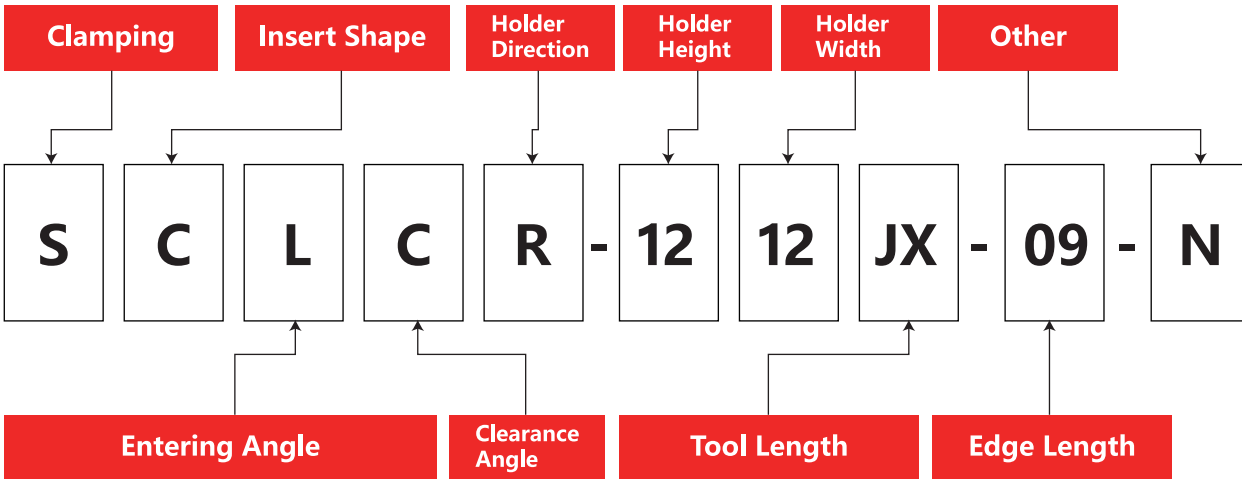


# Symbols of External Tools

A: Back Fastening	C: 80° Rhombic				
C: Pressing Plate Fastening	D: 55° Rhombus				
D: Double Fastening	R: Round				
M: Forceful Fastening	S: Square				
P: Latch Fastening	T: Regular Triangle	R: Right Handed Holders			
S: Screw Fastening	V: 35° Rhombus	L: Left Handed Holders	Holder Height (mm)	Holder Width (mm)	N: Central Tip
W: Wedge-Shape Fastening	W: Hexagon	N: Versatile Holders			Without: Deflected Tip



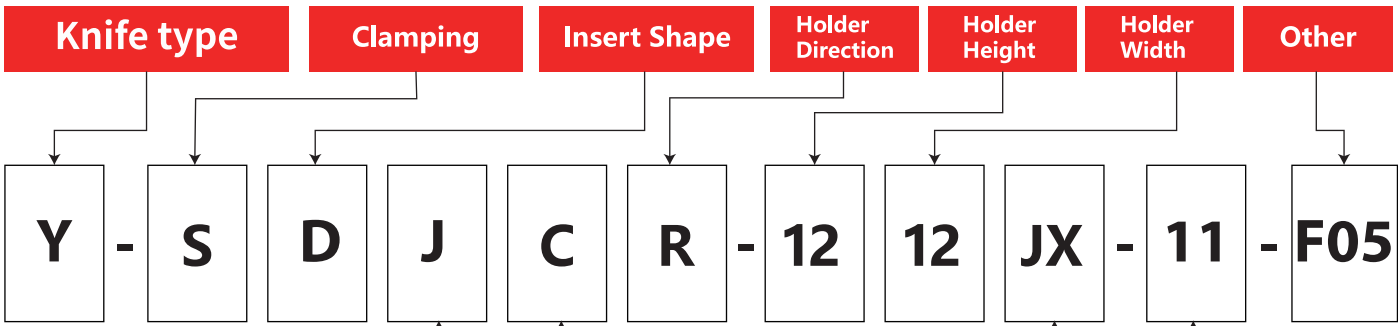
<b>A</b> 90° 	<b>B</b> 75° 	<b>D</b> 45° 	<b>F</b> 90° 
<b>G</b> 90° 	<b>J</b> 93° 	<b>K</b> 75° 	<b>L</b> 95° 
<b>N</b> 62.5° 	<b>P</b> 117.5° 	<b>S</b> 45° 	<b>T</b> 60° 
<b>V</b> 72.5° 			

AN
B: 5°Positive
C: 7°Positive
N: 0°Negative
P: 11°Positive

	(mm)
F: 80	M: 150
H: 100	P: 170
J: 110	Q: 180
JX: 120	R: 200
K: 125	X: Special


# Symbols of ISO Non-standard Tools

Y: Y-axis Tools	A: Back fastening method	C: 80° Rhombic				
KDC: KDC Tools	C: Clamp locking	D: 55° Rhombus				
S: Shift Tools	D: Double locking	R: Round				
ST: Strengthened Tools	M: Double locking	S: Square				
	P: Latch locking	T: Regular Triangle	R: Right handed holders	Holder Height (mm)	Holder Width (mm)	User Defined Symbols
	S: Screw clamping	V: 35° Rhombus	L: Left handed holders			
	W: Wedge clamping	W: Hexagon	N: Versatile Holders			



