

B Turning Insert Code System (ISO)

C

N

M

G

12

1

Insert Shape

2

Relief Angle

3

Tolerance

4

Cross Section Type

5

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



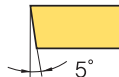
V



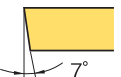
W

2 Relief Angle

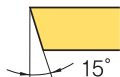
C N M G 12 04 08 - MP



B



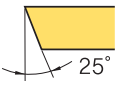
C



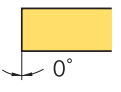
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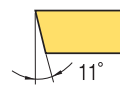
E



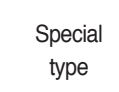
F



N



P

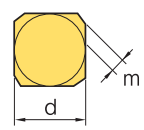
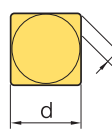
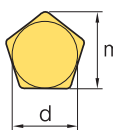
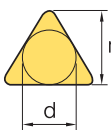


O

3 Tolerance

C N M G 12 04 08 - MP

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



Class	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,E,H,M,O,P,R,S,T,W Insert Shape (Exceptional case)

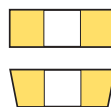
d	Tolerance on d		Tolerance on m	
	J, K, L, M, N	U	M, N	U
6.35	± 0.05	± 0.08	± 0.08	± 0.13
9.525	± 0.05	± 0.08	± 0.08	± 0.13
12.7	± 0.08	± 0.13	± 0.13	± 0.20
15.875	± 0.10	± 0.18	± 0.15	± 0.27
19.05	± 0.10	± 0.18	± 0.15	± 0.27
25.4	± 0.13	± 0.25	± 0.18	± 0.38

Tolerance on D Insert Shape (Exceptional case)

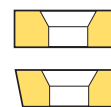
d	Tolerance on d	Tolerance on m
6.35	± 0.05	± 0.11
9.525	± 0.05	± 0.11
12.7	± 0.08	± 0.15
15.875	± 0.10	± 0.18
19.05	± 0.10	± 0.18

4 Cross Section Type

C N M G 12 04 08 - MP



A



C'Sink 70°~90°

B



C'Sink 70°~90°

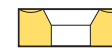
C



F

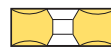


G



C'Sink 70°~90°

H



C'Sink 70°~90°

J



M



N



C'Sink 40°~60°

Q



R



C'Sink 40°~60°

T



C'Sink 40°~60°

U



C'Sink 40°~60°

W

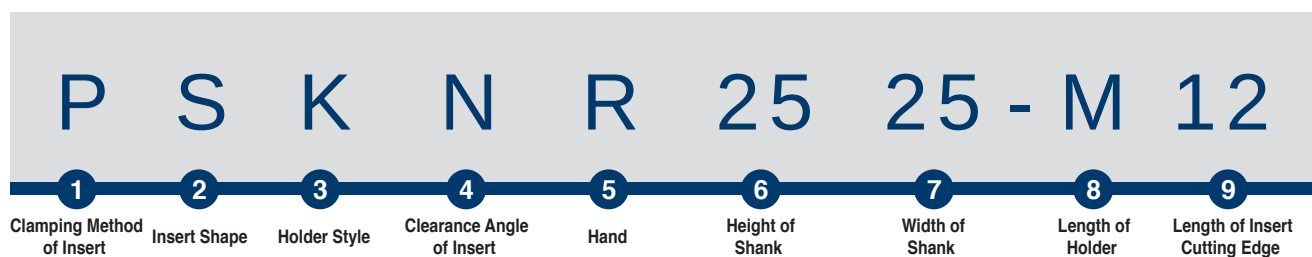


Special type

X

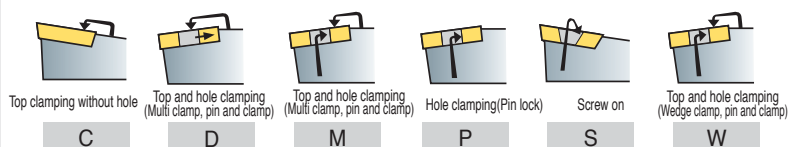


B External tool Holder Code System(ISO)



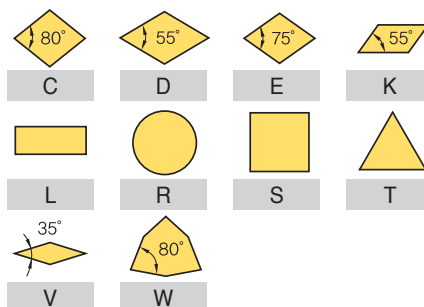
1 Clamping Method of Insert

P S K N R 25 25 - M 12



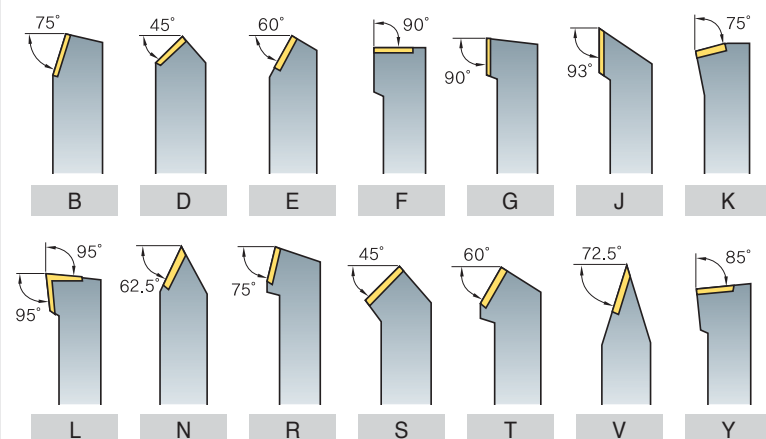
2 Insert Shape

P S K N R 25 25 - M 12



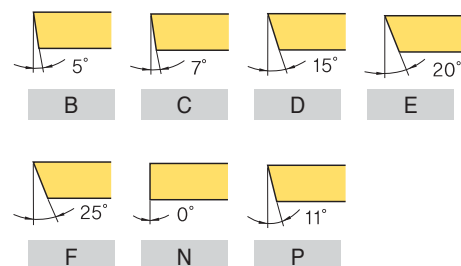
3 Holder Style

P S K N R 25 25 - M 12



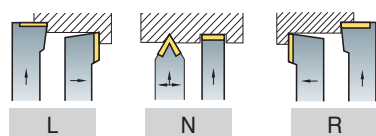
4 Clearance Angle of Insert

P S K N R 25 25 - M 12



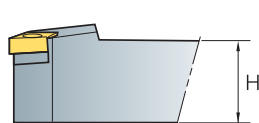
5 Hand

P S K N R 25 25 - M 12



6 Height of Shank

P S K N R 25 25 - M 12



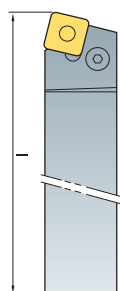
7 Width of Shank

P S K N R 25 25 - M 12



8 Length of Holder

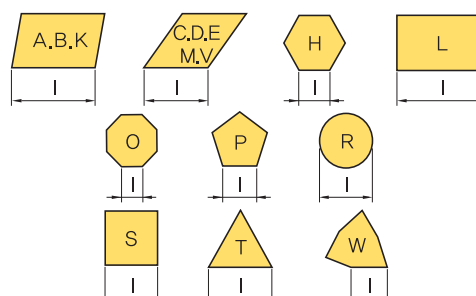
P S K N R 25 25 - M 12



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	B148	B148	B148	B149	B149	B150	B150	B150	B151	B151
Turning	●		●	●	●	●		●		●
Copying				●						
Facing		●	●				●	●	●	
Chamfering						●				
Back turning			●	●						

Cutting Shape										
Designation	DVJNR/L	DVVNN	DWLNR/L							
Approach angle	93°	72.5°	95°							
Page	B151	B152	B152							
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	B153	B153	B154	B154	B155	B156	B156	B157	B157	B158
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	B158	B159	B159	B160	B160					
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	B161	B161	B161	B162						
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	B163	B163	B163	B164	B164	B164				
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	B165	B165	B165	B166	B166	B166	B167	B167	B167	B168
Turning		●	●	●	●	●	●	●	●	
Copying					●	●	●			
Facing	●	●								●
Chamfering										
Back turning		●			●		●			

Cutting Shape										
Designation	MSRR/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	B168	B169	B169	B169	B170	B170	B170	B171	B171	B171
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	B172	B172	B172	B173	B173	B173	B174	B174	B174	B175
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	B175	B175	B176	B176	B176	B177	B177	B177	B178	B178
Turning	●	●		●	●	●	●	●	●	●
Copying						●	●	●	●	●
Facing	●		●							
Chamfering										
Back turning						●	●	●	●	

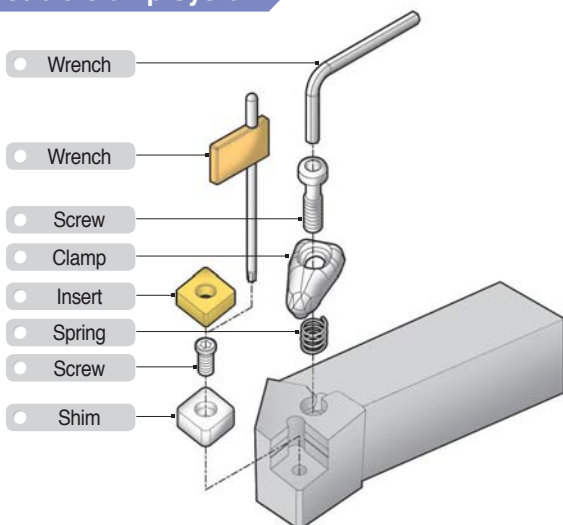
Cutting Shape										
Designation	SVVCN									
Approach angle	72.5°									
Page	B178									
Turning	●									
Copying	●									
Facing										
Chamfering										
Back turning										

Ceramic Holder

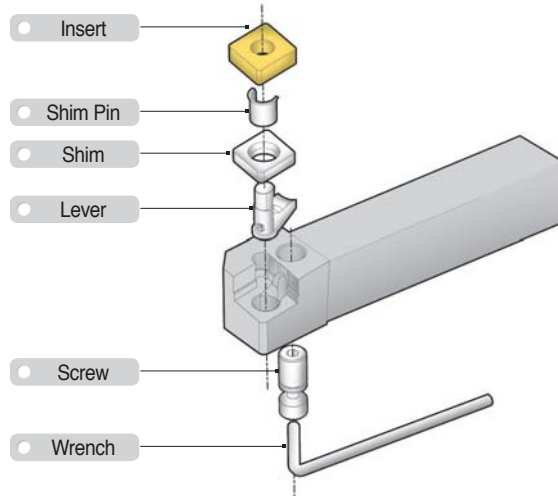
Cutting Shape										
Designation	CCNLR/L	CRDNN	CRGNR/L	CSDNN	CSKNR/L	CTFNR/L	CTGNR/L			
Approach angle	95°	-	-	45°	75°	90°	90°			
Page	B179	B179	B179	B179	B180	B180	B180			
Turning	●	●	●	●			●			
Copying			●							
Facing	●				●	●				
Chamfering										
Back turning	●									

Instruction of External Holder

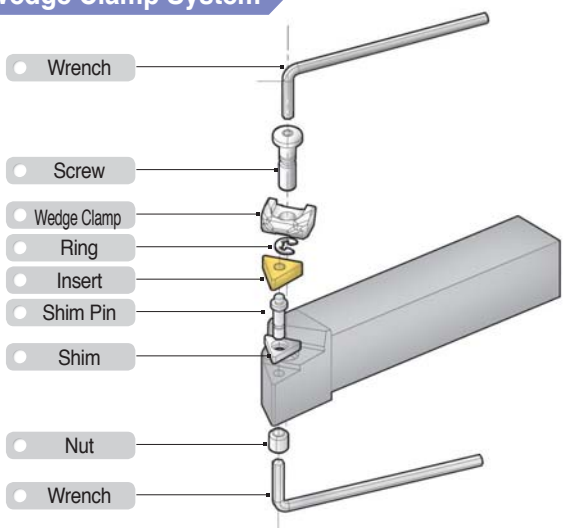
Double Clamp System



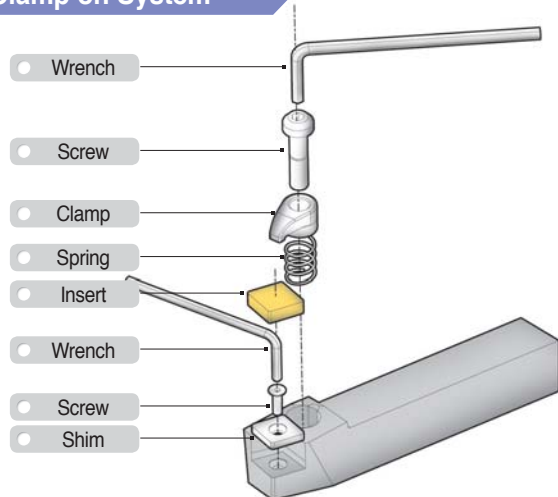
Lever Lock System



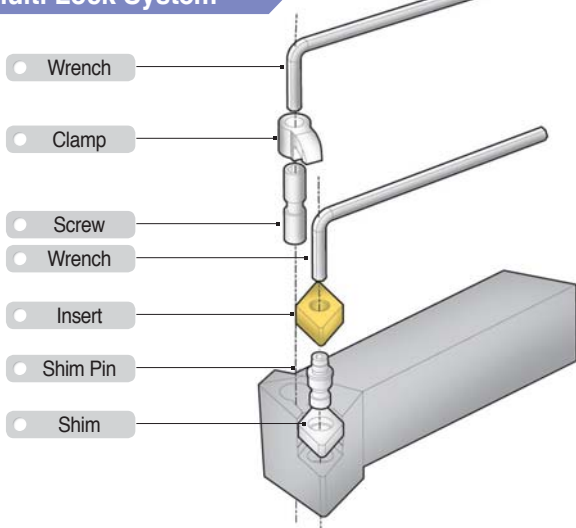
Wedge Clamp System



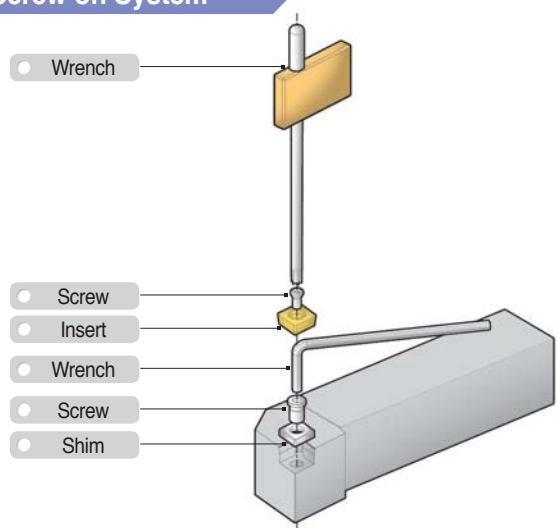
Clamp on System



Multi Lock System



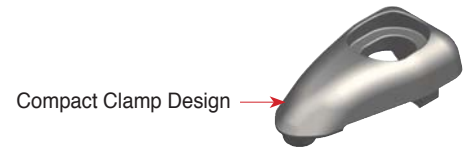
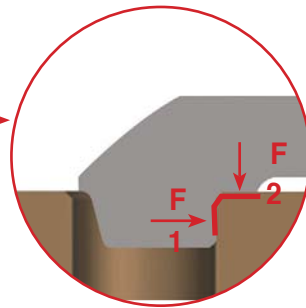
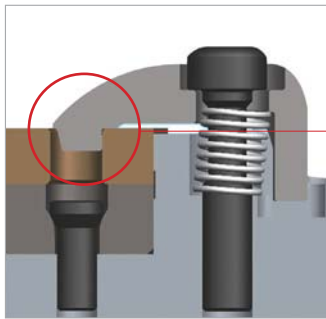
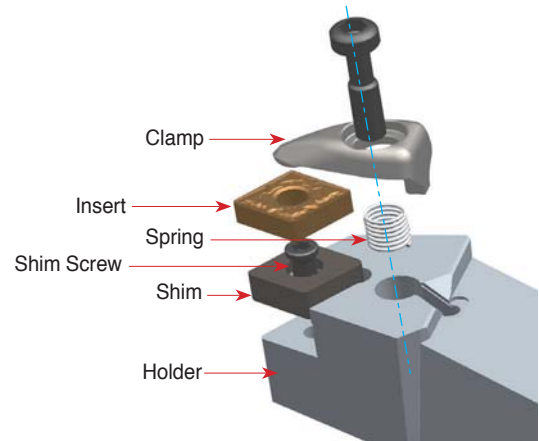
Screw on System



Double Clamp System

Stable clamping with double clamp system

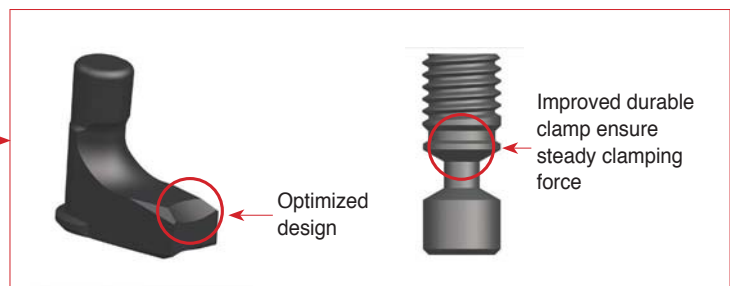
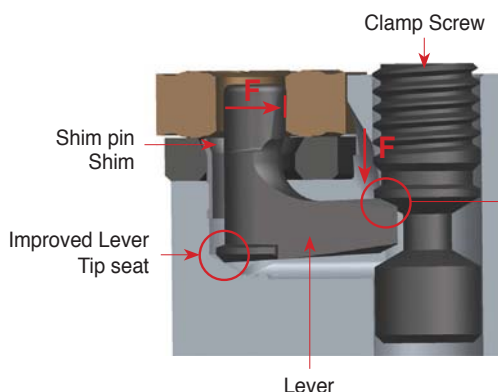
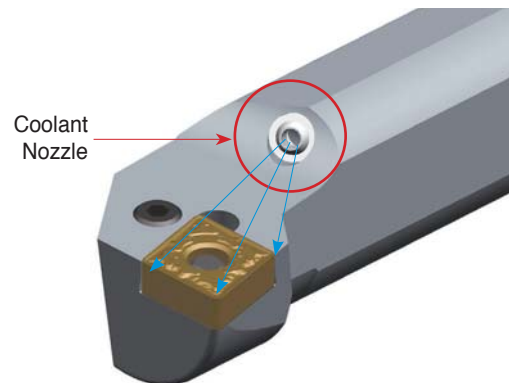
- Features**
- Simple and powerful clamping system operated by only a single clamp screw
 - The powerful double-clamping system (upper and internal) is suitable for machining in very tough cutting conditions
 - The holder offers precision due to the special design in the rear of the clamp
 - Compact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



Lever Lock System

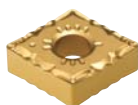
Stable clamping with double clamp system

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

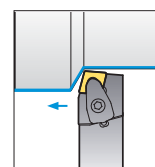
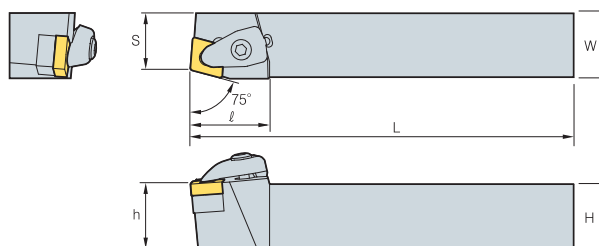


B Double Clamp System

DCBNR/L



CN□□



75°

• R type insert
(mm)

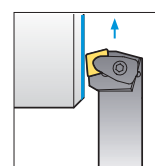
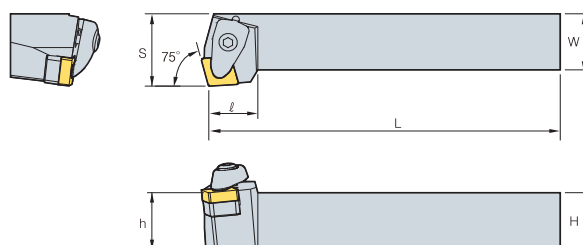
Designation	H	W	L	S	h	l	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DCBNR/L 2020-K12	20	20	125	17	20	31	CN□□1204□□						
2525-M12	25	25	150	22	25	31							
3225-P12	32	25	170	22	32	31							
2525-M16	25	25	150	22	25	36	CN□□1606□□						
3232-P16	32	32	170	27	32	36							
3232-P19	32	32	170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

➔ Applicable inserts B26~B32

DCKNR/L



CN□□



75°

• R type insert
(mm)

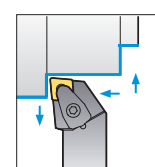
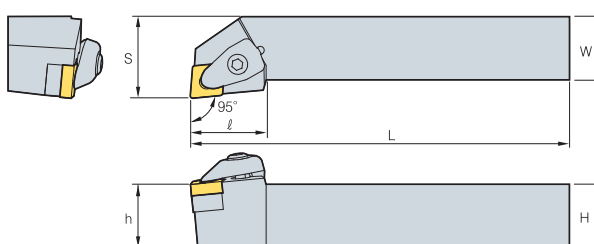
Designation	H	W	L	S	h	l	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DCKNR/L 2020-K12	20	20	125	25	20	21	CN□□1204□□						
2525-M12	25	25	150	32	25	21							
3225-P12	32	25	170	32	32	21							
3232-P16	32	32	170	40	32	26	CN□□1606□□						
4040-S16	40	40	250	50	40	26							

➔ Applicable inserts B26~B32

DCLNR/L



CN□□



95°

• R type insert
(mm)

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

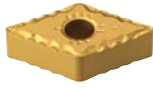
➔ Applicable inserts B26~B32



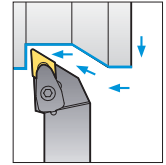
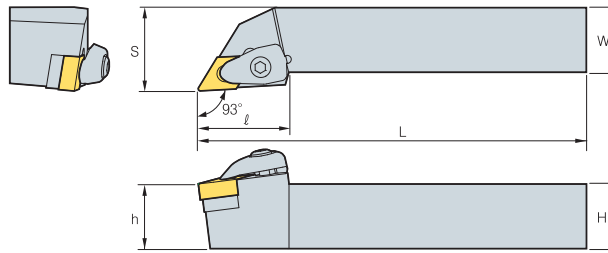
B

Turning

DDJNR/L



DN□□



93°

• R type insert
(mm)

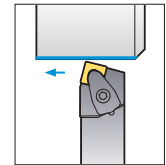
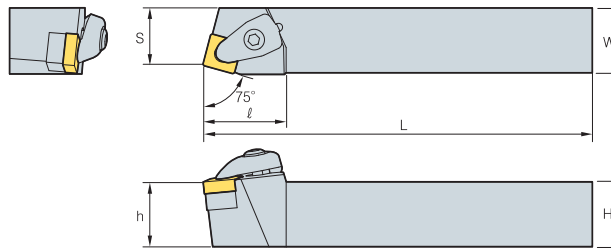
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DDJNR/L 2020-K11	20	20	125	25	20	30	DN□□1104□□						
2525-M11	25	25	150	32	25	30							
3225-P11	32	25	170	32	32	30							
3232-P11	32	32	170	40	32	30							
2020-K15	20	20	125	25	20	35	DN□□1506□□						
2525-M15	25	25	150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

Applicable inserts B33~B39

DSBNR/L



SN□□



75°

• R type insert
(mm)

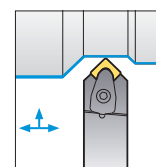
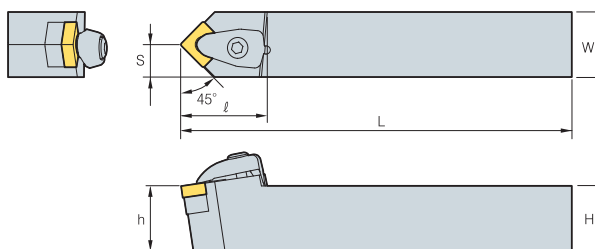
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DSBNR/L 2020-K09	20	20	125	17	20	25	SN□□0903□□						
2525-M09	25	25	150	22	25	25							
2020-K12	20	20	125	17	20	32							
2525-M12	25	25	150	22	25	32	SN□□1204□□						
3225-P12	32	25	170	22	32	32							
3232-P12	32	32	170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

Applicable inserts B41~B48



B Double Clamp System

DSDNN



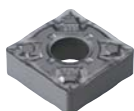
45°

• R type insert (mm)

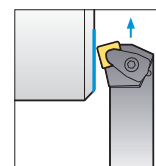
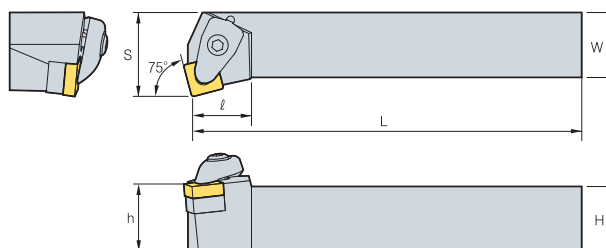
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DSDNN 2020-K09	20	20	125	10	20	26.5	SN□□0903□□	CVH3	CHX0415	SS32V	FTKA0307	SPR0510	HW25P
2020-K12	20	20	125	10	20	33	SN□□1204□□	CVH4	CHX0518	SS44V	FTKA0410	SPR0714	HW30P
2525-M12	25	25	150	12.5	25	33							
3225-P12	32	25	170	12.5	32	33							
3232-P12	32	32	170	16	32	33	SN□□1506□□	CVH5	CHX0622	SS54V	FTNA0511	SPR0811	HW25P
2525-M15	25	25	150	12.5	25	39.4							
3232-P15	32	32	170	16	32	38							
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 B41~B48

DSKNR/L



SN□□



75°

• R type insert (mm)

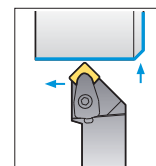
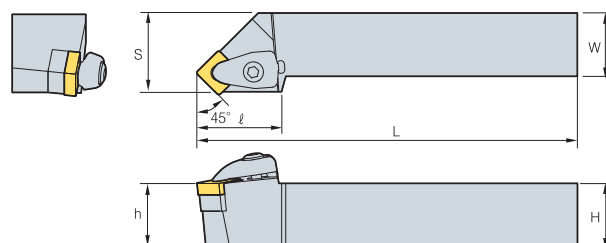
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DSKNR/L 2020-K09	20	20	125	25	20	20	SN□□0903□□	CVH3	CHX0415	SS32V	FTKA0307	SPR0510	HW25P
2020-K12	20	20	125	25	20	23	SN□□1204□□	CVH4	CHX0518	SS44V	FTKA0410	SPR0714	HW30P
2525-M12	25	25	150	32	25	23							
3232-P12	32	32	170	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 B41~B48

DSSNR/L



SN□□



45°

• R type insert (mm)

Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DSSNR/L 2020-K09	20	20	125	25	20	28.5	SN□□0903□□	CVH3	CHX0415	SS32V	FTKA0307	SPR0510	HW25P
2020-K12	20	20	125	25	20	35	SN□□1204□□	CVH4	CHX0518	SS44V	FTKA0410	SPR0714	HW30P
2525-M12	25	25	150	32	25	35							
3225-P12	32	25	170	32	32	35							
3232-P12	32	32	170	40	32	35	SN□□1506□□	CVH5	CHX0622	SS54V	FTNA0511	SPR0811	HW40L
2525-M15	25	25	150	32	25	38.5							
3232-P15	32	32	170	40	32	38.5							
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 B41~B48



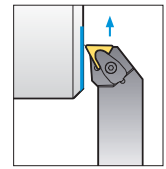
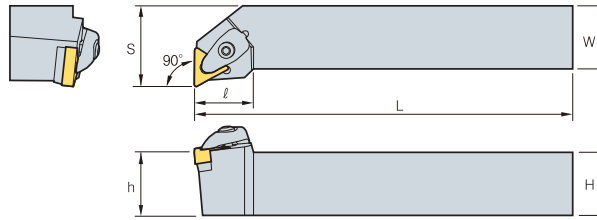
B

Turning

DTFNR/L



TN□□



90°

• R type insert
(mm)

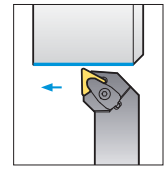
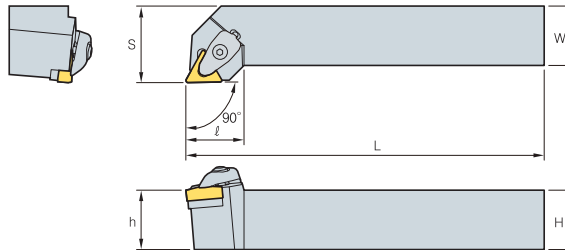
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DTFNR/L 2020-K16	20	20	125	25	20	24.5	TN□□1604□□						
2525-M16	25	25	150	32	25	24.5							
3232-P16	32	32	170	40	32	23.5							
2525-M22	25	25	150	32	25	33	TN□□2204□□						
3225-P22	32	25	170	32	32	33							
3232-P22	32	32	170	40	32	33							

➡ Applicable inserts B49~B55

DTGNR/L



TN□□



90°

• R type insert
(mm)

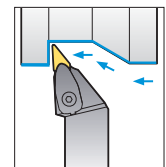
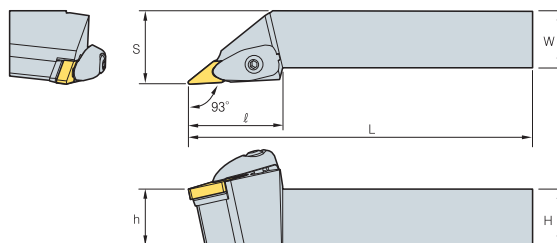
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DTGNR/L 2020-K16	20	20	125	25	20	24.5	TN□□1604□□						
2525-M16	25	25	150	32	25	24.5							
3232-P16	32	32	170	40	32	24.5							
2525-M22	25	25	150	32	25	32.6	TN□□2204□□						
3225-P22	32	25	170	32	32	32.6							
3232-P22	32	32	170	40	32	32.6							

➡ Applicable inserts B49~B55

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□□						
2525-M16	25	25	150	32	25	41.5							
3232-P16	32	32	170	40	32	41.5							

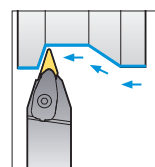
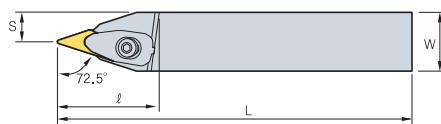
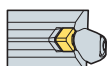
➡ Applicable inserts B56~B57

B Double Clamp System

DVVNN



VN□□



72.5°

• R type insert (mm)

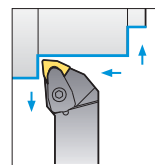
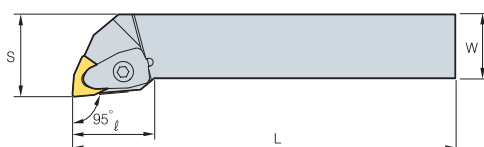
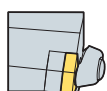
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DVVNN 2020-K16	20	20	125	10	20	40	VN□□1604□□						
2525-M16	25	25	150	12.5	25	40							
3232-P16	32	32	170	16	32	40							
								CVH3V	CHX0518	SV32V	FTNA03508	SPR0714	HW30P

➔ Applicable inserts B56~B57

DWLNRL



WN□□



95°

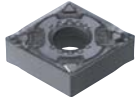
• R type insert (mm)

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

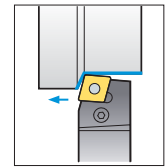
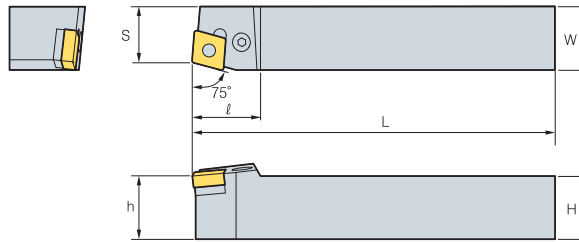
➔ Applicable inserts B58~B61



PCBNR/L



CN□□



75°

• R type insert (mm)

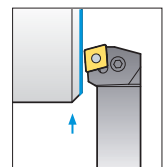
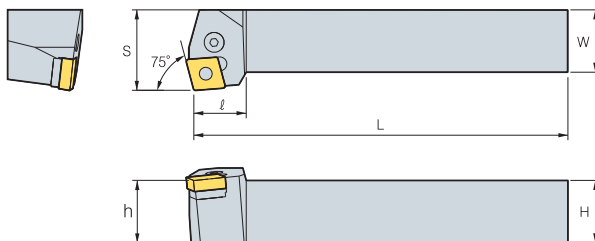
Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PCBNR/L 2020-K12	20	20	125	17	20	27	CN□□ 1204□□	LV4	VHX0821	SC42	SP4	HW30L	LSPS4
2525-M12	25	25	150	22	25	27							
3225-P12	32	25	170	22	32	27							
2525-M16	25	25	150	22	25	33	CN□□ 1606□□	LV5	VHX0825	SC53	SP5	HW30L	LSPS6
3232-P16	32	32	170	27	32	33							
3232-P19	32	32	170	27	32	36	CN□□ 1906□□	LV6N	VHX1027N	SC63N	SP6N	HW40L	LSPS6
4040-S19	40	40	250	35	40	36	CN□□ 2509□□	LV8N	VHX1236N	SC84N	SP8N	HW50L	LSPS8
4040-S25	40	40	250	35	40	47							
4040-S25-5	40	40	250	35	40	47	CN□□ 2507□□	LV8N	VHX1236N	SC84N	SP8N	HW50L	LSPS8
5050-T25	50	50	300	43	50	47	CN□□ 2509□□						
PCBNR/L 2020-K12N	20	20	125	17	20	27	CN□□ 1204□□	LV4N	VHX0820N	SC42N	SP4N	HW30L	LSPS4
2525-M12N	25	25	150	22	25	27							
3225-P12N	32	25	170	22	32	27							
2525-M16N	25	25	150	22	25	33	CN□□ 1606□□	LV6N	VHX1027N	SC63N	SP6N	HW40L	LSPS8
3232-P16N	32	32	170	27	32	33							
3232-P19N	32	32	170	27	32	36	CN□□ 1906□□	LV6N	VHX1027N	SC63N	SP6N	HW40L	LSPS8
4040-S19N	40	40	250	35	40	38	CNMG190612						

➔ Applicable inserts B26~B32

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
4040-S16N	40	40	250	50	40	25							

➔ Applicable inserts B26~B32

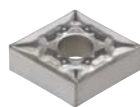


- Improved holders and parts ensure performance and durability
- “N” stand for New type (Holders and parts)

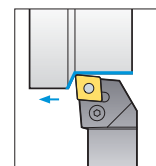
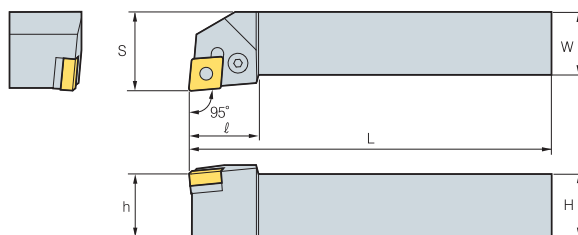


B Lever Lock System

PCLNR/L



CN□□



95°

• R type insert
(mm)

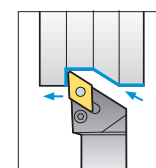
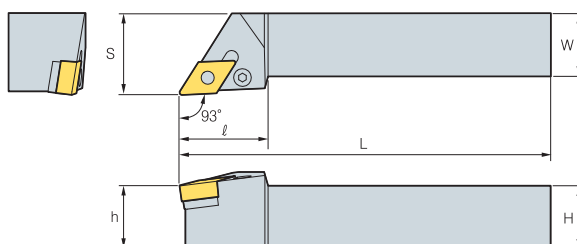
Designation	H	W	L	S	h	l	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PCLNR/L 1616-H09	16	16	100	20	16	20	CN□□ 0903□□	LV3	VHX0617	SC32	SP3	HW25L	LSPS3
2020-K09	20	20	125	25	20	22							
2525-M09	25	25	150	32	25	22							
1616-H12	16	16	100	20	16	28							
2020-K12	20	20	125	25	20	28	CN□□ 1204□□	LV4	VHX082	SC42	SP4	HW30L	LSPS4
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	CN□□ 2509□□	LV8N	VHX1236N	SC84N	SP8N	HW50L	LSPS8
4040-S25	40	40	250	50	40	47							
5050-T25	50	50	300	60	50	47	CN□□ 2507□□	LV8N	VHX1236N	SC84N	SP8N	HW50L	LSPS8
4040-S25-5	40	40	250	50	40	47							
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							
2020-K12N	20	20	125	25	20	28	CN□□ 1204□□	LV4N	VHX0817N VHX0820N	SC42N	SP4N	HW30L	LSPS4
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 B26~B32

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 B33~B39



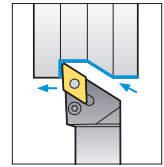
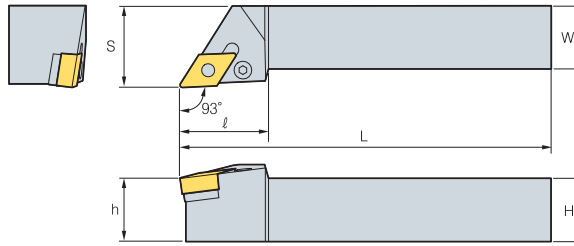
B

Turning

PDJNR/L



DN□□



93°

• R type insert (mm)

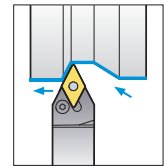
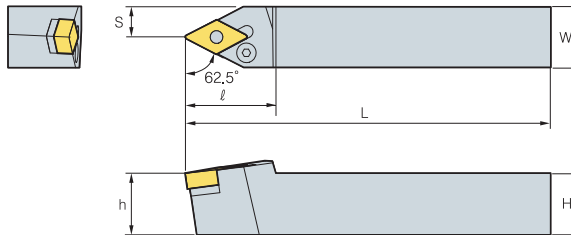
Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PDJNR/L 1616-H11N	16	16	100	20	16	25	DN□□ 1104□□						
2020-K11N	20	20	125	25	20	25							
2525-M11N	25	25	150	32	25	30							
2020-K15N	20	20	125	25	20	35	DN□□ 1506□□						
2525-M15N	25	25	150	32	25	35							
3225-P15N	32	25	170	32	32	35							
3232-P15N	32	32	170	40	32	35	DN□□ 1504□□						
2020-K15-3N	20	20	125	25	20	35							
2525-M15-3N	25	25	150	32	25	35							
3232-P15-3N	32	32	170	40	32	35							

➡ Applicable inserts B33~B39

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□□						
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	DN□□ 1504□□						
2525-M15-3	25	25	150	12.5	25	37							
4025-M15-3	40	25	150	12.5	25	37							
PDNNR/L 2020-K15N	20	20	125	8	20	37	DN□□ 1506□□						
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□□						
3232-P15-3N	32	32	170	16	32	37							

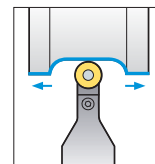
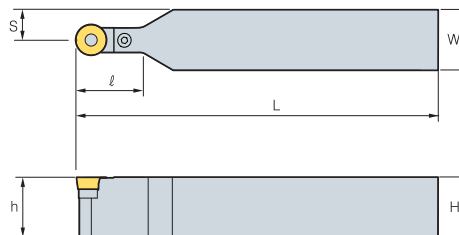
➡ Applicable inserts B33~B39

