Tools for turning mill

N

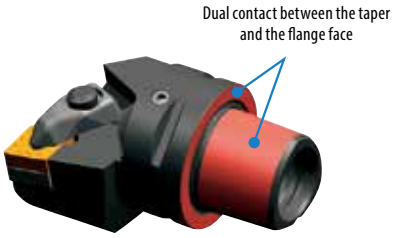
PSC Shank tools

Polygon taper shank

PSC Shank tools
JIS B 6066-1
ISO26623-1 Polygonal taper interface with flange contact surface

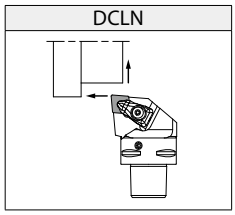
1 High rigidity

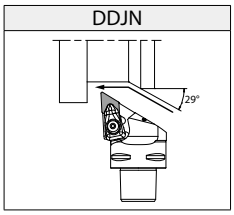
Polygon taper design and dual contact between the taper and the flange face for high rigidity

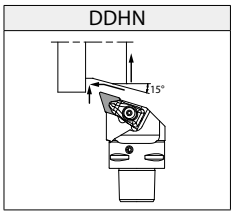


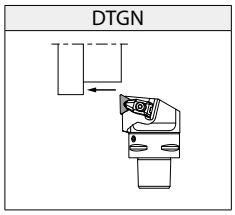
2 High precision

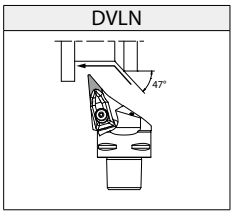
Locational accuracy within ±2μm
Distributes cutting forces evenly between 3 faces for enhanced rigidity and centering accuracy

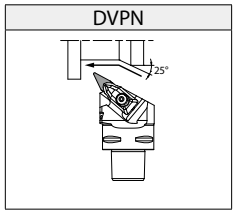


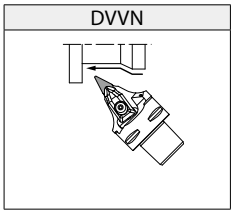


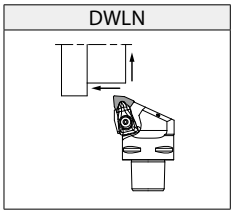


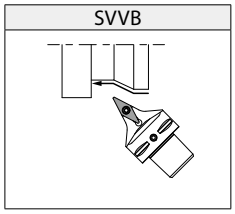


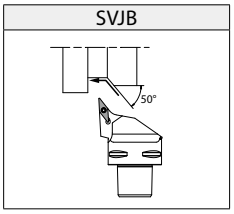




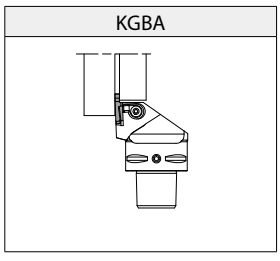




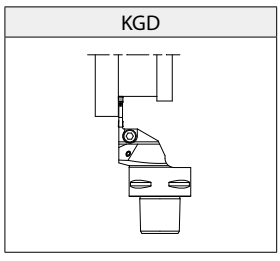




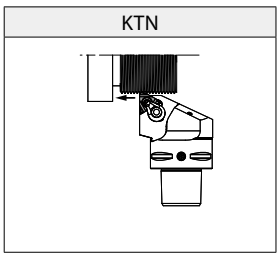
Grooving



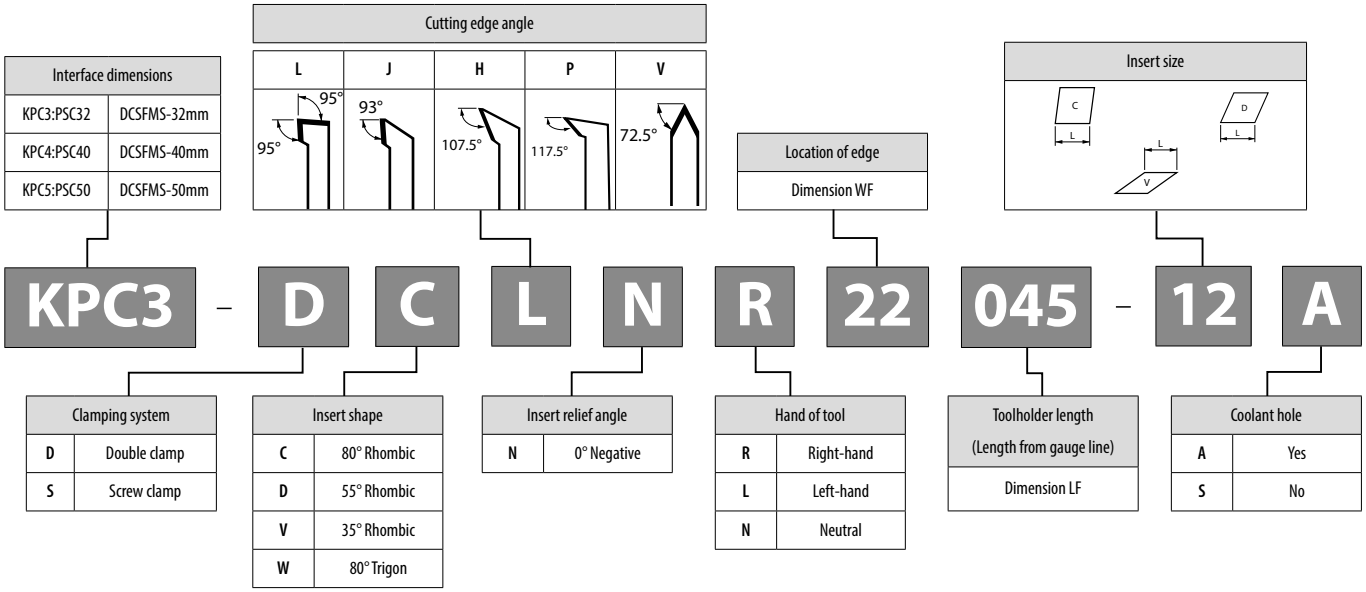
Grooving / Cut-off



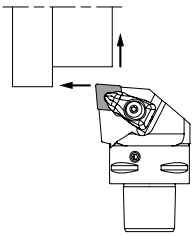
Threading



Identification system (External)



DCLN (External turning)



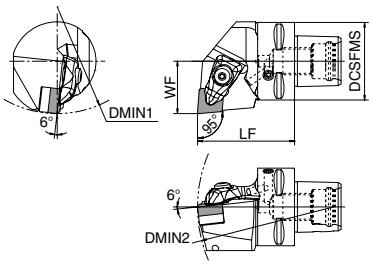


Fig. 1

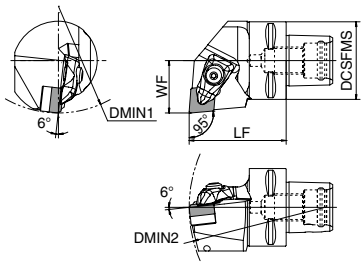


Fig. 2

Right-hand shown

Toolholder dimensions

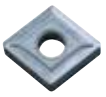
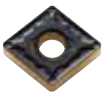
Description	Availability R	Availability L	Coolant hole	Dimension (mm) DCSFMS	LF	WF	DMIN1	DMIN2	Standard corner-R(RE)	Side rake angle (°)	Inclination angle (°)	Fig.	Applicable inserts
KPC3-DCLN$^{R}_{L}$ 22045-12A	●	●	Yes	32	45	22	60	121	0.8	-6	-6	1	CN□A1204... CN□G1204... CN□M1204...
KPC4-DCLN$^{R}_{L}$ 27050-12A	●	●		40	50	27	110	140					
KPC5-DCLN$^{R}_{L}$ 35060-12A	●	●		50	60	35		165					
KPC3-DCLN$^{R}_{L}$ 22045-12S	●	●	No	32	45	22	60	121	0.8	-6	-6	2	
KPC4-DCLN$^{R}_{L}$ 27050-12S	●	●		40	50	27	110	140					
KPC5-DCLN$^{R}_{L}$ 35060-12S	●	●		50	60	35		165					

Description	Spare parts: Clamp	Screw (for clamp)	Spring	Shim	Shim*	Shim	Shim*	Shim screw	Shim screw	Wrench
KPC3-DCLN$^{R}_{L}$ 22045-12A	CP-3D-S	CS-3D-TR	SP-3D	-	-	SP-441P	SP-441P-C	-	M3X8	FT-15
KPC4-DCLN$^{R}_{L}$ 27050-12A				DC-44	DC-44-C	-	-	SB-4085TR	-	
KPC5-DCLN$^{R}_{L}$ 35060-12A										
KPC3-DCLN$^{R}_{L}$ 22045-12S	CP-3D-S	CS-3D-TR	SP-3D	-	-	SP-441P	SP-441P-C	-	M3X8	FT-15
KPC4-DCLN$^{R}_{L}$ 27050-12S				DC-44	DC-44-C	-	-	SB-4085TR	-	
KPC5-DCLN$^{R}_{L}$ 35060-12S										

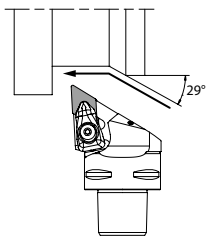
Applicable Pressure : ~7MPa
When using inserts whose corner-R(RE) is greater than 1.2 mm, additional modifications to the toolholder or the shim are necessary in order to prevent workpiece and shim from interfering each other.
When using the inserts with SX chipbreaker, prepare a shim (-C type) separately.
Recommended tightening torque : 3.9 N·m

● : Standard item

Applicable inserts

Applications	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Finishing	Finishing	Finishing - Medium	Finishing - Medium
Insert								
Chipbreaker type	WF	WP	WE	WQ	PP	GP	PQ	HQ
Page	B16	B16	B16	B16	B16	B16	B16	B17
Applications	Finishing - Medium	Finishing - Medium	Medium	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing
Insert								
Chipbreaker type	CQ	CJ	TN-V	PMG	GS	PG	PS	PT
Page	B17	B17	B17	B17	B17	B18	B18	B18
Applications	Medium - Roughing	Roughing	Roughing	Roughing	Medium	Medium - Roughing	Medium - Roughing	Low carbon steel
Insert								
Chipbreaker type	GT	STD	PH	PX	R/L	R/L-25R	Z	XF
Page	B18	B18	B19	B19	B23	B23	B23	B19
Applications	Low carbon steel	Low carbon steel	Low carbon steel	Finishing - Medium	Medium - Roughing	Stainless steel / Heat-resistant alloys	Stainless steel / Heat-resistant alloys	Stainless steel / Heat-resistant alloys
Insert								
Chipbreaker type	XP	XQ	XS	SK	FP-TK	TK	MQ	MS
Page	B19	B19	B20	B20	B20	B20	B20	B21
Applications	Stainless steel / Heat-resistant alloys	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron
Insert								
Chipbreaker type	MU	KQ	KG	KH	C	ZS	GC	No CB
Page	B21	B22	B22	B22	B22	B22	B22	B22
Applications	Cast iron / Hard materials	Non-Ferrous Metals	Non-Ferrous Metals	Non-Ferrous Metals	Heat-resistant alloys	Heat-resistant alloys	Heat-resistant alloys	Hard materials / Cast iron
Insert								
Chipbreaker type	Ceramic	R/L-A3	AH	PCD	SQ	SG	R/L-SX	CBN
Page	B113	B23	B23	C34	B20	B21	B21	C8
Applications	Hard materials	Hard materials	Hard materials					
Insert								
Chipbreaker type	HH	HL	HD					
Page	C9	C9	C9					

DDJN (External turning / External copying)



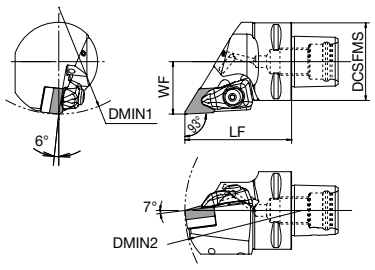


Fig. 1

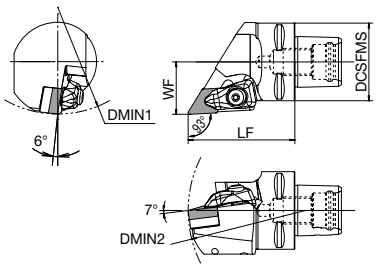


Fig. 2

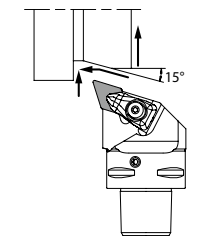
Right-hand shown

Toolholder dimensions

Description	Availability R	Availability L	Coolant hole	Dimension (mm) DCSFMS	LF	WF	DMIN1	DMIN2	Standard corner-R(RE)	Side rake angle (°)	Inclination angle (°)	Fig.	Spare parts: Clamp	Screw (for clamp)	Spring	Shim	Screw	Wrench	Applicable inserts
KPC3-DDJN[R/L] 22050-15A	●	●		32	50	22		121											
KPC4-DDJN[R/L] 27055-15A	●	●	Yes	40	55	27	110	145	0.8	-6	-7	1	CP-3D-S	CS-3D-TR	SP-3D	DD-44 (DD-43*)	SB-4085TRP	FT-15	DN□A1504... DN□G1504... DN□M1504...
KPC5-DDJN[R/L] 35060-15A	●	●		50	60	35		165											
KPC3-DDJN[R/L] 22050-15S	●	●		32	50	22		121											
KPC4-DDJN[R/L] 27055-15S	●	●	No	40	55	27	110	145	0.8	-6	-7	2	CP-3D-S	CS-3D-TR	SP-3D	DD-44 (DD-43*)	SB-4085TRP	FT-15	DN□A1504... DN□G1504... DN□M1504...
KPC5-DDJN[R/L] 35060-15S	●	●		50	60	35		165											

Applicable Pressure : ~7MPa
When using inserts whose corner-R(RE) is greater than 1.2 mm, additional modifications to the toolholder or the shim are necessary in order to prevent workpiece and shim from interfering each other.
Shims indicated * are not included with the toolholder. To change insert thickness, please purchase it separately.
Recommended tightening torque : 3.9 N·m

DDHN (External turning / External facing / External copying)



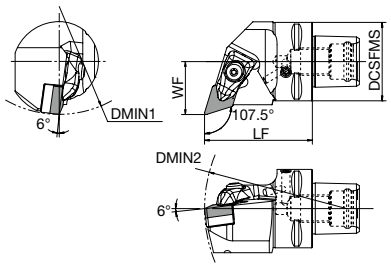


Fig. 1

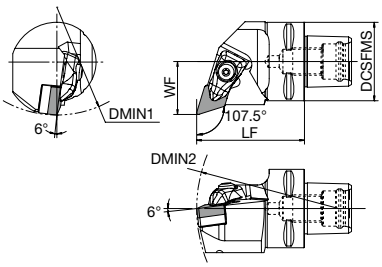


Fig. 2

Right-hand shown

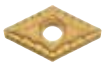
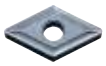
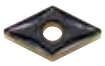
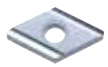
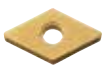
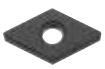
Toolholder dimensions

Description	Availability R	Availability L	Coolant hole	Dimension (mm) DCSFMS	LF	WF	DMIN1	DMIN2	Standard corner-R(RE)	Side rake angle (°)	Inclination angle (°)	Fig.	Spare parts: Clamp	Screw (for clamp)	Spring	Shim	Screw	Wrench	Applicable inserts
KPC3-DDHN[R/L] 22050-15A	●	●		32	50	22		121											
KPC4-DDHN[R/L] 27055-15A	●	●	Yes	40	55	27	110	145	0.8	-6	-6	1	CP-3D-S	CS-3D-TR	SP-3D	DD-44 (DD-43*)	SB-4085TRP	FT-15	DN□A1504... DN□G1504... DN□M1504...
KPC5-DDHN[R/L] 35060-15A	●	●		50	60	35		165											
KPC3-DDHN[R/L] 22050-15S	●	●		32	50	22		121											
KPC4-DDHN[R/L] 27055-15S	●	●	No	40	55	27	110	145	0.8	-6	-6	2	CP-3D-S	CS-3D-TR	SP-3D	DD-44 (DD-43*)	SB-4085TRP	FT-15	DN□A1504... DN□G1504... DN□M1504...
KPC5-DDHN[R/L] 35060-15S	●	●		50	60	35		165											