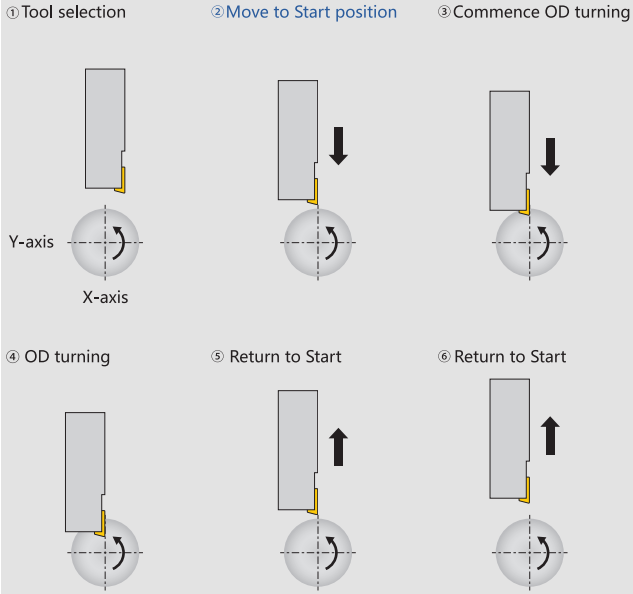
Clamping				Clearance Angle	Tool Length	Edge Length
<b>A</b> 	<b>B</b> 	<b>D</b> 	<b>F</b> 	 AN B: 5°Positive C: 7°Positive N: 0°Negative P: 11°Positive X: Other	 LF (mm) F: 80      M: 150 H: 100     P: 170 J: 110     Q: 180 JX: 120    R: 200 K: 125     X: Special	 T, C, D, V, S
<b>G</b> 	<b>J</b> 	<b>K</b> 	<b>L</b> 			
<b>N</b> 	<b>P</b> 	<b>S</b> 	<b>T</b> 			
<b>V</b> 						

# Y-axis Tools

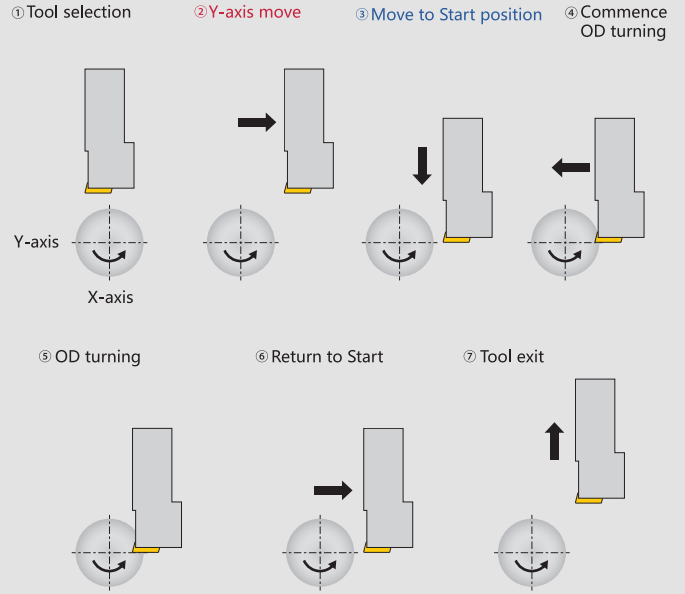
## Cautions when using Y-axis cutting heads

### Machining procedures

#### Conventional X-axis machining



#### Y-axis machining



#### Programming sample

- ① T0200 ..... Tool selection
- ② G00 X13.0 Z0 ..... Move to start position
- ③ G01 X10.0 F0.1 ..... Commence OD turning
- ④ Z5.0 F0.05 ..... OD turning
- ⑤ X13.0 ..... Return to start position
- ⑥ G00X20.0 ..... Tool exit

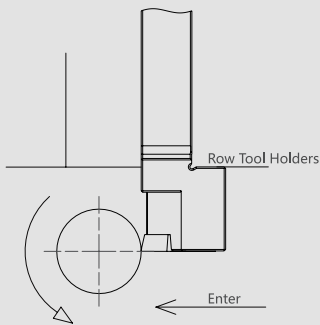
#### Programming sample

- ① T0200 ..... **Programming sample**
- ② G00 Y13.0 Z0 T2 ..... **Move the Y-axis**
- ③ X0 ..... **Move to start position**
- ④ G01 Y10.0 F0.1 ..... **Commence OD turning**
- ⑤ Z5.0 F0.05 ..... **OD turning**
- ⑥ Y13.0 ..... **Return to start position**
- ⑦ G00X20.0 ..... **Tool exit**

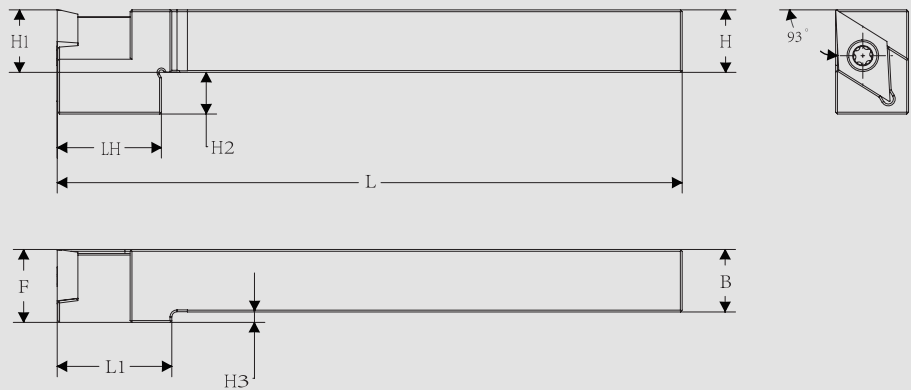
Note) Ensure to first move 2 Y-axis before 3 moving to the start position.

# Y-axis Tools

### Y-SDJC(External)



• Application Examples

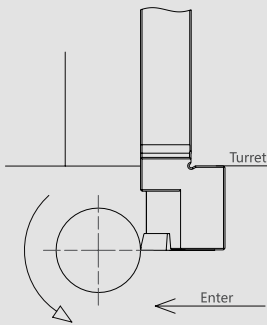


• Right Handed Tool holder

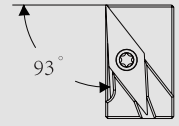
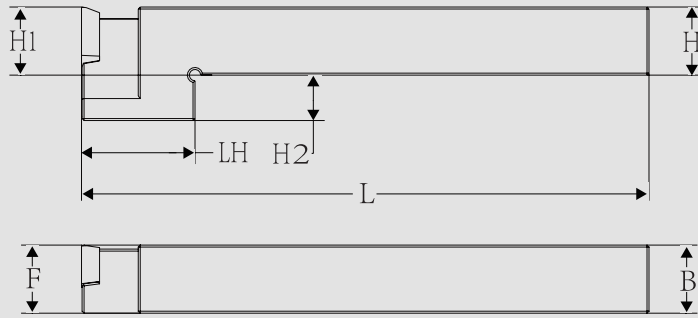
Type	Size (mm)								Accessories		Corresponding Insert
	H(H1)	B	F	LH	L	L1	H2	H3	Screw	Wrenth	
Y-SDJCR-1212JX-11	12	12	14	20	120	22	8	2	KS-4008-T	KW-T15	DC□□ 11T3□□
Y-SDJCR-1616JX-11	16	16	16	25		0	10	0			

