Punching	Nozzle	Plug	Wrench	Coolant Pipe
H63T-PRGCR/L-DX12	65	45	RCMX1204M0	LR12	VHX0617	SR12	SP3	LSPS3	CN0605	-	HW25L	CP63T

➔ Applicable inserts B74

PRDCN



RCMX1204M0

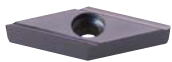


(mm)

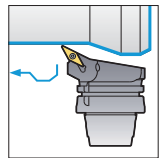
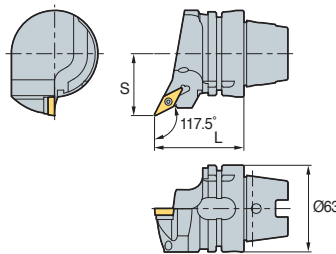
Designation	L	α°	Insert	Lever	Screw	Shim	Shim Pin	Punching	Nozzle	Plug	Wrench	Coolant Pipe
H63T-PRDCN-H12	100	69	RCMX1204M0	LR12	VHX0617	SR12	SP3	LSPS3	CN0605	-	HW25L	CP63T
H63T-PRDCN-L12	140	75										

➔ Applicable inserts B74

SVPBR/L



VB□T



117.5°

• R type insert (mm)

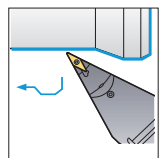
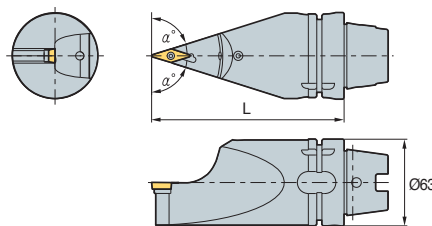
Designation	L	S	Insert	Screw	Shim Screw	Shim	Nozzle	Plug	Wrench	Wrench	Coolant Pipe
H63T-SVPBR/L-DX16	65	45	VB□T1604□□	FTGA03512	SHXN0509F	SV32S	CN0605	-	TW15P	HW32L	CP63T

➔ Applicable inserts B84~B85, B96

SVVBN



VB□T



117.5°

(mm)

Designation	L	α°	Insert	Screw	Shim Screw	Shim	Nozzle	Plug	Wrench	Wrench	Coolant Pipe
H63T-SVVBN-H16	100	66.5	VB□T1604□□	FTGA03512	SHXN0509F	SV32S	CN0605	KHA0808	TW15P	HW32L	CP63T
H63T-SVVBN-L16	140	72.5									

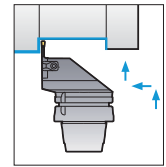
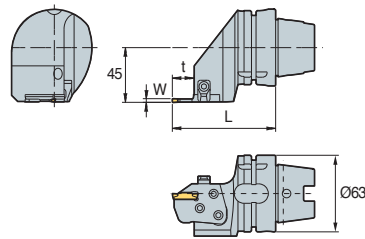
➔ Applicable inserts B84~B85, B96



MCHR/L



MGMN / MGMR/L
MGGN / MRMN



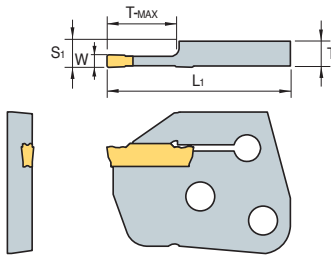
• R type insert
(mm)

Designation	L	t	W	T-MAX	Insert	Cartridge	Clamp	Clamp Screw	Hinge Screw	Screw	Nozzle	Plug	Wrench	Coolant Pipe
H63T-MCHR/L	85	18	3	16	MGMN	MCER/L3-T16	CHX8N	DHA0818F	RHA0613	FHGA0618	CN0605	-	HW40L	CP63T
	85	18	4	16	MGMR/L	MCER/L4-T16								
	89	22	5	20	MGGN	MCER/L5-T20								
	89	22	6	20	MRMN	MCER/L6-T20								

MCER/L (Cartridge)



MGMN / MGMR/L
MGGN / MRMN



• R type insert
(mm)

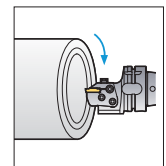
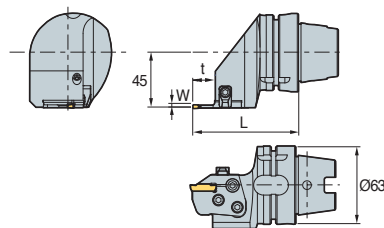
Designation	L	L1	S1	T-MAX	Insert		Tool holders	
					W	Designation		
MCER/L	3-T16	6.00	44.5	6.35	16	3	MGMN	H63T-MCHR/L
	4-T16	5.97	44.5	6.35	16	4	MGMR/L	
	5-T20	5.87	48.5	6.35	20	5	MGGN	
	6-T20	5.82	48.5	6.35	20	6	MGMN	

➔ Applicable inserts C27~C29

MCHR/L



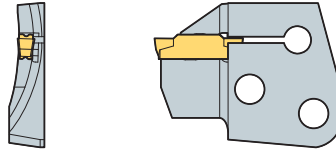
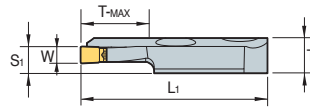
MFMN300
MGMN400



• R type insert
(mm)

Designation	L	t	W	T-MAX	Insert	Cartridge	Clamp	Clamp Screw	Hinge Screw	Screw	Nozzle	Plug	Wrench	Coolant Pipe
H63T-MCHR/L	85	18	3	16	MFMN300	MCFR/L3-24/35-T16	CHX8N	DHA0818F	RHA0613	FHGA0618	CN0605	-	HW40L	
	85	18	3	16		MCFR/L3-29/40-T16								
	85	18	3	16		MCFR/L3-34/50-T16								
	85	18	3	16		MCFR/L3-44/70-T16								
	85	18	3	16		MCFR/L3-64/99-T16								
	85	18	3	16	MGMN400	MCFR/L4-44/60-T16								
	85	18	3	16	MCFR/L4-60/120-T16									
	85	18	3	16	MCFR/L4-112/200-T16									

MCFR/L (Cartridge)



• R type insert (mm)

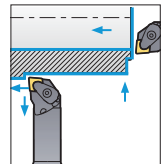
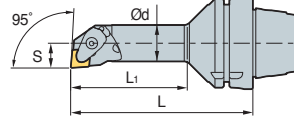
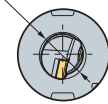
Designation	T	L1	S1	T-MAX	Insert		Tool holders
					W	Designation	
MCFR/L3-	24/35-T16	8.00	44.5	6.35	16	3	H63T-MCHR/L
	29/40-T16	8.00	44.5	6.35	16	3	
	34/50-T16	8.00	44.5	6.35	16	3	
	44/70-T16	8.00	44.5	6.35	16	3	
	64/99-T16	8.00	44.5	6.35	16	3	
MCFR/L4-	44/60-T16	7.97	44.5	6.35	16	4	
	60/120-T16	7.97	44.5	6.35	16	4	
	112/200-T16	7.97	44.5	6.35	16	4	

➔ Applicable inserts C27~C29

DCLNR/L



ØD Min. machining Dia.



95°

• R type insert (mm)

Designation	ØD	Ød	L	L1	S	Insert	Clamp	Screw	Shim	Shim Screw	Spring	Nozzle	Plug	Wrench	Coolant Pipe
H63T-A25K-DCLNR/L-12	32	25	125	80	17	CN□□1204□□	CVH4	CHX0518	SC42V	FTKA0410	SPR0714	CN0605	-	HW30P	CP63T
H63T-A32L-DCLNR/L-12	40	32	140	98	22										

➔ Applicable inserts B28~B35

Blank Tool

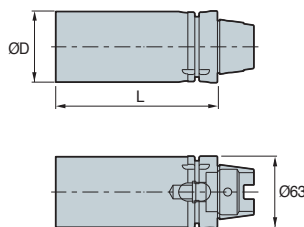


Fig. 1

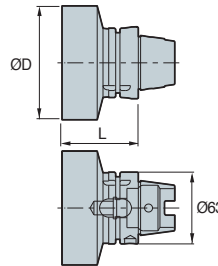


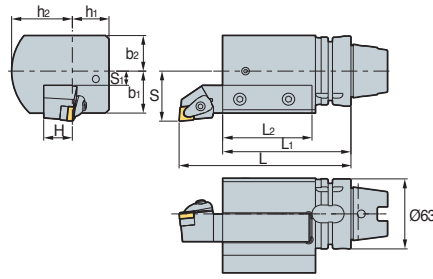
Fig. 2

(mm)

Designation	ØD	L	Fig.	Coolant Pipe
HSK-T63-BL62-102	62	102	1	CP63T
HSK-T63-BL62-142	62	142	2	
HSK-T63-BL100-67	100	67	1	
HSK-T63-BL120-70	120	70	2	



EV2525R/L-112

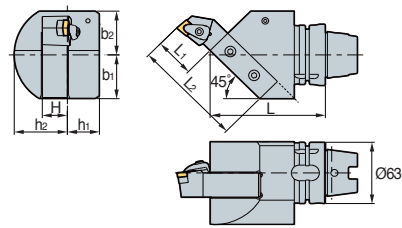


- **Holder information**
- Holder size: 25 x 25
- Before setting the holder, please cut the holder length to 115 mm.

• R type insert (mm)

Designation	L	L1	L2	H	h1	h2	S	S1	b1	b2	Screw	Plug	Nozzle	Wrench	Coolant Pipe
EV2525R/L-112	150	112	77	25	32	53	45	12.75	37.75	32	KHA1231	KHA0808	CN0605	HW50L	CP63T

EV2525R/L-115

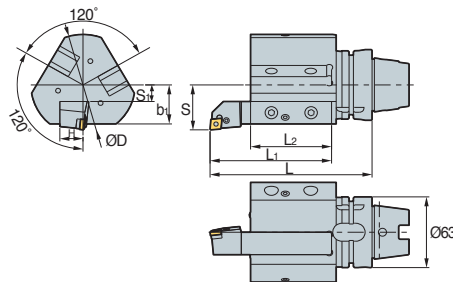


- **Holder information**
- Holder size: 25 x 25
- Before setting the holder, please cut the holder length to 110 mm.

• R type insert (mm)

Designation	L	L1	L2	H	h1	h2	b1	b2	Screw	Plug	Nozzle	Wrench	Coolant Pipe
EV2525R/L-115	115	40	110	25	32	53	45	45	KHA1231	KHA0808	CN0605	HW50L	CP63T

EV2020R/L-105-3

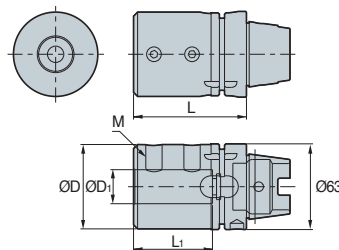


- **Holder information**
- Holder size: 20 x 20
- Before setting the holder, please cut the holder length to 105 mm.

• R type insert (mm)

Designation	L	L1	L2	H	ØD	S	S1	B1	Screw	Plug	Nozzle	Wrench	Coolant Pipe
EV2020R/L-105-3	140	105	70	20	90	40	15	35	KHA1231	KHA0808	CN0605	HW50L	CP63T

B○○○-○○○



• R type insert (mm)

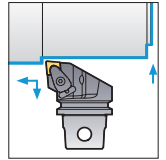
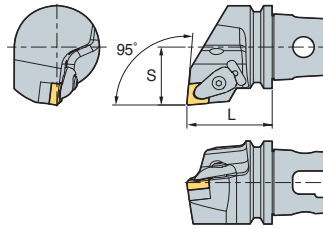
Designation	ØD	D1	L	L1	M	Screw	Wrench	Coolant Pipe
B08-65	28	8	65	40	M8	KHA1218	HW50L	CP63T
B10-70	35	10	70	45	M8			
B12-70	42	12	70	45	M8			
B16-75	48	16	75	50	M10			
B20-75	52	20	75	50	M10			
B25-83	62	25	83	58	M12			
B32-87	62	32	87	62	M12			
B40-97	65	40	97	72	M16			



DCLNR/L



CN□□



95°

• R type insert
(mm)

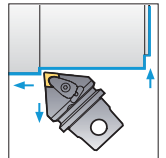
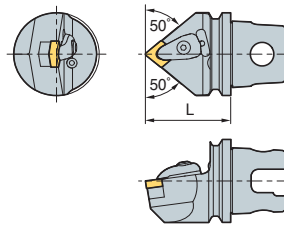
Designation	L	S	Insert	Clamp	Screw	Shim	Shim Screw	Spring	Nozzle	Plug	Wrench
KM50-DCLNR/L-C12	50	35	CN□□1204□□	CVH4	CHX0518	SC44V	FTKA0410	SPR0714	CN0605	-	HW30P
KM63UT-DCLNR/L-D12	60	43									

↻ Applicable inserts B28~B35

DCMNN



CN□□



95°

(mm)

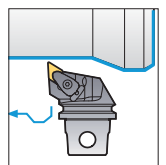
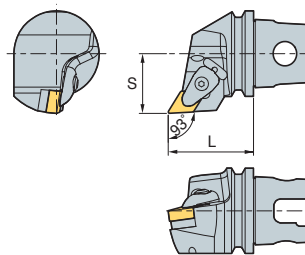
Designation	L	Insert	Clamp	Screw	Shim	Shim Screw	Spring	Nozzle	Plug	Wrench
KM50-DCMNN-C12	50	CN□□1204□□	CVH4	CHX0518	SC44V	FTKA0410	SPR0714	CN0605	KHA0808	HW30P
KM63UT-DCMNN-D12	60									

↻ Applicable inserts B28~B35

DDJNR/L



DN□□



93°

• R type insert
(mm)

Designation	L	S	Insert	Clamp	Screw	Shim	Shim Screw	Spring	Nozzle	Plug	Wrench
KM50-DDJNR/L-C15	50	35	DN□□1506□□	CVH4	CHX0518	SD43V	FTKA0410	SPR0714	CN0605	-	HW30P
KM50-DDJNR/L-C15-3	50	35	DN□□1504□□	CVH4	CHX0518	SD44V	FTKA0410	SPR0714	CN0605	-	HW30P
KM63UT-DDJNR/L-D15	60	43	DN□□1506□□	CVH4	CHX0518	SD43V	FTKA0410	SPR0714	CN0605	-	HW30P
KM63UT-DDJNR/L-D15-3	60	43	DN□□1504□□	CVH4	CHX0518	SD44V	FTKA0410	SPR0714	CN0605	-	HW30P

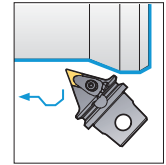
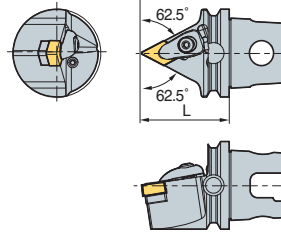
↻ Applicable inserts B36~B42



DDNNN



DN□□



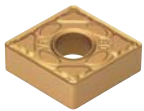
117.5°

(mm)

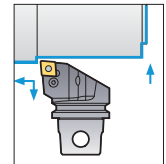
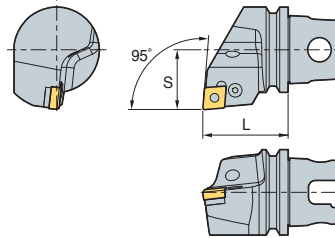
Designation	L	Insert	Clamp	Screw	Shim	Shim Screw	Spring	Nozzle	Plug	Wrench
KM50-DDNNN-C15	50	DN□□1506□□	CVH4	CHX0518	SD43V	FTKA0410	SPR0714	CN0605	KHA0808	HW30P
KM50-DDNNN-C15-3	50	DN□□1504□□	CVH4	CHX0518	SD44V	FTKA0410	SPR0714	CN0605	KHA0808	HW30P
KM63UT-DDNNN-D15	60	DN□□1506□□	CVH4	CHX0518	SD43V	FTKA0410	SPR0714	CN0605	KHA0808	HW30P
KM63UT-DDNNN-D15-3	60	DN□□1504□□	CVH4	CHX0518	SD44V	FTKA0410	SPR0714	CN0605	KHA0808	HW30P

↻ Applicable inserts B36~B42

PCLNR/L



CN□□



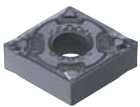
95°

• R type insert
(mm)

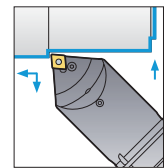
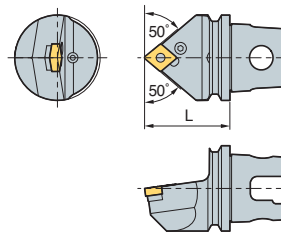
Designation	L	S	Insert	Lever	Screw	Shim	Shim Pin	Punching	Nozzle	Plug	Wrench
KM50-PCLNR/L-C12	50	35	CN□□1204□□	LV4N	VHX0820N	SC42N	SP4N	LSPS4	CN0605	-	HW30L
KM63UT-PCLNR/L-D12	60	43									

↻ Applicable inserts B28~B35

PCMNN



CN□□



95°

(mm)

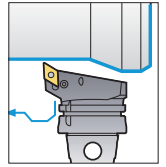
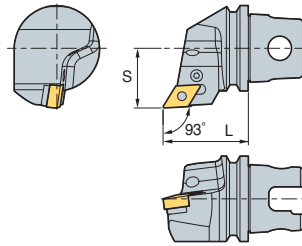
Designation	L	Insert	Lever	Screw	Shim	Shim Pin	Punching	Nozzle	Plug	Wrench
KM50-PCMNN-C12	50	CN□□1204□□	LV4N	VHX0820N	SC42N	SP4N	LSPS4	CN0605	KHA0808	HW30L
KM63UT-PCMNN-D12	60									

↻ Applicable inserts B28~B35

PDJNR/L



DN□□



93°

• R type insert
(mm)

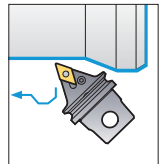
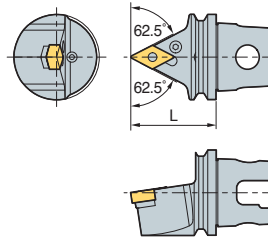
Designation	L	S	Insert	Lever	Screw	Shim	Shim Pin	Punching	Nozzle	Plug	Wrench
KM50-PDJNR/L-C15	50	35	DN□□1506□□	LV4BN	VHX0821N	SD42N	SP4N	LSPS4	CN0605	-	HW30L
KM50-PDJNR/L-C15-3	50	35	DN□□1504□□	LV4BN	VHX0821N	SD43N	SP4N	LSPS4	CN0605	-	HW30L
KM63UT-PDJNR/L-D15	60	43	DN□□1506□□	LV4BN	VHX0821N	SD42N	SP4N	LSPS4	CN0605	-	HW30L
KM63UT-PDJNR/L-D15-3	60	43	DN□□1504□□	LV4BN	VHX0821N	SD43N	SP4N	LSPS4	CN0605	-	HW30L

➔ Applicable inserts B36~B42

PDNNN



DN□□



107.5°

(mm)

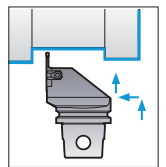
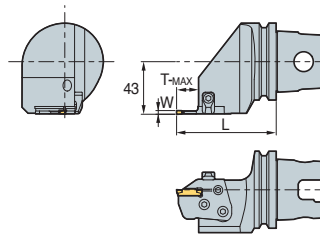
Designation	L	Insert	Lever	Screw	Shim	Shim Pin	Punching	Nozzle	Plug	Wrench
KM50-PDNNN-C15	50	DN□□1506□□	LV4BN	VHX0821N	SD42N	SP4N	LSPS4	CN0605	KHA0808	HW30L
KM50-PDNNN-C15-3	50	DN□□1504□□	LV4BN	VHX0821N	SD43N	SP4N	LSPS4	CN0605	KHA0808	HW30L
KM63UT-PDNNN-D15	60	DN□□1506□□	LV4BN	VHX0821N	SD42N	SP4N	LSPS4	CN0605	KHA0808	HW30L
KM63UT-PDNNN-D15-3	60	DN□□1504□□	LV4BN	VHX0821N	SD43N	SP4N	LSPS4	CN0605	KHA0808	HW30L

➔ Applicable inserts B36~B42

MCHR/L



MGMN / MGMR/L
MGGN / MRMN



• R type insert
(mm)

Designation	S	L	t	W	T-MAX	Insert	Cartridge	Clamp	Clamp Screw	Hinge Screw	Screw	Nozzle	Plug	Wrench
KM50-MCHR/L	35	72.5	18	3	16	MGMN MGMR/L	MCER/L3-T16	CHX8N	DHA0818F	RHA0613	FHGA0618	CN0605	-	HW40L
	35	72.5	18	4	16		MCER/L4-T16							
	35	76.5	22	5	20		MCER/L5-T20							
	35	76.5	22	6	20		MCER/L6-T20							
KM63UT-MCHR/L	43	81.5	18	3	16	MGGN MRMN	MCER/L3-T16	CHX8N	DHA0818F	RHA0613	FHGA0618	CN0605	-	HW40L
	43	81.5	18	4	16		MCER/L4-T16							
	43	85.5	22	5	20		MCER/L5-T20							
	43	85.5	22	6	20		MCER/L6-T20							

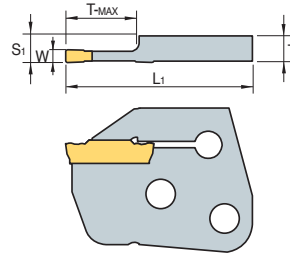
➔ Applicable inserts C27~C29



MCER/L (Cartridge)



MGMN / MGMR/L
MGGN / MRMN

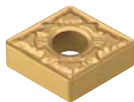


• R type insert (mm)

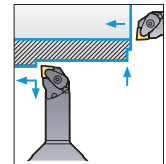
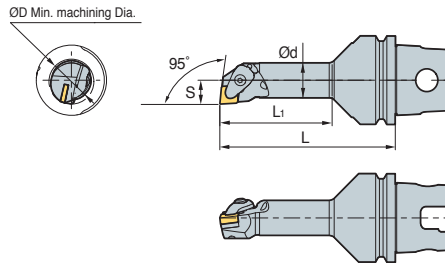
Designation	T	L1	S1	T-MAX	Insert		Tool holders	
					W	Designation		
MCER/L	3-T16	6.00	44.5	6.35	16	3	MGMN	H-63T-MCHR/L
	4-T16	5.97	44.5	6.35	16	4	MGMR/L	
	5-T20	5.87	48.5	6.35	20	5	MGGN	
	6-T20	5.82	48.5	6.35	20	6	MRMN	

➔ Applicable inserts C27~C29

KM○○-DCLNR/L



CN□□



95°

• R type insert (mm)

Designation	ØD	Ød	L	L1	S	Insert	Clamp	Screw	Shim	Shim Screw	Spring	Nozzle	Plug	Wrench
KM50-A25K-DCLNR/L-12	32	25	125	80	17	CN□□1204□□								
KM50-A32L-DCLNR/L-12	40	32	140	98	22									
KM63UT-A25K-DCLNR/L-12	32	25	125	80	17									
KM63UT-A32L-DCLNR/L-12	40	32	140	98	22									

➔ Applicable inserts B28~B35

Blank Tool

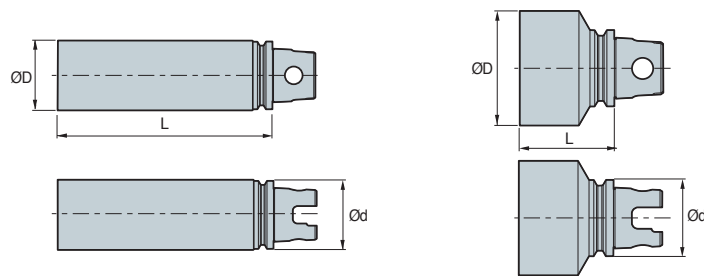


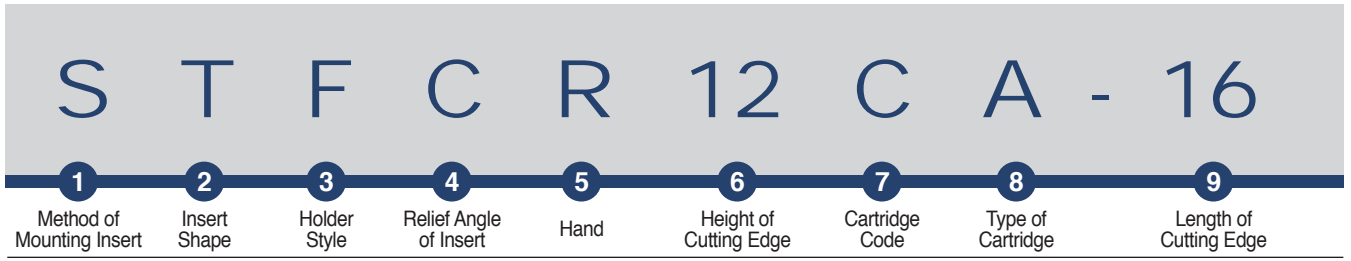
Fig. 1

Fig. 2

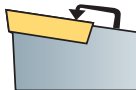
(mm)

Designation	ØD	L	Ød	Fig.
KM50-BL7562	45	62	50	1
KM50-BL10562	105	62	50	2
KM63UT-BL65200	65	200	50	1
KM63UT-BL115150	115	150	50	2

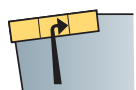
B Cartridge Code System (ISO)



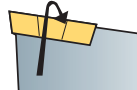
1 Method of Mounting Insert
S T F C R 12 C A - 16



Top Clamping
C




Hole clamping
P




Screw on
S


2 Insert Shape
S T F C R 12 C A - 16



C




S




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
3 Holder Style
S T F C R 12 C A - 16




95°
L




45°
S




90°
F




75°
R




75°
K



90°
G

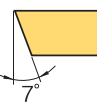


60°
W

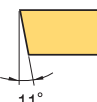


60°
T

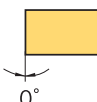
4 Relief Angle of Insert
S T F C R 12 C A - 16



7°
C

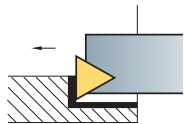


11°
P

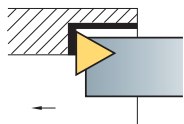


0°
N

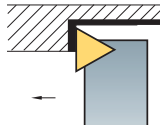
5 Hand
S T F C R 12 C A - 16



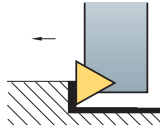
R



L

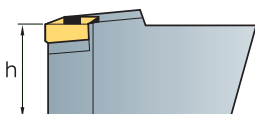


R



L

6 Height of Cutting Edge
S T F C R 12 C A - 16



h

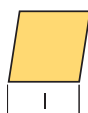
7 Cartridge Code
S T F C R 12 C A - 16

C (Cartridge)

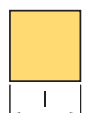
8 Type of Cartridge
S T F C R 12 C A - 16

A (ISO5611)


9 Length of Cutting Edge
S T F C R 12 C A - 16



I

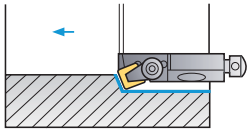
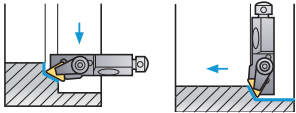
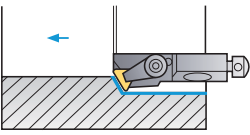
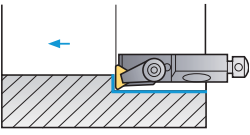
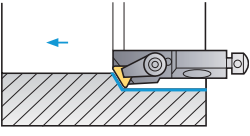
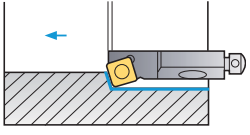
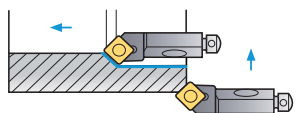
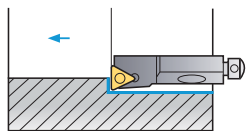
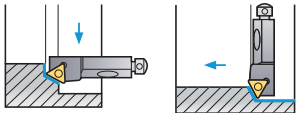
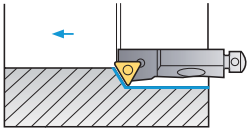


I



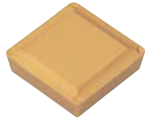
I



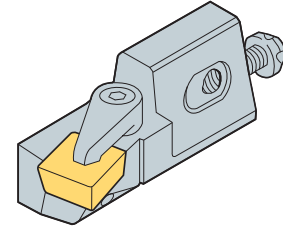
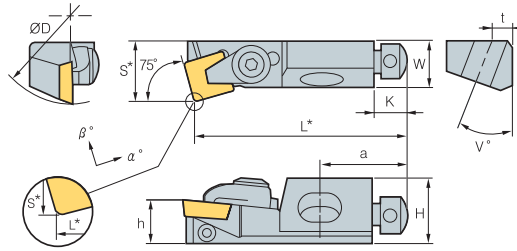
	Cutting Shape	Turning	Copying	Facing	Chamfering	Applicable inserts	Page	
Clamp on System	CSKPR/L 	10CA-09 12CA-12	●				SP□R 0903□□ 1203□□	B232
	CTTPR/L 	10CA-11 12CA-16	●				TP□R 1103□□ 1603□□	B233
	CTWPR/L 	10CA-11 12CA-16	●				TP□R 1103□□ 1603□□	B2233
	CTFPR/L 	10CA-11 12CA-16	●		●		TP□R 1103□□ 1603□□	B232
	CTSPR/L 	10CA-11 12CA-16	●				TP□R 1103□□ 1603□□	B232
Screw on System	SSKCR/L 	10CA-09 12CA-12	●				SC□T 09T3□□ 1204□□	B234
	SSSCR/L 	10CA-09 12CA-12	●			●	SC□T 09T3□□ 1204□□	B234
	STFCR/L 	10CA-11 12CA-16	●		●		TC□T 1102□□ 16T3□□	B234
	STTCR/L 	10CA-11 12CA-16	●		●		TC□T 1102□□ 16T3□□	B235
	STWCR/L 	10CA-11 12CA-16	●				TC□T 1102□□ 16T3□□	B235

B Clamp on System

CSKPR/L



SP□R



• R type insert (mm)

Designation	ØD	H	W	L*	S*	h	K	α°	β°	a	t	v°	Insert
CSKPR/L 10CA-09	40	15	11	50	14	10	8	6	0	20	5	20	SP□R 0903 □□ 1203 □□
12CA-12	50	20	15	55	20	12	8	6	0	20	6	20	

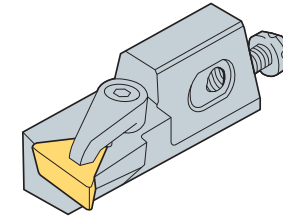
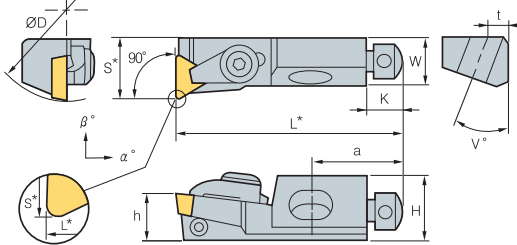
➔ Applicable inserts B76~B77 • a base Insert : r = 0.8 D = ØD Min. machining Dia.

