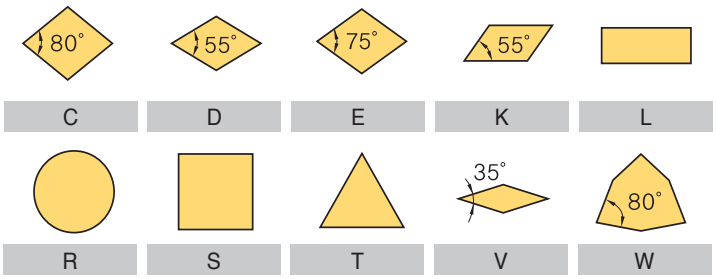
C N M G 12

1	2	3	4	5
Insert Shape	Relief Angle	Tolerance	Cross Section Type	Cutting Edge Length, Diameter of Inscribed Circle

1 Insert Shape

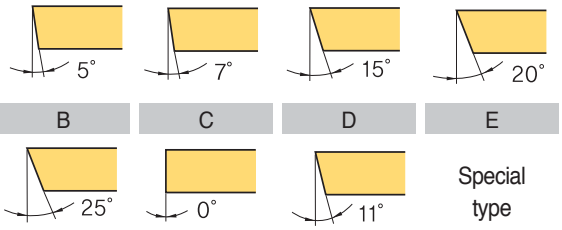
C N M G 12 04 08 - MP



C	D	E	K	L
R	S	T	V	W

2 Relief Angle

C N M G 12 04 08 - MP



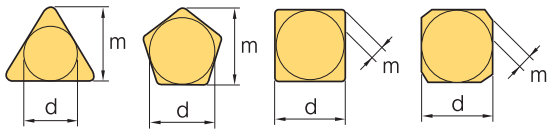
B	C	D	E
F	N	P	O

Special type

3 Tolerance

C N M G 12 04 08 - MP

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



(mm)

급	d	m	t
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)

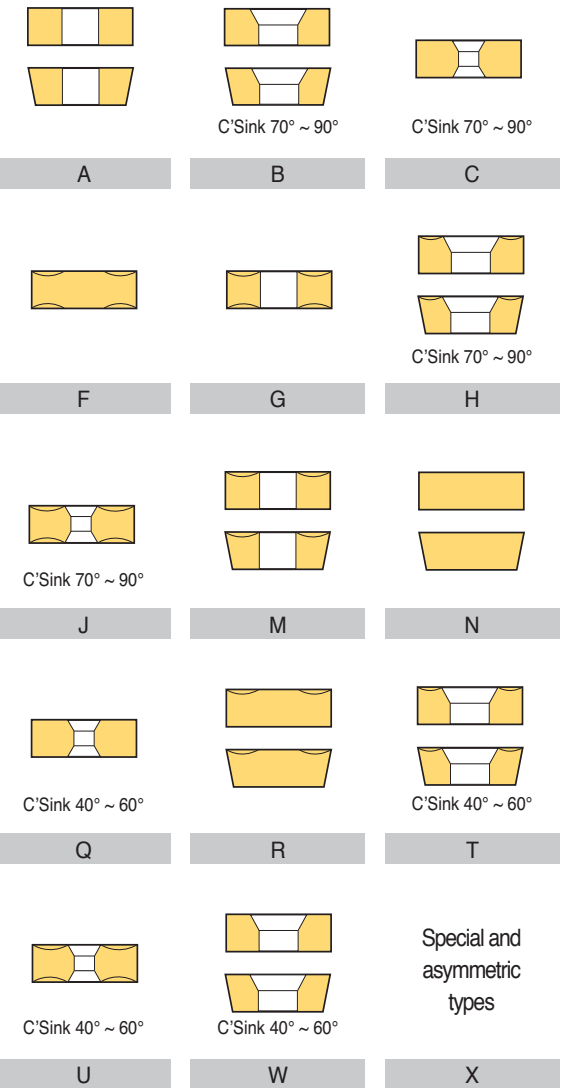
d	Tolerance on d		Tolerance on m	
	J, K, L, M, N	U	M, N	U
6.35	±0.05	±0.08	±0.08	±0.13
9.525	±0.05	±0.08	±0.08	±0.13
12.7	±0.08	±0.13	±0.13	±0.20
15.875	±0.10	±0.18	±0.15	±0.27
19.05	±0.10	±0.18	±0.15	±0.27
25.4	±0.13	±0.25	±0.18	±0.38

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

Special and asymmetric types

04 08 - MP

6 Height of Cutting Edge | 7 Nose "r" | 8 Chip Breaker for Turning

5 Cutting Edge Length, Diameter of Inscribed Circle

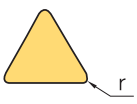
C N M G **12** 04 08 - MP

Symbol							Inch	IC
C	d	S	T	R	V	W		
Metric								d(mm)
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"

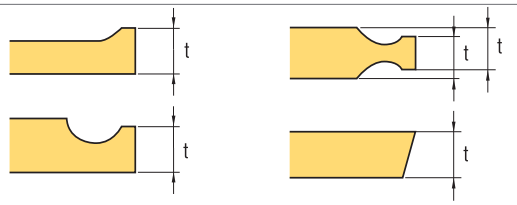
C N M G 12 04 **08** - MP



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

VL VF VB VC VQ VW

VM VR VH VT VP1 VP2

VP3 VP4 HA HM GR B25

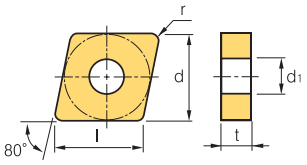
LP MP MM RM MK RK

Positive Insert Chip Breaker

VL HMP C25 MP AK AR

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			Machining types
Steel	P	● ⬌ ✱	● Continuous cutting
Stainless steel	M	⬌ ✱	⬌ General cutting
Cast iron	K	● ⬌ ✱	✱ 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	fn (mm/rev)	ap (mm)
Finishing	VP1	CNGG	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	CNGG	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

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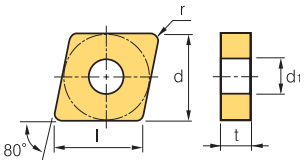
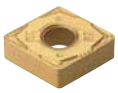
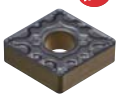
Rhombic 80° Negative



Dimensions (mm)			
Size	d	t	d1
09	9.525	3.18	3.81
12	12.7	4.76	5.16

Workpiece			Machining types
Steel	P	● ⬌ ✱ ● ⬌ ● ⬌ ● ✱ ✱ ● ● ⬌ ✱	● Continuous cutting
Stainless steel	M	✱ ✱ ● ⬌ ✱ ⬌ ✱ ⬌	⬌ General cutting
Cast iron	K	● ⬌ ✱ ● ⬌ ⬌ ⬌ ⬌	✱ 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	fn (mm/rev)	ap (mm)
Finishing	VL  [Mild steel]	CNMG 120404-VL	●		●							●														0.05~0.25	0.10~1.00
		120408-VL	●		●			●		●		●														0.10~0.35	0.20~1.50
		120412-VL						●																		0.10~0.35	0.20~1.50
Finishing	VW  [wiper]	CNMG 120404-VW																								0.10~0.30	0.50~3.00
		120408-VW						●																		0.15~0.50	0.50~4.00
		120412-VW																								0.20~0.55	1.00~4.50
Medium to finishing	HA 	CNMG 120404-HA																					●	●		0.05~0.20	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 new 	CNMG 090304-LP																								0.07~0.30	0.30~1.50
		090308-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 	CNMG 120404-VC						●		●		●														0.10~0.35	0.30~2.00
		120408-VC						●		●		●														0.15~0.40	0.50~3.00
		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

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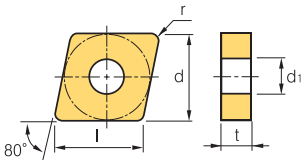
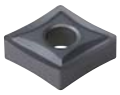
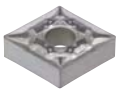
Rhombic 80° Negative



Dimensions (mm)			
Size	d	t	d1
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			Machining types
	Steel	P	● Continuous cutting
	Stainless steel	M	⬌ General cutting
	Cast iron	K	✱ 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	fn (mm/rev)	ap (mm)
Medium to finishing	VP2 	CNMG	120404-VP2								●								●	●	●	●	●		●		0.05~0.30	0.10~3.00
			120408-VP2																●	●	●	●	●		●		0.10~0.40	0.50~4.50
			160618-VP2																								0.12~0.45	0.80~5.00
			190608-VP2																								0.12~0.50	1.00~5.20
			190612-VP2																								0.15~0.50	1.20~5.50
			190616-VP2																								0.18~0.50	1.50~5.50
Medium to finishing	VQ  [Cermet]	CNMG	090304-VQ																								0.05~0.30	0.50~3.50
			090308-VQ																								0.08~0.30	0.80~4.00
			090408-VQ										●														0.05~0.30	0.50~3.50
			090412-VQ										●														0.08~0.30	0.80~4.00
			120404-VQ	●	●	●	●	●																			0.05~0.30	0.80~4.00
			120408-VQ	●	●	●	●	●																			0.08~0.40	0.80~4.00
			120412-VQ																								0.10~0.40	0.80~4.00
Medium cutting	HM 	CNMG	090304-HM									●															0.12~0.40	0.50~3.80
			120404-HM							●	●	●												●			0.05~0.30	0.90~5.00
			120408-HM							●	●	●							●					●			0.10~0.50	1.00~5.00
			120412-HM						●															●			0.18~0.50	1.00~5.00
			190612-HM																								0.13~0.60	1.30~7.00
Medium cutting	MK 	CNMG	120404-MK											●	●												0.05~0.30	0.90~4.00
			120408-MK											●	●												0.10~0.50	1.00~5.00
			120412-MK											●	●												0.13~0.60	1.30~5.00
			120416-MK																								0.15~0.60	1.30~5.00
			160608-MK																								0.28~0.70	1.80~7.00
			160612-MK																								0.28~0.72	2.00~8.00
			160616-MK																								0.28~0.74	2.00~8.00
			190608-MK												●												0.33~0.78	2.50~9.00
			190612-MK												●												0.35~0.78	2.60~9.50
			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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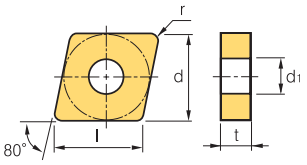
Rhombic 80° Negative



Dimensions (mm)			
Size	d	t	d1
09	9.525	3.18	3.81
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Workpiece			Machining types
	Steel	P	● Continuous cutting
	Stainless steel	M	⬌ General cutting
	Cast iron	K	✱ 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	fn (mm/rev)	ap (mm)
Medium cutting	MM	CNMG	090304-MM														●	●					●			0.08~0.35	0.50~5.00
			090308-MM														●	●					●			0.10~0.40	0.50~5.00
			090312-MM																							0.12~0.45	0.50~5.00
			090404-MM																							0.08~0.35	0.50~5.00
			090408-MM																							0.10~0.40	0.50~5.00
			090412-MM																							0.12~0.45	0.50~5.00
			120404-MM														●	●	●			●	●	●			0.10~0.40	0.50~5.50
			120408-MM													●	●	●	●			●	●	●			0.12~0.45	0.50~5.50
			120412-MM													●	●	●	●			●	●	●			0.15~0.60	0.50~5.50
			120416-MM														●	●	●				●				0.20~0.65	0.50~5.50
			160608-MM														●	●	●				●				0.12~0.45	0.50~7.00
			160612-MM														●	●	●				●	●			0.15~0.60	0.50~7.00
			160616-MM														●	●	●				●	●			0.18~0.65	0.50~7.00
			190608-MM														●	●	●				●				0.12~0.45	0.50~8.50
			190612-MM														●	●	●			●	●	●			0.15~0.60	0.50~8.50
			190616-MM														●	●	●				●	●			0.18~0.65	0.50~8.50
Medium cutting	MP	CNMG	090304-MP						●		●		●				●										0.10~0.40	0.40~3.80
			090308-MP						●		●		●				●										0.15~0.40	0.50~4.00
			090312-MP																								0.15~0.50	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						●		●		●			●	●	●									0.28~0.55	1.00~5.00
			160608-MP						●		●		●			●	●	●									0.15~0.50	0.50~7.00
			160612-MP						●		●		●			●	●	●									0.18~0.60	0.80~7.00
			160616-MP						●		●		●														0.15~0.60	1.00~7.00
			190608-MP							●																	0.15~0.60	0.50~8.50
			190612-MP							●																	0.10~0.40	0.40~3.80
			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

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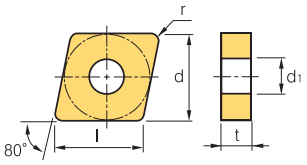
Rhombic 80° Negative



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
25	25.4	9.52	9.12

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

Machining types
● 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	fn (mm/rev)	ap (mm)
Medium cutting	VM	CNMG	090304-VM																							0.05~0.30	0.90~3.50
			090308-VM							●		●														0.10~0.45	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
			120416-VM										●														0.20~0.60	1.50~5.50
			160608-VM										●														0.10~0.50	1.00~6.70
			160612-VM																								0.13~0.60	1.30~6.70
			190608-VM									●															0.13~0.65	1.30~7.00
			190612-VM										●														0.15~0.70	1.50~7.00
			190616-VM																								0.18~0.75	1.80~7.00
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
			120416-VP3																								0.25~0.45	1.00~4.00
			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																								0.20~0.50	1.00~7.00
			190612-VP3																								0.25~0.55	1.00~8.00
			190616-VP3																								0.30~0.60	1.00~8.00
Medium cutting	LW [wiper]	CNMG	120408-LW						●		●		●				●										0.15~0.60	1.00~5.00
			120412-LW						●		●						●										0.20~0.70	1.00~6.00
General	B25	CNMG	120404-B25	●	●	●			●		●	●	●						●								0.17~0.45	1.00~5.00
			120408-B25	●	●	●			●	●	●	●	●						●	●		●		●			0.23~0.60	1.50~5.00
			120412-B25			●			●		●	●	●														0.25~0.60	2.00~5.00
			160608-B25						●		●	●	●														0.25~0.60	2.00~6.50
			160612-B25						●		●		●														0.27~0.60	2.00~6.50
			160616-B25						●		●		●														0.27~0.60	2.00~6.50
			190604-B25									●	●														0.20~0.45	3.00~8.00
			190608-B25						●	●	●	●	●														0.25~0.60	3.00~8.00
			190612-B25						●	●	●	●	●						●	●		●					0.30~0.60	3.00~8.00
			190616-B25						●		●																0.23~0.70	3.00~8.00

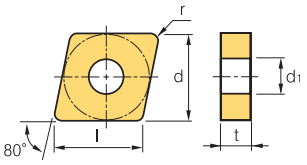
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : 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

CNOO

Rhombic 80° Negative



Dimensions (mm)			
Size	d	t	d1
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		
Steel	P	
Stainless steel	M	
Cast iron	K	
Non-ferrous metal	N	
Heat resistant alloy, Titanium alloy	S	
Hardened steel	H	

Machining types
- ● 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	fn (mm/rev)	ap (mm)
Roughing	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
Roughing	RK new	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
Roughing	RM new	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

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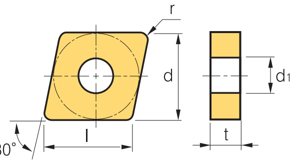
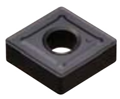
Rhombic 80° Negative



Dimensions (mm)			
Size	d	t	d1
12	12.7	4.76	5.16
16	15.875	4.76~6.35	6.35
19	19.05	6.35	7.93

Machining types: ● Continuous cutting, ◐ General cutting, ✤ Interrupted cutting

Workpiece		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05
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	fn (mm/rev)	ap (mm)
Roughing: VP4 new 	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: VR 	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: HA 	CNMM	**120408-HA**																								0.10~0.40	0.80~3.50
Roughing: GR 	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

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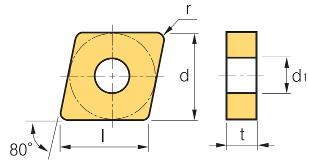
Rhombic 80° Negative



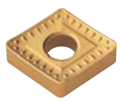
Dimensions (mm)			
Size	d	t	d1
12	12.7	4.76	5.16
16	15.875	4.76~6.35	6.35
19	19.05	6.35	7.93
25	25.4	7.94~9.52	9.12

Workpiece (● Continuous cutting, ◐ General cutting, ✱ Interrupted cutting)

Workpiece		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05
Steel	P	●	◐	✱	●	◐	●	◐	◐	✱	✱	●	●	◐		✱								
Stainless steel	M									◐	◐			●	◐	✱	◐	✱		●	◐	◐		
Cast iron	K	●	◐	✱	●	◐	◐				◐	◐	◐										●	◐
Non-ferrous metal	N																						●	◐
Heat resistant alloy, Titanium alloy	S										●				●	●	◐	✱	●	●	◐		●	◐
Hardened steel	H																			◐	✱		●	◐

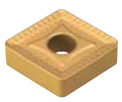
Machining types
● Continuous cutting
◐ General cutting
✱ Interrupted cutting

Inserts	Designation	Cermet CN1500	Cermet CN2000	Cermet CN2500	Coated CC1500	Coated CC2500	Coated NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	Uncoated H01	Uncoated H05	Cutting Condition fn (mm/rev)	Cutting Condition ap (mm)
Heavy GH	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 VH [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 VT [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

GH


VH

[General]

VT

[High feed cutting]

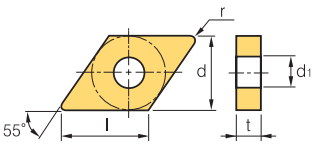
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

●: 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○○

Rhombic 55° Negative



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

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

Machining types
- ● 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	fn (mm/rev)	ap (mm)
Finishing	VP1	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	VP3	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	VB	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

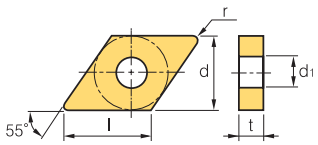
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : 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○○

Rhombic 55° Negative



Dimensions (mm)			
Size	d	t	d1
11	9.525	3.18~4.76	3.81
15	12.7	4.76~6.35	5.16

Workpiece			Machining types
Steel	P		● Continuous cutting
Stainless steel	M		⬌ General cutting
Cast iron	K		✱ 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	fn (mm/rev)	ap (mm)
Finishing	VF	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	VL [Mild steel]	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	VP1	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	VW [wiper]	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	HA	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

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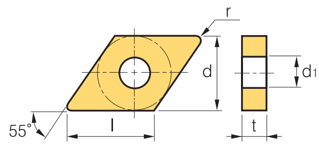
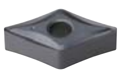


Dimensions (mm)			
Size	d	t	d1
11	9.525	4.76	3.81
15	12.7	4.76~6.35	5.16

Rhombic 55° Negative

Workpiece		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05
Steel	P	●	◐	✤	●	◐	●	◐	◐	✤	✤	●	●	◐		✤								
Stainless steel	M									◐	◐			●	◐	✤	◐	✤		●	◐	◐		
Cast iron	K	●	◐	✤	●	◐	◐				◐	◐	◐										●	◐
Non-ferrous metal	N																						●	◐
Heat resistant alloy, Titanium alloy	S										●				●	●	◐	✤	●	●	◐		●	◐
Hardened steel	H																			◐	✤		●	◐

Machining types
- ● Continuous cutting
- ◐ General cutting
- ✤ Interrupted cutting

Inserts	Designation	CN1500 (Cermet)	CN2000 (Cermet)	CN2500 (Cermet)	CC1500 (Coated)	CC2500 (Coated)	NC3215 (Coated)	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01 (Uncoated)	H05 (Uncoated)	fn (mm/rev)	ap (mm)
Medium to finishing LP new 	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 VC 	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 VP2 	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 VQ  [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

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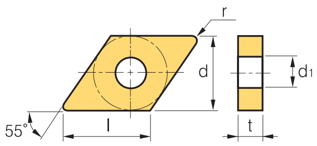


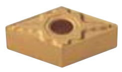
Dimensions (mm)			
Size	d	t	d1
11	9.525	3.18~4.76	3.81
15	12.7	4.76~6.35	5.16

Rhombic 55° Negative

Workpiece		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05
Steel	P	●	◑	✱	●	◑	●	◑	◑	✱	✱	●	●	◑		✱								
Stainless steel	M									◑	◑			●	◑	✱	◑	✱		●	◑	◑		
Cast iron	K	●	◑	✱	●	◑	◑				◑	◑	◑										●	◑
Non-ferrous metal	N																						●	◑
Heat resistant alloy, Titanium alloy	S										●				●	●	◑	✱	●	●	◑		●	◑
Hardened steel	H																			◑	✱		●	◑

Machining types
● 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	fn (mm/rev)	ap (mm)
Medium cutting HM	DNMG 110404-HM									●												●			0.05~0.50	0.80~4.00
	110408-HM																					●			0.10~0.50	1.00~4.00
	150404-HM								●																0.05~0.30	0.90~5.00
	150408-HM							●																	0.10~0.50	1.00~5.00
	150604-HM									●			●									●			0.05~0.30	0.90~5.00
	150608-HM							●	●	●												●			0.10~0.50	1.00~5.00
	150612-HM									●															0.18~0.50	1.00~5.00
Medium cutting MK new	DNMG 150404-MK												●												0.05~0.30	0.90~5.00
	150408-MK												●												0.10~0.50	1.00~5.00
	150412-MK												●												0.13~0.60	1.30~5.00
	150604-MK											●	●												0.05~0.30	0.90~5.00
	150608-MK											●	●												0.10~0.50	1.00~5.00
	150612-MK												●												0.13~0.60	1.30~5.00
Medium cutting MM new	DNMG 110404-MM																					●			0.08~0.35	0.50~5.00
	110408-MM														●	●						●			0.10~0.40	0.50~5.00
	110412-MM																								0.12~0.45	0.50~5.00
	110504-MM																								0.08~0.35	0.50~5.00
	110508-MM																								0.10~0.40	0.50~5.00
	110512-MM																								0.12~0.45	0.50~5.00
	150404-MM														●	●	●				●	●			0.10~0.40	0.50~6.40
	150408-MM													●	●	●	●			●	●	●			0.12~0.45	0.50~6.40
	150412-MM													●	●	●	●				●				0.15~0.60	0.50~6.40
	150416-MM																								0.15~0.60	0.50~6.00
	150604-MM														●	●	●				●	●			0.10~0.40	0.50~6.40
	150608-MM													●	●	●	●			●	●	●			0.12~0.45	0.50~6.40
	150612-MM													●	●	●	●				●	●			0.15~0.60	0.50~6.40
	150616-MM																								0.18~0.65	0.50~8.00
Medium cutting MP new	DNMG 110404-MP						●		●		●				●	●									0.10~0.40	0.40~3.80
	110408-MP						●		●		●				●	●									0.15~0.40	0.50~4.00
	110412-MP																								0.15~0.50	0.80~4.20
	110504-MP																								0.10~0.40	0.40~3.80
	110508-MP																								0.15~0.40	0.50~4.00
	110512-MP																								0.15~0.50	0.80~4.20
	150404-MP						●		●		●			●	●	●				●					0.10~0.40	0.40~4.00
	150408-MP						●		●		●			●	●	●			●	●					0.15~0.45	0.50~4.50
	150412-MP						●		●		●			●	●	●			●	●					0.15~0.50	0.80~5.00
	150416-MP																								0.15~0.50	0.85~5.00
	150604-MP						●		●		●	●		●	●	●			●	●					0.10~0.40	0.40~4.00
	150608-MP						●		●		●	●		●	●	●			●	●					0.15~0.45	0.50~4.50
	150612-MP						●		●		●			●	●	●			●	●					0.15~0.50	0.80~5.00
	150616-MP																								0.15~0.55	0.85~5.00



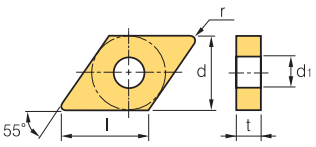

Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : 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

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

Machining types
- ● 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	fn (mm/rev)	ap (mm)
Medium cutting	VM	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	1.30~5.00
Medium cutting	VP3	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	LW [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

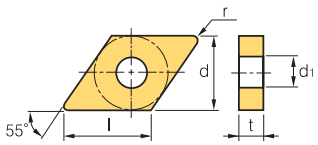
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : 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

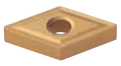
DN○○

Rhombic 55° Negative



Dimensions (mm)			
Size	d	t	d_1
15	12.7	4.76~6.35	5.16
19	15.875	6.35	7.93

Workpiece			Machining types
Steel	P	● ⬌ ✱ ● ⬌ ● ⬌ ⬌ ✱ ✱ ● ● ⬌ ✱	● Continuous cutting
Stainless steel	M	✱ ✱ ⬌ ⬌ ● ⬌ ✱ ⬌ ⬌ ✱ ⬌ ✱ ● ⬌ ⬌	⬌ General cutting
Cast iron	K	● ⬌ ✱ ● ⬌ ⬌ ⬌ ✱ ⬌ ⬌ ⬌ ✱ ⬌ ✱ ⬌ ⬌ ● ⬌	✱ 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	fn (mm/rev)	ap (mm)
General	B25 	DNMG 150402-B25																							0.15~0.40	0.50~3.50
		150404-B25			●			●		●		●													0.17~0.45	1.00~4.00
		150408-B25			●			●		●		●													0.17~0.55	1.50~4.00
		150412-B25						●		●		●													0.25~0.55	1.50~4.00
		150425-B25																							0.35~0.65	2.50~5.50
		150602-B25																							0.15~0.40	0.50~3.50
		150604-B25	●					●		●	●	●													0.17~0.55	1.50~4.00
		150608-B25	●					●		●	●	●											●		0.17~0.55	1.50~4.00
		150612-B25						●		●		●													0.25~0.55	1.50~4.00
		150625-B25																							0.35~0.65	2.50~5.50
Roughing	GR 	DNMG 150408-GR						●			●														0.20~0.50	1.00~7.00
		150412-GR																							0.25~0.90	1.30~7.00
		150416-GR																							0.30~0.75	1.80~7.00
		150608-GR								●	●	●													0.20~0.50	1.00~7.00
		150612-GR								●	●														0.25~0.70	1.30~7.00
		150616-GR										●													0.20~0.75	1.80~7.00
Roughing	RK new 	DNMG 150408-RK																							0.15~0.50	1.50~5.00
		150412-RK												●											0.20~0.60	1.80~5.00
		150608-RK											●	●											0.15~0.50	1.50~5.00
		150612-RK												●											0.20~0.60	1.80~5.00

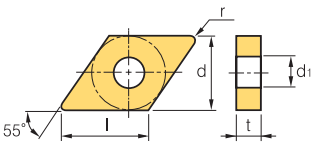
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : Stock item

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

DN○○

Rhombic 55° Negative



Dimensions (mm)			
Size	d	t	d_1
15	12.7	4.76~6.35	5.16

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

Machining types
- ● 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	fn (mm/rev)	ap (mm)
Roughing	RM new	DNMG	150404-RM														●	●	●				●			0.10~0.50	2.00~6.00
			150408-RM													●	●	●	●				●			0.15~0.55	2.00~6.00
			150412-RM													●	●	●	●				●			0.20~0.60	2.00~6.00
			150416-RM																							0.25~0.70	2.00~6.00
			150604-RM														●	●	●				●	●		0.10~0.50	2.00~6.00
			150608-RM													●	●	●				●		●		0.15~0.55	2.00~6.00
			150612-RM													●	●	●								0.20~0.60	2.00~6.00
			150616-RM																							0.25~0.70	2.00~6.00
Roughing	VP4 new	DNMG	150408-VP4																							0.15~0.35	1.00~4.00
			150412-VP4																							0.20~0.40	1.00~4.00
			150608-VP4																				●			0.15~0.35	1.00~4.00
			150612-VP4																				●			0.20~0.40	1.00~4.00
Roughing	VR	DNMG	150408-VR																							0.25~0.55	1.20~7.00
			150412-VR																							0.30~0.60	1.50~7.00
			150608-VR																							0.25~0.55	1.20~7.00
			150612-VR																							0.30~0.60	1.50~7.00
Finishing	SR new [Shaft]	DNMX	150404R-SR																							0.10~0.40	0.70~4.50
			150408R-SR																							0.12~0.45	1.00~4.50
			150604R-SR																							0.10~0.40	0.70~4.50
			150608R-SR																							0.12~0.45	1.00~4.50
			150404L-SR																							0.10~0.40	0.70~4.50
			150408L-SR																							0.12~0.45	1.00~4.50
			150604L-SR																							0.10~0.40	0.70~4.50
			150608L-SR																							0.12~0.45	1.00~4.50
Medium cutting	SH [Shaft]	DNMX	150404R-SH																							0.15~0.30	1.00~4.00
			150408R-SH																							0.15~0.50	1.50~5.00
			150604R-SH						●		●															0.15~0.30	1.00~4.00
			150608R-SH						●		●															0.15~0.50	1.50~5.00
			150404L-SH																							0.15~0.30	1.00~4.00
			150408L-SH																							0.15~0.50	1.50~5.00
			150604L-SH						●		●															0.15~0.30	1.00~4.00
			150608L-SH						●		●															0.15~0.50	1.50~5.00

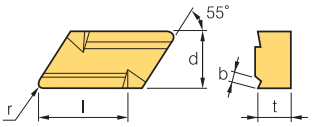
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : Stock item

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

KNOO

Parallelogram 55° Negative



Dimensions (mm)		
Size	d	t
16	9.525	4.76

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

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	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

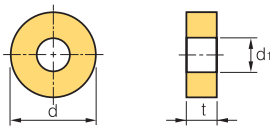
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : Stock item

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

RNOO

Round 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	6.35~9.52	9.12
31	31.75	9.52	12.7

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

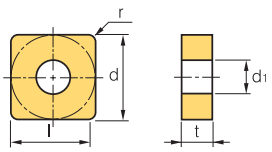
Inserts		Designation		Cermet			Coated															Uncoated		Cutting Condition	
				CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	fn (mm/rev)	ap (mm)
General	B25	RNMG	090300-B25																								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

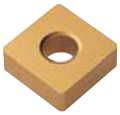
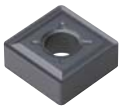
SN○○

○ 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
Steel	P	● ⬌ ✱ ● ⬌	● Continuous cutting
Stainless steel	M	⬌ ✱ ⬌ ⬌ ✱ ● ⬌ ✱ ⬌ ✱ ● ⬌ ⬌	⬌ General cutting
Cast iron	K	● ⬌ ✱ ● ⬌ ⬌ ⬌ ⬌ ⬌ ⬌ ● ⬌	✱ 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	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	VP3 	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

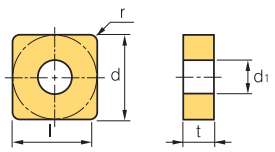
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : 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

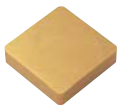
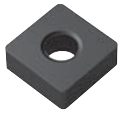
SN○○

Square 90° Negative



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

Workpiece			Machining types
	Steel	P	● Continuous cutting
	Stainless steel	M	⬌ General cutting
	Cast iron	K	✱ 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	fn (mm/rev)	ap (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

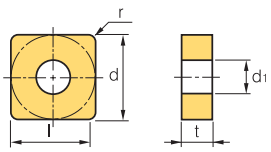
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : 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

SN○○

Square 90° Negative



Dimensions (mm)			
Size	d	t	d_1
09	9.525	3.18	3.81
12	12.7	3.18~4.76	5.16

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

Machining types
- ● 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	fn (mm/rev)	ap (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 [Mild steel]	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 new	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

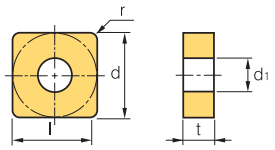
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : 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○○

Square 90° Negative



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

Workpiece			Machining types
Steel	P	● ⬌ ✱ ● ⬌ ● ⬌ ⬌ ✱ ✱ ● ● ⬌ ✱	● Continuous cutting
Stainless steel	M	⬌ ✱ ⬌ ⬌ ✱ ⬌ ⬌ ● ⬌ ✱ ⬌ ✱ ● ⬌ ⬌	⬌ General cutting
Cast iron	K	● ⬌ ✱ ● ⬌ ⬌ ⬌ ✱ ⬌ ⬌ ● ⬌ ⬌ ● ⬌	✱ 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	fn (mm/rev)	ap (mm)
Medium to finishing	VQ	SNMG	090304-VQ										●													0.05~0.30	0.50~3.50
			090408-VQ										●													0.08~0.30	0.80~4.00
			090412-VQ										●													0.10~0.30	1.00~4.00
			120404-VQ	●		●																				0.05~0.30	0.80~4.00
	[Cermet]		120408-VQ	●		●																				0.08~0.40	0.80~4.00
Medium cutting	HM	SNMG	120404-HM																					●			0.15~0.42	0.60~4.20
			120408-HM						●	●		●			●									●			0.10~0.50	1.00~5.00
			120412-HM						●															●			0.18~0.50	1.00~5.00
Medium cutting	MK new	SNMG	090308-MK																								0.17~0.45	0.80~3.50
			120404-MK																								0.08~0.45	0.80~4.00
			120408-MK												●												0.10~0.50	1.00~5.00
			120412-MK												●												0.13~0.60	1.30~5.00
			120416-MK																								0.15~0.63	1.50~6.00
			150608-MK																								0.25~0.60	1.80~6.00
			150612-MK																								0.20~0.70	1.80~7.00
			150616-MK																								0.23~0.70	2.00~7.50
			190608-MK																								0.31~0.75	2.30~9.50
			190612-MK												●												0.33~0.78	2.50~10.00
			190616-MK																								0.35~0.78	2.70~10.00
Medium cutting	MM new	SNMG	090304-MM																								0.08~0.35	0.50~5.00
			090308-MM																								0.10~0.40	0.50~5.00
			090312-MM																								0.12~0.45	0.50~5.00
			090404-MM																								0.08~0.35	0.50~5.00
			090408-MM																								0.10~0.40	0.50~5.00
			120404-MM													●	●	●	●				●	●			0.10~0.40	0.50~6.40
			120408-MM													●	●	●	●			●	●	●			0.12~0.45	0.50~6.40
			120412-MM														●	●	●				●	●			0.15~0.60	0.50~6.40
			120416-MM																								0.18~0.65	0.50~6.40
			150608-MM																								0.12~0.45	0.50~8.00
			150612-MM														●	●	●				●	●			0.15~0.60	0.50~8.00
			150616-MM														●	●									0.18~0.65	0.50~8.00
			190608-MM														●	●	●				●				0.12~0.45	0.50~9.50
			190612-MM														●	●	●				●	●			0.15~0.60	0.50~9.50
			190616-MM														●	●						●			0.18~0.65	0.50~9.50
			250924-MM															●									0.20~0.80	1.00~10.00

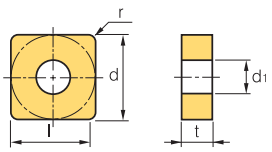
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : 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

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			Machining types
Steel	P	● ⬌ ✱	● Continuous cutting
Stainless steel	M	⬌ ✱	⬌ General cutting
Cast iron	K	● ⬌ ✱	✱ 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	fn (mm/rev)	ap (mm)
Medium cutting	MP	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	VM	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	VP3	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

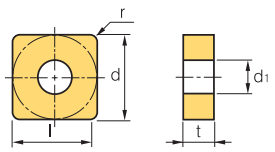
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

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

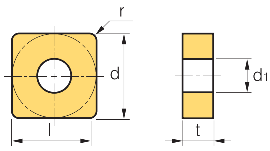
Inserts	Designation		Cermet			Coated		Coated														Uncoated		Cutting Condition	
			CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	fn (mm/rev)	ap (mm)
General	B25	SNMG 090308-B25																							0.17~0.45	0.80~3.50
		120404-B25	●		●			●		●	●	●													0.17~0.45	1.00~3.50
		120408-B25	●		●			●		●	●	●						●	●				●		0.23~0.60	1.50~5.00
		120412-B25			●			●		●	●	●													0.25~0.60	2.00~5.00
		120416-B25						●		●	●	●													0.35~0.70	2.50~5.00
		120420-B25																							0.40~0.70	3.00~5.00
		150608-B25									●														0.25~0.60	1.50~6.00
		150612-B25																							0.25~0.60	2.00~6.00
		150616-B25								●															0.35~0.70	2.00~6.00
		190608-B25						●		●	●														0.25~0.60	3.00~8.00
		190612-B25						●		●	●	●													0.30~0.60	3.00~8.00
		190616-B25						●		●	●										●				0.35~0.70	3.00~8.00
		250716-B25																							0.35~0.70	4.00~12.00
		250724-B25						●				●													0.50 ~1.00	5.00~12.00
		250924-B25						●																	0.50~1.00	5.00~12.00
Roughing	GR	SNMG 120404-GR																							0.15~0.45	0.08~6.00
		120408-GR									●	●													0.20~0.50	1.00~7.00
		120412-GR									●														0.20~0.50	1.00~7.00
		150608-GR									●														0.25~0.60	1.00~7.00
		150612-GR							●	●	●														0.29~0.75	1.40~7.00
		190608-GR									●														0.30~0.80	1.70~9.00
		190612-GR							●		●	●													0.30~0.80	1.70~9.00
		190616-GR							●	●	●	●													0.31~0.82	1.90~12.30
		190624-GR																							0.35~0.82	2.00~12.50
		250724-GR									●														0.45~1.20	2.60~14.00
		250924-GR							●		●														0.50~1.20	2.60~14.00
Roughing	RK	SNMG 120404-RK																							0.15~0.50	1.20~6.00
		120408-RK											●	●											0.23~0.53	1.50~6.00
		120412-RK											●	●											0.28~0.53	1.80~6.00
		120416-RK												●											0.28~0.53	2.00~6.00
		150612-RK																							0.20~0.70	1.80~7.00
		150616-RK																							0.23~0.70	2.00~7.50
		190612-RK																							0.33~0.78	2.50~10.00
		190616-RK																							0.35~0.78	2.70~10.00

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

SN○○



Dimensions (mm)			
Size	d	t	d1
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		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05
Steel	P	●	◐	✱	●	◐	●	◐	◐	✱	✱	●	●	◐		✱								
Stainless steel	M									◐	◐			●	◐	✱	◐	✱		●	◐	◐		
Cast iron	K	●	◐	✱	●	◐	◐				◐	◐	◐										●	◐
Non-ferrous metal	N																						●	◐
Heat resistant alloy, Titanium alloy	S										●				●	●	◐	✱	●	●	◐		●	◐
Hardened steel	H																			◐	✱		●	◐

Machining types
● Continuous cutting
◐ General cutting
✱ Interrupted cutting

Inserts	Designation	CN1500 (Cermet)	CN2000 (Cermet)	CN2500 (Cermet)	CC1500 (Coated)	CC2500 (Coated)	NC3215 (Coated)	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01 (Uncoated)	H05 (Uncoated)	fn (mm/rev)	ap (mm)
Roughing RM new 	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 VP4 new 	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 VR 	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 GR 	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

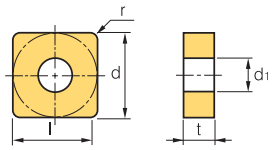
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : 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○○

○ Square 90° Negative



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

Workpiece			Machining types
	Steel	P	● Continuous cutting
	Stainless steel	M	⬌ General cutting
	Cast iron	K	✱ 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	fn (mm/rev)	ap (mm)
Heavy	GH	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	VH [General]	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	VT [High feed cutting]	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

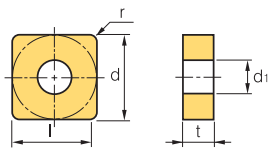
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : 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

SN○○

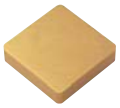
○ Square 90° Negative



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			CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05
	Steel	P	●	⬌	✱	●	⬌	●	⬌	⬌	✱	✱	●	●	⬌		✱							●	⬌
	Stainless steel	M									⬌	⬌			●	⬌	✱	⬌	✱		●	⬌	⬌		
	Cast iron	K	●	⬌	✱	●	⬌	⬌				⬌	⬌	⬌										●	⬌
	Non-ferrous metal	N																						●	⬌
	Heat resistant alloy, Titanium alloy	S										●				●	●	⬌	✱	●	●	⬌		●	⬌
	Hardened steel	H																			⬌	✱		●	⬌

Machining types
● 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	fn (mm/rev)	ap (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

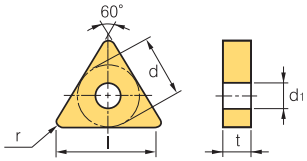
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : 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

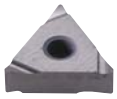
TN○○

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
Steel	P	● ⬌ ✱ ● ⬌ ● ⬌ ⬌ ✱ ✱ ● ● ⬌ ✱	● Continuous cutting
Stainless steel	M	✱ ⬌ ⬌ ⬌ ⬌ ● ⬌ ✱ ⬌ ✱ ● ⬌ ⬌	⬌ General cutting
Cast iron	K	● ⬌ ✱ ● ⬌ ⬌ ⬌ ⬌ ⬌ ⬌ ✱ ✱ ⬌ ✱ ● ⬌ ⬌ ⬌ ⬌	✱ 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	fn (mm/rev)	ap (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	SC 	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	VP3 	TNGG	160404-VP3																		●	●	●		●	0.05~0.30	0.10~3.00
			160408-VP3																		●	●	●		●	0.10~0.45	0.50~5.00

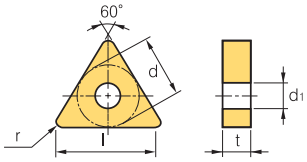
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : 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		

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

		Machining types
Steel	P	● Continuous cutting
Stainless steel	M	⬬ General cutting
Cast iron	K	✱ 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	fn (mm/rev)	ap (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						●		●																
		220408-VB								●		●													0.15~0.45	0.50~2.50
		220412-VB																							0.20~0.50	0.70~2.50

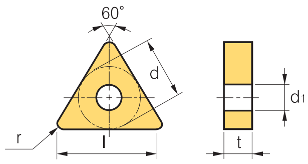
VB

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○○



Dimensions (mm)			
Size	d	t	d1
11	6.35	3.18	2.40
16	9.525	4.76	3.81
22	12.7	4.76	5.16

Triangular 60° Negative

Workpiece (● Continuous cutting, ◐ General cutting, ✱ Interrupted cutting)

Workpiece		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05
Steel	P	●	◐	✱	●	◐	●	◐	◐	✱	✱	●	●	◐		✱								
Stainless steel	M									◐	◐			●	◐	✱	◐	✱		●	◐	◐		
Cast iron	K	●	◐	✱	●	◐	◐				◐	◐	◐										●	◐
Non-ferrous metal	N																						●	◐
Heat resistant alloy, Titanium alloy	S										●				●	●	◐	✱	●	●	◐		●	◐
Hardened steel	H																			◐	✱		●	◐

Machining types
- ● Continuous cutting
- ◐ General cutting
- ✱ Interrupted cutting

	Inserts	Designation	Cermet CN1500	Cermet CN2000	Cermet CN2500	Coated CC1500	Coated CC2500	Coated NC3215	Coated NC3120	Coated NC3225	Coated NC3030	Coated NC5330	Coated NC6310	Coated NC6315	Coated NC9115	Coated NC9125	Coated NC9135	Coated PC5300	Coated PC5400	Coated PC8105	Coated PC8110	Coated PC8115	Coated PC9030	Uncoated H01	Uncoated H05	Cutting Condition fn (mm/rev)	Cutting Condition ap (mm)
Finishing	VL 	TNMG 160404-VL	●					●																		0.05~0.25	0.10~1.00
		160408-VL	●					●		●		●														0.10~0.35	0.20~1.50
		160412-VL						●																		0.15~0.40	0.20~1.50
		220408-VL																								0.10~0.35	0.20~1.50
		220412-VL																								0.10~0.35	0.50~2.00
Finishing	VF 	TNMG 110304-VF	●	●								●														0.05~0.20	0.20~1.00
		160404-VF	●						●			●									●					0.07~0.30	0.50~1.50
		160408-VF						●	●			●														0.10~0.40	0.50~1.50
		160412-VF																								0.15~0.50	0.50~1.50
		220404-VF										●											●			0.10~0.40	0.50~1.50
		220408-VF																								0.10~0.40	0.50~1.50
Finishing	VW  [wiper]	TNMG 160404-VW																								0.10~0.35	0.30~3.00
		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
		160408-HA																			●		●	●		0.10~0.40	0.80~3.50
		160412-HA																								0.13~0.55	0.80~3.50
		220408-HA																					●			0.10~0.40	0.80~5.30
Medium to finishing	LP new 	TNMG 110304-LP																								0.07~0.30	0.30~1.50
		110308-LP																								0.10~0.30	0.30~1.50
		160404-LP						●		●		●														0.10~0.35	0.30~2.00
		160408-LP						●		●		●														0.10~0.40	0.50~2.50
		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
		160408-VC						●		●		●														0.15~4.00	0.50~3.00
		160412-VC						●		●		●														0.15~4.50	0.50~3.00
		220408-VC						●		●																0.15~0.40	0.50~3.00
		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
		160408-VP2																●	●	●	●	●		●		0.10~0.45	0.50~5.00
		160412-VP2																	●	●	●	●		●		0.13~0.55	0.80~3.30
		220404-VP2																●	●		●					0.05~0.30	0.80~5.00
		220408-VP2																●	●		●					0.10~0.40	0.80~5.00

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

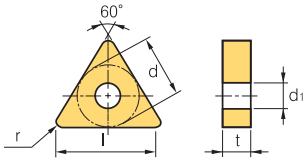
●: Stock item

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		

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
	Steel	P	● Continuous cutting
	Stainless steel	M	⬌ General cutting
	Cast iron	K	✱ 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	fn (mm/rev)	ap (mm)
Medium to finishing	VQ [Cermet]	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	HM	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	MK new	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	MM new	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	MP new	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

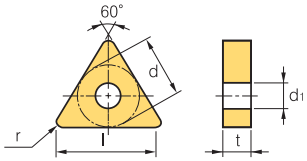
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : 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			Machining types
	Steel	P	● Continuous cutting
	Stainless steel	M	⬌ General cutting
	Cast iron	K	✱ 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	fn (mm/rev)	ap (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 [wiper]	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

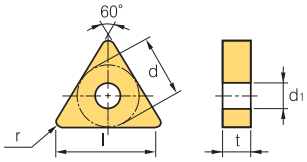
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : 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		

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			CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05
Workpiece	Steel	P	●	⬌	✱	●	⬌	●	⬌	⬌	✱	✱	●	●	⬌		✱								
	Stainless steel	M									⬌	⬌			●	⬌	✱	⬌	✱		●	⬌	⬌		
	Cast iron	K	●	⬌	✱	●	⬌	⬌				⬌	⬌	⬌										●	⬌
	Non-ferrous metal	N																						●	⬌
	Heat resistant alloy, Titanium alloy	S										●				●	●	⬌	✱	●	●	⬌		●	⬌
	Hardened steel	H																			⬌	✱		●	⬌

Machining types
- ● Continuous cutting
- ⬌ General cutting
- ✱ Interrupted cutting

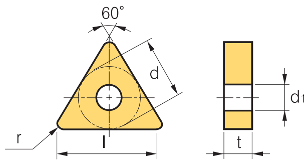
Inserts		Designation		Cermet			Coated		Coated															Uncoated		Cutting Condition	
				CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	fn (mm/rev)	ap (mm)
Roughing	GR	TNMG	160408-GR								●	●														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 new	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 new	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 new	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		

TN○○

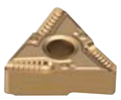


Size	Dimensions (mm) d	t	d1
16	9.525	4.76	3.81
22	12.7	4.76	5.16
27	15.875	6.35	6.35
33	19.05	7.94~9.52	7.93

Triangular **60° Negative**

Workpiece			CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05
Steel	P		●	◐	✱	●	◐	●	◐	◐	✱	✱	●	●	◐		✱								
Stainless steel	M										◐	◐			●	◐	✱	◐	✱		●	◐	◐		
Cast iron	K		●	◐	✱	●	◐	◐				◐	◐	◐										●	◐
Non-ferrous metal	N																							●	◐
Heat resistant alloy, Titanium alloy	S											●				●	●	◐	✱	●	●	◐		●	◐
Hardened steel	H																				◐	✱		●	◐

Machining types
● Continuous cutting
◐ General cutting
✱ Interrupted cutting

	Inserts	Designation	Cermet CN1500	CN2000	CN2500	Coated CC1500	CC2500	Coated NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	Uncoated H01	H05	Cutting Condition fn (mm/rev)	ap (mm)
Roughing	GR 	TNMM **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
Heavy	GH 	TNMM **160408-GH**																								0.20~0.50	1.00~7.00
		220408-GH																								0.25~0.60	1.30~7.00
		220412-GH								●																0.20~0.50	1.00~8.00
		220416-GH																								0.25~0.60	1.30~8.00
		270616-GH																								0.32~0.70	1.80~8.00
		270624-GH																								0.35~0.50	1.80~13.00
		330924-GH																								0.35~0.70	2.30~13.00
Medium to roughing		TNMN **160408**																								0.10~0.30	1.00~4.00
		220408		●																						0.15~0.40	1.50~5.00
		220412																								0.20~0.50	1.50~5.00
Finishing	SR new  [Shaft]	TNMX **160404R-SR**																								0.10~0.35	0.70~3.50
		160408R-SR																								0.12~0.40	1.00~3.50
		160404L-SR																								0.10~0.35	0.70~3.50
		160408L-SR																								0.12~0.40	1.00~3.50
Medium cutting	SH  [Shaft]	TNMX **160404R-SH**						●		●																0.15~0.30	0.50~4.00
		160408R-SH						●		●																0.15~0.45	1.00~4.00
		160404L-SH						●		●																0.15~0.30	0.50~4.00
		160408L-SH						●		●																0.15~0.45	1.00~4.00
Medium to roughing		TNMX **160402R**		●	●																					0.10~0.30	0.50~3.00
		160404R		●					●	●	●	●														0.12~0.30	1.00~3.50
		160408R							●	●	●															0.15~0.35	1.30~3.40
		220404R																								0.12~0.30	1.00~5.00
		220408R																								0.15~0.35	1.30~5.00
		160404L							●	●	●															0.12~0.30	1.00~3.50
		160408L							●		●															0.15~0.35	1.30~3.40

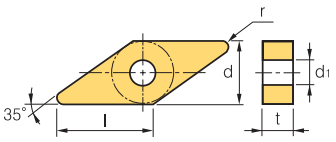
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : 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		

VN○○



Dimensions (mm)			
Size	d	t	d1
16	9.525	4.76	3.81

Rhombic 35° Negative

Workpiece			Machining types
	Steel	P	● Continuous cutting
	Stainless steel	M	⬌ General cutting
	Cast iron	K	✱ 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	fn (mm/rev)	ap (mm)
Medium to finishing	HA	VNGG	160408-HA																			●			0.10~0.40	0.80~3.50
Medium cutting	VP3	VNGG	160404-VP3																		●	●	●		●		0.05~0.30	0.10~3.00
			160408-VP3																								0.10~0.45	0.50~5.00
Finishing	VB	VNMG	160404-VB	●		●	●	●	●		●		●														0.10~0.35	0.30~1.50
			160408-VB	●		●	●	●	●		●		●														0.15~0.45	0.50~2.00
			160412-VB						●		●																0.20~0.45	0.80~2.50
Finishing	VF	VNMG	160402-VF		●					●																	0.06~0.20	0.30~1.00
			160404-VF	●	●					●			●									●					0.08~0.30	0.50~1.50
			160408-VF	●						●	●		●														0.10~0.40	0.50~1.50
			160412-VF																								0.15~0.50	0.50~1.50
Finishing	VL [Mild steel]	VNMG	160404-VL	●		●			●		●		●														0.05~0.20	0.10~1.00
			160408-VL	●		●			●		●		●														0.10~0.25	0.20~1.50
			160412-VL						●																		0.15~0.30	0.50~2.00
Medium to finishing	HA	VNMG	160404-HA																						●		0.08~0.35	0.50~3.00
			160408-HA																								0.10~0.40	0.80~3.50
Medium to finishing	LP new	VNMG	160404-LP						●		●																0.10~0.35	0.30~1.50
			160408-LP						●		●																0.10~0.40	0.50~2.00
			160412-LP						●		●																0.10~0.45	0.80~2.50
Medium to finishing	VC	VNMG	160404-VC	●			●		●		●																0.10~0.35	0.30~2.00
			160408-VC	●					●		●																0.15~4.00	0.50~3.00
			160412-VC						●		●																0.15~0.40	0.80~3.00

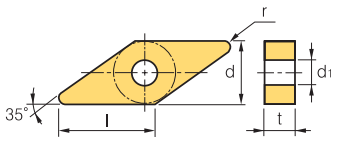
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : Stock item

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

VN○○

Rhombic 35° Negative



Dimensions (mm)			
Size	d	t	d1
16	9.525	4.76	3.81
22	12.7	4.76	5.16

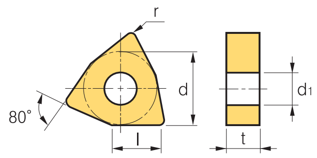
Workpiece			Machining types
Steel	P	● ⬌ ✱ ● ⬌	● Continuous cutting
Stainless steel	M	⬌ ⬌ ✱ ⬌ ⬌ ✱ ● ⬌ ✱ ⬌ ✱ ● ⬌ ⬌	⬌ General cutting
Cast iron	K	● ⬌ ✱ ● ⬌ ⬌ ⬌ ⬌ ⬌ ● ⬌ ⬌	✱ Interrupted cutting
Non-ferrous metal	N	● ⬌	
Heat resistant alloy, Titanium alloy	S	● ● ● ⬌ ✱ ● ⬌ ⬌	
Hardened steel	H	⬌ ✱ ● ⬌	

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	fn (mm/rev)	ap (mm)
Medium to finishing	VQ [Cermet]	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	HM	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	MK 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	MM 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	MP 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	RM 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	VM	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	VP3	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

WN◯◯

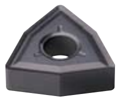
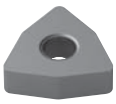


Dimensions (mm)			
Size	d	t	d1
06	9.525	4.76	3.81
08	12.7	4.76	5.16

Trigon 80° Negative

Workpiece		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05
Steel	P	●	◆	✱	●	◆	●	◆	◆	✱	✱	●	●	◆		✱								
Stainless steel	M									◆	◆			●	◆	✱	◆	✱		●	◆	◆		
Cast iron	K	●	◆	✱	●	◆	◆				◆	◆	◆										●	◆
Non-ferrous metal	N																						●	◆
Heat resistant alloy, Titanium alloy	S										●				●	●	◆	✱	●	●	◆		●	◆
Hardened steel	H																			◆	✱		●	◆

Machining types
- ● 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	fn (mm/rev)	ap (mm)
Medium cutting	VP3 	WNGG 080404-VP3																								0.10~0.45	0.50~5.00
Roughing		WNMA 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	VB 	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	VF 	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	0.50~1.50
Finishing	VL  [Mild steel]	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	VW  [wiper]	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

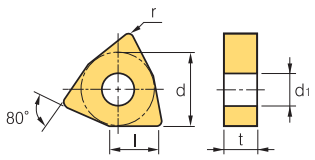
➔ Cutting edge geometry **A52~A61** ➔ Recommended chip breaker **B04~B11** ➔ Code system **B26~B27**

● : Stock item

Available tool holders			
Designation	Page	Designation	Page
MWLNR/L	B177	WWLNR/L	B168
PWLNR/L	B200		

WN○○

Trigon 80° Negative



Dimensions (mm)			
Size	d	t	d1
06	9.525	4.76	3.81
08	12.7	4.76	5.16

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

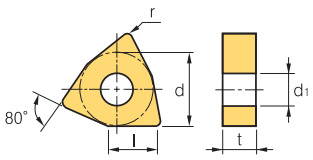
Inserts		Designation	Cermet			Coated		Coated															Uncoated		Cutting Condition	
			CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	fn (mm/rev)	ap (mm)
Medium to finishing	LP new	WNMG 06T308-LP																							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	VC	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	VP2	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	VQ [Cermet]	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	HM	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	MK new	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	MM new	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
MWLNR/L	B177	WWLNR/L	B168
PWLNR/L	B200		

WN○○



Dimensions (mm)			
Size	d	t	d1
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			Machining types
	Steel	P	● Continuous cutting
	Stainless steel	M	⬌ General cutting
	Cast iron	K	✱ 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	fn (mm/rev)	ap (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
			080416-VM																								0.10~0.50	1.20~5.00
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 [wiper]	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

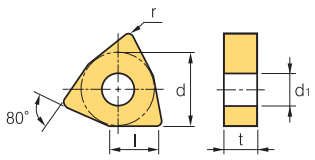
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : Stock item

Available tool holders			
Designation	Page	Designation	Page
MWLNR/L	B177	WWLNR/L	B168
PWLNR/L	B200		

WN○○

Trigon 80° Negative



Dimensions (mm)			
Size	d	t	d_1
06	9.525	4.76	3.81
08	12.7	4.76	5.16
10	15.875	6.35	6.35
13	19.05	6.35	7.93

Workpiece			Machining types
Steel	P	● ⬌ ✱ ● ⬌ ● ⬌ ⬌ ✱ ✱ ● ● ⬌ ✱	● Continuous cutting
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	fn (mm/rev)	ap (mm)
Roughing	RK new	WNMG 060408-RK																							0.10~0.40	1.00~3.50
		060412-RK																							0.23~0.40	1.50~5.00
		080404-RK											●												0.23~0.50	1.50~6.00
		080408-RK										●	●												0.23~0.53	1.50~6.00
		080412-RK										●	●												0.28~0.53	1.80~6.00
		080416-RK											●												0.25~0.60	2.00~6.00
Roughing	RM new	WNMG 060404-RM													●	●									0.10~0.50	1.50~3.00
		060408-RM													●	●									0.15~0.55	1.50~3.00
		060412-RM													●	●									0.20~0.60	1.50~3.00
		080404-RM													●	●	●					●			0.10~0.50	2.00~4.00
		080408-RM												●	●	●	●			●	●	●			0.15~0.55	2.00~4.00
		080412-RM												●	●	●	●				●				0.20~0.60	2.00~4.00
Roughing	VP4 new	WNMG 080408-VP4																			●				0.15~0.35	1.00~4.00
		080412-VP4																			●				0.20~0.40	1.00~4.00
Roughing	VR	WNMG 060408-VR																							0.20~0.40	1.00~6.00
		080404-VR																							0.20~0.50	0.80~7.00
		080408-VR																							0.25~0.55	1.20~7.00
		080412-VR																							0.30~0.60	1.50~7.00
		080416-VR																							0.40~0.60	1.50~4.00
Medium to roughing	B25	WNMM 100608-B25								●															0.30~0.80	3.00~8.00
		130612-B25																							0.40~0.90	4.00~10.00
Finishing	SR new [Shaft]	WNMX 080404R-SR																							0.10~0.35	0.70~3.00
		080408R-SR																							0.12~0.40	1.00~3.00
		080404L-SR																							0.10~0.35	0.70~3.00
		080408L-SR																							0.12~0.40	1.00~3.00
Medium cutting	SH [Shaft]	WNMX 080404R-SH																							0.15~0.30	1.00~4.00
		080408R-SH																							0.15~0.50	1.50~5.00
		080404L-SH																							0.15~0.30	1.00~4.00
		080408L-SH																							0.15~0.50	1.50~5.00

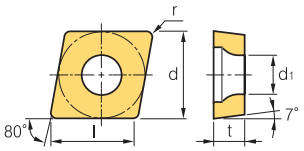
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : Stock item

Available tool holders			
Designation	Page	Designation	Page
MWLNR/L	B177	**WWLNR/L**	B168
PWLNR/L	B200		

CC○○

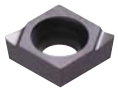
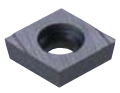
Rhombic 80° Positive
Relief Angle: 7°



Dimensions (mm)			
Size	d	t	d1
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			CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05
Steel	P		●	⬢	✱	●	⬢	●	⬢	⬢	✱	✱	●	●	⬢		✱								
Stainless steel	M										⬢	⬢			●	⬢	✱	⬢	✱		●	⬢	⬢		
Cast iron	K		●	⬢	✱	●	⬢	⬢				⬢	⬢	⬢										●	⬢
Non-ferrous metal	N																							●	⬢
Heat resistant alloy, Titanium alloy	S											●				●	●	⬢	✱	●	●	⬢		●	⬢
Hardened steel	H																				⬢	✱		●	⬢

Machining types
- ● 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	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																				●			0.01~0.10	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	KF  [High precision]	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	KM  [High precision]	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

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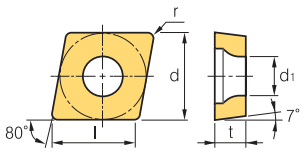
Rhombic 80° Positive
Relief Angle: 7°



Dimensions (mm)			
Size	d	t	d1
06	6.35	2.38	2.8
09	9.525	3.97	4.4

Workpiece			Machining types
Steel	P	● ⬌ ✱ ● ⬌ ● ⬌ ⬌ ✱ ✱ ● ● ⬌ ✱	● Continuous cutting
Stainless steel	M	✱ ⬌ ⬌ ✱ ⬌ ● ⬌ ✱ ⬌ ✱ ✱ ●	⬌ General cutting
Cast iron	K	● ⬌ ✱ ● ⬌ ⬌ ⬌ ⬌ ⬌ ⬌ ● ●	✱ 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	fn (mm/rev)	ap (mm)
Finishing	KF	CCGT 0602003R-KF																								0.01~0.06	0.04~1.30
		060201R-KF																								0.02~0.08	0.05~1.50
		060202R-KF																								0.03~0.11	0.06~1.70
		09T3003R-KF																								0.02~0.08	0.05~1.50
		09T301R-KF																								0.03~0.11	0.06~1.70
		09T302R-KF																								0.04~0.15	0.08~2.00
		0602003L-KF																								0.01~0.06	0.04~1.30
		060201L-KF																								0.02~0.08	0.05~1.50
		060202L-KF																								0.03~0.11	0.06~1.70
		09T3003L-KF																								0.02~0.08	0.05~1.50
		09T301L-KF																								0.03~0.11	0.06~1.70
		09T302L-KF																								0.04~0.15	0.08~2.00
Finishing	VP1	CCGT 060201-VP1																●		●	●	●		●		0.05~0.06	0.06~1.00
		060202-VP1																●		●	●	●		●		0.03~0.10	0.08~1.50
		060204-VP1																●		●	●	●		●		0.05~0.12	0.10~1.50
		09T301-VP1																●		●	●	●		●		0.03~0.13	0.06~1.00
		09T302-VP1																●		●	●	●		●		0.04~0.15	0.08~1.50
		09T304-VP1																●		●	●	●		●		0.06~0.20	0.10~1.50
Finishing	VP1 [High precision]	CCGT 060201MFN-VP1																●			●					0.03~0.06	0.06~1.00
		060202MFN-VP1																●			●					0.03~0.10	0.08~1.50
		060204MFN-VP1																●			●					0.05~0.12	0.10~1.50
		09T301MFN-VP1																●			●					0.03~0.13	0.06~1.00
		09T302MFN-VP1																●			●					0.04~0.15	0.08~1.50
		09T304MFN-VP1																●			●					0.06~0.20	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
SCACR/L	B113, 178	**SCLCR/L**	B113, 178, 204, 214

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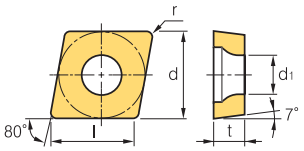
Rhombic 80° Positive
Relief Angle: 7°



Dimensions (mm)			
Size	d	t	d1
06	6.35	2.38	2.8
09	9.525	3.97	4.4
12	12.7	4.76	5.5

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

Machining types
- ● 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	fn (mm/rev)	ap (mm)
Medium to finishing	KM	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	VF	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	VL	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	VP1	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

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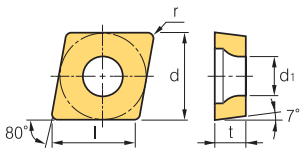
Rhombic 80° Positive
Relief Angle: 7°



Dimensions (mm)			
Size	d	t	d1
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			Machining types
Steel	P	● ⬌ ✱ ● ⬌ ● ⬌ ⬌ ✱ ✱ ● ● ⬌ ✱	● Continuous cutting
Stainless steel	M	⬌ ✱ ⬌ ⬌ ✱ ● ⬌ ✱ ● ⬌ ✱ ⬌ ✱	⬌ General cutting
Cast iron	K	● ⬌ ✱ ● ⬌ ⬌ ⬌ ✱ ⬌ ⬌ ✱ ● ⬌	✱ 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	fn (mm/rev)	ap (mm)
Medium to finishing	HMP	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	MP	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	C25	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

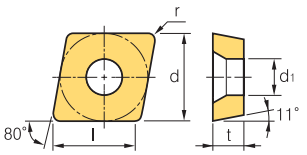
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : Stock item

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

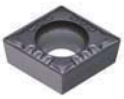
CP○○

Rhombic 80° Positive
Relief Angle: 11°



Dimensions (mm)			
Size	d	t	d1
06	6.35	2.38	2.8
08	7.94	2.38	3.4
09	9.525	3.18	4.4

Workpiece			Machining types
Steel	P	● ⬌ ✱	● Continuous cutting
Stainless steel	M	⬌ ✱	⬌ General cutting
Cast iron	K	● ⬌ ✱	✱ 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	fn (mm/rev)	ap (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	HMP 	CPGT	090308-HMP																							0.05~0.20	0.70~2.00
Finishing	VF 	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	VL 	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	C25 	CPMT	060204-C25																							0.05~0.15	0.60~2.30

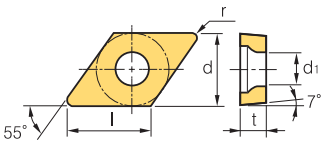
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : Stock item

Available tool holders			
Designation	Page	Designation	Page
SCLPR/L	B205		

DC○○

Rhombic 55° Positive
Relief Angle: 7°



Dimensions (mm)			
Size	d	t	d1
07	6.35	2.38	2.8
11	9.525	3.97	4.4

Workpiece			Machining types
Steel	P	● ⬌ ✱ ● ⬌ ● ⬌ ⬌ ✱ ✱ ● ● ⬌ ✱	● Continuous cutting
Stainless steel	M	⬌ ⬌ ✱ ⬌ ⬌ ✱ ⬌ ⬌ ● ⬌ ✱ ⬌ ✱ ● ⬌ ⬌	⬌ General cutting
Cast iron	K	● ⬌ ✱ ● ⬌ ⬌ ⬌ ✱ ⬌ ⬌ ⬌ ✱ ● ⬌	✱ 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	fn (mm/rev)	ap (mm)
Finishing	KF [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	KM [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	KF	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

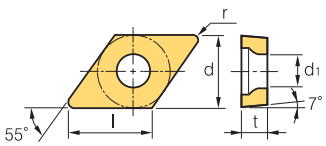
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : 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

DC○○

Rhombic 55° Positive
Relief Angle: 7°



Dimensions (mm)			
Size	d	t	d1
07	6.35	2.38	2.8
11	9.525	3.97	4.4

Workpiece			Machining types
Steel	P	● ⬌ ✱	● Continuous cutting
Stainless steel	M	⬌ ✱	⬌ General cutting
Cast iron	K	● ⬌ ✱	✱ 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	fn (mm/rev)	ap (mm)
Finishing	VP1	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	VP1 [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	KM	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	VF [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

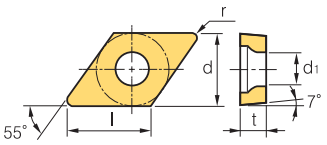
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : 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	d1
07	6.35	2.38	2.8
11	9.525	3.97	4.4

Workpiece			Machining types
Steel	P	● ⬌ ✱ ● ⬌	● Continuous cutting
Stainless steel	M	⬌ ✱ ⬌ ⬌ ✱ ⬌ ⬌ ● ⬌ ✱ ⬌ ✱ ● ⬌ ⬌	⬌ General cutting
Cast iron	K	● ⬌ ✱ ● ⬌ ⬌ ⬌ ⬌ ⬌ ● ⬌ ⬌ ● ⬌	✱ 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	fn (mm/rev)	ap (mm)
Finishing	VL	DCMT	070202-VL																							0.02~0.10	0.06~0.80
			070204-VL	●		●	●	●	●		●		●			●	●	●	●	●	●	●	●	●	●	0.04~0.10	0.08~0.90
			070208-VL						●		●		●						●								0.06~0.12	0.10~1.00
			11T302-VL																								0.03~0.10	0.07~0.80
			11T304-VL	●		●	●	●	●		●		●			●	●	●	●	●		●				●	0.05~0.10	0.10~1.00
			11T308-VL	●		●	●	●	●		●		●			●	●	●	●	●	●	●	●		●	●	0.08~0.15	0.10~1.00
			11T312-VL																								0.08~0.15	0.30~1.50
Finishing	VP1	DCMT	070204-VP1																								0.05~0.12	0.10~1.50
			11T304-VP1																								0.06~0.20	0.10~1.50
			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
			070204-HMP							●		●	●						●			●		●			0.06~0.17	0.20~2.30
			070208-HMP							●		●										●		●			0.08~0.23	0.40~2.30
			11T302-HMP									●							●			●		●			0.04~0.22	0.10~2.00
			11T304-HMP			●				●	●	●	●						●			●		●			0.08~0.23	0.30~3.00
			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
			070204-MP	●		●	●	●	●		●		●			●	●	●	●	●	●	●	●				0.05~0.15	0.30~1.80
			070208-MP	●		●	●	●	●		●		●			●	●	●	●	●	●	●	●				0.08~0.22	0.30~1.80
			11T302-MP	●		●	●	●	●		●		●			●	●	●	●	●	●	●	●				0.04~0.15	0.30~2.00
			11T304-MP	●		●	●	●	●		●		●	●	●	●	●	●	●	●	●	●	●				0.08~0.20	0.50~2.30
			11T308-MP	●		●	●	●	●		●		●	●	●	●	●	●	●	●	●	●	●				0.10~0.30	0.50~2.30
			11T312-MP														●	●									0.25~0.35	0.80~3.00
Medium cutting	C25 new	DCMT	070202-C25	●	●	●	●	●	●		●		●						●	●		●					0.03~0.15	0.30~2.00
			070204-C25	●	●	●	●	●	●		●	●	●		●				●	●		●		●			0.05~0.20	0.50~2.50
			070208-C25	●		●	●	●	●		●	●	●		●				●	●		●					0.06~0.25	0.80~2.50
			11T302-C25	●	●	●	●	●	●		●		●						●	●		●					0.04~0.25	0.50~2.50
			11T304-C25	●	●	●	●	●	●	●	●	●	●	●	●				●	●		●		●			0.08~0.30	0.80~3.00
			11T308-C25	●		●	●	●	●	●	●	●	●	●	●				●	●		●		●			0.10~0.30	1.00~3.00

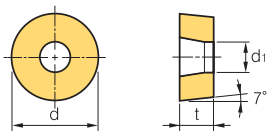
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : 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

RC○○

Round R° Positive
Relief Angle: 7°



Dimensions (mm)			
Size	d	t	d1
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

Workpiece

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

Machining types
● 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	fn (mm/rev)	ap (mm)
Medium cutting	VM	RCMT 0803M0-VM																							0.05~0.30	0.80~2.50
		RCMT 10T3M0-VM																							0.05~0.35	0.90~3.00
		RCMT 1204M0-VM																							0.10~0.50	1.00~3.50
		RCMT 1606M0-VM																							0.13~0.60	1.30~6.50
Medium cutting		RCMX 1003M0								●	●	●		●											0.25~0.50	1.50~4.00
		RCMX 1204M0							●	●	●	●		●											0.30~0.60	2.50~5.00
		RCMX 1606M0								●	●	●		●											0.40~0.70	3.00~7.00
		RCMX 2006M0									●			●											0.48~0.90	3.50~9.00
		RCMX 2507M0									●			●											0.55~1.20	4.00~12.00
		RCMX 3209M0									●			●											0.65~1.50	5.00~15.00

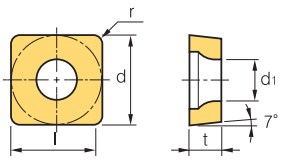
Cutting edge geometry A52~A61 Recommended chip breaker B04~B11 Code system B26~B27

● : Stock item

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

SC○○

Square 90° Positive
Relief Angle: 7°



Dimensions (mm)			
Size	d	t	d1
09	9.525	3.97	4.4

Workpiece

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

Machining types
● 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	fn (mm/rev)	ap (mm)
Finishing	VF	SCMT 09T304-VF								●								●								0.05~0.20	0.30~1.50

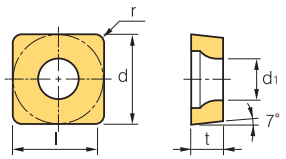
Cutting edge geometry A52~A61 Recommended chip breaker B04~B11 Code system B26~B27

● : 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	d1
06	6.35	2.38	2.8
09	9.525	3.97	4.4
12	12.7	4.76	5.5

Workpiece			Machining types
Steel	P	● ⬌ ✱ ● ⬌ ● ⬌ ⬌ ✱ ✱ ● ● ⬌ ✱	● Continuous cutting
Stainless steel	M	⬌ ✱ ⬌ ⬌ ✱ ● ● ⬌ ● ⬌ ✱ ⬌ ✱	⬌ General cutting
Cast iron	K	● ⬌ ✱ ● ⬌ ⬌ ✱ ⬌ ⬌ ⬌ ✱ ● ⬌	✱ 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	fn (mm/rev)	ap (mm)
Finishing	VL	SCMT	09T304-VL	●		●	●	●	●		●		●			●	●	●	●	●	●	●	●				0.05~0.10	0.10~1.00
			09T308-VL	●		●	●	●	●		●		●			●	●	●	●	●	●	●	●				0.08~0.15	0.10~1.00
Medium to finishing	HMP	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	MP new	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	C25	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

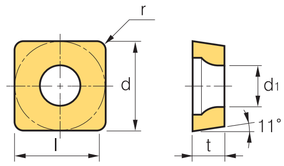
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : Stock item

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

SP ○○

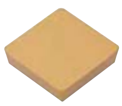
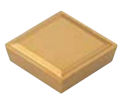
Square 90° Positive
Relief Angle: 11°



Dimensions (mm)			
Size	d	t	d1
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		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05
Steel	P	●	◐	✲	●	◐	●	◐	◐	✲	✲	●	●	◐		✲								
Stainless steel	M									◐	◐			●	◐	✲	◐	✲		●	◐	◐		
Cast iron	K	●	◐	✲	●	◐	◐				◐	◐	◐										●	◐
Non-ferrous metal	N																						●	◐
Heat resistant alloy, Titanium alloy	S										●				●	●	◐	✲	●	●	◐		●	◐
Hardened steel	H																			◐	✲		●	◐

Machining types
- ● Continuous cutting
- ◐ General cutting
- ✲ Interrupted cutting

	Inserts	Designation		Cermet: CN1500	CN2000	CN2500	Coated: CC1500	CC2500	Coated: NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	Uncoated: H01	H05	Cutting Condition: fn (mm/rev)	ap (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		●																						0.10~0.25	0.70~3.00
			(Z = Special Nega land)																									
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	F 	SPGR	090304-F																								0.05~0.20	0.30~2.00
			120304-F																								0.10~0.25	0.50~2.00

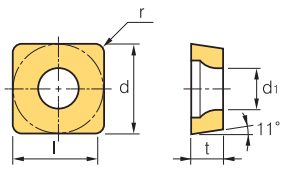
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : Stock item

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

SP○○

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



Dimensions (mm)			
Size	d	t	d1
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	-

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

Machining types
- ● 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	fn (mm/rev)	ap (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

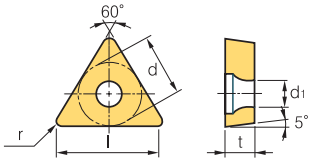
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : Stock item

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

TB○○

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



Dimensions (mm)			
Size	d	t	d1
06	3.97	1.59	2.16

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

Machining types
● Continuous cutting
⬌ General cutting
✱ Interrupted cutting

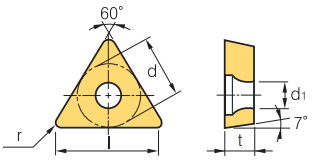
Inserts		Designation		Cermet			Coated		Coated															Uncoated		Cutting Condition	
				CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	fn (mm/rev)	ap (mm)
Finishing		TBGT	**060102L**		●																		●	●		0.05~0.20	0.10~1.30
			060104L		●																					0.08~0.20	0.10~1.30
Finishing	VL 	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	d1
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	● ⇕ ✱	● Continuous cutting
Stainless steel	M	⇕ ✱	⇕ General cutting
Cast iron	K	● ⇕ ✱	✱ 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	fn (mm/rev)	ap (mm)
Finishing	KF	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	VP1	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	VF	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	VL	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
	[Mild steel]																										
Finishing	VP1	TCMT	16T304-VP1																							0.06~0.20	0.10~1.50
			16T308-VP1																							0.08~0.23	0.10~1.50
Medium to finishing	HMP	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

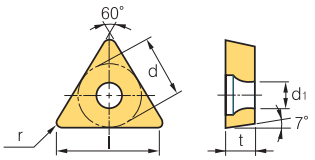
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : 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		

TC○○

Triangular 60° Positive
Relief Angle: 7°



Dimensions (mm)			
Size	d	t	d1
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	● Continuous cutting
	Stainless steel	M	⬌ General cutting
	Cast iron	K	✱ Interrupted cutting
	Non-ferrous metal	N	
	Heat resistant alloy, Titanium alloy	S	
	Hardened steel	H	

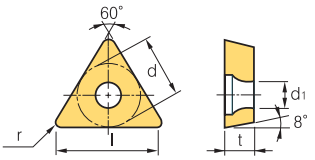
Inserts		Designation	Cermet			Coated		Coated															Uncoated		Cutting Condition	
			CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	fn (mm/rev)	ap (mm)
Medium to finishing	MP	TCMT 090204-MP													●	●	●									0.05~0.18	0.10~1.00
		090208-MP													●	●	●									0.08~0.20	0.10~1.20
		110202-MP						●		●		●			●	●	●			●	●					0.03~0.12	0.20~1.50
		110204-MP						●		●		●			●	●	●			●	●					0.05~0.15	0.20~15.0
		110208-MP						●		●		●			●	●	●	●		●	●					0.10~0.28	0.25~2.00
		16T302-MP																								0.08~0.25	0.20~1.50
		16T304-MP	●		●	●	●	●		●		●		●	●	●	●	●	●	●	●	●				0.08~0.20	0.30~2.50
		16T308-MP	●		●	●	●	●		●		●	●	●	●	●	●	●	●	●	●	●				0.10~0.30	0.50~2.50
		16T312-MP						●		●		●			●	●	●			●	●	●				0.20~0.40	0.50~2.50
		220408-MP																								0.20~0.40	0.50~3.50
Medium cutting	C25	TCMT 090204-C25	●		●	●	●	●		●	●	●		●				●	●		●					0.06~0.18	0.40~2.50
		090208-C25	●		●	●	●	●		●		●		●				●	●		●					0.08~0.25	0.80~2.50
		110202-C25	●		●	●	●	●		●		●						●	●		●					0.04~0.12	0.40~2.00
		110204-C25	●	●	●	●	●	●		●	●	●		●				●	●		●					0.06~0.20	0.60~2.50
		110208-C25	●		●	●	●	●		●	●	●		●				●	●		●		●			0.08~0.25	0.80~2.50
		16T304-C25	●		●	●	●	●	●	●	●	●		●				●	●		●		●			0.08~0.28	0.80~3.00
		16T308-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