## Y-axis Tools

• Y-SVJC(External)



• Application Examples

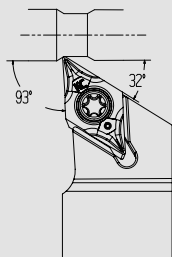


• Right Handed Tool holder

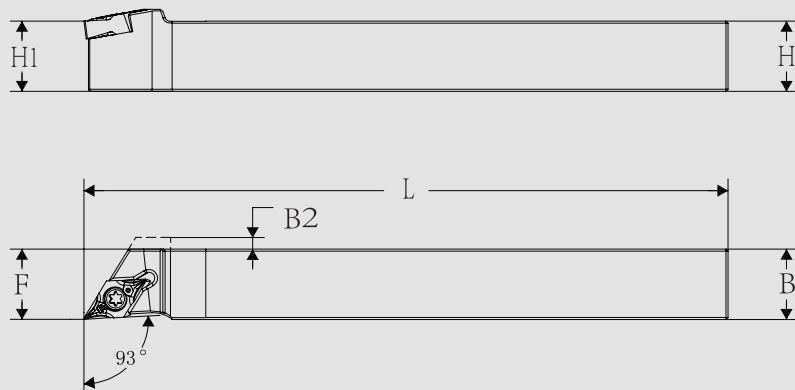
Type	Size (mm)						Accessories		Corresponding Insert
	H(H1)	B	F	LH	L	H2	Screw	Wrenth	
Y-SVJCR-1212H-11	12	12	12	20	100	8	KS-2503-T	KW-T8	VC □ □ 1103 □ □
Y-SVJCR-1616JX-11	16	16	16	25	120	4			

## KDC Tools

• KDC-SDJX(External)



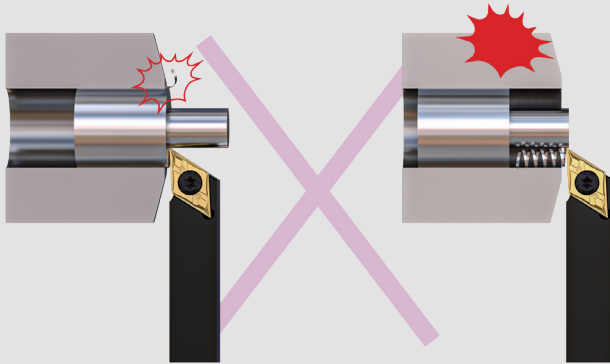
• Application Examples



Type	Size (mm)					Accessories		Corresponding Insert
	H(H1)	B	F	B2	L	Screw	Wrenth	
KDC-SDJXR-0808H-07	8	8	8	2	100	KS-2504-T	KW-T8	DXGU 0703 □ □ R □ □
KDC-SDJXR-1010J-07	10	10	10	0	110			
KDC-SDJXR-1212J-07	12	12	12	0	110			
KDC-SDJXR-1010J-11	10	10	10	6	110	KS-4008-T	KW-T15	DXGU 1104 □ □ R □ □
KDC-SDJXR-1212JX-11	12	12	12	4	120			
KDC-SDJXR-1616JX-11	16	16	16	0	120			

# Shift Tools

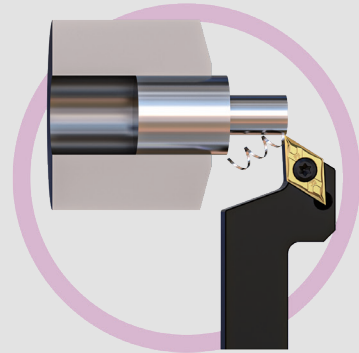
## Problems of Old Tools



When Workpiece Returns, Burrs of Roughing Scratch Guide Bush

When Workpiece Comes off from Guide Bush, Chips may Enwind and Return to Guide Bush

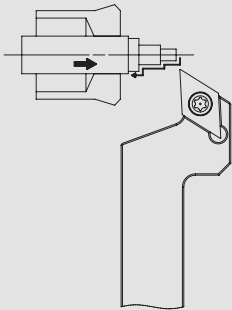
## Shift Tools



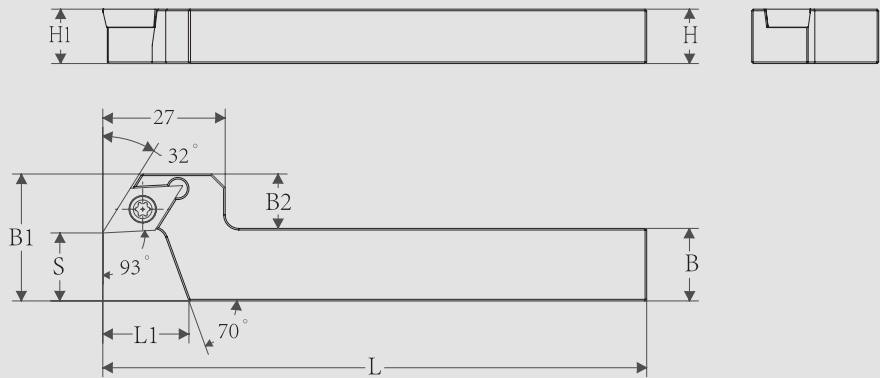
Finishing without Returning to Guide Bush! Good Chips Evacuation!