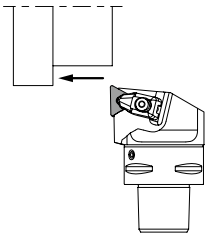
Applicable Pressure : ~7MPa
When using inserts whose corner-R(RE) is greater than 1.2 mm, additional modifications to the toolholder or the shim are necessary in order to prevent workpiece and shim from interfering each other.
Shims indicated * are not included with the toolholder. To change insert thickness, please purchase it separately.
Recommended tightening torque : 3.9 N·m

● : Standard item

Applicable inserts

Applications	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Finishing - Medium	Finishing - Medium	Medium	Medium - Roughing
Insert								
Chipbreaker type	PP	GP	PQ	HQ	CQ	CJ	TN-V	PMG
Page	B24	B24	B24	B25	B25	B25	B25	B25
Applications	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing	Roughing	Roughing	Roughing
Insert								
Chipbreaker type	GS	PG	PS	PT	GT	STD	PH	PX
Page	B25	B26	B26	B26	B26	B27	B27	B27
Applications	Medium	Low carbon steel	Low carbon steel	Low carbon steel	Low carbon steel	Finishing - Medium	Large ap	Medium - Roughing
Insert								
Chipbreaker type	R/L	XF	XP	XQ	XS	SK	R-LD	FP-TK
Page	B31	B27	B27	B27	B27	B28	B28	B28
Applications	Stainless steel / Heat-resistant alloys	Stainless steel / Heat-resistant alloys	Stainless steel / Heat-resistant alloys	Stainless steel / Heat-resistant alloys	Cast iron	Cast iron	Cast iron	Cast iron
Insert								
Chipbreaker type	TK	MQ	MS	MU	KQ	KG	KH	C
Page	B28	B28	B29	B29	B30	B30	B30	B30
Applications	Cast iron	Cast iron	Cast iron	Cast iron / Hard materials	Non-Ferrous Metals	Non-Ferrous Metals	Non-Ferrous Metals	Heat-resistant alloys
Insert								
Chipbreaker type	ZS	GC	No CB	Ceramic	R/L-A3	AH	PCD	SQ
Page	B30	B30	B31	B114	B31	B31	C35	B29
Applications	Heat-resistant alloys	Hard materials / Cast iron	Hard materials	Hard materials	Hard materials			
Insert								
Chipbreaker type	SG	CBN	HH	HL	HD			
Page	B29	C10	C11	C11	C11			

DTGN (External turning)



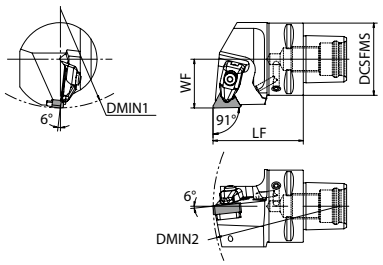


Fig. 1

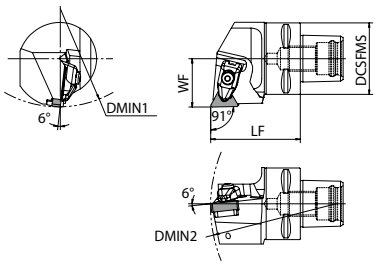
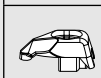
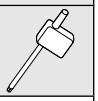


Fig. 2

Right-hand shown

Toolholder dimensions

Description	Availability R	Availability L	Coolant hole	Dimension (mm) DCSFMS	LF	WF	DMIN1	DMIN2	Standard corner-R(RE)	Side rake angle (°)	Inclination angle (°)	Fig.	Applicable inserts
KPC3-DTGN□/L 22040-16A	●	●	Yes	32	40	22	110	116	0.8	-6	-6	1	TN□A1604... TN□G1604... TN□M1604...
KPC4-DTGN□/L 27050-16A	●	●		40	50	27		140					
KPC5-DTGN□/L 35060-16A	●	●		50	60	35		165					
KPC3-DTGN□/L 22040-16S	●	●	No	32	40	22	110	116	0.8	-6	-6	2	TN□A1604... TN□G1604... TN□M1604...
KPC4-DTGN□/L 27050-16S	●	●		40	50	27		140					
KPC5-DTGN□/L 35060-16S	●	●		50	60	35		165					

Description	Spare parts: Clamp	Screw (for clamp)	Spring	Wrench (for clamp)	Shim	Screw	Wrench (for shim / sold separately)
							
KPC3-DTGN□/L 22040-16A	CP-2D	CS-2D	SP-2D	LW-2.5	DT-32	SB-3080TR	FT-10
KPC4-DTGN□/L 27050-16A							
KPC5-DTGN□/L 35060-16A							
KPC3-DTGN□/L 22040-16S	CP-2D	CS-2D	SP-2D	LW-2.5	DT-32	SB-3080TR	FT-10
KPC4-DTGN□/L 27050-16S							
KPC5-DTGN□/L 35060-16S							

Applicable Pressure : ~7MPa

When using inserts whose corner-R(RE) is greater than 1.6 mm, additional modifications to the toolholder or the shim are necessary in order to prevent workpiece and shim from interfering each other.

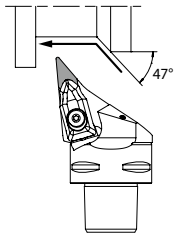
Recommended tightening torque : 1.7 N·m

● : Standard item

Applicable inserts

Applications	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Finishing - Medium	Medium - Roughing	Medium - Roughing	Medium - Roughing
Insert								
Chipbreaker type	PP	GP	PQ	HQ	CQ	PMG	GS	PG
Page	B38	B38	B38	B38	B38	B39	B39	B39
Applications	Medium - Roughing	Medium - Roughing	Medium - Roughing	Roughing	Roughing	Roughing	Finishing	Finishing
Insert								
Chipbreaker type	PS	PT	GT	STD	PH	PX	R/L-SSF	R/L-S
Page	B39	B39	B39	B40	B40	B40	B44	B44
Applications	Finishing - Medium	Medium - Roughing	Medium - Roughing	Low carbon steel	Low carbon steel	Low carbon steel	Low carbon steel	Finishing - Medium
Insert								
Chipbreaker type	R/L-B	R/L-C	R/L-25R	XF	XP	XQ	XS	SK
Page	B44	B45	B45	B40	B41	B41	B41	B41
Applications	Large ap	Medium - Roughing	Stainless steel / Heat-resistant alloys	Stainless steel / Heat-resistant alloys	Stainless steel / Heat-resistant alloys	Stainless steel / Heat-resistant alloys	Stainless steel	Cast iron
Insert								
Chipbreaker type	R-LD	FP-TK	TK	MQ	MS	MU	R/L-ST	KQ
Page	B41	B41	B41	B42	B42	B42	B42	B42
Applications	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron / Hard materials	Non-Ferrous Metals
Insert								
Chipbreaker type	KG	KH	C	ZS	GC	No CB	Ceramic	R/L-A3
Page	B42	B42	B43	B43	B43	B43	B118	B43
Applications	Non-Ferrous Metals	Non-Ferrous Metals	Heat-resistant alloys	Hard materials / Cast iron				
Insert								
Chipbreaker type	AH	PCD	SG	CBN				
Page	B43	C36	B42	C13				

DVLN (External turning / External copying)



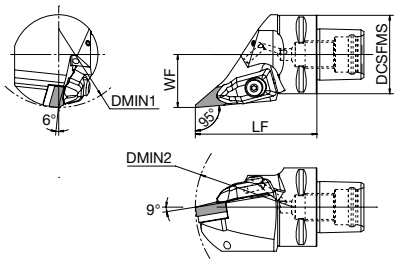


Fig. 1

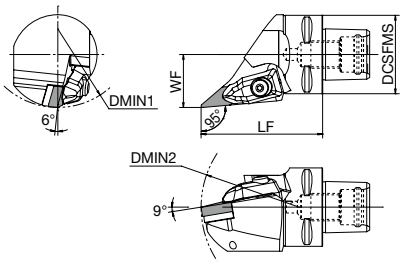


Fig. 2

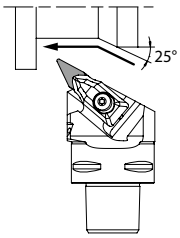
Right-hand shown

Toolholder dimensions

Description	Availability R	Availability L	Coolant hole	Dimension (mm) DCSFMS	LF	WF	DMIN1	DMIN2	Standard corner-R(RE)	Side rake angle (°)	Inclination angle (°)	Fig.	Spare parts: Clamp	Screw (for clamp)	Spring	Shim	Screw	Wrench	Applicable inserts
																			
KPC3-DVLN□/L 22058-16A	●	●		32	58	22													
KPC4-DVLN□/L 27062-16A	●	●	Yes	40	62	27	80	100	0.8	-6	-9	1	CP-5D-S	CS-3D-TR	SP-3D	DV-33	SB-4085TR	FT-15	VN□A1604... VN□G1604... VN□M1604...
KPC5-DVLN□/L 35065-16A	●	●		50	65	35													
KPC3-DVLN□/L 22058-16S	●	●		32	58	22													
KPC4-DVLN□/L 27062-16S	●	●	No	40	62	27	80	100	0.8	-6	-9	2	CP-5D-S	CS-3D-TR	SP-3D	DV-33	SB-4085TR	FT-15	VN□A1604... VN□G1604... VN□M1604...
KPC5-DVLN□/L 35065-16S	●	●		50	65	35													

Applicable Pressure : ~7MPa
When using inserts whose corner-R(RE) is greater than 1.2 mm, additional modifications to the toolholder or the shim are necessary in order to prevent workpiece and shim from interfering each other.
Recommended tightening torque : 3.9 N·m

DVPN (External turning / External facing / External copying / Undercutting)



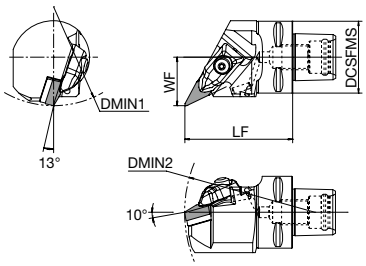


Fig. 1

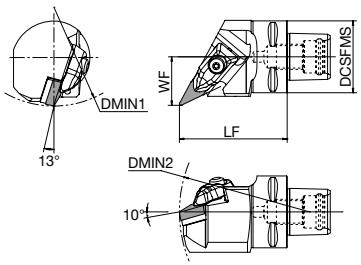
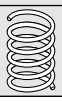


Fig. 2

Right-hand shown

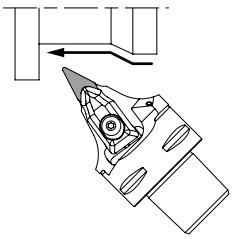
Toolholder dimensions

Description	Availability R	Availability L	Coolant hole	Dimension (mm) DCSFMS	LF	WF	DMIN1	DMIN2	Standard corner-R(RE)	Side rake angle (°)	Inclination angle (°)	Fig.	Spare parts: Clamp	Screw (for clamp)	Spring	Shim	Screw	Wrench	Applicable inserts
																			
KPC3-DVPN□/L 22055-16A	●	●		32	55	22		130											
KPC4-DVPN□/L 27060-16A	●	●	Yes	40	60	27	110	145	0.8	-13	-10	1	CP-5D-S	CS-3D-TR	SP-3D	DV-33	SB-4085TR	FT-15	VN□A1604... VN□G1604... VN□M1604...
KPC5-DVPN□/L 35065-16A	●	●		50	65	35		165											
KPC3-DVPN□/L 22055-16S	●	●		32	55	22		130											
KPC4-DVPN□/L 27060-16S	●	●	No	40	60	27	110	145	0.8	-13	-10	2	CP-5D-S	CS-3D-TR	SP-3D	DV-33	SB-4085TR	FT-15	VN□A1604... VN□G1604... VN□M1604...
KPC5-DVPN□/L 35065-16S	●	●		50	65	35		165											

Applicable Pressure : ~7MPa
When using inserts whose corner-R(RE) is greater than 1.2 mm, additional modifications to the toolholder or the shim are necessary in order to prevent workpiece and shim from interfering each other.
Recommended tightening torque : 3.9 N·m

● : Standard item

DVVN (External copying)



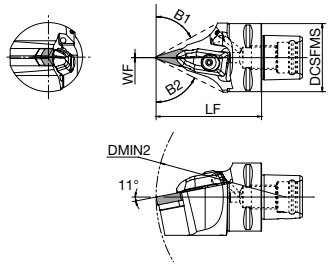


Fig. 1

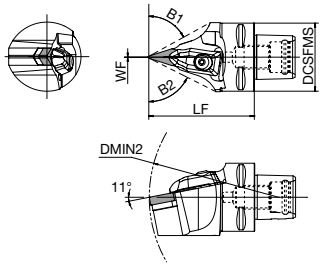


Fig. 2

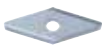
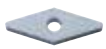
Right-hand shown

Toolholder dimensions

Description	Availability	Coolant hole	Dimension (mm)				Angle (°)		Standard corner-R(RE)	Fig.	Spare parts						Applicable inserts
											Clamp	Screw (for clamp)	Screw	Shim	Spring	Wrench	
	N		DCSFMS	LF	WF	DMIN2	B1	B2									
KPC4-DVVNN 00062-16A	●	Yes	40	62	0	152	61	63	0.8	1	CP-5D-S	CS-3D-TR	SB-4085TR	DV-33	SP-3D	FT-15	VN□A1604... VN□G1604... VN□M1604...
KPC5-DVVNN 00065-16A	●		50	65	0	170	59	59									
KPC3-DVVNN 00058-16S	●	No	32	58	0	140	68	68	0.8	2	CP-5D-S	CS-3D-TR	SB-4085TR	DV-33	SP-3D	FT-15	
KPC4-DVVNN 00062-16S	●		40	62	0	152	61	63									
KPC5-DVVNN 00065-16S	●		50	65	0	170	59	59									

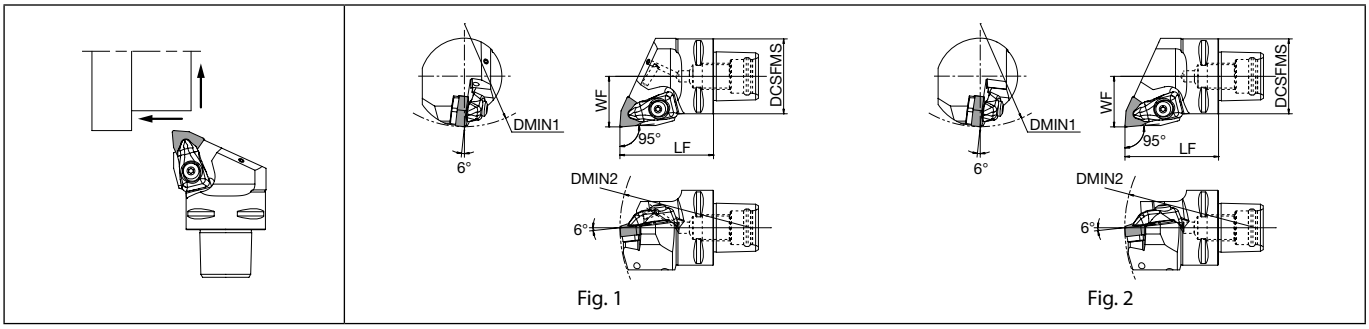
Applicable Pressure : ~7MPa
When using inserts whose corner-R(RE) is greater than 1.2 mm, additional modifications to the toolholder or the shim are necessary in order to prevent workpiece and shim from interfering each other.
Recommended tightening torque : 3.9 N·m
Angle B1 and B2 show the interference angle from the line of cutting edge and toolholder.