TO○○

Triangular 60° Positive
Relief Angle: 8°



Dimensions (mm)			
Size	d	t	d1
06	3.97	1.59	2.15
09	5.56	2.38	2.8
14	8.2	3.0	3.8

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

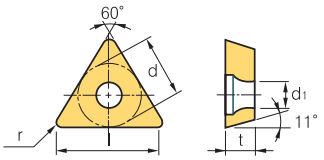
Inserts		Designation	Cermet			Coated		Coated															Uncoated		Cutting Condition	
			CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	fn (mm/rev)	ap (mm)
Medium to finishing		TOEH 060102L	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

Cutting edge geometry A52~A61 Recommended chip breaker B04~B11 Code system B26~B27

● : Stock item

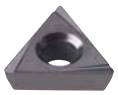
TP ○○

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			Machining types
	Steel	P	● Continuous cutting
	Stainless steel	M	⬌ General cutting
	Cast iron	K	✱ 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	fn (mm/rev)	ap (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	F 	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	M 	TPGR	110308-M																							0.13~0.30	1.00~3.00
			160308-M																							0.13~0.30	1.00~5.00

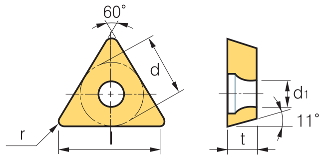
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : Stock item

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

TP ◯◯

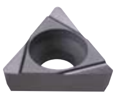
Triangular 60° Positive
Relief Angle: 11°



Dimensions (mm)			
Size	d	t	d1
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	-

Machining types: ● Continuous cutting; ◐ General cutting; ✱ Interrupted cutting

Workpiece		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05
Steel	P	●	◐	✱	●	◐	●	◐	◐	✱	✱	●	●	◐		✱								
Stainless steel	M									◐	◐			●	◐	✱	◐	✱		●	◐	◐		
Cast iron	K	●	◐	✱	●	◐	◐				◐	◐	◐										●	◐
Non-ferrous metal	N																						●	◐
Heat resistant alloy, Titanium alloy	S										●				●	●	◐	✱	●	●	◐		●	◐
Hardened steel	H																			◐	✱		●	◐

Inserts	Designation		Cermet CN1500	Cermet CN2000	Cermet CN2500	Coated CC1500	Coated CC2500	Coated NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	Uncoated H01	H05	Cutting Condition fn (mm/rev)	ap (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 F 	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 M 	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

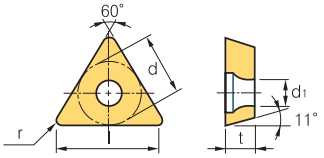
Cutting edge geometry A52~A61 · Recommended chip breaker B04~B11 · Code system B26~B27

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

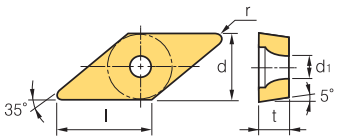
Inserts	Designation		Cermet			Coated		Coated														Uncoated		Cutting Condition	
			CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	fn (mm/rev)	ap (mm)
Finishing	VF	TPMT 110304-VF		●						●		●						●			●					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	VL	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	MP new	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

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
	Steel	P	● Continuous cutting
	Stainless steel	M	⬌ General cutting
	Cast iron	K	✱ 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	fn (mm/rev)	ap (mm)
Finishing	KF	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	VP1	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	KM	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	VB	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	VF		160404-VF	●	●	●					●		●						●			●				0.05~0.20	0.30~1.00
			160408-VF	●	●	●													●							0.10~0.25	0.30~1.00

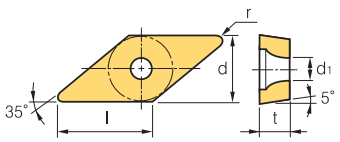
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : 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○○

Rhombic 35° Positive
Relief Angle: 5°



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

Workpiece			Machining types
Steel	P	● ⬌ ✱ ● ⬌ ● ⬌ ⬌ ✱ ✱ ● ● ⬌ ✱	● Continuous cutting
Stainless steel	M	✱ ⬌ ⬌ ✱ ● ⬌ ⬌ ● ⬌ ✱ ⬌ ✱ ● ⬌ ⬌
Cast iron	K	● ⬌ ✱ ● ⬌ ⬌ ⬌ ✱ ⬌ ⬌ ● ⬌ ⬌ ● ⬌	⬌ General cutting
Non-ferrous metal	N	● ⬌
Heat resistant alloy, Titanium alloy	S	● ⬌ ● ● ⬌ ✱ ● ● ⬌
Hardened steel	H	⬌ ✱ ● ⬌	✱ 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	fn (mm/rev)	ap (mm)
Finishing	VL [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	VP1	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	HMP	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	MP new	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

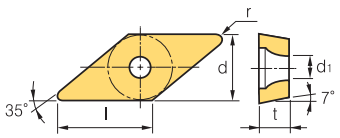
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : 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

VC○○

Rhombic 35° Positive
Relief Angle: 7°



Dimensions (mm)			
Size	d	t	d1
11	6.35	3.18	2.8~3.4
16	9.525	4.76	4.4

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

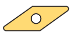
Inserts		Designation		Cermet			Coated		Coated														Uncoated		Cutting Condition	
				CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	fn (mm/rev)	ap (mm)
Finishing	KF [High precision]	VCET	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	KM [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	KF	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	VP1	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	VP1 [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	KM	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**

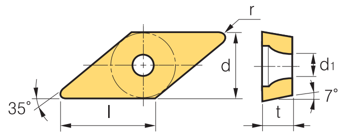
● : Stock item

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

VC○○



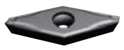
Rhombic **35° Positive**
Relief Angle: 7°



Dimensions (mm)			
Size	d	t	d1
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		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05
Steel	P	●	◐	✱	●	◐	●	◐	◐	✱	✱	●	●	◐		✱								
Stainless steel	M									◐	◐			●	◐	✱	◐	✱		●	◐	◐		
Cast iron	K	●	◐	✱	●	◐	◐				◐	◐	◐										●	◐
Non-ferrous metal	N																						●	◐
Heat resistant alloy, Titanium alloy	S										●				●	●	◐	✱	●	●	◐		●	◐
Hardened steel	H																			◐	✱		●	◐

Machining types
● Continuous cutting
◐ General cutting
✱ Interrupted cutting

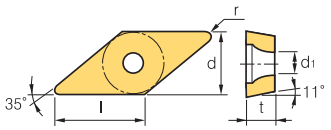
	Inserts	Designation		Cermet CN1500	Cermet CN2000	Cermet CN2500	Coated CC1500	Coated CC2500	Coated NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	Uncoated H01	Uncoated H05	Cutting Condition fn (mm/rev)	Cutting Condition ap (mm)
Finishing	VP1  [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	VF 	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	VL  [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	VP1 	VCMT	160404-VP1																								0.05~0.20	0.18~1.80
			160408-VP1																								0.06~0.20	0.20~1.80
Medium to finishing	HMP 	VCMT	160404-HMP							●		●							●			●		●			0.10~0.25	0.30~2.60
			160408-HMP							●		●							●			●		●			0.13~0.33	0.60~2.60
Medium to finishing	MP 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

VP ○○



Dimensions (mm)			
Size	d	t	d_1
08	6.35	2.38	2.3
11	6.35	3.18	2.8

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

Workpiece			CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6310	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05
Workpiece	Steel	P	●	⬌	⌗	●	⬌	●	⬌	⬌	⌗	⌗	●	●	⬌		⌗								
	Stainless steel	M									⬌	⬌			●	⬌	⌗	⬌	⌗		●	⬌	⬌		
	Cast iron	K	●	⬌	⌗	●	⬌	⬌				⬌	⬌	⬌										●	⬌
	Non-ferrous metal	N																						●	⬌
	Heat resistant alloy, Titanium alloy	S										●				●	●	⬌	⌗	●	●	⬌		●	⬌
	Hardened steel	H																			⬌	⌗		●	⬌

Machining types
- ● 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	fn (mm/rev)	ap (mm)
Finishing	KF [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	KM [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	VP1	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	VP1 [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

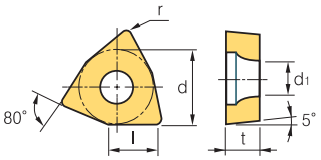
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : Stock item

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

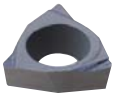
WB○○

Trigon 80° Positive
Relief Angle: 5°



Dimensions (mm)			
Size	d	t	d_1
02	3.97	1.59	2.2
S3	4.76	2.38	2.4

Workpiece																								Machining types
	Steel	P	●	⬌	✱	●	⬌	●	⬌	⬌	✱	✱	●	●	⬌		✱							
	Stainless steel	M									⬌	⬌			●	⬌	✱	⬌	✱		●	⬌	⬌	
	Cast iron	K	●	⬌	✱	●	⬌	⬌				⬌	⬌	⬌										● Continuous cutting
	Non-ferrous metal	N																				●	⬌	⬌ General cutting
	Heat resistant alloy, Titanium alloy	S									●				●	●	⬌	✱	●	●	⬌	●	⬌	✱ Interrupted cutting
	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	fn (mm/rev)	ap (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

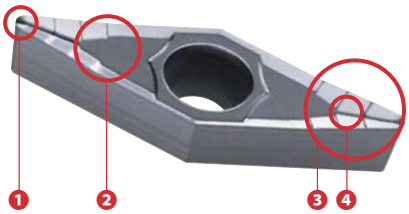
AK special chip breaker for aluminum

- 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

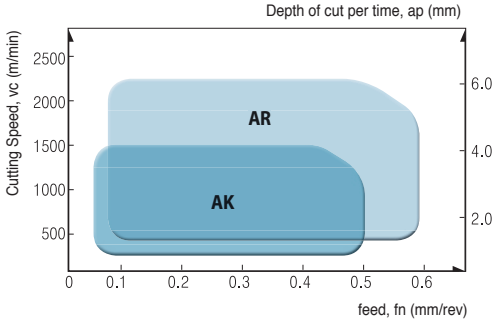
AR special chip breaker for aluminum

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

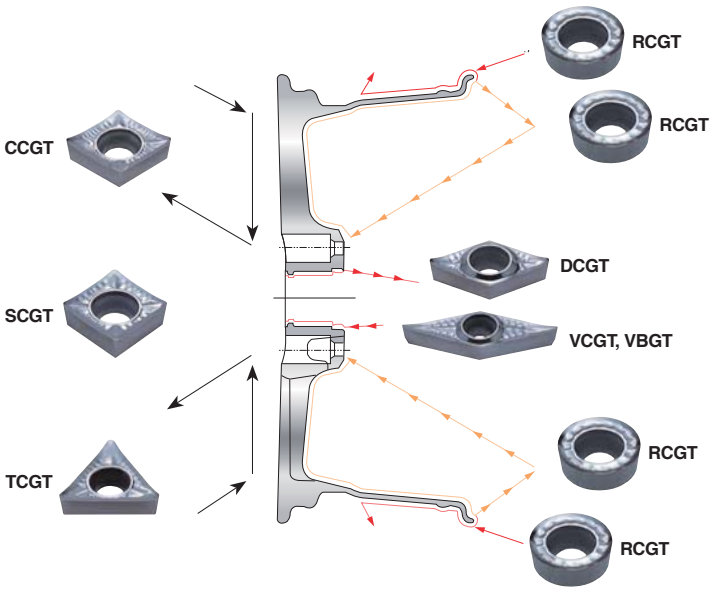


1. Flat corner cutting edge improved productivity at high feed machining and ensures good surface roughness and reliability owing to strong cutting edge
2. Specially buffed on top face controls chip flow reducing built-up edge
3. KORLOY's own technology applied for cutting edge and corner shape controlling 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 ㎜ fn=0.03~0.5 ㎜/rev	H01 (Uncoated cemented carbides K10~K20) ND1000 (Diamond coating) PD1000 (DLC coating)
AR	ap=0.5~6.0 ㎜ fn=0.05~0.6 ㎜/rev	H01 (Uncoated cemented carbides K10~K20) ND1000 (Diamond coating) PD1000 (DLC coating)



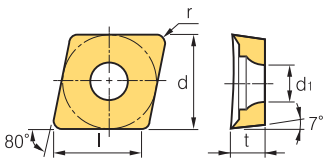
Features of H01 and cutting conditions

- 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 ○○

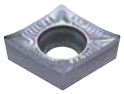
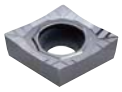
Rhombic 80° Positive
Relief Angle: 7°



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						
Stainless steel	M						
Cast iron	K						
Non-ferrous metal	N	✱	●	✱	◆	✱	
Heat resistant alloy, Titanium alloy	S						
Hardened steel	H						

Machining types
● Continuous cutting
◆ General cutting
✱ Interrupted cutting

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	0.30~4.00
		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

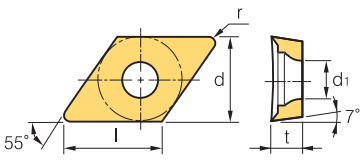
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : Stock item

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

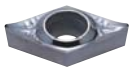
DC ○○

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						
Cast iron	K						● Continuous cutting
Non-ferrous metal	N	✱	●	✱	◖	✱	◖ General cutting
Heat resistant alloy, Titanium alloy	S						✱ Interrupted cutting
Hardened steel	H						

Inserts	Designation		Coated			Uncoated		Cutting Condition	
			PC5040	PD1000	PD1010	H01	H05	fn (mm/rev)	ap (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

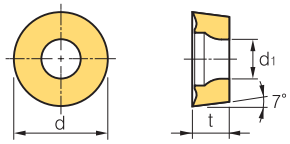
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : 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						● Continuous cutting
Non-ferrous metal	N	✱	●	✱	◆	✱	◆ General cutting
Heat resistant alloy, Titanium alloy	S						✱ Interrupted cutting
Hardened steel	H						

Inserts	Designation		Coated			Uncoated		Cutting Condition	
			PC5040	PD1000	PD1010	H01	H05	fn (mm/rev)	ap (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

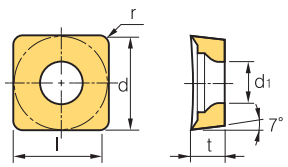
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : Stock item

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

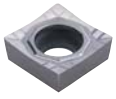
SC ○○

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

Inserts	Designation		Coated			Uncoated		Cutting Condition	
			PC5040	PD1000	PD1010	H01	H05	fn (mm/rev)	ap (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

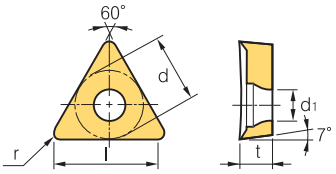
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : Stock item

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

TC ○○

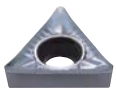
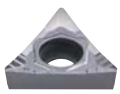
Triangular **60° Positive**
Relief Angle: 7°



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						
Stainless steel	M						
Cast iron	K						
Non-ferrous metal	N	✱	●	✱	◆	✱	
Heat resistant alloy, Titanium alloy	S						
Hardened steel	H						

Machining types
● Continuous cutting
◆ General cutting
✱ Interrupted cutting

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

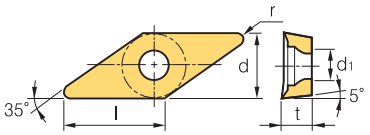
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : Stock item

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

VB ○○

Rhombic 35° Positive
Relief Angle: 5°



Dimensions (mm)			
Size	d	t	d1
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						● Continuous cutting
Non-ferrous metal	N	✱	●	✱	◐	✱	◐ General cutting
Heat resistant alloy, Titanium alloy	S						✱ Interrupted cutting
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

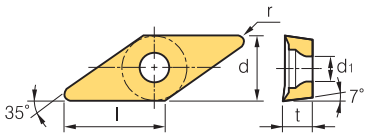
Cutting edge geometry **A52~A61** Recommended chip breaker **B04~B11** Code system **B26~B27**

● : 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	d1
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						
Cast iron	K						● Continuous cutting
Non-ferrous metal	N	✱	●	✱	◆	✱	◆ General cutting
Heat resistant alloy, Titanium alloy	S						✱ Interrupted cutting
Hardened steel	H						

Inserts	Designation		Coated			Uncoated		Cutting Condition	
			PC5040	PD1000	PD1010	H01	H05	fn (mm/rev)	ap (mm)
AK 	VCGT	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 	VCGT	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

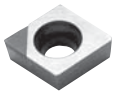
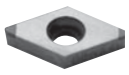
Inserts	Designation		Coated			Uncoated							Available tool holders			
			DNC250	DNC350	DNC400	DB1000	DB2000	DBN400	DBN250	DBN300	DBN700A	DBNX20	Designation		Page	
CN○○ 80° Nega	2NU-CNGA	120404	●	●		●	●				●		DCBNR/L	DCLNR/L	B154	B154
		120404F	●				●						MCKNR/	MCLNR/L	B171	B171
		120404T	●			●	●						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							●							
	2NS-CNGA	120408			●			●								
DN○○ 55° Nega	2NU-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	●													
	2NS-DNGA	150408			●			●								
SN○○ 90° Nega	4NU-SNGA	120404	●			●	●				●		DSBNR/L	MSBNR/L	B155	B173
		120404F					●						MSDNN	MSKNR/L	B173	B174
		120404T				●	●						MSRNR/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
CC○○ 80° Posi 	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	●											
DC○○ 55° Posi 	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	●											
TC○○ Posi 	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_1
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	DBNX20	Designation	Page
TP○○ 60° Posi	3NU-TPGB	110304	●						●				CTFPR/L	B170
		110304F	●										CTGPR/L	B170
		110304T	●											
		110308	●						●					
		110308F	●											
		110308T	●											
	3NU-TPGN	110304				●	●						CTFPR/L	B170 B201
		110304F					●						CTGPR/L	B170
		110304T				●	●							
		110308				●	●							
		110308F					●							
		110308T				●	●							
		160304	●	●										
		160308	●	●										
	3NU-TPGW	110304	●	●		●	●				●			
		110304F	●				●							
		110304T	●			●	●							
		110308	●	●		●	●				●			
		110308F	●				●							
		110308T	●			●	●							
VB○○ 35° Posi	2NU-VBGW	160404	●	●		●	●		●		●		SVABR/L	B183
		160404F	●				●						SVHBR/L	B183
		160404T	●			●	●						SVJBR/L	B183
		160408	●	●		●	●		●		●		SVQBR/L	B211
		160408F	●				●						SVUBR/L	B212
		160408T	●			●	●							
VC○○ 35° Posi	2NU-VCGW	160404	●	●		●	●				●			
		160404F	●				●							
		160404T	●			●	●							
		160408	●	●		●	●				●			
		160408F	●				●							
		160408T	●			●	●							

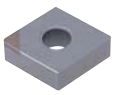
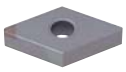
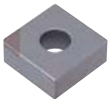
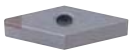
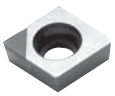
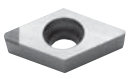
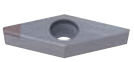
● : Stock item

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		●					
		09T312							
	CPMT	080204							
		080208							
		080212							
		090304							
		090308							
		090312							
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							

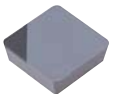
● : Stock item

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
TB ○○ TC ○○ TP ○○ 60° Posi 	TBGW	060102				STUBR/L	B214
		060104					
	TCMT	090201				STACR/L	B181
		090202				STFCR/L	B182
		090204				STFPR/L	B210
		110201				STGCR/L	B182
		110202				STTCR/L	B182
		110204					
	TPGB	080204					
		080208					
		090204		●			
		090208		●			
		110304					
		110308					
	TPGW	080202					
		080204					
		090204					
		090208					
		110302					
		110304		●			
		110308		●			
		160404					
		160408					
	TPGT	110302				STFPR/L	B210
		110304				STUPR/L	B215
VB ○○ VC ○○ 35° Posi 	VBMT	110302				SVABR/L	B183
		110304		●		SVHBR/L	B183
		110308		●		SVJBR/L	B183
		160402				SVQBR/L	B211
		160404		●		SVUBR/L	B212
		160408		●			
		160412		●			
	VCMT	110302				SVJCR	B184
		110304		●		SVVCN	B184
		110308		●			
		160404		●			
		160408		●			
		160412					
TP ○○ 60° Posi 	TPGN	090204				CTFPR/L	B170
		090208				CTGPR/L	B170
		110302					
		110304		●			
		110308		●			
		160302					
		160304					
		160308					
SP ○○ 90° Posi 	SPGN	090304		●		CSDPN	B169
		090308				CSKPR/L	B170
		120304					
		120308					

● : Stock item

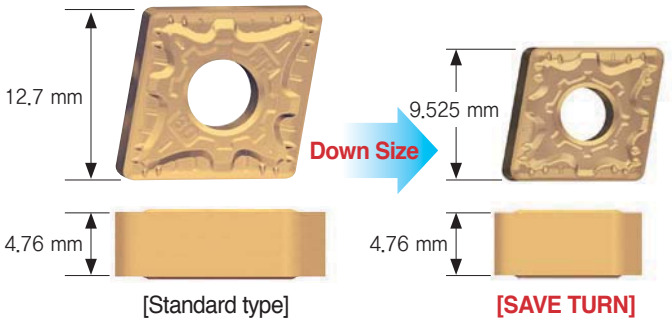
Economical small insert with powerful cutting performance

SAVE TURN

- Strongly recommended turning insert for machining smaller diameter than Ø100
- Small but powerful and economical insert which performs the same like standard-sized inserts under the depth of cut of 3.0 mm

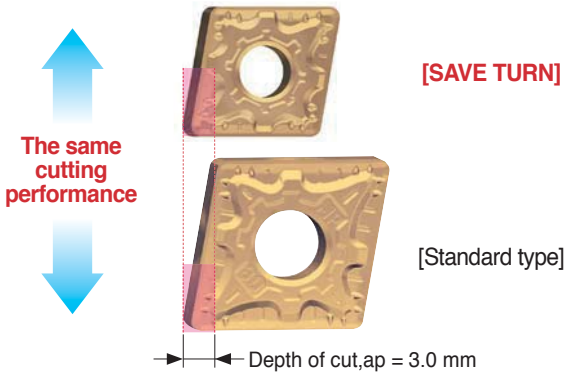
Features

Comparison of insert sizes



- Optimized size of the same performance like the standard type

Comparison of cutting performance

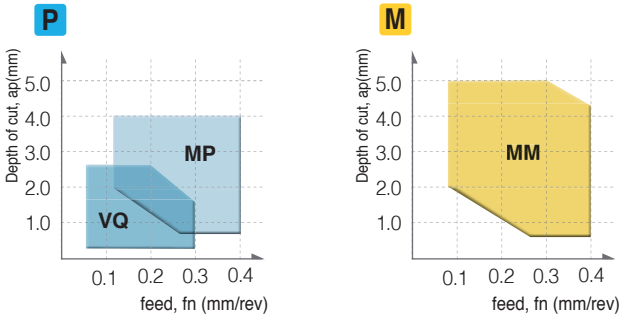


- Performs the same like standard type inserts under the depth of cut of 3.0 mm

Features of chip breaker

Insert shape	Cutting edge	Features
VQ		• 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
MP		• 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
MM		• 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**

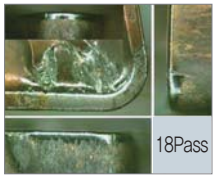
CNMG090408-HM
SAVE TURN

CNMG120408-HM
Standard type

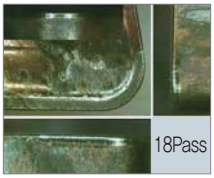
Alloy steel (SCM440)

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

■ **Cutting Result**

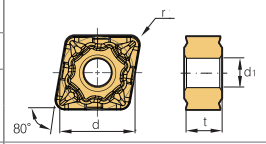
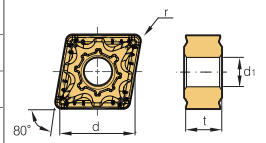
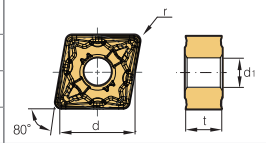
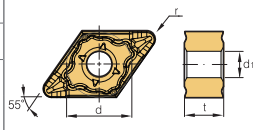
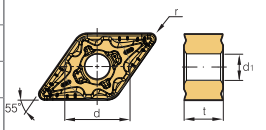
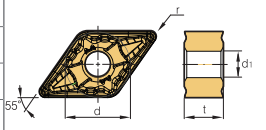
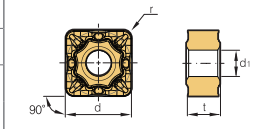
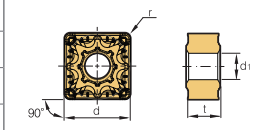
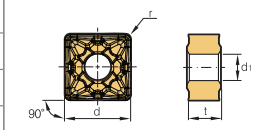
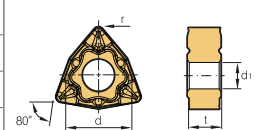
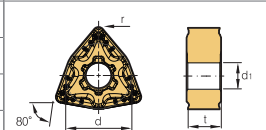
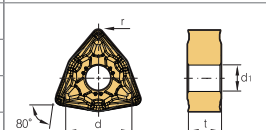


CNMG090408-HM
SAVE TURN



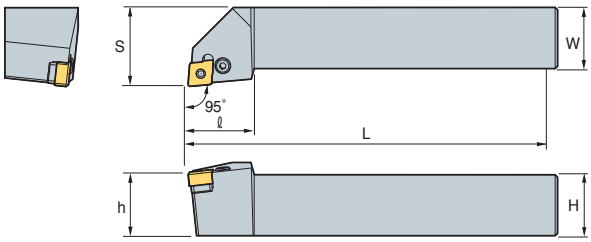
CNMG120408-HM
Standard type

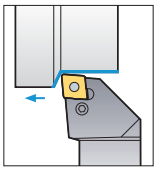
Insert

Type	Picture	Designation	Coated						Dimensions (mm)				cutting conditions		Configuration	Available tool holders page
			NC3215	NC3225	NC5330	NC9125	NC9135	PC9030	d	t	r	d_1	ap (mm)	fn (mm/rev)		
C type	CNMG-VQ	CNMG 090408-VQ			●				9.525	4.76	0.8	3.81	0.50~2.50	0.08~0.30		B106 B109
		090412-VQ			●				9.525	4.76	1.2	3.81	0.50~2.50	0.10~0.30		
	CNMG-MP	CNMG 090404-MP							9.525	4.76	0.4	3.81	0.50~4.00	0.10~0.40		B106 B109
		090408-MP							9.525	4.76	0.8	3.81	0.50~4.00	0.15~0.40		
		090412-MP							9.525	4.76	1.2	3.81	0.50~4.00	0.15~0.45		
	CNMG-MM	CNMG 090404-MM							9.525	4.76	0.4	3.81	0.50~5.00	0.08~0.35		B106 B109
		090408-MM							9.525	4.76	0.8	3.81	0.50~5.00	0.10~0.40		
		090412-MM							9.525	4.76	1.2	3.81	0.50~5.00	0.12~0.45		
D type	DNMG-VQ	DNMG 110508-VQ			●				9.525	5.56	0.4	3.81	0.50~2.50	0.08~0.30		B106 B107 B109 B110
		110512-VQ			●				9.525	5.56	0.8	3.81	0.50~2.50	0.10~0.30		
	DNMG-MP	DNMG 110504-MP							9.525	5.56	0.4	3.81	0.50~4.00	0.10~0.40		B106 B107 B109 B110
		110508-MP							9.525	5.56	0.8	3.81	0.50~4.00	0.15~0.40		
		110512-MP							9.525	5.56	1.2	3.81	0.50~4.00	0.15~0.45		
	DNMG-MM	DNMG 110504-MM							9.525	5.56	0.4	3.81	0.50~5.00	0.08~0.35		B106 B107 B109 B110
		110508-MM							9.525	5.56	0.8	3.81	0.50~5.00	0.10~0.40		
		110512-MM							9.525	5.56	1.2	3.81	0.50~5.00	0.12~0.45		
S type	SNMG-VQ	SNMG 090408-VQ			●				9.525	4.76	0.4	3.81	0.50~2.50	0.08~0.30		B107 B108 B110
		090412-VQ			●				9.525	4.76	0.8	3.81	0.50~2.50	0.10~0.30		
	SNMG-MP	SNMG 090404-MP							9.525	4.76	0.4	3.81	0.50~4.00	0.10~0.40		B107 B108 B110
		090408-MP							9.525	4.76	0.8	3.81	0.50~4.00	0.15~0.40		
		090412-MP							9.525	4.76	1.2	3.81	0.50~4.00	0.15~0.45		
	SNMG-MM	SNMG 090404-MM							9.525	4.76	0.4	3.81	0.50~5.00	0.08~0.35		B107 B108 B110
		090408-MM							9.525	4.76	0.8	3.81	0.50~5.00	0.10~0.40		
		090412-MM							9.525	4.76	1.2	3.81	0.50~5.00	0.12~0.45		
W type	WNMG-VQ	WNMG 060404-VQ							9.525	4.76	0.4	3.81	0.30~2.00	0.06~0.30		B109 B110
		060408-VQ							9.525	4.76	0.8	3.81	0.50~2.00	0.08~0.30		
		060412-VQ							9.525	4.76	1.2	3.81	0.50~2.00	0.10~0.30		
	WNMG-MP	WNMG 060404-MP	●	●	●	●			9.525	4.76	0.4	3.81	0.50~3.50	0.10~0.40		B109 B110
		060408-MP	●	●	●	●			9.525	4.76	0.8	3.81	0.50~3.50	0.15~0.40		
		060412-MP							9.525	4.76	1.2	3.81	0.50~3.50	0.15~0.45		
	WNMG-MM	WNMG 060404-MM							9.525	4.76	0.4	3.81	0.50~4.00	0.08~0.35		B109 B110
		060408-MM				●	●	●	9.525	4.76	0.8	3.81	0.50~4.00	0.10~0.40		
		060412-MM				●	●	●	9.525	4.76	1.2	3.81	0.50~4.00	0.12~0.45		

PCLNR/L

CN□□





95°

• R type insert

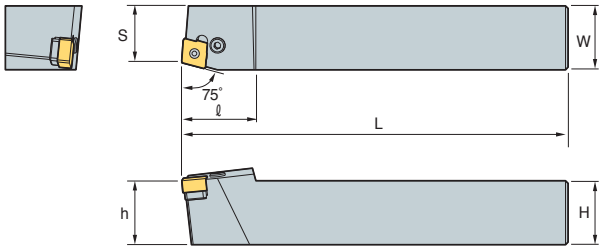
(mm)

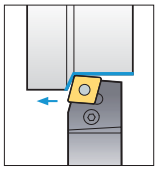
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PCLNR/L	1616-H09-4N	16	16	100	20	16	20	CN□□0904□□	LV3N	VHX0617N	SC32N	SP3	HW25L	LSP3
	2020-K09-4N	20	20	125	25	20	25							
	2525-M09-4N	25	25	150	32	25	27							

Applicable inserts **B105**

PCBNR/L

CN□□





75°

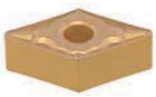
• R type insert

(mm)

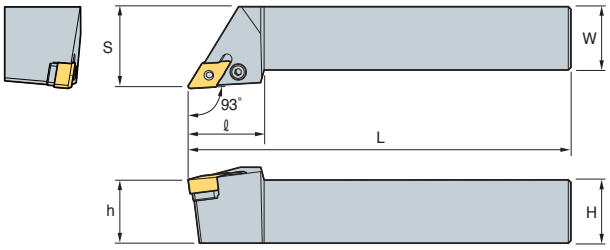
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PCBNR/L	2020-K09-4N	20	20	125	17	20	27	CN□□0904□□	LV3N	VHX0617N	SC32N	SP3	HW25L	LSP3
	2525-M09-4N	25	25	150	22	25	29							

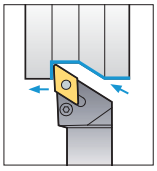
Applicable inserts **B105**

PDJNR/L



DN□□





93°

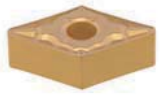
• R type insert

(mm)

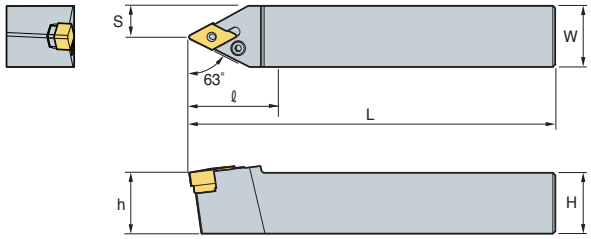
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PDJNR/L	2020-K11-5N	20	20	125	25	20	25	DN□□1105□□	LV3AN	VHX0617N	SD32N	SP3	HW25L	LSPS3
	2525-M11-5N	25	25	150	32	25	30							

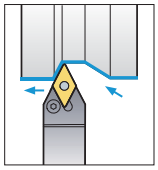
Applicable inserts **B105**

PDNNR/L



DN□□





63°

• R type insert

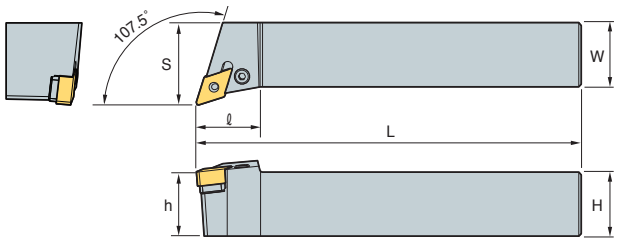
(mm)

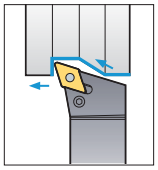
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PDNNR/L	2020-K11-5N	20	20	125	25	20	30	DN□□1105□□	LV3AN	VHX0617N	SD32N	SP3	HW25L	LSPS3
	2525-M11-5N	25	25	150	32	25	30							

Applicable inserts **B105**

PDQNR/L

DN□□





107.5°

• R type insert

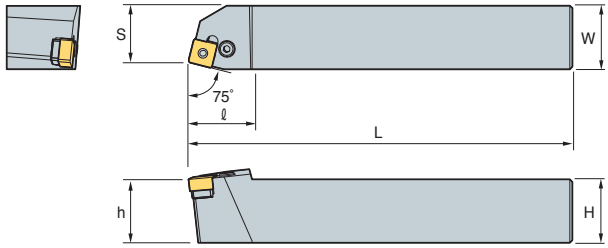
(mm)

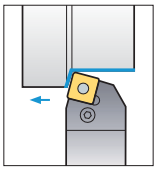
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PDQNR/L	2020-K11-5N	20	20	125	25	20	30	DN□□1105□□	LV3AN	VHX0617N	SD32N	SP3	HW25L	LSPS3
	2525-M11-5N	25	25	150	32	25	30							

Applicable inserts **B105**

PSBNR/L

SN□□





75°

• R type insert

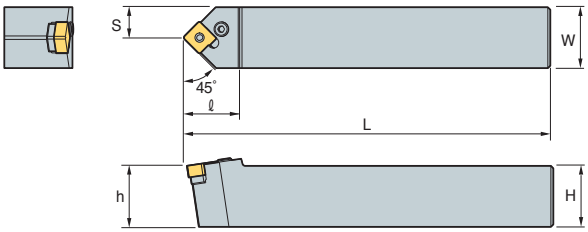
(mm)

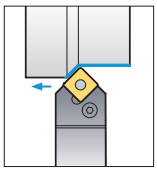
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PSBNR/L	2020-K09-4N	20	20	125	17	20	25	SN□□0904□□	LV3AN	VHX0617N	SS32N	SP3	HW25L	LSP3
	2525-M09-4N	25	25	150	22	25	25							

Applicable inserts **B105**

PSDNN

SN□□





45°

• R type insert

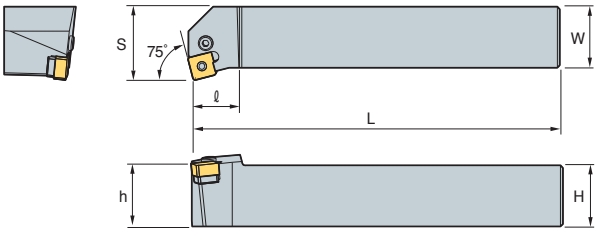
(mm)

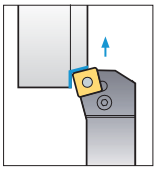
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PSDNN	2020-K09-4N	20	20	125	17	20	25	SN□□0904□□	LV3AN	VHX0617N	SS32N	SP3	HW25L	LSP3
	2525-M09-4N	25	25	150	22	25	25							

Applicable inserts **B105**

PSKNR/L

SN□□





75°

• R type insert

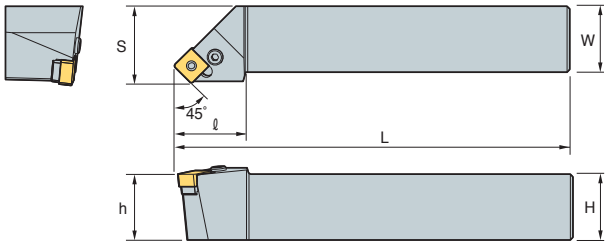
(mm)

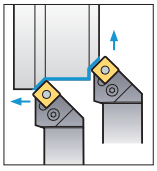
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PSKNR/L	2020-K09-4N	20	20	125	17	20	25	SN□□0904□□	LV3AN	VHX0617N	SS32N	SP3	HW25L	LSP3
	2525-M09-4N	25	25	150	22	25	25							

Applicable inserts **B105**

PSSNR/L

SN□□





45°

• R type insert

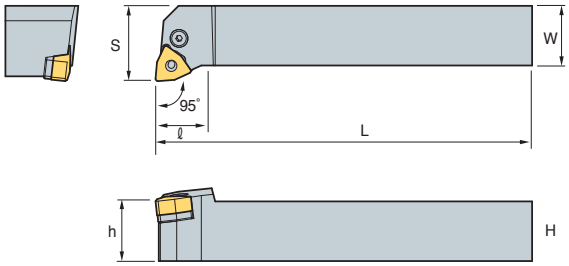
(mm)

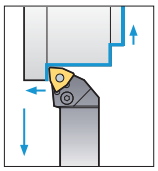
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PSSNR/L	2020-K09-4N	20	20	125	17	20	25	SN□□0904□□	LV3AN	VHX0617N	SS32N	SP3	HW25L	LSP3
	2525-M09-4N	25	25	150	22	25	25							

Applicable inserts **B105**

PWLNR/L

WN□□





95°

• R type insert

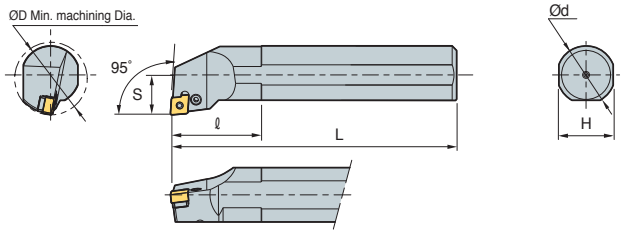
(mm)

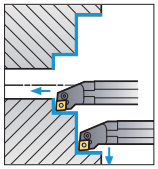
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PWLNR/L	1616-H06	16	16	100	20	16	20	WN□□0604□□	LV3AN	VHX0617N	SS32N	SP3	HW25L	LSP3
	2020-K06	20	20	125	25	20	20							
	2525-M06	25	25	150	32	25	20							

Applicable inserts **B105**

PCLNR/L

CN□□





95°

• R type insert

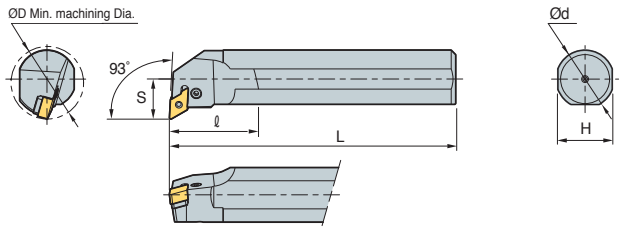
(mm)

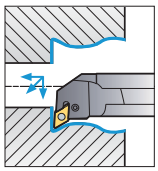
Designation	ØD	Ød	H	L	S	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
S20Q-PCLNR/L-09-4N	25	20	18	180	13	50	CN□□0904□□	LV3B	VHX0512B	–	–	HW20L	–
S25R-PCLNR/L-09-4N	32	25	23	200	17	50		LV3B	VHX0512B	SC32N	SP3	HW20L	–
S32S-PCLNR/L-09-4N	40	32	30	250	22	50		LV3N	VHX0617N	SC32N	SP3	HW25L	–

Applicable inserts **B105**

PDUNR/L

DN□□





93°

• R type insert

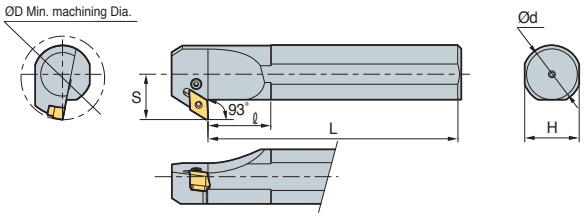
(mm)

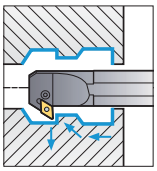
Designation	ØD	Ød	H	L	S	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
S32S-PDUNR/L-11-5N	40	32	30	250	22	30	DN□□1105□□	LV3AN	VHX0617N	SD32N	SP3	HW25L	–
S40T-PDUNR/L-11-5N	50	40	38	300	27	50							

Applicable inserts **B105**

PDZNR/L

DN□□





93°

• R type insert

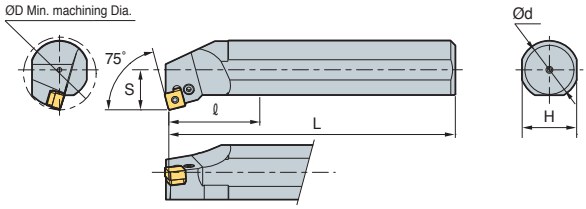
(mm)

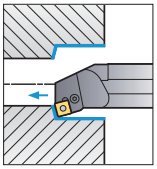
Designation	ØD	Ød	H	L	S	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
S32S-PDZNR/L-11-5N	40	32	30	250	22	30	DN□□1105□□	LV3AN	VHX0617N	SD32N	SP3	HW25L	–
S40T-PDZNR/L-11-5N	50	40	38	300	27	50							

Applicable inserts **B105**

PSKNR/L

SN□□





75°

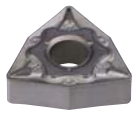
• R type insert

(mm)

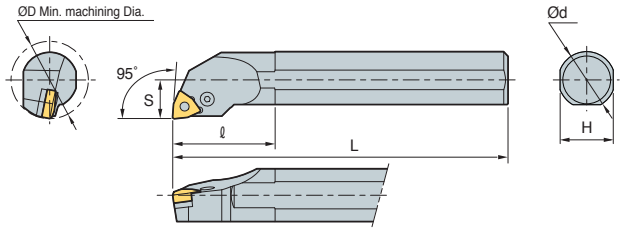
Designation	ØD	Ød	H	L	S	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
S25R-PSKNR/L-09-4N	32	25	23	200	17	32	SN□□0904□□	LV3B	VHX0512B	–	–	HW20L	–
S32S-PSKNR/L-09-4N	40	32	30	250	22	32		LV3N	VHX0617N	SS32N	–	HW25L	–

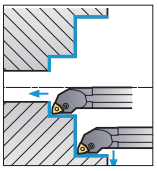
Applicable inserts **B105**

PWLNR/L



WN□□





95°

• 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□□	LV3B	VHX0512B	–	–	–	–
S25R-PWLNR/L-06	32	25	23	200	17	40							
S32S-PWLNR/L-06	44	32	30	250	22	45		LV3B	VHX0617B	SW317	SW317	HW25L	LSPS3

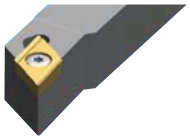
Applicable inserts **B105**

Excellent for precision machining

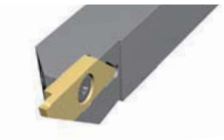
Auto Tools

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

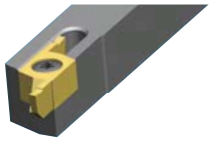
Type



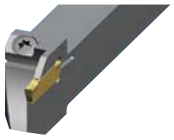
ISO



Blade



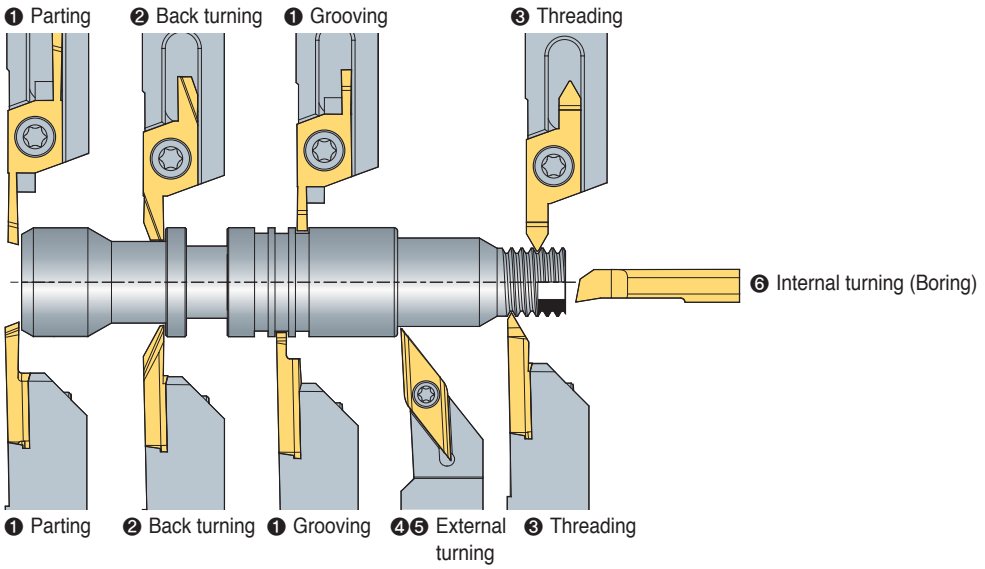
Multi utility



MGT

MSB tools

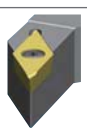
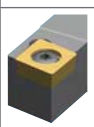
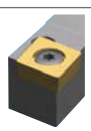
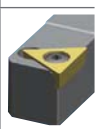
Application example



Index

Specification	❶ Parting and Grooving						❷ Back turning		
Holder	SXGNR/L	SXGNR/L	SBHR/L	SBHR/L	MGEHR/L	KGEHR/L	SXGNR/L	SXGNR/L	SBHR/L
Insert	SG	SC	SBG	SBC	MGMN	KGMN	SB	SGB	SBB
Holder size	10~20mm	10~20mm	10~16mm	10~16mm	10~16mm	10~16mm	10~20mm	10~20mm	10~16mm
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
ØDmax	Ø18	Ø18	Ø16	Ø16	Ø32	Ø32	Tmax 8.0	Tmax 8.5	Tmax 8.0
Page	B125	B125	B122	B122	B129	B129	B125	B125	B122

Specification	❸ Threading	
Holder	SXGNR/L	SBHR/L
Insert	ST	SBT
Shank diameter	10~20mm	10~16mm
Insert shape		
ØDmin	Pitch ranges 0.5~1.5 / 1.5~3.0	Pitch ranges 0.2~1.5 / 1.0~2.0
Page	B125	B122

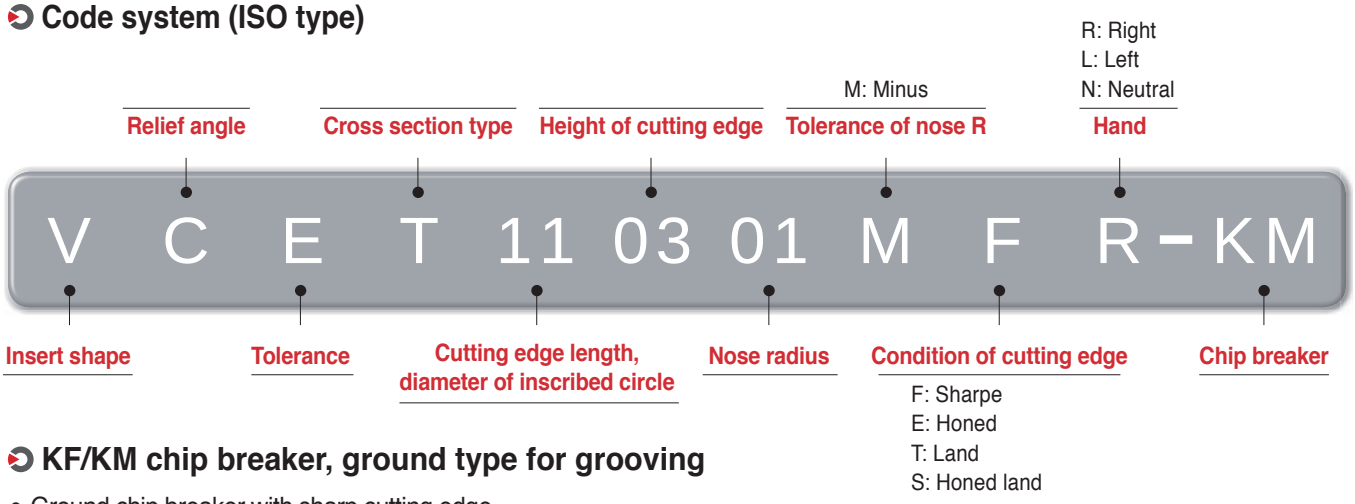
Specification	❹ External turning and Copy machining				❺ External turning and Facing		
Holder	SDJCR/L	SDNCN	SVJBR/L	SVJCR/L	SCACR/L	SCLCR/L	STACR/L
Insert	DC□T	DC□T	VB□T	VC□T	CC□T	CC□T	TC□T
Holder size	8~16mm	8~16mm	10~16mm	10~16mm	8~16mm	8~16mm	8~10mm
Insert shape							
Feature	Offset "0"				Offset "0"		
Page	B113	B114	B115	B115	B113	B113	B114

Specification	❻ Internal turning (Boring)				
Holder	SCLCR/L	STUBR/L	STUPR/L	SWUBR/L	MSB
Insert	CC□T	TB□T	TP□T	WB□T	-
Shank diameter	Ø4~Ø10	Ø8	Ø8	Ø5~Ø8	Ø4~Ø6
Insert shape					
ØDmin	Ø5	Ø8	Ø10	Ø5.5	Ø3.2
Page	B214	B214	B215	B216	B132~B136

Auto Tools (ISO type)

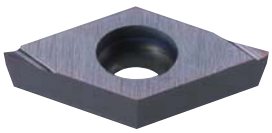
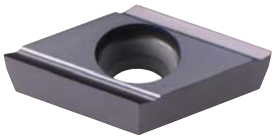
- ISO inserts for automatic lathes
- Precise R shape with the use of minus tolerance of nose R
- Tolerance class precise enough in no need for adjusting tools with the use of accurate cutting edge height
- Sharp blade for excellent chip control and surface roughness with low cutting force
- High precision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

Code system (ISO type)



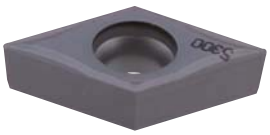
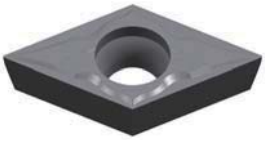
KF/KM chip breaker, ground type for grooving

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

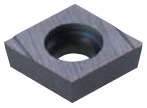
KF	KM
	
• For finishing • Low cutting loads with sharp cutting edges • Longer tool life due to lower chip evacuation resistance at high speed • Excellent surface roughness	• For medium cutting to finishing • Better chip flow due to wide chip pockets • Longer tool life and better cutting action due to improved chip evacuation • Excellent surface roughness

VP1/MS chip breaker

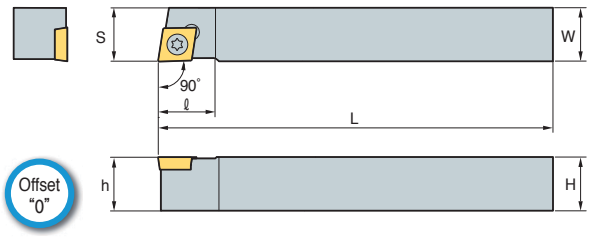
- Exclusive chip breaker for hard-to-cut materials such as titanium alloy, Inconel, stainless steel, etc.
- Minimized cutting heat by reducing contact area between chips and rake surface with the use of high positive blade

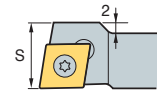
VP1	MS
	
• Hard cutting edge for medium cutting • Optimal width of chip breaker by each depth of cuts realizes wide workpiece machining.	• Good surface finish for medium cutting • Preventing welding in Titanium machining • Increasing chip evacuation in high feed machining • Protecting cutting edge due to structure for good chip evacuation

SCACR/L

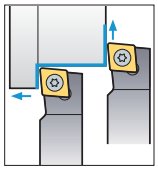


CC□T





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



90°

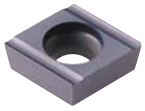
• R type insert

(mm)

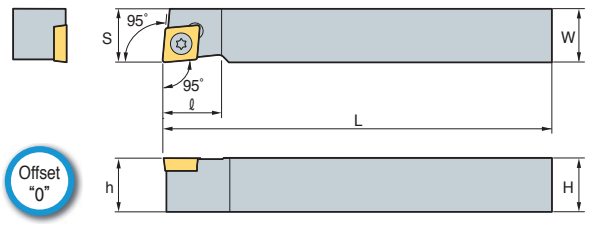
Designation		H	W	L	S	h	ℓ	Insert	Screw	Wrench
SCACR/L	0808-X06A	8	8	120	8	8	10	CC□T0602□□	FTKA02565	TW07P
	1010-X06A	10	10	120	10	10	10			
	1010-X09A	10	10	120	12	10	13	CC□T09T3□□	FTKA0410	TW15P
	1212-X09A	12	12	120	12	12	16			
	1616-X09A	16	16	120	16	16	16			

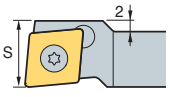
Applicable inserts **B66~B69, B91**

SCLCR/L

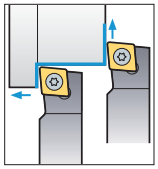


CC□T





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



95°

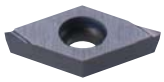
• R type insert

(mm)

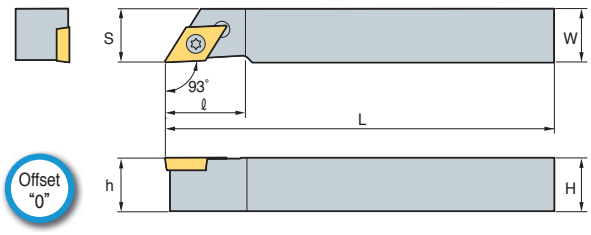
Designation		H	W	L	S	h	ℓ	Insert	Screw	Wrench
SCLCR/L	0808-X06A	8	8	120	8	8	10	CC□T0602□□	FTKA02565	TW07P
	1010-X06A	10	10	120	10	10	10			
	1010-X09A	10	10	120	12	10	13	CC□T09T3□□	FTKA0410	TW15P
	1212-X09A	12	12	120	12	12	16			
	1616-X09A	16	16	120	16	16	16			

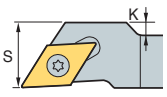
Applicable inserts **B66~B69, B91**

SDJCR/L

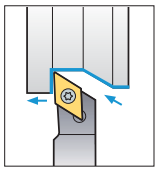


DC□T





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



93°

• R type insert

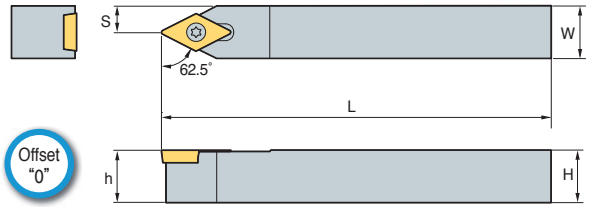
(mm)

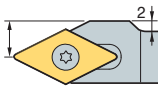
Designation		H	W	L	S	h	K	ℓ	Insert	Screw	Wrench
SDJCR/L	0808-X07A	8	8	120	10	8	2	18	DC□T0702□□	FTKA02565	TW07P
	1010-X07A	10	10	120	10	10	-	15			
	1010-X11A	10	10	120	14	10	4	18	DC□T11T3□□	FTKA0410	TW15P
	1212-X11A	12	12	120	14	12	2	18			
	1616-X11A	16	16	120	16	16	-	22			

Applicable inserts **B71~B73, B92**

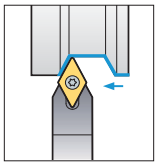
SDNCN

DC□T





※ Only SDNCN1010-X11A is designed as above picture.



62.5°

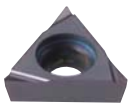
• R type insert

(mm)

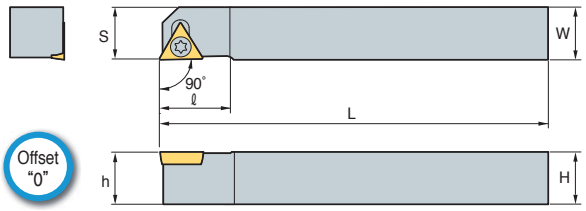
Designation		H	W	L	S	h	Insert	Screw	Wrench
SDNCN	0808-X07A	8	8	120	4	8	DC□T0702□□	FTKA02565	TW 07P
	1010-X07A	10	10	120	5	10			
	1010-X11A	10	10	120	7	10	DC□T11T3□□	FTKA0410	TW 15P
	1212-X11A	12	12	120	6	12			
	1616-X11A	16	16	120	8	16			

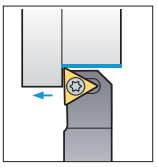
Applicable inserts **B71~B73, B92**

STACR/L



TC□T





90°

• R type insert

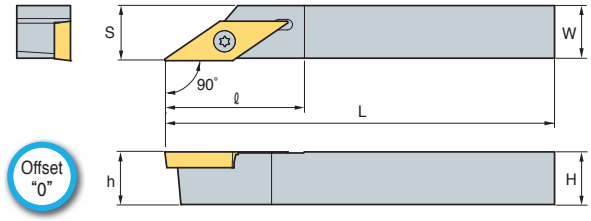
(mm)

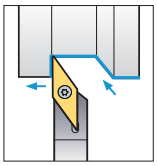
Designation		H	W	L	S	h	K	ℓ	Insert	Screw	Wrench
STACR/L	0808-X08A	8	8	120	8	8	1	12	TC□T0802□□	FTNA 0206	TW 06P
	1010-X08A	10	10	120	10	10	3	12			

Applicable inserts **B79~B80**

SVACR/L

VC□□





90°

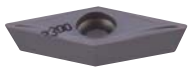
• R type insert

(mm)

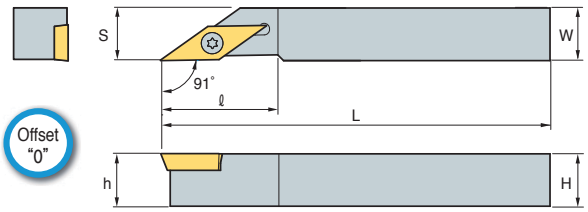
Designation		H	W	L	S	h	ℓ	Insert	Screw	Wrench
SVACR/L	0808-X12A	8	8	120	8.5	8	26	VP□T1203□□	FTKA 02565	TW 07P
	1010-X12A	10	10	120	10.5	10	26			
	1212-X12A	12	12	120	125	12	26			
	1616-X12A	16	16	120	16.5	16	26			
SVACR/L	0808-X12C	8	8	120	8.5	8	26	VC□X1203□□R/L	FTKA 02565	TW 07P
	1010-X12C	10	10	120	10.5	10	26			
	1212-X12C	12	12	120	12.5	12	26			
	1616-X12C	16	16	120	16.5	16	26			

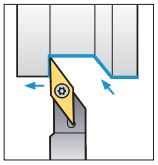
Applicable inserts **B86~B87, B97**

SVAPR/L



VP□T





91°

• R type insert

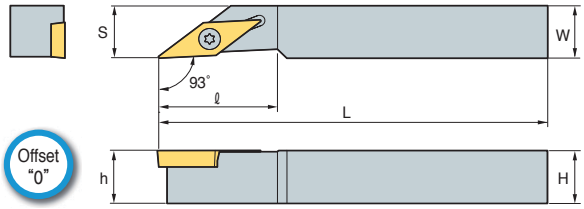
(mm)

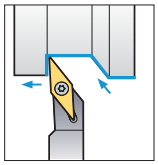
Designation		H	W	L	S	h	ℓ	Insert	Screw	Wrench
SVAPR/L	0808-X11A	8	8	120	8	8	22	VP□T1103□□	FTKA 02565	TW 07P
	1010-X11A	10	10	120	10	10	22			
	1212-X11A	12	12	120	12	12	22			
	1616-X11A	16	16	120	16	16	24			

Applicable inserts **B88**

SVJBR/L

VB□T





93°

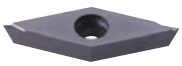
• R type insert

(mm)

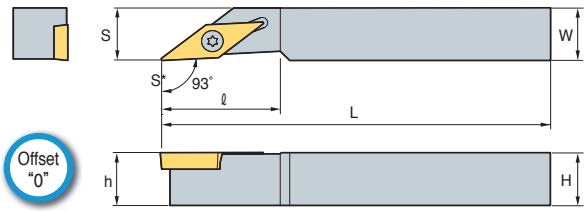
Designation		H	W	L	S	h	ℓ	Insert	Screw	Wrench
SVJBR/L	1010-X11A	10	10	120	10	10	22	VB□T1103□□	FTKA 02565	TW 07P
	1212-X11A	12	12	120	12	12	22			
	1616-X11A	16	16	120	16	16	24			

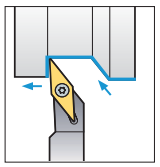
Applicable inserts **B84~B85, B96**

SVJCR/L



VC□T





93°

• R type insert

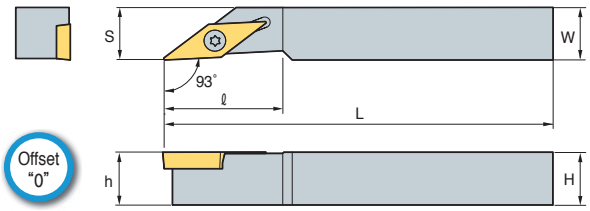
(mm)

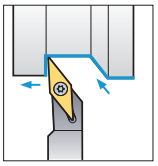
Designation		H	W	L	S	h	ℓ	Insert	Screw	Wrench
SVJCR/L	1010-X11A	10	10	120	10	10	22	VC□T1103□□	FTKA 02565	TW 07P
	1212-X11A	12	12	120	12	12	22			
	1616-X11A	16	16	120	16	16	24			
	0810-X12A	8	10	120	10	8	26	VP□T1203□□	FTKA 02565	TW 07P
	1010-X12A	10	10	120	10	10	26			
	1212-X12A	12	12	120	12	12	26			
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

SVJPR/L

VP□T





93°

• R type insert

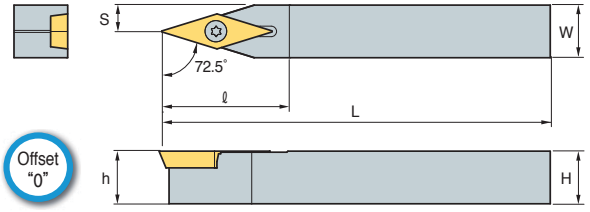
(mm)

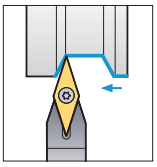
Designation		H	W	L	S	h	ℓ	Insert	Screw	Wrench
SVJPR/L	0810-X11A	8	10	120	8	10	22	VP□T1103□□	FTKA 02565	TW 07P
	1010-X11A	10	10	120	10	10	22			
	1212-X11A	12	12	120	12	12	22			
	1616-X11A	16	16	120	16	16	24			

Applicable inserts **B88**

SVVPN

VP□T





72.5°

• R type insert

(mm)

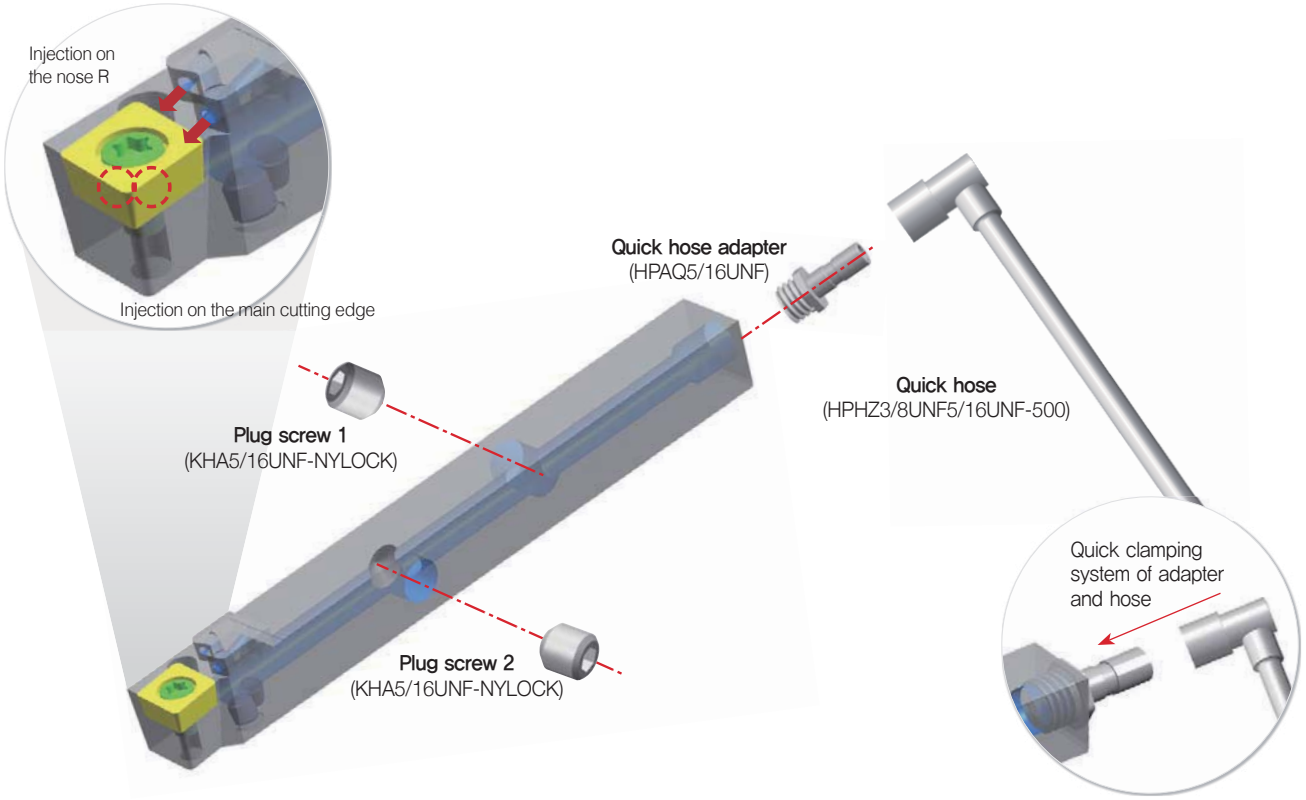
Designation		H	W	L	S	h	ℓ	Insert	Screw	Wrench
SVVPN	0808-X11A	8	8	120	4	8	24	VP□T1103□□	FTKA 02565	TW 07P
	1010-X11A	10	10	120	5	10	24			
	1212-X11A	12	12	120	6	12	24			
	1616-X11A	16	16	120	8	16	28			

Applicable inserts **B88**

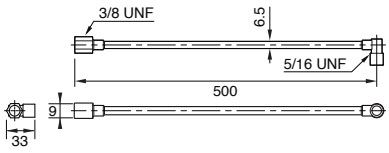
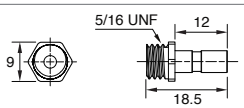
Auto Tools (KHP)

- 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

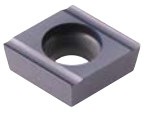
Structure of coolant



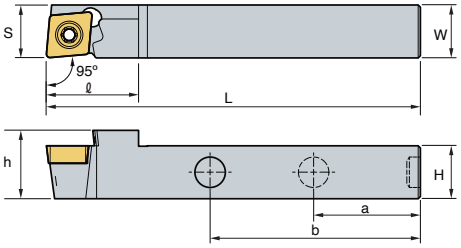
Parts

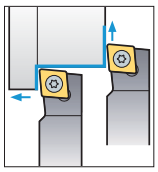
Shape		Configuration	Length	Q clamping dimensions	S clamping dimensionss
Straight quick hose	HPHZ5/16UNF3/8UNF 500 		500 mm	5/16 UNF	3/8 UNF
Quick hose adapter	HPAQ5/16UNF 		18.5 mm	5/16 UNF	

SCLCR/L



CC□T





95°

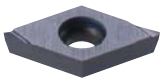
• R type insert

(mm)

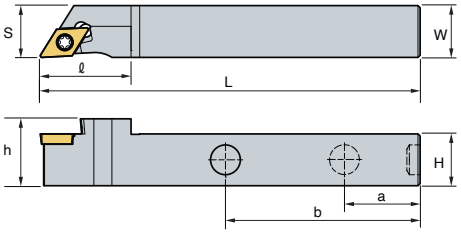
Designation	H	W	L	S	h	ℓ	a	b	Insert	Screw	Screw plug	Wrench
SCLCR/L 1212-X09A-KHP	12	12	120	12	15.5	21	40	70	CC□T09T3□□	FTKA0410	KHA0404-NYLOCK	TW15P

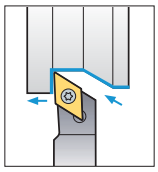
Applicable inserts **B66~69, B91**

SDJCR/L



DC□T





93°

• R type insert

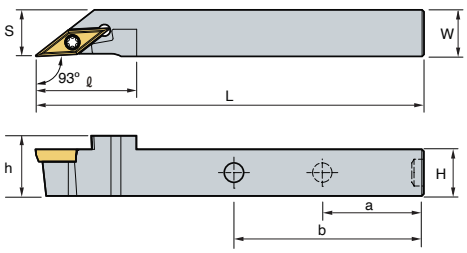
(mm)

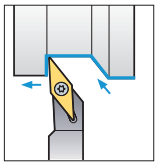
Designation	H	W	L	S	h	ℓ	a	b	Insert	Screw	Screw plug	Wrench
SCLCR/L 1212-X07A-KHP	12	12	120	14	15.5	21	40	70	DC□T0702□□	FTKA02565	KHA0404-NYLOCK	TW07P
1212-X11A-KHP	12	12	120	14	15.5	29.8	40	70	DC□T11T3□□	FTKA0410	KHA0404-NYLOCK	TW15P

Applicable inserts **B71~73, B92**

SVJCR/L

VC□T





93°

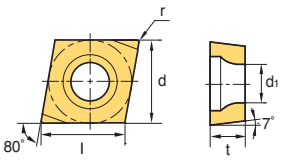
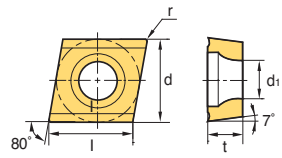
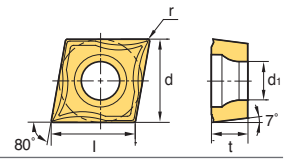
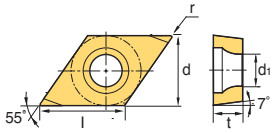
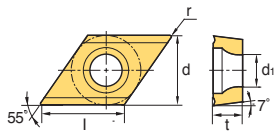
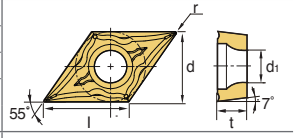
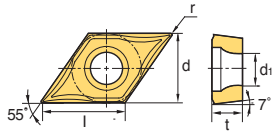
• R type insert

(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

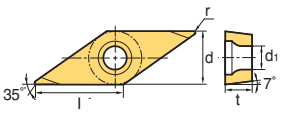
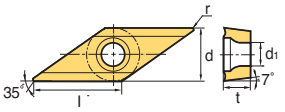
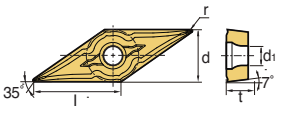
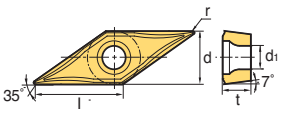
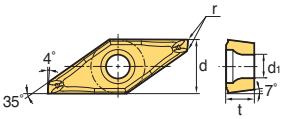
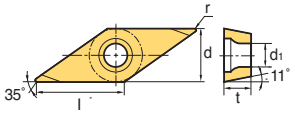
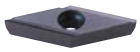
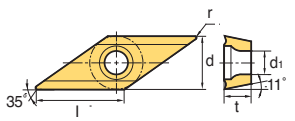
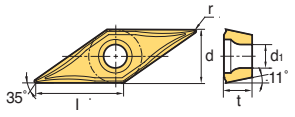
Applicable inserts **B86~87, B97**

Insert

Picture	Designation	Coated				Uncoated	Dimensions (mm)					Configuration
		PC5300	PC8105	PC8110	PC8115	H01	l	d	t	r	d1	
CCET-KF 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	
CCET-KM 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	
CCGT-VP1 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	
DCET-KF 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	
DCET-KM 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	
DCGT-MS 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	
DCGT-VP1 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	d1	
VCET-KF  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	
VCET-KM  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	
VCGT-MS  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	
VCGT-VP1  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	
VCGX-VP1 (Chamfer type)  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	
VPET-KF  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	
VPET-KM  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	
VPGT-VP1  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 (Back turning)

SB	B	R	25	10
Small blade	Back turning	Hand (R: Right L: Left)	Length of insert	Nose radius

Grooving

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

Threading

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

Parting

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

Code system of Auto Tools holder (Blade type)

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

Types of blade insert

Possible to apply various types of blade inserts to one holder

SBB: For back turning

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

SBG: For grooving

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

SBT: For threading

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

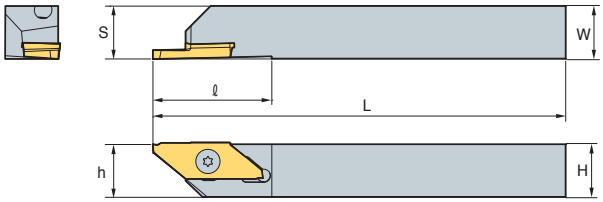
SBC: For cut off/Parting

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

SBHR/L

SBBR SBGR
SBTR SBCR

Offset "0"



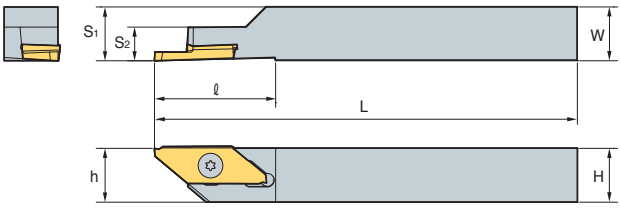
(mm)

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

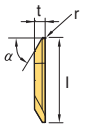
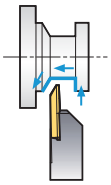
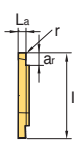
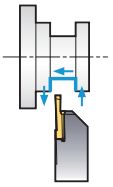
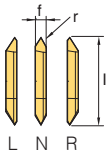
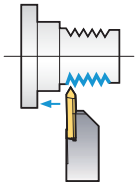
Offset "0"



(mm)

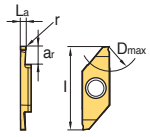
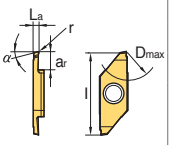
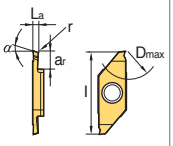
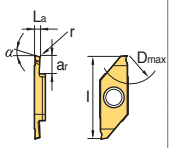
Designation		H	W	L	S1	S2	h	ℓ	Insert	Screw	Wrench
SBHR/L	1010-K25-X	10	10	125	10	7.5	10	27	SB□R/L25	FTKA0407S	T9
	1212-K25-X	12	12	125	12	7.5	12	27			

Insert

Application	Picture	Designation		Coated PC8110 R	Coated PC8110 L	Coated PC5300 R	Coated PC5300 L	l	α	t	r	La	ar	f	D-MAX	Pitch range Min.	Pitch range Max.	Configuration	Feed direction
Back turning	 SBBR/L	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	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	SBTR/L	2560-N-005	●	●	●	●	25	-	-	0.05	-	-	1.59	-	0.2	2.0	 L N R	
			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	-	-	

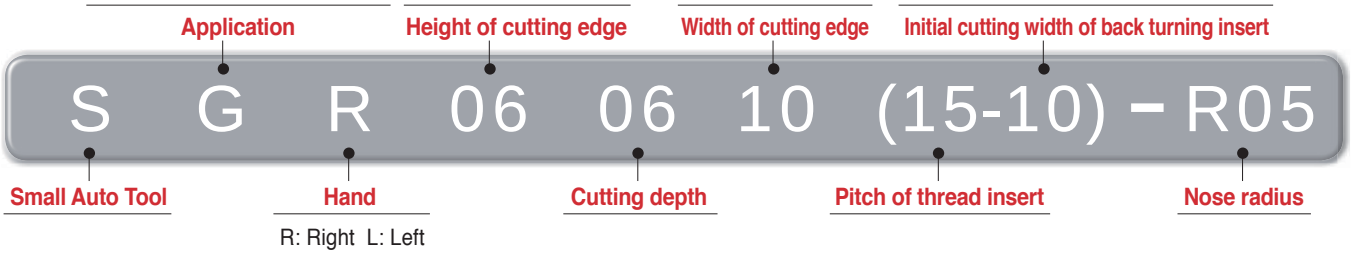
● : Stock item

Auto Tools (For multi utility)

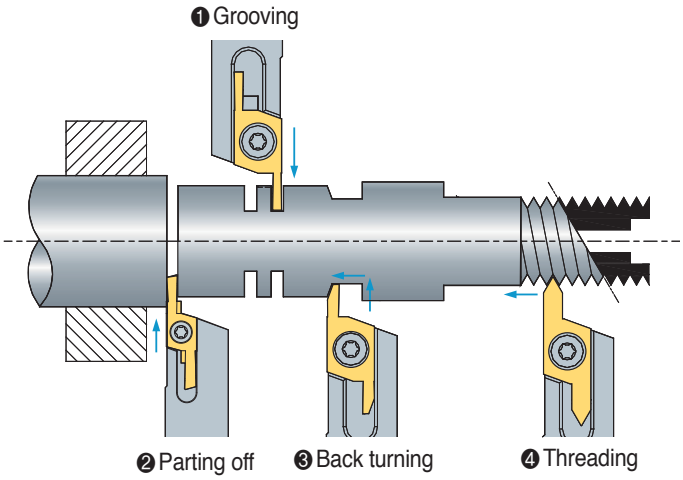
- Multifunctional insert for automatic lathes
- For external machining of precise small parts
- 5 types - SB(for back turning), SG(for grooving), ST(for threading), SC(for parting off), SGB(for grooving and back turning)
- Convenient use of one holder to all inserts
- Offset "0" to all ISO type holders

Insert code system (Multi utility type)

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

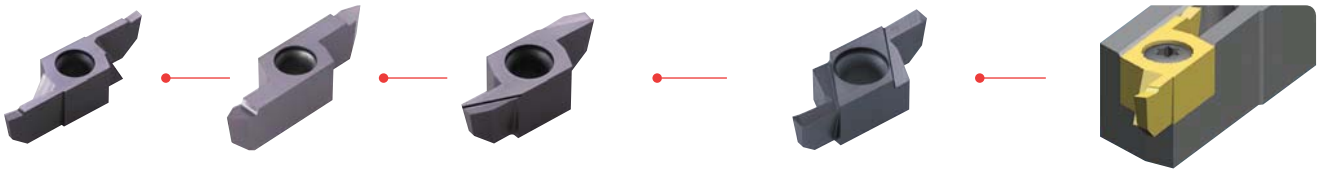


Application example



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.)