# Shift Tools

• SDJC (External)



• Application Examples

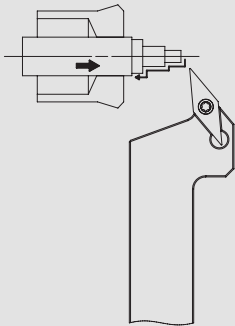


• Right Handed Tool holder

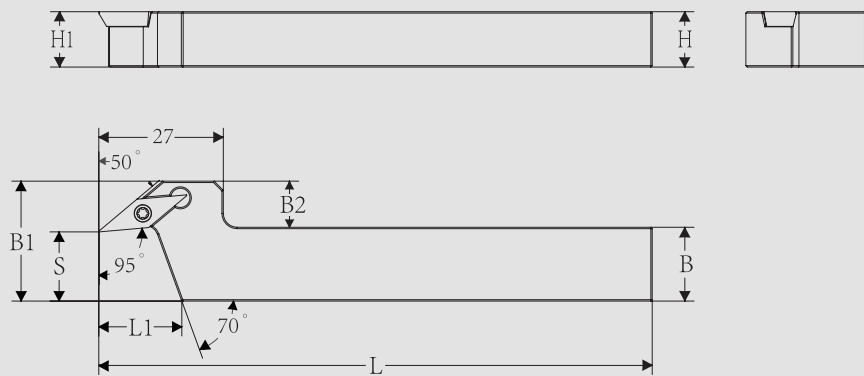
Type	Size (mm)							Accessories		Corresponding Insert
	H(H1)	B	B1	B2	L	L1	S	Screw	Wrenth	
S-SDJCR-1216JX-11-F05	12	16	18	2	120	15.4	5	KS-4008-T	KW-T15	DC□□ 11T3□□
S-SDJCR-1216JX-11-F15			28	12		19	15			
S-SDJCR-1620JX-11-F05	16	20	20	0		15.4	5			
S-SDJCR-1620JX-11-F15			28	8		19	15			

## Shift Tools

• SVLC/P (External)



• Application Examples



• Right Handed Tool holder

Type

Size (mm)

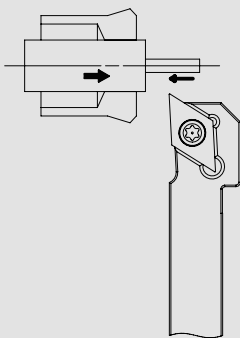
Accessories

Corresponding  
Insert

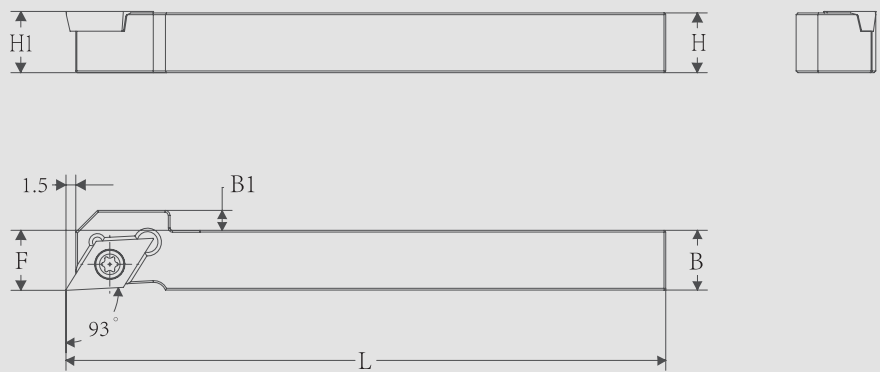
Type	Size (mm)							Accessories		Corresponding Insert
	H(H1)	B	B1	B2	L	L1	S	Screw	Wrenth	
S-SVLCR-1216JX-11-F15	12	16	26	10	120	18	15	KS-2503-T	KW-T8	VC□□ 1103□□
S-SVLCR-1620JX-11-F15	16	20		6						
S-SVLPR-1216JX-11-F15	12	16	26	10	120	18	15	KS-2503-T	KW-T8	VP□□ 1103□□
S-SVLPR-1620JX-11-F15	16	20		6						

## Strengthened Tools

• SDJC (External)



• Application Examples



• Right Handed Tool holder

Type

Size (mm)

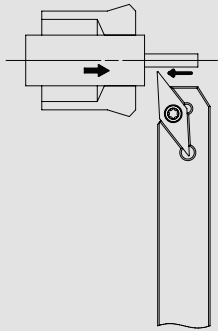
Accessories

Corresponding  
Insert

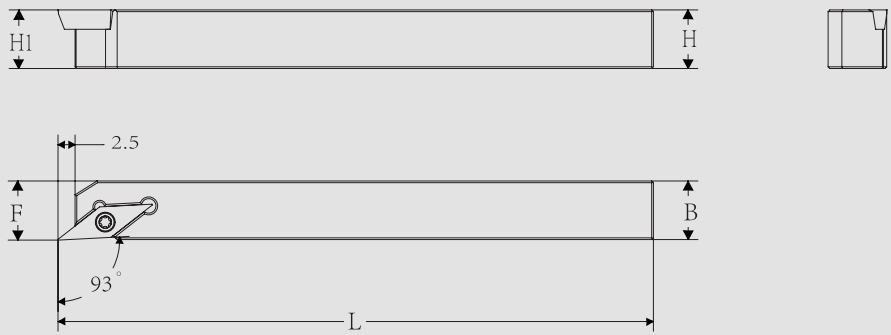
Type	Size (mm)					Accessories		Corresponding Insert
	H(H1)	B	B1	F	L	Screw	Wrenth	
ST-SDJC%-1212JX-11	12	12	4	12	120	KS-4008-T	KW-T15	DC□□ 11T3□□
ST-SDJC%-1616JX-11	16	16	0	16	120			
ST-SDJC%-2020JX-11	20	20	0	20	120			

# Strengthened Tools

• SVJB/C/P (External)