Parts	Clamp	Axial Adjust Screw	Radial Adjust Screw	MountingScrew	Washer	Wrench	Wrench
CSKPR/L 10CA-09	CA05R	AZ0508F	KHA0408	RHA0620	WA0602	TW 15P	HW20L
12CA-12	CA06R	AZ0508F	KHA0412	RHA0625	WA0602	TW 15P	HW20L

CTFPR/L



TP□R



• R type insert (mm)

Designation	ØD	H	W	L*	S*	h	K	α°	β°	a	t	v°	Insert
CTFPR/L 10CA-11	40	15	11	50	14	10	8	6	0	20	5	20	TP□R 1103 □□ 1603 □□
12CA-16	50	20	15	55	20	12	8	6	0	20	6	20	

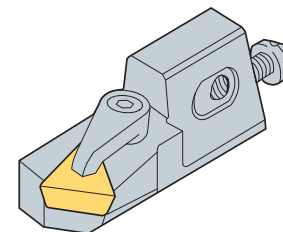
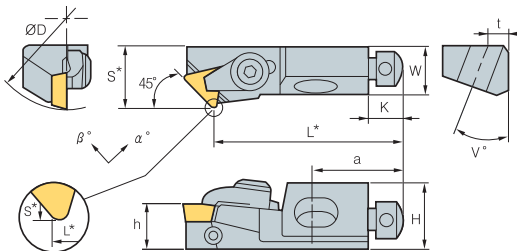
➔ Applicable inserts B81~B83 • a base Insert : r = 0.4 (l = 11) r = 0.8 (l = 16) D = ØD Min. machining Dia.

Parts	Clamp	Axial Adjust Screw	Radial Adjust Screw	MountingScrew	Washer	Wrench	Wrench
CTFPR/L 10CA-11	CA05R	AZ0508F	KHA0408	RHA0620	WA0602	TW25L	HW20L
12CA-16	CA06R	AZ0508F	KHA0412	RHA0625	WA0602	TW30L	HW20L

CTSPR/L



TP□R



• R type insert (mm)

Designation	ØD	H	W	L*	S*	h	K	α°	β°	a	t	v°	Insert
CTSPR/L 10CA-11	40	15	11	44	14	10	8	4	0	20	5	20	TP□R 1103 □□ 1603 □□
12CA-16	50	20	15	47	20	12	8	5	0	20	6	20	

➔ Applicable inserts B81~B83 • a base Insert : r = 0.4 (l = 11) r = 0.8 (l = 16) D = ØD Min. machining Dia.

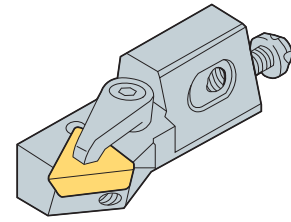
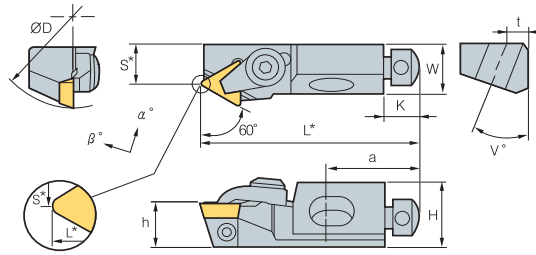
Parts	Clamp	Axial Adjust Screw	Radial Adjust Screw	MountingScrew	Washer	Wrench	Wrench
CTSPR/L 10CA-11	CA05R	AZ0508F	KHA0408	RHA0620	WA0602	TW25L	HW20L
12CA-16	CA06R	AZ0508F	KHA0412	RHA0625	WA0602	TW30L	HW20L



CTTPR/L



TP□R



• R type insert (mm)

Designation	ØD	H	W	L*	S*	h	K	α°	β°	a	t	v°	Insert
CTTPR/L 10CA-11	40	15	11	50	9	10	8	5	0	20	5	20	TP□R 1103□□ 1603□□
12CA-16	50	20	15	55	20	12	8	5	0	20	6	20	

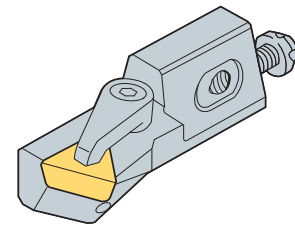
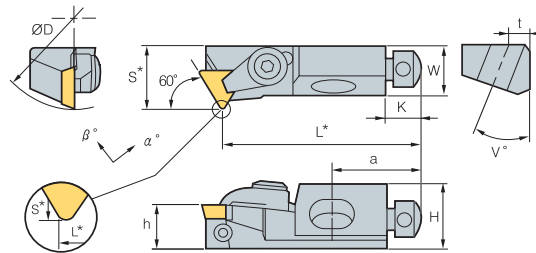
↻ Applicable inserts **B81~B83** · a base Insert : r = 0.8 D = ØD Min. machining Dia.

Parts	Clamp	Axial Adjust Screw	Radial Adjust Screw	MountingScrew	Washer	Wrench	Wrench
CTTPR/L 10CA-11	CA05R	AZ0508F	KHA0408	RHA0620	WA0602	TW25L	HW20L
12CA-16	CA06R	AZ0508F	KHA0412	RHA0625	WA0602	TW30L	HW20L

CTWPR/L



TP□R



• R type insert (mm)

Designation	ØD	H	W	L*	S*	h	K	α°	β°	a	t	v°	InsertInsert
CTWPR/L 10CA-11	40	15	11	44	14	10	8	5	0	20	5	20	TP□R 1103 □□ 1603 □□
12CA-16	50	20	15	47	20	12	8	5	0	20	6	20	

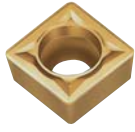
↻ Applicable inserts **B81~B83** · a base Insert : r = 0.8 D = ØD Min. machining Dia.

Parts	Clamp	Axial Adjust Screw	Radial Adjust Screw	MountingScrew	Washer	Wrench	Wrench
CTWPR/L 10CA-11	CA05R	AZ0508F	KHA0408	RHA0620	WA0602	TW25L	HW20L
12CA-16	CA06R	AZ0508F	KHA0412	RHA0625	WA0602	TW30L	HW20L

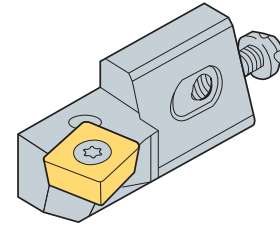
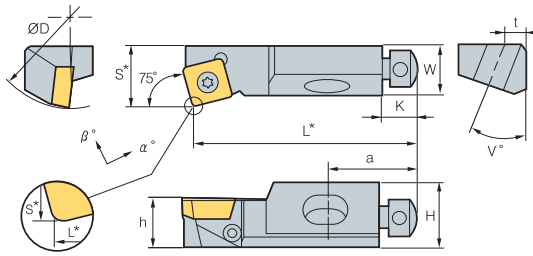


B Screw on System

SSKCR/L



SC□□



• R type insert (mm)

Designation	ØD	H	W	L*	S*	h	K	α°	β°	a	t	v°	Insert
SSKCR/L 10CA-09	40	15	11	50	14	10	8	0	-4	20	5	20	SC□□ 09T3□□
12CA-12	50	20	15	55	20	12	8	0	-4	20	6	20	SC□□ 1204□□

↻ Applicable inserts B74~B75, B94

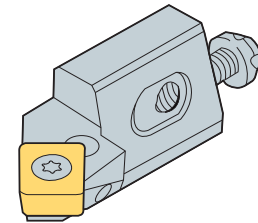
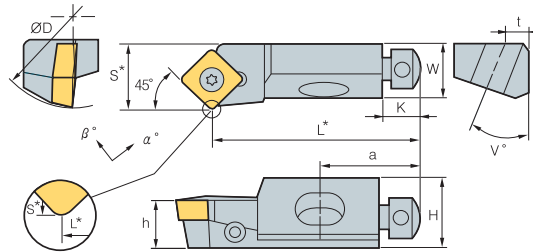
• a base Insert : r = 0.8 D = ØD Min. machining Dia.

Parts	Screw	Axial Adjust Screw	Radial Adjust Screw	MountingScrew	Washer	Wrench	Wrench
SSKCR/L 10CA-09	FTGA03508	AZ0508F	KHA0408	RHA0620	WA0602	TW 15P	HW20L
12CA-12	FTGA0411F	AZ0508F	KHA0412	RHA0625	WA0602	TW 15P	HW20L

SSSCR/L



SC□□



• R type insert (mm)

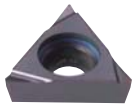
Designation	ØD	H	W	L*	S*	h	K	α°	β°	a	t	v°	Insert
SSSCR/L 10CA-09	40	15	11	44	14	10	8	-5	0	20	5	20	SC□□ 09T3□□
12CA-12	50	20	15	47	20	12	8	-5	0	20	6	20	SC□□ 1204□□

↻ Applicable inserts B74~B75, B94

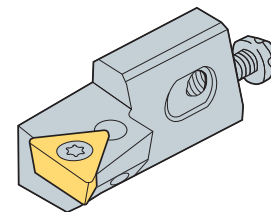
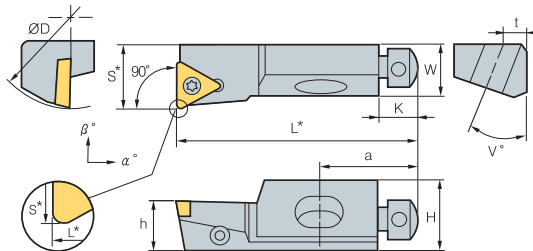
• a base Insert : r = 0.8 D = ØD Min. machining Dia.

Parts	Screw	Axial Adjust Screw	Radial Adjust Screw	MountingScrew	Washer	Wrench	Wrench
SSSCR/L 10CA-09	FTGA03508	AZ0508F	KHA0408	RHA0620	WA0602	TW 15P	HW20L
12CA-12	FTGA0411F	AZ0508F	KHA0412	RHA0625	WA0602	TW 15P	HW20L

STFCR/L



TC□□



• R type insert (mm)

Designation	ØD	H	W	L*	S*	h	K	α°	β°	a	t	v°	Insert
STFCR/L 10CA-11	40	15	11	50	14	10	8	0	-3	20	5	20	TC□□ 1102□□
12CA-16	50	20	15	55	20	12	8	0	-3	20	6	20	TC□□ 16T3□□

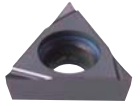
↻ Applicable inserts B79~B80, B95

• a base Insert : r = 0.4 (l=11) r = 0.8 (l=16) D = Min. machining Dia.

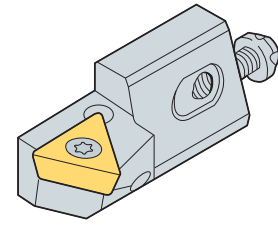
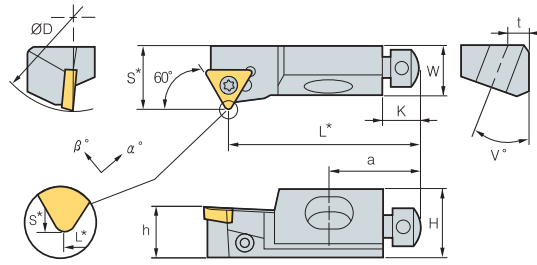
Parts	Screw	Axial Adjust Screw	Radial Adjust Screw	MountingScrew	Washer	Wrench	Wrench
STFCR/L 10CA-11	FTKA02565	AZ0508F	KHA0408	RHA0620	WA0602	TW 15P	HW20L
12CA-16	FTKA03508	AZ0508F	KHA0412	RHA0625	WA0602	TW 15P	HW20L



STTCR/L



TC□□



• R type insert (mm)

Designation	ØD	H	W	L*	S*	h	K	α°	β°	a	t	v°	Insert
STTCR/L 10CA-11	40	15	11	50	9	10	8	-5	0	20	5	20	TC□□ 1102□□
12CA-16	50	20	15	47	20	12	8	-3	0	20	6	20	TC□□ 16T3□□

↻ Applicable inserts B79~B80, B95

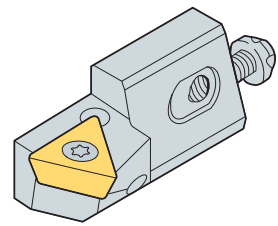
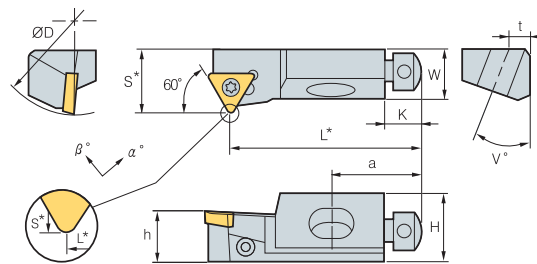
• a base Insert : r = 0.4 (l = 11) r = 0.8 (l = 16) D = Min. machining Dia.

Parts	Screw	Axial Adjust Screw	Radial Adjust Screw	MountingScrew	Washer	Wrench	Wrench
STTCR/L 10CA-11	FTKA02565	AZ0508F	KHA0408	RHA0620	WA0602	TW 07P	HW20L
12CA-16	FTKA03508	AZ0508F	KHA0412	RHA0625	WA0602	TW 15P	HW20L

STWCR/L



TC□□



• R type insert (mm)

Designation	ØD	H	W	L*	S*	h	K	α°	β°	a	t	v°	Insert
STWCR/L 10CA-11	40	15	11	44	14	10	8	0	-4	20	5	20	TC□□ 1102□□
12CA-16	50	20	15	47	20	12	8	-5	0	20	6	20	TC□□ 16T3□□

↻ Applicable inserts B79~B80, B95

• a base Insert : r = 0.4 (l = 11) r = 0.8 (l = 16) D = Min. machining Dia.

Parts	Screw	Axial Adjust Screw	Radial Adjust Screw	MountingScrew	Washer	Wrench	Wrench
STWCR/L 10CA-11	FTKA02565	AZ0508F	KHA0408	RHA0620	WA0602	TW 15P	HW20L
12CA-16	FTKA03508	AZ0508F	KHA0412	RHA0625	WA0602	TW 15P	HW20L



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

- C02 Application Example
- C04 Technical Information for Multi-Functional Tools Series

KGT

- C07 Technical Information for KGT
- C12 Available Insert for KGT
- C14 KGT Holder
- C24 KGT Blade for Parting off

KGT/MGT

- C25 Technical Information for MGT
- C27 Available Insert for MGT
- C30 MGT Holder
- C35 MGT Holder (Face Grooving)
- C38 Technical Information for KGT/MGT Cartridge
- C39 KGT/MGT Cartridge Holder
- C40 KGT Cartridge
- C41 MGT Cartridge

MGT Aluminum Wheel Series

- C42 Technical Information for MGT Aluminum Wheel
- C43 Available Insert for MGT Aluminum Wheel
- C44 MGT Aluminum Wheel

TB/TB-M

- C46 Technical Information for TB/TB-M
- C50 Available Insert for TB/TB-M
- C53 TB/TB-M Holder

K Notch

- C54 Technical Information for K Notch
- C56 Available Insert for K Notch
- C58 K Notch Holder

Saw Man

- C59 Technical Information for Saw Man
- C60 Saw Man

Saw Man-X

- C62 Technical Information for Saw Man-X
- C64 Saw Man-X

Fine Tools

- C65 Technical Information for Fine Tools
- C66 Available Insert for Fine Tools
- C67 Fine Tools Holder

Grooving/Parting off

- C68 IGH
- C68 DBH
- C69 GFT
- C69 GFIP
- C70 GH
- C70 GFIK
- C71 EH
- C71 PH

Special Order Form

- C72 Special Order Form for MGT
- C73 Special Order Form for V-Pulley Insert

C Application Example

For external machining

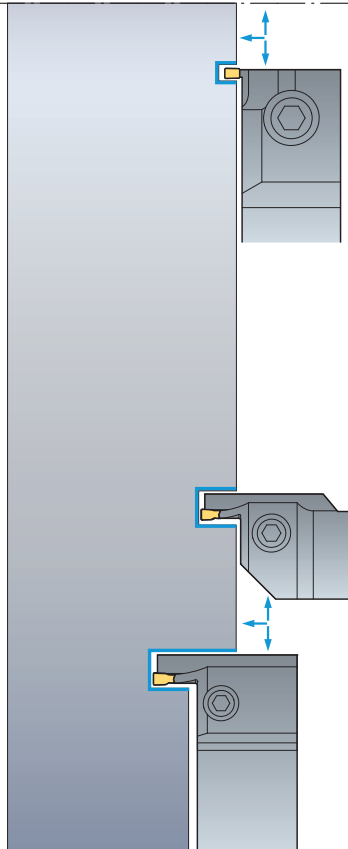
KGEUR/L	MGEUR/L	TBH	K Notch	PH	GH	GFT	DBH	KGEHR/L	MGEHR/L
Width: 2.5 T-MAX: 3.0	Width: 3.0~8.0 T-MAX: 3.0~5.0	Width: 1.25~4.5 T-MAX: 1.5~5.0	Width: 0.75~6.3 T-MAX: 0~6.5	Width: 3.0~5.0 ØD-MAX: 30~50	Width: 1.23~4.28 T-MAX: 1.5~4.0	Width: 1.1~8.0 T-MAX: 2.1~9.0	Width: 3.0~8.0 T-MAX: 14	Width: 2.0~8.0 T-MAX: 17~20	Width: 1.5~8.0 T-MAX: 10~28
KRMN KRGN	MRMN MRGN	TB TB-M	KNG KNGP KNR KNRP KNB	POB	GO GS	GW BF	DC DB	KGGN KGMN KGMR/L KRGN KRMN	MGGN MGMN MGMR MRGN MRMN





For internal machining





NFTIH	GFIK	GFIP	IGH	KGIVR/L	MGIVR/L	KGIUR/L	MGIUR/L
Width: 0.75~4.02 T-MAX: 1.3~4.6	Width: 2.0~8.0 T-MAX: 2.0~8.0	Width: 1.1~8.0 T-MAX: 2.1~9.0	Width: 1.25~2.8 T-MAX: 1.5~2.3	Width: 2.0~4.0 T-MAX: 7.0~8.0	Width: 1.5~8.0 T-MAX: 4.0~10	Width: 3.0 T-MAX: 3.0	Width: 3.0~8.0 T-MAX: 3.5~6.5
NFTG NFTF NFTT	GR	GW BF	IG	KGMI KGMN KRMN KGGN	MRMN MGGN MRGN	KRMN KRGN	MRMN








For face grooving







KGEVR/L
Width: 3.0~4.0 T-MAX: 4.0~8.0

KGMN

KGGN

KRMN

KRGN

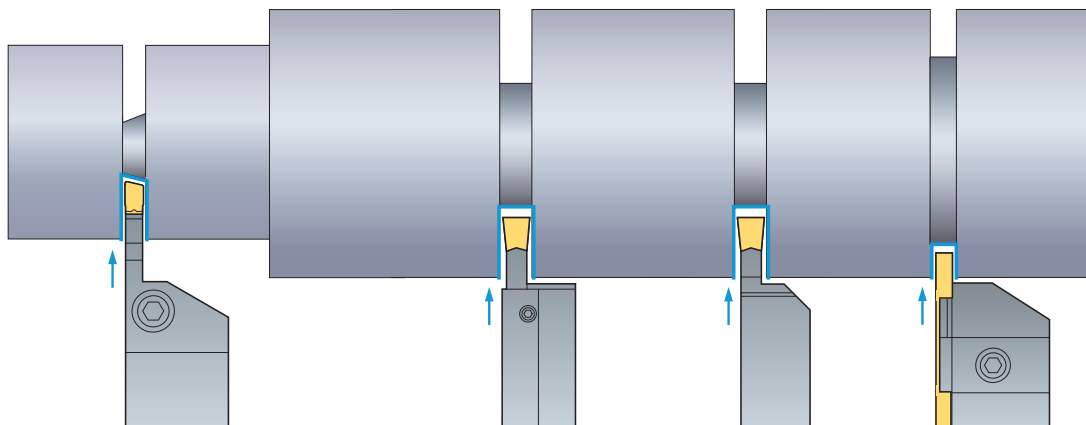
MGEVR/L
Width: 1.5~8.0 T-MAX: 3.0~9.0

MGMN

MGGN

MRMN

MRGN


FGHH/FGVH
Width: 3.0~5.0 T-MAX: 12~25

FGD

FGM

FMM


MGFHR/L, MGFVR/L
Width: 3.0~4.0 T-MAX: 10~15

MGMN

MFMN


KGFHR/L, KGFVR/L
Width: 4.0 T-MAX: 20

KGMN

KRMN

KGGN

KRGN


For parting off






KGEHR/L
Width: 3.0 T-MAX: 20

KGMR/L

MGEHR/L
Width: 2.0~5.0 T-MAX: 10~28

MGMR/L

KSPB
Width: 2.0~6.0 ØD-MAX: 35~125

KSP

SPB-(S)
Width: 2.0~6.0 ØD-MAX: 35~125

SP

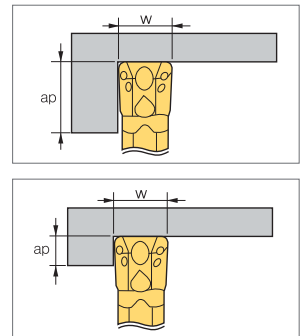
KGTB
Width: 1.5~8.0 ØD-MAX: 26~120

KGMN

KGGN-S-R

PH
Width: 3.0~5.0 ØD-MAX: 30~50

POB

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

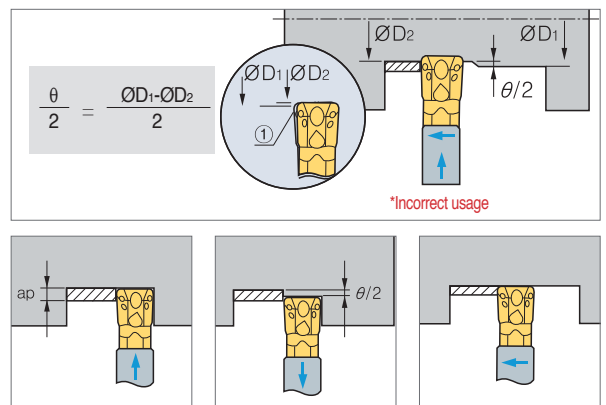


Notice for turning

- 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

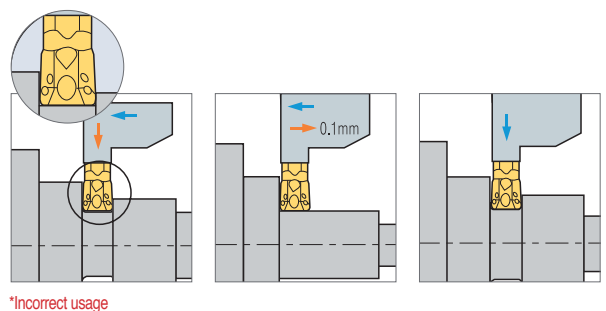
Notice for finishing (offset need final quality)

- 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
- 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 back a total distance of $\theta/2$
 - 3) Continue the external turning operation to desired diameter

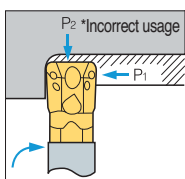


Notice for MGT turning applications

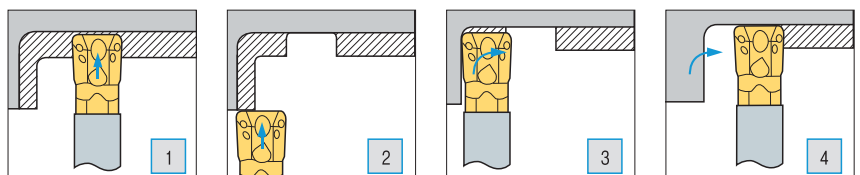
- KGT/MGT tools are available for grooving and turning as a multifunctional tool. When using a M.G.T tool keep in mind that the tool imitates a standard ISO turning application. The application uses a positive clearance angle where a tool's cutting force and depth of cut are all applied in an application. 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

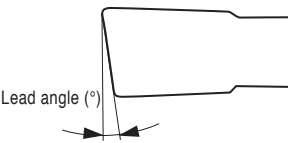

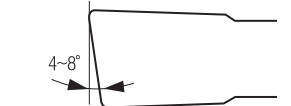
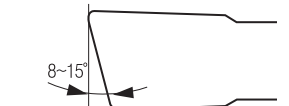


Stabilize your tool pressure. KGT/MGT tools create a cutting load when machining a workpiece with a radius larger than the corner radius of insert (shown in the picture). The unequal cutting force might initially break the insert or holder



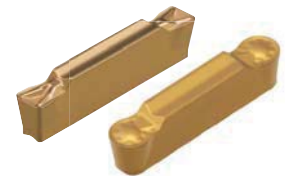
Parting off & Grooving

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) (Lead angle)</p>			

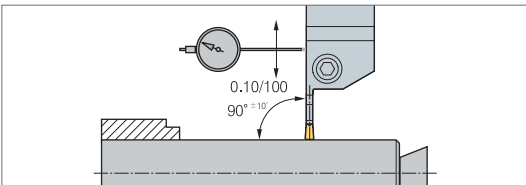
Selection of Insert

- 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 = $W \times 0.8$
- 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



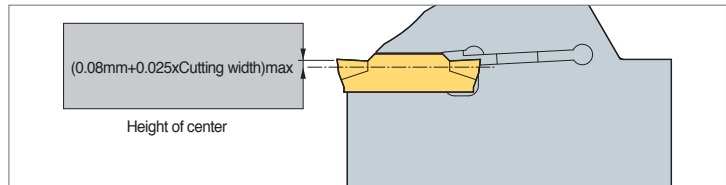
Setting of holders

- 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 ± 0.1 mm 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 regrind the holder seat

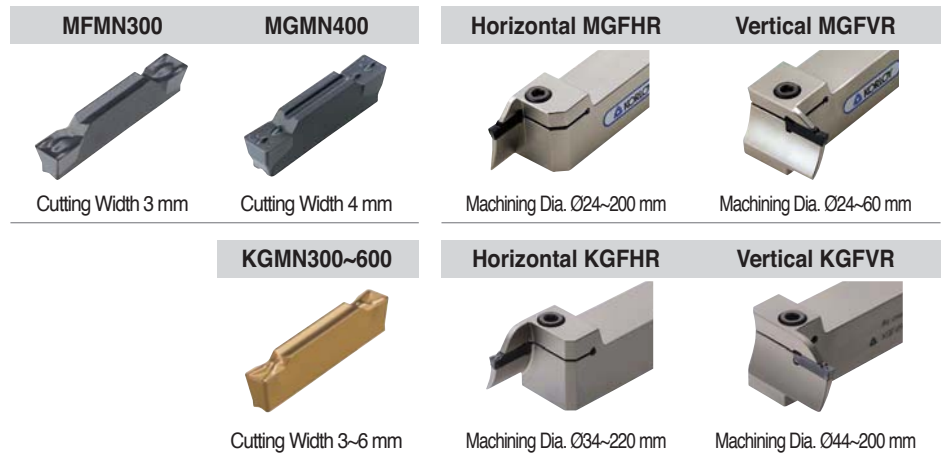
Selection of chip breaker

- 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

Face grooving tools

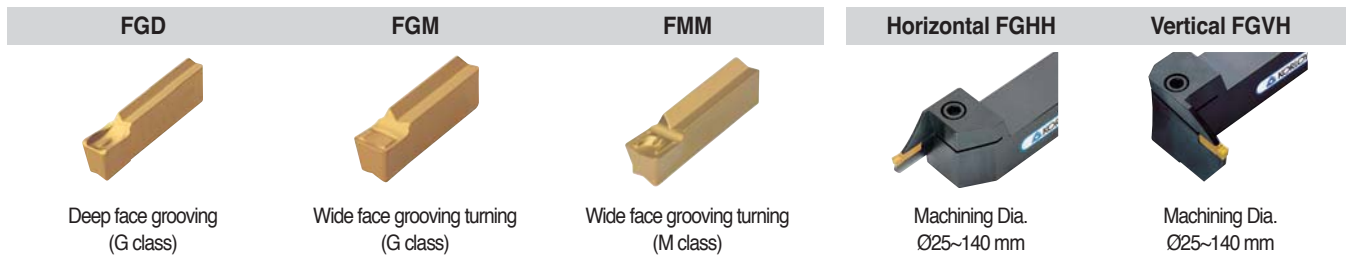
For shallow grooving

- 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



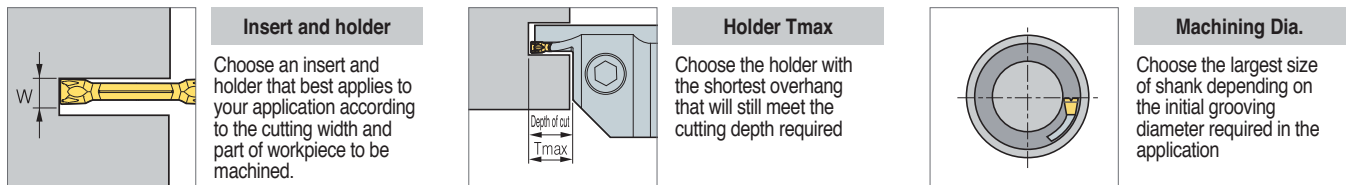
For deep grooving

- These tools are suitable for deep grooving with a single cutting edge (T_{max} 25 mm)
- 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

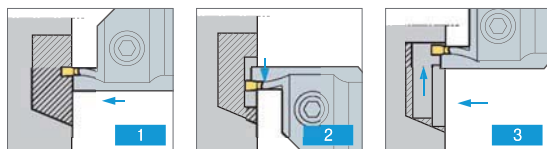
- Follow these 3 simple directions to choose the right insert and holder for your application



Notice: To minimize chattering, use the shortest holder according to T_{max} .

