

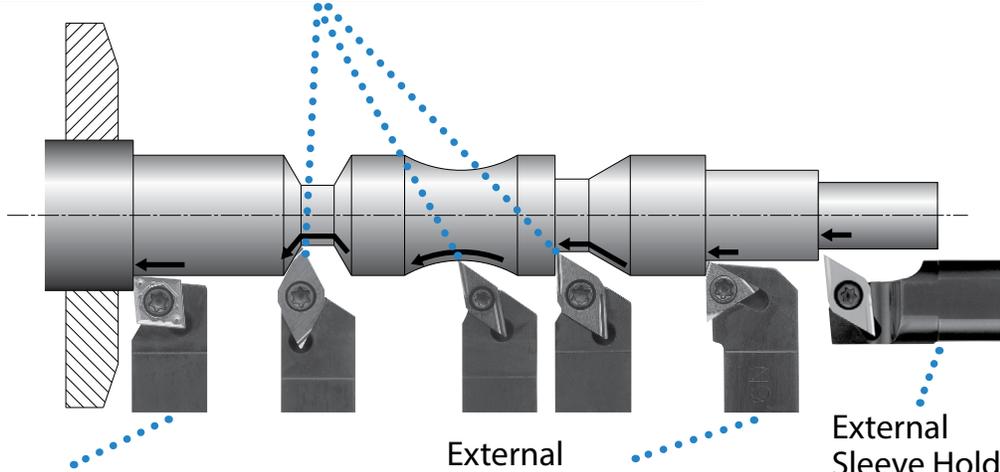
E

Overview		E2~E11
Toolholders for Back Turning		E12~E22
TKF / TKFB Inserts	KTKF	E15
	KTKF Goose-Neck Toolholder / KTKF-Y-Y-Axis Toolholder	E16
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ABW15 Inserts	AABW / SABW	E21
ABW23 Inserts	AABW / SABW	E22
Goose-Neck Toolholders		E23~E25
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VP Inserts	SVLP	E24
External Toolholders		E26~E57
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	SCLC-JCTM	E28
	SCLC	E29
DC Inserts	ADJC-FF / SDJC-FF	E30
	SDJC-JCTM	E32
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VC Inserts	SVJC-FF / SVLC-FF / SVPC-FF / SVVC	E45
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VC Inserts	S...SVUC	E63
Small Double-Sided Insert Toolholders (Screw Clamp)		E64~E66
CN Inserts	SCLN-FF	E64
DN Inserts	SDLN-FF	E65
TN Inserts	STLN-FF	E66
Small Double-Sided Insert Toolholders (Lever Lock)		E67~E68
CN Inserts	PCLN-FF	E67
TN Inserts	PTLN-FF	E68
Sub-Spindle Tools (for STAR Machines)		E69~E73
Recommended Cutting Conditions		E74~E77

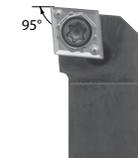
Summary of External Turning

External / Copying

					
ADJC-FF	SDJC-FF(JCTM) SDJC-FF-Y	SDJC(-F)	SDLC-FF SDLP-FF	SDLN-FF	SDNC
Back Clamp Without Offset	Screw Clamp Without Offset	Screw Clamp	Screw Clamp Without Offset	Screw Clamp Without Offset	Screw Clamp
E30	E31, E32, E34	E33	E36, E39	E65	E37



External / Facing

			
ACLC-FF	SCLC-FF(JCTM)	SCLC	SCLN-FF
Back Clamp Without Offset	Screw Clamp Without Offset	Screw Clamp	Screw Clamp Without Offset
E26	E27, E28	E29	E64

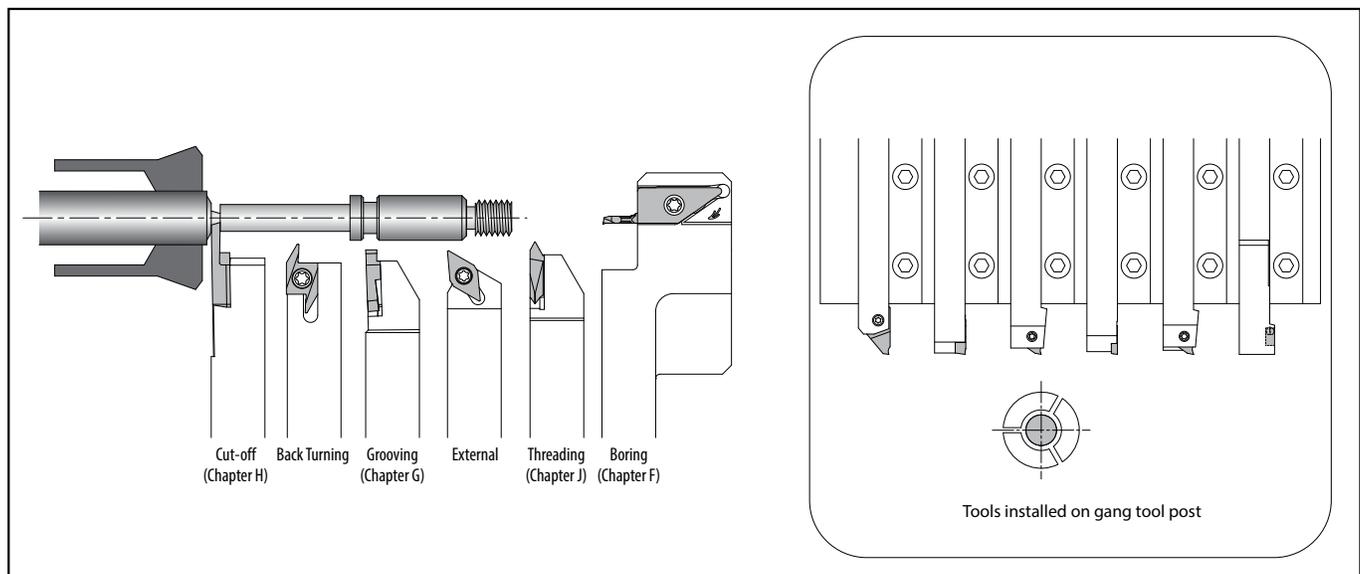
External

	
STGC(P)	STLN-FF
Screw Clamp	Screw Clamp Without Offset
E40, E41	E66

External Sleeve Holder

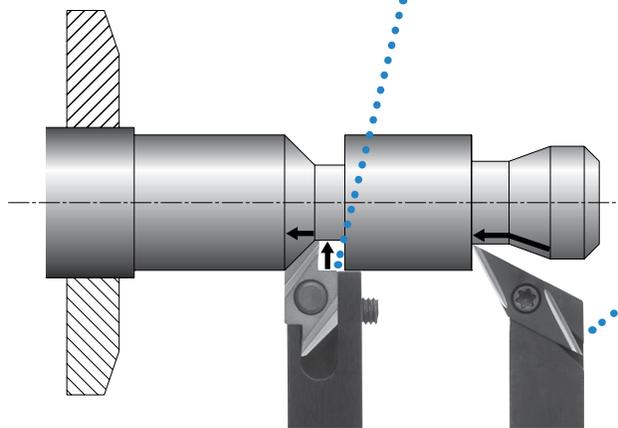

S-SDLC
Screw Clamp Shank Dia. Ø0.625"~Ø1.000" / Ø12.0mm~Ø25.4mm
E60

Tooling Example (1) CNC Automatic lathe (Gang Type)



Back Turning

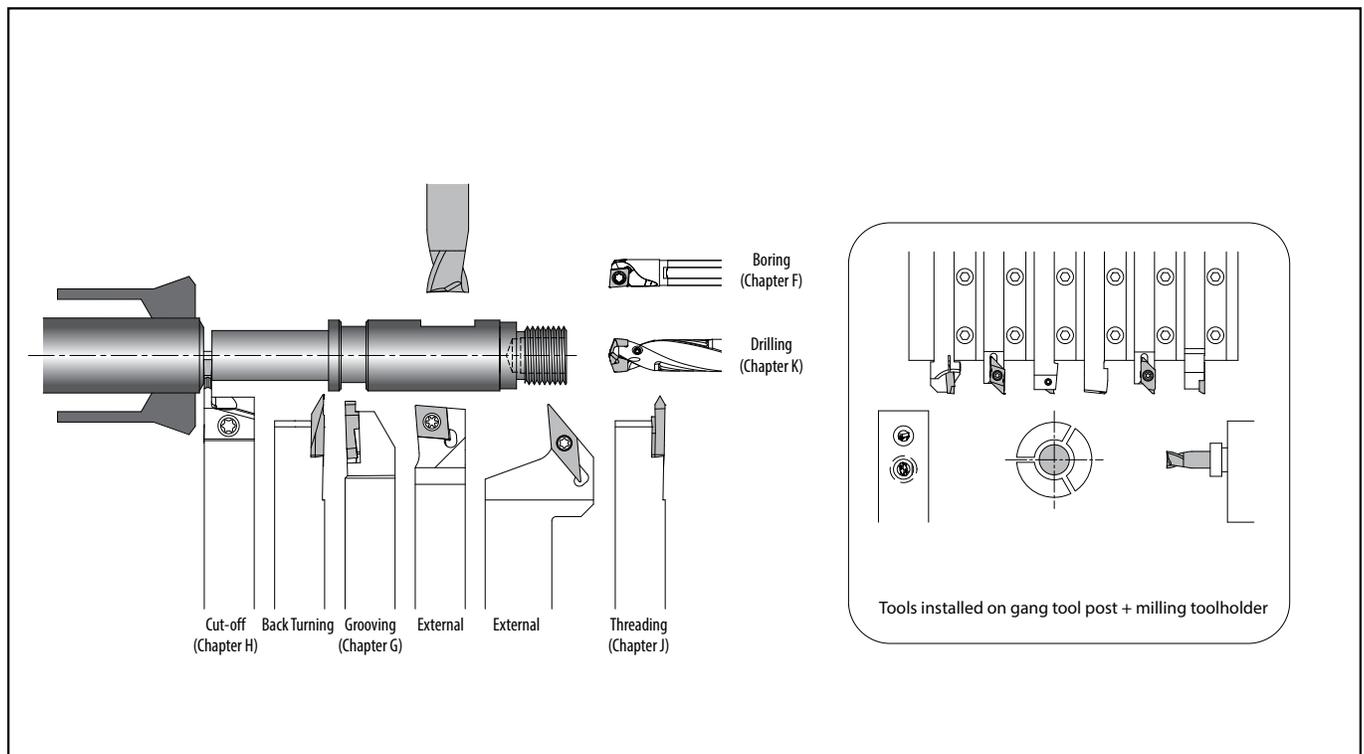
AABS-15JXF-40F	SABS-15JXF-40F	AABW-15JXF-40F	SABW-15JXF-40F	AABW-23JXF-50F	SABW-23JXF-50F	KTKF
Back Clamp Edge Width : 0.110" / 2.8mm D.O.C. : ~0.158" / ~4.0mm	Screw Clamp Edge Width : 0.110" / 2.8mm D.O.C. : ~0.158" / ~4.0mm	Back Clamp Edge Width : 0.185" / 4.7mm D.O.C. : ~0.158" / ~4.0mm	Screw Clamp Edge Width : 0.185" / 4.7mm D.O.C. : ~0.158" / ~4.0mm	Back Clamp Edge Width : 0.185" / 4.7mm D.O.C. : ~0.197" / ~5.0mm	Screw Clamp Edge Width : 0.185" / 4.7mm D.O.C. : ~0.197" / ~5.0mm	Screw Clamp Edge Width : 0.059" ~0.150" / 1.5mm~3.8mm Max. D.O.C. : 0.071"~0.217" / 1.8mm~5.5mm
E20	E20	E21	E21	E22	E22	E15, E16



External / Facing / Copying / Undercutting

SVPB	SVPP-FF
Screw Clamp	Screw Clamp Without Offset
E46	E53

Tooling Example (2) CNC Automatic lathe (Gang Type)



INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

How to use goose-neck holder for swiss tool automatic lathe (gang type tool post)

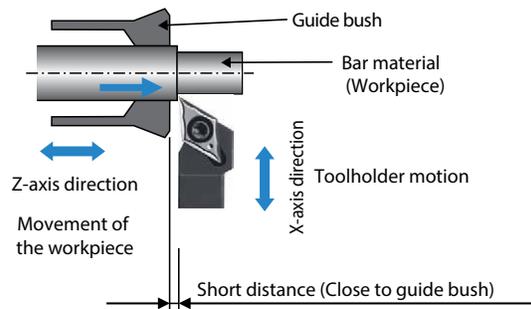


Goose-neck holders are applicable to automatic lathes where toolholder does not move in longitudinal direction (Z-axis direction).

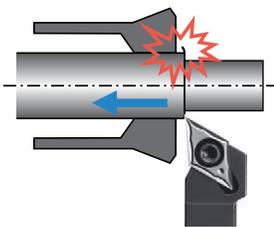
Swiss Tool Automatic Lathe (Guide Bush System)

When using a conventional toolholder

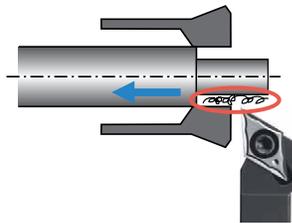
The Goose-neck Holder works with automatic lathes that do not move toolholders in longitudinal direction (Z-axis)



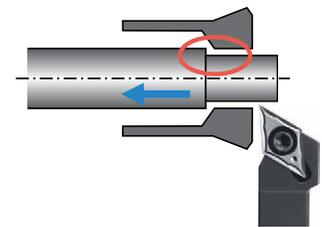
Problems When Machining with a Conventional Toolholder



Case 1
During multiple passes, when bar material returns into guide bush, the burr contacts and breaks guide bush.



Case 3
During multiple passes, when bar material returns into guide bush, the chips contact and break guide bush.

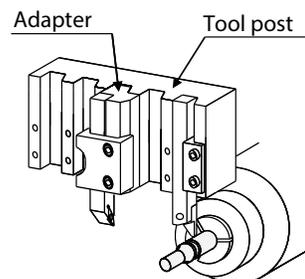


Case 4
Bar material deviation from the guide bush disables machining.

Case 2
The workpiece burr contacts the guide bush and causes dimensional variation.

Toolholder Installation Problems When Using a Conventional Toolholder

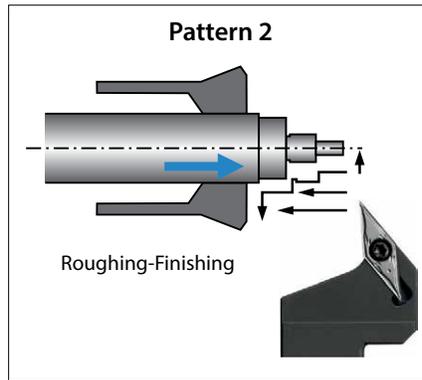
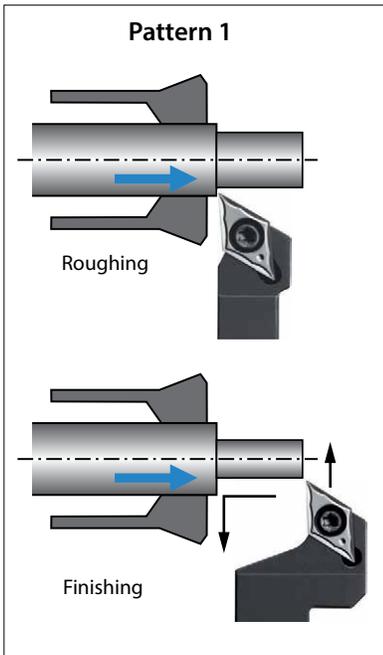
1. Additional space is required for an adapter.
2. Toolholder's handling is difficult due to limited space.
3. It is necessary to buy an adapter.
4. An adapter may interfere with the next tool post.



Advantages of the goose-neck holder

When using goose-neck holder

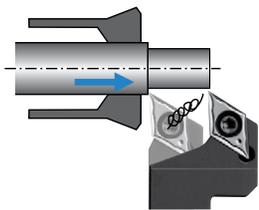
1. Additional finishing process improves machining precision
2. Chips do not enter guide bushing
3. Large chip evacuation space produces better chip control



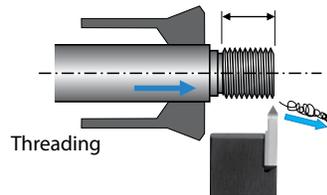
Available for machining from roughing to finishing with a single Goose-neck Holder.

Available for machining after roughing without returning bar material into guide bushing, prevents damages and improves precision.

For better chip control



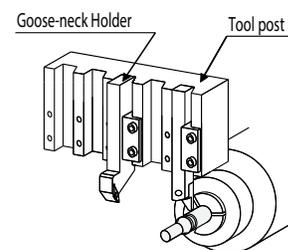
Optimum cutting edge position and large space for efficient chip evacuation.



With conventional threading toolholders, chip biting into guide bush can cause damages on threads.

Advantages of Toolholder installation - When using a goose-neck holder

1. Maximum number of toolholders can be attached
2. No interference with next tool post

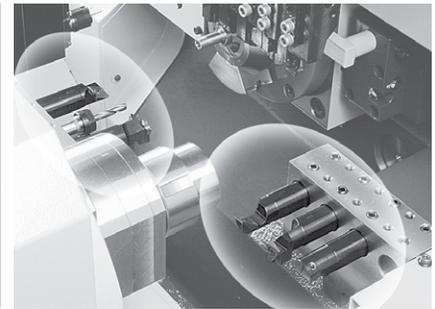


INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

Summary of External Turning

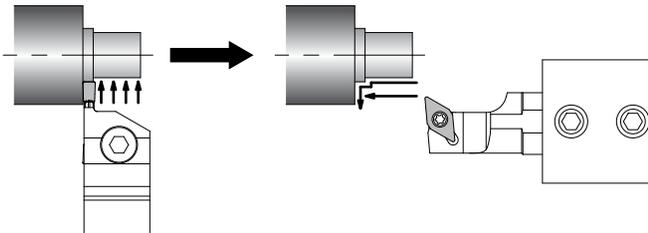
External Sleeve Holder

S-SCLC	S-SDUC	S-SDLC	S-SVUB(C)
Screw Clamp Shank Dia. $\phi 0.625'' \sim \phi 1.000''$ / $\phi 12\text{mm} \sim \phi 25.4\text{mm}$	Screw Clamp Shank Dia. $\phi 0.625'' \sim \phi 1.000''$ / $\phi 14\text{mm} \sim \phi 25.4\text{mm}$	Screw Clamp Shank Dia. $\phi 0.625'' \sim \phi 1.000''$ / $\phi 12\text{mm} \sim \phi 25.4\text{mm}$	Screw Clamp Shank Dia. $\phi 0.625'' \sim \phi 1.000''$ / $\phi 12\text{mm} \sim \phi 25.4\text{mm}$



For Tooling Layout and Automatic Lathe List by Manufacturer, See Page R58~R66

Finishing with Sleeve Holder



- 1) Roughing by grooving toolholder
- 2) Finishing by Sleeve Holder improves chip control and reduces cutting time

Tooling Example (3) CNC Automatic lathe (Opposed Gang Type)

External / Facing

External / Copying

Grooving

(Chapter G)

Threading

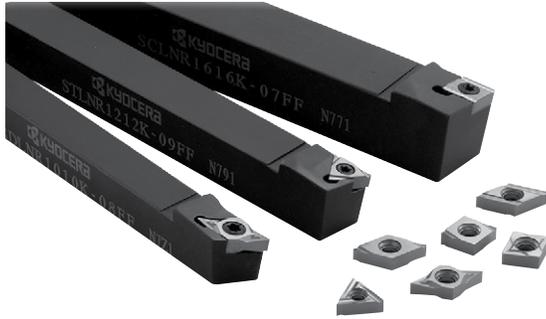
(Chapter J)

Boring

(Chapter F)

For Tooling Layout and Automatic Lathe List by Manufacturer, See Page R58~R66

Double-Sided Small Tools (Screw Clamp)



Applications	External / Facing	External / Up Facing	External / Copying
Cutting Edge Angle	95°	95°	95°
Screw Clamp (Without Offset)			
See Page	E64	E66	E65

The double-sided design offers less cost per insert and more stability. Sharp cutting performance equivalent to conventional positive inserts.

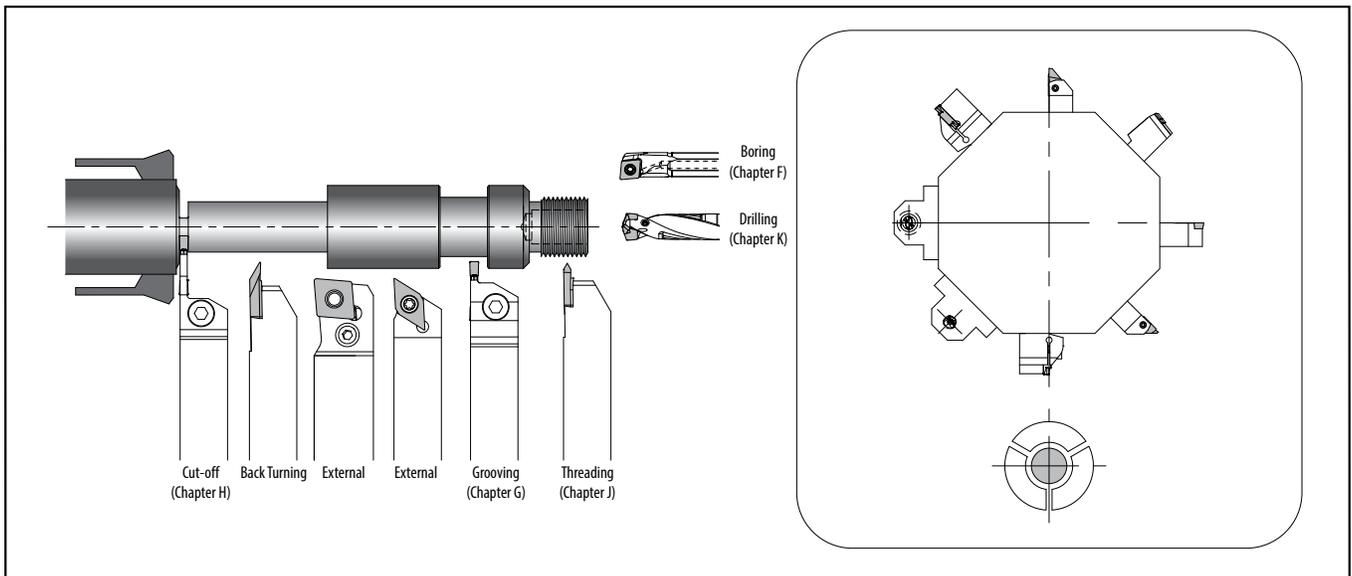
Double Sided Toolholder for Automatic Lathe (Lever Lock, Without Offset)



Applications	External / Facing	External / Up Facing
Cutting Edge Angle	95°	95°
Lever Lock (Without Offset)		
See Page	E67	E68

The Lever Lock type is available for small tools with external turning.