B Lever Lock System

PRDCN



RCMX



(mm)

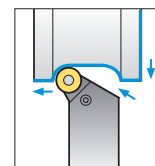
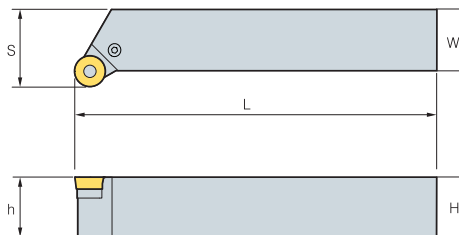
Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PRDCN 2020-M10	20	20	150	15	20	24	RCMX 1003M0	LR10	VHX0514	SR10	SP3	HW20L	LSPS3
2525-M10	25	25	150	17.5	25	24							
2525-M12	25	25	150	18.5	25	24							
2020-K12	20	20	125	16	20	24	RCMX 1204M0	LR12	VHX0617	SR12	SP3	HW25L	LSPS3
3225-Q12	32	25	180	18.5	32	24							
2525-Q16	25	25	180	20.5	25	30							
3225-Q16	32	25	180	20.5	32	30	RCMX 1606M0	LR16	VHX0621	SR16	SP4	HW25L	LSPS4
3232-Q16	32	32	180	24	32	35							
3232-Q20	32	32	180	26	32	40	RCMX 2006M0	LR20	VHX0823	SR20	SP20	HW30L	LSPS5
4040-S25	40	40	250	32.5	40	42							
4040-T25	40	40	300	32.5	40	42	RCMX 2507M0	LR25	VHX1030	SR25	SP6N	HW40L	LSPS6
5050-U32	50	50	350	41	50	52	RCMX 3209M0	LR32	VHX1236	SR32	SP8N	HW50L	LSPS8

Applicable inserts B70

PRGCR/L



RCMX



• R type insert

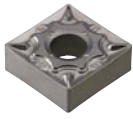
(mm)

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							
2525-M12	25	25	150	32	25	RCMX 1204M0	LR12	VHX0617	SR12	SP3	HW25L	LSPS3
3225-P12	32	25	170	32	32							
2525-M16	25	25	150	32	25							
3225-P16	32	25	170	32	32	RCMX 1606M0	LR16	VHX0621	SR16	SP4	HW25L	LSPS4
3232-P20	32	32	170	40	32							
4040-S25	40	40	250	50	40	RCMX 2006M0	LR20	VHX0823	SR20	SP5-1	HW30L	LSPS5
						RCMX 2507M0	LR25	VHX1030	SR25	SP6N	HW40L	LSPS6

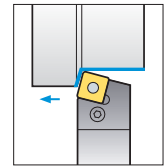
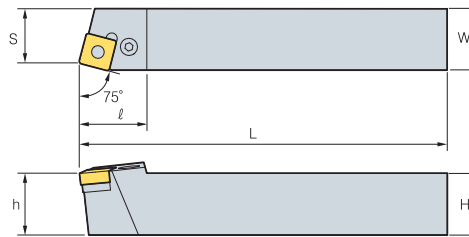
Applicable inserts B70



PSBNR/L



SN□□



75°

• R type insert
(mm)

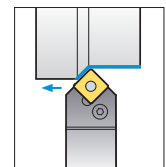
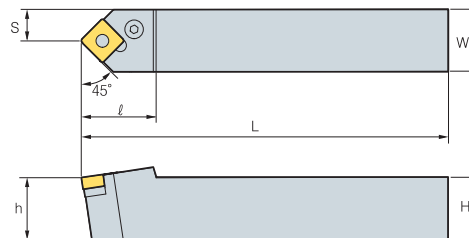
Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PSBNR/L 1616-H09	16	16	100	13	16	21	SN□□ 0903□□	LV3	VHX0617	SS32	SP3	HW25L	LSPS3
2020-K09	20	20	125	17	20	23							
2020-K12	20	20	125	17	20	28							
2525-M12	25	25	150	22	25	28	SN□□ 1204□□	LV4	VHX0821	SS42	SP4	HW30L	LSPS4
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							
4040-S19	40	40	250	35	40	40	SN□□ 1906□□	LV6N	VHX1027N	SS63N	SP6N	HW40L	LSPS6
4040-S25	40	40	250	35	40	50							
4040-S25-6	40	40	250	35	40	50							
5050-T25	50	50	300	43	50	50	SN□□ 2507□□	LV8N	VHX1236N	SS84N	SP8N	HW50L	LSPS8
5050-T25-6	50	50	300	43	50	46							
							CNMG250924	LV8N	VHX1026N	SS84N	SP8N	HW50L	LSPS8
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							
2525-M12N	25	25	150	22	25	28	SN□□ 1204□□	LV4N	VHX0820N	SS42N	SP4N	HW30L	LSPS4
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
3232-P15N	32	32	170	27	32	35							

→ Applicable inserts B41~B48

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							
2525-M12	25	25	150	12.5	25	30							
3225-P12	32	25	170	12.5	32	30	SN□□ 1204□□	LV4	VHX0821	SS42	SP4	HW30L	LSPS4
3232-P12	32	32	170	16	32	40							
2525-M15	25	25	150	12.5	25	40							
3232-P15	32	32	170	16	32	40	SN□□ 1506□□	LV5	VHX0825	SS53	SP5	HW30L	LSPS5
3225-P19	32	25	170	12.5	32	40							
3232-P19	32	32	170	16	32	40							
4040-S19	40	40	250	20	40	40	SN□□ 1906□□	LV6N	VHX1027N	SS63N	SP6N	HW40L	LSPS6
4040-S25	40	40	250	20	40	50							
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							
								LV8N	VHX1236N	SS84N	SP8N	HW50L	LSPS8
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							
2525-M12N	25	25	150	12.5	20	30							
3225-P12N	32	25	170	12.5	32	30	SN□□ 1204□□	LV4N	VHX0820N	SS42N	SP4N	HW30L	LSPS4
3232-P12N	32	32	170	16	32	40							
2525-M15N	25	25	150	12.5	25	40							
3232-P15N	32	32	170	16	32	40	SN□□ 1506□□	LV5N	VHX0820AN	SS53N	SP5N	HW30L	LSPS5

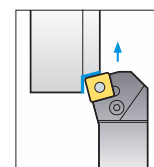
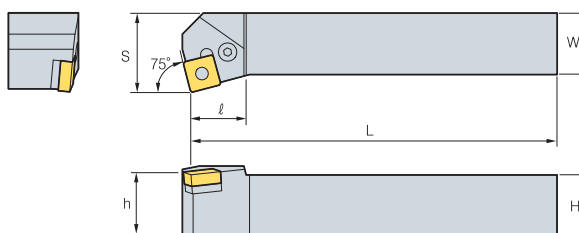
→ Applicable inserts B41~B48

B Lever Lock System

PSKNR/L



SN□□



75°

• R type insert
(mm)

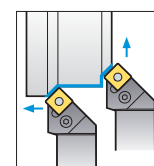
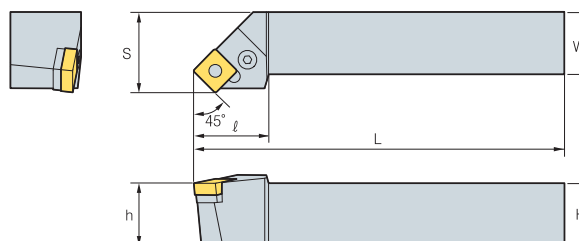
Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PSKNR/L 1616-H09	16	16	100	20	16	17	SN□□ 0903□□	LV3	VHX0617	SS32	SP3	HW25L	LSPS3
2020-K09	20	20	125	25	20	20							
2020-K12	20	20	125	25	20	23							
2525-M12	25	25	150	32	25	23	SN□□ 1204□□	LV4	VHX0821	SS42	SP4	HW30L	LSPS4
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							
2525-M12N	25	25	150	32	25	26	SN□□ 1204□□	LV4N	VHX0820N	SS42N	SP4N	HW30L	LSPS4
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 B41~B48

PSSNR/L



SN□□



45°

• R type insert
(mm)

Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PSSNR/L 1616-H09	16	16	100	20	16	25	SN□□ 0903□□	LV3	VHX0617	SS32	SP3	HW25L	LSPS3
2020-K12	20	20	125	25	20	30							
2525-M12	25	25	150	32	25	36							
3225-P12	32	25	170	32	32	36	SN□□ 1204□□	LV4	VHX0821	SS42	SP4	HW30L	LSPS4
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	SN□□ 2507□□	LV8N	VHX1236N	SS84N	SP8N	HW50L	LSPS8
4040-S25	40	40	250	50	40	48	SN□□ 2509□□	LV8N	VHX1236N	SS84N	SP8N	HW50L	LSPS8
4040-S25-6	40	40	250	50	40	48							
PSSNR/L 1616-H09N	16	16	100	20	16	25	SN□□ 0903□□	LV3N	VHX0617N	SS32N	SP3	HW25L	LSPS3
2020-K12N	20	20	125	25	20	30							
2525-M12N	25	25	150	32	25	36							
3225-P12N	32	25	170	32	32	45	SN□□ 1204□□	LV4N	VHX0821N	SS42N	SP4N	HW30L	LSPS4
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 B41~B48



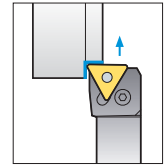
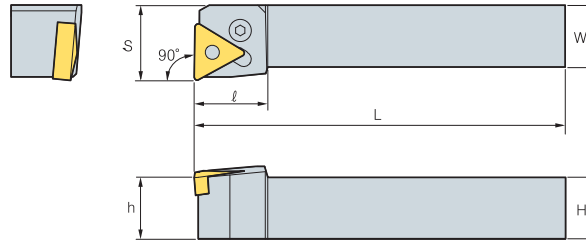
B

Turning

PTFNR/L



TN□□



90°

• R type insert (mm)

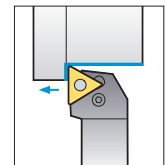
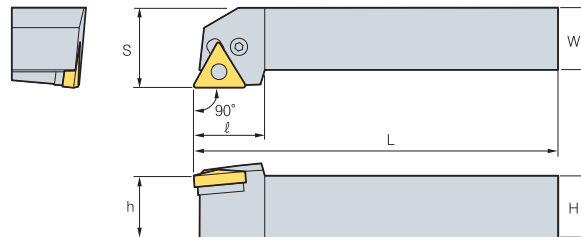
Designation	H	W	L	S	h	l	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PTFNR/L 1616-H16	16	16	100	20	16	20	TN□□1604□□	LV3	VHX0617	ST317	SP3	HW25L	LSPS3
2020-K16	20	20	125	25	20	20							
2525-M16	25	25	150	32	25	20							
2525-M22	25	25	150	32	25	25	TN□□2204□□	LV4	VHX0821	ST42	SP4	HW30L	LSPS4
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 1616-H16N	16	16	100	20	16	20	TN□□1604□□	LV3N	VHX0617N	ST317N	SP3	HW25L	LSPS3
2020-K16N	20	20	125	25	20	20							
2525-M16N	25	25	150	32	25	20							
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 B49~B55

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 1616-H16N	16	16	100	20	16	20	TN□□1604□□	LV3N	VHX0617N	ST317N	SP3N	HW25L	LSPS3
2020-K16N	20	20	125	25	20	20							
2525-M16N	25	25	150	32	25	20							
3232-P16N	32	32	170	40	32	20							
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 B49~B55

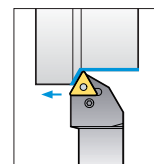
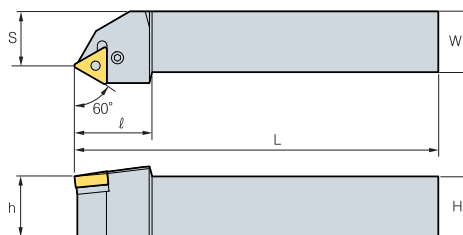


B Lever Lock System

PTTNR/L



TN□□



60°

• R type insert
(mm)

Designation		H	W	L	S	h	ℓ	Insert						
PTTNR/L	1616-H16	16	16	100	13	16	25	TN□□1604□□						
	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	1616-H16N	16	16	100	13	16	25	TN□□1604□□						
	2020-K16N	20	20	125	17	20	25							
	2525-M16N	25	25	150	22	25	32							
	2525-M22N	25	25	150	22	25	32	TN□□2204□□	LV4N	VHX0820N	ST42N	SP4N	HW30L	LSPS4

Applicable inserts B49~B55

PWLNR/L



WN□□

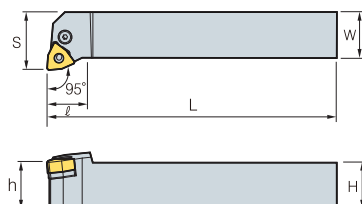


Fig.1

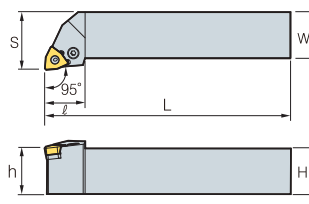
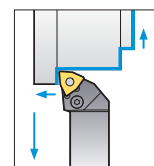


Fig.2



95°

• R type insert
(mm)

Designation		H	W	L	S	h	ℓ	Insert							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 B58~B61



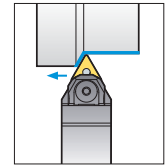
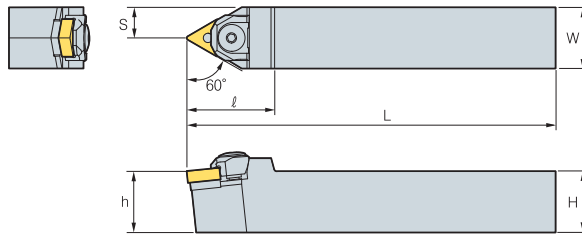
B

Turning

WTENN



TN□□



60°

• R type insert (mm)

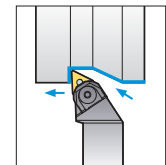
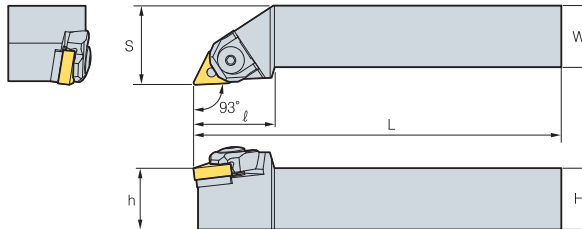
Designation	H	W	L	S	h	ℓ	Insert	Wedge Clamp	Screw	Stopper Ring	Shim	Shim Pin	Nut	Wrench
WTENN 2020-K16	20	20	125	10	20	36	TN□□1604□□	CMH6R6	MHX0626	ER04	ST32M	SP3M-1 SP3M	N0407	HW30L
2525-M16	25	25	150	12.5	25	36								
2525-M22	25	25	150	12.5	25	42								
3232-P22	32	32	170	16	32	42	TN□□2204□□	CMH6R1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

➡ Applicable inserts B49~B55

WTJNR/L



TN□□



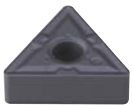
93°

• R type insert (mm)

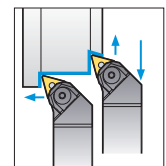
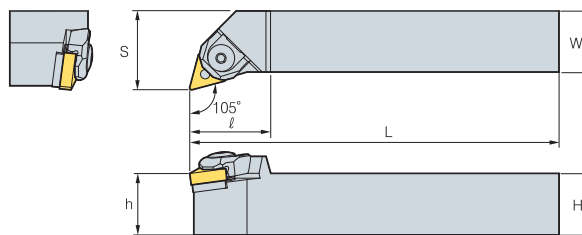
Designation	H	W	L	S	h	ℓ	Insert	Wedge Clamp	Screw	Stopper Ring	Shim	Shim Pin	Nut	Wrench
WTJNR/L 2020-K16	20	20	125	25	20	33	TN□□1604□□	CMH6R6	MHX0626	ER04	ST32M	SP3M-1 SP3M	N0407	HW30L
2525-M16	25	25	150	32	25	33								
3232-P16	32	32	170	40	32	33								
2525-M22	25	25	150	32	25	35	TN□□2204□□	CMH6R1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

➡ Applicable inserts B49~B55

WTXNR/L



TN□□



105°

• R type insert (mm)

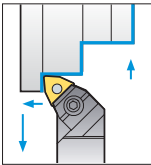
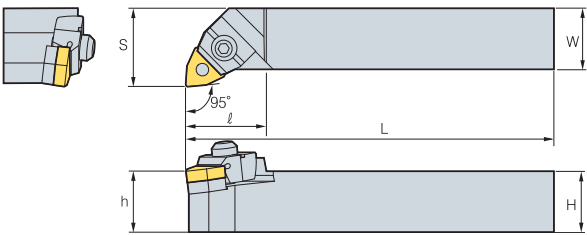
Designation	H	W	L	S	h	ℓ	Insert	Wedge Clamp	Screw	Stopper Ring	Shim	Shim Pin	Nut	Wrench
WTXNR/L 2020-K16	20	20	125	25	20	30	TN□□1604□□	CMH6R6	MHX0626	ER04	ST32M	SP3M-1 SP3M	N0407	HW25L HW30L
2525-M16	25	25	150	32	25	33								
3232-P16	32	32	170	40	32	33								

➡ Applicable inserts B49~B55

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		
3232-P08	32	32	170	40	32	33		CMH6R2						HW40L

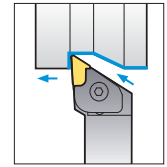
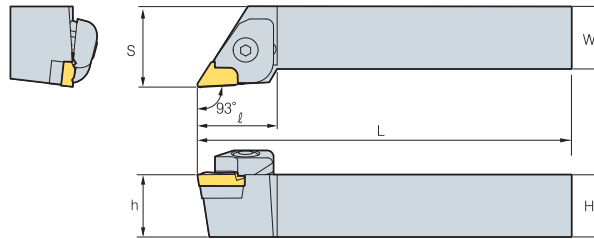
Applicable inserts B58~B61



CKJNR/L



KN□□



93°

• R type insert (mm)

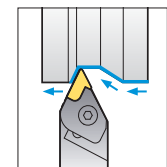
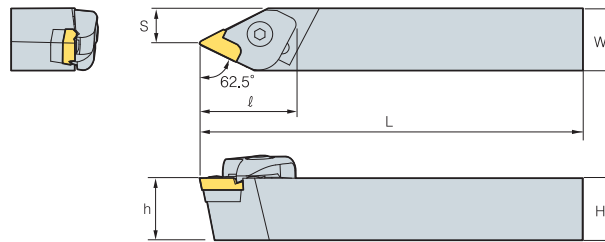
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Spring	Shim	Pin + Spring	Shim Screw	Wrench
CKJNR 2020-K16	20	20	125	25	20	32	KN□□1604□□R							
2525-M16	25	25	150	32	25	32								
3225-M16	32	25	150	32	32	32								
3225-P16	32	25	170	32	32	32								
3232-P16	32	32	170	40	32	32								
4040-R16	40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

➔ Applicable inserts **B40**

CKNNR/L



KN□□



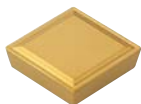
62.5°

• R type insert (mm)

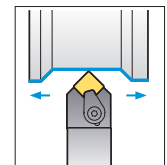
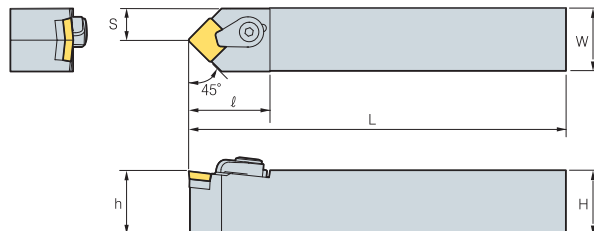
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Spring	Shim	Pin + Spring	Shim Screw	Wrench
CKNNR 2525-M16	25	25	150	14.3	25	37	KN□□1604□□R							
3232-P16	32	32	170	16.8	32	37								
CKNNL 2525-M16	25	25	150	14.3	25	37	KN□□1604□□L							
3232-P16	32	32	170	16.8	32	37								

➔ Applicable inserts **B40**

CSDPN



SP□R



45°

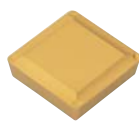
• R type insert (mm)

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□R0903□□						
2525-M12	25	25	150	12.5	25	35	SP□R1203□□						

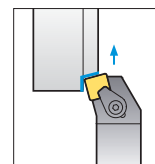
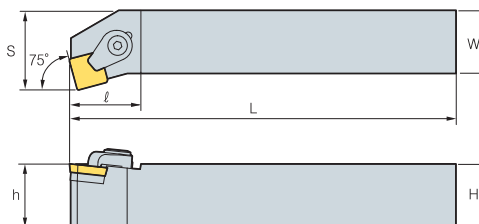
➔ Applicable inserts **B72~B73**

B Clamp on System

CSKPR/L



SP□R



75°

• R type insert (mm)

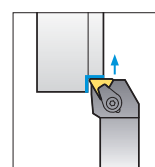
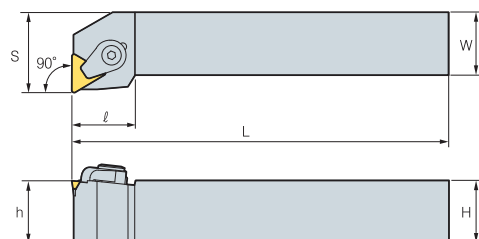
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	C-Ring	Wrench
CSKPR/L 2525-M12	25	25	150	32	20	32	SP□R1203□□						

➔ Applicable inserts B72~B73

CTFPR/L



TP□R



90°

• R type insert (mm)

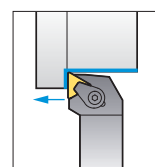
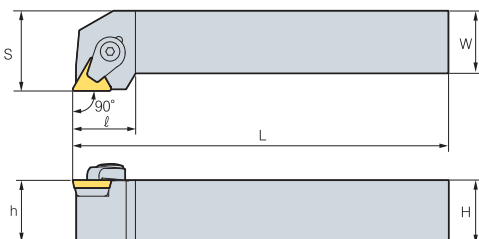
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	C-Ring	Wrench
CTFPR/L 2020-K16	25	25	125	25	20	32	TP□R1603□□						
2525-M16	25	25	150	32	25	32							

➔ Applicable inserts B77~B79

CTGPR/L



TP□R



90°

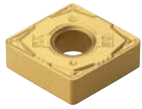
• R type insert (mm)

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□R1103□□						
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□R1603□□						
2525-M16	25	25	150	32	25	25							
2525-M22	25	25	150	32	25	32							
3232-P22	32	32	170	40	32	32	TP□R2204□□						

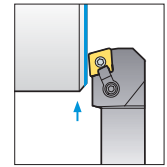
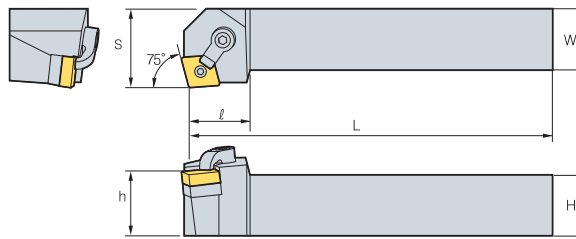
➔ Applicable inserts B77~B79



MCKNR/L



CN□□



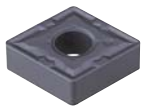
75°

• R type insert
(mm)

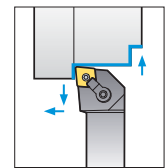
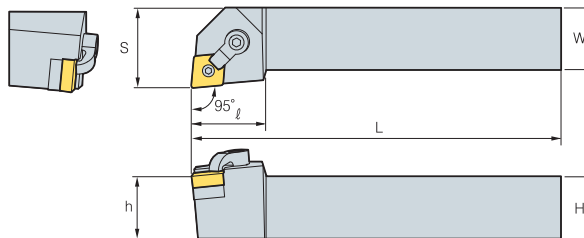
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MCKNR/L 2020-K12	20	20	125	25	20	32	CN□□1204□□	CDH6N	DHA1/4-25	SC43D	SP4D	HW31.8L HW23.8L
2525-M12	25	25	150	32	25	32						
3232-P12	32	32	170	40	32	32						

Applicable inserts B26~B32

MCLNR/L



CN□□



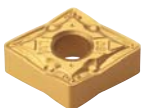
95°

• R type insert
(mm)

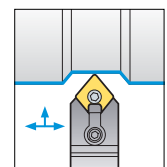
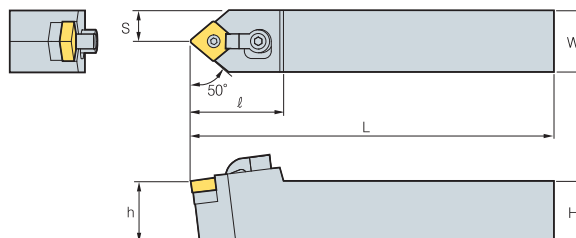
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MCLNR/L 1616-H09	16	16	100	20	16	25	CN□□0903□□	CDH7N	DHA10-32-19	SC32D	SP3DS	HW23.8L HW19.8L
2020-K09	20	20	125	25	20	25						
2525-M09	25	25	150	32	25	25						
2020-K12	20	20	125	25	20	32	CN□□1204□□	CDH6N	DHA1/4-25	SC43D	SP4D	HW31.8L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

Applicable inserts B26~B32

MCMNN



CN□□



50°

• R type insert
(mm)

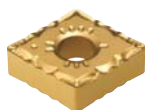
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MCMNN 2020-K12	20	20	125	10	20	32	CN□□1204□□	CDH6N	DHA1/4-25	SC43D	SP4D	HW31.8L HW23.8L
2525-M12	25	25	150	12.5	25	32						
3232-P12	32	32	170	16	32	32						
2525-M16	25	25	150	12.5	25	40	CN□□1606□□	CDH8N	DHA5/16-32	SC53S	SP5D	HW39.7L HW31.8L
3232-P16	32	32	170	16	32	40						
3232-P19	32	32	170	16	32	40						
4040-S19	40	40	250	20	40	32	CN□□1906□□	CDH8N	DHA5/16-32	SD63D	SP6D	HW39.7L HW35.7L

Applicable inserts B26~B32

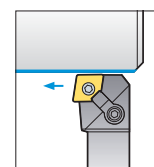
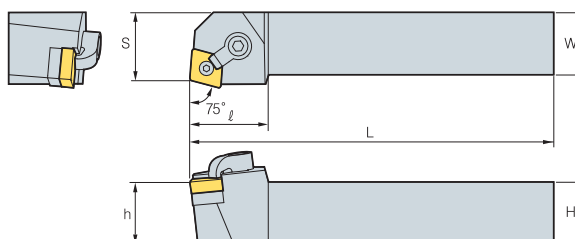
Turning


B

MCRNR/L



CN□□



75°

• R type insert (mm)

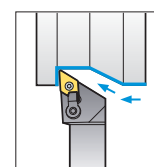
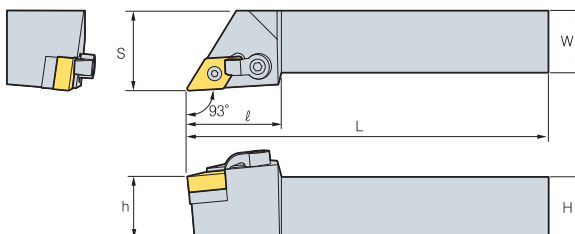
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MCRNR/L 2020-K12	20	20	125	22	20	32	CN□□1204□□	CDH8N1	DHA5/16-32	SC43D	SP4D	HW39.7L HW23.8L
2525-M12	25	25	150	27	25	32						
2525-M16	25	25	150	27	25	33	CN□□1606□□	CDH8N1	DHA5/16-32	SC53D	SP5D	HW39.7L HW31.8L
3232-P16	32	32	170	35	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 B26~B32

MDJNR/L



DN□□



93°

• R type insert (mm)

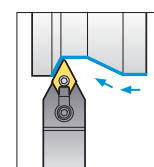
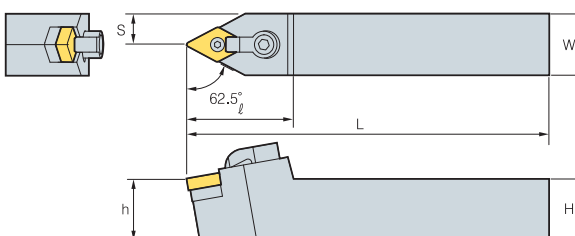
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MDJNR/L 2020-K11	20	20	125	25	20	32	DN□□1204□□	CDH6N	DHA1/4-19	SD32D	SP3D	HW31.8L HW19.8L
2525-M11	25	25	150	32	25	32						
2020-K15-3	20	20	125	25	20	36	DN□□1504□□	CDH6N	DHA1/4-25	SD43D	SP4D	HW31.8L HW23.8L
2525-M15-3	25	25	150	32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

Applicable inserts B33~B39

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

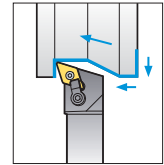
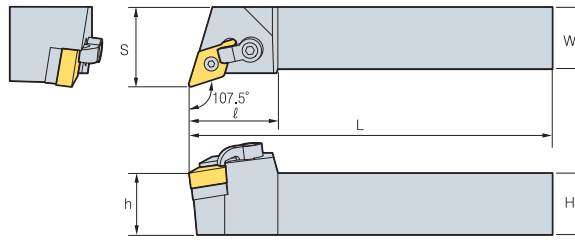
Applicable inserts B33~B39



MDQNR/L



DN□□



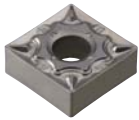
107.5°

• R type insert (mm)

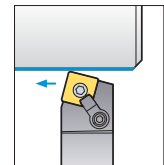
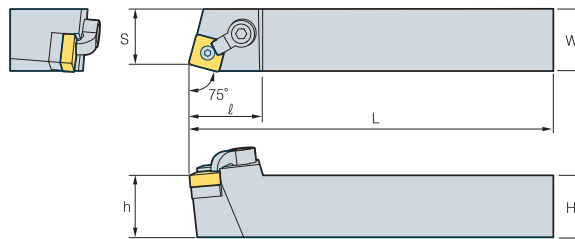
Designation		H	W	L	S	h	ℓ	Insert	 Clamp	 Clamp Screw	 Shim	 Shim Pin	 Wrench
MDQNR/L	2525-M15-3	25	25	150	32	25	36	DN□□1504□□	 CDH6N	 DHA1/4-25	 SD43D	 SP4D	HW31.8L HW23.8L
	3232-P15-3	32	32	170	40	32	36						
	2525-M15	25	25	150	32	25	36	DN□□1506□□	 CDH6N	 DHA1/4-25	 SD43D	 SP4DL	HW31.8L HW23.8L
	3232-M15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

Applicable inserts B33~B39

MSBNR/L



SN□□



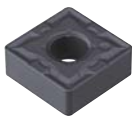
75°

• R type insert (mm)

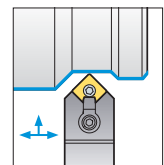
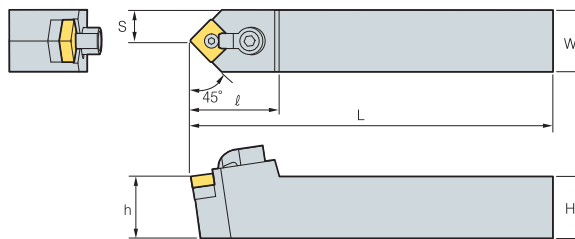
Designation		H	W	L	S	h	ℓ	Insert	 Clamp	 Clamp Screw	 Shim	 Shim Pin	 Wrench
MSBNR/L	2020-K12	20	20	125	17	20	32	SN□□1204□□	 CDH8N1	 DHA5/16-32	 SS43D	 SP4D	HW39.7L HW23.8L
	2525-M12	25	25	150	22	25	32						
	2525-M15	25	25	150	22	25	35	SN□□1506□□	 CDH8N	 DHA5/16-32	 SS53D	 SP5D	HW39.7L HW31.8L
	3232-P15	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 B41~B48

MSDNN



SN□□



45°

(mm)

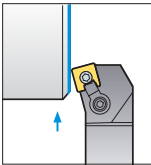
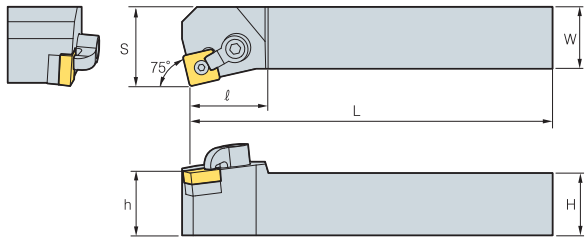
Designation		H	W	L	S	h	ℓ	Insert	 Clamp	 Clamp Screw	 Shim	 Shim Pin	 Wrench
MSDNN	1616-H09	16	16	100	8	16	28	SN□□0903□□	 CDH7N	 DHA10-32-19	 SS32D	 SP3DS	HW19.8L HW23.8L
	2020-K09	20	20	125	10	20	28						
	2020-K12	20	20	125	10	20	32						
	2525-M12	25	25	150	12.5	25	32	SN□□1204□□	 CDH8N1	 DHA5/16-32	 SS43D	 SP4D	HW39.7L HW23.8L
	3225-P12	32	25	170	12.5	32	32						
	2525-M15	25	25	150	12.5	25	35						
	3225-P15	32	25	170	12.5	32	35	SN□□1506□□	 CDH8N	 DHA5/16-32	 SS53D	 SP5D	HW39.7L HW31.8L
	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 B41~B48

MSKNR/L



SN□□



75°

• R type insert
(mm)

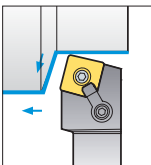
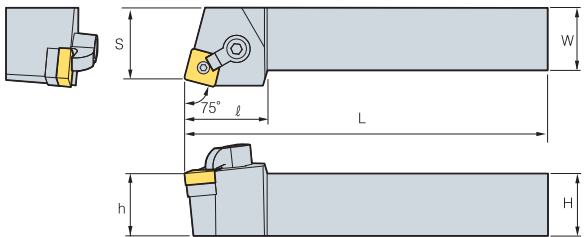
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MSKNR/L 1616-H09	16	16	100	20	16	28	SN□□0903□□	CDH7N	DHA10-32-19	SS32D	SP3DS	HW19.8L HW23.8L
2020-K09	20	20	125	22	20	28						
2020-K12	20	20	125	25	20	32						
2525-M12	25	25	150	32	25	32	SN□□1204□□	CDH8N1	DHA5/16-32	SS43D	SP4D	HW39.7L HW23.8L
3225-P12	32	25	170	32	32	32						
2525-M15	25	25	150	32	25	35						
3232-P15	32	32	170	40	32	35	SN□□1506□□	CDH8N	DHA5/16-32	SS53D	SP5D	HW39.7L HW31.8L
3232-P19	32	32	170	40	32	40						
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 **B41~B48**

MSRNR/L



SN□□



75°

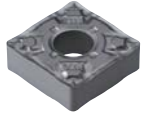
• R type insert
(mm)

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

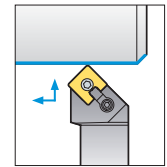
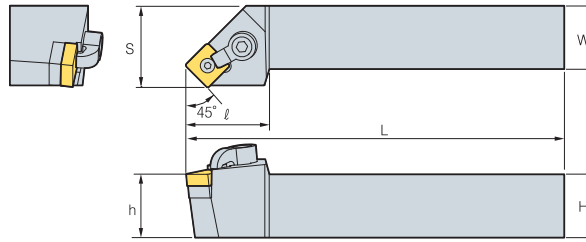
➔ Applicable inserts **B41~B48**



MSSNR/L



SN□□



45°

• R type insert
(mm)

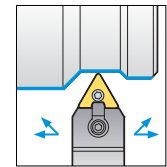
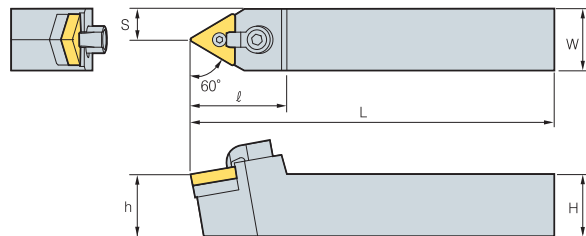
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MSSNR/L 1616-H09	16	16	100	20	16	28	SN□□0903□□	CDH7N	DHA10-32-19	SS32D	SP3DS	HW19.8L HW23.8L
2020-K09	20	20	125	25	20	28						
2020-K12	20	20	125	25	20	32						
2525-M12	25	25	150	32	25	32	SN□□1204□□	CDH8N1	DHA5/16-32	SS43D	SP4D	HW39.7L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

↻ Applicable inserts B41~B48

MTENN



TN□□



60°

(mm)

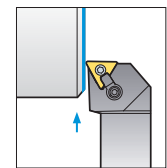
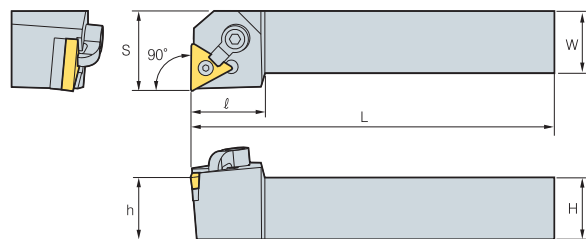
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MTENN 2020-K16	20	20	125	10	20	32	TN□□1604□□	CDH7N	DHA10-32-19	ST32D	SP3D	HW23.8L HW19.8L
2525-M16	25	25	150	12.5	25	32						
2525-M22	25	25	150	12.5	25	35	TN□□2204□□	CDH8N1	DHA5/16-32	ST43D	SP4D	HW39.7L HW23.8L
3232-P27	32	32	170	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 B49~B55

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 B49~B55

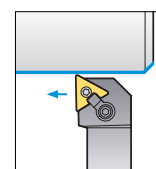
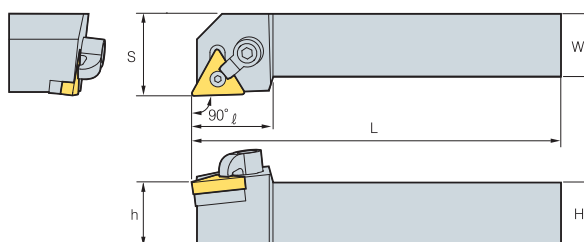
Turning


B

MTGNR/L



TN□□



90°

• R type insert
(mm)

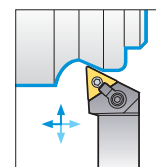
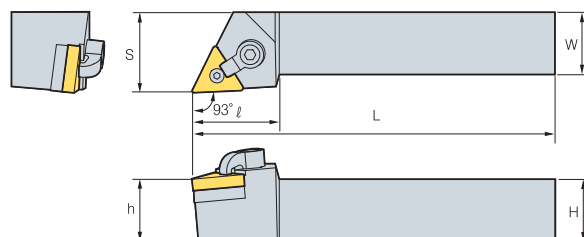
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MTGNR/L 1616-H16	16	16	100	20	16	32	TN□□1604□□	CDH7N	DHA10-32-19	ST32D	SP3D	HW23.8L HW19.8L
2020-K16	20	20	125	25	20	32						
2525-M16	25	25	150	32	25	32						
2525-M22	25	25	150	32	25	32	TN□□2204□□	CDH8N1	DHA5/16-32	ST43D	SP4D	HW39.7L 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 B49~B55

MTJNR/L



TN□□



93°

• R type insert
(mm)