Applicable inserts

Applications	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Finishing - Medium	Finishing - Medium	Medium	Roughing
Insert								
Chipbreaker type	**PP**	**GP**	**R/L-VC**	**VF**	**PQ**	**HQ**	**TN-V**	**STD**
Page	**B46**	**B46**	**B46**	**B46**	**B46**	**B46**	**B46**	**B46**
Applications	Finishing - Medium	Finishing	Medium	Stainless steel / Heat-resistant alloys	Stainless steel / Heat-resistant alloys	Stainless steel / Heat-resistant alloys	Cast iron	Cast iron
Insert								
Chipbreaker type	**SK**	**R/L-S**	**R/L**	**MQ**	**MS**	**MU**	**KG**	**KH**
Page	**B47**	**B48**	**B48**	**B47**	**B47**	**B47**	**B47**	**B47**
Applications	Cast iron	Cast iron / Hard materials	Non-Ferrous Metals	Heat-resistant alloys	Hard materials / Cast iron			
Insert								
Chipbreaker type	**No CB**	**Ceramic**	**PCD**	**SG**	**CBN**			
Page	**B48**	**B119**	**C37**	**B47**	**C14**			

● : Standard item

DWLN (External turning / External facing)



Right-hand shown

Toolholder dimensions

Description	Availability R	Availability L	Coolant hole	Dimension (mm) DCSFMS	LF	WF	DMIN1	DMIN2	Standard corner-R(RE)	Side rake angle (°)	Inclination angle (°)	Fig.	Spare parts: Clamp	Screw (for clamp)	Spring	Shim	Screw	Wrench	Applicable inserts
KPC3-DWLNR/L 22047-08A	●	●		32	47	22		121											
KPC4-DWLNR/L 27050-08A	●	●	Yes	40	50	27	110	140	0.8	-6	-6	1	CP-3D-S	CS-3D-TR	SP-3D	DW-42	SB-4085TR	FT-15	WN□A0804... WN□G0804... WN□M0804...
KPC5-DWLNR/L 35060-08A	●	●		50	60	35		165											
KPC3-DWLNR/L 22047-08S	●	●		32	47	22		121											
KPC4-DWLNR/L 27050-08S	●	●	No	40	50	27	110	140	0.8	-6	-6	2	CP-3D-S	CS-3D-TR	SP-3D	DW-42	SB-4085TR	FT-15	WN□A0804... WN□G0804... WN□M0804...
KPC5-DWLNR/L 35060-08S	●	●		50	60	35		165											

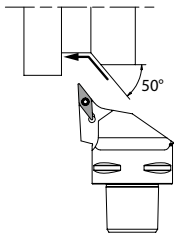
Applicable Pressure : ~7MPa
Recommended tightening torque : 3.9 N·m

Applicable inserts

Applications								
	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Finishing	Finishing	Finishing - Medium	Finishing - Medium
Insert								
Chipbreaker type	WF	WP	WE	WQ	PP	GP	PQ	HQ
Page	B49	B49	B49	B49	B49	B49	B49	B50
Applications	Finishing - Medium	Finishing - Medium	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing
Insert								
Chipbreaker type	CQ	CJ	PMG	GS	PG	PS	PT	GT
Page	B50	B50	B50	B50	B50	B50	B51	B51
Applications	Roughing	Roughing	Low carbon steel	Low carbon steel	Low carbon steel	Stainless steel / Heat-resistant alloys	Stainless steel / Heat-resistant alloys	Stainless steel / Heat-resistant alloys
Insert								
Chipbreaker type	STD	PH	XP	XQ	XS	TK	MQ	MS
Page	B51	B51	B51	B51	B51	B51	B52	B52
Applications	Stainless steel / Heat-resistant alloys	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron
Insert								
Chipbreaker type	MU	KQ	KG	KH	C	ZS	GC	No CB
Page	B52	B52	B52	B52	B53	B53	B53	B53
Applications	Non-Ferrous Metals	Non-Ferrous Metals	Heat-resistant alloys	Hard materials / Cast iron				
Insert								
Chipbreaker type	AH	PCD	SG	CBN				
Page	B53	C38	B52	C15				

● : Standard item

SVJB (External turning / External copying)



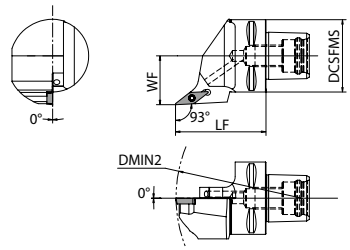


Fig. 1

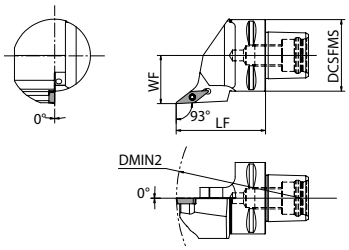


Fig. 2

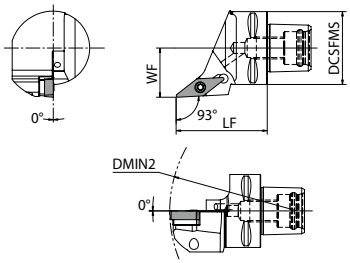


Fig. 3

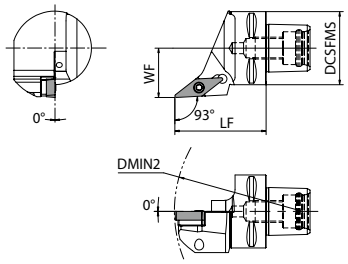


Fig. 4

Right-hand shown

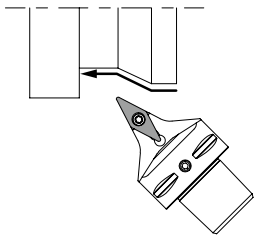
Toolholder dimensions

Description	Availability R	Availability L	Coolant hole	Dimension (mm) DCSFMS	LF	WF	DMIN2	Standard corner-R(RE)	Fig.	Spare parts: Screw	Wrench	Wrench	Shim	Shim screw	Wrench	Applicable inserts
KPC3-SVJB$^{R}_{L}$ 22040-11A	●	●		32	40	22	116									
KPC4-SVJB$^{R}_{L}$ 27050-11A	●	●	Yes	40	50	27	140	0.4	1	SB-2570TR	-	FT-8	-	-	-	VB□T1103... VB□W1103...
KPC5-SVJB$^{R}_{L}$ 35060-11A	●	●		50	60	35	165									
KPC3-SVJB$^{R}_{L}$ 22040-11S	●	●		32	40	22	116									
KPC4-SVJB$^{R}_{L}$ 27050-11S	●	●	No	40	50	27	140	0.4	2	SB-2570TR	-	FT-8	-	-	-	VB□T1103... VB□W1103...
KPC5-SVJB$^{R}_{L}$ 35060-11S	●	●		50	60	35	165									
KPC3-SVJB$^{R}_{L}$ 22047-16A	●	●		32	47	22	116									
KPC4-SVJB$^{R}_{L}$ 27050-16A	●	●	Yes	40	50	27	140	0.8	3	SB-40125TRN	FT-15	-	SVN-32N (SVN-32S*)	SS-4N	LW-4	VB□T1604... VB□W1604... VC□T1604...
KPC5-SVJB$^{R}_{L}$ 35060-16A	●	●		50	60	35	165									
KPC3-SVJB$^{R}_{L}$ 22047-16S	●	●		32	47	22	116									
KPC4-SVJB$^{R}_{L}$ 27050-16S	●	●	No	40	50	27	140	0.8	4	SB-40125TRN	FT-15	-	SVN-32N (SVN-32S*)	SS-4N	LW-4	VB□T1604... VB□W1604... VC□T1604...
KPC5-SVJB$^{R}_{L}$ 35060-16S	●	●		50	60	35	165									

Applicable Pressure : ~7MPa
Recommended tightening torque is 1.2N·m for VB 1103 type and 3.5N·m for VB(C) 1604 type.
When using inserts whose corner-R(RE) is greater than 0.8 mm, additional modifications to the toolholder are necessary in order to prevent workpiece and shim from interfering each other. **(-11A, -11S)**
When using inserts whose corner-R(RE) is greater than 1.2 mm, additional modifications to the toolholder or the shim are necessary in order to prevent workpiece and shim from interfering each other. **(-16A, -16S)**
When using inserts whose corner-R(RE) is 0.2 or 0.4mm, shim (SVN-32S*) is recommended (sold separately). **(-16A, -16S)**

● : Standard item

SVVB (External copying)



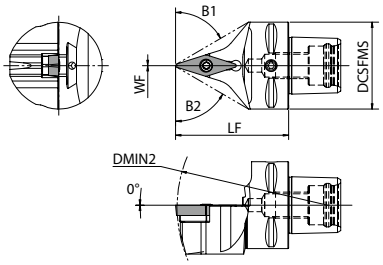


Fig. 1

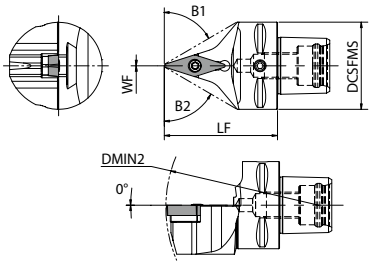


Fig. 2

Toolholder dimensions

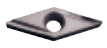
Description	Availability	Coolant hole	Dimension (mm)				Angle (°)		Standard corner-R(RE)	Fig.	Spare parts					Applicable inserts
											Screw	Wrench	Shim	Shim screw	Wrench	
	N		DCSFMS	LF	WF	DMIN2	B1	B2								
KPC3-SVVBN 00048-16A	●	Yes	32	48	0	116	62	62	0.8	1	SB-40125TRN	FT-15	SVN-32N (SVN-32S*)	SS-4N	LW-4	VB□T1604... VB□W1604... VC□T1604...
KPC4-SVVBN 00052-16A	●		40	52	0	140	59	59								
KPC5-SVVBN 00060-16A	●		50	60	0	165	56	56								
KPC3-SVVBN 00048-16S	●	No	32	48	0	116	62	62	0.8	2	SB-40125TRN	FT-15	SVN-32N (SVN-32S*)	SS-4N	LW-4	VB□T1604... VB□W1604... VC□T1604...
KPC4-SVVBN 00052-16S	●		40	52	0	140	59	59								
KPC5-SVVBN 00060-16S	●		50	60	0	165	56	56								

Applicable Pressure : ~7MPa
When using inserts whose corner-R(RE) is 0.2 or 0.4mm, shim (SVN-32S*) is recommended (sold separately).
Angle B1 and B2 show the interference angle from the line of cutting edge and toolholder.
Recommended tightening torque : 3.5 N·m

N

Tools for turning mill

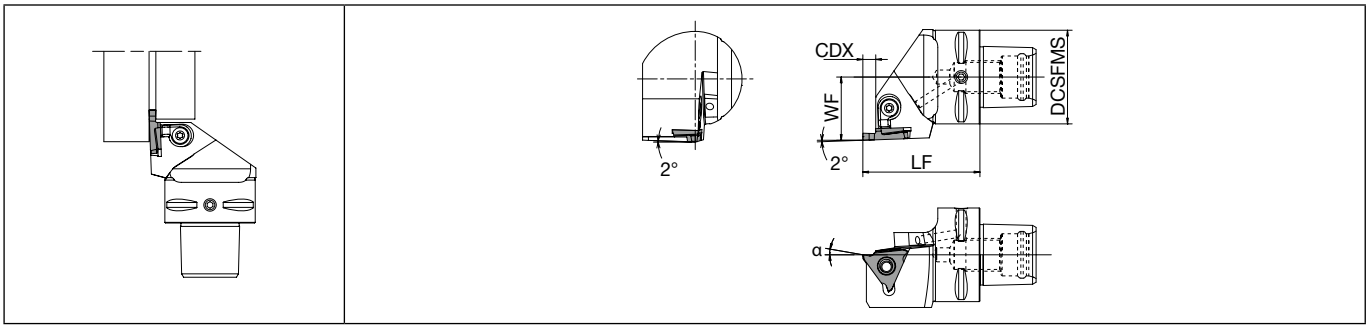
Applicable inserts

Applications	Finishing	Finishing	Finishing	Finishing - Medium	Finishing	Finishing	Finishing - Medium	Non-Ferrous Metals
Insert								
Chip Breaker Type	PP	GP	VF	HQ	P/L-F	P/L-FSF	P/L-Y	PCD
Page	B97, B100	B97	B97	B97	B98	B98	B99, B101	C49

Applications	Hard materials
Insert	
Chip Breaker Type	CBN
Page	C26

● : Standard item

KGBA (Shallow grooving)



Right-hand shown | Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

Toolholder dimensions

Description	Availability R	Availability L	Coolant hole	Dimension (mm) DCSFMS	LF	WF	CDX	Spare parts: Clamp set	Spare parts: Wrench	Applicable inserts G6~G12
KPC3-KGBA$^{R}_{L}$ 22040-16	●	●		32	40	22				
KPC4-KGBA$^{R}_{L}$ 27050-16	●	●	Yes	40	50	27	2.5	LGBA-16$^{R}_{L}$S	FT-15	GBA32$^{R}_{L}$ type
KPC5-KGBA$^{R}_{L}$ 35060-16	●	●		50	60	35				
KPC3-KGBA$^{R}_{L}$ 22040-2215	●	●		32	40	22				
KPC4-KGBA$^{R}_{L}$ 27050-2215	●	●	Yes	40	50	27	4	LGBA-22$^{R}_{L}$S	FT-15	
KPC5-KGBA$^{R}_{L}$ 35060-2215	●	●		50	60	35				
KPC3-KGBA$^{R}_{L}$ 22040-2225	●	●		32	40	22				
KPC4-KGBA$^{R}_{L}$ 27050-2225	●	●	Yes	40	50	27	5.5	LGBA-22$^{R}_{L}$S	FT-15	GBA43$^{R}_{L}$ type
KPC5-KGBA$^{R}_{L}$ 35060-2225	●	●		50	60	35				
KPC3-KGBA$^{R}_{L}$ 22040-2235	●	●		32	40	22				
KPC4-KGBA$^{R}_{L}$ 27050-2235	●	●	Yes	40	50	27	5.5	LGBA-22$^{R}_{L}$S	FT-15	
KPC5-KGBA$^{R}_{L}$ 35060-2235	●	●		50	60	35				

Applicable Pressure : ~7MPa
CDX shows the distance from the toolholder to the cutting edge. Available Groove Depth : „CDX" of Insert.
Clamp Set : LGBA-○○RS for Right-hand Toolholder and LGBA-○○LS for Left-hand Toolholder.
Rake Angle (α) after Installment of Insert (Ref. to the table below.)