Tooling Example (4)



For Tooling Layout and Automatic Lathe List by Manufacturer, See Page [R58~R66](#)

- INSERT GRABERS **A**
- TURNING INSERTS **B**
- CBN/PCD INSERTS **C**
- TURNING HOLDERS **D**
- SMALL TOOLS **E**
- BORING **F**
- GROOVING **G**
- CUT-OFF **H**
- THREADING **J**
- DRILLING **K**
- MILLING **M**
- QUICK CHANGE TOOLING **N**
- SPARE PARTS **P**
- TECHNICAL **R**
- INDEX **T**

JCTM Series

Direct Coolant Holders for Small Parts Machining

Supports Internal Coolant with or without Piping Systems

Lineup of Turning, Grooving (KGBF), and Cut-off (KGD/KTKF) Holders

1 Using Internal Coolant to Enhance Tool Performance

E
SMALL
TOOLS



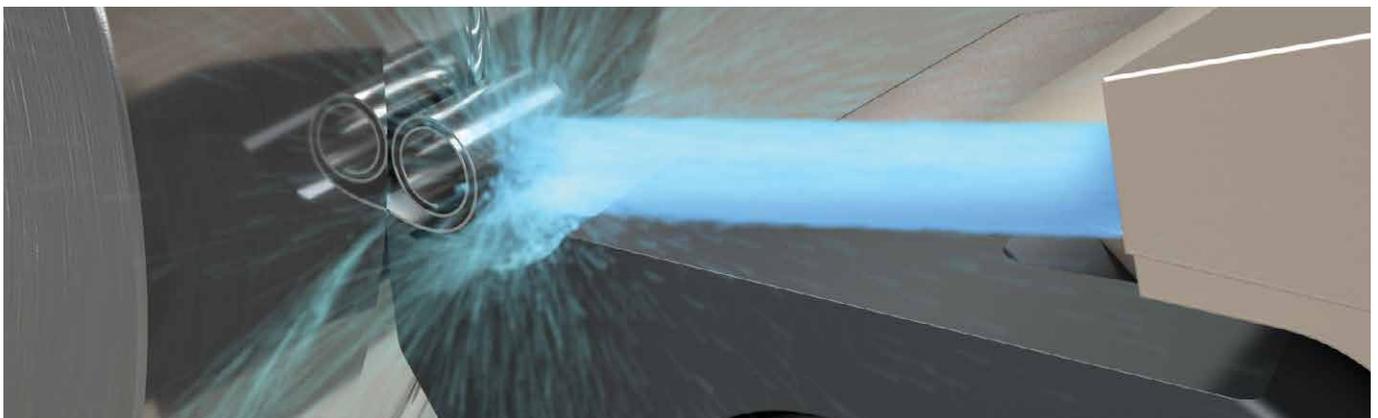
CG Image

Challenges

- Difficulty with automated operations due to sudden chip entanglement issues
- Insert change is not enough to extend tool life

SOLUTIONS

- The JCTM series is compatible with internal coolant in a wide range of machines and also works under normal pressure
- Reduces down time by improving chip control and reduces cost by extending tool life



CG Image

Switching to internal coolant toolholder reduces chip entanglement issues

Internal Coolant (2.5 MPa)



External Coolant



Pin Alloy Tool Steel

Vc = 590 sfm, D.O.C. = 0.055"
f = 0.005 ipr, Wet
SDJC Holder / DCMT3251 Insert

(User Evaluation)

2 Supports Internal Coolant with or without Piping Systems

Internal Coolant without Piping

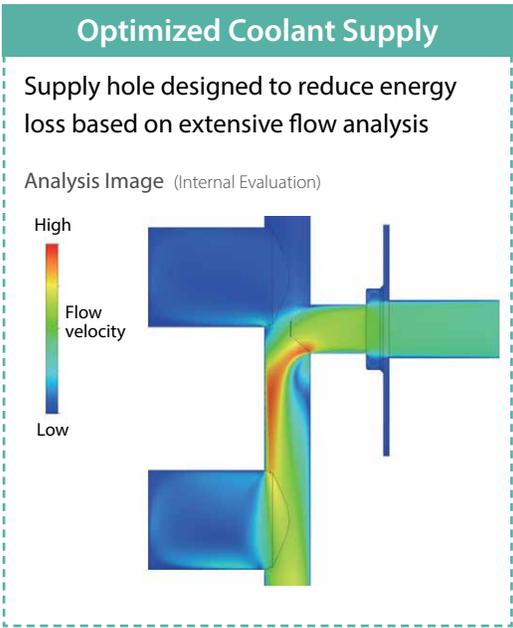
***When the tool plate supports direct coolant**

Coolant is supplied directly from plate into the holder without the need to install piping

Applicable to Wide Range of Machines

The tool plate is optional. Please contact our company sales representative for details.

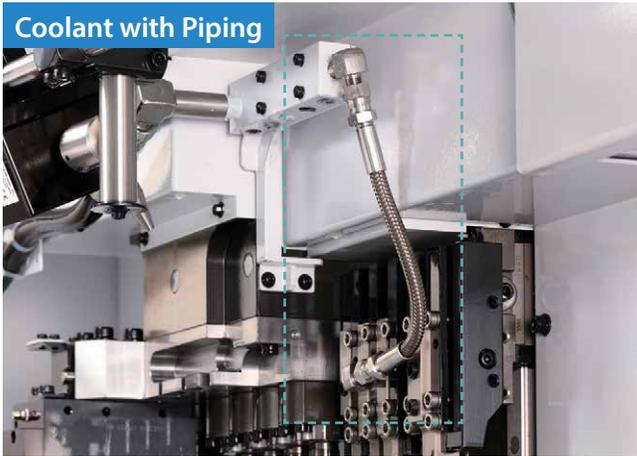
CITIZEN MACHINERY CO., LTD. (L20, D25, M32) STAR MICRONICS CO., LTD. (SB-R series, SR series, SV series) TSUGAMI CORPORATION (S205/206-II □16 type, S205A/206A-II □16 type) Compatible with various machine including the above. Toolholders can be customized as well.	(Random order) Based on Kyocera Survey in January 2021
--	---



Internal Coolant with Piping

Compatible with internal coolant on any machine with standard piping parts

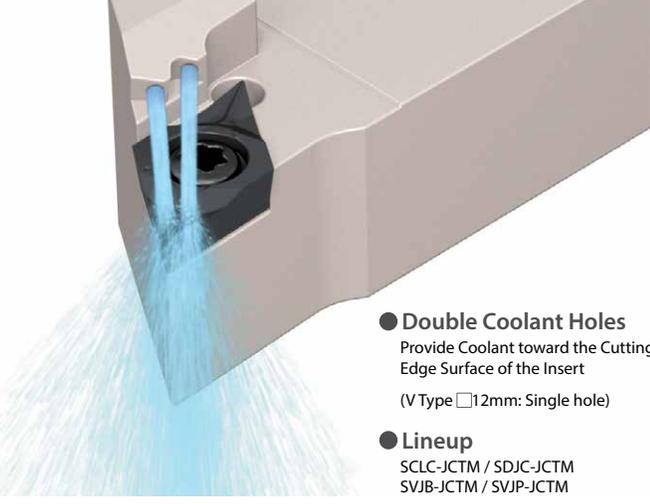
Commercial piping parts are available when using at normal pressure



INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
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THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

3 Large Lineup for Various Tooling Operations

Turning Screw Clamp - JCTM



- **Double Coolant Holes**
Provide Coolant toward the Cutting Edge Surface of the Insert
(V Type □12mm: Single hole)
- **Lineup**
SCLC-JCTM / SDJC-JCTM
SVJB-JCTM / SVJP-JCTM

Coolant Supply Structure Comparison (Internal Evaluation)

Screw Clamp- JCTM	Competitor A
Discharges coolant toward the rake surface of insert	Discharges coolant down onto the chip forcing the chip into the part
Chip control performance ✓ Provides stable chip curls	Chip control performance Chip becomes unstable
Cooling effect ✓ The cutting edge stays cool	Cooling effect Chip can cause interference with the workpiece

External Grooving KGBF-JCTM

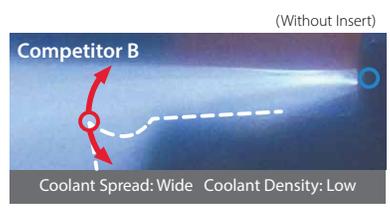
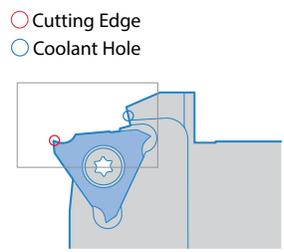


- Provides Coolant toward the Rake Surface of Insert

- **Specification**
Edge Width: 0.010" - 0.118" (0.25mm - 3mm)
Ground Chipbreaker / Molded GL Chipbreaker
Maximum groove depth: 0.118" (3mm)

Coolant Discharge Comparison (Internal Evaluation)

Small chips and better cooling of the insert leads to longer tool life.



Square / Rectangle Shank Identification System

Note: JCTM-Series holders for small parts machining have rectangle shanks
See below for part number identification examples

Clamping System		Insert Shape		Hand of Tool		Shank Size		Insert Size (IC)		Optional Code	
A	Back Clamp	C	80° Diamond	R	Right-Hand	Square Shank: This number will represent the number of sixteenths of width and height. Ex. 6/16 = 3/8" Square		Number of 1/8ths on 1/4" IC and over		Manufacturers Option	
C	Top Clamp	D	55° Diamond	L	Left-Hand	Rectangle Shank: the first digit represents the number of eighths of width and the second digit the number of quarters of height. Ex. Width = 6/8 = 3/4" Height = 2/4 = 1/2"				FF	Without Offset
P	Lever Lock	S	90° Square	N	Neutral					JCTM	Jet Coolant-Through
S	Screw Clamp	T	60° Triangle								
		V	35° Diamond								

ANSI (Inch)	S	C	L	C	R	6	2	JX	FF	(JCTM)
ISO (Metric)	S	C	L	C	R	12	12	JX	-09	FF (JCTM)

Cutting Edge Angle					Insert Relief Angle		Shank Height	Shank Width	Toolholder Length		Insert Size (mm)	
A	B	D	F	G			Shank Height (mm)	Shank Width (mm)				
90°	75°	45°	90°	90°	B	5° Positive			F	80mm (85mm)		
J	K	L	N	P	C	7° Positive			H	100mm		
93°	75°	95°	63°	117.5°	N	0° Negative			JX	4.750" / 120mm		
					P	11° Positive			K	125mm		
S	T	V							M	150mm		
45°	60°	72.5°										

• Some back turning toolholders have Kyocera's unique descriptions

External Sleeve Holder Identification System

Shank		Toolholder Length		Clamping System		Insert Shape		Hand of Tool	
S	Steel	F	80mm (85mm)	S	Screw Clamp	C	80° Diamond	L	Left-Hand
		G	90mm			D	55° Diamond		
		H	100mm			V	35° Diamond		
		K	125mm (120mm)						

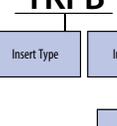
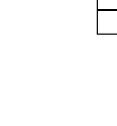
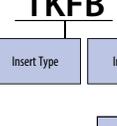
ANSI (Inch)	S	19	K	-	S	C	L	C	L	09
ISO (Metric)	S	20	K	-	S	C	L	C	L	09

Shank Diameter		Cutting Edge Angle		Insert Relief Angle		Insert Size (mm)	
ANSI: A two-digit number that indicates the shank diameter in 1/16" increments. ISO: Shank diameter in mm.		L					
		U	93°	B	5° Positive		
				C	7° Positive		

• The dimensions and specifications are subject to change for improvement without notice.
• Depending on the machine specifications such as attachment Dimensions, the symbol may not match the actual toolholder length.

- INSERT GRADES **A**
- TURNING INSERTS **B**
- CBN/PCD INSERTS **C**
- TURNING HOLDERS **D**
- SMALL TOOLS **E**
- BORING **F**
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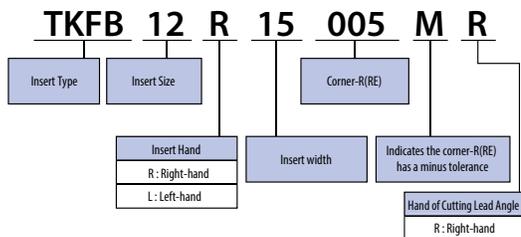
TKF / TKFB

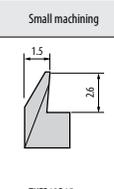
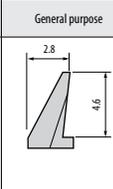
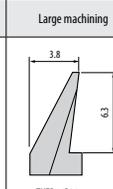
Insert		Part Number		No. of Edges		Dimension (mm)							Angle (°)		Carbide			Applicable Toolholder ● E15, E16	
						CW		CDX	S	D1	RE	W1	a	PSIR%	θ	PVD	-		
						in	mm												
						PR1225	PR1535												PR1725
		TKFB 12R15005M 12R28005M 12R28010M		2		0.059	1.5	2.6	8.7	5.2	< 0.05	3	0.25	-	-	●	●	●	KTKFR...-12 KTKFR...-12-Y
						0.110	2.8	4.6	8.7	5.2	< 0.05	3	0.3	-	-	●	●	●	
						0.110	2.8	4.6	8.7	5.2	< 0.1	3	0.3	-	-	●	●	●	
		TKFB 16R38005M 16R38010M		2		0.150	3.8	6.3	9.5	5.2	< 0.05	4	0.3	-	-	●	●	●	KTKFR...-16
						0.150	3.8	6.3	9.5	5.2	< 0.1	4	0.3	-	-	●	●	●	
		TKFB 12L28005MR 12L28010MR		2		0.110	2.8	4.6	8.7	5.2	< 0.05	3	0.3	-	-	●	●	●	KTKFL...-12
						0.110	2.8	4.6	8.7	5.2	< 0.1	3	0.3	-	-	●	●	●	
		TKFB 16L38005MR 16L38010MR		2		0.150	3.8	6.3	9.5	5.2	< 0.05	4	0.3	-	-	●	●	●	KTKFL...-16
						0.150	3.8	6.3	9.5	5.2	< 0.1	4	0.3	-	-	●	●	●	
		TKFB 12R28005P-GQ 12R28015P-GQ		2		0.110	2.8	4.6	8.7	5.2	0.05 0.15	3	1.5	-	74	●	●	●	KTKFR...-12 KTKFR...-12-Y
						0.110	2.8	4.6	8.7	5.2	0.05 0.15	3	1.5	-	74	●	●	●	
		TKFB 16R38005P-GQ 16R38015P-GQ		2		0.150	3.8	6.3	9.5	5.2	0.05 0.15	4	1.8	-	72	●	●	●	KTKFR...-16
						0.150	3.8	6.3	9.5	5.2	0.05 0.15	4	1.8	-	72	●	●	●	
		TKFB 12R28005-GQ 12R28015-GQ		2		0.110	2.8	4.6	8.7	5.2	0.05 0.15	3	1.5	-	74	●	●	●	KTKFR...-12 KTKFR...-12-Y
						0.110	2.8	4.6	8.7	5.2	0.05 0.15	3	1.5	-	74	●	●	●	
		TKFB 16R38005-GQ 16R38015-GQ		2		0.150	3.8	6.3	9.5	5.2	0.05 0.15	4	1.8	-	72	●	●	●	KTKFR...-16
						0.150	3.8	6.3	9.5	5.2	0.05 0.15	4	1.8	-	72	●	●	●	
		TKF 12R200-GTP		2		0.079	2	4.3	8.7	5	0.08	3	-	0	-	●	●	KTKFR...-12 KTKFR...-12-Y	
						0.079	2	4.3	8.7	5	0.08	3	-	0	-	●	●		
		TKF 16R300-GTP		2		0.118	3	5.8	9.5	5	0.08	4	-	0	-	●	●	KTKFR...-16	
						0.118	3	5.8	9.5	5	0.08	4	-	0	-	●	●		

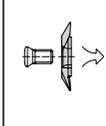
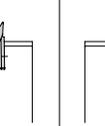
Inserts with corner-R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner-R (RE).

Recommended Cutting Conditions ● E76

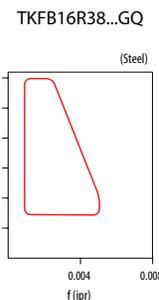
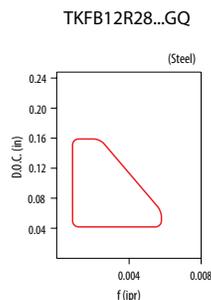
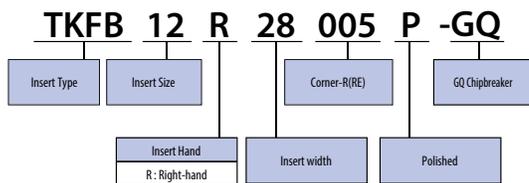
Inserts Identification System (Ref. Tables 1 and 2)



Small machining	General purpose	Large machining
 TKFB12R15..	 TKFB12R28..	 TKFB16R38..

Toolholder	Right-hand	Toolholder	Left-hand
Insert	Right-hand	Insert	Left-hand
Lead angle	Right-hand	Lead angle	Right-hand
			

Applicable Chipbreaker Range

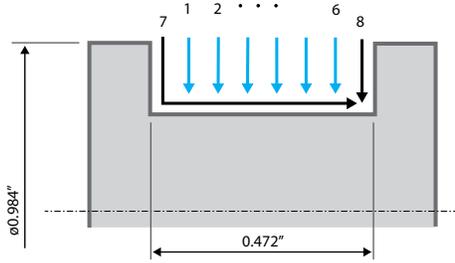


● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)
Contact your local Kyocera sales engineer to upgrade old products to new technology

GTP chipbreaker - Grooving and Turning Available

Cutting Time Comparison (Internal evaluation)

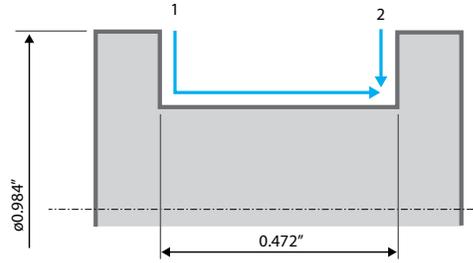
Competitor A
 Multiple Grooves and a Finishing Pass
 Workpiece Material : 1045 (ø0.984")



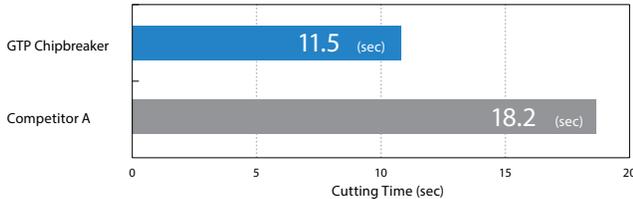
Cutting Conditions: Multiple Grooves
 Vc= 330 sfm
 D.O.C. = 0.138", f = 0.004 ipr

Cutting Conditions: Finishing
 Vc= 330 sfm
 D.O.C. = 0.020", f = 0.002 ipr

TKF12R200-GTP
 Grooving and Turning
 Workpiece Material : 1045 (ø0.984")



Cutting Conditions: Grooving and Turning
 Vc= 330 sfm
 D.O.C. = 0.158", f = 0.002 ipr



GTP chipbreaker required fewer machining paths than competitor

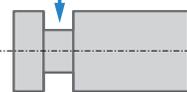


Cutting Time Reduction

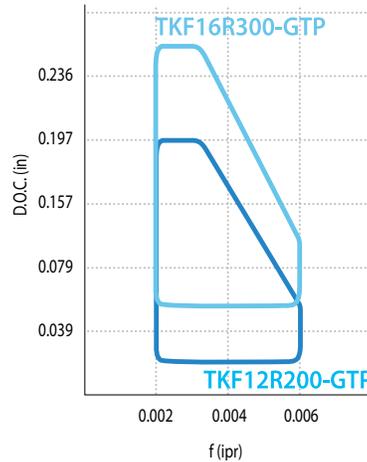
Chip Control Comparison (Internal evaluation)
 Grooving

f (ipr)	0.002	0.003	0.004
TKF12R 200-GTP			
Competitor B			

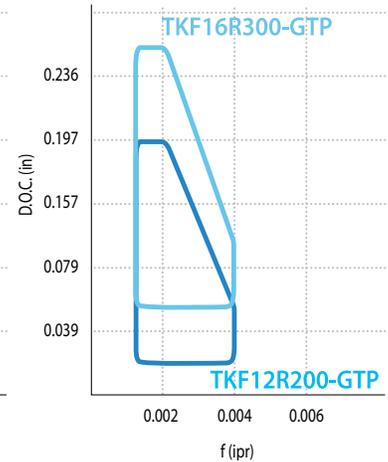
Cutting Conditions : Vc= 330 sfm, D.O.C. = 0.158" ,Wet
 Workpiece Material : 1045 (ø0.984")



Recommended Chipbreaker Range (Steel)



Recommended Chipbreaker Range (Stainless Steel)



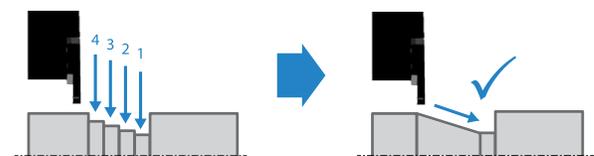
Caution for machining

Ramping



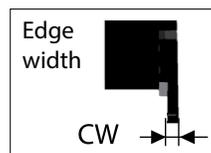
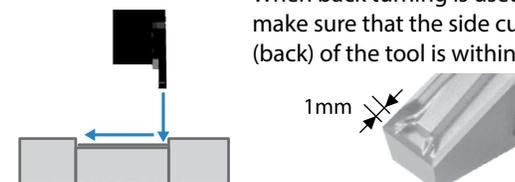
Tips for Ramping

Step grooving is required before ramping. (Refer to the gure below)



Back Turning

When back turning is used for nishing, make sure that the side cutting edge (back) of the tool is within 1mm

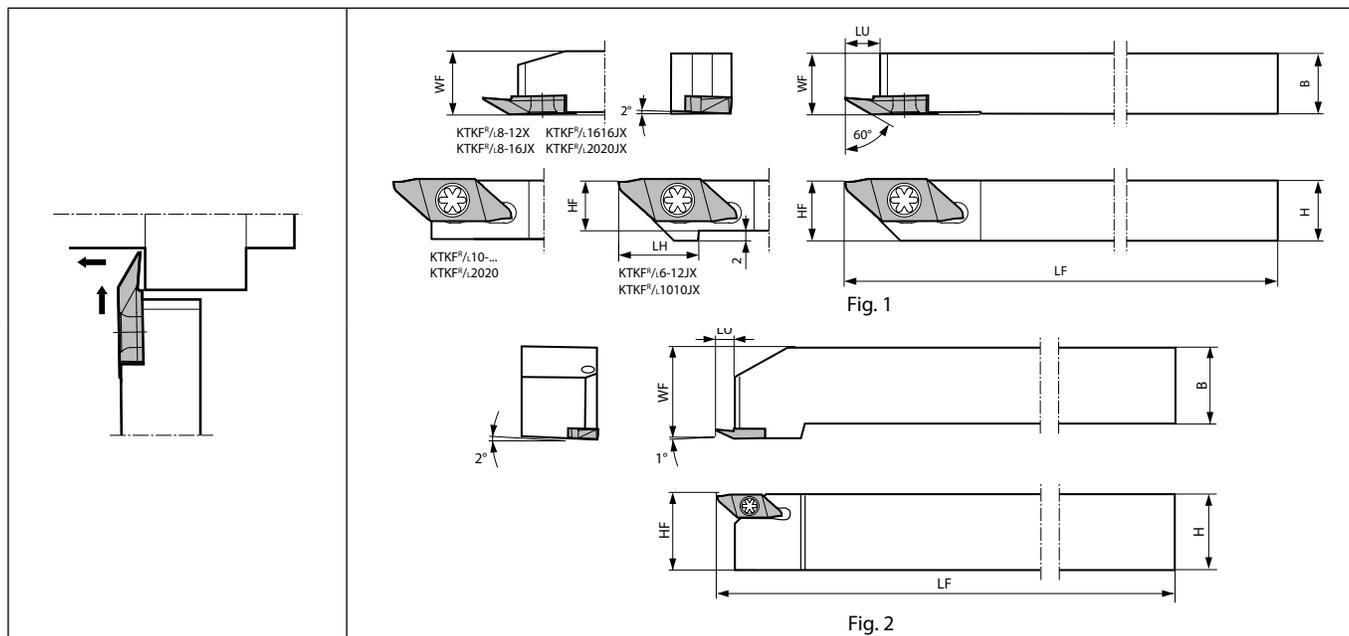


Back turning is not recommended on the tapered surface.