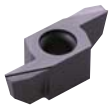


SG: Grooving | ST: Threading | SB: Back turning | SGB: Grooving and back turning | SC: Parting off

Recommended cutting conditions

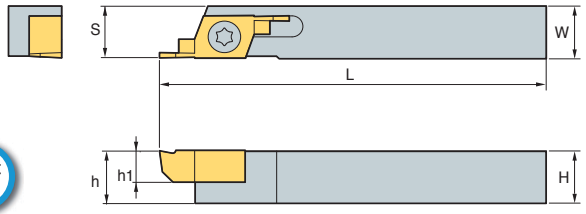
Workpiece	Turning		Grooving		Parting off		Back turning	
	Cutting speed, vc (m/min)	Feed, fn (mm/rev)	Cutting speed, vc (m/min)	Feed, fn (mm/rev)	Cutting speed, vc (m/min)	Feed, fn (mm/rev)	Cutting speed, vc (m/min)	Feed, fn (mm/rev)
Stainless steel	50~120	0.02~0.20	30~120	0.02~0.05	30~120	0.02~0.05	30~120	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

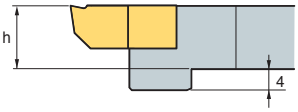
SXGNR/L



SBR, SGBR
SCR, STR, SGR

Offset "0"





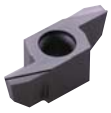
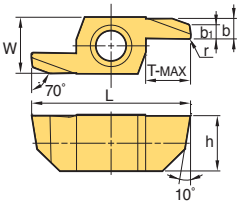
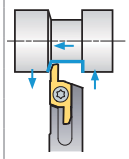
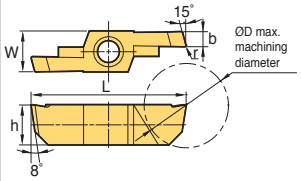
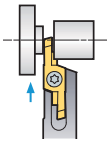
· SXGNR/L1212-X08A follows the configuration above.

• R type insert

(mm)

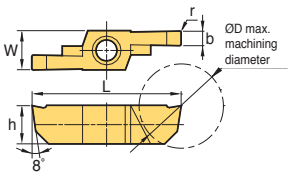
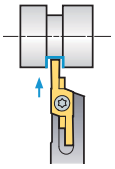
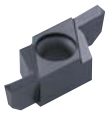
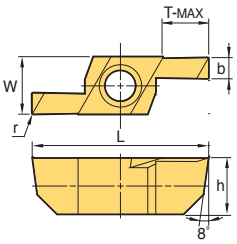
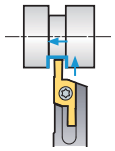
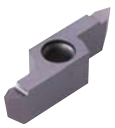
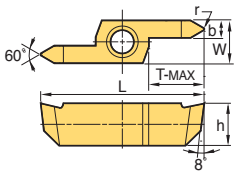
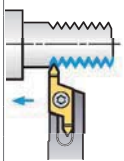
Designation		H	W	L	S	h	h1	Insert	Screw	Wrench
SXGNR/L	1010-X06A	10	10	125	10	10	6	S□R/L 06	FTNA 0408	TW 15P
	1212-X06A	12	12	125	12	12	6			
	1616-X06A	16	16	125	16	16	6			
	2020-X06A	20	20	125	20	20	6			
	1212-X08A	12	12	130	12	12	8	S□R/L 08	FTNA 0411	TW 15P
	1616-X08A	16	16	130	16	16	8			
	2020-X08A	20	20	130	20	20	8			

Insert

Application	Picture	Designation		Coated PC9030 R	Coated PC9030 L	Dimensions (mm) b1	b	W	L	r	h	T-MAX	ØD	Configuration	Feed direction
Back turning	SBR/L 	SBR/L	060520-10-R00			1	2	8	22	0	6	5.5	-		
			060520-10-R05			1	2	8	22	0.05	6	5.5	-		
			060520-10-R10			1	2	8	22	0.1	6	5.5	-		
			060630-20-R00			2	3	8	24	0	6	6.5	-		
			060630-20-R05			2	3	8	24	0.05	6	6.5	-		
			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 	SCR/L	060610-R00			-	1	8	24	0	6	-	11		
			060610-R05	●		-	1	8	24	0.05	6	-	11		
			060610-R10	●		-	1	8	24	0.1	6	-	11		
			060615-R00			-	1.5	8	24	0	6	-	11		
			060615-R05	●		-	1.5	8	24	0.05	6	-	11		
			060615-R10	●		-	1.5	8	24	0.1	6	-	11		
			060620-R00			-	2	8	24	0	6	-	11		
			060620-R05	●		-	2	8	24	0.05	6	-	11		
			060620-R10	●		-	2	8	24	0.1	6	-	11		
			081015-R00			-	1.5	8	31	0	8	-	18		
			081015-R05			-	1.5	8	31	0.05	8	-	18		
			081015-R10			-	1.5	8	31	0.1	8	-	18		
			081020-R00			-	2	8	31	0	8	-	18		
			081020-R05			-	2	8	31	0.05	8	-	18		
			081020-R10	●		-	2	8	31	0.1	8	-	18		
			081025-R00			-	2.5	8	31	0	8	-	18		
			081025-R05	●		-	2.5	8	31	0.05	8	-	18		
			081025-R10	●		-	2.5	8	31	0.1	8	-	18		
			081030-R00			-	3	8	31	0	8	-	18		
			081030-R05	●		-	3	8	31	0.05	8	-	18		
			081030-R10			-	3	8	31	0.1	8	-	18		

●: Stock item

Insert

Application	Picture	Designation		Coated PC9030 R	Coated PC9030 L	b	W	L	r	h	T-MAX	ØD	Pitch	Configuration	Feed direction
Grooving	SGR/L 	SGR/L	060610-R00			1	8	24	0	6	-	11	-		
			060610-R05	●		1	8	24	0.05	6	-	11	-		
			060610-R10	●		1	8	24	0.1	6	-	11	-		
			060615-R00			1.5	8	24	0	6	-	11	-		
			060615-R05	●		1.5	8	24	0.05	6	-	11	-		
			060615-R10	●		1.5	8	24	0.1	6	-	11	-		
			060620-R00			2	8	24	0	6	-	11	-		
			060620-R05	●		2	8	24	0.05	6	-	11	-		
			060620-R10	●		2	8	24	0.1	6	-	11	-		
			081015-R00			1.5	8	31	0	8	-	18	-		
			081015-R05			1.5	8	31	0.05	8	-	18	-		
			081015-R10			1.5	8	31	0.1	8	-	18	-		
			081020-R00			2	8	31	0	8	-	18	-		
			081020-R05	●		2	8	31	0.05	8	-	18	-		
			081020-R10			2	8	31	0.1	8	-	18	-		
			081025-R00			2.5	8	31	0	8	-	18	-		
			081025-R05			2.5	8	31	0.05	8	-	18	-		
			081025-R10			2.5	8	31	0.1	8	-	18	-		
			081030-R00			3	8	31	0	8	-	18	-		
			081030-R05			3	8	31	0.05	8	-	18	-		
			081030-R10			3	8	31	0.1	8	-	18	-		
Grooving and back turning	SGBR/L 	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 	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)

KG M N 300 - 04 - T

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

Holder code system (KGT/MGT type)

KG E H R/L 1212 - 3 D25A

System code	Application	Holder type	Hand	Shank size	Cutting width	Max. cutting diameter
KG SYSTEM (KORLOY Grooving) MG SYSTEM (Multi Grooving)	E: External machining I : Internal machining	H: Horizontal type V: Vertical type U: Undercut type	R: Right L: Light	Height 12 mm, width 12 mm (For internal machining: Min. machining diameter)	2.0~3.0 mm	Ø15~Ø32 mm

Chip breaker line-up

KGT Type

KGMN-L

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

KGMN-R

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

KGMN-T

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

KGMR/L-LP

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

KGMR/L-RP

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

KRMN-C

- Improved chip control
- Copying
- Relief

MGT Type

MGM(G)N-M

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

MGMN-G

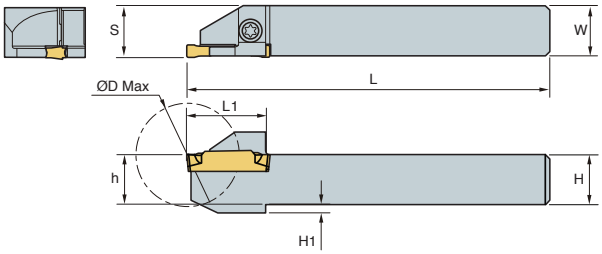
- Specially designed chip breaker allows narrower chips to promote better chip flow with the use of center dots
- Exclusive chip breaker for grooving

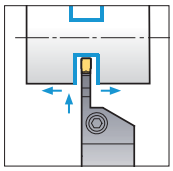
KGEHR/L-D00A

Grooving, turning, parting off

Compact type

KGGN KGMN KGMR/L
KRGN KRMN





• R type insert

(mm)

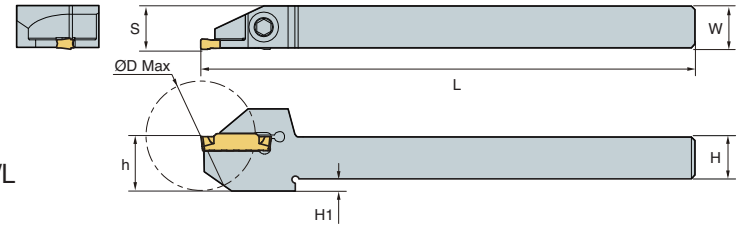
Designation		Dimensions (mm)							Insert	Screw	Wrench
		H	W	L1	L	S	h1	ØD_MAX			
KGEHR/L	1010-2-D20A	10	10	19	125	10.2	2	20	KGMN200-□-□ KGMR/L200-□-□ KRMN200-C KRGN200-□-□	ETNA0412	TW15L
	1212-2-D25A	12	12	19	125	12.2	2	25			
	1414-2-D25A	14	14	19	125	14.2	-	25			
	1616-2-D32A	16	16	24	125	16.2	-	32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

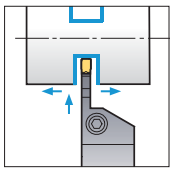
KGEHR/L-D00B

Grooving, turning, parting off

High rigidity type

KGGN KGMN KGMR/L
KRGN KRMN



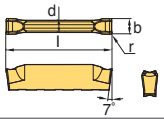
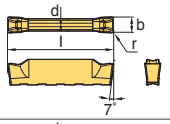
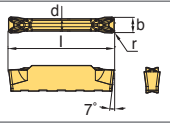
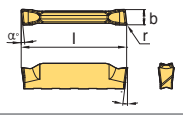


• R type insert

(mm)

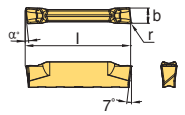
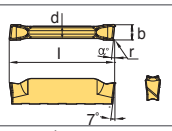
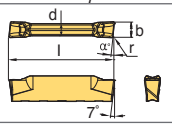
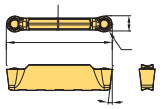
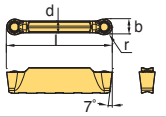
Designation		Dimensions (mm)						Insert	Screw	Wrench
		H	W	L	S	h1	ØD_MAX			
KGEHR/L	1010-2-D30B	10	10	125	10.2	6.6	30	KGMN200-□-□ KGMR/L200-□-□ KRMN200-C KGGN200-□-□	MHA0512	HW40L
	1212-2-D25B	12	12	125	12.5	3.5	25			
	1212-2-D30B	12	12	125	12.2	3.5	30			
	1616-2-D32B	16	16	125	16.2	-	32			
	1212-3-D25B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

KGT Insert

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

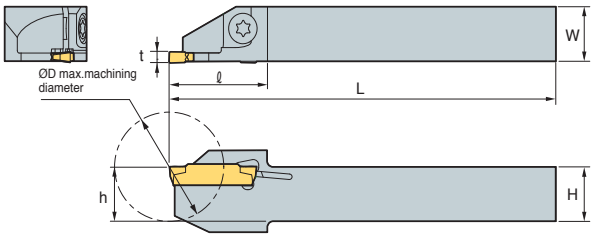
KGT Insert

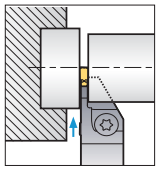
Application	Picture	Designation		Coated						Dimensions (mm)					v
				NC3120	NC3225	NC5330	NC6315	PC5300	PC9030	b	r	l	d	α °	
Parting off (Right handed)	KGMR-RP	KGMR	200-6D-RP			●		●		2.0	0.2	20	-	6	
			200-15D-RP			●		●		2.0	0.2	20	-	15	
			300-6D-RP			●		●		3.0	0.2	20	-	6	
			300-15D-RP			●		●		3.0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

●: Stock item

MGEHR/L

MGMN



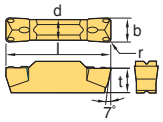
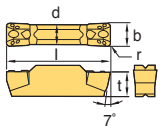


• R type insert

(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	MGMN200-M MGMN200-G	ETNA 0412	TW 15L
	1212-X20A	25	12	12	125	19.5	2			
	1616-X20A	32	16	16	125	25	2			
	1010-X25A	20	10	10	125	20	2.5	MGMN250-M MGMN250-G	ETNA 0412	TW 15L
	1212-X25A	25	12	12	125	20	2.5			
	1616-X25A	32	16	16	125	25	2.5			

MGT Insert

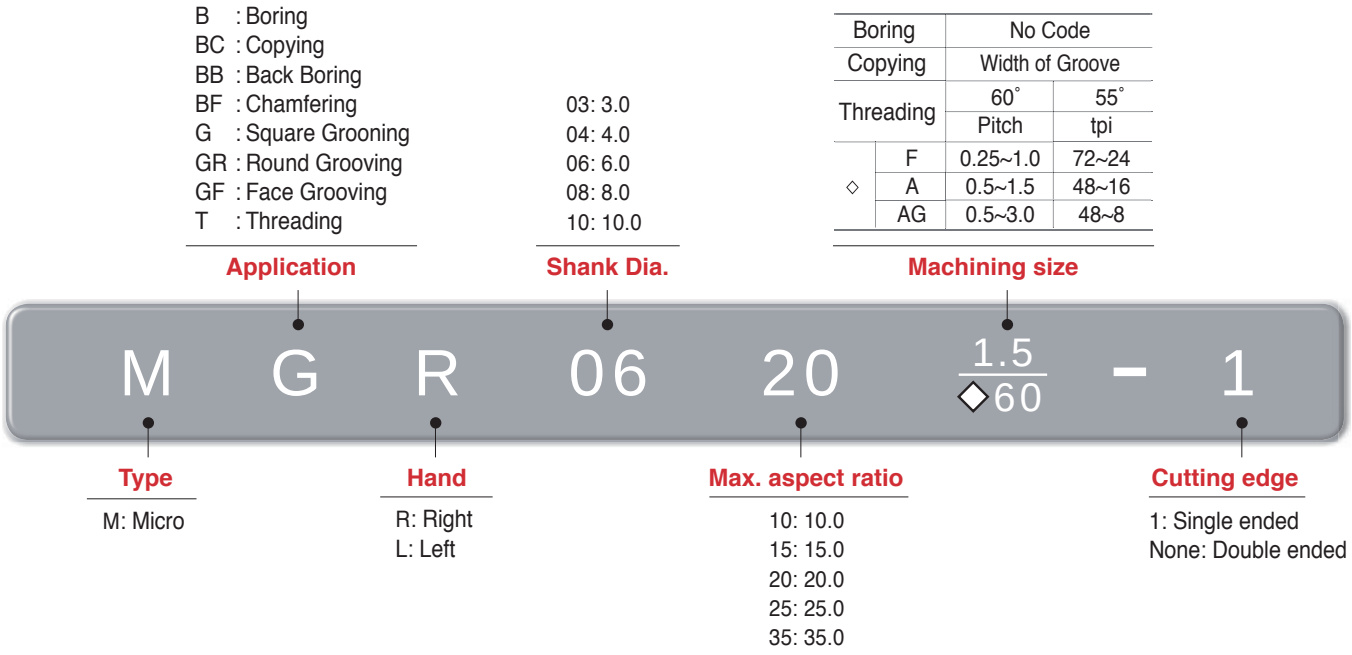
Application	Picture	Designation		Coated						Uncoated			Dimensions (mm)					Configuration
				NC3120	NC3225	NC5330	NC6315	NC3030	PC5300	PC9030	H01	G10	STA30	b	r	l	d	t	
Grooving	MGMN-G	MGMN	150-G		●			●	●	●	●			1.5	0.15	16.0	1.2	3.5	
			200-G	●	●			●		●	●			2.0	0.2	16.0	1.6	3.5	
			250-G		●			●	●	●		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

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



MSB tool code system

Types		Application		Designation
01	Boring	Boring		MBR/L○○☆☆
02		Copying		MBCR/L○○☆☆
03		Back Boring		MBBR/L○○☆☆
04		Chamfering		MBFR/L○○☆☆
05	Grooving	Square Grooning		MGR/L○○☆☆–□□
06		Round Grooving		MGRR/L○○☆☆–□□
07		Face Grooving		MGFR/L○○00–□□
08	Threading	Partial	60°	MTR/L○○☆☆–◇60
			55°	MTR/L○○☆☆–◇55

Details

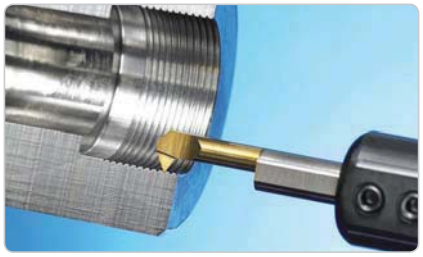
Marks	○○	Shank Dia.			
	☆☆	Max. depth of boring			
	□□	Width of groove			
	◇	Pitch / tpi	F	0.25~1.0	72~24
			A	0.5~1.5	48~16
			AG	0.5~3.0	48~8

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

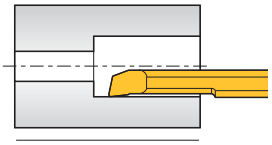
Machining types



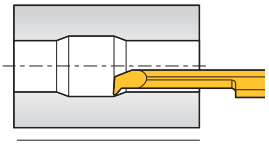


Types

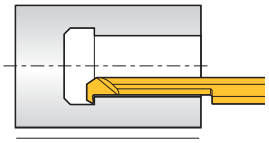
Boring



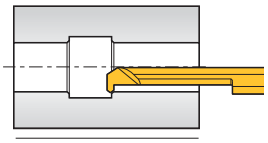
Boring
Min. dia. of machining: Ø3.2



Copying
Min. dia. of machining: Ø4.2

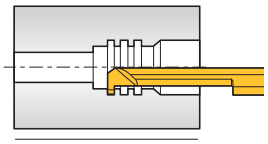


Back Boring
Min. dia. of machining: Ø3.2

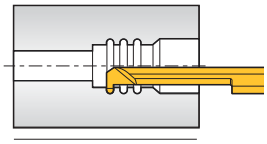


Chamfering
Min. dia. of machining: Ø4.2

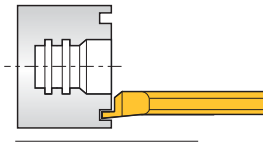
Grooving



Square Grooving
Min. dia. of machining: Ø3.2

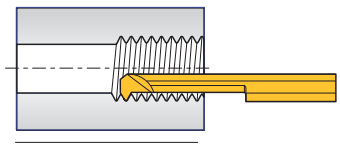


Round Grooving
Min. dia. of machining: Ø3.2



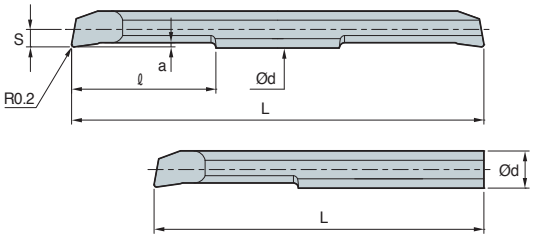
Face Grooving
Min. dia. of machining: Ø6.0

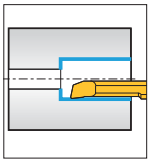
Threading



Threading
Min. dia. of machining: Ø3.3

Boring

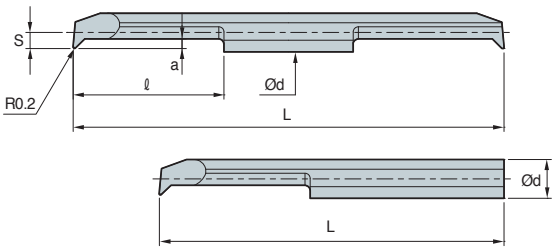


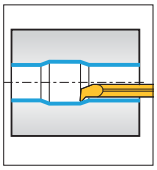


Twin Edge				Single Edge				Ød	Min.dia. of machining	ℓ	Overall length L		Detailed cutting edge	
Designation		Coated PC30M	Uncoated Z12M	Designation		Coated PC30M	Uncoated Z12M				Double ended	Single ended	a	S
MBR	0310	●		MBR	0310-1			3.0	3.2	10	40	35	0.5	1.4
	0315	●			0315-1					15	50	45		
	0410	●		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

●: Stock item

Copying

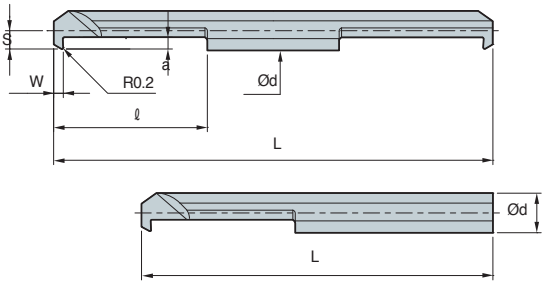


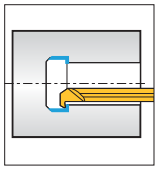


Twin Edge				Single Edge				Ød	Min.dia. of machining	ℓ	Overall length L		Detailed cutting edge	
Designation		Coated PC30M	Uncoated Z12M	Designation		Coated PC30M	Uncoated Z12M				Double ended	Single ended	a	S
MBCR	0410			MBCR	0410-1			4.0	4.2	10	40	35	1.0	1.9
	0415	●			0415-1					15	50	45		
	0420	●	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

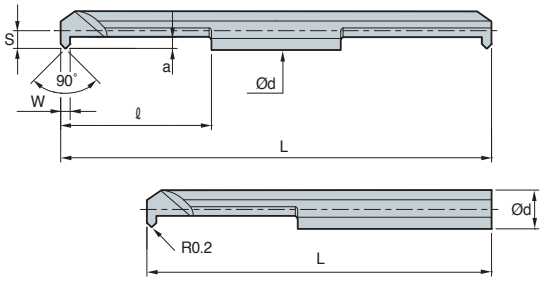


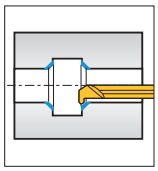


Twin Edge				Single Edge				Ød	Min.dia. of machining	ℓ	Overall length L		Detailed cutting edge		
Designation		Coated PC30M	Uncoated Z12M	Designation		Coated PC30M	Uncoated Z12M				Double ended	Single ended	W	a	S
MBBR	0310			MBBR	0310-1			3.0	3.2	10	40	35	1.5	0.8	1.4
	0315				0315-1					15	50	45			
	0410				0410-1			4.0	4.2	10	40	35	2.0	1.3	1.9
	0415				0415-1					15	50	45			
	0420				0420-1					20	60	50			
	0610				0610-1			6.0	6.2	10	45	40	2.0	1.9	2.9
	0615				0615-1					15	55	45			
	0620				0620-1					20	65	50			

● : Stock item

Chamfering

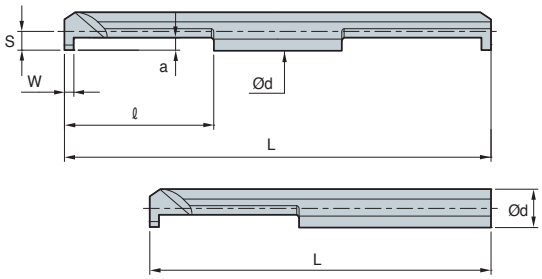


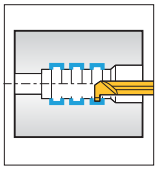


Twin Edge				Single Edge				Ød	Min.dia. of machining	ℓ	Overall length L		Detailed cutting edge		
Designation		Coated PC30M	Uncoated Z12M	Designation		Coated PC30M	Uncoated Z12M				Double ended	Single ended	W	a	S
MBFR	0410			MBFR	0410-1			4.0	4.2	10	40	35	0.8	1.0	1.9
	0415				0415-1					15	50	45			
	0420				0420-1					20	60	50			
	0610				0610-1			6.0	6.2	10	45	40	1.4	1.2	2.9
	0615				0615-1					15	55	45			
	0620				0620-1					20	65	50			

● : Stock item

Square Grooving

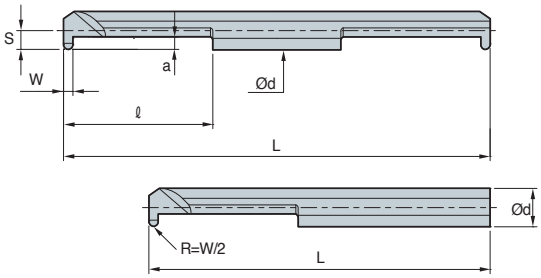


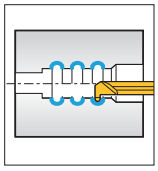


Twin Edge				Single Edge				Ød	Min.dia. of machining	ℓ	Overall length L		Detailed cutting edge		
Designation		Coated PC30M	Uncoated Z12M	Designation		Coated PC30M	Uncoated Z12M				Double ended	Single ended	W	a	S
MGR	0310-1.0			MGR	0310-1.0-1			3.0	3.2	10	40	35	1.0	0.8	1.4
	0315-1.0				0315-1.0-1				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

●: Stock item

Round Grooving

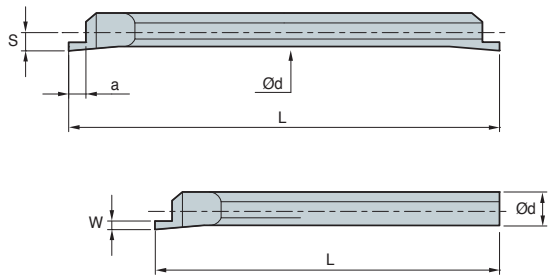


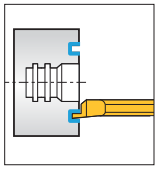


Twin Edge				Single Edge				Ød	Min.dia. of machining	ℓ	Overall length L		Detailed cutting edge		
Designation		Coated PC30M	Uncoated Z12M	Designation		Coated PC30M	Uncoated Z12M				Double ended	Single ended	W	a	S
MGRR	0310-0.8			MGRR	0310-0.8-1			3.0	3.2	10	40	35	0.8	0.8	1.4
	0315-0.8				0315-0.8-1		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

● : Stock item

Face Grooving

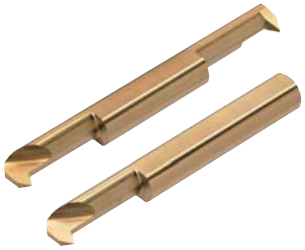


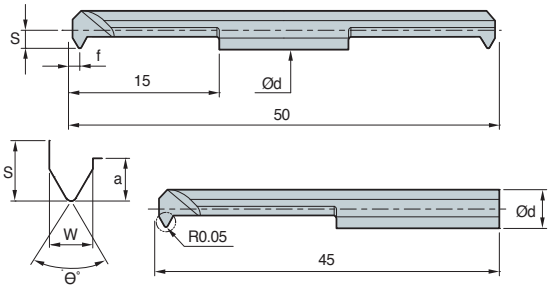


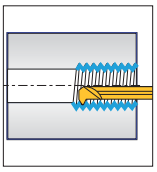
Twin Edge				Single Edge				Ød	Min.dia. of machining	Overall length L		Detailed cutting edge		
Designation		Coated PC30M	Uncoated Z12M	Designation		Coated PC30M	Uncoated Z12M			Double ended	Single ended	W	a	S
MGFR	0400-1.0			MGFR	0400-1.0-1			4.0	6.0	50	45	1.0	1.5	1.8
	0400-1.5				0400-1.5-1							1.5	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							2.0	2.5	
	0800-1.0	●			0800-1.0-1			8.0	10.4	70	60	1.0	1.5	3.9
	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	●						2.5	3.0	
	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			10.0	12.4	80	70	2.0	2.5	4.9
	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	0.5~1.5		2.90	2.2	1.0
	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	28~16		2.90	2.2	1.0

● : Stock item

SLEEVE

SL (SLEEVE)

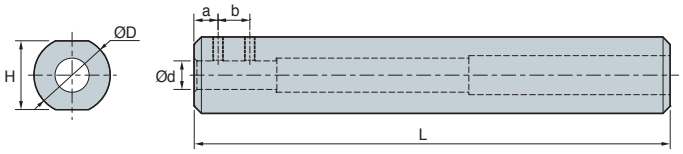


Fig. 1

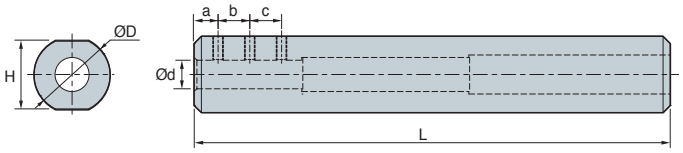


Fig. 2

(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

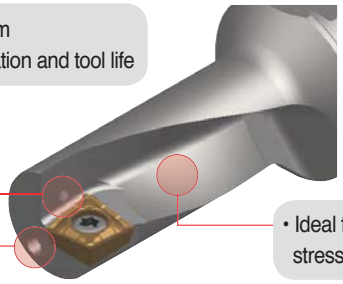
MT	20	R	-	2.25D
Brand Name	Tool Dia.	Hand		Aspect ratio

Insert code system

Q	C	M	T	08	03	04	-	CM
Insert shape	Relief angle	Tolerance	Cross section type	Cutting edge length	Height of cutting edge	Nose radius		Chip breaker

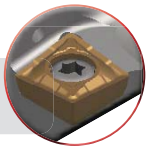
Tool design by FEM analysis

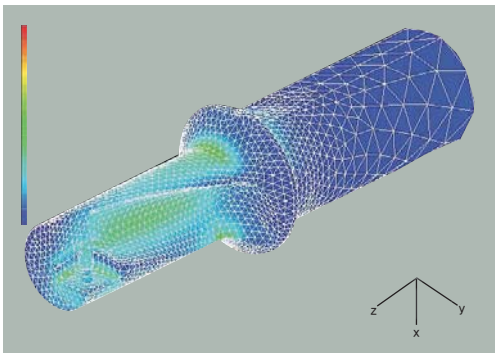
- Double coolant system
- Excellent chip evacuation and tool life



- Ideal flute design minimizing stress concentrations

※ Notice: Clamp an insert shown as in the picture





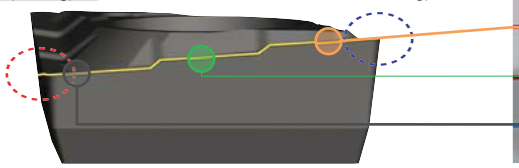
- Minimized stress during cutting, prevented damage from vibration and longer tool life

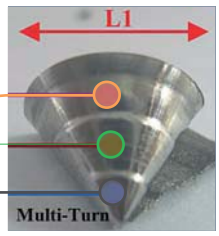
Optimized design

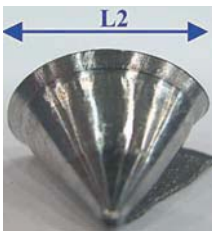
Creative stepping cutting edge

Drilling edge (Drilling)

Turning edge (Internal, external and face turning)







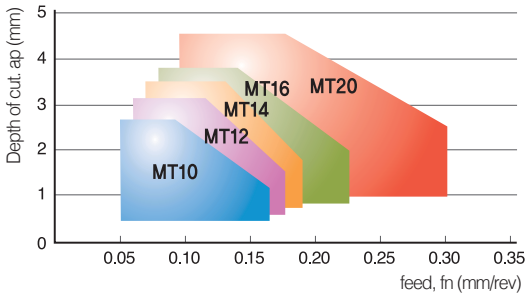
- Special chip formed by edge geometry better chip
- evacuation due to small radius width of chip curl

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

User's guide

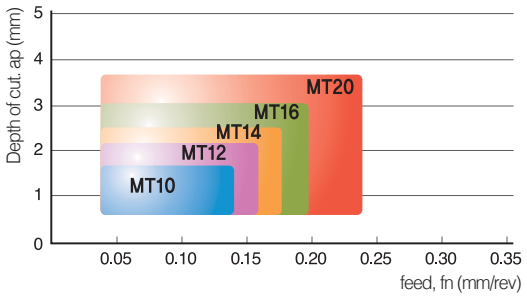
External / Internal turning

Application range



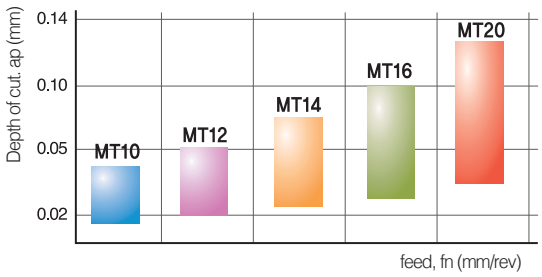
Facing

Appication ranges of facing



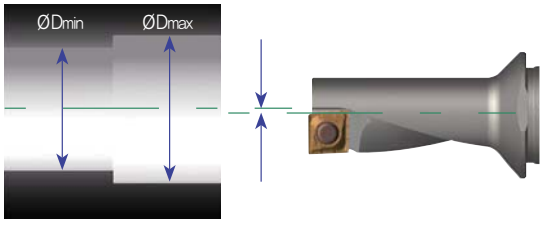
Drilling

Drilling feed range by designation



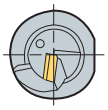
Offset (Diameter compensation)

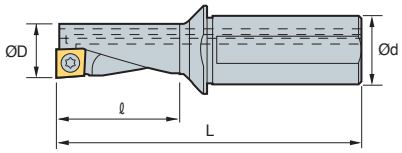
Disignation	Machined diameter (mm)	ØDmin (mm)	ØDmax (mm)
MT10R/L-2.25D	10	9.85	10.35
MT12R/L-2.25D	12	11.85	12.35
MT14R/L-2.25D	14	13.85	14.35
MT16R/L-2.25D	16	15.85	16.35
MT20R/L-2.25D	20	19.85	20.35
MT25R/L-2.25D	25	24.85	25.35
MT32R/L-2.25D	32	31.85	32.35



Drill diameter is adjustable by the offset compensation

MT(Multi-Turn)

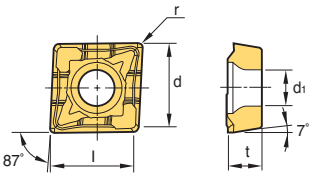
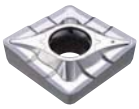
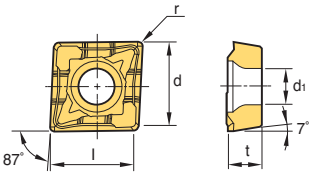




(mm)

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

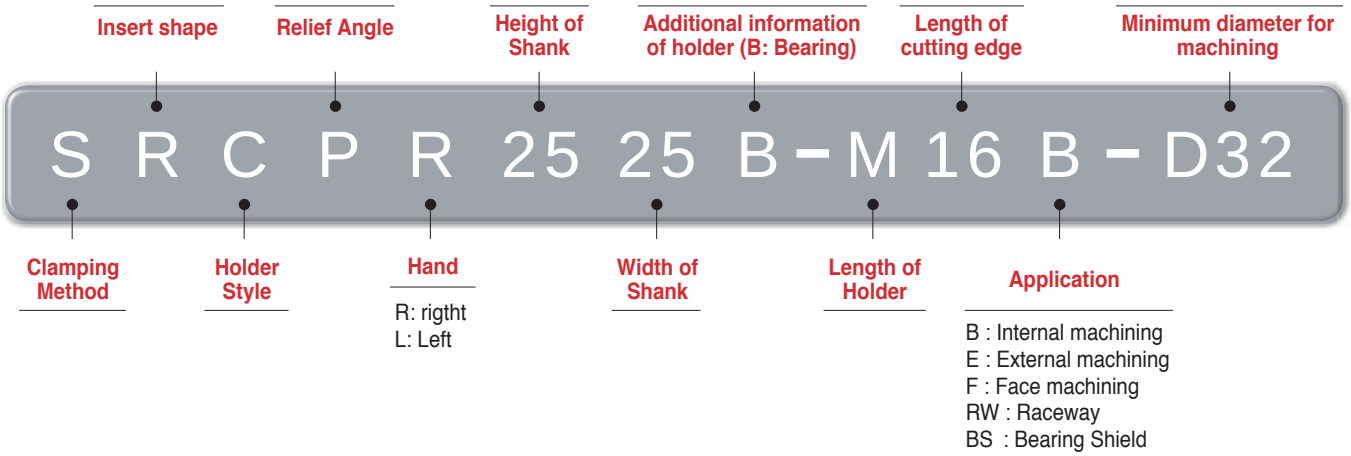
Insert

Picture	Designation		Coated				Uncoated		Dimensions (mm)					Configuration
			NC3120	NC3225	NC6315	PC5300	H01	H05	l	d	t	r	Ød1	
	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	
		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	

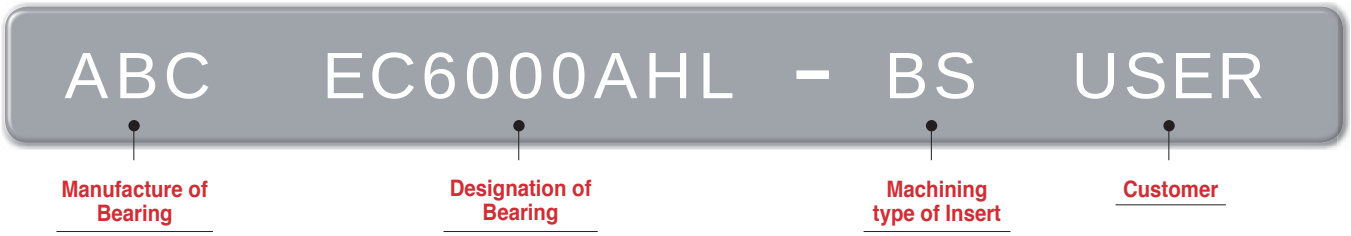
● : Stock item

Bearing Solution

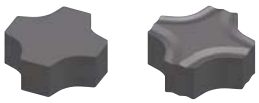
Holder code system



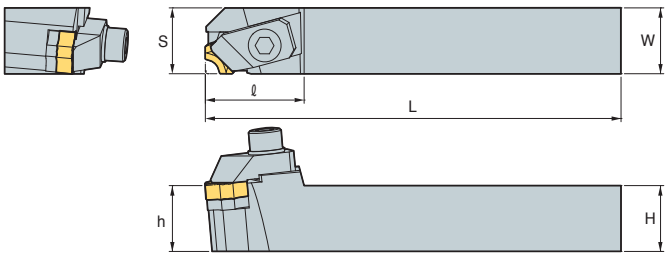
Insert code system for race way and bearing shield machining

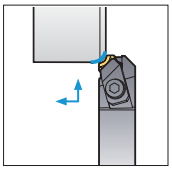


CMSN...F Type



MC12□□ MC12□□-BR
MC15□□

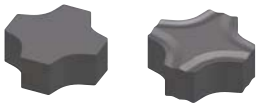




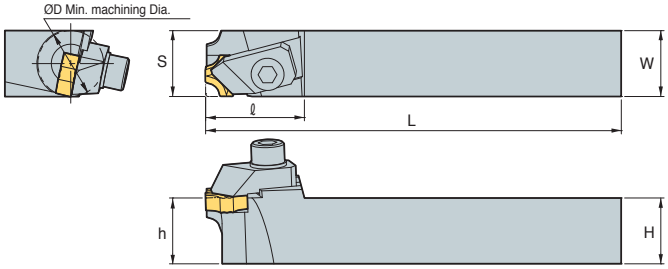
• R type insert
(mm)

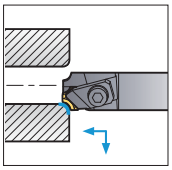
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Wrench
CMSNR/L	2020B-L12F	20	20	140	21	20	33	MC12□□ MC12□□-BR	CH6R/L1B	BHA0620	SX42CB	SS0308	HW50L
	2023B-L12F	20	23	140	24	20	33						
	2525B-L15F	25	25	140	26	25	35	MC15□□	CH6R/L1B	BHA0620	SX52CB	SS0408	HW50L

CMSN...B Type



MC12□□ MC12□□-BR

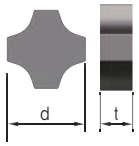
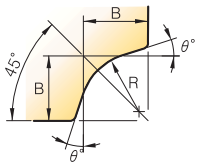
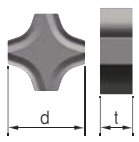




• R type insert
(mm)

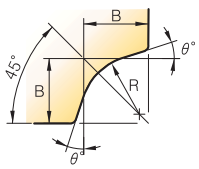
Designation		ØD	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Wrench
CMSNR/L	2020B-L12B-D28	28	20	20	140	21	20	33		CH6R/L1B	BHA0620	SX42CB	SS0308	HW50L
	2525B-L12B-D28	28	25	25	140	26	25	33	MC12□□	CH6R/L1B	BHA0620	SX42CB	SS0308	HW50L
	1620B-L12B-D20	20	16	20	140	18	16	32	MC12□□-BR	CH6R/L1B	BHA0620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

Insert

Application	Picture	Designation	Cermet	Dimensions (mm)					Configuration
			CN2000	R	θ°	B	d	t	
R-Chamfering		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

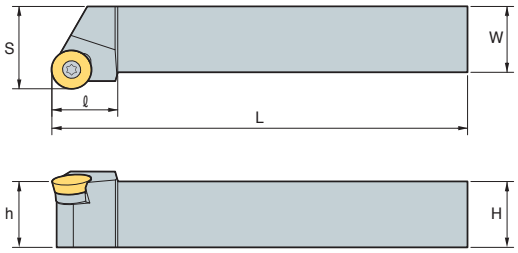
Special order-form

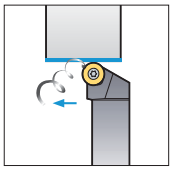


Designation	CN1000	CN2000	R	θ°	B	d	t	Configuration
MC...								

SRGP...E Type

RPGT1203M0
RPGT1604M0
RPGT2004M0





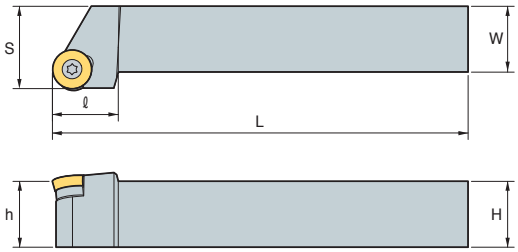
• R type insert

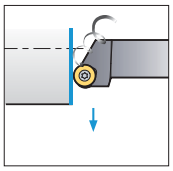
(mm)

Designation		H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench
SRGPR/L	2020B-L12E	20	20	140	25	20	20	RPGT1203M0	FTKA0410	SR1203S	SHXN0609F	TW15P
	2020B-L16E	20	20	140	25	20	20	RPGT1604M0	FTNA0513	SR16T3S	SHXN0712F	TW20P
	2525B-L20E	25	25	140	32	25	30	RPGT2004M0	FTNA0513	SR20T3S	SHXN0712F	TW20P

SRGP...F Type

RPGT1203M0
RPGT1604M0
RPGT2004M0





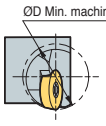
• R type insert

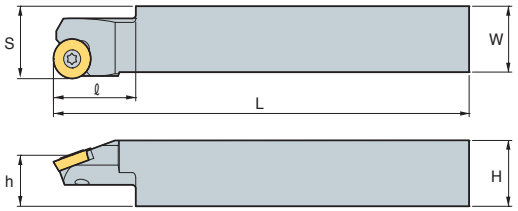
(mm)

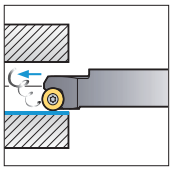
Designation		H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench
SRGPR/L	2020B-L12F	20	20	140	25	20	20	RPGT1203M0	FTKA0410	SR1203S	SHXN0609F	TW15P
	2020B-L16F	20	20	140	25	20	20	RPGT1604M0	FTNA0513	SR16T3S	SHXN0712F	TW20P
	2525B-L20F	25	25	140	32	25	30	RPGT2004M0	FTNA0513	SR20T3S	SHXN0712F	TW20P

SRCP...B Type

RPGT0802M0
RPGT1203M0
RPGT1604M0







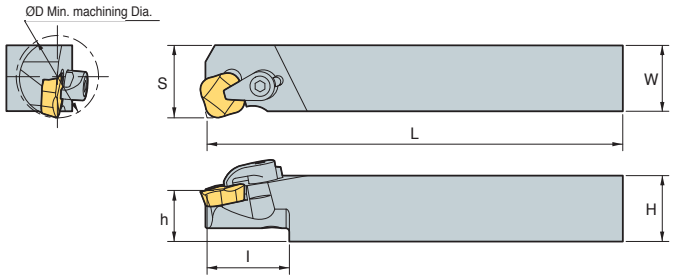
• R type insert

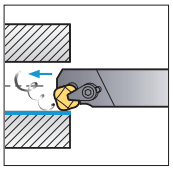
(mm)

Designation		ØD	H	W	L	S	h	ℓ	Insert	Screw	Wrench
SRCPR/L	2020B-L08B-D12	12	20	20	140	21.5	15.5	25	RPGT0802M0	FTKA0305	TW09P
	1919B-L12B-D15	15	19	19	140	21	16	25	RPGT1203M0	FTNA0408	TW15P
	2020B-L12B-D20	20	20	20	140	22	15.5	25	RPGT1203M0	FTNA0408	TW15P
	2525B-L16B-D32	32	25	25	140	27	20	30	RPGT1604M0	FTKA0510	TW20P

CSKP...B Type

SPGR120440L



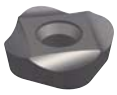


• R type insert

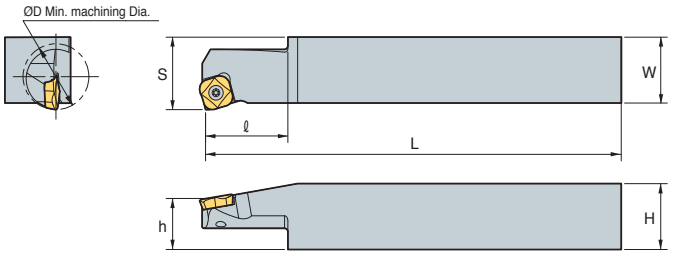
(mm)

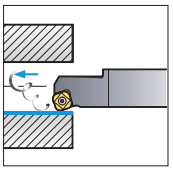
Designation		ØD	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Wrench
CSKPR/L	2022B-L12B-D30	30	20	22	140	27	20	37	SPGR120440R/L	CH5R1	CHX0510	HW30L

SSKP...B Type



SPGH090330L



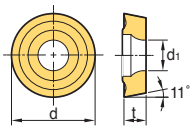
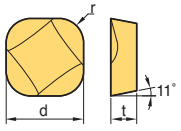
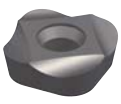
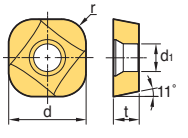


• R type insert

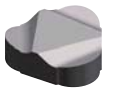
(mm)

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			

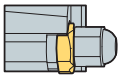
Insert

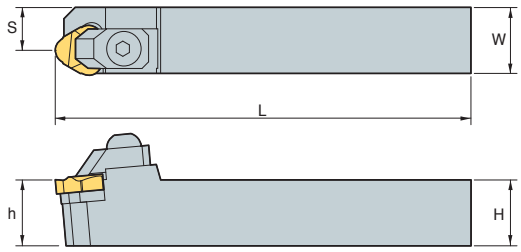
Application	Picture	Designation	Cermet	Dimensions (mm)				Configuration
			CN2000	r	d	d_1	t	
Internal turning		RPGT0802M0		-	8	3.4	2.38	
		RPGT1203M0		-	12	4.4	3.18	
		RPGT1604M0		-	16	5.5	4.76	
		RPGT2004M0		-	20	5.5	4.76	
		SPGR120440L		4.0	12..7	-	4.76	
		SPGH090330L		3.0	9.525	3.4	3.18	

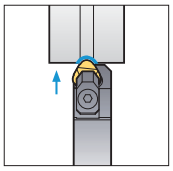
CKFN...RW Type



KORIC





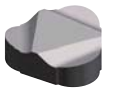


• R type insert

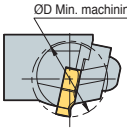
(mm)

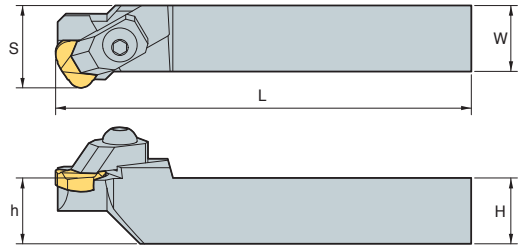
Designation		H	W	L	S	h	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Wrench
CKFNR/L	2020B-L22RW	20	20	140	12.5	20	KORIC2204R/L	CH6N1B	BHA0620	ST42CB	SS0408	HW50L
	2022B-L27RW	20	22	140	13	20	KORIC2704R/L	CH8R/L1B	BHA0820	ST52CB	SS0408	HW60L
	2025B-L33RW	20	25	140	16	20	KORIC3306R/L	CH8R/L1B	BHA0820	ST62CB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

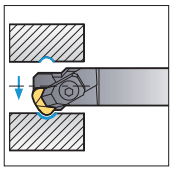
CKGN...RW Type



KORIC







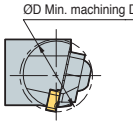
• R type insert

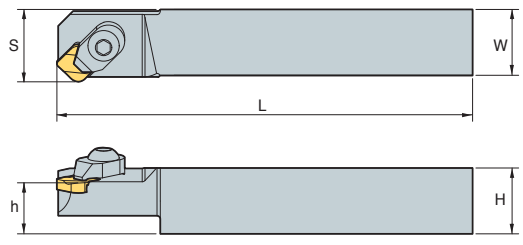
(mm)

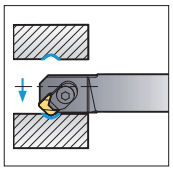
Designation		ØD	H	W	L	S	h	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Wrench
CKGNR/L	2022B-L22RW-D23	23	20	22	140	30	20	KORIC2204R/L	CH6R/L3B	BHA0620	ST42CB	SS0408	HW50L
	2022B-L27RW-D29	29	20	22	140	34	20	KORIC2704R/L	CH6R/L7B	BHA0620	ST52CB	SS0408	HW50L
	2025B-L33RW-D38	38	20	25	140	33	20	KORIC3306R/L	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





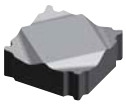


• R type insert

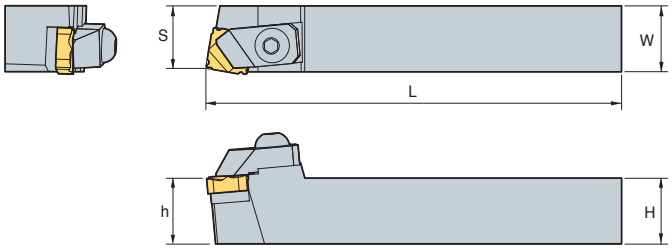
(mm)

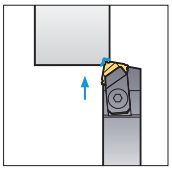
Designation		ØD	H	W	L	S	h	Insert	Clamp	Clamp Screw	Wrench
CSGNR/L	2020B-L09RW-D17	17	20	20	140	22	20	SNGN0903WR/L	CH5R1	CHX0510	HW30L
	2020B-L09RW-D22	22	20	20	140	22	20	SNGN0903WR/L	CH5R1	CHX0510	HW30L

CSBN...BS Type



SNGN

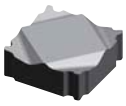




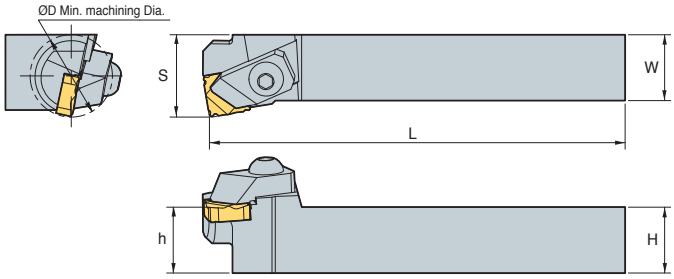
• R type insert
(mm)

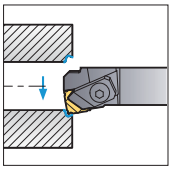
Designation		H	W	L	S	h	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Wrench
CSBNR/L	2023B-L12BS	20	23	140	21	20	SNGN1204SR/L	CH6N1B	BHA0620	SS42CB	SS0308	HW50L
	2525B-L15BS	25	25	140	23	25	SNGN1504SR/L	CH6N1B	BHA0620	SS52CB	SS0408	HW50L

CSKN...BS Type



SNGN

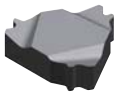




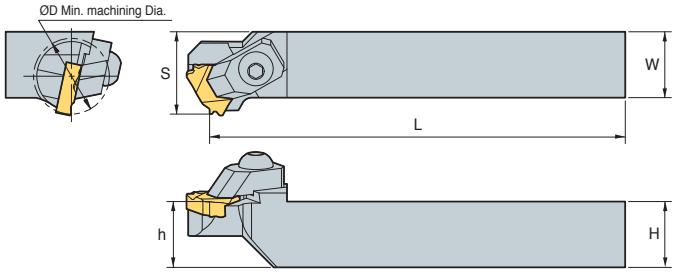
• R type insert
(mm)

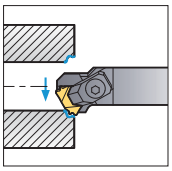
Designation		ØD	H	W	L	S	h	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Wrench
CSKNR/L	1622B-L09BS-D14	14	16	22	140	16	16	SNGN0903SR/L	CH6R/L2B	BHA0620	-	-	HW50L
	2022B-L12BS-D26	26	20	22	140	27	20	SNGN1204SR/L	CH6R/L1B	BHA0620	SS42CB	SS0308	HW50L
	2525B-L15BS-D35	35	25	25	140	31	25	SNGN1504SR/L	CH6R/L3B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

CTGN...BS Type



TNGN

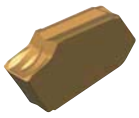




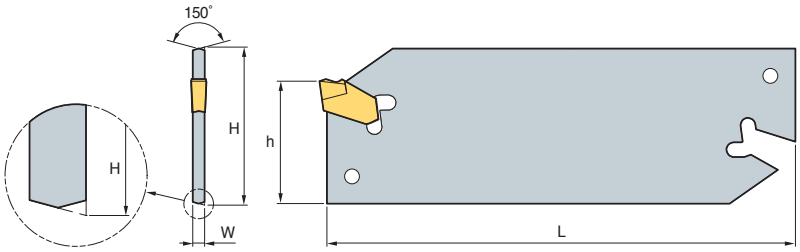
• R type insert
(mm)

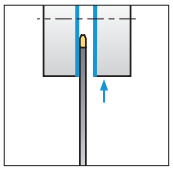
Designation		ØD	H	W	L	S	h	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Wrench
CTGNR/L	2021B-K22BS-D25	25	20	21	140	30	20	TNGN2204SR/L	CH6R/L7B	BHA0620	ST42CB	SS0408	HW50L

SPB-S Type



SP

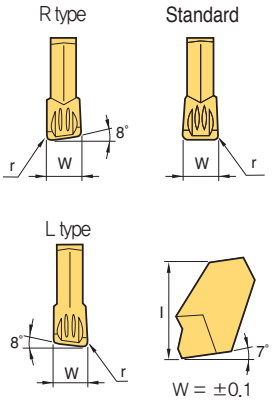




(mm)

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		

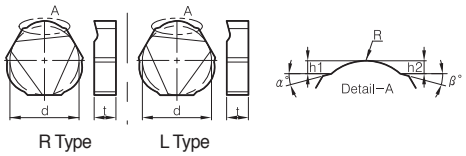
Insert

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	
			180												1.8	9.3	0.16	
			200	●		●	●	●			●	●	●		2.2	9.3	0.2	
			200R				●						●		2.2	9.3	0.2	
			200L										●		2.2	9.3	0.2	
			300	●	●	●	●	●			●	●	●	●	3.1	11.3	0.2	
			300R	●		●	●				●				3.1	11.3	0.2	
			300L				●								3.1	11.3	0.2	
			400	●	●	●	●	●			●	●	●		4.1	11.3	0.25	
			400R				●				●				4.1	11.3	0.25	
			400L				●								4.1	11.3	0.25	
			500	●			●	●			●	●			5.1	11.4	0.3	
			500R												5.1	11.4	0.3	
			500L												5.1	11.4	0.3	
			600				●	●				●			6.4	11.4	0.35	
			600R												6.4	11.4	0.35	
			600L												6.4	11.4	0.35	

● : Stock item

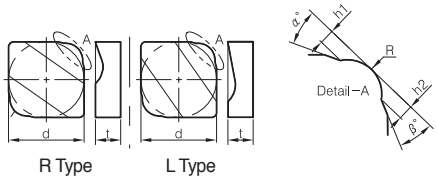
Machining Race-way

KORIC... R/L Type



		d	t	R	h1	h2	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					

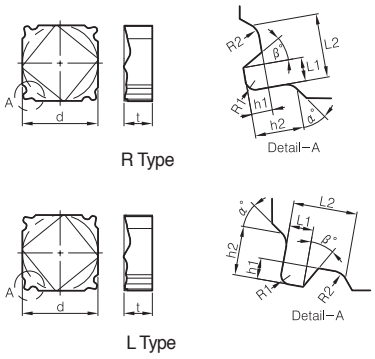
SNGN... WR/L Type



		d	t	R	h1	h2	α°	β°
SNGN	0903WR/L	9.525	3.18					
	1504WR/L	15.875	4.76					
	1905WR/L	19.05	5.56					

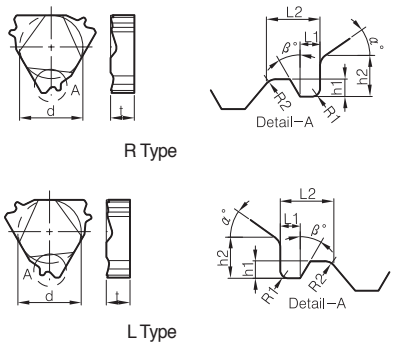
Machining for Bearing shield

KORIC... R/L Type



		d	t	L1	L2	h1	h2	R1	R2	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



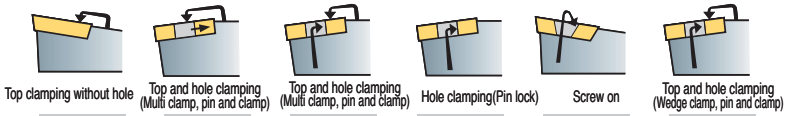
		d	t	L1	L2	h1	h2	R1	R2	α°	β°
TNGN	02204SR/L	12.7	4.76								

P S K N R 25 25 - M 12

1	2	3	4	5	6	7	8	9
Clamping Method of Insert	Insert Shape	Holder Style	Clearance Angle of Insert	Hand	Height of Shank	Width of Shank	Length of Holder	Length of Insert Cutting Edge

1 Clamping Method of Insert

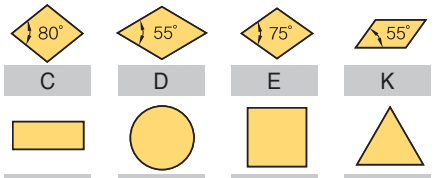
P S K N R 25 25 - M 12



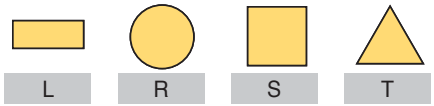
C D M P S W

2 Insert Shape

P S K N R 25 25 - M 12



C D E K

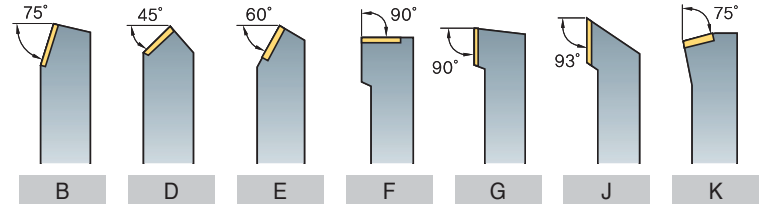


L R S T

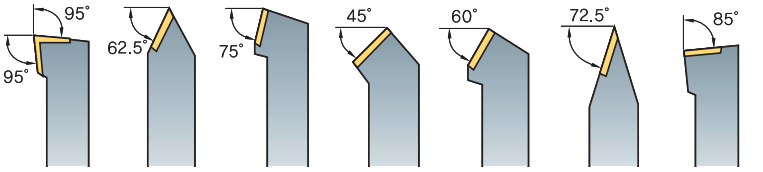
V W

3 Holder Style

P S K N R 25 25 - M 12



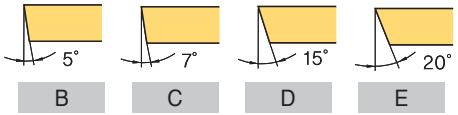
B D E F G J K



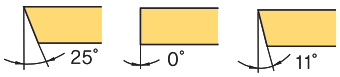
L N R S T V Y

4 Clearance Angle of Insert

P S K N R 25 25 - M 12



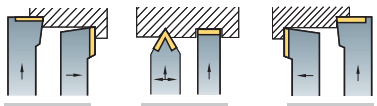
B C D E



F N P

5 Hand

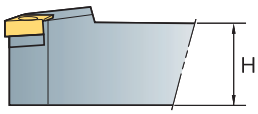
P S K N R 25 25 - M 12



L N R

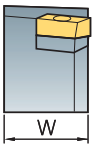
6 Height of Shank

P S K N R 25 25 - M 12



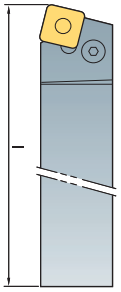
7 Width of Shank

P S K N R 25 25 - M 12



8 Length of Holder

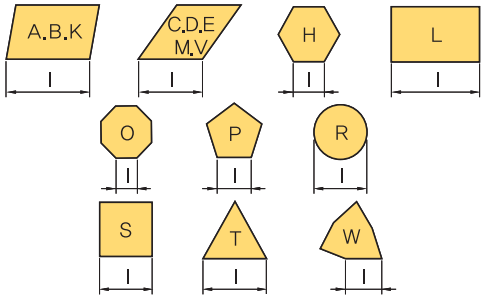
P S K N R 25 25 - M 12



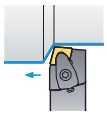
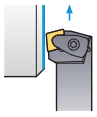
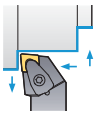
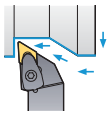
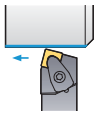
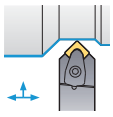
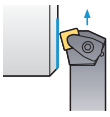
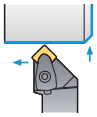
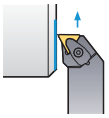
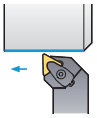
A - 32	H - 100	Q - 180	X-Special Item
B - 40	J - 110	R - 200	
C - 50	K - 125	S - 250	
D - 60	L - 140	T - 300	
E - 70	M - 150	U - 350	
F - 80	N - 160	V - 400	
G - 90	P - 170	W - 450	

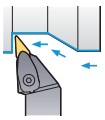
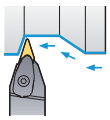
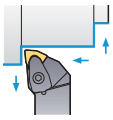
9 Length of Insert Cutting Edge

P S K N R 25 25 - M 12

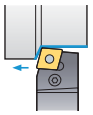
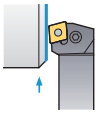
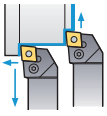
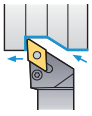
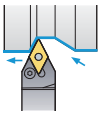
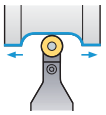
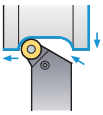
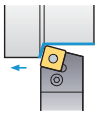
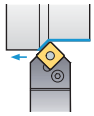
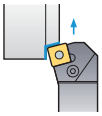


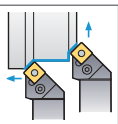
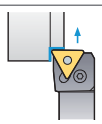
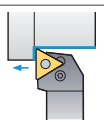
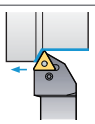
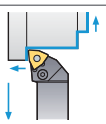
Double Clamp System

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			●	●						

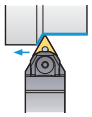
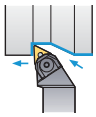
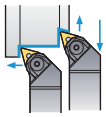
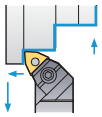
Cutting Shape			
Designation	DVJNR/L	DVVNN	DWLNR/L
Approach angle	93°	72.5°	95°
Page	B157	B158	B158
Turning	●	●	●
Copying	●	●	
Facing			●
Chamfering			
Back turning	●		●

Lever Lock System

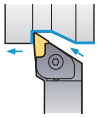
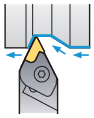
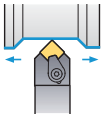
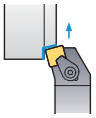
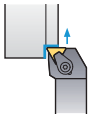
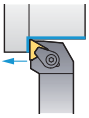
Cutting Shape										
Designation	PCBNR/L	PCKNR/L	PCLNR/L	PDJNR/L	PDNNR/L	PRDCN	PRGCR/L	PSBNR/L	PSDNN	PSKNR/L
Approach angle	75°	75°	95°	93°	62.5°	-	-	75°	45°	75°
Page	B159	B159	B160	B160	B161	B162	B162	B163	B163	B164
Turning	●	●	●	●	●	●	●	●	●	
Copying				●	●	●	●			
Facing			●							●
Chamfering										
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					●

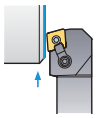
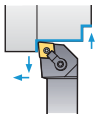
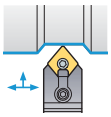
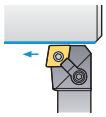
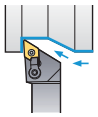
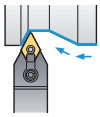
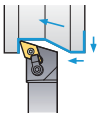
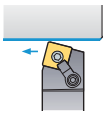
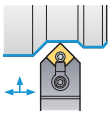
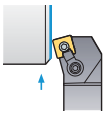
Wedge Clamp System

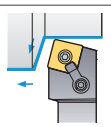
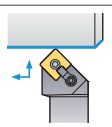
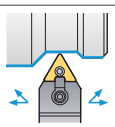
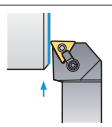
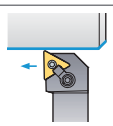
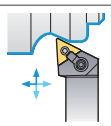
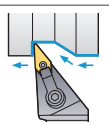
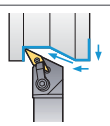
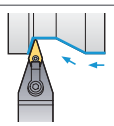
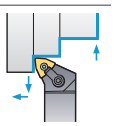
Cutting Shape										
Designation	WTENN	WTJNR/L	WTXNR/L	WWLNR/L						
Approach angle	60°	93°	105°	95°						
Page	B167	B167	B167	B168						
Turning	●	●	●	●						
Copying	●	●	●							
Facing				●						
Chamfering										
Back turning		●	●	●						

Clamp on System

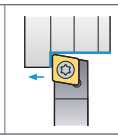
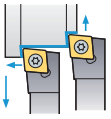
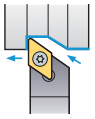
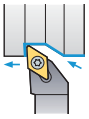
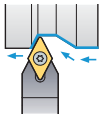
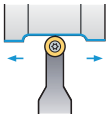
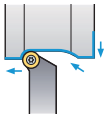
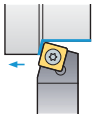
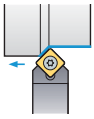
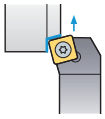
Cutting Shape										
Designation	CKJNR/L	CKNNR/L	CSDPN	CSKPR/L	CTFPR/L	CTGPR/L				
Approach angle	93°	62.5°	45°	75°	90°	90°				
Page	B169	B169	B169	B170	B170	B170				
Turning	●	●	●			●				
Copying	●	●								
Facing				●	●					
Chamfering										
Back turning	●									

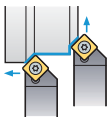
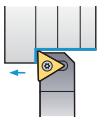
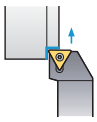
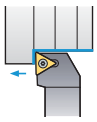
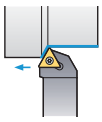
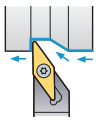
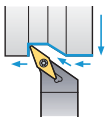
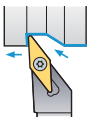
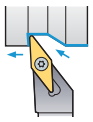
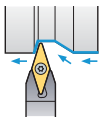
Multi Lock System

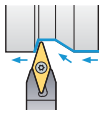
Cutting Shape										
Designation	MCKNR/L	MCLNR/L	MCMNN	MCRNR/L	MDJNR/L	MDNNN	MDQNR/L	MSBNR/L	MSDNN	MSKNR/L
Approach angle	75°	95°	50°	75°	93°	62.5°	107.5°	75°	45°	75°
Page	B171	B171	B171	B172	B172	B172	B173	B173	B173	B174
Turning		●	●	●	●	●	●	●	●	
Copying					●	●	●			
Facing	●	●								●
Chamfering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

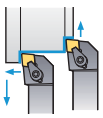
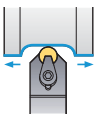
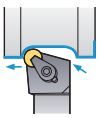
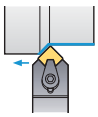
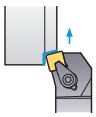
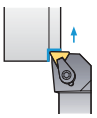
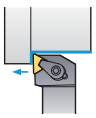
Screw on System

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						●	●	●	●	

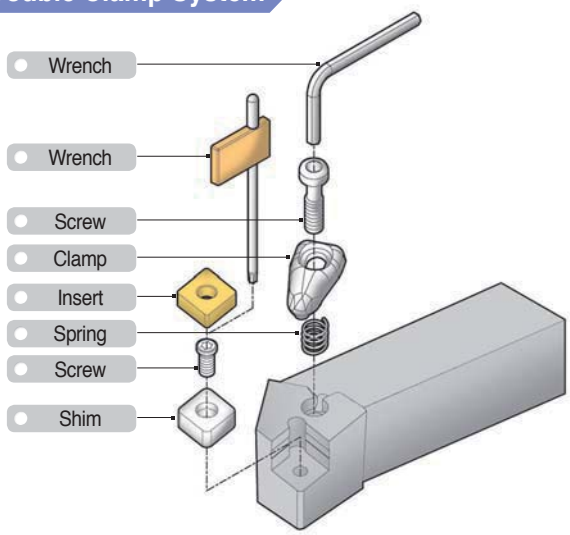
Cutting Shape										
Designation	SVVCN									
Approach angle	72.5°									
Page	B184									
Turning	●									
Copying	●									
Facing										
Chamfering										
Back turning										

Ceramic Holder

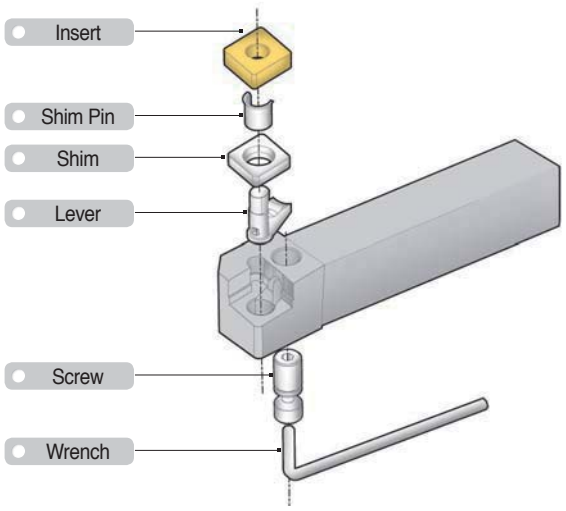
Cutting Shape										
Designation	CCNLR/L	CRDNN	CRGNR/L	CSDNN	CSKNR/L	CTFNR/L	CTGNR/L			
Approach angle	95°	-	-	45°	75°	90°	90°			
Page	B185	B185	B185	B185	B186	B186	B186			
Turning	●	●	●	●			●			
Copying			●							
Facing	●				●	●				
Chamfering										
Back turning	●									

Instruction of External Holder

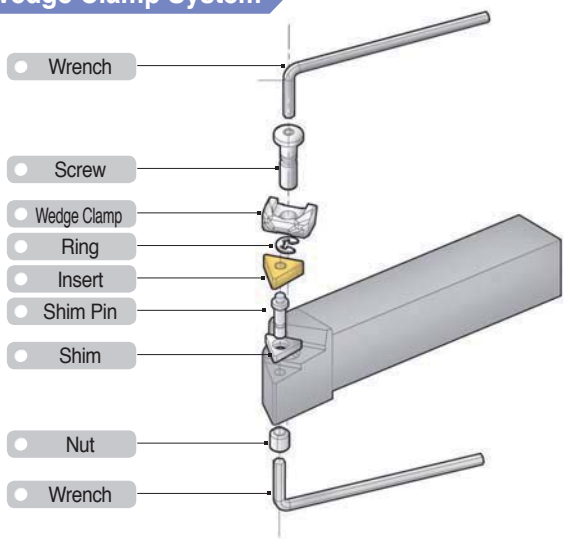
Double Clamp System



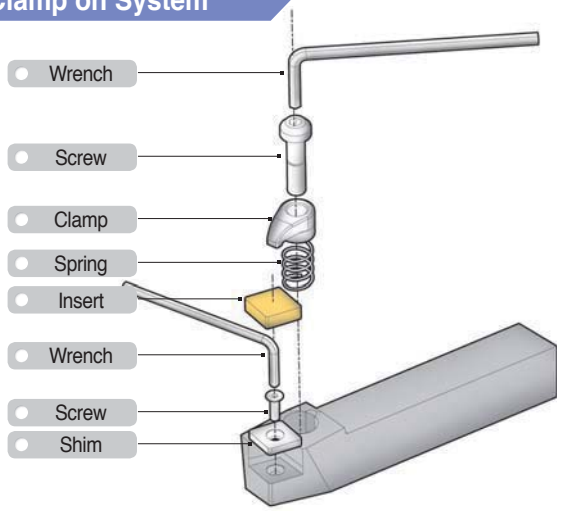
Lever Lock System



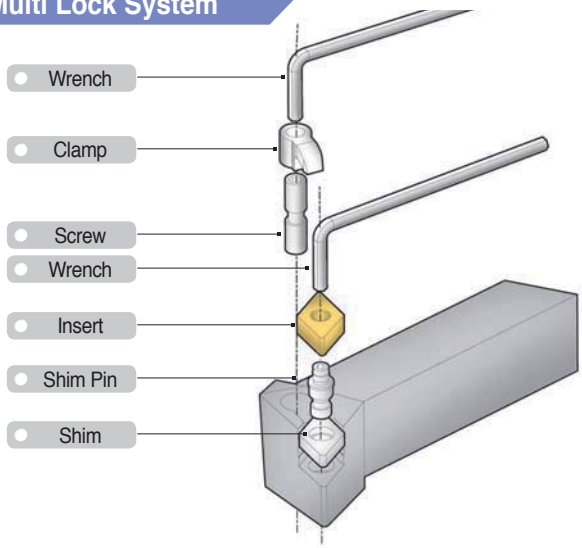
Wedge Clamp System



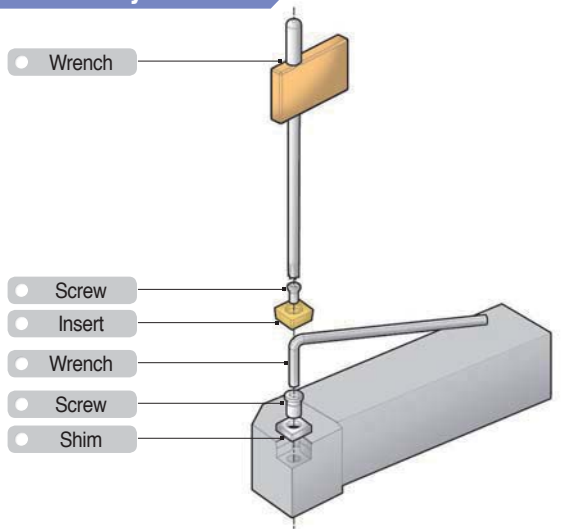
Clamp on System



Multi Lock System



Screw on System

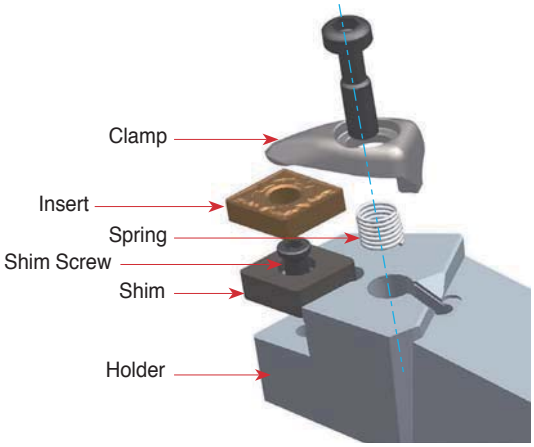


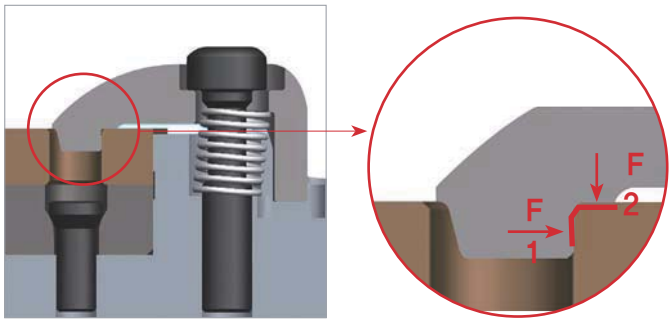
Double Clamp System

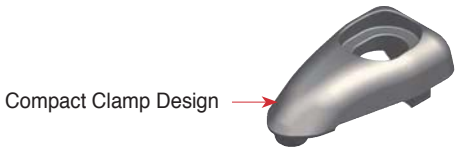
Stable clamping with double clamp system