Rake angle (α) after installment of GBA-GM insert

α	Insert description
10°	GBA43$^{R}_{L}$150-020GM
15°	GBA43$^{R}_{L}$175-020GM ~ GBA43$^{R}_{L}$265-030GM
12°	GBA43$^{R}_{L}$300-030GM ~ GBA43$^{R}_{L}$400-040GM

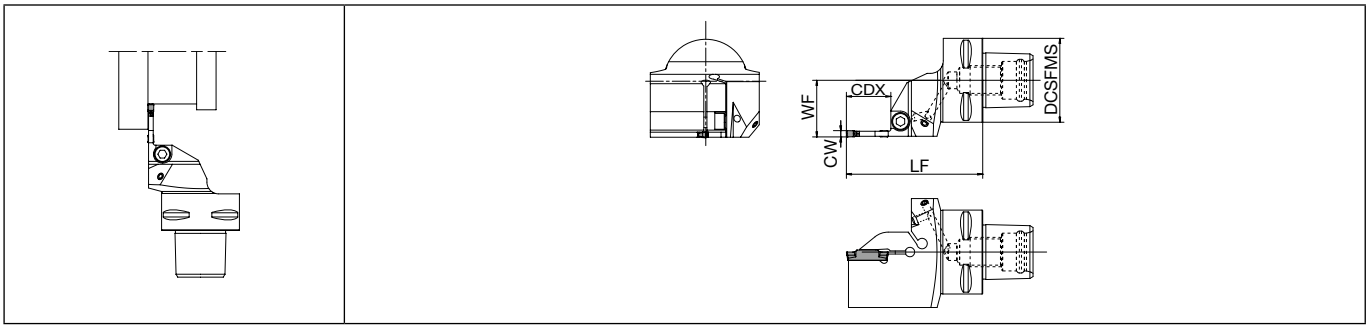
α shows the rake angle at the center of the edge width after installing insert

Rake angle (α) after installment of GBA insert

GBA32$^{R}_{L}$ ○○○-○○○		GBA43$^{R}_{L}$ ○○○-○○○		GBA43$^{R}_{L}$ ○○○-○○○R (Full-R)		
α	Insert grades	α	Insert grades	α	Insert grades	Full-R description
10°	TN620, TN90, PV7040 PR1215, PR1625, PR2015, PR2025 PR905, PR930 KPD001, KPD010	0°	KBN510, KBN525	10°	TN620, TN90, PV7040 PR1215, PR1625, PR2015, PR2025 PR905,PR930	050R ~ 150R
		10°	TN620,TC40N,TN90,PV7040 PR1215, PR1625, PR2015, PR2025 PR905,PR930 KPD001, KPD010	14°	TN620, TN90, PV7040 PR1215, PR1625, PR2015, PR2025 PR905,PR930	200R
20°	KW10	20°	KW10		KW10	050R ~ 200R

● : Standard item

KGD (External grooving)



Right-hand shown

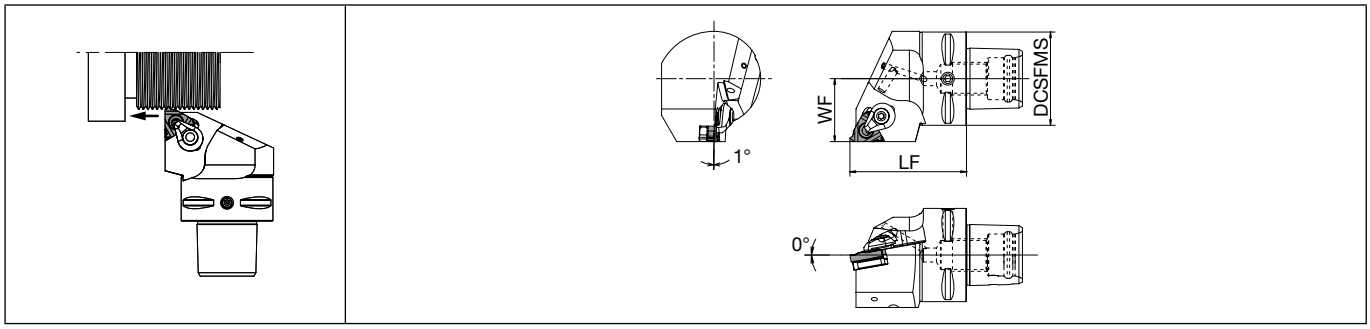
Toolholder dimensions

Description	Availability R	Availability L	Coolant hole	Dimension (mm) DCSFMS	LF	WF	CDX	CW min.	CW max.	Spare parts: Clamp bolt	Spare parts: Wrench	Applicable inserts G30~G33
KPC3-KGDR/L 22050-2T10	●	●	Yes	32	50	22	10	2	3	HH5X16	LW-4	GD..2020... GD..2220... GD..2420... GD..2520... GD..3020...
KPC4-KGDR/L 27055-2T10	●	●		40	55	27						
KPC5-KGDR/L 35060-2T10	●	●		50	60	35						
KPC3-KGDR/L 22055-2T17	●	●	Yes	32	55	22	17			HH5X16	LW-4	
KPC4-KGDR/L 27060-2T17	●	●		40	60	27						
KPC5-KGDR/L 35060-2T17	●	●		50	60	35						
KPC3-KGDR/L 22050-3T10	●	●	Yes	32	50	22	10	3	4	HH5X16	LW-4	GD..3020... GD..3520... GD..4020...
KPC4-KGDR/L 27055-3T10	●	●		40	55	27						
KPC5-KGDR/L 35060-3T10	●	●		50	60	35						
KPC3-KGDR/L 22060-3T20	●	●	Yes	32	60	22	20			HH5X16	LW-4	
KPC4-KGDR/L 27065-3T20	●	●		40	65	27						
KPC5-KGDR/L 35065-3T20	●	●		50	65	35						
KPC3-KGDR/L 22050-4T10	●	●	Yes	32	50	22	10	4	5	HH5X16	LW-4	GD..4020... GD..5020...
KPC4-KGDR/L 27055-4T10	●	●		40	55	27						
KPC5-KGDR/L 35060-4T10	●	●		50	60	35						
KPC4-KGDR/L 27065-4T20	●	●	Yes	40	65	27	20			HH5X16	LW-4	
KPC5-KGDR/L 35065-4T20	●	●		50	65	35						
KPC4-KGDR/L 27070-4T25	●	●	Yes	40	70	27	25			HH5X16	LW-4	
KPC5-KGDR/L 35070-4T25	●	●		50	70	35						
KPC4-KGDR/L 27055-5T10	●	●	Yes	40	55	27	10	5	6	HH5X16	LW-4	GD..5020... GD..6020...
KPC5-KGDR/L 35060-5T10	●	●		50	60	35						
KPC4-KGDR/L 27060-5T17	●	●	Yes	40	60	27	17			HH5X16	LW-4	
KPC5-KGDR/L 35060-5T17	●	●		50	60	35						

Applicable Pressure : ~7MPa
Recommended tightening torque : 6.5 N·m
CDX : Maximum depth to which processing can be made. (If the CDX is 20 mm or more, the maximum groove-depth of groove made by the 2-edge insert will be 18 mm.)

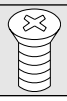
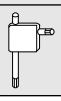
● : Standard item

KTN (External threading)



Right-hand shown | Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

Toolholder dimensions

Description	Availability R	Availability L	Coolant hole	Dimension (mm) DCSFMS	Dimension (mm) LF	Dimension (mm) WF	Spare parts: Clamp set	Spare parts: Shim	Spare parts: Shim screw	Spare parts: Wrench	Applicable inserts
											➡ J6, J8, J10 J12, J14, J16 J18, J20
KPC3-KTN R/L 22040-16	●	●	Yes	32	40	22	CPS-5S	TN-32	SP3X8	FT-15	16E R/L type
KPC4-KTN R/L 27050-16	●	●		40	50	27					
KPC5-KTN R/L 35060-16	●	●		50	60	35					

Applicable Pressure : ~7MPa

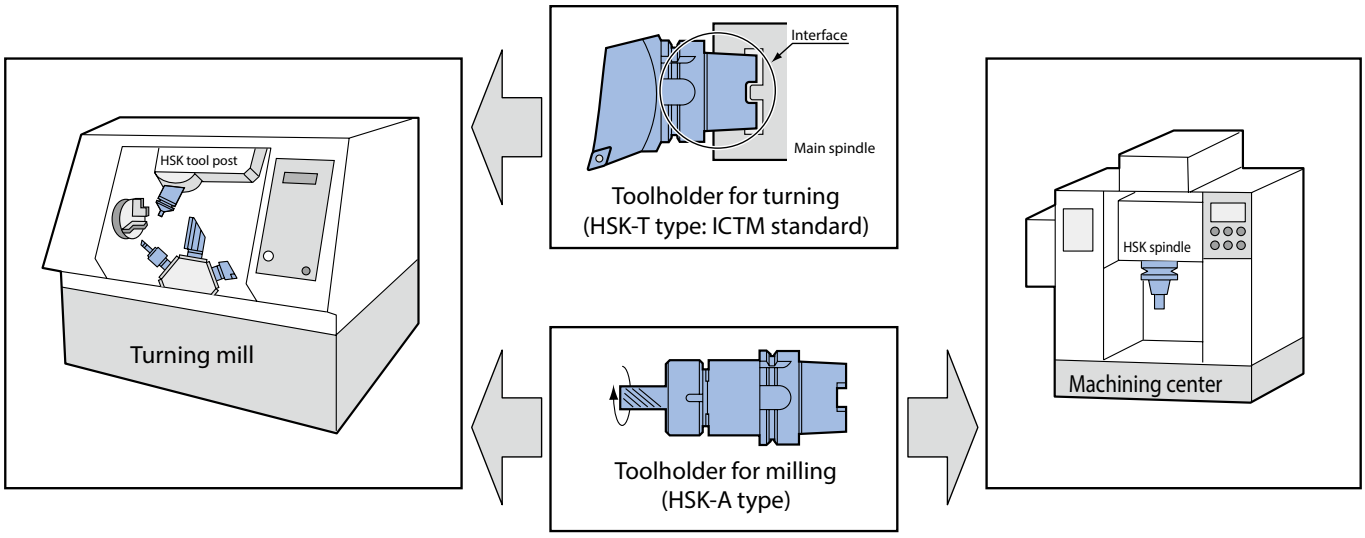
● : Standard item

Tools for Turning Mill

HSK-T

- **The turning mill is a machine that combines turning and milling functions. Now an interface (between workpiece and toolholder - equivalent to the arbor for milling) is available for the turning mill that fulfils the ICTM standard.**
- **ICTM standard was developed by 16 companies in Japan, as the interface between turning mill machines. It is based on the two-face restraint type standard "ISO 12164-1:2001 HSK Standard Shank"**
- **This standard became an International Standard as ISO Standard "ISO12164-3:2008" in 2008. Description is indicated as HSK-T○○.**

1 The interface is compatible with HSK-A type for milling tools

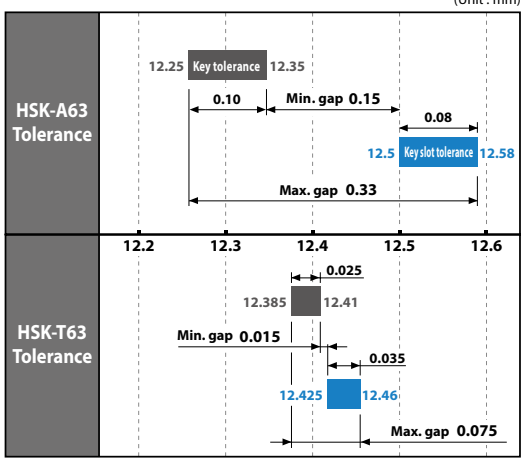


2 Machining precision

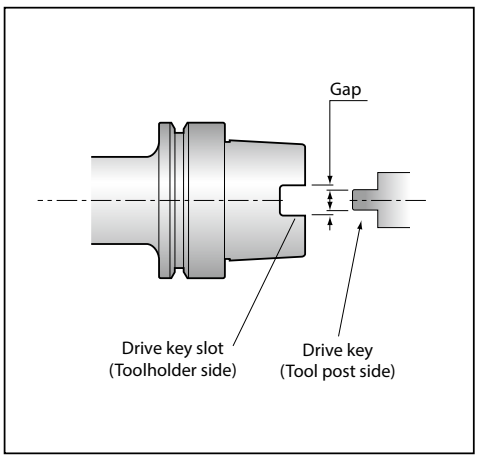
Machining precision for turning has improved by minimizing the gap between the drive key slot on toolholder side and the drive key on toolpst side.

Comparison of the gap of a key and key slot

(Unit : mm)



Effect of the gap



N

Tools for turning mill

Identification system (External)

Interface size
T63: HSK - T63
T100: HSK - T100

Manual clamp hole	
H	Yes
No code	No

Shank size
25mm square (height/ width)

Hand of tool	
R	Right-hand
L	Left-hand

(mm)

Toolholder length
Length from gauge line

T63 **H** – **S2525** **R** – **105** **(Toolholder for square shank)**

A63 (Previous description) **P** **C** **L** **N** **R** – **DX** **12** **(Solid type)**

Clamping system	
P	Lever lock
M	Multi lock
S	Screw clamp
W	Wedge lock

Insert shape	
C	80° Rhombic
D	55° Rhombic
T	60° Triangle
V	35° Rhombic
W	80° Trigon

Cutting edge angle

E	G	J
60°	90°	93°

L	M	N
95° / 95°	50°	63°

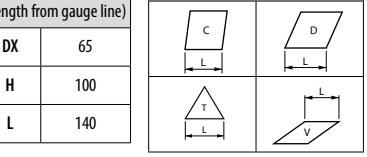
V
72.5°

Insert relief angle	
N	0° Negative
B	5° Positive

Hand of tool	
R	Right-hand
L	Left-hand
N	Neutral

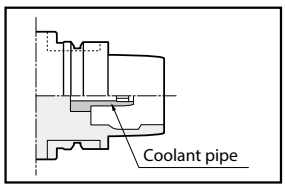
Toolholder leght (mm) (Length from gauge line)	
DX	65
H	100
L	140

Insert size



Coolant pipe

Coolant pipe is built into toolholder.



Toolholder for square shank (External turning / External facing)

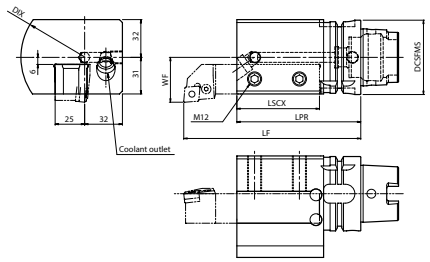


Fig. 1

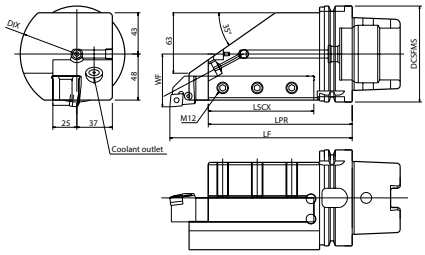


Fig. 2

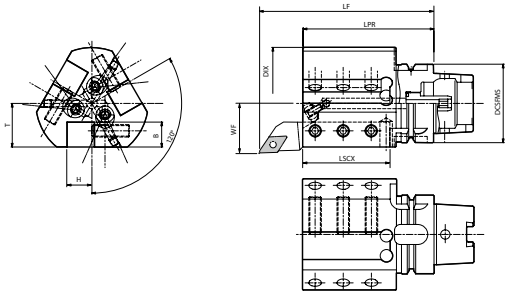
Right-hand shown

Toolholder dimensions

Description		Availability		Dimension (mm)						Fig.	Spare parts		
		R	L	DCSFMS	DIX	LF	LPR	LSCX	WF		Screw	Coolant pipe	Wrench
T63H-	S2525$^{R}/_{L}$-105	●	●	63	108	150	105	70	38	1	HS12X25	CL63-1	LW-6
T100H-	S2525$^{R}/_{L}$-150	●	●	100	118	190	150	110	55	2	HS12X30	CL100-1	LW-6

Coolant outlet direction is adjustable.
For 25mm square shank.
These toolholders are not compatible with Yamazaki Mazak INTRGREX i and j series.

Toolholder for square shank (External turning / External facing)



Right-hand shown

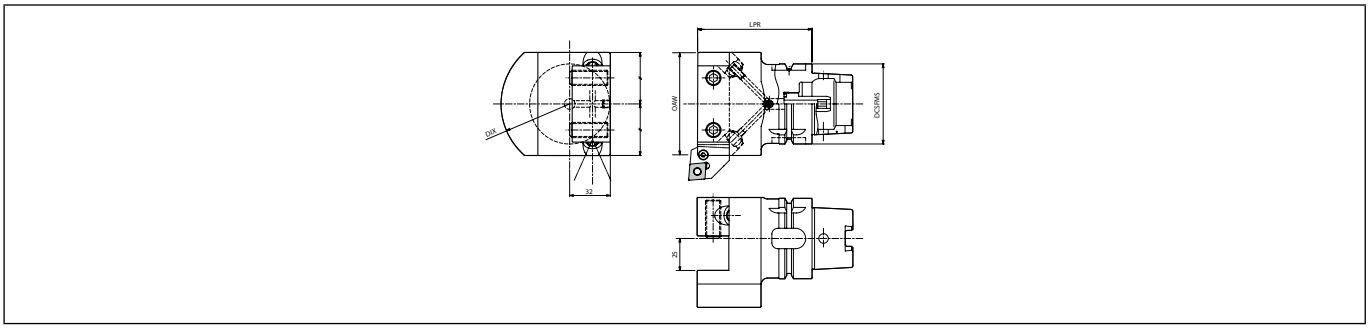
Toolholder dimensions

Description		Availability	Dimension (mm)									Spare parts		
		R	DCSFMS	DIX	H	B	T	LF	LPR	LSCX	WF	Screw	Coolant pipe	Wrench
T63H-	S2020R-105T	●	63	90	20	20	35	150	105	70	40	HS12X30	CL63-1	LW-6
T100H-	S2525R-150T	●	100	118	25	25	48	190	150	110	55	HS12X35	CL100-1	LW-6

Coolant outlet direction is adjustable.