- INSERT GRADES **A**
- TURNING INSERTS **B**
- CBN/PCD INSERTS **C**
- TURNING HOLDERS **D**
- SMALL TOOLS **E**
- BORING **F**
- GROOVING **G**
- CUT-OFF **H**
- THREADING **J**
- DRILLING **K**
- MILLING **M**
- QUICK CHANGE TOOLING **N**
- SPARE PARTS **P**
- TECHNICAL **R**
- INDEX **T**

KTKF (Back Turning)



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

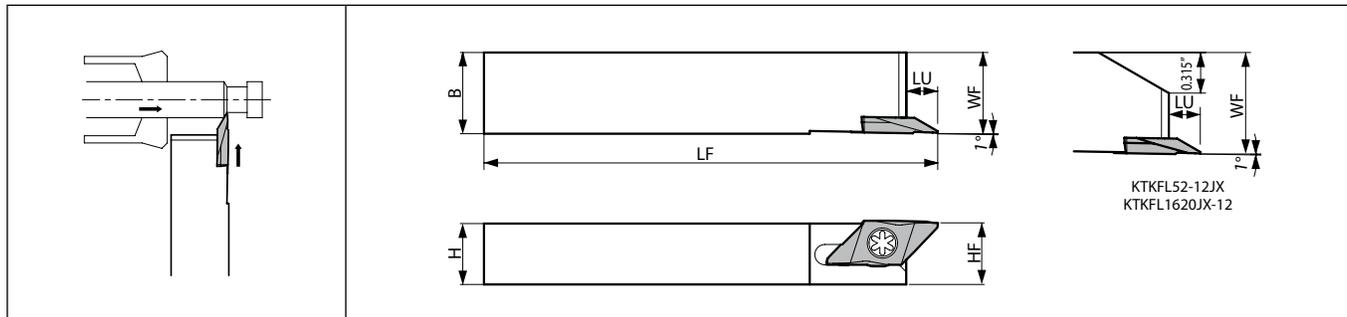
Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							Fig.	Spare Parts		Applicable Inserts E12, E14		
		R	L	H	B	LH	HF	LF	LU	WF		Screw	Wrench			
		 														
Inch	KTKF% 6-12JX	●	●	0.375	0.375	0.590	0.375	4.750	0.236	0.375	1	SB-4590TRWN	FT-10	TKF12% ... TKFB12% ...		
	8-12JX	●	●	0.500	0.500	-	0.500	4.750	0.236	0.500						
	10-12JX	●	●	0.625	0.625	-	0.625	4.750	0.236	0.625						
	KTKF% 6-16JX	●	●	0.375	0.375	0.787	0.375	4.750	0.315	0.375	1	SB-4590TRWN	FT-10	TKF16% ... TKFB16% ...		
	8-16JX	●	●	0.500	0.500	-	0.500	4.750	0.315	0.500						
	10-16JX	●	●	0.625	0.625	-	0.625	4.750	0.315	0.625						
mm	KTKF% 1010JX-12	●	●	10	10	15	10	120	6	10	1	SB-4590TRWN	FT-10	TKF12% ... TKFB12% ...		
	1212F-12	●	●	12	12	-	12	85		12	1					
	1212JX-12	●	●	16	16		16	120		16	1					
	1616JX-12	●	●				20	120		20	1					
	2020JX-12	●	●				25	150		30	1					
	2525M-12	●	●				25	150		30	1					
	KTKF% 1010JX-16	●	●				10	10	20	10	120	8	10	1	SB-4590TRWN	FT-10
	1212F-16	●	●			12	12	12	85	12	1					
	1212JX-16	●	●	16	16	16	120	16	1							
	1616JX-16	●	●	20	120	20	1									
	2020JX-16	●	●	25	150	30	2									
	2525M-16	●	●	25	150	30	2									

LU shows the distance from the toolholder to the cutting edge.
See Page H15 for internal coolant type (coolant-through holders)

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

KTKF (Back Turning , Goose-Neck Toolholder)



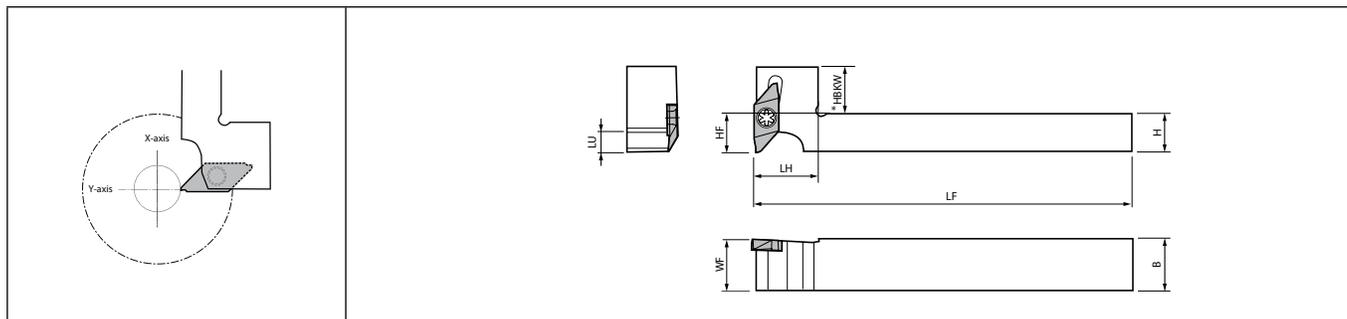
Left-hand shown | Left-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions						Spare Parts		Applicable Inserts ● E12, E14
			L	H	B	HF	LF	LU	WF	Screw	
Inch	KTKFL 52-12JX 62.5-12JX	●	0.500	0.625	0.500	4.750	0.236	0.625	SB-4590TRWN	FT-10	TKF12L... TKFB12L...
		●	0.625	0.750	0.625			0.750			
mm	KTKFL 1216JX-12 1620JX-12	●	12	16	12	120	6	16	SB-4590TRWN	FT-10	TKF12L... TKFB12L...
		●	16	20	16			20			

LU shows the distance from the toolholder to the cutting edge.

KTKF-Y (Back Turning , Y-Axis Toolholder)



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

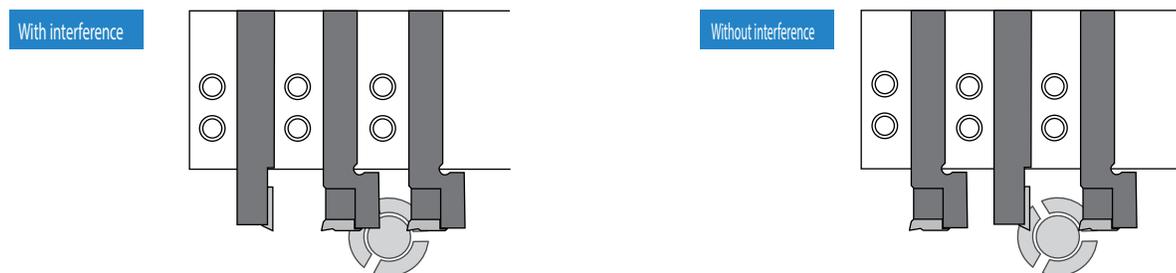
Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions							Spare Parts		Applicable Inserts ● E12, E14
			R	H	B	LH	HF	HBKW	LF	WF	Screw	
mm	KTKFR 1216JX-12-Y 1616JX-12-Y	●	12	16	20	12	15	120	16	SB-4590TRWN	FT-10	TKF12R... TKFB12R...
		●	16		25	16	11					

LU shows the distance from the toolholder to the cutting edge.

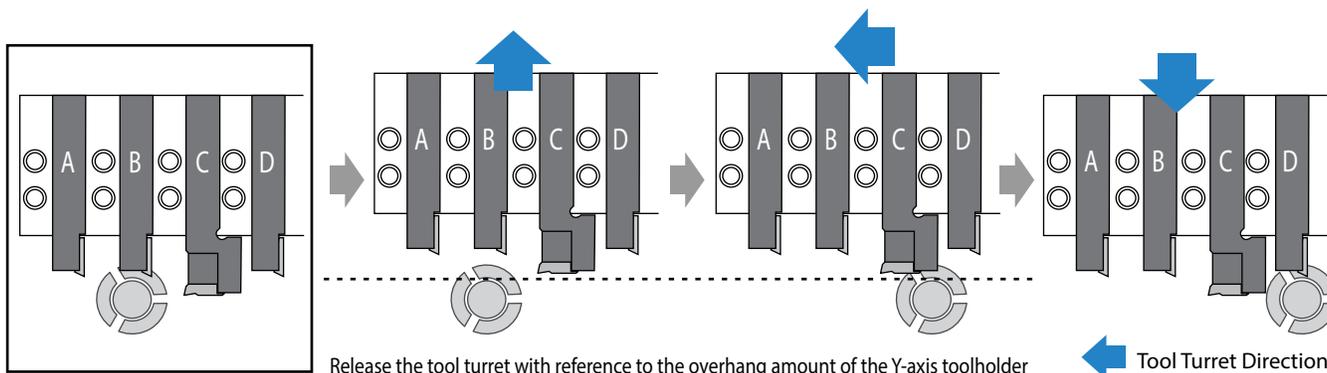
Precautions for using Y-axis toolholder

Do not use Y-axis toolholders side by side to prevent interference. (Only two Y-axis holder can be used at the same time)



Standard toolholders may be mounted between two Y-axis toolholders

When changing the tool, set the retracted position with reference to the cutting edge of the Y-axis holder. (When exchanging from tool B to D)



Note that using other toolholders together will result in different outside diameters

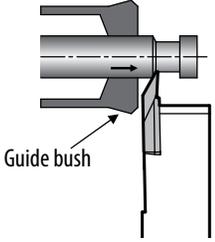
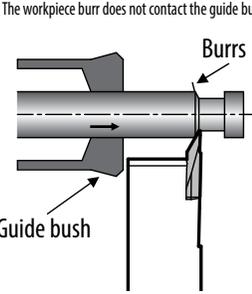
(Unit : mm)

Y-axis Toolholder Overhang	Examples	Overhang Amount L			
		Available Outside Cutting Diameter (d)	20	22	25
20		A	Without Restriction	Without Restriction	Without Restriction
		B	13.0	13.0	13.0
		C	Without Restriction	Without Restriction	Without Restriction
25		A	38.0	58.0	Without Restriction
		B	14.9	13.6	13.0
		C	45.0	60.0	Without Restriction

- INSERT GRADES **A**
- TURNING INSERTS **B**
- CBN/PCD INSERTS **C**
- TURNING HOLDERS **D**
- SMALL TOOLS **E**
- BORING **F**
- GROOVING **G**
- CUT-OFF **H**
- THREADING **J**
- DRILLING **K**
- MILLING **M**
- QUICK CHANGE TOOLING **N**
- SPARE PARTS **P**
- TECHNICAL **R**
- INDEX **T**

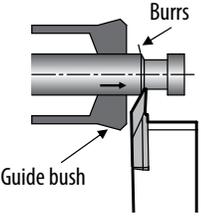
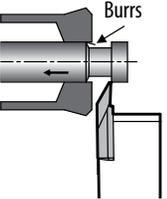
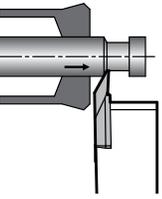
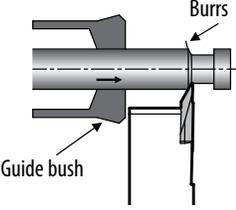
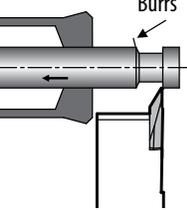
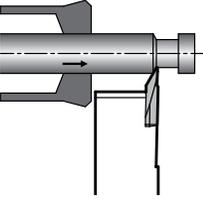
Toolholders for back turning - TKFB insert

How to select back turning toolholder hand

<p>Right-hand</p>	 <p>Guide bush</p>	<ul style="list-style-type: none"> • Machining near the guide bush is possible • Narrow cutting edge width of TKFB12R15005M • Optimum for small parts and high precision machining
<p>Left-hand</p>	<p>The workpiece burr does not contact the guide bush.</p>  <p>Burrs</p> <p>Guide bush</p>	<ul style="list-style-type: none"> • Machining with a distance from guide bush • Good chip control due to large space between the guide bush and the tool. • Excellent chip control in roughing and finishing (plural passes) <ul style="list-style-type: none"> • Stable accuracy of external diameter dimension: <ul style="list-style-type: none"> • When burrs occur, if a left-hand toolholder is used, it is not necessary to return workpiece into guide bush in finishing. • Also, left-hand toolholders prevent guide bush wear caused by chip biting.

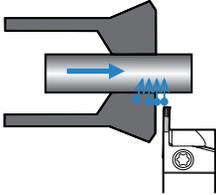
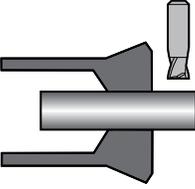
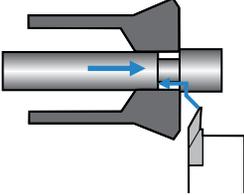
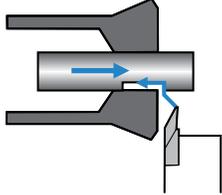
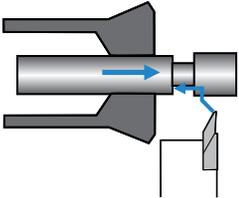
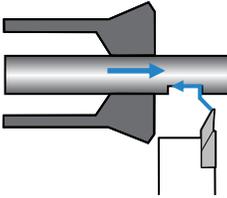
E
SMALL
TOOLS

Workpiece movement and tool hand selection - when roughing and finishing

	Roughing	Workpiece position after roughing	Finishing
<p>Right-hand</p>	 <p>Burrs</p> <p>Guide bush</p>	 <p>Burrs</p>	
<p>Left-hand</p>	 <p>Burrs</p> <p>Guide bush</p>	 <p>Burrs</p>	

* Good dimension accuracy: If a left-hand toolholder is used, burrs on workpiece generated in roughing do not damage the guide bush in finishing.

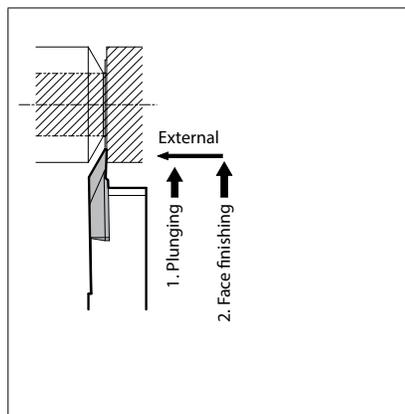
Chip control improvement in back turning

	Chip control improvement by tool pass changes - 1	Chip control improvement by tool pass changes - 2
Roughing	<p>Roughing with grooving tools</p> <p>1. GMM2420-020MW (Grooving)</p> 	<p>Pre-Stage machining is processed with solid end mill</p> <p>1. Solid end mill</p> 
↓		
Finishing (Countermeasures 1) Use right-hand toolholder	<p>When using TKFB12R28010M (for back turning / right hand)</p>  <p>Advantages: • Good surface finish</p> <p>Disadvantages: • If a machining pass is long, the guide bush can not support the workpiece.</p>	<p>When using TKFB12R28010M (for back turning / right hand)</p>  <p>Advantages: 1. Minimal deflection in long machining passes 2. Chips are broken into small pieces, though the workpiece material is sticky</p> <p>Disadvantages: • The pre-stage machining may cause fractures, because of interrupted machining</p>
Finishing (Countermeasures 2) Use left-hand toolholder	<p>When using TKFB12L28010M (for back turning / left hand)</p>  <p>Advantages: 1. Good surface finish 2. High precision machining if the machined portion does not contact the guide bush.</p> <p>Disadvantages: • If a machining pass is long, the guide bush can not support the workpiece.</p>	<p>When using TKFB12L28010M (for back turning / left hand)</p>  <p>Advantages: 1. Minimal deflection in long machining passes 2. Chips are broken into small pieces, though the workpiece material is sticky. 3. High precision machining if the machined portion does not contact the guide bush.</p> <p>Disadvantages: • The pre-stage machining may cause fractures, because of interrupted machining.</p>

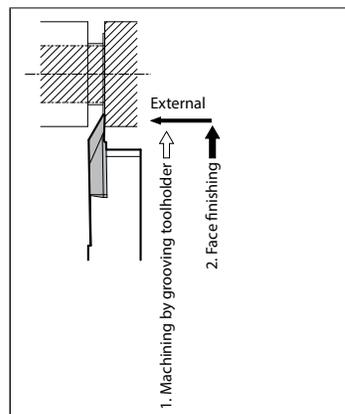
Countermeasure against peeled surface in face back turning

When peeled surface occurs on the workpiece face, please apply the countermeasures below.

Countermeasures 1 Face finishing

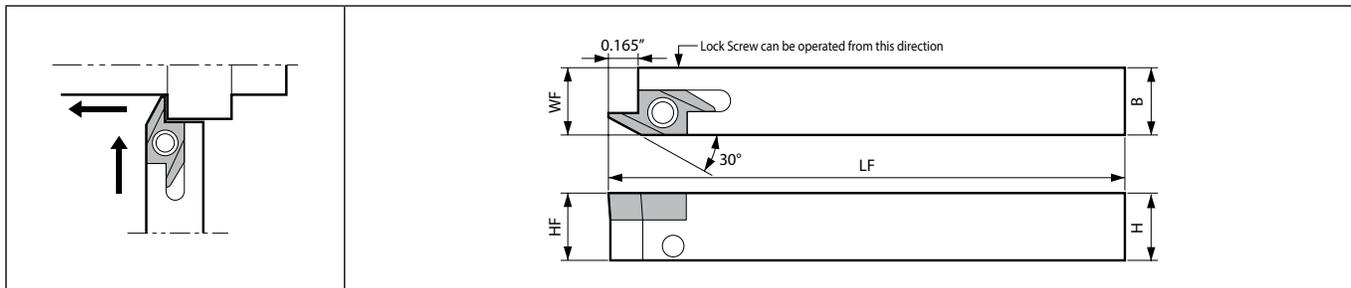


Countermeasures 2 Face finishing after grooving



INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

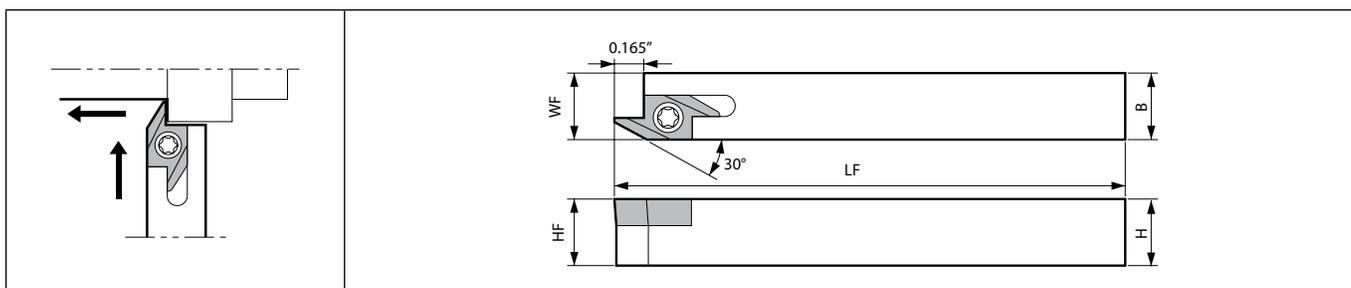
AABS (Back Turning / Edge Width : 0.110", Max. Depth : 0.158")



Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions					Standard Corner-R (RE)	Spare Parts			Applicable Inserts ➔ B112
			R	H	B	HF	LF		WF	Anchor pin	Lock Screw	
Inch	AABSR 6-15JXF	●	0.375	0.375	0.375	4.750	0.383	0.006	LPA-11	HSB4X8R	FH-2	ABS15R40...
	8-15JXF	●	0.500	0.500	0.500		0.508		LPA-13			
	10-15JXF	●	0.625	0.625	0.625		0.633		LPA-17			
mm	AABSR 1010JX-40F	●	10	10	10	120	10.2	0.15	LPA-11	HSB4X8R	FH-2	ABS15R40...
	1212JX-40F	●	12	12	12		12.2		LPA-13			
	1616JX-40F	●	16	16	16		16.2		LPA-17			

SABS (Back Turning / Edge Width : 0.110", Max. Depth : 0.158")

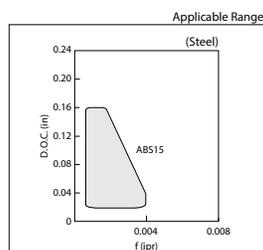


Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions					Standard Corner-R (RE)	Spare Parts		Applicable Inserts ➔ B112
			R	H	B	HF	LF		WF	Screw	
Inch	SABSR 6-15JXF	●	0.375	0.375	0.375	4.750	0.383	0.006	SB-3080TR	FT-10	ABS15R40...
	8-15JXF	●	0.500	0.500	0.500		0.508				
	10-15JXF	●	0.625	0.625	0.625		0.633				
mm	SABSR 1010JX-40F	●	10	10	10	120	10.2	0.15	SB-3080TR	FT-10	ABS15R40...
	1212F-40F	●	12	12	12	85	12.2				
	1616JX-40F	●	16	16	16	120	16.2				
	2020K-40F	●	20	20	20	125	20.2				

