

Symbols of External Tools

A: back Fastening C: 80°Rhombus

M: clamp locking D: 55°Rhombus

D: double locking R: Round

M: strengthened clamping method S: Square

P: latch locking T: Triangle R: right handed holders

S: screw clamping V: 35°Rhombus L: left handed holders

W: wedge clamping W: Hexagon N: Versatile Holders

Holder Height (mm)

Holder Height (mm)

N: centered tools

Not have: offset tools

Clamping

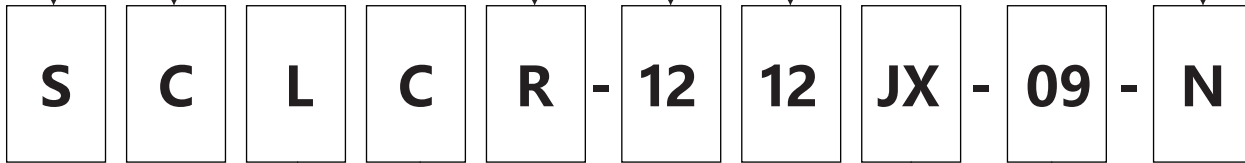
Insert Shape

Holder Direction

Holder Height

Holder Width

Others



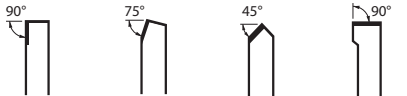
Entering Angle

Clearance Angle

Tool Length

Edge Length

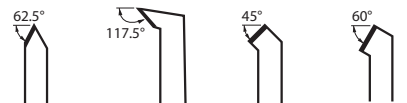
A B D F



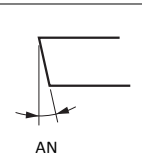
G J K L



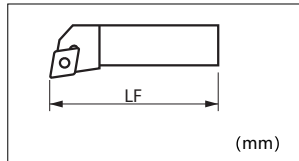
N P S T



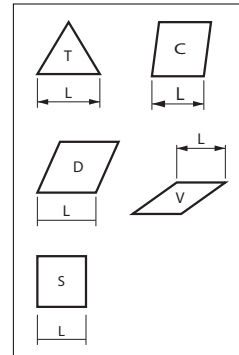
V



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



F: 80 M: 150
H: 100 P: 170
J: 110 Q: 180
K: 125 X: Special



Symbols of ISO Non-standard Tools

Y: Y-axis Tools

KDC: KDC Tools

S: Shift Tools

ST: Strengthened Tools

A: back Fastening

C: clamp locking

D: double locking

M: Strengthened clamping method

P: latch locking

S: screw clamping

W: wedge clamping

C: 80°Rhombus

D: 55°Rhombus

R: Round

S: Square

T: Triangle

V: 35°Rhombus

W: Hexagon

R: right handed holders

L: left handed holders

N: Versatile Holders

Holder Height (mm)

Holder Height (mm)

User Defined Symbols

Knife type

Clamping

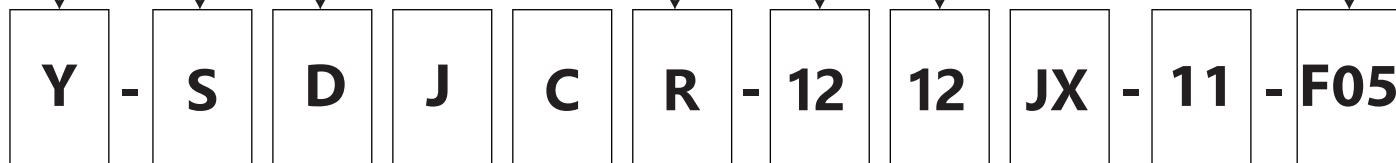
Insert Shape

Holder Direction

Holder Height

Holder Width

Other



Clamping

Clearance Angle

Tool Length

Edge Length

A **B** **D** **F**



G **J** **K** **L**



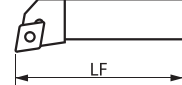
N **P** **S** **T**



V

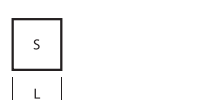
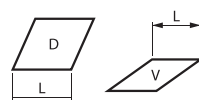
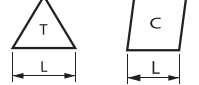


B: 5°Positive
C: 7°Positive
N: 0°Negative
P: 11°Positive
X: Other



(mm)