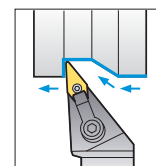
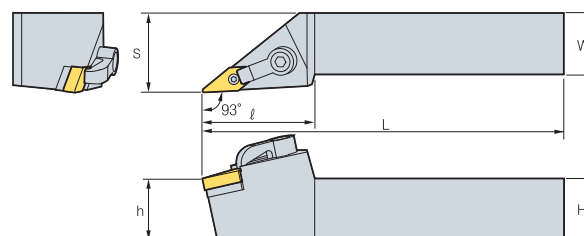
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MTJNR/L 2020-K16	20	20	125	25	20	32	TN□□1604□□	CDH7N	DHA10-32-19	ST32D	SP3D	HW23.8L HW19.8L
2525-M16	25	25	150	32	25	32						
2525-M22	25	25	150	32	25	32						
3232-P22	32	32	170	40	32	32	TN□□2204□□	CDH8N1	DHA5/16-32	ST43D	SP4D	HW39.7L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

➔ Applicable inserts B49~B55

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						

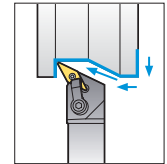
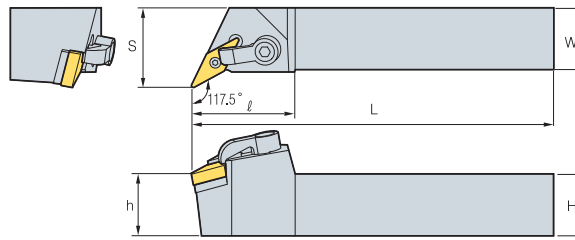
➔ Applicable inserts B56~B57



MVQNR/L



VN□□



117.5°

• R type insert
(mm)

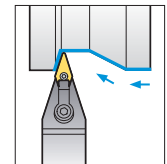
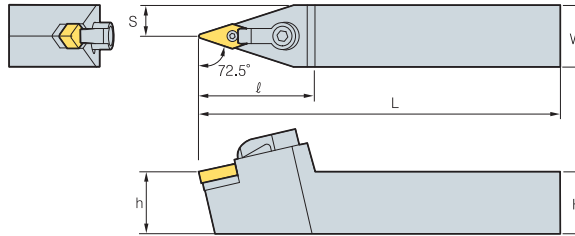
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MVQNR/L 2020-K16	20	20	125	25	20	42	VN□□1604□□					
2525-M16	25	25	150	32	25	42						
3232-P16	32	32	170	40	32	37						
								CDH8N2	DHA5/16-32	SV32D	SP3D	HW39.7L HW19.8L

Applicable inserts B56~B57

MVVNN



VN□□



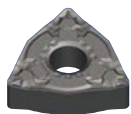
72.5°

(mm)

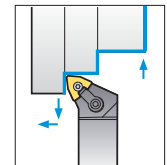
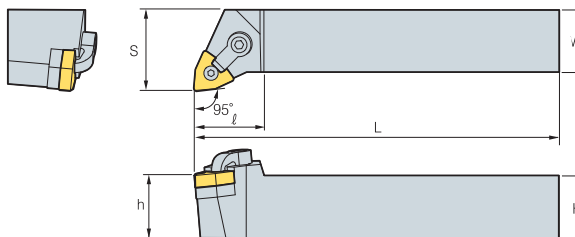
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MVVNN 2020-K16	20	20	125	25	20	42	VN□□1604□□					
2525-M16	25	25	150	32	25	42						
								CDH8N2	DHA5/16-32	SV32D	SP3D	HW39.7L HW19.8L

Applicable inserts B56~B57

MWLNR/L



WN□□



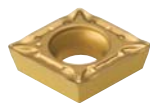
95°

• R type insert
(mm)

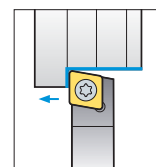
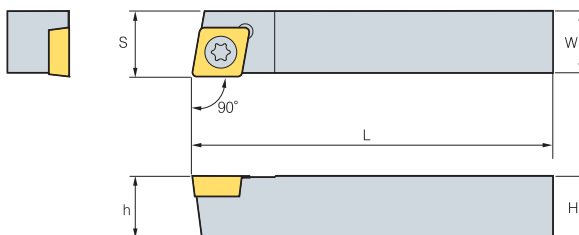
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MWLNR/L 2020-K06	20	20	125	25	20	32	WN□□0604□□					
2525-M06	25	25	150	32	25	32						
3232-P06	32	32	170	40	32	32						
2020-K08	20	20	125	25	20	32	WN□□0804□□					
2525-M08	25	25	150	32	25	32						
3232-P08	32	32	170	40	32	32					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

Applicable inserts B58~B61

SCACR/L



CC□□



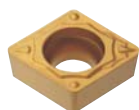
90°

• R type insert (mm)

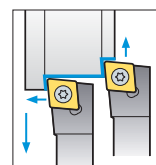
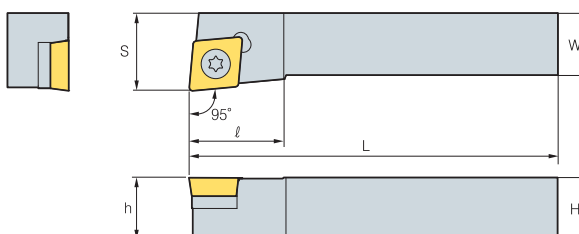
Designation	H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SCACR/L 1010-E06	10	10	70	10.5	10	CC□□0602□□	FTKA02565	-	-	TW07P
1212-F09	12	12	80	12.5	12	CC□□09T3□□	FTKA03508	-	-	TW15P

Applicable inserts B62~B65, B87

SCLCR/L



CC□□



95°

• R type insert (mm)

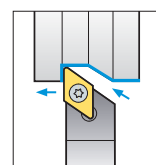
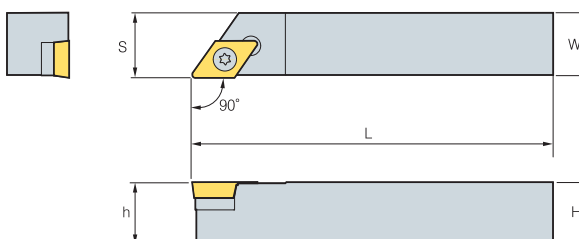
Designation	H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench
SCLCR/L 0808-D06	08	08	60	10	08	10	CC□□0602□□	FTKA02565	-	-	TW07P
1010-E06	10	10	70	16	10	10					
1212-F09	12	12	80	20	12	16	CC□□09T3□□	CDH7N	-	-	TW15P
1616-H09	16	16	100	20	16	16					
2020-K09	20	20	125	25	20	16	CC□□1204□□	FTGA0411F	SC42S	SHXN0610F	TW15P
2020-K12	20	20	125	25	20	25	CC□□09T3□□	FTGA03508	-	-	TW156P
2525-M09	25	25	150	32	25	26	CC□□1204□□	FTGA0411F	SC42S	SHXN0610F	HW40L
2525-M12	25	25	150	32	25	26	CC□□1204□□	FTGA0411F	SC42S	SHXN0610F	HW40L

Applicable inserts B62~B65, B87

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

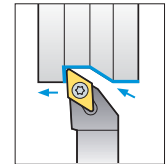
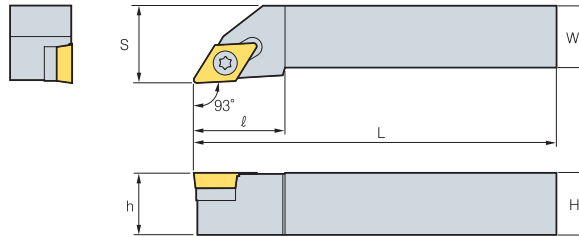
Applicable inserts B67~B69, B88



SDJCR/L



DC□□



93°

• R type insert
(mm)

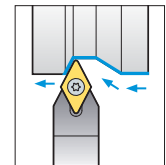
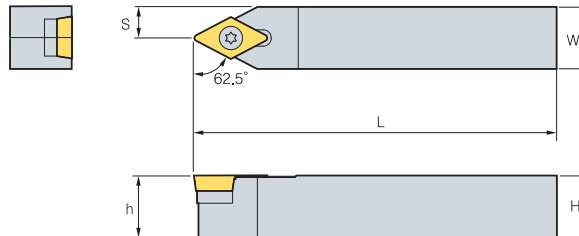
Designation	H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench
SDJCR/L 1010-E07	10	10	70	12	10	15	DC□□0702□□	FTKA02565	-	-	TW07P
1212-F07	12	12	80	16	12	15					
1616-H07	16	16	100	20	16	18					
2020-K07	20	20	125	25	20	15					
1212-F11	12	12	80	16	12	15	DC□□11T3□□	FTGA03512	-	-	TW15P, HW35L
1616-H11	16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

→ Applicable inserts B67~B69, B88

SDNCN



DC□□



62.5°

(mm)

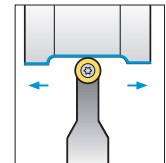
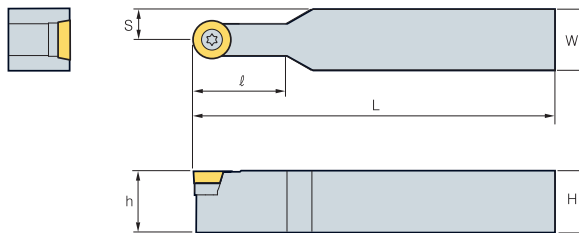
Designation	H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SDNCN 1010-E07	10	10	70	5	10	DC□□0702□□	FTKA02565	-	-	TW07P
1212-F07	12	12	80	6	12					
1212-H11	12	12	100	6	12	DC□□11T3□□	FTGA03508	-	-	TW15P
1616-H11	16	16	100	8	16	DC□□11T3□□	FTGA03512	SD32S	SHXN0509F	TW15P, HW35L
2020-K11	20	20	125	10	20	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

→ Applicable inserts B67~B69, B88

SRDCN



RCGT



(mm)

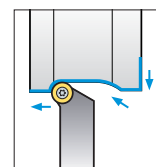
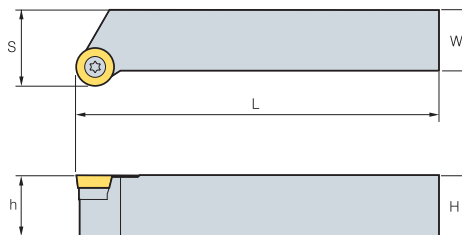
Designation	H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench
SRDCN 1010-E06	10	10	70	5	10	10	RCGT0602M0	FTKA02565	-	-	TW07P
1212-F06	12	12	80	6	12	12					
1616-H06	16	16	100	8	16	12					
2525-M06	25	25	150	12.5	25	20					
1616-H08	16	16	100	8	16	16	RCGT0803M0	FTNA0307	-	-	TW09P
2020-K08	20	20	125	10	20	20					
2525-M08	25	25	150	12.5	25	20					
1616-H10	16	16	100	8	16	25	RCGT1003M0	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	RCGT1204M0	FTGA03512	SR12S	SHXN0509F	TW15P HW35L
2525-M12	25	25	150	12.5	25	28					

→ Applicable inserts B89

SRGCR/L



RCGT

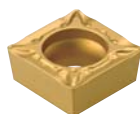


• R type insert
(mm)

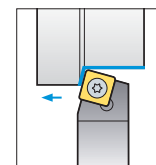
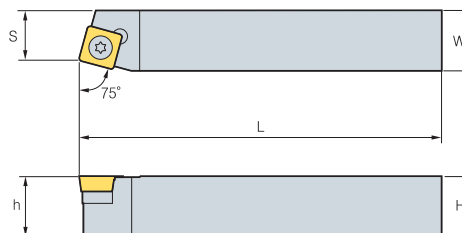
Designation		H	W	L	S	h	Insert	 Screw	 Shim	 Shim Screw	 Wrench
SRGCR/L	1010-E06	10	10	70	12	10	RCGT0602M0	FTKA02565	-	-	TW07P
	1212-F06	12	12	80	16	12					
	1616-H06	16	16	100	20	16					
	1616-H08	16	16	100	20	16	RCGT0803M0	FTNA0307	-	-	TW09P
	2020-K08	20	20	125	25	20					
	2525-M08	25	25	150	32	25					
	1616-H10	16	16	100	20	16	RCGT1003M0	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	RCGT1204M0	FTGA03512	SR12S	SHXN0509F	TW15P HW35L
	2525-M12	25	25	150	32	25					

Applicable inserts B89

SSBCR/L



SC□□



75°

• R type insert
(mm)

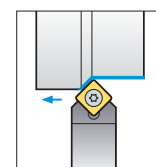
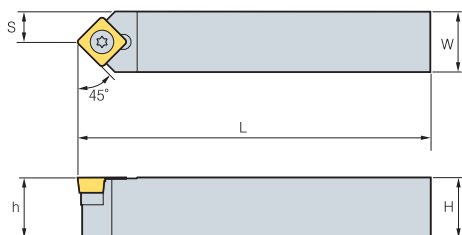
Designation		H	W	L	S	h	Insert	 Screw	 Shim	 Shim Screw	 Wrench
SSBCR/L	1212-F09	12	12	80	11	12	SC□□09T3□□	FTGA03508	-	-	TW15P
	1616-H09	16	16	100	13	16		FTGA03512	SS32S	SHXN0509F	TW15P, HW35L
	2020-K12	20	20	125	17	20	SC□□1204□□	FTGA0411F	SS42S	SHXN0610F	TW15P, HW40L

Applicable inserts B70~B71, B90

SSDCN



SC□□



45°

(mm)

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

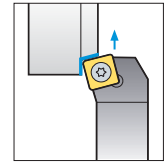
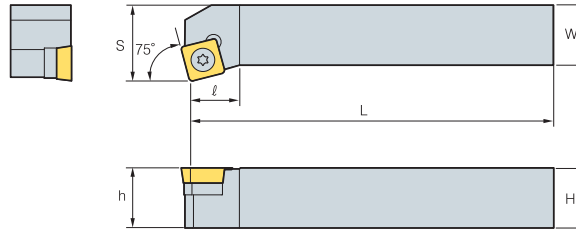
Applicable inserts B70~B71, B90



SSKCR/L



SC□□



75°

• R type insert (mm)

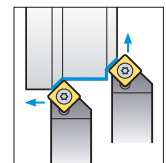
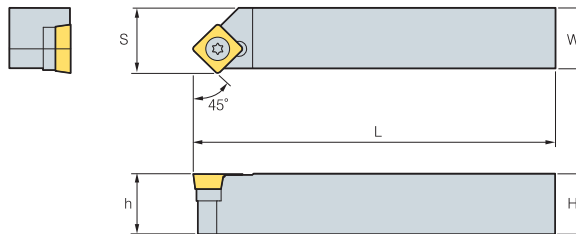
Designation	H	W	L	S	h	l	Insert	Screw	Shim	Shim Screw	Wrench
SSKCR/L 1616-H09	16	16	100	20	16	13	SC□□09T3□□	FTGA03512	SS32S	SHXN0509F	TW15P, HW35L

➡ Applicable inserts B70~B71, B90

SSSCR/L



SC□□



45°

• R type insert (mm)

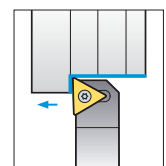
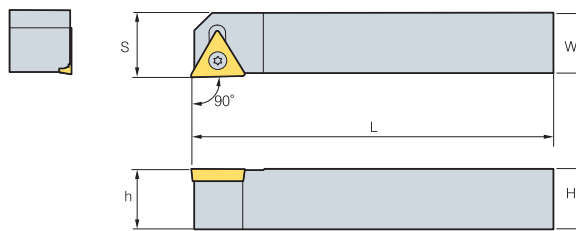
Designation	H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SSSCR/L 1616-H09	16	16	100	17	16	SC□□09T3□□	FTGA03512	SS32S	SHXN0509F	TW15P, HW35L
2020-K12	20	20	125	21	20	SC□□1204□□	FTGA0411F	SS42S	SHXN0610F	TW15P, HW40L
2525-M12	25	25	150	26	25	SC□□1204□□	FTGA0411F	SS42S	SHXN0610F	TW15P, HW40L

➡ Applicable inserts B70~B71, B90

STACR/L



TC□□



90°

• R type insert (mm)

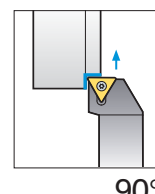
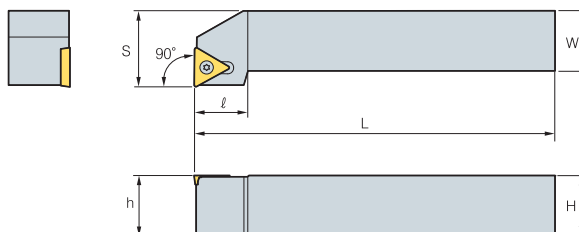
Designation	H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
STACR/L 1010-E09	10	10	70	10.5	10	TC□□0902□□	FTKA02206	-	-	TW06P
1212-F11	12	12	80	12.5	12	TC□□1102□□	FTKA02565	-	-	TW07P

➡ Applicable inserts B75~B76, B91

STFCR/L



TC□□



90°

• R type insert (mm)

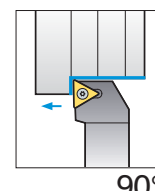
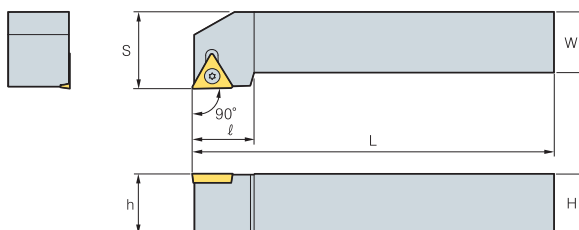
Designation	H	W	L	S	h	l	Insert	Screw	Shim	Shim Screw	Wrench
STFCR/L 1010-E09	10	10	70	12	10	10	TC□□0902□□	FTKA02206	-	-	TW06P
1212-F11	12	12	80	16	12	14	TC□□1102□□	FTKA02565	-	-	TW07P
1616-H11	16	16	100	20	16	14	TC□□16T3□□	FTGA03512	ST32S	SHXN0509F	TW15P, HW35L
1616-H16	16	16	100	20	16	19					
2020-K16	20	20	125	25	20	19					
2525-M16	25	25	150	32	25	25.2	TC□□16T3□□	FTGA03512	ST32S	SHXN0509F	TW15P, HW35L

➔ Applicable inserts B75~B76, B91

STGCR/L



TC□□



90°

• R type insert (mm)

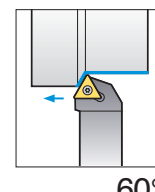
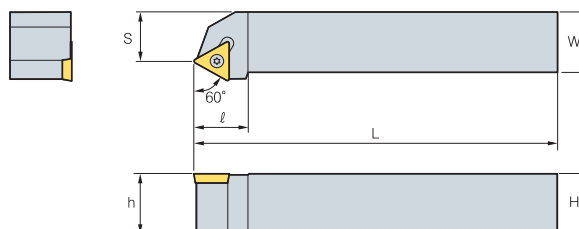
Designation	H	W	L	S	h	l	Insert	Screw	Shim	Shim Screw	Wrench
STGCR/L 0808-D09	08	08	60	10	08	11	TC□□0902□□	FTKA02206	-	-	TW06P
1010-E09	10	10	70	12	10	11	TC□□1102□□	FTKA02565	-	-	TW07P
1212-F11	12	12	80	16	12	14					
1616-H11	16	16	100	20	16	16					
1616-H16	16	16	100	20	16	21	TC□□16T3□□	FTGA03512	ST32S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

➔ Applicable inserts B75~B76, B91

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					

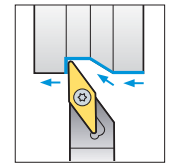
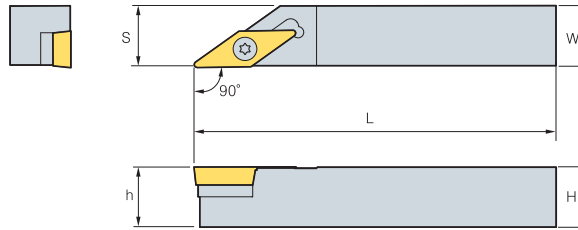
➔ Applicable inserts B75~B76, B91



SVABR/L



VB□□



90°

• R type insert
(mm)

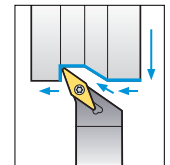
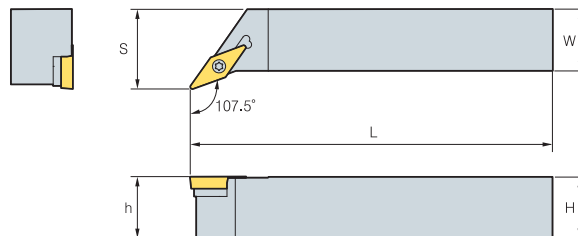
Designation	H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SVABR/L 1616-H16	16	16	100	16.5	16	VB□□1604□□	FTGA03512	SV32S	SHXN0509F	TW15P, HW35L
2020-K16	20	20	125	20.5	20					

→ Applicable inserts B80~B81, B92

SVHBR/L



VB□□



107.5°

• R type insert
(mm)

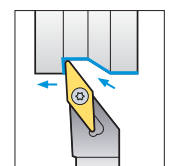
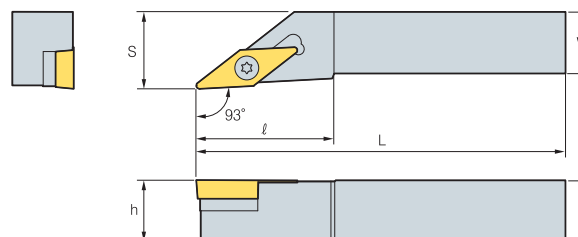
Designation	H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SVHBR/L 2525-M16	25	25	150	32	25	VB□□1604□□	FTGA03512	SV32S	SHXN0509F	TW15P, HW35L
3225-P16	32	25	170	32	32					

→ Applicable inserts B80~B81, B92

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					

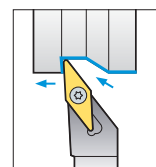
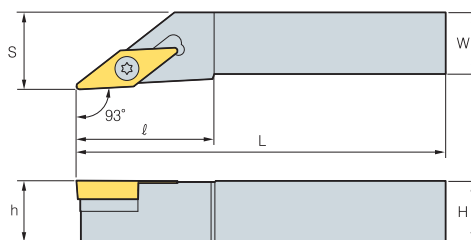
→ Applicable inserts B80~B81, B92



SVJCR/L



VC□□



93°

• R type insert
(mm)

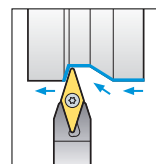
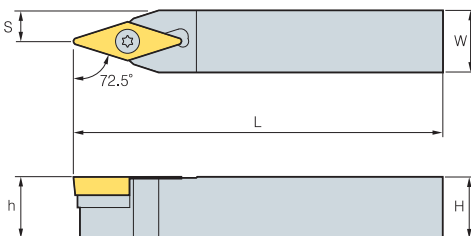
Designation	H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench
SVJCR/L 1212-F11	12	12	80	16	12	25	VC□□1103□□	FTKA02565	-	-	TW07P
	16	16	100	20	16	25					
	20	20	125	25	20	25					
1212-F13	12	12	80	16	12	32	VC□□1303□□	FTKA0307	-	-	TW09P
	16	16	100	20	16	32					
	20	20	125	25	20	32					
1616-H16	16	16	100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

➔ Applicable inserts B82~B83, B93

SVVBN



VB□□



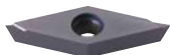
72.5°

(mm)

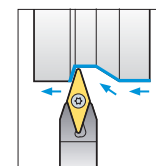
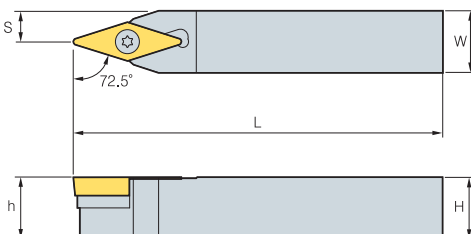
Designation	H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SVVBN 1212-F11	12	12	80	6	12	VB□□1102□□	FTKA02565	-	-	TW07P
	16	16	100	8	16					
	20	20	125	10	20					
1616-H16	16	16	100	8	16	VB□□1604□□	FTGA03512	SV32S	SHXN0509F	TW15P, HW35L
	20	20	125	10	20					
	25	25	150	12.5	25					
3225-P16	32	25	170	12.5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

➔ Applicable inserts B80~B81, B92

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
	16	16	100	8	16					
	20	20	125	10	20					
1212-F13	12	12	80	6	12	VC□□1303□□	FTNA0307	-	-	TW09P
	16	16	100	8	16					
	20	20	125	10	20					
1616-H16	16	16	100	8	16	VC□□1604□□	FTGA03512	SV32S	SHXN0509F	TW15P, HW35L
	20	20	125	10	20					
	25	25	150	12.5	25					

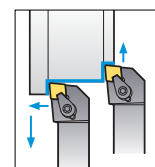
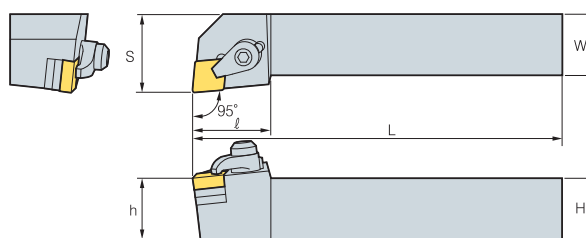
➔ Applicable inserts B82~B83, B93



CCLNR/L



CN□N



95°

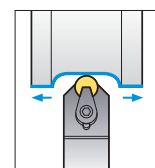
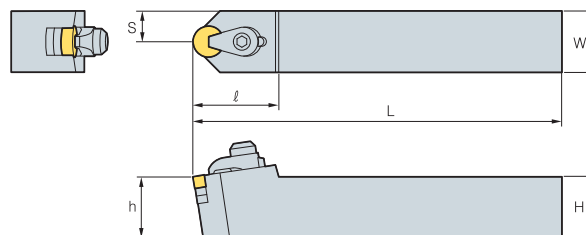
• R type insert
(mm)

Designation	H	W	L	S	h	ℓ	Insert	Clamp	Screw	Shim	Spring	Wrench
CCLNR/L 2525-M12C	25	25	150	32	25	32	CN□N1204□□ 1207□□	CH6R3	MHX0630 SHX0310	SC42CC	SR3	HW40L HW20L

CRDNN



RN□N



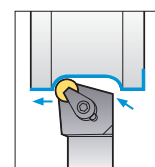
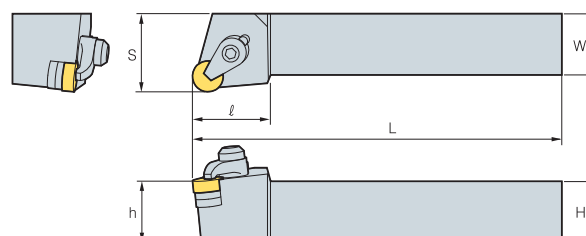
(mm)

Designation	H	W	L	S	h	ℓ	Insert	Clamp	Screw	Shim	Spring	Wrench
CRDNN 2525-M12C	25	25	150	12.5	25	35	RN□N1204□□ 1207□□	CH6R3	MHX0630 SHX0310	SC42CC	SR3	HW40L HW20L

CRGNR/L

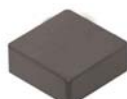


RN□N

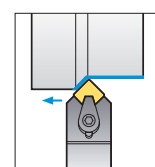
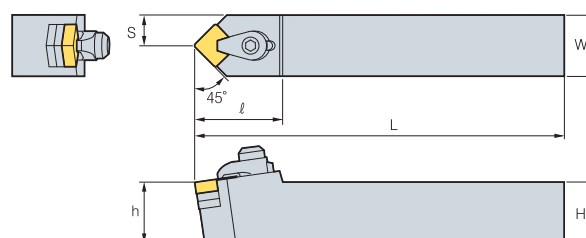

• R type insert
(mm)

Designation	H	W	L	S	h	ℓ	Insert	Clamp	Screw	Shim	Spring	Wrench
CRGNR/L 2525-M12C	25	25	150	32	25	32	RN□N1204□□ 1207□□	CH6R3	MHX0630 SHX0310	SC42CC	SR3	HW40L HW20L

CSDNN



SN□N



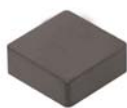
45°

(mm)

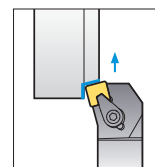
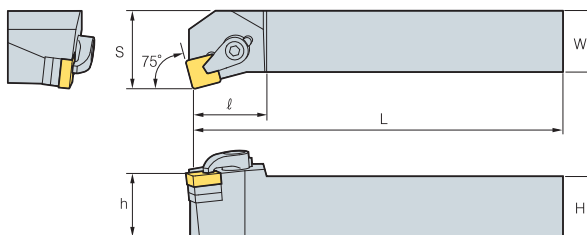
Designation	H	W	L	S	h	ℓ	Insert	Clamp	Screw	Shim	Spring	Wrench
CSDNN 2525-M12C	25	25	125	12.5	25	35	SN□N1204□□ 1207□□	CH6R3	MHX0630 SHX0310	SS42CC	SR3	HW40L HW20L

B Ceramic Holder

CSKNR/L



SN□N



75°

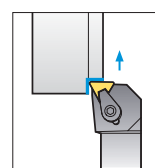
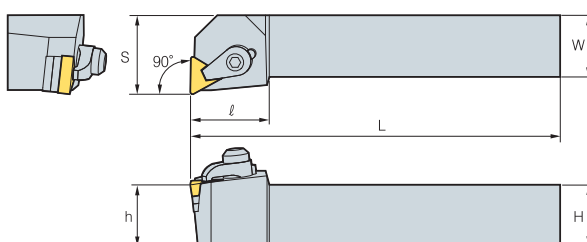
• R type insert
(mm)

Designation	H	W	L	S	h	l	Insert	Clamp	Screw	Shim	Spring	Wrench
CSKNR/L 2525-M12C	25	25	150	32	25	28	SN□N1204□□ 1207□□	CH6R3	MHX0630 SHX0310	SS42CC	SR3	HW40L HW20L

CTFNR/L



TN□N



90°

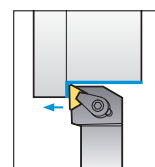
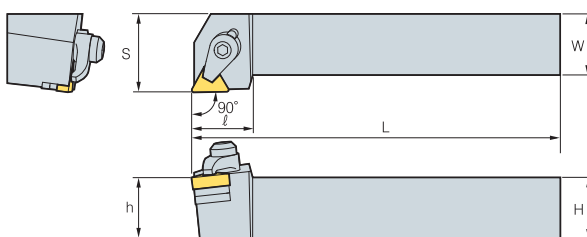
• R type insert
(mm)

Designation	H	W	L	S	h	l	Insert	Clamp	Screw	Shim	Spring	Wrench
CTFNR/L 2525-M16C	25	25	150	32	25	32	TN□N1604□□ 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□N1604□□ 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.



S 12 M - S T F P R - 11

1

Type of Bar

2

Bar Diameter

3

Bar Length

4

Method of Mounting Insert

5

Insert Shape

6

Lead Angle of Boring Bar

7

Relief Angle of Insert

8

Hand of Bar

9

Length of Cutting Edge

1

Type of Bar

S 12 M - S T F P R - 11

“A” Steel with coolant hole

“E” Carbide bar with fixed steel head and coolant hole

“C” Carbide shank

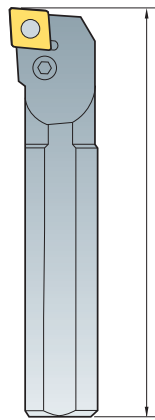
“S” Steel shank

“X” Special type

3

Bar Length

S 12 M - S T F P R - 11

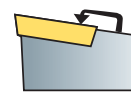


length(L) (mm)	
H	100
J	110
K	125
M	150
N	160
Q	180
R	200
S	250
T	300
U	350
V	400
W	450
Y	500

4

Method of Mounting Insert

S 12 M - S T F P R - 11



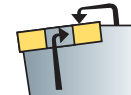
Top clamping

C



Top and hole clamping

D



Top and hole clamping

M



Hole clamping

P



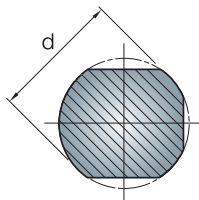
Screw on

S

2

Bar Diameter

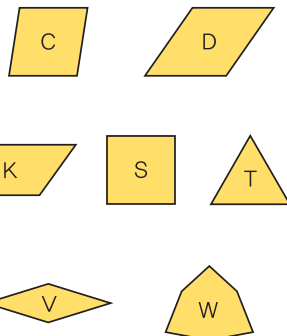
S 12 M - S T F P R - 11



5

Insert Shape

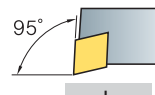
S 12 M - S T F P R - 11



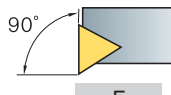
6

Lead Angle of Boring Bar

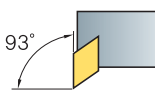
S 12 M - S T F P R - 11



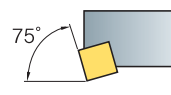
L



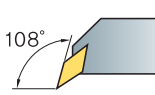
F



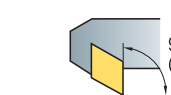
U



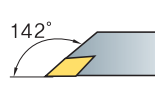
K



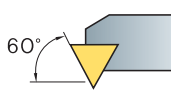
Q



Z



J



W

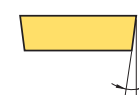
7

Relief Angle of Insert

S 12 M - S T F P R - 11



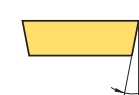
B



C



N

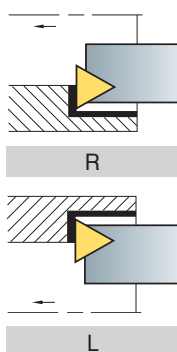


P

8

Hand of Bar

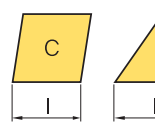
S 12 M - S T F P R - 11



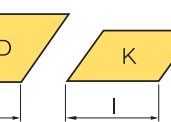
9

Length of Cutting Edge

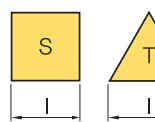
S 12 M - S T F P R - 11



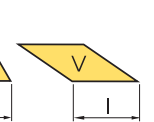
C



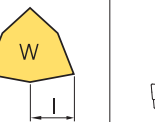
D



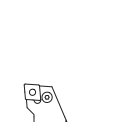
K



S



T



V



W

Double Clamp System

Cutting Shape								
Designation	DCLNR/L	DDUNR/L	DSKNR/L	DTFNR/L	DWLNR/L			
Approach angle	95°	93°	75°	90°	95°			
Page	B185	B185	B185	B186	B186			
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	B187	B187	B188	B189	B189	B190		
Copying		●	●					
Facing	●					●		
Back turning		●	●			●		
Turning	●	●	●	●	●	●		

Clamp on System

Cutting Shape								
Designation	CKUNR/L	CSKPR/L	CTFPR/L					
Approach angle	93°	75°	90°					
Page	B191	B191	B191					
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	B192	B192	B192	B193	B193	B193		
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	B194	B195	B196	B197	B198	B198	B198	B199
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	B200	B201	B201	B201	B202	B202	B202	B203
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	B204	B204	B205	B206				
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	B194	B195	B196	B197	B199

Designation	STFPR/L	STUBR/L	STUPR/L	SWUBR/L	-
Approach angle	90°	93°	93°	93°	-
Page	B200	B204	B205	B206	-

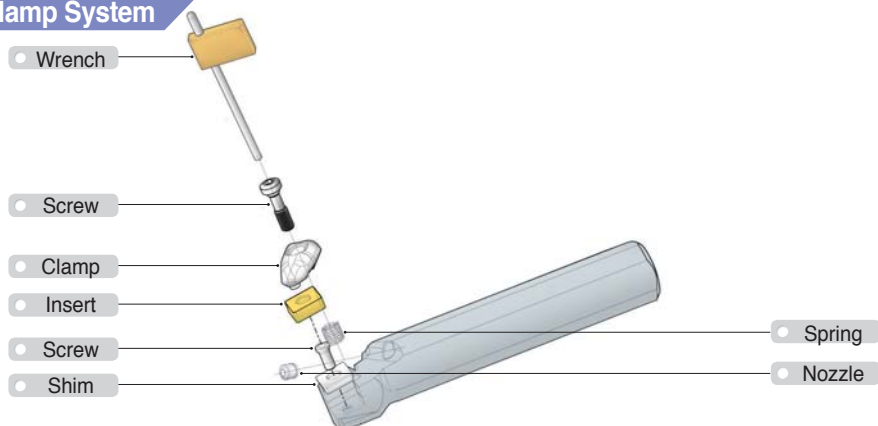
Sleeve

Shape		
Designation	SL	
Page	B130	

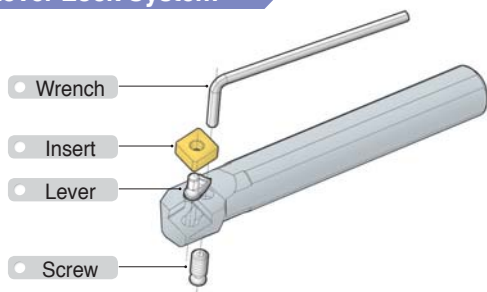
B Instructions of Boring Bar assembly

Instructions of Boring Bar assembly

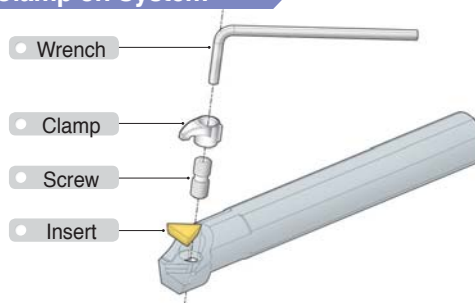
Double Clamp System



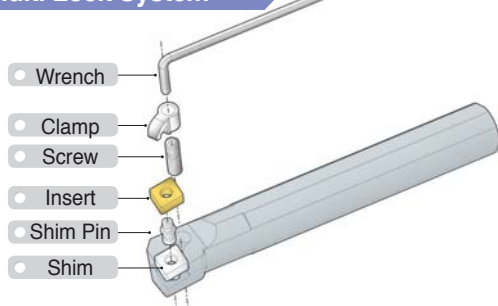
Lever Lock System



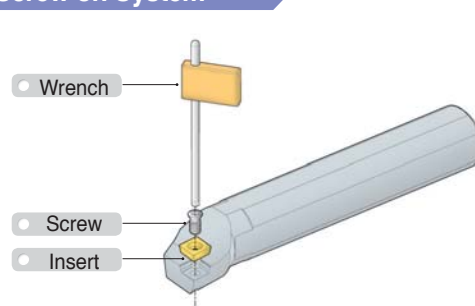
Clamp on System



Multi Lock System



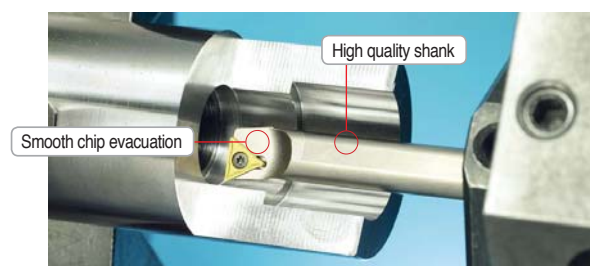
Screw on System



Carbide Shank Boring Bar

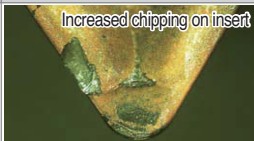
- Excellent cutting performance even in internal machining with chattering
- Available for various workpieces such as steel, stainless steel, cast iron, etc.
- Improved tool life and surface roughness