Applicable Inserts

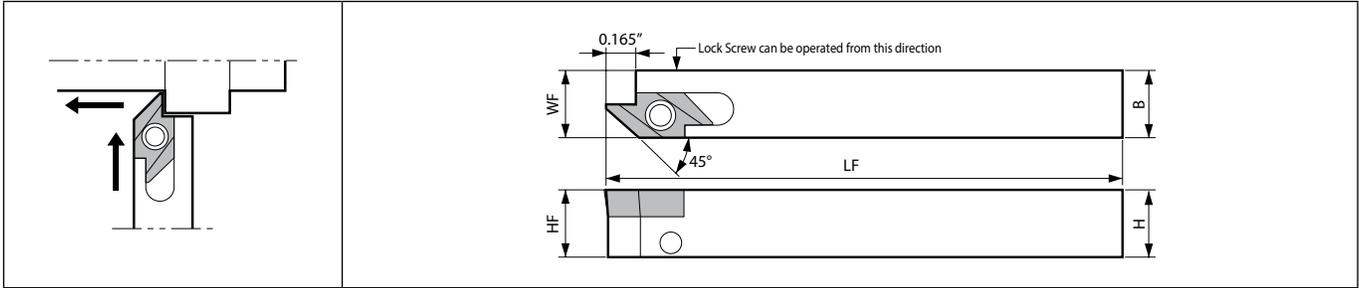
Applications	Back Turning
Insert	
Type	ABS15
Page	B112



Recommended Cutting Conditions ➔ E76

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)
Contact your local Kyocera sales engineer to upgrade old products to new technology

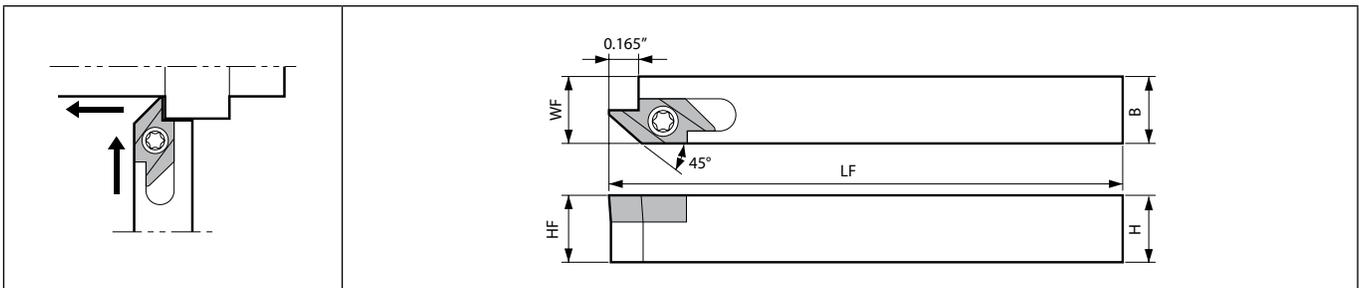
AABW (Back Turning / Edge Width : 0.185", Max. Depth : 0.158")



Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions					Standard Corner-R (RE)	Spare Parts			Applicable Inserts ➔ B112
			R	H	B	HF	LF		WF	Anchor pin	Lock Screw	
Inch	AABWR 6-15JXF	●	0.375	0.375	0.375	4.750	0.383	0.006	LPA-11	HSB4X8R	FH-2	ABW15R40...
	8-15JXF	●	0.500	0.500	0.500		0.508		LPA-13			
	10-15JXF	●	0.625	0.625	0.625		0.633		LPA-17			
mm	AABWR 1010JX-40F	●	10	10	10	120	10.2	0.15	LPA-11	HSB4X8R	FH-2	ABW15R40...
	1212JX-40F	●	12	12	12		12.2		LPA-13			
	1616JX-40F	●	16	16	16		16.2		LPA-17			

SABW (Back Turning / Edge Width : 0.185", Max. Depth : 0.158")

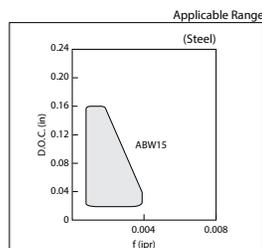


Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions					Standard Corner-R (RE)	Spare Parts		Applicable Inserts ➔ B112
			R	H	B	HF	LF		WF	Screw	
Inch	SABWR 8-15JXF	●	0.500	0.500	0.500	4.750	0.508	0.006	SB-3080TR	FT-10	ABW15R40...
	10-15JXF	●	0.625	0.625	0.625		0.633				
mm	SABWR 1010JX-40F	●	10	10	10	120	10.2	0.15	SB-3080TR	FT-10	ABW15R40...
	1212JX-40F	●	12	12	12		12.2				
	1616JX-40F	●	16	16	16		16.2				
	2020K-40F	●	20	20	20		20.2				

Applicable Inserts

Applications	Back Turning
Insert	
Type	ABW15
Page	B112

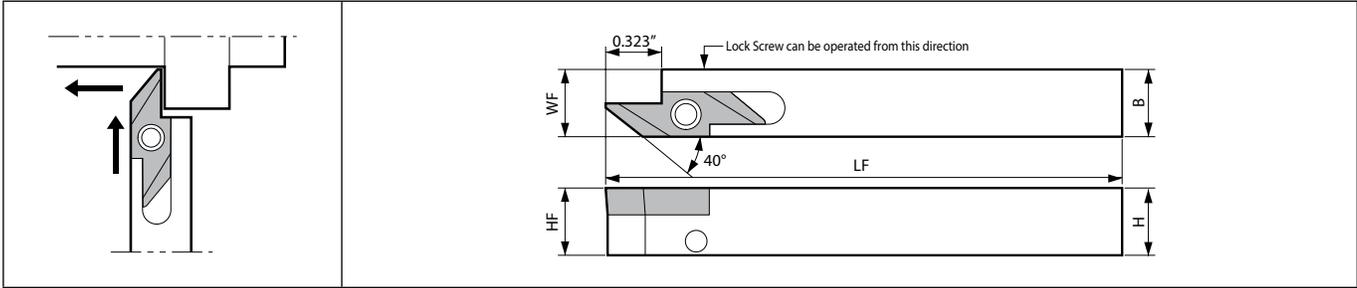


Recommended Cutting Conditions ➔ E76

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)
Contact your local Kyocera sales engineer to upgrade old products to new technology

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

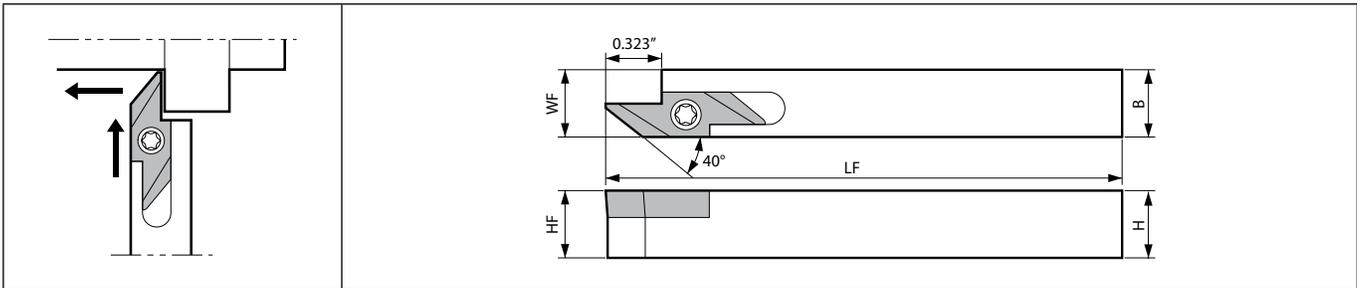
AABW (Back Turning / Edge Width : 0.185", Max. Depth : 0.197")



Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions					Standard Corner-R (RE)	Spare Parts			Applicable Inserts ➔ B112
			R	H	B	HF	LF		WF	Anchor pin	Lock Screw	
Inch	AABWR 6-23JXF	●	0.375	0.375	0.375	4.750	0.383	0.006	LPA-11	HSB4X8R	FH-2	ABW23R50...
	8-23JXF	●	0.500	0.500	0.500		0.508		LPA-13			
	10-23JXF	●	0.625	0.625	0.625		0.633		LPA-17			
mm	AABWR 1010JX-50F	●	10	10	10	120	10.2	0.15	LPA-11	HSB4X8R	FH-2	ABW23R50...
	1212JX-50F	●	12	12	12		12.2		LPA-13			
	1616JX-50F	●	16	16	16		16.2		LPA-17			
		●										

SABW (Back Turning / Edge Width : 0.185", Max. Depth : 0.197")

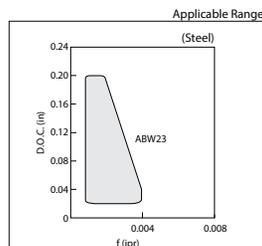


Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions					Standard Corner-R (RE)	Spare Parts		Applicable Inserts ➔ B112
			R	H	B	HF	LF		WF	Screw	
Inch	SABWR 8-23JXF	●	0.500	0.500	0.500	4.750	0.508	0.006	SB-3080TR	FT-10	ABW23R50...
	10-23JXF	●	0.625	0.625	0.625		0.633				
mm	SABWR 1010JX-50F	●	10	10	10	120	10.2	0.15	SB-3080TR	FT-10	ABW23R50...
	1212JX-50F	●	12	12	12		12.2				
	1616JX-50F	●	16	16	16		16.2				
	2020K-50F	●	20	20	20		125				

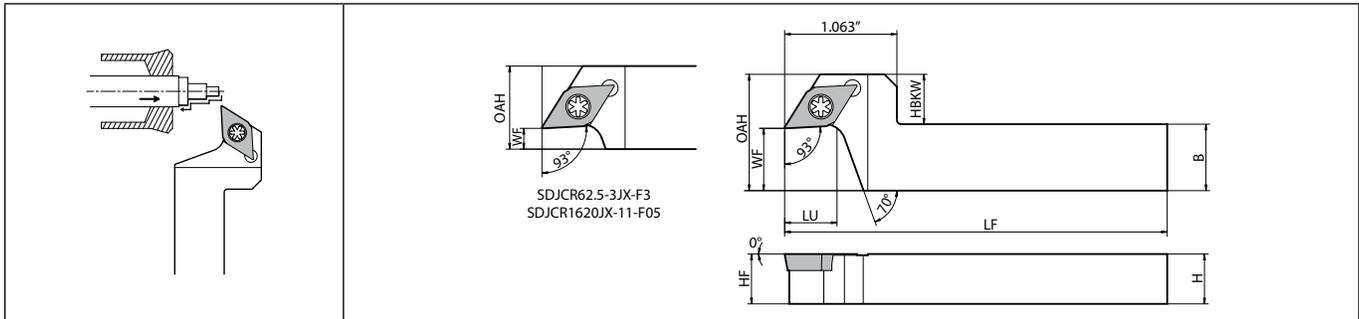
Applicable Inserts

Applications	Back Turning
Insert	
Type	ABW23
Page	B112



Recommended Cutting Conditions ➔ E76

SDJC (External Turning / External Copying)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions								Standard Corner-R (RE)	Spare Parts		Applicable Inserts
			R	H	B	OAH	HF	HBKW	LF	LU		WF	Screw	
Inch	SDJCR 52-3JX-F3 52-3JX-F9 62.5-3JX-F9	●	0.500	0.625	0.687	0.500	0.062	4.750	0.488	0.187	0.008	SB-4085TR	FT-15	DC□T325... DC□W325... DC□X325...
		●		1.125	0.500		0.562							
		●	0.625	0.750	1.125	0.625	0.375			0.562				
mm	SDJCR 1216JX-11-F05 1216JX-11-F15 1620JX-11-F05 1620JX-11-F15	●	12	16	18	12	2	120	12.6	5	0.2	SB-4085TR	FT-15	
		●			28		12			15				
		●	16	20	20	-	5							
		●			28	16	8			15				

For WP chipbreaker, cutting edge offsets or program corrections are required on R42 and R43.

Applicable Inserts

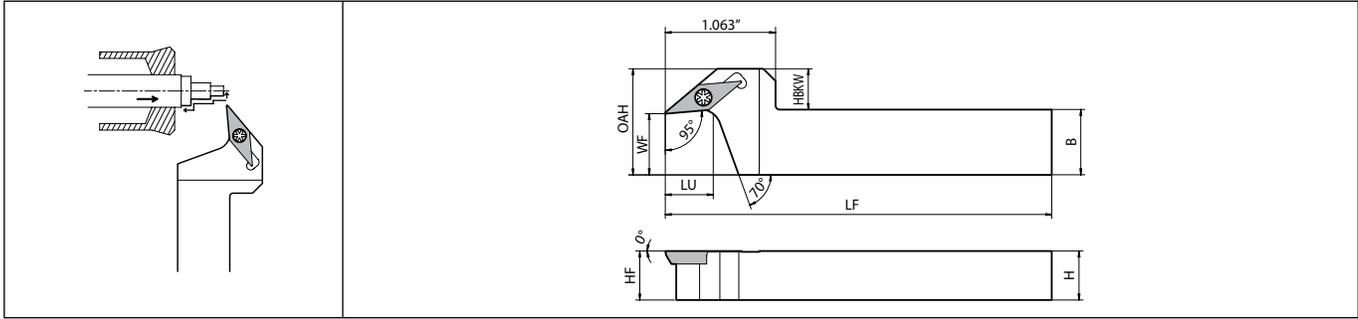
Applications	Minute D.O.C.	Finishing	Finishing	Finishing	Finishing	Finishing - Medium	Finishing	Finishing
Insert								
Chipbreaker	CF	GF	SKS	SK	CK	GQ	WP	%-WP
Page	B68	B68	B68	B68	B68	B69	B69	B69
Applications	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Medium	Medium	Finishing	Finishing
Insert								
Chipbreaker	PP	GP	GK	HQ	Standard	MF	%-F	%-FSF
Page	B69	B69	B70	B70	B70	B70	B72, B73	B72
Applications	Low Feed	Low Feed	Low Feed	Low Feed	Low Carbon Steel	Low Carbon Steel	Stainless Steel / Heat-Resistant Alloys	Cast Iron
Insert								
Chipbreaker	%-U	%-USF	%-J	%-JSF	XP	XQ	MQ	No Chipbreaker
Page	B74-B76	B74	B77	B76	B71	B71	B71	B78
Applications	Non-Ferrous Metals	Hard Materials						
Insert								
Chipbreaker	AP	%-A3	AH	PCD	APD	CBN		
Page	B78	B78	B78	C42	C42	C22		

Recommended Cutting Conditions E76

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)
Contact your local Kyocera sales engineer to upgrade old products to new technology

INSERT GRADES	A
TURNING INSERTS	B
CBN / PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

SVLP (External Turning / External Copying)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions									Standard Corner-R (RE)	Spare Parts		Applicable Inserts
			R	H	B	OAH	HF	HBKW	LF	LU	WF		Screw	Wrench	
Inch	SVLPR 52-2JX-F9	●	0.500	0.625	1.000	0.500	0.375	4.750	0.472	0.562	0.008	SB-2570TR	FT-15	VP□T22...	
	62.5-2JX-F9	●	0.625	0.750		0.625	0.250								
mm	SVLPR 1216JX-11-F15	●	12	16	26	12	10	120	12	15	0.2	SB-2570TR	FT-8		
	1620JX-11-F15	●	16	20		16	6								

Applicable Inserts

Applications	Minute D.O.C.	Finishing	Finishing	Finishing	Finishing	Finishing	Low Feed	Low Feed
Insert								
Chipbreaker	CF	GF	SKS	CK	R/2-F	R/2-FSF	R/2-U	R/2-USF
Page	B102	B102	B102	B102	B103	B103	B104	B104
Applications	Low Feed							
Insert								
Chipbreaker	R/2-J							
Page	B104							

Recommended Cutting Conditions E74~E75

Goose-neck holder is available for multiple pass roughing and finishing

<Solution 1>
The workpiece burr does not contact the guide bush and no breakage will be caused!

<Solution 2>
Longitudinal dimension will be stable. External diameter will be stable with multiple pass machining (roughing and finishing).

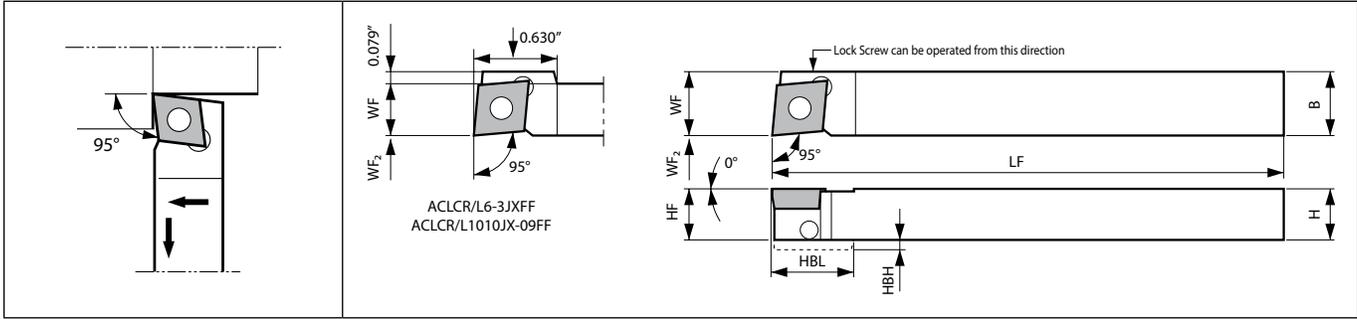
<Solution 3>
Large space for chip evacuation!
Better and smooth chip control.

One toolholder for complex workpiece shapes

Complex workpiece shapes can be processed with one toolholder. It can be used for undercutting and external / face finishing.

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

ACL-FF (External Turning / External Facing , Back Clamp, Without Offset)



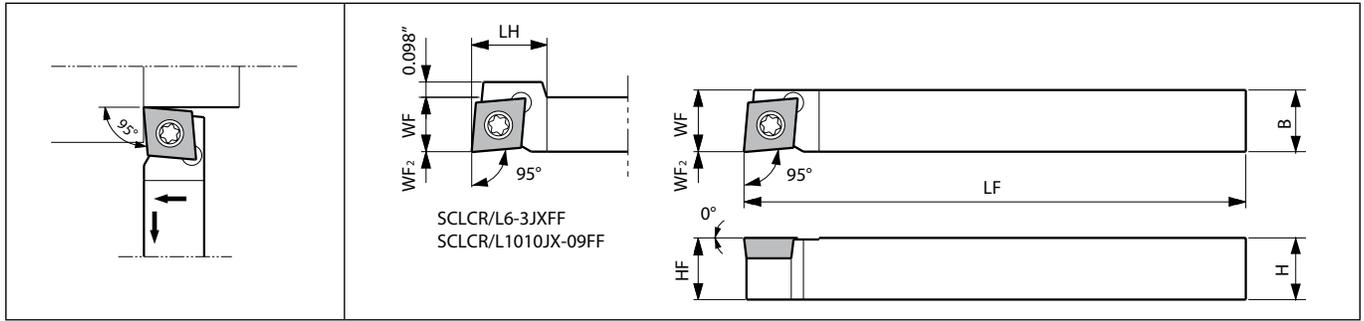
Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions								Standard Corner-R (RE)	Spare Parts			Applicable Inserts
		R	L	H	B	HF	HBH	HBL	LF	WF	WF2		Anchor pin	Lock Screw	Wrench	
																
Inch	ACL ^C % 6-2JXFF	●	●	0.375	0.375	0.375	-	-	4.750	0.375	0	0.008	LPF-11	HSB4X8%L	FH-2	CC□T215... CC□W215...
	ACL ^C % 6-3JXFF	●	●	0.375	0.375	0.375	0.097	0.630	4.750	0.375	0	0.008	LPF-13	HSB4X8%L	FH-2	CC□T325... CC□W325...
	8-3JXFF 10-3JXFF	●	●	0.500 0.625	0.500 0.625	0.500 0.625	-	-	4.750 4.750	0.500 0.625	0	0.008	LPF-17			
mm	ACL ^C % 1010JX-06FF	●	●	10	10	10	-	-	120	10	0	0.2	LPF-11	HSB4X8%L	FH-2	CC□T215... CC□W215...
	ACL ^C % 1010JX-09FF	●	●	10	10	10	2	16	120	10	0	0.2	LPF-13	HSB4X8%L	FH-2	CC□T325... CC□W325...
	1212JX-09FF	●	●	12	12	12	-	-		12						
1616JX-09FF	●	●	16	16	16	-	-	16		LPF-17						

Lock Screw : HSB4X8R for Right-hand Toolholder, HSB4X8L for Left-hand Toolholder.

SCLC-FF (External Turning / External Facing , Screw Clamp, Without Offset)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							Standard Corner-R (RE)	Spare Parts			Applicable Inserts
		R	L	H	B	LH	HF	LF	WF	WF2		Screw	Wrench	Wrench	
		  													
Inch	SCLC% 6-2JXFF	●	●	0.375	0.375	-	0.375	4.750	0.375	0	0.008	SB-2570TR	-	FT-8	CC□T215... CC□W215...
	SCLC% 6-3JXFF	●		0.375	0.375	0.590	0.375		0.375						
	SCLC% 8-3JXFF 10-3JXFF	●	●	0.500	0.500	-	0.500	4.750	0.500	0	0.008	SB-4085TR	FT-15	-	CC□T325... CC□W325...
mm	SCLC% 0808F-06FF	●	●	8	8	-	8	85	8	0	0.2	SB-2570TR	-	FT-8	CC□T215... CC□W215...
	SCLC% 1010JX-06FF	●	●	10	10	-	10	120	10	0	0.2	SB-2570TR	-	FT-8	CC□T215... CC□W215...
	SCLC% 1010JX-09FF	●	●	10	10	15	10	120	10						
	SCLC% 1212F-09FF	●	●	12	12	-	12	85	12	0	0.2	SB-4085TR	FT-15	-	CC□T325... CC□W325...
	SCLC% 1212JX-09FF	●	●	12	12	-	12	120	12						
	SCLC% 1616JX-09FF 2020JX-09FF	●	●	16	16	-	16	120	16	0	0.2	SB-4085TR	FT-15	-	CC□T325... CC□W325...