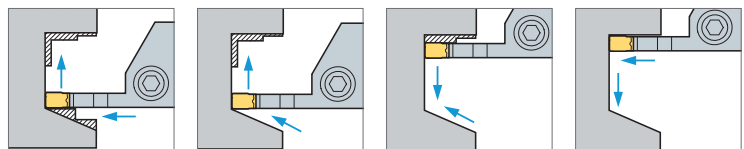
Optimization of face grooving

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

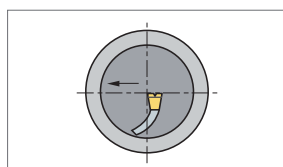
Finishing: When face grooving decreases the cutting speed 40% below a normal face turning operation



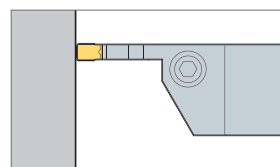
- Grooving at the initial diameter to the final cutting depth and face turning away from center
- Radius operation toward final dimension at the bottom
- Face turning to center
- Grooving for the right dimension you want

Notice for face grooving

- Before machining, check and adjust the following holder position



- Check the cutting edge height at the center of the workpiece
- Machine towards the center and check for burrs



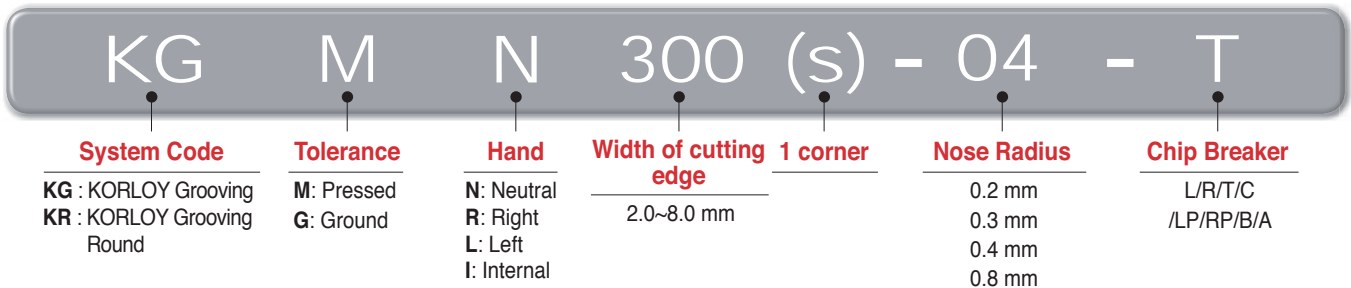
- For better surface roughness, set up the insert in order to perpendicular at center line

Multi-functional machining with strong clamping system and new technology

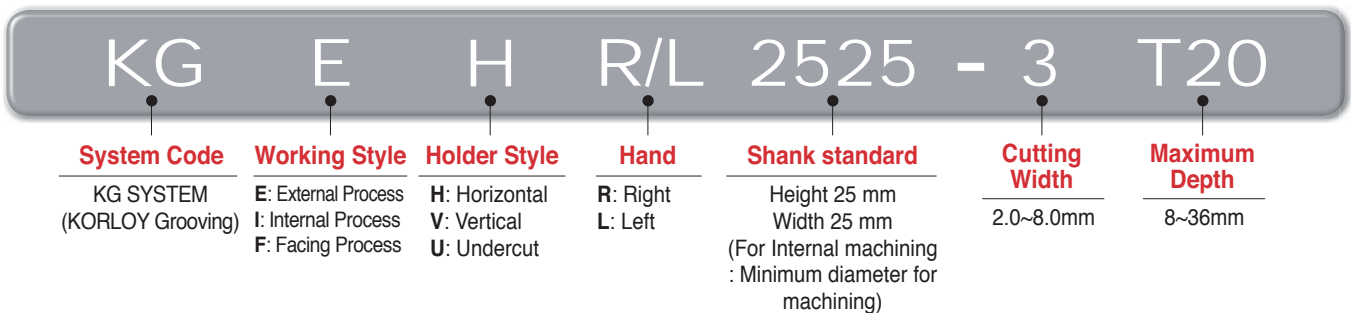
KGT

- 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

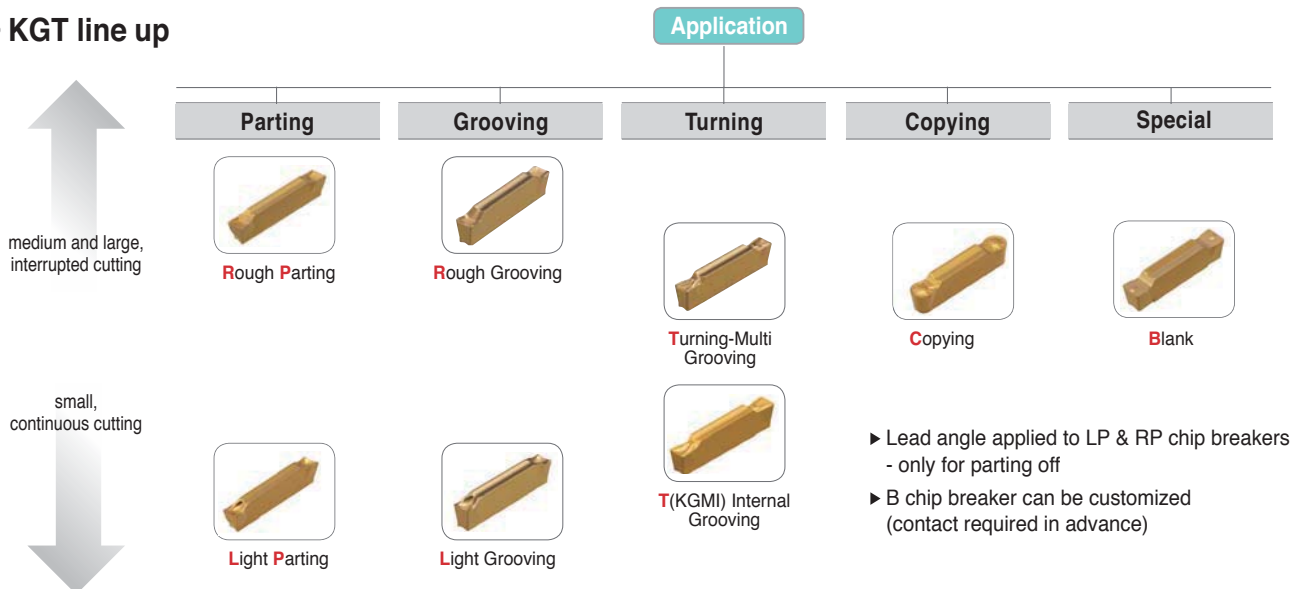
Insert code system














Holder code system



KGT line up



Recommended insert

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

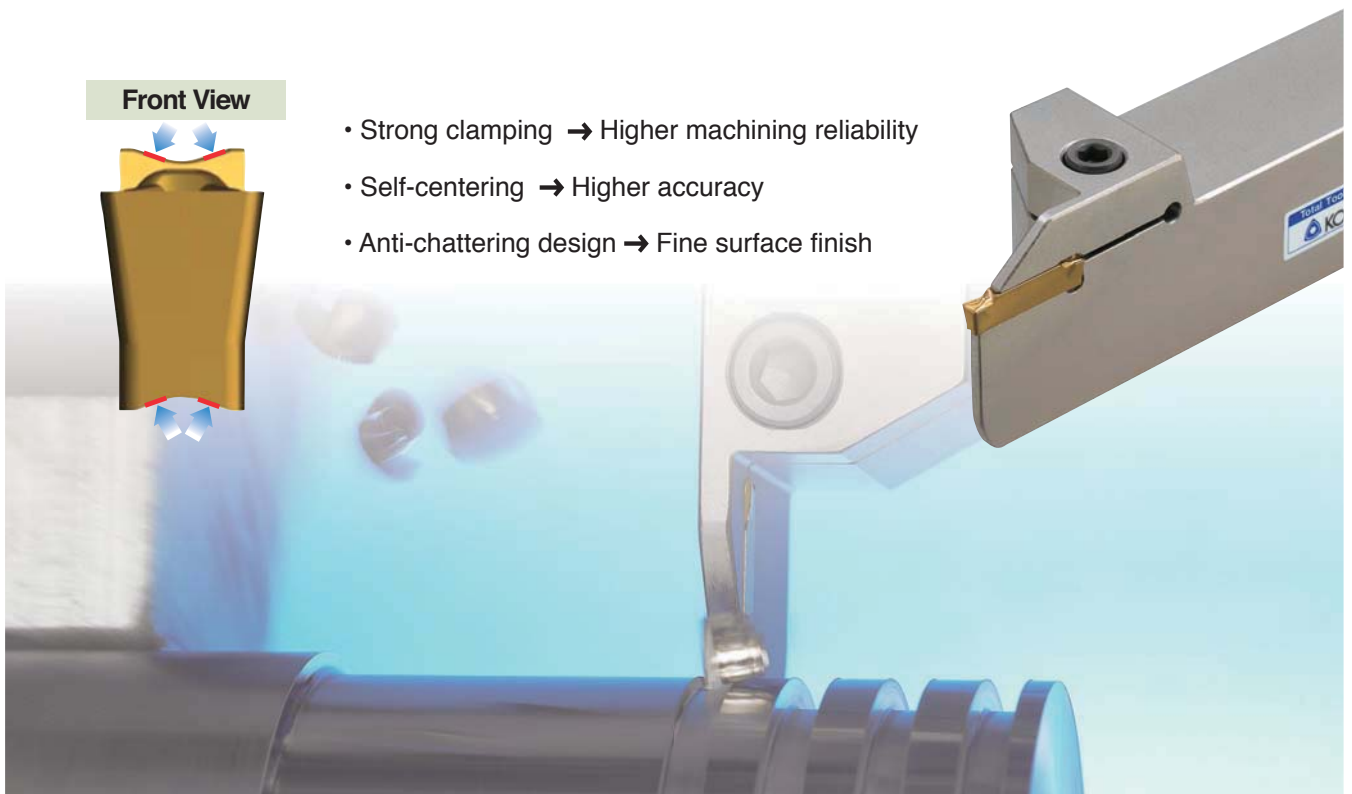
◎ First choice, ○ Second choice

Features

Front View

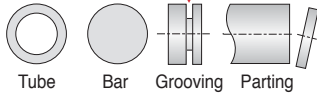


- Strong clamping → Higher machining reliability
- Self-centering → Higher accuracy
- Anti-chattering design → Fine surface finish

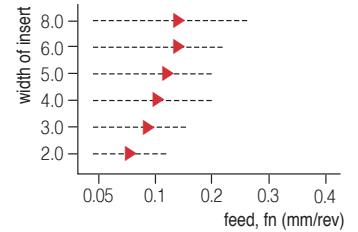


C/B guide

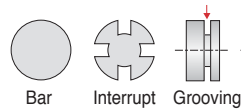
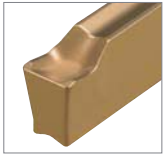
L For Light Grooving



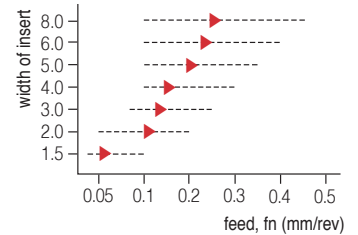
- Sharp cutting edge
- Low feed machining
- Small diameter component
- Low carbon steel
- Alloy steel
- Stainless



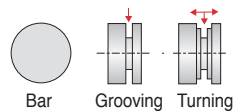
R For Rough Grooving



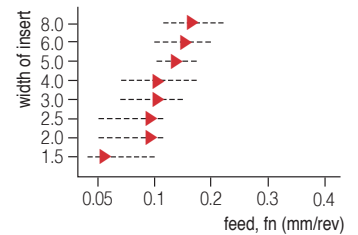
- Strong cutting edge
- High feed machining
- Interrupted cutting
- Carbon steel
- Alloy steel
- Stainless
- Cast iron



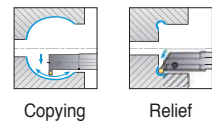
T For Turning and Multi Grooving



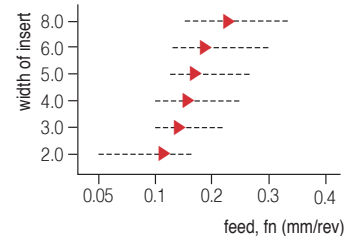
- Sharp cutting edge
- Improved chip control
- Turning & grooving machining
- Carbon steel
- Alloy steel
- Stainless
- Cast iron



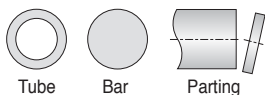
C For Copying and Relief



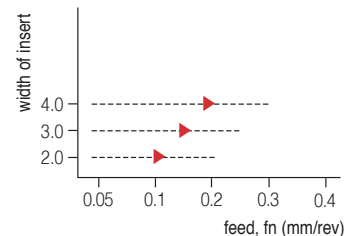
- Improved chip control
- Copying
- Relief
- Carbon steel
- Alloy steel
- Stainless
- Cast iron



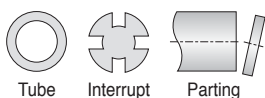
LP For Light Parting



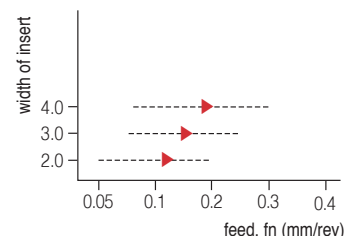
- Sharp cutting edge
- Low feed machining
- Small diameter component
- Right/left handed
- Low carbon steel
- Carbon steel
- Alloy steel
- Stainless



RP For Rough Parting

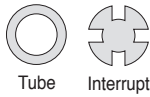


- Strong cutting edge
- High feed machining
- Interrupted cutting
- Right/left handed
- Carbon steel
- Alloy steel
- Cast iron



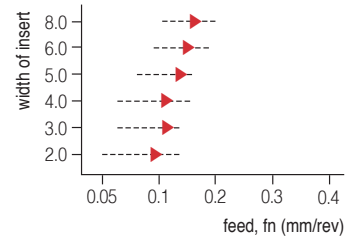
C Technical Information for KGT

B For Precision Grooving

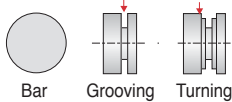


- Ground insert
- Precise tolerance
- Various cutting edge length, Nose R

- Carbon steel
- Alloy steel
- Stainless
- Cast iron

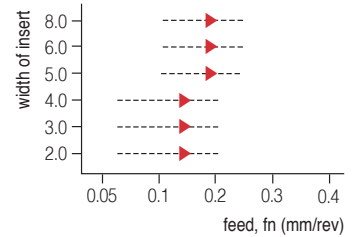


A For Aluminum Grooving



- 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)					
			50	100	150	200	800	
P Steel Alloy Steel	PC5300	1		70	120			
	NC3225	2			130	220		
	NC5330	3			120	200		
	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				



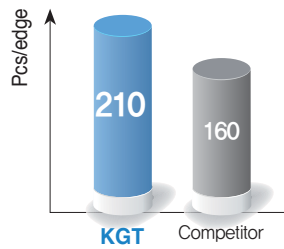
Performance evaluation

Multi-function machining

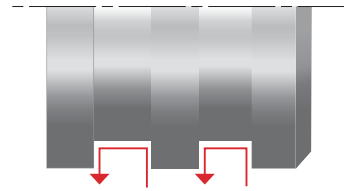
Turning + Grooving repetition

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)



30% Up

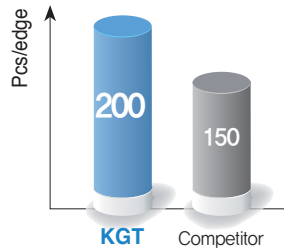


Grooving

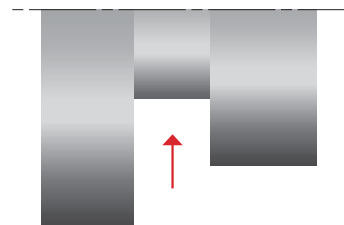
Shoulder Grooving

Tough geometry for interrupted and deep grooving.

- **Workpiece** SUS304
- **Cutting condition**
 - vc = 120 (m/min)
 - fn = 0.12 (mm/rev)
 - ap = 5 mm
 - W = 4 mm
 - wet
- **Designation** KGMN400-03-R (PC5300)



30% Up

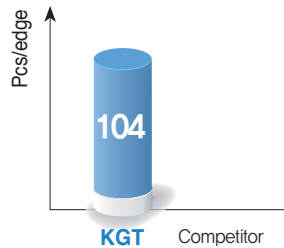


Shaft machining

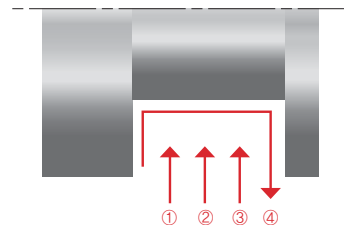
Grooving (Roughing) & Turning (Finishing)

Excellent chip control for higher efficiency.

- **Workpiece** SCM440
- **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)



30% Up

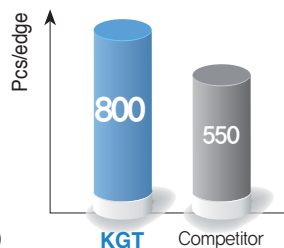


Parting off

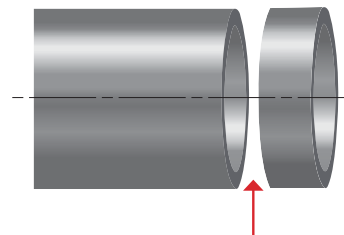
Pipe Parting-off

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

- **Workpiece** SUS304
- **Cutting condition**
 - vc = 140 (m/min)
 - fn = 0.15 (mm/rev)
 - ap = 2 mm
 - W = 3 mm
 - wet
- **Designation** KGMR300-6D-LP (PC5300)


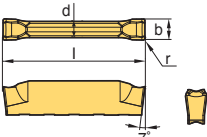

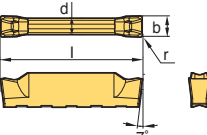

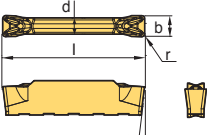

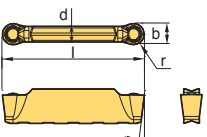

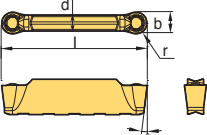

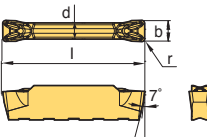

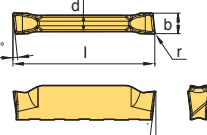

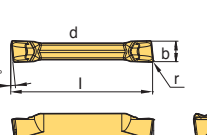


45% Up



C Available Insert for KGT

Insert


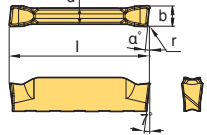

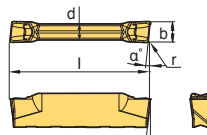

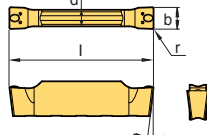

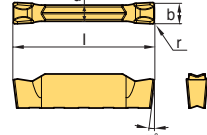

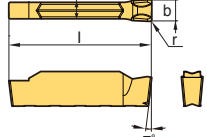

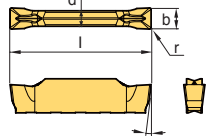
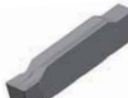
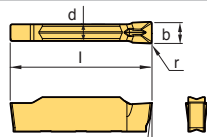

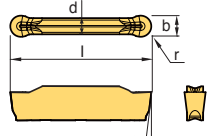
Application	Picture	Designation	Coated						Dimensions (mm)					Configuration	Page	
			NC3215	NC3225	NC5330	NC6315	PC5300	PC9030	b	r	l	d	α°			
Grooving		KGMN 200-02-L 300-02-L 400-02-L 500-03-L 600-03-L		●	●		●	●	2.0	0.2	20	1.7	-		C14~21 C23	
				●	●		●	●	3.0	0.2	20	2.3	-			
				●	●		●	●	4.0	0.2	20	3.3	-			
				●	●		●	●	5.0	0.3	25	4.1	-			
				●	●		●	●	6.0	0.3	25	5.1	-			
Grooving · Parting off		KGMN 150-015-R 200-02-R 300-02-R 400-03-R 500-03-R 600-03-R 800-04-R		●	●		●		1.5	0.15	16	1.2	-		C14~21 C23	
				●	●		●	●	2.0	0.2	20	1.7	-			
				●	●		●	●	3.0	0.2	20	2.3	-			
				●	●		●	●	4.0	0.3	20	3.3	-			
					●		●		5.0	0.3	25	4.1	-			
					●		●		6.0	0.3	25	5.1	-			
					●		●		8.0	0.4	30	6.1	-			
Grooving · Turning		KGMN 150-015-T 200-02-T 250-02-T 300-02-T 04-T 400-04-T 08-T 500-04-T 08-T 600-04-T 08-T 800-08-T		●	●	●	●		1.5	0.15	16	1.2	-		C14~21 C23	
				●	●	●	●	●	2.0	0.2	20	1.7	-			
				●	●		●		2.5	0.2	20	2.0	-			
				●	●	●	●	●	3.0	0.2	20	2.3	-			
				●	●	●	●	●	3.0	0.4	20	2.3	-			
				●	●	●	●	●	4.0	0.4	20	3.3	-			
				●	●	●	●	●	4.0	0.8	20	3.3	-			
				●	●	●	●	●	5.0	0.4	25	4.1	-			
				●	●	●	●	●	5.0	0.8	25	4.1	-			
				●	●	●	●	●	6.0	0.4	25	5.1	-			
				●	●	●	●	●	6.0	0.8	25	5.1	-			
Relief Profiling		KRMN 200-C 300-C 400-C 500-C 600-C 800-C		●	●	●	●		2.0	1.0	20	1.7	-		C14~22	
				●	●		●		3.0	1.5	20	2.2	-			
				●	●	●	●		4.0	2.0	20	3.2	-			
				●	●	●	●		5.0	2.5	25	4.0	-			
				●	●	●	●		6.0	3.0	25	5.0	-			
				●	●	●	●		8.0	4.0	30	6.0	-			
Profiling		KRMI 200-C 300-C 400-C							2.0	1.0	20	1.7	-		C23	
										3.0	1.5	20	2.2			-
										4.0	2.0	20	3.2			-
Grooving · Internal		KGMI 200-02-T 300-04-T 400-04-T					●		2.0	0.2	20	1.7	-		C23	
							●		3.0	0.4	20	2.3	-			
							●		4.0	0.4	20	3.3	-			
Parting off (Right handed)		KGMR 200-6D-LP 8D-LP 15D-LP 300-6D-LP 15D-LP 400-4D-LP 15D-LP 500-4D-LP			●		●		2.0	0.2	20	1.7	6		C14 C16	
							●		2.0	0.2	20	1.7	8			
					●		●		2.0	0.2	20	1.7	15			
					●		●		3.0	0.2	20	2.3	6			
					●		●		3.0	0.2	20	2.3	15			
					●		●		4.0	0.3	20	3.3	4			
					●		●		4.0	0.3	20	3.3	15			
Parting off (Right handed)		KGMR 200-6D-RP 8D-RP 15D-RP 300-6D-RP 15D-RP 400-4D-RP 15D-RP 500-4D-RP			●		●		2.0	0.2	20	1.7	6		C14 C16	
							●		2.0	0.2	20	1.7	8			
					●		●		2.0	0.2	20	1.7	15			
					●		●		3.0	0.2	20	2.3	6			
					●		●		3.0	0.2	20	2.3	15			
					●		●		4.0	0.3	20	3.3	4			
					●		●		4.0	0.3	20	3.3	15			

* You can grind the chip breaker, 'B' as any shape you want. If you want any special shape of chip breaker, please contact your distributor.

● : Stock item



Insert

Application	Picture	Designation	Coated				Uncoated		Dimensions (mm)					Configuration	Page
			NC3215	NC5330	PC5300	PC9030	H01	H05	b	r	l	d	α°		
Parting off (Left handed)		KGML 200-6D-LP							2.0	0.2	20	1.7	6		C14 C16
		15D-LP							2.0	0.2	20	1.7	15		
		300-6D-LP							3.0	0.2	20	2.3	6		
		15D-LP							3.0	0.2	20	2.3	15		
		400-4D-LP							4.0	0.2	20	3.3	4		
15D-LP							4.0	0.2	20	3.3	15				
Parting off (Right handed)		KGML 200-6D-RP							2.0	0.2	20	1.7	6		C14 C16
		15D-RP							2.0	0.2	20	1.7	15		
		300-6D-RP							3.0	0.2	20	2.3	6		
		15D-RP							3.0	0.2	20	2.3	15		
		400-4D-RP							4.0	0.2	20	3.3	4		
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 C16~18
		300-020-B							3.0	0.20	20	2.3	-		
		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	-		
		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	-		
120-B							6.0	1.20	25	5.1	-				
800-080-B							8.0	0.80	30	6.1	-				
120-B							8.0	1.20	30	6.1	-				
Grooving - Parting off (Ground insert)		KGGN 200-02-R							2.0	0.2	20	1.7	-		C14~21
		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							2.0	0.2	19.9	1.7	-		C24
		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					●		2.0	0.2	20	1.7	-		C14~21
		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 Grooving (Single insert)		KGGN 200S-02-A							2.0	0.2	20	1.7	-		C24
		300S-02-A							3.0	0.2	20	2.3	-		
		400S-04-A							4.0	0.4	20	3.3	-		
		500S-04-A							5.0	0.4	25	4.1	-		
		600S-04-A							6.0	0.4	25	5.1	-		
Aluminum Grooving		KRGN 300-A					●		3.0	1.5	20	2.3	-		C14~21
		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	-		

• You can grind the chip breaker, 'B' as any shape you want. If you want any special shape of chip breaker, please contact your distributor.

● : Stock item



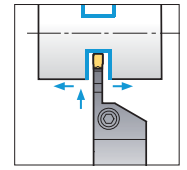
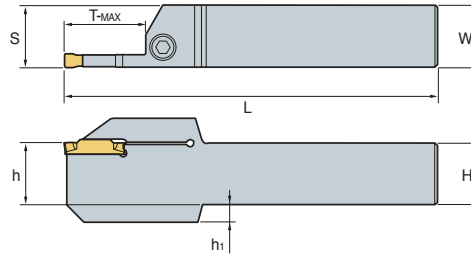
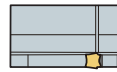
KGEHR/L

For grooving, turning, parting off, and relief machining



KGGN
 KGMR/L
 KRGN

KGMN
 KRMN



• R type insert
(mm)

Designation		H = (h)	W	L	S	h ₁	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	12	12	100	12.2	-	8	KGMN200-□-□ KGMR/L200-□-□ KRMN200-C KGGN200-□-□	MHA0512	HW40L
	1616-2-T08	16	16	100	16.2	-	8			
	2020-2-T08	20	20	125	20.2	-	8			
	2525-2-T08	25	25	150	25.2	-	8			
	1616-2-T12	16	16	100	16.2	-	12			
	2020-2-T12	20	20	125	20.2	-	12			
	2525-2-T12	25	25	150	25.2	-	12			
	1616-2-T17	16	16	100	16.2	-	17			
	2020-2-T17	20	20	125	20.2	-	17			
	2525-2-T17	25	25	150	25.2	-	17			
	1616-2.5-T17	16	16	100	16.3	-	17	KGMN250-□-□	MHA0512	HW40L
	2020-2.5-T17	20	20	125	20.3	-	17			
	2525-2.5-T17	25	25	150	25.3	-	17			
	1616-3-T10	16	16	100	16.4	-	10	KGMN300-□-□ KGMR/L300-□-□ KRMN300-C KGGN300-□-□ KRGN300-□	MHA0512	HW40L
	2020-3-T10	20	20	125	20.4	-	10			
	2525-3-T10	25	25	150	25.4	-	10			
	3232-3-T10	32	32	170	32.4	-	10			
	1616-3-T13	16	16	100	16.4	-	13			
	2020-3-T13	20	20	125	20.4	-	13			
	2525-3-T13	25	25	150	25.4	-	13			
	1616-3-T20	16	16	100	16.4	-	20			
	2020-3-T20	20	20	125	20.4	-	20			
	2525-3-T20	25	25	150	25.4	-	20			
	3232-3-T20	32	32	170	32.4	-	20	KGMN400-□-□ KGMR/L400-□-□ KRMN400-C KGGN400-□-□ KRGN400-□	BHA0616	HW50L
2525-3-T25	25	25	150	25.4	-	25				
1616-4-T10	16	16	100	16.4	-	10				
2020-4-T10	20	20	125	20.4	-	10				
2525-4-T10	25	25	150	25.4	-	10				
3232-4-T10	32	32	150	32.4	-	10				
1616-4-T15	16	16	100	16.4	-	15				
2020-4-T15	20	20	125	20.4	-	15				
2525-4-T15	25	25	150	25.4	-	15				
1616-4-T20	16	16	100	16.4	-	20				
2020-4-T20	20	20	125	20.4	-	20				
2525-4-T20	25	25	150	25.4	-	20				
3232-4-T20	32	32	170	32.4	-	20				
1616-4-T25	16	16	100	16.4	-	25				
2020-4-T25	20	20	125	20.4	-	25				
2525-4-T25	25	25	150	25.4	-	25				

↻ Applicable inserts C12~C13

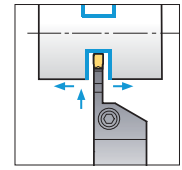
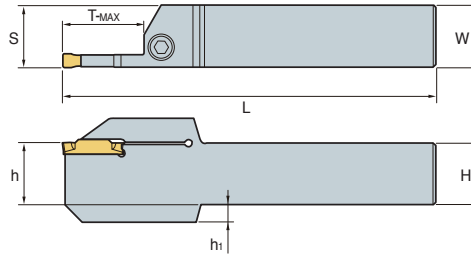
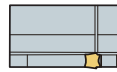


KGEHR/L

For grooving, turning, parting off, and relief machining



KGGN KGMN
KGMR/L KRMN
KRGN



• R type insert
(mm)

Designation		H = (h)	W	L	S	h ₁	T-MAX	Inserts	Screw	Wrench		
KGEHR/L	2020-5-T12	20	20	125	20.5	-	12	KGMN500-□-□ KRMN500-C KGGN500-□-□ 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				BHA0620	HW50L
	2020-6-T12	20	20	125	20.5	-	12				KGMN600-□-□ KRMN600-C KGGN600-□-□ KRGN600-□	BHA0616
	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	BHA0620	HW50L			
	2525-8-T16	25	25	150	26	-	16	KGMN800-□-□ KRMN800-C KGGN800-□-□ KRGN800-□	BHA0616	HW50L		
	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	BHA0620				HW50L	
3232-8-T36	32	32	170	33	-	36						

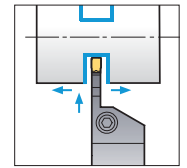
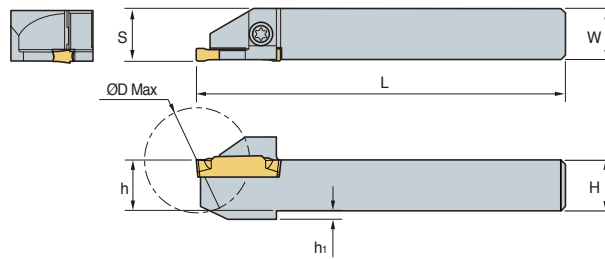
➔ Applicable inserts C12~C13