Features



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

Comparison of chipping

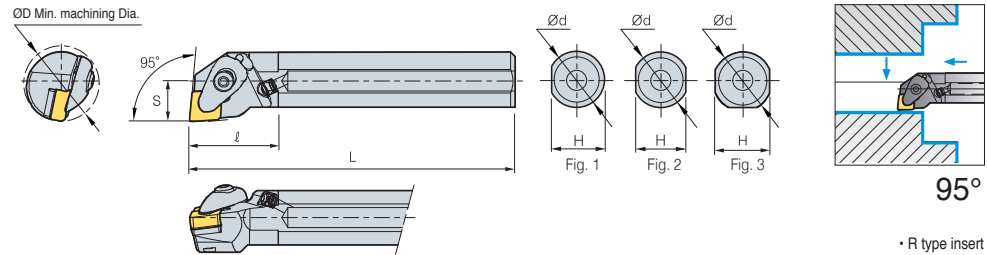
Specifications	Steel boring bar			Carbide boring bar		
SCM440 vc:200 m/min ap:0.4 mm fn:0.15 mm/rev Cutting depth:5D						
						
	Rmax	Rz	Ra	Rmax	Rz	Ra
	4.67	3.68	0.62	3.07	2.76	0.53



DCLNR/L



CN□□



• R type insert (mm)

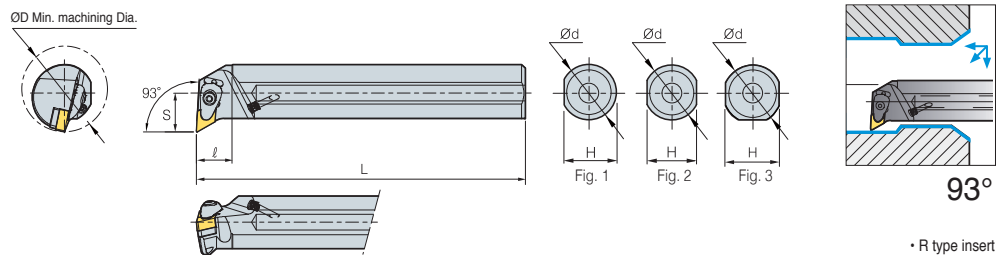
Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Nozzle	Wrench	Fig.
A25R-DCLNR/L-09	32	25	24	200	17	40	CN□□0903□□	CVH3	CHX0415	SC32V	FTKA0307	SPR0510	CN0605	HW25P	1
A25R-DCLNR/L-12	32	25	24	200	17	40	CN□□1204□□	CVH4	CHX0518	SC42V	FTKA0410	SPR0714	CN0605	HW30P	1
A32S-DCLNR/L-12	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□□1604□□	CVH5	CHX0622	SC54V	FTNA0511	SPR0811	CN0605	HW40L	3

➔ Applicable inserts B26~B32

DDUNR/L



DN□□



• R type insert (mm)

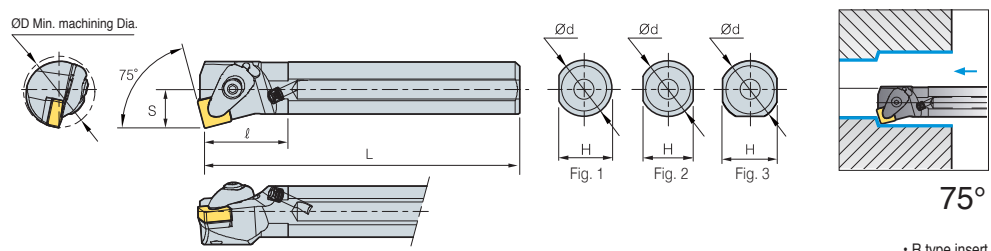
Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Nozzle	Wrench	Fig.
A40T-DDUNR/L-15	50	40	38	300	27	60	DN□□1506□□	CVH4	CHX0518	SD43V	FTKA0410	SPR0714	CN0605	HW30P	3
A50U-DDUNR/L-15	63	50	47	350	35	70									
A40T-DDUNR/L-15 -3	50	40	38	300	27	60	DN□□1504□□	CVH4	CHX0518	SD44V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

➔ Applicable inserts B33~B39

DSKNR/L



SN□□



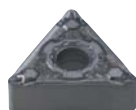
• R type insert (mm)

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									

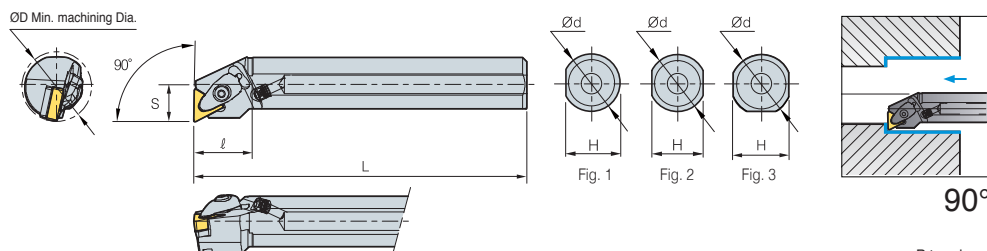
➔ Applicable inserts B41~B48

B Double Clamp System

DTFNR/L



TN□□



• R type insert (mm)

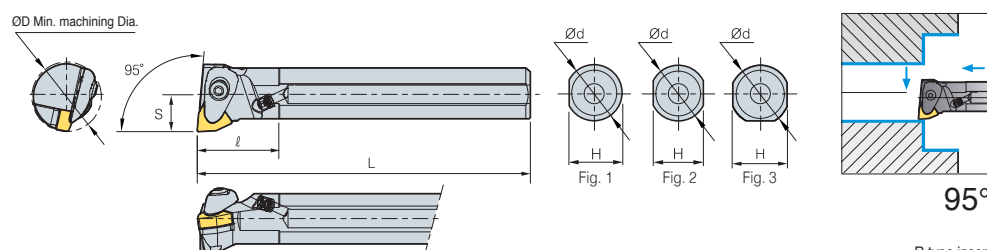
Designation	ØD	Ød	H	L	S	l	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Nozzle	Wrench	Fig.
A25R-DTFNR/L-16	32	25	24	200	17	40	TN□□1604□□	CVH3	CHX0415	ST32V	FTKA0307	SPR0510	CN0605	HW25P	1
A32S-DTFNR/L-16	40	32	30	250	22	50									3
A40T-DTFNR/L-22	50	40	38	300	27	60	TN□□2204□□	CVH4	CHX0518	ST44V	FTKA0410	SPR0714	CN0605	HW30P	3
A50U-DTFNR/L-22	63	50	47	350	35	70									

Applicable inserts B49~B55

DWLNRL/L



WN□□



• R type insert (mm)

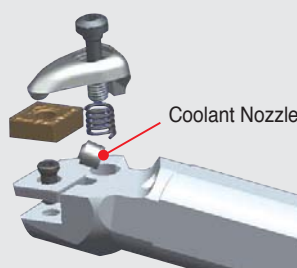
Designation	ØD	Ød	H	L	S	ℓ	Insert								Fig.	
A25R-DWLNR/L-06	32	25	24	200	17	40	WN□□0604□□								1	
A32S-DWLNR/L-06	40	32	30	250	22	50									3	
A40T-DWLNR/L-06	50	40	38	300	27	60										
A25R-DWLNR/L-08	32	25	24	200	17	40	WN□□0804□□								1	
A32S-DWLNR/L-08	40	32	30	250	22	50									3	
A40T-DWLNR/L-08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

Applicable inserts B58~B61



Features of Double Clamp (Boring bar)

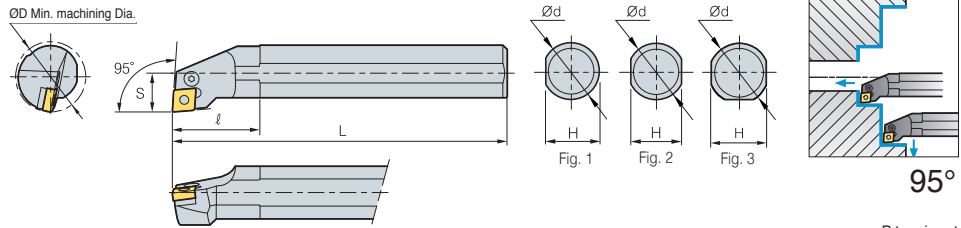
Longer tool life and excellent surface finish can be achieved with the adjustable Coolant Nozzle



PCLNR/L



CN□□



• R type insert (mm)

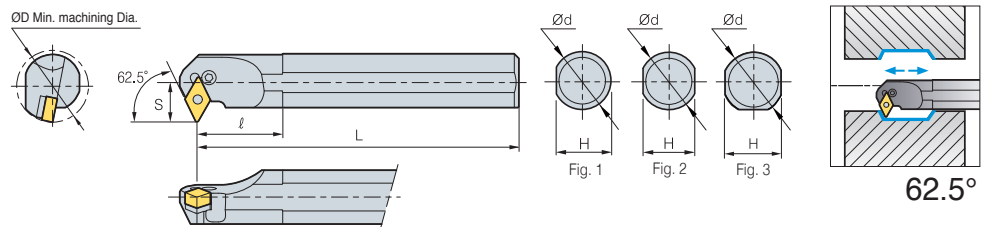
Designation	ØD	Ød	H	L	S	ℓ	Insert							Fig.	
S16R-PCLNR/L-09	20	16	14	200	11	25	CN□□0903□□	LV3C	VHX0509B	-	-	-	HW20L	2	
S20S-PCLNR/L-09	25	20	18	250	13	32								3	
S25R-PCLNR/L-09	32	25	23	200	17	40									
S25R-PCLNR/L-12	32	25	23	200	17	40	CN□□1204□□	LV4A	VHX0613A	-	-	-	HW25L	3	
S32S-PCLNR/L-12	40	32	30	250	22	50									
S40T-PCLNR/L-12	50	40	38	300	27	60									
S50U-PCLNR/L-12	63	50	47	350	35	70									
S50U-PCLNR/L-19	63	50	47	350	35	70	CN□□1906□□	LV6	VHX1027	SC63	SP6	LSPS6	HW40L	3	
A25R-PCLNR/L-12	32	25	24	200	17	40	CN□□1204□□	LV4A	VHX0613A	-	-	-	HW25L	1	
A32S-PCLNR/L-12	40	32	30	250	22	50								3	
A40T-PCLNR/L-12	50	40	38	300	27	60									
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								3	
S25R-PCLNR/L-09N	32	25	23	200	17	40									
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									
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									
A40T-PCLNR/L-12N	50	40	38	300	27	60									3
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 B33~B39

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	

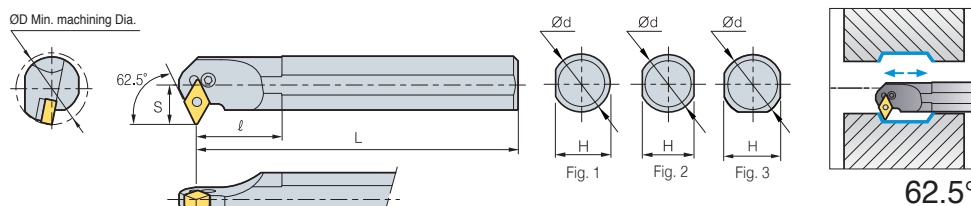
➔ Applicable inserts B33~B39

B Lever Lock System

PDSNR/L



DN□□



• R type insert
(mm)

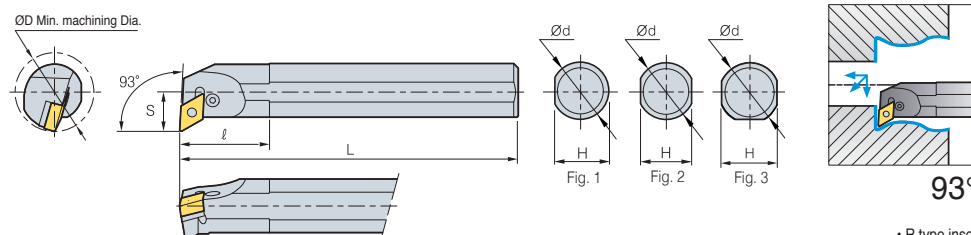
Designation	ØD	Ød	H	L	S	ℓ	Insert							Fig.
S32S-PDSNR/L-15N	40	32	30	250	22	50	DN□□1506□□							3
S40T-PDSNR/L-15N	50	40	38	300	27	60								
S32S-PDSNR/L-15-3N	40	32	30	250	22	50	DN□□1504□□							
S40T-PDSNR/L-15-3N	50	40	38	300	27	60								
A32S-PDSNR/L-15N	40	32	30	250	22	50	DN□□1506□□							
A40T-PDSNR/L-15N	50	40	38	300	27	60								
A32S-PDSNR/L-15-3N	40	32	30	250	22	50	DN□□1504□□							
A40T-PDSNR/L-15-3N	50	40	38	300	27	60								

• Applicable inserts B33~B39

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.
S20S-PDUNR/L-11	25	20	18	250	13	32	DNMG110408	LV3D	VHX0512B	-	-	-	HW20L	2
S25R-PDUNR/L-11	32	23.5	23	250	17	40		LV3DN	VHX0512B	-	-	-	HW20L	3
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	DN□□1504□□	LV4	VHX0821	SD42	SP4	LSPS4	HW30L	3
S32S-PDUNR/L-15-3	40	32	30	250	22	50								
S40T-PDUNR/L-15-3	50	40	38	300	27	60	DN□□1506□□	LV4B	VHX0821	SD42	SP4	LSPS4	HW30L	3
A32S-PDUNR/L-15	40	32	30	250	22	50								
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		LV3AN	VHX0617N	SD32N	SP3	LSPS3	HW30L	3
S32S-PDUNR/L-11N	40	32	30	250	22	50	DN□□1506□□	LV4BN	VHX0821N	SD42N	SP4N	LSPS4	HW30L	3
S32S-PDUNR/L-15N	40	32	30	250	22	50								
S32U-PDUNR/L-15N	40	32	30	350	22	50	DN□□1504□□	LV4BN	VHX0821N	SD43N	SP4N	LSPS4	HW30L	3
S40T-PDUNR/L-15N	50	40	38	300	27	60								
S50U-PDUNR/L-15N	63	50	47	350	35	70	DN□□1104□□	LV3DN	VHX0512BN	-	-	-	HW20L	1
S32S-PDUNR/L-15-3N	40	32	30	250	22	50								
S40T-PDUNR/L-15-3N	50	40	38	300	27	60	DN□□1506□□	LV4BN	VHX0821N	SD42N	SP4N	LSPS4	HW30L	3
A20S-PDUNR/L-11N	25	20	19	250	13	32		LV3AN	VHX0617N	SD32N	SP3	LSPS3	HW30L	3
A25R-PDUNR/L-11N	32	25	24	200	17	40								
A32S-PDUNR/L-11N	40	32	30	250	22	50	DN□□1506□□	LV4BN	VHX0821N	SD42N	SP4N	LSPS4	HW30L	3
A32S-PDUNR/L-15N	40	32	30	250	22	50								
A40T-PDUNR/L-15N	50	40	38	300	27	60	DN□□1504□□	LV4BN	VHX0821N	SD43N	SP4N	LSPS4	HW30L	3
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								

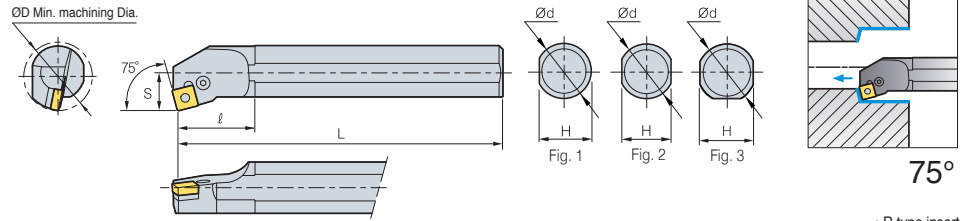
• Applicable inserts B33~B39



PSKNR/L



SN□□

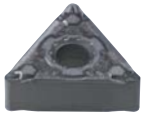


• R type insert
(mm)

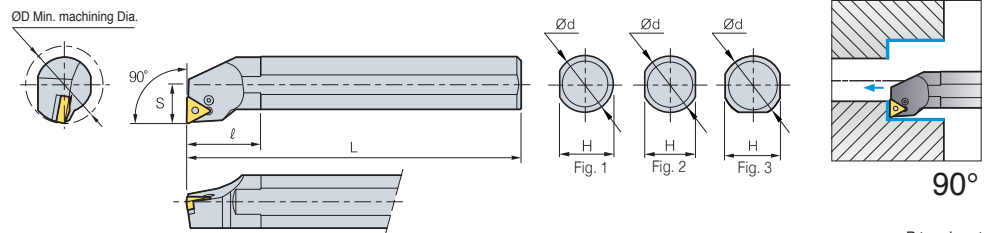
Designation	ØD	Ød	H	L	S	l	Insert	Lever	Screw	Shim	Shim pin	Shim pin Punch	Wrench	Fig.
S25R-PSKNR/L-12	32	25	23	200	17	40	SN□□1204□□	LV4A	VHX0613A	-	-	-	HW30L	3
S32S-PSKNR/L-12	40	32	30	250	22	50		LV4	VHX0821	SS42B	SP4	LSPS4	HW30L	
S40T-PSKNR/L-12	50	40	38	300	27	60		LV4A	VHX0613A	-	SP4	-	HW25L	1
A25R-PSKNR/L-12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

➔ Applicable inserts B41~B48

PTFNR/L



TN□□



• R type insert
(mm)

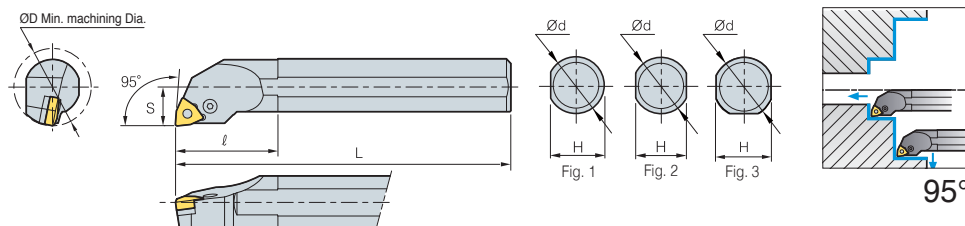
Designation	ØD	Ød	H	L	S	l	Insert	Lever	Screw	Shim	Shim pin	Shim pin Punch	Wrench	Fig.
S16R-PTFNR/L-11	20	16	23	200	11	25	TN□□1103□□	LV2	VHX0509B	-	-	-	HW25L	1
S20S-PTFNR/L-11	25	20	30	250	13	32		LV3B	VHX0512B	-	-	-	HW20L	3
S25R-PTFNR/L-11	32	25	38	200	17	40		LV3	VHX0617	ST317B	SP3	LSPS3	HW25L	1
S25R-PTFNR/L-16	32	25	23	200	17	40	TN□□1604□□	LV3	VHX0617	ST317B	SP3	LSPS3	HW25L	3
S32S-PTFNR/L-16	40	32	30	250	22	50		LV3B	VHX0512B	-	-	-	HW20L	3
S40T-PTFNR/L-16	50	40	38	300	27	60		LV3N	VHX0617N	ST317B	SP3	LSPS3	HW25L	3
A25R-PTFNR/L-16	32	25	24	200	17	40	TNMG160408	LV3B	VHX0512B	-	-	-	HW20L	3
A32S-PTFNR/L-16	40	32	30	250	22	50		LV3N	VHX0617N	ST317B	SP3	LSPS3	HW25L	3
S25T-PTFNR/L-16N	32	24	23	200	17	40		LV3N	VHX0617N	ST317B	SP3	LSPS3	HW25L	3
S32S-PTFNR/L-16N	40	31	30	250	22	50	TNMG160408	LV3N	VHX0617N	ST317B	SP3	LSPS3	HW25L	3
S40T-PTFNR/L-16N	50	39	38	300	27	50		LV3N	VHX0617N	ST317B	SP3	LSPS3	HW25L	3

➔ Applicable inserts B49~B55

PWLNR/L



WN□□



• R type insert (mm)

Designation	ØD	Ød	H	L	S	l	Insert	Lever	Screw	Shim	Shim pin	Shim pin Punch	Wrench	Fig.
S16R-PWLNR/L-06	20	16	14	200	11	25	WNMG060408	LV3B	VHX0512B	-	-	-	HW20L	2
S20S-PWLNR/L-06	25	20	18	250	13	32	WN□□0604□□	LV3B	VHX0512B	-	-	-	HW20L	2
S25R-PWLNR/L-06	32	25	23	200	17	40		LV3	VHX0617	SW317	SP3	LSPS3	HW25L	3
S32S-PWLNR/L-06	40	32	30	250	22	50		LV4A	VHX0613A	-	-	-	HW25L	3
S25R-PWLNR/L-08	32	25	23	200	17	40	WN□□0804□□	LV4	VHX0821	SW42	SP4	LSPS3	HW30L	3
S32S-PWLNR/L-08	40	32	30	250	22	50		LV4N	VHX0820N	SW42N	SP4N	LSPS4	HW30L	3
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 B58~B61



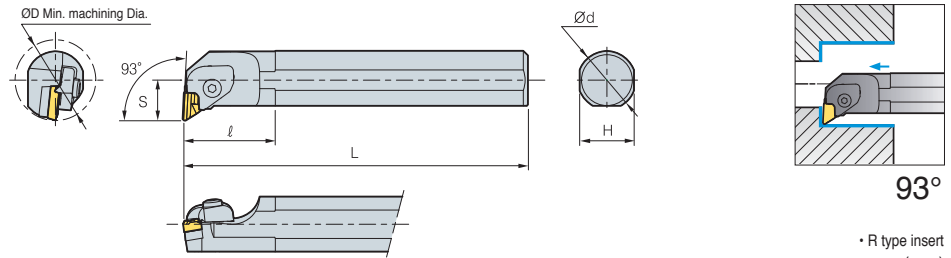
- Improved holders and parts ensure performance and durability
- “N” stand for New type (parts)



CKUNR/L



KN□□



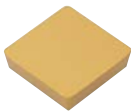
• R type insert
(mm)

Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Spring	Shim	Pin+Spring	Shim Screw	Wrench
S32S-CKUNR-16	40	32	30	250	22	70	KN□□1604□□L							
S40T-CKUNR-16	50	40	37	300	27	60								
S50U-CKUNR-16	63	50	43	350	35	55								
S32S-CKUNL-16	40	32	30	250	22	70	KN□□1604□□R							
S40T-CKUNL-16	50	40	37	300	27	60								
S50U-CKUNL-16	63	50	43	350	35	55								

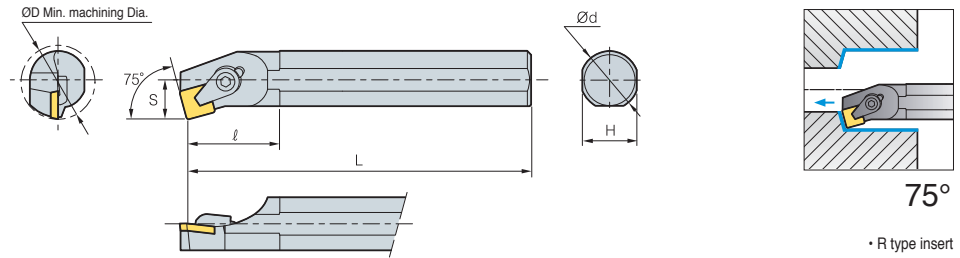
➔ Applicable inserts **B40**

• Use left handed insert for right handed holder

CSKPR/L



SP□□



• R type insert
(mm)

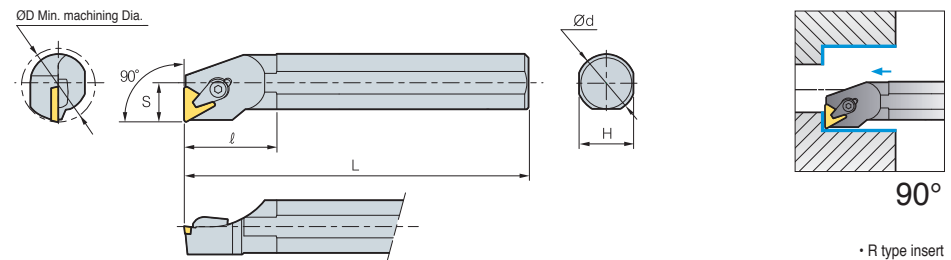
Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	C-ring	Wrench
S16R-CSKPR/L-09	20	16	15	200	11	30	SP□□0903□□				
S20S-CSKPR/L-09	25	20	18	250	13	36					
S20S-CSKPR/L-12	25	20	18	250	13	28	SP□□1203□□				
S25R-CSKPR/L-12	32	25	23	300	17	40					

➔ Applicable inserts **B72~B73**

CTFPR/L



TP□□



• R type insert
(mm)

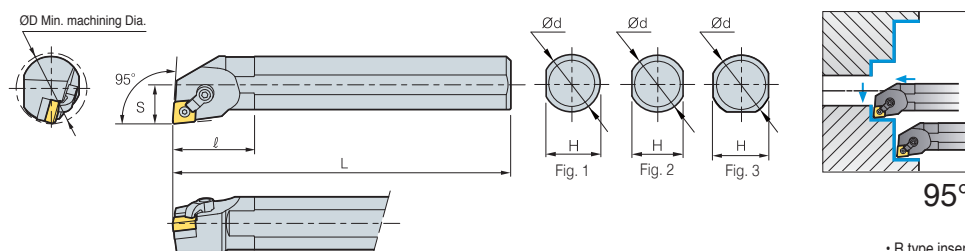
Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	C-ring	Shim	Shim pin	Wrench
S12M-CTFPR/L-11	16	12	11	150	9	26	TP□□1103□□L						
S16R-CTFPR/L-11	20	16	15	200	11	40							
S20S-CTFPR/L-11	25	20	18	250	13	40							
S16R-CTFPR/L-16	20	16	15	200	11	40	TP□□1603□□L						
S20S-CTFPR/L-16	25	20	18	250	13	40							
S25R-CTFPR/L-16	32	25	23	200	17	40							
S32S-CTFPR/L-16	40	32	30	250	22	45							
S40T-CTFPR/L-16	50	40	37	300	27	60	TP□□2204□□L						
S40T-CTFPR/L-22	50	40	37	300	27	60							

➔ Applicable inserts **B77~B79**

MCLNR/L



CN□□

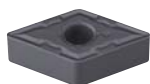


• R type insert (mm)

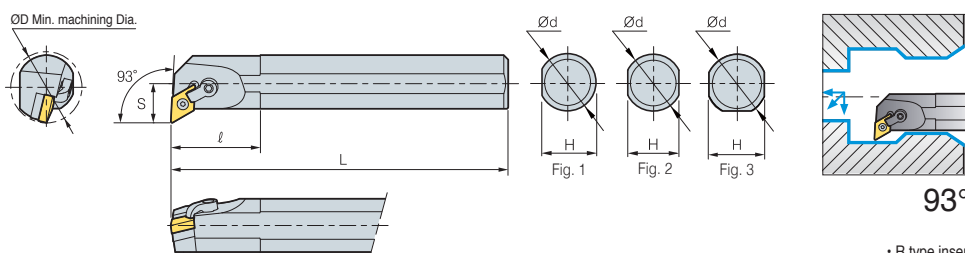
Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim pin	Wrench	Fig.
S20S-MCLNR/L-09	25	20	18	200	13	32	CN□□0903□□	CDH7N	DHA10/32-19	-	SP3D3	HW19.8L	2
S25R-MCLNR/L-09	32	25	23	250	17	40						HW23.8L	3
S25R-MCLNR/L-12	32	25	23	200	17	40	CN□□1204□□	CDH6N	DHA1/4-21	SC43D	SP4D	HW31.8L	3
S32S-MCLNR/L-12	40	32	30	250	22	50						HW23.8L	
S40T-MCLNR/L-12	50	40	38	300	27	60	CN□□1204□□	CDH6N	DHA1/4-21	SC43D	SP4D	HW31.8L	1
A25R-MCLNR/L-12	32	25	24	200	17	40						HW23.8L	3
A32S-MCLNR/L-12	40	32	31	250	22	50							

➔ Applicable inserts B26~B32

MDUNR/L



DN□□



• R type insert (mm)

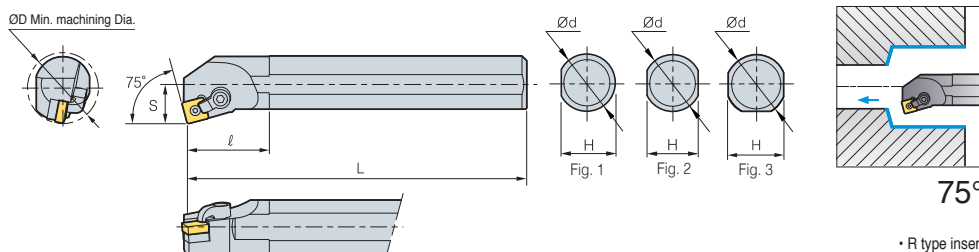
Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim pin	Wrench	Fig.
S32S-MDUNR/L-15-3	40	32	30	250	22	50	DN□□1504□□	CDH6N	DHA1/4-21	SD43D	SP4D	HW31.8L	3
S40T-MDUNR/L-15-3	50	40	38	300	27	60						HW23.8L	
A32S-MDUNR/L-15-3	40	32	30	250	22	50							

➔ Applicable inserts B33~B39

MSKNR/L



SN□□



• R type insert (mm)

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

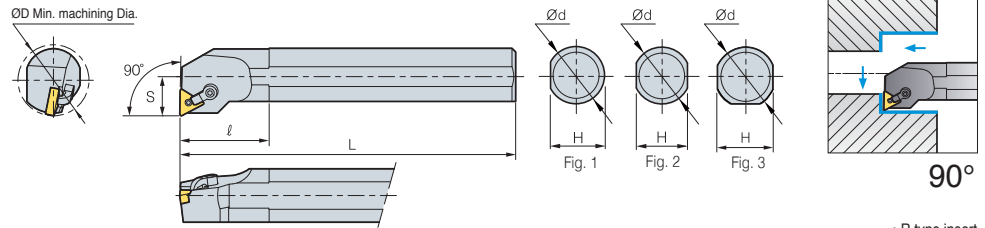
➔ Applicable inserts B41~B48



MTFNR/L



TN□□


• R type insert
(mm)

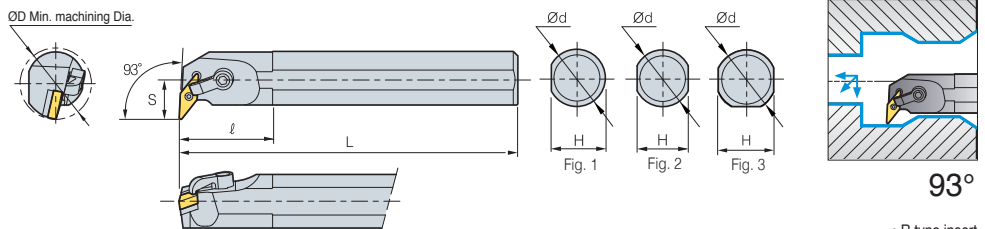
Designation	ØD	Ød	H	L	S	l	Insert	Clamp	Clamp Screw	Shim	Shim pin	Wrench	Fig.
S25R-MTFNR/L-16	32	25	23	200	17	40	TN□□1604□□	CDH7N1	DHA10-32-19	-	SP3D3	HW23.8L	3
S32S-MTFNR/L-16	40	32	30	250	22	50		CDH7N1	DHA10-32-19	ST32D	SP3D	HW19.8L	
S40T-MTFNR/L-16	50	40	38	300	27	60	TN□□1604□□	CDH7N1	DHA10-32-19	-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

Applicable inserts B49~B55

MVUNR/L



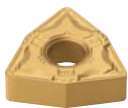
VN□□


• R type insert
(mm)

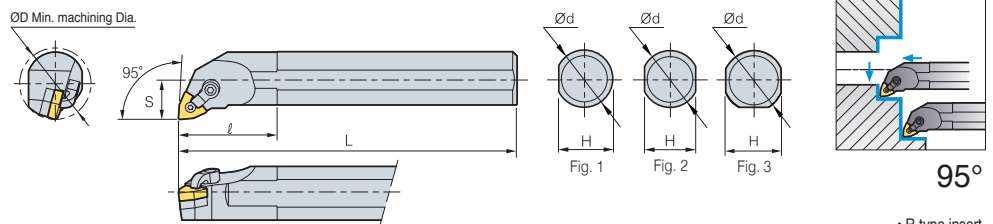
Designation	ØD	Ød	H	L	S	l	Insert	Clamp	Clamp Screw	Shim	Shim pin	Wrench	Fig.
S32S-MVUNR/L-16	40	32	30	250	22	50	VN□□1604□□	CDH8N2	DHA5/16-28	SV32D	SP3D	HW39.7L	3
S40T-MVUNR/L-16	50	40	38	300	27	60		CDH8N2	DHA5/16-28	SV32D	SP3D	HW19.8L	
A32S-MVUNR/L-16	40	32	30	250	22	50	VN□□1604□□	CDH8N2	DHA5/16-28	SV32D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

Applicable inserts B56~B57

MWLNR/L



WN□□


• R type insert
(mm)

Designation	ØD	Ød	H	L	S	l	Insert	Clamp	Clamp Screw	Shim	Shim pin	Wrench	Fig.
S25R-MWLNR/L-06	32	25	23	200	17	40	WN□□0604□□	CDH7N	DHA10/32-19	-	SP3D3	HW23.8L	3
S32S-MWLNR/L-06	40	32	30	250	22	50				SW32D	SP3D	HW19.8L	
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	3
S32S-MWLNR/L-08	40	32	30	250	22	50				SW43D	SP4D	HW23.8L	
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	1
A32S-MWLNR/L-06	40	32	31	250	22	50				SW32D	SP3D	HW19.8L	3
A25R-MWLNR/L-08	32	25	24	200	17	40	WN□□0804□□	CDH6N	DHA1/4-21	-	SP4DS	HW31.8L	1
A32S-MWLNR/L-08	40	32	31	250	22	50				SW43D	SP4D	HW23.8L	3

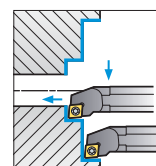
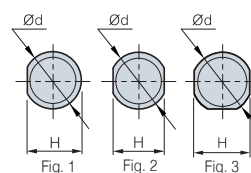
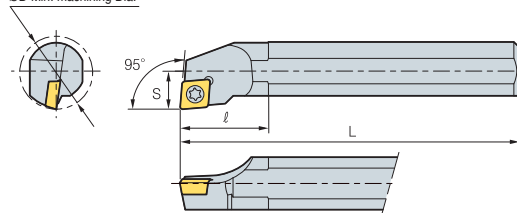
Applicable inserts B58~B61

SCLCR/L



CC□□

ØD Min. machining Dia.



95°

• R type insert
(mm)

Steel shank type

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

Carbide shank type

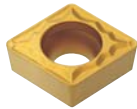
(mm)

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	1
C07K-SCLCR/L-04	8	7	6.4	125	4				
C08K-SCLCR/L-06	10	8	7	125	5	CC□T0602□□	FTKA02555	TW07P	2
C10K-SCLCR/L-06	12	10	9	125	6		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	2
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	CC□T1204□□	FTGA0411F	TW15P	1
C25T-SCLCR/L-12	32	25	23	300	17				
E06H-SCLCR/L-04	7	6	5.4	100	3.5	CC□T0401□□	FTNA0238	TW06P	1
E07K-SCLCR/L-04	8	7	6.4	125	4				
E08K-SCLCR/L-06	10	8	7	125	5	CC□T0602□□	FTKA02555	TW07P	2
E10K-SCLCR/L-06	12	10	9	125	6		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	2
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	CC□T1204□□	FTGA0411F	TW15P	1
E25T-SCLCR/L-12	32	25	23	300	17				

Applicable inserts B62~B64

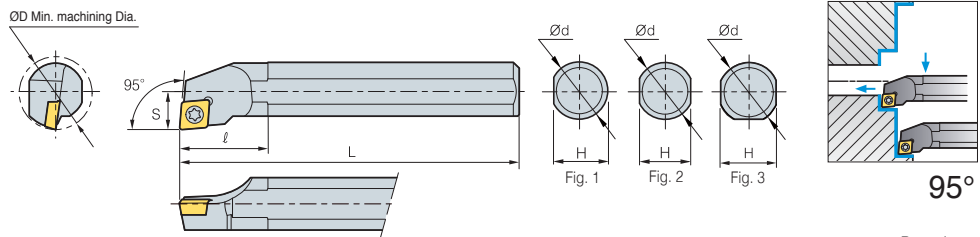


SCLPR/L



CP□□

ØD Min. machining Dia.