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)
Contact your local Kyocera sales engineer to upgrade old products to new technology

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

SCLC-FFJCTM (External Turning / External Facing , Screw Clamp, Without Offset, Coolant-Through Toolholder)

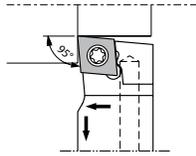


Fig. 1

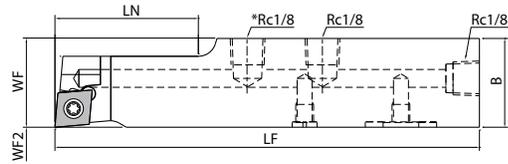
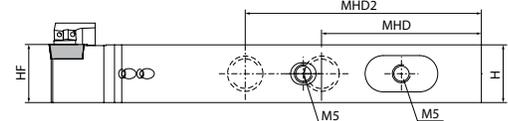
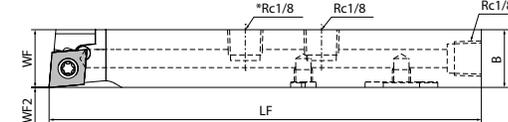
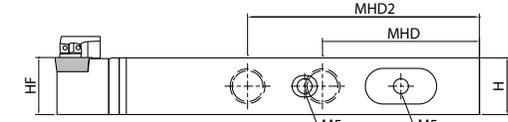
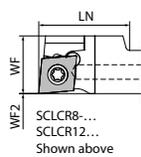


Fig. 2



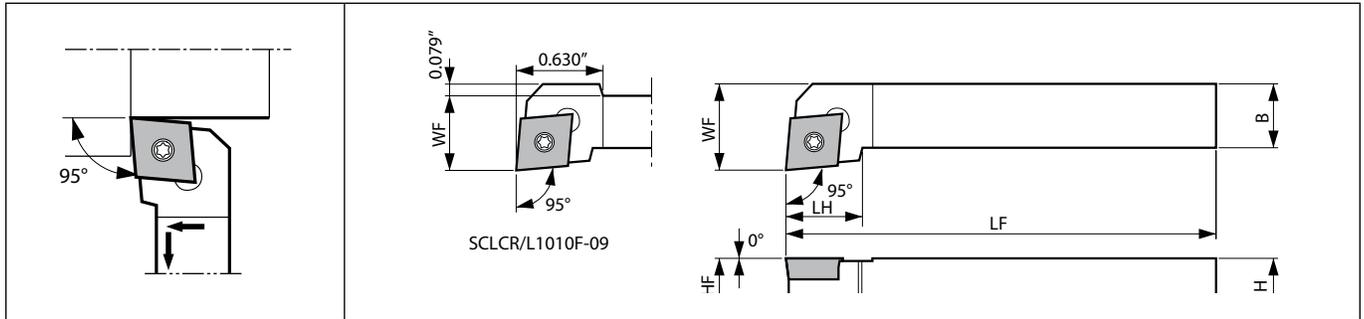
Right-hand shown
SCLCR5.72..., SCLCR8-... : 2-Rc1/8
SCLCR1218..., SCLCR1212... : 2-Rc1/8

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions									Fig.	Standard Corner-R (RE)	Coolant Hole	Spare Parts				Applicable Inserts
			R	H	B	MHD	MHD2	HF	LF	LN	WF				WF2	Plug	Plug	Screw	
Inch	SCLCR 5.72-3FFJCTM	●	0.500	0.709	2.126	-	0.500	4.750	1.102	0.630	0	1	0.008	Yes	GP-1	H55X4LP	SB-4085TR	FT-15	CC□T325... CC□W325...
	SCLCR 82.5-3FFJCTM	●	0.625	1.000	1.732	2.559	0.625	4.750	1.575	0.787									
	SCLCR 8-3FFJCTM	●	0.500	0.500	2.323	-	0.500	4.750	0.984	0.630	0	2	0.008	Yes	GP-1	H55X4LP	SB-4085TR	FT-15	
	SCLCR 10-3FFJCTM	●	0.625	0.625	1.732	2.559	0.625		-	0.625									
SCLCR 12-3FFJCTM	●	0.750	0.750	0.750			0.750												
mm	SCLCR 1218JX-09FFJCTM	●	12	18	54	-	12	120	28	18	0	1	0.2	Yes	GP-1	H55X4LP	SB-4085TR	FT-15	CC□T325... CC□W325...
	SCLCR 1625JX-09FFJCTM	●	16	25	44	65	16		40	25									
	SCLCR 2025JX-09FFJCTM	●	20				20	120	20	25	16								
	SCLCR 1212JX-09FFJCTM	●	12	12	59	-	12	120	-	16	0	2	0.2	Yes	GP-1	H55X4LP	SB-4085TR	FT-15	
	SCLCR 1616JX-09FFJCTM	●	16	16	44	65	16		-	20									
	SCLCR 2020JX-09FFJCTM	●	20	20			20												

Please see page H16 and H17 for piping parts of coolant-through holders.

SCLC (External Turning / External Facing , Screw Clamp)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						Standard Corner-R (RE)	Spare Parts				Applicable Inserts	
		R	L	H	B	LH	HF	LF	WF		Screw	Wrench	Wrench	Wrench		
Inch	SCLCR 6-2X	●		0.375	0.375	0.354	0.375	3.000	0.500	0.004	SB-2570TR	-	FT-8	-	CC□T215... CC□W215...	
	SCLC% 8-3A	●	●	0.500	0.500	0.551	0.500	4.000	0.625	0.004	SB-4085TR	FT-15	-	-	CC□T325... CC□W325...	
	10-3C	●		0.625	0.625	0.572	0.625	5.000	0.750							
	12-3C	●	●	0.750	0.750	0.572	0.750	5.000	0.875							
	16-3D	●		1.000	1.000	0.790	1.000	6.000	1.250							
mm	SCLC% 1010F-06	●	●	10	10	9	10	80	12	0.2	SB-2570TR	-	FT-8	-	CC□T215... CC□W215...	
	SCLC% 1010F-09	●	●	10	10	14	10	80	14	0.2	SB-4085TR	FT-15	-	-	CC□T325... CC□W325...	
		●	●	12	12		12	16								
		●	●	16	16	15	16	100	20							
		●	●	20	20	20	20	125	25							
		●	●	25	25	22	25	150	32							
	SCLC% 1616H-12	●	●	16	16	22	20	16	100	20	0.4	SB-5090TR	-	-	LTW-20	CC□T43...
		●	●	20	20		20	125	25							
		●	●	25	25	25	150	32								

Applicable Inserts (ACLC-FF / SCLC-FF / SCLC-FFJCTM / SCLC)

Applications	Finishing	Finishing	Finishing	Finishing	Finishing	Finishing - Medium	Finishing	Finishing
Insert								
Chipbreaker	PF	GF	SKS	SK	CK	GQ	WP	PP
Page	B58	B58	B59	B59	B59	B59	B60	B60
Applications	Finishing - Medium	Finishing - Medium	Medium	Medium	Low Feed	Low Feed	Stainless Steel / Heat-Resistant Alloys	Cast Iron
Insert								
Chipbreaker	GK	HQ	Standard	MF	%-U	%-J	MQ	No Chipbreaker
Page	B60	B60	B60	B61	B63~B65	B65	B61	B66
Applications	Non-Ferrous Metals	Hard Materials						
Insert								
Chipbreaker	AP	%-A3	AH	PCD	APD	CBN		
Page	B66	B66	B66	C39	C40	C20		

Recommended Cutting Conditions E74, E75

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)
Contact your local Kyocera sales engineer to upgrade old products to new technology

INSERT GRADES **A**

TURNING INSERTS **B**

CBN / PCD INSERTS **C**

TURNING HOLDERS **D**

SMALL TOOLS **E**

BORING **F**

GROOVING **G**

CUT-OFF **H**

THREADING **J**

DRILLING **K**

MILLING **M**

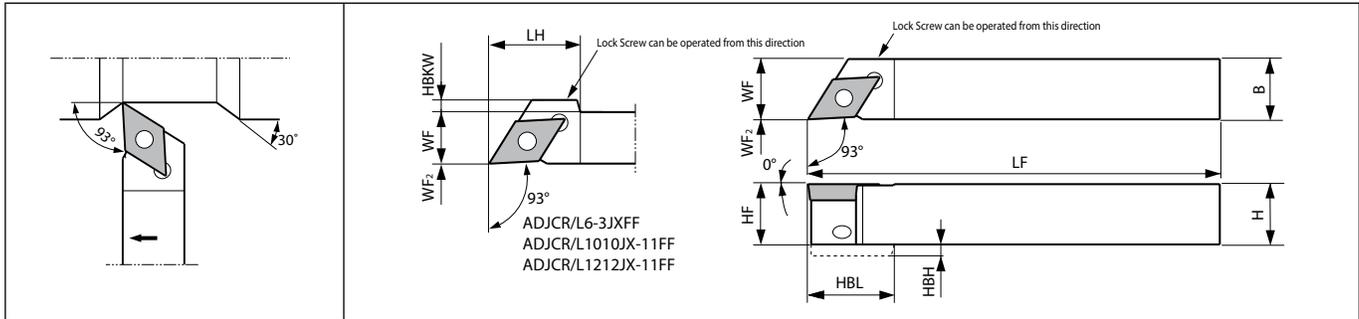
QUICK CHANGE TOOLING **N**

SPARE PARTS **P**

TECHNICAL **R**

INDEX **T**

ADJC-FF (External Turning / External Copying , Back Clamp, Without Offset)



Right-hand shown

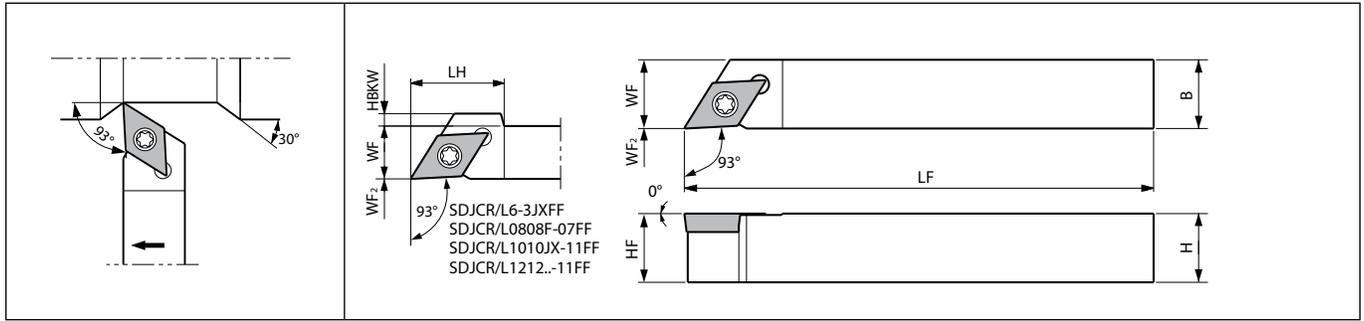
Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions										Standard Corner-R (RE)	Spare Parts			Applicable Inserts
		R	L	H	B	LH	HF	HBH	HBKW	HBL	LF	WF	WF2		Anchor pin	Lock Screw	Wrench	
Inch	ADJC% 6-2JXFF	●	●	0.375	0.375	-	0.375	-	-	-	4.750	0.375	0	0.008	LPF-11	HSB4X8%	FH-2	DC□T215... DC□W215... DC□X215...
	ADJC% 6-3JXFF	●	●	0.375	0.375	0.787	0.375	0.097	0.137	0.787	4.750	0.375	0	0.008	LPF-13	HSB4X8%	FH-2	DC□T325... DC□W325... DC□X325...
	8-3JXFF	●	●	0.500	0.500	-	0.500	-	-	-	4.750	0.500			LPF-17			
10-3JXFF	●	●	0.625	0.625	-	0.625	-	-	-	4.750	0.625							
mm	ADJC% 1010JX-07FF	●	●	10	10	-	10	-	-	-	120	10	0	0.2	LPF-11	HSB4X8%	FH-2	DC□T215... DC□W215... DC□X215...
	ADJC% 1010JX-11FF	●	●	10	10	20	10	2	3	20	120	10	0	0.2	LPF-13	HSB4X8%	FH-2	DC□T325... DC□W325... DC□X325...
	1212JX-11FF	●	●	12	12		12	1	-	-		12						
1616JX-11FF	●	●	16	16	-		16	-	-	-		16						

Lock Screw : HSB4X8R for Right-hand Toolholder, HSB4X8L for Left-hand Toolholder.

For WP chipbreaker, cutting edge offsets or program corrections are required on **R42** and **R43**.

SDJC-FF (External Turning / External Copying, Screw Clamp, Without Offset)



Right-hand shown

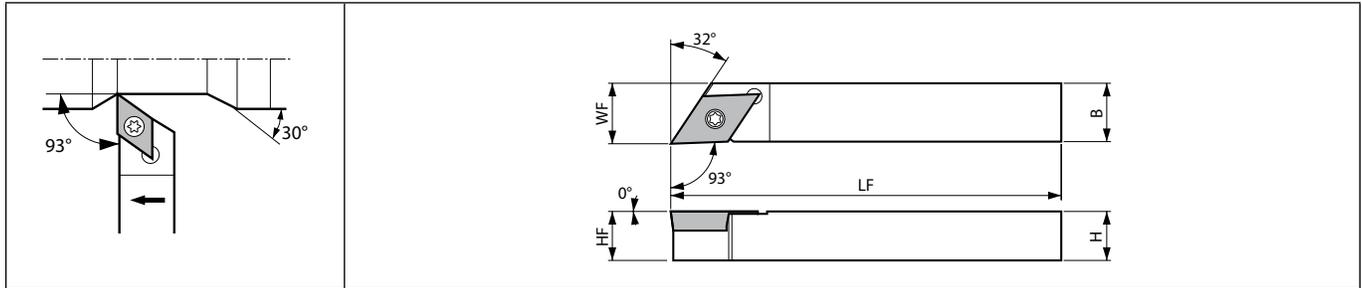
Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions								Standard Corner-R (RE)	Spare Parts			Applicable Inserts	
		R	L	H	B	LH	HF	HBKW	LF	WF	WF2		Screw	Wrench	Wrench		
		  															
Inch	SDJCR 6-2JXFF	●		0.375	0.375	-	0.375	-	4.750	0.375			0.008	SB-2570TR	-	FT-8	DC□T215... DC□W215... DC□X215...
	SDJC% 6-3JXFF	●		0.375	0.375	0.787	0.375	0.137	4.750	0.375	0		SB-4085TR	FT-15	-	DC□T325... DC□W325... DC□X325...	
	8-3JXFF	●	●	0.500	0.500	-	0.500	-	4.750	0.500							
	10-3JXFF	●		0.625	0.625		0.625	-	4.750	0.625							
mm	SDJC% 0808F-07FF	●	●	8	8	14	8	0.5	85	8	0	0.2	SB-2570TR	-	FT-8	DC□T215... DC□W215... DC□X215...	
	1010JX-07FF	●	●	10	10	-	10	-	120	10			SB-4085TR	FT-15	-	DC□T325... DC□W325... DC□X325...	
	SDJC% 1010JX-11FF	●	●	10	10		10	3	120	10	0	0.2					
	1212F-11FF	●	●			20	12	1	85	12							
	1212JX-11FF	●	●	12	12		12	-	120	16							
	1616JX-11FF	●	●	16	16		16	-	120	20							
2020JX-11FF	●	●	20	20		20	-	120	20								

For WP chipbreaker, cutting edge offsets or program corrections are required on **R42** and **R43**.

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

SDJC-F (External Turning / External Copying , Screw Clamp)



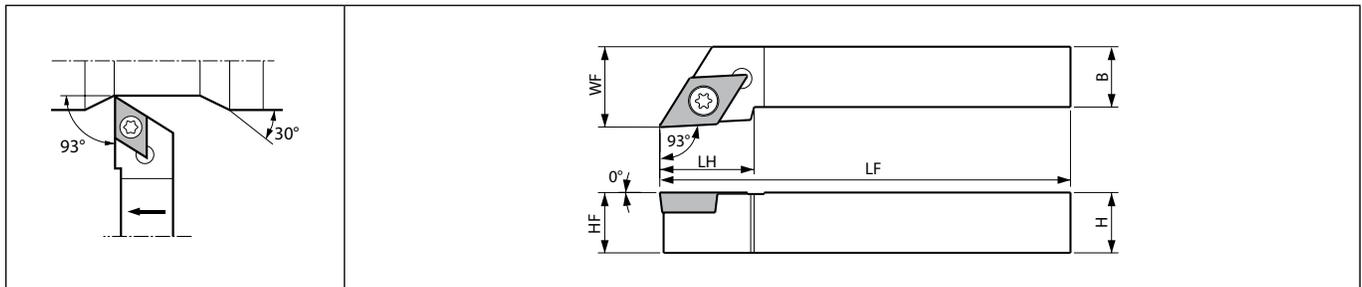
Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions					Standard Corner-R (RE)	Spare Parts			Applicable Inserts
		R	H	B	HF	LF	WF	Screw		Wrench	Wrench		
Inch	SDJCR 6-2CF	●		0.375	0.375	0.375	5.000	0.395	0.004	SB-2570TR	-	FT-8	DC□T215... DC□W215... DC□X215...
	SDJCR 8-3DF	●		0.500	0.500	0.500	6.000	0.520	1/32	SB-4085TR	FT-15	-	DC□T325... DC□W325... DC□X325...

For WP chipbreaker, cutting edge offsets or program corrections are required on **R42** and **R43**.

SDJC (External Turning / External Copying , Screw Clamp)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions					Standard Corner-R (RE)	Spare Parts			Applicable Inserts		
		R	L	H	B	LH	HF	LF		WF	Screw	Wrench		Wrench	
Inch	SDJCR 6-2X	●		0.375	0.375	0.472	0.375	3.000	0.500	0.004	SB-2570TR	-	FT-8	DC□T215... DC□W215... DC□X215...	
	SDJC% 8-3A	●	●	0.500	0.500	0.709	0.500	4.000	0.625	0.004	SB-4085TR	FT-15	-	DC□T325... DC□W325... DC□X325...	
	10-3C	●	●	0.625	0.625	0.709	0.625	5.000	0.750						
	12-3C	●	●	0.750	0.750	0.750	0.750	5.000	0.875						
	16-3D	●		1.000	1.000	0.810	1.000	6.000	1.250						0.008
mm	SDJC% 1010F-07	●	●	10	10	12	10	80	12	0.2	SB-2570TR	-	FT-8	DC□T215... DC□W215... DC□X215...	
	SDJC% 1010F-11	●	●	10	10	18	10	80	12	0.2	SB-4085TR	FT-15	-	DC□T325... DC□W325... DC□X325...	
		1212H-11	●	●	12		12	12	16						
		1616H-11	●	●	16		16	16	20						
		2020K-11	●	●	20		20	20	125						25
		2525M-11	●	●	25		25	23	25						150

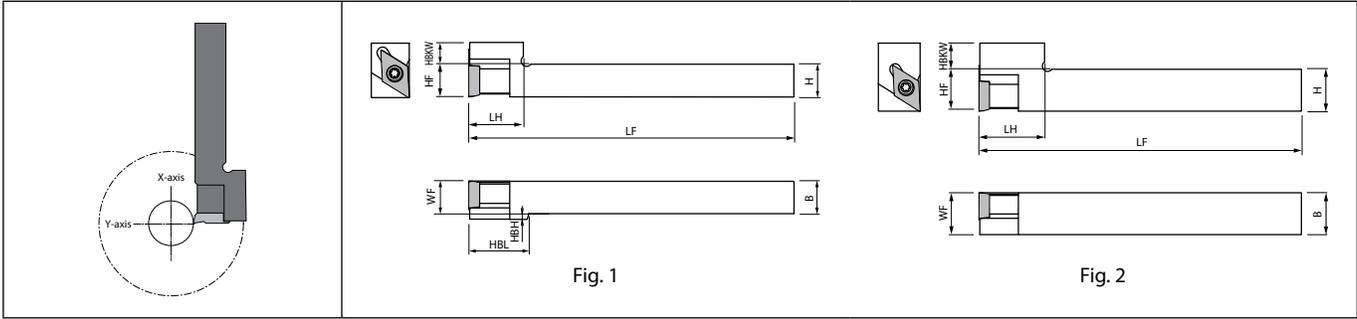
For WP chipbreaker, cutting edge offsets or program corrections are required on **R42** and **R43**.

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)

Contact your local Kyocera sales engineer to upgrade old products to new technology

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

SDJC-FF-Y (External Turning / External Copying , Y-Axis Toolholder)



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

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions									Fig.	Coolant Hole	Spare Parts		Applicable Inserts
			R	H	B	LH	HF	HBH	HBKW	HBL	LF			WF	Screw	
mm	SDJCR 1212JX-11FF-Y	●	12	12	20	12	2	8	22	12	1	No	SB-4085TR	FT-15	DC□T325... DC□W325... DC□X325...	
	1616JX-11FF-Y	●	16	16	25	16	-	10	-	120	16					2

For WP chipbreaker, cutting edge offsets or program corrections are required on **R42** and **R43**.