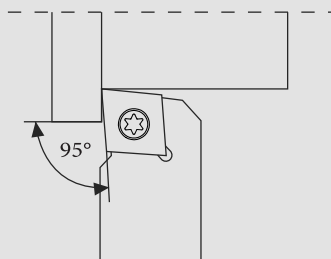
• Application Examples



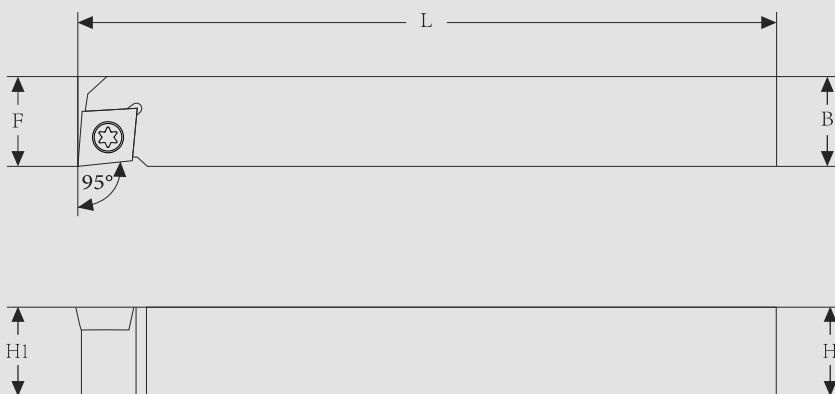
• Right Handed Tool holder

Type	Size (mm)				Accessories		Corresponding Insert
	H(H1)	B	F	L	Screw	Wrenth	
ST-SVJB% -1010JX-11	10	10	10	120	KS-2503-T	KW-T8	VB □ □ 1103 □ □
ST-SVJB% -1212JX-11	12	12	12				
ST-SVJB% -1616JX-11	16	16	16				
ST-SVJB% -2020JX-11	20	20	20				
ST-SVJC% -1010JX-11	10	10	10	120	KS-2503-T	KW-T8	VC □ □ 1103 □ □
ST-SVJC% -1212JX-11	12	12	12				
ST-SVJC% -1616JX-11	16	16	16				
ST-SVJC% -2020JX-11	20	20	20				
ST-SVJP% -1010JX-11	10	10	10	120	KS-2503-T	KW-T8	VP □ □ 1103 □ □
ST-SVJP% -1212JX-11	12	12	12				
ST-SVJP% -1616JX-11	16	16	16				
ST-SVJP% -2020JX-11	20	20	20				

• SCLC-N (External/Face Machining)



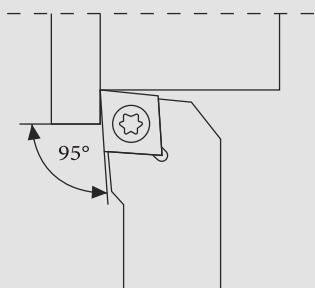
• Application Examples



• Right Handed Tool holder

Type	Size (mm)				Accessories		Corresponding Insert
	H(H1)	B	F	L	Screw	Wrench	
SCLC <sub>R/L</sub> -0808H-06-N	8	8	8	100	KS-2503-T	KW-T8	CC□□ 0602□□
SCLC <sub>R/L</sub> -1010H-06-N	10	10	10	100			
SCLC <sub>R/L</sub> -1212H-09-N	12	12	12	100			
SCLC <sub>R/L</sub> -1616K-09-N	16	16	16	125	KS-4008-T	KW-T15	CC□□ 09T3□□
SCLC <sub>R/L</sub> -2020K-09-N	20	20	20	125			
SCLC <sub>R/L</sub> -2525M-09-N	25	25	25	150			

• SCLC-N (External/Face Machining)



• Application Examples

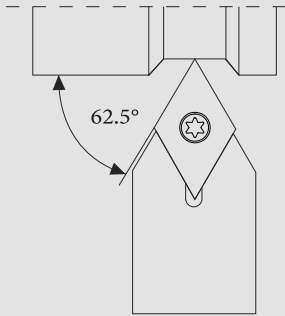


• Right Handed Tool holder

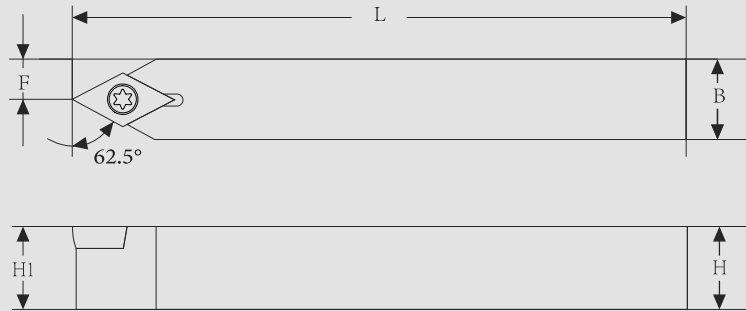
Type	Size (mm)				Accessories		Corresponding Insert
	H(H1)	B	F	L	Screw	Wrench	
SCLC <sub>R/L</sub> -1010H-06	10	10	12	100	KS-2503-T	KW-T8	CC□□ 0602□□
SCLC <sub>R/L</sub> -1212H-09	12	12	16	100			
SCLC <sub>R/L</sub> -1212K-09	12	12	16	125			
SCLC <sub>R/L</sub> -1616K-09	16	16	20	125	KS-4008-T	KW-T15	CC□□ 09T3□□
SCLC <sub>R/L</sub> -2020K-09	20	20	25	125			
SCLC <sub>R/L</sub> -2525M-09	25	25	32	150			



· SDNCN (Profiling)

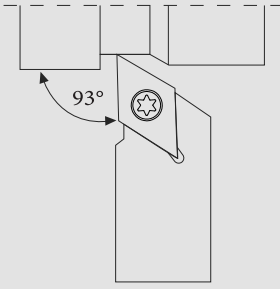


• Application Examples

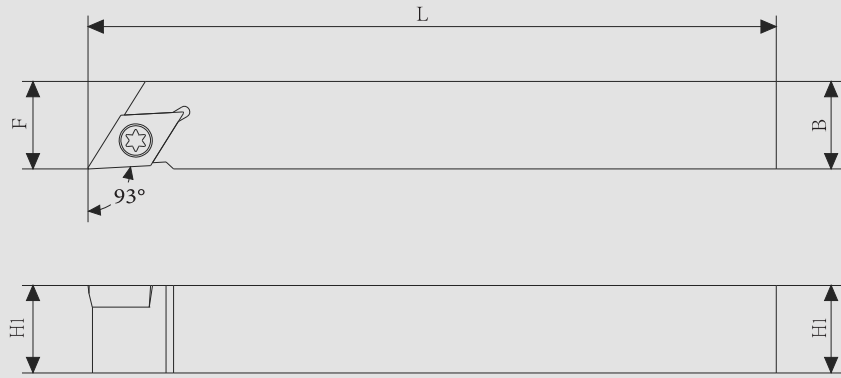


Type	Size (mm)				Accessories		Corresponding Insert
	H(H1)	B	F	L	Screw	Wrench	
SDNCN - 1010H-07	10	10	5	100	KS-2503-T	KW-T8	DC□□ 0702□□
SDNCN - 1212H-07	12	12	6	100			
SDNCN - 1616K-07	16	16	8	125			
SDNCN - 1212H-11	12	12	6	100	KS-4008-T	KW-T15	DC□□ 11T3□□
SDNCN - 1616K-11	16	16	8	125			
SDNCN - 2020K-11	20	20	10	125			
SDNCN - 2525M-11	25	25	12.5	150			