KGEHR/L-D00A (Auto Tool)

For grooving, turning, parting off machining



KGGN KGMN
KGMR/L KRMN



• R type insert

(mm)

Designation	H = (h)	W	L	S	h ₁	ØD Max	Inserts	Screw	Wrench	
KGEHR/L	1010-2-D20A	10	10	125	10.2	2	20	KGMN200-□-□ KGMR/L200-□-□ KRMN200-C KGGN200-□-□ KGMN300-□-□ KGMR/L300-□-□ KRMN300-C KGGN300-□-□		
	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			
	1616-3-D32A	16	16	125	16.4	-	32			
								ETNA0412	TW15L	

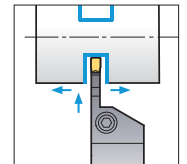
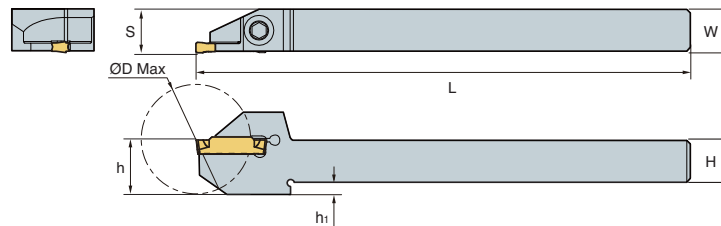
↻ Applicable inserts C12~C13

KGEHR/L-D00B (Auto Tool)

For grooving, turning, parting off machining



KGGN KGMN
KRMN KGMR/L



• R type insert

(mm)

Designation	H = (h)	W	L	S	h ₁	ØD Max	Inserts	Screw	Wrench	
KGEHR/L	1010-2-D30B	10	10	140	10.2	6.6	30	KGMN200-□-□ KGMR/L200-□-□ KRMN200-C KGGN200-□-□ KGMN300-□-□ KGMR/L300-□-□ KRMN300-C KGGN300-□-□		
	1212-2-D25B	12	12	140	12.5	3.5	25			
	1212-2-D30B	12	12	140	12.2	3.5	30			
	1616-2-D25B	16	16	140	16.2	-	25			
	1616-2-D32B	16	16	140	16.2	-	32			
	1212-3-D25B	12	12	140	12.4	3.5	25			
	1212-3-D32B	12	12	140	12.4	3.5	32			
	1616-3-D25B	16	16	140	16.4	-	25			
	1616-3-D32B	16	16	140	16.4	-	32			
								MHA0512	HW40L	

↻ Applicable inserts C12~C13

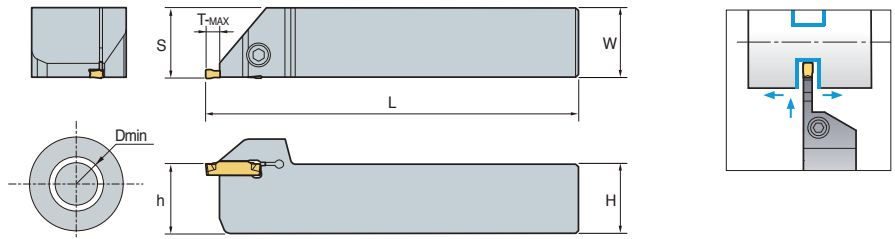


KGEHR/L-T00

For grooving, turning, face grooving machining



KGMM KRMN
KGGN 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	KGMM300-□-□ KRMN300-C KGGN300-□-□ 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	KGMM400-□-□ KRMN400-C KGGN400-□-□ KRGN400-□	BHA0616	HW50L
	2020-4-T00	20	20	125	20.4	80	4.8			
	2525-4-T00	25	25	150	25.4	80	4.8			
	2020-6-T00	20	20	125	20.5	80	6.0	KGMM600-□-□ KRMN600-C KGGN600-□-□ KRGN600-□	BHA0616	HW50L
	2525-6-T00	25	25	150	25.5	80	6.0			

↻ Applicable inserts C12~C13

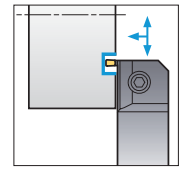
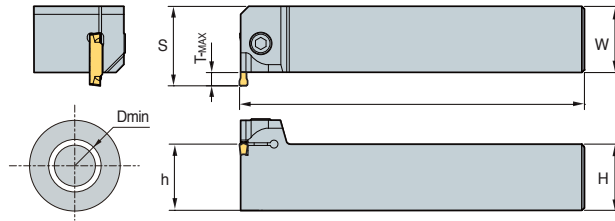
KGEVR/L-T00

For grooving, turning, face grooving machining



KGMN
KRGV

KRMN
KGGN



• R type insert

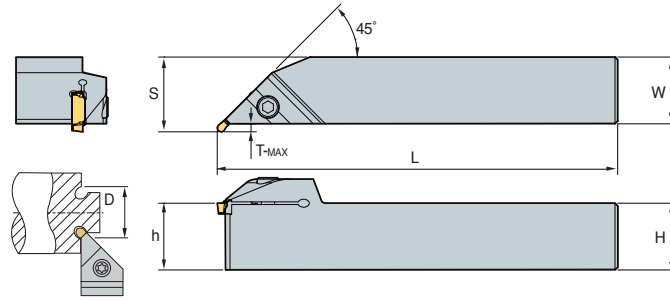
Designation		H = (h)	W	L	S	ØD Min	T-MAX	Inserts	Screw	Wrench
KGEVR/L	2020-1.5 -T00	20	20	125	23.5	120	3	KGMN150-□-□	MHA0512	HW40L
	2525-1.5 -T00	25	25	150	28.5	120	3			
	3232-1.5 -T00	32	32	170	35.5	120	3			
	2020-2 -T00	20	20	125	23.5	120	3	KGMN200-□-□ KRMN200-C KGGN200-□-□-□	MHA0512	HW40L
	2525-2 -T00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

↻ Applicable inserts C12~C13

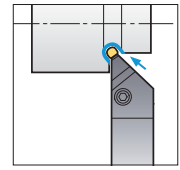
KGEUR/L





KRMN
KRGN




For relief machining



• R type insert
(mm)

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	KRMN400-C KRGN400-□	BHA0616	HW50L	
1616-4	16	16	100	19	40	2.8				
2020-4	20	20	125	23	40	2.8				
2525-4	25	25	150	28	40	2.8	KRMN500-C KRGN500-□	BHA0616	HW50L	
3232-4	32	32	170	35	40	2.8				
2020-5	20	20	125	23.5	50	3.3				
2525-5	25	25	150	28.5	50	3.3	KRMN600-C KRGN600-□	BHA0616	HW50L	
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	KRMN800-C KRGN800-□	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				

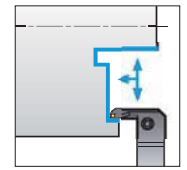
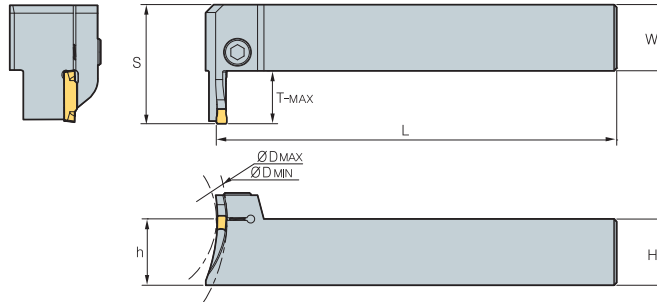
 Applicable inserts C12~C13

KGFR/L

For face grooving machining



KGMR KGMN
KGGN KRGN



• R type insert

(mm)

Designation	H = (h)	W	L	S	T-MAX	ØD		Inserts	Screw	Wrench	
						Min	Max				
KGFR/L 325-34/50-T10	25	25	150	36	10	34	50	KGMR300-□-□ KRMN300-C	MHA0512	HW40L	
	44/60-T15	25	25	150	41	15	44	60			KGGN300-□-□
	54/85-T15	25	25	150	41	15	54	85			KRGN300-□
425-32/50-T15	25	25	150	41	15	32	50	KGMR400-□-□ KRMN400-C KGGN400-□-□ KRGN400-□	BHA0616	HW50L	
	42/60-T15	25	25	150	41	15	42				60
	44/70-T20	25	25	150	45.5	20	44				70
	52/85-T15	25	25	150	41	15	52				85
	60/120-T20	25	25	150	45.5	20	60				120
525-50/80-T20	25	25	150	46	20	50	80	KGMR500-□-□ KRMN500-C KGGN500-□-□ KRGN500-□	BHA0616	HW50L	
	70/110-T20	25	25	150	46	20	70				110
	100/150-T20	25	25	150	46	20	100				150
	140/200-T20	25	25	150	46	20	140				200
	200-T20	25	25	150	46	20	200				∞
625-48/85-T20	25	25	150	46	20	48	85	KGMR600-□-□ KRMN600-C KGGN600-□-□ KRGN600-□	BHA0616	HW50L	
	73/150-T20	25	25	150	46	20	73				150
	138/250-T20	25	25	150	46	20	138				250
	250-T20	25	25	150	46	20	250				∞

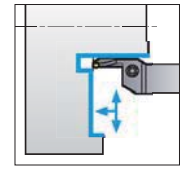
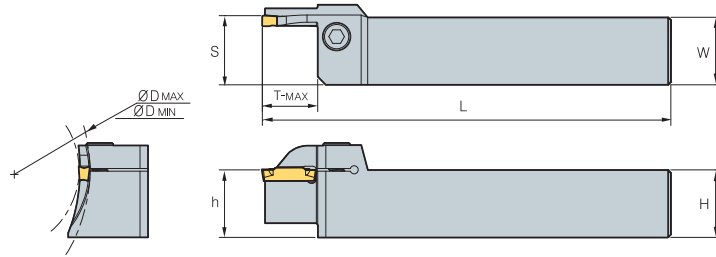
↻ Applicable inserts C12~C13

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	
	44/70-T15	20	20	150	20.5	15	44				70
	64/100-T15	20	20	150	20.5	15	64				100
325-34/50-T10	25	25	150	25.5	10	34	50	KGMN300-□-□ KRMN300-C KGGN300-□-□ KRGN300-□	MHA0512	HW40L	
	44/70-T15	25	25	150	25.5	15	44				70
	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	
	42/70-T16	20	20	150	20.5	42	70				
	62/120-T16	20	20	150	20.5	62	120				
	112/200-T16	20	20	150	20.5	112	200				
425-34/50-T20	25	25	150	25.6	20	34	50	KGMN400-□-□ KRMN400-C KGGN400-□-□ KRGN400-□	BHA0616	HW50L	
	40/60-T10	25	25	150	25.6	40	60				
	44/70-T20	25	25	150	25.6	44	70				
	84/92-T20	25	25	150	25.6	84	92				
	60/120-T20	25	25	150	25.6	60	120				
	112/200-T20	25	25	150	25.6	112	200				
	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	
	50/80-T25	25	25	150	25.6	25	50				80
	70/110-T15	25	25	150	25.6	15	70				110
	70/110-T25	25	25	150	25.6	25	70				110
	100/150-T25	25	25	150	25.6	25	100				150
	140/200-T25	25	25	150	25.6	25	140				200
	190/220-T10	25	25	150	25.6	10	190				200
	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	
	190/220-T10	25	25	150	25.6	10	190				200

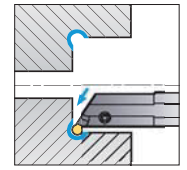
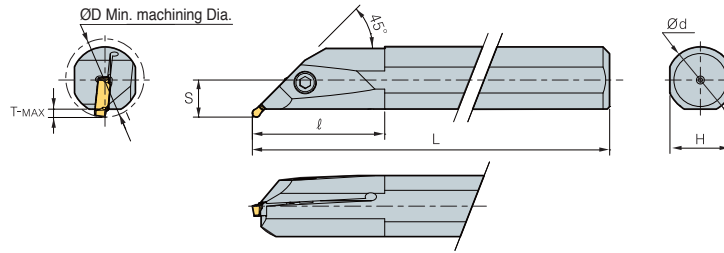
↻ Applicable inserts C12~C13

KGIUR/L



For relief machining



KRMN
KRGN



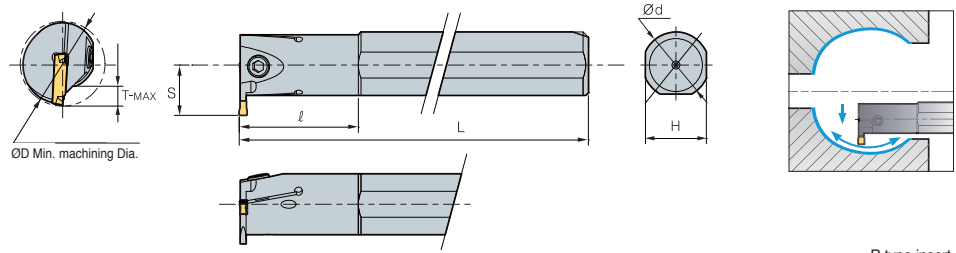
• R type insert
(mm)

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
5032-6	50	32	250	65	3.5	30	19	KRMN600-C KRGN600-□	MHA0512	HW40L	
	4025-8	40	25	200	50	3.5	23				18.5
5032-8	50	32	250	65	3.5	30	22	KRMN800-C KRGN800-□	MHA0512	HW40L	

➔ Applicable inserts C12~C13

KGIVR/L

For grooving, turning and profil machining



KGMI
KGGN
KRMN

KGMN
KRMI

• 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	KGMN150-□-□	MHB0410	HW30L
	2520-1.5	25	20	150	45	6	18	15.5		MHB0410	
	3225-1.5	32	25	200	45	7	23	19		MHA0512	HW40L
	2516-2	25	16	125	35	6.5	15	14	KGMI200-□-T KRMI200-C	MHB0410	HW30L
	2520-2	25	20	150	45	6.5	18	15.5		MHB0512	HW40L
	3225-2	32	25	200	45	7	23	19		MHB0512	HW40L
	2516-2.5	25	16	125	35	6.5	15	14	KGMN250-□-□	MHB0410	HW30L
	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	KGMI300-□-T KRMI300-C	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	KGMI400-□-T KRMI400-C	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	KGMN500-□-□ KRMN500-C	MHA0512	HW40L
4032-5	40	32	250	55	8.5	30	23.5	KGGN500-□-R KGGN500-□-A		BHA0616	HW50L
3225-6	32	25	200	45	7.5	23	19.5	KGMN600-□-□ KRMN600-C	MHA0512	HW40L	
4032-6	40	32	250	55	8.5	30	23.5		KGGN600-□-R KGGN600-□-A	BHA0616	HW50L
4032-8	40	32	250	55	8.5	30	23.5	KGMN800-□-□ KRMN800-C	BHA0616	HW50L	
4540-8	45	40	300	70	8.5	37	26.5		KGGN800-□-R	BHA0616	HW50L

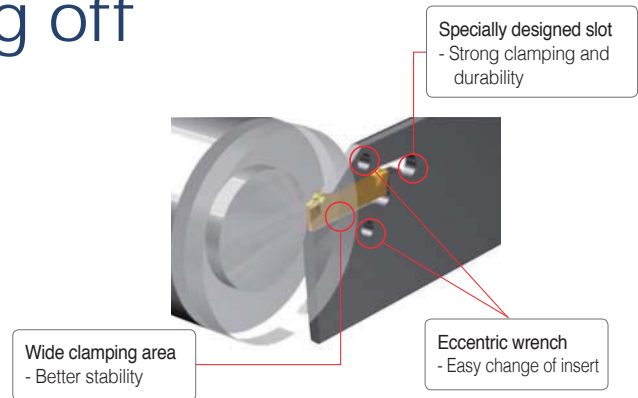
➡ Applicable inserts C12~C13

• 200, 300, 400 inserts : Internal inserts, KGMI or KRMI

KGT Blade for Parting off

Features

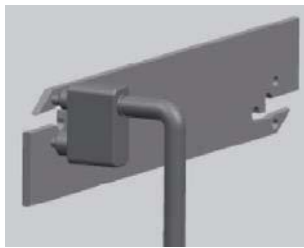
- Parting application with the use of existing KGT inserts
- Economical machining with a double sided insert
- Specially designed slot for strong and stable clamping
- Easy change of insert with the use of exclusive wrench



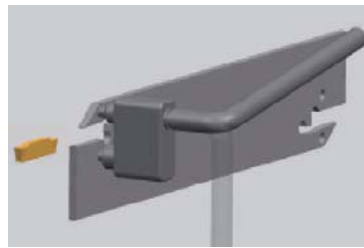
Holder Code system



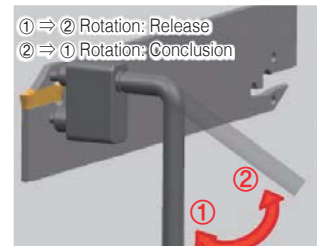
How to clamp insert



① Insert the pin of wrench into the hole of blade.

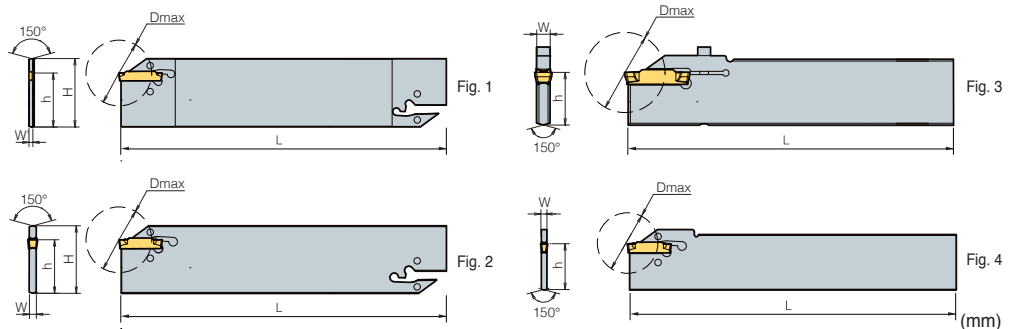


② Clamp the insert on its seat after turning the handle to 45°~160° for loosening the seat.



③ Finish clamp by removing the wrench after moving it back to its original state.

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)	4
1532	32	2.4	1	150	25	-	26	KG□□150-□-□		1
2026S	26	2.4	1.8	150	21	50	39	KG□□200-□-□ KG□□200S-□-□ ⁽⁴⁾		4
2032	32	2.4	1.8	150	25	50	39	KG□□200-□-□ KG□□200S-□-□ ⁽⁴⁾		1
3026S	26	2.4	-	150	21	100	39	KG□□300-□-□ KG□□300S-□-□ ⁽⁴⁾		4
3032	32	2.4	-	150	25	100	39	KG□□300-□-□ KG□□300S-□-□ ⁽⁴⁾		2
4026S	26	3.2	-	150	21	100	39	KG□□400-□-□ KG□□400S-□-□ ⁽⁴⁾		4
4032	32	3.2	-	150	25	100	39	KG□□400-□-□ KG□□400S-□-□ ⁽⁴⁾		2
5032	32	4	-	150	25	120	49	KG□□500-□-□ KG□□500S-□-□ ⁽⁴⁾		2
6032	32	5.2	-	150	25	120	49	KG□□600-□-□ KG□□600S-□-□ ⁽⁴⁾		2
8032S⁽¹⁾	32	6.2	-	150	25	80	59	KG□□800-□-□ KG□□800S-□-□ ⁽⁴⁾		HW30L

Applicable inserts C12~C13

⁽¹⁾ Screw clamping ⁽²⁾ 1 corner use ⁽³⁾ 2 corner use ⁽⁴⁾ 1 corner insert



Inserts are offered with two edges, for better economical machining

MGT Series

- 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





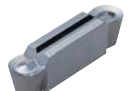






Insert code system

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

<p>MGM(G)N-M</p>  <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 • Specially placed convex dots assists with chip control in external machining, for a smoother chip flow • Chip breaker designed for turning & grooving applications 	<p>MGMN-G</p>  <ul style="list-style-type: none"> • Specially designed chip breaker allows narrower chips to promote better chip flow • Specially designed for grooving applications 	<p>MRMN-M</p>  <ul style="list-style-type: none"> • Full radius geometry for applications that require profiling • Available for relief machining 	<p>MFMN300</p>  <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
<p>MRGN-A</p>  <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 	<p>MGMR-PS</p>  <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 	<p>MGMR-PT</p>  <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 	<p>MGGN-A</p>  <ul style="list-style-type: none"> • Smooth chip flow • Reduced build up on cutting edge
<p>MGMN-L</p>  <ul style="list-style-type: none"> • Sharp cutting edge • Low cutting resistance • For auto CNC machine • For small Dia. processing 	<p>MGMN-R</p>  <ul style="list-style-type: none"> • Strong cutting edge • For high feed rate processing 	<p>MGMN-T</p>  <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	PC230	PC8110	PC5300	PC6510	ST30A	2	3	4	5	6	
SM□□C	80~180			80~180	80~180						0.02~0.15	0.03~0.20	0.08~0.30	0.10~0.40	0.12~0.50
SCM	70~150	70~150	70~150	70~150	70~150						0.02~0.15	0.03~0.20	0.08~0.30	0.10~0.40	0.12~0.50
GC/GCD				50~100				50~100	50~100		0.05~0.12	0.10~0.25	0.10~0.30	0.10~0.35	0.10~0.40
STS			50~120	50~120		50~120	60~140				0.02~0.10	0.03~0.15	0.08~0.25	0.10~0.35	0.12~0.40
Non-ferrous metal (Al, Copper)									200~450		0.05~0.10	0.05~0.20	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)		
	NC6110	NC3030	NC5330	NC3120	PC215K	PC8110 / PC5300	H01	3	4	5
SM□□C			100~160	100~160				0.05~0.10	0.05~0.12	0.05~0.15
SCM		50~130	50~130	50~130			200~800	0.05~0.10	0.05~0.12	0.05~0.15
GC/GCD	120~150		120~150		120~150			0.05~0.10	0.05~0.12	0.05~0.15
STS			60~150			60~150		0.05~0.10	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)					
	NC3120	NC3030	NC5330	PC215K	PC5300	PC230	CN20	CT10	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	80~120	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		80~160	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	60~100					60~100		0.03~0.08	0.04~0.09	0.05~0.10	0.05~0.12	0.05~0.12	0.05~0.15
Non-ferrous metal (Al, Copper)				150~300					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



Insert


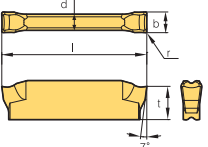

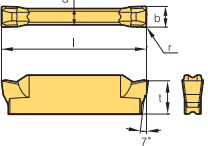

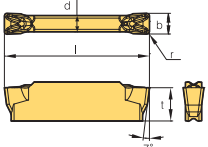

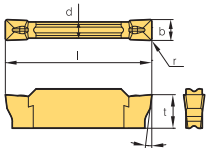
Application	Picture	Designation	Coated							Uncoated	Dimensions (mm)					Configuration	Page			
			NC3120	NC3225	NC3225	NC5330	NC6315	PC5300	PC8110	PC9030	H01	b	r	l	d			t		
Face Grooving	FGD	FGD	300R-03									3.0	0.3	15.0	2.0	4.0		C36 C37		
			400R-04										4.0	0.4	15.0	3.0			4.5	
			500R-04										5.0	0.4	15.0	4.0			5.0	
	FGM	FGM	300R-03										3.0	0.3	15.0	2.0	4.0		C36 C37	
			400R-04										4.0	0.4	15.0	3.0	4.5			
			500R-04										5.0	0.4	15.0	4.0	5.0			
	FMM	FMM	300R-03										3.0	0.3	15.0	2.0	3.91		C36 C37	
			400R-04										4.0	0.4	15.0	3.0	3.96			
			500R-04										5.0	0.4	15.0	4.0	4.42			
Face Grooving	MFMN	MFMN	300									3.0	0.2	18.0	2.0	3.0		C35 C41		
Grooving · Turning	MGGN-M	MGGN-M	300-02-M									3.0	0.2	21.0	2.35	4.8		C30 C32 C34 C41		
			04-M										3.0	0.4	21.0	2.35			4.8	
			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
			04-M											4.0	0.4	21.0			3.3	4.8
			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
			04-M											5.0	0.4	26.0			4.1	5.8
			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
			04-M											6.0	0.4	26.0			5.0	5.8
			08-M											6.0	0.8	26.0			5.0	5.8
Grooving	MGMN-G	MGMN-G	150-G									1.5	0.15	16.0	1.2	3.5		C30 C32 C34 C41		
			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	MGMN-M	200-M									2.0	0.2	16.0	1.6	3.5		C30 C32 C34 C41		
			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



C Available Insert for MGT


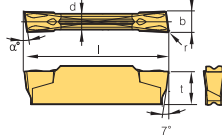

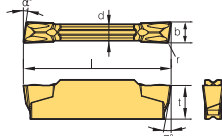

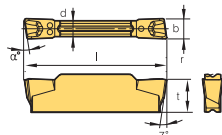

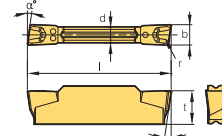

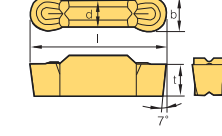

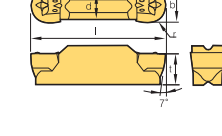
Insert

Application	Picture	Designation	Coated							Uncoated		Dimensions (mm)						Configuration	Page
			NC3120	NC3225	NC3030	NC5330	NC6315	PC5300	PC8100	PC9030	H01	H05	b	r	l	d	t		
Grooving		MGMN 200-02-L										2.0	0.2	16	1.60	3.5	-		C30 C32 C34 C35
		04-L										2.0	0.4	20	1.7	3.5	-		
		250-02-L										2.5	0.2	18.5	2.0	3.85	-		
		300-02-L										3.0	0.2	21	2.35	4.8	-		
		04-L										3.0	0.4	20	2.3	4.0	-		
		400-02-L										4.0	0.2	21	3.3	4.8	-		
		04-L										4.0	0.4	20	3.3	4.0	-		
		500-03-L										5.0	0.3	26	4.1	5.82	-		
04-L										5.0	0.4	26	4.1	5.8	-				
Grooving · Parting off		MGMN 150-015-R										1.5	0.15	16	1.2	3.35	-		C30 C32 C34 C35
		200-02-R										2.0	0.2	16	1.60	3.5	-		
		04-R										2.0	0.4	20	1.7	3.5	-		
		250-02-R										2.5	0.2	18.5	2.0	3.89	-		
		300-02-R										3.0	0.2	21	2.35	4.8	-		
		04-R										3.0	0.4	20	2.3	4.0	-		
		400-02-R										4.0	0.2	21	3.3	4.8	-		
		04-R										4.0	0.4	20	3.3	4.0	-		
500-04-R										5.0	0.4	26	4.1	5.8	-				
08-R										5.0	0.4	26	4.1	5.94	-				
600-04-R										6.0	0.4	26	5.0	5.94	-				
08-R										6.0	0.8	26	5.0	5.94	-				
Grooving · Turning		MGMN 150-015-T										1.5	0.15	16	1.2	3.5	-		C30 C32 C34 C35
		200-T										2.0	0.2	16	1.60	3.5	-		
		300-T										3.0	0.4	21	2.35	4.8	-		
		400-T										4.0	0.4	21	3.3	4.8	-		
		500-04-T										5.0	0.4	26	4.1	5.82	-		
		500-T										5.0	0.8	26	4.1	5.8	-		
		600-08-T										6.0	0.8	26	5.0	5.81	-		
Grooving		MGGN 300-02-A										3.0	0.2	21	2.35	4.8	-		C28 C30 C32 C41
		04-A										3.0	0.4	21	2.35	4.8	-		
		08-A										3.0	0.8	21	2.35	4.8	-		
		400-02-A										4.0	0.2	21	3.3	4.8	-		
		04-A										4.0	0.4	21	3.3	4.8	-		
		08-A										4.0	0.8	21	3.3	4.8	-		
		500-02-A										5.0	0.2	26	4.1	5.8	-		
		04-A										5.0	0.4	26	4.1	5.8	-		
08-A										5.0	0.8	26	4.1	5.8	-				

● : Stock item



Insert

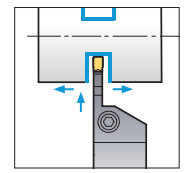
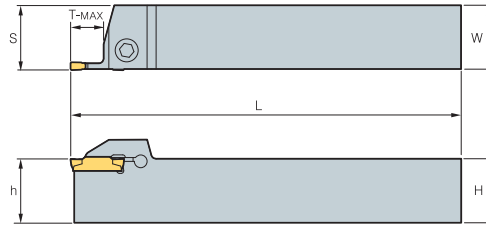
Application	Picture	Designation	Coated							Uncoated		Dimensions (mm)						Configuration	Page
			NC3030	NC3120	NC3225	NC5330	NC6315	PC5300	PC8100	PC9030	H01	H05	b	r	l	d	t		
Parting off	MGMR-PS 	MGMR 300-6D-PS										3.0	0.2	21	2.35	4.8	6		C30 C32
		8D-PS										3.0	0.2	21	2.35	4.8	5		
		15D-PS										3.0	0.2	21	2.35	4.8	15		
		400-4D-PS										4.0	0.3	21	3.30	4.8	4		
		500-4D-PS										5.0	0.3	26	4.10	5.8	4		
Parting off	MGML-PS 	MGML 300-6D-PS										3.0	0.2	21.0	2.35	4.8	6		
		8D-PS										3.0	0.2	21.0	2.35	4.8	5		
		15D-PS										3.0	0.2	21.0	2.35	4.8	15		
Parting off	MGMR-PT 	MGMR 200-6D-PT										2.0	0.2	16	1.60	3.6	6		C30 C32
		300-6D-PT										3.0	0.2	21	2.35	4.8	6		
		8D-PT				●						3.0	0.2	21	2.35	4.8	8		
		15D-PT										3.0	0.2	21	2.35	4.8	15		
		400-4D-PT										4.0	0.3	21	3.30	4.8	4		
		500-4D-PT										5.0	0.3	26	4.10	5.8	4		
Parting off	MGML-PT 	MGML 200-6D-PT										2.0	0.2	16	1.60	3.6	6		
		300-6D-PT					●					3.0	0.2	21	2.35	4.8	6		
		8D-PT										3.0	0.2	21	2.35	4.8	8		
		15D-PT										3.0	0.2	21	2.35	4.8	15		
		400-4D-PT										4.0	0.3	21	3.30	4.8	4		
		500-4D-PT										5.0	0.3	26	4.10	5.8	4		
Aluminum	MRGN-A 	MRGN 300-A										3.0	1.5	21.0	2.35	4.8	-		C30 C31 C33 C34
		400-A								●		4.0	2.0	21.0	3.30	4.8	-		
		500-A										5.0	2.5	26.0	4.10	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	-		
Reliefing Profiling	MRMN-M 	MRMN 200-M	●	●	●							2.0	1.0	16.0	1.50	3.5	-		C30 ~34 C41
		300-M	●	●	●	●			●	●		3.0	1.5	21.0	2.35	4.8	-		
		400-M	●	●	●	●				●		4.0	2.0	21.0	3.3	4.8	-		
		500-M	●						●			5.0	2.5	26.0	4.1	5.8	-		
		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