F: 80 M: 150
H: 100 P: 170
J: 110 Q: 180
K: 125 R: 200
X: Special



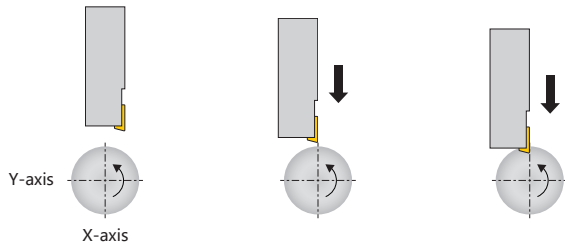
Y-axis Tools

Cautions when using Y-axis cutting heads

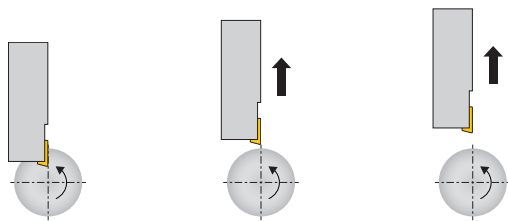
Machining procedures

Conventional X-axis machining

- ① Tool selection ② Move to Start position ③ Commence OD turning

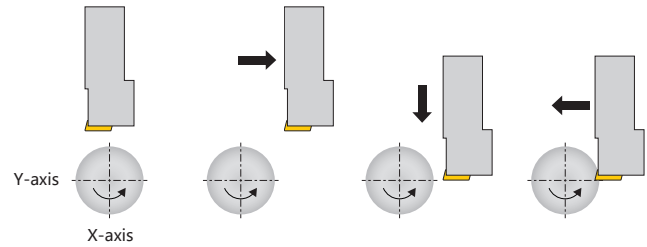


- ④ OD turning ⑤ Return to Start ⑥ Return to Start

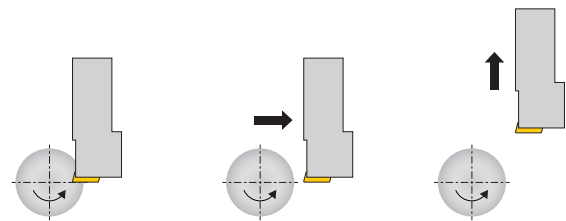


Y-axis machining

- ① Tool selection ② Y-axis move ③ Move to Start position ④ Commence OD turning



- ⑤ OD turning ⑥ Return to Start ⑦ Tool exit



Programming sample

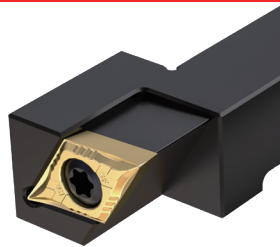
- ① T0200 Tool selection
- ② G00 X13.0 Z0 Move to start position
- ③ G01 X10.0 F0.1 Commence OD turning
- ④ Z5.0 F0.05 OD turning
- ⑤ X13.0 Return to start position
- ⑥ G00X20.0 Tool exit

Programming sample

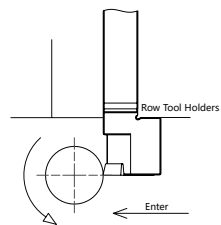
- ① T0200 Tool selection
- ② G00 Y13.0 Z0 T2 **Move the Y-axis**
- ③ X0 Move to start position
- ④ G01 Y10.0 F0.1 Commence OD turning
- ⑤ Z5.0 F0.05 OD turning
- ⑥ Y13.0 Return to start position
- ⑦ G00X20.0 Tool exit

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

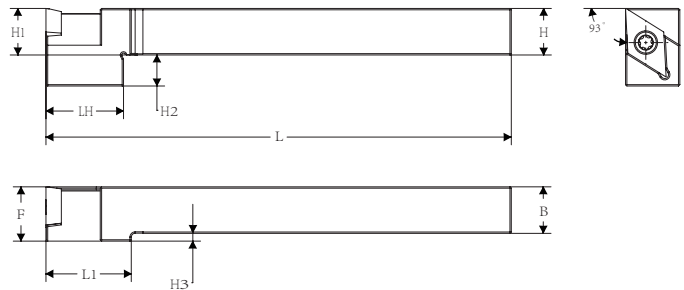
Y-axis Tools



• Y-SDJC(External)

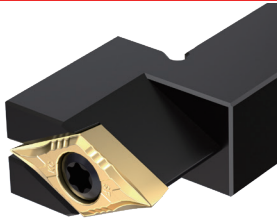


• Application Examples

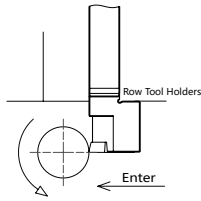


Type	Size (mm)								Accessories		Corresponding Insert
	H(H1)	B	F	LH	L	L1	H2	H3	Screw	Wrench	
Y-SDJCR-1010H-07	10	10	10	10	100	0	5	0	KS-2503-T	KW-T8	DC□□0702□□
Y-SDJCR-1212JX-07	12	12	12	10	120	0	3	0	KS-2503-T	KW-T8	DC□□0702□□
Y-SDJCR-1212JX-11	12	12	14	20	120	22	8	2	KS-4008-T	KW-T15	DC□□11T3□□
Y-SDJCR-1616JX-11	16	16	16	25	120	0	0	0	KS-4008-T	KW-T15	DC□□11T3□□