95°

Steel shank type

• R type insert
(mm)

Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Wrench	Fig.
S10M-SCLPR/L-08	11	8	7.2	150	7	16	CP□□0802□□	FTNA0305	TW09P	2
S12M-SCLPR/L-08	13	10	9	150	9	20		FTNA0307	TW09P	
S16N-SCLPR/L-09	16	12	11	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	32	25	23	250	17	40	CP□□0802□□	FTNA0305	TW09P	1
A10H-SCLPR/L-08	11	8	7.6	100	7	16				
A12K-SCLPR/L-08	13	10	9.5	125	9	20				
A16M-SCLPR/L-09	32	25	24	150	11	25	CP□□0903□□	FTNA0408	TW15P	1
A20Q-SCLPR/L-09	40	32	31	180	13	32				

Carbide shank type

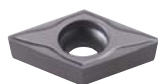
(mm)

Designation	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		FTNA0306	TW09P			
C12M-SCLPR/L-08	15	12	11	150	7.5						
C12Q-SCLPR/L-08	15	12	11	180	7.5		FTNA0408	TW15P			
C12M-SCLPR/L-09	15	12	11	150	8						
C12Q-SCLPR/L-09	15	12	11	180	8						
C16R-SCLPR/L-09	20	16	15	200	10						
C16S-SCLPR/L-09	20	16	15	250	10						
C20R-SCLPR/L-09	25	20	18	200	13	CP□T0903□□	FTNA0408	TW15P			
C20S-SCLPR/L-09	25	20	18	250	13						
E10K-SCLPR/L-08	12	10	9	125	6				CP□T0802□□	FTNA0305	TW09P
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						
E12Q-SCLPR/L-09	15	12	11	180	8						
E16R-SCLPR/L-09	20	16	15	200	10	CP□T0903□□	FTNA0408	TW15P	2		
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						

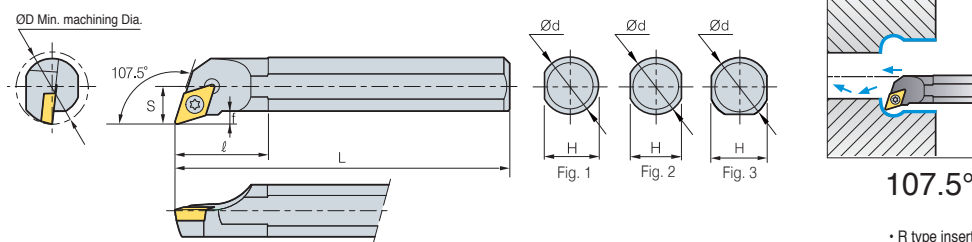
Applicable inserts B66



SDQCR/L



DC□□



Steel shank type

Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Wrench	Fig.
S10M-SDQCR/L-07	13	10	9	150	7	16	DC□□0702□□	FTKA02555	TW07P	2
S12M-SDQCR/L-07	16	12	11	150	9	20		FTKA02565	TW07P	
S16R-SDQCR/L-07	20	16	14	200	11	25	DC□□11T3□□	FTGA03508	TW15P	2
S16R-SDQCR/L-11	20	16	14	200	11	25		FTGA03510	TW15P	
S20S-SDQCR/L-11	25	20	18	250	13	32	DC□□0702□□	FTKA02555	TW07P	1
S25R-SDQCR/L-11	32	25	23	200	17	40		FTKA02565	TW07P	
A10H-SDQCR/L-07	13	10	9.5	100	7	16	DC□□11T3□□	FTGA03508	TW15P	1
A12K-SDQCR/L-07	16	12	11.5	125	9	20		FTGA03510	TW15P	
A16M-SDQCR/L-11	20	16	15	150	11	25	DC□□0702□□	FTKA02555	TW07P	1
A20Q-SDQCR/L-11	25	20	19	180	13	32		FTKA02565	TW07P	
A25R-SDQCR/L-11	32	25	24	200	17	40	DC□□11T3□□	FTGA03508	TW15P	1
								FTGA03510	TW15P	

Carbide shank type

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

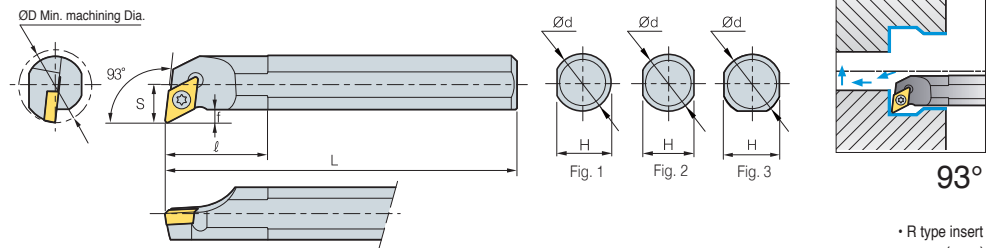
Applicable inserts B67~B69, B88



SDUCR/L



DC□□



Steel shank type

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		FTGA03510	TW15P	3
S25R-SDUCR/L-11	32	25	23	200	17	40				
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

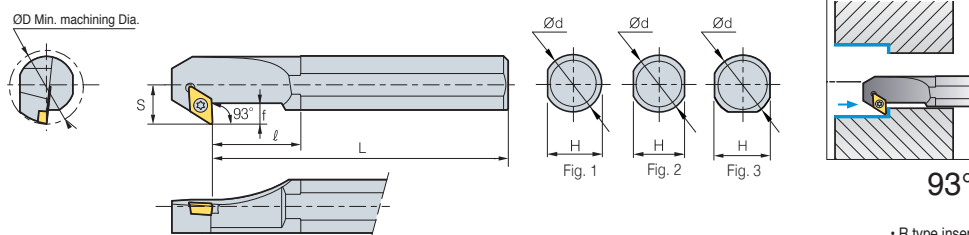
Designation	ØD	Ød	H	L	S	Insert	Screw	Wrench	Fig.
C10K-SDUCR/L-07	13	10	9	125	7	DC□T0702□□	FTKA02555	TW07P	2
C10M-SDUCR/L-07	13	10	9	150	7				
C12M-SDUCR/L-07	16	12	11	150	9		FTKA02565	TW07P	
C12Q-SDUCR/L-07	16	12	11	180	9				
C16R-SDUCR/L-07	20	16	15	200	11				
C16S-SDUCR/L-07	20	16	15	250	11	DC□T11T3□□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

Applicable inserts B67~B69, B88

SDZCR/L



DC□□



• R type insert (mm)

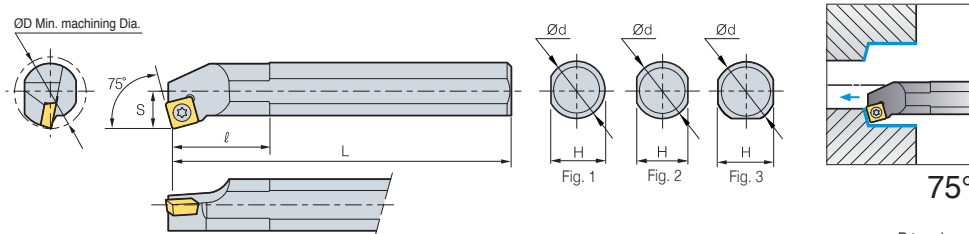
Designation	ØD	Ød	H	L	S	ℓ	f	Insert	Screw	Shim	Shim Screw	Wrench	Fig.
S16R-SDZCR/L-07	20	16	14	200	11	25	6.5	DC□□0702□□	FTKA02565	-	-	TW07P	2
S20S-SDZCR/L-07	25	20	18	250	13	32	7.5						
S25R-SDZCR/L-11	32	25	23	200	17	40	9	DC□□11T3□□	FTGA03510	-	-	TW15P	3
S32S-SDZCR/L-11	40	32	30	250	22	50	11		FTGA03512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

➔ Applicable inserts B67~B69, B88

SSKCR/L



SC□□



• R type insert (mm)

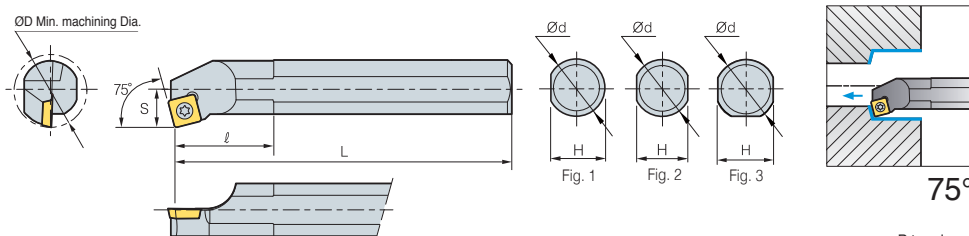
Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Shim	Shim Screw	Wrench	Fig.
S12M-SSKCR/L-09	16	12	11	150	9	20	SC□□09T3□□	FTGA03507	-	-	TW15P	2
S16R-SSKCR/L-09	20	16	14	200	11	25		FTGA03508	-	-	TW15P	
S20S-SSKCR/L-09	25	20	18	250	13	32	SC□□1204□□	FTGA0411F	-	-	TW15P	3
S25R-SSKCR/L-12	32	25	23	200	17	40		FTGA0411F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

➔ Applicable inserts B70~B71, B90

SSKPR/L



SP□□



• R type insert (mm)

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

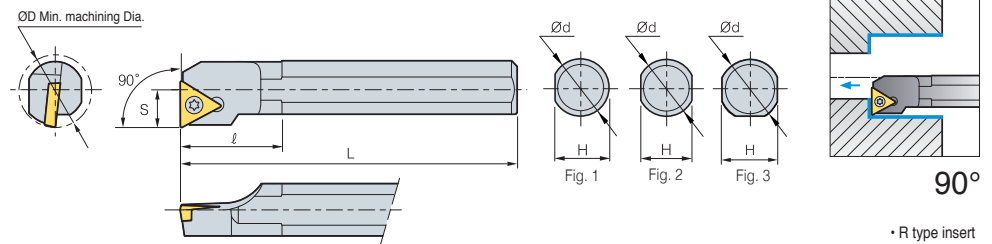
➔ Applicable inserts B72~B73

• Use left handed insert for right handed holder



STFCR/L

TC□□

**Steel shank type**• R type insert
(mm)

Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Shim	Shim Screw	Wrench	Fig.
S10M-STFCR/L-09	13	10	9	150	7	16	TC□□0902□□	FTKA02206	-	-	TW06P	2
S12M-STFCR/L-09	16	12	11	150	9	20						
S12M-STFCR/L-11	16	12	11	150	9	20						
S16R-STFCR/L-11	20	16	14	200	11	25	TC□□1102□□	FTKA02565	-	-	TW07P	2
S20S-STFCR/L-11	25	20	18	250	13	32						
S20S-STFCR/L-16	25	20	18	250	13	32						
S25R-STFCR/L-16	32	25	23	200	17	40	TC□□16T3□□	FTGA03510	-	-	TW15P	2 3
S32S-STFCR/L-16	40	32	30	250	22	50						
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						
A32S-STFCR/L-16	40	32	30	250	22	50	TC□□16T3□□	FTKA03510	-	-	TW15P	1
								FTGA03512	ST32S	SHXN0509F	TW15P, HW35L	3

Carbide shank type

(mm)

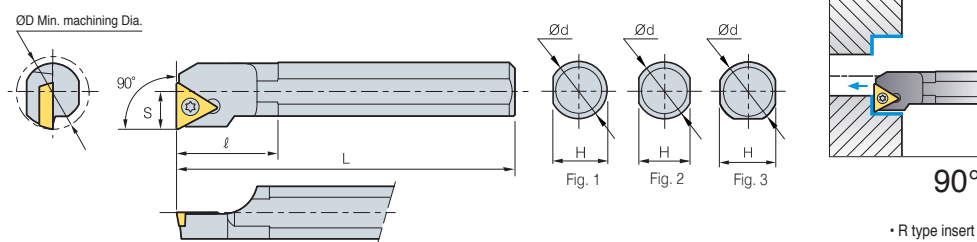
Designation	ØD	Ød	H	L	S	Insert	 Screw	 Wrench	Fig.
C08K-STFCR/L-09	10	8	7	125	5	TC□T0902□□	FTKA02206	TW06P	2
C10K-STFCR/L-09	12	10	9	125	6				
C10K-STFCR/L-11	12	10	9	125	6	TC□T1102□□	FTKA02565	TW07P	
C12M-STFCR/L-11	15	12	11	150	8				
C16R-STFCR/L-11	20	16	15	200	10				
C20R-STFCR/L-11	25	20	18	200	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 B75~B76, B91

STFPR/L



TP□□



Steel shank type

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

Carbide shank type

Designation	ØD	Ød	H	L	S	Insert	Screw	Wrench	Fig.
C08K-STFPR/L-08	10	8	7	125	5	TP□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				
C12Q-STFPR/L-11	15	12	11	180	8				
C16R-STFPR/L-11	20	16	15	200	10		FTNA0307	TW09P	
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				
E12Q-STFPR/L-11	15	12	11	180	8				
E16R-STFPR/L-11	20	16	15	200	10		FTNA0307	TW09P	
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 B77~B79

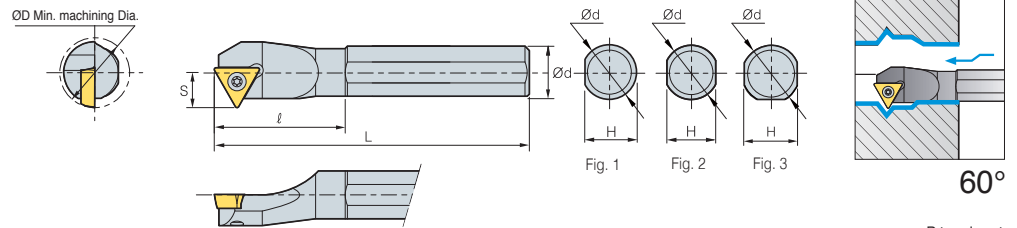
• Use left handed insert for right handed holder



STWPR/L



TP□□



• R type insert
(mm)

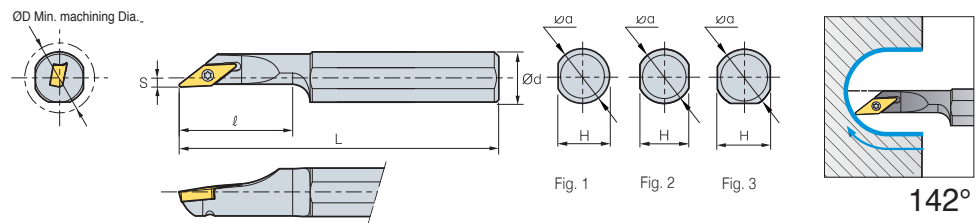
Designation	ØD	Ød	H	L	S	ℓ	Insert	 Screw	 Wrench	Fig
S10M-STWPR/L-11	13	10	7	150	7	16	TPGH1102□□	FTNA0305	TW09P	2
S12M-STWPR/L-11	16	12	9	150	9	20	TPGH1103□□ TPMT1103□□	FTNA0306	TW09P	
S16Q-STWPR/L-11	20	16	14	180	11	25				
S20R-STWPR/L-11	25	20	18	200	13	32				

➡ Applicable inserts B77~B79

SVJCR/L



VC□□



• R type insert
(mm)

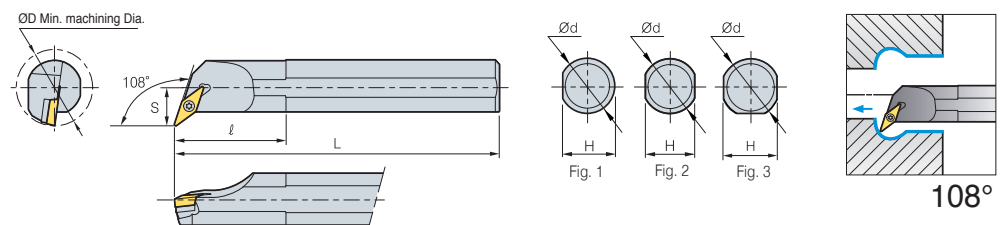
Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Wrench	Fig.
S12M-SVJCR/L-08	16	12	11	150	9	20	VCMT0802□□	FTNA0204	TW06P	2
S16Q-SVJCR/L-08	20	16	14	180	11	25				

➡ Applicable inserts B82~B83

SVQBR/L



VB□□



• R type insert
(mm)

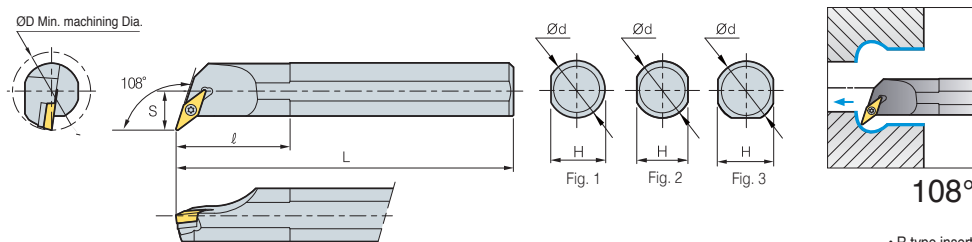
Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Shim	Shim Screw	Wrench	Fig.
S32S-SVQBR/L-16	40	32	30	250	22	50	VB□□1604□□	FTGA03512	SV32S	SHXN0509F	TW15P HW35L	3
S40T-SVQBR/L-16	50	40	38	300	27	60						
A32S-SVQBR/L-16	40	32	30	250	22	50						

➡ Applicable inserts B80~B81, B92

SVQCR/L



VC□□

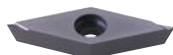


• R type insert (mm)

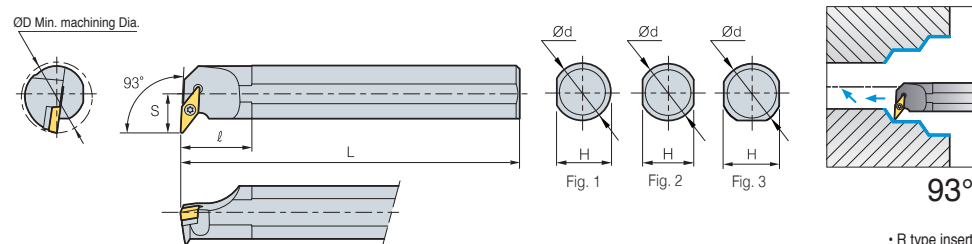
Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Shim	Shim Screw	Wrench	Fig.
S16R-SVQCR/L-11	20	16	14	200	11	25	VC□□1103□□	FTKA02565	-	-	TW07P	2
S20S-SVQCR/L-11	25	20	18	250	13	32						3
S25R-SVQCR/L-11	32	25	23	200	17	40	VC□□1303□□	FTKA0307	-	-	TW07P	2
S20S-SVQCR/L-13	25	20	18	250	13	32						3
S25R-SVQCR/L-13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

➔ Applicable inserts B82~B83, B93

SVUBR/L



VB□□



• R type insert (mm)

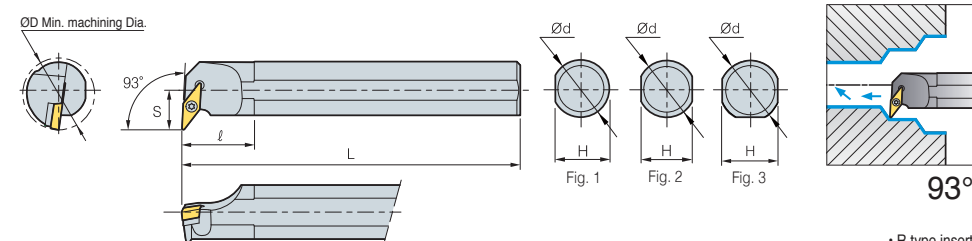
Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Shim	Shim Screw	Wrench	Fig.
S32S-SVUBR/L-16	40	32	30	250	22	50	VB□□1604□□	FTGA03512	SV32S	SHXN0509F	TW15P HW35L	3
S40T-SVUBR/L-16	50	40	38	300	27	60						
A32S-SVUBR/L-16	40	32	30	250	22	50						

➔ Applicable inserts B80~B81, B92

SVUCR/L



VC□□



• R type insert (mm)

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

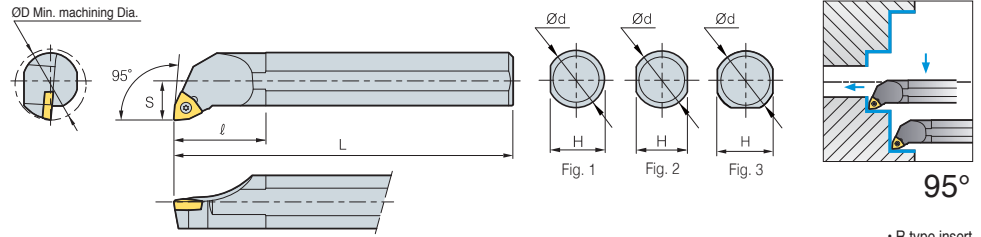
➔ Applicable inserts B82~B83, B93



SWLCR/L



TP□□

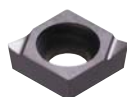


• R type insert (mm)

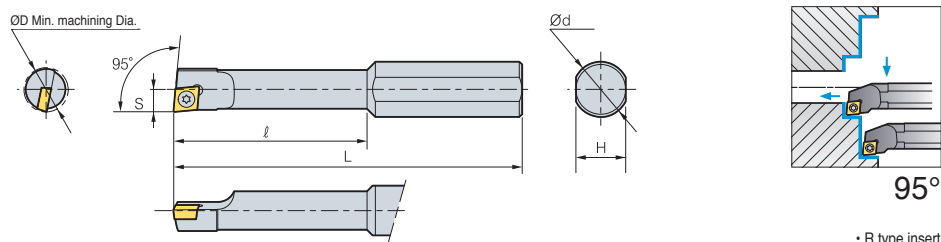
Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Wrench	Fig.
S25R-SWLCR/L-08	32	25	23	200	17	40	TP□□1604□□	FTGA0411F	TW15P	3
S32S-SWLCR/L-08	40	32	30	250	22	50				
A25R-SWLCR/L-08	32	25	24	200	17	40	TP□□1103□□	FTGA0411F	TW15P	1
A32S-SWLCR/L-08	40	32	30	250	22	50				3

➡ Applicable inserts **B77~B79**

SCLCR/L



CCET



• 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	CCET0301□□	FTNA01633	TW06P
S10H-SCLCR/L-0306	6	10	9	100	3.0	25			
S10J-SCLCR/L-0407	7	10	9	110	3.5	30	CCET0401□□	FTNA0238	TW06P
S10J-SCLCR/L-0408	8	10	9	110	4.0	30			

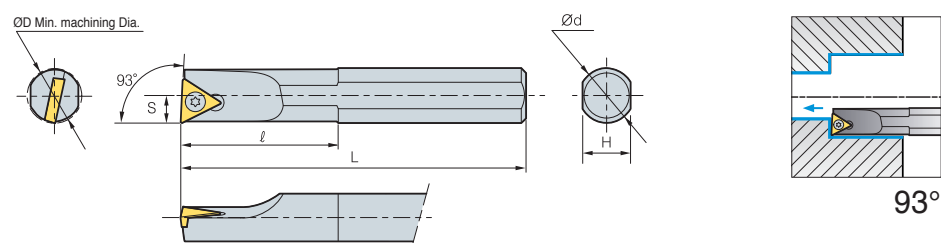
➔ Applicable inserts B62

• Use left handed insert for right handed holder

STUBR/L



TB□□



• R type insert (mm)

➔ Steel shank type

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

➔ Carbide shank type

Designation	ØD	Ød	H	L	S	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			

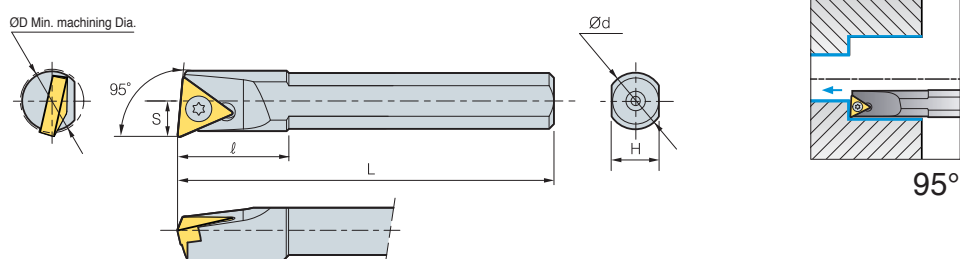
➔ Applicable inserts B74

• Use left handed insert for right handed holder

STLBR/L



TB□□



• R type insert (mm)

➔ Steel shank type

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

➔ Applicable inserts B74

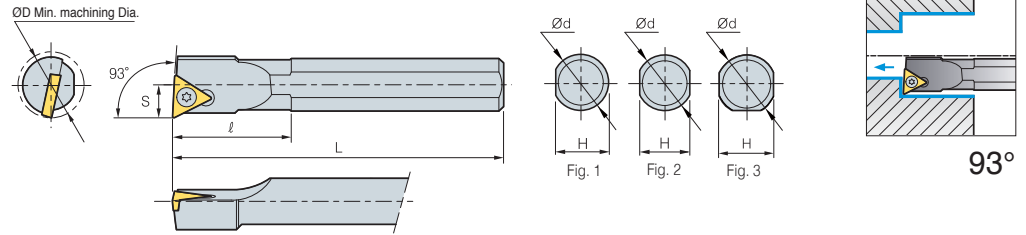
• Use left handed insert for right handed holder



STUPR/L



TP□□



Steel shank type

• R type insert
(mm)

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

Carbide shank type

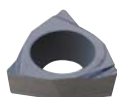
(mm)

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

Applicable inserts B77~B79

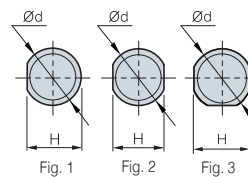
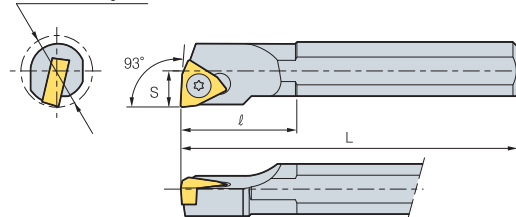
• Use left handed insert for right handed holder

SWUBR/L



WB□T

ØD Min. machining Dia.



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	WBGT 0201□□R/L	FTNA02033	TW06P	
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	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		FTNA02033	TW06P	2
C08K-SWUBR/L-02	9	8	7	125	4.5	WB□TS301□□	FTNA02205	TW06P	
C08K-SWUBR/L-S3	10	8	7	125	4.5	WB□TS301□□	FTNA02205	TW06P	2
E06H-SWUBR/L-02	7	6	5.4	100	3.5	WB□T0201□□	FTNA0203	TW06P	
E08K-SWUBR/L-02	9	8	7	125	4.5		FTNA02033	TW06P	
E08K-SWUBR/L-S3	10	8	7	125	5	WB□TS301□□	FTNA02205	TW06P	

Applicable inserts B85

• Use left handed insert for right handed holder



※ See page B130 for applicable sleeves

04

08

-

MP

6

7

8

Height of Cutting Edge

Nose Radius (Nose R)

Chip Breaker for Turning

5 Cutting Edge Length, Diameter of Incribed Circle

C N M G 12 04 08 - MP

Symbol							Inch	IC d (mm)
								
Metric								
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 Radius (Nose R)

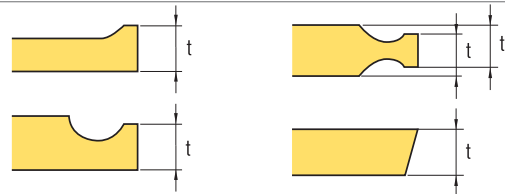
C N M G 12 04 08 - MP



Symbol		Corner Radius	
Metric	Inch	Metric	Inch
01	0	0.1	0.004
02	0.5	0.2	0.008
04	1	0.4	1/64
08	2	0.8	1/32
12	3	1.2	3/64
16	4	1.6	1/16
20	5	2.0	5/64
24	6	2.4	3/32
28	7	2.8	7/64
32	8	3.2	1/8
00	-	Round insert (Inch)	
M0	-	Round insert (Metric)	

6 Height of Cutting Edge

C N M G 12 04 08 - MP



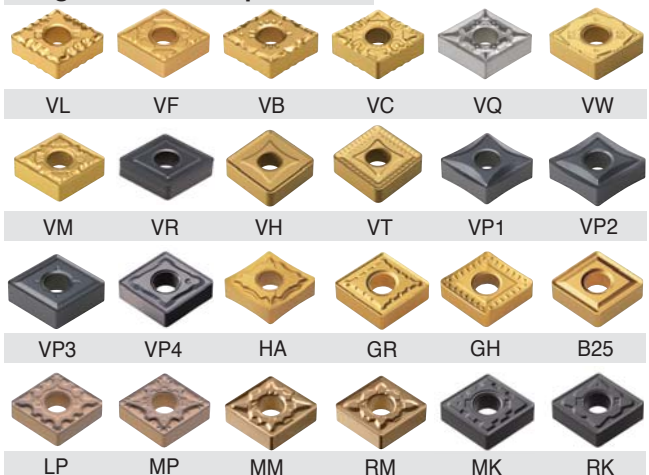
Symbol		Height of Cutting Edge (t)	
Metric	Inch	mm	Inch
01	1(2)	1.59	1/16
T0	1.125	1.79	9/128
T1	1.2	1.98	5/64
02	1.5(3)	2.38	3/32
T2	1.75	2.78	7/64
03	2	3.18	1/8
T3	2.5	3.97	5/32
04	3	4.76	3/16
05	3.5	5.56	7/32
06	4	6.35	1/4
07	5	7.94	5/16
09	6	9.52	3/8
11	7	11.11	7/16
12	8	12.70	1/2

() Symbol for small size insert

8 Chip Breaker for Turning

C N M G 12 04 08 - MP

Negative Insert Chip Breaker

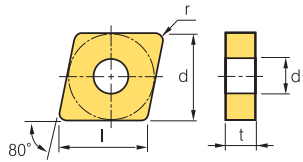


Positive Insert Chip Breaker



B Turning Insert (Negative)

CN ○○



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

[illegible][illegible]

 Cutting edge geometry A48~A55

➡ Recommended chip breaker **B04~B11**

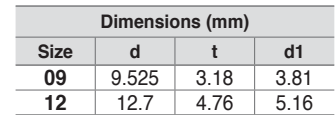
 Code system **B24~B25**

- : Stock item

Available tool holders			
Designation	Page	Designation	Page
MCKNR/L	B165	MCRNR/L	B166
MCLNR/L	B165	PCBNR/L	B153
MCMNN	B165	PCLNR/L	B154



 Rhombic **80° Negative**

[illegible]

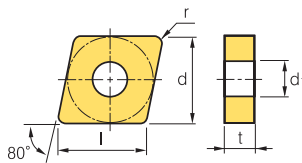
● : Stock item



B

Turning Insert (Negative)

CN ○○



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

[illegible][illegible]

 Cutting edge geometry A48~A55

➡ Recommended chip breaker B04~B11

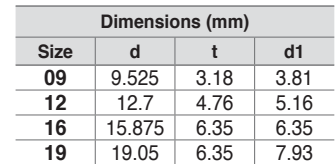
➡ Code system **B24~B25**

- : Stock item

Available tool holders			
Designation	Page	Designation	Page
MCKNR/L	B165	MCRNR/L	B166
MCLNR/L	B165	PCBNR/L	B153
MCMNN	B165	PCLNR/L	B154



 Rhombic **80° Negative**

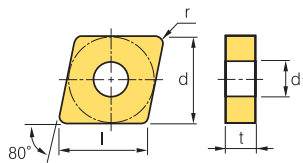
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- : Stock item



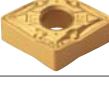
B Turning Insert (Negative)

C N ○ ○



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
25	25.4	9.52	9.12

Workpiece	Steel																		Machining types	
	Stainless steel																			 Continuous cutting  General cutting  Interrupted cutting
	Cast iron																			
	Non-ferrous metal																			
	Heat resistant alloy, Titanium alloy																			
	Hardened steel																			

Inserts		Designation		Cermet			Coated		Coated										Uncoated		Cutting Condition							
				CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	fn (mm/rev)	ap (mm)	
Medium		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		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	
Medium (wiper)		CNMG	120408-LW											●										0.15~0.60	1.00~5.00			
			120412-LW																						0.20~0.70	1.00~6.00		
Medium to roughing		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						●																			

 Cutting edge geometry A48~A55

➡ Recommended chip breaker B04~B11

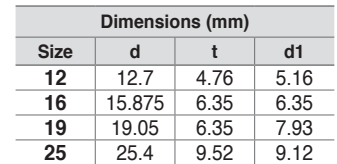
 Code system **B24~B25**

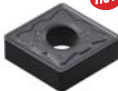
- : Stock item

Available tool holders			
Designation	Page	Designation	Page
MCKNR/L	B165	MCRNR/L	B166
MCLNR/L	B165	PCBNR/L	B153
MCMNN	B165	PCLNR/L	B154



 Rhombic **80° Negative**



Inserts		Designation	Cermet			Coated		Coated										Uncoated		Cutting Condition							
			CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	fn (mm/rev)	ap (mm)	
Roughing	RK 	CNMG	120404-RK																						0.20~0.47	1.30~6.00	
			120408-RK										●													0.20~0.50	1.50~6.00
			120412-RK										●													0.28~0.53	1.80~6.00
			120416-RK										●													0.28~0.63	2.00~6.00
			160608-RK										●													0.28~0.70	1.80~7.00
			160612-RK										●													0.28~0.72	2.00~8.00
			160616-RK										●													0.28~0.74	2.00~8.00
			190612-RK										●													0.35~0.78	2.60~9.50
										●													0.35~0.80	2.60~10.00			
Roughing	RM 	CNMG	120404-RM											●	●	●				●	●			0.10~0.50	2.00~6.00		
			120408-RM										●	●	●	●				●	●			0.15~0.55	2.00~6.00		
			120412-RM										●	●	●	●				●	●			0.20~0.60	2.00~6.00		
			120416-RM											●	●	●				●				0.25~0.70	2.00~6.00		
			160608-RM											●	●	●				●				0.15~0.55	2.00~8.00		
			160612-RM											●	●	●				●				0.20~0.60	2.00~8.00		
			160616-RM											●	●	●				●				0.25~0.70	2.00~8.00		
			190608-RM											●	●	●				●				0.15~0.55	2.00~10.00		
			190612-RM											●	●	●				●				0.20~0.60	2.00~10.00		
			190616-RM											●	●	●				●				0.25~0.70	2.00~10.00		
250924-RM																	●				0.40~1.20	0.40~14.00					
Roughing	VP4 	CNMG	120408-VP4					</																			

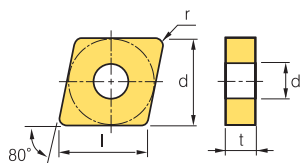
● : Stock item

Available tool holders			
Designation	Page	Designation	Page
MCKNR/L	B165	MCRNR/L	B166
MCLNR/L	B165	PCBNR/L	B153
MCMNN	B165	PCINR/L	B154

B

Turning Insert (Negative)

CN ○○



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	Steel																										Machining types
	Stainless steel																										
Cast iron																										 Continuous cutting  General cutting  Interrupted cutting	
Non-ferrous metal																											
Heat resistant alloy, Titanium alloy																											

[illegible]

 Cutting edge geometry A48~A55

➡ Recommended chip breaker B04~B11

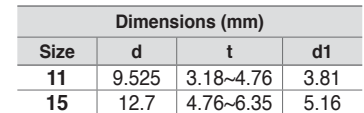
➡ Code system **B24~B25**

- : Stock item

Available tool holders			
Designation	Page	Designation	Page
MCKNR/L	B165	MCRNR/L	B166
MCLNR/L	B165	PCBNR/L	B153
MCMNN	B165	PCLNR/L	B154



 Rhombic 55° Negative

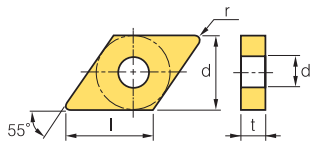
[illegible]

● : Stock item



B

DN ○○



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	Steel																		Machining types
	Stainless steel																		
	Cast iron																		
	Non-ferrous metal																		
	Heat resistant alloy, Titanium alloy																		
	Hardened steel																		
 Continuous cutting  General cutting  Interrupted cutting																			

[illegible]

 Cutting edge geometry A48~A55

➡ Recommended chip breaker B04~B11

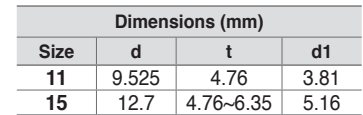
 Code system **B24~B25**

- : Stock item

Available tool holders			
Designation	Page	Designation	Page
MDJNR/L	B166	PDJNR/L	B154, 212
MDNNN	B166	PDNNR/L	B155
MDQNR/L	B167	PDSNR/L	B187
MDUNR/L	B192	PDUNR/L	B188



 Rhombic **55° Negative**

[illegible]

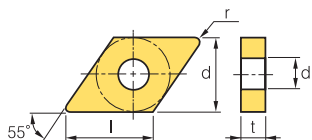
● : Stock item



B Turning Insert (Negative)

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	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	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	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	fn (mm/rev)	ap (mm)
Medium 	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 	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
	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
	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
Medium 	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
	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
	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

➤ Cutting edge geometry A48~A55

➤ Recommended chip breaker B04~B11

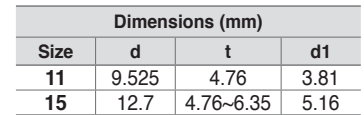
➤ Code system B24~B25

● : Stock item

Available tool holders			
Designation	Page	Designation	Page
MDJNR/L	B166	PDJNR/L	B154, 212
MDNNN	B166	PDNNR/L	B155
MDQNR/L	B167	PDSNR/L	B187
MDUNR/L	B192	PDUNR/L	B188



 Rhombic **55° Negative**

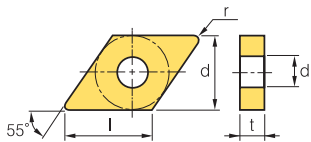
[illegible]

- : Stock item



B

DN ○○



Dimensions (mm)			
Size	d	t	d1
15	12.7	4.76~6.35	5.16
19	15.875	6.35	7.93

Workpiece	Steel																							Machining types	
	Stainless steel																								 Continuous cutting  General cutting  Interrupted cutting
	Cast iron																								
	Non-ferrous metal																								
	Heat resistant alloy, Titanium alloy																								
	Hardened steel																								

[illegible]

 Cutting edge geometry A48~A55

➡ Recommended chip breaker B04~B11

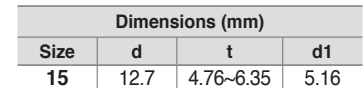
➡ Code system **B24~B25**

- : Stock item

Available tool holders			
Designation	Page	Designation	Page
MDJNR/L	B166	PDJNR/L	B154, 212
MDNNN	B166	PDNNR/L	B155
MDQNR/L	B167	PDSNR/L	B187
MDUNR/L	B192	PDUNR/L	B188



 Rhombic **55° Negative**

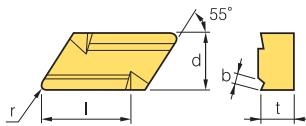
[illegible]

● : Stock item

Available tool holders			
Designation	Page	Designation	Page
MDJNR/L	B166	PDJNR/L	B154, 212
MDNNN	B166	PDNNR/L	B155
MDQNR/L	B167	PDSNR/L	B187
MDUNR/L	B192	PDUNR/L	B188

B

KN○○○



Dimensions (mm)		
Size	d	t
16	9.525	4.76

 Parallelogram **55° Negative**

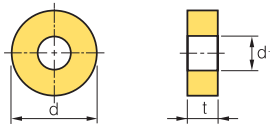
Workpiece	Steel																				Machining types
	Stainless steel																				
	Cast iron																				 Continuous cutting  General cutting  Interrupted cutting
	Non-ferrous metal																				
	Heat resistant alloy, Titanium alloy																				
	Hardened steel																				

[illegible]

 Cutting edge geometry **A48~A55**
 Recommended chip breaker **B04~B11**
 Code system **B24~B25**
 : Stock item

Available tool holders			
Designation	Page	Designation	Page
CKJNR/L	B163	CKUNR/L	B192
CKNNR/L	B163		

RN ○○



Round **Negative**

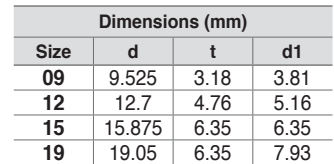
Dimensions (mm)			
Size	d	t	d1
09	9.525	3.18	3.81
12	12.7	4.76	5.16
15	15.875	6.35	6.35
19	19.05	6.35	7.93
25	25.4	6.35-9.52	9.12
31	31.75	9.52	12.7

Workpiece	Steel																																																																																																																																																																																							
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Inserts		Designation	Cermet			Coated		Coated										Uncoated		Cutting Condition						
			CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	fn (mm/rev)	ap (mm)
Medium to roughing	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 **A48~A55**
 Recommended chip breaker **B04~B11**
 Code system **B24~B25**
 : Stock item

 Square **90° Negative**



Dimensions (mm)			
Size	d	t	d1
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

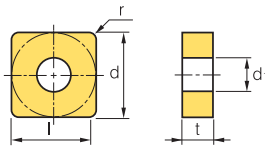
[illegible]

- : Stock item



B Turning Insert (Negative)

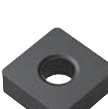
SN ○○



Dimensions (mm)			
Size	d	t	d1
09	9.525	3.18	3.81
12	12.7	3.18~4.76	5.16
15	15.875	4.76~6.35	6.35
19	19.05	4.76~6.35	7.93
25	25.4	6.35~9.52	9.12

 Square **90° Negative**

Workpiece	Steel																																																																																																																													<
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Inserts		Designation		Cermet			Coated		Coated														Uncoated		Cutting Condition			
				CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	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		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																									

 Cutting edge geometry **A48~A55**

➡ Recommended chip breaker **B04~B11**

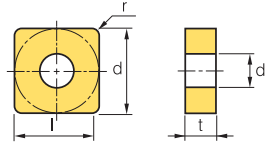
➡ Code system **B24~B25**

- : Stock item

Available tool holders					
Designation	Page	Designation	Page	Designation	Page
MSBNR/L	B167	MSRNR/L	B168	PSDNN	B157
MSDNN	B167	MSSNR/L	B169	PSKNR/L	B158, 189
MSKNR/L	B168	PSBNR/L	B157	PSSNR/L	B158