For grooving, turning, parting off, relief, profil machining



MGMN
MGGN
MRGN

MGMR
MRMN

• 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	MGMN250-G MGMN250-M	MHA0512	HW40L
1616-2.5	16	16	100	16.30	16			
2020-2.5	20	20	125	20.30	16			
2525-2.5	25	25	150	25.30	16	MGMN300-M/T MGGN300-□□-M MRMN300-M MGMR300-□□-□□ MGMN300-□□-L/R	BHA0616	HW50L
1616-3	16	16	100	16.35	18			
2020-3-T10	20	20	125	20.4	10			
2020-3	20	20	125	20.4	18	MGMN400-M/T MGGN400-□□-M MRMN400-M MGMR400-□□-□□ MGMN400-□□-L/R	BHA0616	HW50L
2525-3-T10	25	25	150	25.4	10			
2525-3	25	25	150	25.4	18			
3232-3-T10	32	32	170	32.4	10	MGMN500-M/T MGGN500-□□-M MRMN500-M MGMR500-□□-□□ MGMN500-□□-L/R	BHA0616	HW50L
3232-3	32	32	170	32.4	18			
2020-4-T10	20	20	125	20.4	10			
2020-4	20	20	125	20.4	18	MGMN600-M MGGN600-□□-M MRMN600-M	BHA0616	HW50L
2525-4-T10	25	25	150	25.4	10			
2525-4	25	25	150	25.4	18			
3232-4-T10	32	32	170	32.4	10	MRMN800-M MGMN800-M	BHA0616	HW50L
3232-4	32	32	170	32.4	18			
2020-5-T15	20	20	150	20.5	15			
2020-5	20	20	150	20.5	23	MGMN800-M MGGN800-□□-M MRMN800-M	BHA0616	HW50L
2525-5-T15	25	25	150	25.5	15			
2525-5	25	25	150	25.5	23			
3232-5-T15	32	32	170	32.5	15	MRGN600-A	BHA0616	HW50L
3232-5	32	32	170	32.5	23			
2020-6-T15	20	20	125	20.6	15			
2020-6	20	20	125	20.6	23	MRGN800-A	BHA0616	HW50L
2525-6-T15	25	25	150	25.6	15			
2525-6	25	25	150	25.6	23			
3232-6-T15	32	32	170	32.6	15	MRGN800-A	BHA0616	HW50L
3232-6	32	32	170	32.6	23			
2525-8-T15	25	25	150	26.1	15			
2525-8	25	25	150	26.1	28	MRGN800-A	BHA0616	HW50L
3232-8-T15	32	32	170	33.1	16			
3232-8	32	32	170	33.1	28			
2525-6A-T15	25	25	150	25.6	15	MRGN800-A	BHA0616	HW50L
2525-6A	25	25	150	25.6	23			
3232-6A-T15	32	32	170	32.6	15			
3232-6A	32	32	170	32.6	23	MRGN800-A	BHA0616	HW50L
2525-8A-T15	25	25	150	26.1	16			
2525-8A	25	25	150	26.1	28			
3232-8A-T15	32	32	170	33.1	15	MRGN800-A	BHA0616	HW50L
3232-8A	32	32	170	33.1	28			

Applicable inserts C27~C29

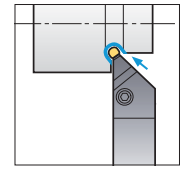
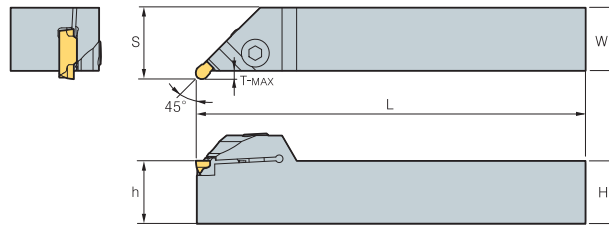


MGEUR/L

For relief, profil machining



MRMN
MRGN



• R type insert
(mm)

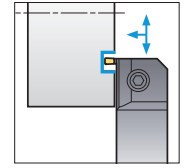
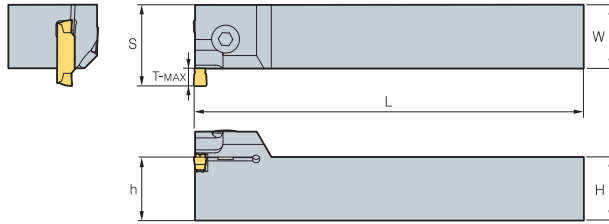
Designation	H = (h)	W	L	S	T-MAX	Inserts	Screw	Wrench												
MGEUR/L 2020-3	20	20	125	23	3	MRMN300-M	BHA0616	HW50L												
	2525-3	25	25	150	28				3											
	3232-3	32	32	170	35				3											
2020-4	20	20	125	23	3	MRMN400-M			BHA0616	HW50L										
2525-4	25	25	150	28	3															
3232-4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

➔ Applicable inserts C27~C29

● : Stock item

MGEVR/L

For grooving, turning, profil machining



MGMN MGGN
MRMN 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	MGMN150-G	LTX0514	TW20L	
	2525-1.5	25	25	150	28	3				85
	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	BHA0616	HW50L	
	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 C27~C29

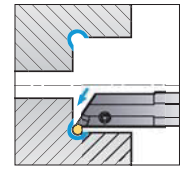
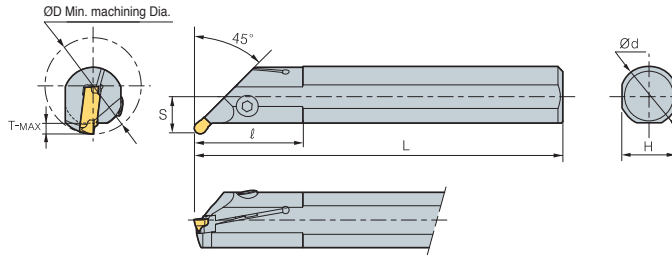


MGIUR/L

For relief, profil machining



MRMN
MRGN



• R type insert
(mm)

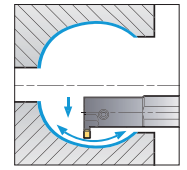
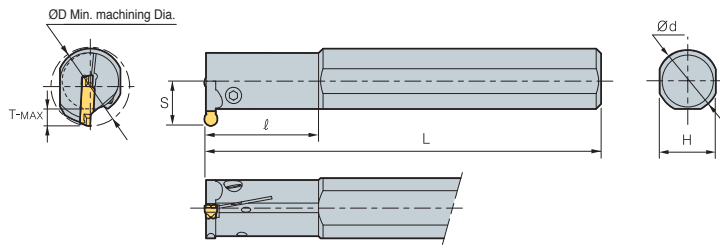
Designation	ØD	Ød	L	ℓ	T-MAX	H	S	Inserts	Screw	Wrench
MGIUR/L 3520-3 4025-3 5032-3	35	20	150	45	3.5	18	13	MRMN300-M	MHA0512	HW40L
	40	25	200	45	3.5	23	15.5			
	50	32	250	65	3.5	30	19			
3520-4 4025-4 5032-4	35	20	150	45	3.5	18	13	MRMN400-M	MHA0512	HW40L
	40	25	200	45	3.5	23	15.5			
	50	32	250	65	3.5	30	19			
4025-5 5032-5	40	25	200	45	3.5	23	15.5	MRMN500-M	BHA0616 BHA0620	
	50	32	250	65	3.5	30	19			
4025-6 5032-6	40	25	200	45	3.5	23	19	MRMN600-M	BHA0616 BHA0620	
	50	32	250	65	3.5	30	19			
4025-8 5032-8	40	25	200	45	6.5	23	15.5	MRMN800-M	BHA0616 BHA0620	HW50L
	50	32	250	65	6.5	30	19			
4025-6A 5032-6A	40	25	200	45	3.5	23	15.5	MRGN600-A	BHA0616 BHA0620	
	50	32	250	65	3.5	30	19			
4025-8A 5032-8A	40	25	200	45	5.0	23	18.5	MRGN800-A	BHA0616 BHA0620	
50	32	250	65	6.5	30	22				

➔ Applicable inserts C27~C29



MGIVR/L

For grooving, turning, profil machining



MGMN MRMN
MGGN MRGN

• 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	MGMN150-G	MHB0310	HW25L
	2520-1.5	25	20	150	45	3.5	18		MHA0512	HW40L
	2925-1.5	29	25	200	45	3.5	23	MGMN200-G	MHB0310	HW25L
	2016-2	20	16	125	35	4.5	15		MGMN200-M	MHA0512
	2520-2	25	20	150	45	4.5	18	MRMN200-M	MHB0310	HW25L
	2925-2	29	25	200	45	4.5	23		MHA0512	HW40L
	2016-2.5	20	16	125	35	4.5	15	MGMN250-G	MHB0310	HW25L
	2520-2.5	25	20	150	45	4.5	18		MGMN250-M	MHA0512
	2925-2.5	29	25	200	45	4.5	23	MGMN300-M/G/T MGGN300-□□-M MRMN300-M MGMN300-□□-L/R	MHA0512	HW40L
	2520-3	25	20	150	45	5	18			
	2520-3-T7	25	20	150	49.3	7	18	MGMN400-M/G/T MGGN400-□□-M MRMN400-M MGMN400-□□-L/R	MHA0512	HW40L
	3125-3	31	25	200	45	6	23			
	3125-3-T10	31	25	200	45	10	23	MGMN500-M/G/T MGGN500-□□-M MRMN500-M MGMN500-□□-L/R	BHA0616	BHA0620
	3732-3	37	32	250	65	6	30			
	3732-3-T12	37	32	250	65	12	30	MGMN600-MG MGGN600-□□-M MRMN600-M	BHA0616	BHA0620
	2520-4	25	20	150	45	6	18			
	2520-4-T7	25	20	150	45	7	18	MRMN800-M MGMN800-M	BHA0620	HW50L
	3125-4	31	25	200	45	6	23			
	3125-4-T10	31	25	200	45	10	23	MRGN600-A	BHA0616	BHA0620
	3732-4	37	32	250	65	6	30			
	3732-4-T12	37	32	250	65	12	30	MRGN800-A	BHA0616	BHA0620
	3125-5	31	25	200	45	8	23			
	3732-5	37	32	250	65	8	30	MRGN800-A	BHA0616	BHA0620
	3125-6	31	25	200	45	8	23			
	3732-6	37	32	250	65	8	30	MRGN800-A	BHA0616	BHA0620
	3732-8	37	32	250	65	10	30			
	4540-8	45	40	300	70	10	37	MRGN800-A	BHA0616	BHA0620
	3125-6A	31	25	200	45	8	23			
	3732-6A	37	32	250	65	8	30	MRGN800-A	BHA0616	BHA0620
	3732-8A	37	32	250	65	10	30			
	4540-8A	45	40	300	70	10	37			

Applicable inserts C27~C29

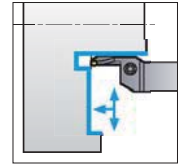
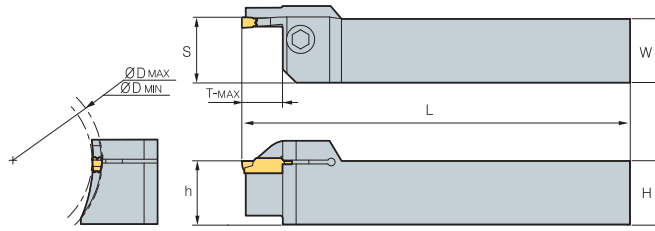


MGFHR/L

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
	29/40-T10	25	25	150	25.6	10	29	40			
	34/50-T10	25	25	150	25.6	10	34	50			
	44/70-T10	25	25	150	25.6	10	44	70			
	64/99-T10	25	25	150	25.6	10	64	99			
	425-42/63-T15	25	25	150	25.6	15	42	63			
	62/120-T15	25	25	150	25.6	15	62	120			
112/200-T15	25	25	150	25.6	15	112	200	MGMN400-M/T MGMN400-□□-L/R			

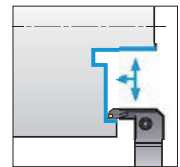
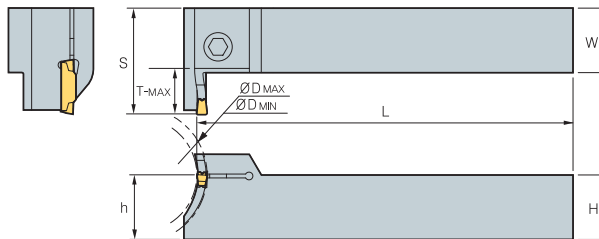
➔ Applicable inserts C27~C29

MGFVR/L

For face grooving machining



MFMN
MGMN



• R type insert
(mm)

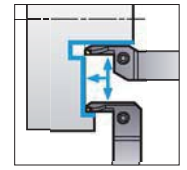
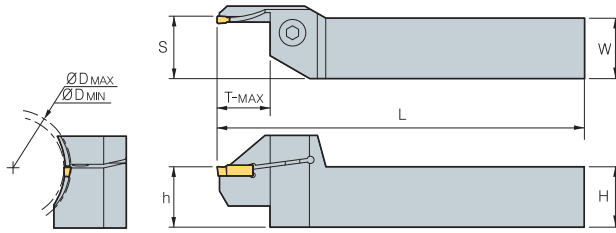
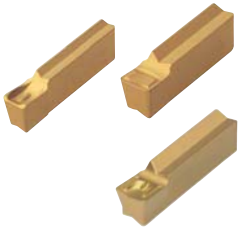
Designation	H = (h)	W	L	S	T-MAX	ØD		Inserts	Screw	Wrench	
						Min	Max				
MGFVR/L	325-24/35-T10	25	25	150	36	10	24	35	MFMN300	MHA0512	HW40L
	29/40-T10	25	25	150	36	10	29	40			
	34/50-T10	25	25	150	36	10	34	50			
	44/70-T10	25	25	150	36	10	44	70			
	64/99-T10	25	25	150	36	10	64	99			
	425-44/60-T15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

➔ Applicable inserts C27~C29

C MGT Holder (Face Grooving)

FGHH

For face grooving, turning machining



FGD FGM FMM

• 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			FGD300R-03 FGM300R-03
	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	FMM300R-03			
	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	22	48	60	FGD300R-03 FGM300R-03		
	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			
420R - 25/30	20	20	125	20.6	12	25	30	FMM400R-04			
	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	FGD400R-04 FGM400R-04		
	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			
425R - 25/30	25	25	150	25.6	12	25	30	FMM400R-04			
	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	FGD400R-04 FGM400R-04		
	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			
520R - 25/30	20	20	125	20.6	12	25	30	FMM500R-04			
	30/35	20	20	125	20.6	12	30		35		
	35/40	20	20	125	20.6	20	35		40		
	40/48	20	20	125	20.6	20	40	48	FGD500R-04 FGM500R-04		
	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			
525R - 25/30	20	20	125	20.6	25	100	140	FMM500R-04			
	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	FGD500R-04 FGM500R-04		
	40/48	25	25	150	25.6	20	40	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				

Applicable inserts C27~C29



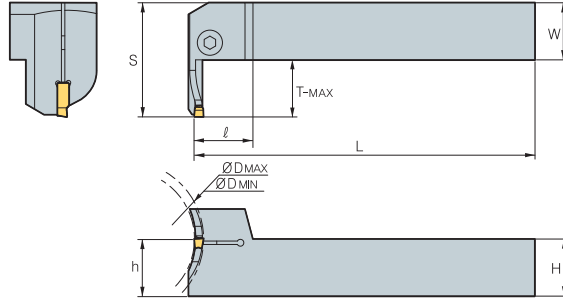
C

Multi functional Tools

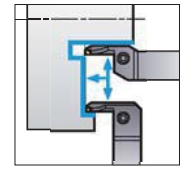
FGVH



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				
FGVH 320R - 25/30	30/35	20	20	125	20.6	12	25	30	FMM300R-03		
	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			FMM300R-03
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	22	48	60				
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				
420R - 25/30	30/35	20	20	125	20.6	12	25	30	FMM400R-04		
	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			
	100/140	20	20	125	20.6	25	100	140			
425R - 25/30	30/35	25	25	150	25.6	12	25	30	FMM400R-04	BHA0616	
	35/48	25	25	150	25.6	12	35	48			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			
520R - 25/30	30/35	20	20	125	20.6	12	25	30	FMM500R-04		
	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			
	75/100	20	20	125	20.6	25	75	100			
	100/140	20	20	125	20.6	25	100	140			
525R - 25/30	30/35	25	25	150	25.6	12	25	30	FMM500R-04		
	35/40	25	25	150	25.6	20	35	40			
	40/48	25	25	150	25.6	20	40	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			

➔ Applicable inserts C27~C29

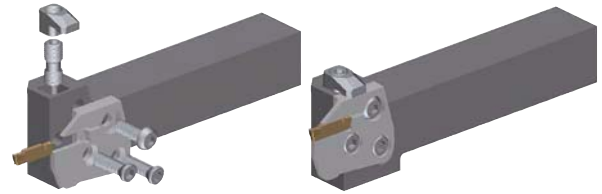
C Technical Information for KGT/MGT Cartridge

KGT/MGT cartridge

Features

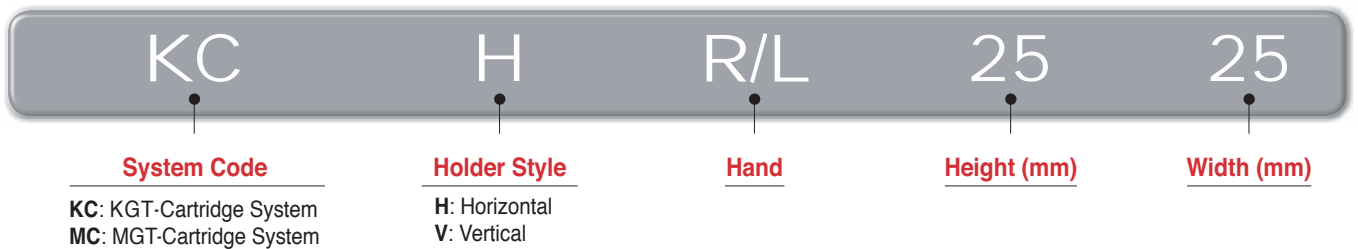
- Compatible and Economical due to divided cartridge & exclusive holder system from existing single body system
- Interchangeable cartridge
 - Various assembly depends on working style
 - Reduce cutting tool costs by over 30%
 - Setting with upper clamp & side screw
- Strong & Stable setting force
 -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

Stable Assembly thanks to double screw & clamp

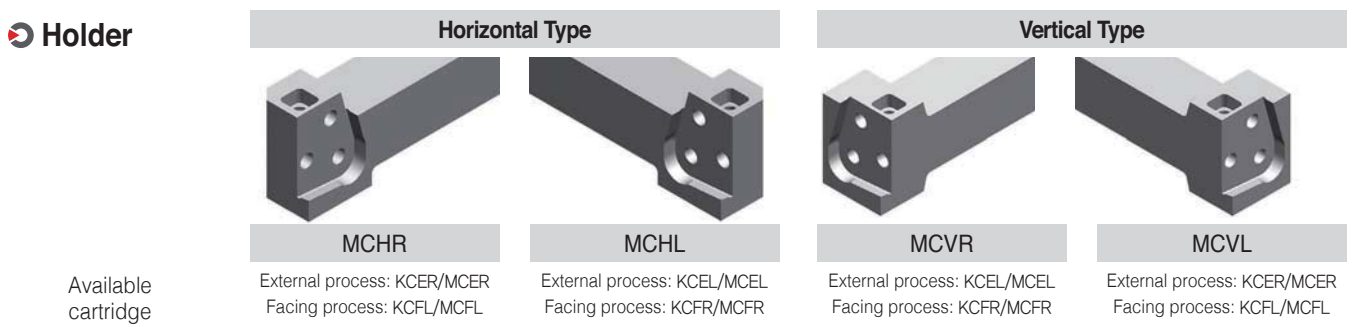


Simple & Strong Setting

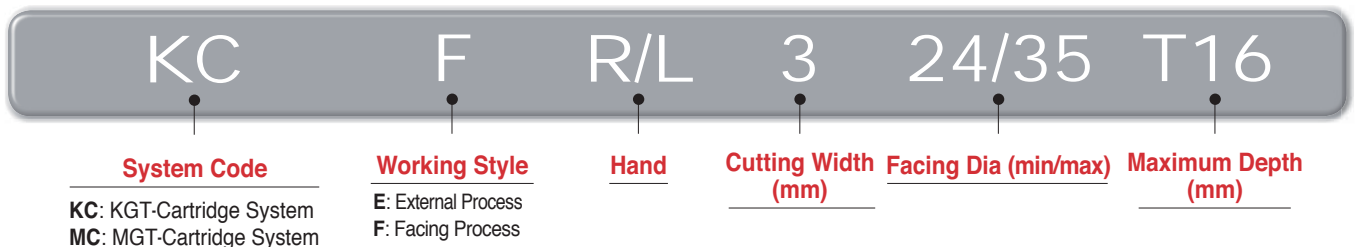
Holder code system



Holder



Cartridge code system



Cartridge

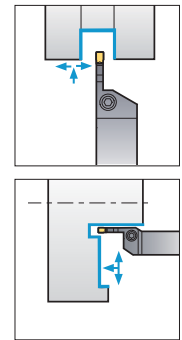
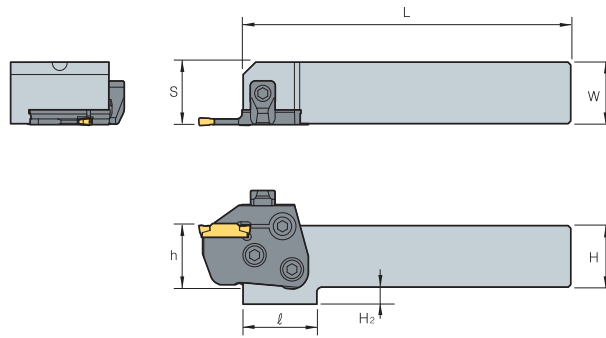


MCHR/L (Holder)

For grooving, turning, parting off, relief, profil machining



MCER/L
MCFR/L



• 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	KCER/L, KCFR/L MCER/L, MCFR/L					
	2525	25	25	133	25.7	30	7						
	3232	32	32	153	32.7	-	-						

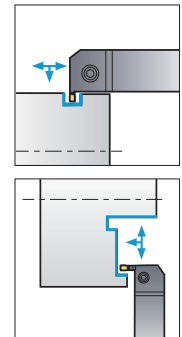
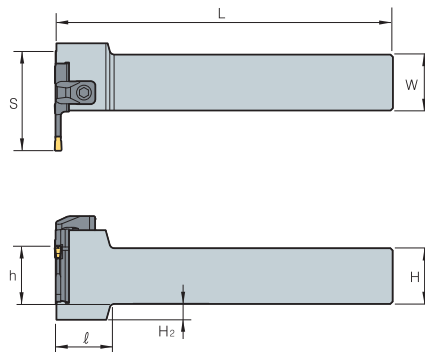
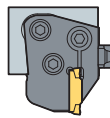
➔ Applicable cartridge C40~C41

MCVR/L (Holder)

For face grooving, turning machining



MCER/L
MCFR/L



• 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	KCER/L, KCFR/L MCER/L, MCFR/L					
	2525	25	25	150	43	30	7						
	3232	32	32	170	50	-	-						

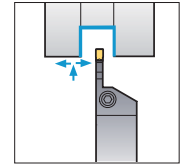
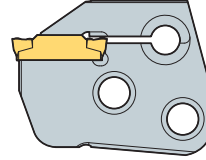
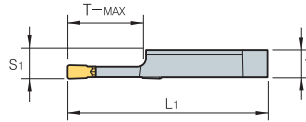
➔ Applicable cartridge C40~C41

KCER/L (Cartridge)

For grooving, turning, parting off, relief, profil machining



KG MN KG MR/L
KG GN KR MN



• R type insert
(mm)

Designation	T	L ₁	S ₁	T-MAX	Inserts		Holder
					Width	Designation	
KCER/L	3-T16	5.97	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	

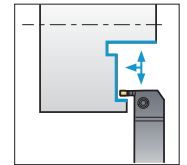
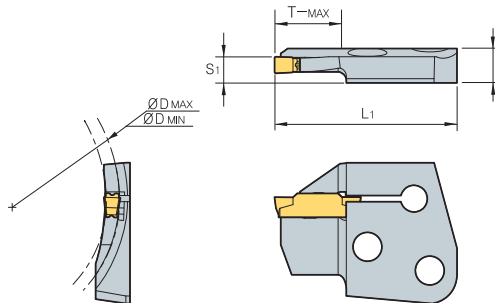
➔ Applicable inserts C27~C29

KCFR/L (Cartridge)

For face grooving, turning machining



KG MN
KG MI



• R type insert
(mm)

Designation	T	L ₁	S ₁	T-MAX	ØD		Width	Inserts		Holder
					Min	Max		Designation		
KCFR/L	3-34/50-T16	8.35	44.5	6.35	16	34	50	3	KG MN KR MN KG GN	MCVR/L MCHR/L
	44/70-T16	8.35	44.5	6.35	16	44	70			
	64/99-T16	8.35	44.5	6.35	16	64	99			
	4-44/60-T16	8.35	44.5	6.35	16	44	60			
	60/120-T16	8.35	44.5	6.35	16	60	120			
	112/200-T16	8.35	44.5	6.35	16	112	200			

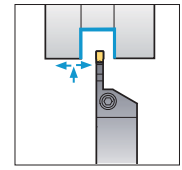
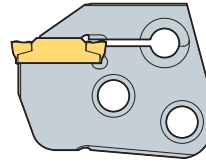
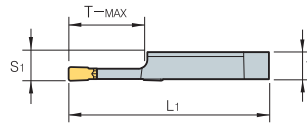
➔ Applicable inserts C27~C29

MCER/L (Cartridge)

For grooving, turning, parting off, relief, profil machining



MGMN MGMR
MGGN MRMN



• 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	MGMN MGMR/L MGGN MRMN
	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	

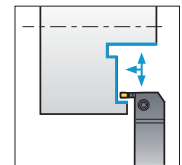
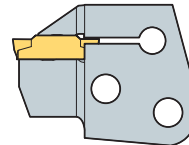
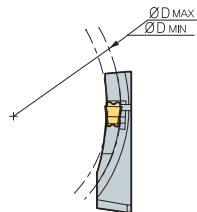
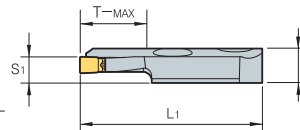
➔ Applicable inserts C27~C29

MCFR/L (Cartridge)

For face grooving, turning machining



MFNM
MGMN



• R type insert
(mm)

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

➔ Applicable inserts C27~C29

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





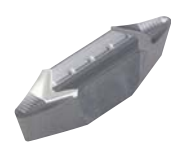
Insert code system

MR	G	N	6	-	A
System Code	Tolerance	Hand	Cutting Edge Width		Chip Breaker
MR: Multi Grooving Round shape MV: Multi Grooving V shape	G: Ground	N: Neutral	6 mm, 8 mm		A/AM/AP/A5

Holder code system

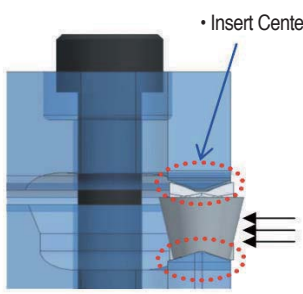
MG	E	H	R/L	25N	-	8	A	-	MR
System Code	Application	Holder Type	Hand	Shank Size	Cutting Width	Chip Breaker	Insert Type		
MG: Multi Grooving	E: External machining I: Internal machining	H: Horizontal V: Vertical U: Undercut X: Special	R: Right L: Left	Height: 25 mm Width: 25 mm (For internal machining: Minimum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

Various insert types

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

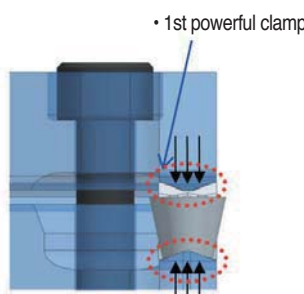
MRGN type : Full "Round" geometry

New clamping system



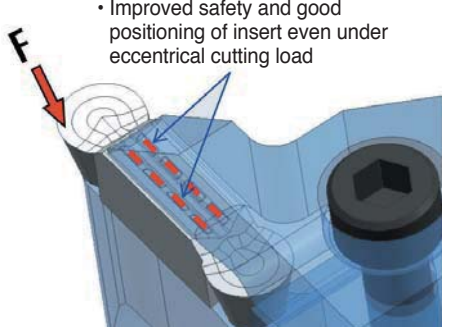
• Insert Centering

Before tightening




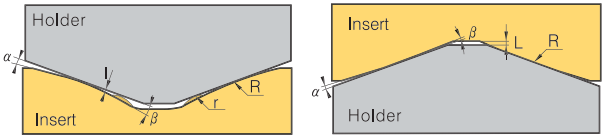
• 1st powerful clamping

After tightening

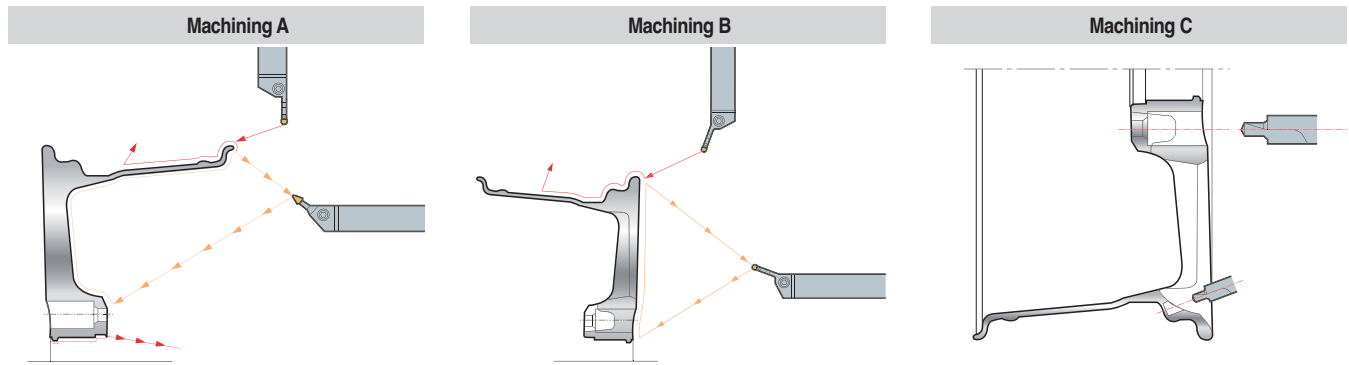


• Improved safety and good positioning of insert even under eccentric cutting load