● : Standard item

Toolholder for square shank (External facing / External turning)



Right-hand shown

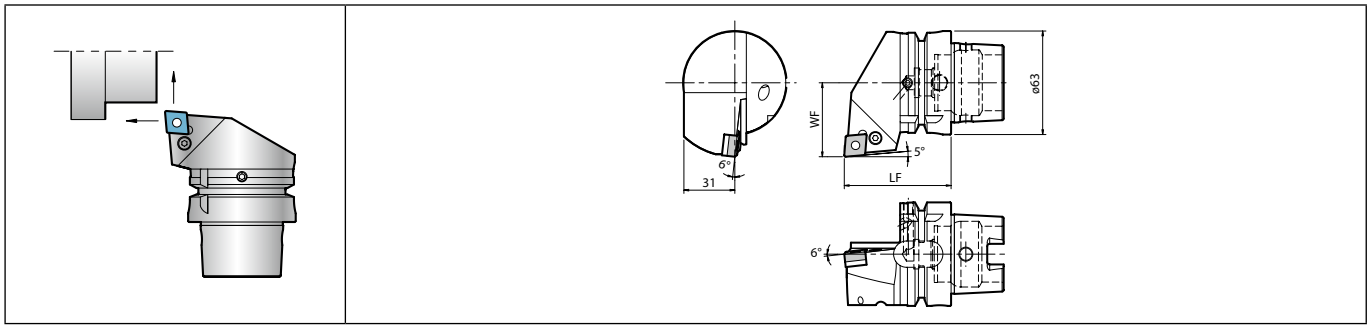
Toolholder dimensions

Description		Availability	Dimension (mm)				Spare parts		
			DCSFMS	DIX	LPR	OAW	Screw	Coolant pipe	Wrench
T63H-	S2525-90F	●	63	108	90	81	HS12X30	CL63-1	LW-6
	S2525-120F	●			120				
T100H-	S2525-105F	●	100	118	105	96	HS12X30	CL100-1	LW-6
	S2525-150F	●			150				

Coolant outlet direction is adjustable.
These toolholders are not compatible with Yamazaki Mazak INTRGREX i and j series.

● : Standard item

PCLN (External turning / External facing)



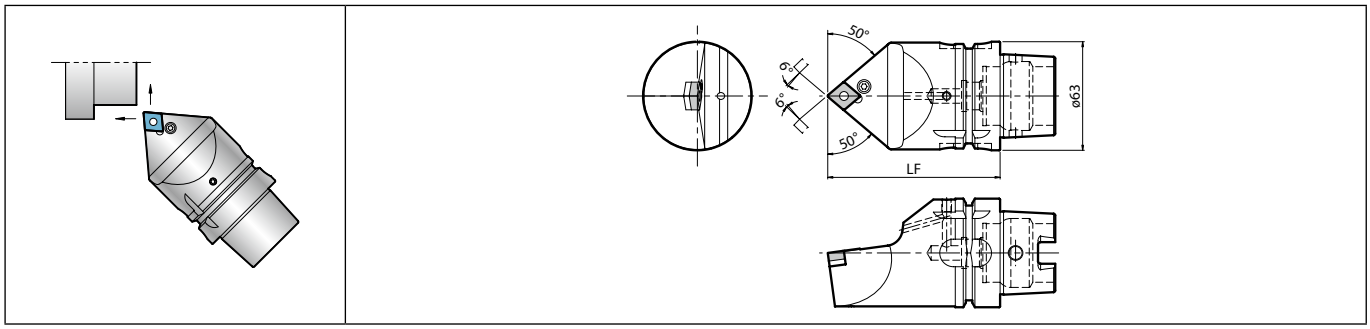
Right-hand shown | Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

Toolholder dimensions

Description		Availability		Dimension (mm)		Spare parts							Applicable inserts
						Coolant pipe	Lever	Lock screw	Punch	Shim pin	Shim	Wrench	
		R	L	LF	WF								
T63H-	PCLN$^{R}_{L}$-DX12	●	●	65	45	CL63-1	LL-2N	LS-2N	PC-2	LSP-2	LC-42N (LC-42N-C*)	LW-3	CN□A1204..., CN□G1204... CN□M1204...

When using the inserts with SX chipbreaker, prepare a shim (-C type) separately.

PCMN (External turning / External facing)



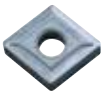
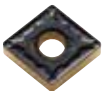
Toolholder dimensions

Description		Availability	Dimension (mm)	Spare parts								Applicable inserts
				Coolant pipe	Lever	Lock screw	Punch	Shim pin	Shim	Shim*	Wrench	
		N	LF									
T63H-	PCMNN-H12	●	100	CL63-1	LL-2N	LS-2N	PC-2	LSP-2	LC-42N	LC-42N-C	LW-3	CN□A1204..., CN□G1204... CN□M1204...
	PCMNN-L12	●	140									

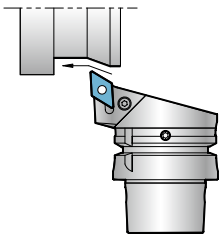
When using the inserts with SX chipbreaker, prepare a shim (-C type) separately.

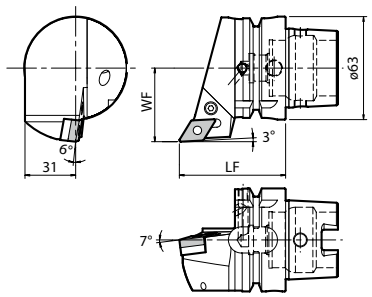
● : Standard item

Applicable inserts

Applications	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Finishing	Finishing	Finishing - Medium	Finishing - Medium
Insert								
Chipbreaker type	WF	WP	WE	WQ	PP	GP	PQ	HQ
Page	B16	B16	B16	B16	B16	B16	B16	B17
Applications	Finishing - Medium	Finishing - Medium	Medium	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing
Insert								
Chipbreaker type	CQ	CJ	TN-V	PMG	GS	PG	PS	PT
Page	B17	B17	B17	B17	B17	B18	B18	B18
Applications	Medium - Roughing	Roughing	Roughing	Roughing	Medium	Medium - Roughing	Medium - Roughing	Low carbon steel
Insert								
Chipbreaker type	GT	STD	PH	PX	R/L	P/L-25R	Z	XF
Page	B18	B18	B19	B19	B23	B23	B23	B19
Applications	Low carbon steel	Low carbon steel	Low carbon steel	Finishing - Medium	Medium - Roughing	Stainless steel / Heat-resistant alloys	Stainless steel / Heat-resistant alloys	Stainless steel / Heat-resistant alloys
Insert								
Chipbreaker type	XP	XQ	XS	SK	FP-TK	TK	MQ	MS
Page	B19	B19	B20	B20	B20	B20	B20	B21
Applications	Stainless steel / Heat-resistant alloys	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron
Insert								
Chipbreaker type	MU	KQ	KG	KH	C	ZS	GC	No CB
Page	B21	B22	B22	B22	B22	B22	B22	B22
Applications	Cast iron / Hard materials	Non-Ferrous Metals	Non-Ferrous Metals	Non-Ferrous Metals	Heat-resistant alloys	Heat-resistant alloys	Heat-resistant alloys	Hard materials / Cast iron
Insert								
Chipbreaker type	Ceramic	P/L-A3	AH	PCD	SQ	SG	P/L-SX	CBN
Page	B113	B23	B23	C34	B20	B21	B21	C8
Applications	Hard materials	Hard materials	Hard materials					
Insert								
Chipbreaker type	HH	HL	HD					
Page	C9	C9	C9					

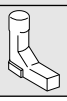
PDJN (External turning / External copying)





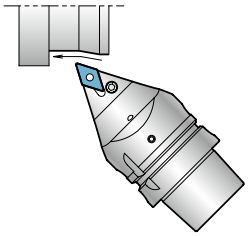
Right-hand shown | Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

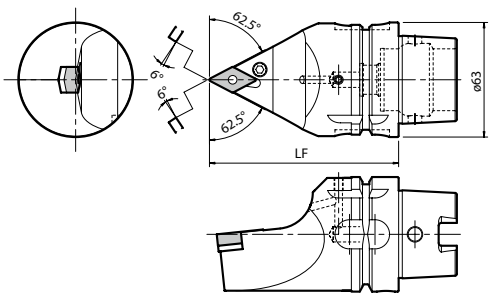
Toolholder dimensions

Description		Availability		Dimension (mm)		Spare parts								Applicable inserts
						Coolant pipe	Lever	Lock screw	Punch	Shim pin	Shim	Shim*	Wrench	
		R	L	LF	WF									
T63H-	PDJN$^{R}_{L}$-DX15	●	●	65	45	CL63-1	LL-3N	LS-2N	PC-2	LSP-2	LD-42	LD-42-20	LW-3	DN□A1504..., DN□G1504... DN□M1504...

When using inserts whose corner-R(RE) is greater than 1.6 mm, please purchase a shim* and use it in order to prevent workpiece and shim from interfering each other.

PDNN (External turning / External copying)





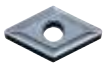
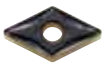
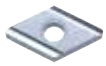
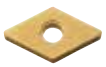
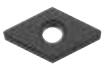
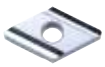
Toolholder dimensions

Description		Availability	Dimension (mm)	Spare parts								Applicable inserts
				Coolant pipe	Lever	Lock screw	Punch	Shim pin	Shim	Shim*	Wrench	
		N	LF									
T63H-	PDNNN-H15	●	100	CL63-1	LL-3N	LS-2N	PC-2	LSP-2	LD-42	LD-42-20	LW-3	DN□A1504..., DN□G1504... DN□M1504...
	PDNNN-L15	●	140									

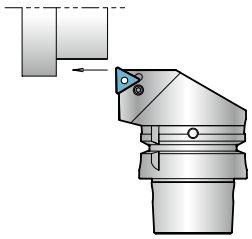
When using inserts whose corner-R(RE) is greater than 1.6 mm, please purchase a shim* and use it in order to prevent workpiece and shim from interfering each other.

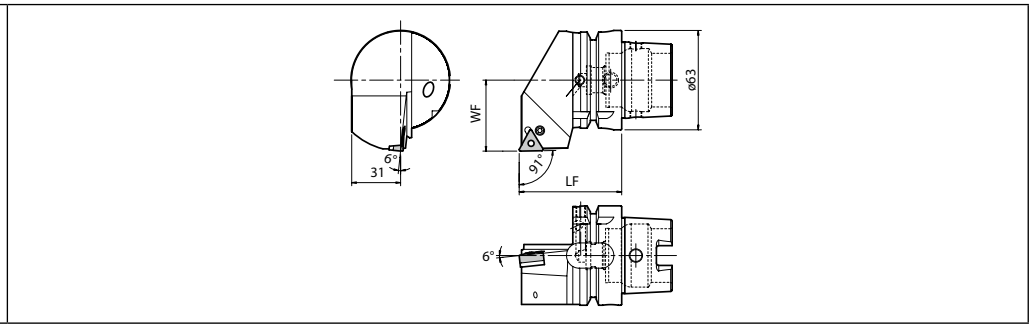
● : Standard item

Applicable inserts

Applications	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Finishing - Medium	Finishing - Medium	Medium	Medium - Roughing
Insert								
Chipbreaker type	PP	GP	PQ	HQ	CQ	CJ	TN-V	PMG
Page	B24	B24	B24	B25	B25	B25	B25	B25
Applications	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing	Roughing	Roughing	Roughing
Insert								
Chipbreaker type	GS	PG	PS	PT	GT	STD	PH	PX
Page	B25	B26	B26	B26	B26	B27	B27	B27
Applications	Medium	Low carbon steel	Low carbon steel	Low carbon steel	Low carbon steel	Finishing - Medium	Large ap	Medium - Roughing
Insert								
Chipbreaker type	R/L	XF	XP	XQ	XS	SK	R-LD	FP-TK
Page	B31	B27	B27	B27	B27	B28	B28	B28
Applications	Stainless steel / Heat-resistant alloys	Stainless steel / Heat-resistant alloys	Stainless steel / Heat-resistant alloys	Stainless steel / Heat-resistant alloys	Cast iron	Cast iron	Cast iron	Cast iron
Insert								
Chipbreaker type	TK	MQ	MS	MU	KQ	KG	KH	C
Page	B28	B28	B29	B29	B30	B30	B30	B30
Applications	Cast iron	Cast iron	Cast iron	Cast iron / Hard materials	Non-Ferrous Metals	Non-Ferrous Metals	Non-Ferrous Metals	Heat-resistant alloys
Insert								
Chipbreaker type	ZS	GC	No CB	Ceramic	R/L-A3	AH	PCD	SQ
Page	B30	B30	B31	B114	B31	B31	C35	B29
Applications	Heat-resistant alloys	Hard materials / Cast iron	Hard materials	Hard materials	Hard materials			
Insert								
Chipbreaker type	SG	CBN	HH	HL	HD			
Page	B29	C10	C11	C11	C11			

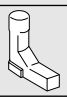
PTGN (External turning)





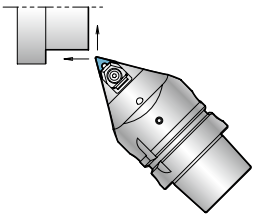
Right-hand shown | Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

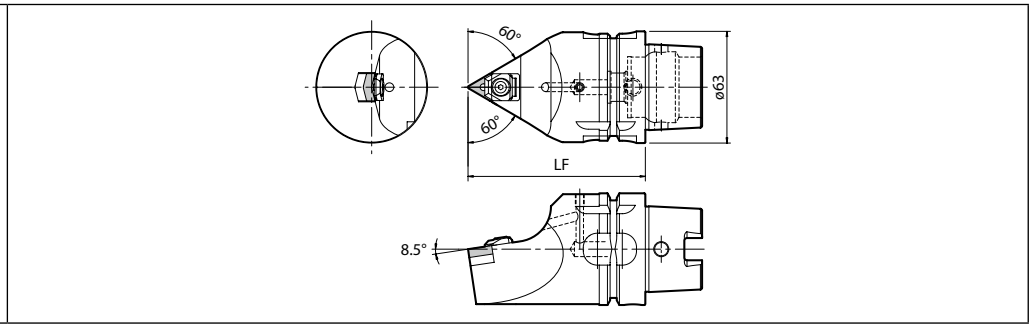
Toolholder dimensions

Description		Availability		Dimension (mm)		Spare parts								Applicable inserts
						Coolant pipe	Lever	Lock screw	Punch	Shim pin	Shim	Shim*	Wrench	
		R	L	LF	WF									
T63H-	PTGN$^{R}_{L}$-DX16	●	●	65	45	CL63-1	LL-1N	LS-1N	PC-1	LSP-1	LT-32N	LT-32N-20	FH-2.5	TN□A1604..., TN□G1604... TN□M1604...

When using inserts whose corner-R(RE) is greater than 1.6 mm, please purchase a shim* and use it in order to prevent workpiece and shim from interfering each other.