 Square **90° Negative**



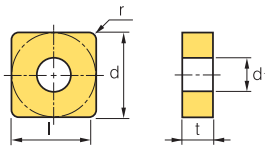
Workpiece	Steel	P	                       																		Machining types
	Stainless steel	M																			
	Cast iron	K	                       																		
	Non-ferrous metal	N																			
	Heat resistant alloy, Titanium alloy	S																			
	Hardened steel	H	                       																		

 Cutting edge geometry **A48~A55**
 Recommended chip breaker **B04~B11**
 Code system **B24~B25**
 : Stock item



B

SN ○○



Dimensions (mm)			
Size	d	t	d1
09	9.525	3.18	3.81
12	12.7	4.76	5.16
15	15.875	4.76~6.35	6.35
19	19.05	4.76~6.35	7.93

 Square **90° Negative**

Workpiece	Steel																						Machining types
	Stainless steel																						
	Cast iron																						
	Non-ferrous metal																						
	Heat resistant alloy, Titanium alloy																						
	Hardened steel																						
 Continuous cutting  General cutting  Interrupted cutting																							

[illegible]

 Cutting edge geometry A48~A55

➡ Recommended chip breaker **B04~B11**

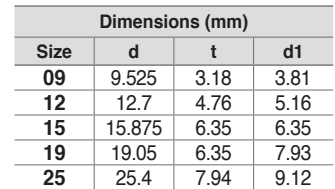
 Code system **B24~B25**

- : Stock item

Available tool holders					
Designation	Page	Designation	Page	Designation	Page
MSBNR/L	B167	MSRNR/L	B168	PSDNN	B157
MSDNN	B167	MSSNR/L	B169	PSKNR/L	B158, 189
MSKNR/L	B168	PSBNR/L	B157	PSSNR/L	B158



 Square **90° Negative**



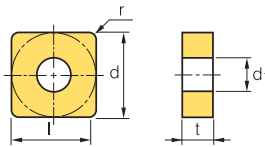
Inserts		Designation	Cermet			Coated		Coated										Uncoated		Cutting Condition						
			CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	fn (mm/rev)	ap (mm)
Medium		SNMG 090304-MP						●	●		●														0.10~0.40	0.40~3.80
		090308-MP						●	●		●														0.15~0.40	0.50~4.00
		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
Medium		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		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
Medium to roughing		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																								

● : Stock item



B Turning Insert (Negative)

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	9.12

 Square **90° Negative**

Workpiece	Steel																		Machining types	
	Stainless steel																			 Continuous cutting  General cutting  Interrupted cutting
	Cast iron																			
	Non-ferrous metal																			
	Heat resistant alloy, Titanium alloy																			
	Hardened steel																			

Inserts		Designation	Cermet		Coated		Coated												Uncoated		Cutting Condition							
			CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	fn (mm/rev)	ap (mm)		
Roughing		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
			250724-GR									●															0.45~1.20	2.60~14.00
250924-GR								●		●															0.50~1.20	2.60~14.00		
Roughing		SNMG	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
Roughing		SNMG	120404-RM												●	●	●	●				●				0.10~0.50	2.00~6.00	
			120408-RM													●	●	●	●				●	●			0.15~0.55	2.00~6.00
			120412-RM														●	●	●				●				0.20~0.60	2.00~6.00
			120416-RM																								0.25~0.70	2.00~6.00
			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	2.00~10.0

 Cutting edge geometry A48~A55

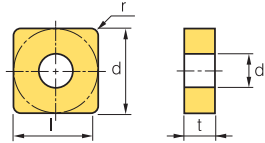
➡ Recommended chip breaker B04~B11

 Code system **B24~B25**

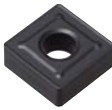
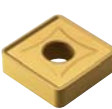
- : Stock item

Available tool holders					
Designation	Page	Designation	Page	Designation	Page
MSBNR/L	B167	MSRNR/L	B168	PSDNN	B157
MSDNN	B167	MSSNR/L	B169	PSKNR/L	B158, 189
MSKNR/L	B168	PSBNR/L	B157	PSSNR/L	B158

 Square **90° Negative**



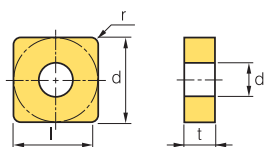
Dimensions (mm)			
Size	d	t	d1
12	12.7	4.76	5.16
15	15.875	6.35	6.35
19	19.05	6.35	7.93
25	25.4	7.94–9.52	9.12

Inserts		Designation	Cermert			Coated		Coated										Uncoated		Cutting Condition								
			CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	fn (mm/rev)	ap (mm)		
Roughing		SNMG	120408-VR																						0.25~0.55	1.20~7.00		
			120412-VR																							0.30~0.60	1.50~7.00	
			190612-VR																								0.35~0.70	2.00~10.00
			190616-VR																								0.35~0.75	2.20~10.00
Roughing		SNMM	120408-GR																							0.20~0.50	1.00~7.00	
			120412-GR								●																0.25~0.65	1.30~7.00
			190612-GR								●																0.25~0.65	1.30~11.50
			190616-GR																								0.32~0.85	1.80~11.50
Heavy		SNMM	120408-GH									●	●													0.30~0.60	2.50~8.00	
			120412-GH									●															0.30~0.70	2.50~8.00
			150612-GH									●															0.30~0.70	2.50~8.00
			190612-GH						●	●		●	●														0.30~0.70	3.00~8.00
			190616-GH						●	●		●	●														0.45~1.00	4.00~9.00
			190624-GH						●	●		●	●														0.55~1.20	4.00~9.00
			250724-GH						●	●		●	●														0.55~1.20	5.00~12.00
			250924-GH						●	●		●	●														0.55~1.20	5.00~12.00
			250932-GH																								0.55~1.20	5.00~12.00
Heavy (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
			250724-VH						●		●																0.70~1.40	6.00~15.00
			250920-VH																								0.70~1.40	6.00~15.00
			250924-VH						●																		0.70~1.40	6.00~15.00
			250716-VH																									

 Cutting edge geometry **A48~A55**
 Recommended chip breaker **B04~B11**
 Code system **B24~B25**
 : Stock item

Available tool holders					
Designation	Page	Designation	Page	Designation	Page
MSBNR/L	B167	MSRNR/L	B168	PSDNN	B157
MSDNN	B167	MSSNR/L	B169	PSKNR/L	B158, 189
MSKNR/L	B168	PSBNR/L	B157	PSSNR/L	B158

SN ○○



Dimensions (mm)			
Size	d	t	d1
12	12.7	3.18~4.76	5.16
15	15.875	4.76	-
19	19.05	4.76	-
25	25.4	7.94	-

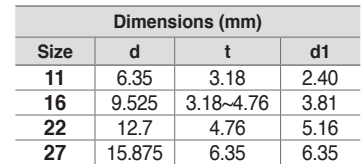
 Square **90° Negative**

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

 Cutting edge geometry **A48~A55**
 Recommended chip breaker **B04~B11**
 Code system **B24~B25**
 : Stock item

Available tool holders					
Designation	Page	Designation	Page	Designation	Page
MSBNR/L	B167	MSRNR/L	B168	PSDNN	B157
MSDNN	B167	MSSNR/L	B169	PSKNR/L	B158, 189
MSKNR/L	B168	PSBNR/L	B157	PSSNR/L	B158

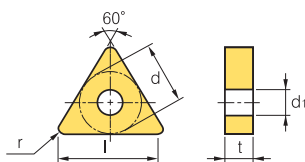
 Triangular **60° Negative**

[illegible]

● : Stock item



TN ○○



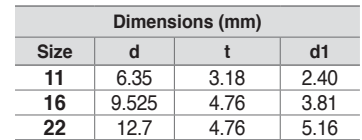
Dimensions (mm)			
Size	d	t	d1
11	6.35	3.18	2.40
16	9.525	3.18~4.76	3.81
22	12.7	4.76	5.16
27	15.875	6.35	6.35
33	19.05	9.52	7.93

[illegible]

● : Stock item

Available tool holders					
Designation	Page	Designation	Page	Designation	Page
MTENN	B169	PTFNR/L	B159, 189	WTJNR/L	B161
MTFNR/L	B169	PTGNR/L	B159	WTXNR/L	B161
MTGNR/L	B170	PTTNR/L	B160		
MTJNR/L	B170	WTENN	B161		

 Triangular **60° Negative**

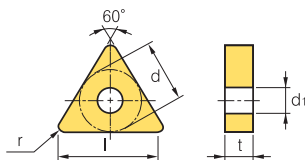
[illegible]

- : Stock item



B Turning Insert (Negative)

TN ○○



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

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

[illegible]

 Cutting edge geometry A48~A55

➡ Recommended chip breaker B04~B11

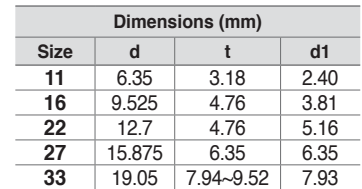
➡ Code system **B24~B25**

- : Stock item

Available tool holders					
Designation	Page	Designation	Page	Designation	Page
MTENN	B169	PTFNR/L	B159, 189	WTJNR/L	B161
MTFNR/L	B169	PTGNR/L	B159	WTXNR/L	B161
MTGNR/L	B170	PTTNR/L	B160		
MTJNR/L	B170	WTENN	B161		



 Triangular **60° Negative**

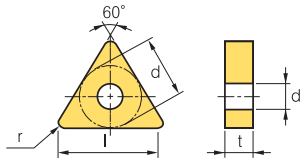
[illegible]

 Cutting edge geometry **A48~A55**
 Recommended chip breaker **B04~B11**
 Code system **B24~B25**
 : Stock item

Available tool holders					
Designation	Page	Designation	Page	Designation	Page
MTENN	B169	PTFNR/L	B159, 189	WTJNR/L	B161
MTFNR/L	B169	PTGNR/L	B159	WTXNR/L	B161
MTGNR/L	B170	PTTNR/L	B160		
MTJNR/L	B170	WTENN	B161		

B Turning Insert (Negative)

TN ○○



Dimensions (mm)			
Size	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

Workpiece	Steel																																																																																																																								
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[illegible]

 Cutting edge geometry **A48~A55**

➡ Recommended chip breaker **B04~B11**

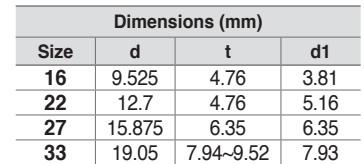
 Code system **B24~B25**

- : Stock item

Available tool holders					
Designation	Page	Designation	Page	Designation	Page
MTENN	B169	PTFNR/L	B159, 189	WTJNR/L	B161
MTFNR/L	B169	PTGNR/L	B159	WTXNR/L	B161
MTGNR/L	B170	PTTNR/L	B160		
MTJNR/L	B170	WTENN	B161		



 Triangular **60° Negative**



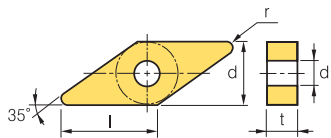
Inserts		Designation	Cermet			Coated		Coated										Uncoated		Cutting Condition								
			CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	fn (mm/rev)	ap (mm)		
Roughing		TNMM	220408-GR																							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		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	
Medium (Sharp)		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	

● : Stock item



Turning Insert (Negative)

VN ○○



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

[illegible][illegible]

 Cutting edge geometry A48~A55

➡ Recommended chip breaker B04~B11

➡ Code system **B24~B25**

- : Stock item

Available tool holders			
Designation	Page	Designation	Page
MVJNR/L	B170	MVVNN	B171
MVQNR/L	B171	MVUNR/L	B193

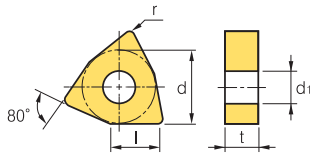
 Rhombic **35° Negative**

 Cutting edge geometry **A48~A55**
 Recommended chip breaker **B04~B11**
 Code system **B24~B25**
 : Stock item



B

WN ○ ○



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



Workpiece	Steel																									Machining types	
	Stainless steel																										
	Cast iron																										
	Non-ferrous metal																										
	Heat resistant alloy, Titanium alloy																										
	Hardened steel																										
																											

[illegible]

 Cutting edge geometry A48~A55

➡ Recommended chip breaker B04~B11

 Code system **B24~B25**

- : Stock item

Available tool holders			
Designation	Page	Designation	Page
MWLN/R/L	B171	WWLN/R/L	B162
PWLN/R/L	B190		

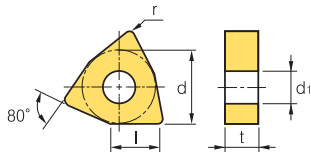
 Trigon **80° Negative**

 Cutting edge geometry **A48~A55**
 Recommended chip breaker **B04~B11**
 Code system **B24~B25**
 : Stock item



B Turning Insert (Negative)

WN ○ ○

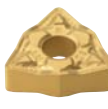


Dimensions (mm)			
Size	d	t	d1
06	9.525	4.76	3.81
08	12.7	4.76	5.16



Trigon 80° Negative

[illegible]

Inserts		Designation	Cermet			Coated	Coated										Uncoated		Cutting Condition								
			CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	fn (mm/rev)	ap (mm)	
Medium		WNMG 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		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		WNMG 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
Medium (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	
Medium to roughing		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		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 A48~A55

➡ Recommended chip breaker B04~B11

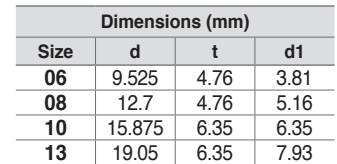
➡ Code system **B24~B25**

● : Stock item

Available tool holders			
Designation	Page	Designation	Page
MWLNRL	B171	WWLNRL	B162
PWLNRL	B190		



 Trigon **80° Negative**

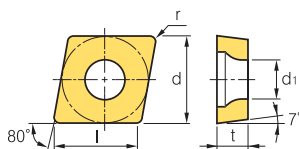
[illegible]

- : Stock item



B Turning Insert (Positive)

CC ○○



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	Steel																							Machining types	
	Stainless steel																								
	Cast iron																								
	Non-ferrous metal																								
	Heat resistant alloy, Titanium alloy																								
	Hardened steel																								
		</																							

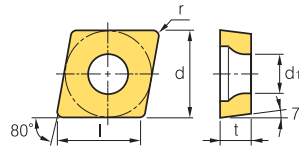
[illegible]

- : Stock item

Available tool holders			
Designation	Page	Designation	Page
SCACR/L	B109, 172	SCLCR/L	B109, 172, 194, 204



Relief Angle: 7°

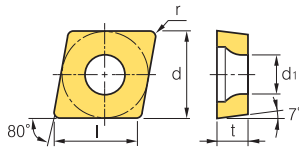
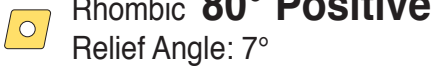
[illegible]

 Cutting edge geometry **A48~A55**
 Recommended chip breaker **B04~B11**
 Code system **B24~B25**
 : Stock item



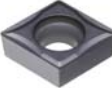
B Turning Insert (Positive)

CC ○○



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

Inserts	Designation	Cermet			Coated	Coated											Uncoated		Cutting Condition								
		CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	fn (mm/rev)	ap (mm)		
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	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	
Finishing	VP1 	CCMT	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		
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		

 Cutting edge geometry A48~A55

➡ Recommended chip breaker **B04~B11**

➡ Code system B24~B25

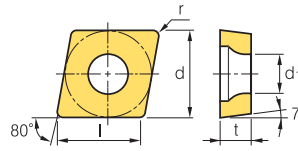
● : Stock item



Available tool holders			
Designation	Page	Designation	Page
SCACR/L	B109, 172	SCLCR/L	B109, 172, 194, 204



Relief Angle: 7°

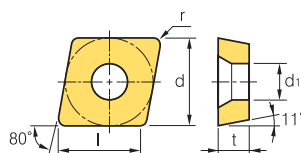
[illegible]

➡ Cutting edge geometry **A48~A55** ➡ Recommended chip breaker **B04~B11** ➡ Code system **B24~B25** ● : Stock item



B Turning Insert (Positive)

CP ○○



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

[illegible][illegible]

● : Stock item



Available tool holders			
Designation	Page	Designation	Page
SCLPR/L	B195		



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

● Continuous cutting

● General cutting

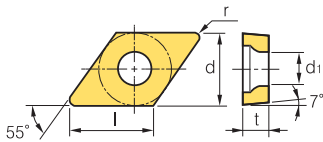
✱ Interrupted cutting

 Cutting edge geometry **A48~A55**
 Recommended chip breaker **B04~B11**
 Code system **B24~B25**
 : Stock item



B Turning Insert (Positive)

DC ○○



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

[illegible]

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

 Cutting edge geometry A48~A55

➡ Recommended chip breaker B04~B11

➡ Code system **B24~B25**

- : Stock item

Available tool holders			
Designation	Page	Designation	Page
SDACR/L	B172	SDQCR/L	B196
SDJCR/L	B109, 173	SDUCR/L	B197
SDNCN	B110, 173	SDZCR/L	B198





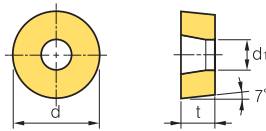
Workpiece	Steel																																																																																																																													
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 Cutting edge geometry **A48~A55**
 Recommended chip breaker **B04~B11**
 Code system **B24~B25**
 : Stock item



B Turning Insert (Positive)

RC ○○



Dimensions (mm)			
Size	d	t	d1
08	8.0	3.18	3.35
10	10.0	3.18	3.6
12	12.0	4.76	4.2
16	16.0	6.35	5.2
20	20.0	6.35	6.5
25	25.0	7.94	7.25
32	32.0	9.52	9.55



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

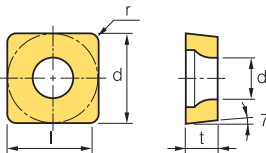
Workpiece	Steel																																																																																																																																																																																																						
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[illegible]

 Cutting edge geometry **A48~A55**
 Recommended chip breaker **B04~B11**
 Code system **B24~B25**
 : Stock item

Available tool holders			
Designation	Page	Designation	Page
PRDCN	B156	PRGCR/L	B156

SC ○○



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



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

Workpiece	Steel																				Machining types
	Stainless steel																				
	Cast iron																				 Continuous cutting  General cutting  Interrupted cutting
	Non-ferrous metal																				
	Heat resistant alloy, Titanium alloy																				
	Hardened steel																				

Inserts		Designation	Cermet			Coated		Coated										Uncoated		Cutting Condition						
			CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	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
																										

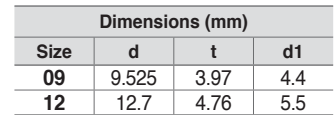
 Cutting edge geometry **A48~A55**
 Recommended chip breaker **B04~B11**
 Code system **B24~B25**
 : Stock item

Available tool holders			
Designation	Page	Designation	Page
SSBCR/L	B174	SSKCR/L	B175, 198
SSDCN	B174	SSSCR/L	B175, 224





Relief Angle: 7°

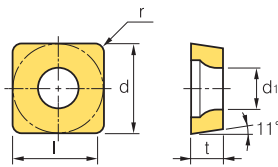
[illegible]

● : Stock item



B Turning Insert (Positive)

SP ○○



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	Steel																																																																																																																													
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[illegible]

● : Stock item

Available tool holders			
Designation	Page	Designation	Page
CSDPN	B163	SSKPR/L	B198
CSKPR/L	B164		





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	-

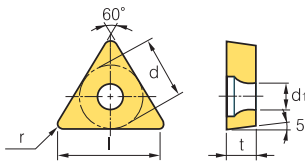
Inserts		Designation	Cermets			Coated		Coated														Uncoated		Cutting Condition			
			CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	fn (mm/rev)	ap (mm)	
Medium		SPGR	090308-M																						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		SPMR	090304-F																						0.05~0.20	0.30~2.00	
			120304-F								●														0.10~0.25	0.50~2.00	
Finishing		SPMT	090304-VF																						0.05~0.20	0.30~1.50	
			090308-VF																						0.10~0.25	0.30~1.50	
Medium		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																								

● : Stock item

Available tool holders			
Designation	Page	Designation	Page
CSDPN	B163	SSKPR/L	B198
CSKPR/L	B164		

B Turning Insert (Positive)

TB ○○



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

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

[illegible]

● : Stock item

Available tool holders			
Designation	Page	Designation	Page
STUBR/L	B204		



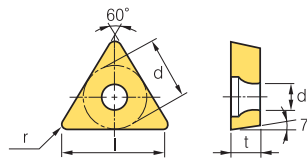
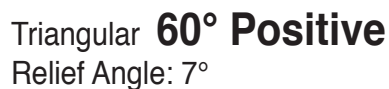
Workpiece	Steel	P	                       																		Machining types
	Stainless steel	M																			
	Cast iron	K	                       																		
	Non-ferrous metal	N																			
	Heat resistant alloy, Titanium alloy	S																			
	Hardened steel	H	                       																		

 Cutting edge geometry **A48~A55**
 Recommended chip breaker **B04~B11**
 Code system **B24~B25**
 : Stock item



B Turning Insert (Positive)

TC ○○



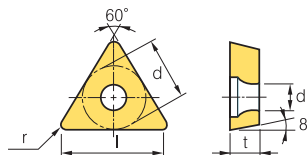
Dimensions (mm)			
Size	d	t	d1
09	5.56	2.38	2.5
11	6.35	2.38	2.8
16	9.523	3.97	4.4

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

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

● : Stock item

TO 



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

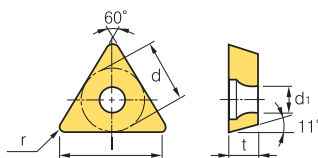
Workpiece	Steel	P																			Machining types
	Stainless steel	M																			
	Cast iron	K																			
	Non-ferrous metal	N																			
	Heat resistant alloy, Titanium alloy	S																			
	Hardened steel	H																			

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

● : Stock item

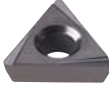


TP ○○


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


Dimensions (mm)			
Size	d	t	d1
08	4.76	2.38	2.3
09	5.56	2.38	-
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
			P	M	K	N	S	H											
Steel			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	● Continuous cutting ● General cutting ● Interrupted cutting
Stainless steel			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Cast iron			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Non-ferrous metal			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Heat resistant alloy, Titanium alloy			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Hardened steel			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	

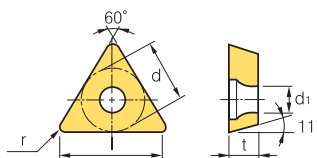
Inserts		Designation		Cermet			Coated		Coated													Uncoated		Cutting Condition		
				CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	fn (mm/rev)
Finishing		TPGH 080202L		●																					0.01~0.12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

Cutting edge geometry A48~A55 Recommended chip breaker B04~B11 Code system B24~B25 ● : Stock item

Available tool holders			
Designation	Page	Designation	Page
STFPR/L	B200	STUPR/L	B205
CTFPR/L	B164	CTGPR/L	B164

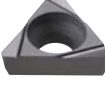
B Turning Insert (Positive)

TP ○○



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	-

Workpiece	Steel																				Machining types		
	Stainless steel																						
	Cast iron																						
	Non-ferrous metal																						
	Heat resistant alloy, Titanium alloy																						
	Hardened steel																						

Inserts		Designation		Cermet		Coated		Coated														Uncoated		Cutting Condition					
				CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	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		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		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	

● : Stock item

Available tool holders			
Designation	Page	Designation	Page
STFPR/L	B200	STUPR/L	B205
CTFPR/L	B164	CTGPR/L	B164



Dimensions (mm)			
Size	d	t	d1
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	-

Machining types
● Continuous cutting
⊕ General cutting
⊞ Interrupted cutting

Finishing



Finishing



Medium to finishing



Medium to finishing

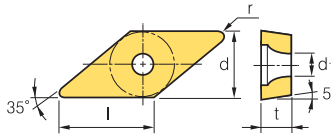


● : Stock item



B Turning Insert (Positive)

VB ○○



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



Workpiece	Steel	P	●	●	✱	●	●	●	●	●	✱	✱	●	●	✱																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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[illegible]

 Cutting edge geometry A48~A55

➡ Recommended chip breaker **B04~B11**

➡ Code system **B24~B25**

● : Stock item

Available tool holders			
Designation	Page	Designation	Page
SVABR/L	B177	SVVBN	B178
SVHBR/L	B177	SVQBR/L	B202
SVJBR/L	B111, 177	SVUBR/L	B202



[illegible]

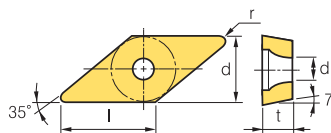
 Cutting edge geometry **A48~A55**
 Recommended chip breaker **B04~B11**
 Code system **B24~B25**
 : Stock item



B Turning Insert (Positive)

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	Steel	P	●	●	✱	●	●	●	●	●	●	●	●	✱	●	●	✱	●	●	●						Machining types ● Continuous cutting ● General cutting ✱ Interrupted cutting	
	Stainless steel	M										✱	✱	●	●	●	✱	●	✱		●	●	●				
	Cast iron	K	●	●	✱	●	●	●				✱	✱											●	●		
	Non-ferrous metal	N																						●	●		
	Heat resistant alloy, Titanium alloy	S										●			●	●	●	✱	●	●	●		●	●			
	Hardened steel	H																			●	✱		●	●		
Inserts		Designation		Cermert		Coated		Coated												Uncoated		Cutting Condition					
				CN1500	CN2000	CN2500	CC1500	CC2500	NC3215	NC3120	NC3225	NC3030	NC5330	NC6315	NC9115	NC9125	NC9135	PC5300	PC5400	PC8105	PC8110	PC8115	PC9030	H01	H05	fn (mm/rev)	ap (mm)
Finishing (High precision)		VCET	1103005MFR-KF																						0.01~0.06	0.04~1.30	
			110301MFR-KF																	●						0.02~0.08	0.05~1.50
			110302MFR-KF																	●						0.03~0.11	0.06~1.70
			1103005MFL-KF																							0.01~0.06	0.04~1.30
			110301MFL-KF																							0.02~0.08	0.05~1.50
			110302MFL-KF																							0.03~0.11	0.06~1.70
Medium to finishing (High precision)		VCET	1103005MFR-KM																						0.02~0.08	0.05~1.50	
			110301MFR-KM																	●						0.03~0.11	0.06~1.70
			110302MFR-KM																	●						0.04~0.15	0.08~2.00
			1103005MFL-KM																							0.02~0.08	0.05~1.50
			110301MFL-KM																							0.03~0.11	0.06~1.70
			110302MFL-KM																							0.04~0.15	0.08~2.00
Finishing		VCGT	1103003R-KF																						0.01~0.06	0.04~1.30	
			110301R-KF																							0.02~0.08	0.05~1.50
			110302R-KF																			●				0.03~0.13	0.06~1.70
			1103003L-KF																							0.01~0.06	0.04~1.30
			110301L-KF																							0.02~0.08	0.05~1.50
			110302L-KF																							0.03~0.13	0.06~1.70
Finishing		VCGT	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
Finishing		VCGT	110301-VP1													●		●	●	●	●	●	●	0.02~0.15	0.05~0.50		
			110302-VP1													●		●	●	●	●	●	●	●	0.02~0.18	0.10~1.00	
			110304-VP1													●		●	●	●	●	●	●	●	0.03~0.18	0.15~1.20	
			160404-VP1																							0.05~0.20	0.18~1.80
			160408-VP1																							0.06~0.20	0.20~1.80

➤ Cutting edge geometry A48~A55

➤ Recommended chip breaker B04~B11

➤ Code system B24~B25

● : Stock item

Available tool holders			
Designation	Page	Designation	Page
SVJCR/L	B111, 178, 201	SVQCR/L	B202
SVVCN	B178	SVUCR/L	B202





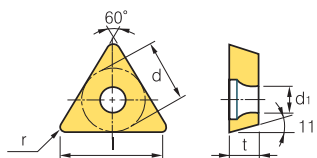
Workpiece	Steel																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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 Cutting edge geometry **A48~A55**
 Recommended chip breaker **B04~B11**
 Code system **B24~B25**
 : Stock item



B Turning Insert (Positive)

VP ○○



Dimensions (mm)			
Size	d	t	d1
08	6.35	2.38	2.3
11	6.35	3.18	2.8

 Cutting edge geometry A48~A55

➡ Recommended chip breaker B04~B11

➡ Code system **B24~B25**

- : Stock item

Available tool holders			
Designation	Page	Designation	Page
SVABR/L	B177	SVVBN	B178
SVJBR/L	B111, 177		



Workpiece	Steel																																																																																																																																																																																																																		
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medium to finishing



● : Stock item

Turning

Technical Information for Aluminum

AK special chip breaker for aluminum

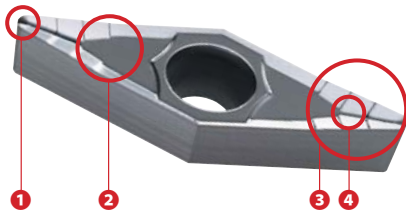
- Unique and 3-dimensional rake angle controls chip breaking and chip flow ensuring longer tool life and reducing cutting load
- High rake angle at cutting edge part reduces cutting load to increase tool life
- Buffed finish on top face controls chip flow reducing built-up edge



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

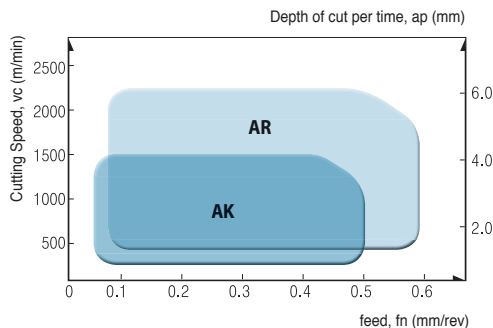
AR special chip breaker for aluminum

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

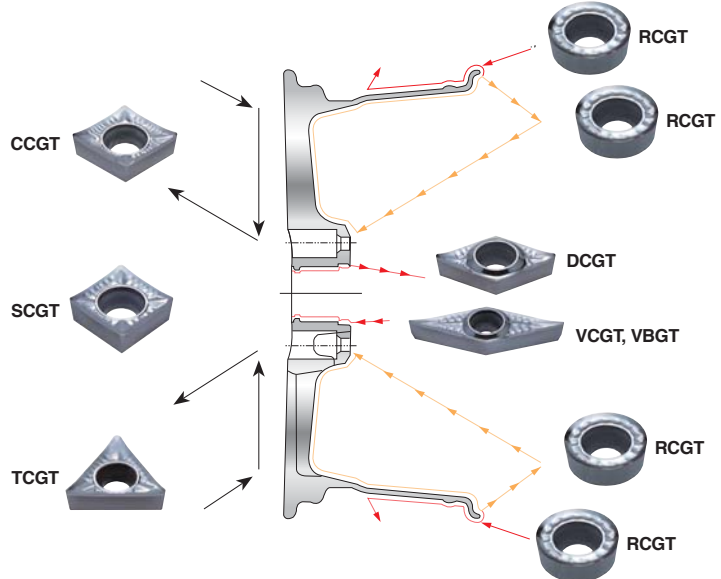


- 1 Flat corner cutting edge improved productivity at high feed machining and ensures good surface roughness and reliability owing to strong cutting edge
- 2 Specially buffed on top face controls chip flow reducing built-up edge
- 3 KORLOY's own technology applied for cutting edge and corner shape controlling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

AK and AR chip breaker specially developed for aluminum



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



Features of H01 and cutting conditions

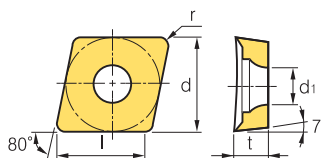
- Useful for aluminum and alloyed steel machining
- Buffed on top face reduced built-up edge
- 3-dimensional design reduced cutting load and shows good performance at high feed and speed machining

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



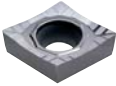
CC ○ ○

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



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

Inserts	Designation	Coated		Uncoated		Cutting Condition	
		PC5040	PD1000	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 **A48~A55**

➡ Recommended chip breaker **B04~B11**

➡ Code system **B24~B25**

● : Stock item

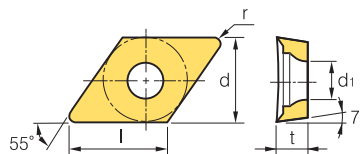
Available tool holders			
Designation	Page	Designation	Page
SCACR/L	B109, 172	SCLCR/L	B109, 172, 194



B Aluminum Insert (Positive)

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

Inserts	Designation	Coated		Uncoated		Cutting Condition	
		PC5040	PD1000	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 **A48~A55**

➡ Recommended chip breaker **B04~B11**

➡ Code system **B24~B25**

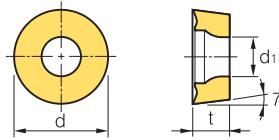
● : Stock item

Available tool holders			
Designation	Page	Designation	Page
SDACR/L	B172	SDQCR/L	B196
SDJCR/L	B109, 173	SDUCR/L	B197
SDNCN	B110, 173	SDZCR/L	B198



RC

Round **Positive**
Relief Angle: 7°



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

Inserts	Designation	Coated		Uncoated		Cutting Condition	
		PC5040	PD1000	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

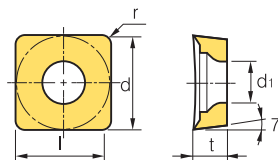
 Cutting edge geometry **A48~A55**
 Recommended chip breaker **B04~B11**
 Code system **B24~B25**
● : Stock item

Available tool holders			
Designation	Page	Designation	Page
SRDCN	B173	SRGCR/L	B174

B Aluminum Insert (Positive)

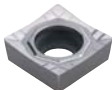
SC ○○

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



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

Inserts	Designation	Coated		Uncoated		Cutting Condition	
		PC5040	PD1000	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 A48~A55

 Recommended chip breaker B04~B11

 Code system B24~B25

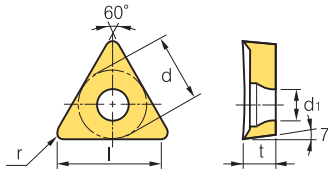
● : Stock item

Available tool holders			
Designation	Page	Designation	Page
SSBCR/L	B174	SSKCR/L	B175
SSDCN	B174	SSSCR/L	B175



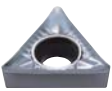
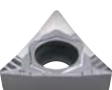
TC ○○

 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	9.525	3.97	4.4

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

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

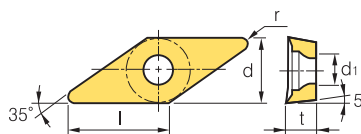
 Cutting edge geometry **A48~A55**
 Recommended chip breaker **B04~B11**
 Code system **B24~B25**
● : Stock item

Available tool holders			
Designation	Page	Designation	Page
STACR/L	B110	STTCR/L	B176, 225
STFCR/L	B176, 224	STWCR/L	B225
STGCR/L	B176		

B Aluminum Insert (Positive)

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

Inserts	Designation	Coated		Uncoated		Cutting Condition	
		PC5040	PD1000	H01	H05	fn (mm/rev)	ap (mm)
AK 	VBGT			●		0.02~0.15	0.05~3.00
	110302-AK			●		0.02~0.15	0.10~4.00
	110304-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					0.02~0.35	0.30~3.00
	110302-AR					0.03~0.45	0.30~4.00
	110304-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 **A48~A55**

➡ Recommended chip breaker **B04~B11**

➡ Code system **B24~B25**

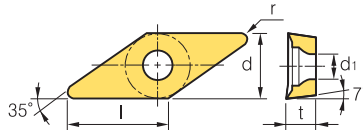
● : Stock item

Available tool holders			
Designation	Page	Designation	Page
SVABR/L	B177	SVVBN	B178
SVHBR/L	B177	SVQBR/L	B201
SVJBR/L	B111, 177	SVUBR/L	B202



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

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

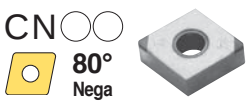
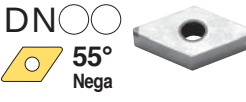
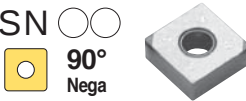
 Cutting edge geometry **A48~A55**
 Recommended chip breaker **B04~B11**
 Code system **B24~B25**
● : Stock item

Available tool holders			
Designation	Page	Designation	Page
SVJCR/L	B111, 178, 201	SVQCR/L	B202
SVVCN	B178	SVUCR/L	B202

cBN

Multi-Corner Type (Negative)

Dimensions (mm)			
Size	d	t	d1
12	12.7	4.76	5.16
15	12.7	4.76~6.358	3.4
16	9.525	4.76	3.81

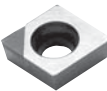
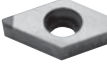
Inserts	Designation		Uncoated										Available tool holders			
			DNC250	DNC350	DNC400	KB1000	KB2000	KB400	KB320	KB330	KB370	KB420	Designation		Page	
	2NU-CNGA	120404	●	●		●	●				●		DCBNR/L	DCLNR/L	B148	B148
		120404F	●				●						MCKNR/L	MCLNR/L	B165	B165
		120404T	●			●	●						MCMNN	PCBNR/L	B165	B153
		120404W	●										PCLNR/L		B153	
		120404WF	●													
		120408	●	●		●	●				●					
		120408F	●				●									
		120408T	●			●	●									
		120408W	●	●		●	●				●					
		120408WF	●				●									
		120408WT	●			●	●									
		120412	●	●												
		120412F	●													
		120412T	●													
		120412W	●			●	●				●					
		120412WF	●				●									
		120412WT				●	●									
	T-2NU-CNGA	120408	●													
	2NU-CNMA	120404							●							
		120408							●							
	2NS-CNGA	120408			●			●								
	2NU-DNGA	150404	●	●		●	●		●		●		DDJNR/L	MDJNR/L	B149	B166
		150404F	●				●						MDNNN	MDQNR/L	B166	B167
		150404T	●			●	●						MDUNR/L	PDJNR/L	B192	B154
		150408	●	●		●	●		●		●		PDNNR/L	PDSNR/L	B155	B187
		150408F	●				●						PDUNR/L		B188	
		150408T	●			●	●									
		150412	●	●												
		150412F	●													
		150412T	●													
		150608										●				
	T-2NU-DNGA	150412	●													
	2NS-DNGA	150408			●			●								
	4NU-SNGA	120404	●			●	●				●		DSBNR/L	MSBNR/L	B149	B167
		120404F					●						MSDNN	MSKNR/L	B167	B168
		120404T				●	●						MSRNR/L	MSSNR/L	B168	B169
		120408	●			●	●				●		PSBNR/L	PSDNN	B157	B157
		120408F					●						PSKNR/L		B158	
		120408T				●	●									
		120412									●					
	2NS-SNGA	120408			●			●								
	3NU-TNGA	160404	●	●		●	●		●		●		MTENN	MTFNR/L	B169	B169
		160404F	●				●						MTGNR/L	MTJNR/L	B170	B170
		160404T	●			●	●						PTFNR/L	PTGNR/L	B159	B159
		160408	●	●		●	●				●		PTTNR/L	WTENN	B160	B161
		160408F	●				●						WTJNR/L	WTXNR/L	B161	B161
		160408T	●			●	●									
		160412		●												
	2NS-TNGA	160408			●			●								
	2NU-VNGA	160404	●	●		●	●		●		●		MVJNR/L		B170	
		160404F	●				●						MVQNR/L		B171	
		160404T	●			●	●						MVUNR/L		B193	
		160408	●	●		●	●		●		●		MVVNN		B171	
		160408F	●				●									
		160408T	●			●	●									
	2NS-VNGA	160408			●			●								

● : Stock item

cBN

Multi-Corner Type (Positive)