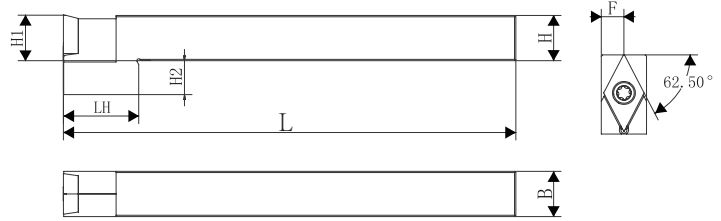
Y-axis Centered Tool Series



• Y-SDNCN(External)

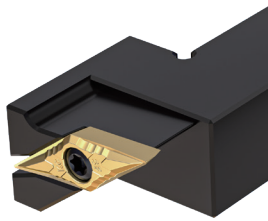


• Application Examples

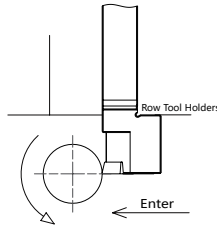


Type	Size (mm)						Accessories		Corresponding Insert
	H(H1)	B	F	LH	L	H2	Screw	Wrenth	
Y-SDNCN-1010H-07	10	10	5	10	100	5	KS-2503-T	KW-T8	DC□□0702□□
Y-SDNCN-1212JX-07	12	12	6	10	120	3	KS-2503-T	KW-T8	DC□□0702□□
Y-SDNCN-1212JX-11	12	12	6	20	120	9	KS-4008-T	KW-T15	DC□□11T3□□
Y-SDNCN-1616JX-11	16	16	8	20	120	5	KS-4008-T	KW-T15	DC□□11T3□□

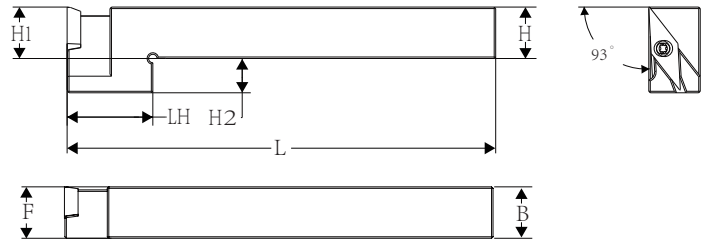
Y-axis Tools



• Y-SVJC(External)



• Application Examples

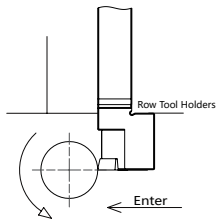


Type	Size (mm)						Accessories		Corresponding Insert
	H(H1)	B	F	LH	L	H2	Screw	Wrenth	
Y-SVJCR-1212H-11	12	12	12	20	100	8	KS-2503-T	KW-T8	VC□□1103□□
Y-SVJCR-1616JX-11	16	16	16	25	120	4	KS-2503-T	KW-T8	VC□□1103□□

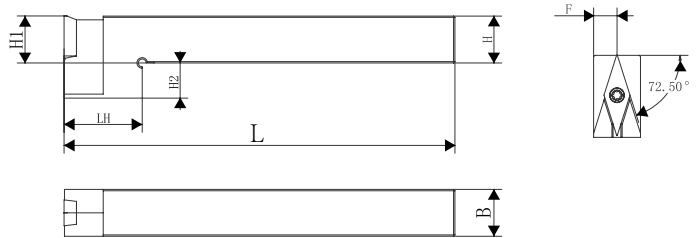
Y-axis Centered Tool Series



• Y-SVVCN(External)



• Application Examples

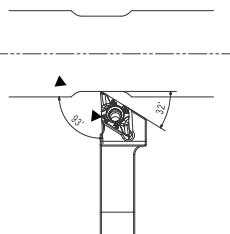


Type	Size (mm)						Accessories		Corresponding Insert
	H(H1)	B	F	LH	L	H2	Screw	Wrenth	
Y-SVVCN-1212JX-11	12	12	6	20	120	9	KS-2503-T	KW-T8	VC□□1103□□
Y-SVVCN-1616JX-11	16	16	8	20	120	5	KS-2503-T	KW-T8	VC□□1103□□

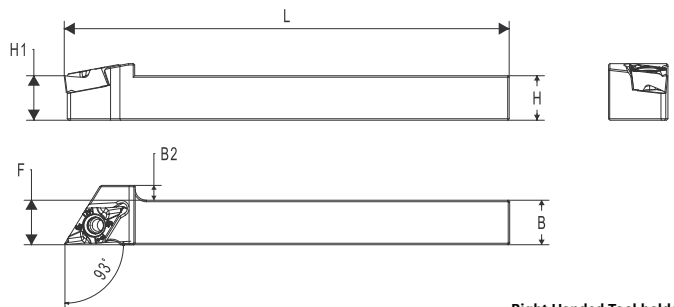
KDC Tools



• KDC-SDJX(External)