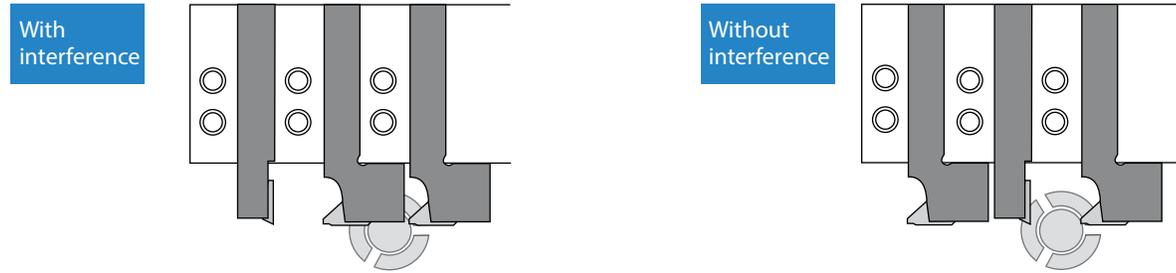
Applicable Inserts (ADJC-FF / SDJC-FF / SDJC-FFJCTM / SDJC-F / SDJC / SDJC-FF-Y)

Applications	Minute D.O.C.	Finishing	Finishing	Finishing	Finishing	Finishing - Medium	Finishing	Finishing
Insert								
Chipbreaker	CF	GF	SKS	SK	CK	GQ	WP	R/2-WP
Page	B68	B68	B68	B68	B68	B69	B69	B69
Applications	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Medium	Medium	Finishing	Finishing
Insert								
Chipbreaker	PP	GP	GK	HQ	Standard	MF	R/2-F	R/2-FSF
Page	B69	B69	B70	B70	B70	B70	B72, B73	B72
Applications	Low Feed	Low Feed	Low Feed	Low Feed	Low Carbon Steel	Low Carbon Steel	Stainless Steel / Heat-Resistant Alloys	Cast Iron
Insert								
Chipbreaker	R/2-U	R/2-USF	R/2-J	R/2-JSF	XP	XQ	MQ	No Chipbreaker
Page	B74~B76	B74	B77	B76	B71	B71	B71	B78
Applications	Non-Ferrous Metals	Hard Materials						
Insert								
Chipbreaker	AP	R/2-A3	AH	PCD	APD	CBN		
Page	B78	B78	B78	C42	C42	C22		

Recommended Cutting Conditions ➔ E74, E75

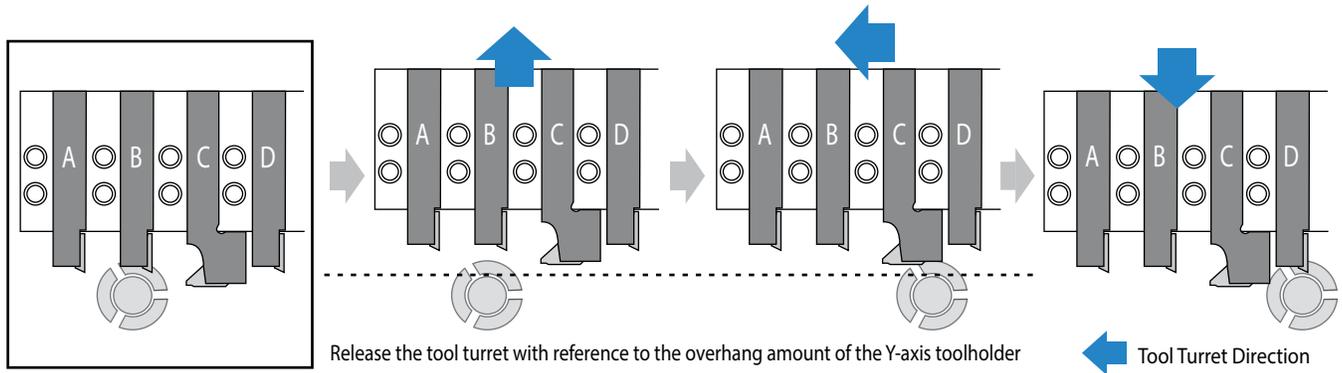
Precautions for using Y-axis toolholder

Do not use Y-axis toolholders side by side to prevent interference. (Only two Y-axis holder can be used at the same time)



Standard toolholders may be mounted between two Y-axis toolholders

When changing the tool, set the retracted position with reference to the cutting edge of the Y-axis holder. (When exchanging from tool B to D)



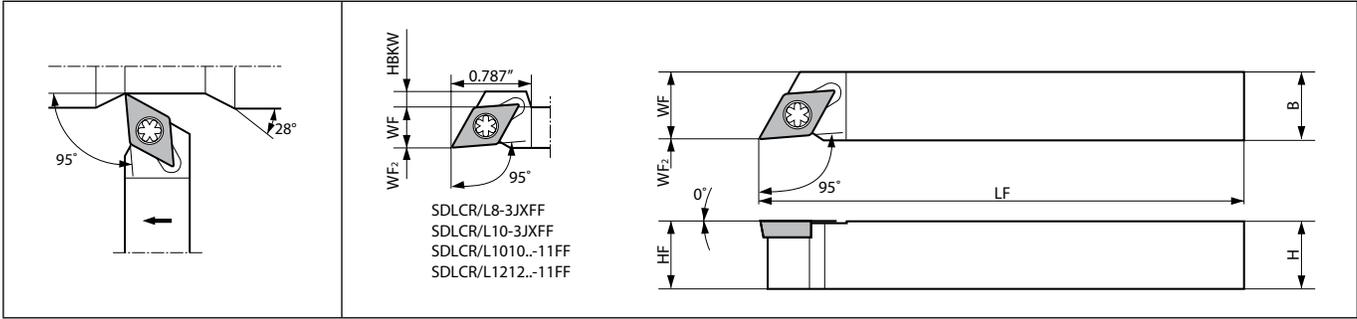
Note that using other toolholders together will result in different outside diameters

(Unit : mm)

Y-axis Toolholder Overhang	Examples	Overhang Amount Available Outside Cutting Diameter (ø)			
		L	20	22	25
20		A	Without Restriction	Without Restriction	Without Restriction
		B	13.0	13.0	13.0
		C	Without Restriction	Without Restriction	Without Restriction
25		A	38.0	58.0	Without Restriction
		B	14.9	13.6	13.0
		C	45.0	60.0	Without Restriction

- INSERT GRAPES **A**
- TURNING INSERTS **B**
- CBN/PCD INSERTS **C**
- TURNING HOLDERS **D**
- SMALL TOOLS **E**
- BORING **F**
- GROOVING **G**
- CUT-OFF **H**
- THREADING **J**
- DRILLING **K**
- MILLING **M**
- QUICK CHANGE TOOLING **N**
- SPARE PARTS **P**
- TECHNICAL **R**
- INDEX **T**

SDLC-FF (External Turning / External Copying, Screw Clamp, Without Offset)

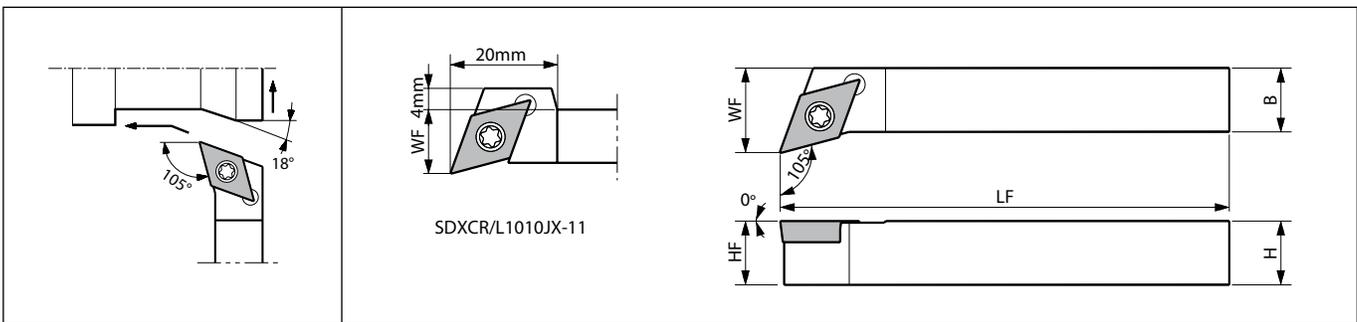


Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							Standard Corner-R (RE)	Spare Parts			Applicable Inserts
		R	L	H	B	HF	HBKW	LF	WF	WF2		Screw	Wrench	Wrench	
Inch	SDLCR 8-3JXFF	●		0.500	0.500	0.500	0.051	4.750	0.500		0.008	SB-4085TR	FT-15	-	DC□T325... DC□W325...
	10-3JXFF	●		0.625	0.625	0.625	-	4.750	0.625						
mm	SDLC% 1010JX-07FF	●	●	10	10	10		120	10		0.2	SB-2570TR	-	FT-8	DC□T215... DC□W215...
	1212F-07FF	●						85							
	1212JX-07FF	●	●	12	12	12	-	120	12						
	1616JX-07FF	●	●	16	16	16		120	16						
	SDLC% 1010F-11FF	●		10	10	10	4	80	10						
	1010JX-11FF	●	●					120							
	1212F-11FF	●						85							
	1212JX-11FF	●	●	12	12	12	2	120	12	0	0.2	SB-4085TR	FT-15	-	DC□T325... DC□W325...
	1616H-11FF	●						100							
	1616JX-11FF	●	●	16	16	16	-	120	16						

SDXC (External Turning / External Facing / External Copying)

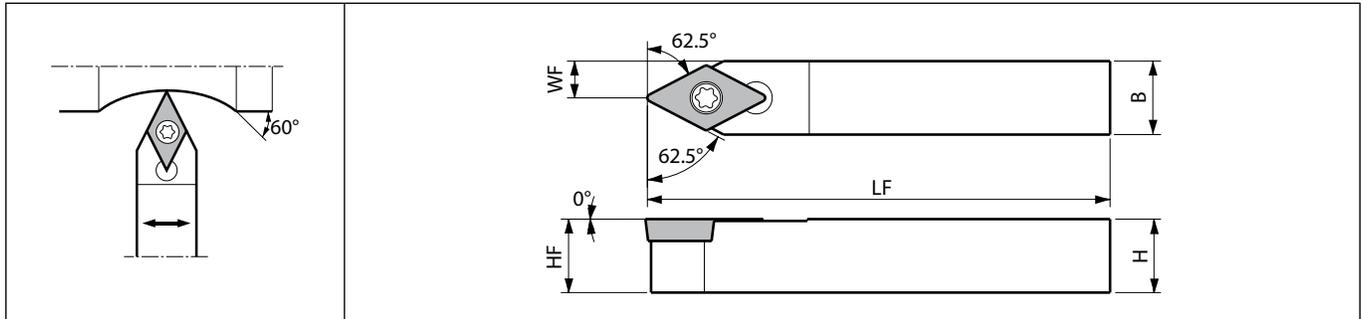


Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions				Standard Corner-R (RE)	Spare Parts			Applicable Inserts	
		R	L	H	B	HF	LF		WF	Screw	Wrench		Wrench
mm	SDXC% 1010JX-07	●	●	10	10	10	120	12	0.2	SB-2570TR	-	FT-8	DC□T215... DC□W215...
	SDXC% 1010JX-11	●	●	10	10	10		12					
	1212JX-11	●	●	12	12	12		16	0.2	SB-4085TR	FT-15	-	DC□T325... DC□W325...
	1616JX-11	●	●	16	16	16		20					

SDNC (External Turning / External Copying)



Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions					Standard Corner-R (RE)	Spare Parts			Applicable Inserts		
			N	H	B	HF	LF		WF	Screw	Wrench		Wrench	
Inch	SDNCN 6-2JX 8-2JX	●	0.375	0.375	0.375	4.750	0.187	0.008	SB-2570TR	-	FT-8	DC□T215... DC□W215...		
		●	0.500	0.500	0.500		0.250							
	SDNCN 6-3JX 8-3JX 10-3JX	●	0.375	0.375	0.375	4.750	0.187		0.008	SB-4085TR	FT-15		-	DC□T325... DC□W325...
		●	0.500	0.500	0.500		0.250							
mm	SDNCN 1010JX-07 1212JX-07	●	10	10	10	120	5	0.2	SB-2570TR	-	FT-8	DC□T215... DC□W215...		
		●	12	12	12		6							
	SDNCN 1010F-11 1010JX-11 1212JX-11 1616H-11 1616JX-11	●	10	10	10	120	80		0.2	SB-4085TR	FT-15		-	DC□T325... DC□W325...
		●					120							
		●	12	12	12	120	6							
		●	16	16	16	100	8							
●	120													

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)
Contact your local Kyocera sales engineer to upgrade old products to new technology

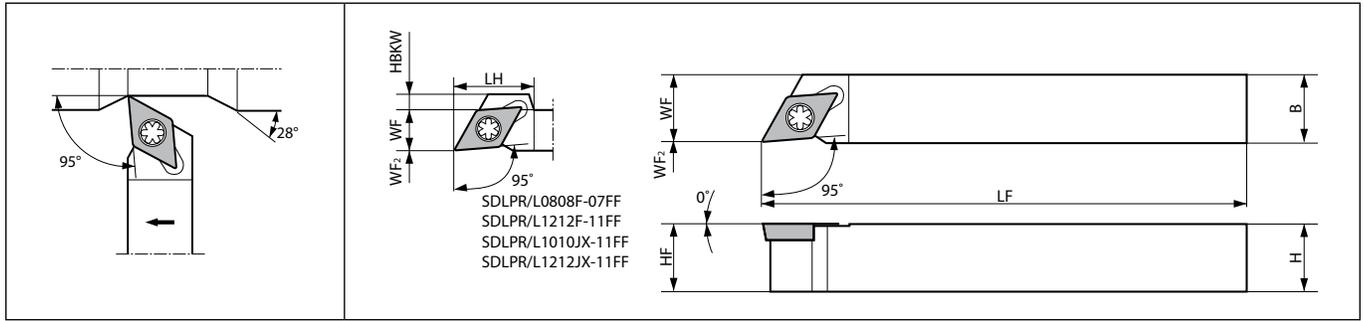
Applicable Inserts (SDLC-FF / SDXC / SDNC-F / SDNC)

Applications	Minute D.O.C.	Finishing	Finishing	Finishing	Finishing	Finishing - Medium	Finishing	Finishing
Insert								
Chipbreaker	CF	GF	SKS	SK	CK	GQ	PP	GP
Page	B68	B68	B68	B68	B68	B69	B69	B69
Applications	Finishing - Medium	Finishing - Medium	Medium	Medium	Finishing	Finishing	Low Feed	Low Feed
Insert								
Chipbreaker	GK	HQ	Standard	MF	P%L-F	P%L-FSF	P%L-U	P%L-USF
Page	B70	B70	B70	B70	B72, B73	B72	B74~B76	B74
Applications	Low Feed	Low Feed	Low Carbon Steel	Low Carbon Steel	Stainless Steel / Heat-Resistant Alloys	Cast Iron	Non-Ferrous Metals	Non-Ferrous Metals
Insert								
Chipbreaker	P%L-J	P%L-JSF	XP	XQ	MQ	No Chipbreaker	AP	P%L-A3
Page	B77	B76	B71	B71	B71	B78	B78	B78
Applications	Non-Ferrous Metals	Non-Ferrous Metals	Non-Ferrous Metals	Hard Materials				
Insert								
Chipbreaker	AH	PCD	APD	CBN				
Page	B78	C42	C42	C22				

Recommended Cutting Conditions  E74, E75

E
SMALL
TOOLS

SDLP-FF (External Turning / External Copying, Screw Clamp, Without Offset)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions								Standard Corner-R (RE)	Spare Parts			Applicable Inserts
		R	L	H	B	LH	HF	HBKW	LF	WF	WF2		Screw	Wrench	Wrench	
mm	SDLP%L 0808F-07FF	●	●	8	8	14	8	0.5	85	8	0	0.2	SB-2570TR	-	FT-8	DPET215...
	1010JX-07FF	●	●	10	10	-	10	-	120	10	0	0.2	SB-2570TR	-	FT-8	DPET215...
	SDLP%L 1010JX-11FF	●	●	10	10	20	10	4	-	10	0	0.2	SB-4085TR	FT-15	-	DPET325...
	1212JX-11FF	●	●	12	12	-	12	2	120	12	0	0.2	SB-4085TR	FT-15	-	DPET325...
	1616JX-11FF	●	●	16	16	-	16	-	-	16	0	0.2	SB-4085TR	FT-15	-	DPET325...

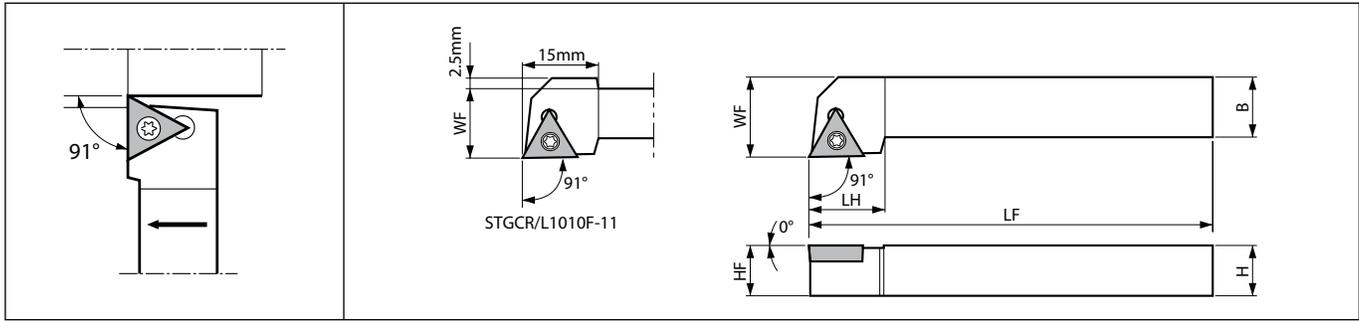
Applicable Inserts

Applications	Finishing	Low Feed
Insert		
Chipbreaker	%L-FSF	%L-USF
Page	B79	B79

Recommended Cutting Conditions E74, E75

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

STGC (External Turning)



Right-hand shown

Toolholder Dimensions

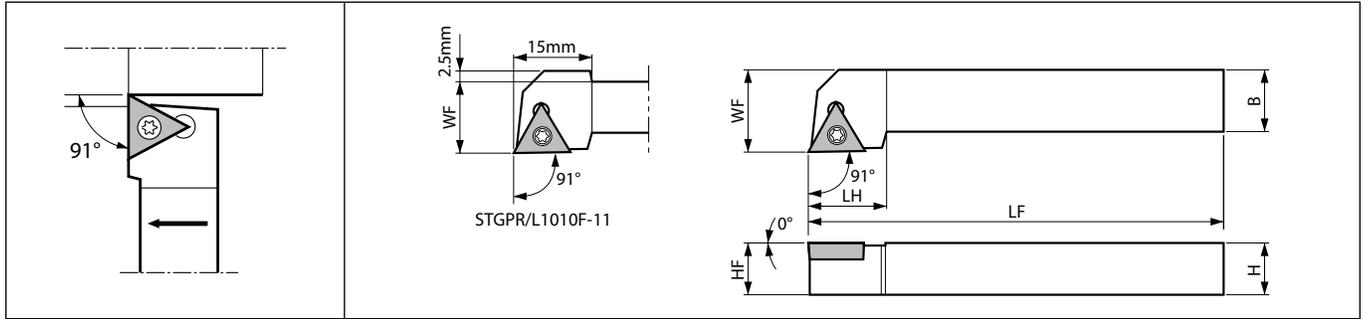
Unit	Part Number	Std. Item		Dimensions								Standard Corner-R (RE)	Spare Parts		Applicable Inserts
		R	L	H	B	LH	HF	LF	WF	Screw	Wrench				
mm	STGC $\frac{1}{2}$ 0808E-08	●		8	8	12	8	70	10	0.2	SB-2050TR	FT-6	TC□T1515... TC□W1515...		
	1010F-08	●	●	10	10		10	80	12						
	STGC $\frac{1}{2}$ 1010F-11	●	●	10	10	15	10	80	14		0.4	SB-2570TR	FT-8	TC□T22... TC□W22...	
	1212H-11	●	●	12	12		12	100	16						
	1616H-11	●	●	16	16		16	125	20						
	2020K-11	●	●	20	20		20	150	25						
	2525M-11	●	●	25	25		20	25	32						

Applicable Inserts

Applications	Low Feed	Low Feed	Cast Iron	Non-Ferrous Metals	Non-Ferrous Metals
Insert					
Chipbreaker	$\frac{1}{2}$ -U	$\frac{1}{2}$ -USF	No Chipbreaker	$\frac{1}{2}$ -A3	PCD
Page	B86	B85	B87	B87	C45

Recommended Cutting Conditions \rightarrow E74, E75

STGP (External Turning)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions								Standard Corner-R (RE)	Spare Parts		Applicable Inserts
		R	L	H	B	LH	HF	LF	WF	Screw	Wrench				
mm	STGPR 0808E-08	●		8	8	12	8	70	10	0.2	SB-2050TR	FT-6	TP□B1515... TP□H1515... TP□T1515...		
	STGP% 1010F-11	●	●	10	10		10	80	14	0.2	SB-3080TR	FT-10	TP□B22... TP□H22... TP□T22...		
	1212H-11	●	●	12	12	15	12	100	16						
	1616H-11	●	●	16	16		16		20						

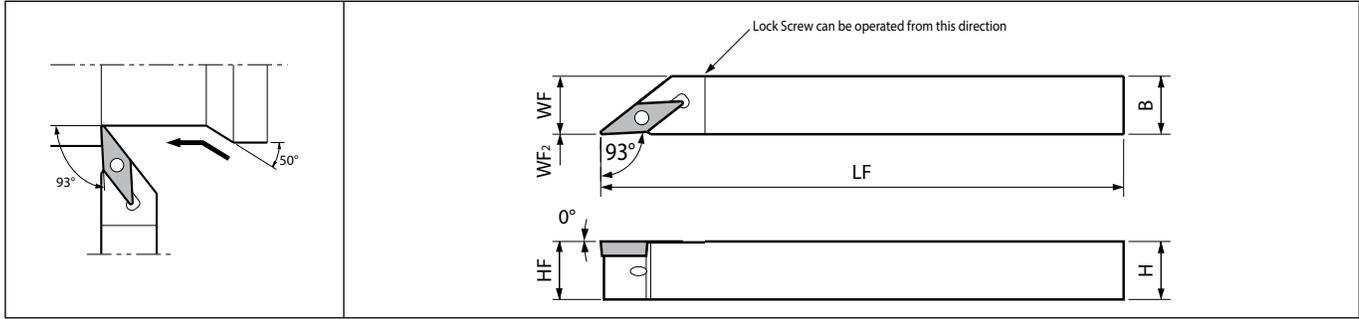
Applicable Inserts

Applications	Minute D.O.C.	Finishing	Finishing	Finishing - Medium	Finishing	Finishing	Low Feed	Medium
Insert								
Chipbreaker	CF	PP	GP	HQ	R/L	%L-FSF	%L-USF	%L-H
Page	B88	B88	B89	B89	B90, B91	B92	B94	B93
Applications	Low Carbon Steel	Low Carbon Steel	Cast Iron	Non-Ferrous Metals	Non-Ferrous Metals	Non-Ferrous Metals	Hard Materials	
Insert								
Chipbreaker	XP	XQ	No Chipbreaker	AP	PCD	APD	CBN	
Page	B89	B89	B94	B94	C46, C47	C47	C23	

Recommended Cutting Conditions E74, E75

A INSERT GRADES
B TURNING INSERTS
C CBN/PCD INSERTS
D TURNING HOLDERS
E SMALL TOOLS
F BORING
G GROOVING
H CUT-OFF
J THREADING
K DRILLING
M MILLING
N QUICK CHANGE TOOLING
P SPARE PARTS
R TECHNICAL
T INDEX

AVJB-FF (External Turning / External Copying , Back Clamp, Without Offset)



Right-hand shown

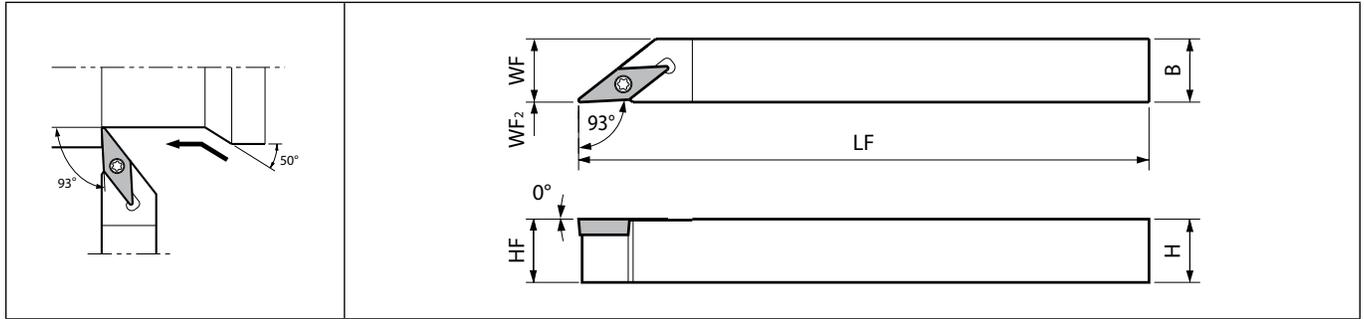
Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						Standard Corner-R (RE)	Spare Parts			Applicable Inserts
		R	L	H	B	HF	LF	WF	WF2		Anchor pin	Lock Screw	Wrench	
														
Inch	AVJB% 6-2JXFF	●	●	0.375	0.375	0.375	4.750	0.375	0	1/64	LPF-11	HSB4X8%	FH-2	VB□T22... VB□W22...
	8-2JXFF	●	●	0.500	0.500	0.500		0.500			LPF-1113			
	10-2JXFF	●	●	0.625	0.625	0.625		0.625			LPF-1117			
mm	AVJB% 1010JX-11FF	●	●	10	10	10	120	10	0	0.4	LPF-11	HSB4X8%	FH-2	VB□T22... VB□W22...
	1212JX-11FF	●	●	12	12	12		12			LPF-1113			
	1616JX-11FF	●	●	16	16	16		16			LPF-1117			

Lock Screw : HSB4X8R for Right-hand Toolholder, HSB4X8L for Left-hand Toolholder.