WTEN (External turning / External facing)





Toolholder dimensions

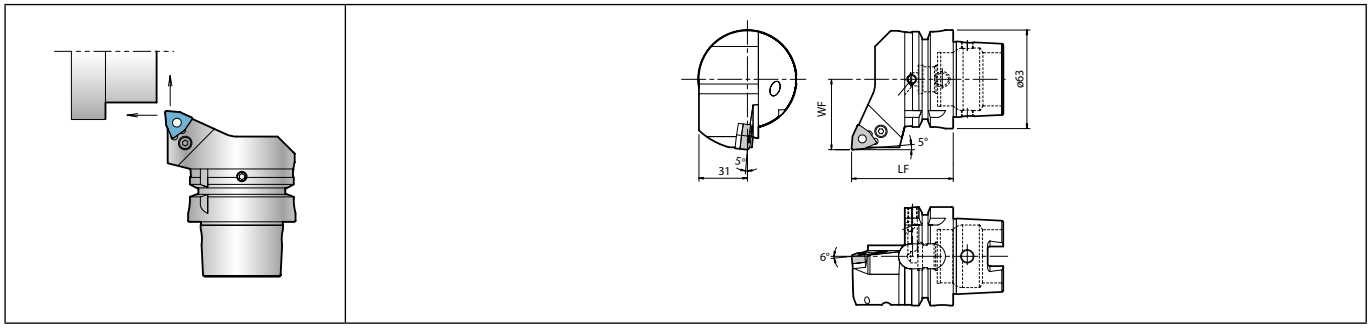
Description		Availability	Dimension (mm)	Spare parts							Applicable inserts
				Clamp set	Coolant pipe	Nut	Shim pin	Shim	Spacer	Wrench	
		N	LF								
T63H-	WTENN-H16	●	100	WCS-1N	CL63-1	WN-1	WP-1S	WTN-33	WSP-1	LW-3	TN□A1604..., TN□G1604... TN□M1604...
	WTENN-L16	●	140								

● : Standard item

Applicable inserts

Applications	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Finishing - Medium	Medium - Roughing	Medium - Roughing	Medium - Roughing
Insert								
Chipbreaker type	PP	GP	PQ	HQ	CQ	PMG	GS	PG
Page	B38	B38	B38	B38	B38	B39	B39	B39
Applications	Medium - Roughing	Medium - Roughing	Medium - Roughing	Roughing	Roughing	Roughing	Finishing	Finishing
Insert								
Chipbreaker type	PS	PT	GT	STD	PH	PX	R/L-SSF	R/L-S
Page	B39	B39	B39	B40	B40	B40	B44	B44
Applications	Finishing - Medium	Medium - Roughing	Medium - Roughing	Low carbon steel	Low carbon steel	Low carbon steel	Low carbon steel	Finishing - Medium
Insert								
Chipbreaker type	R/L-B	R/L-C	R/L-25R	XF	XP	XQ	XS	SK
Page	B44	B45	B45	B40	B41	B41	B41	B41
Applications	Large ap	Medium - Roughing	Stainless steel / Heat-resistant alloys	Stainless steel / Heat-resistant alloys	Stainless steel / Heat-resistant alloys	Stainless steel / Heat-resistant alloys	Stainless steel	Cast iron
Insert								
Chipbreaker type	R-LD	FP-TK	TK	MQ	MS	MU	R/L-ST	KQ
Page	B41	B41	B41	B42	B42	B42	B42	B42
Applications	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron / Hard materials	Non-Ferrous Metals
Insert								
Chipbreaker type	KG	KH	C	ZS	GC	No CB	Ceramic	R/L-A3
Page	B42	B42	B43	B43	B43	B43	B118	B43
Applications	Non-Ferrous Metals	Non-Ferrous Metals	Heat-resistant alloys	Hard materials / Cast iron				
Insert								
Chipbreaker type	AH	PCD	SG	CBN				
Page	B43	C36	B42	C13				

PWLN (External turning / External facing)

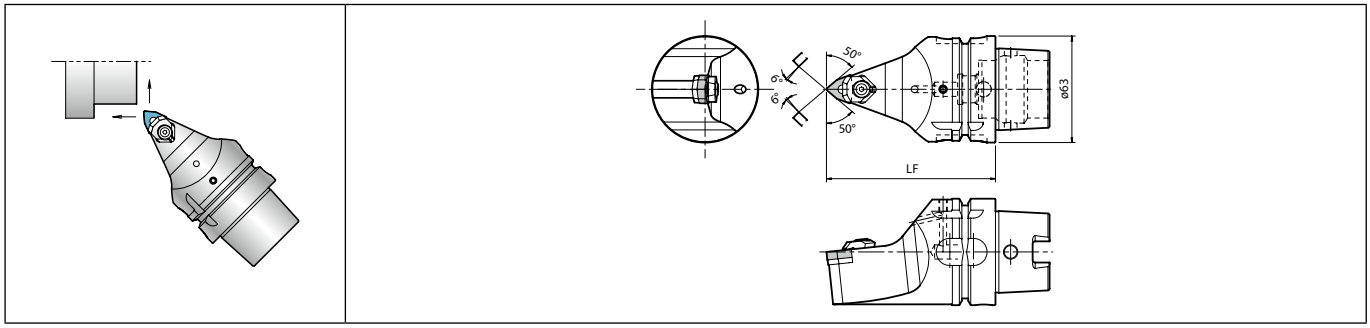


Right-hand shown | Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

Toolholder dimensions

Description		Availability		Dimension (mm)		Spare parts							Applicable inserts
						Coolant pipe	Lever	Lock screw	Punch	Shim pin	Shim	Wrench	
		R	L	LF	WF								
T63H-	PWLN$^{R}_{L}$-DX08	●	●	65	45	CL63-1	LL-2N	LS-2N	PC-2	LSP-2	LW-42N	LW-3	WN□A0804..., WN□G0804... WN□M0804...

WWMN (External turning / External facing)

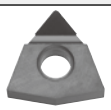


Toolholder dimensions

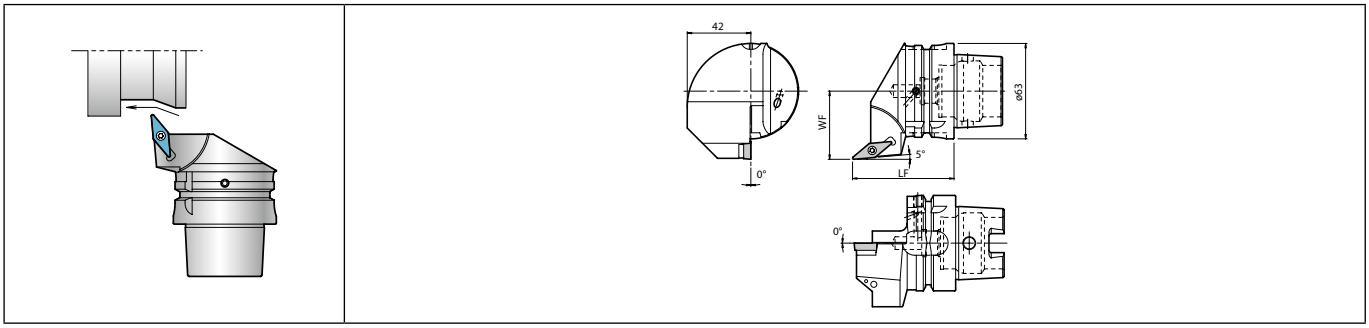
Description		Availability	Dimension (mm)	Spare parts						Applicable inserts
				Clamp set	Coolant pipe	Nut	Shim pin	Shim	Wrench	
		N	LF							
T63H-	WWMNN-H08	●	100	WCS-8	CL63-1	WN-1	WP5X15	WWN-42	LW-3	WN□A0804..., WN□G0804... WN□M0804...
	WWMNN-L08	●	140							

● : Standard item

Applicable inserts

Applications	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Finishing	Finishing	Finishing - Medium	Finishing - Medium
Insert								
Chipbreaker type	WF	WP	WE	WQ	PP	GP	PQ	HQ
Page	B49	B49	B49	B49	B49	B49	B49	B50
Applications	Finishing - Medium	Finishing - Medium	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing
Insert								
Chipbreaker type	CQ	CJ	PMG	GS	PG	PS	PT	GT
Page	B50	B50	B50	B50	B50	B50	B51	B51
Applications	Roughing	Roughing	Low carbon steel	Low carbon steel	Low carbon steel	Stainless steel / Heat-resistant alloys	Stainless steel / Heat-resistant alloys	Stainless steel / Heat-resistant alloys
Insert								
Chipbreaker type	STD	PH	XP	XQ	XS	TK	MQ	MS
Page	B51	B51	B51	B51	B51	B51	B52	B52
Applications	Stainless steel / Heat-resistant alloys	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron
Insert								
Chipbreaker type	MU	KQ	KG	KH	C	ZS	GC	No CB
Page	B52	B52	B52	B52	B53	B53	B53	B53
Applications	Non-Ferrous Metals	Non-Ferrous Metals	Heat-resistant alloys	Hard materials / Cast iron				
Insert								
Chipbreaker type	AH	PCD	SG	CBN				
Page	B53	C38	B52	C15				

SVLB (External turning / External copying)

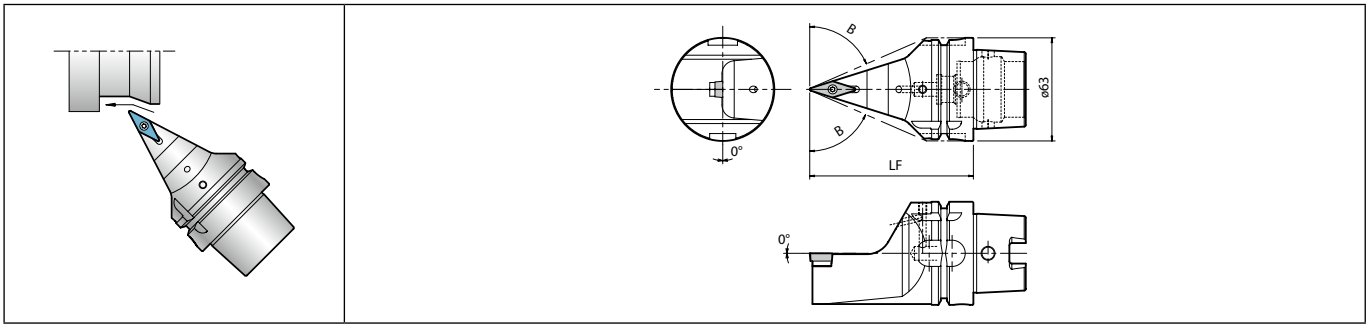


Right-hand shown | Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

Toolholder dimensions

Description		Availability		Dimension (mm)		Spare parts						Applicable inserts
						Coolant pipe	Screw	Shim screw	Shim	Wrench	Wrench	
		R	L	LF	WF							
T63H-	SVLB$^{R}_{L}$-DX16N	●	●	65	45	CL63-1	SB-40125TRN	SS-4N	SVN-32N	LW-4	FT-15	VB□T1604..., VB□W1604... VC□T1604...

SVVB (External turning / External copying)



Toolholder dimensions

Description		Availability	Dimension (mm)		Spare parts						Applicable inserts
					Coolant pipe	Screw	Shim screw	Shim	Wrench	Wrench	
		N	LF	B (°)							
T63H-	SVVBN-H16N	●	100	66.5	CL63-1	SB-40125TRN	SS-4N	SVN-32N	LW-4	FT-15	VB□T1604..., VB□W1604... VC□T1604...
	SVVBN-L16N	●	140	72.5							

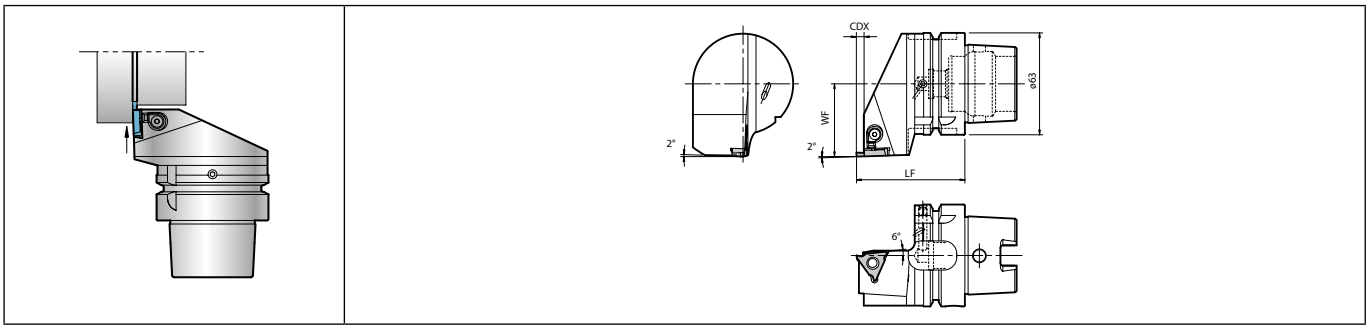
Angle B show the interference angle from the line of cutting edge and toolholder.

● : Standard item

Applicable inserts

Applications	Finishing	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Non-Ferrous Metals	Hard materials
Insert							
Chip Breaker Type	PP	GP	VF	HQ	R/L-Y	PCD	CBN
Page	B97, B100	B97	B97	B97	B99	C49	C26

KGBA (Shallow grooving)



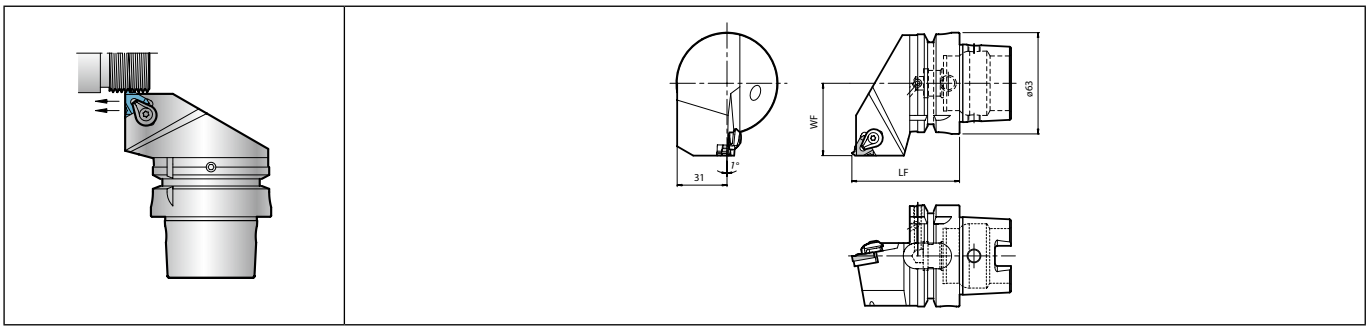
Right-hand shown | Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

Toolholder dimensions

Description		Availability		Dimension (mm)			Spare parts			Applicable inserts ➡ G6~G12
		R	L	LF	WF	CDX	Clamp set	Coolant pipe	Wrench	
T63H-	KGBA$^{R}_{L}$-16	●	●	67	45	2.5	LGBA-16$^{R}_{L}$S	CL63-1	FT-15	GBA32$^{R}_{L}$ type
	KGBA$^{R}_{L}$-22-15	●	●			4	LGBA-22$^{R}_{L}$S			GBA43$^{R}_{L}$ type
	KGBA$^{R}_{L}$-22-25	●	●			4.5				
	KGBA$^{R}_{L}$-22-35	●	●			5.5				

CDX shows the distance from the toolholder to the cutting edge. Available Groove Depth : „CDX" of Insert.

KTN (External threading)



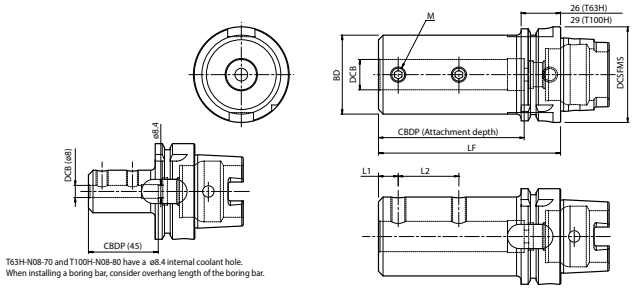
Right-hand shown | Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

Toolholder dimensions

Description		Availability	Dimension (mm)		Spare parts							Applicable inserts ➡ J6, J8, J10 J12, J14, J16 J18, J20
		R	LF	WF	Clamp set	Clamp set	Coolant pipe	Shim screw	Shim	Wrench	Wrench	
T63H-	KTNR-16	●	67	45	CPS-5S	-	CL63-1	SP3X8	TN-32	-	FT-15	16ER type
	KTNR-22	●			-	CPS-6S			TN-43	LW-3	-	22ER type

● : Standard item

Toolholder for boring bar / drill



T63H-N08-70 and T100H-N08-80 have a ø8.4 internal coolant hole.
When installing a boring bar, consider overhang length of the boring bar.

Toolholder dimensions

Description		Availability	Dimension (mm)							M	Spare parts			Remarks
			DCB	DCSFMS	BD	LF	CBDP	L1	L2		Screw	Coolant pipe	Wrench	
T63H-	N08-70	●	8	63	28	70	45	9	20	M8	HS8X10	CL63-1	LW-4	For Boring Bar
	N10-80	●	10		35	80	55		22		HS8X12			
	N12-90	●	12		42	90	65							
	N16-100	●	16		48	100	75	11	30	M10	HS10X16		LW-5	
	N20-120	●	20		52	120	95	13	40					
	N25-140	●	25	56	56	140	115		50	M12	HS12X16		LW-6	
	N32-160	●	32			160	135		60		HS12X12			
T63H-	C20-75	●	20	63	52	75	50	13	22	M10	HS10X16	CL63-1	LW-5	*For Drill
	C25-85	●	25		56	85	58	15	28	M12	HS12X16		LW-6	
	C32-90	●	32			90	62		30		HS12X12			
	C40-100	●	40		68	100	72	18	35	M16	HS16X12		LW-8	
T100H-	N08-80	●	8	100	28	80	45	9	20	M8	HS8X10	CL100-1	LW-4	For Boring Bar
	N10-90	●	10		35	90	55		22		HS8X12			
	N12-100	●	12		42	100	65							
	N16-110	●	16		48	110	75	11	30	M10	HS10X16		LW-5	
	N20-130	●	20		52	130	95	13	40					
	N25-150	●	25		62	150	115		50	M12	HS12X18		LW-6	
	N32-170	●	32		72	170	135		60		HS12X20			
T100H-	C20-85	●	20	100	52	85	50	13	22	M10	HS10X16	CL100-1	LW-5	*For Drill
	C25-90	●	25		62	90	58	15	20	M16	HS16X18		LW-8	
	C32-95	●	32		72	95	62							
	C40-105	●	40		82	105	72		25		HS16X20			

* Shorter than the toolholder for boring bar.