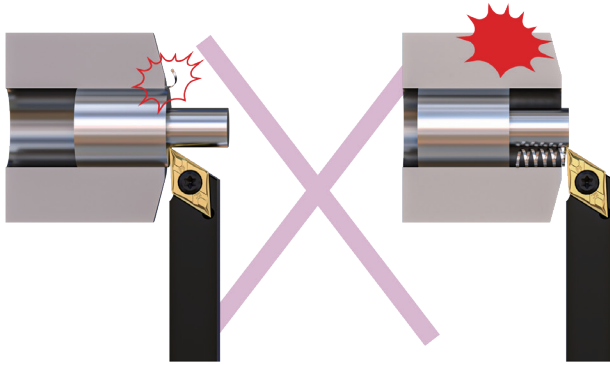
• Application Examples



Right Handed Tool holder (R)

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	KS-2504-T	KW-T8	DXGU 0703□□R□□
KDC-SDJXR-1212J-07	12	12	12	0	110	KS-2504-T	KW-T8	DXGU 1104□□R□□
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	KS-4008-T	KW-T15	DXGU 1104□□R□□
KDC-SDJXR-1616JX-11	16	16	16	0	120	KS-4008-T	KW-T15	DXGU 1104□□R□□

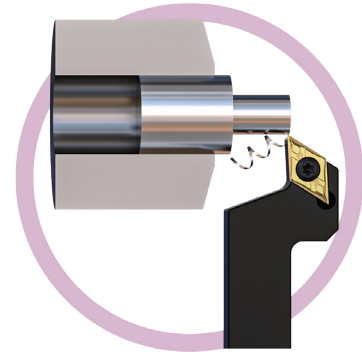
Problems of Old Tools



When Workpiece Returns,
Burr of Roughing Scratch Guide Bush

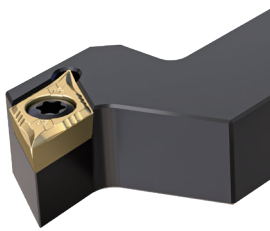
When Workpiece Comes off from Guide Bush,
Chips may Enwind and Return to Guide Bush

Shift Tools

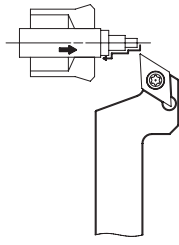


Finishing without Returning to Guide Bush!
Good Chips Evacuation!

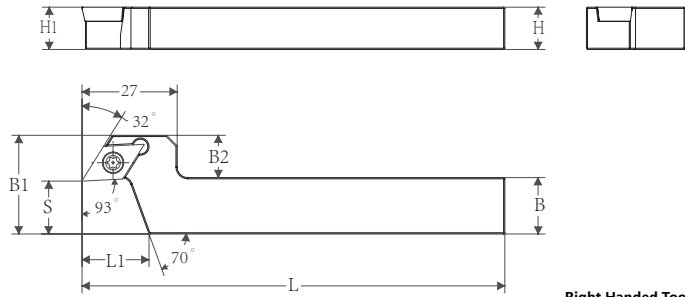
Shift Tools



• SDJCR(External)



• Application Examples



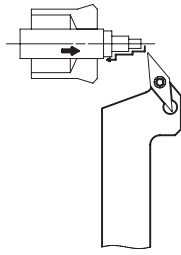
Right Handed Tool holder (R)

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	12	16	28	12	120	19	15	KS-4008-T	KW-T15	DC□□11T3□□
S-SDJCR-1620JX-11-F05	16	20	20	0	120	15.4	5	KS-4008-T	KW-T15	DC□□11T3□□
S-SDJCR-1620JX-11-F15	16	20	28	8	120	19	15	KS-4008-T	KW-T15	DC□□11T3□□

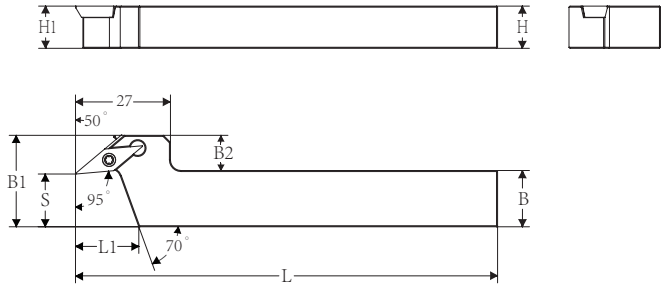
Shift Tools



• SVLC/P(External)



• Application Examples



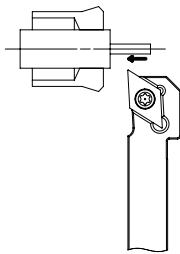
Right Handed Tool holder (R)

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	26	6	120	18	15	KS-2503-T	KW-T8	VC□□1103□□
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	26	6	120	18	15	KS-2503-T	KW-T8	VP□□1103□□