· SDJC-N (External/Profiling)



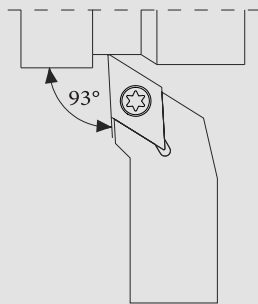
• Application Examples



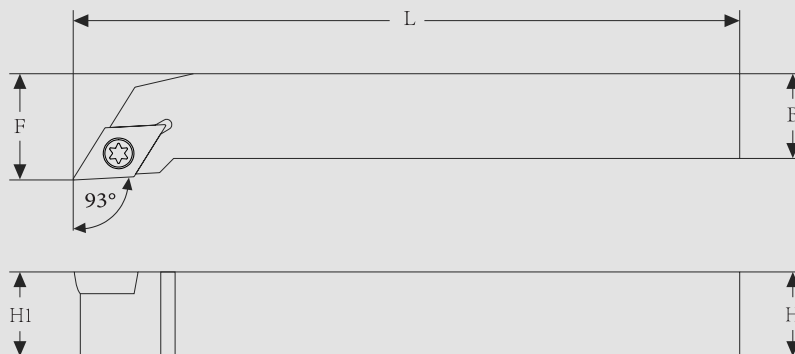
• Right Handed Tool holder

Type	Size (mm)				Accessories		Corresponding Insert
	H(H1)	B	F	L	Screw	Wrench	
SDJC <sup>R/L</sup> -0808H-07-N	8	8	8	100	KS-2503-T	KW-T8	DC□□ 0702□□
SDJC <sup>R/L</sup> -1010H-07-N	10	10	10	100			
SDJC <sup>R/L</sup> -1212H-07-N	12	12	12	100			
SDJC <sup>R/L</sup> -1616K-07-N	16	16	16	125			
SDJC <sup>R/L</sup> -2020K-07-N	20	20	20	125			
SDJC <sup>R/L</sup> -2525M-07-N	25	25	25	150			
SDJC <sup>R/L</sup> -1010H-11-N	10	10	10	100	KS-4008-T	KW-T15	DC□□ 11T3□□
SDJC <sup>R/L</sup> -1212H-11-N	12	12	12	100			
SDJC <sup>R/L</sup> -1616K-11-N	16	16	16	125			
SDJC <sup>R/L</sup> -2020K-11-N	20	20	20	125			
SDJC <sup>R/L</sup> -2525M-11-N	25	25	25	150			
SDJC <sup>R/L</sup> -3232P-11-N	32	32	32	170			

• SDJC (External/Profiling)



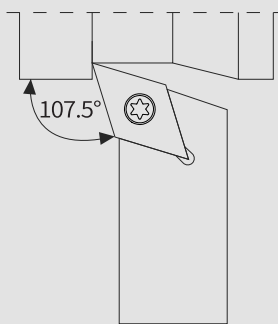
• Application Examples



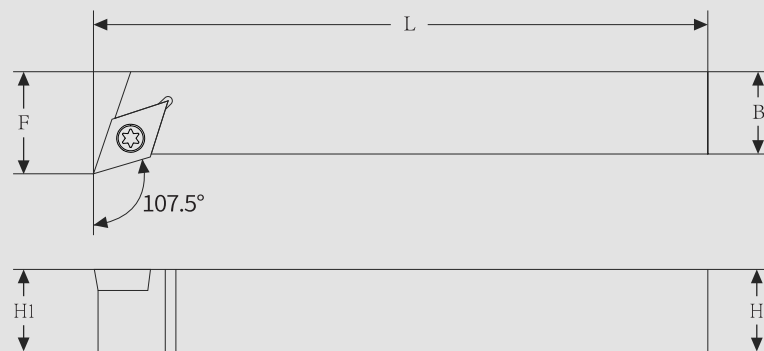
• Right Handed Tool holder

Type	Size (mm)				Accessories		Corresponding Insert
	H(H1)	B	F	L	Screw	Wrench	
SDJCR <sub>L</sub> -1010H-07	10	10	12	100	KS-2503-T	KW-T8	DC□□ 0702□□
SDJCR <sub>L</sub> -1212H-07	12	12	16	100			
SDJCR <sub>L</sub> -1212K-07	12	12	16	125			
SDJCR <sub>L</sub> -1616K-07	16	16	20	125			
SDJCR <sub>L</sub> -2020K-07	20	20	25	125			
SDJCR <sub>L</sub> -1010H-11	10	10	12	100	KS-4008-T	KW-T15	DC□□ 11T3□□
SDJCR <sub>L</sub> -1212H-11	12	12	16	100			
SDJCR <sub>L</sub> -1212K-11	12	12	16	125			
SDJCR <sub>L</sub> -1616K-11	16	16	20	125			
SDJCR <sub>L</sub> -2020K-11	20	20	25	125			
SDJCR <sub>L</sub> -2525M-11	25	25	32	150			
SDJCR <sub>L</sub> -3232P-11	32	32	40	170			

• SDQC (External/Profiling)