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





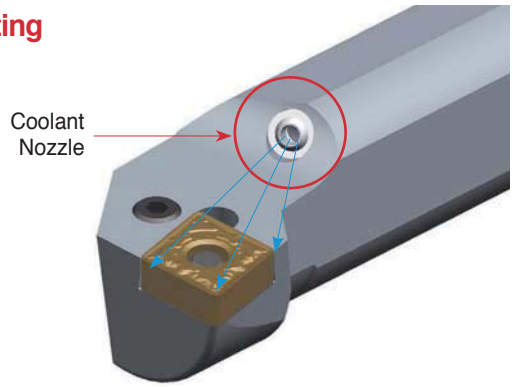


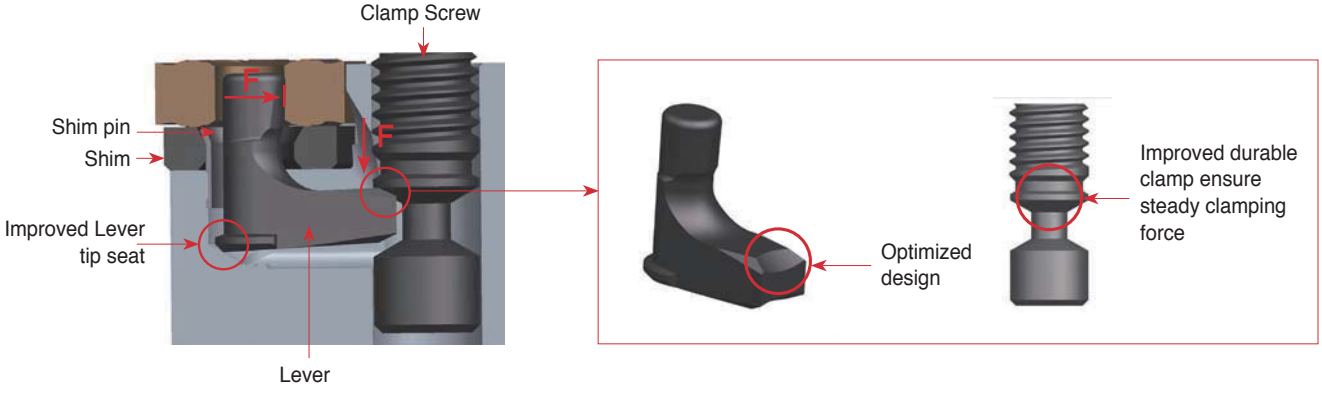
Lever Lock System

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

Features

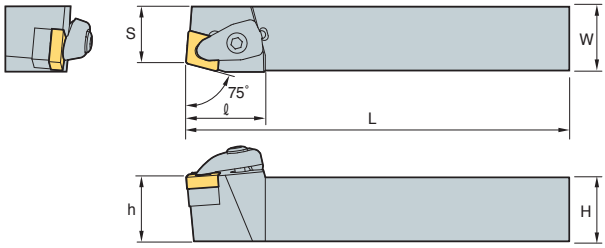
- The holder offers precision due to the special design due to the improved Lever tip seat
- The durability of parts has been improved
- Superior tool life due to powerful clamping system and optimized design of part
- Part designation on holder body makes it easy to check the right part description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

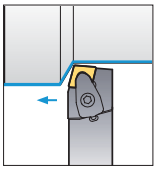




DCBNR/L

CN□□





75°

• R type insert

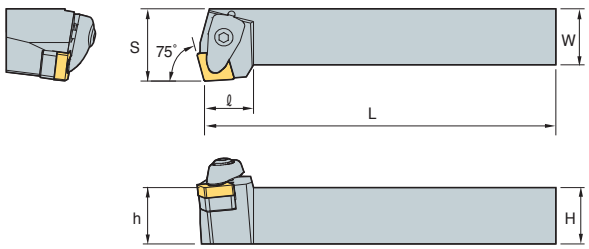
(mm)

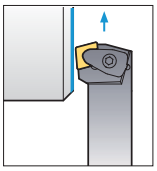
Designation Stock		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DCBNR/L	2020-K12	20	20	125	17	20	31	CN□□1204□□	CVH4	CHX0518	SC44V	FTKA0410	SPR0714	HW30P
	2525-M12	25	25	150	22	25	31							
	3225-P12	32	25	170	22	32	31							
	2525-M16	25	25	150	22	25	36	CN□□1606□□	CVH5	CHX0622	SC54V	FTNA0511	SPR0811	HW40L
	3232-P16	32	32	170	27	32	36							
	3232-P19	32	32	170	27	32	40	CN□□1906□□	CVH6	CHX0622	SC63V	FTNA0511	SPR0811	HW40L
	4040-S19	40	40	250	35	40	40							

Applicable inserts **B28~B35**

DCKNR/L

CN□□





75°

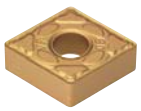
• R type insert

(mm)

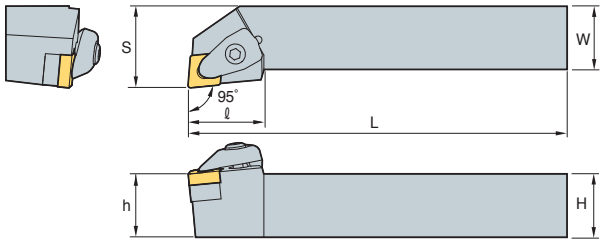
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DCKNR/L	2020-K12	20	20	125	25	20	21	CN□□1204□□	CVH4	CHX0518	SC44V	FTKA0410	SPR0714	HW30P
	2525-M12	25	25	150	32	25	21							
	3225-P12	32	25	170	32	32	21							
	3232-P16	32	32	170	40	32	26	CN□□1606□□	CVH5	CHX0622	SC54V	FTNA0511	SPR0811	HW40L
	4040-S16	40	40	250	50	40	26							

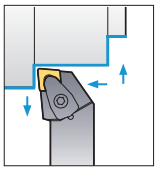
Applicable inserts **B28~B35**

DCLNR/L



CN□□





95°

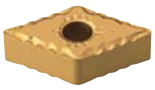
• R type insert

(mm)

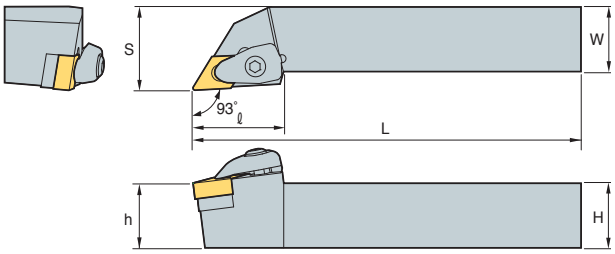
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DCLNR/L	2020-K09	20	20	125	25	20	24.5	CN□□0903□□	CVH3	CHX0415	SC32V	FTKA0307	SPR0510	HW25P
	2525-M09	25	25	150	32	25	24.5							
	2020-K12	20	20	125	25	20	30	CN□□1204□□	CVH4	CHX0518	SC44V	FTKA0410	SPR0714	HW30P
	2525-M12	25	25	150	32	25	30							
	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□□	CVH5	CHX0622	SC54V	FTNA0511	SPR0811	HW40L
	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□□	CVH6	CHX0622	SC63V	FTNA0511	SPR0811	HW40L
	3225-P19	32	25	170	32	32	40							
	3232-P19	32	32	170	40	32	40							
	4040-S19	40	40	250	50	40	40							

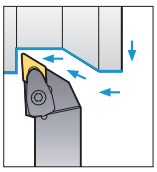
Applicable inserts **B28~B35**

DDJNR/L



DN□□





93°

• R type insert

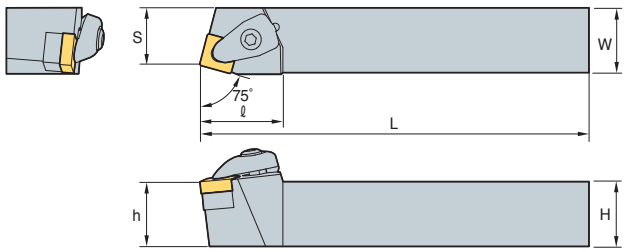
(mm)

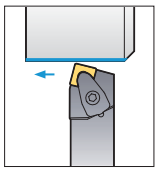
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DDJNR/L	2020-K11	20	20	125	25	20	30	DN□□1104□□	CVH3	CHX0415	SD32V	FTKA0307	SPR0510	HW25P
	2525-M11	25	25	150	32	25	30							
	3225-P11	32	25	170	32	32	30							
	3232-P11	32	32	170	40	32	30							
	2020-K15	20	20	125	25	20	35	DN□□1506□□	CVH4	CHX0518	SD43V	FTKA0410	SPR0714	HW30P
	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	DN□□1504□□	CVH4	CHX0518	SD44V	FTKA0410	SPR0714	HW30P
	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□□





75°

• R type insert

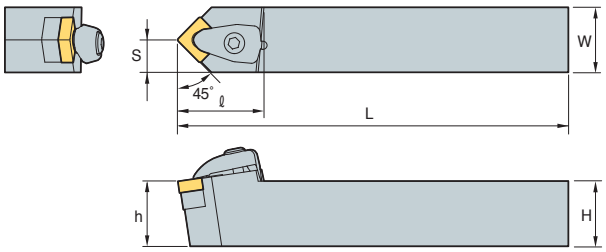
(mm)

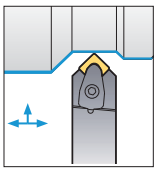
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DSBNR/L	2020-K09	20	20	125	17	20	25	SN□□0903□□	CVH3	CHX0415	SS32V	FTKA0307	SPR0510	HW25P
	2525-M09	25	25	150	22	25	25							
	2020-K12	20	20	125	17	20	32	SN□□1204□□	CVH4	CHX0518	SS44V	FTKA0410	SPR0714	HW30P
	2525-M12	25	25	150	22	25	32							
	3225-P12	32	25	170	22	32	32							
	3232-P12	32	32	170	27	32	32							
	2525-M15	25	25	150	22	25	38	SN□□1506□□	CVH5	CHX0622	SS54V	FTNA0511	SPR0811	HW40L
	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□□	CVH6	CHX0622	SS64V	FTNA0511	SPR0811	HW40L
	4040-S19	40	40	250	35	40	43							

Applicable inserts **B44~B52**

DSDNN

SN□□





45°

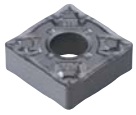
• R type insert

(mm)

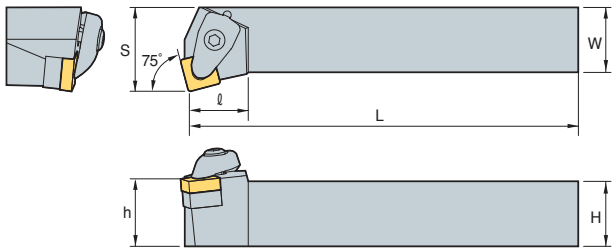
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DSDNN	2020-K09	20	20	125	10	20	26.5	SN□□0903□□	CVH3	CHX0415	SS32V	FTKA0307	SPR0510	HW25P
	2020-K12	20	20	125	10	20	33	SN□□1204□□	CVH4	CHX0518	SS44V	FTKA0410	SPR0714	HW30P
	2525-M12	25	25	150	12.5	25	33							
	3225-P12	32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

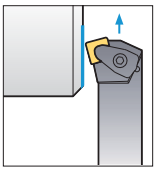
Applicable inserts **B44~B52**

DSKNR/L



SN□□





75°

• R type insert

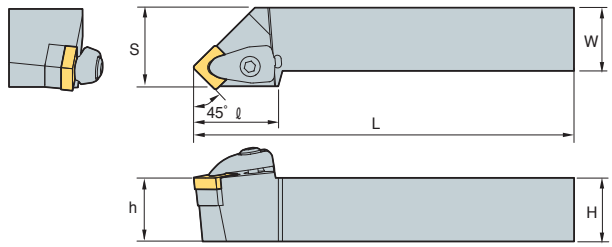
(mm)

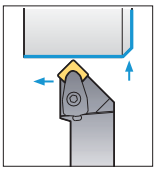
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DSKNR/L	2020-K09	20	20	125	25	20	20	SN□□0903□□	CVH3	CHX0415	SS32V	FTKA0307	SPR0510	HW25P
	2020-K12	20	20	125	25	20	23	SN□□1204□□	CVH4	CHX0518	SS44V	FTKA0410	SPR0714	HW30P
	2525-M12	25	25	150	32	25	23							
	3232-P12	32	32	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

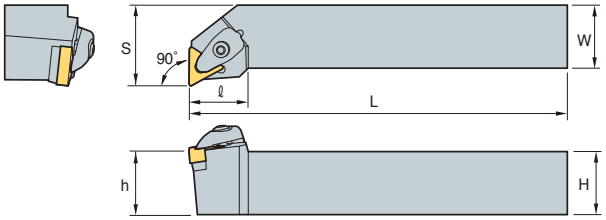
(mm)

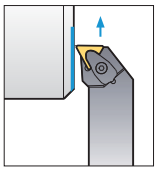
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DSSNR/L	2020-K09	20	20	125	25	20	28.5	SN□□0903□□	CVH3	CHX0415	SS32V	FTKA0307	SPR0510	HW25P
	2020-K12	20	20	125	25	20	35	SN□□1204□□	CVH4	CHX0518	SS44V	FTKA0410	SPR0714	HW30P
	2525-M12	25	25	150	32	25	35							
	3225-P12	32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

Applicable inserts **B44~B52**

DTFNR/L

TN□□





90°

• R type insert

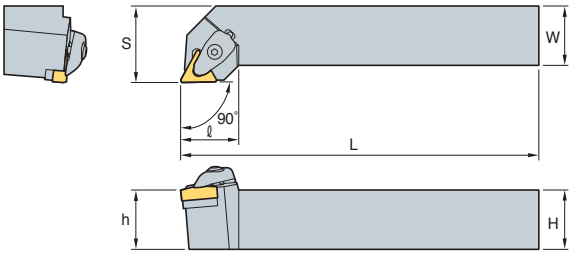
(mm)

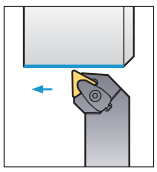
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DTFNR/L	2020-K16	20	20	125	25	20	24.5	TN□□1604□□	CVH3	CHX0415	ST32V	FTKA0307	SPR0510	HW25P
	2525-M16	25	25	150	32	25	24.5							
	3232-P16	32	32	170	40	32	23.5							
	2525-M22	25	25	150	32	25	33	TN□□2204□□	CVH4	CHX0518	ST44V	FTKA0410	SPR0714	HW30P
	3225-P22	32	25	170	32	32	33							
	3232-P22	32	32	170	40	32	33							

Applicable inserts **B53~B59**

DTGNR/L

TN□□





90°

• R type insert

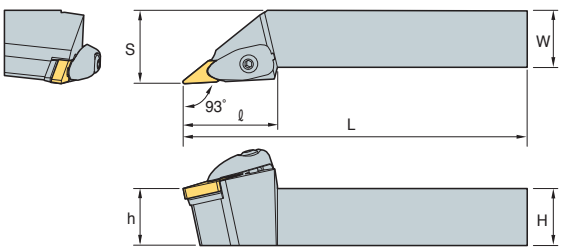
(mm)

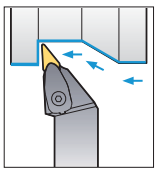
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DTGNR/L	2020-K16	20	20	125	25	20	24.5	TN□□1604□□	CVH3	CHX0415	ST32V	FTKA0307	SPR0510	HW25P
	2525-M16	25	25	150	32	25	24.5							
	3232-P16	32	32	170	40	32	24.5							
	2525-M22	25	25	150	32	25	32.6	TN□□2204□□	CVH4	CHX0518	ST44V	FTKA0410	SPR0714	HW30P
	3225-P22	32	25	170	32	32	32.6							
	3232-P22	32	32	170	40	32	32.6							

Applicable inserts **B53~B59**

DVJNR/L

VN□□





93°

• R type insert

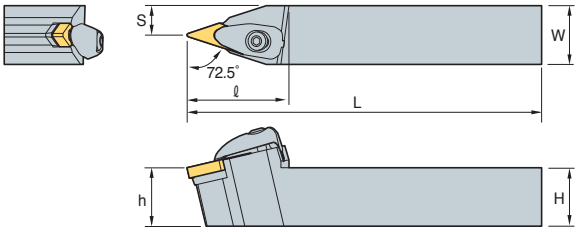
(mm)

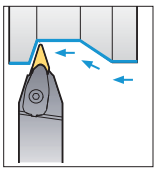
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DVJNR/L	2020-K16	20	20	125	25	20	41.5	VN□□1604□□	CVH3V	CHX0518	SV32V	FTNA03508	SPR0714	HW30P
	2525-M16	25	25	150	32	25	41.5							
	3232-P16	32	32	170	40	32	41.5							

Applicable inserts **B60~B61**

DVVNN

VN□□





72.5°

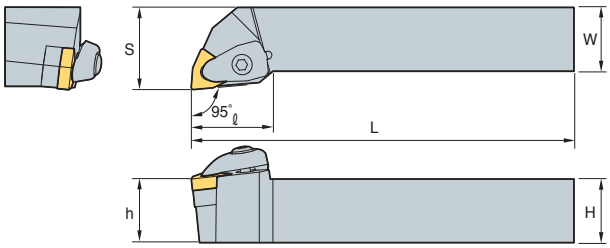
• R type insert
(mm)

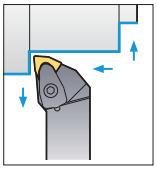
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DVVNN	2020-K16	20	20	125	10	20	40	VN□□1604□□	CVH3V	CHX0518	SV32V	FTNA03508	SPR0714	HW30P
	2525-M16	25	25	150	12.5	25	40							
	3232-P16	32	32	170	16	32	40							

Applicable inserts **B60~B61**

DWLNR/L

WN□□





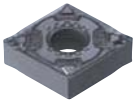
95°

• R type insert
(mm)

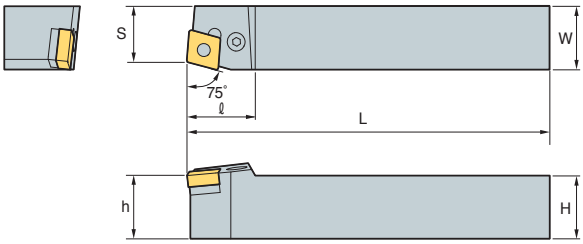
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DWLNR/L	2020-K06	20	20	125	25	20	26	WN□□ 0604□□	CVH3	CHX0415	SW32V	FTKA0307	SPR0510	HW25P
	2525-M06	25	25	150	32	25	26							
	2020-K08	20	20	125	25	20	32	WN□□ 0804□□	CVH4	CHX0518	SW44V	FTKA0410	SPR0714	HW30P
	2525-M08	25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

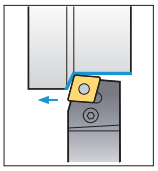
Applicable inserts **B62~B65**

PCBNR/L



CN□□





75°

• R type insert

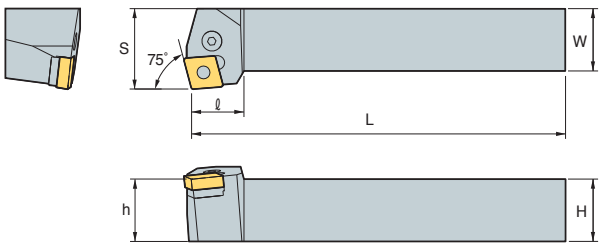
(mm)

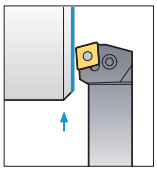
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PCBNR/L	2020-K12	20	20	125	17	20	27	CN□□ 1204□□	LV4	VHX0821	SC42	SP4	HW30L	LSPS4
	2525-M12	25	25	150	22	25	27							
	3225-P12	32	25	170	22	32	27							
	2525-M16	25	25	150	22	25	33	CN□□ 1606□□	LV5	VHX0825	SC53	SP5	HW30L	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							
	4040-S25	40	40	250	35	40	47	CN□□ 2509□□	LV8N	VHX1236N	SC84N	SP8N	HW50L	LSPS8
	4040-S25-5	40	40	250	35	40	47	CN□□ 2507□□						
	5050-T25	50	50	300	43	50	47	CN□□ 2509□□	LV8N	VHX1236N	SC84N	SP8N	HW50L	LSPS8
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□L□	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

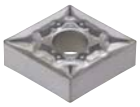
(mm)

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

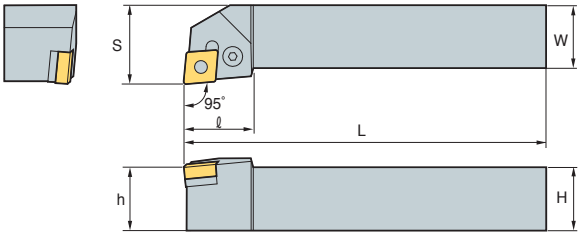
Applicable inserts B28~B35

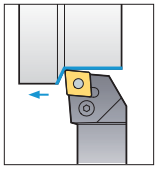
- Improved holders and parts ensure performance and durability
- "N" stand for New type (Holders and parts)

PCLNR/L



CN□□





95°

• R type insert

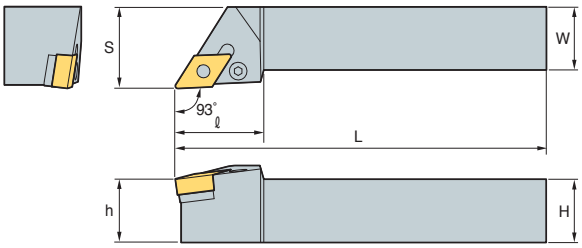
(mm)

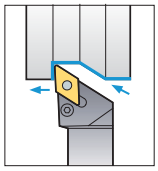
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PCLNR/L	1616-H09	16	16	100	20	16	20	CN□□ 0903□□	LV3	VHX0617	SC32	SP3	HW25L	LSPS3
	2020-K09	20	20	125	25	20	22							
	2525-M09	25	25	150	32	25	22							
	1616-H12	16	16	100	20	16	28	CN□□ 1204□□	LV4	VHX0821	SC42	SP4	HW30L	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							
	2525-M19	25	25	150	32	25	36	CN□□ 1906□□	LV6N	VHX1027N	SC63N	SP6N	HW40L	LSPS6
	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							
	4040-S25	40	40	250	50	40	47	CN□□ 2509□□	LV8N	VHX1236N	SC84N	SP8N	HW50L	LSPS8
	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							
	2525-M19N	25	25	150	32	25	38	CN□□ 1906□□	LV6N	VHX1027N	SC63N	SP6N	HW40L	LSPS6
	4040-S19N	40	40	250	50	40	36							

Applicable inserts **B28~B35**

PDJNR/L

DN□□





93°

• R type insert

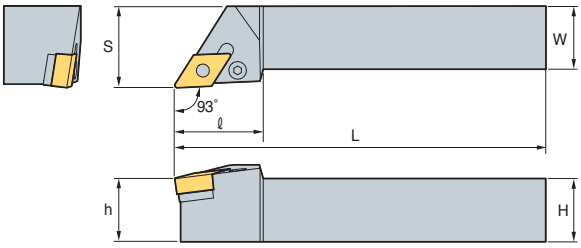
(mm)

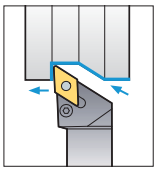
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PDJNR/L	1616-H11	16	16	100	20	16	25	DN□□ 1104□□	LV3	VHX0617	SD317	SP3	HW25L	LSPS3
	2020-K11	20	20	125	25	20	25							
	2525-M11	25	25	150	32	25	30							
	2020-K15	20	20	125	25	20	35	DN□□ 1506□□	LV4B	VHX0821	SD42	SP4	HW30L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

Applicable inserts **B36~B42**

PDJNR/L

DN□□





93°

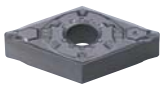
• R type insert

(mm)

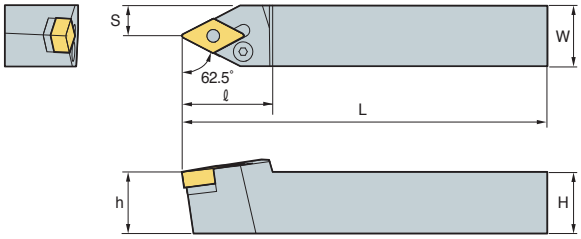
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PDJNR/L	1616-H11N	16	16	100	20	16	25	DN□□ 1104□□	LV3AN	VHX0617N	SD32N	SP3	HW25L	LSPS3
	2020-K11N	20	20	125	25	20	25							
	2525-M11N	25	25	150	32	25	30							
	2020-K15N	20	20	125	25	20	35	DN□□ 1506□□	LV4BN	VHX0821N	SD42N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

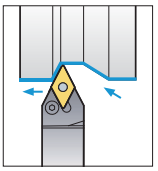
Applicable inserts **B36~B42**

PDNNR/L



DN□□





62.5°

• R type insert

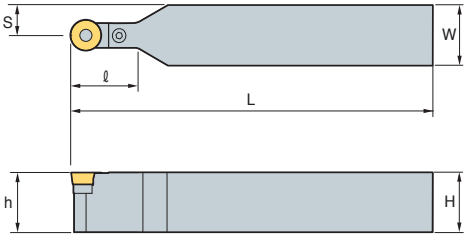
(mm)

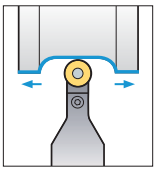
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PDNNR/L	2020-K15	20	20	125	8	20	37	DN□□ 1506□□	LV4B	VHX0821	SD42	SP4	HW30L	LSPS4
	2525-M15	25	25	150	12.5	25	37							
	3232-P15	32	32	150	16	32	37							
	4025-M15	40	25	170	12.5	32	37							
	2525-M15-3	25	25	150	12.5	25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

Applicable inserts **B36~B42**

PRDCN

RCMX





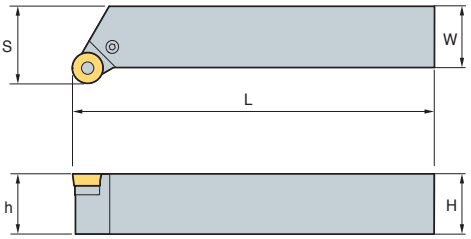
(mm)

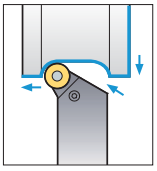
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PRDCN	2020-M10	20	20	150	10	20	24	RCMX 1003M0	LR10	VHX0514	SR10	SP3	HW20L	LSPS3
	2525-M10	25	25	150	12.5	25	24							
	2525-M12	25	25	150	12.5	25	24	RCMX 1204M0	LR12	VHX0617	SR12	SP3	HW25L	LSPS3
	2020-K12	20	20	125	10	20	24							
	3225-Q12	32	25	180	12.5	32	24							
	2525-Q16	25	25	180	12.5	25	30	RCMX 1606M0	LR16	VHX0621	SR16	SP4	HW25L	LSPS4
	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





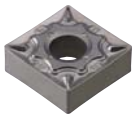
• R type insert

(mm)

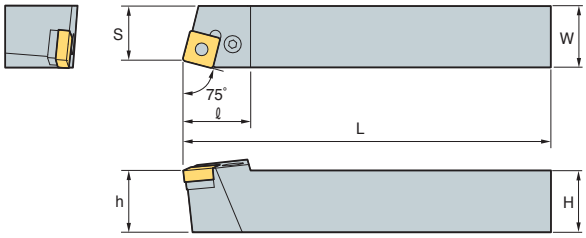
Designation		H	W	L	S	h	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PRGCR/L	2020-K10	20	20	125	25	20	RCMX 1003M0	LR10	VHX0514	SR10	SP3	HW20L	LSPS3
	2525-M10	25	25	150	32	25							
	2020-K12	20	20	125	25	20	RCMX 1204M0	LR12	VHX0617	SR12	SP3	HW25L	LSPS3
	2525-M12	25	25	150	32	25							
	3225-P12	32	25	170	32	32							
	2525-M16	25	25	150	32	25	RCMX 1606M0	LR16	VHX0621	SR16	SP4	HW25L	LSPS4
	3225-P16	32	25	170	32	32							
	3232-P20	32	32	170	40	32	RCMX 2006M0	LR20	VHX0823	SR20	SP5-1	HW30L	LSPS5
	4040-S25	40	40	250	50	40	RCMX 2507M0	LR25	VHX1030	SR25	SP6N	HW40L	LSPS6

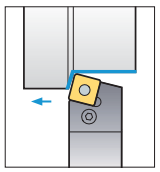
Applicable inserts **B74**

PSBNR/L



SN□□





75°

• R type insert

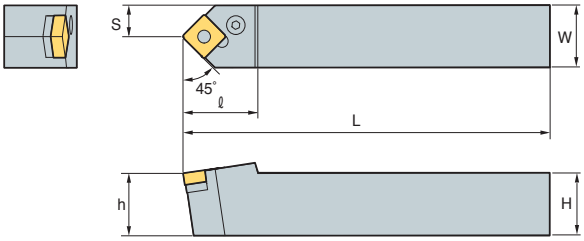
(mm)

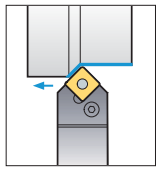
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PSBNR/L	1616-H09	16	16	100	13	16	21	SN□□ 0903□□	LV3	VHX0617	SS32	SP3	HW25L	LSPS3
	2020-K09	20	20	125	17	20	23							
	2020-K12	20	20	125	17	20	28	SN□□ 1204□□	LV4	VHX0821	SS42	SP4	HW30L	LSPS4
	2525-M12	25	25	150	22	25	28	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

Applicable inserts **B44~B52**

PSDNN

SN□□





45°

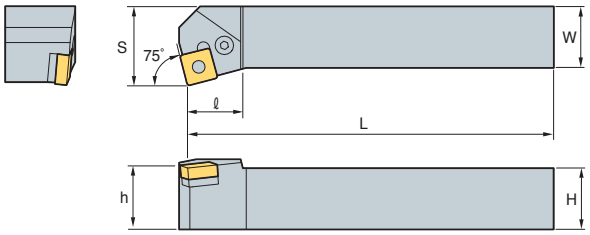
(mm)

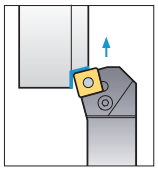
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PSDNN	1616-H09	16	16	100	8	16	23	SN□□0903□□	LV3	VHX0617	SS32	SP3	HW25L	LSPS3
	2020-K12	20	20	125	10	20	30	SN□□1204□□	LV4	VHX0821	SS42	SP4	HW30L	LSPS4
	2525-M12	25	25	150	12.5	25	30							
	3225-P12	32	25	170	12.5	32	30		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

Applicable inserts **B44~B52**

PSKNR/L

SN□□





75°

• R type insert

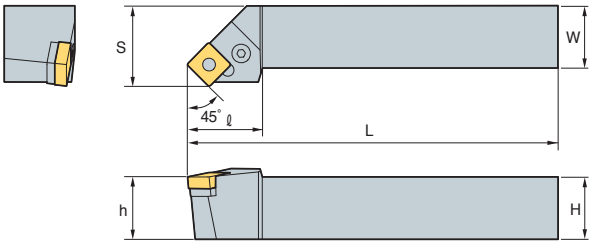
(mm)

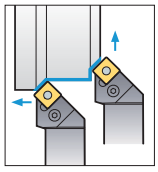
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PSKNR/L	1616-H09	16	16	100	20	16	17	SN□□ 0903□□	LV3	VHX0617	SS32	SP3	HW25L	LSPS3
	2020-K09	20	20	125	25	20	20							
	2020-K12	20	20	125	25	20	23	SN□□1204□□	LV4	VHX0821	SS42	SP4	HW30L	LSPS4
	2525-M12	25	25	150	32	25	23		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

Applicable inserts **B44~B52**

PSSNR/L

SN□□





45°

• R type insert

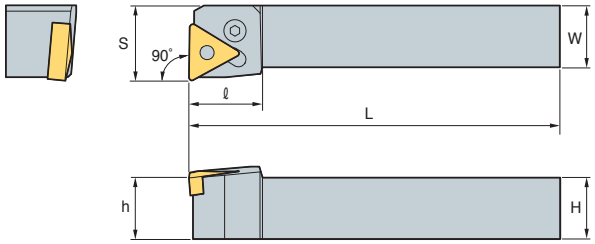
(mm)

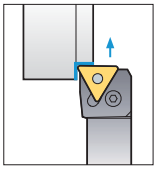
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PSSNR/L	1616-H09	16	16	100	20	16	25	SN□□0903□□	LV3	VHX0617	SS32	SP3	HW25L	LSPS3
	2020-K12	20	20	125	25	20	30	SN□□1204□□	LV4	VHX0821	SS42	SP4	HW30L	LSPS4
	2525-M12	25	25	150	32	25	36							
	3225-P12	32	25	170	32	32	36			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

Applicable inserts **B44~B52**

PTFNR/L

TN□□





90°

• R type insert

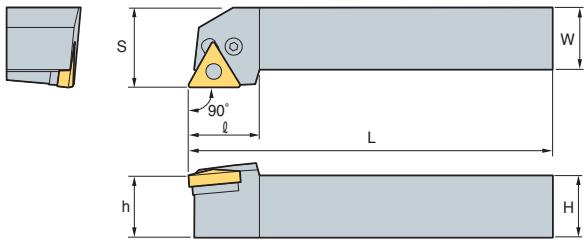
(mm)

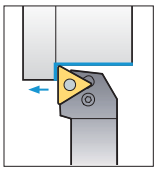
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PTFNR/L	1616-H16	16	16	100	20	16	20	TN□□1604□□	LV3	VHX0617	ST317	SP3	HW25L	LSPS3
	2020-K16	20	20	125	25	20	20							
	2525-M16	25	25	150	32	25	20							
	2525-M22	25	25	150	32	25	25	TN□□2204□□	LV4	VHX0821	ST42	SP4	HW30L	LSPS4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

Applicable inserts **B53~B59**

PTGNR/L

TN□□





90°

• R type insert

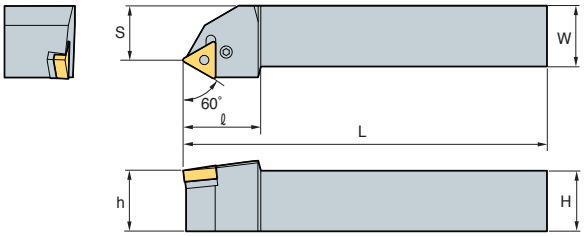
(mm)

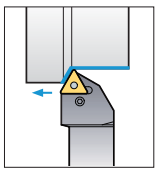
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PTGNR/L	1212-F11	12	12	80	16	12	16	TN□□1103□□	LV2	VHX0509B	-	-	HW20L	-
	1616-H11	16	16	100	20	16	18							
	2020-K11	20	20	125	25	20	19							
	2525-M11	25	25	150	32	25	20							
	1616-H16	16	16	100	20	16	20	TN□□1604□□	LV3	VHX0617	ST317	SP3	HW25L	LSPS3
	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	TN□□2204□□	LV4	VHX0821	ST42	SP4	HW30L	LSPS4
	3232-P22	32	32	170	40	32	28							
	3232-P27	32	32	170	40	32	33	TN□□2706□□	LV5	VHX0825	ST53	SP5	HW30L	LSPS5
	4040-S27	40	40	250	50	40	33							
PTGNR/L	2525-M22N	25	25	150	32	25	28	TN□□2204□□	LV4N	VHX0820N	ST42N	SP4N	HW30L	LSPS4
	3232-P22N	32	32	170	40	32	28							
	3232-P27N	32	32	170	40	32	33	TN□□2706□□	LV5AN	VHX0823N	ST53N	SP5N	HW30L	LSPS5
	4040-S27N	40	40	250	50	40	33							

Applicable inserts **B53~B59**

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	25	TN□□1604□□	LV3	VHX0617	ST317	SP3	HW25L	LSPS3
	2020-K16	20	20	125	17	20	25							
	2525-M16	25	25	150	22	25	32							
	2525-M22	25	25	150	22	25	32	TN□□2204□□	LV4	VHX0821	ST42	SP4	HW30L	LSPS4
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□□

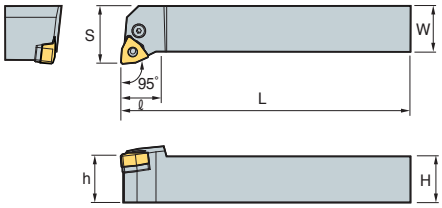


Fig.1

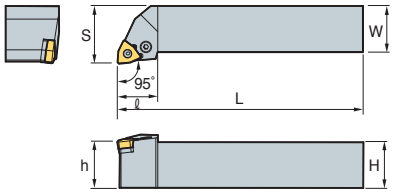
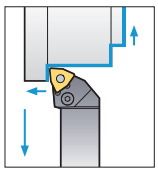


Fig.2



95°

• R type insert

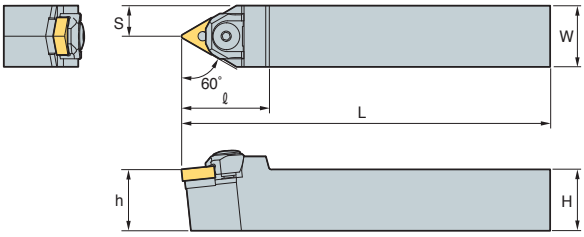
(mm)

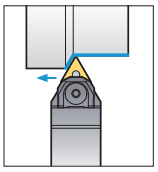
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch	Fig.
PWLNR/L	1616-H06	16	16	100	20	16	20	WN□□0604□□	LV3	VHX0617	SW317	SP3	HW25L	LSPS3	1
	2020-K06	20	20	125	25	20	20								
	2525-M06	25	25	150	32	25	20								
	2020-K08	20	20	125	25	20	26	WN□□0804□□	LV4	VHX0821	SW42	SP4	HW30L	LSPS4	2
	2525-M08	25	25	150	32	25	26								
PWLNR/L	1616-H06N	16	16	100	20	16	20	WN□□0604□□	LV3N	VHX0617N	SW317N	SP3	HW25L	LSPS3	1
	2020-K06N	20	20	125	25	20	20								
	2525-M06N	25	25	150	32	25	20								
	2020-K08N	20	20	125	25	20	26	WN□□0804□□	LV4N	VHX0820N	SW42N	SP4N	HW30L	LSPS4	2
	2525-N08N	25	25	150	32	25	26								

Applicable inserts **B62~B65**

WTENN

TN□□





60°

• R type insert

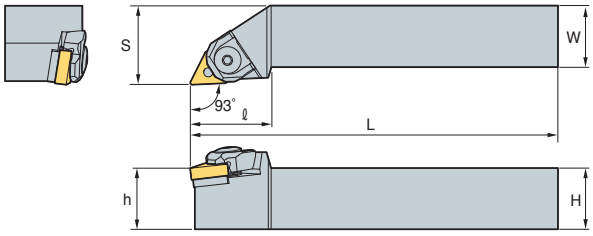
(mm)

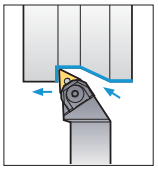
Designation		H	W	L	S	h	ℓ	Insert	Wedge Clamp	Screw	Stopper Ring	Shim	Shim Pin	Nut	Wrench
WTENN	2020-K16	20	20	125	10	20	36	TN□□1604□□	CMH6R6	MHX0626	ER04	ST32M	SP3M-1 / SP3M	N0407	HW30L
	2525-M16	25	25	150	12.5	25	36								
	2525-M22	25	25	150	12.5	25	42	TN□□2204□□	CMH6R1	MHX0626	ER04	ST43M	SP4M	N0508	HW30L
	3232-P22	32	32	170	16	32	42								

Applicable inserts **B53~B59**

WTJNR/L

TN□□





93°

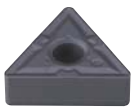
• R type insert

(mm)

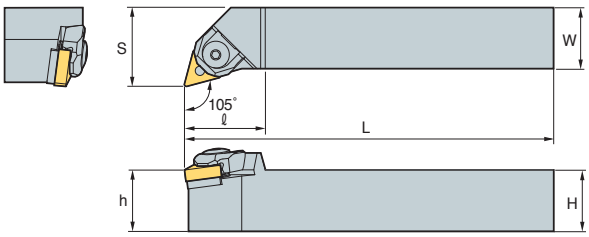
Designation		H	W	L	S	h	ℓ	Insert	Wedge Clamp	Screw	Stopper Ring	Shim	Shim Pin	Nut	Wrench
WTJNR/L	2020-K16	20	20	125	25	20	33	TN□□1604□□	CMH6R6	MHX0626	ER04	ST32M	SP3M-1 / SP3M	N0407	HW30L
	2525-M16	25	25	150	32	25	33								
	3232-P16	32	32	170	40	32	33								
	2525-M22	25	25	150	32	25	35	TN□□2204□□	CMH6R1	MHX0626	ER04	ST43M	SP4M	N0508	HW30L
	3232-P22	32	32	170	40	32	35								

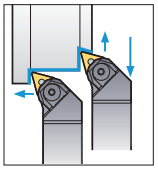
Applicable inserts **B53~B59**

WTXNR/L



TN□□





105°

• R type insert

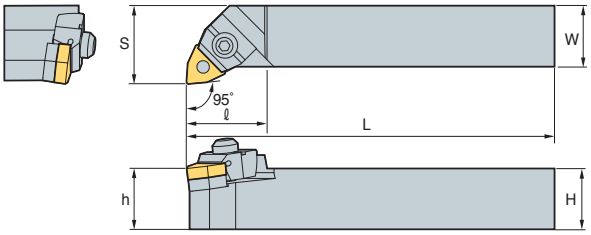
(mm)

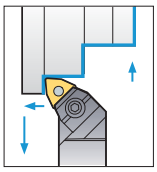
Designation		H	W	L	S	h	ℓ	Insert	Wedge Clamp	Screw	Stopper Ring	Shim	Shim Pin	Nut	Wrench
WTXNR/L	2020-K16	20	20	125	25	20	30	TN□□1604□□	CMH6R6	MHX0626	ER04	ST32M	SP3M-1 / SP3M	N0407	HW25L / HW30L
	2525-M16	25	25	150	32	25	33								
	3232-P16	32	32	170	40	32	33								

Applicable inserts **B53~B59**

WWLNR/L

WN□□





95°

• R type insert

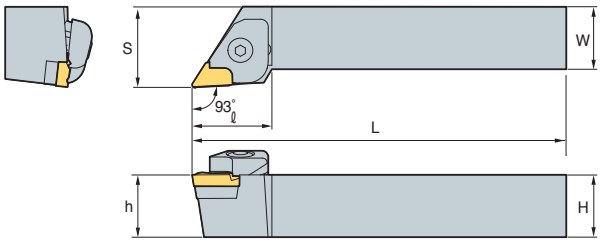
(mm)

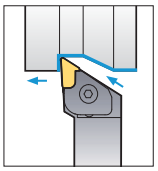
Designation		H	W	L	S	h	ℓ	Insert	Wedge Clamp	Screw	Stopper Ring	Shim	Shim Pin	Nut	Wrench
WWLNR/L	2020-K08	20	20	125	25	20	32	WN□□0804□□	CMH6R/L3	MHX0630	CR05	SW43M	SP2M	N0508	HW30L
	2525-M08	25	25	150	32	25	33		CMH6R2				SP4M		HW40L
	3232-P08	32	32	170	40	32	33		CMH6R2						

Applicable inserts **B62~B65**

CKJNR/L

KN□□





93°

• R type insert

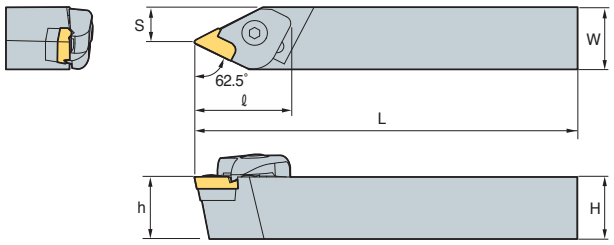
(mm)

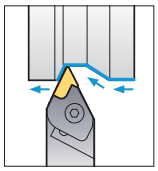
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Spring	Shim	Pin + Spring	Shim Screw	Wrench
CKJNR	2020-K16	20	20	125	25	20	32	KN□□1604□□R	CTH6R1	CHX0625	SR3	SK33C	PN0515 SR4	SHX0310	HW20L HW40L
	2525-M16	25	25	150	32	25	32								
	3225-M16	32	25	150	32	32	32								
	3225-P16	32	25	170	32	32	32								
	3232-P16	32	32	170	40	32	32								
	4040-R16	40	40	200	50	40	32								
CKJNL	2020-K16	20	20	125	25	20	32	KN□□1604□□L	CTH6L1	CHX0625	SR3	SK33CL	PN0515 SR4	SHX0310	HW20L HW40L
	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□□





62.5°

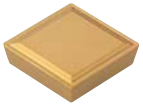
• R type insert

(mm)

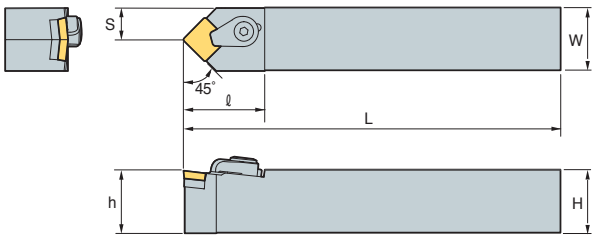
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Spring	Shim	Pin + Spring	Shim Screw	Wrench
CKNNR	2525-M16	25	25	150	14.3	25	37	KN□□ 1604□□R	CTH6R1	CHX0625	SR3	SK33C	PN0515 SR4	SHX0310	HW20L HW40L
	3232-P16	32	32	170	16.8	32	37								
CKNNL	2525-M16	25	25	150	14.3	25	37	KN□□ 1604□□L	CTH6L1	CHX0625	SR3	SK33CL	PN0515 SR4	SHX0310	HW20L HW40L
	3232-P16	32	32	170	16.8	32	37								

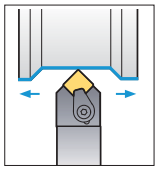
Applicable inserts **B43**

CSDPN



SP□R





45°

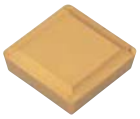
• R type insert

(mm)

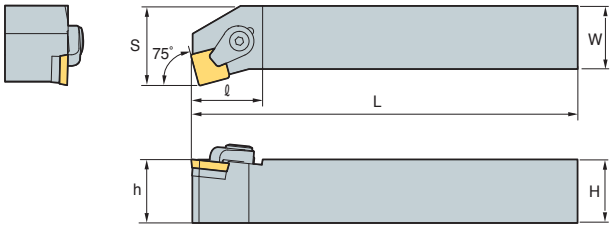
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	C-Ring	Wrench
CSDPN	1616-H09	16	16	100	8	16	30	SP□R 0903□□	CH53R1	CH0515C	SS32C	SP3C	CR03C	HW25L
	2525-M12	25	25	150	12.5	25	35	SP□R 1203□□	CH6R5	CHX0622C	SS42C	SP3C	CR04C	HW30L

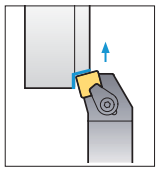
Applicable inserts **B76~77**

CSKPR/L



SP□R





75°

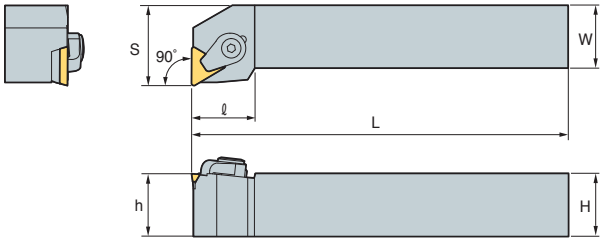
• R type insert
(mm)

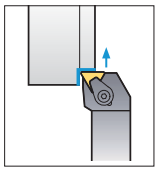
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	C-Ring	Wrench
CSKPR/L	2525-M12	25	25	150	32	20	32	SP□R 1203□□	CH6R5	CHX0414C	SS42C	SP3C	CR04C	HW30L

Applicable inserts **B76~B77**

CTFPR/L

TP□R





90°

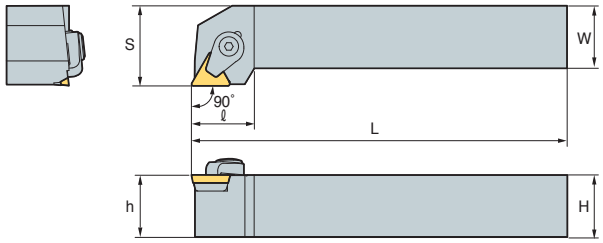
• R type insert
(mm)

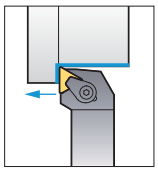
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	C-Ring	Wrench
CTFPR/L	2020-K16	25	25	125	25	20	32	TP□R 1603□□	CH6R5	CHX0622C	ST32C	SP3C	CR04C	HW30L
	2525-M16	25	25	150	32	25	32							

Applicable inserts **B81~B83**

CTGPR/L

TP□R





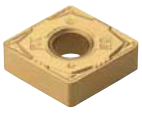
90°

• R type insert
(mm)

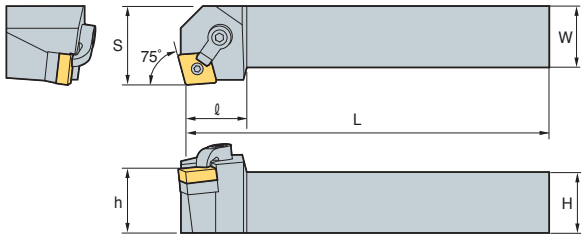
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	C-Ring	Wrench
CTGPR/L	1212-F11	12	12	80	16	12	20	TP□R 1103□□	CH53R1	CHX0515C	-	-	CR03C	HW25L
	1616-H11	16	16	100	20	16	20							
	2020-K11	20	20	125	25	20	20							
	2020-K16	20	20	125	25	20	25	TP□R 1603□□	CH6R5	CHX0622C	ST32C	SP3C	CR04C	HW30L
	2525-M16	25	25	150	32	25	25							
	2525-M22	25	25	150	32	25	32	TP□R 2204□□	CH83R1	CHX0823C	ST43C	SP4C	CR05C	HW40L
	3232-P22	32	32	170	40	32	32							

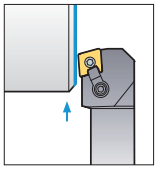
Applicable inserts **B81~B83**

MCKNR/L



CN□□





75°

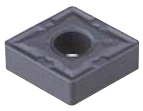
• R type insert

(mm)

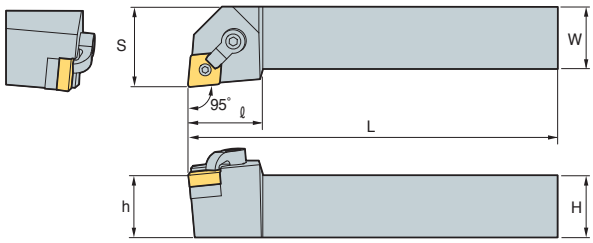
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MCKNR/L	2020-K12	20	20	125	25	20	32	CN□□1204□□	CDH6N	DHA1/4-25	SC43D	SP4D	HW31.8L HW23.8L
	2525-M12	25	25	150	32	25	32						
	3232-P12	32	32	170	40	32	32						

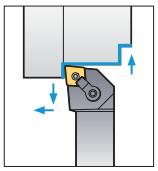
Applicable inserts B28~B35

MCLNR/L



CN□□





95°

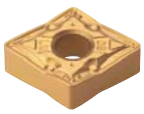
• R type insert

(mm)

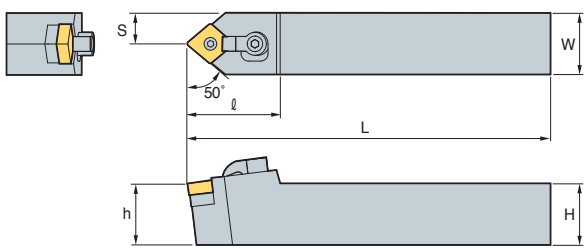
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MCLNR/L	1616-H09	16	16	100	20	16	25	CN□□0903□□	CDH7N	DHA10-32-19	SC32D	SP3DS	HW23.8L HW19.8L
	2020-K09	20	20	125	25	20	25						
	2525-M09	25	25	150	32	25	25						
	2020-K12	20	20	125	25	20	32	CN□□1204□□	CDH6N	DHA1/4-25	SC43D	SP4D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

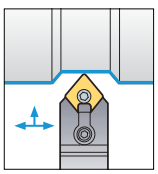
Applicable inserts B28~B35

MCMNN



CN□□





50°

• R type insert

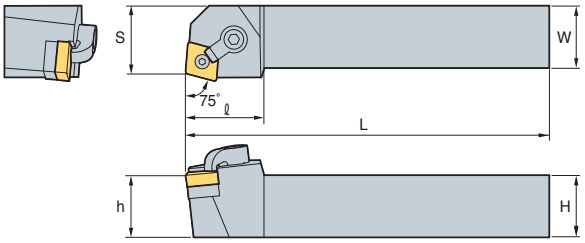
(mm)

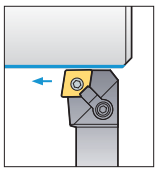
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MCMNN	2020-K12	20	20	125	10	20	32	CN□□1204□□	CDH6N	DHA1/4-25	SC43D	SP4D	HW31.8L HW23.8L
	2525-M12	25	25	150	12.5	25	32						
	3232-P12	32	32	170	16	32	32						
	2525-M16	25	25	150	12.5	25	40	CN□□1606□□	CDH8N	DHA5/16-32	SC53D	SP5D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

Applicable inserts B28~B35

MCRNR/L

CN□□





75°

• R type insert

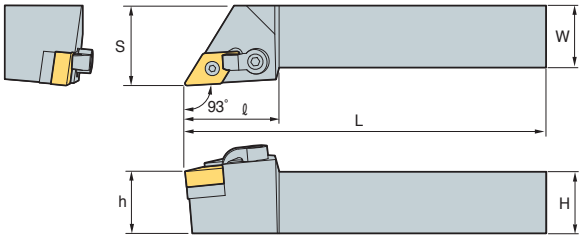
(mm)

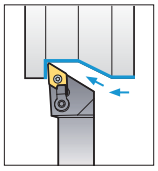
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MCRNR/L	2020-K12	20	20	125	22	20	32	CN□□1204□□	CDH8N1	DHA5/16-32	SC43D	SP4D	HW39.7L HW23.8L
	2525-M12	25	25	150	27	25	32						
	2525-M16	25	25	150	27	25	33	CN□□1606□□	CDH8N1	DHA5/16-32	SC53D	SP5D	HW39.7L HW31.8L
	3232-P16	32	32	170	35	32	33						
	3232-P19	32	32	170	35	32	38	CN□□1906□□	CDH8N1	DHA5/16-32	SC63D	SP6D	HW39.7L HW35.7L
	4040-S19	40	40	250	43	40	38						

Applicable inserts **B28~B35**

MDJNR/L

DN□□





93°

• R type insert

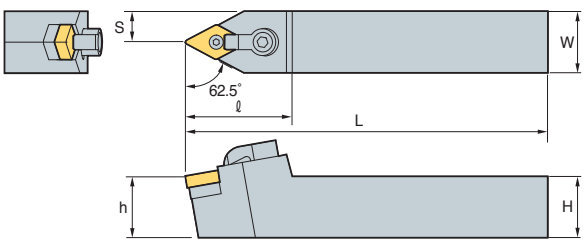
(mm)

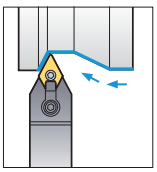
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MDJNR/L	2020-K11	20	20	125	25	20	32	DN□□1204□□	CDH6N	DHA1/4-19	SD32D	SP3D	HW31.8L HW19.8L
	2525-M11	25	25	150	32	25	32						
	2020-K15-3	20	20	125	25	20	36	DN□□1504□□	CDH6N	DHA1/4-25	SD43D	SP4D	HW31.8L HW23.8L
	2525-M15-3	25	25	150	32	25	36						
	3232-P15-3	32	32	170	40	32	36						
	2020-K15	20	20	125	25	20	36	DN□□1506□□	CDH6N	DHA1/4-25	SD43D	SP4DL	HW31.8L HW23.8L
	2525-M15	25	25	150	32	25	36						
	3232-P15	32	32	170	40	32	36						

Applicable inserts **B36~B42**

MDNNN

DN□□





62.5°

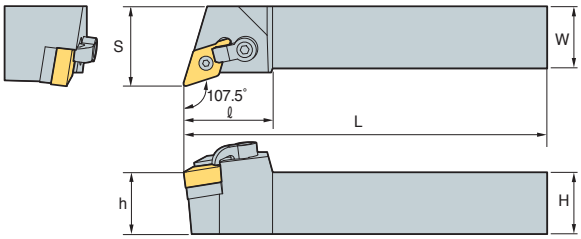
(mm)

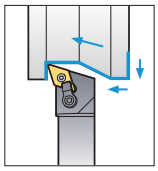
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MDNNN	2525-M15-3	25	25	150	12.5	25	41	DN□□1504□□	CDH8N	DHA5/16-32	SD43D	SP4D	HW39.7L HW23.8L
	2525-M15	25	25	150	12.5	25	41	DN□□1506□□	CDH8N	DHA5/16-32	SD43D	SP4DL	HW39.7L HW23.8L

Applicable inserts **B36~B42**

MDQNR/L

DN□□





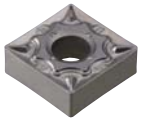
107.5°

• R type insert
(mm)

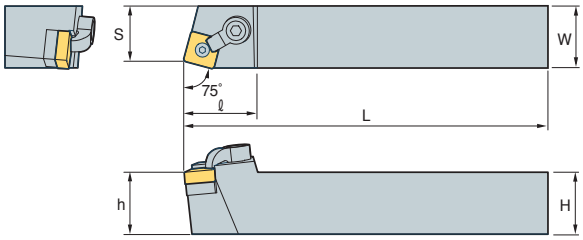
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MDQNR/L	2525-M15-3	25	25	150	32	25	36	DN□□1504□□	CDH6N	DHA1/4-25	SD43D	SP4D	HW31.8L HW23.8L
	3232-P15-3	32	32	170	40	32	36						
	2525-M15	25	25	150	32	25	36	DN□□1506□□	CDH6N	DHA1/4-25	SD43D	SP4DL	HW31.8L HW23.8L
	3232-M15	32	32	170	40	32	36						

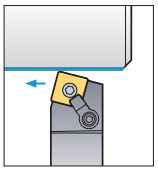
Applicable inserts B36~B42

MSBNR/L



SN□□





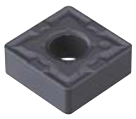
75°

• R type insert
(mm)

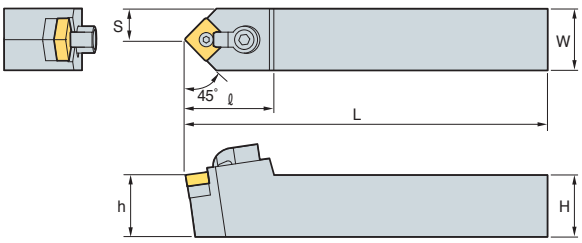
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MSBNR/L	2020-K12	20	20	125	17	20	32	SN□□1204□□	CDH8N1	DHA5/16-32	SS43D	SP4D	HW39.7L HW23.8L
	2525-M12	25	25	150	22	25	32						
	2525-M15	25	25	150	22	25	35	SN□□1506□□	CDH8N	DHA5/16-32	SS53D	SP5D	HW39.7L HW31.8L
	3232-P15	32	32	170	22	32	35						
	3232-P19	32	32	170	27	32	40	SN□□1906□□	CDH8N	DHA5/16-32	SS63D	SP6D	HW39.7L HW35.7L
	4040-S19	40	40	250	35	40	40						

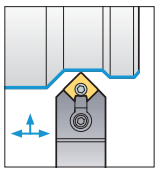
Applicable inserts B44~B52

MSDNN



SN□□





45°

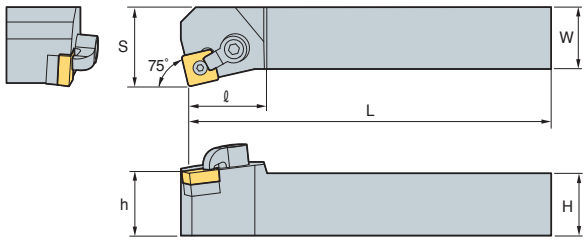
(mm)

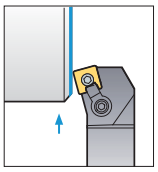
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MSDNN	1616-H09	16	16	100	8	16	28	SN□□0903□□	CDH7N	DHA10-32-19	SS32D	SP3DS	HW19.8L HW23.8L
	2020-K09	20	20	125	10	20	28						
	2020-K12	20	20	125	10	20	32	SN□□1204□□	CDH8N1	DHA5/16-32	SS43D	SP4D	HW39.7L HW23.8L
	2525-M12	25	25	150	12.5	25	32						
	3225-P12	32	25	170	12.5	32	32						
	2525-M15	25	25	150	12.5	25	35	SN□□1506□□	CDH8N	DHA5/16-32	SS53D	SP5D	HW39.7L HW31.8L
	3225-P15	32	25	170	12.5	32	35						
	3232-P15	32	32	170	16	32	35						
	4040-S15	40	40	250	20	40	35						
	3232-P19	32	32	170	16	32	42	SN□□1906□□	CDH8N	DHA5/16-32	SS63D	SP6D	HW39.7L HW35.7L
	4040-S19	40	40	250	20	40	42						

Applicable inserts B44~B52

MSKNR/L

SN□□





75°

• R type insert

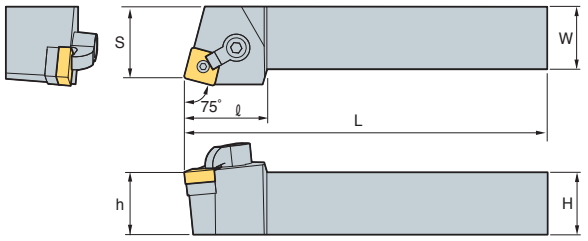
(mm)

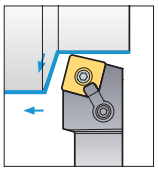
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MSKNR/L	1616-H09	16	16	100	20	16	28	SN□□0903□□	CDH7N	DHA10-32-19	SS32D	SP3DS	HW19.8L HW23.8L
	2020-K09	20	20	125	22	20	28						
	2020-K12	20	20	125	25	20	32	SN□□1204□□	CDH8N1	DHA5/16-32	SS43D	SP4D	HW39.7L HW23.8L
	2525-M12	25	25	150	32	25	32						
	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°

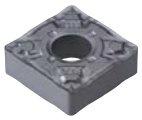
• R type insert

(mm)

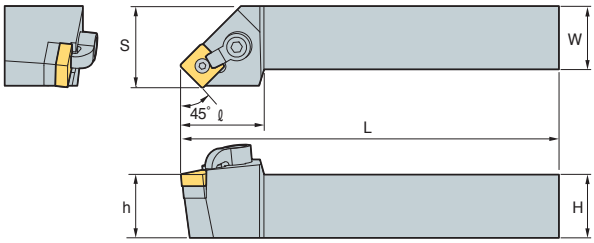
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MSRNR/L	1616-H09	16	16	100	17	16	28	SN□□0903□□	CDH7N	DHA10-32-19	SS32D	SP3DS	HW19.8L HW23.8L
	2020-K09	20	20	125	22	20	28						
	2020-K12	20	20	125	22	20	32	SN□□1204□□	CDH8N1	DHA5/16-32	SS43D	SP4D	HW39.7L HW23.8L
	2525-M12	25	25	150	27	25	32						
	2525-M15	25	25	150	27	25	35	SN□□1506□□	CDH8N	DHA5/16-32	SS53D	SP5D	HW39.7L HW31.8L
	3232-P15	32	32	170	35	32	35						
	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

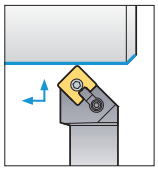
Applicable inserts **B44~B52**

MSSNR/L



SN□□





45°

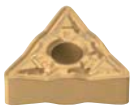
• R type insert

(mm)

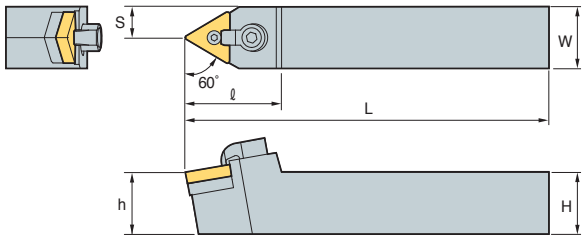
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MSSNR/L	1616-H09	16	16	100	20	16	28	SN□□0903□□	CDH7N	DHA10-32-19	SS32D	SP3DS	HW19.8L HW23.8L
	2020-K09	20	20	125	25	20	28						
	2020-K12	20	20	125	25	20	32	SN□□1204□□	CDH8N1	DHA5/16-32	SS43D	SP4D	HW39.7L HW23.8L
	2525-M12	25	25	150	32	25	32						
	2525-M15	25	25	150	32	25	35	SN□□1506□□	CDH8N1	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□□	CDH8N1	DHA5/16-32	SS63D	SP6D	HW39.7L HW35.7L
	4040-S19	40	40	250	50	40	40						

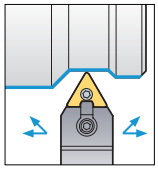
Applicable inserts B44~B52

MTENN



TN□□





60°

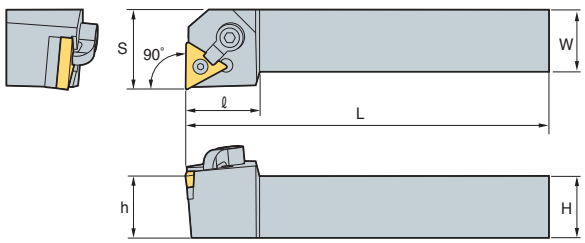
(mm)

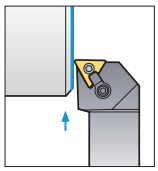
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MTENN	2020-K16	20	20	125	10	20	32	TN□□1604□□	CDH7N	DHA10-32-19	ST32D	SP3D	HW23.8L HW19.8L
	2525-M16	25	25	150	12.5	25	32						
	2525-M22	25	25	150	12.5	25	35	TN□□2204□□	CDH8N1	DHA5/16-32	ST43D	SP4D	HW39.7L HW23.8L
	3232-P27	32	32	170	16	32	35	TN□□2706□□	CDH8N1	DHA5/16-32	ST53D	SP5D	HW39.7L HW31.8L
	4040-S33	40	40	250	20	40	40	TN□□3307□□	CDH8N	DHA5/16-32	ST63D	SP6DL	HW39.7L HW35.7L

Applicable inserts B53~B59

MTFNR/L

TN□□





90°

• R type insert

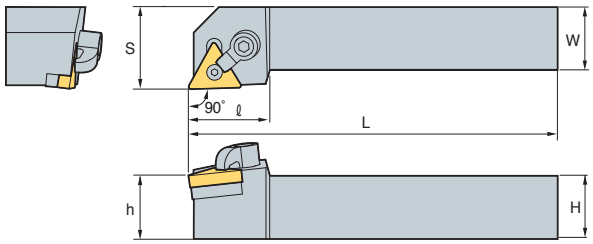
(mm)

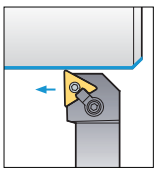
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MTFNR/L	1616-H16	16	16	100	20	16	32	TN□□1604□□	CDH7N	DHA10-32-19	ST32D	SP3D	HW23.8L HW19.8L
	2020-K16	20	20	125	25	20	32						
	2525-M16	25	25	150	32	25	32						
	2525-M22	25	25	150	32	25	32	TN□□2204□□	CDH8N1	DHA5/16-32	ST43D	SP4D	HW39.7L HW23.8L
	3232-P22	32	32	170	40	32	32						
	4040-S22	40	40	250	50	40	32						
	3232-P27	32	32	170	40	32	35	TN□□2706□□	CDH8N1	DHA5/16-32	ST53D	SP5D	HW39.7L HW31.8L
	4040-S27	40	40	250	50	40	35						
	4040-S33	40	40	250	50	40	40	TN□□3307□□	CDH8N	DHA5/16-32	ST63D	SP6DL	HW39.7L HW35.7L

Applicable inserts B53~B59

MTGNR/L

TN□□





90°

• R type insert

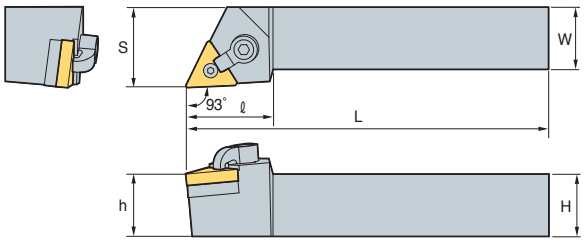
(mm)

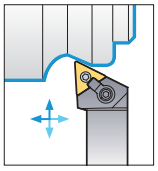
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MTGNR/L	1616-H16	16	16	100	20	16	32	TN□□1604□□	CDH7N	DHA10-32-19	ST32D	SP3D	HW23.8L HW19.8L
	2020-K16	20	20	125	25	20	32						
	2525-M16	25	25	150	32	25	32						
	2525-M22	25	25	150	32	25	32	TN□□2204□□	CDH8N1	DHA5/16-32	ST43D	SP4D	HW39.7L HW23.8L
	3232-P22	32	32	170	40	32	32						
	3232-P27	32	32	170	40	32	35	TN□□2706□□	CDH8N1	DHA5/16-32	ST53D	SP5D	HW39.7L HW31.8L
	4040-S27	40	40	250	50	40	35						
	4040-S33	40	40	250	50	40	40	TN□□3307□□	CDH8N	DHA5/16-32	ST63D	SP6DL	HW39.7L HW35.7L

Applicable inserts **B53~B59**

MTJNR/L

TN□□





93°

• R type insert

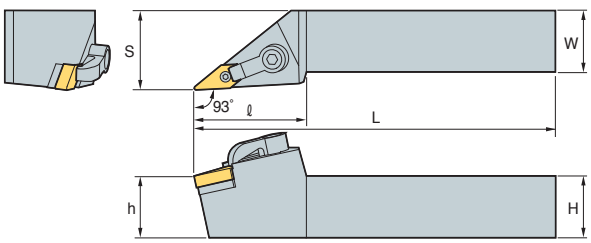
(mm)

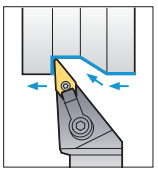
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MTJNR/L	2020-K16	20	20	125	25	20	32	TN□□1604□□	CDH7N	DHA10-32-19	ST32D	SP3D	HW23.8L HW19.8L
	2525-M16	25	25	150	32	25	32						
	2525-M22	25	25	150	32	25	32	TN□□2204□□	CDH8N1	DHA5/16-32	ST43D	SP4D	HW39.7L HW23.8L
	3232-P22	32	32	170	40	32	32						
	3232-P27	32	32	170	40	32	35	TN□□2706□□	CDH8N1	DHA5/16-32	ST53D	SP5D	HW39.7L HW31.8L
	4040-S27	40	40	250	50	40	35						
	4040-S33	40	40	250	50	40	40	TN□□3307□□	CDH8N	DHA5/16-32	ST63D	SP6DL	HW39.7L HW35.7L

Applicable inserts **B53~B59**

MVJNR/L

VN□□





93°

• R type insert

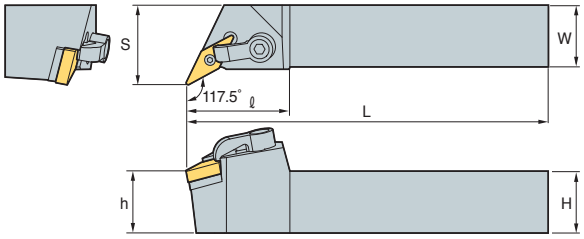
(mm)

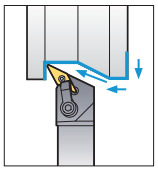
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MVJNR/L	2020-K16	20	20	125	25	20	37	VN□□1604□□	CDH8N2	DHA5/16-32	SV32D	SP3D	HW39.7L HW19.8L
	2525-M16	25	25	150	32	25	37						
	3232-P16	32	32	170	40	32	37						
	2525-M22	25	25	150	32	25	50	VN□□2204□□	CDH8N2	DHA5/16-32	SV43D	SP4D	HW39.7L HW23.8L
	3232-P22	32	32	170	40	32	50						
	4040-S22	40	40	250	50	40	50						

Applicable inserts **B60~B61**

MVQNR/L

VN□□





117.5°

• R type insert

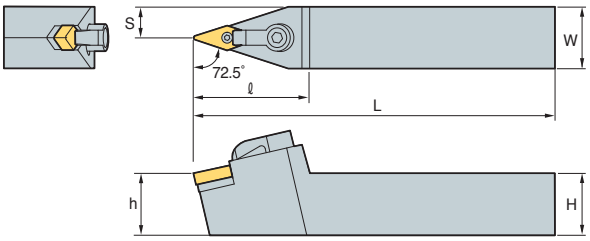
(mm)

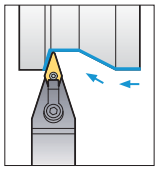
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MVQNR/L	2020-K16	20	20	125	25	20	42	VN□□1604□□	CDH8N2	DHA5/16-32	SV32D	SP3D	HW39.7L HW19.8L
	2525-M16	25	25	150	32	25	42						
	3232-P16	32	32	170	40	32	37						

Applicable inserts **B60~B61**

MVVNN

VN□□





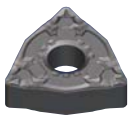
72.5°

(mm)

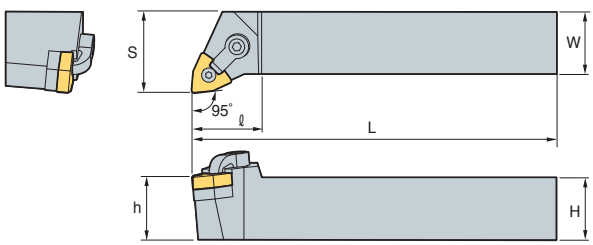
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MVVNN	2020-K16	20	20	125	25	20	42	VN□□1604□□	CDH8N2	DHA5/16-32	SV32D	SP3D	HW39.7L HW19.8L
	2525-M16	25	25	150	32	25	42						

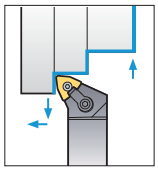
Applicable inserts **B60~B61**

MWLNR/L



WN□□





95°

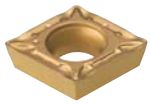
• R type insert

(mm)

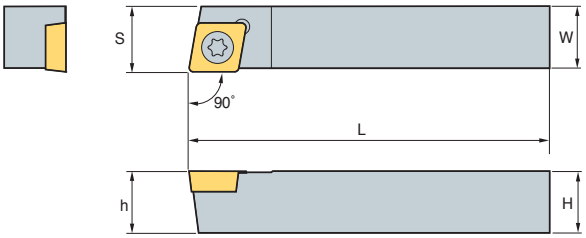
Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MWLNR/L	2020-K06	20	20	125	25	20	32	WN□□0604□□	CDH7N	DHA10-32-19	SW32D	SP3D	HW19.8L HW23.8L
	2525-M06	25	25	150	32	25	32						
	3232-P06	32	32	170	40	32	32						
	2020-K08	20	20	125	25	20	32	WN□□0804□□	CDH6N	DHA1/4-21	SW43D	SP4D	HW31.8L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

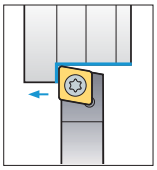
Applicable inserts **B62~B65**

SCACR/L



CC□□





90°

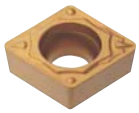
• R type insert

(mm)

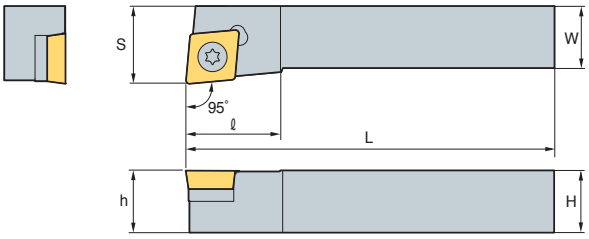
Designation		H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SCACR/L	1010-E06	10	10	70	10.5	10	CC□□0602□□	FTKA02565	-	-	TW07P
	1212-F09	12	12	80	12.5	12	CC□□09T3□□	FTKA03508	-	-	TW15P

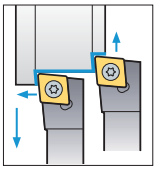
Applicable inserts **B66~B69, B91**

SCLCR/L



CC□□





95°

• R type insert

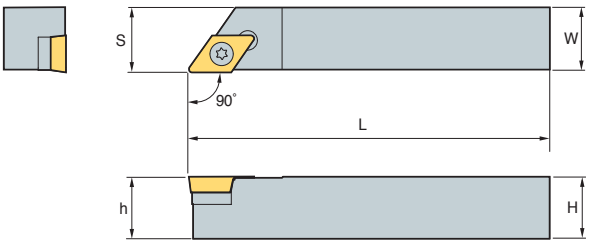
(mm)

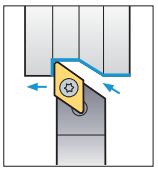
Designation		H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench
SCLCR/L	0808-D06	08	08	60	10	08	10	CC□□0602□□	FTKA02565	-	-	TW07P
	1010-E06	10	10	70	16	10	10					
	1212-F09	12	12	80	20	12	16	CC□□09T3□□	CDH7N	-	-	TW15P
	1616-H09	16	16	100	20	16	16					
	2020-K09	20	20	125	25	20	16					
	2020-K12	20	20	125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





90°

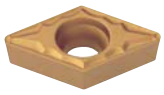
• R type insert

(mm)

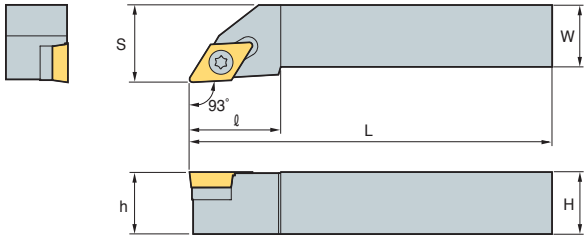
Designation		H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SDACR/L	1010-E07	10	10	70	10.5	10	DC□□0702□□	FTKA02565	-	-	TW07P
	1212-F11	12	12	80	12.5	12	DC□□11T3□□	FTKA03508	-	-	TW15P
	1616-H11	16	16	100	16.5	16		FTGA03512	SD32S	SHXN0509F	TW15P, HW35L