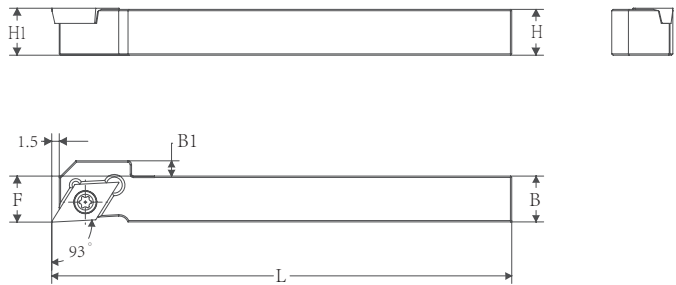
Strengthened Tools



• SDJC(External)



• Application Examples



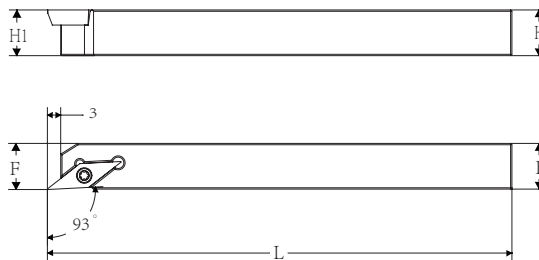
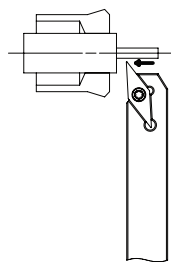
Right Handed Tool holder (R)

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	KS-4008-T	KW-T15	DC□□11T3□□
ST-SDJC%-2020JX-11	20	20	0	20	120	KS-4008-T	KW-T15	DC□□11T3□□

Strengthened Tools



• SVJB/C/P(External)

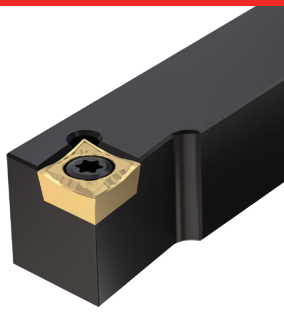


• Application Examples

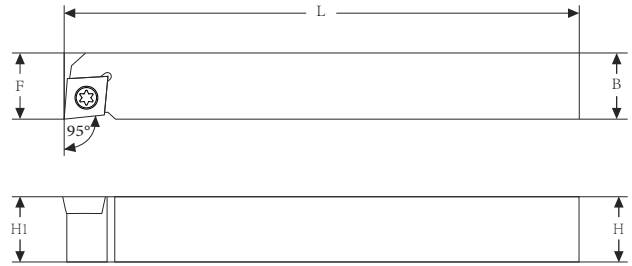
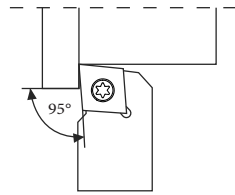
Right Handed Tool holder (R)

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

SCLC Tools



• SCLS-N(External/Face Machining)

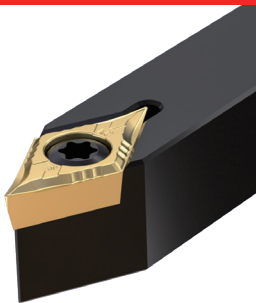


• Application Examples

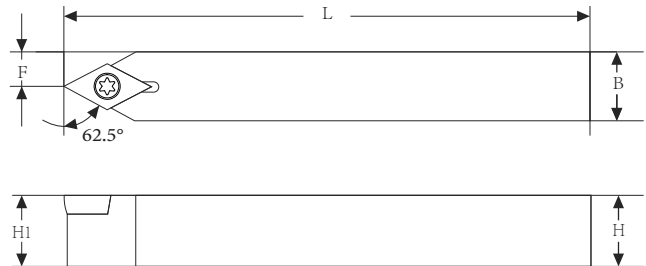
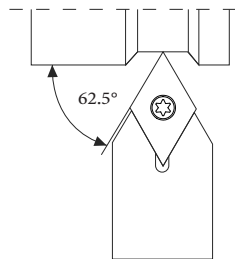
Right Handed Tool holder (R)

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

SDNCN Tools



• SDNCN(External/Profiling)



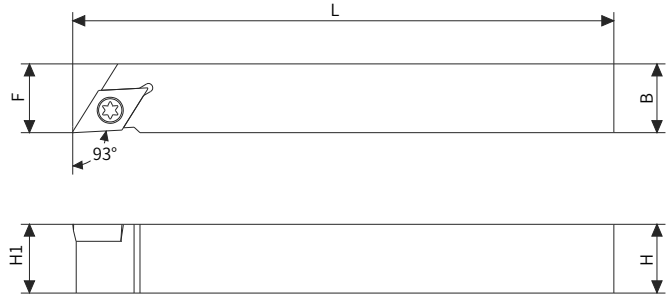
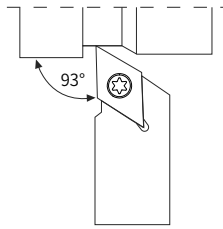
• Application Examples