Identification system (For boring bar / Drill)

Interface size
T63: HSK - T63
T100: HSK - T100

Manual clamp hole	
H	Yes
No code	No

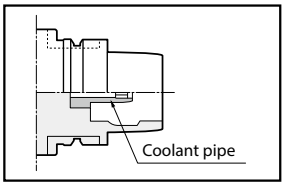
Toolholder length (mm)
Length from gauge line

T63 **H** – **N** **08** – **70**

Toolholder	
N	For boring bar
C	For drill

Internal dia.	
08	ø8
10	ø10

Coolant pipe
Coolant pipe is built into toolholder.

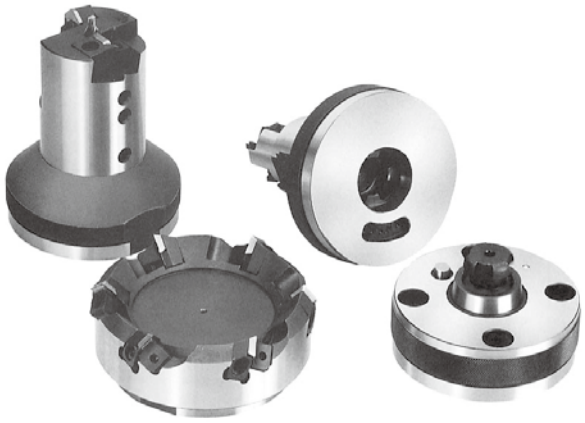


● : Standard item

Quick change system

Quick change system of petal-shaped adapter

KQC series



Features

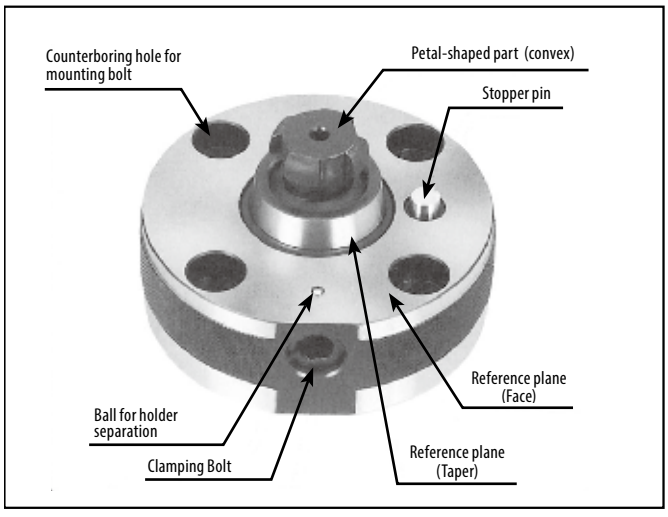
1. The way to assemble holder is turn the clumping bolt 1 round.
   Tool exchange time is less than 1 minute.

2. Junction of adapter and attachment touch both taper part and face part.
   And repeatability is less than 2μm.

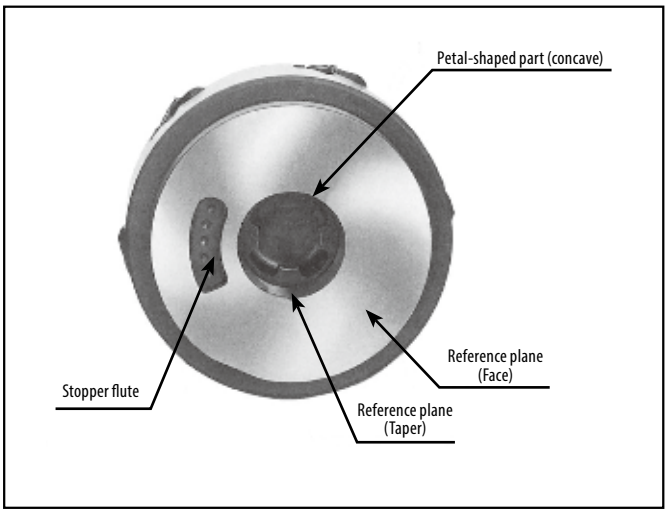
3. Applicable to various tools.
   · Boring tool (Rough & Fine)
   · Face milling (Min.ø63, Max.ø160 is possible)
   · Centering tool
   · External turning
   · Combination tool
   · Applicable to tools with coolant hole

Clamping system

Adapter side



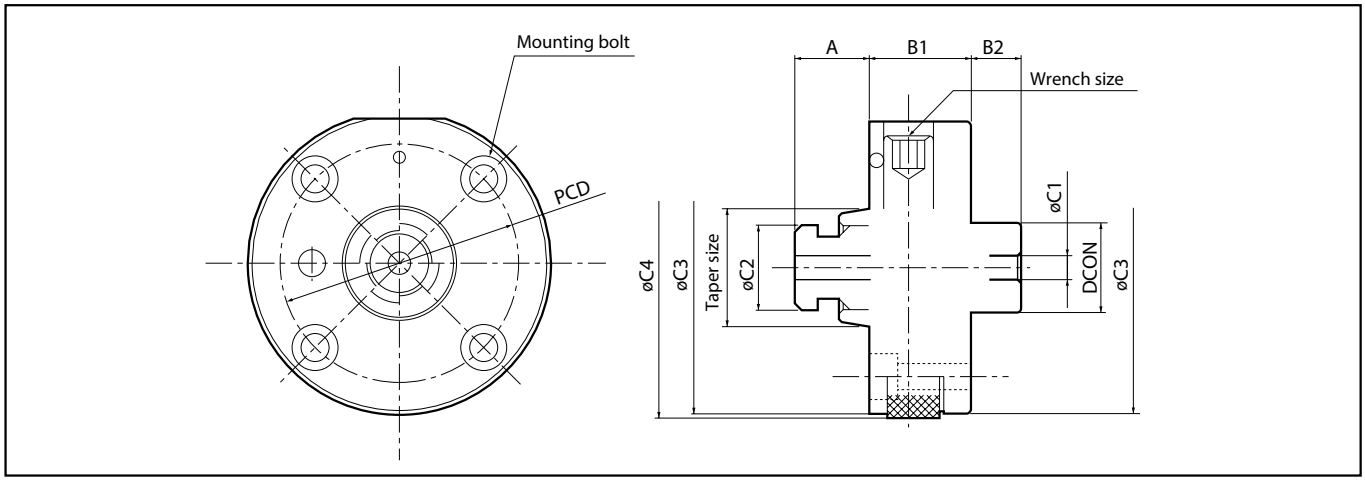
Attachment side



How to use clamping system

1. Combine petal-shaped part of adapter side with that of attachment side and insert the attachment.
2. Turn the attachment 45 degrees until stop (Clockwise direction).
3. Turn the clamp bolt attached to adapter side 1 round and tighten by Hexagon wrench.

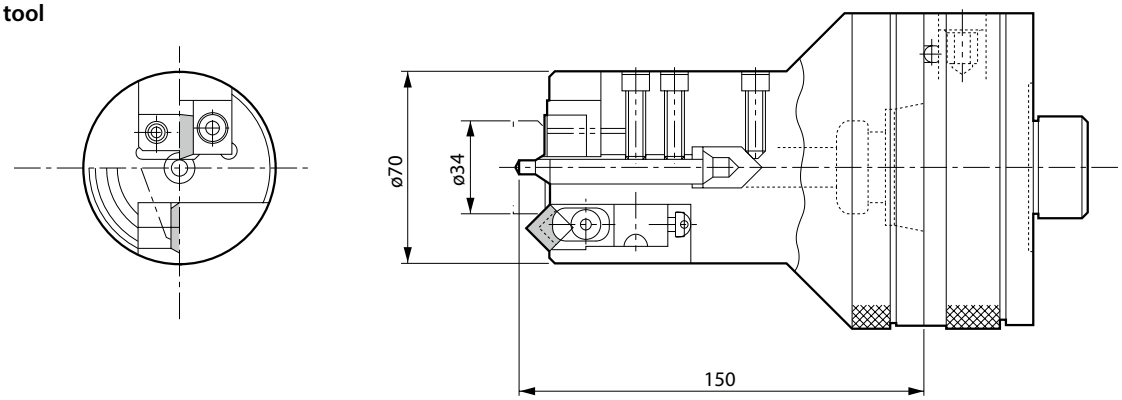
Adapter



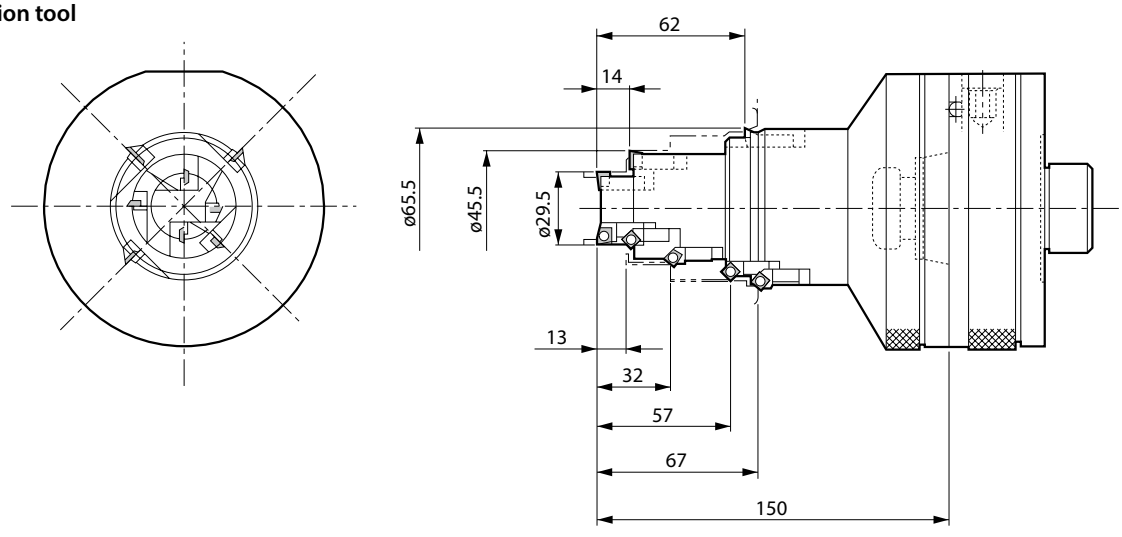
Description	Taper size	A	B1	B2	øC1	øC2	øC3	øC4	DCON	PCD	Wrench size	Mounting bolt
KQC28	ø28	23	25 over	15 over	4	24	60 over	62 over	20	43 over	6	6 ~ 8
KQC35	ø35	27	30 over	15 over	6	28	75 over	77 over	25	54 over	8	8 ~ 10
KQC45	ø45	30	40 over	15 over	8	32	90 over	92 over	25	66 over	10	8 ~ 12
KQC70	ø70	33	50 over	15 over	10	40	130 over	132 over	25	100 over	12	10 ~ 16

Toolholder (attachment) reference example

Centering tool



Combination tool



Applicable to various tooling (also with coolant hole)

Identification system (Square shank)

Clamping system	
C	Top clamp
P	Lever lock
S	Screw clamp

Insert shape	
S	90° Square
T	60° Triangle

Hand of tool	
R	Right-hand

Edge height
Edge height (mm)

Cartride type
CA : ISO A type

P	S	K	N	R	16	CA	12

Cutting edge angle

D	E	F	G
45°	60°	90°	90°

K	S	T	Y
75°	45°	60°	85°

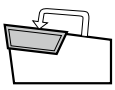
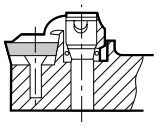
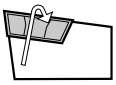
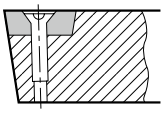
Insert relief angle

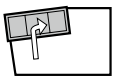
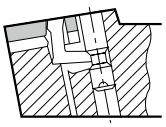
E	20° Positive
N	0° Negative
P	11° Positive

Insert size

· Specification may change without any prior notice.

Clamping system

Series	Design		Features
Top clamp (C)			· Rigid clamping · Positive inserts · Low cutting force
Screw clamp (S)			· Simple mechanism · Fewer parts · Finishing to medium machining

Series	Design		Features
Lever lock (P)			· Easy insert replacement · General purpose

Lever lock

Shape (Right-hand shown)

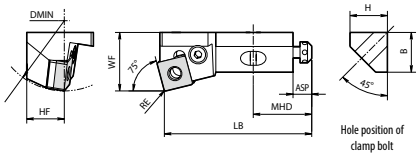


Fig. 1

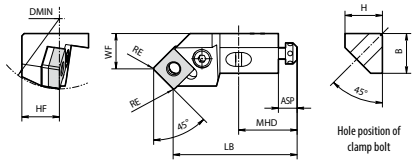


Fig. 2

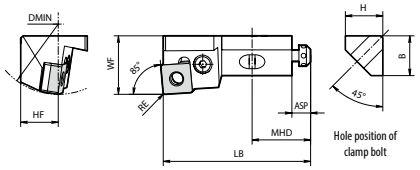


Fig. 3

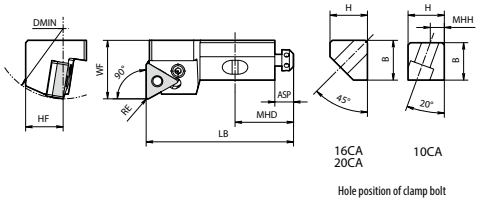


Fig. 4

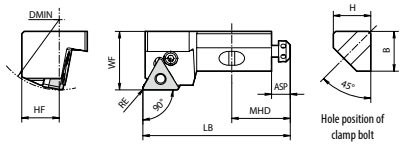


Fig. 5

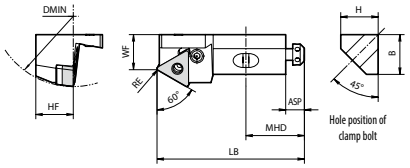


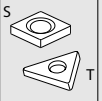
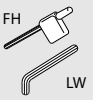
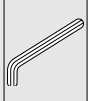
Fig. 6

Toolholder dimensions

Description		Availability	Dimension (mm)								Std. Corner-R (RE)	Min. Bore Dia. DMIN (mm)	Fig.	Applicable inserts		* See page for applicable inserts
			H	B	LB	MHD	ASP	MHH	HF	WF						
PSKNR	16CA12	MT0	16	17	63	25	8	-	16	25	0.8	60	1	SN□A SN□G SN□M	1204..	**B33 ~ B36 B117 C12**
PSSNR	16CA12	MT0			53					15			2			
PSYNR	16CA12	MT0			63					25			3			
PTFNR	10CA11	MT0	12.5	11	50	20	8	5	10	14	0.4	40	4	TN□A TN□G	1103..	**B43 B44**
	16CA16	MT0	15.5	16	63	25	8	-	16	25	0.8	60		TN□A TN□G TN□M	1604..	**B38 ~ B45 B118 C13 C36**
	20CA22	MT0	20	19	70	30	10		20			70			2204..	
PTGNR	16CA16	MT0	16	17	63	25	8		16	25		60	5		1604..	
PTTNR	16CA16	MT0								15		70	6			

* See page for Applicable Inserts (TN□G2204.., TN□M2204..) **B38, B39, B40, B42, B45**

Spare Parts

Description		Lever	Lock screw	Shim	Shim Pin	Punch	Wrench	Radial adjustment screw	Axial adjustment screw	Wrench	Axial screw driver	Plate	Clamp bolt	Wrench
														
PSKNR	16CA12	LL-2N	LS-2N	LS-42	LSP-2	PC-2	LW-3	HS4X4	AJM5F	LW-2	SW-1.8	SM0816B SM1016B	HH8X25	LW-6
PSSNR	16CA12													
PSYNR	16CA12													
PTFNR	10CA11	LL-03N	LS-03N	-	P-03	-	FH-2	HS4X4	AJM5F	LW-2	SW-1.8	SM0810A SM1010A	HH6X16	LW-5
	16CA16	LL-1N	LS-1N	LT-32N	LSP-1	PC-1	FH-2.5	HS5X5		LW-2.5		SM0816B SM1016B	HH8X25	LW-6
	20CA22	LL-2N	LS-2N	LT-42N	LSP-2	PC-2	LW-3		AJM6			SM0820B SM1020B	HH8X30	
PTGNR	16CA16	LL-1N	LS-1N	LT-32N	LSP-1	PC-1	FH-2.5		AJM5F			SM0816B SM1016B	HH8X25	
PTTNR	16CA16													

Note 1 : Plate is included with different two pieces one set of the size.