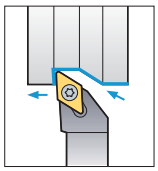
Applicable inserts **B71~B73, B92**

SDJCR/L



DC□□





93°

• R type insert

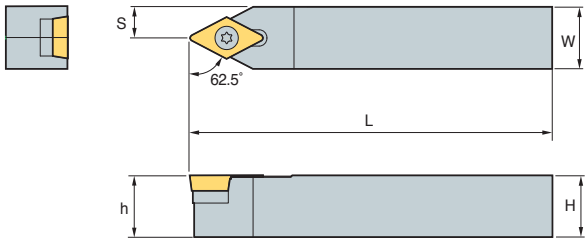
(mm)

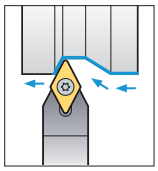
Designation		H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench
SDJCR/L	1010-E07	10	10	70	12	10	15	DC□□0702□□	FTKA02565	-	-	TW07P
	1212-F07	12	12	80	16	12	15					
	1616-H07	16	16	100	20	16	18					
	2020-K07	20	20	125	25	20	15					
	1212-F11	12	12	80	16	12	15	DC□□11T3□□	FTGA03512	-	-	TW15P, HW35L
	1616-H11	16	16	100	20	16	24					
	2020-K11	20	20	125	25	20	24					
	2525-M11	25	25	150	32	25	29					

Applicable inserts **B71~B73, B92**

SDNCN

DC□□





62.5°

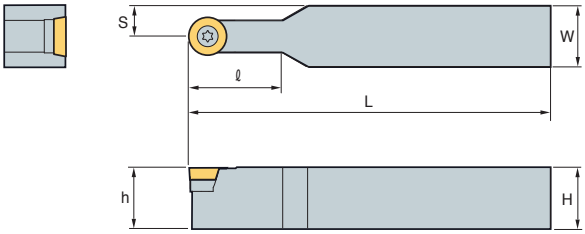
(mm)

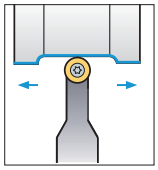
Designation		H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SDNCN	1010-E07	10	10	70	5	10	DC□□0702□□	FTKA02565	-	-	TW07P
	1212-F07	12	12	80	6	12					
	1212-H11	12	12	100	6	12	DC□□11T3□□	FTGA03508	-	-	TW15P
	1616-H11	16	16	100	8	16	DC□□11T3□□	FTGA03512	SD32S	SHXN0509F	TW15P, HW35L
	2020-K11	20	20	125	10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

Applicable inserts **B71~B73, B92**

SRDCN

RCGT





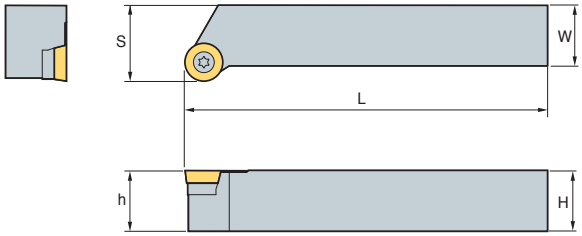
(mm)

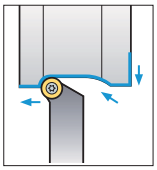
Designation		H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench
SRDCN	1010-E06	10	10	70	5	10	10	RCGT 0602M0	FTKA02565	-	-	TW07P
	1212-F06	12	12	80	6	12	12					
	1616-H06	16	16	100	8	16	12					
	2525-M06	25	25	150	12.5	25	20					
	1616-H08	16	16	100	8	16	16	RCGT 0803M0	FTNA0307	-	-	TW09P
	2020-K08	20	20	125	10	20	20					
	2525-M08	25	25	150	12.5	25	20					
	1616-H10	16	16	100	8	16	25	RCGT 1003M0	FTKA03511A	SR10S	SHXN0509F	TW15P HW35L
	2020-K10	20	20	125	10	20	25					
	2525-M10	25	25	150	12.5	25	25					
	2020-K12	20	20	125	10	20	28	RCGT 1204M0	FTGA03512	SR12S	SHXN0509F	TW15P HW35L
	2525-M12	25	25	150	12.5	25	28					

Applicable inserts **B93**

SRGCR/L

RCGT





• R type insert

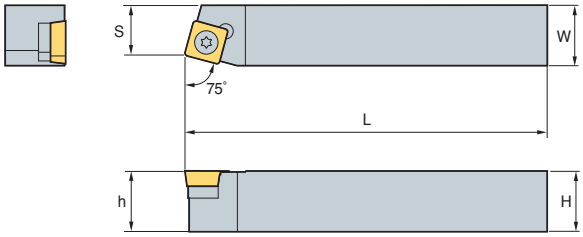
(mm)

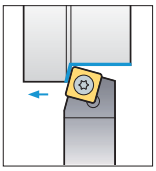
Designation		H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SRGCR/L	1010-E06	10	10	70	12	10	RCGT 0602M0	FTKA02565	-	-	TW07P
	1212-F06	12	12	80	16	12					
	1616-H06	16	16	100	20	16					
	1616-H08	16	16	100	20	16	RCGT 0803M0	FTNA0307	-	-	TW09P
	2020-K08	20	20	125	25	20					
	2525-M08	25	25	150	32	25			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

Applicable inserts **B93**

SSBCR/L

SC□□





75°

• R type insert

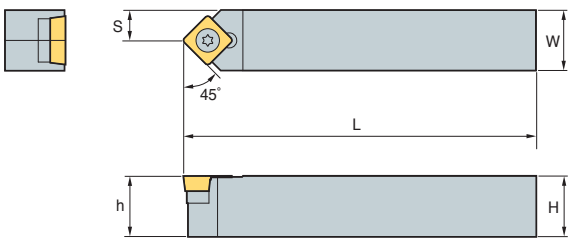
(mm)

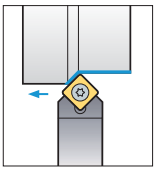
Designation		H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SSBCR/L	1212-F09	12	12	80	11	12	SC□□09T3□□	FTGA03508	-	-	TW15P
	1616-H09	16	16	100	13	16		FTGA03512	SS32S	SHXN0509F	TW15P, HW35L
	2020-K12	20	20	125	17	20	SC□□1204□□	FTGA0411F	SS42S	SHXN0610F	TW15P, HW40L

Applicable inserts **B74~B75, B94**

SSDCN

SC□□





45°

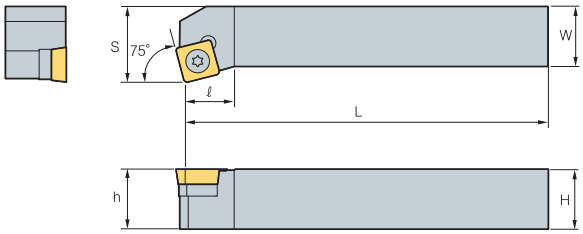
(mm)

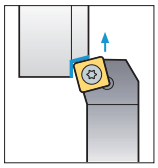
Designation		H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SSDCN	1212-F09	12	12	80	6	12	SC□□09T3□□	FTGA03508	-	-	TW15P
	1616-H09	16	16	100	8	16		FTGA03512	SS32S	SHXN0509F	TW15P, HW35L

Applicable inserts **B74~B75, B94**

SSKCR/L

SC□□





75°

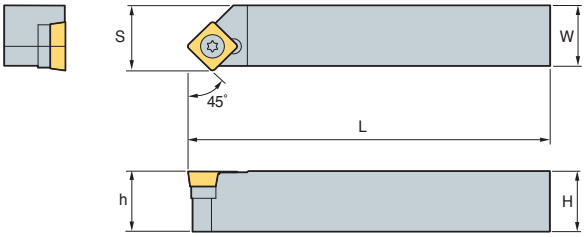
• R type insert
(mm)

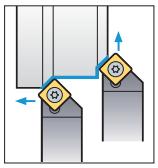
Designation		H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench
SSKCR/L	1616-H09	16	16	100	20	16	13	SC□□09T3□□	FTGA03512	SS32S	SHXN0509F	TW15P, HW35L

Applicable inserts **B74~B75, B94**

SSSCR/L

SC□□





45°

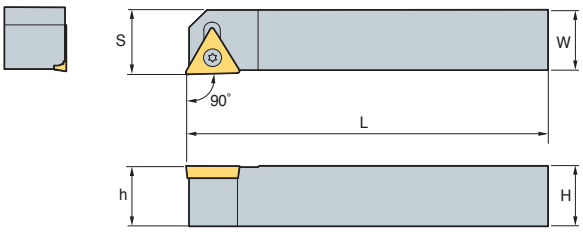
• R type insert
(mm)

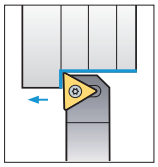
Designation		H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SSSCR/L	1616-H09	16	16	100	17	16	SC□□09T3□□	FTGA03512	SS32S	SHXN0509F	TW15P, HW35L
	2020-K12	20	20	125	21	20	SC□□1204□□	FTGA0411F	SS42S	SHXN0610F	TW15P, HW40L
	2525-M12	25	25	150	26	25	SC□□1204□□	FTGA0411F	SS42S	SHXN0610F	TW15P, HW40L

Applicable inserts **B74~B75, B94**

STACR/L

TC□□





90°

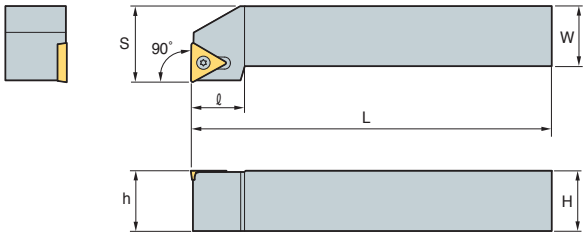
• R type insert
(mm)

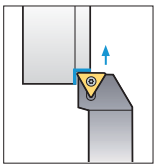
Designation		H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
STACR/L	1010-E09	10	10	70	10.5	10	TC□□0902□□	FTKA02206	-	-	TW06P
	1212-F11	12	12	80	12.5	12	TC□□1102□□	FTKA02565	-	-	TW07P

Applicable inserts **B79~B80, B95**

STFCR/L

TC□□





90°

• R type insert

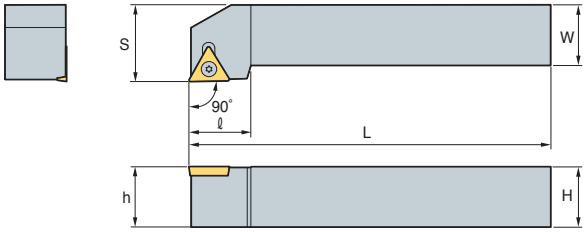
(mm)

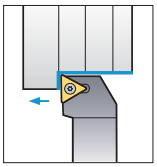
Designation		H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench
STFCR/L	1010-E09	10	10	70	12	10	10	TC□□0902□□	FTKA02206	-	-	TW06P
	1212-F11	12	12	80	16	12	14	TC□□1102□□	FTKA02565	-	-	TW07P
	1616-H11	16	16	100	20	16	14					
	1616-H16	16	16	100	20	16	19	TC□□16T3□□	FTGA03512	ST32S	SHXN0509F	TW15P, HW35L
	2020-K16	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

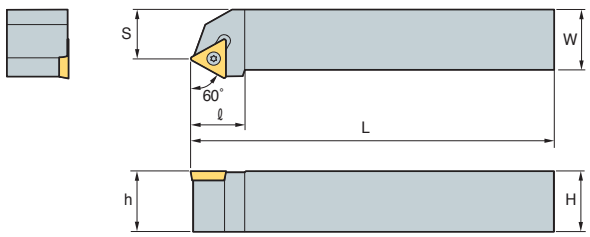
(mm)

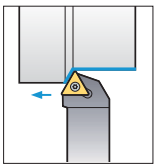
Designation		H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench
STGCR/L	0808-D09	08	08	60	10	08	11	TC□□0902□□	FTKA02206	-	-	TW06P
	1010-E09	10	10	70	12	10	11					
	1212-F11	12	12	80	16	12	14	TC□□1102□□	FTKA02565	-	-	TW07P
	1616-H11	16	16	100	20	16	16					
	1616-H16	16	16	100	20	16	21	TC□□16T3□□	FTGA03512	ST32S	SHXN0509F	TW15P, HW35L
	2020-K16	20	20	125	25	20	21					
	2525-M16	25	25	150	32	25	21					

Applicable inserts **B79~B80, B95**

STTCR/L

TC□□





60°

• R type insert

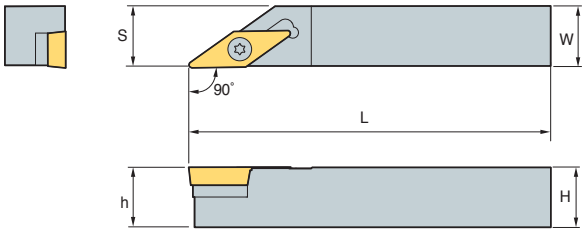
(mm)

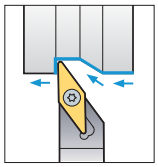
Designation		H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench
STTCR/L	1616-H11	16	16	100	13	16	14	TC□□1102□□	FTKA02565	-	-	TW07P
	1616-H16	16	16	100	13	16	19	TC□□16T3□□	FTGA03512	ST32S	SHXN0509F	TW15P, HW35L
	2020-K16	20	20	125	17	20	19					

Applicable inserts **B79~B80, B95**

SVABR/L

VB□□





90°

• R type insert

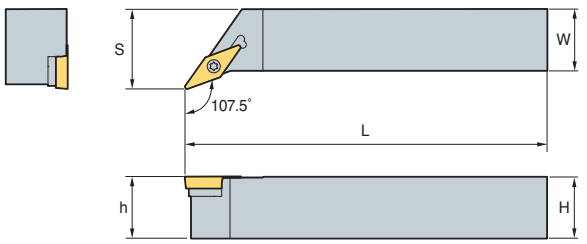
(mm)

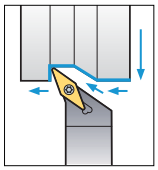
Designation		H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SVABR/L	1616-H16	16	16	100	16.5	16	VB□□1604□□	FTGA03512	SV32S	SHXN0509F	TW15P, HW35L
	2020-K16	20	20	125	20.5	20					

Applicable inserts **B84~B85, B96**

SVHBR/L

VB□□





107.5°

• R type insert

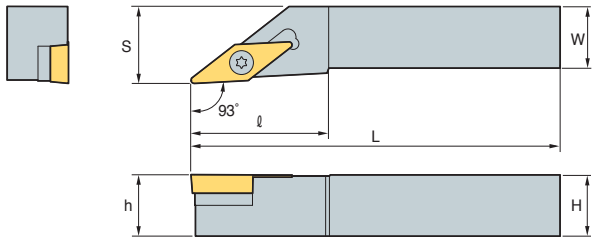
(mm)

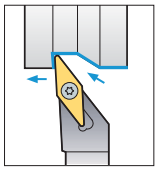
Designation		H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SVHBR/L	2525-M16	25	25	150	32	25	VB□□1604□□	FTGA03512	SV32S	SHXN0509F	TW15P, HW35L
	3225-P16	32	25	170	32	32					

Applicable inserts **B84~B85, B96**

SVJBR/L

VB□□





93°

• R type insert

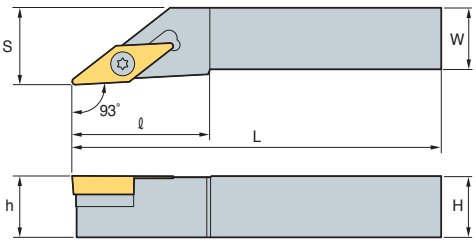
(mm)

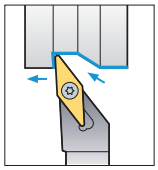
Designation		H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench
SVJBR/L	1212-F11	12	12	80	16	12	27	VB□□1102□□	FTKA02565	-	-	TW07P
	1616-H11	16	16	100	20	16	27					
	2020-K11	20	20	125	25	20	27					
	1616-H16	16	16	100	20	16	36	VB□□1604□□	FTGA03512	SV32S	SHXN0509F	TW15P, HW35L
	2020-K16	20	20	125	25	20	41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

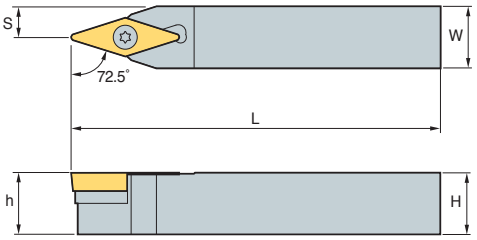
(mm)

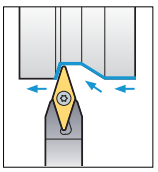
Designation		H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench
SVJCR/L	1212-F11	12	12	80	16	12	25	VC□□1103□□	FTKA02565	-	-	TW07P
	1616-H11	16	16	100	20	16	25					
	2020-K11	20	20	125	25	20	25					
	1212-F13	12	12	80	16	12	32	VC□□1303□□	FTKA0307	-	-	TW09P
	1616-H13	16	16	100	20	16	32					
	2020-K13	20	20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

Applicable inserts **B86~B87, B97**

SVVBN

VB□□





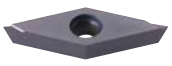
72.5°

(mm)

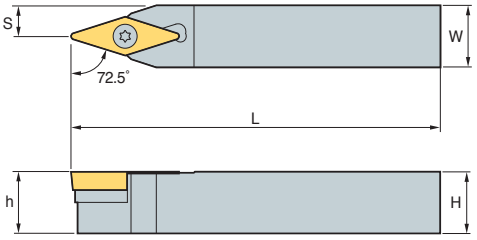
Designation		H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SVVBN	1212-F11	12	12	80	6	12	VB□□1102□□	FTKA02565	-	-	TW07P
	1616-H11	16	16	100	8	16					
	2020-K11	20	20	125	10	20					
	1616-H16	16	16	100	8	16	VB□□1604□□	FTGA03512	SV32S	SHXN0509F	TW15P, HW35L
	2020-K16	20	20	125	10	20					
	2525-M16	25	25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

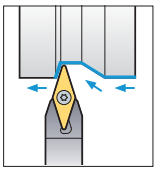
Applicable inserts **B84~B85, B96**

SVVCN



VC□□





72.5°

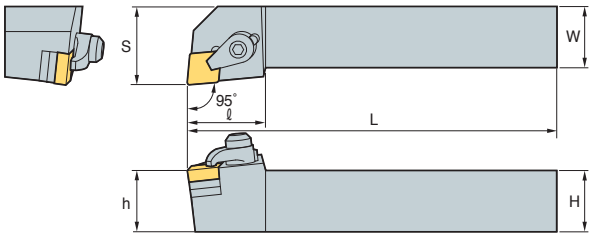
(mm)

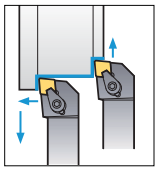
Designation		H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SVVCN	1212-F11	12	12	80	6	12	VC□□1103□□	FTKA02565	-	-	TW07P
	1616-H11	16	16	100	8	16					
	2020-K11	20	20	125	10	20					
	1212-F13	12	12	80	6	12	VC□□1303□□	FTNA0307	-	-	TW09P
	1616-H13	16	16	100	8	16					
	2020-K13	20	20	125	10	20					
	1616-H16	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°

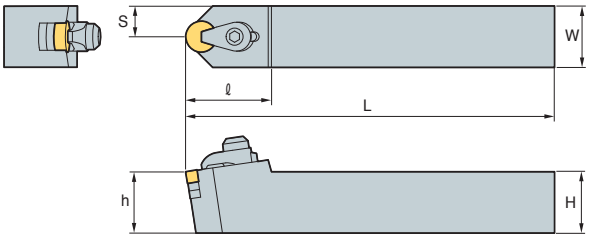
• R type insert

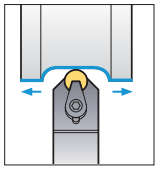
(mm)

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



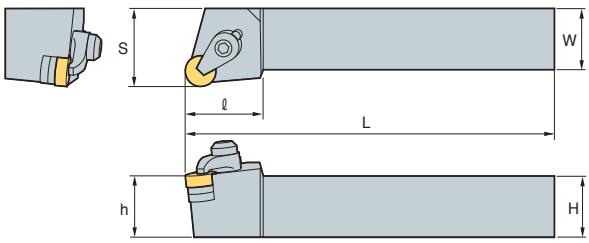


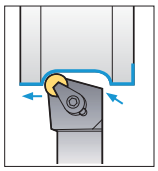
(mm)

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





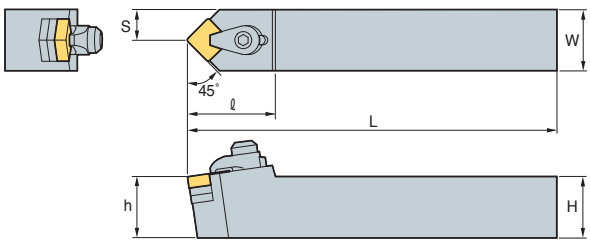
• R type insert

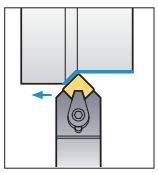
(mm)

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





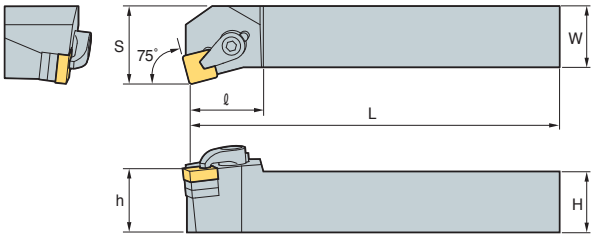
45°

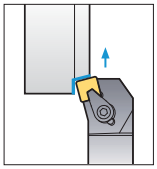
(mm)

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

CSKNR/L

SN□N





75°

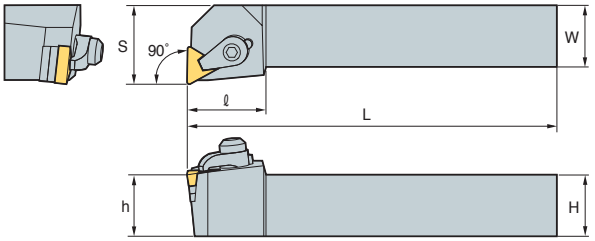
• R type insert

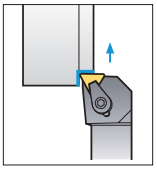
(mm)

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°

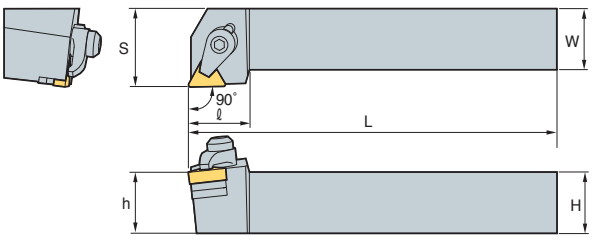
• R type insert

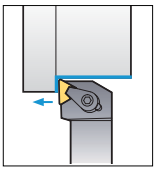
(mm)

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.

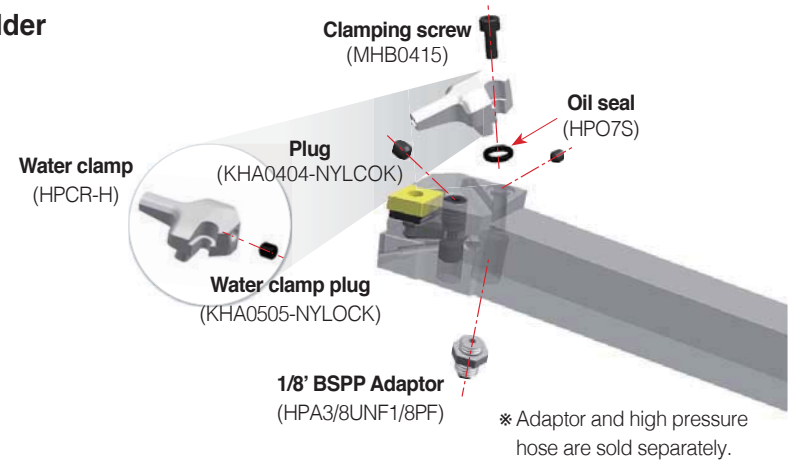
High pressure coolant holder for inconel machining

KHP new

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



※ Adaptor and high pressure hose are sold separately.

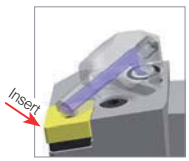
Features

- 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


The original position of water clamp

The position of placing insert


Optimal position and distance of spraying

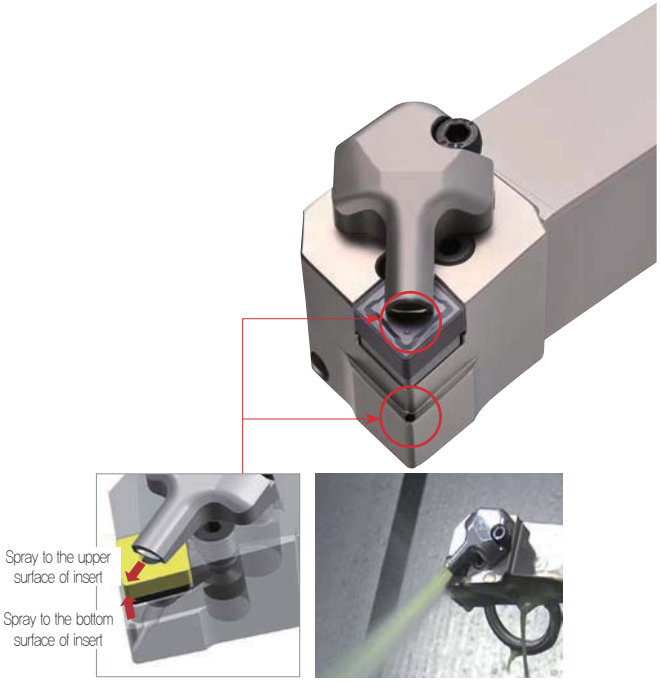


Oval direct spray

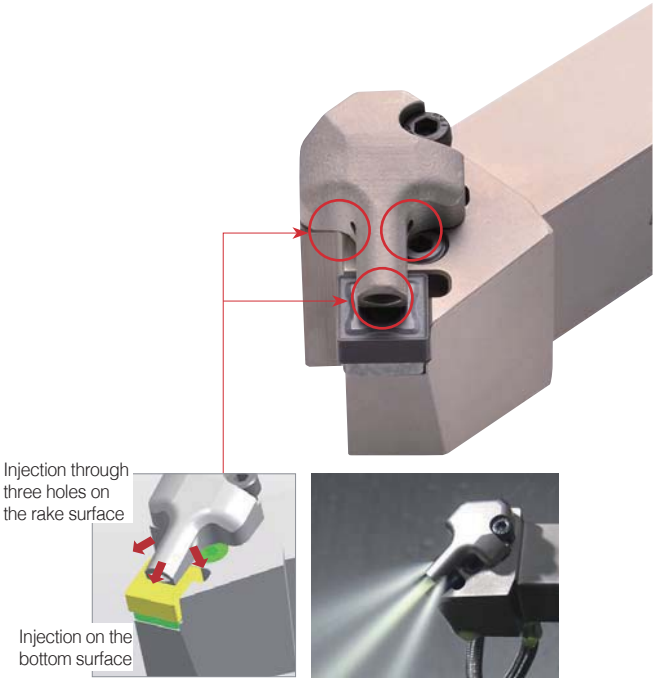
MAX 300 bar

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

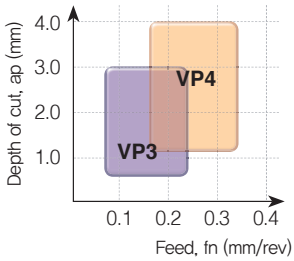


How to use the water clamp

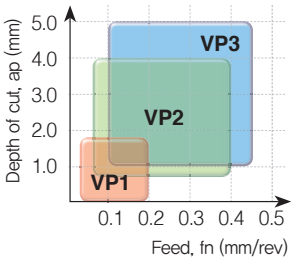
Unscrew the clamping screw | Move the water clamp to the edge of the holderscrew | Put an insert to the tip seatthe clamping screw | Move the water clamp back to its original position | Screw the clamping screwclamping screw

Application range

HRSA(Inconel)

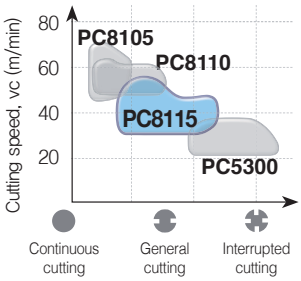


HRSA(Titanium)

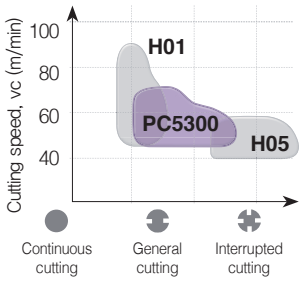


Grade Line-up

HRSA(Inconel)



HRSA(Inconel)



How to clamp the KHP

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

Straight to straight (S-S)

[Pic.1]

Straight to banjo (S-B)

[Pic.2]

Banjo to banjo (B-B)

[Pic.3]

※ 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.

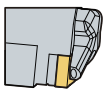
Components of KHP

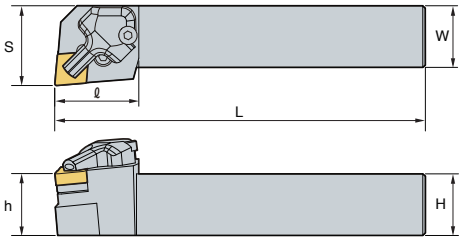
- The components of high pressure coolant are sold separately
- Various components are available according to different machining sites and uses machining with high pressure coolant

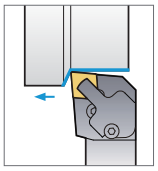
Designation	Shape	Hose length	High pressure hose	Blank	Adaptor	Banjo screw	Copper washer	Pic.
HPH3/8UNF-200-SET	S S	200mm	1 EA	1 EA	2 EA	-	-	1
HPH3/8UNF-250-SET		250mm						
HPH3/8UNF1/8PF-200-SET	S B	200mm			1 EA	1 EA	3EA	2
HPH3/8UNF1/8PF-250-SET		250mm						
HPH1/8PF-200-SET	B B	200mm			-	2 EA	5EA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

PCLNR/L

CN□□







95°

• R type insert

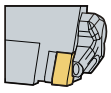
(mm)

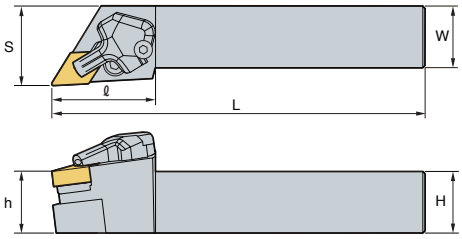
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Ship pin	Wrench	Shim Pin Punch	Clamp	Clamping screw	Oil seal	Plug
PCLNR/L	2525-M12-KHP	25	25	150	32	25	34	CN□□1204□□	LV4N	VHX0820N	SC42N	SP4N	HW20L HW30L	LSPS4	HPCR-H	MHB0415	HPO7S	KHA0404-NYLOCK
	3232-P12-KHP	32	32	170	40	32	34											

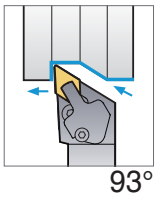
Applicable inserts **B28~B35**

PDJNR/L

DN□□







93°

• R type insert

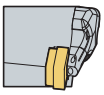
(mm)

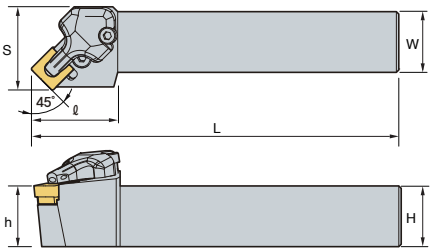
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Ship pin	Wrench	Shim Pin Punch	Clamp	Clamping screw	Oil seal	Plug
PDJNR/L	2525-M11-KHP	25	25	150	32.25	25	42	DN□□1104□□	LV3AN	VHX0617N	SD32N	SP3	HW20L HW25L HW30L	LSPS3	HPCR-H	MHB0415	HPO7S	KHA0404-NYLOCK
	2525-M1504-KHP	25	25	150	32.25	25	42	DN□□1504□□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

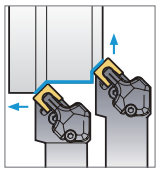
Applicable inserts **B36~B42**

PSSNR/L

SN□□







45°

• R type insert

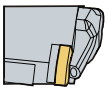
(mm)

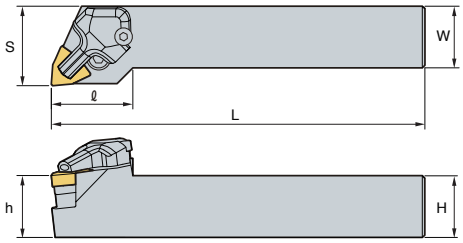
Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Ship pin	Wrench	Shim Pin Punch	Clamp	Screw bolt	Oil seal	Screw plug
PSSNR/L 2525-M12-KHP	25	25	150	34.25	25	34	SN□□1204□□	LV4N	VHX0821	SS42N	SP4N	HW20L HW30L	LSPS4	HPCR-3H	MHB0415	HPO7S	KHA0404-NYLOCK

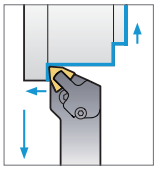
Applicable inserts **B44~B52**

PWLNR/L

WN□□







95°

• R type insert

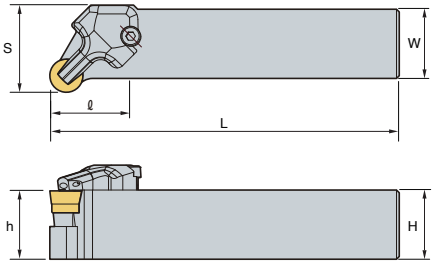
(mm)

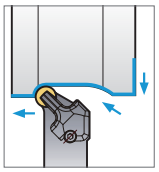
Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch	Clamp	Clamping screw	Oil seal	Plug
PWLNR/L 2525-M08-KHP	25	25	150	32.25	25	33	WN□□0804□□	LV4N	VHX0820N	SW42N	SP4N	HW20L HW30L	LSPS4	HPCR-H	MHB0415	HPO7S	KHA0404-NYLOCK
3232-P08-KHP	32	32	170	39.25	32	33											

Applicable inserts **B62~B65**

SRGCR/L

RCGT





• R type insert

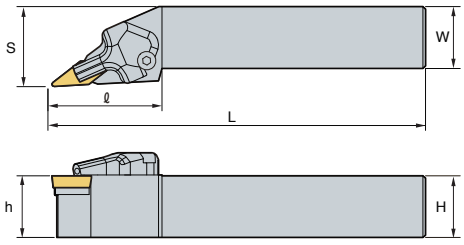
(mm)

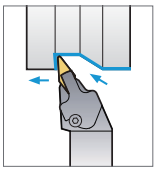
Designation	H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench	Clamp	Clamping screw	Oil seal
SRGCR/L 2525-M12-KHP	25	25	150	31.5	25	-	RCGT1204M0	FTGA03512	SR12S	SHXN0509F	HW15P HW30L HW35L	HPCR/L-3H	MHB0415	HPO7S

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	2	3	4	5	6	7	8	9
Type of Bar	Bar Diameter	Bar Length	Method of Mounting Insert	Insert Shape	Lead Angle of Boring Bar	Relief Angle of Insert	Hand of Bar	Length of Cutting Edge

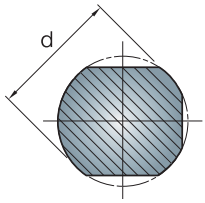
1 Type of Bar

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

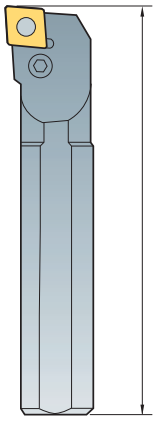
2 Bar Diameter

S 12 M - S T F P R - 11



3 Bar Length

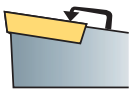
S 12 M S T F P R - 11

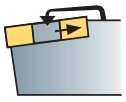


Symbol(L)	length(mm)
H	100
J	110
K	125
M	150
N	160
Q	180
R	200
S	250
T	300
U	350
V	400
W	450
Y	500

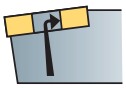
4 Method of Mounting Insert

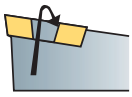
S 12 M S T F P R - 11


Top clamping
C


Top and hole clamping
D

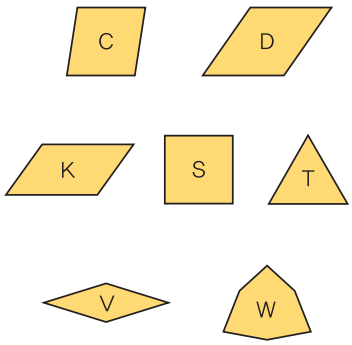

Top and hole clamping
M


Hole clamping
P


Screw on
S

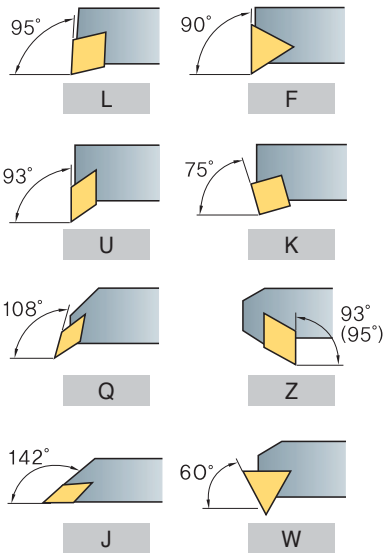
5 Insert Shape

S 12 M - S T F P R - 11



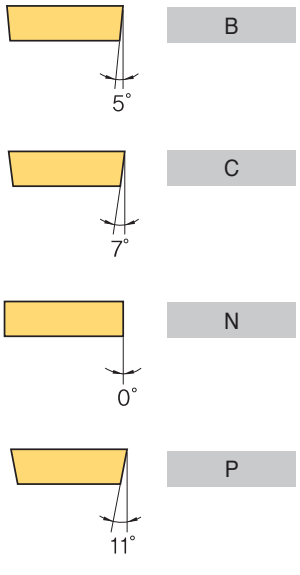
6 Lead Angle of Boring Bar

S 12 M - S T F P R - 11



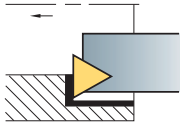
7 Relief Angle of Insert

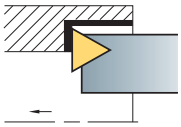
S 12 M - S T F P R - 11



8 Hand of Bar

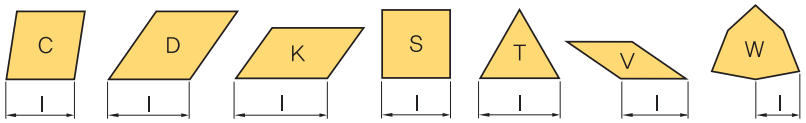
S 12 M - S T F P R - 11


R

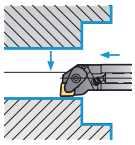
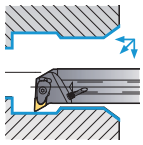
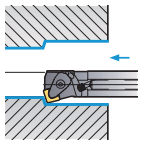
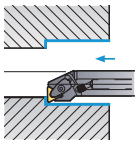
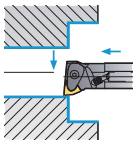

L

9 Length of Cutting Edge

S 12 M - S T F P R - 11



Double Clamp System

Cutting Shape								
Designation	**DCLNR/L**	**DDUNR/L**	**DSKNR/L**	**DTFNR/L**	**DWLNR/L**			
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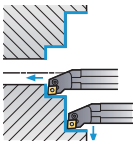
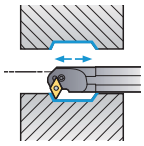
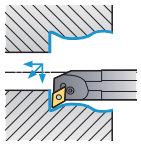
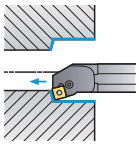
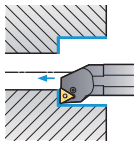
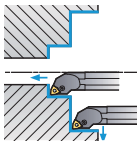
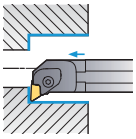
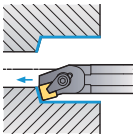
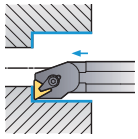
Page	B195	B195	B195	B196	B196			
Copying		●						
Facing	●				●			
Back turning		●						
Turning	●	●	●	●	●			

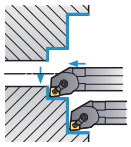
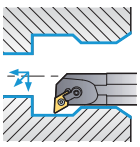
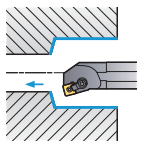
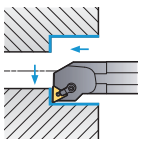
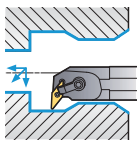
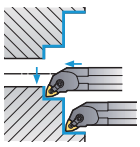
Lever Lock System

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	●	●	●	●	●	●		

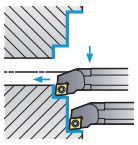
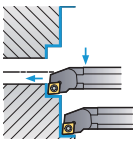
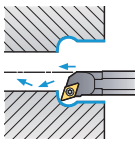
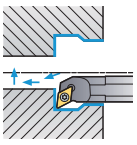
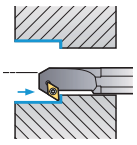
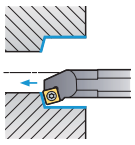
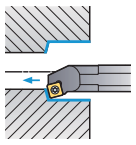
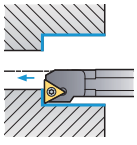
Clamp on System

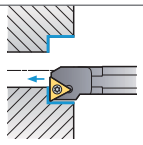
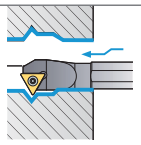
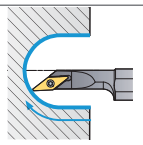
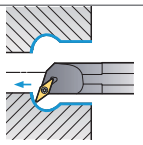
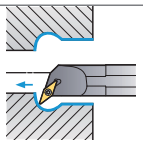
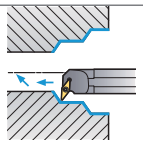
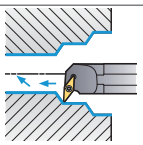
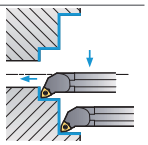
Cutting Shape								
Designation	**CKUNR/L**	**CSKPR/L**	**CTFPR/L**					
Approach angle	93°	75°	90°					
Page	B201	B201	B201					
Copying								
Facing								
Back turning	●							
Turning	●	●	●					

Multi Lock System

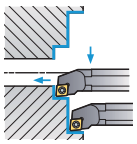
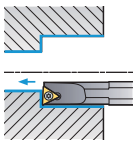
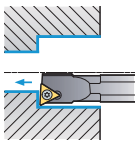
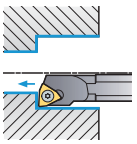
Cutting Shape								
Designation	**MCLNR/L**	**MDUNR/L**	**MSKNR/L**	**MTFNR/L**	**MVUNR/L**	**MWLNR/L**		
Approach angle	95°	93°	75°	90°	93°	95°		
Page	B202	B202	B202	B203	B203	B203		
Copying		●			●			
Facing	●					●		
Back turning		●			●			
Turning	●	●	●	●	●	●		

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

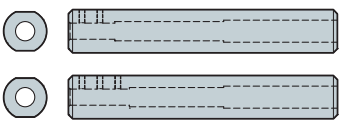
Cutting Shape								
Designation	SCLCR/L	STUBR/L	STUPR/L	SWUBR/L				
Approach angle	95°	93°	93°	93°				
Page	B214	B214	B215	B216				
Copying								
Facing	●	●						
Back turning			●					
Turning	●	●	●	●				

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

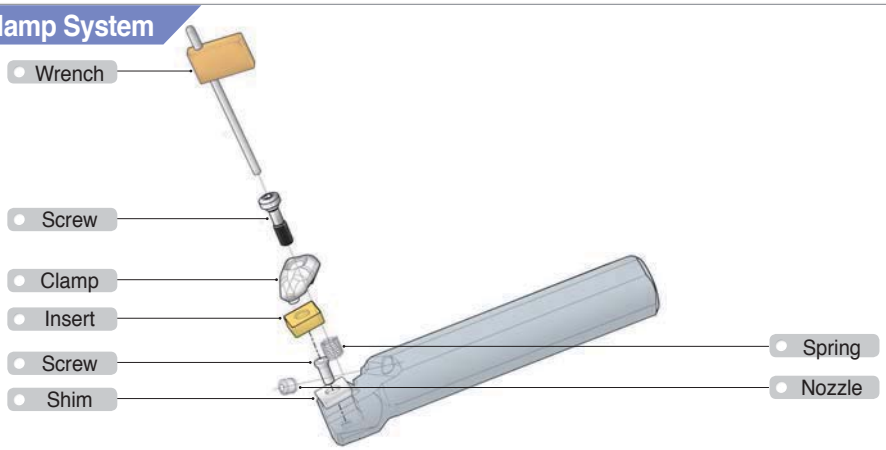
Designation	STFPR/L	STUBR/L	STUPR/L	SWUBR/L	-
Approach angle	90°	93°	93°	93°	-
Page	B210	B214	B215	B216	-

Sleeve

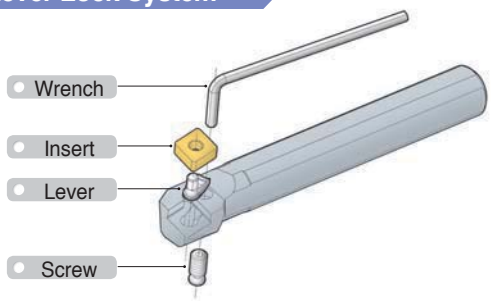
Shape	
Designation	SL
Page	B136

Instructions of Boring Bar assembly

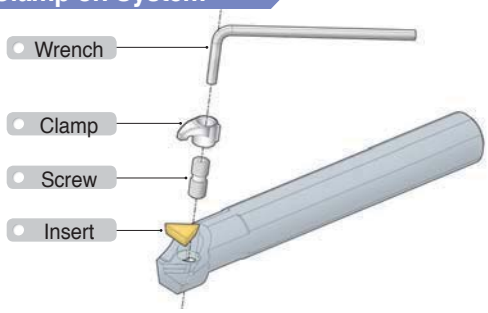
Double Clamp System



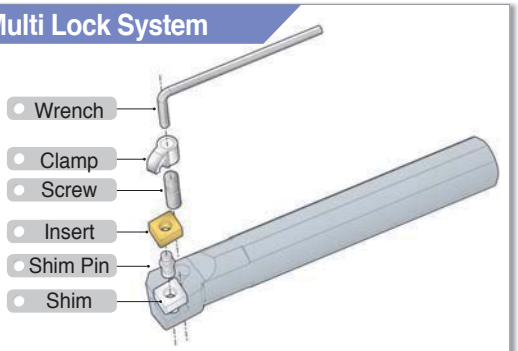
Lever Lock System



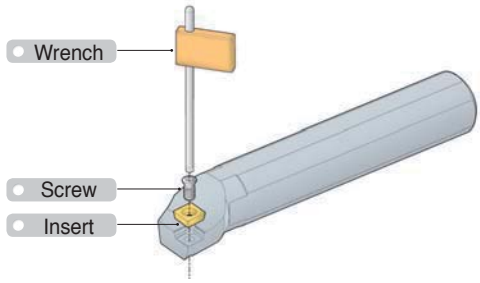
Clamp on System



Multi Lock System



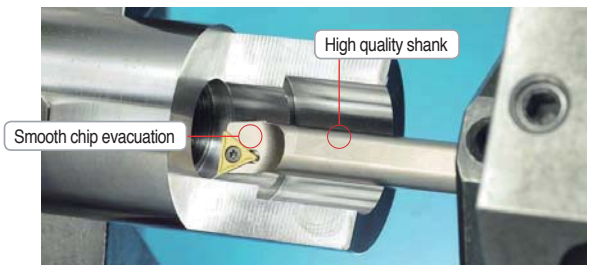
Screw on System



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



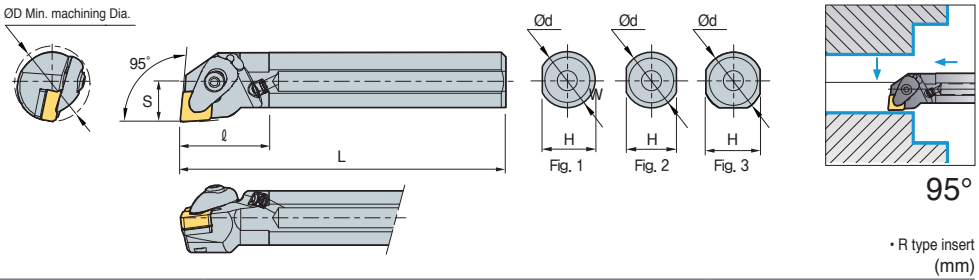
Higher strength and durability than steel shank, special surface treatment applied

Comparison of chipping

Specifications	Steel boring bar			Carbide boring bar		
• SCM440 • vc : 200 m/min • ap : 0.4 mm • fn : 0.15 mm/rev • Cutting depth: 5D						
						
	Rmax	Rz	Ra	Rmax	Rz	Ra
	4.67	3.68	0.62	3.07	2.76	0.53

DCLNR/L

CN□□



• R type insert

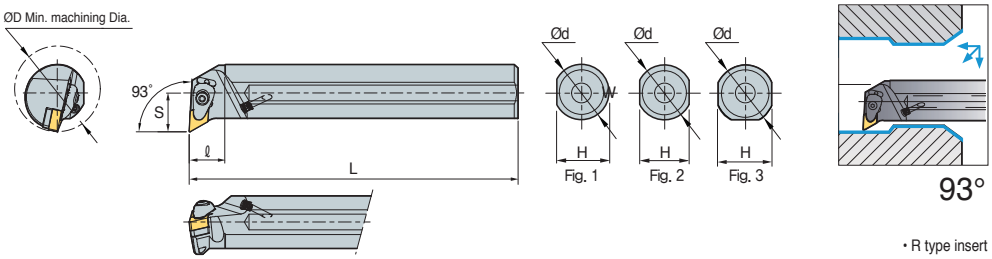
(mm)

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									
A50U-DCLNR/L-16	63	50	48	350	35	70	CN□□1606□□	CVH5	CHX0622	SC54V	FTNA0511	SPR0811	CN0605	HW40L	3

Applicable inserts **B28~B35**

DDUNR/L

DN□□



• R type insert

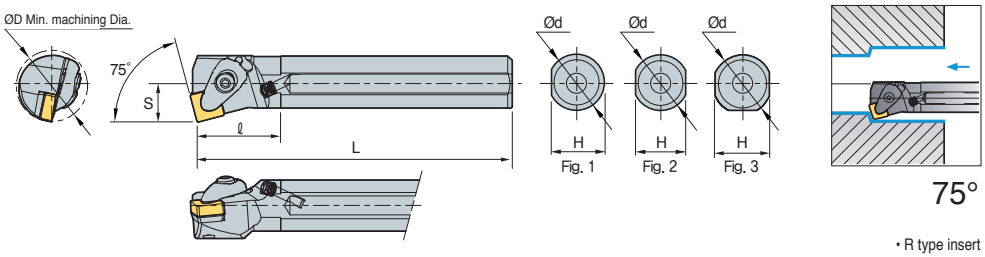
(mm)

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									
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									

Applicable inserts **B36~B42**

DSKNR/L

SN□□



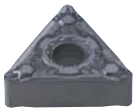
• R type insert

(mm)

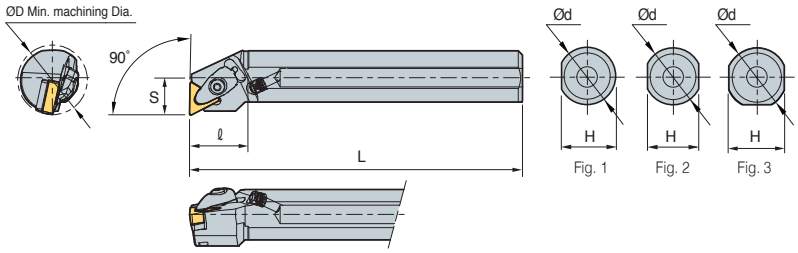
Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Nozzle	Wrench	Fig.
A25R-DSKNR/L-09	32	25	24	200	17	40	SN□□0903□□	CVH3	CHX0415	SS32V	FTKA0307	SPR0510	CN0605	HW25P	1
A25R-DSKNR/L-12	32	25	24	200	17	40	SN□□1204□□	CVH4	CHX0518	SS42V	FTKA0410	SPR0714	CN0605	HW30P	1
A32S-DSKNR/L-12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

Applicable inserts **B44~B52**

DTFNR/L



TN□□



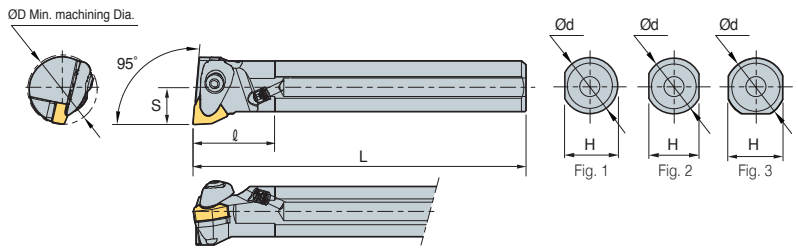
• R type insert
(mm)

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□□	CVH3	CHX0415	ST32V	FTKA0307	SPR0510	CN0605	HW25P	1
A32S-DTFNR/L-16	40	32	30	250	22	50									3
A40T-DTFNR/L-22	50	40	38	300	27	60	TN□□2204□□	CVH4	CHX0518	ST44V	FTKA0410	SPR0714	CN0605	HW30P	3
A50U-DTFNR/L-22	63	50	47	350	35	70									

Applicable inserts **B53~B59**

DWLNR/L

WN□□



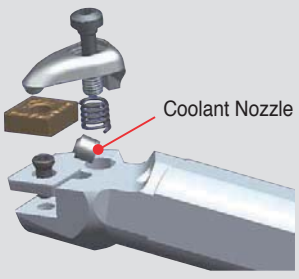
• R type insert
(mm)

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□□	CVH3	CHX0415	SW32V	FTKA0307	SPR0510	CN0605	HW25P	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□□	CVH4	CHX0518	SW42V	FTKA0410	SPR0714	CN0605	HW30P	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**

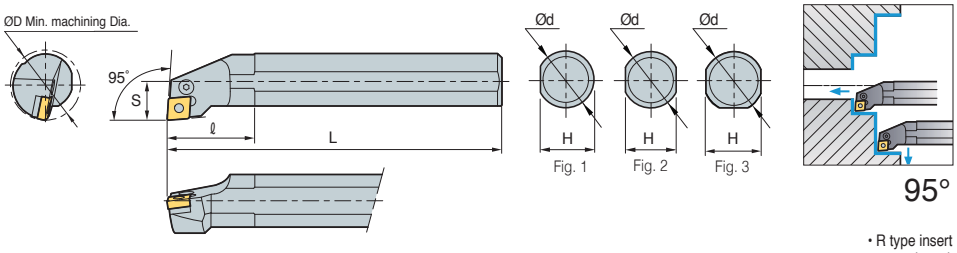
Features of Double Clamp (Boring bar)

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



PCLNR/L

CN□□



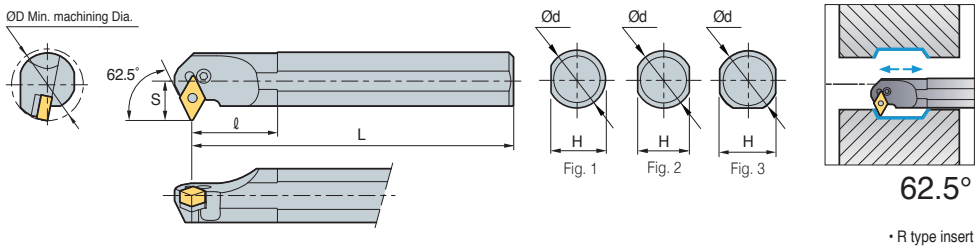
• R type insert
(mm)

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								
S25R-PCLNR/L-09	32	25	23	200	17	40								3
S25R-PCLNR/L-12	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		LV4	VHX0821	SC42B	SP4	LSPS4	HW30L	
S32U-PCLNR/L-12	40	32	30	350	22	50		LV4	VHX0821	SC42B	SP4	-	HW30L	
S40T-PCLNR/L-12	50	40	38	300	27	60		LV4	VHX0821	SC42B	SP4	LSPS4	HW30L	
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		LV4	VHX0821	SC42B	SP4	LSPS4	HW30L	3
A40T-PCLNR/L-12	50	40	38	300	27	60								
S16R-PCLNR/L-09N	20	16	14	200	11	25	CN□□0903□□	LV3CN	VHX0509BN	-	-	-	HW20L	2
S20S-PCLNR/L-09N	25	20	18	250	13	32								
S25R-PCLNR/L-09N	32	25	23	200	17	40								3
S25R-PCLNR/L-12N	32	25	23	200	17	40	CN□□1204□□	LV4AN	VHX0613N	-	-	-	HW25L	3
S25T-PCLNR/L-12N	32	25	23	300	17	40								
S32S-PCLNR/L-12N	40	32	30	250	22	50		LV4N	VHX0820N	SC42N	SP4N	LSPS4	HW30L	
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								
A25R-PCLNR/L-12N	32	25	23	200	17	40	CN□□1204□□	LV4AN	VHX0613N	-	-	-	HW25L	1
A32R-PCLNR/L-12N	40	32	30	250	22	50		LV4N	VHX0820N	SC42N	SP4N	LSPS4	HW30L	3
A40T-PCLNR/L-12N	50	40	38	300	27	60								
A50U-PCLNR/L-12N	63	50	47	350	35	70								
A50U-PCLNR/L-19N	63	50	47	350	35	70	CN□□1906□□	LV6N	VHX1027N	SC63N	SP6N	LSPS6	HW40L	3

Applicable inserts **B28~B35**

PDSNR/L

DN□□



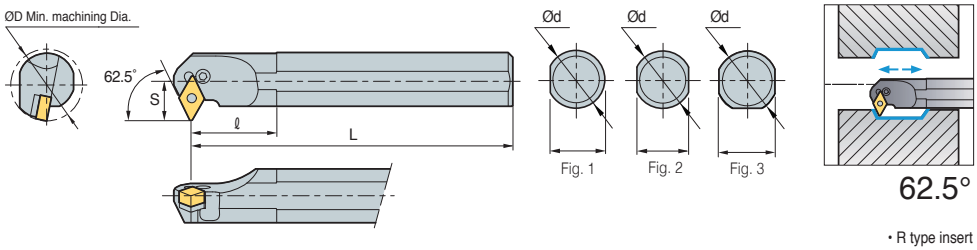
• R type insert
(mm)

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**

PDSNR/L

DN□□



• R type insert

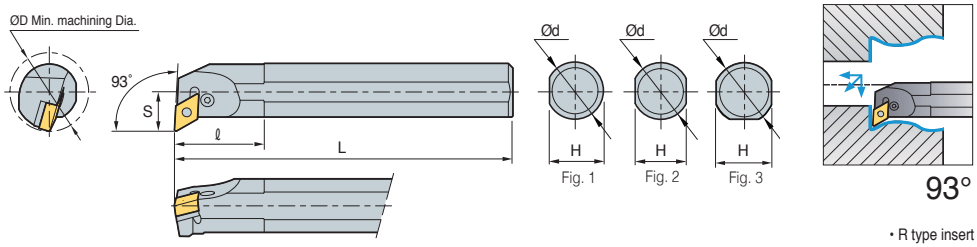
(mm)

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

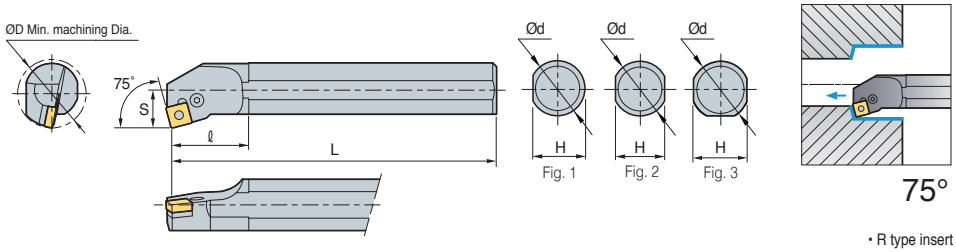
(mm)

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	DN□□1506□□	LV4B	VHX0821	SD42	SP4	LSPS4	HW30L	3
S40T-PDUNR/L-15	50	40	38	300	27	60								
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	DN□□1504□□	LV4	VHX0821	SD42	SP4	LSPS4	HW30L	3
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								3
S32S-PDUNR/L-11N	40	32	30	250	22	50		LV3AN	VHX0617N	SD32N	SP3	LSPS3	HW30L	
S32S-PDUNR/L-15N	40	32	30	250	22	50	DN□□1506□□	LV4BN	VHX0821N	SD42N	SP4N	LSPS4	HW30L	3
S32U-PDUNR/L-15N	40	32	30	350	22	50								
S40T-PDUNR/L-15N	50	40	38	300	27	60								
S50U-PDUNR/L-15N	63	50	47	350	35	70								
S32S-PDUNR/L-15-3N	40	32	30	250	22	50	DN□□1504□□	LV4BN	VHX0821N	SD43N	SP4N	LSPS4	HW30L	3
S40T-PDUNR/L-15-3N	50	40	38	300	27	60								
A20S-PDUNR/L-11N	25	20	19	250	13	32	DN□□1104□□	LV3DN	VHX0512BN	-	-	-	HW20L	1
A25R-PDUNR/L-11N	32	25	24	200	17	40								3
A32S-PDUNR/L-11N	40	32	30	250	22	50		LV3AN	VHX0617N	SD32N	SP3	LSPS3	HW30L	
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								
A32S-PDUNR/L-15-3N	40	32	30	250	22	50	DN□□1504□□	LV4BN	VHX0821N	SD43N	SP4N	LSPS4	HW30L	3
A40T-PDUNR/L-15-3N	50	40	38	300	27	60								

Applicable inserts **B36~B42**

PSKNR/L

SN□□



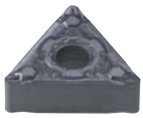
• R type insert

(mm)

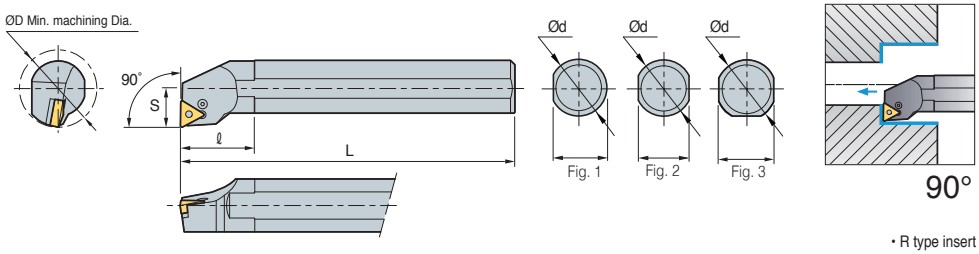
Designation	ØD	Ød	H	L	S	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Shim Pin Punch	Wrench	Fig.
S25R-PSKNR/L-12	32	25	23	200	17	40	SN□□1204□□	LV4A	VHX0613A	-	-	-	HW30L	3
S32S-PSKNR/L-12	40	32	30	250	22	50		LV4	VHX0821	SS42B	SP4	LSPS4	HW30L	
S40T-PSKNR/L-12	50	40	38	300	27	60								
A25R-PSKNR/L-12	32	25	24	200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

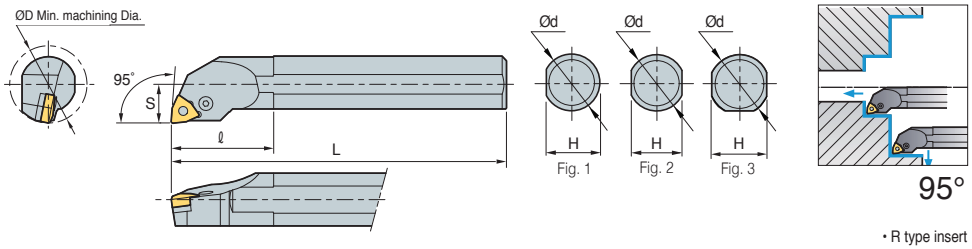
(mm)

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								
S25R-PTFNR/L-11	32	25	38	200	17	40								3
S25R-PTFNR/L-16	32	25	23	200	17	40	TN□□1604□□	LV3B	VHX0512B	-	-	-	HW20L	3
S32S-PTFNR/L-16	40	32	30	250	22	50		LV3	VHX0617	ST317B	SP3	LSPS3	HW25L	
S40T-PTFNR/L-16	50	40	38	300	27	60								
A25R-PTFNR/L-16	32	25	24	200	17	40								1
A32S-PTFNR/L-16	40	32	30	250	22	50								3

Applicable inserts **B53~B59**

PWLNR/L

WN□□



• R type insert

(mm)

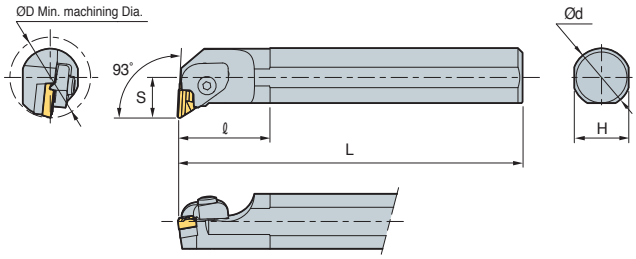
Designation	ØD	Ød	H	L	S	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Shim Pin Punch	Wrench	Fig.
S16R-PWLNR/L-06	20	16	14	200	11	25	WNMG060408	LV3B	VHX0512B	-	-	-	HW20L	2
S20S-PWLNR/L-06	25	20	18	250	13	32	WN□□0604□□	LV3B	VHX0512B	-	-	-	HW20L	2
S25R-PWLNR/L-06	32	25	23	200	17	40								3
S32S-PWLNR/L-06	40	32	30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

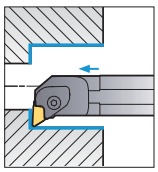
Applicable inserts **B62~B65**

- **Improved holders and parts ensure performance and durability**
- **"N" stand for New type (parts)**

CKUNR/L

KN□□





93°

• R type insert

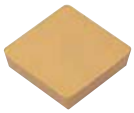
(mm)

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	CTH6LI	CHX0625	SR3	SK33CL	PN0515 / SR4	SHX0310	HW40L HW20L
S40T-CKUNR-16	50	40	37	300	27	60								
S50U-CKUNR-16	63	50	43	350	35	55								
S32S-CKUNL-16	40	32	30	250	22	70	KN□□1604□□R	CTH6RI	CHX0625	SR3	SK33C	PN0515 / SR4	SHX0310	HW40L HW20L
S40T-CKUNL-16	50	40	37	300	27	60								
S50U-CKUNL-16	63	50	43	350	35	55								

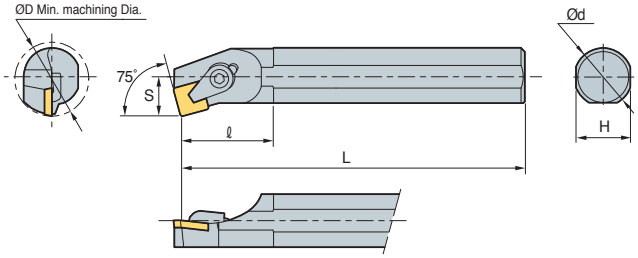
Applicable inserts **B43**

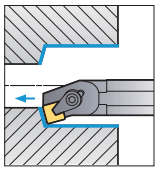
• Use left handed insert for right handed holder

CSKPR/L



SP□□





75°

• R type insert

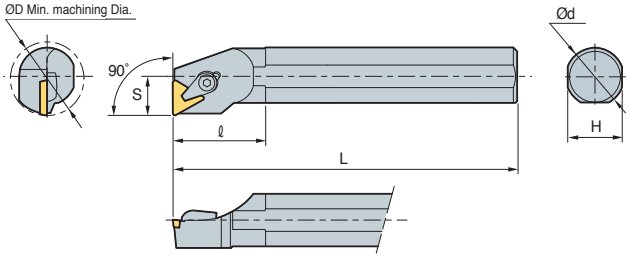
(mm)

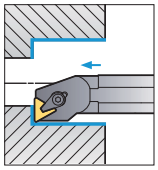
Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	C-ring	Wrench
S16R-CSKPR/L-09	20	16	15	200	11	30	SP□□0903□□	CH4R1C	CHX0414C	CR02C	HW25L
S20S-CSKPR/L-09	25	20	18	250	13	36		CH5R5C	CHX0519C	CR03C	HW30L
S20S-CSKPR/L-12	25	20	18	250	13	28	SP□□1203□□	CH6R5	CH0616	CR04C	HW30L
S25R-CSKPR/L-12	32	25	23	300	17	40					

Applicable inserts **B76~B77**

CTFPR/L

TP□□





90°

• R type insert

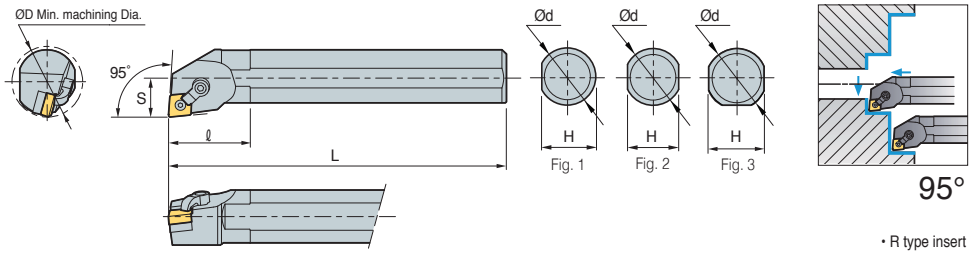
(mm)

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	CH4R1C	CHX0414C	CR02C	-	-	HW25L
S16R-CTFPR/L-11	20	16	15	200	11	40							
S20S-CTFPR/L-11	25	20	18	250	13	40							
S16R-CTFPR/L-16	20	16	15	200	11	40	TP□□1603□□L	CH5R5C	CHX0519C	CR03C	-	-	HW30L
S20S-CTFPR/L-16	25	20	18	250	13	40							
S25R-CTFPR/L-16	32	25	23	200	17	40		CH6R5	CHX0622C	CR04C	ST32C	SP3C	
S32S-CTFPR/L-16	40	32	30	250	22	45							
S40T-CTFPR/L-16	50	40	37	300	27	60							
S40T-CTFPR/L-22	50	40	37	300	27	60	TP□□2204□□L	CH83R1	CH0823C	CR05C	ST43C	SP4C	HW40L

Applicable inserts **B81~B83**

MCLNR/L

CN□□



95°

• R type insert

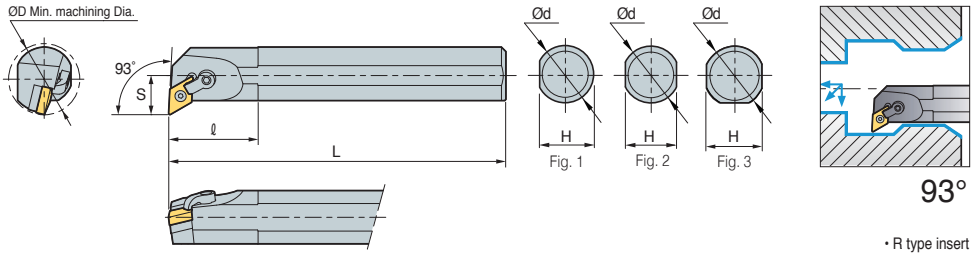
(mm)

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	2
S25R-MCLNR/L-09	32	25	23	250	17	40						HW23.8L	3
S25R-MCLNR/L-12	32	25	23	200	17	40	CN□□1204□□	CDH6N	DHA1/4-21	-	SP4DS	HW31.8L	3
S32S-MCLNR/L-12	40	32	30	250	22	50				SC43D	SP4D	HW23.8L	
S40T-MCLNR/L-12	50	40	38	300	27	60							
A25R-MCLNR/L-12	32	25	24	200	17	40	CN□□1204□□	CDH6N	DHA1/4-21	-	SP4DS	HW31.8L	1
A32S-MCLNR/L-12	40	32	31	250	22	50				SC43D	SP4D	HW23.8L	3

Applicable inserts **B28~B35**

MDUNR/L

DN□□



93°

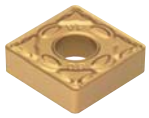
• R type insert

(mm)

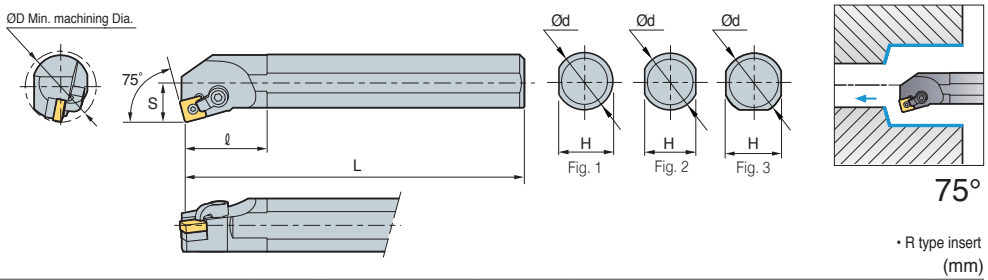
Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench	Fig.
S32S-MDUNR/L-15-3	40	32	30	250	22	50	DN□□1504□□	CDH6N	DHA1/4-21	SD43D	SP4D	HW31.8L	3
S40T-MDUNR/L-15-3	50	40	38	300	27	60						HW23.8L	
A32S-MDUNR/L-15-3	40	32	30	250	22	50							

Applicable inserts **B36~B42**

MSKNR/L



SN□□



75°

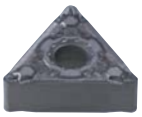
• R type insert

(mm)

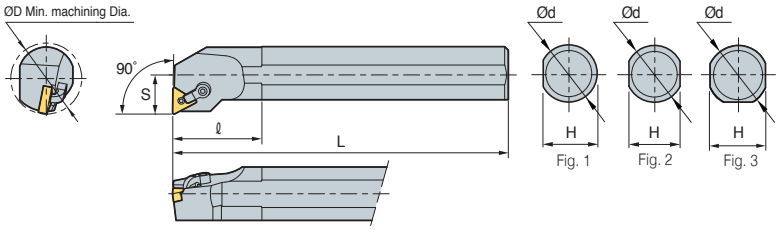
Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench	Fig.
S25R-MSKNR/L-12	32	25	23	200	17	40	SN□□1204□□	CDH8N1	DHA5/16-28	-	SP4DS	HW39.7L	3
S32S-MSKNR/L-12	40	32	30	250	22	50				SS43D	SP4D	HW23.8L	
S40T-MSKNR/L-12	50	40	38	300	27	60							
A25R-MSKNR/L-12	32	25	23	200	17	40	SN□□1204□□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

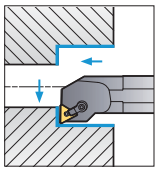
Applicable inserts **B44~B52**

MTFNR/L



TN□□





90°

• R type insert

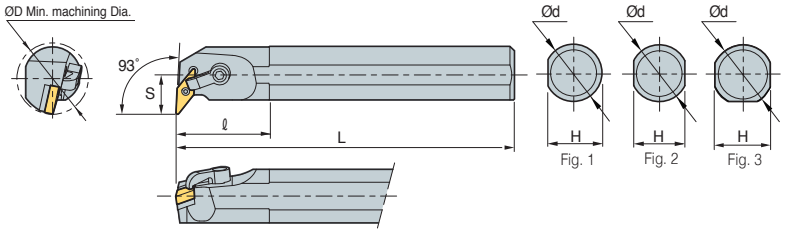
(mm)

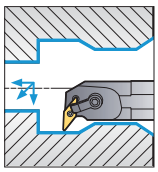
Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench	Fig.
S25R-MTFNR/L-16	32	25	23	200	17	40	TN□□1604□□	CDH7N1	DHA10-32-19	-	SP3D3	HW23.8L	3
S32S-MTFNR/L-16	40	32	30	250	22	50		CDH7N1	DHA10-32-19	ST32D	SP3D	HW19.8L	
S40T-MTFNR/L-16	50	40	38	300	27	60							
A25R-MTFNR/L-16	32	25	24	200	17	40	TN□□1604□□	CDH7N1	DHA10-32-19	-	SP3D3	HW23.8L	1
A32S-MTFNR/L-16	40	32	30	250	22	50		CDH7N1	DHA10-32-19	ST32D	SP3D	HW19.8L	3

Applicable inserts **B53~B59**

MVUNR/L

VN□□





93°

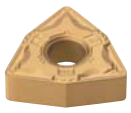
• R type insert

(mm)

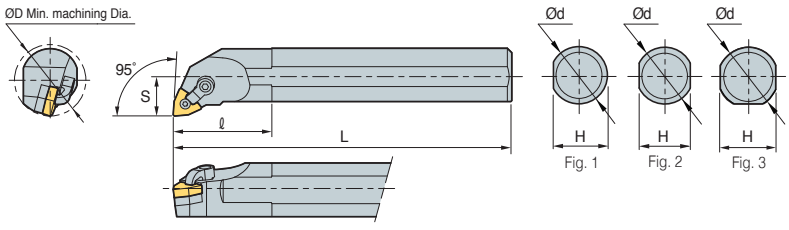
Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench	Fig.
S32S-MVUNR/L-16	40	32	30	250	22	50	VN□□1604□□	CDH8N2	DHA5/16-28	SV32D	SP3D	HW39.7L HW19.8L	3
S40T-MVUNR/L-16	50	40	38	300	27	60							
A32S-MVUNR/L-16	40	32	30	250	22	50	VN□□1604□□	CDH8N2	DHA5/16-28	SV32D	SP3D	HW39.7L HW19.8L	3
A40T-MVUNR/L-16	50	40	38	300	27	60							

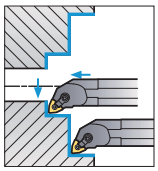
Applicable inserts **B60~B61**

MWLNR/L



WN□□





95°

• R type insert

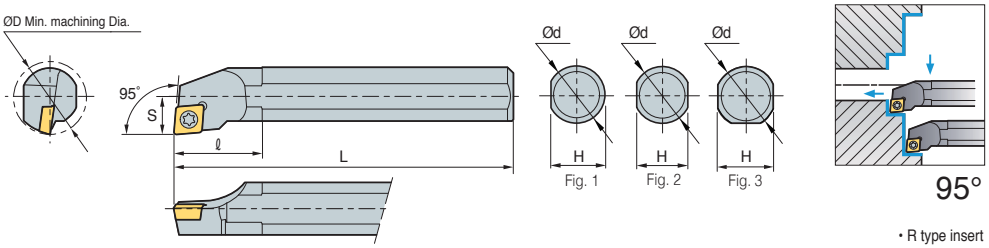
(mm)