E
SMALL
TOOLS

SVJB-FF (External Turning / External Copying, Screw Clamp, Without Offset)

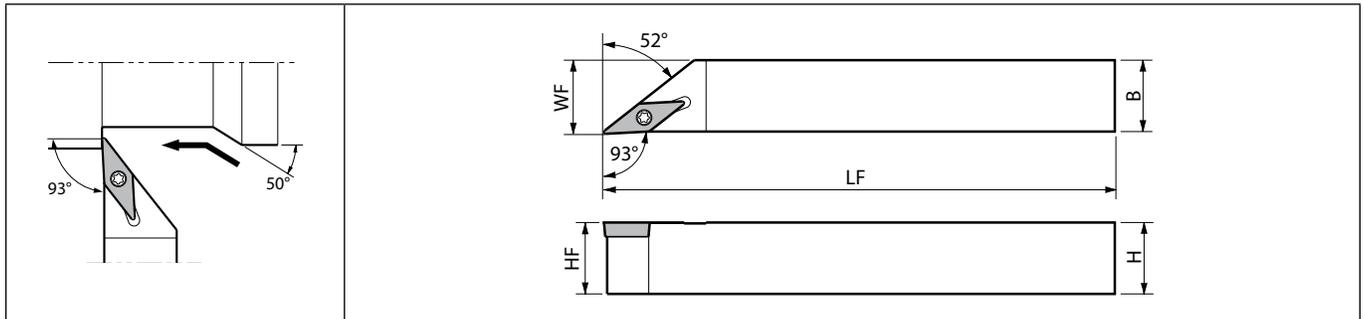


Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						Standard Corner-R (RE)	Spare Parts		Applicable Inserts
		R	L	H	B	HF	LF	WF	WF2		Screw	Wrench	
Inch	SVJB% 6-2JXFF	●	●	0.375	0.375	0.375	4.750	0.375	0	1/64	SB-2570TR	FT-8	VB□T22... VB□W22...
	8-2JXFF	●	●	0.500	0.500	0.500		0.500					
	10-2JXFF	●		0.625	0.625	0.625		0.625					
mm	SVJB% 1010JX-11FF	●	●	10	10	10	120	10	0	0.4	SB-2570TR	FT-8	VB□T22... VB□W22...
	1212JX-11FF	●	●	12	12	12		12					
	1616JX-11FF	●	●	16	16	16		16					
	2020JX-11FF	●	●	20	20	20		20					

SVJB-F (External Turning / External Copying, Screw Clamp, Without Offset)



Right-hand shown

Toolholder Dimensions

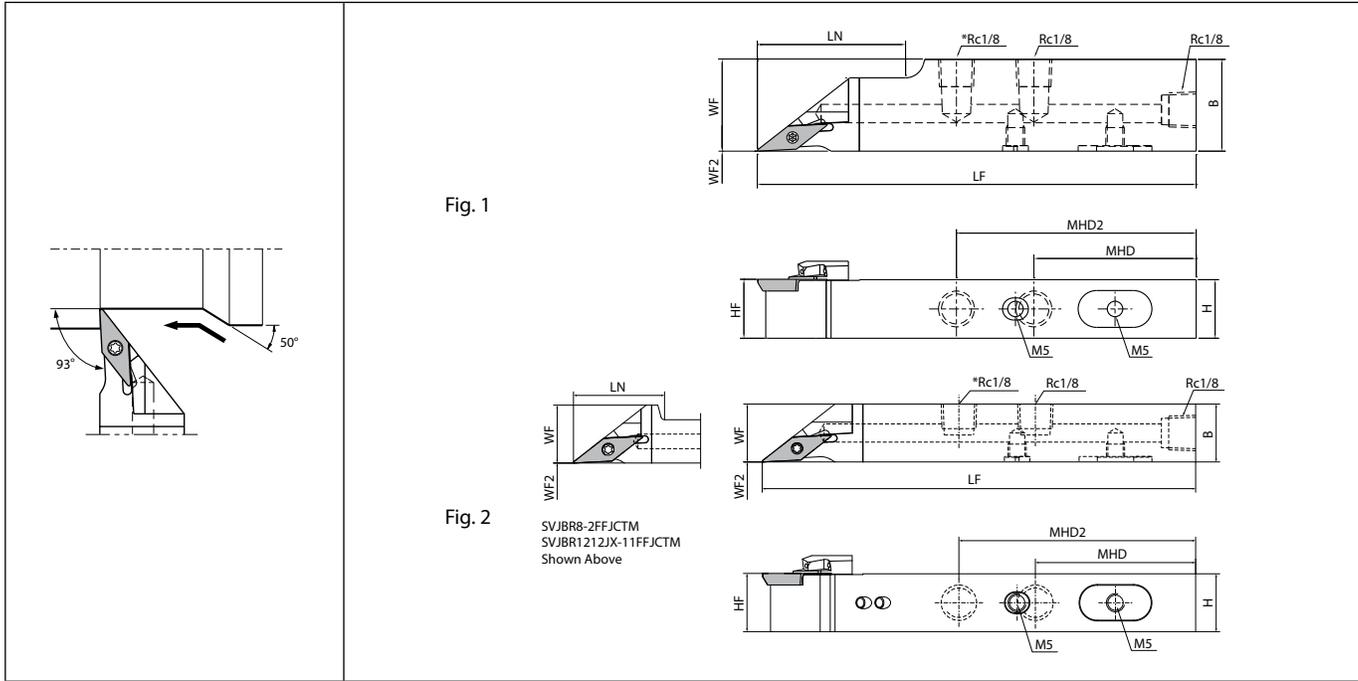
Unit	Part Number	Std. Item		Dimensions						Standard Corner-R (RE)	Spare Parts		Applicable Inserts
		R	L	H	B	HF	LF	WF	Screw		Wrench		
Inch	SVJB% 6-2CF	●	●	0.375	0.375	0.375	5.000	0.395	1/64	SB-2570TR	FT-8	VB□T22... VB□W22...	
	8-2DF	●	●	0.500	0.500	0.500	6.000	0.520					

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)
Contact your local Kyocera sales engineer to upgrade old products to new technology

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

SVJB-FFJCTM (External Turning / External Copying, Screw Clamp, Without Offset, Coolant-Through Toolholder)

F
SMALL
TOOLS



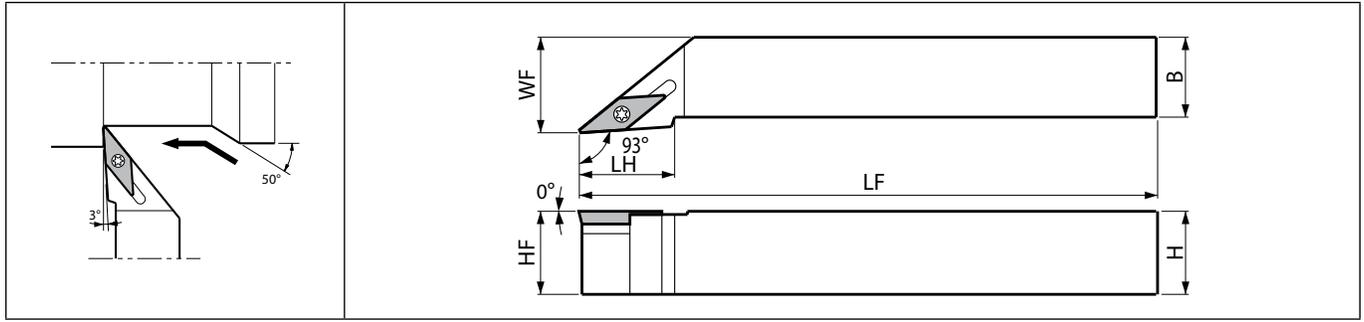
Toolholder Dimensions

Right-hand shown
SVJBR5.72..., SVJBR8-... : 2-Rc1/8
SVJBR1218..., SVJBR1212... : 2-Rc1/8

Unit	Part Number	Std. Item	Dimensions									Fig.	Standard Corner-R (RE)	Coolant Hole	Spare Parts				Applicable Inserts
			R	H	B	MHD	MHD2	HF	LF	LN	WF				WF2	Plug	Plug	Screw	
Inch	SVJBR 5.72-2FFJCTM	●	0.500	0.709	2.126	-	0.500	4.750	1.102	0.630	0	1	1/64	Yes	GP-1	HSSX4LP	SB-2570TR	FT-8	VB□T22... VB□W22...
	82.5-2FFJCTM	●	0.625	1.000	1.732	2.559	0.625	1.575	0.787										
	SVJBR 8-2FFJCTM	●	0.500	0.500	2.323	-	0.500	4.750	0.984	0.630	0	2	1/64	Yes	GP-1	HSSX4LP	SB-2570TR	FT-8	VB□T22... VB□W22...
	10-2FFJCTM	●	0.625	0.625	1.732	2.559	0.625		-	0.625									
12-2FFJCTM	●	0.750	0.750	-	-	0.750	-		0.750										
mm	SVJBR 1218JX-11FFJCTM	●	12	18	54	-	12	120	28	18	0	1	0.4	Yes	GP-1	HSSX4LP	SB-2570TR	FT-8	VB□T22... VB□W22...
	1625JX-11FFJCTM	●	16	25	44	65	16		40	25									
	2025JX-11FFJCTM	●	20		20	20	20	20	20	20									
	SVJBR 1212JX-11FFJCTM	●	12	12	59	-	12	120	25	16	0	2	0.4	Yes	GP-1	HSSX4LP	SB-2570TR	FT-8	VB□T22... VB□W22...
	1616JX-11FFJCTM	●	16	16	44	65	16		-	16									
	2020JX-11FFJCTM	●	20	20	44	65	20		-	20									

Please see page H16 and H17 for piping parts of coolant-through holders.

SVJB (External Turning / External Copying, Screw Clamp)



Right-hand shown

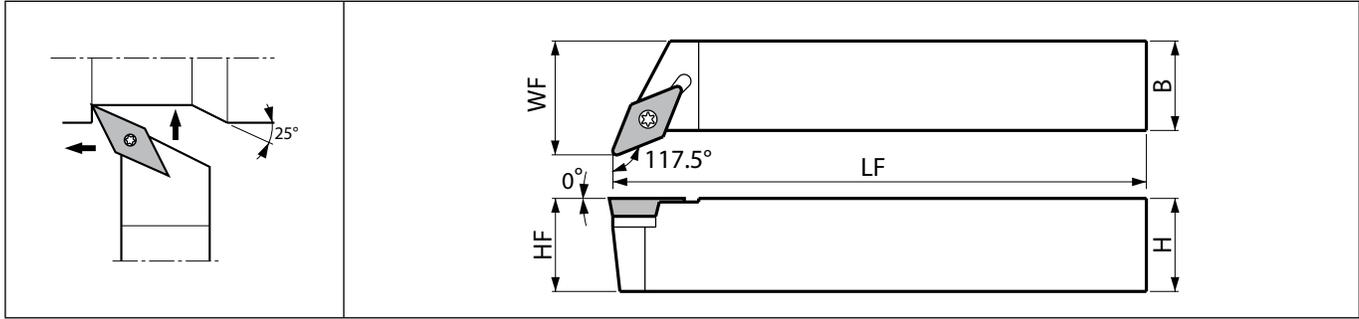
Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						Standard Corner-R (RE)	Spare Parts						Applicable Inserts
		R	L	H	B	LH	HF	LF	WF		Screw	Wrench	Wrench	Shim screw	Shim	Wrench	
Inch	SVJB% 8-2A	●	●	0.500	0.500	0.895	0.500	4.000	0.625	1/64	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...
	SVJBR 12-3C	●		0.750	0.750	1.220	0.750	5.000	0.875	1/32	SB-4085TR	FT-15	-	-	-	VB□T33... VB□W33... VC□T33...	
	16-3D	●		1.000	1.000	1.250	1.000	6.000	1.250								
mm	SVJB% 2020K-11	●	●	20	20	30	20	125	25	0.4	SB-2570TR	-	FT-8	-	-	VB□T22... VB□W22...	
	2525M-11	●	●	25	25	35	25	150	32								
	SVJB% 2020K-16N	●	●	20	20	30	20	125	25	0.8	SB-40125TRN	FT-15	-	SS-4N	SVN-32N (SVN-32S*)	LW-4	VB□T33... VB□W33... VC□T33...
	2525M-16N	●	●	25	25		25	150	32								

When using inserts with a corner-R(RE) of 0.008" or 1/64" (0.2mm or 0.4mm), shim (SVN-32S) is recommended (sold separately).

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

SVPB (External Turning / External Facing / External Copying / Undercutting, Screw Clamp)



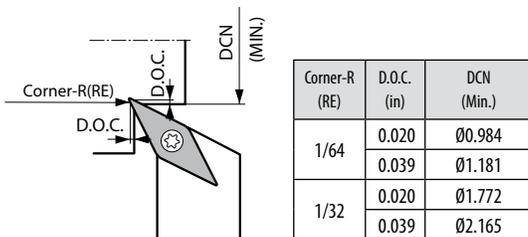
Right-hand shown

Toolholder Dimensions

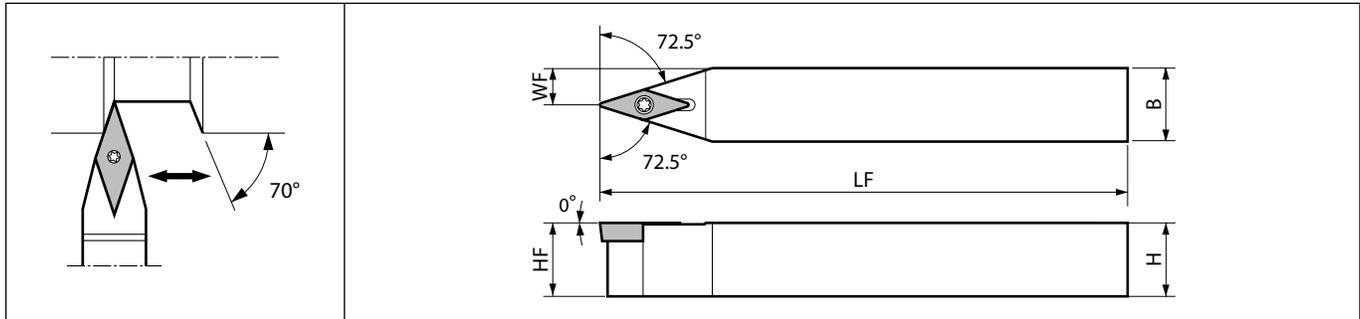
Unit	Part Number	Std. Item		Dimensions				Standard Corner-R (RE)	Spare Parts						Applicable Inserts	
		R	L	H	B	HF	LF		WF	Screw	Wrench	Wrench	Shim screw	Shim		Wrench
mm	SVPB% 1010JX-11	●	●	10	10	10		14.5	0.4	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...
	1212JX-11	●	●	12	12	12	120	16.5								
	1616JX-11	●	●	16	16	16		20.5								
	2020K-11	●	●	20	20	20	125	25								
	2525M-11	●	●	25	25	25	150	32								
	SVPB% 2020K-16N	●	●	20	20	20	125	25								
2525M-16N	●	●	25	25	25	150	32									

When using inserts with a corner-R (RE) of 0.008" or 1/64" (0.2mm or 0.4mm), shim (SVN-32S) is recommended (sold separately).

Undercutting diameter of SVPB



SVVB (External Turning / External Copying)



Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions				Standard Corner-R (RE)	Spare Parts						Applicable Inserts		
			N	H	B	HF		LF	WF	Screw	Wrench	Wrench	Shim screw		Shim	Wrench
Inch	SVVBN 6-2JX	●	0.375	0.375	0.375		0.187	1/64	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...	
	8-2JX	●	0.500	0.500	0.500	4.750	0.250									
	10-2JX	●	0.625	0.625	0.625		0.312									
mm	SVVBN 1010F-11	●	10	10	10	80	5	0.4	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...	
	1010JX-11	●				120										
	1212JX-11	●	12	12	12	120	6									
	1616H-11	●	16	16	16	100	8									
	1616JX-11	●				120										
	2020K-11	●	20	20	20	125	10									
	2525M-11	●	25	25	25	150	12.5									
	SVVBN 2020K-16N	●	20	20	20	125	10									0.8
2525M-16N	●	25	25	25	150	12.5										

When using inserts with a corner-R(RE) of 0.008" or 1/64" (0.2mm or 0.4mm), shim (SVN-32S) is recommended (sold separately).

Applicable Inserts (AVJB-FF / SVJB-FF / SVJB-FFJCTM / SVJB-F / SVJB / SVPB / SVVB)

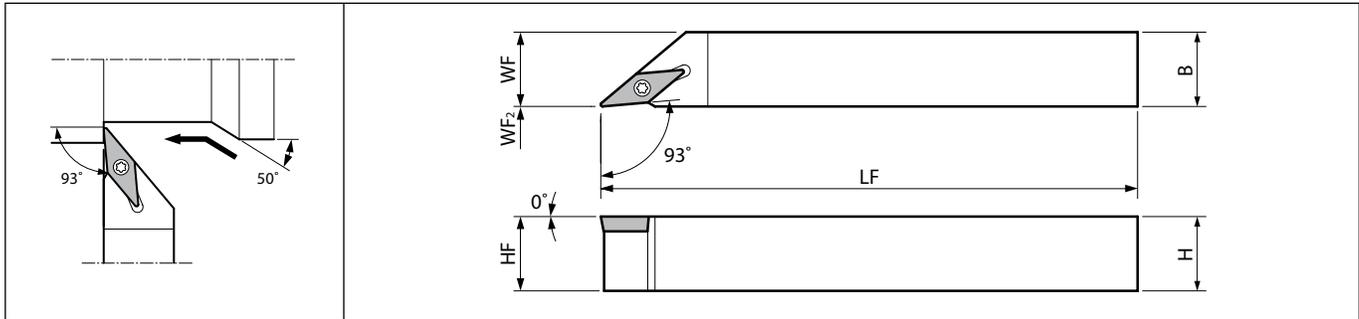
Applications	Finishing	Finishing	Finishing	Finishing - Medium	Finishing	Finishing	Finishing - Medium	Non-Ferrous Metals
Insert								
Chipbreaker	PP	GP	VF	HQ	℥ - F	℥ - FSF	℥ - Y	PCD
Page	B97	B97	B97	B97	B98	B98	B99	C49
Applications	Hard Materials							
Insert								
Chipbreaker	CBN							
Page	C26							

Recommended Cutting Conditions E74, E75

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)
Contact your local Kyocera sales engineer to upgrade old products to new technology

INSERT GRADES	A
TURNING INSERTS	B
CBN / PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

SVJC-FF (External Turning / External Copying, Screw Clamp, Without Offset)

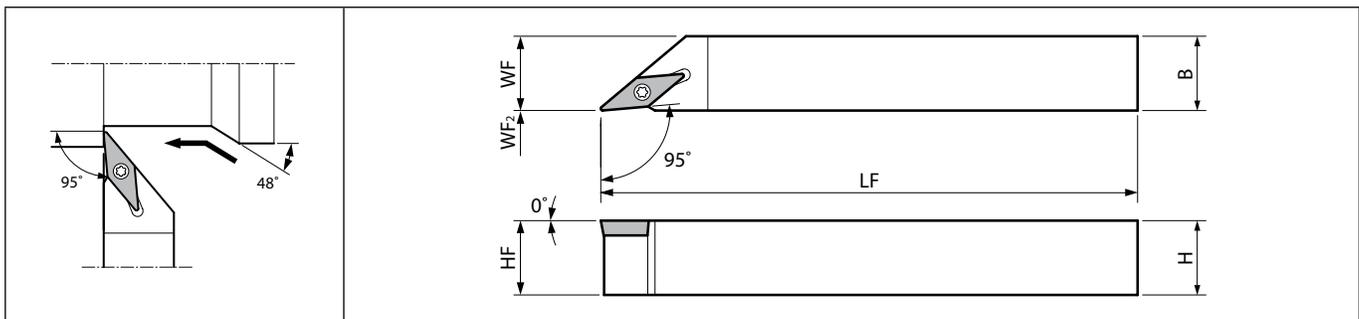


Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						Standard Corner-R (RE)	Spare Parts		Applicable Inserts
		R	L	H	B	HF	LF	WF	WF2		Screw	Wrench	
mm	SVJC% 1010JX-11FF	●	●	10	10	10	120	10	0	0.2	SB-2570TR	FT-8	VC□T22...
	1212F-11FF	●	●	12	12	12	85	12					
	1212JX-11FF	●	●	16	16	16	120	16					
	1616JX-11FF	●	●	20	20	20		20					
	2020JX-11FF	●	●										

SVLC-FF (External Turning / External Copying, Screw Clamp, Without Offset)

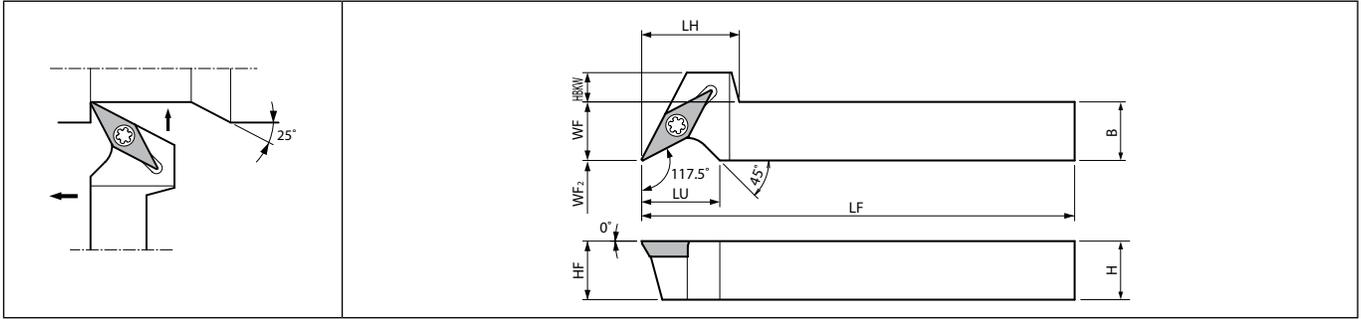


Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						Standard Corner-R (RE)	Spare Parts		Applicable Inserts
		R	L	H	B	HF	LF	WF	WF2		Screw	Wrench	
mm	SVLC% 1212F-11FF	●	●	12	12	12	85	12	0	0.2	SB-2570TR	FT-8	VC□T22...
	1212JX-11FF	●	●	16	16	16	120	16					
	1616JX-11FF	●	●										