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	KS-2503-T	KW-T8	DC□□0702□□
SDNCN-1616K-07	16	16	8	125	KS-2503-T	KW-T8	DC□□0702□□
SDNCN-1212H-11	12	12	6	100	KS-4008-T	KW-T15	DC□□11T3□□
SDNCN-1616K-11	16	16	8	125	KS-4008-T	KW-T15	DC□□11T3□□
SDNCN-2020K-11	20	20	10	125	KS-4008-T	KW-T15	DC□□11T3□□
SDNCN-2525M-11	25	25	12.5	150	KS-4008-T	KW-T15	DC□□11T3□□

SDJC Tools



• SDJC-N(External/Profiling)

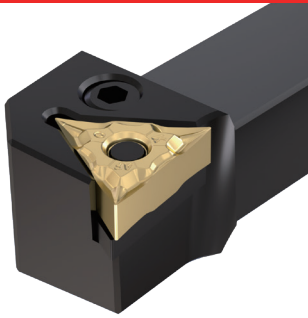


• Application Examples

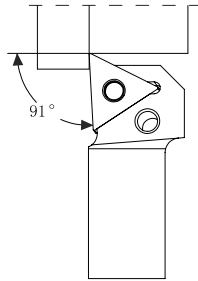
Right Handed Tool holder (R)

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

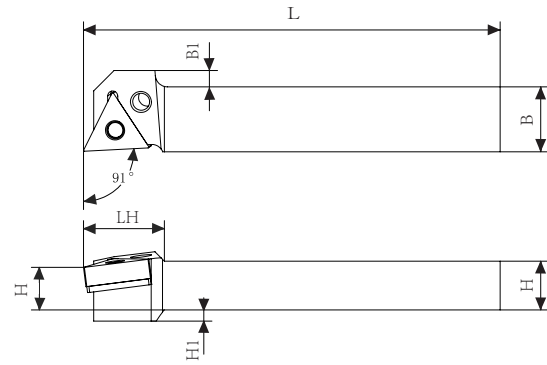
PTGN Tools



• PTGN(External/Face Machining)



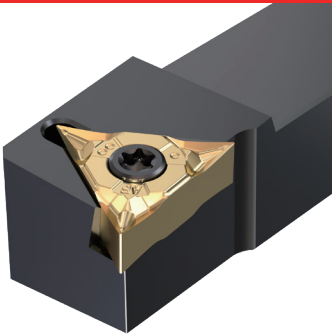
• Application Examples



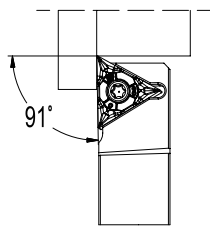
Right Handed Tool holder (R)

Type	Size (mm)						Accessories					Corresponding Insert
	H	H1	B	B1	L	LH	Screw	Level	Shim	Metal Pin	Wrenth	
PTGN%L -1216H-16	12	3.8	16	4	100	21						TNGG 1604□□ TNGU 1604□□

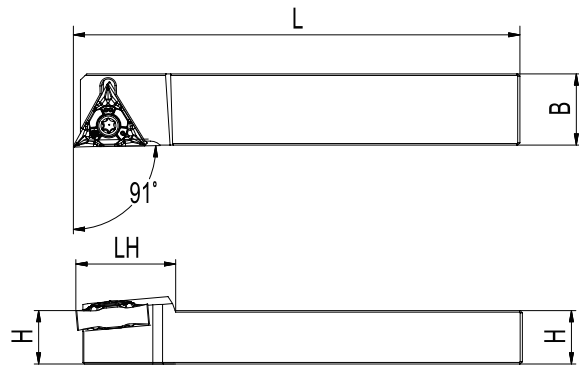
STGN Tools



• STGN(External/Face Machining)



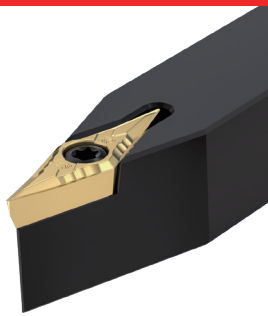
• Application Examples



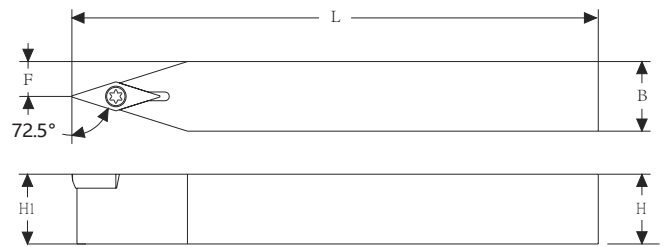
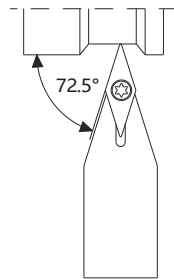
Right Handed Tool holder (R)