• Reinforcing the clamping force due to radius designed on the top & bottom side of insert and convex "DOT" on the top of insert


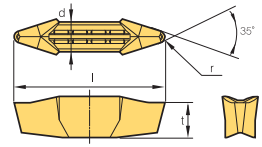

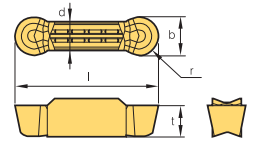
Application of aluminum wheels



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	l	d	t			
For Aluminum Wheel	 MVGN	MVGN									C45	
		8N-A-R1.2			-	1.2	30.0	6.0	6.9			
		8N-A-R1.6			-	1.6	30.0	6.0	6.9			
	 MRGN-A	MRGN	6N-A		●	6.0	3.0	26.0	5.0	5.9		C44 C45
			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			

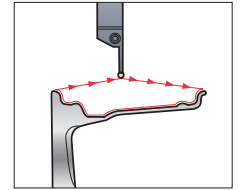
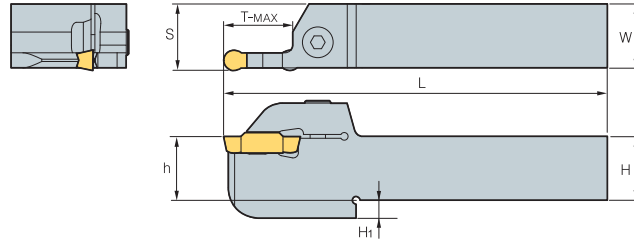
● : Stock item



MGEHR/L



MRGN



• R type insert (mm)

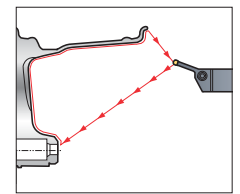
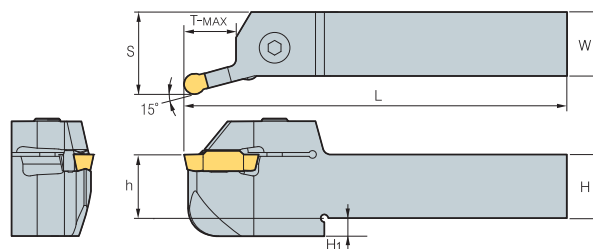
Designation	H = (h)	H1	W	L	S	T-MAX	Inserts	Screw	Wrench
MGEHR/L 25N-6A	25	7	25	150	25.55	23.5	MRGN6N-A/AP/AM	BHA0620	HW50L
32N-6A	32	8	32	150	32.55	27			
25N-8A	25	7	25	150	25.55	23.5	MRGN8N-A/AP/AM		
32N-8A	32	8	32	150	32.55	27			
25N-6A5	25	7	25	150	25.55	23.5	MRGN6N-A5		
32N-6A5	32	8	32	150	32.55	27			
25N-8A5	25	7	25	150	25.55	23.5	MRGN8N-A5		
32N-8A5	32	8	32	150	32.55	27			

➔ Applicable inserts C43

MGEHR/L-15



MRGN



• R type insert (mm)

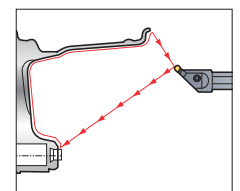
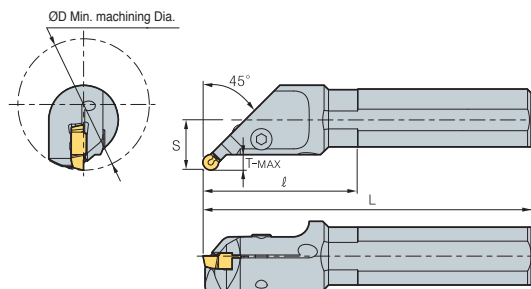
Designation	H = (h)	H1	W	L	S	T-MAX	Inserts	Screw	Wrench
MGEHR/L 25N-6A-15	25	7	25	150	32.2	20	MRGN6N-A/AP/AM	BHA0620	HW50L
32N-6A-15	32	8	32	150	39.2	25			
25N-8A-15	25	7	25	150	32.2	20	MRGN8N-A/AP/AM		
32N-8A-15	32	8	32	150	39.2	25			
25N-6A5-15	25	7	25	150	32.2	20	MRGN6N-A5		
32N-6A5-15	32	8	32	150	39.2	25			
25N-8A5-15	25	7	25	150	32.2	20	MRGN8N-A5		
32N-8A5-15	32	8	32	150	39.2	25			

➔ Applicable inserts C43

MGIUR/L-MR



MRGN



• R type insert (mm)

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

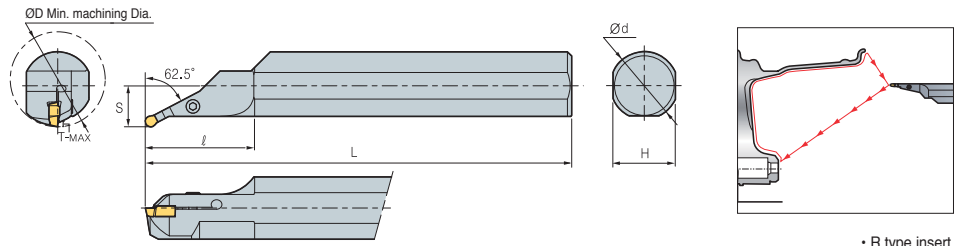
➔ Applicable inserts C43



MGIXR/L-MR



MRGN

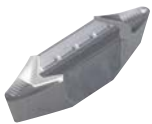


• R type insert
(mm)

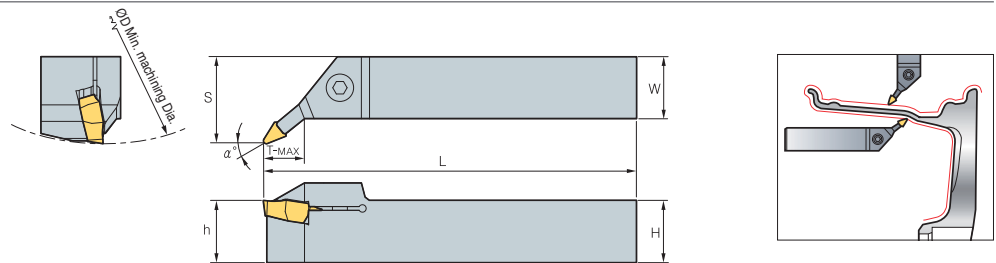
Designation	ØD	Ød	L	l	T-MAX	H	S	Inserts	Screw	Wrench
MGIXR/L 7050-8A-MR	70	50	350	80	5.5	46	30.2	MRGN8N-A/AM/AP	BHA0620	HW50L
7050-8A5-MR	70	50	350	80	5.5	46	30.2	MRGN8N-A5		

➔ Applicable inserts C43

MGEXR/L



MVGN

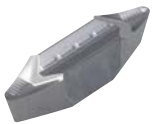


• R type insert
(mm)

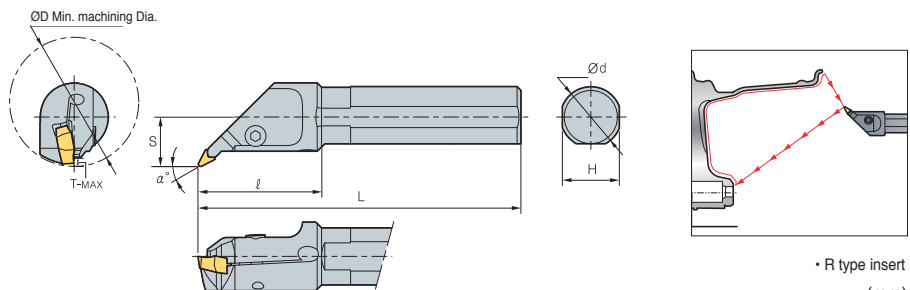
Designation	H = (h)	W	L	S	T-MAX	α°	Inserts	Screw	Wrench
MGEXR/L 25N-8A-5V	25	25	150	29	23.5	5	MVGN8N-A-R1.2	BHA0620	HW50L
25N-8A-22.5V	25	25	150	35	27	22.5	MVGN8N-A-R1.6		

➔ Applicable inserts C43

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	27.5	MVGN8N-A-R1.2	BHA0620	HW50L
									MVGN8N-A-R1.6		

➔ Applicable inserts C43

C Technical Information for TB/TB-M

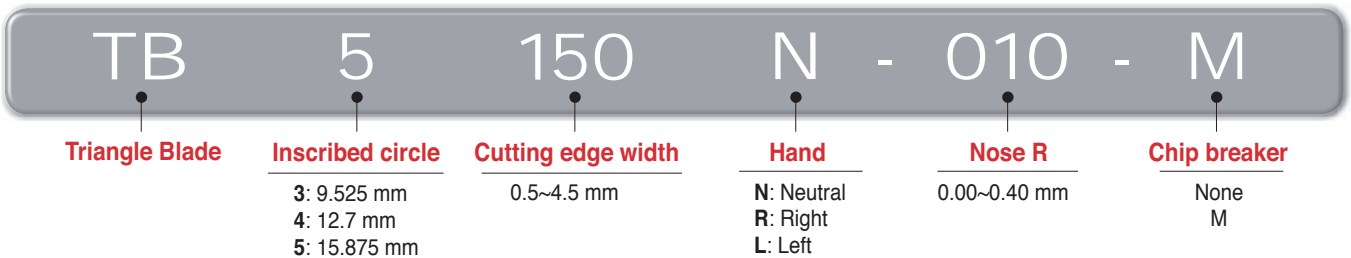
Economical 3-corner insert for high precision grooving

TB/TB-M

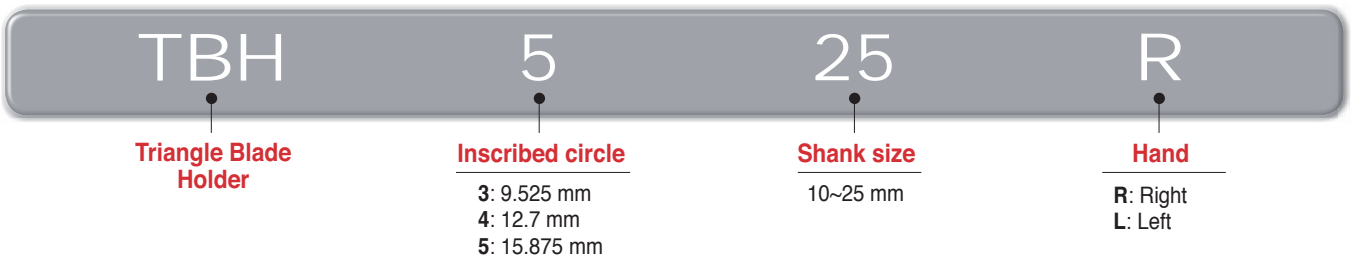
- Economical 3-corner insert for grooving
- Various cutting edge size ranging from 1.25~4.5mm
- High accuracy ground insert ensures high precision machining
- Stable chip control optimized for automated grooving process



Insert code system



Holder code system



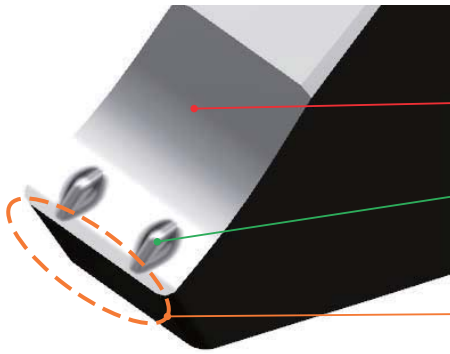
TB/TB-M

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~TB5318-020-M (Inscribed circle of 15.875 mm)	
Insert shape				
Features	Chip breaker	Ground chip breaker	Pressed chip breaker	
	Hand	Right/Left-handed	Right-handed	Neutral
	Cutting edge width (b)	TB3000: 1.25~4.3 mm TB4000: 1.25~4.5 mm	1.5~4.5 mm	0.5~3.18 mm
	Depth of cut (T-MAX)	TB3000: ~3.5 mm TB4000: ~5.0 mm	~5.0 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	



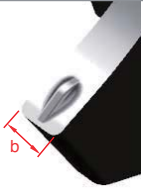




🔗 TB-M chip breaker

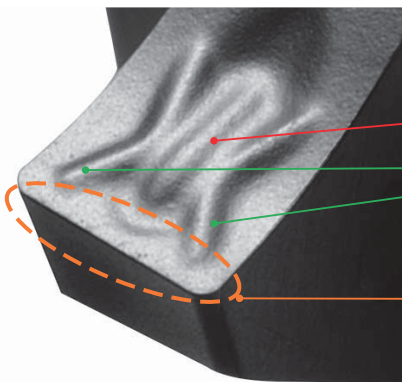
- Minimized cutting force at high speed and high feed → Smooth chip evacuation outside each groove
- High precision cutting performance → Exceptional surface finish and accurate dimensions
- Excellent chip flow and cutting results → Ideal for automated and unmanned productionw



TB5-M Chip breaker

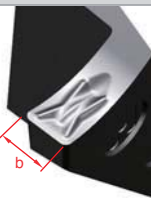



- **Lowered back area:** reduced load of chip evacuation due to minimizing chip friction
- **Beveled protruding dot:** made regular sized chip curls good chip flow out of the groove by reducing the chip width minimized load for chip evacuation in high depth of cut
- **Land:** prevented chipping and increased stability in interrupted machining
- **Use:** for grooving with T-MAX 6.5mm below, parting and interrupted machining

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

- **Second protruding dot:** stable chip curl control
- **Main protruding dot:** making regular sized chip curl good chip flow out of the groove by reducing the chip width good chip control in turning and chamfering
- **Sharp cutting edge:** increased machinability
- **Use:** for grooving with T-MAX 4.5mm below and turning

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

C Technical Information for TB/TB-M

Guide for TB

(mm)

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				
0.50	-	-	2.5	-	-	●	
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	-	-	●	
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	-	●	●	-	

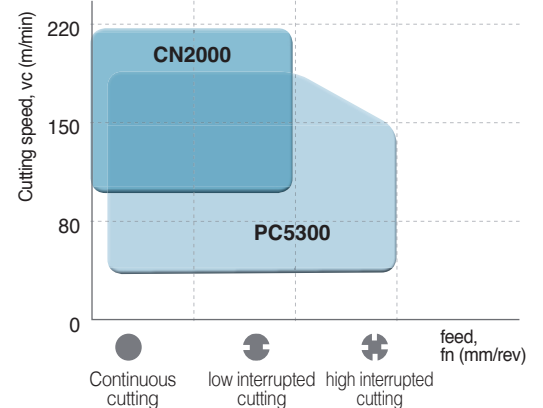
● : Stock item

Recommended cutting conditions

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

Recommended cutting speed, vc (m/min)

Recommended cutting range

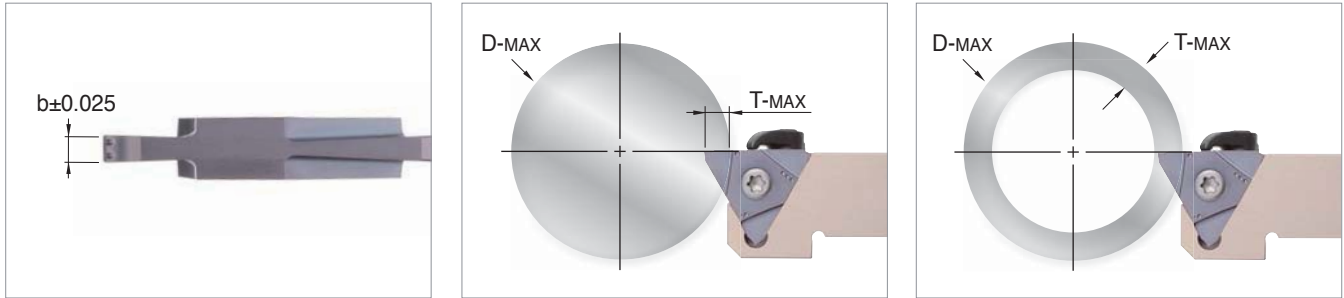


C

Multi functional Tools

🔗 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


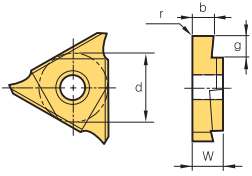

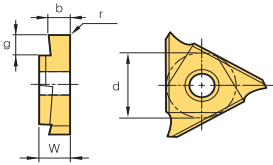


(mm)

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	-	-	-	-	-	-	-	-	-
	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
	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
	020-M	3.00	0.20	6.5	N.L	N.L	N.L	N.L	N.L	Ø300	Ø170	Ø60	Ø40
	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 Available Insert for TB/TB-M


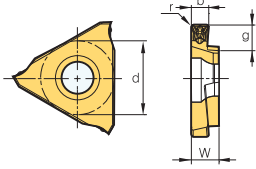

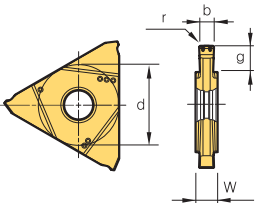
Insert

Picture	Designation	Cermet	Coated	Dimensions (mm)					Configuration
		CN2000	PC5300	b	g (T-MAX)	r	w	d	
	TB (Right-handed)								
	3125R			1.25	1.5	0.2	4.76	9.525	
	3145R			1.45	1.5	0.2	4.76	9.525	
	3175R			1.75	2.5	0.2	4.76	9.525	
	3185R			1.85	2.5	0.2	4.76	9.525	
	3200R			2.00	2.5	0.2	4.76	9.525	
	3230R			2.30	3.5	0.3	4.76	9.525	
	3280R			2.80	3.5	0.3	4.76	9.525	
	3330R			3.30	3.5	0.3	4.76	9.525	
	3430R			4.30	3.5	0.4	4.76	9.525	
	4125R	●	●	1.25	2.0	0.2	4.76	12.7	
	4145R	●	●	1.45	2.0	0.2	4.76	12.7	
	4150R	●	●	1.50	3.5	0.2	4.76	12.7	
	4175R	●	●	1.75	3.5	0.2	4.76	12.7	
	4185R	●	●	1.85	3.5	0.2	4.76	12.7	
	4200R	●	●	2.00	3.5	0.2	4.76	12.7	
	4215R	●	●	2.15	3.5	0.2	4.76	12.7	
	4230R	●	●	2.30	3.5	0.2	4.76	12.7	
	4250R	●	●	2.50	4.0	0.3	4.76	12.7	
	4265R	●	●	2.65	4.0	0.3	4.76	12.7	
	4280R	●	●	2.80	4.0	0.3	4.76	12.7	
	4300R	●	●	3.00	4.0	0.3	4.76	12.7	
	4330R	●	●	3.30	4.0	0.3	4.76	12.7	
	4350R	●	●	3.50	5.0	0.3	4.76	12.7	
4400R	●	●	4.00	5.0	0.4	4.76	12.7		
4430R	●	●	4.30	5.0	0.4	4.76	12.7		
4450R	●	●	4.50	5.0	0.4	4.76	12.7		
	TB (Left-handed)								
	3125L			1.25	1.5	0.2	4.76	9.525	
	3145L			1.45	1.5	0.2	4.76	9.525	
	3175L			1.75	2.5	0.2	4.76	9.525	
	3185L			1.85	2.5	0.2	4.76	9.525	
	3200L			2.00	2.5	0.2	4.76	9.525	
	3230L			2.30	3.5	0.3	4.76	9.525	
	3280L			2.80	3.5	0.3	4.76	9.525	
	3330L			3.30	3.5	0.3	4.76	9.525	
	3430L			4.30	3.5	0.4	4.76	9.525	
	4125L			1.25	2.0	0.2	4.76	12.7	
	4145L			1.45	2.0	0.2	4.76	12.7	
	4150L			1.50	3.5	0.2	4.76	12.7	
	4175L			1.75	3.5	0.2	4.76	12.7	
	4185L			1.85	3.5	0.2	4.76	12.7	
	4200L			2.00	3.5	0.2	4.76	12.7	
	4215L			2.15	3.5	0.2	4.76	12.7	
	4230L			2.30	3.5	0.2	4.76	12.7	
	4250L			2.50	4.0	0.3	4.76	12.7	
	4265L			2.65	4.0	0.3	4.76	12.7	
	4280L			2.80	4.0	0.3	4.76	12.7	
	4300L			3.00	4.0	0.3	4.76	12.7	
	4330L			3.30	4.0	0.3	4.76	12.7	
	4350L			3.50	5.0	0.3	4.76	12.7	
4400L			4.00	5.0	0.4	4.76	12.7		
4430L			4.30	5.0	0.4	4.76	12.7		
4450L			4.50	5.0	0.4	4.76	12.7		

● : Stock item



Insert

Picture	Designation	Coating		Dimensions (mm)					Configuration
		Cermet CN2000	Coated PC5300	b	g (T-MAX)	r	w	d	
	TB (Right-handed)								
	4150R-M	●	●	1.50	3.5	0.20	4.76	12.7	
	4175R-M	●	●	1.75	3.5	0.20	4.76	12.7	
	4185R-M	●	●	1.85	3.5	0.20	4.76	12.7	
	4200R-M	●	●	2.00	3.5	0.20	4.76	12.7	
	4215R-M	●	●	2.15	3.5	0.20	4.76	12.7	
	4230R-M	●	●	2.30	3.5	0.20	4.76	12.7	
	4250R-M	●	●	2.50	4.0	0.30	4.76	12.7	
	4265R-M	●	●	2.65	4.0	0.30	4.76	12.7	
	4280R-M	●	●	2.80	4.0	0.30	4.76	12.7	
	4300R-M	●	●	3.00	4.0	0.30	4.76	12.7	
	4330R-M	●	●	3.30	4.0	0.30	4.76	12.7	
	4350R-M	●	●	3.50	5.0	0.30	4.76	12.7	
	4400R-M	●	●	4.00	5.0	0.40	4.76	12.7	
	4430R-M	●	●	4.30	5.0	0.40	4.76	12.7	
4450R-M	●	●	4.50	5.0	0.40	4.76	12.7		
	TB (Neutral)								
	5050N-000-M		●	0.50	1.0	0.00	4.50	15.875	
	5050N-004-M		●	0.50	2.5	0.04	4.50	15.875	
	5080N-000-M		●	0.80	1.6	0.00	4.50	15.875	
	5100N-006-M		●	1.00	3.5	0.06	4.50	15.875	
	5104N-000-M		●	1.04	2.0	0.00	4.50	15.875	
	5120N-000-M		●	1.20	2.0	0.00	4.50	15.875	
	5140N-000-M		●	1.40	6.5	0.00	4.50	15.875	
	5147N-000-M		●	1.47	6.5	0.00	4.50	15.875	
	5150N-010-M		●	1.50	6.5	0.10	4.50	15.875	
	5150N-015-M		●	1.50	6.5	0.15	4.50	15.875	
	5157N-015-M		●	1.57	6.5	0.15	4.50	15.875	
	5170N-010-M		●	1.70	6.5	0.10	4.50	15.875	
	5178N-018-M		●	1.78	6.5	0.18	4.50	15.875	
	5196N-015-M		●	1.96	6.5	0.15	4.50	15.875	
	5200N-020-M		●	2.00	6.5	0.20	4.50	15.875	
	5222N-015-M		●	2.22	6.5	0.15	4.50	15.875	
	5230N-020-M		●	2.30	6.5	0.20	4.50	15.875	
	5239N-015-M		●	2.39	6.5	0.15	4.50	15.875	
	5247N-020-M		●	2.47	6.5	0.20	4.50	15.875	
	5250N-020-M		●	2.50	6.5	0.20	4.50	15.875	
	5270N-010-M		●	2.70	6.5	0.10	4.50	15.875	
	5287N-020-M		●	2.87	6.5	0.20	4.50	15.875	
	5300N-000-M		●	3.00	6.5	0.00	4.50	15.875	
	5300N-020-M		●	3.00	6.5	0.20	4.50	15.875	
5300N-040-M		●	3.00	6.5	0.40	4.50	15.875		
5315N-015-M		●	3.15	6.5	0.15	4.50	15.875		
5318N-020-M		●	3.18	6.5	0.20	4.50	15.875		

● : Stock item



C Available Insert for TB/TB-M

Insert

Shape	Designation	Cermet	Coated	Dimensions (mm)						ShapeShape
		CN2000	PC5300	b	g (T-MAX)	r	a°	w	d	
 (Neutral)	TB 5050N-004-P			0.50	1.0	0.04	-	4.50	15.875	
	5100N-010-P			1.00	3.5	0.10	-	4.50	15.875	
	5150N-010-P			1.50	6.5	0.10	-	4.50	15.875	
	-020-P			1.50	6.5	0.20	-	4.50	15.875	
	5200N-010-P			2.00	6.5	0.10	-	4.50	15.875	
	-020-P			2.00	6.5	0.20	-	4.50	15.875	
	5239N-015-P			2.39	6.5	0.15	-	4.50	15.875	
	5250N-020-P			2.50	6.5	0.20	-	4.50	15.875	
	5300N-020-P			3.00	6.5	0.20	-	4.50	15.875	
 (Neutral, Right cutting)	TB 5100N-6DR-P			1.00	3.5	0.05	6	4.50	15.875	
	15DR-P			1.00	3.5	0.05	15	4.50	15.875	
	5150N-6DR-P			1.50	6.5	0.05	6	4.50	15.875	
	15DR-P			1.50	6.5	0.05	15	4.50	15.875	
	5200N-6DR-P			2.00	6.5	0.10	6	4.50	15.875	
	15DR-P			2.00	6.5	0.10	15	4.50	15.875	
 (Neutral, Left cutting)	TB 5100N-6DL-P			1.00	3.5	0.05	6	4.50	15.875	
	15DL-P			1.00	3.5	0.05	15	4.50	15.875	
	5150N-6DL-P			1.50	6.5	0.05	6	4.50	15.875	
	15DL-P			1.50	6.5	0.05	15	4.50	15.875	
	5200N-6DL-P			2.00	6.5	0.10	6	4.50	15.875	
	15DL-P			2.00	6.5	0.10	15	4.50	15.875	
 (Neutral, Round shape)	TB 5157N-079-P			1.57	6.5	0.79	-	4.50	15.875	
	5200N-100-P			2.00	6.5	1.00	-	4.50	15.875	
	5239N-120-P			2.39	6.5	1.20	-	4.50	15.875	
	5300N-150-P			3.00	6.5	1.50	-	4.50	15.875	



TBH



TB3000R/L
TB4000R-M

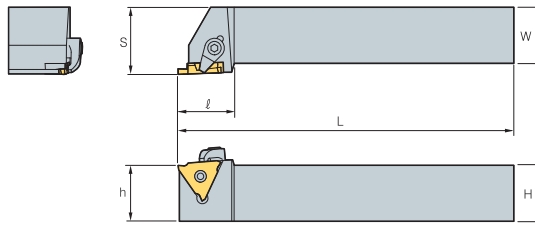
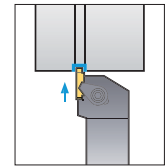
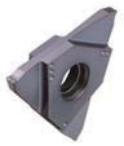


Fig. 1



• R type insert



TB5000N-000-M

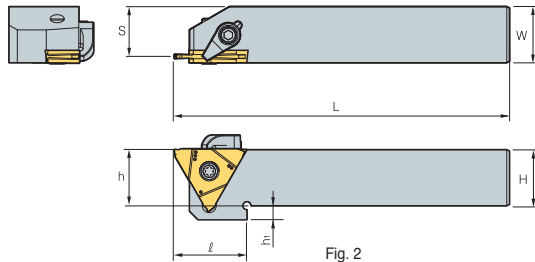


Fig. 2

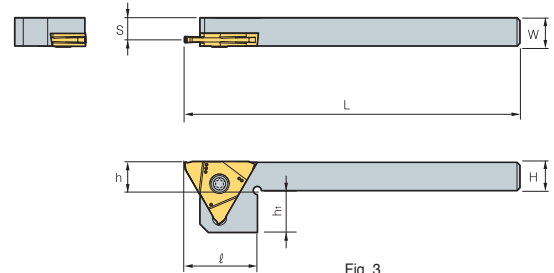


Fig. 3

(mm)

Designation	Dimensions						Applicable insert	Clamp	Clamp screw	Screw	Wrench	Fig.	
	H = (h)	W	L	ℓ	h ₁	S							
TBH	320R/L-23	20	20	125	25.5	-	25	CS6R1	DHA0617	-	HW30L	1	
	320R/L-33	20	20	125	25.5	-	25						
	320R/L-43	20	20	125	25.5	-	25						
	325R/L-23	25	25	150	25.5	-	30						
	325R/L-33	25	25	150	25.5	-	30						
	325R/L-43	25	25	150	25.5	-	30						
	420R/L-23	20	20	125	25.5	-	25						
	420R/L-33	20	20	125	25.5	-	25						
	420R/L-45	20	20	125	25.5	-	25						
	425R/L-23	25	25	150	25.5	-	30						
	425R/L-33	25	25	150	25.5	-	30						
	425R/L-45	25	25	150	25.5	-	30						
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						
	525R/L	25	25	150	-	-	22.8						
								CS6R1	DHA0617	FTNA0516	HW30L, TW20L	2	



C Technical Information for K Notch

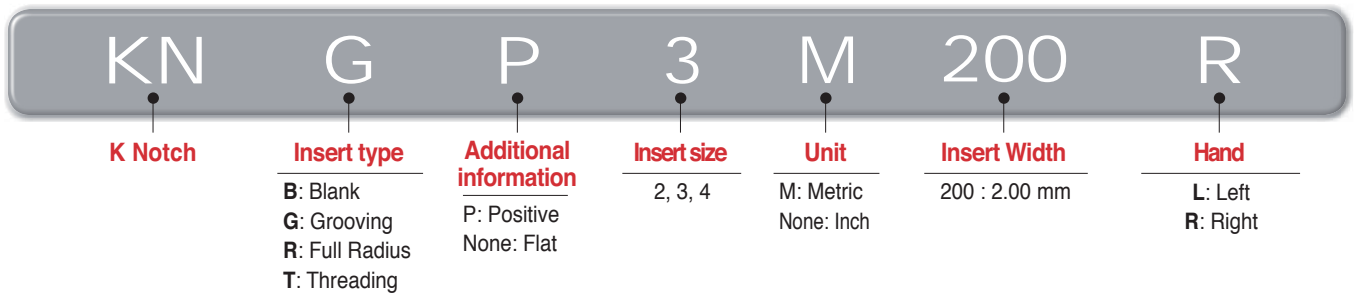
The Solution for High-Precision Grooving