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 HW19.8L	3
S32S-MWLNR/L-06	40	32	30	250	22	50				SW32D	SP3D		
S40T-MWLNR/L-06	50	40	38	300	27	60							
S25R-MWLNR/L-08	32	25	23	200	17	40	WN□□0804□□	CDH6N	DHA1/4-21	-	SP4DS	HW31.8L HW23.8L	3
S32S-MWLNR/L-08	40	32	30	250	22	50				SW43D	SP4D		
S40T-MWLNR/L-08	50	40	38	300	27	60							
A25R-MWLNR/L-06	32	25	24	200	17	40	WN□□0604□□	CDH7N	DHA10/32-19	-	SP3D3	HW31.8L HW19.8L	1
A32S-MWLNR/L-06	40	32	31	250	22	50				SW32D	SP3D		3
A25R-MWLNR/L-08	32	25	24	200	17	40	WN□□0804□□	CDH6N	DHA1/4-21	-	SP4DS	HW31.8L HW23.8L	1
A32S-MWLNR/L-08	40	32	31	250	22	50				SW43D	SP4D		3

Applicable inserts **B62~B65**

SCLCR/L

CC□□



Steel shank type

• R type insert

(mm)

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			TWO7	2
S10K-SCLCR/L-06	13	10	9	125	7	16		FTKA02565	-	-	TWO7P	
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						
S12M-SCLCR/L-09	16	12	11	150	9	20	CC□□09T3□□	FTGA03508	-	-	TW15P	2
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		FTGA03510			TW15P	3
S25R-SCLCR/L-12	32	25	23	200	17	40	CC□□1204□□	FTGA0411F	-	-	TW15P	3
S32S-SCLCR/L-12	40	32	30	250	22	50		FTGA0411F	SC42S	SHXN0610F	HW40L TW15P	
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						
A12K-SCLCR/L-09	16	12	11.5	125	9	20	CC□□09T3□□	FTGA03508	-	-	TW15P	1
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		FTGA03510	-	-	TW15P	
A25R-SCLCR/L-12	32	25	24	200	17	40	CC□□1204□□	FTGA0411F	-	-	TW15P	1
A32S-SCLCR/L-12	40	32	31	250	22	50		FTGA0411F	SC42S	SHXN0610F	HW40L,TW15P	3

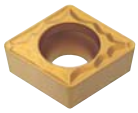
Carbide shank type

(mm)

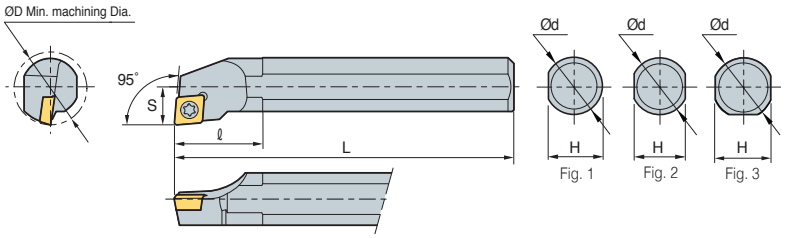
Designation	ØD	Ød	H	L	S	Insert	Screw	Wrench	Fig.
C04G-SCLCR/L-03	5	4	3.8	90	2.5	CC□T0301□□	FTNA01633	TW06P	1
C05H-SCLCR/L-03	6	5	4.4	100	3				
C06H-SCLCR/L-04	7	6	5.4	100	3.5	CC□T0401□□	FTNA0238	TW06P	
C07K-SCLCR/L-04	8	7	6.4	125	4				
C08K-SCLCR/L-06	10	8	7	125	5	CC□T0602□□	FTKA02555	TW07P	2
C10K-SCLCR/L-06	12	10	9	125	6		FTKA02565	TW07P	
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	CC□T09T3□□	FTGA03508	TW15P	
C12Q-SCLCR/L-09	15	12	11	180	8				
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				
C25T-SCLCR/L-12	32	25	23	300	17	CC□T1204□□	FTGA0411F	TW15P	
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		FTKA02565	TW07P	
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	CC□T09T3□□	FTGA03508	TW15P	
E12Q-SCLCR/L-09	15	12	11	180	8				
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				
E25T-SCLCR/L-12	32	25	23	300	17	CC□T1204□□	FTGA0411F	TW15P	

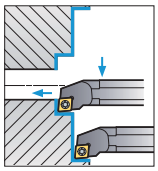
Applicable inserts B66~B68

SCLPR/L



CP□□





95°

Steel shank type

• R type insert
(mm)

Designation	Stock R	Stock L	ØD	Ød	H	L	S	ℓ	Insert	Screw	Wrench	Fig.
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)

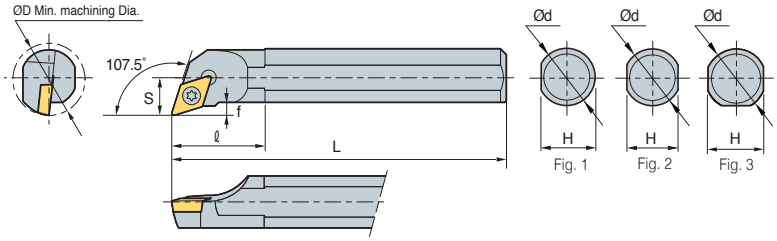
Designation	Stock R	Stock L	ØD	Ød	H	L	S	Insert	Screw	Wrench	Fig.
C10K-SCLPR/L-08	●		12	10	9	125	6	CP□T0802□□	FTNA0305	TW09P	2
C10M-SCLPR/L-08	●		12	10	9	150	6				
C12M-SCLPR/L-08	●		15	12	11	150	7.5		FTNA0306	TW09P	
C12Q-SCLPR/L-08	●		15	12	11	180	7.5				
C12M-SCLPR/L-09	●		15	12	11	150	8	CP□T0903□□	FTNA0408	TW15P	
C12Q-SCLPR/L-09	●		15	12	11	180	8				
C16R-SCLPR/L-09	●		20	16	15	200	10				
C16S-SCLPR/L-09	●		20	16	15	250	10				
C20R-SCLPR/L-09	●		25	20	18	200	13				
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				
E12Q-SCLPR/L-08			15	12	11	180	7.5				
E12M-SCLPR/L-09			15	12	11	150	8		FTNA0407	TW09P	
E12Q-SCLPR/L-09			15	12	11	180	8				
E16R-SCLPR/L-09			20	16	15	200	10	CP□T0903□□	FTNA0408	TW15P	
E16S-SCLPR/L-09			20	16	15	250	10				
E20R-SCLPR/L-09			25	20	18	200	13				
E20S-SCLPR/L-09	●		25	20	18	250	13				

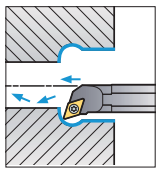
Applicable inserts **B70**

●: Stock item

SDQCR/L

DC□□





107.5°

Steel shank type

• R type insert

(mm)

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				
S16R-SDQCR/L-11	20	16	14	200	11	25	DC□□11T3□□	FTGA03508	TW15P	2
S20S-SDQCR/L-11	25	20	18	250	13	32				
S25R-SDQCR/L-11	32	25	23	200	17	40		FTGA03510	TW15P	3
A10H-SDQCR/L-07	13	10	9.5	100	7	16	DC□□0702□□	FTKA02555	TW07P	1
A12K-SDQCR/L-07	16	12	11.5	125	9	20		FTKA02565	TW07P	1
A16M-SDQCR/L-11	20	16	15	150	11	25	DC□□11T3□□	FTGA03508	TW15P	1
A20Q-SDQCR/L-11	25	20	19	180	13	32				
A25R-SDQCR/L-11	32	25	24	200	17	40		FTGA03510	TW15P	1

Carbide shank type

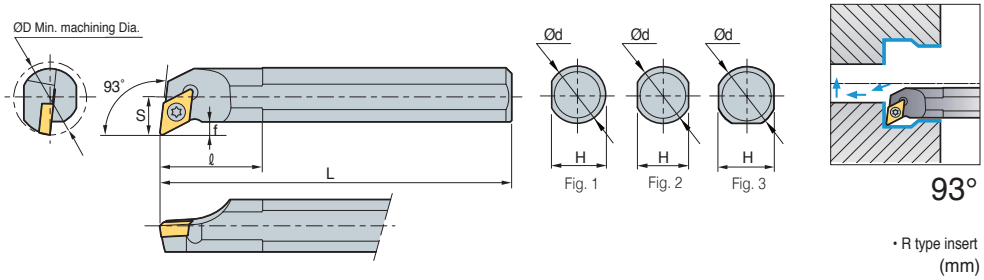
(mm)

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

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				
S16R-SDUCR/L-11	20	16	14	200	11	25	DC□□11T3□□	FTGA03508	TW15P	2
S20S-SDUCR/L-11	25	20	18	250	13	32				
S25R-SDUCR/L-11	32	25	23	200	17	40		FTGA03510	TW15P	3
S32S-SDUCR/L-11	40	32	30	250	22	50				
A10H-SDUCR/L-07	13	10	9.5	100	7	16	DC□□0702□□	FTKA02555	TW07P	1
A12K-SDUCR/L-07	16	12	11.5	125	9	20		FTKA02565	TW07P	1
A16M-SDUCR/L-07	20	16	15	150	11	25				
A20Q-SDUCR/L-11	25	20	19	180	13	32	DC□□11T3□□	FTGA03508	TW15P	1
A25R-SDUCR/L-11	32	25	24	200	17	40		FTGA03510	TW15P	

Carbide shank type

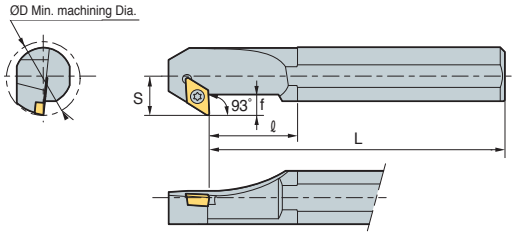
(mm)

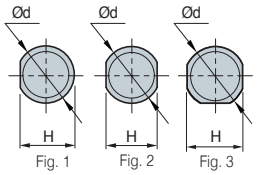
Designation	ØD	Ød	H	L	S	Insert	Screw	Wrench	Fig.
C10K-SDUCR/L-07	13	10	9	125	7	DC□T0702□□	FTKA02555	TW07P	2
C10M-SDUCR/L-07	13	10	9	150	7				
C12M-SDUCR/L-07	16	12	11	150	9		FTKA02565	TW07P	
C12Q-SDUCR/L-07	16	12	11	180	9				
C16R-SDUCR/L-07	20	16	15	200	11				
C16S-SDUCR/L-07	20	16	15	250	11				
C16R-SDUCR/L-11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

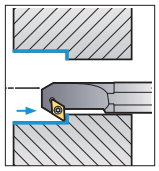
Applicable inserts **B71~B73, B92**

SDZCR/L

DC□□







93°

• R type insert

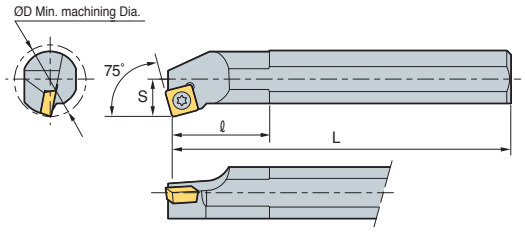
(mm)

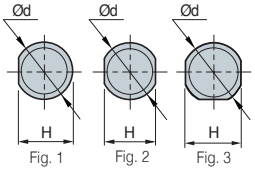
Designation	ØD	Ød	H	L	S	ℓ	f	Insert	Screw	Shim	Shim Screw	Wrench	Fig.
S16R-SDZCR/L-07	20	16	14	200	11	25	6.5	DC□□0702□□	FTKA02565	-	-	TW07P	2
S20S-SDZCR/L-07	25	20	18	250	13	32	7.5						
S25R-SDZCR/L-11	32	25	23	200	17	40	9	DC□□11T3□□	FTGA03510	-	-	TW15P	3
S32S-SDZCR/L-11	40	32	30	250	22	50	11		FTGA03512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

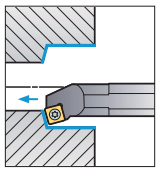
Applicable inserts **B71~B73, B92**

SSKCR/L

SC□□







75°

• R type insert

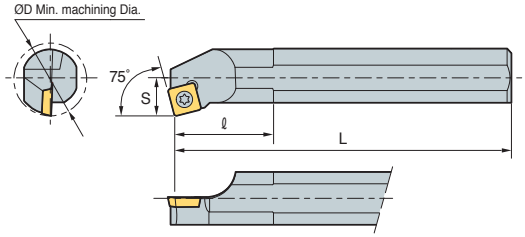
(mm)

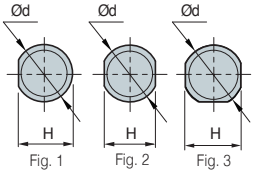
Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Shim	Shim Screw	Wrench	Fig.
S12M-SSKCR/L-09	16	12	11	150	9	20	SC□□09T3□□	FTGA03507	-	-	TW15P	2
S16R-SSKCR/L-09	20	16	14	200	11	25		FTGA03508	-	-	TW15P	
S20S-SSKCR/L-09	25	20	18	250	13	32						
S25R-SSKCR/L-12	32	25	23	200	17	40	SC□□1204□□	FTGA0411F	-	-	TW15P	3
S32S-SSKCR/L-12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

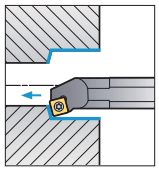
Applicable inserts **B74~B75, B94**

SSKPR/L

SP□□







75°

• R type insert

(mm)

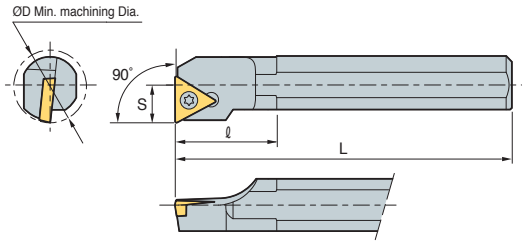
Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Wrench	Fig.
S12M-SSKPR/L-09	16	12	11	150	9	20	SP□□09T3□□	FTNA0307	TW09P	2
S16N-SSKPR/L-09	20	16	14	160	11	25				
S16R-SSKPR/L-09	20	16	14	200	11	25				
S20N-SSKPR/L-09	25	20	18	160	13	32				
S20S-SSKPR/L-09	25	20	18	250	13	32				
A12K-SSKPR/L-09	16	12	11.5	125	9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



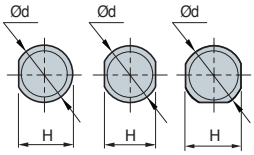
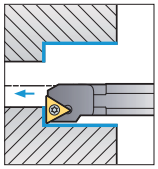


Fig. 1 Fig. 2 Fig. 3



90°

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

Carbide shank type

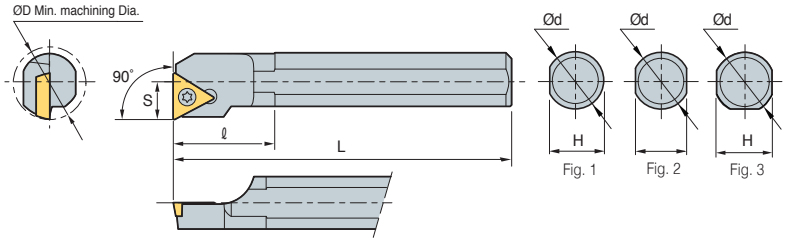
(mm)

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				
C20R-STFCR/L-16	25	20	18	200	13	TC□T16T3□□	FTGA03510	TW15P	
C20S-STFCR/L-16	25	20	18	250	13				
E08K-STFCR/L-09	10	8	7	125	5	TC□T0902□□	FTKA02206	TW06P	
E10K-STFCR/L-09	12	10	9	125	6				
E10K-STFCR/L-11	12	10	9	125	6	TC□T1102□□	FTKA02565	TW07P	2
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				
E20S-STFCR/L-11	25	20	18	250	13				
E20R-STFCR/L-16	25	20	18	200	13	TC□T16T3□□	FTGA03510	TW15P	
E20S-STFCR/L-16	25	20	19	250	13				

Applicable inserts **B79~B80, B95**

STFPR/L

TP□□



Steel shank type

• R type insert

(mm)

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				
S20N-STFPR/L-16	25	20	18	160	13	32	TP□□1604□□	FTGA0411F	TW15P	2
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

(mm)

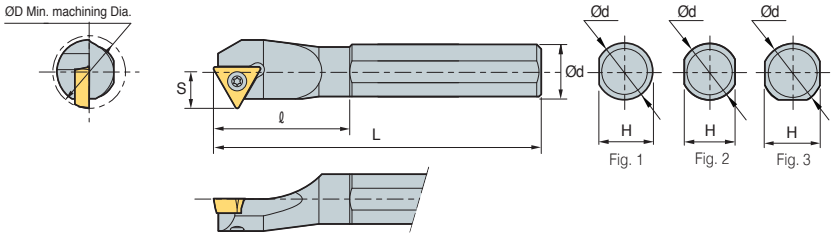
Designation	ØD	Ød	H	L	S	Insert	Screw	Wrench	Fig.
C08K-STFPR/L-08	10	8	7	125	5	TP□T0802□□	FTNA02205	TW06P	2
C10K-STFPR/L-11	12	10	9	125	6	TP□T1103□□	FTNA0305	TW09P	
C10M-STFPR/L-11	12	10	9	150	6				
C12M-STFPR/L-11	15	12	11	150	8		FTNA0307	TW09P	
C12Q-STFPR/L-11	15	12	11	180	8				
C16R-STFPR/L-11	20	16	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□T0802□□	FTNA02205	TW06P	2
E10K-STFPR/L-11	12	10	9	125	6	TP□T1103□□	FTNA0305	TW09P	
E10M-STFPR/L-11	12	10	9	150	6				
E12M-STFPR/L-11	15	12	11	150	8		FTNA0307	TW09P	
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				

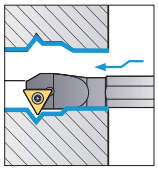
Applicable inserts **B81~B83**

• Use left handed insert for right handed holder

STWPR/L

TP□□





60°

• R type insert

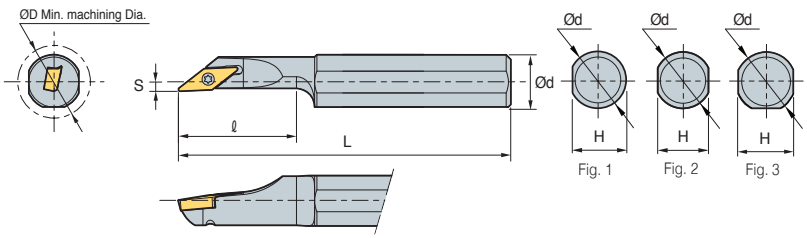
(mm)

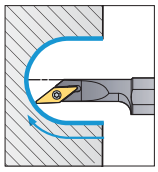
Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Wrench	Fig.
S10M-STWPR/L-11	13	10	7	150	7	16	TPGH1102□□	FTNA0305	TW09P	2
S12M-STWPR/L-11	16	12	9	150	9	20	TPGH1103□□ TPMT1103□□	FTNA0306	TW09P	
S16Q-STWPR/L-11	20	16	14	180	11	25				
S20R-STWPR/L-11	25	20	18	200	13	32				

Applicable inserts **B81~B83**

SVJCR/L

VC□□





142°

• R type insert

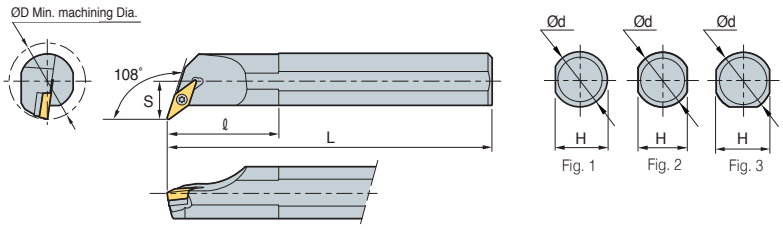
(mm)

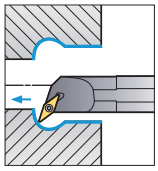
Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Wrench	Fig.
S12M-SVJCR/L-08	16	12	11	150	9	20	VCMT0802□□	FTNA0204	TW06P	2
S16Q-SVJCR/L-08	20	16	14	180	11	25				

Applicable inserts **B86~B87, B97**

SVQBR/L

VB□□





108°

• R type insert

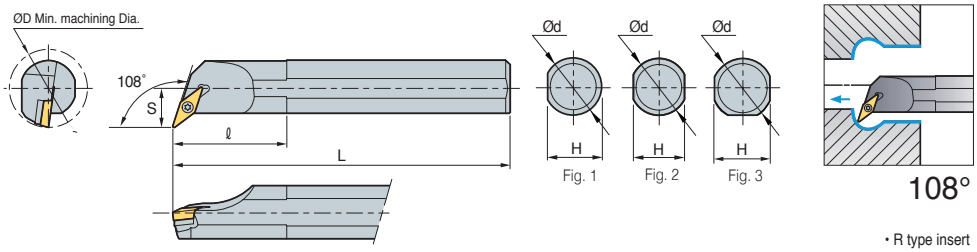
(mm)

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**

SVQCR/L

VC□□

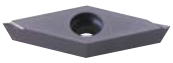


• R type insert
(mm)

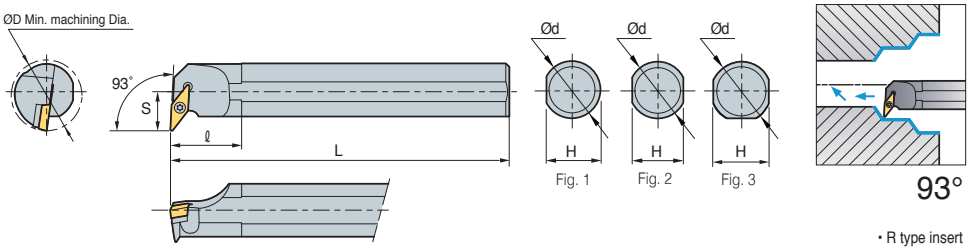
Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Shim	Shim Screw	Wrench	Fig.
S16R-SVQCR/L-11	20	16	14	200	11	25	VC□□1103□□	FTKA02565	-	-	TW07P	2
S20S-SVQCR/L-11	25	20	18	250	13	32						
S25R-SVQCR/L-11	32	25	23	200	17	40						3
S20S-SVQCR/L-13	25	20	18	250	13	32	VC□□1303□□	FTKA0307	-	-	TW07P	2
S25R-SVQCR/L-13	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□□



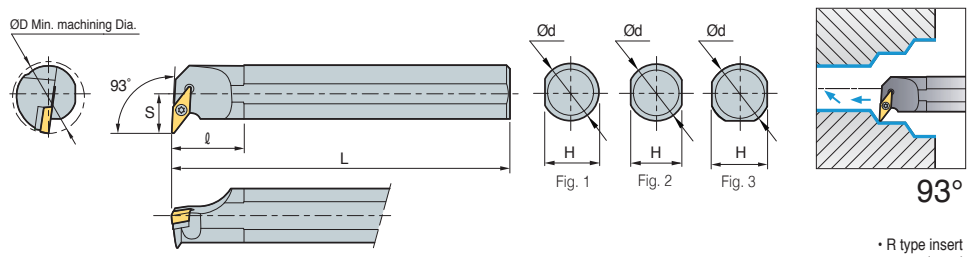
• R type insert
(mm)

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□□



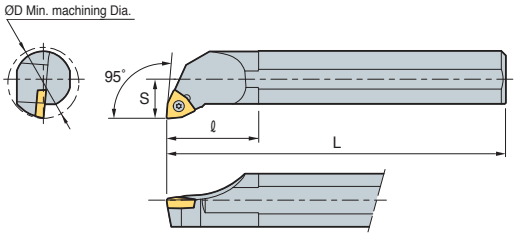
• R type insert
(mm)

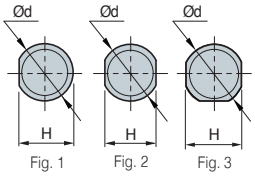
Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Shim	Shim Screw	Wrench	Fig.
S16R-SVUCR/L-11	20	16	14	200	11	25	VC□□1103□□	FTKA02565	-	-	TW07P	2
S20S-SVUCR/L-11	25	20	18	250	13	32						
S25T-SVUCR/L-11	32	25	23	300	17	40						3
S20S-SVUCR/L-13	25	20	18	250	13	32	VC□□1303□□	FTKA0307	-	-	TW09P	2
S25R-SVUCR/L-13	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						

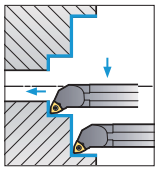
Applicable inserts **B86~B87, B97**

SWLCR/L

WC□□







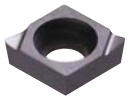
95°

• R type insert

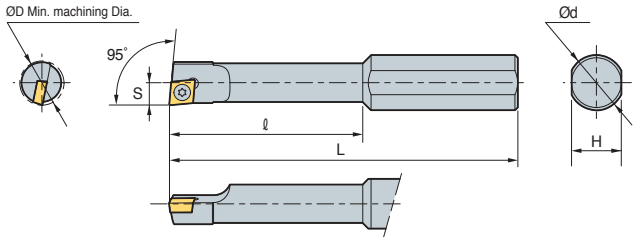
(mm)

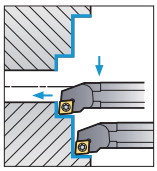
Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Wrench	Fig.
S25R-SWLCR/L-08	32	25	23	200	17	40	WC□□0804□□	FTGA0411F	TW15P	3
S32S-SWLCR/L-08	40	32	30	250	22	50				
A25R-SWLCR/L-08	32	25	24	200	17	40	WC□□0804□□	FTGA0411F	TW15P	1
A32S-SWLCR/L-08	40	32	30	250	22	50				3

SCLCR/L



CCET





95°

• R type insert

(mm)

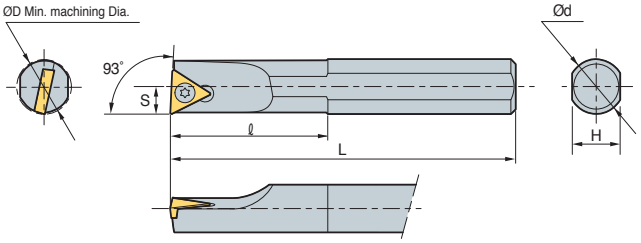
Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Wrench
S10H-SCLCR/L-0305	5	10	9	100	2.5	25	CCET 0301□□	FTNA01633	TW06P
S10H-SCLCR/L-0306	6	10	9	100	3.0	25			
S10J-SCLCR/L-0407	7	10	9	110	3.5	30	CCET 0401□□	FTNA0238	TW06P
S10J-SCLCR/L-0408	8	10	9	110	4.0	30			

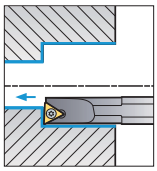
Applicable inserts **B66**

• Use left handed insert for right handed holder

STUBR/L

TB□□





93°

Steel shank type

• R type insert

(mm)

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

(mm)

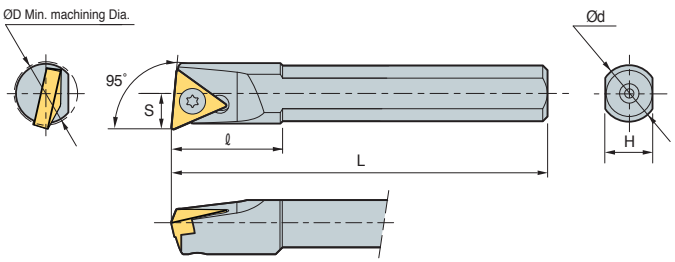
Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Wrench
C08K-STUBR/L-06	10	8	7	125	5		TB□T0601□□	FTNA0204	TW06P
C10K-STUBR/L-06	12	10	9	125	6				
E08K-STUBR/L-06	10	8	7	125	5		TB□T0601□□	FTNA0204	TW06P
E10K-STUBR/L-06	12	10	9	125	6				

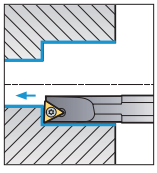
Applicable inserts **B78**

• Use left handed insert for right handed holder

STLBR/L

TB□□





95°

Steel shank type

• R type insert

(mm)

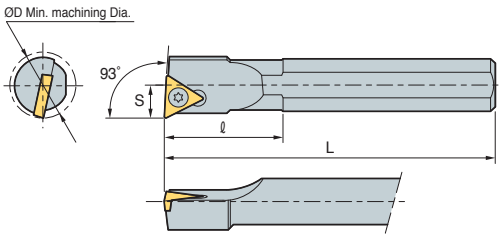
Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Wrench
S06H-STLBR/L-06-SP	8	6	5	100	3.8	12	TB□□0601□□R/L	FTNA0204	TW06P

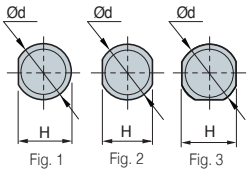
Applicable inserts **B78**

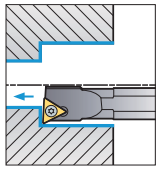
• Use left handed insert for right handed holder

STUPR/L

TP□□







93°

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

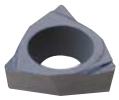
(mm)

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		TP□T1103□□	FTNA0305	TW09P	
C10M-STUPR/L-11	12	10	9	150	6					
C12M-STUPR/L-11	15	12	11	150	8			FTNA0307	TW09P	
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					
C20R-STUPR/L-11	25	20	18	200	13					
C20S-STUPR/L-11	25	20	18	250	13					
C20R-STUPR/L-16	25	20	18	200	13		TP□T1604□□	FTNA0408	TW15P	
C20S-STUPR/L-16	25	20	18	250	13					
C25T-STUPR/L-16	32	25	23	300	17					
E08K-STUPR/L-08	10	8	7	125	5		TP□T0802□□	FTNA02205	TW06P	2
E10K-STUPR/L-11	12	10	9	125	6		TP□T1103□□	FTNA0305	TW09P	
E10M-STUPR/L-11	12	10	9	150	6					
E12M-STUPR/L-11	15	12	11	150	8			FTNA0307	TW09P	
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					
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					

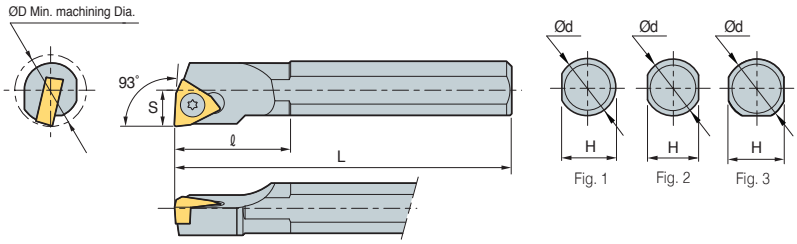
Applicable inserts **B81~B83**

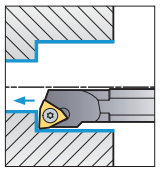
• Use left handed insert for right handed holder

SWUBR/L



WB□T





93°

Steel shank type

• R type insert

(mm)

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	TW06P	
A08F-SWUBR/L-02	8	8	7.5	80	4	30	WBGT 0201□□R/L	FTNA0203	TW06P	
A08F-SWUBR/L-S3	10	8	7.5	80	5	16	WBGT S302□□R/L	FTNA02205	TW06P	

Carbide shank type

(mm)

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	2
C08K-SWUBR/L-S3	10	8	7	125	4.5		WB□TS301□□	FTNA02205	TW06P	
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**

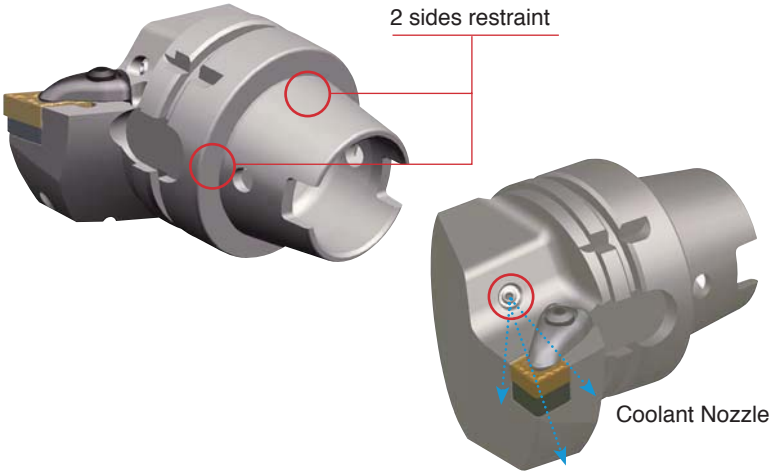
• Use left handed insert for right handed holder

※ 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

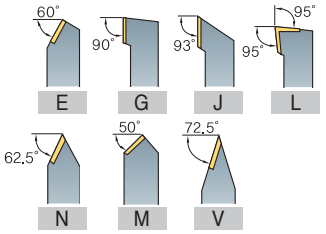
	Insert Shape	Clearance angle of insert	Length of tool holder
	C: 80° Diamond D: 55° Diamond S: 90° Square T: 60° Triangle V: 35° Diamond W: 80° Hexagon	N = 0° B = 5°	DX: 65 H: 100 L: 140

H63T D C L N R DX – 12

Taper design & size
ICTM = HSK standard

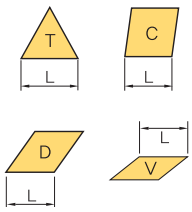
Clamping Type
D: Double Clamp
M: Multi Clamp
P: Lever Lock
S: Screw On
W: Wedge Clamp

Holder Style



Hand
R: Right
L: Left
N: No Hand

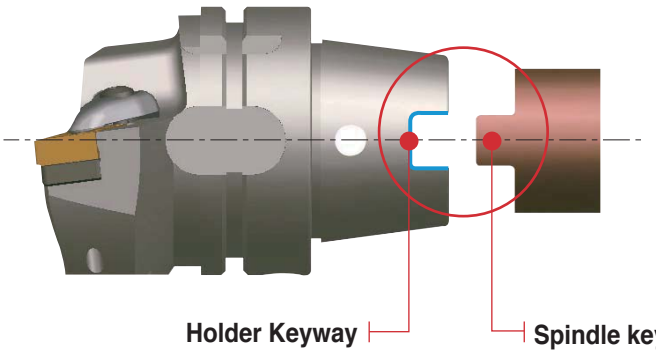
Cutting edge Length



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)

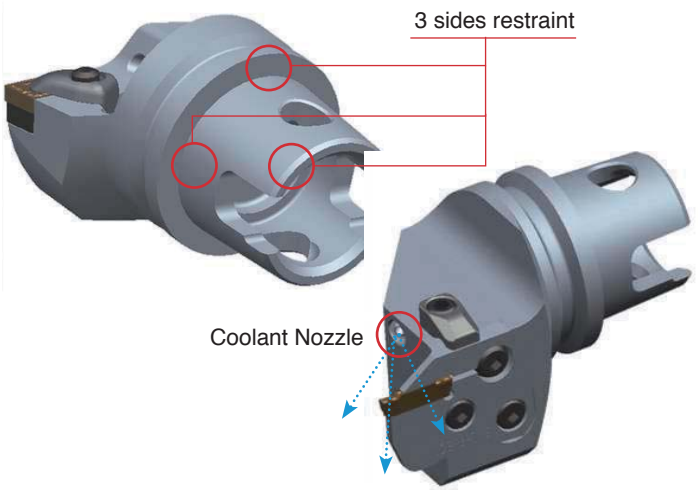
(mm)

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

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



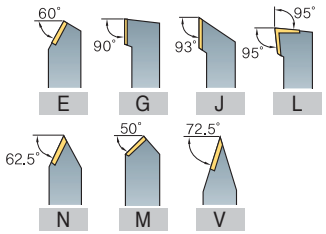
KM tooling code system

KM50	D	C	L	N	R	DX – 12
Taper design & size	Clamping Type	Insert Shape	Clearance angle of insert	Hand		Length of tool holder / Cutting edge Length

Taper design & size
50, 63UT
80ATC, 100

Clamping Type
D: Double Clamp
M: Multi Clamp
P: Lever Lock
S: Screw On
W: Wedge Clamp

Insert Shape
C: 80° Diamond
D: 55° Diamond
S: 90° Square
T: 60° Triangle
V: 35° Diamond
W: 80° Hexagon

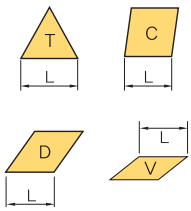


Clearance angle of insert
N = 0°
B = 5°

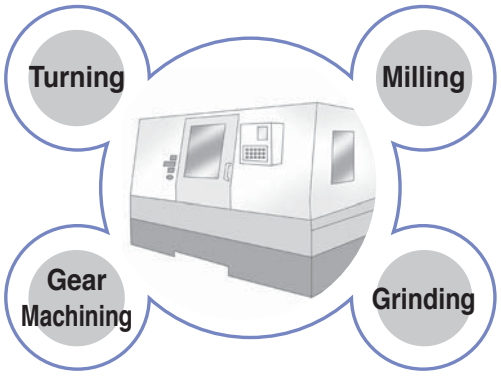
Hand
R: Right
L: Left
N: No Hand

Length of tool holder
DX: 65
H: 100
L: 140

Cutting edge Length



Multi-tasking machine



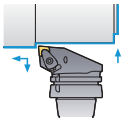
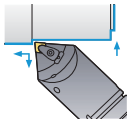
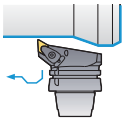
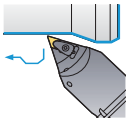
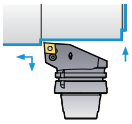
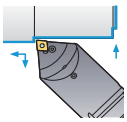
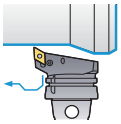
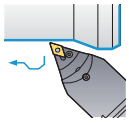
4 Machines
↓
1 Machine

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								
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Approach angle	95°	95°	93°	107.5°	95°	95°	93°	107.5°
Page	B220	B220	B220	B220	B221	B221	B221	B221
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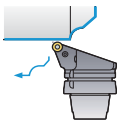
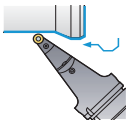
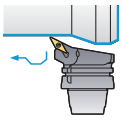
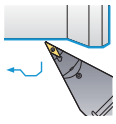
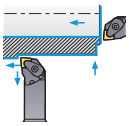
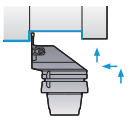
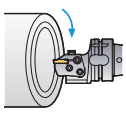
Internal turning								

Cutting Shape								
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Copying	●	●	●	●		●		
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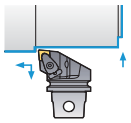
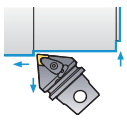
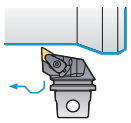
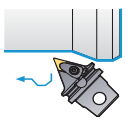
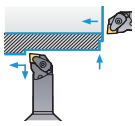
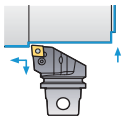
Back turning	●	●	●	●	●			
Internal turning					●			

Index for KM Tooling System

Cutting Shape						
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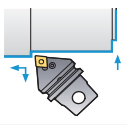
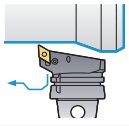
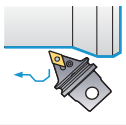
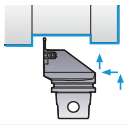
Approach angle	95°	95°	93°	107.5°	95°	95°
Page	B226	B226	B226	B227	B229	B227
Turning	●	●	●	●	●	●
Copying			●	●		
Facing	●	●	●	●	●	●
Back turning	●	●	●	●	●	●
Internal turning					●	

Cutting Shape						
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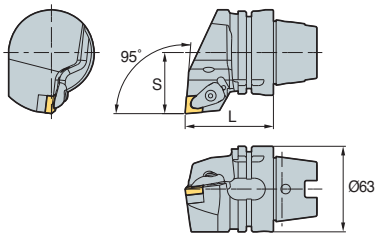
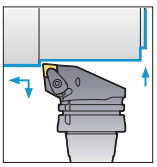
Page	B227	B228	B228	B228		
Turning	●	●	●	●		
Copying		●	●	●		
Facing	●	●	●			
Back turning	●	●	●	●		
Internal turning						

DCLNR/L

CN□□





95°

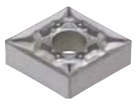
• R type insert

(mm)

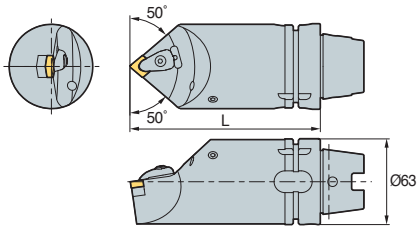
Designation	L	S	Insert	Clamp	Screw	Shim	Shim Screw	Spring	Nozzle	Plug	Wrench	Coolant Pipe
H63T-DCLNR/L-DX12	65	45	CN□□1204□□	CVH4	CHX0518	SC44V	FTKA0410	SPR0714	CN0605	-	HW30P	CP63T

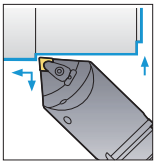
Applicable inserts **B28~B35**

DCMNN



CN□□





95°

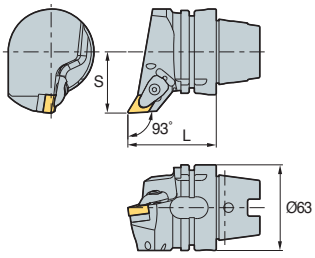
(mm)

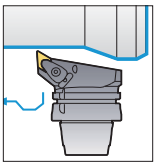
Designation	L	Insert	Clamp	Screw	Shim	Shim Screw	Spring	Nozzle	Plug	Wrench	Coolant Pipe
H63T-DCMNN-H12	100	CN□□1204□□	CVH4	CHX0518	SC44V	FTKA0410	SPR0714	CN0605	KHA0808	HW30P	CP63T
H63T-DCMNN-L12	140										

Applicable inserts **B28~B35**

DDJNR/L

DN□□





93°

• R type insert

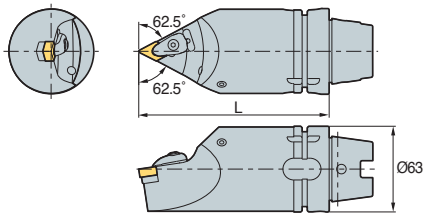
(mm)

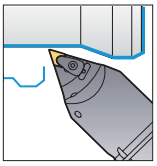
Designation	L	S	Insert	Clamp	Screw	Shim	Shim Screw	Spring	Nozzle	Plug	Wrench	Coolant Pipe
H63T-DDJNR/L-DX15	65	45	DN□□1506□□	CVH4	CHX0518	SD43V	FTKA0410	SPR0714	CN0605	-	HW30P	CP63T
H63T-DDJNR/L-DX15-3	65	45	DN□□1504□□			SD44V						

Applicable inserts **B36~B42**

DDNNN

DN□□





107.5°

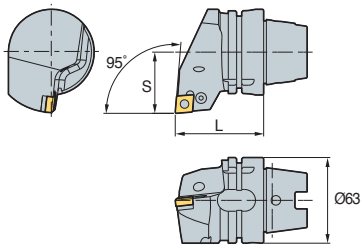
(mm)

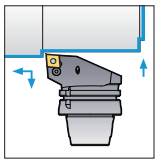
Designation	L	Insert	Clamp	Screw	Shim	Shim Screw	Spring	Nozzle	Plug	Wrench	Coolant Pipe
H63T-DDNNN-H15	100	DN□□1506□□	CVH4	CHX0518	SD43V	FTKA0410	SPR0714	CN0605	KHA0808	HW30P	CP63T
H63T-DDNNN-L15	140										
H63T-DDNNN-H15-3	100	DN□□1504□□	CVH4	CHX0518	SD44V	FTKA0410	SPR0714	CN0605	KHA0808	HW30P	CP63T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

Applicable inserts **B36~B42**

PCLNR/L

CN□□





95°

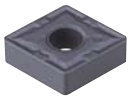
• R type insert

(mm)

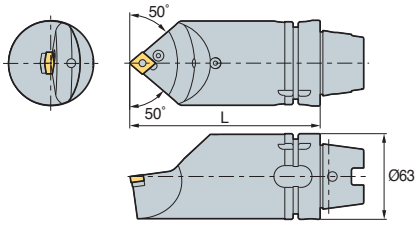
Designation	L	S	Insert	Lever	Screw	Shim	Shim Pin	Punching	Nozzle	Plug	Wrench	Coolant Pipe
H63T-PCLNR/L-DX12	65	45	CN□□1204□□	LV4N	VHX0820N	SC42N	SP4N	LSPS4	CN0605	-	HW30L	CP63T

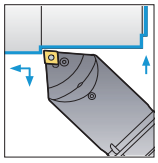
Applicable inserts **B28~B35**

PCMNN



CN□□





95°

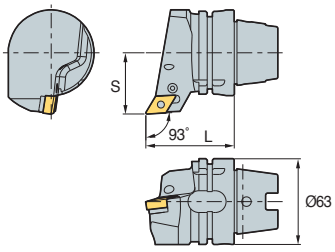
(mm)

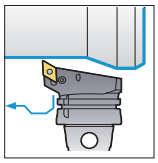
Designation	L	Insert	Lever	Screw	Shim	Shim Pin	Punching	Nozzle	Plug	Wrench	Coolant Pipe
H63T-PCMNN-H12	100	CN□□1204□□	LV4N	VHX0820N	SC42N	SP4N	LSPS4	CN0605	KHA0808	HW30L	CP63T
H63T-PCMNN-L12	140										

Applicable inserts **B28~B35**

PDJNR/L

DN□□





95°

• R type insert

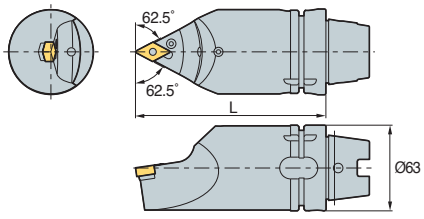
(mm)

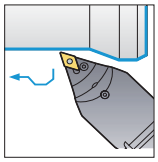
Designation	L	S	Insert	Lever	Screw	Shim	Shim Pin	Punching	Nozzle	Plug	Wrench	Coolant Pipe
H63T-PDJNR/L-DX15	65	45	DN□□1506□□	LV4BN	VHX0821N	SD42N	SP4N	LSPS4	CN0605	-	HW30L	CP63T
H63T-PDJNR/L-DX15-3	65	45	DN□□1504□□			SD43N						

Applicable inserts **B36~B42**

PDNNN

DN□□





107.5°

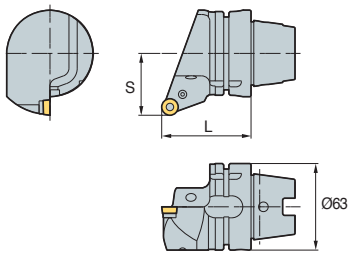
(mm)

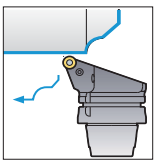
Designation	L	Insert	Lever	Screw	Shim	Shim Pin	Punching	Nozzle	Plug	Wrench	Coolant Pipe
H63T-PDNNN-H15	100	DN□□1506□□	LV4BN	VHX0821N	SD42N	SP4N	LSPS4	CN0605	KHA0808	HW30L	CP63T
H63T-PDNNN-L15	140										
H63T-PDNNN-H15-3	100	DN□□1504□□	LV4BN	VHX0821N	SD43N	SP4N	LSPS4	CN0605	KHA0808	HW30L	CP63T
H63T-PDNNN-L15-3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

Applicable inserts **B36~B42**

PRGCR/L

RCMX1204M0





• R type insert

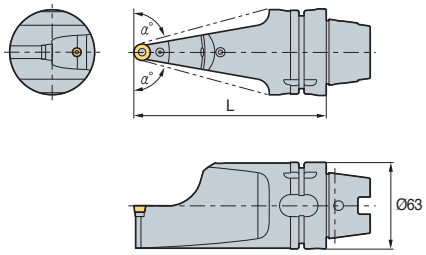
(mm)

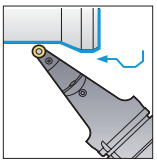
Designation	L	S	Insert	Lever	Screw	Shim	Shim Pin	Punching	Nozzle	Plug	Wrench	Coolant Pipe
H63T-PRGCR/L-DX12	65	45	RCMX1204M0	LR12	VHX0617	SR12	SP3	LSPS3	CN0605	-	HW25L	CP63T

Applicable inserts **B74**

PRDCN

RCMX1204M0





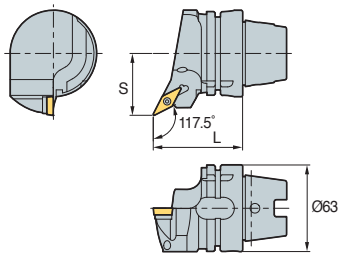
(mm)

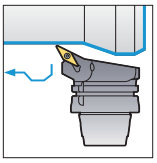
Designation	L	α°	Insert	Lever	Screw	Shim	Shim Pin	Punching	Nozzle	Plug	Wrench	Coolant Pipe
H63T-PRDCN-H12	100	69	RCMX1204M0	LR12	VHX0617	SR12	SP3	LSPS3	CN0605	-	HW25L	CP63T
H63T-PRDCN-L12	140	75										

Applicable inserts **B74**

SVPBR/L

VB□T





117.5°

• R type insert

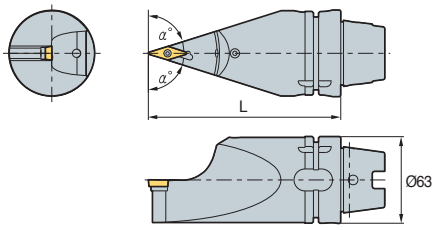
(mm)

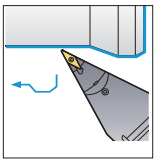
Designation	L	S	Insert	Screw	Shim Screw	Shim	Nozzle	Plug	Wrench	Wrench	Coolant Pipe
H63T-SVPBR/L-DX16	65	45	VB□T1604□□	FTGA03512	SHXN0509F	SV32S	CN0605	-	TW15P	HW32L	CP63T

Applicable inserts **B84~B85, B96**

SVVBN

VB□T





117.5°

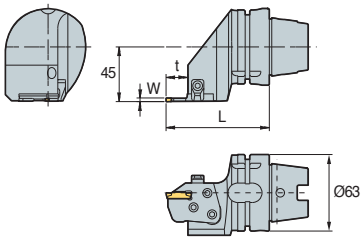
(mm)

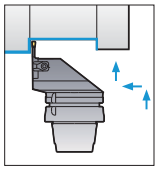
Designation	L	α°	Insert	Screw	Shim Screw	Shim	Nozzle	Plug	Wrench	Wrench	Coolant Pipe
H63T-SVVBN-H16	100	66.5	VB□T1604□□	FTGA03512	SHXN0509F	SV32S	CN0605	KHA0808	TW15P	HW32L	CP63T
H63T-SVVBN-L16	140	72.5									

Applicable inserts **B84~B85, B96**

MCHR/L

MGMN / MGMR/L
MGGN / MRMN



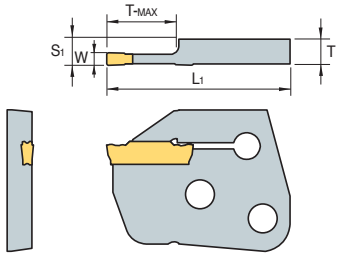


• R type insert
(mm)

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 MGMR/L MGGN MRMN	MCER/L3-T16	CHX8N	DHA0818F	RHA0613	FHGA0618	CN0605	-	HW40L	CP63T
	85	18	4	16		MCER/L4-T16								
	89	22	5	20		MCER/L5-T20								
	89	22	6	20		MCER/L6-T20								

MCER/L (Cartridge)

MGMN / MGMR/L
MGGN / MRMN



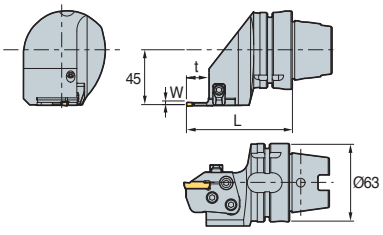
• R type insert
(mm)

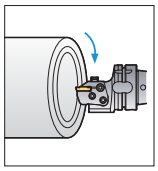
Designation		L	L1	S1	T-MAX	Insert		Tool holders
						W	Designation	
MCER/L	**3-T16**	6.00	44.5	6.35	16	3	MGMN	H63T-MCHR/L
	4-T16	5.97	44.5	6.35	16	4	MGMR/L	
	5-T20	5.87	48.5	6.35	20	5	MGGN	
	6-T20	5.82	48.5	6.35	20	6	MGMN	

Applicable inserts **C27~C29**

MCHR/L

MFMN300
MGMN400



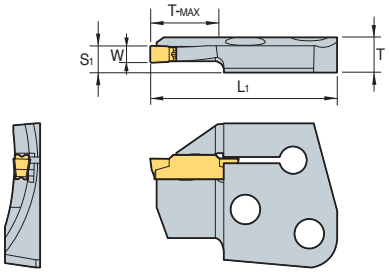


• R type insert
(mm)

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)

MFMN300
MGMN400

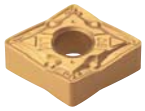


• R type insert
(mm)

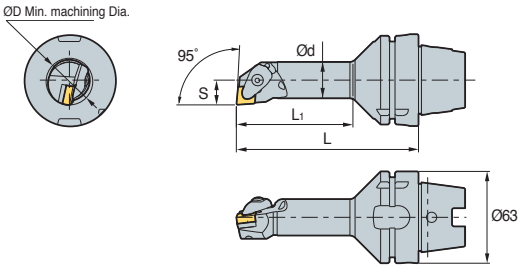
Designation		T	L1	S1	T-MAX	Insert		Tool holders
						W	Designation	
MCFR/L3-	24/35-T16	8.00	44.5	6.35	16	3	MFMN300	H63T-MCHR/L
	29/40-T16	8.00	44.5	6.35	16	3		
	34/50-T16	8.00	44.5	6.35	16	3		
	44/70-T16	8.00	44.5	6.35	16	3		
	64/99-T16	8.00	44.5	6.35	16	3		
MCFR/L4-	44/60-T16	7.97	44.5	6.35	16	4	MGMN400	
	60/120-T16	7.97	44.5	6.35	16	4		
	112/200-T16	7.97	44.5	6.35	16	4		

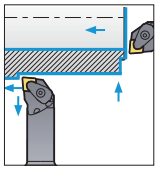
Applicable inserts **C27~C29**

DCLNR/L



CN□□





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

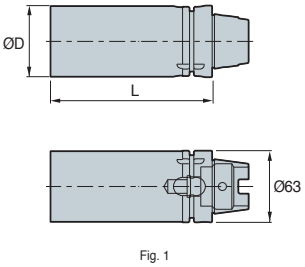


Fig. 1

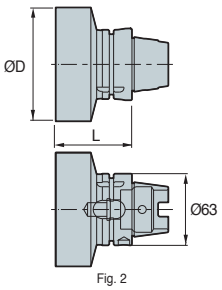
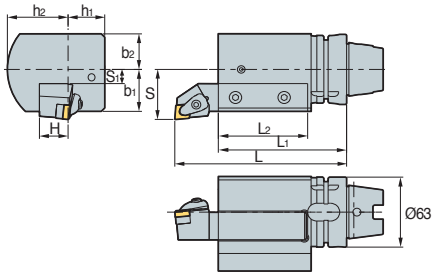


Fig. 2

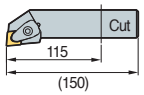
(mm)

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



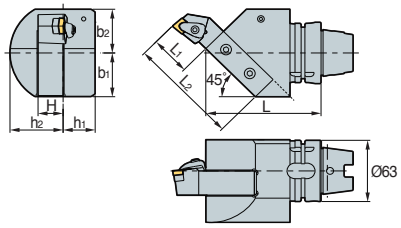
• **Holder information**
- Holder size: 25 × 25
- Before setting the holder, please cut the holder length to 115 mm.



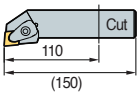
• R type insert
(mm)

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



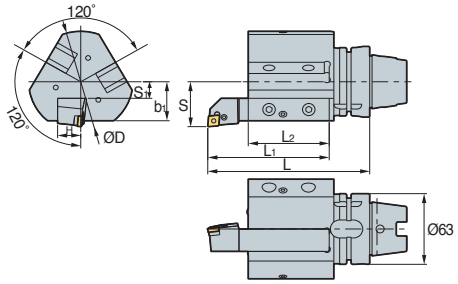
• **Holder information**
- Holder size: 25 × 25
- Before setting the holder, please cut the holder length to 110 mm.



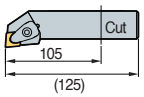
• R type insert
(mm)

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



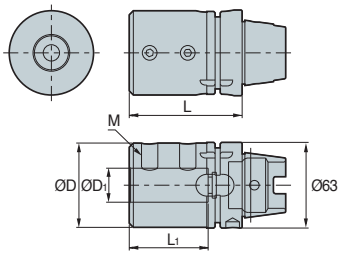
• **Holder information**
- Holder size: 20 × 20
- Before setting the holder, please cut the holder length to 105 mm.



• 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○○-○○

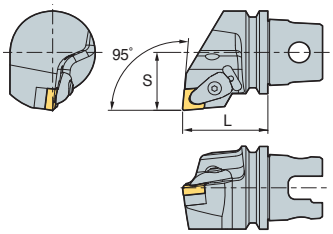


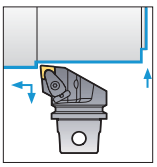
• R type insert
(mm)

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

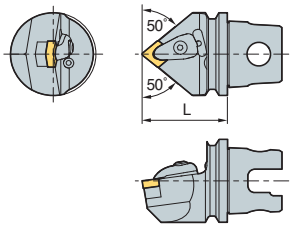
(mm)

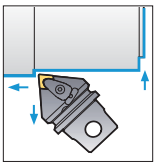
Designation	L	S	Insert	Clamp	Screw	Shim	Shim Screw	Spring	Nozzle	Plug	Wrench
KM50-DCLNR/L-C12	50	35	CN□□1204□□	CVH4	CHX0518	SC44V	FTKA0410	SPR0714	CN0605	-	HW30P
KM63UT-DCLNR/L-D12	60	43									

Applicable inserts **B28~B35**

DCMNN

CN□□





95°

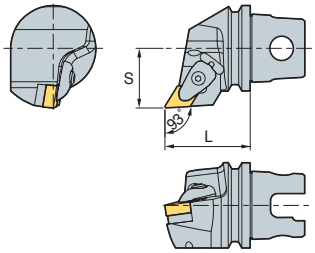
(mm)

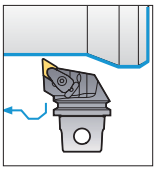
Designation	L	Insert	Clamp	Screw	Shim	Shim Screw	Spring	Nozzle	Plug	Wrench
KM50-DCMNN-C12	50	CN□□1204□□	CVH4	CHX0518	SC44V	FTKA0410	SPR0714	CN0605	KHA0808	HW30P
KM63UT-DCMNN-D12	60									

Applicable inserts **B28~B35**

DDJNR/L

DN□□





93°

• R type insert

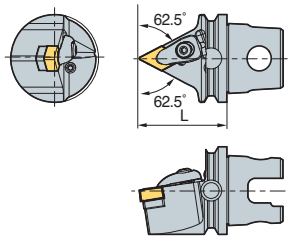
(mm)

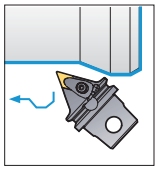
Designation	L	S	Insert	Clamp	Screw	Shim	Shim Screw	Spring	Nozzle	Plug	Wrench
KM50-DDJNR/L-C15	50	35	DN□□1506□□	CVH4	CHX0518	SD43V	FTKA0410	SPR0714	CN0605	-	HW30P
KM50-DDJNR/L-C15-3	50	35	DN□□1504□□	CVH4	CHX0518	SD44V	FTKA0410	SPR0714	CN0605	-	HW30P
KM63UT-DDJNR/L-D15	60	43	DN□□1506□□	CVH4	CHX0518	SD43V	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°

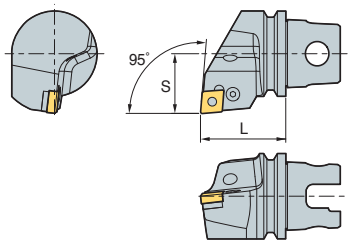
(mm)

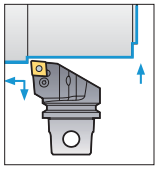
Designation	L	Insert	Clamp	Screw	Shim	Shim Screw	Spring	Nozzle	Plug	Wrench
KM50-DDNNN-C15	50	DN□□1506□□	CVH4	CHX0518	SD43V	FTKA0410	SPR0714	CN0605	KHA0808	HW30P
KM50-DDNNN-C15-3	50	DN□□1504□□	CVH4	CHX0518	SD44V	FTKA0410	SPR0714	CN0605	KHA0808	HW30P
KM63UT-DDNNN-D15	60	DN□□1506□□	CVH4	CHX0518	SD43V	FTKA0410	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°

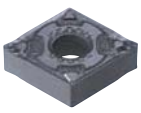
• R type insert

(mm)

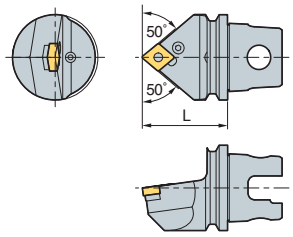
Designation	L	S	Insert	Lever	Screw	Shim	Shim Pin	Punching	Nozzle	Plug	Wrench
KM50-PCLNR/L-C12	50	35	CN□□1204□□	LV4N	VHX0820N	SC42N	SP4N	LSPS4	CN0605	-	HW30L
KM63UT-PCLNR/L-D12	60	43									

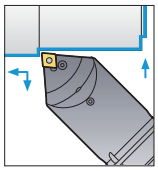
Applicable inserts **B28~B35**

PCMNN



CN□□





95°

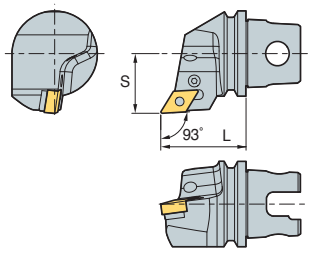
(mm)

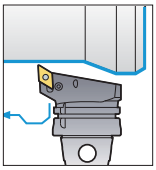
Designation	L	Insert	Lever	Screw	Shim	Shim Pin	Punching	Nozzle	Plug	Wrench
KM50-PCMNN-C12	50	CN□□1204□□	LV4N	VHX0820N	SC42N	SP4N	LSPS4	CN0605	KHA0808	HW30L
KM63UT-PCMNN-D12	60									

Applicable inserts **B28~B35**

PDJNR/L

DN□□





93°

• R type insert

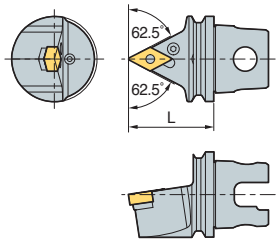
(mm)

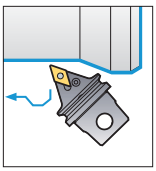
Designation	L	S	Insert	Lever	Screw	Shim	Shim Pin	Punching	Nozzle	Plug	Wrench
KM50-PDJNR/L-C15	50	35	DN□□1506□□	LV4BN	VHX0821N	SD42N	SP4N	LSPS4	CN0605	-	HW30L
KM50-PDJNR/L-C15-3	50	35	DN□□1504□□	LV4BN	VHX0821N	SD43N	SP4N	LSPS4	CN0605	-	HW30L
KM63UT-PDJNR/L-D15	60	43	DN□□1506□□	LV4BN	VHX0821N	SD42N	SP4N	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°

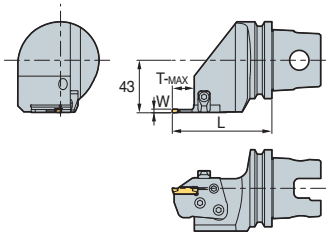
(mm)

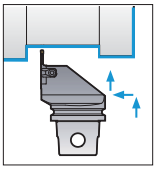
Designation	L	Insert	Lever	Screw	Shim	Shim Pin	Punching	Nozzle	Plug	Wrench
KM50-PDNNN-C15	50	DN□□1506□□	LV4BN	VHX0821N	SD42N	SP4N	LSPS4	CN0605	KHA0808	HW30L
KM50-PDNNN-C15-3	50	DN□□1504□□	LV4BN	VHX0821N	SD43N	SP4N	LSPS4	CN0605	KHA0808	HW30L
KM63UT-PDNNN-D15	60	DN□□1506□□	LV4BN	VHX0821N	SD42N	SP4N	LSPS4	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

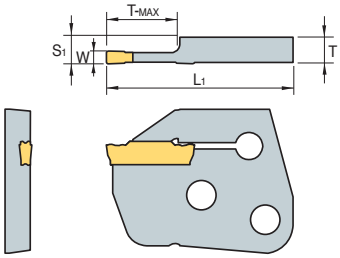
(mm)

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 MGGN MRMN	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		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



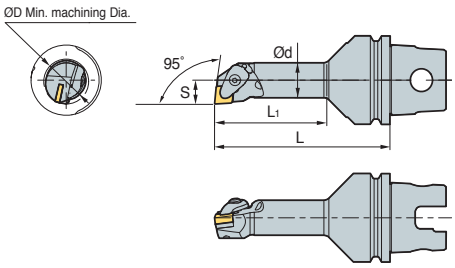
• R type insert
(mm)

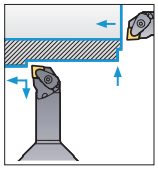
Designation		T	L1	S1	T-MAX	Insert		Tool holders
						W	Designation	
MCER/L	3-T16	6.00	44.5	6.35	16	3	MGMN	H-63T-MCHR/L
	4-T16	5.97	44.5	6.35	16	4	MGMR/L	
	5-T20	5.87	48.5	6.35	20	5	MGGN	
	6-T20	5.82	48.5	6.35	20	6	MRMN	

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□□	CVH4	CHX0518	SC42V	FTKA0410	SPR0714	CN0605	-	HW30P
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

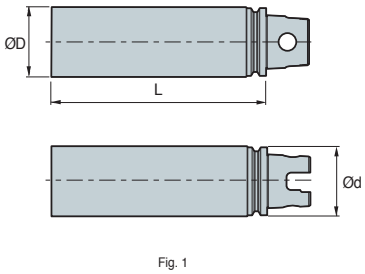


Fig. 1

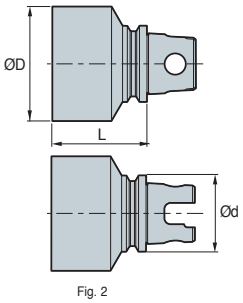


Fig. 2

(mm)

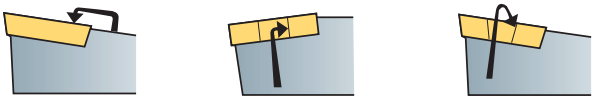
Designation	ØD	L	Ød	Fig.
KM50-BL7562	45	62	50	1
KM50-BL10562	105	62	50	2
KM63UT-BL65200	65	200	50	1
KM63UT-BL115150	115	150	50	2

S T F C R 12 C A - 16

1	2	3	4	5	6	7	8	9
Method of Mounting Insert	Insert Shape	Holder Style	Relief Angle of Insert	Hand	Height of Cutting Edge	Cartridge Code	Type of Cartridge	Length of Cutting Edge

1 Method of Mounting Insert

S T F C R 12 C A - 16



Top Clamping	Hole clamping	Screw on
C	P	S

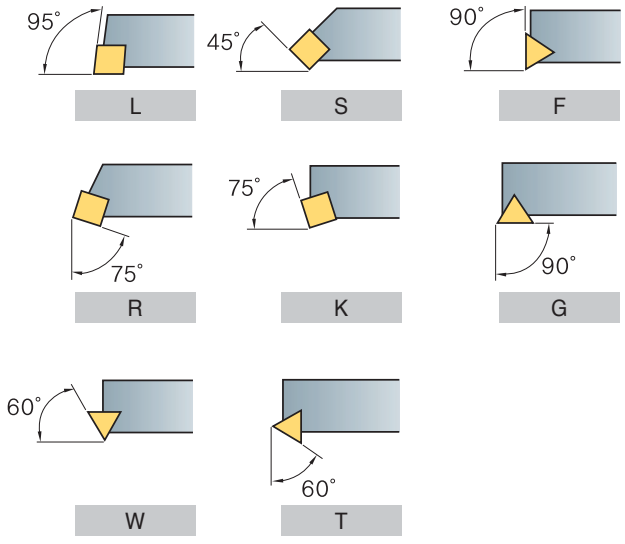
2 Insert Shape

S T F C R 12 C A - 16

C	S	T

3 Holder Style

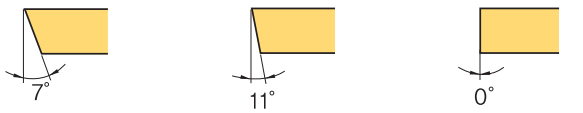
S T F C R 12 C A - 16



L	S	F	R	K	G	W	T

4 Relief Angle of Insert

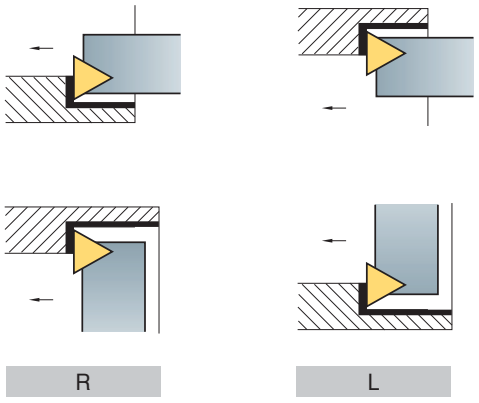
S T F C R 12 C A - 16



C	P	N

5 Hand

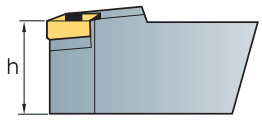
S T F C R 12 C A - 16



R	L

6 Height of Cutting Edge

S T F C R 12 C A - 16



7 Cartrige Code

S T F C R 12 C A - 16

C (Cartridge)

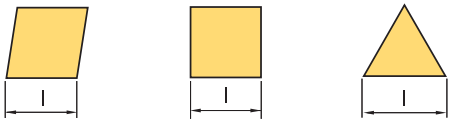
8 Type of Cartridge

S T F C R 12 C A - 16

A (ISO5611)

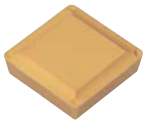
9 Length of Cutting Edge

S T F C R 12 C A - 16

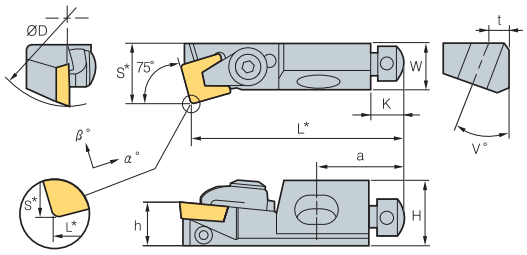


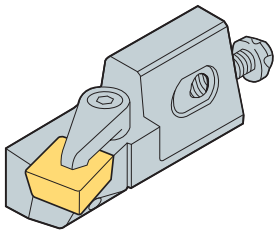
	Cutting Shape		Turning	Copying	Facing	Chamfering	Applicable inserts	Page
Clamp on System	**CSKPR/L**	10CA–09 12CA–12	●				SP□R 0903□□ 1203□□	B232
	CTTPR/L	10CA–11 12CA–16	●				TP□R 1103□□ 1603□□	B233
	CTWPR/L	10CA–11 12CA–16	●				TP□R 1103□□ 1603□□	B2233
	CTFPR/L	10CA–11 12CA–16	●		●		TP□R 1103□□ 1603□□	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

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 □□
	12CA-12	50	20	15	55	20	12	8	6	0	20	6	20	1203 □□

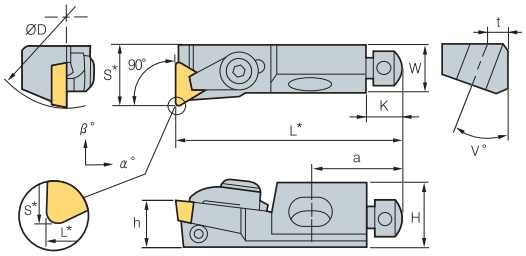
Applicable inserts **B76~B77**

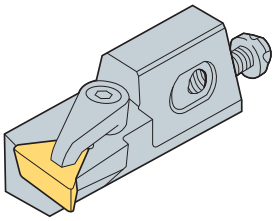
· a base Insert : r = 0.8 D = ØD Min. machining Dia.

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 □□
	12CA-16	50	20	15	55	20	12	8	6	0	20	6	20	1603 □□

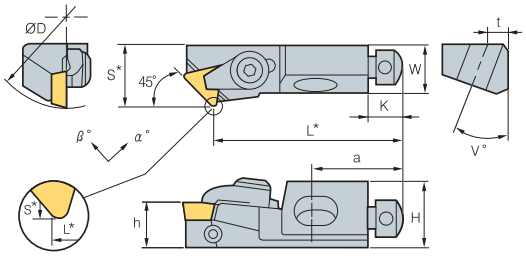
Applicable inserts **B81~B83**

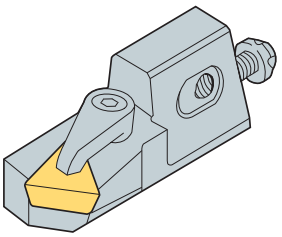
· a base Insert : r = 0.4 (l =11) r = 0.8 (l = 16) D = ØD Min. machining Dia.

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 □□
	12CA-16	50	20	15	47	20	12	8	5	0	20	6	20	1603 □□

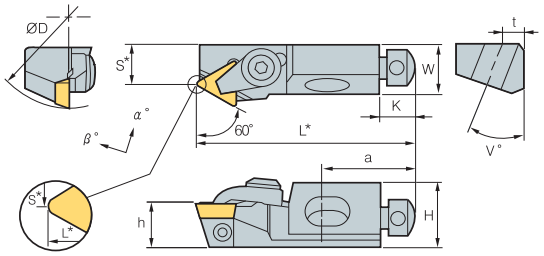
Applicable inserts **B81~B83**

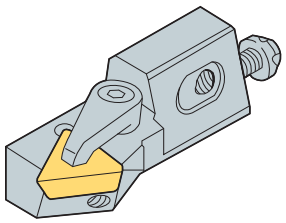
· a base Insert : r = 0.4 (l =11) r = 0.8 (l = 16) D = ØD Min. machining Dia.

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)

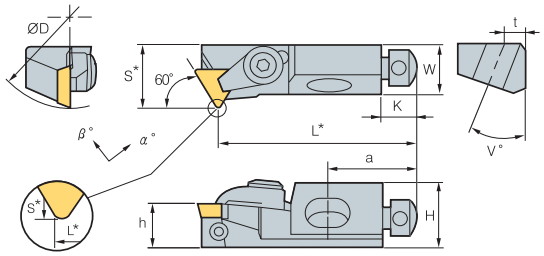
Designation		ØD	H	W	L*	S*	h	K	α°	β°	a	t	v°	Insert
CTTPR/L	10CA-11	40	15	11	50	9	10	8	5	0	20	5	20	TP□R 1103□□
	12CA-16	50	20	15	55	20	12	8	5	0	20	6	20	1603□□

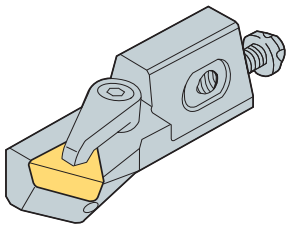
Applicable inserts **B81~B83** · a base Insert : r = 0.8 D = ØD Min. machining Dia.

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)

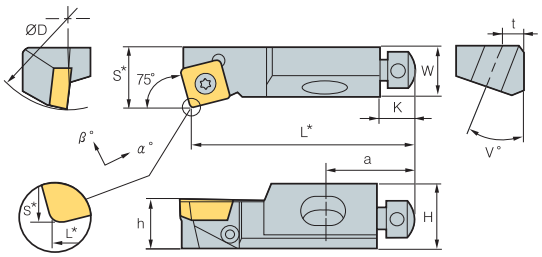
Designation		ØD	H	W	L*	S*	h	K	α°	β°	a	t	v°	InsertInsert
CTWPR/L	10CA-11	40	15	11	44	14	10	8	5	0	20	5	20	TP□R 1103 □□
	12CA-16	50	20	15	47	20	12	8	5	0	20	6	20	1603 □□

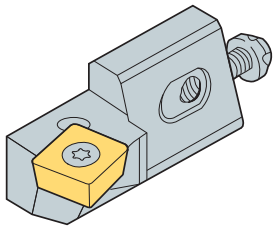
Applicable inserts **B81~B83** · a base Insert : r = 0.8 D = ØD Min. machining Dia.

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

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□□

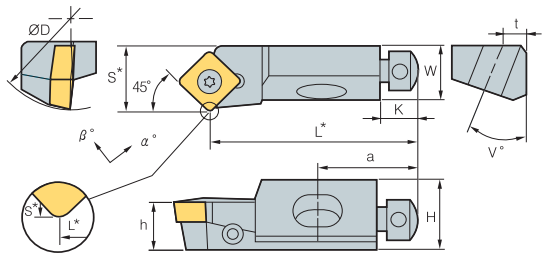
Applicable inserts **B74~B75, B94**

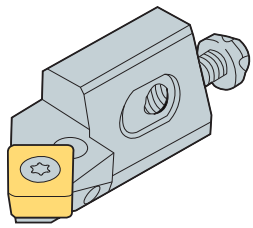
· a base Insert : r = 0.8 D = ØD Min. machining Dia.

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)

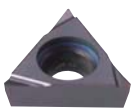
Designation		ØD	H	W	L*	S*	h	K	α°	β°	a	t	v°	Insert
SSSCR/L	10CA-09	40	15	11	44	14	10	8	-5	0	20	5	20	SC□□ 09T3□□
	12CA-12	50	20	15	47	20	12	8	-5	0	20	6	20	SC□□ 1204□□

Applicable inserts **B74~B75, B94**

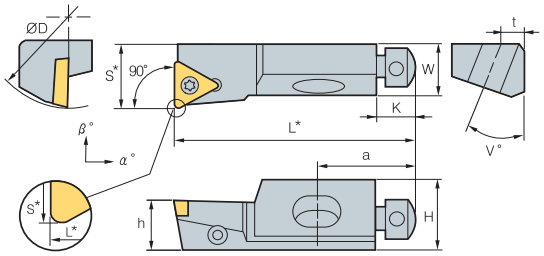
· a base Insert : r = 0.8 D = ØD Min. machining Dia.