Type	Size (mm)				Accessories		Corresponding Insert
	H	B	L	LH	Screw	Wrenth	
STGN%L -1216H-16	12	16	100	21	KS-35065-T	KW-T15	TNGU 1604□□

SVVCN Tools



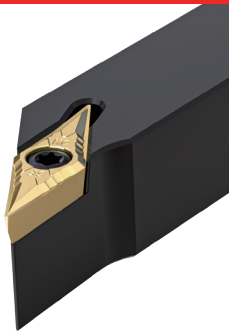
• SVVCN(External/Profiling)



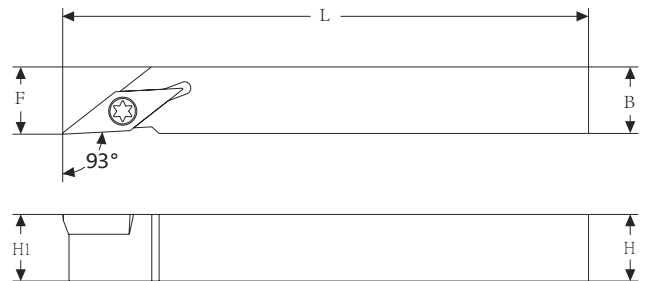
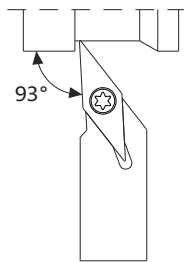
• Application Examples

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

SVJC Tools



• SVJC-N(External/Profiling)



• Application Examples

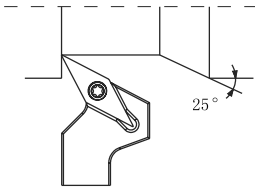
Right Handed Tool holder (R)

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

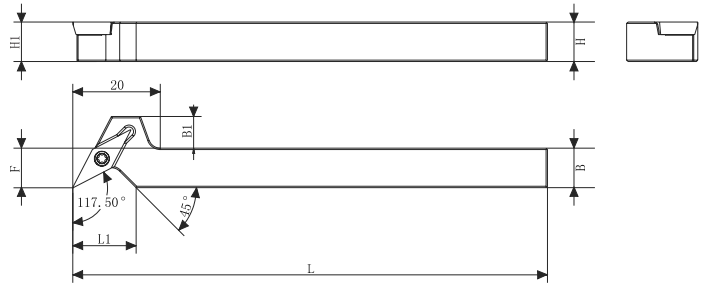
SVPC Tools



• SVPC-N
(External/Profiling/Face Machining/)



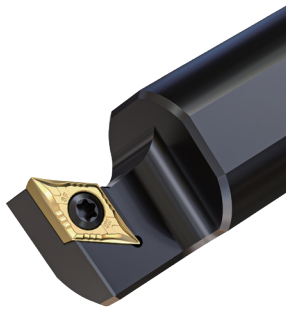
• Application Examples



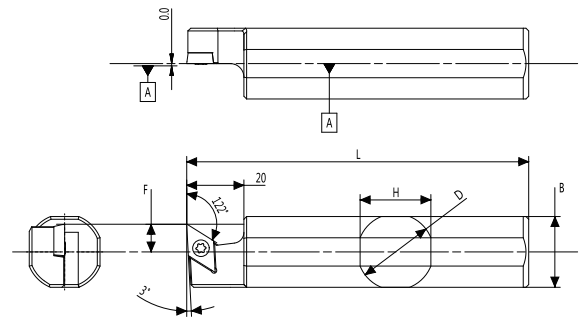
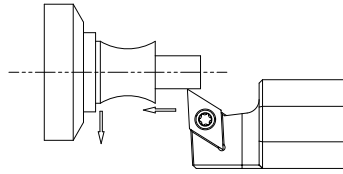
Right Handed Tool holder (R)

Type	Size (mm)						Accessories		Corresponding Insert
	H(H1)	B	B1	F	L	L1	Screw	Wrenth	
SVPCR-1010JX-11-N	10	10	8	10	120	16	KS-2503-T	KW-T8	VC □□1103 □□
SVPCR-1212JX-11-N	12	12	6	12	120	16	KS-2503-T	KW-T8	VC □□1103 □□
SVPCR-1616JX-11-N	16	16	2	16	120	20	KS-2503-T	KW-T8	VC □□1103 □□

DS-SDUCL Tools



• DS-SDUCL
(excircle of sub-spindle/Face Machining)