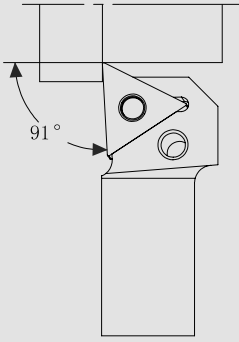
• Application Examples



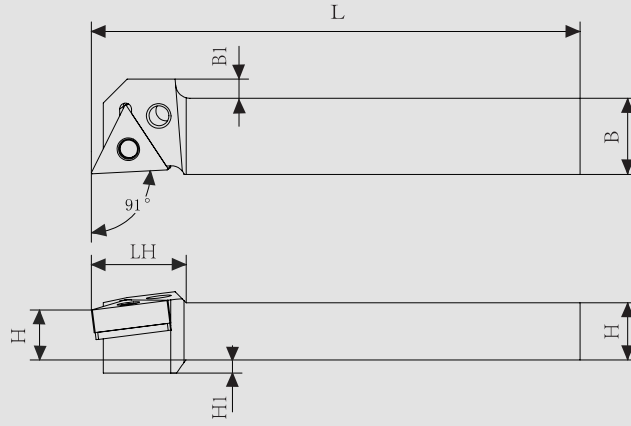
• Right Handed Tool holder

Type	Size (mm)				Accessories		Corresponding Insert
	H(H1)	B	F	L	Screw	Wrench	
SDQCR <sub>L</sub> -1212H-11	12	12	16	100	KS-4008-T	KW-T15	DC□□ 11T3□□
SDQCR <sub>L</sub> -1616K-11	16	16	20	125			
SDQCR <sub>L</sub> -2020K-11	20	20	25	125			
SDQCR <sub>L</sub> -2525M-11	25	25	32	150			

• PTGN (External/Face Machining)



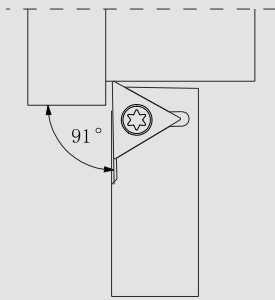
• Application Examples



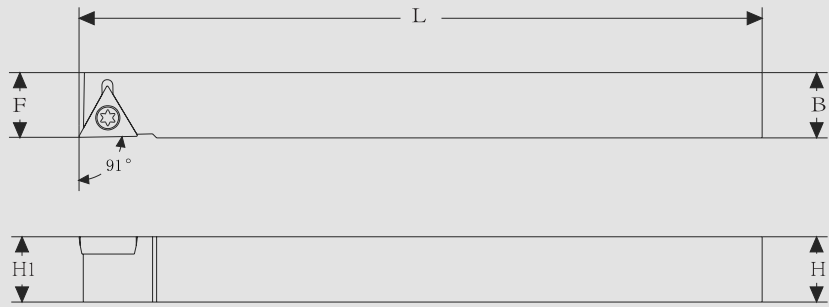
• Right Handed Tool holder

Type	Size (mm)						Accessories					Corresponding Insert
	H	H1	B	B1	L	LH	Screw	Level	Shim	Metal Pin	Wrench	
PTGN <sup>R/L</sup> -1216H-16	12	3.8	16	4	100	21					LW	TNGG 1604□□

• STGC-N (External Machining)



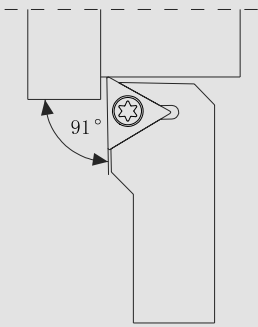
• Application Examples



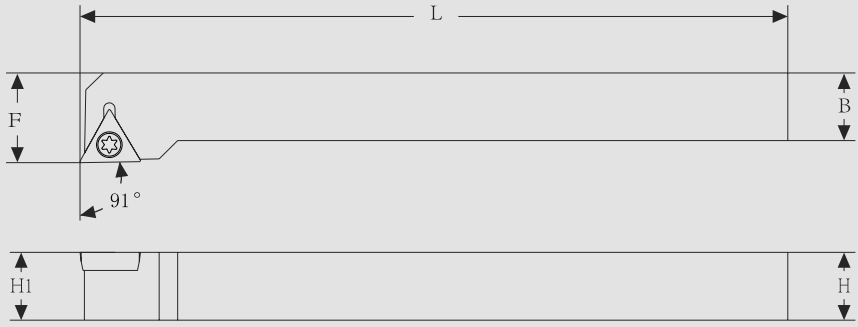
• Right Handed Tool holder

Type	Size (mm)				Accessories		Corresponding Insert
	H(H1)	B	F	L	Screw	Wrench	
STGC <sup>R/L</sup> -1010H-11-N	10	10	10	100			TC□□ 1103□□
STGC <sup>R/L</sup> -1212H-11-N	12	12	12	100	KS-2503-T	KW-T8	
STGC <sup>R/L</sup> -1616H-11-N	16	16	16	100			

• STGC (External Machining)



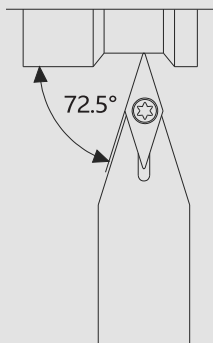
• Application Examples



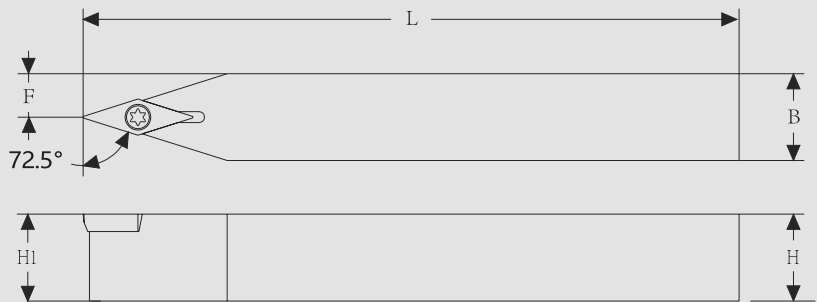
• Right Handed Tool holder

Type	Size (mm)				Accessories		Corresponding Insert
	H(H1)	B	F	L	Screw	Wrench	
STGC <sup>R/L</sup> -1010H-11	10	10	12	100	KS-2503-T	KW-T8	TC□□ 1103□□
STGC <sup>R/L</sup> -1212H-11	12	12	16	100			
STGC <sup>R/L</sup> -1616H-11	16	16	20	100			