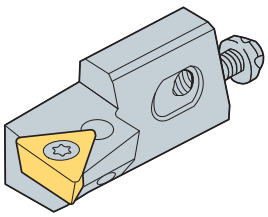
Parts		Screw	Axial Adjust Screw	Radial Adjust Screw	MountingScrew	Washer	Wrench	Wrench
SSSCR/L	10CA-09	FTGA03508	AZ0508F	KHA0408	RHA0620	WA0602	TW 15P	HW20L
	12CA-12	FTGA0411F	AZ0508F	KHA0412	RHA0625	WA0602	TW 15P	HW20L

STFCR/L



TC□□





• R type insert

(mm)

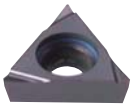
Designation		ØD	H	W	L*	S*	h	K	α°	β°	a	t	v°	Insert
STFCR/L	10CA-11	40	15	11	50	14	10	8	0	-3	20	5	20	TC□□ 1102□□
	12CA-16	50	20	15	55	20	12	8	0	-3	20	6	20	TC□□ 16T3□□

Applicable inserts **B79~B80, B95**

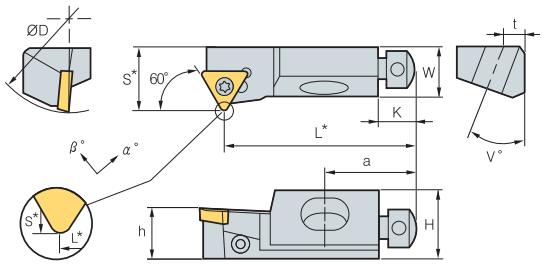
· a base Insert : r = 0.4 (l =11) r = 0.8 (l = 16) D = Min. machining Dia.

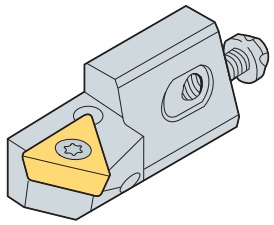
Parts		Screw	Axial Adjust Screw	Radial Adjust Screw	MountingScrew	Washer	Wrench	Wrench
STFCR/L	10CA-11	FTKA02565	AZ0508F	KHA0408	RHA0620	WA0602	TW 15P	HW20L
	12CA-16	FTKA03508	AZ0508F	KHA0412	RHA0625	WA0602	TW 15P	HW20L

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□□ TC□□ 16T3□□
	12CA-16	50	20	15	47	20	12	8	-3	0	20	6	20	

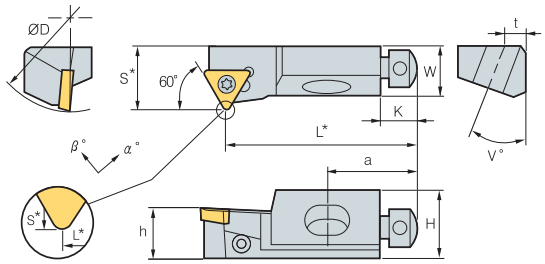
Applicable inserts **B79~B80, B95**

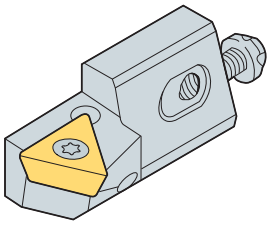
· a base Insert : r = 0.4 (l =11) r = 0.8 (l = 16) D = Min. machining Dia.

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□□ TC□□ 16T3□□
	12CA-16	50	20	15	47	20	12	8	-5	0	20	6	20	

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

KGT

KGT/MGT

MGT Aluminum Wheel Series

TB/TB-M

K Notch

Saw Man

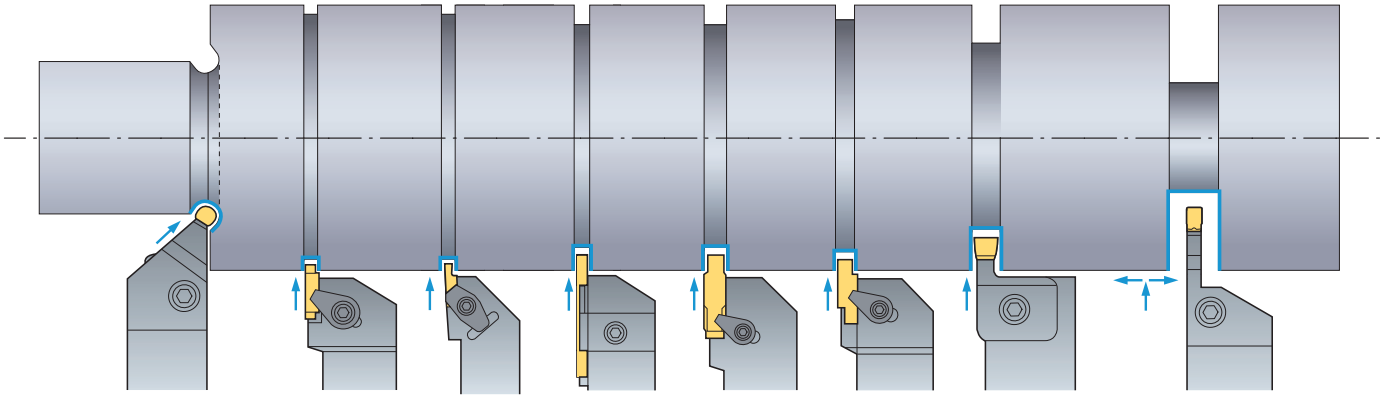
Saw Man-X

Fine Tools

Grooving/Parting off

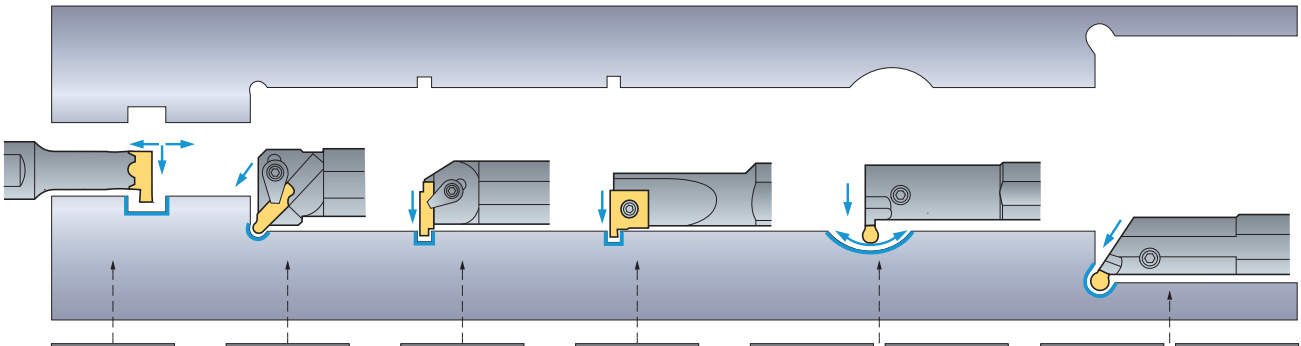
Special Order Form

For external machining



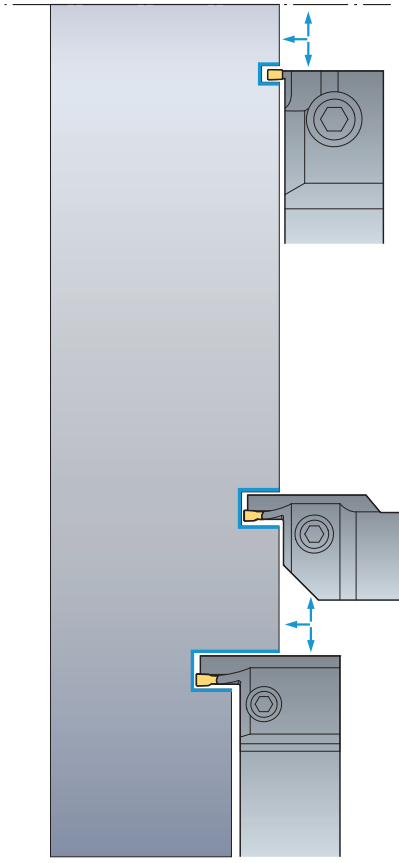
KGEUR/L	MGEUR/L	TBH	K Notch	PH	GH	GFT	DBH	KGEHR/L	MGEHR/L
Width: 2.5 T-MAX: 3.0	Width: 3.0~8.0 T-MAX: 3.0~5.0	Width: 1.25~4.5 T-MAX: 1.5~5.0	Width: 0.75~6.3 T-MAX: 0~6.5	Width: 3.0~5.0 ØD-MAX: 30~50	Width: 1.23~4.28 T-MAX: 1.5~4.0	Width: 1.1~8.0 T-MAX: 2.1~9.0	Width: 3.0~8.0 T-MAX: 14	Width: 2.0~8.0 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

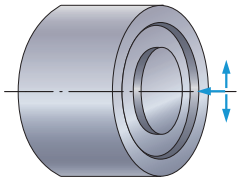


NFTIH	GFIK	GFIP	IGH	KGIVR/L	MGIVR/L	KGIUR/L	MGIUR/L
Width: 0.75~4.02 T-MAX: 1.3~4.6	Width: 2.0~8.0 T-MAX: 2.0~8.0	Width: 1.1~8.0 T-MAX: 2.1~9.0	Width: 1.25~2.8 T-MAX: 1.5~2.3	Width: 2.0~4.0 T-MAX: 7.0~8.0	Width: 1.5~8.0 T-MAX: 4.0~10	Width: 3.0 T-MAX: 3.0	Width: 3.0~8.0 T-MAX: 3.5~6.5
NFTG NFTF NFTT	GR	GW BF	IG	KGMI KGMN KRMN KGGN	MRMN MGGN MRGN	KRMN KRGN	MRMN

For face grooving

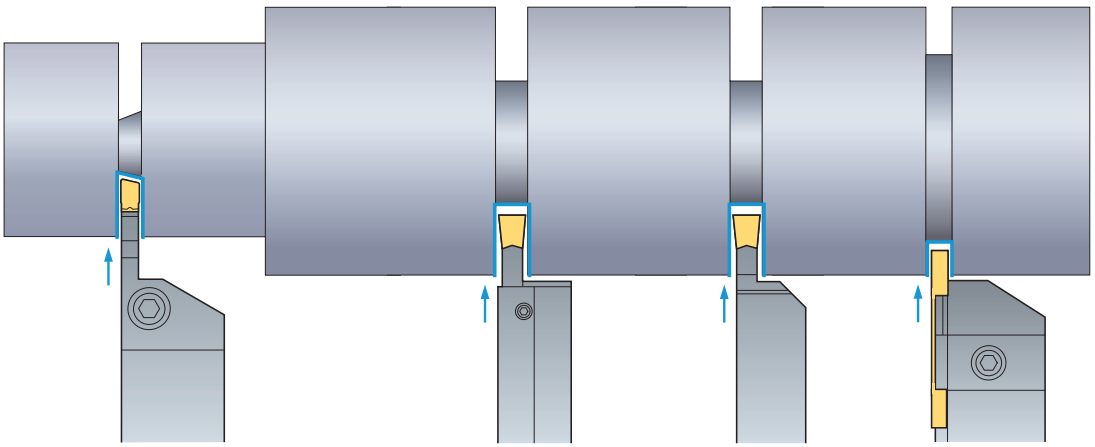


KGEVR/L	MGEVR/L
Width: 3,0~4,0 T-MAX: 4,0~8,0	Width: 1,5~8,0 T-MAX: 3,0~9,0
KGMN	MGMN
KGGN	MGGN
KRMN	MRMN
KRGN	MRGN



FGHH/FGVH	MGFHR/L, MGFVR/L	KGFHR/L, KGFVR/L
Width: 3,0~5,0 T-MAX: 12~25	Width: 3,0~4,0 T-MAX: 10~15	Width: 4,0 T-MAX: 20
FGD	MGMN	KGMN
FGM	MFMN	KRMN
FMM		KGGN
		KRGN

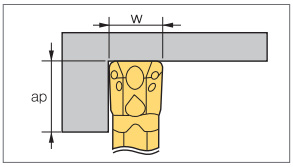
For parting off

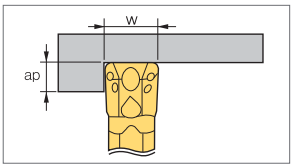


KGEHR/L	MGEHR/L	KSPB	SPB-(S)	KGTB	PH
Width: 3,0 T-MAX: 20	Width: 2,0~5,0 T-MAX: 10~28	Width: 2,0~6,0 ØD-MAX: 35~125	Width: 2,0~6,0 ØD-MAX: 35~125	Width: 1,5~8,0 ØD-MAX: 26~120	Width: 3,0~5,0 ØD-MAX: 30~50
KGMR/L	MGMR/L	KSP	SP	KGMN KGGN-S-R	POB

Turning and Grooving

Selection of insert





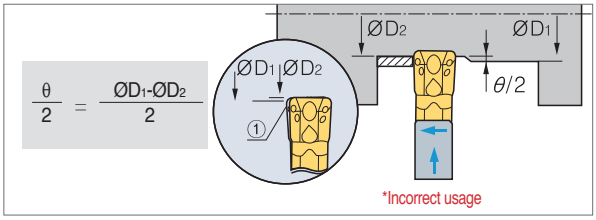
- Feed rate
  - Decide maximum feed rate after considering the insert's characteristics and machine capabilities (Fmax = W x 0.075)
  - Max feed rate should not be larger than the corner radius of the insert
  - In grooving applications, chip evacuation problems can be remedied by using step feed methods 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

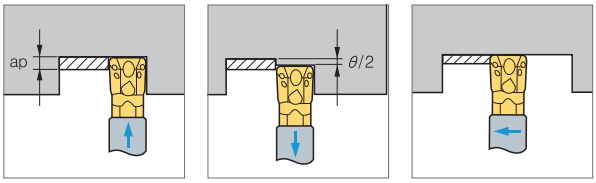
- KGT/MGT tools are designed to incur side cutting force from its clearance angle; this feature gives you advantage over a standard ISO insert
- The standard MGT insert also provides a "wiper" effect to improve surface roughness

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

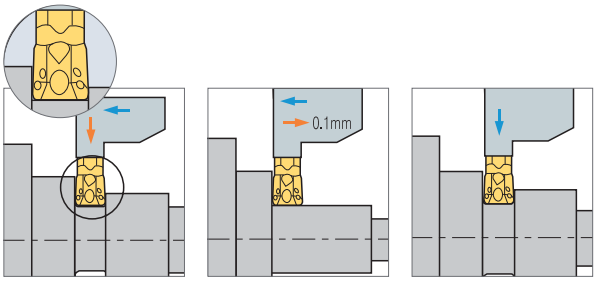


- To eliminate the difference in the machined diameter by utilizing the clearance angle (which is commonly generated during the final turning operation) follow the directions above when machining
  To obtain a good surface roughness without offsetting in an application follows the directions below
 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

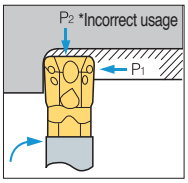


Notice for MGT turning applications

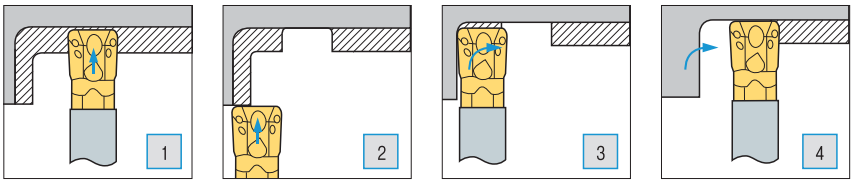
- KGT/MGT tools are available for grooving and turning as a multifunctional tool. When using a M.G.T tool keep in mind that the tool imitates a standard ISO turning application. The application uses a positive clearance angle where a tool's cutting force and depth of cut are all applied in an application. 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

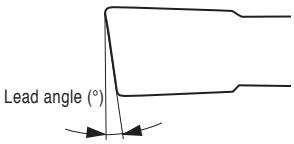
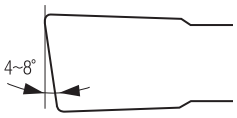
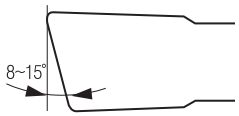


Stabilize your tool pressure. KGT/MGT tools create a cutting load when machining a workpiece with a radius larger than the corner radius of insert (shown in the picture). The unequal cutting force might initially break the insert or holder



Parting off & Grooving

Insert

Lead angle applications	Lead angle 0° (Neutral)	Lead angle 4°~ 8°	Lead angle 8°~15°
			
• 4°- Pipe (Tubing and hollow bar) • 6°- Pipe and solid bar • 8°- Solid bar • 15°- Small diameter Solid bar	• 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	• Reduce the center stub when parting off on solid bar type • Reduce the burr when parting off on tubing or hollow bar type	• Parting off on small diameter and hollow bar type • Reduce the burr and center stub when parting off on small diameter solid bar type

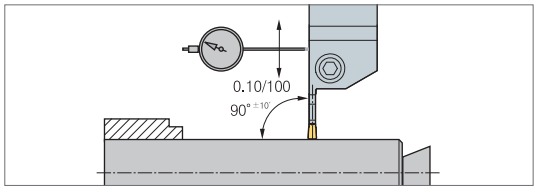
※ Available Inserts: MGMR/L□□□ – □□ – LP/RP, KGMR/L□□□ – □□ – PS/PT
(Lead angle) (Lead angle)

Selection of Insert

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

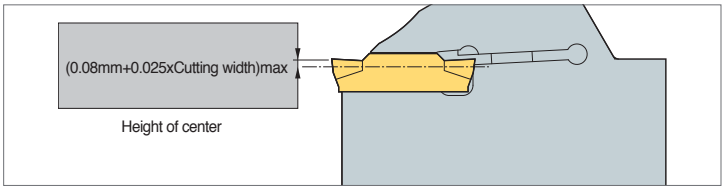
Setting of holders

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



Setting of parting off

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



Notice

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

Usage

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

MFMN300	MGMN400	Horizontal MGFHR	Vertical MGFVR
			
Cutting Width 3 mm	Cutting Width 4 mm	Machining Dia. Ø24~200 mm	Machining Dia. Ø24~60 mm

KGMN300~600	Horizontal KGFHR	Vertical KGFVR
		
Cutting Width 3~6 mm	Machining Dia. Ø34~220 mm	Machining Dia. Ø44~200 mm

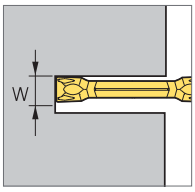
For deep grooving

- These tools are suitable for deep grooving with a single cutting edge (Tmax 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

FGD	FGM	FMM	Horizontal FGHH	Vertical FGVH
				
Deep face grooving (G class)	Wide face grooving turning (G class)	Wide face grooving turning (M class)	Machining Dia. Ø25~140 mm	Machining Dia. Ø25~140 mm

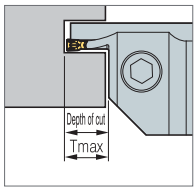
Selection system of holder

- Follow these 3 simple directions to choose the right insert and holder for your application



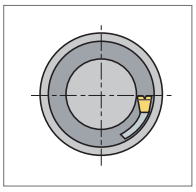
Insert and holder

Choose an insert and holder that best applies to your application according to the cutting width and part of workpiece to be machined.



Holder Tmax

Choose the holder with the shortest overhang that will still meet the cutting depth required



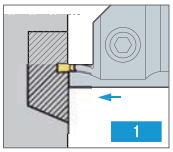
Machining Dia.

Choose the largest size of shank depending on the initial grooving diameter required in the application

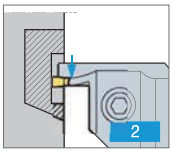
Notice: To minimize chattering, use the shortest holder according to Tmax.

Optimization of face grooving

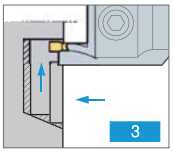
Roughing: When face grooving decreases the cutting speed 40% below a normal face turning operation



• Grooving at the initial diameter

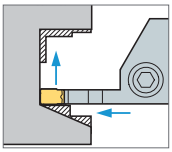


• Face turning away from center

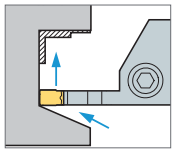


• Face turning to center

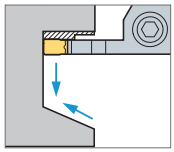
Finishing: When face grooving decreases the cutting speed 40% below a normal face turning operation



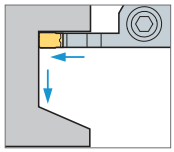
• Grooving at the initial diameter to the final cutting depth and face turning away from center



• Radius operation toward final dimension at the bottom



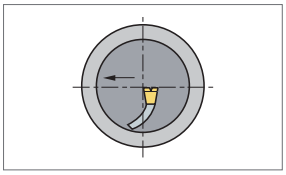
• Face turning to center



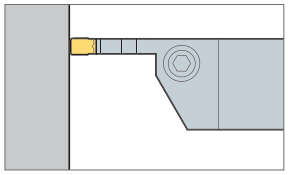
• Grooving for the right dimension you want

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

KG M N 300 (s) - 04 - T

System Code	Tolerance	Hand	Width of cutting edge	1 corner	Nose Radius	Chip Breaker
KG : KORLOY Grooving **KR** : KORLOY Grooving Round	**M**: Pressed **G**: Ground	**N**: Neutral **R**: Right **L**: Left **I**: Internal	2.0~8.0 mm		0.2 mm 0.3 mm 0.4 mm 0.8 mm	L/R/T/C /LP/RP/B/A

Holder code system

KG E H R/L 2525 - 3 T20

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

KGT line up

Application

	Parting	Grooving	Turning	Copying	Special
medium and large, interrupted cutting	 Rough Parting	 Rough Grooving	 Turning-Multi Grooving	 Copying	 Blank
small, continuous cutting	 Light Parting	 Light Grooving	 T(KGMI) Internal Grooving		

▸ Lead angle applied to LP & RP chip breakers - only for parting off

▸ B chip breaker can be customized (contact required in advance)

Recommended insert

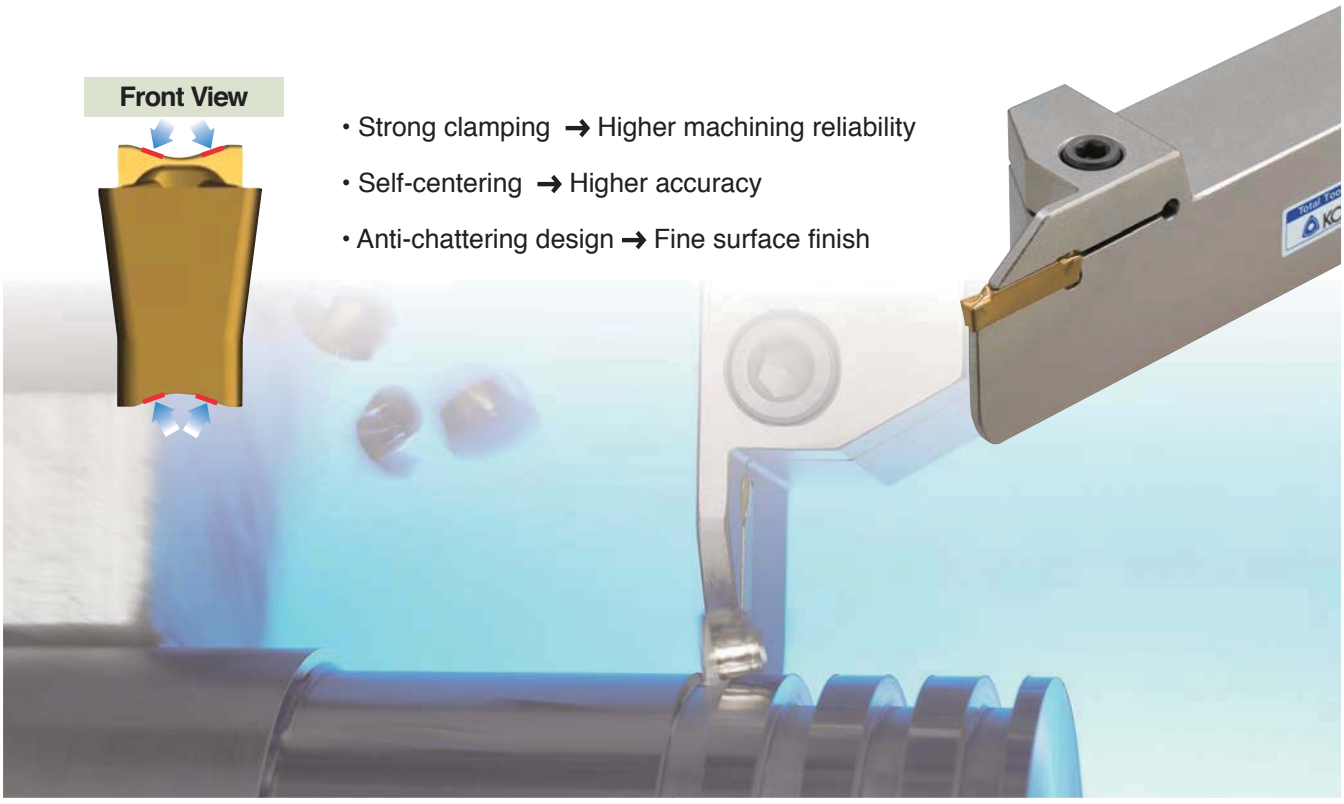
Designation	Geometry	Picture	Application									
			For external machining			For face grooving		For Internal machining		Copying	For relief	Special machining
			Parting	Grooving	Turning	Grooving	Turning	Grooving	Turning	Copying	Reliefing	Special
KGMN	L Light Grooving		○	◎		○						
	R Rough Grooving	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

◎ First choice, ○ Second choice

Features

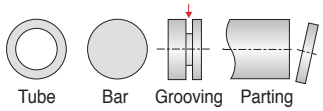
Front View

- Strong clamping ➔ Higher machining reliability
- Self-centering ➔ Higher accuracy
- Anti-chattering design ➔ Fine surface finish



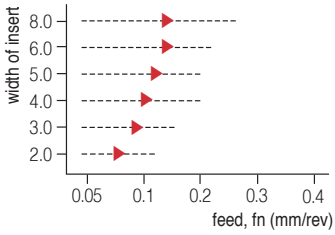
C/B guide

L For Light Grooving

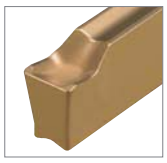


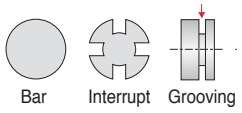
- Sharp cutting edge
- Low feed machining
- Small diameter component

- Low carbon steel
- Alloy steel
- Stainless



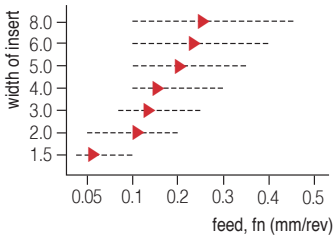
R For Rough Grooving



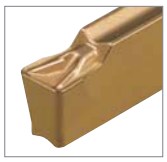


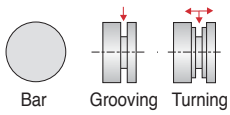
- Strong cutting edge
- High feed machining
- Interrupted cutting

- Carbon steel
- Alloy steel
- Stainless
- Cast iron



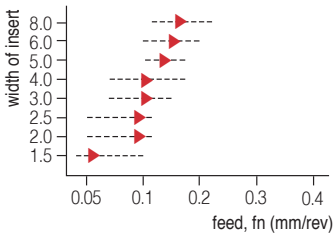
T For Turning and Multi Grooving



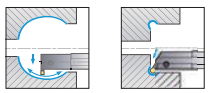


- Sharp cutting edge
- Improved chip control
- Turning & grooving machining

- Carbon steel
- Alloy steel
- Stainless
- Cast iron

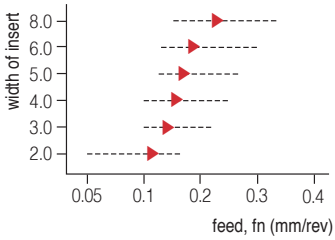


C For Copying and Relief

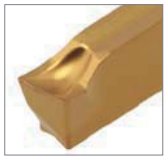


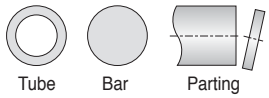
- Improved chip control
- Copying
- Relief

- Carbon steel
- Alloy steel
- Stainless
- Cast iron



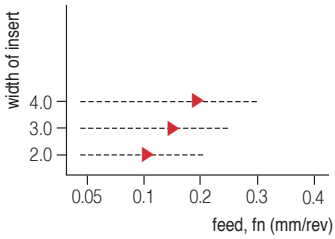
LP For Light Parting



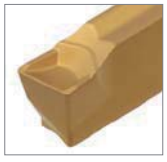


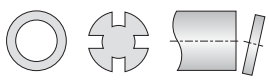
- Sharp cutting edge
- Low feed machining
- Small diameter component
- Right/left handed

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



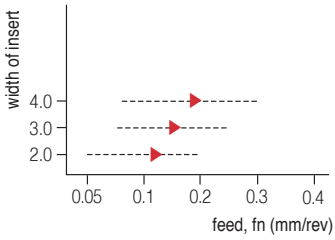
RP For Rough Parting



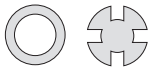


- Strong cutting edge
- High feed machining
- Interrupted cutting
- Right/left handed

- Carbon steel
- Alloy steel
- Cast iron

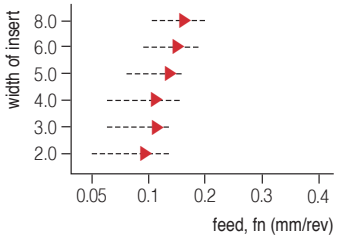


B For Precision Grooving

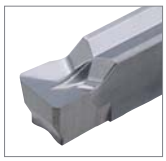


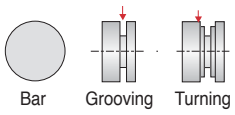
- Ground insert
- Precise tolerance
- Various cutting edge length, Nose R

- Carbon steel
- Alloy steel
- Stainless
- Cast iron



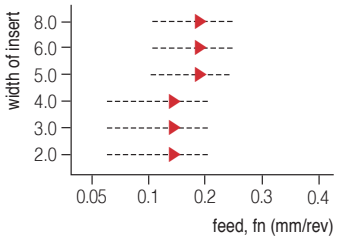
A For Aluminum Grooving





- 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	PC5300	1	70 – 120
		NC3225	2	130 – 220
		NC5330	3	120 – 200
	Alloy Steel	PC5300	1	60 – 105
		NC3225	2	130 – 200
		NC5330	3	90 – 180
M	Stainless steel	PC5300	1	70 – 120
		PC9030	2	70 – 115
		NC5330	3	75 – 125
K	Cast iron	PC5300	1	55 – 90
		NC5330	2	95 – 160
N	Non-ferrous metal	H01	1	200 – 790
S	HRSA	PC5300	1	20 – 35

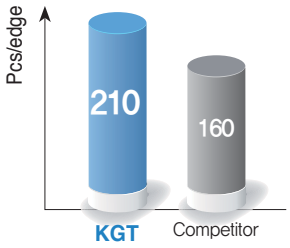
Performance evaluation

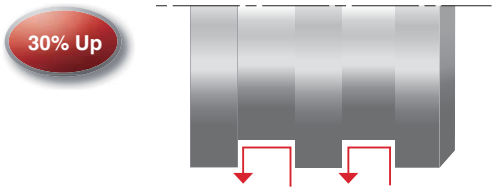
Multi-function machining

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)



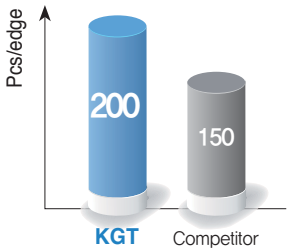


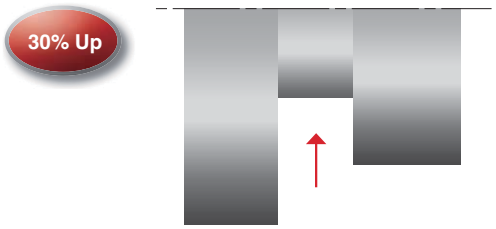
Grooving

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)



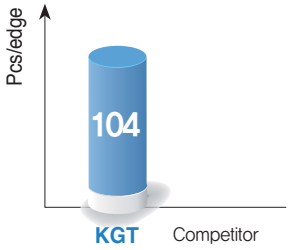


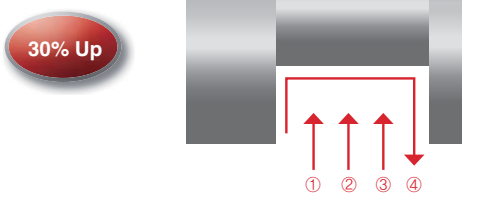
Shaft machining

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)



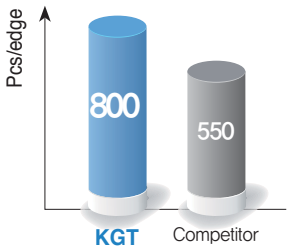


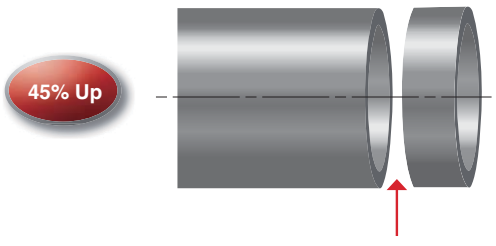
Parting off

Pipe Parting-off

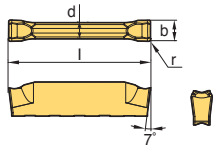
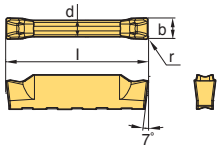
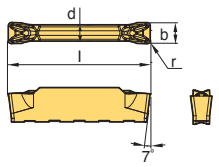
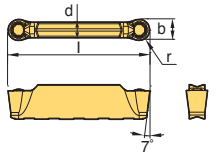
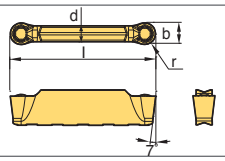
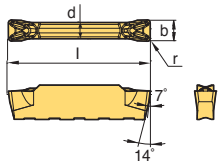
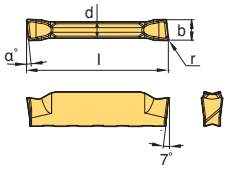
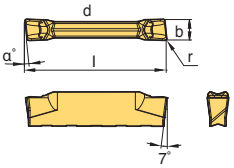
Exclusive parting-off chip breaker for longer tool life. / Sharp geometry for less burr.

- **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)





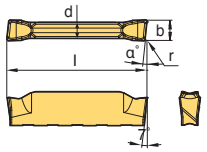
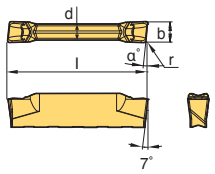
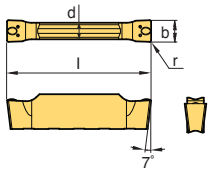
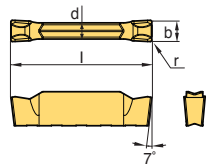
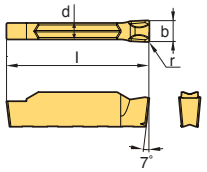
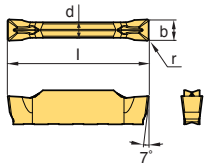
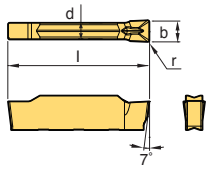
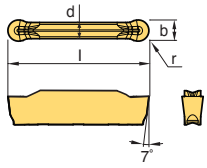
Insert

Application	Picture	Designation		Coated						Dimensions (mm)					Configuration	Page
				NC3215	NC3225	NC5330	NC6315	PC5300	PC9030	b	r	l	d	α°		
Grooving	KGMN-L	KGMN	200-02-L		●	●		●	●	2.0	0.2	20	1.7	-		C14~21 C23
			300-02-L		●	●		●	●	3.0	0.2	20	2.3	-		
			400-02-L		●	●		●	●	4.0	0.2	20	3.3	-		
			500-03-L		●	●		●		5.0	0.3	25	4.1	-		
			600-03-L		●	●		●		6.0	0.3	25	5.1	-		
Grooving · Parting off	KGMN-R	KGMN	150-015-R		●	●		●		1.5	0.15	16	1.2	-		C14~21 C23
			200-02-R		●	●		●	●	2.0	0.2	20	1.7	-		
			300-02-R		●	●		●	●	3.0	0.2	20	2.3	-		
			400-03-R		●	●		●	●	4.0	0.3	20	3.3	-		
			500-03-R			●		●		5.0	0.3	25	4.1	-		
			600-03-R			●		●		6.0	0.3	25	5.1	-		
			800-04-R			●		●		8.0	0.4	30	6.1	-		
Grooving · Turning	KGMN-T	KGMN	150-015-T		●	●	●	●		1.5	0.15	16	1.2			C14~21 C23
			200-02-T		●	●	●	●	●	2.0	0.2	20	1.7	-		
			250-02-T		●	●		●		2.5	0.2	20	2.0			
			300-02-T		●	●	●	●	●	3.0	0.2	20	2.3	-		
			04-T		●	●	●	●	●	3.0	0.4	20	2.3	-		
			400-04-T		●	●	●	●	●	4.0	0.4	20	3.3	-		
			08-T		●	●	●	●	●	4.0	0.8	20	3.3	-		
			500-04-T		●	●	●	●	●	5.0	0.4	25	4.1	-		
			08-T		●	●	●	●	●	5.0	0.8	25	4.1	-		
			600-04-T		●	●	●	●	●	6.0	0.4	25	5.1	-		
			08-T		●	●	●	●		6.0	0.8	25	5.1	-		
			800-08-T		●		●	●		8.0	0.8	30	6.1	-		
Relief Profiling	KRMN-C	KRMN	200-C		●	●	●	●		2.0	1.0	20	1.7	-		C14~22
			300-C		●	●		●		3.0	1.5	20	2.2	-		
			400-C		●	●	●	●		4.0	2.0	20	3.2	-		
			500-C		●	●	●	●		5.0	2.5	25	4.0	-		
			600-C		●	●	●	●		6.0	3.0	25	5.0	-		
			800-C		●	●	●	●		8.0	4.0	30	6.0	-		
Profiling	KRMI-C	KRMI	200-C							2.0	1.0	20	1.7	-		C23
			300-C							3.0	1.5	20	2.2	-		
			400-C							4.0	2.0	20	3.2	-		
Grooving · Internal	KGMI-T	KGMI	200-02-T					●		2.0	0.2	20	1.7	-		C23
			300-04-T					●		3.0	0.4	20	2.3	-		
			400-04-T					●		4.0	0.4	20	3.3	-		
Parting off (Right handed)	KGMR-LP	KGMR	200-6D-LP			●		●		2.0	0.2	20	1.7	6		C14 C16
			8D-LP							2.0	0.2	20	1.7	8		
			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	0.3	20	3.3	4		
			15D-LP			●		●		4.0	0.3	20	3.3	15		
			500-4D-LP							5.0	0.3	25	4.1	4		
Parting off (Right handed)	KGMR-RP	KGMR	200-6D-RP			●		●		2.0	0.2	20	1.7	6		C14 C16
			8D-RP							2.0	0.2	20	1.7	8		
			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	0.3	20	3.3	4		
			15D-RP			●		●		4.0	0.3	20	3.3	15		
			500-4D-RP							5.0	0.3	25	4.1	4		

• 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-LP	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 (Left handed)	KGML-RP	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-B	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)	new KGGN-R	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)	new KGGN-R	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	new KGGN-A	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)	new KGGN-A	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	new KRGN-A	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	-		

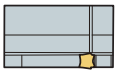
• You can grind the chip breaker, 'B' as any shape you want. If you want any special shape of chip breaker, please contact your distributor.

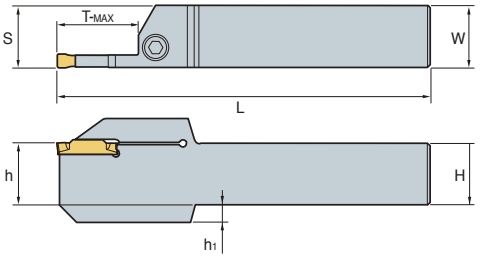
●: Stock item

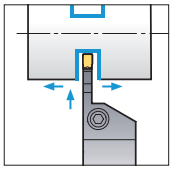
KGEHR/L

For grooving, turning, parting off, and relief machining

KGGN KGMN
KGMR/L KRMN
KRGN







• R type insert

(mm)

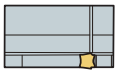
Designation		H = (h)	W	L	S	h1	T-MAX	Inserts	Screw	Wrench
KGEHR/L	1616-1.5-T14	16	16	100	16.2	-	14	KGMN150-□-□	MHA0512	HW40L
	2020-1.5-T14	20	20	125	20.2	-	14			
	2525-1.5-T14	25	25	150	25.2	-	14			
	1212-2-T08	12	12	100	12.2	-	8	KGMN200-□-□ KGMR/L200-□-□ KRMN200-C KGGN200-□-□	MHA0512	HW40L
	1616-2-T08	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			
	2525-3-T25	25	25	150	25.4	-	25			
	1616-4-T10	16	16	100	16.4	-	10	KGMN400-□-□ KGMR/L400-□-□ KRMN400-C KGGN400-□-□ KRGN400-□	BHA0616	HW50L
	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			

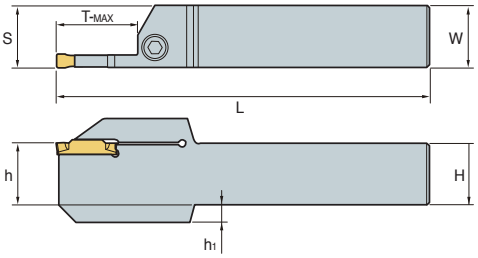
Applicable inserts **C12~C13**

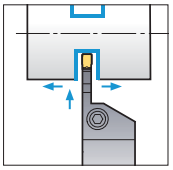
KGEHR/L

For grooving, turning, parting off, and relief machining

KGGN KGMN
KGMR/L KRMN
KRGN







• R type insert

(mm)

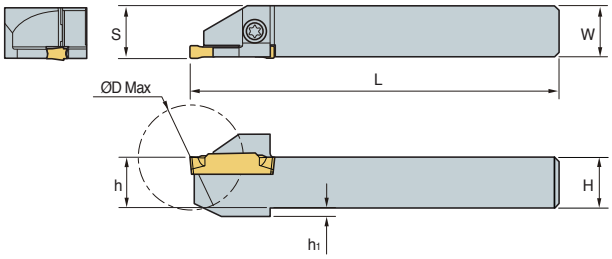
Designation		H = (h)	W	L	S	h1	T-MAX	Inserts	Screw	Wrench
KGEHR/L	2020-5-T12	20	20	125	20.5	-	12	KGMN500-□-□ KRMN500-C KGGN500-□-□ KRGN500-□	BHA0616	HW50L
	2525-5-T12	25	25	150	25.5	-	12			
	2020-5-T15	20	20	125	20.55	-	15			
	2525-5-T15	25	25	150	25.55	-	15			
	3232-5-T15	32	32	170	32.55	-	15			
	2020-5-T20	20	20	125	20.5	-	20			
	2525-5-T20	25	25	150	25.5	-	20			
	3232-5-T20	32	32	170	32.5	-	20		BHA0620	HW50L
	2525-5-T32	25	25	150	25.5	7	32			
	2020-6-T12	20	20	125	20.5	-	12	KGMN600-□-□ KRMN600-C KGGN600-□-□ KRGN600-□	BHA0616	HW50L
	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		BHA0620	HW50L
	2525-6-T32	25	25	150	25.5	7	32			
	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			

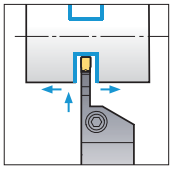
Applicable inserts **C12~C13**

KGEHR/L-D00A (Auto Tool)

For grooving, turning, parting off machining

KGGN KGMN
KGMR/L KRMN





• R type insert

(mm)

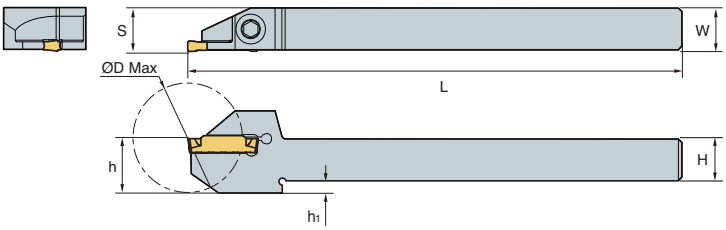
Designation		H = (h)	W	L	S	h1	ØD Max	Inserts	Screw	Wrench
KGEHR/L	1010-2-D20A	10	10	125	10.2	2	20	KGMN200-□-□ KGMR/L200-□-□ KRMN200-C KGGN200-□-□	ETNA0412	TW15L
	1212-2-D25A	12	12	125	12.2	2	25			
	1414-2-D25A	14	14	125	14.2	-	25			
	1616-2-D32A	16	16	125	16.2	-	32			
	1212-3-D25A	12	12	125	12.4	2	25	KGMN300-□-□ KGMR/L300-□-□ KRMN300-C KGGN300-□-□		
	1616-3-D32A	16	16	125	16.4	-	32			

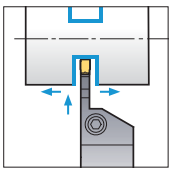
Applicable inserts C12~C13

KGEHR/L-D00B (Auto Tool)

For grooving, turning, parting off machining

KGGN KGMN
KRMN KGMR/L





• R type insert

(mm)

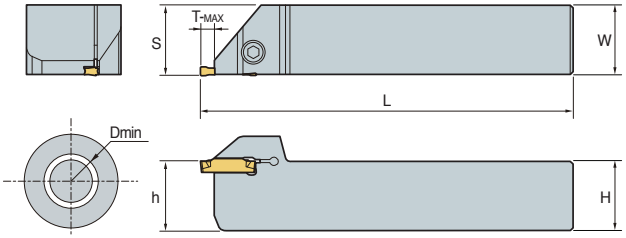
Designation		H = (h)	W	L	S	h1	ØD Max	Inserts	Screw	Wrench
KGEHR/L	1010-2-D30B	10	10	140	10.2	6.6	30	KGMN200-□-□ KGMR/L200-□-□ KRMN200-C KGGN200-□-□	MHA0512	HW40L
	1212-2-D25B	12	12	140	12.5	3.5	25			
	1212-2-D30B	12	12	140	12.2	3.5	30			
	1616-2-D25B	16	16	140	16.2	-	25			
	1616-2-D32B	16	16	140	16.2	-	32			
	1212-3-D25B	12	12	140	12.4	3.5	25	KGMN300-□-□ KGMR/L300-□-□ KRMN300-C KGGN300-□-□		
	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			

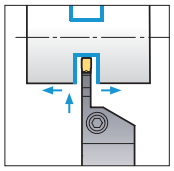
Applicable inserts C12~C13

KGEHR/L-T00

For grooving, turning, face grooving machining

KGMN KRMN
KGGN KRGN





• R type insert

(mm)

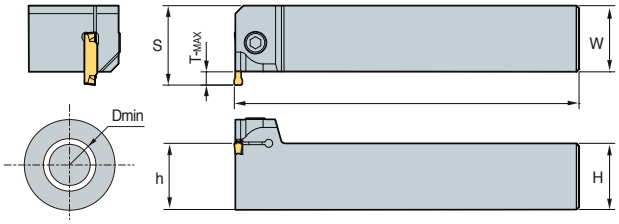
Designation		H = (h)	W	L	S	ØD Min	T-MAX	Inserts	Screw	Wrench
KGEHR/L	1616-3-T00	16	16	100	16.4	80	4.8	KGMN300-□-□ KRMN300-C KGGN300-□-□ KRGN300-□	MHA0512	HW40L
	2020-3-T00	20	20	125	20.4	80	4.8			
	2525-3-T00	25	25	150	25.4	80	4.8			
	1616-4-T00	16	16	100	16.4	80	4.8	KGMN400-□-□ KRMN400-C KGGN400-□-□ 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	KGMN600-□-□ KRMN600-C KGGN600-□-□ KRGN600-□	BHA0616	HW50L
	2525-6-T00	25	25	150	25.5	80	6.0			

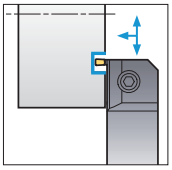
Applicable inserts **C12~C13**

KGEVR/L-T00

For grooving, turning, face grooving machining

KGMN KRMN
KRGN KGGN





• R type insert

(mm)

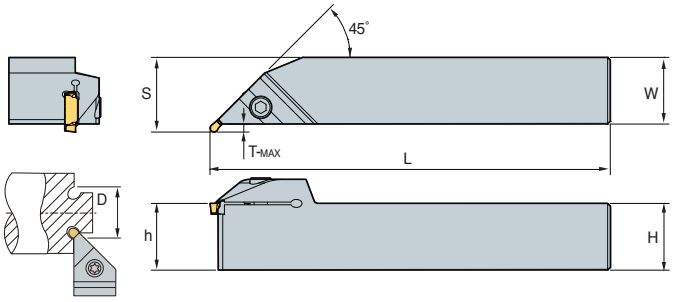
Designation		H = (h)	W	L	S	ØD Min	T-MAX	Inserts	Screw	Wrench
KGEVR/L	2020-1.5 -T00	20	20	125	23.5	120	3	KGMN150-□-□	MHA0512	HW40L
	2525-1.5 -T00	25	25	150	28.5	120	3			
	3232-1.5 -T00	32	32	170	35.5	120	3			
	2020-2 -T00	20	20	125	23.5	120	3	KGMN200-□-□ KRMN200-C KGGN200-□-□-□	MHA0512	HW40L
	2525-2 -T00	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-□-□ KRGN300-□	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-□-□ KRGN400-□	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-□-□ KRGN500-□	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-□-□ KRGN600-□	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-□-□ KRGN800-□	BHA0616	HW50L
	3232-8 -T00	32	32	170	38.5	50	8			

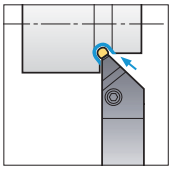
Applicable inserts C12~C13

KGEUR/L

For relief machining

KRMN
KRGN





• R type insert

(mm)

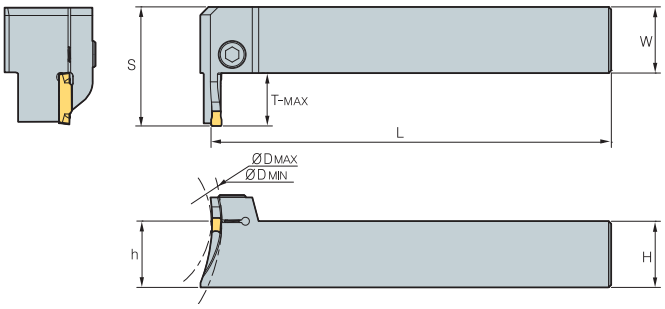
Designation		H = (h)	W	L	S	ØD Min	T-MAX	Inserts	Screw	Wrench
KGEUR/L	1616-3	16	16	100	19	40	2.8	KRMN300-C KRGN300-□	MHA0512	HW40L
	2020-3	20	20	125	23	40	2.8			
	2525-3	25	25	150	28	40	2.8			
	3232-3	32	32	170	35	40	2.8			
	1616-4	16	16	100	19	40	2.8	KRMN400-C KRGN400-□	BHA0616	HW50L
	2020-4	20	20	125	23	40	2.8			
	2525-4	25	25	150	28	40	2.8			
	3232-4	32	32	170	35	40	2.8			
	2020-5	20	20	125	23.5	50	3.3	KRMN500-C KRGN500-□	BHA0616	HW50L
	2525-5	25	25	150	28.5	50	3.3			
	3232-5	32	32	170	35.5	50	3.3			
	2020-6	20	20	125	23.5	50	3.3	KRMN600-C KRGN600-□	BHA0616	HW50L
	2525-6	25	25	150	28.5	50	3.3			
	3232-6	32	32	170	35.5	50	3.3			
	2525-8	25	25	150	28.5	65	3.3	KRMN800-C KRGN800-□	BHA0616	HW50L
	3232-8	32	32	170	35.5	65	3.3			

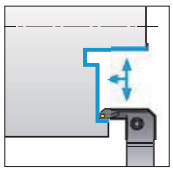
Applicable inserts **C12~C13**

KGFVR/L

For face grooving machining

KGMN KRMN
KGGN KRGN





• R type insert

(mm)

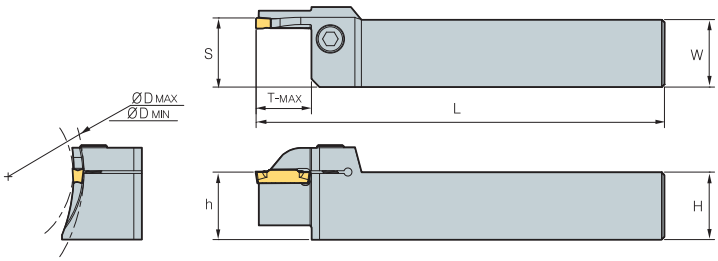
Designation		H = (h)	W	L	S	T-MAX	ØD Min	ØD Max	Inserts	Screw	Wrench
KGFVR/L	325-34/50-T10	25	25	150	36	10	34	50	KGMN300-□-□ KRMN300-C KGGN300-□-□ KRGN300-□	MHA0512	HW40L
	44/60-T15	25	25	150	41	15	44	60			
	54/85-T15	25	25	150	41	15	54	85			
	425-32/50-T15	25	25	150	41	15	32	50	KGMN400-□-□ KRMN400-C 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			
	112/200-T20	25	25	150	45.5	20	112	200			
	525-50/80-T20	25	25	150	46	20	50	80	KGMN500-□-□ 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	KGMN600-□-□ 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	∞			

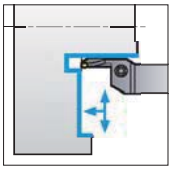
Applicable inserts C12~C13

KGFHR/L

For face grooving machining

KGMN KRMN
KGGN KRGN





• R type insert

(mm)

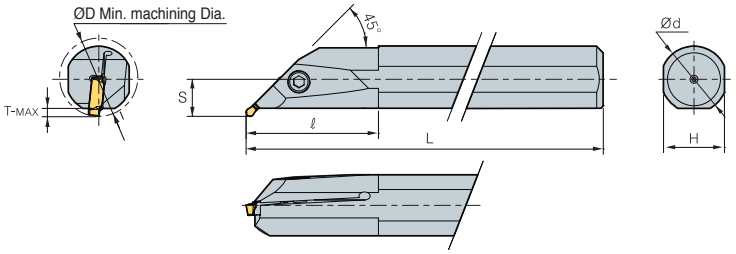
Designation		H = (h)	W	L	S	T-MAX	ØD Min	ØD Max	Inserts	Screw	Wrench
KGFHR/L	320-34/50-T10	20	20	150	20.5	10	34	50	KGMN300-□-□ KRMN300-C KGGN300-□-□ KRGN300-□	MHA0512	HW40L
	44/70-T15	20	20	150	20.5	15	44	70			
	64/100-T15	20	20	150	20.5	15	64	100			
	325-34/50-T10	25	25	150	25.5	10	34	50			
	44/70-T15	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	16	42	70			
	62/120-T16	20	20	150	20.5	16	62	120			
	112/200-T16	20	20	150	20.5	16	112	200			
	425-34/50-T20	25	25	150	25.6	20	34	50			
	40/60-T10	25	25	150	25.6	10	40	60			
	44/70-T20	25	25	150	25.6	20	44	70			
	84/92-T20	25	25	150	25.6	20	84	92			
	60/120-T20	25	25	150	25.6	20	60	120			
	112/200-T20	25	25	150	25.6	20	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			

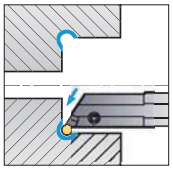
Applicable inserts C12~C13

KGIUR/L

For relief machining

KRMN
KRGN





• R type insert

(mm)

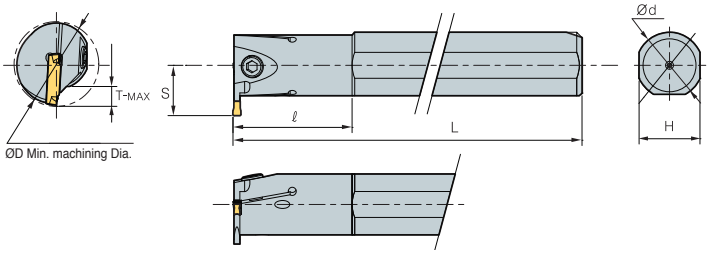
Designation		ØD	Ød	L	ℓ	T-MAX	H	S	Inserts	Screw	Wrench
KGIUR/L	3520-3	35	20	150	45	3.5	18	13	KRMN300-C KRGN300-□	MHA0512	HW40L
	4025-3	40	25	200	50	3.5	23	15.5			
	5032-3	50	32	250	65	3.5	30	19			
	3520-4	35	20	150	45	3.5	18	13	KRMN400-C KRGN400-□	MHA0512	HW40L
	4025-4	40	25	200	50	3.5	23	15.5			
	5032-4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

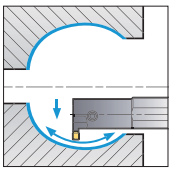
Applicable inserts **C12~C13**

KGIVR/L

For grooving, turning and profil machining

KGMI KGMN
KGGN KRMI
KRMN





• 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			
	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			
	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 KGGN500-□-R KGGN500-□-A	MHA0512	HW40L
	4032-5	40	32	250	55	8.5	30	23.5		BHA0616	HW50L
	3225-6	32	25	200	45	7.5	23	19.5	KGMN600-□-□ KRMN600-C KGGN600-□-R KGGN600-□-A	MHA0512	HW40L
	4032-6	40	32	250	55	8.5	30	23.5		BHA0616	HW50L
	4032-8	40	32	250	55	8.5	30	23.5	KGMN800-□-□ KRMN800-C KGGN800-□-R	BHA0616	HW50L
	4540-8	45	40	300	70	8.5	37	26.5		BHA0616	HW50L

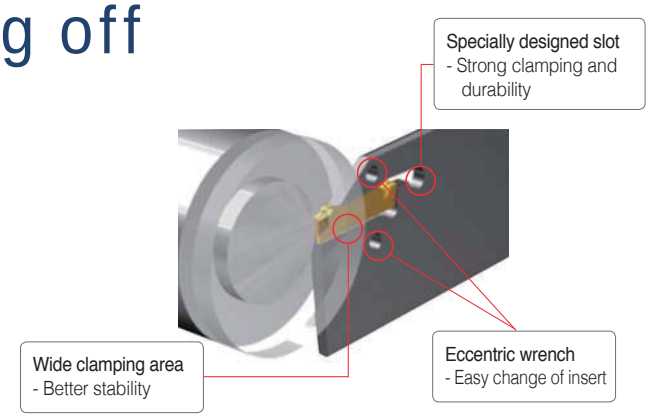
Applicable inserts C12~C13

• 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



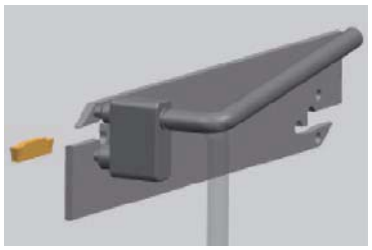
Holder Code system

KGTB 30 32 (S)

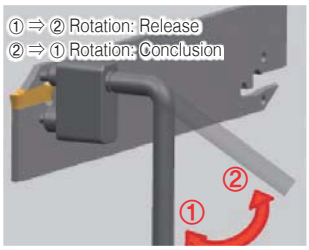
- KGTB: KGTB system
- 30: Cutting width
- 32: Height of shank
- (S): S: Single pocket

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

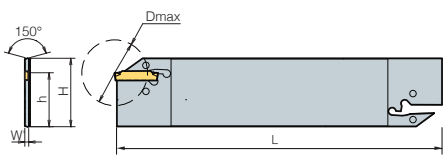


Fig. 1

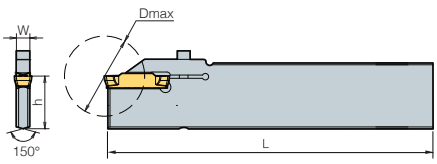


Fig. 3

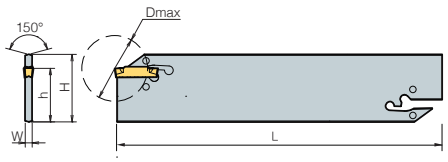


Fig. 2

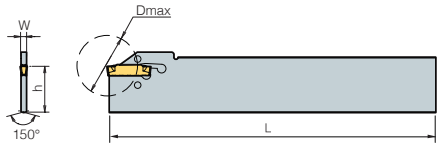


Fig. 4

(mm)

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-□-R(4)		4
	2032	32	2.4	1.8	150	25	50	39	KG□□200-□-□ KG□□200S-□-R(4)		1
	3026S	26	2.4	-	150	21	100	39	KG□□300-□-□ KG□□300S-□-R(4)		4
	3032	32	2.4	-	150	25	100	39	KG□□300-□-□ KG□□300S-□-R(4)		2
	4026S	26	3.2	-	150	21	100	39	KG□□400-□-□ KG□□400S-□-R(4)		4
	4032	32	3.2	-	150	25	100	39	KG□□400-□-□ KG□□400S-□-R(4)		2
	5032	32	4	-	150	25	120	49	KG□□500-□-□ KG□□500S-□-R(4)		2
	6032	32	5.2	-	150	25	120	49	KG□□600-□-□ KG□□600S-□-R(4)		2
	8032S(1)	32	6.2	-	150	25	80	59	KG□□800-□-□ KG□□800S-□-R(4)	HW30L	3

Applicable inserts C12~C13

(1) Screw clamping (2) 1 corner use (3) 2 corner use (4) 1 corner insert

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

MGM(G)N-M

- 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

MGMN-G

- Specially designed chip breaker allows narrower chips to promote better chip flow
- Specifically designed for grooving applications

MRMN-M

- Full radius geometry for applications that require profiling
- Available for relief machining

MFMN300

- Specially designed chip breaker allows narrower chips to promote better chip flow
- Chip breaker specially designed for face-grooving

MRGN-A

- Specially designed high positive geometry, ideal for machining aluminum
- The chip breaker's super buffed, high rake angle allows optimal chip flow of aluminum

MGMR-PS

- Sharply designed cutting edge.
- Recommended in machining low carbon steel and stainless steel
- Specially designed chip breaker allows narrower chips to promote better chip flow.
- Able to machine Feed rates and small diameter cutting

MGMR-PT

- Stronger cutting edge with a negative land for tougher applications
- Able to machine at Feed rates as high and bar stock
- Chip breaker design helps narrows chips for better flow

MGGN-A

- Smooth chip flow
- Reduced build up on cutting edge

MGMN-L

- Sharp cutting edge
- Low cutting resistance
- For auto CNC machine
- For small Dia. processing

MGMN-R

- Strong cutting edge
- For high feed rate processing

MGMN-T

- 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

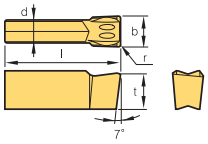
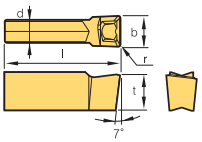
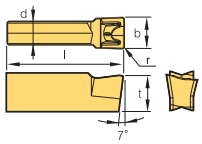
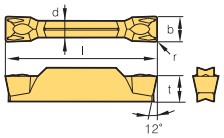
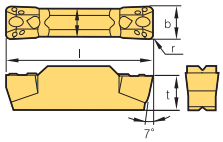
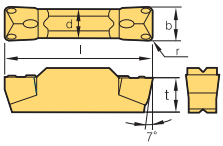
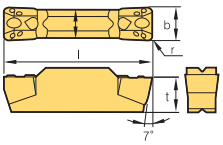
Facing (FGD/FGM/FMM/MFMN/MGMN)

Workpiece	Cutting Speed (vc = m/min)							Feed (fn = mm/rev)		
	CVD						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)

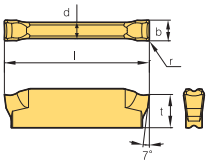
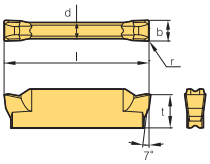
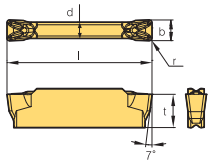
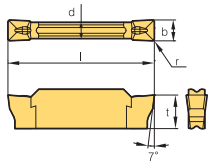
Workpiece	Cutting Speed (vc = m/min)										Feed (fn = mm/rev)					
	CVD			PVD			Cermet		Uncoated		Cutting width (mm)					
	NC3120	NC3030	NC5330	PC215K	PC5300	PC230	CN20	CT10	ST30A	ST20	0.5~1.0	1.0~2.0	2~3	3~4	4~5	6~8
SM□□C	80~200		80~200		80~180	80~200	80~120	80~120		80~120	0.03~0.08	0.04~0.09	0.05~0.1	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 		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	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	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		

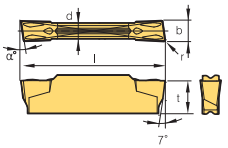
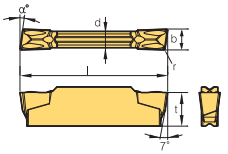
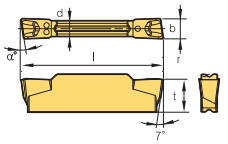
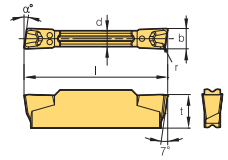
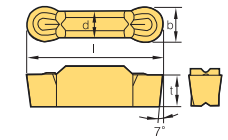
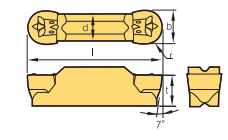
● : Stock item

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	α°	
Grooving	MGMN-L	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-R	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-T	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-A	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

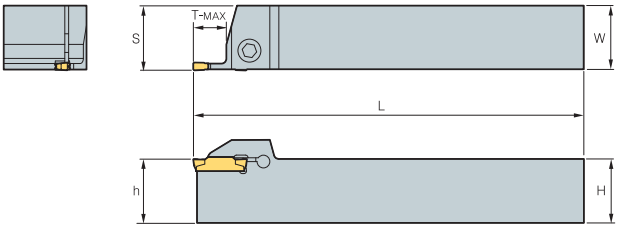
Insert

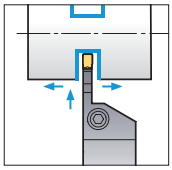
Application	Picture	Designation		Coated							Uncoated		Dimensions (mm)						Configuration	Page
				NC3030	NC3120	NC3225	NC5330	NC6315	PC5300	PC8100	PC9030	H01	H05	b	r	l	d	t	α°	
Parting off	MGMR-PS	MGMR	300-6D-PS											3.0	0.2	21	2.35	4.8	6		C30 C32
			8D-PS											3.0	0.2	21	2.35	4.8	5		
			15D-PS											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		
	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		
	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 MGMR
MGGN MRMN
MRGN

• R type insert

(mm)

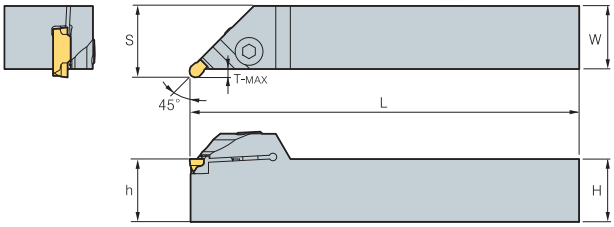
Designation		H = (h)	W	L	S	T-MAX	Inserts	Screw	Wrench
MGEHR/L	1616-1.5	16	16	100	16.2	14	MGMN150-G	LTX0514	TW20L
	2020-1.5	20	20	125	20.2	14			
	2525-1.5	25	25	150	25.2	14			
	1212-2	12	12	100	14.25	14	MGMN200-G MGMN200-M MGMR200-□□-□□	MHA0512	HW40L
	1616-2	16	16	100	16.25	14			
	2020-2	20	20	125	20.25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

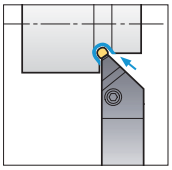
Applicable inserts C27~C29

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		
	2525-4	25	25	150	28	3			
	3232-4	32	32	170	35	3			
	2020-5	20	20	125	24	4	MRMN500-M		
	2525-5	25	25	150	29	4			
	3232-5	32	32	170	36	4			
	2020-6	20	20	125	24	4	MRMN600-M		
	2525-6	25	25	150	29	4			
	3232-6	32	32	170	36	4			
	2525-8	25	25	150	30	5	MRMN800-M		
	3232-8	32	32	170	37	5			
	2525-6A	25	25	150	29	4	MRGN600-A		
	3232-6A	32	32	170	36	4			
	2525-8A	25	25	150	30	5	MRGN800-A		
	3232-8A	32	32	170	37	5			

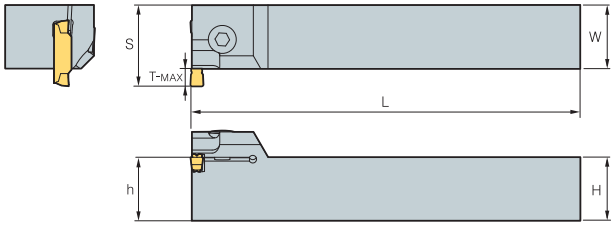
Applicable inserts C27~C29

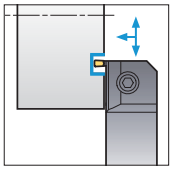
● : Stock item

MGEVR/L

For grooving, turning, frofil machining

MGMN MGGN
MRMN MRGN





• R type insert

(mm)

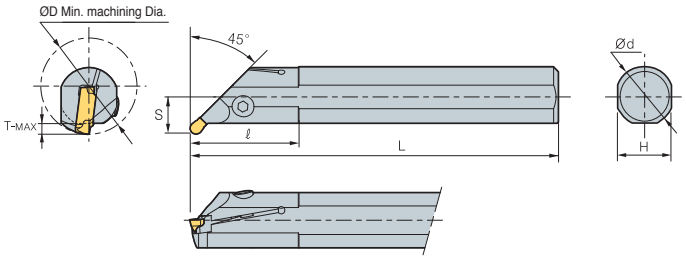
Designation		H = (h)	W	L	S	T-MAX	Min. machining Dia. (ØD)	Inserts	Screw	Wrench
MGEVR/L	2020-1.5	20	20	125	23	3	85	MGMN150-G	LTX0514	TW20L
	2525-1.5	25	25	150	28	3	85			
	3232-1.5	32	32	170	35	3	85			
	2020-2	20	20	125	23.5	3.5	65	MGMN200-M MGMN200-G	BHA0616	HW50L
	2525-2	25	25	150	28.5	3.5	65			
	3232-2	32	32	170	35.5	3.5	65			
	2020-2.5	20	20	125	24	4	65	MGMN250-M MGMN250-G		
	2525-2.5	25	25	150	29	4	65			
	3232-2.5	32	32	170	36	4	65			
	2020-3	20	20	125	25.5	5	75	MGMN300-M/T MGGN300-□-M MRMN300-M MGMN300-□□-L/R		
	2525-3	25	25	150	30.5	5	75			
	3232-3	32	32	170	37.5	5	75			
	2020-4	20	20	125	25.5	5	70	MGMN400-M/T MGGN400-□□-M MRMN400-M MGMN400-□□-L/R		
	2525-4	25	25	150	30.5	5	70			
	3232-4	32	32	170	37.5	5	70			
	2020-5	20	20	125	27	7	75	MGMN500-M/T MGGN500-□□-M MRMN500-M MGMN500-□□-L/R		
	2525-5	25	25	150	32	7	75			
	3232-5	32	32	170	39	7	75			
	2020-6	20	20	125	27	7	70	MGMN600-M MGGN600-□□-M MRMN600-M		
	2525-6	25	25	150	32	7	70			
	3232-6	32	32	170	39	7	70			
	2525-8	25	25	150	34	9	50	MRMN800-M MGMN800-M		
	3232-8	32	32	170	41	9	50			
	2525-6A	25	25	150	32	7	70	MRGN600-A		
	3232-6A	32	32	170	39	7	70			
	2525-8A	25	25	150	34	9	45	MRGN800-A		
	3232-8A	32	32	170	41	9	45			

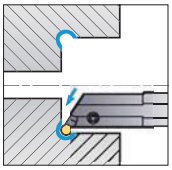
Applicable inserts **C27~C29**

MGIUR/L

For relief, profil machining

MRMN
MRGN





• R type insert

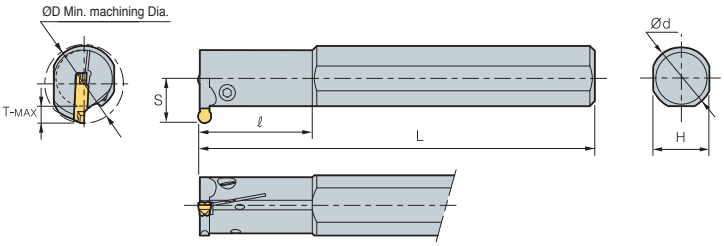
(mm)

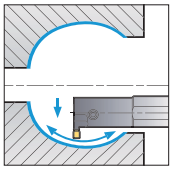
Designation		ØD	Ød	L	ℓ	T-MAX	H	S	Inserts	Screw	Wrench
MGIUR/L	3520-3	35	20	150	45	3.5	18	13	MRMN300-M	MHA0512	HW40L
	4025-3	40	25	200	45	3.5	23	15.5			
	5032-3	50	32	250	65	3.5	30	19			
	3520-4	35	20	150	45	3.5	18	13	MRMN400-M		
	4025-4	40	25	200	45	3.5	23	15.5			
	5032-4	50	32	250	65	3.5	30	19			
	4025-5	40	25	200	45	3.5	23	15.5	MRMN500-M	BHA0616 BHA0620	HW50L
	5032-5	50	32	250	65	3.5	30	19			
	4025-6	40	25	200	45	3.5	23	19	MRMN600-M	BHA0616 BHA0620	
	5032-6	50	32	250	65	3.5	30	19			
	4025-8	40	25	200	45	6.5	23	15.5	MRMN800-M	BHA0616 BHA0620	
	5032-8	50	32	250	65	6.5	30	19			
	4025-6A	40	25	200	45	3.5	23	15.5	MRGN600-A	BHA0616 BHA0620	
	5032-6A	50	32	250	65	3.5	30	19			
	4025-8A	40	25	200	45	5.0	23	18.5	MRGN800-A	BHA0616 BHA0620	
	5032-8A	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)

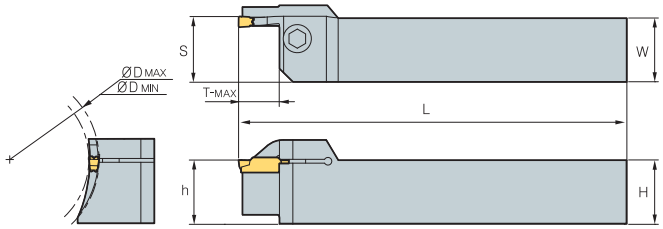
Designation		ØD	Ød	L	ℓ	T-MAX	H	S	Inserts	Screw	Wrench
MGIVR/L	2016-1.5	20	16	125	35	3.5	15	11.3	MGMN150-G	MHB0310	HW25L
	2520-1.5	25	20	150	45	3.5	18	13.1		MHA0512	HW40L
	2925-1.5	29	25	200	45	3.5	23	16.2			
	2016-2	20	16	125	35	4.5	15	12.4	MGMN200-G	MHB0310	HW25L
	2520-2	25	20	150	45	4.5	18	14.0	MGMN200-M	MHA0512	HW40L
	2925-2	29	25	200	45	4.5	23	17.2	MRMN200-M		
	2016-2.5	20	16	125	35	4.5	15	12.5	MGMN250-G	MHB0310	HW25L
	2520-2.5	25	20	150	45	4.5	18	15.1	MGMN250-M	MHA0512	HW40L
	2925-2.5	29	25	200	45	4.5	23	18.2			
	2520-3	25	20	150	45	5	18	15.6	MGMN300-M/G/T MGGN300-□□-M MRMN300-M MGMN300-□□-L/R	MHA0512	HW40L
	2520-3-T7	25	20	150	49.3	7	18	19.92			
	3125-3	31	25	200	45	6	23	18.9			
	3125-3-T10	31	25	200	45	10	23	18.9			
	3732-3	37	32	250	65	6	30	21.5			
	3732-3-T12	37	32	250	65	12	30	21.5			
	2520-4	25	20	150	45	6	18	15.6	MGMN400-M/G/T MGGN400-□□-M MRMN400-M MGMN400-□□-L/R		
	2520-4-T7	25	20	150	45	7	18	15.6			
	3125-4	31	25	200	45	6	23	18.9			
	3125-4-T10	31	25	200	45	10	23	19			
	3732-4	37	32	250	65	6	30	21.5			
	3732-4-T12	37	32	250	65	12	30	21.5			
	3125-5	31	25	200	45	8	23	19.4	MGMN500-M/G/T MGGN500-□□-M MRMN500-M MGMN500-□□-L/R	BHA0616	HW50L
	3732-5	37	32	250	65	8	30	21.5		BHA0620	
	3125-6	31	25	200	45	8	23	19.4	MGMN600-MG MGGN600-□□-M MRMN600-M	BHA0616	
	3732-6	37	32	250	65	8	30	21.5		BHA0620	
	3732-8	37	32	250	65	10	30	23.4	MRMN800-M		
	4540-8	45	40	300	70	10	37	27.2	MGMN800-M		
	3125-6A	31	25	200	45	8	23	19.4	MRGN600-A	BHA0616	
	3732-6A	37	32	250	65	8	30	21.5		BHA0620	
	3732-8A	37	32	250	65	10	30	23.4	MRGN800-A		
	4540-8A	45	40	300	70	10	37	27.2			

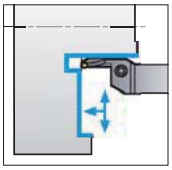
Applicable inserts **C27~C29**

MGFHR/L

For face grooving machining

MFMN
MGMN





• R type insert

(mm)

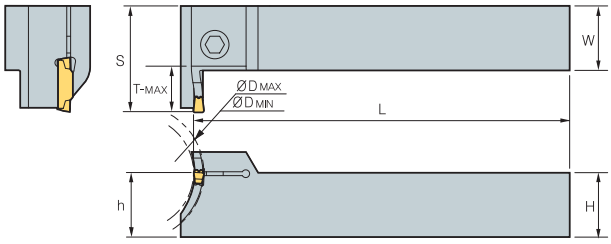
Designation		H = (h)	W	L	S	T-MAX	ØD Min	ØD Max	Inserts	Screw	Wrench
MGFHR/L	325-24/35-T10	25	25	150	25.6	10	24	35	MFMN300	BHA0616	HW50L
	29/40-T10	25	25	150	25.6	10	29	40			
	34/50-T10	25	25	150	25.6	10	34	50			
	44/70-T10	25	25	150	25.6	10	44	70			
	64/99-T10	25	25	150	25.6	10	64	99			
	425-42/63-T15	25	25	150	25.6	15	42	63			
	62/120-T15	25	25	150	25.6	15	62	120	MGMN400-M/T		
	112/200-T15	25	25	150	25.6	15	112	200	MGMN400-□□-L/R		

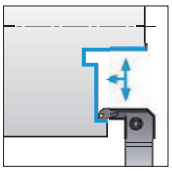
Applicable inserts C27~C29

MGFVR/L

For face grooving machining

MFMN
MGMN





• R type insert

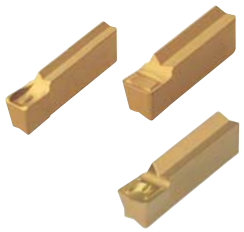
(mm)