MT0 : Made to order

MT0 : Made to order

Top clamp

Shape (Right-hand shown)

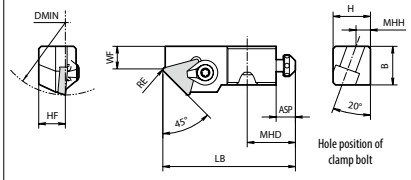


Fig. 1

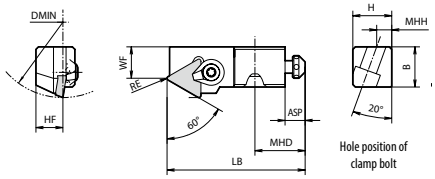


Fig. 2

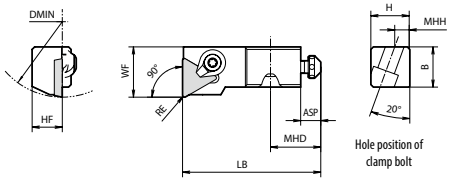


Fig. 3

Toolholder dimensions

Description		Availability	Dimension (mm)								Std. Corner-R (RE)	Min. Bore Dia. DMIN (mm)	Fig.	Applicable inserts		See page for applicable inserts
			H	B	LB	MHD	ASP	MHH	HF	WF						
CTDPR	10CA11	MTO	12.5	11	50	20	8	5	10	7	0.4	38	1	TP□N TP□R	1103..	B95 B96 B122 C25 C48
	12CA16	MTO	15.5	16	55			6	12	10	0.8	50			1603..	
CTEPR	10CA11	MTO	12.5	11	50			5	10	9	0.4	38	2		1103..	
	12CA16	MTO	15.5	16	55			6	12	13	0.8	50			1603..	
CTFPR	10CA11	MTO	12.5	11	50			5	10	14	0.4	38	3		1103..	
	12CA16	MTO	15.5	16	55			6	12	20	0.8	50			1603..	

Spare parts

Description		Clamp set	Wrench	Radial adjustment screw	Axial adjustment screw	Wrench	Axial screw driver	Plate	Clamp bolt	Wrench
										
CTDPR	10CA11	CPS-4V	FT-10	HS4X4	AJM5F	LW-2	SW-1.8	SM0810A SM1010A	HH6X16	LW-5
	12CA16	CPS-5V	FT-15	HS5X5		LW-2.5		SM0812A SM1012A	HH6X20	
CTEPR	10CA11	CPS-4V	FT-10	HS4X4		LW-2		SM0810A SM1010A	HH6X16	
	12CA16	CPS-5V	FT-15	HS5X5		LW-2.5		SM0810A SM1010A	HH6X20	
CTFPR	10CA11	CPS-4V	FT-10	HS4X4		LW-2		SM0810A SM1010A	HH6X16	
	12CA16	CPS-5V	FT-15	HS5X5		LW-2.5		SM0812A SM1012A	HH6X20	

Note 1 : Plate is included with different two pieces one set of the size.

MTO : Made to order

Screw clamp

Shape (Right-hand shown)

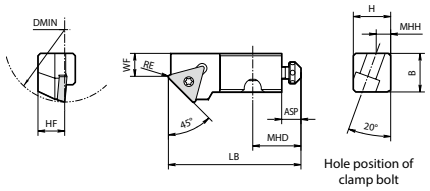


Fig. 1

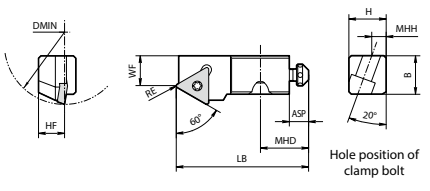


Fig. 2

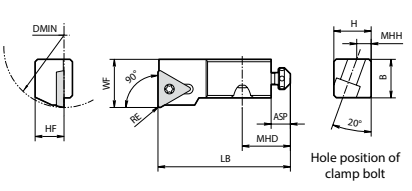


Fig. 3

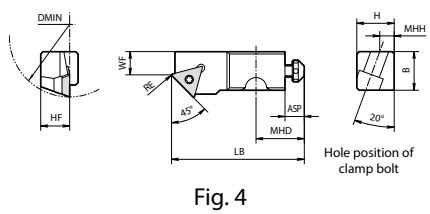


Fig. 4

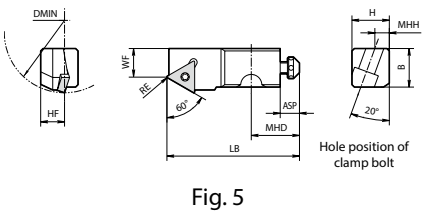


Fig. 5

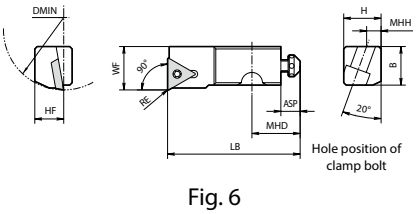


Fig. 6

Toolholder dimensions

Description		Availability	Dimension (mm)								Std. Corner-R (RE)	Min. Bore Dia. DMIN (mm)	Fig.	Applicable inserts		See page for applicable inserts
			H	B	LB	MHD	ASP	MHH	HF	WF						
STDPR	10CA11	MT0	12.5	11	50	20	8	5	10	7	0.4	38	1	TP□H TP□T TPGB	1103..	B88 ~ B94 C23 C46 C47
	12CA16	MT0	15.5	16	55			6	12	10	0.8	50			1603..	
STEPR	10CA11	MT0	12.5	11	50			5	10	9	0.4	38	2		1103..	
	12CA16	MT0	15.5	16	55			6	12	13	0.8	50			1603..	
STFPR	10CA11	MT0	12.5	11	50			5	10	14	0.4	38	3		1103..	
	12CA16	MT0	15.5	16	55			6	12	20	0.8	50			1603..	
STDER	12CA13	MT0	15.5	16	55	20	8	6	12	10	0.4	50	4	TEGW	1303..	-
STEER	12CA13	MT0								12			5			
STFER	12CA13	MT0								18			6			

Spare parts

Description		Clamp screw	Wrench	Radial adjustment screw	Axial adjustment screw	Wrench	Axial screw driver	Plate	Clamp bolt	Wrench
										
STDPR	10CA11	SB-3TR	FT-10	HS4X4	AJM5F	LW-2	SW-1.8	SM0810A SM1010A	HH6X16	LW-5
	12CA16	SB-4TR	FT-15	HS5X5		LW-2.5		SM0812A SM1012A	HH6X20	
STEPR	10CA11	SB-3TR	FT-10	HS4X4		LW-2		SM0810A SM1010A	HH6X16	
	12CA16	SB-4TR	FT-15	HS5X5		LW-2.5		SM0812A SM1012A	HH6X20	
STFPR	10CA11	SB-3TR	FT-10	HS4X4		LW-2		SM0810A SM1010A	HH6X16	
	12CA16	SB-4TR	FT-15	HS5X5		LW-2.5		SM0812A SM1012A	HH6X20	
STDER	12CA13	SB-3080TR	FT-10	HS4X4	AJM5F	LW-2	SW-1.8	SM0812A SM1012A	HH6X20	LW-5
STEER	12CA13									
STFER	12CA13									

Note 1 : Plate is included with different two pieces one set of the size.

MT0 : Made to order

MT0 : Made to order

Back machining tool for Star Micronics Co., Ltd.'s machines

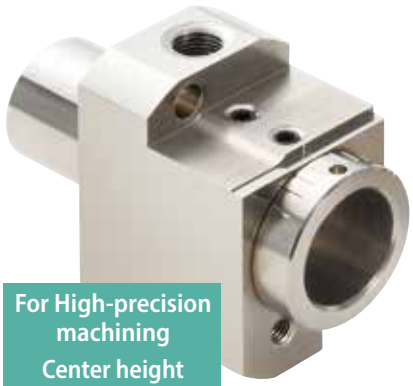
Sub-spindle holders

Highly rigid and supports internal coolant
Holders with a center height adjustment mechanism are available

1 Lineup: Holders for 4- and 8-spindle tool post styles

For 4-spindle tool post

4A-HA type



For High-precision machining
Center height adjustment

4A type

For 8-spindle tool post

8A type

2 Features

Feature 1

*Only the 4A-HA type for 4-spindle tool post supports the center height adjustment mechanism.

Adjustable sleeve enables easy adjustment of the center height.
Provides superior adjustment accuracy

Feature 2

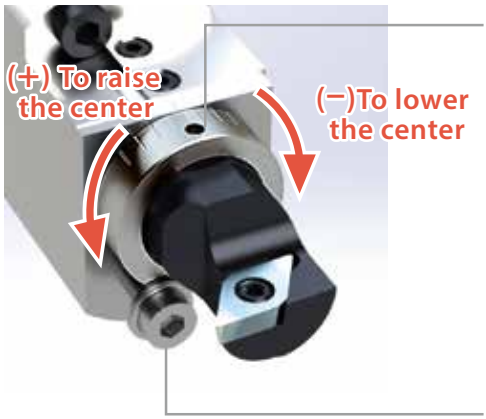
Supports internal coolant

Feature 3

For large shank diameter tools
High rigidity enhances chattering resistance and provides stable machining

Easy and accurate center height adjustment

Adjustable sleeve makes it easy to adjust the center height
Easy to operate with excellent adjustment accuracy



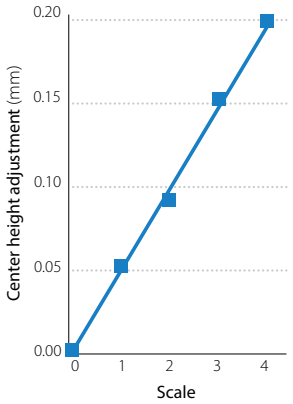
Scale of adjustable sleeve

Adjust the scale of the adjustable sleeve to the reference position of the body
(Center height adjustment range : ±0.2mm)
Please check the machining diameter after adjusting the center height.

Screw for temporarily fixing adjustable sleeve

- Temporarily fix after adjusting center height
- Remove before machining

Center height adjustment per scale
(Internal evaluation)

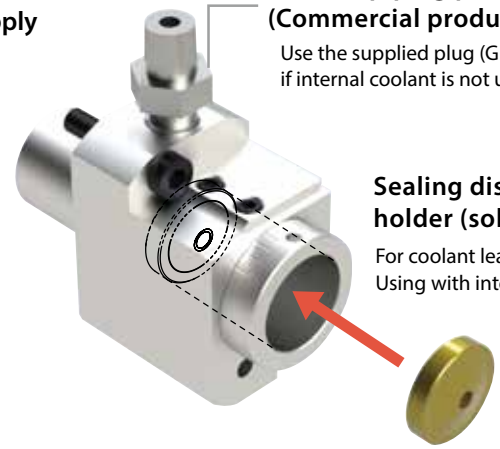


Supports internal coolant

Accelerates chip evacuation and supports extended tool life
Special sealing discs provide more stable coolant supply

Coolant piping part (Commercial product: Rc1/8)

Use the supplied plug (GP-1) if internal coolant is not used.



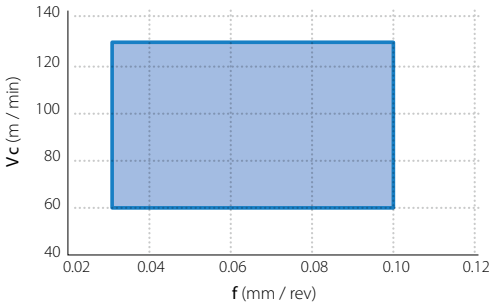
Sealing disc for sub-spindle holder (sold separately)

For coolant leakage
Using with internal coolant

High rigidity enhances chatter resistance

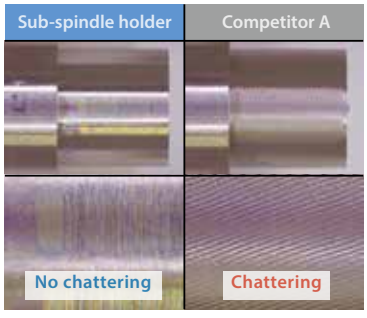
Increased rigidity for tools with large shank diameter
Suppresses chattering and provides stable machining under a wide range of cutting conditions

Cutting condition range for stable machining (No chattering)



Cutting conditions: Vc = 60 ~ 130 m/min, f = 0.03 ~ 0.10 mm/rev, ap = 2.0 mm,
Wet, SUS304 SF22H-SH20-4A-HA S20K-SDUCL11 DCGT11T302MFP-SK

Chattering resistance comparison (Internal evaluation)



Cutting conditions: Vc = 100 m/min, f = 0.05 mm/rev, ap = 2.0 mm
Wet, SUS304

The sub-spindle holders had no chattering and good machining sound in a wide range of cutting conditions.
Work surface after machining was also good.

Sub-spindle holders

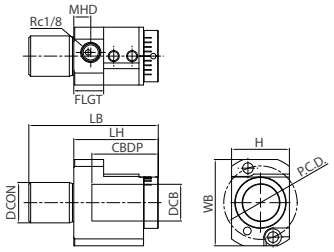


Fig. 1

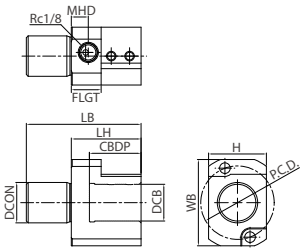


Fig. 2

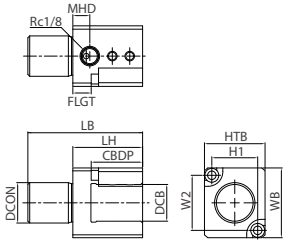


Fig. 3

Toolholder dimensions

Description		Availability	Dimension (mm)													Fig.
			CBDP	DCB	DCON	FLGT	H	H1	HTB	LB	LH	MHD	P.C.D.	WB	W2	
SF22F-	SH20-4A-HA	●	36.2	20	22	16.3	31.5	–	–	70.5	46	9.3	40	47	–	Fig. 1
	SH20-4A	●	28.2							62.5	38					Fig. 2
	SH20-8A	●				10	–	25	33				–	38	30	Fig. 3

Spare parts

Description		Holder body	Adjustable sleeve	Screw	Screw	Wrench	Plug	Bolt	Wrench	Disc
										
SF22F-	SH20-4A-HA	SF22-FH23-4A	SHE2023-27	HH5X12-FL	HS5X5	LW-2.5	GP-1	HH5X25	LW-4	SD-D20
	SH20-4A	–	–	–						
	SH20-8A							HH4X16	LW-3	

Sub-spindle holders compatible machines Referenced the general catalog of Star Micronics Co., Ltd.

(4-spindle tool post) SP-20, SR-20JⅡ(A), SB-16Ⅲ, SB-12/16/20R series, SR-32JⅢ(A)
(8-spindle tool post) SV-20R, SW-20 / 12RⅡ, SD-26(S / C / E / G), SR-38(B) / 20RⅣ(A / B), SR-32JⅢ(B)/20JⅡ(B), SL-10

Precautions) 1. Be careful not to interfere with nearby tools. 2. Depending on the shape of the workpiece, special chucks may be required. 3. You may need to change the limits (soft limits) on the machine. 4. A short wrench is required for close proximity. 5. When the sub-spindle holders for 8-spindle tool post are mounted up and down on the tool post, the internal coolant cannot be used at the lower part. 6. When the sub-spindle holders for 4-spindle tool post is attached to the upper part of 8-spindle tool post, other tools cannot be attached to the lower part.

● : Standard item