• SVVCN (External/Profiling)

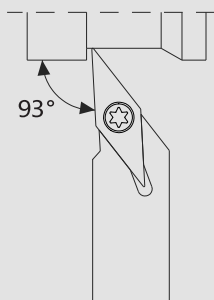


• Application Examples

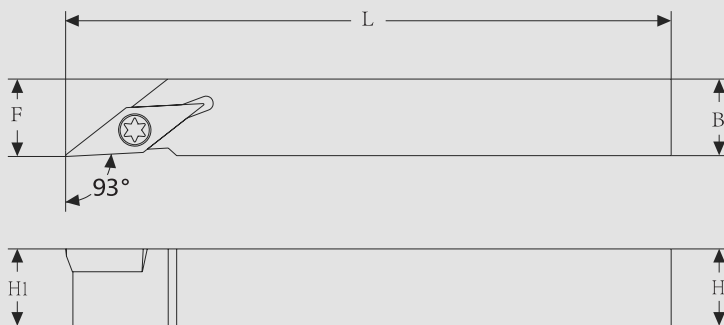


Type	Size (mm)				Accessories		Corresponding Insert
	H(H1)	B	F	L	Screw	Wrench	
SVVCN 1010H-11	10	10	5	100	KS-2503-T	KW-T8	VC□□ 1103□□
SVVCN 1212H-11	12	12	6	100			
SVVCN 1616K-11	16	16	8	125			
SVVCN 2020K-11	20	20	10	125			
SVVCN 1616K-16	16	16	8	125	KS-4008-T	KW-T15	VC□□ 1604□□
SVVCN 2020K-16	20	20	10	125			
SVVCN 2525M-16	25	25	12.5	150			

## • SVJC-N (External/Profiling)



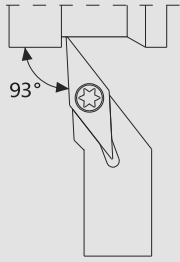
• Application Examples



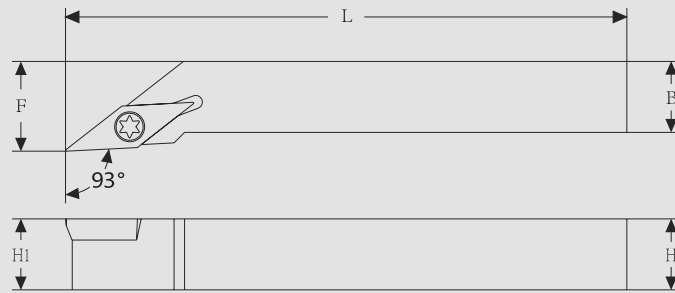
• Right Handed Tool holder

Type	Size (mm)				Accessories		Corresponding Insert
	H(H1)	B	F	L	Screw	Wrenth	
SVJC <sub>R/L</sub> -1010H-11-N	10	10	10	100	KS-2503-T	KW-T8	VC□□ 1103□□
SVJC <sub>R/L</sub> -1212H-11-N	12	12	12	100			
SVJC <sub>R/L</sub> -1616K-11-N	16	16	16	125			
SVJC <sub>R/L</sub> -2020K-11-N	20	20	20	125			
SVJC <sub>R/L</sub> -1616K-16-N	16	16	16	125	KS-4008-T	KW-T15	VC□□ 1604□□
SVJC <sub>R/L</sub> -2020K-16-N	20	20	20	125			
SVJC <sub>R/L</sub> -2525M-16-N	25	25	25	150			

• SVJC (External/Profiling)



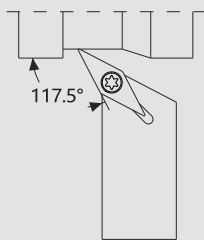
• Application Examples



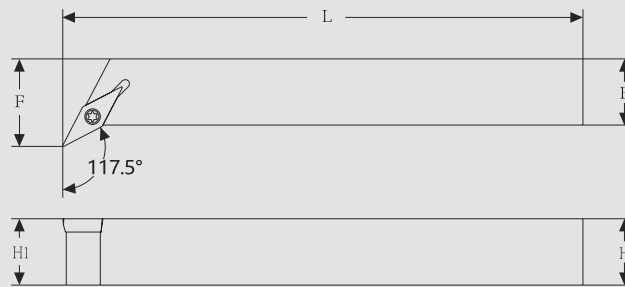
• Right Handed Tool holder

Type	Size (mm)				Accessories		Corresponding Insert
	H(H1)	B	F	L	Screw	Wrenth	
SVJC <sup>R/L</sup> -1010H-11	10	10	12	100	KS-2503-T	KW-T8	VC□□ 1103□□
SVJC <sup>R/L</sup> -1212H-11	12	12	16	100			
SVJC <sup>R/L</sup> -1212K-11	12	12	16	125			
SVJC <sup>R/L</sup> -1616K-11	16	16	20	125			
SVJC <sup>R/L</sup> -2020K-11	20	20	25	125			
SVJC <sup>R/L</sup> -2525M-11	25	25	32	150	KS-4008-T	KW-T15	VC□□ 1604□□
SVJC <sup>R/L</sup> - 1616K-16	16	16	20	125			
SVJC <sup>R/L</sup> - 2020K-16	20	20	25	125			
SVJC <sup>R/L</sup> -2525M-16	25	25	32	150			
SVJC <sup>R/L</sup> - 3232P-16	32	32	40	170			

• SVQC (External Machining)



• Application Examples



• Right Handed Tool holder

Type	Size (mm)				Accessories		Corresponding Insert
	H(H1)	B	F	L	Screw	Wrenth	
SVQC <sup>R/L</sup> -1212H-11	12	12	16.5	100	KS-2503-T	KW-T8	VC□□ 1103□□
SVQC <sup>R/L</sup> - 1616K-11	16	16	20.5	125			
SVQC <sup>R/L</sup> - 2020K-11	20	20	25	125			
SVQC <sup>R/L</sup> - 2020K-16	20	20	25	125	KS-4008-T	KW-T15	VC□□ 1604□□
SVQC <sup>R/L</sup> -2525M-16	25	25	32	150			