Designation		H = (h)	W	L	S	T-MAX	ØD Min	ØD Max	Inserts	Screw	Wrench
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	MGMN400-M/T	BHA0616	HW50L
	60/120-T15	25	25	150	41	15	60	120	MGMN400-□□-L/R		
	112/200-T15	25	25	150	41	15	112	200			

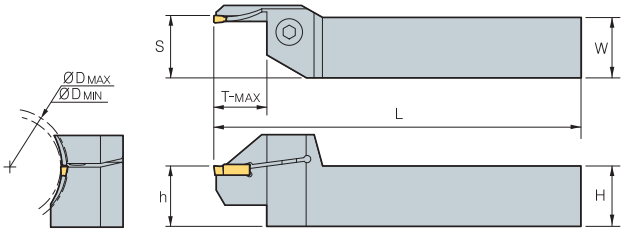
Applicable inserts C27~C29

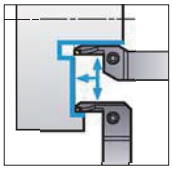
FGHH

For face grooving, turning machining



FGD FGM FMM





• R type insert

(mm)

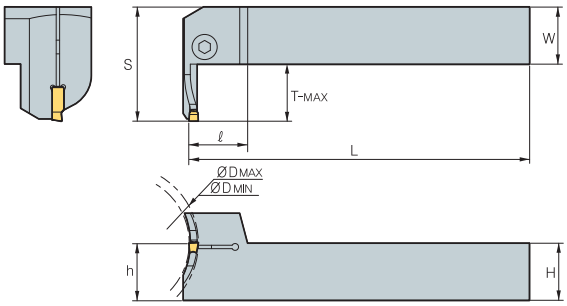
Designation		H = (h)	W	L	S	T-MAX	ØD Min	ØD Max	Inserts	Screw	Wrench
FGHH	320R - 25/30	20	20	125	20.6	12	25	30	FMM300R-03	BHA0616	HW50L
	30/35	20	20	125	20.6	12	30	35			
	35/48	20	20	125	20.6	12	35	48			
	48/60	20	20	125	20.6	22	48	60	FGD300R-03 FGM300R-03		
	60/75	20	20	125	20.6	22	60	75			
	75/100	20	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			
	48/60	20	20	125	20.6	25	48	60	FGD500R-04 FGM500R-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			
	525R - 25/30	25	25	150	25.6	12	25	30	FMM500R-04		
	30/35	25	25	150	25.6	12	30	35			
	35/40	25	25	150	25.6	20	35	40			
	40/48	25	25	150	25.6	20	40	48			
	48/60	25	25	150	25.6	25	48	60	FGD500R-04 FGM500R-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			

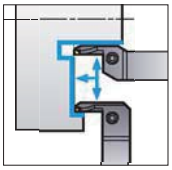
Applicable inserts C27~C29

FGVH

For face grooving, turning machining

FGD FGM FMM





• R type insert

(mm)

Designation		H = (h)	W	L	S	T-MAX	ØD Min	ØD Max	Inserts	Screw	Wrench
FGVH	320R - 25/30	20	20	125	20.6	12	25	30	FMM300R-03		
	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	BHA0616	HW50L
	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			
	48/60	20	20	125	20.6	25	48	60	FGD500R-04 FGM500R-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			
	525R - 25/30	25	25	150	25.6	12	25	30	FMM500R-04		
	30/35	25	25	150	25.6	12	30	35			
	35/40	25	25	150	25.6	20	35	40			
	40/48	25	25	150	25.6	20	40	48			
	48/60	25	25	150	25.6	25	48	60	FGD500R-04 FGM500R-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			

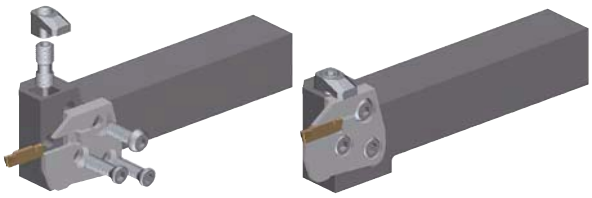
Applicable inserts C27~C29

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

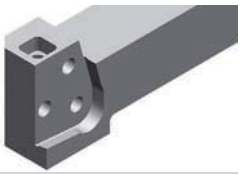
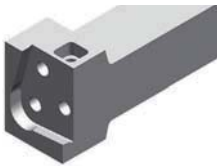
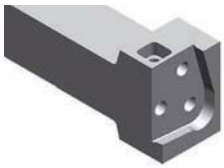
Holder code system

KC	H	R/L	25	25
System Code	Holder Style	Hand	Height (mm)	Width (mm)

KC: KGT-Cartridge System
MC: MGT-Cartridge System

H: Horizontal
V: Vertical

Holder

	Horizontal Type		Vertical Type	
				
	MCHR	MCHL	MCVR	MCVL
Available cartridge	External process: KCER/MCER Facing process: KCFL/MCFL	External process: KCEL/MCEL Facing process: KCFR/MCFR	External process: KCEL/MCEL Facing process: KCFR/MCFR	External process: KCER/MCER Facing process: KCFL/MCFL

Cartridge code system

KC	F	R/L	3	24/35	T16
System Code	Working Style	Hand	Cutting Width (mm)	Facing Dia (min/max)	Maximum Depth (mm)

KC: KGT-Cartridge System
MC: MGT-Cartridge System

E: External Process
F: Facing Process

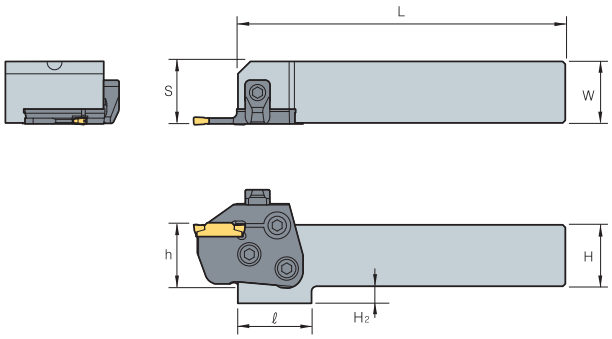
Cartridge

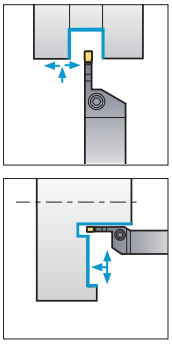
External Process		Facing Process	
			
KCER / MCER	KCEL / MCEL	KCFR / MCFR	KCFL / MCFL

MCHR/L (Holder)

For grooving, turning, parting off, relief, profil machining

MCER/L
MCFR/L





• R type insert

(mm)

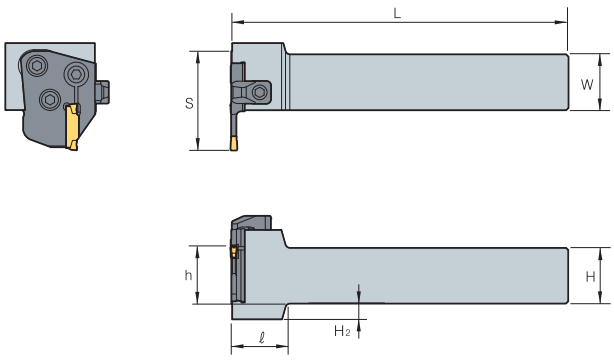
Designation		H = (h)	W	L	S	ℓ	H_2	Cartridge	Clamp	Clamp Screw	Hinge Screw	Clamping Screw	Wrench
MCHR/L	2020	20	20	133	20.7	30	12	KCER/L, KCFR/L MCER/L, MCFR/L	CXH8N	DHA0818F	RHA0613	FHGA0618	HW40L
	2525	25	25	133	25.7	30	7						
	3232	32	32	153	32.7	-	-						

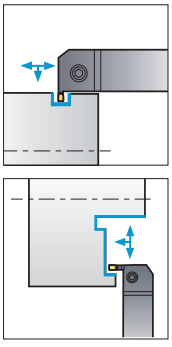
Applicable cartridge **C40~C41**

MCVR/L (Holder)

For face grooving, turning machining

MCER/L
MCFR/L





• R type insert

(mm)

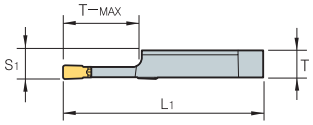
Designation		H = (h)	W	L	S	ℓ	H_2	Cartridge	Clamp	Clamp Screw	Hinge Screw	Clamping Screw	Wrench
MCVR/L	2020	20	20	150	38	30	12	KCER/L, KCFR/L MCER/L, MCFR/L	CXH8N	DHA0818F	RHA0613	FHGA0618	HW40L
	2525	25	25	150	43	30	7						
	3232	32	32	170	50	-	-						

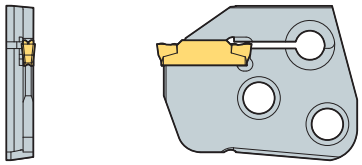
Applicable cartridge **C40~C41**

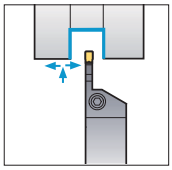
KCER/L (Cartridge)

For grooving, turning, parting off, relief, profil machining

KGMN KGMR/L
KGGN KRMN







• R type insert

(mm)

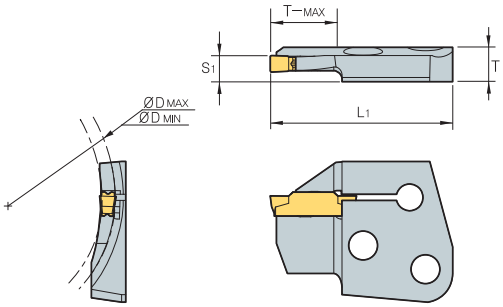
Designation		T	L_1	S_1	T-MAX	Inserts		Holder
						Width	Designation	
KCER/L	3-T16	5.97	44.5	6.35	16	3	KGMN KGMR/L KGGN KRMN	MCVR/L MCHR/L
	4-T16	5.97	44.5	6.35	16	4		
	5-T20	5.87	48.5	6.35	20	5		
	6-T20	5.82	48.5	6.35	20	6		

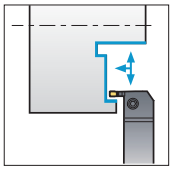
Applicable inserts C27~C29

KCFR/L (Cartridge)

For face grooving, turning machining

KGMN
KGMI





• R type insert

(mm)

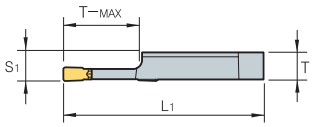
Designation		T	L_1	S_1	T-MAX	ØD		Inserts		Holder
						Min	Max	Width	Designation	
KCFR/L	3-34/50-T16	8.35	44.5	6.35	16	34	50	3	KGMN KRMN KGGN	MCVR/L MCHR/L
	44/70-T16	8.35	44.5	6.35	16	44	70	3		
	64/99-T16	8.35	44.5	6.35	16	64	99	3		
	4-44/60-T16	8.35	44.5	6.35	16	44	60	4		
	60/120-T16	8.35	44.5	6.35	16	60	120	4		
	112/200-T16	8.35	44.5	6.35	16	112	200	4		

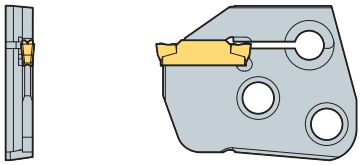
Applicable inserts C27~C29

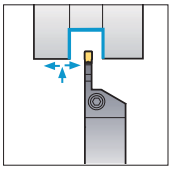
MCER/L (Cartridge)

For grooving, turning, parting off, relief, profil machining

MGMN MGMR
MGGN MRMN







• R type insert

(mm)

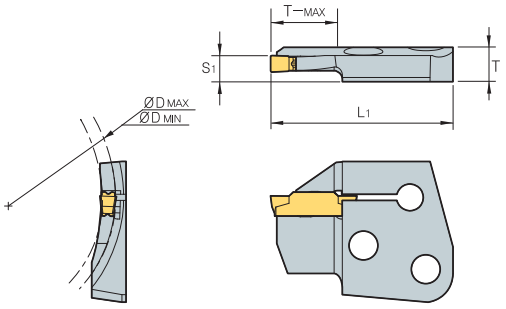
Designation		T	L_1	S_1	T-MAX	Inserts		Holder
						Width	Designation	
MCER/L	3-T16	6.00	44.5	6.35	16	3	MGMN MGMR/L MGGN MRMN	MCVR/L MCHR/L
	4-T16	5.97	44.5	6.35	16	4		
	5-T20	5.87	48.5	6.35	20	5		
	6-T20	5.82	48.5	6.35	20	6		

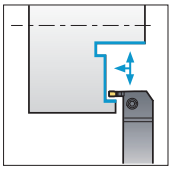
Applicable inserts C27~C29

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	MFMN300	MCVR/L MCHR/L
	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

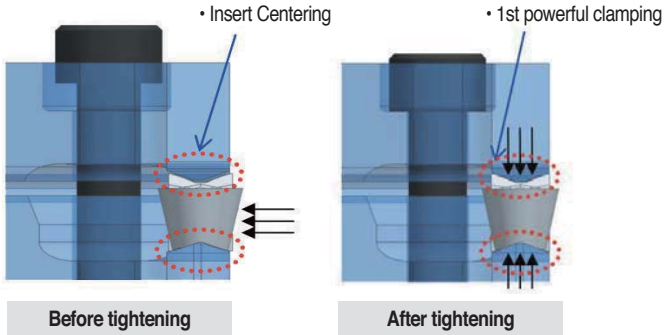
MG	E	H	R/L	25N	- 8	A	- MR
System Code	Application	Holder Type	Hand	Shank Size	Cutting Width	Chip Breaker	Insert Type
MG: Multi Grooving	**E**: External machining **I**: Internal machining	**H**: Horizontal **V**: Vertical **U**: Undercut **X**: Special	**R**: Right **L**: Left	Height: 25 mm Width: 25 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 type : Full "Round" geometry

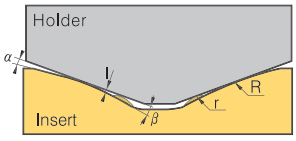
MRGN-A (For general)	MRGN-A5 (For copying)	MRGN-AM (Medium finishing)	MRGN-AP (PCD)	MVGN-A (For fine finishing)
				
High rake angle, Sharp cutting edge	Reinforced clamping force	For ductile cast iron	Improved chip control	High rake and relief angle

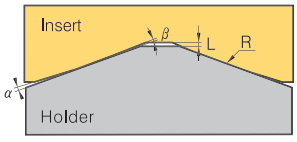
New clamping system



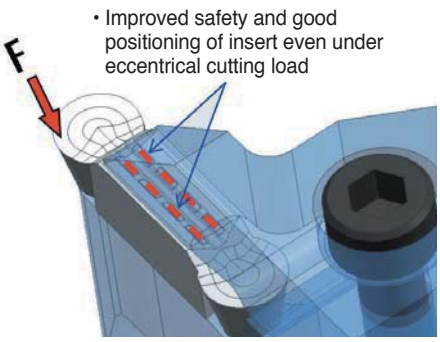
•Reinforcing the clamping force due to radius designed on the top & bottom side of insert and convex"DOT"on the top of insert

PATENT

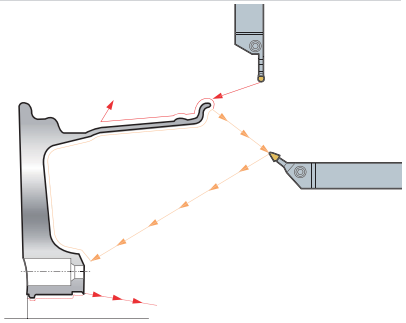
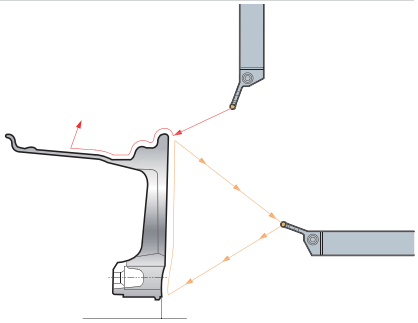
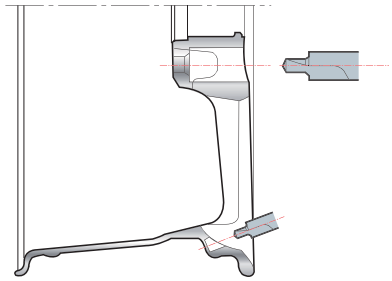




• Improved safety and good positioning of insert even under eccentrical cutting load



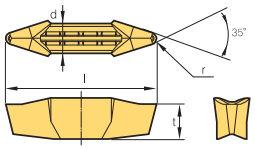
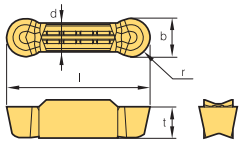
Application of aluminum wheels

Machining A	Machining B	Machining C
		

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

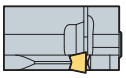
Insert

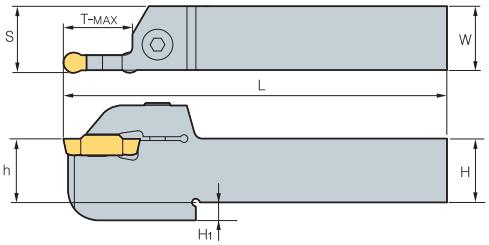
Application	Picture	Designation		Coated	Uncoated	Dimensions (mm)					Configuration	Page
				DP150	G10	b	r	l	d	t		
For Aluminum Wheel	MVGN 	MVGN	8N-A-R1.2			-	1.2	30.0	6.0	6.9		C45
			8N-A-R1.6			-	1.6	30.0	6.0	6.9		
	MRGN-A 	MRGN	6N-A		●	6.0	3.0	26.0	5.0	5.9		C44 C45
			6N-AM			6.0	3.0	26.0	5.0	5.9		
			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		

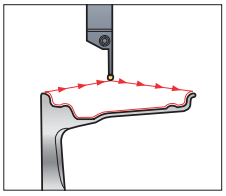
● : Stock item

MGEHR/L

MRGN







• R type insert

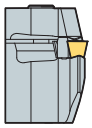
(mm)

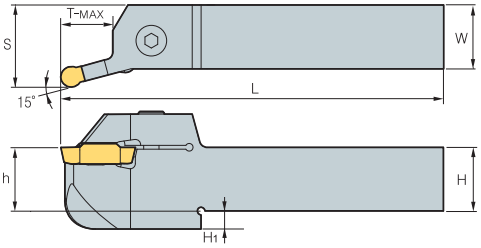
Designation		H = (h)	H1	W	L	S	T-MAX	Inserts	Screw	Wrench
MGEHR/L	25N-6A	25	7	25	150	25.55	23.5	MRGN6N-A/AP/AM	BHA0620	HW50L
	32N-6A	32	8	32	150	32.55	27			
	25N-8A	25	7	25	150	25.55	23.5	MRGN8N-A/AP/AM		
	32N-8A	32	8	32	150	32.55	27			
	25N-6A5	25	7	25	150	25.55	23.5	MRGN6N-A5		
	32N-6A5	32	8	32	150	32.55	27			
	25N-8A5	25	7	25	150	25.55	23.5	MRGN8N-A5		
	32N-8A5	32	8	32	150	32.55	27			

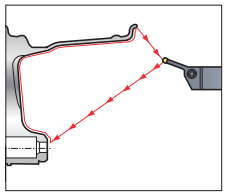
Applicable inserts **C43**

MGEHR/L-15

MRGN







• R type insert

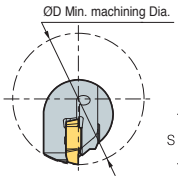
(mm)

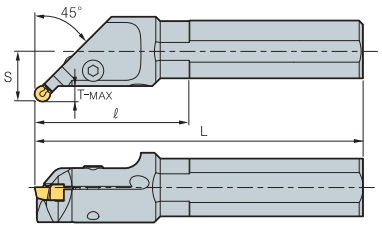
Designation		H = (h)	H1	W	L	S	T-MAX	Inserts	Screw	Wrench
MGEHR/L	25N-6A-15	25	7	25	150	32.2	20	MRGN6N-A/AP/AM	BHA0620	HW50L
	32N-6A-15	32	8	32	150	39.2	25			
	25N-8A-15	25	7	25	150	32.2	20	MRGN8N-A/AP/AM		
	32N-8A-15	32	8	32	150	39.2	25			
	25N-6A5-15	25	7	25	150	32.2	20	MRGN6N-A5		
	32N-6A5-15	32	8	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			

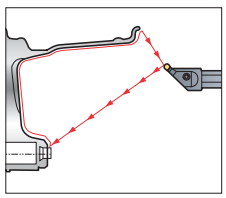
Applicable inserts **C43**

MGIUR/L-MR

MRGN







• R type insert

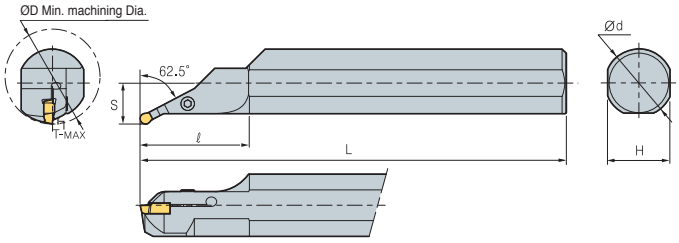
(mm)

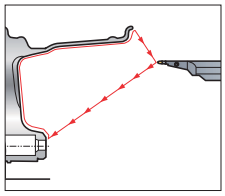
Designation		ØD	Ød	L	ℓ	T-MAX	H	S	Inserts	Screw	Wrench
MGIUR/L	6832-8A-MR	68	32	170	65	7	30	26	MRGN8N-A/AM/AP	BHA0620	HW50L
	6832-8A5-MR	68	32	170	65	7	30	26	MRGN8N-A5		

Applicable inserts **C43**

MGIXR/L-MR

MRGN





• R type insert

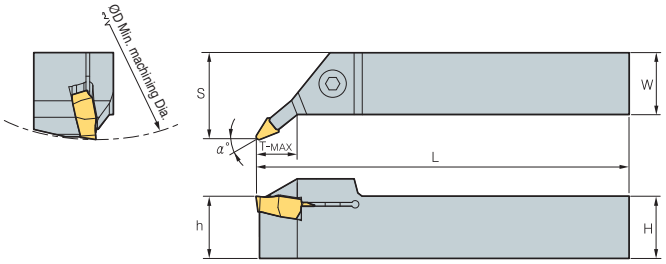
(mm)

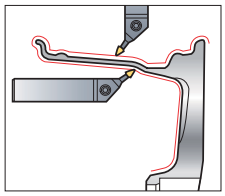
Designation		ØD	Ød	L	ℓ	T-MAX	H	S	Inserts	Screw	Wrench
MGIXR/L	7050-8A-MR	70	50	350	80	5.5	46	30.2	MRGN8N-A/AM/AP	BHA0620	HW50L
	7050-8A5-MR	70	50	350	80	5.5	46	30.2	MRGN8N-A5		

Applicable inserts C43

MGEXR/L

MVGN





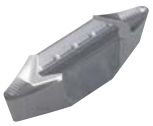
• R type insert

(mm)

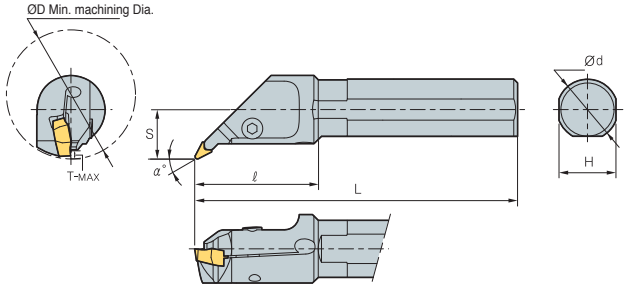
Designation		H = (h)	W	L	S	T-MAX	α°	Inserts	Screw	Wrench
MGEXR/L	25N-8A-5V	25	25	150	29	23.5	5	MVGN8N-A-R1.2	BHA0620	HW50L
	25N-8A-22.5V	25	25	150	35	27	22.5	MVGN8N-A-R1.6		

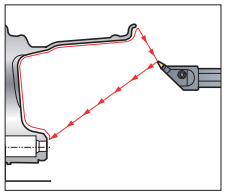
Applicable inserts C43

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 MVGN8N-A-R1.6	BHA0620	HW50L

Applicable inserts C43

Economical 3-corner insert for high precision grooving

TB/TB-M

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

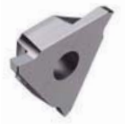
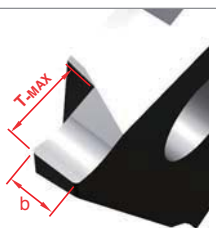
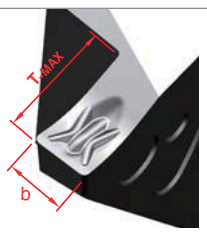
Insert code system

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

Holder code system

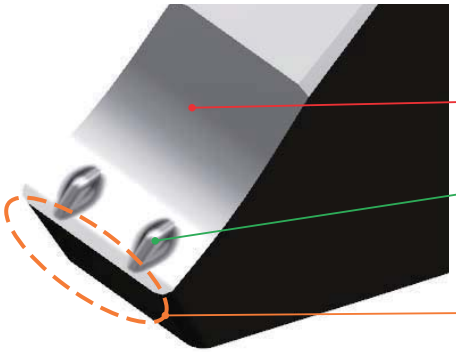
TBH	5	25	R
Triangle Blade Holder	Inscribed circle	Shank size	Hand
	3: 9.525 mm **4**: 12.7 mm **5**: 15.875 mm	10~25 mm	**R**: Right **L**: Left

TB/TB-M

Specification		TB3000R/L, TB4000R/L	TB4000R-M	TB5000N-000-M
Designation		TB3125R/L~TB3430R/L (Inscribed circle of 9.525 mm) TB4125R/L~TB4430R/L (Inscribed circle of 12.7 mm)	TB4150R-M~TB4450R-M (Inscribed circle of 12.7 mm)	TB5050N-000-M~TB5318-020-M (Inscribed circle of 15.875 mm)
Insert shape				
Features	Chip breaker	Ground chip breaker	Pressed chip breaker	Pressed chip breaker
	Hand	Right/Left-handed	Right-handed	Neutral
	Cutting edge width (b)	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

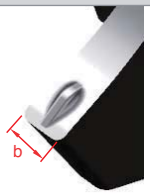
TB-M chip breaker

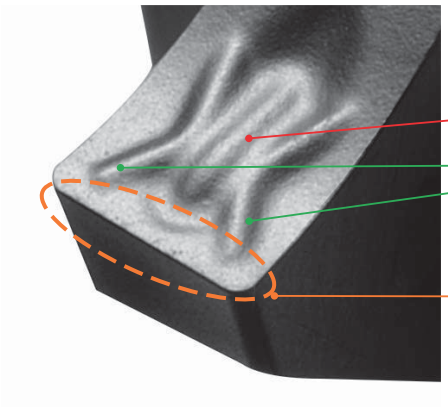
- Minimized cutting force at high speed and high feed → Smooth chip evacuation outside each groove
- High precision cutting performance → Exceptional surface finish and accurate dimensions
- Excellent chip flow and cutting results → Ideal for automated and unmanned productionw



TB5-M Chip breaker

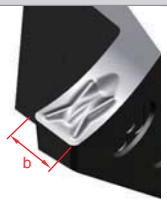
- **Lowered back area**: reduced load of chip evacuation due to minimizing chip friction
- **Beveled protruding dot**: made regular sized chip curls good chip flow out of the groove by reducing the chip width minimized load for chip evacuation in high depth of cut
- **Land**: prevented chipping and increased 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



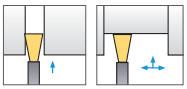
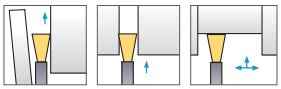
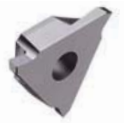
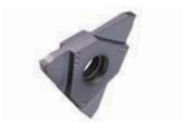
TB4-M Chip breaker

- **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

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	0.05(0.03~0.1)	-	-	●
0.80	-	-	1.6		-	-	●
1.00	-	-	3.5		-	-	●
1.04	-	-	2.0		-	-	●
1.20	-	-	2.0		-	-	●
1.25	2.0	-	2.0		●	-	-
1.40	2.0	-	6.5	0.1(0.03~0.15)	●	-	●
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	-	0.12(0.03~0.2)	●	●	-
2.22	6.5	-	6.5		-	-	●
2.30	3.5	3.5	6.5		●	●	●
2.39	-	-	6.5		-	-	●
2.47	-	-	6.5		-	-	●
2.50	4.0	4.0	6.5		●	●	●
2.65	4.0	4.0	6.5		●	●	-
2.70	-	-	6.5		-	-	●
2.80	4.0	4.0	-		●	●	-
2.87	-	-	6.5		-	-	●
3.00	4.0	4.0	6.5		●	●	●
3.15	-	-	6.5	0.15(0.05~0.2)	-	-	●
3.18	-	-	6.5		-	-	●
3.30	4.0	-	-		●	-	-
3.50	5.0	5.0	-		●	●	-
4.00	5.0	5.0	-		●	●	-
4.30	5.0	5.0	-		●	●	-
4.50	5.0	5.0	-		●	●	-

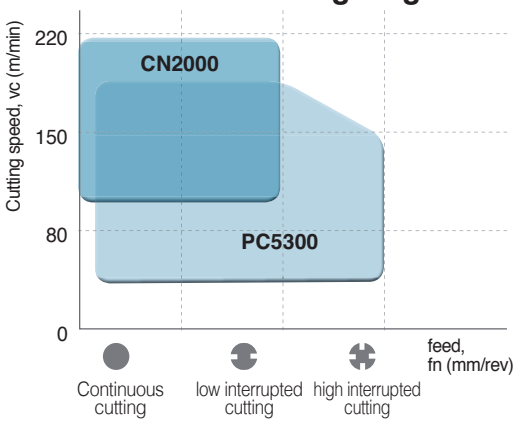
● : Stock item

Recommended cutting conditions

Workpiece		CN2000 (Cermet)			PC5300 (Coated)		
		Min	Recommended	Max.	Min	Recommended	Max.
P	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

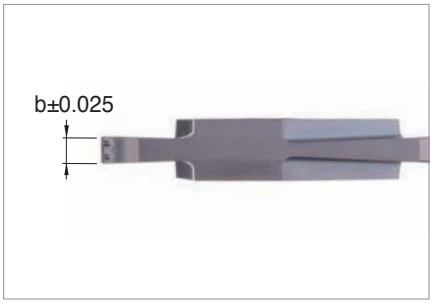
Recommended cutting speed, vc (m/min)

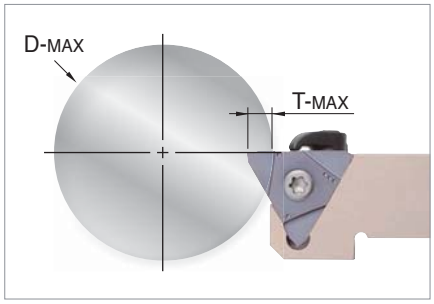
Recommended cutting range

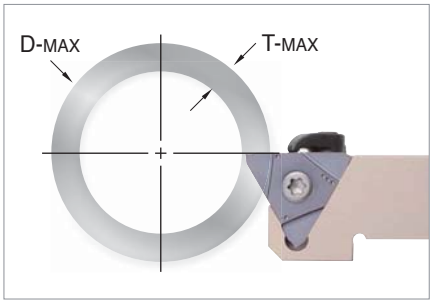


TB5-M machining range

- 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



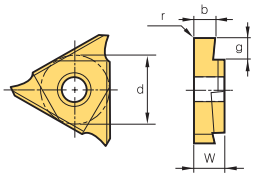
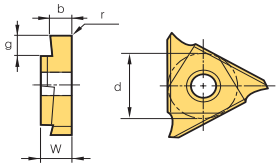




(mm)

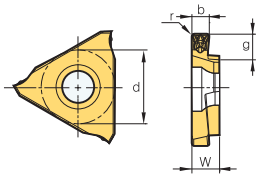
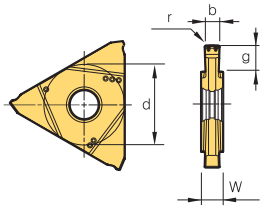
Designation		b	r	g (T-MAX)	ØD-MAX								
					T≤3.0	T≤3.5	T≤4.0	T≤4.5	T≤5.0	T≤5.5	T≤6.0	T≤6.4	T≤6.5
TB	5050N- 000-M	0.50	0.00	1.0	-	-	-	-	-	-	-	-	-
	004-M	0.50	0.04	2.5	-	-	-	-	-	-	-	-	-
	5080N- 000-M	0.80	0.00	1.6	-	-	-	-	-	-	-	-	-
	5100N- 006-M	1.00	0.06	3.5	-	-	-	-	-	-	-	-	-
	5104N- 000-M	1.04	0.00	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
	5300N- 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

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	

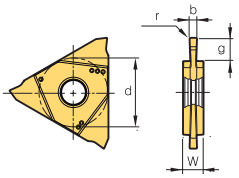
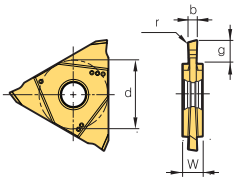
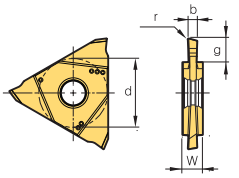
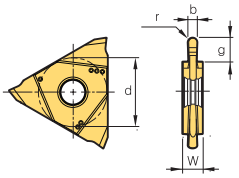
● : Stock item

Insert

Picture	Designation		Cermet	Coated	Dimensions (mm)					Configuration
			CN2000	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

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

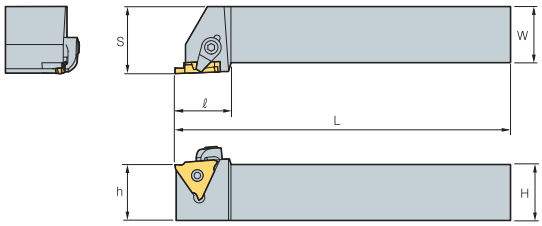
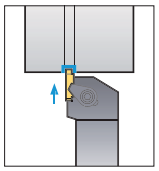


Fig. 1



• R type insert

TB5000N-000-M

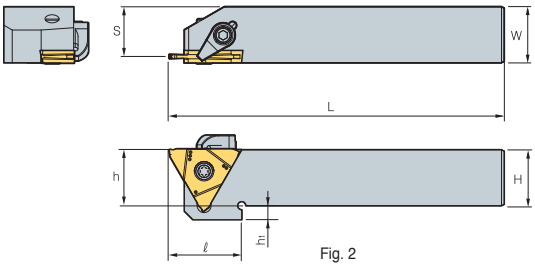


Fig. 2

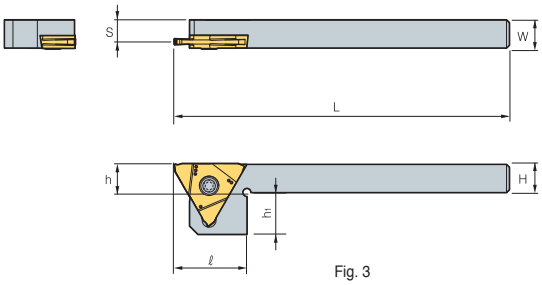


Fig. 3

(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	TB3125~3230R/L	CS6R1	DHA0617	-	HW30L	1
	320R/L-33	20	20	125	25.5	-	25	TB3280~3330R/L					
	320R/L-43	20	20	125	25.5	-	25	TB3430R/L					
	325R/L-23	25	25	150	25.5	-	30	TB3125~3230R/L					
	325R/L-33	25	25	150	25.5	-	30	TB3280~3330R/L					
	325R/L-43	25	25	150	25.5	-	30	TB3430R/L					
	420R/L-23	20	20	125	25.5	-	25	TB4125~4230R/L					
	420R/L-33	20	20	125	25.5	-	25	TB4250~4330R/L					
	420R/L-45	20	20	125	25.5	-	25	TB4350~4450R/L					
	425R/L-23	25	25	150	25.5	-	30	TB4125~4230R/L					
	425R/L-33	25	25	150	25.5	-	30	TB4250~4330R/L					
	425R/L-45	25	25	150	25.5	-	30	TB4350~4450R/L					
TBH	**510R/L**	10	10	125	25	15	7.8	TB5050~5318N	-	-	FTNA0512	TW20L	3
	512R/L	12	12	125	25	13	9.8						
	516R/L	16	16	125	26	9	13.8		CS6R1	DHA0617	FTNA0516	HW30L, TW20L	2
	520R/L	20	20	125	26	5	17.8						
	525R/L	25	25	150	-	-	22.8						

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

KN	G	P	3	M	200	R
K Notch	Insert type	Additional information	Insert size	Unit	Insert Width	Hand
	B: Blank **G**: Grooving **R**: Full Radius **T**: Threading	P: Positive None: Flat	2, 3, 4	M: Metric None: Inch	200 : 2.00 mm	**L**: Left **R**: Right

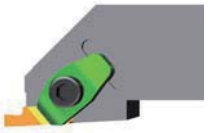
Holder code system

KN	S	R	25 25	M	3
K Notch	Clamping position	Hand	Shank size	Holder length	Insert size
	S: Side	**L**: Left **R**: Right	Height: 25 mm Width: 25 mm	**E**: 70 mm **K**: 125 mm **F**: 80 mm **M**: 150 mm **H**: 100 m **P**: 170 mm	8~36 mm

Features of holder

Clamp

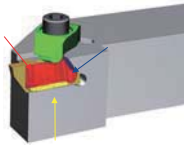
- Rigid binding force relative to the clamping force
- User-oriented convenient shape



Clamped view

Insert clamping

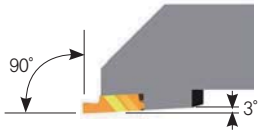
- Provides excellent clamping stability due to the 3-face (bottom, side, and rear face) binding

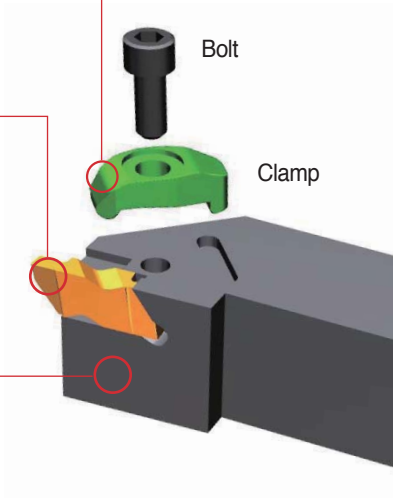


3-face clamping

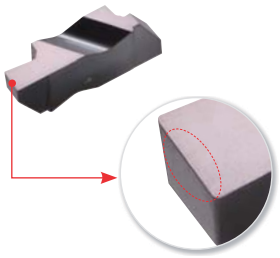
Relief angle

- The relief angle of a flank surface when clamping an insert: 3°





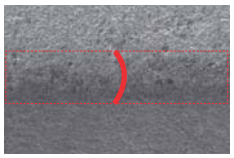
Features of insert



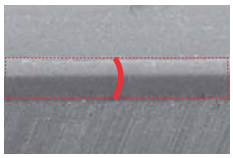
[Edge preparation]

High-quality edge preparation

- Cutting edges in uniform quality
- Long tool life



[Competitor]



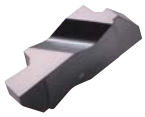
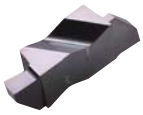
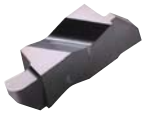
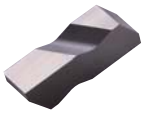
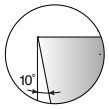
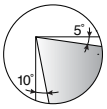
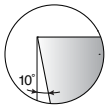
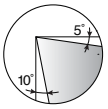
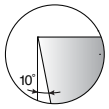
[K Notch]

Mirror-like rake surface

- Improved resistance to welding and chipping
- Improved surface finish of workpieces

[K Notch]

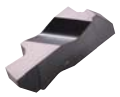
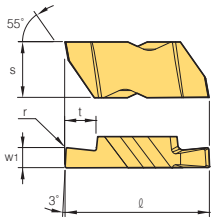
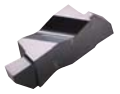
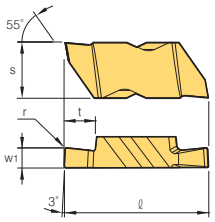
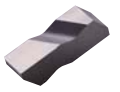
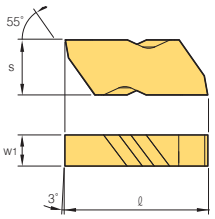
Recommended feed per insert type

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, fn (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

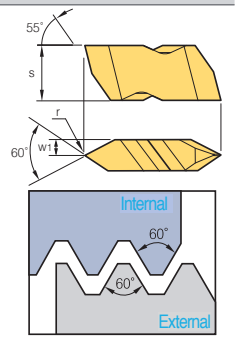
Workpiece		Grade	Recommended cutting speed, vc (m/min) 50 / 100 / 200 / 300 / 600
P	Steel	PC5300	80 – 200
	Alloy steel	PC5300	60 – 160
M	Stainless steel	PC5300	80 – 130
		PC8110	80 – 160
K	Cast iron	PC5300	90 – 200
N	Non-ferrous metal	PC5300	150 – 600
S	Heat-resistant alloy	PC8110	35 – 65

Insert (Metric)

Application	Picture	Designation			Coated PC5300	Coated PC8110	Uncoated H05	Dimensions mm s	w1	r	t	ℓ	Dimensions inch s	w1	r	t	ℓ	Configuration
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	
				300R				5.56	3.00	0.19	2.79	13.030	0.219	0.118	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	
				400R	●	●		8.74	4.00	0.19	3.81	22.709	0.344	0.157	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	
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	
				300R				5.56	3.00	0.19	2.79	13.030	0.219	0.118	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	
				400R	●	●		8.74	4.00	0.19	3.81	22.709	0.344	0.157	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	
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

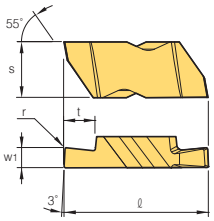
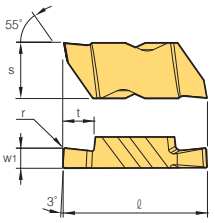
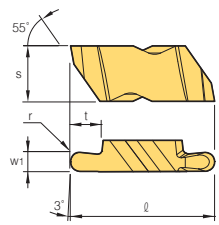
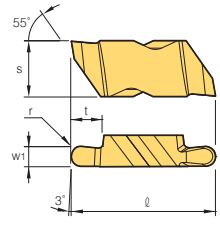
Insert (Threading)

Application	Picture	Designation		Coated PC5300	Coated PC8110	Dimensions mm s	w1	r	Dimensions inch s	w1	r	Pitch (External) mm	tpi	Configuration
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	

Partial Profiling 60 °

● : Stock item

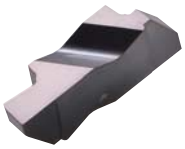
Insert (Inch)

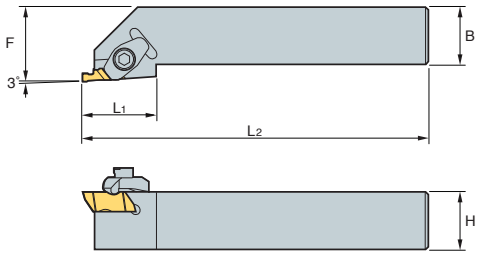
Application	Picture	Designation		Coated PC5300	Coated PC8110	Dimensions mm s	w1	r	t	ℓ	Dimensions inch s	w1	r	t	ℓ	Configuration
Flat Top		KNG	2031R			5.56	0.79	0.09	1.27	13.030	0.219	0.031	0.0035	0.05	0.513	
			2041R			5.56	1.04	0.09	1.27	13.030	0.219	0.041	0.0035	0.05	0.513	
			2047R			5.56	1.19	0.09	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	

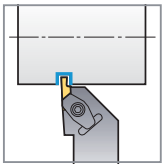
● : Stock item

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				
	2525M4	25	25	32	35	150	0.984	0.984	1.260	1.378	5.906	KNG4□ KNGP4□ KNR4□ KNB4R KNT4R	CM72LP	MHA0512	HW40L
	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

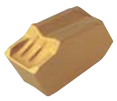
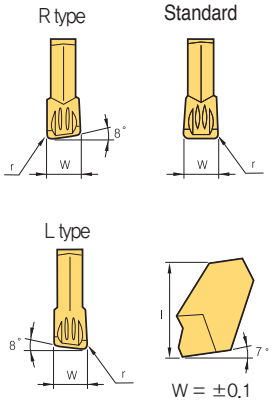
Saw Man

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

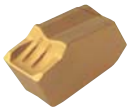
Workpiece	Cutting Speed (vc = m/min)									Feed (fn = mm/rev)				
	CVD				PVD				Uncoateds	Cutting width (mm)				
	NC3120	NC3030	NCM325	NC5330	PC230	PC8110	PC5300	PC6510	ST30A	2	3	4	5	6
SM□□C	80~180			80~180	80~180					0.02~0.15	0.03~0.20	0.08~0.30	0.10~0.4	0.12~0.50
SCM	70~150	70~150	70~150	70~150	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

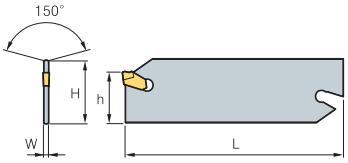


Fig. 1

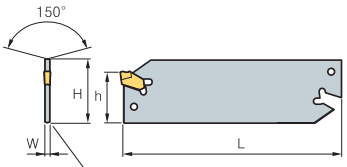
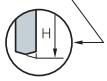
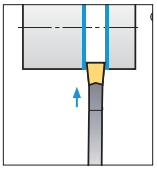


Fig. 2





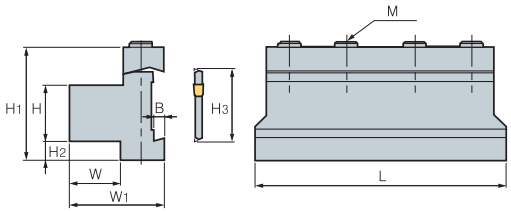
(mm)

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	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

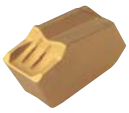


(mm)

Designation		H	W	H3	L	H1	H2	W1	B	M	Blades	Wrench
SMBB	1626	16	12	26	86	43	13	30	5.3	3-M6	SPB□26(-S)	HW50L
	2026	20	19	26	86	43	9	38	5.3	3-M6		
	2032	20	19	32	100	50	13	38	5.3	4-M6	SPB□32(-S) KGTB□□32	
	2526	25	23	26	86	43	4	42	5.3	4-M6	SPB□26(-S)	
	2532	25	23	32	110	50	8	42	5.3	4-M6	SPB□32(-S) KGTB□□32	
	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	SPB□526(-S)	HW60L

Applicable inserts **C59**

SPH/SPH-S (Holder)



SP

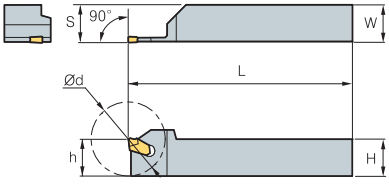


Fig. 1

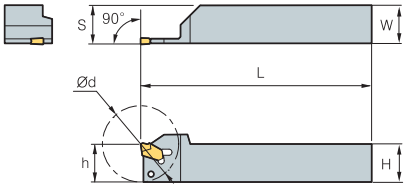
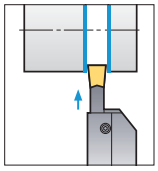


Fig. 2



• 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	SP300, 300R/L			
	325R/L	25	25	150	50	25.3				
	420R/L	20	20	120	50	20.4	SP400, 400R/L			
	425R/L	25	25	150	60	25.4	SP500, 500R/L			
	520R/L	20	20	120	60	20.5	SP300, 300R/L			
	525R/L	25	25	150	70	25.5	SP500, 500R/L			
SPH	316R/L-S	16	16	100	32	16.3	SP300, 300R/L	-	SW15S (Separately ordered)	2
	320R/L-S	20	20	120	40	20.3	SP300, 300R/L			
	325R/L-S	25	25	150	50	25.3	SP300, 300R/L			
	420R/L-S	20	20	120	50	20.4	SP400, 400R/L			
	425R/L-S	25	25	150	60	25.4	SP400, 400R/L			
	520R/L-S	20	20	120	60	20.5	SP500, 500R/L			
	525R/L-S	25	25	150	70	25.5	SP500, 500R/L			

Applicable inserts **C59**

A solution for parting and deep grooving

Saw Man-X new

- 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

KSPB	30	26
KORLOY Saw Man-X Parting Blade	Cutting edge width 20: 2 mm 30: 3 mm 40: 4 mm	Blade height 26: 26 mm 32: 32 mm

Insert Code system

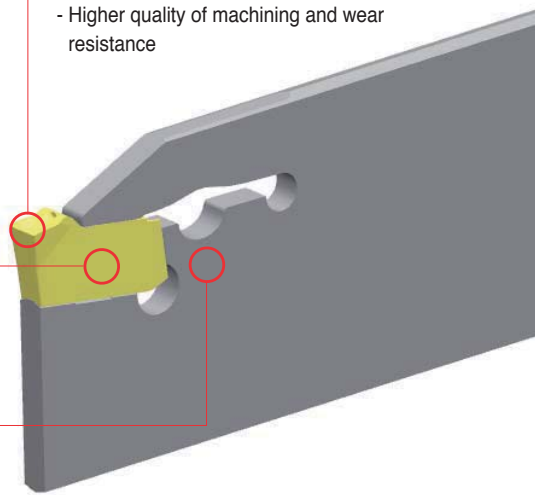
KSP	300	-	020	-	N
KORLOY Saw Man-X Parting	Cutting edge width 200: 2 mm 300: 3 mm 400: 4 mm		Nose r 020: 0.2 mm 030: 0.3 mm		Chip breaker N: Negaland

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

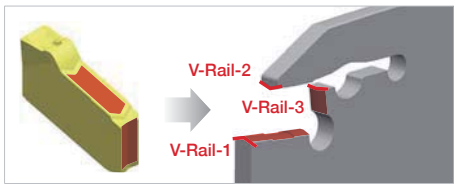
Special cutting edge

- Even cutting edge improves machinability
- Higher quality of machining and wear resistance



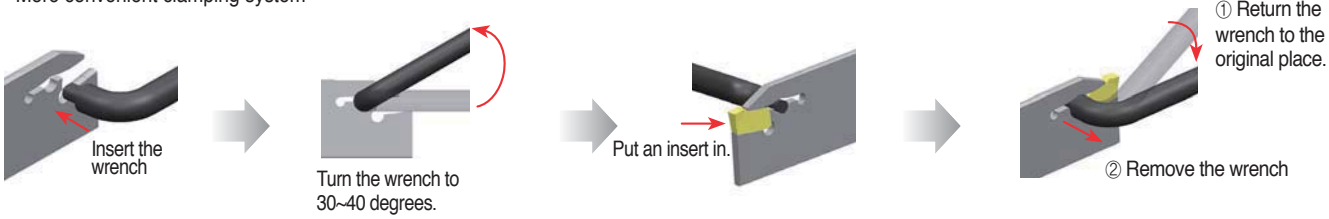
Three-way V-RAIL

- 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

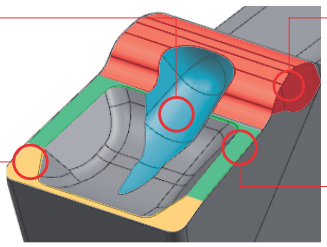


Features of chip breaker

- 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
					PC5300	80-180	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

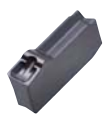
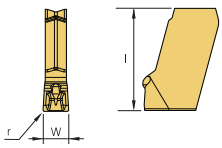
Cutting edge width and T-MAX by items

◎: First recommendation ○: Second recommendation

Shape	Cutting edge width (mm) / T-MAX (mm)	No. of corner	Machining: External diameter	Machining: Internal diameter	Machining: Cross section	Machining: Parting	Features
Saw Man-X new	2 – 6.0 / 5 – 125	1	○			◎	• Self clamping • Deep grooving
MGT, KGT	1.5 – 8.0 / 28	2	◎	○	○	○	• Various machining • Wide range of machining
TB	1.25 – 6.0 / 6.5	3	◎			○	• Precise ground class • Optimally automatic machining
Auto tools – Blade type	0.7 – 2.0 / 8.3	2	◎			○	• For swiss-type lathe (blade) • Small deliberate component machining
Auto tools – Multi-functional type	1.0 – 4.0 / 8.5	2	◎			○	• For swiss-type lathe (multifunctional) • Small deliberate component machining
K Notch	0.75 – 6.3 / 6.5	2	◎				• Strong clamping system • Highly qualified cutting edge

Insert

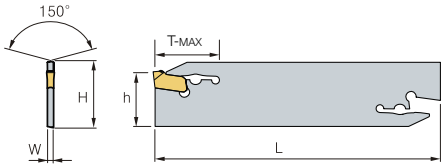
(mm)

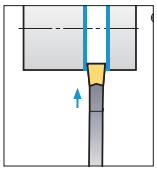
Application	Picture	Designation		Coated PC3035	Coated PC5300	Coated PC8110	W	r	L	Configuration
Parting		KSP	200-020-N	●	●	●	2.0	0.20	11.0	
			300-020-N	●	●	●	3.0	0.20	12.0	
			400-025-N	●	●	●	4.0	0.25	12.5	
			500-025-N				5.0	0.25	13.5	
			600-035-N				6.0	0.35	14.5	

● : Stock item

KSPB (Blade)) new

KSP





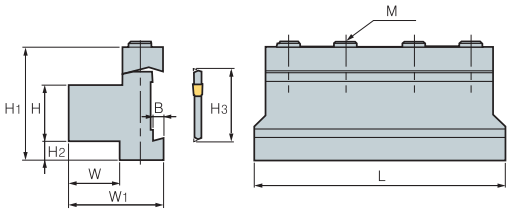
(mm)

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

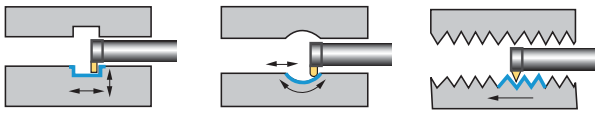
Fine Tools

- 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



(Grooving, Turning) (Forming) (Threading)

Code system

NFTIH 08 3 12 - S

08	3	12	S
Minimum Diameter	Overhang (ℓ/ØD)	Shank Dia.	Shank Type

S: Steel, **C**: Carbide

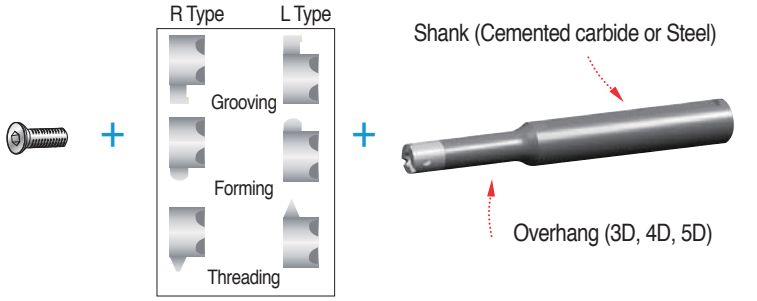
Recommended cutting condition

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

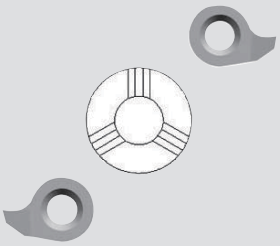
Note
- In case of chattering, reduce the cutting speed and feed
- To find the optimal cutting conditions, advise to gradually increase from the lowest cutting condition of the above recommendation
- In case of the unilateral grooving depth over 1 mm, work to the step feed rate

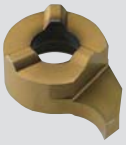
Clamping system

Screw	Insert	Holder

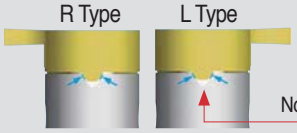


• Available R/L type insert with one holder



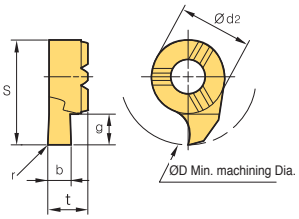
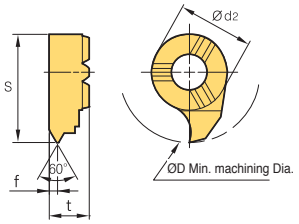


Stable clamping according to the tripod structure



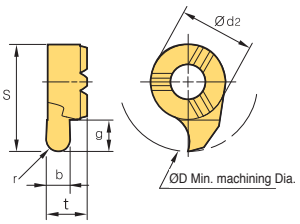
No-Spin-System design for strong clamping

Insert

Application	Picture	Designation		Coated PC5300 R	Coated PC5300 L	ØD	b	r	S	g	Ød2	t	Pitch	f	Configuration
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 PC5300 R	Coated PC5300 L	D	b	r	S	g	Ød2	t	Configuration
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

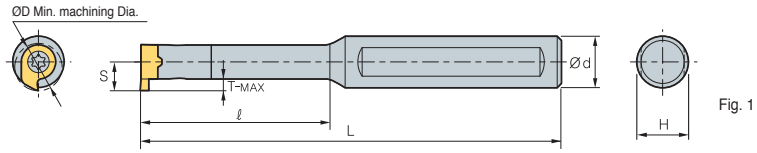


Fig. 1

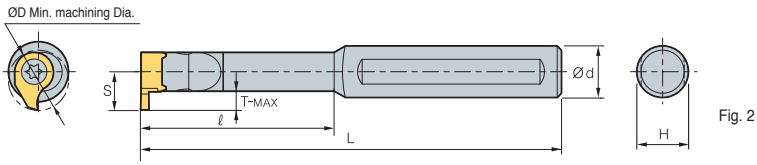


Fig. 2

• For NFTIH14~.
• R type insert

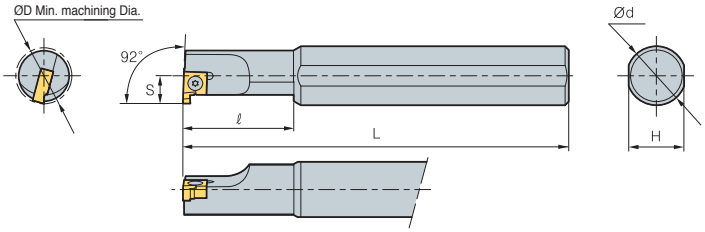
(mm)

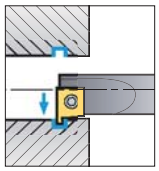
Designation		ØD	Ød	L	ℓ	T-MAX	H	S	Inserts NFTG: Grooving NFTT: Threading NFTF: Forming	Screw	Screw	Fig.
NFTIH	08206C	8	6	65	-	1.0	4	4.8	NFTG08□□□R/L NFTT08□□□R/L NFTF08□□□R/L	PTKA02508	TW08P	1
	08212C	8	12	70	16	1.0	10	4.8				
	08312C	8	12	80	24	1.0	10	4.8				
	08312S	8	12	80	24	1.0	10	4.8				
	08412C	8	12	90	32	1.0	10	4.8				
	08512C	8	12	100	40	1.0	10	4.8				
	11208C	11	8	80	-	2.3	7	6.7	NFTG11□□□R/L NFTT11□□□R/L NFTF11□□□R/L	PTKA03510	TW15P	2
	11212C	11	12	75	22	2.3	11	6.7				
	11312C	11	12	95	33	2.3	11	6.7				
	11312S	11	12	95	33	2.3	11	6.7				
	11412C	11	12	110	44	2.3	11	6.7				
	11512C	11	12	120	55	2.3	11	6.7				
	14012C	14	12	75	20	4.0	11	9.0	NFTG14□□□R/L NFTT14□□□R/L NFTF14□□□R/L	PTKA0412	TW15P	2
	14016C	14	16	75	20	4.0	15	9.0				
	14112C	14	12	100	34	4.0	11	9.0				
	14116C	14	16	100	34	4.0	15	9.0				
	14212C	14	12	110	45	4.0	11	9.0				
	14216C	14	16	110	45	4.0	15	9.0				
	14312C	14	12	130	64	4.0	11	9.0				
	14316C	14	16	130	64	4.0	15	9.0				
	16312C	16	12	130	48	4.3	11	10.2	NFTG16□□□R/L NFTT16□□□R/L NFTF16□□□R/L	PTKA0512	TW20P	2
	16312S	16	12	130	48	4.3	11	10.2				
	16412C	16	12	130	64	4.3	11	10.2				
	16512C	16	12	150	80	4.3	11	10.2				
	16316C	16	16	130	48	4.3	15	10.2				
	16416C	16	16	130	64	4.3	15	10.2				
	16516C	16	16	150	80	4.3	15	10.2				

Applicable inserts C66 ~ C67

IGH For internal grooving

IG





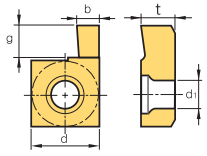
• R type insert

(mm)

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

Applicable inserts C68

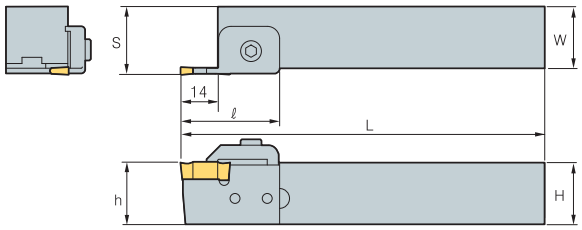
Insert

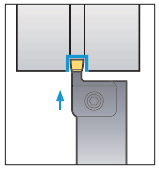
Application	Picture	Designation		Coated			Uncoated			Dimensions (mm)					Configuration
				NC3215	NC3120	NC3225	H01	G10	ST30A	b	g	t	d	d1	
Internal grooving		IG	125						●	1.25	1.5	3.18	6.35	2.8	
			145						●	1.45	1.5	3.18	6.35	2.8	
			175						●	1.75	1.5	3.18	6.35	2.8	
			200						●	2.0	2.3	3.18	6.35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

●: Stock item

DBH For deep and wide grooving

DB DC





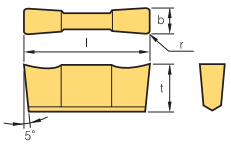
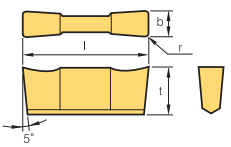
• R type insert

(mm)

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

Applicable inserts C68

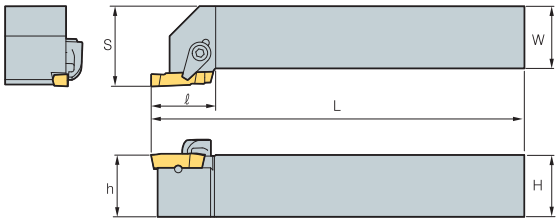
Insert

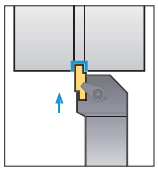
Application	Picture	Designation		Cermet	Coated			Uncoated		Dimensions (mm)				Configuration
				CN2000	NC3215	NC3120	NC3225	H01	G10	b	l	t	r	
Grooving		DB	300							3.0	20	7.5	0.2	
			400							4.0	20	7.5	0.2	
			500							5.0	20	7.5	0.2	
			600							6.0	20	7.5	0.2	
			700							7.0	20	7.5	0.2	
			800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

GFT For External grooving

GW BF





• R type insert

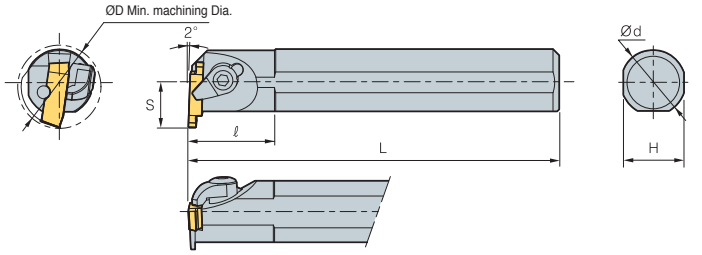
(mm)

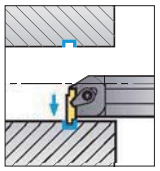
Designation		H = (h)	W	L	ℓ	S	Inserts	Clamp	Screw	Pin	Wrench
GFT	320R/L	20	20	125	23.5	25	GW110~300R/L,BF3	CS5R1	DHA0514	PN0310	HW25L
	325R/L	25	25	150	23.5	32					
	525R/L	25	25	150	25.5	32	GW315~500R/L,BF5	CS6R1	DHA0617	PN0310	HW30L
	825R/L	25	25	150	28.5	32	GW600~800R/L,BF8	CS8R1	DHA0820	PN0314	HW40L

Applicable inserts **C69** • Use right-hand insert for left-hand holder

GFIP For Internal grooving

BF GW





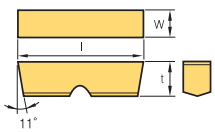
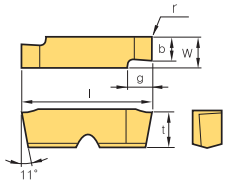
• R type insert

(mm)

Designation		ØD	Ød	H	L	ℓ	S	Inserts	Clamp	C-ring	Screw	Pin	Wrench
GFIP	316R/L	20	16	15	150	17	11	GW110~300R/L,BF3	CH5R2	CR04	CHX0513	PN0310	HW25L
	320R/L	26	20	18	150	22	13						
	325R/L	32	25	23	200	22	17		CH6R2	CR05	CHX0616	PN0310	HW30L
	340R/L	50	40	37	300	32	27						
	525R/L	32	25	23	200	22	17	GW315~500R/L,BF5					
	540R/L	50	40	37	300	32	27						
	840R/L	50	40	37	300	32	27	GW600~800R/L,BF8	CS8R1	-	DHA0820	PN0314	HW40L

Applicable inserts **C69** • Use right-hand insert for left-hand holder

Insert

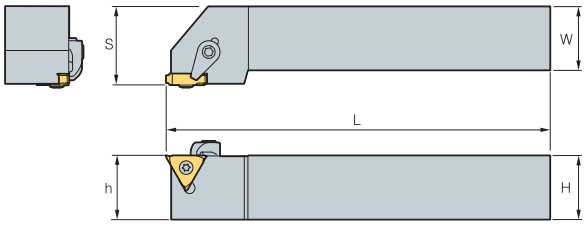
Application	Picture	Designation		Uncoated ST30A		Dimensions (mm) b	g	W	l	t	r	Configuration
Blank		BF	-3	●				3.1	16.4	5.26	-	
			-5					5.1	22.4	6.26	-	
			-8					8.1	27.4	7.26	-	
				R	L							
Grooving		GW	110R/L	●	●	1.1	2.1	3.1	16	5.0	0.2	
			130R/L	●	●	1.3	2.3	3.1	16	5.0	0.2	
			160R/L	●	●	1.6	2.6	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	

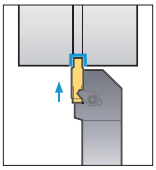
●: Stock item

GH

For O-ring grooving
Snap-ring grooving

GO GS





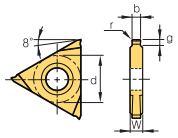
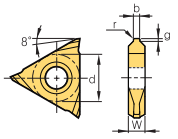
• R type insert

(mm)

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

Insert

Applicable inserts C70

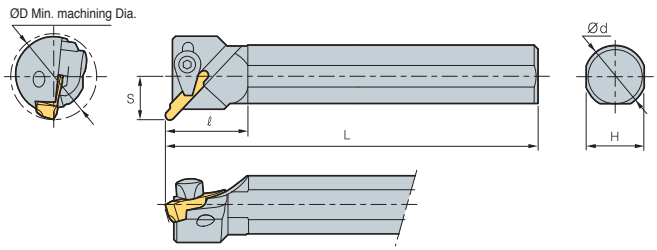
Application	Picture	Designation		Coated NC3120	Coated NC3225	Uncoated H01	Uncoated ST20	Uncoated ST30A	b	g	W	r	d	Configuration
Grooving(Narrow · O-ring · Snap-ring)		GO	250						2.5	1.5	3.3	0.35	9.525	
			320						3.2	2.0	3.8	0.35	9.525	
			410						4.1	2.5	4.5	0.65	9.525	
		GS	125				●		1.23	1.5	2.5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

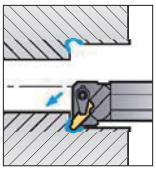
● : Stock item

GFIK

For Reliefing

GR





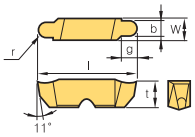
• R type insert

(mm)

Designation		ØD	Ød	H	L	ℓ	S	Inserts	Clamp	C-ring	Screw	Pin	Wrench
GFIK	316R/L	22	16	15	150	21.5	11	GR3□□	CH5R2	CR04	CHX0513	PN0310	HW25L
	325R/L	32	25	23	200	21.5	17						
	340R/L	50	40	37	300	35.4	27		CS5R1	-	DHA0514	PN0310	HW25L
	525R/L	32	25	23	200	27.5	17	GR5□□	CS6R1	-	DHA0617	PN0314	HW30L
	540R/L	50	40	37	300	39.5	27						
	840R/L	50	40	37	300	41.8	27	GR8□□	CS8R1	-	DHA0820	PN0314	HW40L

Insert

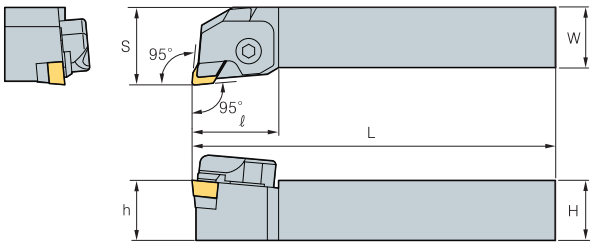
Applicable inserts C70

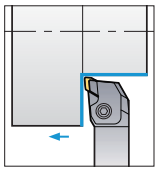
Application	Picture	Designation		Coated NC3120	Coated NC3225	Uncoated H01	Uncoated ST20	Uncoated ST30A	b	g	W	l	t	r	Configuration
Reliefing		GR	310R						2.0	2.0	3.1	15.9	5.0	1.0	
			315R						3.0	2.9	3.1	15.9	5.0	1.5	
			520R						4.0	4.0	5.1	21.9	6.0	2.0	
			525R						5.0	5.0	5.1	21.8	6.0	2.5	
			830R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

● : Stock item

EH Regrinding type insert

ESB





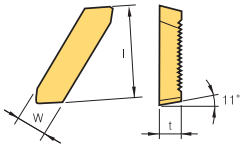
• R type insert

(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
	625R	25	25	150	36	32							

Applicable inserts **C71**

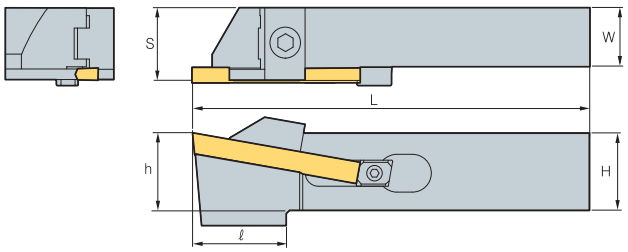
Insert

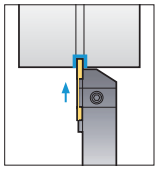
Application	Picture	Designation	Uncoated		Dimensions (mm)			Configuration
			ST10	ST20	W	l	t	
General Machining		ESB 34			9.525	30.0	6.35	

●: Stock item

PH For Parting off Deep grooving

POB





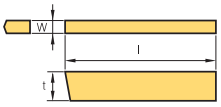
• R type insert

(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
	325R/L	25	19	150	34	22.25	25	40						
	420R/L	19	19	150	34	23.5	19	30	POB400	CGH6R2	BHA0616	STP5	KHD0510	HW25L-HW50L
	425R/L	25	19	150	34	23.5	25	40						
	520R/L	19	19	150	34	24.4	19	50	POB500	CTH 6R3	BHA0616	STP5	KHD0510	HW25L-HW50L
	525R/L	25	19	150	34	24.4	25	50						

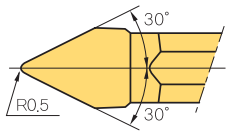
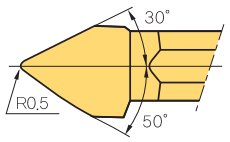
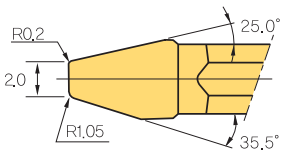
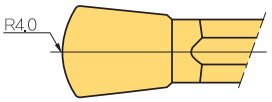
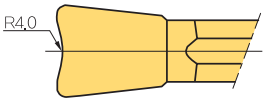
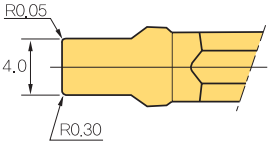
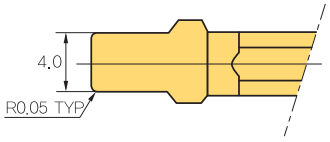
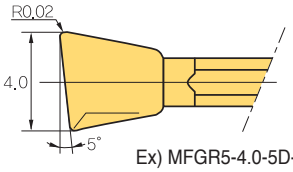
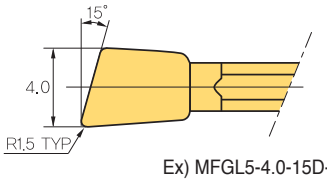
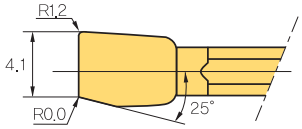
Applicable inserts **C71**

Insert

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

●: Stock item

Special Order Form for MGT

Code system	Configuration
M F G N 4 - 0.5R - 30D ① ② ③ ④ ⑤ ⑥ ⑦ ① Multi ② Forming ③ Grinding ④ Feed Direction ⑤ Clamp part: 4 mm ⑥ Nose Radius: 0.5 ⑦ Degree: 30°	 Ex) MFGN4-0.5R-30D
MFGN4 - 0.5R - L 50 D - R 30D ① ② ③ ④ ⑤ ⑥ ① Refer to No. 1 ② Nose Radius: 0.5 ③ Left ④ Degree: 50° ⑤ Right ⑥ Degree > 30°	 Ex) MFGN4-0.5R-L50D-R30D
MFGN4 - 2.0 - R 020 250 - L 105 335 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ 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°	 Ex) MFGN4-2.0-R020250-L105335
MFGN5 - 4.0R F ① ② ③ ① Refer to No. 1 ② Radius: 4.0 ③ Front(Concave)	 Ex) MFGN5-4.0RF
MFGN5 - 4.0R B ① ② ③ ① Refer to No. 1 ② Radius: 4.0 ③ Back(Concave)	 Ex) MFGN5-4.0RB
MFGN5 - 4.0 - R 005 - L 030 ① ② ③ ④ ⑤ ⑥ ① Refer to No. 1 ② Width of cutting edge: 4.0 mm ③ Right ④ Nose Radius: 0.05 ⑤ Left ⑥ Nose Radius : 0.30	 Ex) MFGN5-4.0-R005-L030
MFGN5 - 4.0 - 0.05 R ① ② ③ ① Refer to No. 1 ② Width of cutting edge: 4.0 mm ③ Nose Radius: 0.05	 Ex) MFGN5-4.0-0.05R
MFG R 5 - 4.0 - 5D - R 002 - L 115 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ 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	 Ex) MFGR5-4.0-5D-R002-L115
MFG L 5 - 4.0 - 15D - 1.5R ① ② ③ ④ ⑤ ⑥ ① Refer to No. 1 ② Left ③ Clamp part: 5 mm ④ Width of cutting edge: 4.0 mm ⑤ Lead angle: 15° ⑥ Right Nose Radius: 1.5	 Ex) MFGL5-4.0-15D-1.5R
MFG R 5 - 4.10 - 25D - R012 - L000 ① ② ③ ④ ⑤ ⑥ ⑦ 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	 Ex) MFGR5-4.10-25D-R012-L000

Code system

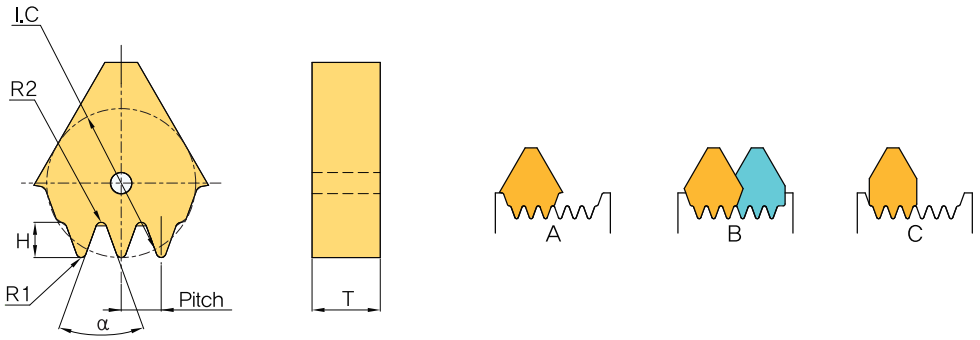
KP	27	064	-	R0.425	N3
KORLOY PULLEY	ØD	W		R1	No. of flutes

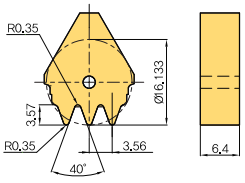
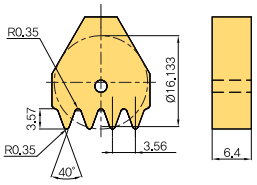
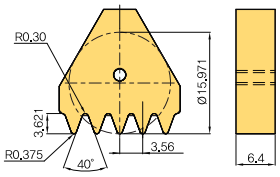
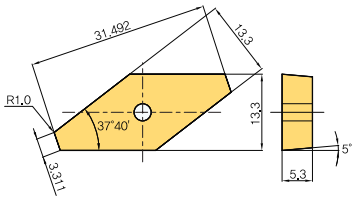
■ Ex)

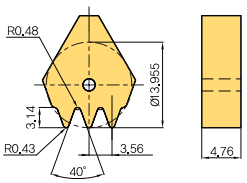
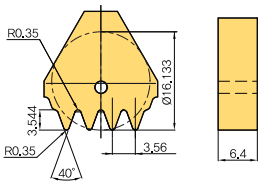
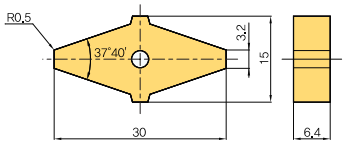
I.C	T	R	Z
Ø 15.875	6.4	0.425	3

▶ Special types are available for quotation

Insert for machining of pulley



Specifications	Standard designation
	KP27064-R0.35-N3 (Former: DF356-3B)
	KP27064-R0.35-N4 (Former: DF356-4B)
	KP27064-R0.375-N5 (Former: DF356-5B)
	VF13M522

Specifications	Standard designation
	KP27064-R0.43-N3 (Former:DF356-3SR)
	KP27064-R0.35-N4-A (Former: DF356-4X)
	UF320