K Notch

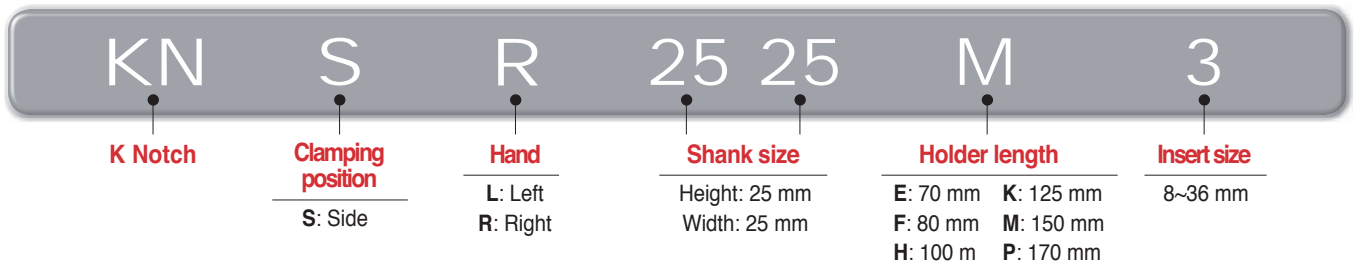
KORLOY GROOVING TOOL

- KORLOY clamping system offers high rigidity for high precision machining
- High-quality cutting edge ensuring long tool life and excellent machinability
- Provides various cutting edge widths for a wide range of selection

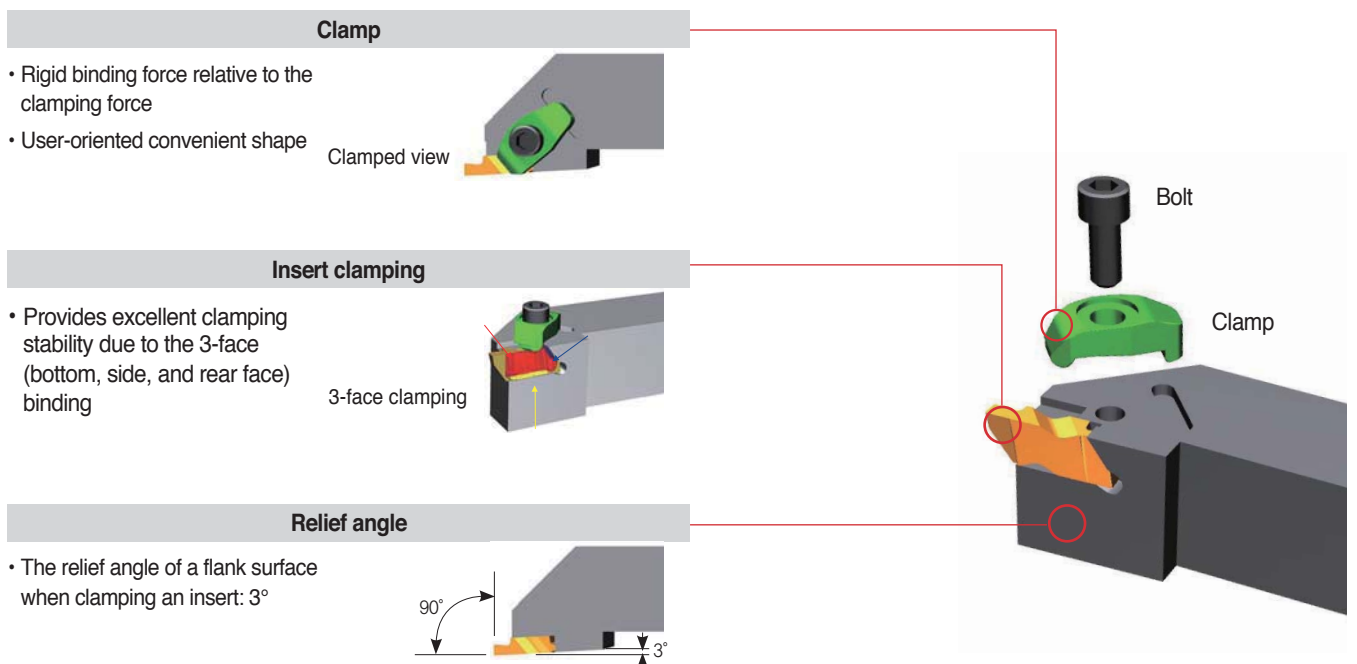
Insert code system



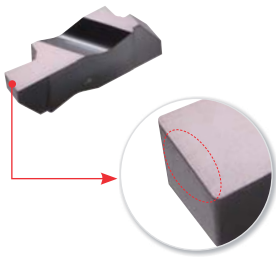
Holder code system



Features of holder



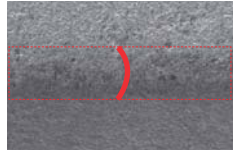
Features of insert



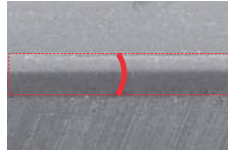
[Edge preparation]

High-quality edge preparation

- Cutting edges in uniform quality
- Long tool life



[Competitor]



[K Notch]

Mirror-like rake surface

- Improved resistance to welding and chipping
- Improved surface finish of workpieces



[K Notch]

Recommended feed per insert type

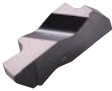
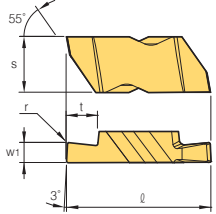

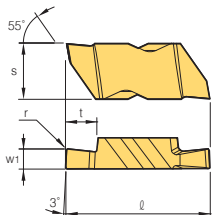
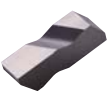
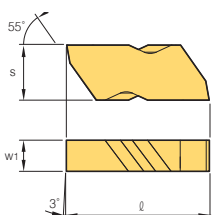
Type		KNG	KNGP	KNR	KNRP	KNB
Insert shape						
Cutting-edge						
Application		General grooving	General grooving	Turning profiling	Turning profiling	Blank
Recommended workpiece	1st	P, K	M, N, S	P, K	M, N, S	-
	2nd	M, N, S	P, K	M, N, S	P, K	-
Recommended feed, f_n (mm/rev)	P	0.10 - 0.28	0.08 - 0.25	0.10 - 0.28	0.08 - 0.25	-
	M	0.10 - 0.25	0.08 - 0.25	0.10 - 0.25	0.08 - 0.25	-
	K	0.10 - 0.28	0.08 - 0.25	0.10 - 0.28	0.08 - 0.25	-
	N	0.01 - 0.30	0.01 - 0.30	0.01 - 0.30	0.01 - 0.30	-
	S	0.05 - 0.15	0.05 - 0.15	0.05 - 0.15	0.05 - 0.15	-

Recommended cutting speed per grade

Workpiece	Grade	Recommended cutting speed, v_c (m/min)				
		50	100	200	300	600
P	Steel		80	200		
	Alloy steel	60	160			
M	Stainless steel		80	130		
			80	160		
K	Cast iron		90	200		
N	Non-ferrous metal			150		600
S	Heat-resistant alloy	35	65			


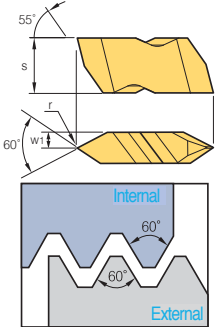
C Available Insert for K Notch

Insert (Metric)

Application	Picture	Designation	Coated			Dimensions										Configuration				
			PC5300	PC8110	Uncoated	mm					inch									
						s	w ₁	r	t	ℓ	s	w ₁	r	t	ℓ					
Flat Top		KNG 2M	150R				5.56	1.50	0.19	2.79	13.030	0.219	0.059	0.0075	0.11	0.513				
			200R				5.56	2.00	0.19	2.79	13.030	0.219	0.079	0.0075	0.11	0.513				
			250R				5.56	2.50	0.19	2.79	13.030	0.219	0.098	0.0075	0.11	0.513				
		3M	150R	●	●		8.74	1.50	0.19	1.91	22.709	0.344	0.059	0.0075	0.075	0.894				
			200R	●	●		8.74	2.00	0.19	2.79	22.709	0.344	0.079	0.0075	0.11	0.894				
			250R	●	●		8.74	2.50	0.19	3.81	22.709	0.344	0.098	0.0075	0.15	0.894				
			300R	●	●		8.74	3.00	0.19	3.81	22.709	0.344	0.118	0.0075	0.15	0.894				
		4M	500R				11.51	5.00	0.20	6.35	28.663	0.453	0.197	0.0079	0.25	1.128				
			600R				11.51	6.00	0.20	6.35	28.663	0.453	0.236	0.0079	0.25	1.128				
			400R	●	●		8.74	4.00	0.19	3.81	22.709	0.344	0.157	0.0075	0.15	0.894				
		C/B Ground		KNGP 2M	150R				5.56	1.50	0.19	2.79	13.030	0.219	0.059	0.0075		0.11	0.513	
					200R				5.56	2.00	0.19	2.79	13.030	0.219	0.079	0.0075		0.11	0.513	
250R							5.56	2.50	0.19	2.79	13.030	0.219	0.098	0.0075	0.11	0.513				
3M	150R			●	●		8.74	1.50	0.19	1.91	22.709	0.344	0.059	0.0075	0.075	0.894				
	200R			●	●		8.74	2.00	0.19	2.79	22.709	0.344	0.079	0.0075	0.11	0.894				
	250R			●	●		8.74	2.50	0.19	3.81	22.709	0.344	0.098	0.0075	0.15	0.894				
	300R			●	●		8.74	3.00	0.19	3.81	22.709	0.344	0.118	0.0075	0.15	0.894				
4M	500R						11.51	5.00	0.20	6.35	28.663	0.453	0.197	0.0079	0.25	1.128				
	600R						11.51	6.00	0.20	6.35	28.663	0.453	0.236	0.0079	0.25	1.128				
	400R			●	●		8.74	4.00	0.19	3.81	22.709	0.344	0.157	0.0075	0.15	0.894				
Blank				KNB	2R				5.56	3.81	-	-	13.030	0.219	0.150	-	-	0.513		
					3R				8.74	4.95	-	-	22.709	0.344	0.195	-	-	0.894		
		4R					11.51	6.48	-	-	28.663	0.453	0.255	-	-	1.128				

● : Stock item

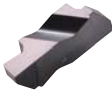
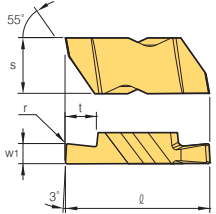

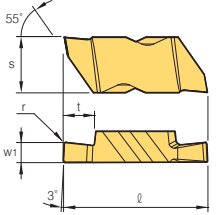

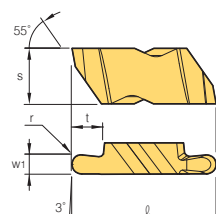
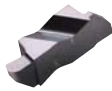
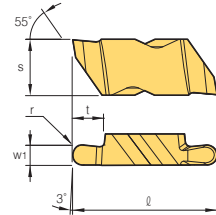
Insert (Threading)

Application	Picture	Designation	Coated		Dimensions							Configuration		
			PC5300	PC8110	mm			inch			Pitch (External)			
					s	w ₁	r	s	w ₁	r	mm		tpi	
Partial Profiling 60°		KNT	2R			5.56	3.81	0.10	0.219	0.150	0.004	0.70-3.00	8-36	
			3R			8.74	4.95	0.17	0.344	0.195	0.007	1.25-4.00	6-20	
			4R			11.51	6.48	0.17	0.453	0.255	0.007	1.25-6.25	4-20	

● : Stock item



Insert (Inch)

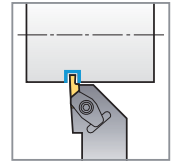
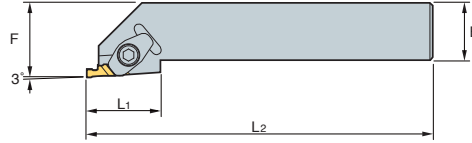
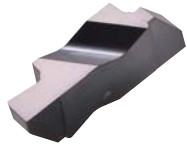
Application	Picture	Designation	Coated		Dimensions										Configuration
			PC5300	PC8110	mm					inch					
					s	w1	r	t	ℓ	s	w1	r	t	ℓ	
Flat Top		KNG	2031R		5.56	0.79	0.09	1.27	13.030	0.219	0.031	0.0035	0.05	0.513	
			2041R		5.56	1.04	0.09	1.27	13.030	0.219	0.041	0.0035	0.05	0.513	
			2047R		5.56	1.19	0.09	1.27	13.030	0.219	0.047	0.0035	0.05	0.513	
			2058R		5.56	1.47	0.19	1.27	13.030	0.219	0.058	0.0075	0.05	0.513	
			2062R		5.56	1.57	0.19	2.79	13.030	0.219	0.062	0.0075	0.11	0.513	
			2094R		5.56	2.39	0.19	2.79	13.030	0.219	0.094	0.0075	0.11	0.513	
			2125R		5.56	3.18	0.19	2.79	13.030	0.219	0.125	0.0075	0.11	0.513	
			3047R		8.74	1.19	0.19	1.91	22.709	0.344	0.047	0.0075	0.075	0.894	
			3062R	● ●	8.74	1.57	0.19	2.39	22.709	0.344	0.062	0.0075	0.094	0.894	
			3072R		8.74	1.83	0.19	2.39	22.709	0.344	0.072	0.0075	0.094	0.894	
			3078R	● ●	8.74	1.98	0.19	2.39	22.709	0.344	0.078	0.0075	0.094	0.894	
			3088R		8.74	2.24	0.19	2.39	22.709	0.344	0.088	0.0075	0.094	0.894	
			3094R		8.74	2.39	0.19	3.81	22.709	0.344	0.094	0.0075	0.15	0.894	
			3097R	● ●	8.74	2.46	0.32	3.81	22.709	0.344	0.097	0.0125	0.15	0.894	
			3105R		8.74	2.67	0.19	3.81	22.709	0.344	0.105	0.0075	0.15	0.894	
			3110R		8.74	2.79	0.32	3.81	22.709	0.344	0.110	0.0125	0.15	0.894	
			3122R		8.74	3.10	0.19	3.81	22.709	0.344	0.122	0.0075	0.15	0.894	
			3125R	● ●	8.74	3.18	0.19	3.81	22.709	0.344	0.125	0.0075	0.15	0.894	
			3142R		8.74	3.61	0.32	3.81	22.709	0.344	0.142	0.0125	0.15	0.894	
			3156R	● ●	8.74	3.96	0.19	3.81	22.709	0.344	0.156	0.0075	0.15	0.894	
			3178R		8.74	4.52	0.19	3.81	22.709	0.344	0.178	0.0075	0.15	0.894	
			3185R		8.74	4.70	0.57	3.81	22.709	0.344	0.185	0.0225	0.15	0.894	
			3189R	● ●	8.74	4.80	0.57	3.81	22.709	0.344	0.189	0.0225	0.15	0.894	
			4125R	● ●	11.51	3.18	0.19	3.81	28.663	0.453	0.125	0.0075	0.15	1.128	
4189R		11.51	4.80	0.57	6.35	28.663	0.453	0.189	0.0225	0.25	1.128				
4213R		11.51	5.41	0.19	6.35	28.663	0.453	0.213	0.0075	0.25	1.128				
4219R		11.51	5.56	0.57	6.35	28.663	0.453	0.219	0.0225	0.25	1.128				
4250R		11.51	6.35	0.57	6.35	28.663	0.453	0.250	0.0225	0.25	1.128				
Round C/B Ground		KNGP	2031R		5.56	0.79	0.09	1.27	13.030	0.219	0.031	0.0035	0.05	0.513	
			2062R		5.56	1.57	0.19	2.79	13.030	0.219	0.062	0.0075	0.11	0.513	
			2125R		5.56	3.18	0.19	2.79	13.030	0.219	0.125	0.0075	0.11	0.513	
			3088R		8.74	2.24	0.19	2.39	22.709	0.344	0.088	0.0075	0.094	0.894	
			3125R	● ●	8.74	3.18	0.19	3.81	22.709	0.344	0.125	0.0075	0.15	0.894	
			3156R	● ●	8.74	3.96	0.19	3.81	22.709	0.344	0.156	0.0075	0.15	0.894	
			3189R		8.74	4.80	0.57	3.81	22.709	0.344	0.189	0.0225	0.15	0.894	
			4189R		11.51	4.80	0.57	6.35	28.663	0.453	0.189	0.0225	0.25	1.128	
4250R		11.51	6.35	0.57	6.35	28.663	0.453	0.250	0.0225	0.25	1.128				
Round Flat Top		KNR	2031R		5.56	1.57	0.79	2.79	13.030	0.219	0.062	0.031	0.11	0.513	
			2047R		5.56	2.39	1.19	2.79	13.030	0.219	0.094	0.047	0.11	0.513	
			3031R	● ●	8.74	1.57	0.79	2.39	22.709	0.344	0.062	0.031	0.094	0.894	
			3047R	● ●	8.74	2.39	1.19	3.81	22.709	0.344	0.094	0.047	0.15	0.894	
			3062R	● ●	8.74	3.18	1.59	3.81	22.709	0.344	0.125	0.0625	0.15	0.894	
			3078R	● ●	8.74	3.96	1.98	3.81	22.709	0.344	0.156	0.078	0.15	0.894	
			3094R	● ●	8.74	4.78	2.39	3.81	22.709	0.344	0.188	0.094	0.15	0.894	
			4125R		11.51	6.35	3.18	6.35	28.663	0.453	0.250	0.125	0.25	1.128	
Round C/B Ground		KNRP	2031R		5.56	1.57	0.79	2.79	13.030	0.219	0.062	0.031	0.11	0.513	
			2047R		5.56	2.39	1.19	2.79	13.030	0.219	0.094	0.047	0.11	0.513	
			3031R	● ●	8.74	1.57	0.79	2.39	22.709	0.344	0.062	0.031	0.094	0.894	
			3047R	● ●	8.74	2.39	1.19	3.81	22.709	0.344	0.094	0.047	0.15	0.894	
			3062R	● ●	8.74	3.18	1.59	3.81	22.709	0.344	0.125	0.0625	0.15	0.894	
			3078R	● ●	8.74	3.96	1.98	3.81	22.709	0.344	0.156	0.078	0.15	0.894	
			3094R	● ●	8.74	4.78	2.39	3.81	22.709	0.344	0.188	0.094	0.15	0.894	
			4125R		11.51	6.35	3.18	6.35	28.663	0.453	0.250	0.125	0.25	1.128	

● : Stock item



KNSR

For grooving, profil machining



R type insert

KNG KNGP KNT
KNR KNRP KNB

Designation	mm					inch					Insert	Clamp	Screw	Wrench	
	H	B	F	L1	L2	H	B	F	L1	L2					
KNSR	1010E2	10	10	14	19	70	0.394	0.394	0.551	0.748	2.756	KNG2□ KNGP2□ KNR2□ KNB2R KNT2R	CM74	MHB3010	HW25L
	1212F2	12	12	16	19	80	0.472	0.472	0.630	0.748	3.150				
	1616H2	16	16	20	19	100	0.630	0.630	0.787	0.748	3.937				
	2020K2	20	20	25	19	125	0.787	0.787	0.984	0.748	4.921				
	2525M2	25	25	32	19	150	0.984	0.984	1.260	0.748	5.906				
	2020K3	20	20	25	32	125	0.787	0.787	0.984	1.260	4.921	KNG3□ KNGP3□ KNR3□ KNRP3□ KNB3R KNT3R	CM72LP	MHA0512	HW40L
	2525M3	25	25	32	32	150	0.984	0.984	1.260	1.260	5.906				
	3225P3	32	32	32	32	170	1.260	1.260	1.260	1.260	6.693				
	3232P3	32	32	40	32	170	1.260	1.260	1.575	1.260	6.693	KNG4□ KNGP4□ KNR4□ KNB4R KNT4R	CM72LP	MHA0512	HW40L
	2525M4	25	25	32	35	150	0.984	0.984	1.260	1.378	5.906				
3225P4	32	32	32	35	170	1.260	1.260	1.260	1.378	6.693					
3232P4	32	32	40	35	170	1.260	1.260	1.575	1.378	6.693					

For deep hole grooving/parting off

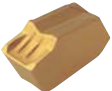
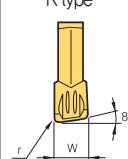
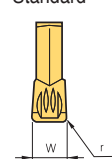
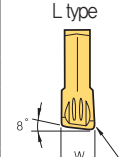
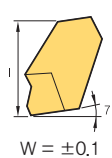
Saw Man

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 = m/min)									Feed (fn = mm/rev)					
	CVD				PVD				Uncoateds	Cutting width (mm)					
	NC3120	NC3030	NCM325	NC5330	PC230	PC8110	PC5300	PC6510	ST30A	2	3	4	5	6	
SM□□C	80~180			80~180	80~180						0.02~0.15	0.03~0.20	0.08~0.30	0.10~0.4	0.12~0.50
SCM	70~150	70~150	70~150	70~150	70~150						0.02~0.15	0.03~0.20	0.08~0.30	0.10~0.4	0.12~0.50
GC/GCD				50~100				50~100	50~100		0.05~0.12	0.10~0.25	0.10~0.30	0.10~0.35	0.10~0.40
STS			50~120	50~120		50~120	60~140				0.02~0.10	0.03~0.15	0.08~0.25	0.10~0.35	0.12~0.40
Non-ferrous metal (Al, Copper)									200~450		0.05~0.10	0.05~0.20	0.05~0.25	0.05~0.30	0.05~0.35

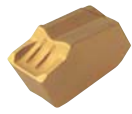
Insert

Application	Picture	Designation	Coated										Uncoated	Dimensions (mm)			Configuration
			NC3120	NC3225	NC3030	NCM325	NC5330	PC3035	PC8105	PC8110	PC5300	PC9030	ST30A	W	l	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	
800												8.0	14.06	0.4			
900												9.6	14.06	0.45			

● : Stock item



SPB/SPB-S (Blades)



SP

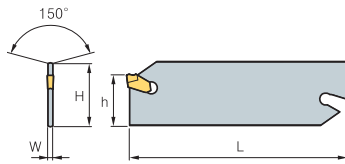


Fig. 1

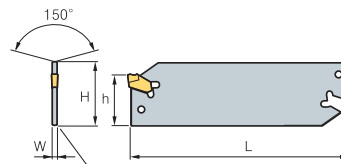
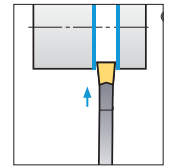





Fig. 2



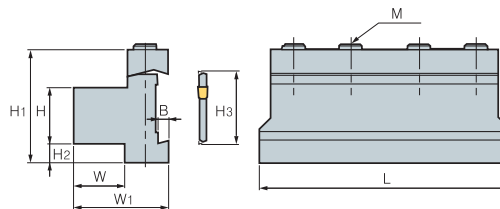
Designation	H	W	L	h	Inserts	Wrench		Fig.	
									
SPB	226	26	1.6	110	21	SP200, 200R/L	SW50L	-	1
	232	32	1.6	150	25	SP200, 200R/L			
	326	26	2.4	110	21	SP300, 300R/L			
	332	32	2.4	150	25	SP300, 300R/L			
	426	26	3.2	110	21	SP400, 400R/L			
	432	32	3.2	150	25	SP400, 400R/L			
	526	26	4.0	110	21	SP500, 500R/L			
	532	32	4.0	150	25	SP500, 500R/L			
	626	26	5.2	110	21	SP600, 600R/L			
	632	32	5.2	150	25	SP600, 600R/L			
SPB-S	226-S	26	1.6	110	21	SP200, 200R/L	-	SW15S (Separately ordered)	2
	232-S	32	1.6	150	25	SP200, 200R/L			
	326-S	26	2.4	110	21	SP300, 300R/L			
	332-S	32	2.4	150	25	SP300, 300R/L			
	426-S	26	3.2	110	21	SP400, 400R/L			
	432-S	32	3.2	150	25	SP400, 400R/L			
	526-S	26	4.0	110	21	SP500, 500R/L			
	532-S	32	4.0	150	25	SP500, 500R/L			
	626-S	26	5.2	110	21	SP600, 600R/L			
	632-S	32	5.2	150	25	SP600, 600R/L			
	832-S	32	6.8	150	25	SP800			
	932-S	32	8	150	25	SP900			
	8526-S	52.6	6.8	150	45	SP800			
9526-S	52.6	8	150	45	SP900				


 Applicable inserts C59


SMBB (Block)



SPB□□□(-S)
KGTB□□□32

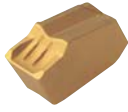


Designation	H	W	H3	L	H1	H2	W1	B	M	Blades	Wrench
											
SMBB	1626	16	12	26	86	43	13	30	5.3	3-M6	HW50L
	2026	20	19	26	86	43	9	38	5.3	3-M6	
	2032	20	19	32	100	50	13	38	5.3	4-M6	
	2526	25	23	26	86	43	4	42	5.3	4-M6	
	2532	25	23	32	110	50	8	42	5.3	4-M6	
	3232	32	30	32	110	54	5	48	5.3	4-M6	
	40526	40	41	52.6	130	81.73	22	66	8	4-M8	

 Applicable inserts C59



SPH/SPH-S (Holder)



SP

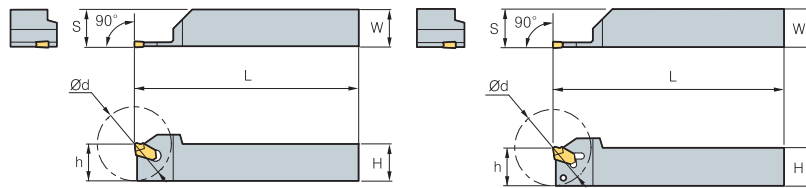
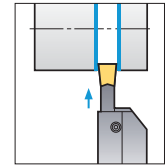





Fig. 1

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	SW50L	-	1
	320R/L	20	20	120	40	20.3				
	325R/L	25	25	150	50	25.3				
	420R/L	20	20	120	50	20.4				
	425R/L	25	25	150	60	25.4				
	520R/L	20	20	120	60	20.5				
	525R/L	25	25	150	70	25.5				
SPH	316R/L-S	16	16	100	32	16.3	SP300, 300R/L	-	SW15S (Separately ordered)	2
	320R/L-S	20	20	120	40	20.3				
	325R/L-S	25	25	150	50	25.3				
	420R/L-S	20	20	120	50	20.4				
	425R/L-S	25	25	150	60	25.4				
	520R/L-S	20	20	120	60	20.5				
	525R/L-S	25	25	150	70	25.5				

 Applicable inserts C59

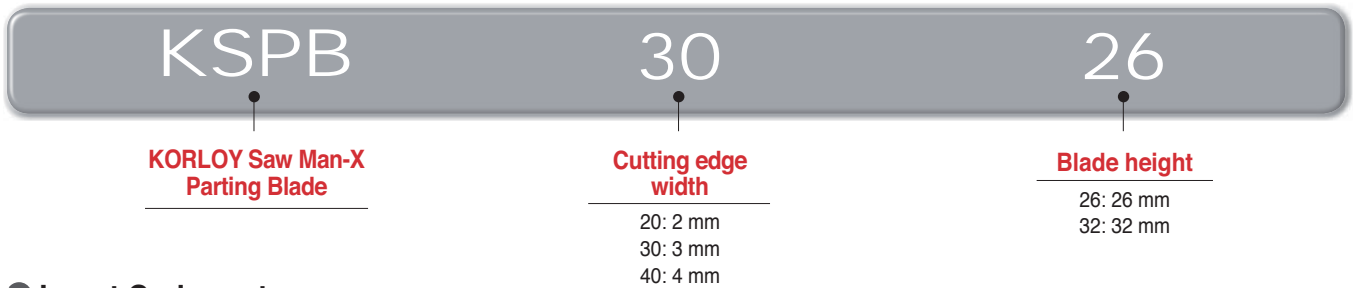
C Technical Information for Saw Man-X

A solution for parting and deep grooving

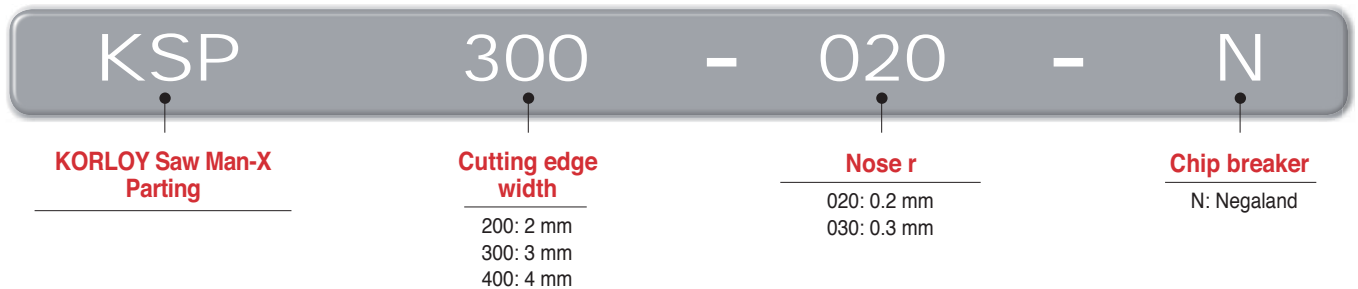
Saw Man-X

- Stable machining in deep grooving applying clamping system with strong three-way V-Rail
- Improved clamping precision and convenient replacing of inserts with using the exclusive wrench

Holder (Blade) Code system



Insert Code system

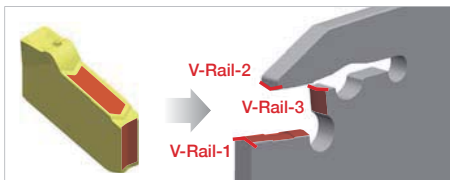


Features

- Three-way V-Rail – More stable clamping system
- New treatment on cutting edge – Better quality of machining and longer tool life
- Superior chip breaker – Better chip control
- Exclusive wrench – More convenient clamping system

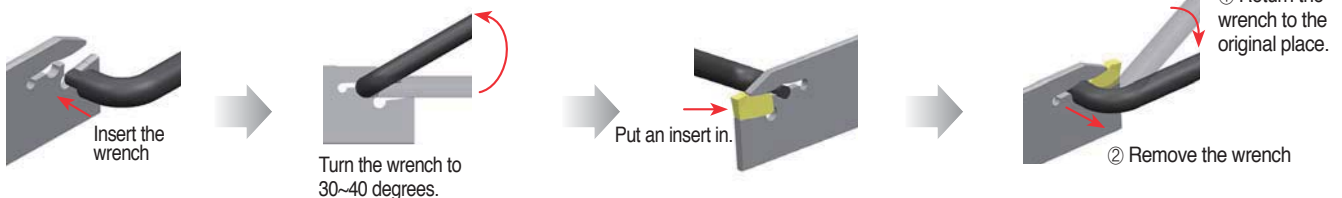
Three-way V-RAIL

- An insert is tightly clamped in the tip seat.
- Minimized vibration during the machining increases stability.
- Stable high speed, high feed and high depth of cut machining is available.