Dimensions (mm)			
Size	d	t	d1
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

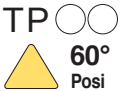
Inserts	Designation	Uncoated										Available tool holders	
		DNC250	DNC350	DNC400	KB1000	KB2000	KB400	KB320	KB330	KB370	KB420	Designation	Page
 	2NU-CCGW	060202	●									SCACR/L	B172
		060202F	●									SCLCR/L	B172
		060202T	●										
		060204	●		●	●							
		060204F	●			●							
		060204T	●		●	●							
		060208			●	●							
		060208F				●							
		060208T			●	●							
		09T304	●	●	●	●		●		●			
		09T304F	●			●							
		09T304T	●		●	●							
		09T308	●	●	●	●		●		●			
		09T308F	●			●							
		09T308T	●		●	●							
		09T308W	●										
		09T308WF	●										
 	2NU-DCGW	070204			●	●						SDACR/L	B172
		070204F				●						SDJCR/L	B173
		070204T			●	●						SDNCN	B173
		070208			●	●						SDQCR/L	B196
		070208F				●						SDUCR/L	B197
		070208T			●	●						SDZCR/L	B198
		11T304	●	●	●	●		●		●			
		11T304F	●			●							
		11T304T	●		●	●							
		11T308	●	●	●	●		●		●			
		11T308F	●			●							
		11T308T	●		●	●							
	T-2NU-DCGW	11T304	●										
 	3NU-TCGW	090204	●									STACR/L	B175
		090204F	●									STFCR/L	B176
		090204T	●									STGCR/L	B176
												STTCR/L	B176

●: Stock item

cBN

Multi-Corner Type (Positive)

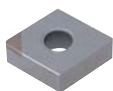
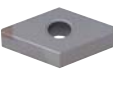
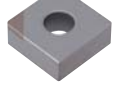
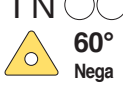
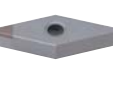
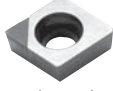
Dimensions (mm)			
Size	d	t	d1
11	6.35	3.18	2.4
16	9.525	4.76	3.81

Inserts	Designation	Uncoated										Available tool holders	
		DNC250	DNC350	DNC400	KB1000	KB2000	KB400	KB320	KB330	KB370	KB420	Designation	Page
	3NU-TPGB	110304	●					●				CTFPR/L	B164
		110304F	●									CTGPR/L	B164
		110304T	●										
		110308	●					●					
		110308F	●										
		110308T	●										
	3NU-TPGN	110304			●	●						CTFPR/L	B164 B191
		110304F				●						CTGPR/L	B164
		110304T			●	●							
		110308			●	●							
		110308F				●							
		110308T			●	●							
	3NU-TPGW	160304	●	●									
		160308	●	●									
		110304	●	●	●	●				●			
		110304F	●			●							
		110304T	●		●	●							
		110308	●	●	●	●				●			
	2NU-VBGW	160404	●	●	●	●		●		●		SVABR/L	B177
		160404F	●			●						SVHBR/L	B177
		160404T	●		●	●						SVJBR/L	B177
		160408	●	●	●	●		●		●		SVQBR/L	B201
		160408F	●			●						SVUBR/L	B202
		160408T	●		●	●							
	2NU-VCGW	160404	●	●	●	●				●			
		160404F	●			●							
		160404T	●		●	●							
		160408	●	●	●	●				●			
		160408F	●			●							
		160408T	●		●	●							
	2NU-VCGW	160404	●	●	●	●				●			
		160404F	●			●							
		160404T	●		●	●							
		160408	●	●	●	●				●			
		160408F	●			●							
		160408T	●		●	●							

cBN**Regrinding Type (Negative/Positive)**

Dimensions (mm)			
Size	d	t	d1
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	d1
15	12.7	4.76	5.16
16	9.525	4.76	3.81~4.4

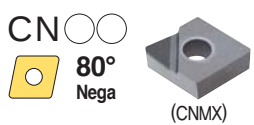
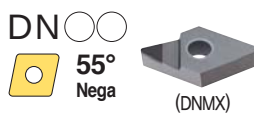
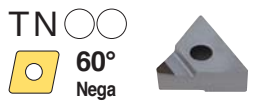
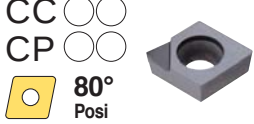
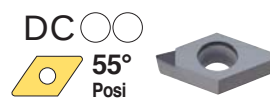
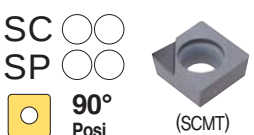
Inserts	Designation	Uncoated										Available tool holders	
		DNC250	DNC350	DNC400	KB1000	KB2000	KB400	KB320	KB330	KB370	KB420	Designation	Page
CN   80° Nega	CNMA	120404						●				DCBNR/L MCKNR/L	B148 B165
		120408						●			●	DCLNR/L MCLNR/L	B148 B165
	T-CNMA	120408						●				PCBNR/L MCMNN	B153 B165
												PCLNR/L	B153
DN   55° Nega	DNMA	150404						●				DDJNR/L MDJNR/L	B149 B166
		150408						●	●			MDNNN MDQNR/L	B166 B167
												MDUNR/L PDJNR/L	B192 B154
												PDNNR/L PDSNR/L	B155 B187
												PDUNR/L	B188
SN   90° Nega	SNMA	120404						●				DSBNR/L MSBNR/L	B149 B167
		120408						●				MSDNN MSKNR/L	B167 B168
												MSRNR/L MSSNR/L	B168 B169
												PSBNR/L PSDNN	B157 B157
												PSKNR/L	B158
TN   60° Nega	TNMA	160404						●				MTENNS MTFNR/L	B169 B169
		160408						●				MTGNR/L MTJNR/L	B170 B170
												PTFNR/L PTGNR/L	B159 B159
												PTTNR/L WTENN	B160 B161
												WTJNR/L WTXNR/L	B161 B161
VN   35° Nega	VNMA	160404						●				MVJNR/L	B170
		160408						●				MVQNR/L	B171
	T-VNMA	160404						●				MVUNR/L	B193
												MVVNN	B171
CC   80° Posi (CCMW)	CCMW	09T304						●				SCACR/L	B172
												SCLCR/L	B172
DC   50° Posi	DCGW	11T308						●				SDACR/L	B172
	T-DCGW	11T308						●				SDJCR/L	B173
												SDNCN/L	B173
TP   60° Posi	TPGB	110304						●	●			CTFPR/L	B164 B191
		110308						●				CTGPR/L	B164
VB   35° Posi	VBMW	160404						●				SVABR/L	B177
		160408						●				SVHBR/L	B177
												SVJBR/L	B177
												SVQBR/L	B201
												SVUBR/L	B202

●: Stock item

PCD

Insert (Negative/Positive)

Dimensions (mm)				Dimensions (mm)			
Size	d	t	d1	Size	d	t	d1
06	6.35	2.38	2.8	11	9.525	3.97	4.4
07	6.35	2.38	2.8	12	12.7	4.76	5.16
08	7.94	2.38	3.4	15	12.7	4.76	5.16
09	9.525	3.18	4.4	16	9.525	4.76	3.81

Inserts	Designation	PCD			Available tool holders			
		DP90	DP150	DP200	Designation		Page	
	CNMM	120404	●		DCBNR/L	DCLNR/L	B148	B148
		120408	●		MCKNR/L	MCLNR/L	B165	B165
		120412			MCMNN	PCBNR/L	B165	B153
	CNMX	120404			PCLNR/L		B153	
		120408						
		120412						
	DNMM	150404	●		DDJNR/L	MDJNR/L	B149	B166
		150408	●		MDNNN	MDQNR/L	B166	B167
		150412			MDUNR/L	PDJNR/L	B192	B154
	DNMX	150404			PDNNR/L	PDSNR/L	B155	B187
		150408			PDUNR/L		B188	
		150412						
	TNMX	160404			MTENNS	MTFNR/L	B169	B169
		160408			MTGNR/L	MTJNR/L	B170	B170
		160412			PTFNR/L	PTGNR/L	B159	B159
					PTTNR/L	WTENN	B160	B161
					WTJNR/L	WTXNR/L	B161	B161
	VNMX	160404			MVJNR/L		B170	
		160408			MVQNR/L		B171	
		160412			MVUNR/L		B193	
					MVVNN		B171	
	CCMT	060202	●		SCACR/L		B172	
		060204	●		SCLCR/L		B172	
		060208						
		09T304	●					
		09T308	●					
		09T312						
	CPMT	080204						
		080208						
		080212						
		090304						
		090308						
		090312						
	DCMT	070202	●		SDACR/L		B172	
		070204	●		SDJCR/L		B173	
		070208			SDNCN		B173	
		11T302			SDQCR/L		B196	
		11T304	●		SDUCR/L		B197	
		11T308	●		SDZCR/L		B198	
	SCMT	09T304			SSBCR/L		B174	
		09T308			SSDCN		B174	
		09T312			SSKCR/L		B175	
	SPGW	090302			SSSCR/L		B175	
		090304						
		090308						

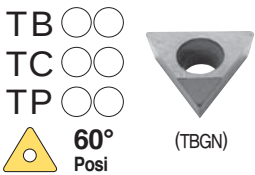
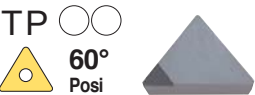
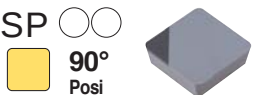


PCD

Insert (Positive)

Dimensions (mm)			
Size	d	t	d1
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	d1
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 (TBGN)	TBGW	060102			STUBR/L	B204
		060104				
	TCMT	090201			STACR/L	B175
		090202			STFCR/L	B176
		090204			STFPR/L	B200
		110201			STGCR/L	B176
		110202			STTCR/L	B176
		110204				
	TPGB	080204				
		080208				
		090204	●			
		090208	●			
		110304				
		110308				
	TPGW	080202				
		080204				
		090204				
		090208				
		110302				
		110304	●			
		110308	●			
		160404				
		160408				
	TPGT	110302			STFPR/L	B200
		110304			STUPR/L	B205
 VB ○○ VC ○○ 35° Posi	VBMT	110302			SVABR/L	B177
		110304	●		SVHBR/L	B177
		110308	●		SVJBR/L	B177
		160402			SVQBR/L	B201
		160404	●		SVUBR/L	B202
		160408	●			
		160412	●			
	VCMT	110302			SVJCR	B178
		110304	●		SVVCN	B178
		110308	●			
		160404	●			
		160408	●			
		160412				
	TPGN	090204			CTFPR/L	B164
		090208			CTGPR/L	B164
		110302				
		110304	●			
		110308	●			
		160302				
		160304				
		160308				
 TP ○○ 60° Posi	SPGN	090304	●		CSDPN	B163
		090308			CSKPR/L	B164
		120304				
		120308				
 SP ○○ 90° Posi						

●: Stock item

B Technical Information for Save Turn

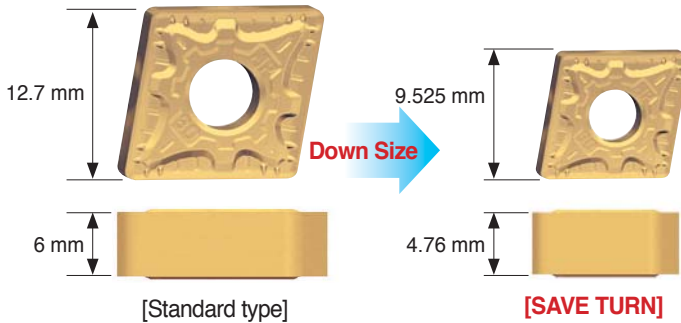
Economical small insert with powerful cutting performance

SAVE TURN

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

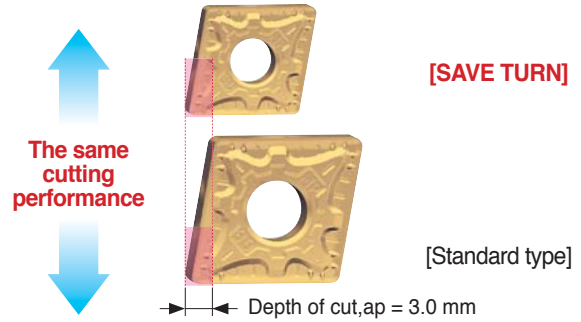
Features

Comparison of insert sizes



- Optimized size of the same performance like the standard type

Comparison of cutting performance

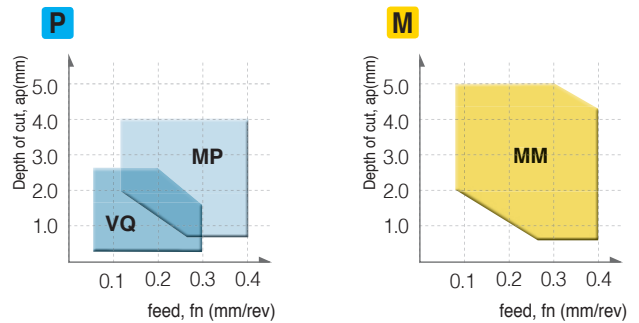


- Performs the same like standard type inserts under the depth of cut of 3.0 mm

Features of chip breaker

Insert shape	Cutting edge	Features
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, $a_p = 0.5 \sim 2.5$ mm / feed, $f_n = 0.05 \sim 0.30$ mm/rev

MP : Depth of cut, $a_p = 0.5 \sim 4.0$ mm / feed, $f_n = 0.15 \sim 0.40$ mm/rev

MM : Depth of cut, $a_p = 0.5 \sim 5.0$ mm / feed, $f_n = 0.10 \sim 0.40$ mm/rev

Application example (NC3220)

Alloy steel (SCM440)

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

- **Cutting Result**



CNMG090408-HM
SAVE TURN

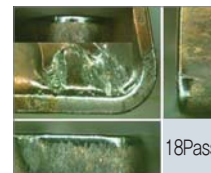


CNMG120408-HM
Standard type

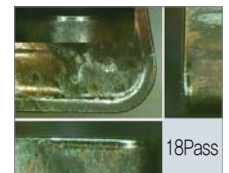
Alloy steel (SCM440)

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

- **Cutting Result**



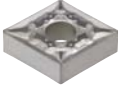
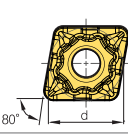
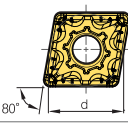
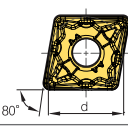
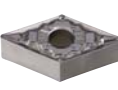
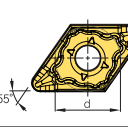
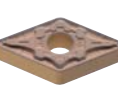
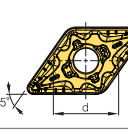
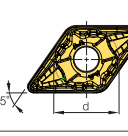
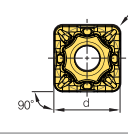
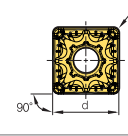
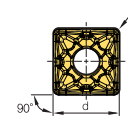
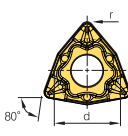
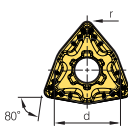
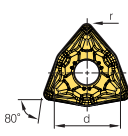
CNMG090408-HM
SAVE TURN



CNMG120408-HM
Standard type





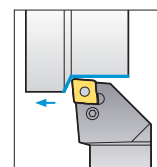
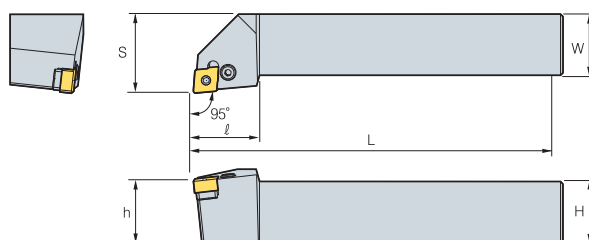
Type	Picture	Designation	Coated			Dimensions (mm)				cutting conditions		Configuration	Available tool holders page
			NC3215	NC3225	NC5330	d	t	r	d ₁	ap (mm)	fn (mm/rev)		
C type		CNMG 090408-VQ			●	9.525	4.76	0.8	3.81	0.50~2.50	0.08~0.30		B102 B105
					●	9.525	4.76	1.2	3.81	0.50~2.50	0.10~0.30		
		090412-VQ			●	9.525	4.76	1.2	3.81	0.50~2.50	0.10~0.30		
		CNMG 090404-MP				9.525	4.76	0.4	3.81	0.50~4.00	0.10~0.40		B102 B105
						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 090404-MM				9.525	4.76	0.4	3.81	0.50~5.00	0.08~0.35		B102 B105
						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 110508-VQ			●	9.525	5.56	0.4	3.81	0.50~2.50	0.08~0.30		B102 B103 B105 B106
					●	9.525	5.56	0.8	3.81	0.50~2.50	0.10~0.30		
		110512-VQ			●	9.525	5.56	0.8	3.81	0.50~2.50	0.10~0.30		
		DNMG 110504-MP				9.525	5.56	0.4	3.81	0.50~4.00	0.10~0.40		B102 B103 B105 B106
						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 110504-MM				9.525	5.56	0.4	3.81	0.50~5.00	0.08~0.35		B102 B103 B105 B106
						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 090408-VQ			●	9.525	4.76	0.4	3.81	0.50~2.50	0.08~0.30		B103 B104 B106
					●	9.525	4.76	0.8	3.81	0.50~2.50	0.10~0.30		
		090412-VQ			●	9.525	4.76	0.8	3.81	0.50~2.50	0.10~0.30		
		SNMG 090404-MP				9.525	4.76	0.4	3.81	0.50~4.00	0.10~0.40		B103 B104 B106
						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 090404-MM				9.525	4.76	0.4	3.81	0.50~5.00	0.08~0.35		B103 B104 B106
						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 060404-VQ				9.525	4.76	0.4	3.81	0.30~2.00	0.06~0.30		B105 B106
						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 060404-MP	●	●	●	9.525	4.76	0.4	3.81	0.50~3.50	0.10~0.40		B105 B106
			●	●	●	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 060404-MM				9.525	4.76	0.4	3.81	0.50~4.00	0.08~0.35		B105 B106
						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□□



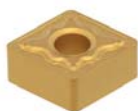
95°

• R type insert
(mm)

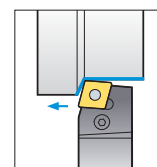
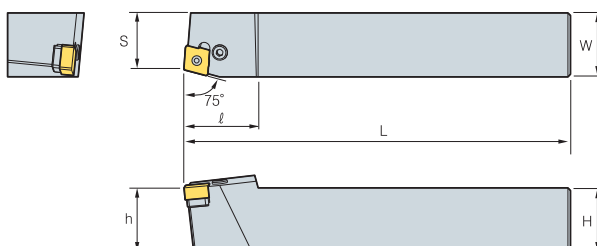
Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PCLNR/L 1616-H09-4N	16	16	100	20	16	20	CN□□ 0904□□						
2020-K09-4N	20	20	125	25	20	25							
2525-M09-4N	25	25	150	32	25	27							

➤ Applicable inserts B22

PCBNR/L



CN□□



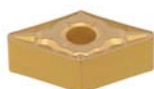
75°

• R type insert
(mm)

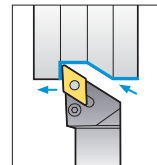
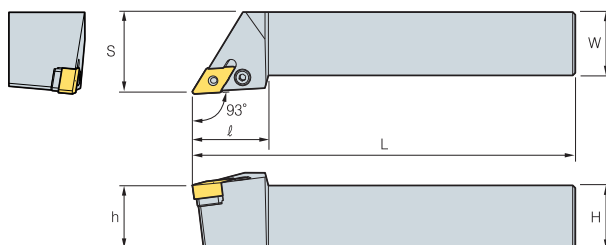
Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PCBNR/L 2020-K09-4N	20	20	125	17	20	27	CN□□ 0904□□						
2525-M09-4N	25	25	150	22	25	29							

➤ Applicable inserts B101

PDJNR/L



DN□□



93°

• R type insert
(mm)

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

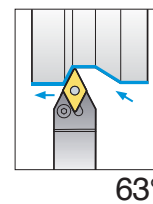
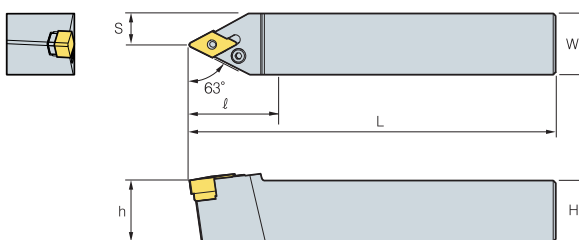
➤ Applicable inserts B101



PDNNR/L



DN□□



63°

• R type insert
(mm)

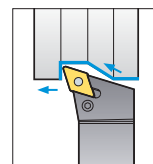
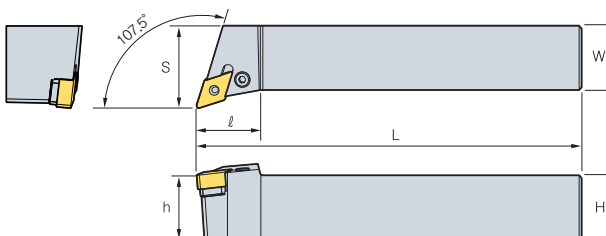
Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PDNNR/L 2020-K11-5N	20	20	125	25	20	30	DN□□ 1105□□	LV3AN	VHX0617N	SD32N	SP3	HW25L	LSPS3
2525-M11-5N	25	25	150	32	25	30							

Applicable inserts B101

PDQNR/L



DN□□



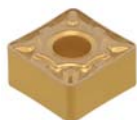
107.5°

• R type insert
(mm)

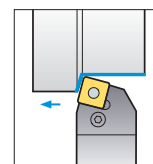
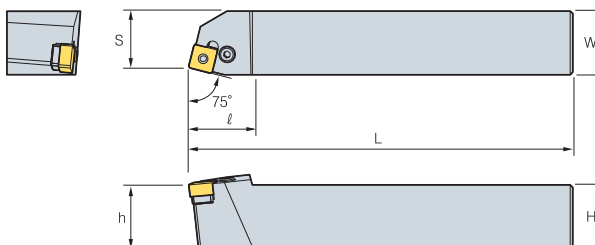
Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PDQNR/L 2020-K11-5N	20	20	125	25	20	30	DN□□ 1105□□	LV3AN	VHX0617N	SD32N	SP3	HW25L	LSPS3
2525-M11-5N	25	25	150	32	25	30							

Applicable inserts B101

PSBNR/L



SN□□



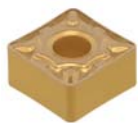
75°

• R type insert
(mm)

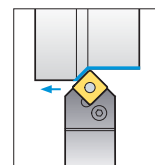
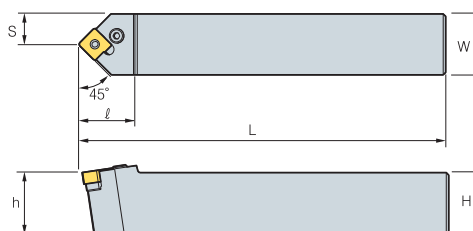
Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PSBNR/L 2020-K09-4N	20	20	125	17	20	25	SN□□ 0904□□	LV3AN	VHX0617N	SS32N	SP3	HW25L	LSP3
2525-M09-4N	25	25	150	22	25	25							

Applicable inserts B101

PSDNN



SN□□



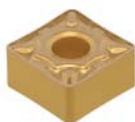
45°

• R type insert
(mm)

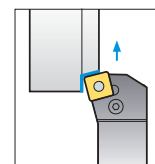
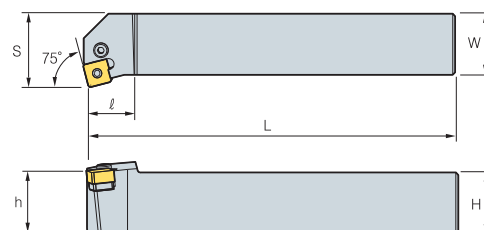
Designation	H	W	L	S	h	l	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PSDNN 2020-K09-4N	20	20	125	17	20	25	SN□□0904□□	LV3AN	VHX0617N	SS32N	SP3	HW25L	LSP3
2525-M09-4N	25	25	150	22	25	25							

➔ Applicable inserts B101

PSKNR/L



SN□□



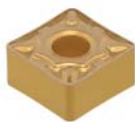
75°

• R type insert
(mm)

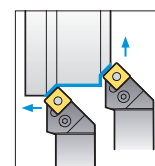
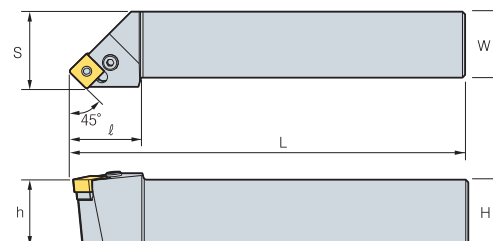
Designation	H	W	L	S	h	l	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PSKNR/L 2020-K09-4N	20	20	125	17	20	25	SN□□0904□□	LV3AN	VHX0617N	SS32N	SP3	HW25L	LSP3
2525-M09-4N	25	25	150	22	25	25							

➔ Applicable inserts B101

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							

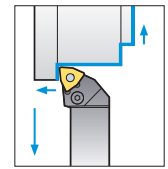
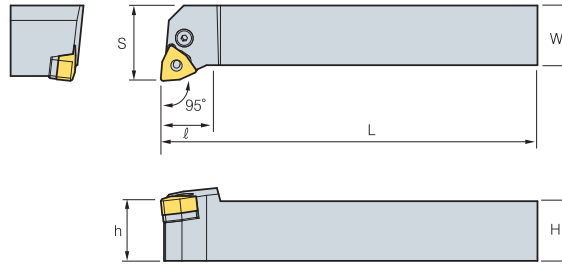
➔ Applicable inserts B101



PWLNRL



WN□□



95°

• R type insert
(mm)

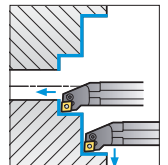
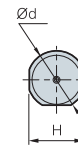
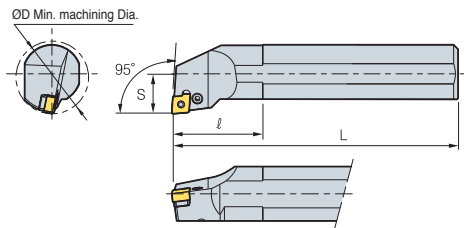
Designation	H	W	L	S	h	l	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PWLNRL 1616-H06	16	16	100	20	16	20	WN□□0604□□						
2020-K06	20	20	125	25	20	20							
2525-M06	25	25	150	32	25	20							

➡ Applicable inserts **B101**

PCLNR/L



CN□□



95°

• R type insert
(mm)

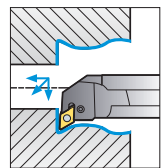
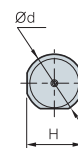
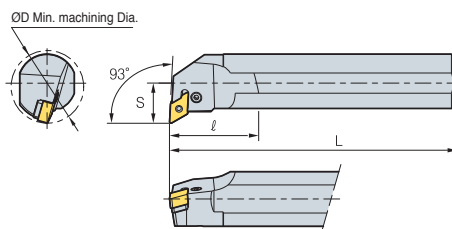
Designation	ØD	Ød	H	L	S	l	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
S20Q-PCLNR/L-09-4N	25	20	18	180	13	50	CN□□0904□□						
S25R-PCLNR/L-09-4N	32	25	23	200	17	50							
S32S-PCLNR/L-09-4N	40	32	30	250	22	50							

➡ Applicable inserts **B101**

PDUNR/L



DN□□



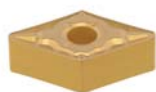
93°

• R type insert
(mm)

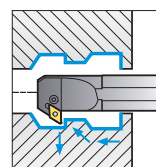
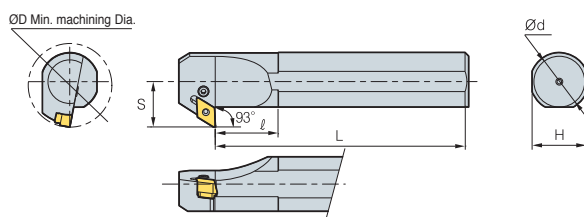
Designation	ØD	Ød	H	L	S	l	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
S32S-PDUNR/L-11-5N	40	32	30	250	22	30	DN□□1105□□						
S40T-PDUNR/L-11-5N	50	40	38	300	27	50							

➡ Applicable inserts **B101**

PDZNR/L



DN□□



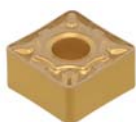
93°

• R type insert (mm)

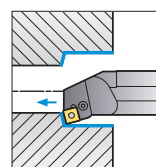
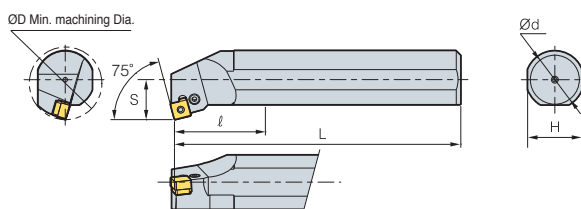
Designation	ØD	Ød	H	L	S	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
S32S-PDZNR/L-11-5N	40	32	30	250	22	30	DN□□1105□□	LV3AN	VHX0617N	SD32N	SP3	HW25L	-
S40T-PDZNR/L-11-5N	50	40	38	300	27	50							

➔ Applicable inserts B101

PSKNR/L



SN□□



75°

• R type insert (mm)

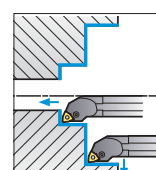
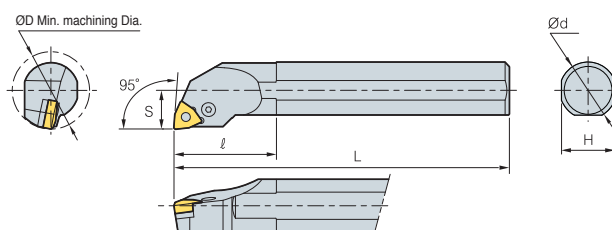
Designation	ØD	Ød	H	L	S	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
S25R-PSKNR/L-09-4N	32	25	23	200	17	32	SN□□0904□□	LV3B	VHX0512B	-	-	HW20L	-
S32S-PSKNR/L-09-4N	40	32	30	250	22	32		LV3N	VHX0617N	SS32N	-	HW25L	-

➔ Applicable inserts B101

PWLNRL/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-PWLNRL/L-06	25	20	18	250	13	40	WN□□0604□□	LV3B	VHX0512B	-	-	-	-
S25R-PWLNRL/L-06	32	25	23	200	17	40		LV3B	VHX0613B	SW317	SW317	HW25L	LSPS3
S32S-PWLNRL/L-06	44	32	30	250	22	45							

➔ Applicable inserts B101

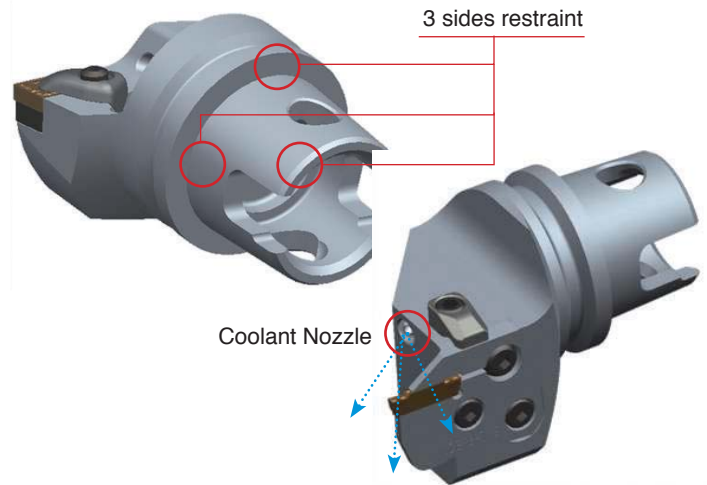


B Technical Information for KM Tooling System

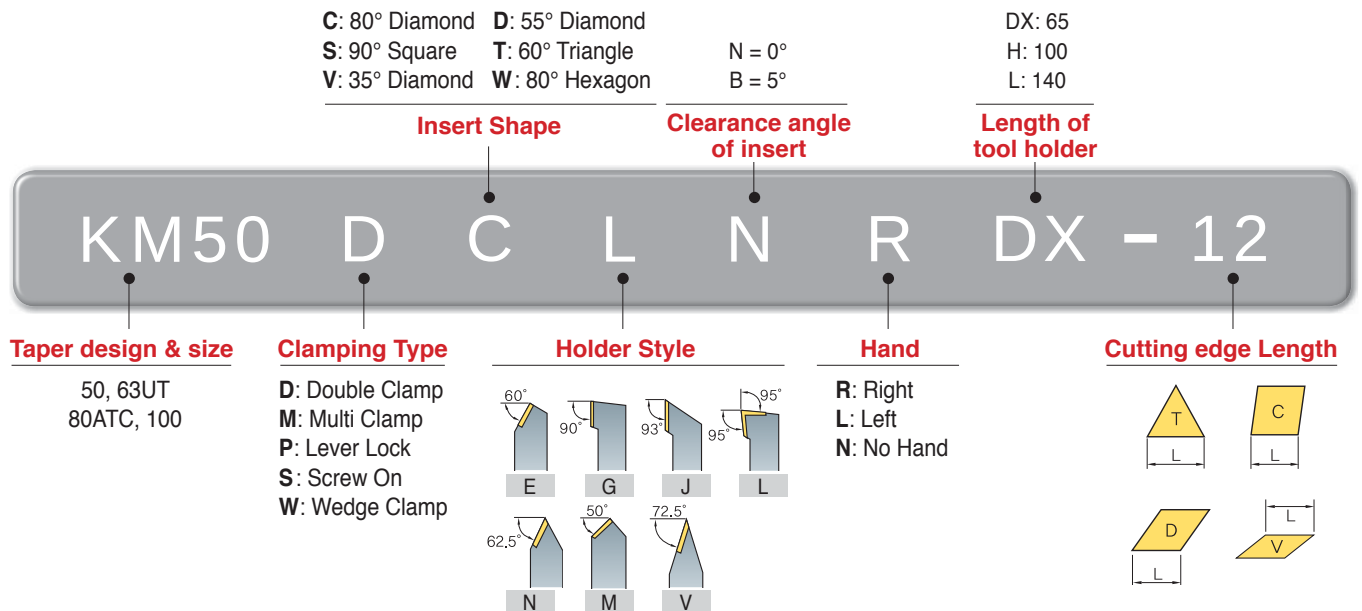
3 Face Binding - Superior precision

KM Tooling System [For Multi-task Machines]

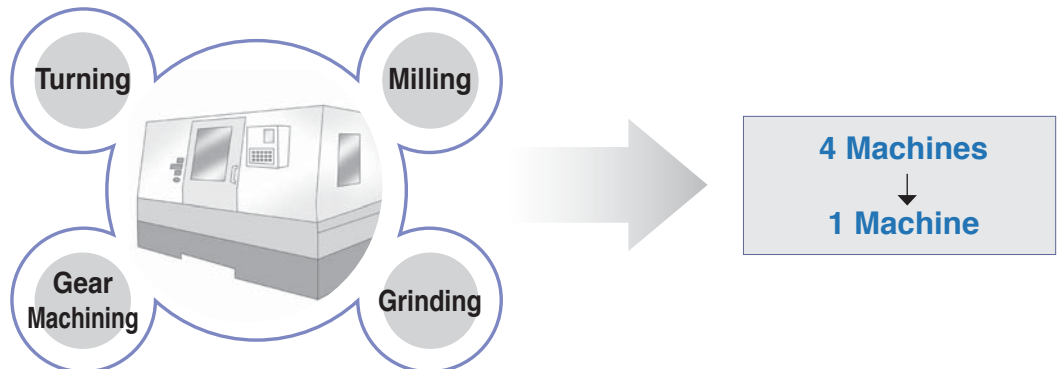
- 3 Face Binding / Superior precision
- Flexible Clamping System / Superior Rigidity
- Various Size & Style
- Appropriate for Turning & Milling
- Adjustable coolant direction with Coolant Nozzle



➤ KM tooling code system



➤ Multi-tasking machine



KM Tooling system is superior for wide application.