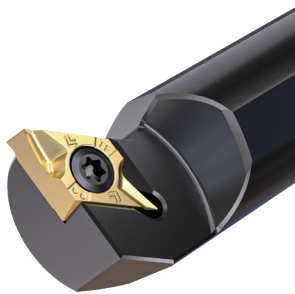


• Application Examples

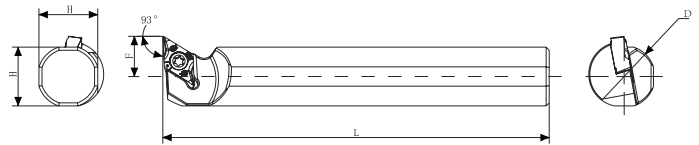
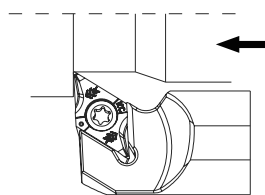
left handed holders (L)

Type	Size (mm)					Accessories		Corresponding Insert
	D	H	B	L	F	Screw	Wrenth	
DS-SDUCL-14F07	14	13	13	80	6.0	KS-2503-T	KW-T8	DC□□0702□□
DS-SDUCL-15.875H07	15.875	15	15	100	6.0			
DS-SDUCL-16F07	16	15	15	80	6.0			
DS-SDUCL-16X07	16	15	15	95	6.0			
DS-SDUCL-19.05K07	19.05	18	18	125	6.0			
DS-SDUCL-20X07	20	19	19	95	6.0			
DS-SDUCL-20K07	20	19	19	125	6.0			
DS-SDUCL-22K07	22	21	21	125	6.0			
DS-SDUCL-14F11	14	13	13	80	6.0	KS-4008-T	KW-T15	DC□□11T3□□
DS-SDUCL-16F11	16	15	15	80	6.0			
DS-SDUCL-19.05K11	19.05	18	18	125	6.0			
DS-SDUCL-19.05M11	19.05	18	18	150	6.0			
DS-SDUCL-20X11	20	19	19	95	11.0			
DS-SDUCL-20K11	20	19	19	125	10			
DS-SDUCL-22K11	22	21	21	125	10			
DS-SDUCL-25K11	25	25	25	125	10			
DS-SDUCL-25.4M11	25.4	25.4	25.4	150	10			

KDC-SDUX Tools



• KDC-SDUX
(excircle of sub-spindle/Face Machining)



• Application Examples

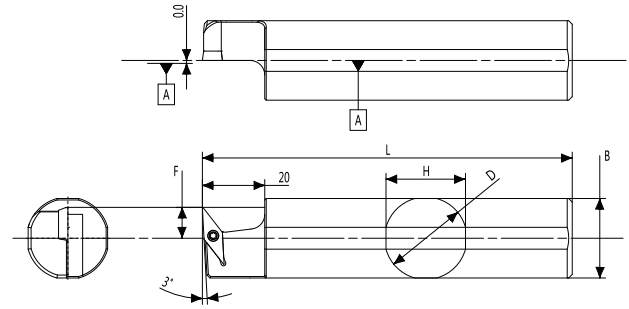
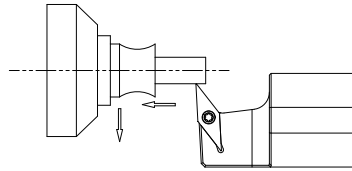
left handed holders (L)

Type	Size (mm)				Accessories		Corresponding Insert
	D	F	H	L	Screw	Wrenth	
KDC-S19M-SDUXL-11	19.05	13	18	150	KS-4008-T	KW-T15	DXGU 1104□□R-TF(TFX)
KDC-S20K-SDUXL-11	20	13	19	125	KS-4008-T	KW-T15	DXGU 1104□□R-TF(TFX)
KDC-S25M-SDUXL-11	25	16	24	150	KS-4008-T	KW-T15	DXGU 1104□□R-TF(TFX)

DS-SVUB(C)L Type



• DS-SVUB(C)L
(excircle of sub-spindle/Face Machining)



• Application Examples

left handed holders (L)

Type	Size (mm)					Accessories		Corresponding Insert
	D	H	B	L	F	Screw	Wrenth	
DS-SVUBL-19.05G11	19.05	18	18	90	10.5	KS-2503-T	KW-T8	VB □□1103 □□
DS-SVUBL-19.05K11	19.05	18	18	125	10.5			
DS-SVUBL-20G11	20	19	19	90	10.5			
DS-SVUBL-20K11	20	19	19	125	10.5			
DS-SVUBL-22K11	22	21	21	125	10.5			
DS-SVUBL-25M11	25	24	24	150	10.5			
DS-SVUBL-25.4M11	25.4	24	24	150	10.5	KS-2503-T	KW-T8	VC □□1103 □□
DS-SVUCL-19.05G11	19.05	18	18	90	10.5			
DS-SVUCL-19.05K11	19.05	18	18	125	10.5			
DS-SVUCL-20G11	20	19	19	90	10.5			
DS-SVUCL-20K11	20	19	19	125	10.5			
DS-SVUCL-22K11	22	21	21	125	10.5			
DS-SVUCL-25M11	25	24	24	150	10.5	KS-2503-T	KW-T8	VC □□1103 □□
DS-SVUCL-25.4M11	25.4	24	24	150	10.5			