Exclusive wrench

- The exclusive wrench having the principle of CAM for the Saw Man-X
- More convenient clamping system



Features of chip breaker

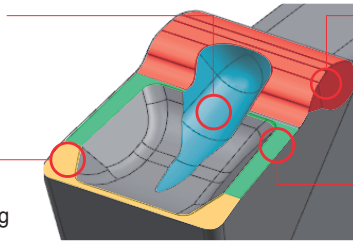
- The design of chip breaker and its bump in the back area realize better chip evacuation
- The chip breaker with negaland is used universally.

Coolant path and guide for chip evacuation

- Inner coolant holder is available
- Guide for chip evacuation

Negaland

- Applying for various workpieces
- Stable in interrupted cutting and machining with high depth of cut



The second chip breaker in the back area

- Better chip control in machining of workpiece with a bigger diameter
- Preventing damage to holder from chip evacuation

Strong land on flank

- Smaller diameter of chip curl makes better chip control
- Higher rigidity of insert

Recommended cutting conditions

Workpiece					Grade	Cutting conditions	
ISO	Workpiece	KS	AISI	ISO (DIN)*		vc (m/min)	fn (mm/rev)
P	Carbon steel	SM45C	1045	C45ww	PC5300	80-200	0.08-0.28
					PC3035	80-220	0.08-0.28
	Alloy steel	SCM440	4140	42CrMo4 (42CrMo4)*	PC5300	80-160	0.08-0.25
					PC3035	80-180	0.08-0.25
M	Stainless steel	STS304	304	X5CrNi18-9 (X2CrNi19-11)*	PC5300	80-190	0.06-0.20
		STS316	316	X5CrNiMo17-12-2	PC5300	80-190	0.06-0.20
K	Gray cast iron	GC250	No35B	250 (GG25)*	PC8110	100-220	0.10-0.28
					PC5300	100-200	0.10-0.28
	Nodular graphite cast iron	GCD500	80-55-06	450-10	PC8110	80-200	0.10-0.25
S	HRSA	Inconel 718	7718	15156-3	PC8110	35-65	0.05-0.15
					PC5300	25-55	0.05-0.15


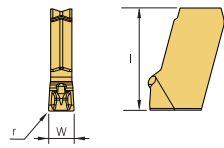
Cutting edge width and T-MAX by items

◎: First recommendation ○: Second recommendation

Shape	Cutting edge width (mm)	T-MAX (mm)					No. of corner	Machining				Features
		2	4	6	8	130		External diameter	Internal diameter	Cross section	Parting	
Saw Man-X new	2	5	10	20	30	125	1	○			◎	• Self clamping • Deep grooving
MGT, KGT	1.5	5	10	20	30	28	2	◎	○	○	○	• Various machining • Wide range of machining
TB	1.25	5	10	20	30	6.5	3	◎			○	• Precise ground class • Optimally automatic machining
Auto tools	Blade type	0.7	2.0	6.0	8.3		2	◎			○	• For swiss-type lathe (blade) • Small deliberate component machining
	Multi-functional type	1.0	4.0	6.0	8.5		2	◎			○	• For swiss-type lathe (multifunctional) • Small deliberate component machining
K Notch	0.75	5	10	20	6.3		2	◎				• Strong clamping system • Highly qualified cutting edge

Insert

(mm)

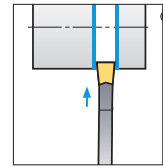
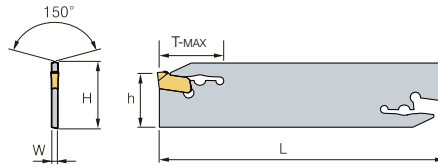
Application	Picture	Designation	Coated			W	r	L	Configuration
			PC3035	PC5300	PC8110				
Parting		KSP 200-020-N	●	●	●	2.0	0.20	11.0	
		300-020-N	●	●	●	3.0	0.20	12.0	
		400-025-N	●	●	●	4.0	0.25	12.5	
		500-025-N				5.0	0.25	13.5	
		600-035-N				6.0	0.35	14.5	

●: Stock item


KSPB (Blade) new




KSP



(mm)

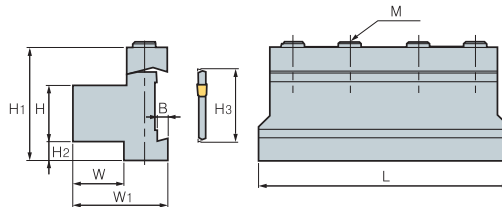
Designation		Cutting edge width	H	W	L	h	T-MAX	Wrench
KSPB	2026	2mm	26	1.6	110	21	25	 CW08
	2032	2mm	32	1.6	150	25	26	
	3026	3mm	26	2.4	110	21	36	
	3032	3mm	32	2.4	150	25	60	
	4026	4mm	26	3.2	110	21	36	
	4032	4mm	32	3.2	150	25	60	
	5026	5mm	26	4.0	110	21	40	
	5032	5mm	32	4.0	150	25	60	
	6026	6mm	26	5.2	110	21	60	
	6032	6mm	32	5.2	150	25	60	

 Applicable inserts **C63**


SMBB (Block)




KSPB□□□□
 SPB□□□(-S)
 KGTB□□□□



(mm)

Designation		H	W	H3	L	H1	H2	W	B	M	Wrench
SMBB	1626	16	12	26	86	43	13	30	5.3	3-M6	 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	
	2526	25	23	26	86	43	4	42	5.3	4-M6	
	2532	25	23	32	110	50	8	42	5.3	4-M6	
	3232	32	30	32	110	54	5	48	5.3	4-M6	

 Applicable inserts **C63**

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

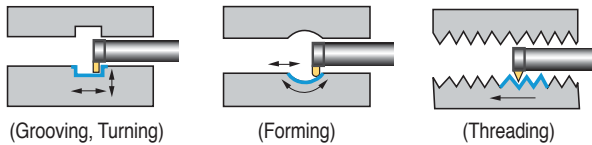
Fine Tools

- 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**

NFTIH 08 3 12 - S

Minimum Diameter Overhang (ℓ/ØD) Shank Dia. Shank Type

S: Steel, C: Carbide

➤ **Recommended cutting condition**

Workpiece	Grade	Cutting Condition				
		Min. machining Dia. (ØDmin)				
			Ø8	Ø11	Ø14	Ø16
Carbon steel	◎	vc(m/min)	30~80	30~100	30~100	30~100
		fn(mm/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(mm/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(mm/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(mm/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**

Screw

Insert

R Type

L Type

Grooving

L Type Forming insert"/>

Forming

L Type Threading insert"/>

Threading

Holder

Shank (Cemented carbide or Steel)

Overhang (3D, 4D, 5D)

• Available R/L type insert with one holder

Stable clamping according to the tripod structure



R Type

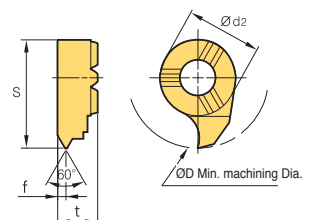
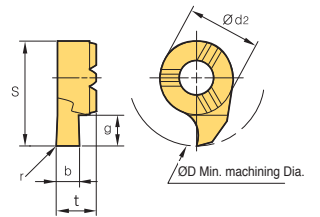
L Type

No-Spin-System design for strong clamping

C Available Insert for Fine Tools

Insert

Application	Picture	Designation	Coated		Dimensions (mm)								Configuration	
			PC5300		ØD	b	r	S	g	Ød ₂	t	Pitch		f
			R	L										
Grooving		NFTG 08075R/L	●		8	0.75	-	7.75	1.3	5.9	3.85	-	-	
		08085R/L	●		8	0.85	-	7.75	1.3	5.9	3.85	-	-	
		08095R/L	●		8	0.95	-	7.75	1.3	5.9	3.85	-	-	
		08121R/L	●		8	1.21	-	7.75	1.3	5.9	3.85	-	-	
		08141R/L	●		8	1.41	-	7.75	1.3	5.9	3.85	-	-	
		08152R/L	●		8	1.52	-	7.75	1.3	5.9	3.85	-	-	
		08171R/L	●		8	1.71	-	7.75	1.3	5.9	3.85	-	-	
		08202R/L	●		8	2.02	-	7.75	1.3	5.9	3.85	-	-	
		11075R/L	●		11	0.75	-	10.7	1.8	8.0	4.9	-	-	
		11085R/L	●		11	0.85	-	10.7	1.8	8.0	4.9	-	-	
		11095R/L	●		11	0.95	-	10.7	1.8	8.0	4.9	-	-	
		11121R/L	●		11	1.21	-	10.7	2.6	8.0	4.9	-	-	
		11141R/L	●		11	1.41	-	10.7	2.6	8.0	4.9	-	-	
		11152 R/L	●		11	1.52	-	10.7	2.6	8.0	4.9	-	-	
		11171R/L	●		11	1.71	-	10.7	2.6	8.0	4.9	-	-	
		11202R/L	●		11	2.02	-	10.7	2.6	8.0	4.9	-	-	
		11202R/L-02	●		11	2.02	0.2	10.7	2.6	8.0	4.9	-	-	
		11252R/L	●		11	2.52	-	10.7	2.6	8.0	4.9	-	-	
		11302R/L	●		11	3.02	-	10.7	2.6	8.0	4.9	-	-	
		14075R/L	●		14	0.75	-	13.5	1.8	9.0	5.85	-	-	
		14085R/L	●		14	0.85	-	13.5	1.8	9.0	5.85	-	-	
		14095R/L	●		14	0.95	-	13.5	1.8	9.0	5.85	-	-	
		14121R/L	●		14	1.21	-	13.5	4.3	9.0	5.85	-	-	
		14141R/L	●		14	1.41	-	13.5	4.3	9.0	5.85	-	-	
		14152R/L	●		14	1.52	-	13.5	4.3	9.0	5.85	-	-	
		14171R/L	●		14	1.71	-	13.5	4.3	9.0	5.85	-	-	
		14202R/L	●		14	2.02	-	13.5	4.3	9.0	5.85	-	-	
		14252R/L	●		14	2.52	-	13.5	4.3	9.0	5.85	-	-	
		14302R/L	●		14	3.02	-	13.5	4.3	9.0	5.85	-	-	
		16075R/L	●		16	0.75	-	15.7	1.8	11	5.8	-	-	
		16085R/L	●		16	0.85	-	15.7	1.8	11	5.8	-	-	
		16095R/L	●		16	0.95	-	15.7	1.8	11	5.8	-	-	
		16121R/L	●		16	1.21	-	15.7	4.6	11	5.8	-	-	
		16141R/L	●		16	1.41	-	15.7	4.6	11	5.8	-	-	
		16171R/L	●		16	1.71	-	15.7	4.6	11	5.8	-	-	
		16202R/L	●		16	2.02	-	15.7	4.6	11	5.8	-	-	
16252R/L	●		16	2.52	-	15.7	4.6	11	5.8	-	-			
16302R/L	●		16	3.02	-	15.7	4.6	11	5.8	-	-			
16352R/L	●		16	3.52	-	15.7	4.6	11	5.8	-	-			
16402R/L	●		16	4.02	-	15.7	4.6	11	5.8	-	-			
Threading		NFTT 0805MR/L	●		8	-	-	7.75	-	6	3.85	0.5	1.0	
		0810MR/L	●		8	-	-	7.75	-	6	3.85	1.0	1.0	
		0815MR/L	●		8	-	-	7.75	-	6	3.85	1.5	1.2	
		1110MR/L	●		11	-	-	10.7	-	8	4.9	1.0	1.2	
		1115MR/L	●		11	-	-	10.7	-	8	4.9	1.5	1.2	
		1120MR/L	●		11	-	-	10.7	-	8	4.9	2.0	1.2	
		1125MR/L	●		11	-	-	10.7	-	8	4.9	2.5	1.2	
		1410MR/L	●		14	-	-	13.5	-	9	5.85	1.0	1.2	
		1415MR/L	●		14	-	-	13.5	-	9	5.85	1.5	1.2	
		1420MR/L	●		14	-	-	13.5	-	9	5.85	2.0	1.2	
		1425MR/L	●		14	-	-	13.5	-	9	5.85	2.5	1.2	
		1610MR/L	●		16	-	-	15.7	-	11	5.8	1.0	1.2	
		1615MR/L	●		16	-	-	15.7	-	11	5.8	1.5	1.2	
		1620MR/L	●		16	-	-	15.7	-	11	5.8	2.0	1.2	
		1625MR/L	●		16	-	-	15.7	-	11	5.8	2.5	1.2	
		1630MR/L	●		16	-	-	15.7	-	11	5.8	3.0	1.5	
1635MR/L	●		16	-	-	15.7	-	11	5.8	3.5	1.6			
1640MR/L	●		16	-	-	15.7	-	11	5.8	4.0	1.8			



● : Stock item



Insert

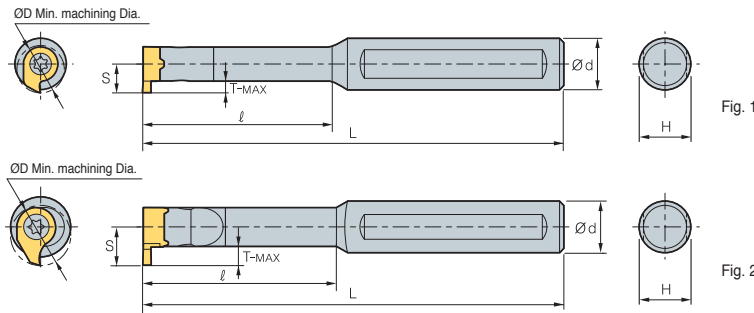
Application	Picture	Designation	Coated		Dimensions (mm)							Configuration
			PC5300		D	b	r	S	g	Ød ₂	t	
			R	L								
Profiling		NFTF 08082R/L	●		8	0.82	0.41	7.75	1.3	5.9	3.85	
		08122R/L	●		8	1.22	0.61	7.75	1.3	5.9	3.85	
		08182R/L	●		8	1.82	0.91	7.75	1.3	5.9	3.85	
		11082R/L	●		11	0.82	0.41	10.7	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	

● : Stock item

NFTIH



NFTF
NFTT
NFTG



• For NFTIH14~.
• R type insert

(mm)

Designation	ØD	Ød	L	ℓ	T-MAX	H	S	Inserts		Screw	Screw	Fig.
								NFTG: Grooving	NFTT: Threading			
NFTIH 08206C	8	6	65	-	1.0	4	4.8			PTKA02508	TW08P	1
08212C	8	12	70	16	1.0	10	4.8	NFTG08□□□R/L				
08312C	8	12	80	24	1.0	10	4.8	NFTT08□□□R/L				
08312S	8	12	80	24	1.0	10	4.8	NFTF08□□□R/L				
08412C	8	12	90	32	1.0	10	4.8					
08512C	8	12	100	40	1.0	10	4.8					
NFTIH 11208C	11	8	80	-	2.3	7	6.7			PTKA03510	TW15P	2
11212C	11	12	75	22	2.3	11	6.7	NFTG11□□□R/L				
11312C	11	12	95	33	2.3	11	6.7	NFTT11□□□R/L				
11312S	11	12	95	33	2.3	11	6.7	NFTF11□□□R/L				
11412C	11	12	110	44	2.3	11	6.7					
11512C	11	12	120	55	2.3	11	6.7					
NFTIH 14012C	14	12	75	20	4.0	11	9.0			PTKA0412	TW15P	2
14016C	14	16	75	20	4.0	15	9.0	NFTG14□□□R/L				
14112C	14	12	100	34	4.0	11	9.0	NFTT14□□□R/L				
14116C	14	16	100	34	4.0	15	9.0	NFTF14□□□R/L				
14212C	14	12	110	45	4.0	11	9.0					
14216C	14	16	110	45	4.0	15	9.0					
NFTIH 16312C	16	12	130	64	4.0	11	9.0			PTKA0512	TW20P	2
16312S	16	12	130	48	4.3	11	10.2	NFTG16□□□R/L				
16412C	16	12	130	64	4.3	11	10.2	NFTT16□□□R/L				
16512C	16	12	150	80	4.3	11	10.2	NFTF16□□□R/L				
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 C66 ~ C67



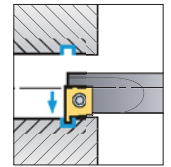
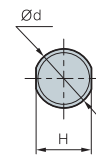
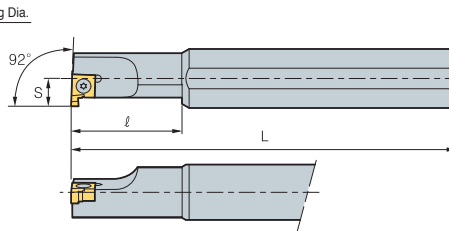
C Grooving Tools

IGH For internal grooving



IG

ØD Min. machining Dia.



• R type insert
(mm)

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

➔ Applicable inserts C68

➔ Insert

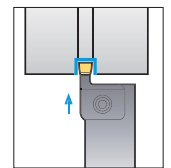
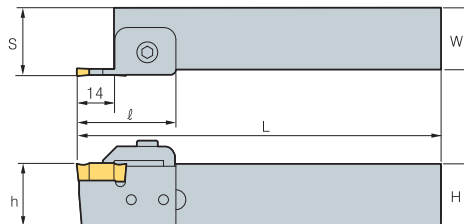
Application	Picture	Designation	Coated			Uncoated			Dimensions (mm)					Configuration
			NC3215	NC3120	NC3225	H01	G10	ST30A	b	g	t	d	d ₁	
Internal grooving		IG	125					●	1.25	1.5	3.18	6.35	2.8	
			145					●	1.45	1.5	3.18	6.35	2.8	
			175					●	1.75	1.5	3.18	6.35	2.8	
			200					●	2.0	2.3	3.18	6.35	2.8	
			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					
	525R/L	25	25	150	40	28.8	29.3	DC500						
	720R/L	20	20	150	40	25.8	26.3							
	725R/L	25	25	150	40	30.8	31.3	DB700	DB800					

➔ Applicable inserts C68

➔ 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



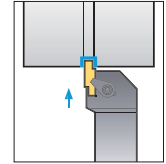
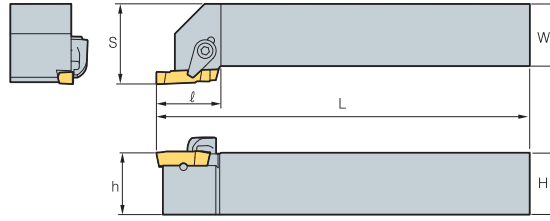
C

Multi functional Tools

GFT For External grooving



GW BF



• R type insert

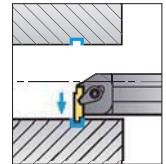
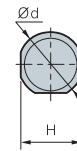
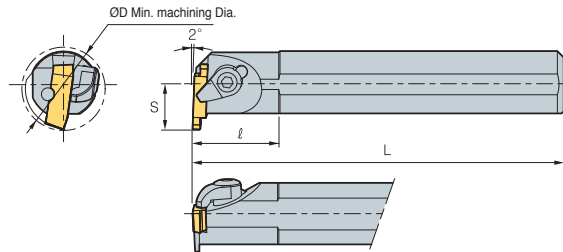
Designation	H = (h)	W	L	ℓ	S	Inserts	Clamp	Screw	Pin	Wrench						
GFT	320R/L	20	20	125	23.5	25	GW110~300R/L,BF3	CS5R1	DHA0514	PN0310	HW25L					
	325R/L	25	25	150	23.5	32										
	525R/L	25	25	150	25.5	32						GW315~500R/L,BF5	CS6R1	DHA0617	PN0310	HW30L
	825R/L	25	25	150	28.5	32						GW600~800R/L,BF8	CS8R1	DHA0820	PN0314	HW40L

➔ Applicable inserts C69 • 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	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
	340R/L	50	40	37	300	32	27	GW315~500R/L,BF5	CH6R2	CR05	CHX0616	PN0310	HW30L
	525R/L	32	25	23	200	22	17						
	540R/L	50	40	37	300	32	27						
	840R/L	50	40	37	300	32	27						

➔ Applicable inserts C69 • Use right-hand insert for left-hand holder

Insert

Application	Picture	Designation	Uncoated		Dimensions (mm)						Configuration	
			ST30A		b	g	W	l	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	110R/L	●	●	1.1	2.1	3.1	16	5.0	0.2	
			130R/L	●	●	1.3	2.3	3.1	16	5.0	0.2	
			160R/L	●	●	1.6	2.6	3.1	16	5.0	0.2	
			185R/L	●	●	1.85	2.9	3.1	16	5.0	0.2	
			215R/L	●	●	2.15	3.2	3.1	16	5.0	0.2	
			265R/L	●	●	2.65	3.7	3.1	16	5.0	0.2	
			300R/L	●	●	3.0	4.0	3.1	16	5.0	0.2	
			315R/L	●	●	3.15	4.2	5.1	22	6.0	0.3	
			415R/L		●	4.15	5.2	5.1	22	6.0	0.3	
			500R/L			5.0	6.0	5.1	22	6.0	0.3	
			600R/L			6.0	7.0	8.1	27	7.0	0.3	
			800R/L			8.0	9.0	8.1	27	7.0	0.3	

● : Stock item

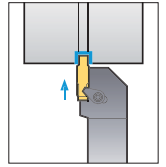
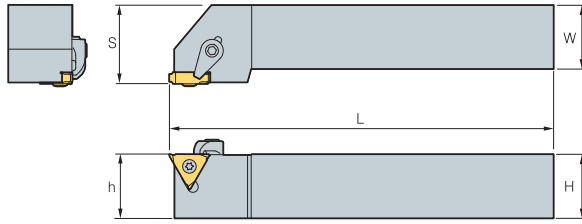


C Grooving Tools

GH For O-ring grooving Snap-ring grooving



GO GS



• R type insert

(mm)

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

Insert

➔ Applicable inserts C70

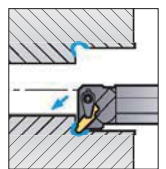
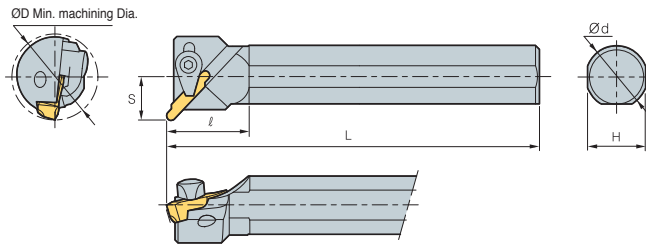
Application	Picture	Designation	Coated			Uncoated			Dimensions (mm)					Configuration
			NC3120	NC3225		H01	ST20	ST30A	b	g	W	r	d	
Grooving(Narrow · O-ring · Snap-ring)		GO 250						2.5	1.5	3.3	0.35	9.525		
		GO 320						3.2	2.0	3.8	0.35	9.525		
		GO 410						4.1	2.5	4.5	0.65	9.525		
		GS 125					●	1.23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

● : Stock item

GFIK For Relieving



GR



• R type insert

(mm)

Designation	ØD	Ød	H	L	l	S	Inserts	Clamp	C-ring	Screw	Pin	Wrench
GFIK	316R/L	22	16	15	150	21.5	GR3□□	CH5R2	CR04	CHX0513	PN0310	HW25L
	325R/L	32	25	23	200	21.5						
	340R/L	50	40	37	300	35.4	GR5□□	CS5R1	-	DHA0514	PN0310	HW25L
	525R/L	32	25	23	200	27.5						
	540R/L	50	40	37	300	39.5	GR8□□	CS6R1	-	DHA0617	PN0314	HW30L
	840R/L	50	40	37	300	41.8						
840R/L	50	40	37	300	41.8	27	CS8R1	-	DHA0820	PN0314	HW40L	

Insert

➔ Applicable inserts C70

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

● : Stock item



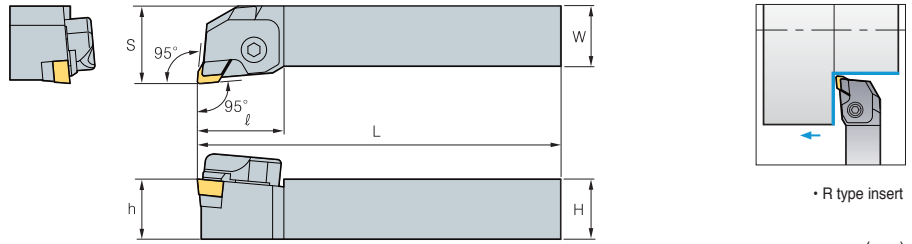
C

Multi functional 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 HW20L
EH 625R	25	25	150	36	32							

➔ Applicable inserts C71

Insert

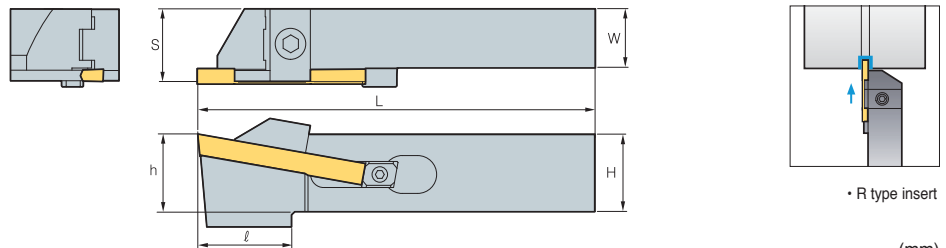
Application	Picture	Designation	Uncoated		Dimensions (mm)			Configuration
			ST10	ST20	W	l	t	
General Machining		ESB 34			9.525	30.0	6.35	

●: 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
PH 325R/L	25	19	150	34	22.25	25	40						
PH 420R/L	19	19	150	34	23.5	19	30	POB400	CGH6R2	BHA0616	STP5	KHD0510	HW25L-HW50L
PH 425R/L	25	19	150	34	23.5	25	40						
PH 520R/L	19	19	150	34	24.4	19	50	POB500	CTH 6R3	BHA0616	STP5	KHD0510	HW25L-HW50L
PH 525R/L	25	19	150	34	24.4	25	50						

➔ Applicable inserts C71

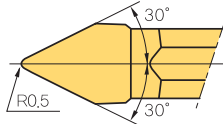
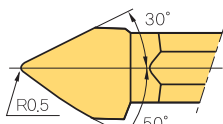
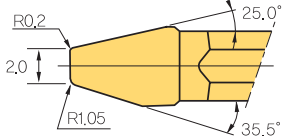
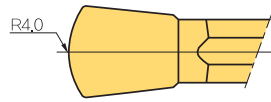
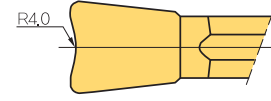
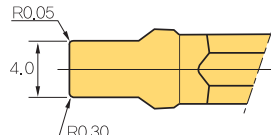
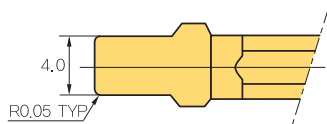
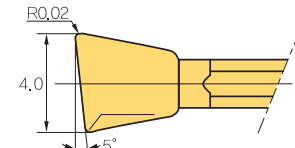
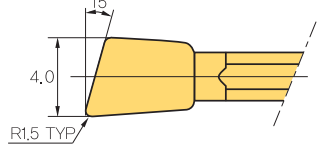
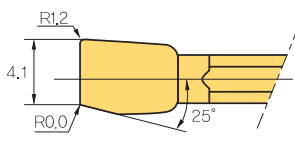
Insert

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

●: Stock item



C Special Order Form for MGT

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



Code system

KP 27 064 - R0.425 N3

KORLOY PULLEY

ØD

W

R1

No. of flutes

Ex)

I.C

T

R

Z

Ø 15.875

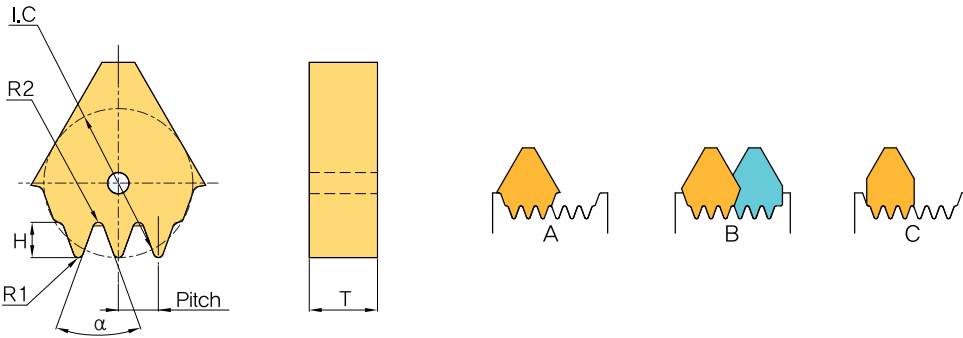
6.4

0.425

3

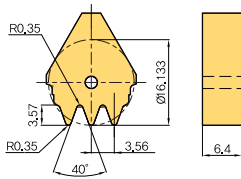
► Special types are available for quotation

Insert for machining of pulley



Specifications

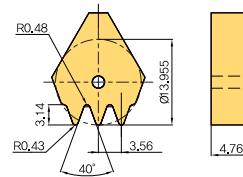
Standard designation



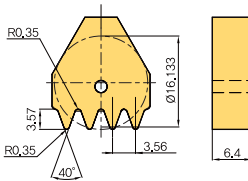
KP27064-R0.35-N3
(Former: DF356-3B)

Specifications

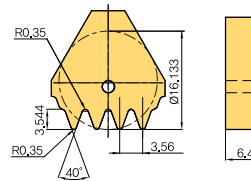
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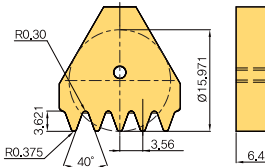
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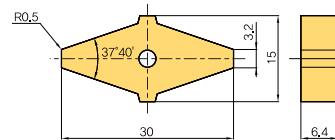
KP27064-R0.35-N4
(Former: DF356-4B)



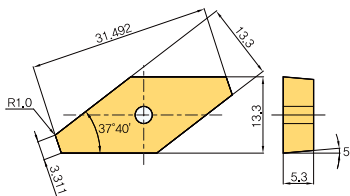
KP27064-R0.35-N4-A
(Former: DF356-4X)



KP27064-R0.375-N5
(Former: DF356-5B)



UF320



VF13M522