External Process

Internal Process

Grooving Process

Drill Process

Parting-off Process

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



Index for HSK Tooling System

Cutting Shape								
Designation	H63T-DCLNR/L-DX12	H63T-DCMNN-H/L12	H63T-DDJNR/L-DX15	H63T-DDNNN-H/L15	H63T-PCLNR/L-DX12	H63T-PCMNN-H/L12	H63T-PDJNR/L-DX15	H63T-PDNNN-H/L15
Approach angle	95°	95°	93°	107.5°	95°	95°	93°	107.5°
Page	B210	B210	B210	B210	B211	B211	B211	B211
Turning	●	●	●	●	●	●	●	●
Copying			●	●			●	●
Facing	●	●	●	●	●	●	●	●
Back turning	●	●	●	●	●	●	●	●
Internal turning								

Cutting Shape								
Designation	H63T-PRDCR-DX12	H63T-PRDCN-H/L12	H63T-SVPBR/L-DX16	H63T-SVVBH-H/L16	H63T-A25K/A32L-DCLNR/L-12	H63T-MCFR/L	H63T-MCHR/L	
Approach angle	-	-	117.5°	117.5°	95°	-	-	
Page	B212	B212	B212	B212	B214	B214	B213	
Turning	●	●	●	●	●	●		
Copying	●	●	●	●	●	●		
Facing	●	●	●	●	●	●	●	
Back turning	●	●	●	●	●			
Internal turning					●			

Index for KM Tooling System

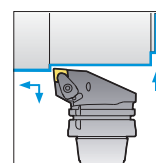
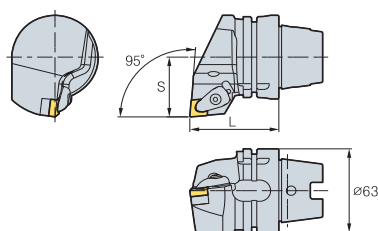
Cutting Shape						
Designation	KM50-DCLNR/L-C12 KM63UT-DCLNR/L-D12	KM50-DCMNN-C12 KM63UT-DCMNN-D12	KM50-DDJNR/L-C15(-3) KM63UT-DCLNR/L-D15(-3)	KM50-DDNNN-C15(-3) KM63UT-DDNNN-D15(-3)	KM50-A25K-DCLNR/L-12 KM50-A32K-DCLNR/L-12 KM63UT-A25K-DCLNR/L-12 KM63UT-A32L-DCLNR/L-12	KM50-PCLNR/L-C12 KM63UT-PCLNR/L-D12
Approach angle	95°	95°	93°	107.5°	95°	95°
Page	B216	B216	B216	B216	B219	B217
Turning	●	●	●	●	●	●
Copying			●	●		
Facing	●	●	●	●	●	●
Back turning	●	●	●	●	●	●
Internal turning					●	

Cutting Shape						
Designation	KM50-PCMNN-C12 KM63UT-PCMNN-D12	KM50-PDJNR/L-C15(-3) KM63UT-PCLNR/L-D15(-3)	KM50-PDNNN-C15(-3) KM63UT-PDNNN-D15(-3)	KM50-MCHR/L KM63UT-MCHR/L		
Approach angle	95°	93°	107.5°	-		
Page	B217	B218	B218	B218		
Turning	●	●	●	●		
Copying		●	●	●		
Facing	●	●	●			
Back turning	●	●	●	●		
Internal turning						

DCLNR/L



CN□□



95°

• R type insert
(mm)

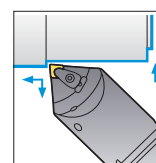
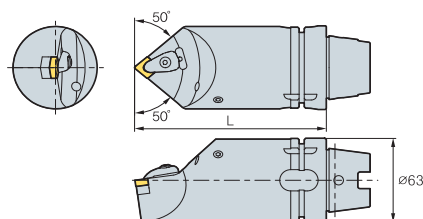
Designation	L	S	Insert	Clamp	Screw	Shim	Shim Screw	Spring	Nozzle	Plug	Wrench	Coolant Pipe
H63T-DCLNR/L-DX12	65	45	CN□□1204□□	CVH4	CHX0518	SC44V	FTKA0410	SPR0714	CN0605	-	HW30P	CP63T

➔ Applicable inserts B26~B32

DCMNN



CN□□



95°

(mm)

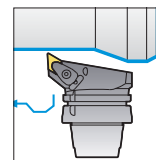
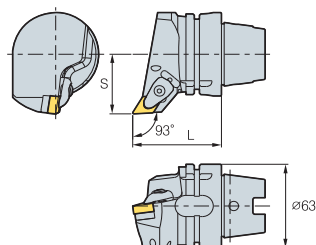
Designation	L	Insert	Clamp	Screw	Shim	Shim Screw	Spring	Nozzle	Plug	Wrench	Coolant Pipe
H63T-DCMNN-H12	100	CN□□1204□□	CVH4	CHX0518	SC44V	FTKA0410	SPR0714	CN0605	KHA0808	HW30P	CP63T
H63T-DCMNN-L12	140										

➔ Applicable inserts B26~B32

DDJNR/L



DN□□



93°

• R type insert
(mm)

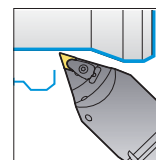
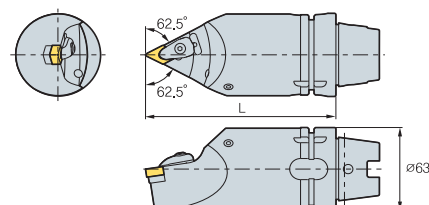
Designation	L	S	Insert	Clamp	Screw	Shim	Shim Screw	Spring	Nozzle	Plug	Wrench	Coolant Pipe
H63T-DDJNR/L-DX15	65	45	DN□□1506□□	CVH4	CHX0518	SD43V	FTKA0410	SPR0714	CN0605	-	HW30P	CP63T
H63T-DDJNR/L-DX15-3	65	45	DN□□1504□□			SD44V						

➔ Applicable inserts B33~B39

DDNNN



DN□□



107.5°

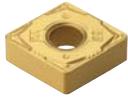
(mm)

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				SD44V						
H63T-DDNNN-H15-3	100	DN□□1504□□	CVH4	CHX0518	SD44V	FTKA0410	SPR0714	CN0605	KHA0808	HW30P	CP63T
H63T-DDNNN-L15-3	140				SD44V						

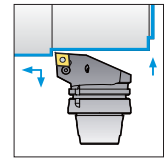
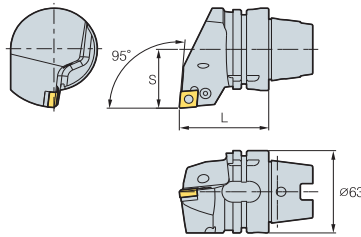
➔ Applicable inserts B33~B39



PCLNR/L



CN□□



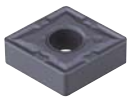
95°

• R type insert
(mm)

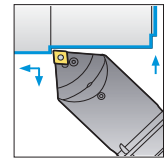
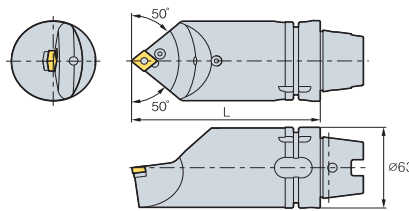
Designation	L	S	Insert	Lever	Screw	Shim	Shim pin	Punching	Nozzle	Plug	Wrench	Coolant Pipe
H63T-PCLNR/L-DX12	65	45	CN□□1204□□	LV4N	VHX0820N	SC42N	SP4N	LSPS4	CN0605	-	HW30L	CP63T

➔ Applicable inserts B26~B32

PCMNN



CN□□



95°

(mm)

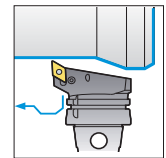
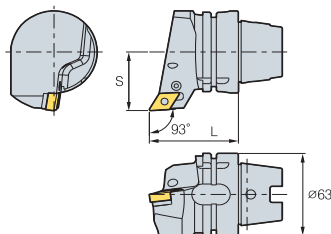
Designation	L	Insert	Lever	Screw	Shim	Shim pin	Punching	Nozzle	Plug	Wrench	Coolant Pipe
H63T-PCMNN-H12	100	CN□□1204□□	LV4N	VHX0820N	SC42N	SP4N	LSPS4	CN0605	KHA0808	HW30L	CP63T
H63T-PCMNN-L12	140										

➔ Applicable inserts B26~B32

PDJNR/L



DN□□



95°

• R type insert
(mm)

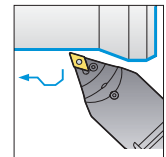
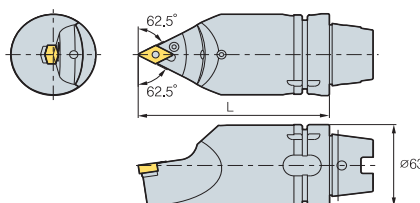
Designation	L	S	Insert	Lever	Screw	Shim	Shim pin	Punching	Nozzle	Plug	Wrench	Coolant Pipe
H63T-PDJNR/L-DX15	65	45	DN□□1506□□	LV4BN	VHX0821N	SD42N	SP4N	LSPS4	CN0605	-	HW30L	CP63T
H63T-PDJNR/L-DX15-3	65	45	DN□□1504□□			SD43N						

➔ Applicable inserts B33~B39

PDNNN



DN□□



107.5°

(mm)

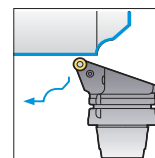
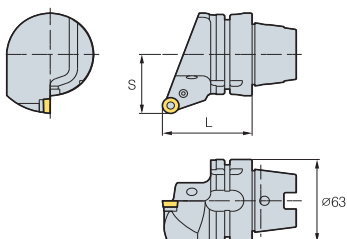
Designation	L	Insert	Lever	Screw	Shim	Shim pin	Punching	Nozzle	Plug	Wrench	Coolant Pipe
H63T-PDNNN-H15	100	DN□□1506□□	LV4BN	VHX0821N	SD42N	SP4N	LSPS4	CN0605	KHA0808	HW30L	CP63T
H63T-PDNNN-L15	140										
H63T-PDNNN-H15-3	100	DN□□1504□□	LV4BN	VHX0821N	SD43N	SP4N	LSPS4	CN0605	KHA0808	HW30L	CP63T
H63T-PDNNN-L15-3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

➔ Applicable inserts B33~B39

PRGCR/L



RCMX1204M0



• R type insert
(mm)

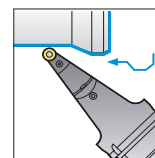
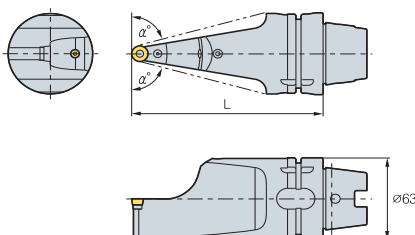
Designation	L	S	Insert	Lever	Screw	Shim	Shim pin	Punching	Nozzle	Plug	Wrench	Coolant Pipe
H63T-PRGCR/L-DX12	65	45	RCMX1204M0	LR12	VHX0617	SR12	SP3	LSPS3	CN0605	-	HW25L	CP63T

➔ Applicable inserts B70

PRDCN



RCMX1204M0



(mm)

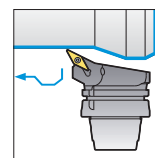
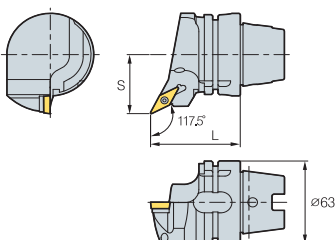
Designation	L	α°	Insert	Lever	Screw	Shim	Shim pin	Punching	Nozzle	Plug	Wrench	Coolant Pipe
H63T-PRDCN-H12	100	69	RCMX1204M0	LR12	VHX0617	SR12	SP3	LSPS3	CN0605	-	HW25L	CP63T
H63T-PRDCN-L12	140	75										

➔ Applicable inserts B70

SVPBR/L



VB□T



117.5°

• R type insert
(mm)

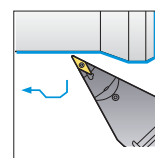
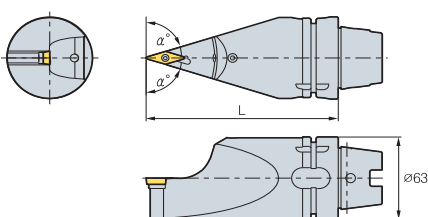
Designation	L	S	Insert	Screw	Shim Screw	Shim	Nozzle	Plug	Wrench	Wrench	Coolant Pipe
H63T-SVPBR/L-DX16	65	45	VB□T1604□□	FTGA03512	SHXN0509F	SV32S	CN0605	-	TW15P	HW32L	CP63T

➔ Applicable inserts B80~B81, B92

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									

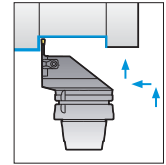
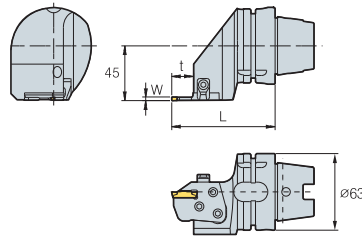
➔ Applicable inserts B80~B81, B92



MCHR/L



MGMN / MGMR/L
MGGN / MRMN



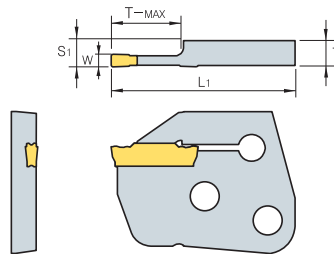
• R type insert
(mm)

Designation	L	t	W	T-MAX	Insert	Cartridge	Clamp	Clamp Screw	Hinge Screw	Screw	Nozzle	Plug	Wrench	Coolant Pipe
H63T-MCHR/L	85	18	3	16	MGMN	MCER/L3-T16	CHX8N	DHA0818F	RHA0613	FHGA0618	CN0605	-	HW40L	CP63T
	85	18	4	16	MGMR/L	MCER/L4-T16								
	89	22	5	20	MGGN	MCER/L5-T20								
	89	22	6	20	MRMN	MCER/L6-T20								

MCER/L (Cartridge)



MGMN / MGMR/L
MGGN / MRMN



• R type insert
(mm)

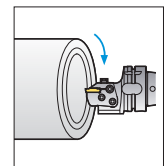
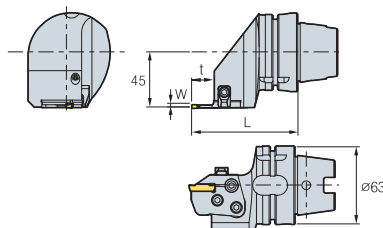
Designation	L	L1	S1	T-MAX	Insert		Tool holders
					W	Designation	
MCER/L	3-T16	6.00	44.5	6.35	3	MGMN	H63T-MCHR/L
	4-T16	5.97	44.5	6.35	4	MGMR/L	
	5-T20	5.87	48.5	6.35	5	MGGN	
	6-T20	5.82	48.5	6.35	6	MGMN	

➔ Applicable inserts B26~B27

MCHR/L



MFMN300
MGMN400



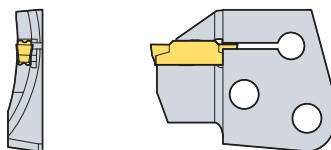
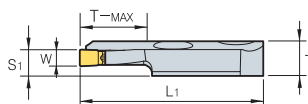
• R type insert
(mm)

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		

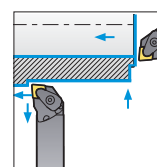
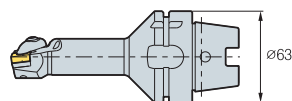
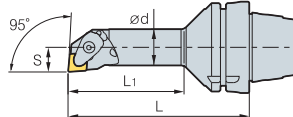
➔ Applicable inserts B26~B27

DCLNR/L



CN□□

ØD Min. machining Dia.



95°

• R type insert
(mm)

Designation	ØD	Ød	L	L1	S	Insert	Clamp	Screw	Shim	Shim Screw	Spring	Nozzle	Plug	Wrench	Coolant Pipe
H63T-A25K-DCLNR/L-12	32	25	125	80	17	CN□□1204□□	CVH4	CHX0518	SC42V	FTKA0410	SPR0714	CN0605	-	HW30P	CP63T
H63T-A32L-DCLNR/L-12	40	32	140	98	22										

➔ Applicable inserts B26~B32

Blank Tool

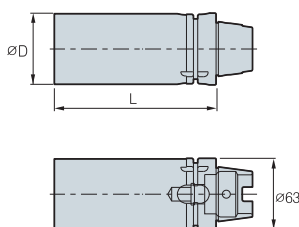


Fig. 1

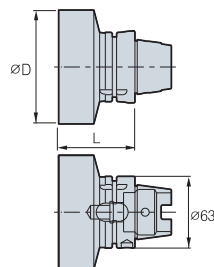


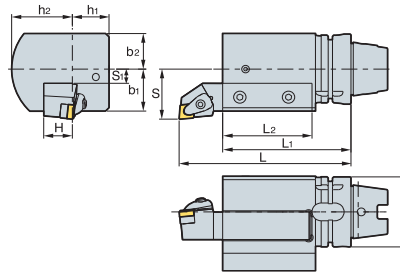
Fig. 2

(mm)

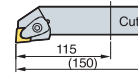
Designation	ØD	L	Fig.	Coolant Pipe
HSK-T63-BL62-102	62	102	1	CP63T
HSK-T63-BL62-142	62	142	2	
HSK-T63-BL100-67	100	67	1	
HSK-T63-BL120-70	120	70	2	



EV2525R/L-112



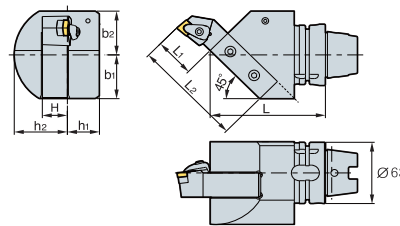
- **Holder information**
- Holder size: 25 x 25
- Before setting the holder, please cut the holder length to 115mm.



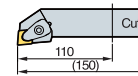
• R type insert (mm)

Designation	L	L1	L2	H	h1	h2	S	S1	b1	b2	Screw	Plug	Nozzle	Wrench	Coolant Pipe
EV2525R/L-112	150	112	77	25	32	53	45	12.75	37.75	32	KHA1231	KHA0808	CN0605	HW50L	CP63T

EV2525R/L-115



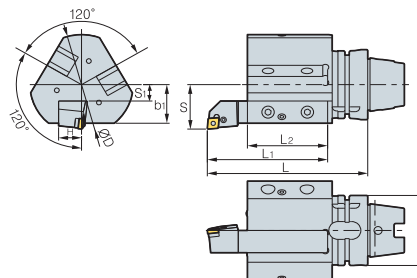
- **Holder information**
- Holder size: 25 x 25
- Before setting the holder, please cut the holder length to 110mm.



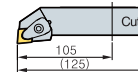
• R type insert (mm)

Designation	L	L1	L2	H	h1	h2	b1	b2	Screw	Plug	Nozzle	Wrench	Coolant Pipe
EV2525R/L-115	115	40	110	25	32	53	45	45	KHA1231	KHA0808	CN0605	HW50L	CP63T

EV2020R/L-105-3



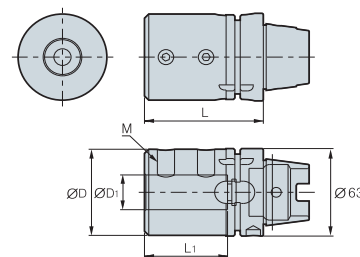
- **Holder information**
- Holder size: 20 x 20
- Before setting the holder, please cut the holder length to 105mm.



• 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

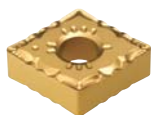
B○○-○○



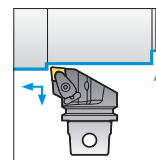
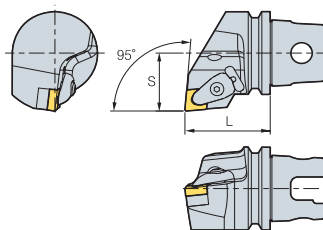
• R type insert (mm)

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)

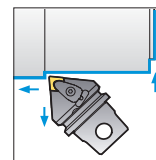
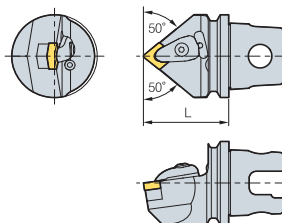
Designation	L	S	Insert	Clamp	Screw	Shim	Shim Screw	Spring	Nozzle	Plug	Wrench
KM50-DCLNR/L-C12	50	35	CN□□1204□□	CVH4	CHX0518	SC44V	FTKA0410	SPR0714	CN0605	-	HW30P
KM63UT-DCLNR/L-D12	60	43									

➔ Applicable inserts B26~B32

DCMNN



CN□□



95°

(mm)

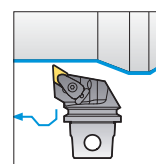
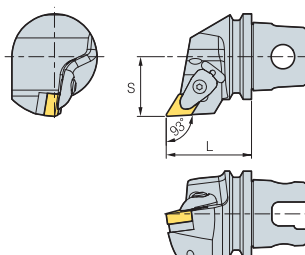
Designation	L	Insert	Clamp	Screw	Shim	Shim Screw	Spring	Nozzle	Plug	Wrench
KM50-DCMNN-C12	50	CN□□1204□□	CVH4	CHX0518	SC44V	FTKA0410	SPR0714	CN0605	KHA0808	HW30P
KM63UT-DCMNN-D12	60									

➔ Applicable inserts B26~B32

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

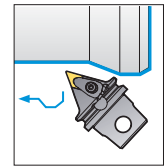
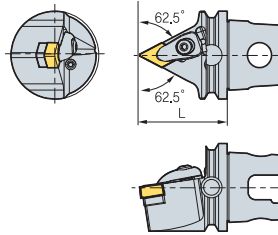
➔ Applicable inserts B33~B39



DDNNN



DN□□



117.5°

(mm)

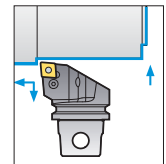
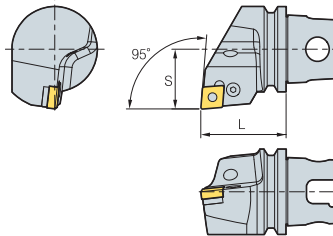
Designation	L	Insert	Clamp	Screw	Shim	Shim Screw	Spring	Nozzle	Plug	Wrench
KM50-DDNNN-C15	50	DN□□1506□□	CVH4	CHX0518	SD43V	FTKA0410	SPR0714	CN0605	KHA0808	HW30P
KM50-DDNNN-C15-3	50	DN□□1504□□	CVH4	CHX0518	SD44V	FTKA0410	SPR0714	CN0605	KHA0808	HW30P
KM63UT-DDNNN-D15	60	DN□□1506□□	CVH4	CHX0518	SD43V	FTKA0410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

→ Applicable inserts B33~B39

PCLNR/L



CN□□



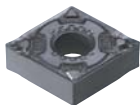
95°

• R type insert
(mm)

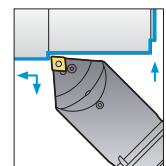
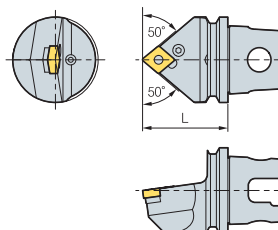
Designation	L	S	Insert	Lever	Screw	Shim	Shim pin	Punching	Nozzle	Plug	Wrench
KM50-PCLNR/L-C12	50	35	CN□□1204□□	LV4N	VHX0820N	SC42N	SP4N	LSPS4	CN0605	-	HW30L
KM63UT-PCLNR/L-D12	60	43									

→ Applicable inserts B26~B32

PCMNN



CN□□



95°

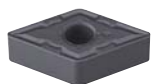
(mm)

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									

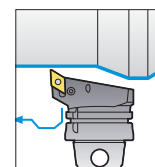
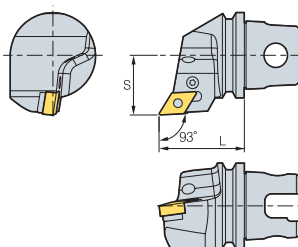
→ Applicable inserts B26~B32



PDJNR/L



DN□□



93°

• R type insert
(mm)

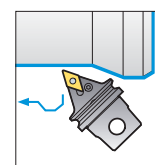
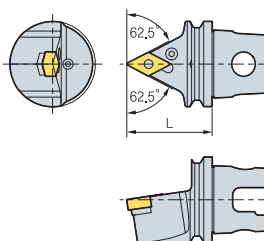
Designation	L	S	Insert	Lever	Screw	Shim	Shim pin	Punching	Nozzle	Plug	Wrench
KM50-PDJNR/L-C15	50	35	DN□□1506□□	LV4BN	VHX0821N	SD42N	SP4N	LSPS4	CN0605	-	HW30L
KM50-PDJNR/L-C15-3	50	35	DN□□1504□□	LV4BN	VHX0821N	SD43N	SP4N	LSPS4	CN0605	-	HW30L
KM63UT-PDJNR/L-D15	60	43	DN□□1506□□	LV4BN	VHX0821N	SD42N	SP4N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

➔ Applicable inserts B33~B39

PDNNN



DN□□



107.5°

(mm)

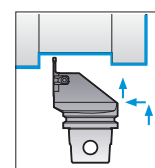
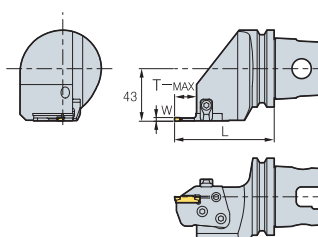
Designation	L	Insert	Lever	Screw	Shim	Shim pin	Punching	Nozzle	Plug	Wrench
KM50-PDNNN-C15	50	DN□□1506□□	LV4BN	VHX0821N	SD42N	SP4N	LSPS4	CN0605	KHA0808	HW30L
KM50-PDNNN-C15-3	50	DN□□1504□□	LV4BN	VHX0821N	SD43N	SP4N	LSPS4	CN0605	KHA0808	HW30L
KM63UT-PDNNN-D15	60	DN□□1506□□	LV4BN	VHX0821N	SD42N	SP4N	LSPS4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

➔ Applicable inserts B33~B39

MCHR/L



MGMN / MGMR/L
MGGN / MRMN



• R type insert
(mm)

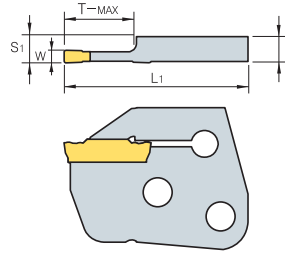
Designation	S	L	t	W	T-MAX	Insert	Cartridge	Clamp	Clamp Screw	Hinge Screw	Screw	Nozzle	Plug	Wrench
KM50-MCHR/L	35	72.5	18	3	16	MGMN MGMR/L	MCER/L3-T16	CHX8N	DHA0818F	RHA0613	FHGA0618	CN0605	-	HW40L
	35	72.5	18	4	16		MCER/L4-T16							
	35	76.5	22	5	20		MCER/L5-T20							
	35	76.5	22	6	20		MCER/L6-T20							
KM63UT-MCHR/L	43	81.5	18	3	16	MGGN MRMN	MCER/L3-T16	CHX8N	DHA0818F	RHA0613	FHGA0618	CN0605	-	HW40L
	43	81.5	18	4	16		MCER/L4-T16							
	43	85.5	22	5	20		MCER/L5-T20							
	43	85.5	22	6	20		MCER/L6-T20							



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	

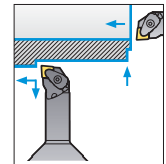
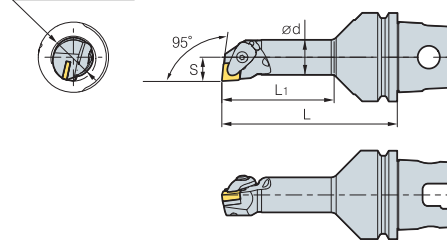
➔ Applicable inserts C26~C27

KM○○-DCLNR/L



CN□□

ØD Min. machining Dia.



95°

• R type insert
(mm)

Designation	ØD	Ød	L	L1	S	Insert	Clamp	Screw	Shim	Shim Screw	Spring	Nozzle	Plug	Wrench
KM50-A25K-DCLNR/L-12	32	25	125	80	17	CN□□1204□□								
KM50-A32L-DCLNR/L-12	40	32	140	98	22									
KM63UT-A25K-DCLNR/L-12	32	25	125	80	17									
KM63UT-A32L-DCLNR/L-12	40	32	140	98	22									
							CVH4	CHX0518	SC42V	FTKA0410	SPR0714	CN0605	-	HW30P

➔ Applicable inserts B26~B32

Blank Tool

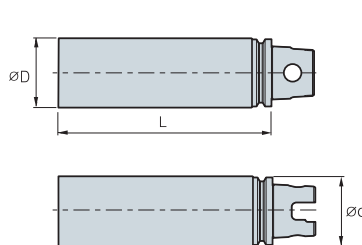


Fig. 1

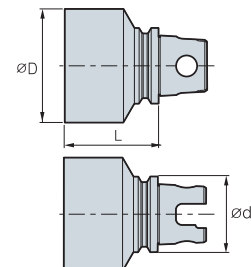


Fig. 2

(mm)

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

B Cartridge Code System (ISO)

1	2	3	4	5	6	7	8	9
S	T	F	C	R	12	C	A	- 16
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 C

Hole clamping P

Screw on 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

h

7 Cartridge Code
S T F C R 12 C A - 16

C (Cartridge)

8 Type of Cartridge
S T F C R 12 C A - 16

A (ISO5611)

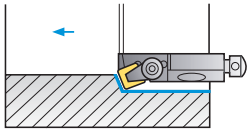
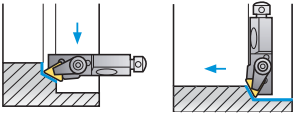
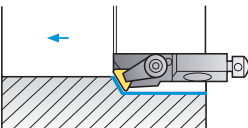
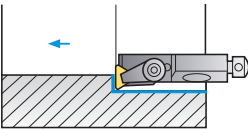
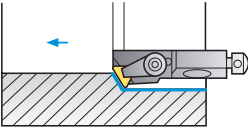
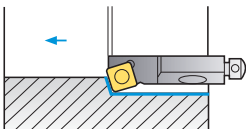
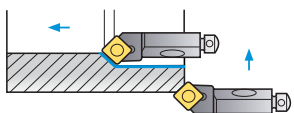
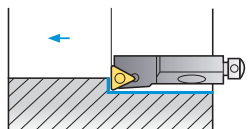
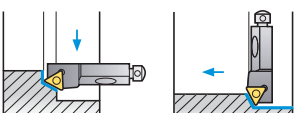
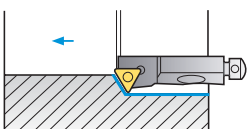
9 Length of Cutting Edge
S T F C R 12 C A - 16

C

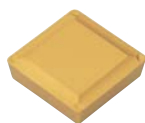
S

T

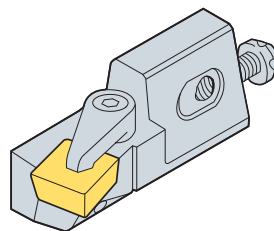
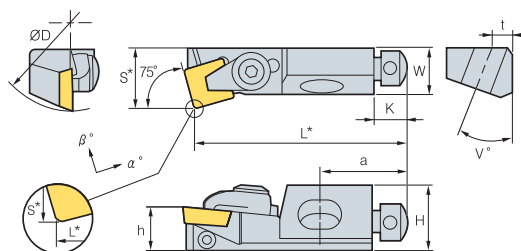


	Cutting Shape	Turning	Copying	Facing	Chamfering	Applicable inserts	Page
Clamp on System	CSKPR/L  10CA-09 12CA-12	●				SP□R 0903□□ 1203□□	B222
	CTTPR/L  10CA-11 12CA-16	●				TP□R 1103□□ 1603□□	B223
	CTWPR/L  10CA-11 12CA-16	●				TP□R 1103□□ 1603□□	B223
	CTFPR/L  10CA-11 12CA-16	●		●		TP□R 1103□□ 1603□□	B222
	CTSPR/L  10CA-11 12CA-16	●				TP□R 1103□□ 1603□□	B222
Screw on System	SSKCR/L  10CA-09 12CA-12	●				SC□T 09T3□□ 1204□□	B224
	SSSCR/L  10CA-09 12CA-12	●			●	SC□T 09T3□□ 1204□□	B224
	STFCR/L  10CA-11 12CA-16	●		●		TC□T 1102□□ 16T3□□	B224
	STTCR/L  10CA-11 12CA-16	●		●		TC□T 1102□□ 16T3□□	B225
	STWCR/L  10CA-11 12CA-16	●				TC□T 1102□□ 16T3□□	B225

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□R0903 □□ 1203 □□
12CA-12	50	20	15	55	20	12	8	6	0	20	6	20	

➔ Applicable inserts B72~B73

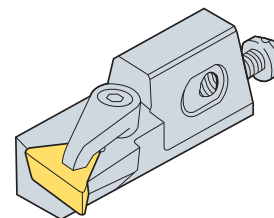
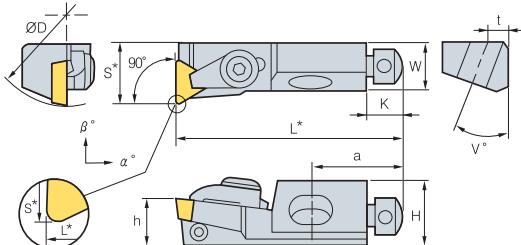
• a base Insert : r = 0.8 D = ØD Min. machining Dia.

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□R1103 □□ 1603 □□
12CA-16	50	20	15	55	20	12	8	6	0	20	6	20	

➔ Applicable inserts B77~B79

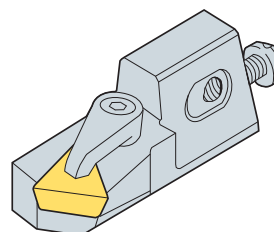
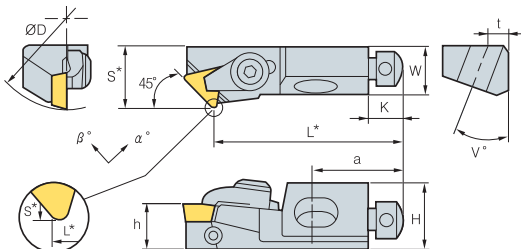
• a base Insert : r = 0.4 (l = 11) r = 0.8 (l = 16) D = ØD Min. machining Dia.

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□R1103 □□ 1603 □□
12CA-16	50	20	15	47	20	12	8	5	0	20	6	20	

➔ Applicable inserts B77~B79

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

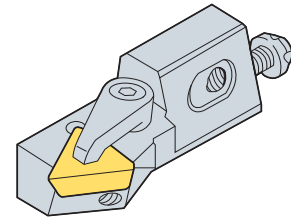
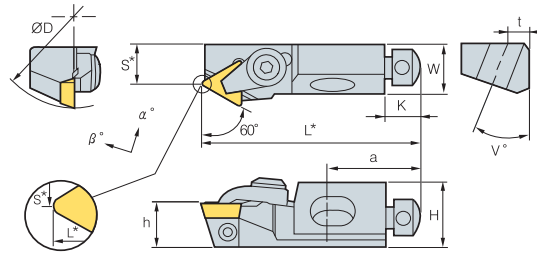
Parts	Clamp	Axial Adjust Screw	Radial Adjust Screw	MountingScrew	Washer	Wrench	Wrench
CTSPR/L 10CA-11	CA05R	AZ0508F	KHA0408	RHA0620	WA0602	TW25L	HW20L
12CA-16	CA06R	AZ0508F	KHA0412	RHA0625	WA0602	TW30L	HW20L



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□R1103□□ 1603□□
12CA-16	50	20	15	55	20	12	8	5	0	20	6	20	

➔ Applicable inserts **B77~B79**

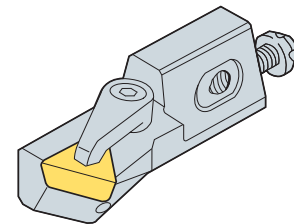
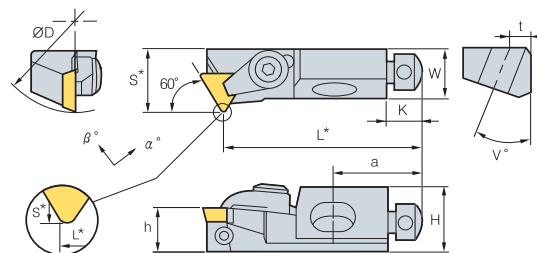
• a base Insert : r = 0.8 D = ØD Min. machining Dia.

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°	Insert
CTWPR/L 10CA-11	40	15	11	44	14	10	8	5	0	20	5	20	TP□R1103 □□ 1603 □□
12CA-16	50	20	15	47	20	12	8	5	0	20	6	20	

➔ Applicable inserts **B77~B79**

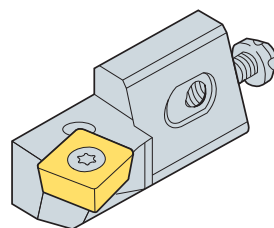
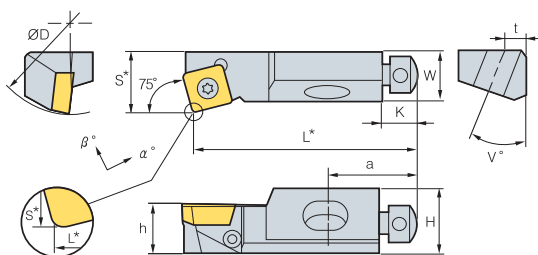
• a base Insert : r = 0.8 D = ØD Min. machining Dia.

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 B70~B71, B90

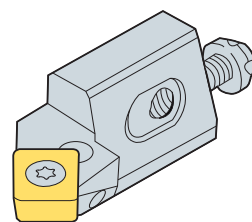
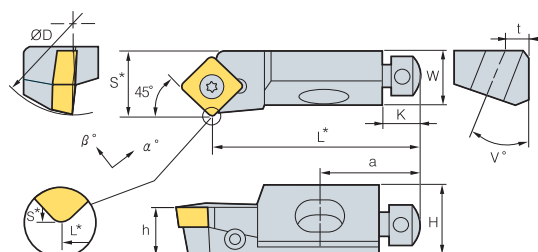
• a base Insert : r = 0.8 D = ØD Min. machining Dia.

Parts	Screw	Axial Adjust Screw	Radial AdjustScrew	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)

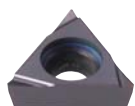
Designation	ØD	H	W	L*	S*	h	K	α°	β°	a	t	v°	Insert
SSSCR/L 10CA-09	40	15	11	44	14	10	8	-5	0	20	5	20	SC□□09T3□□
12CA-12	50	20	15	47	20	12	8	-5	0	20	6	20	SC□□1204□□

➔ Applicable inserts B70~B71, B90

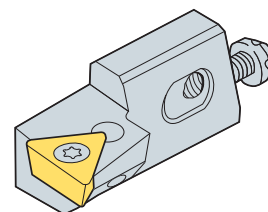
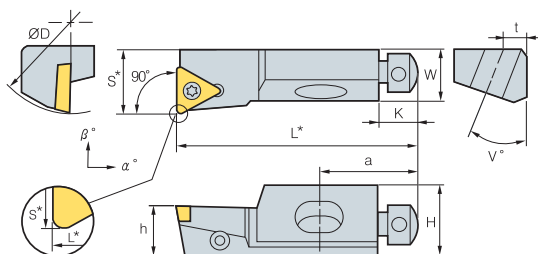
• a base Insert : r = 0.8 D = ØD Min. machining Dia.

Parts	Screw	Axial Adjust Screw	Radial AdjustScrew	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□□

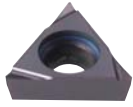
➔ Applicable inserts B75~B76, B91

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

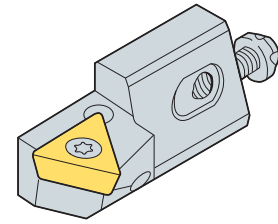
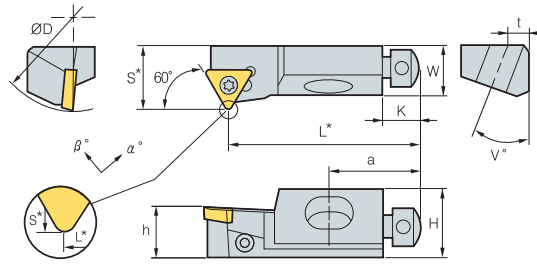
Parts	Screw	Axial Adjust Screw	Radial AdjustScrew	MountingScrew	Washer	Wrench	Wrench
STFCR/L 10CA-11	FTKA02565	AZ0508F	KHA0408	RHA0620	WA0602	TW 15P	HW20L
12CA-16	FTKA03508	AZ0508F	KHA0412	RHA0625	WA0602	TW 15P	HW20L



STTCR/L



TC□□


• R type insert
(mm)

Designation	ØD	H	W	L*	S*	h	K	α°	β°	a	t	v°	Insert
STTCR/L 10CA-11	40	15	11	50	9	10	8	-5	0	20	5	20	TC□□1102□□
12CA-16	50	20	15	47	20	12	8	-3	0	20	6	20	TC□□16T3□□

Applicable inserts B75~B76, B91

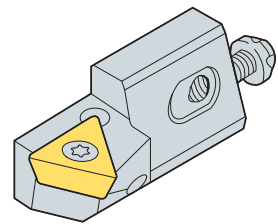
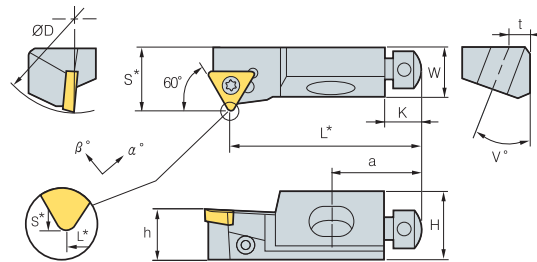
• a base Insert : r = 0.4 (l = 11) r = 0.8 (l = 16) D = Min. machining Dia.

Parts	Screw	Axial Adjust Screw	Radial AdjustScrew	MountingScrew	Washer	Wrench	Wrench
STTCR/L 10CA-11	FTKA02565	AZ0508F	KHA0408	RHA0620	WA0602	TW 07P	HW20L
12CA-16	FTKA03508	AZ0508F	KHA0412	RHA0625	WA0602	TW 15P	HW20L

STWCR/L



TC□□


• R type insert
(mm)

Designation	ØD	H	W	L*	S*	h	K	α°	β°	a	t	v°	Insert
STWCR/L 10CA-11	40	15	11	44	14	10	8	0	-4	20	5	20	TC□□1102□□
12CA-16	50	20	15	47	20	12	8	-5	0	20	6	20	TC□□16T3□□

Applicable inserts B75~B76, B91

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

Parts	Screw	Axial Adjust Screw	Radial AdjustScrew	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