SVPC-FF (External Turning / External Facing / External Copying / Undercutting, Screw Clamp, Without Offset)

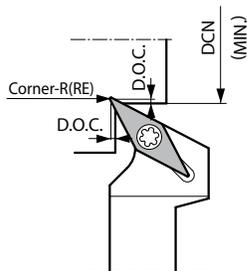


Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions									Spare Parts		Applicable Inserts			
			R	H	B	LH	HF	HBKW	LF	LU	WF	WF2	Standard Corner-R (RE)		Screw	Wrench	
mm	SVPCR 1010JX-11FF	●	10	10		10	8	120		10				0.2	SB-2570TR	FT-8	VC□T22...
	1212F-11FF	●	12	12	20	12	6	85	16	12	0						
	1212JX-11FF	●	12	12		12	6	120		12							
	1616JX-11FF	●	16	16		16	2			20	16						

Undercutting Diameter of SVPC-FF

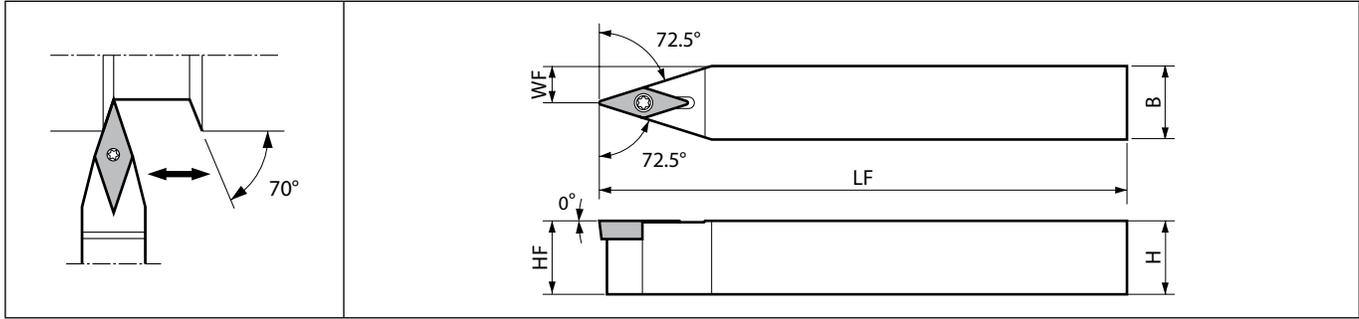


Corner-R (RE)	D.O.C. (in)	DCN (Min.)
0.008	0.020	ø0.787
	0.028	ø0.984

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)
 Contact your local Kyocera sales engineer to upgrade old products to new technology

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

SVVC (External Turning / External Copying)



Toolholder Dimensions

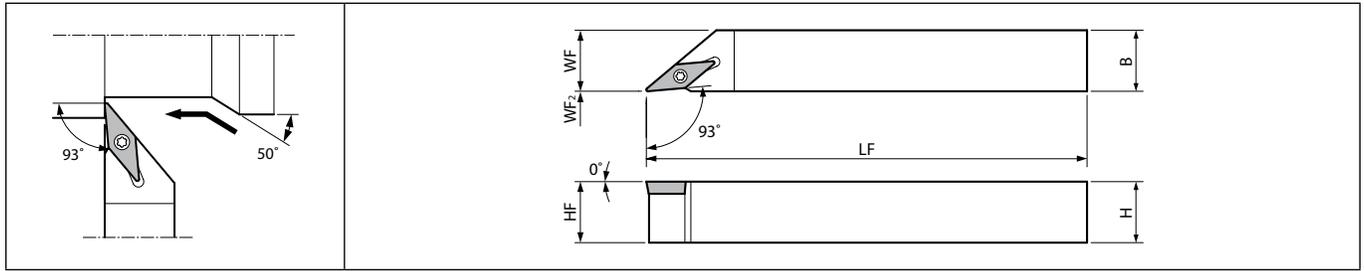
Unit	Part Number	Std. Item	Dimensions						Standard Corner-R (RE)	Spare Parts		Applicable Inserts
			N	H	B	HF	LF	WF		Screw	Wrench	
												
mm	SVVCN 1010JX-11	●	10	10	10		5	0.2	SB-2570TR		VC□T22...	
	1212JX-11	●	12	12	12	120	6					
	1616JX-11	●	16	16	16		8					

Applicable Inserts (SVJC-FF / SVLC-FF / SVPC-FF / SVVC)

Applications	Minute D.O.C.	Finishing	Finishing	Finishing	Finishing - Medium
Insert					
Chipbreaker	CF	GF	SKS	F%L-F	F%L-Y
Page	B100	B100	B100	B101	B101

Recommended Cutting Conditions  E74, E75

SVJP-FF (External Turning / External Copying, Screw Clamp, Without Offset)

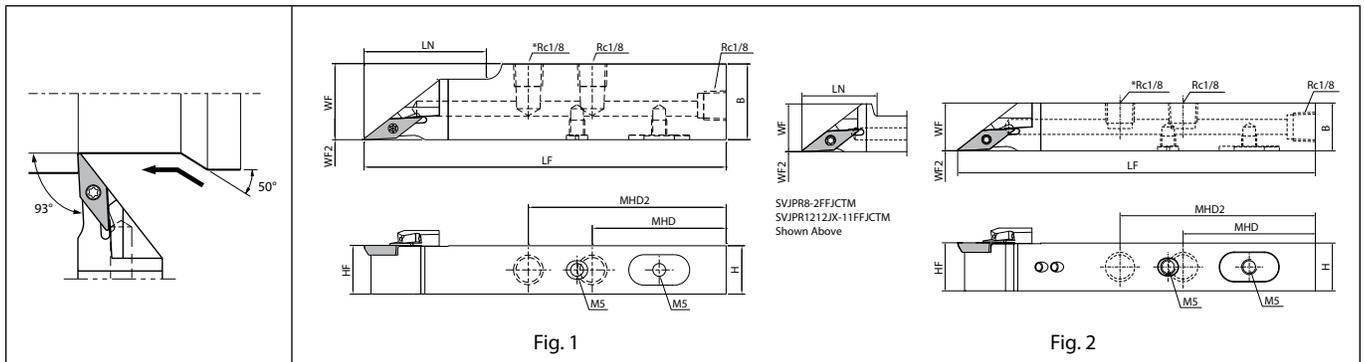


Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						Standard Corner-R (RE)	Spare Parts		Applicable Inserts
		R	L	H	B	HF	LF	WF	WF2		Screw	Wrench	
Inch	SVJP% 8-2JXFF	●	●	0.500	0.500	0.500	4.750	0.500	0	0.008	SB-2570TR	FT-8	VP□T22...
	10-2JXFF	●	●	0.625	0.625	0.625	4.750	0.625	0	0.008	SB-2570TR	FT-8	
mm	SVJP% 1212F-11FF	●	●	12	12	12	85	12	0	0.2	SB-2570TR	FT-8	VP□T22...
	1212JX-11FF	●	●	12	12	12	85	12	0	0.2	SB-2570TR	FT-8	
	1616JX-11FF	●	●	16	16	16	120	16	0	0.2	SB-2570TR	FT-8	
	2020JX-11FF	●	●	20	20	20	120	20	0	0.2	SB-2570TR	FT-8	

SVJP-FFJCTM (External Turning / External Copying, Screw Clamp, Without Offset, Coolant-Through Toolholder)



Right-hand shown

Toolholder Dimensions

SVJPR5.72..., SVJPR8-... : 2-Rc1/8
SVJPR1218..., SVJPR1212... : 2-Rc1/8

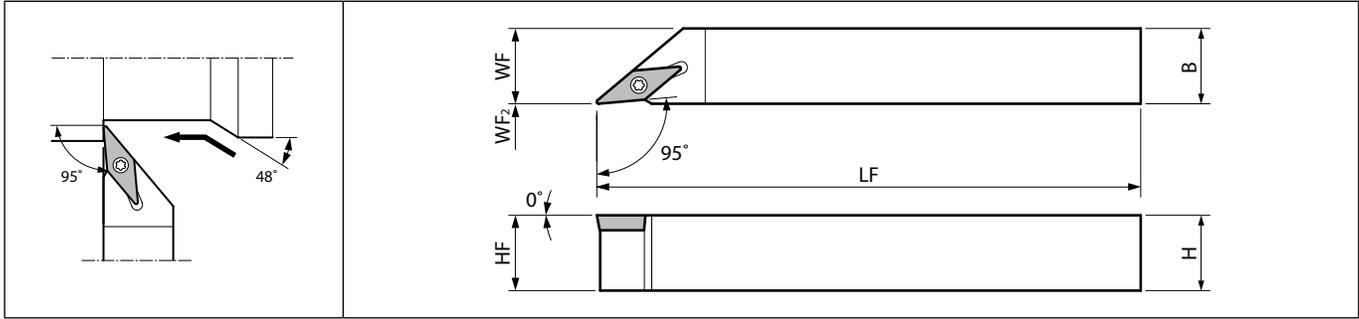
Unit	Part Number	Std. Item	Dimensions								Fig.	Standard Corner-R (RE)	Coolant Hole	Spare Parts				Applicable Inserts
			R	H	B	MHD	MHD2	HF	LF	LN				WF	WF2	Plug	Plug	
Inch	SVJPR 5.72-2FFJCTM	●	0.500	0.709	2.126	-	0.500	4.750	1.102	0.630	1	0.008	Yes	GP-1	HSSX4LP	SB-2570TR	FT-8	VP□T22...
	82.5-2FFJCTM	●	0.625	1.000	1.732	2.559	0.625	4.750	1.575	0.787	1	0.008	Yes	GP-1	HSSX4LP	SB-2570TR	FT-8	
mm	SVJPR 8-2FFJCTM	●	0.500	0.500	2.323	-	0.500	4.750	0.984	0.630	2	0.008	Yes	GP-1	HSSX4LP	SB-2570TR	FT-8	VP□T22...
	10-2FFJCTM	●	0.625	0.625	1.732	2.559	0.625	4.750	-	0.625	2	0.008	Yes	GP-1	HSSX4LP	SB-2570TR	FT-8	
	12-2FFJCTM	●	0.750	0.750	1.732	2.559	0.750	4.750	-	0.750	2	0.008	Yes	GP-1	HSSX4LP	SB-2570TR	FT-8	
	1218JX-11FFJCTM	●	12	18	54	-	12	120	28	18	1	0.2	Yes	GP-1	HSSX4LP	SB-2570TR	FT-8	
mm	1625JX-11FFJCTM	●	16	25	44	65	16	120	40	25	1	0.2	Yes	GP-1	HSSX4LP	SB-2570TR	FT-8	VP□T22...
	2025JX-11FFJCTM	●	20	25	44	65	20	120	40	25	1	0.2	Yes	GP-1	HSSX4LP	SB-2570TR	FT-8	
	1212JX-11FFJCTM	●	12	12	59	-	12	120	25	16	2	0.2	Yes	GP-1	HSSX4LP	SB-2570TR	FT-8	
	1616JX-11FFJCTM	●	16	16	44	65	16	120	-	16	2	0.2	Yes	GP-1	HSSX4LP	SB-2570TR	FT-8	
mm	2020JX-11FFJCTM	●	20	20	44	65	20	120	-	20	2	0.2	Yes	GP-1	HSSX4LP	SB-2570TR	FT-8	VP□T22...

Please see page H16 and H17 for piping parts of coolant-through holders.

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)
Contact your local Kyocera sales engineer to upgrade old products to new technology

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

SVLP-FF (External Turning / External Copying, Screw Clamp, Without Offset)



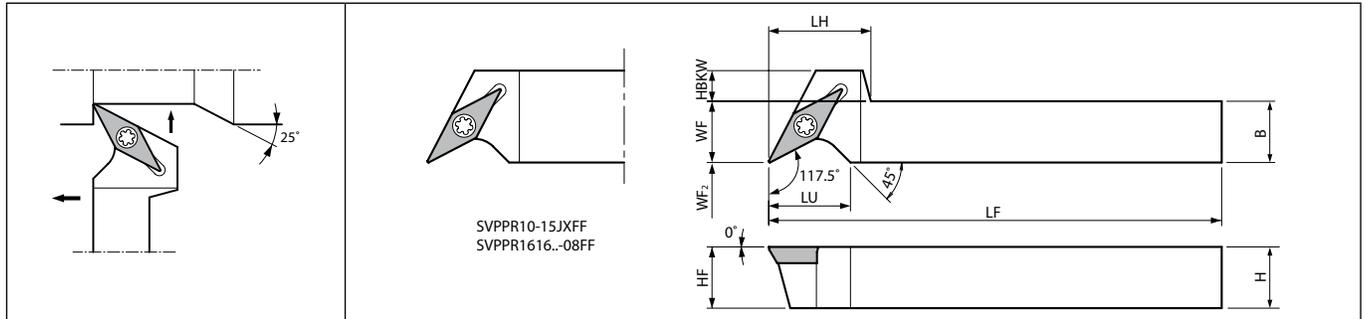
Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						Standard Corner-R (RE)	Spare Parts		Applicable Inserts
		R	L	H	B	HF	LF	WF	WF2		Screw	Wrench	
													
Inch	SVLPR 8-2JXFF	●		0.500	0.500	0.500	4.750	0.500	0	0.008	SB-2570TR	FT-8	VP□T22...
mm	SVLP% 1010JX-08FF	●	●	10	10	10	120	10	0	0.1	SB-2050TR	FT-6	VP□T1515...
	1212F-08FF	●		12	12	12	85	12					
	1212JX-08FF	●	●	16	16	16	120	16					
	1616JX-08FF	●	●	16	16	16	120	16	0	0.2	SB-2570TR	FT-8	VP□T22...
	SVLP% 1212F-11FF	●		12	12	12	85	12					
	1212JX-11FF	●	●	16	16	16	120	16					
1616JX-11FF	●	●	16	16	16	120	16						

E SMALL TOOLS

SVPP-FF (External Turning / External Facing / External Copying / Undercutting, Screw Clamp, Without Offset)

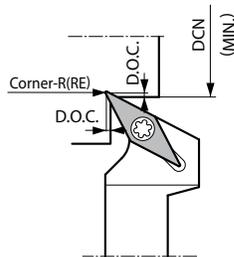


Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions									Standard Corner-R (RE)	Spare Parts		Applicable Inserts	
			R	H	B	LH	HF	HBKW	LF	LU	WF		WF2	Screw		Wrench
			 													
Inch	SVPPR 8-15JXFF	●	0.500	0.500	0.630	0.500	0.051	4.750	0.551	0.500	0	0.004	SB-2050TR	FT-6	VP□T1515...	
	SVPPR 8-2JXFF	●	0.500	0.500	0.787	0.500	0.209	4.750	0.630	0.500	0	0.004	SB-2570TR	FT-8	VP□T22...	
	10-2JXFF	●	0.625	0.625		0.625	0.084		0.787	0.625						
mm	SVPPR 1010JX-08FF	●	10	10	16	10	4	120	12	10	0	0.1	SB-2050TR	FT-6	VP□T1515...	
	1212F-08FF	●	12	12		85	12	12								
	1212JX-08FF	●	12	12		120	16									
	1616JX-08FF	●	16	16	-	16	-	16	16							
	SVPPR 1010JX-11FF	●	10	10	20	10	8	120	16	10	0	0.2	SB-2570TR	FT-8	VP□T22...	
	1212F-11FF	●	12	12		85	12	12								
	1212JX-11FF	●	12	12		120	16	16								
	1616JX-11FF	●	16	16		16	2	16								

Undercutting Diameter of SVPP-FF



Corner-R (RE)	D.O.C. (in)	DCN (Min.)
0.008	0.020	ø0.787
	0.039	ø0.984

Applicable Inserts (SVJP-FF / SVJP-FFJCTM / SVLP-FF / SVPP-FF)

Applications	Minute D.O.C.	Finishing	Finishing	Finishing	Finishing	Finishing	Low Feed	Low Feed
Insert								
Chipbreaker	CF	SKS	CK	GF	%-F	%-FSF	%-U	%-USF
Page	B102	B102	B102	B102	B103	B103	B104	B104
Applications	Low Feed							
Insert								
Chipbreaker	%-J							
Page	B104							

Recommended Cutting Conditions  E74, E75

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)
 Contact your local Kyocera sales engineer to upgrade old products to new technology

A INSERT GRADES
 B TURNING INSERTS
 C CBN / PCD INSERTS
 D TURNING HOLDERS
 E SMALL TOOLS
 F BORING
 G GROOVING
 H CUT-OFF
 J THREADING
 K DRILLING
 M MILLING
 N QUICK CHANGE TOOLING
 P SPARE PARTS
 R TECHNICAL
 T INDEX

ZBMT Series

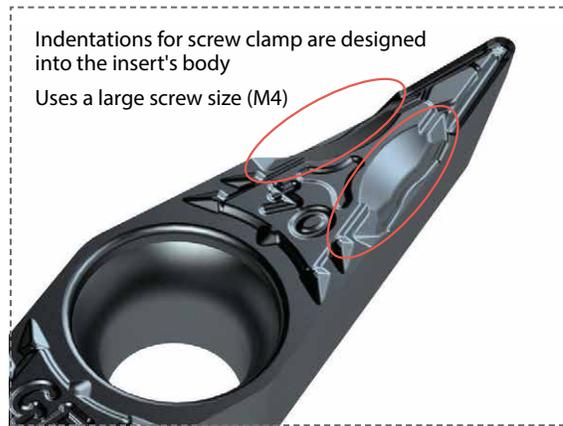
25° Insert Profiling Tools

Unique clamping structure and a wide lineup of external toolholders and boring bars
 Wide range of applications including copying, undercutting, tapering, V-slotting, spherical machining, and more

1 Newly Developed Self-Clamping Mechanism Achieves a Higher Rigidity

Side Lock Mechanism

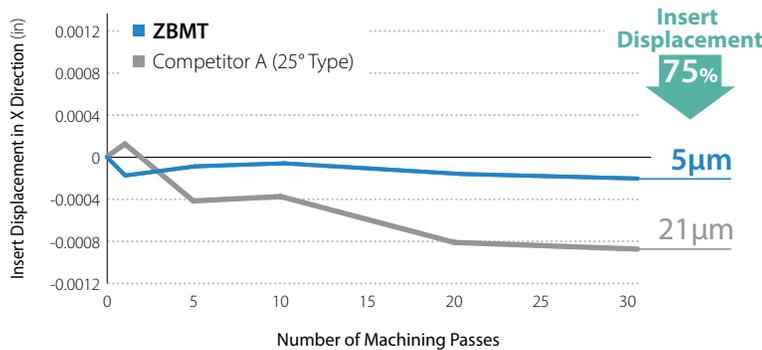
Unique design holds insert at 2 points
 Safe even for insert with small tip angle that is difficult to mount



Indentations for screw clamp are designed into the insert's body
 Uses a large screw size (M4)

E
 SMALL
 TOOLS

Insert Displacement During Facing Comparison (Internal Evaluation)



Insert Design

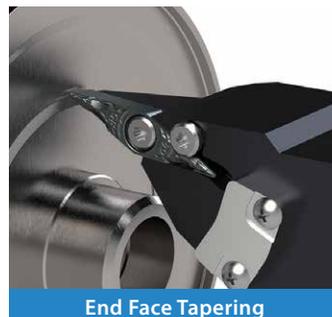
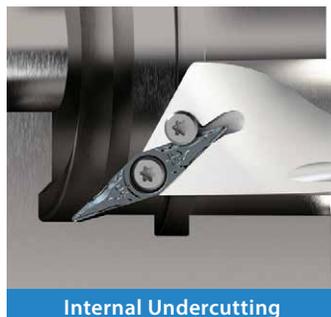
- By controlling insert displacement,
- Machining precision is stabilized and long tool life is enable
 - Reduces defect rate due to sudden dimensional deviation

Cutting Conditions : Vc = 750 sfm, D.O.C. = 0.012", f = 0.006, Wet Workpiece 4137

*The above figures are not guaranteed and will depend on cutting conditions.

Provides High Quality and Stable Machining in Various Machining Applications

Excellent Performance in Various Machining Applications including Copying, Undercutting, Tapering, V-Slotting, Spherical Machining, etc.



2 Unique Holder Design to Meet Customers' Needs

Both boring bars and external toolholders are compatible with internal coolant.

Uses a clamp with a small thickness that does not prevent chip flow

Unique Double Coolant Hole Design
Supplies coolant directly to the cutting edge and provides improved chip evacuation and long tool life (Coolant discharge direction: Fine adjustment possible)
*Though coolant stream hits side clamp screw, machining performance is not affected
*Pressure resistance: ~ 3 MPa

Fine Tuned and Adjustable
± 4° Adjustable Oscillation

Easy to use for Facing
Insert corner: 2-Step Positive Type (20°)

Effective for facing applications

Holder: Tapered shape
Inserts and toolholders have a unique end shape
No additional machining is required when trying to avoid interference with workpiece.

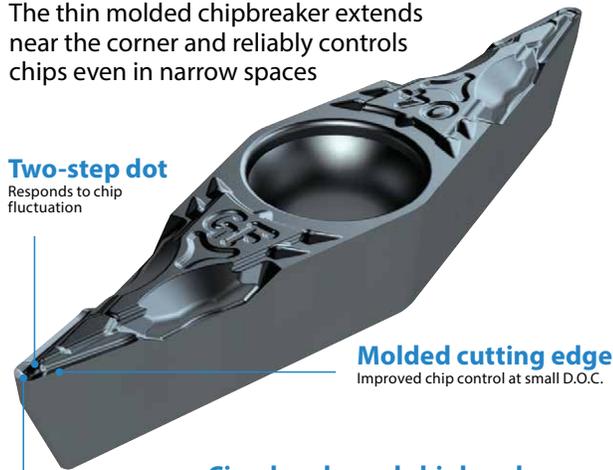
3 New GF Chipbreaker for ZBMT Reduces Chip Control Issues at minute D.O.C.

GF Chipbreaker

Solving chip control issues leads to high-quality surface finishes

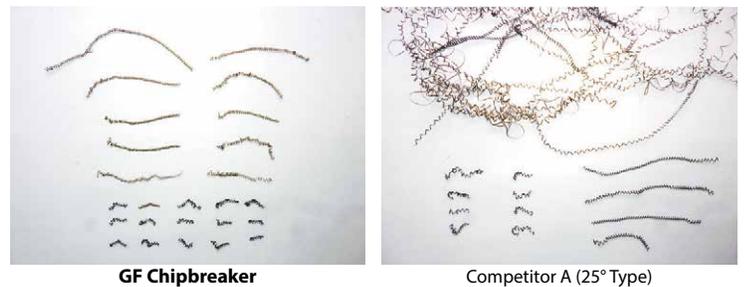
The thin molded chipbreaker extends near the corner and reliably controls chips even in narrow spaces

Two-step dot
Responds to chip fluctuation



Circular-shaped chipbreaker
Low resistance and excellent chip control even in ductile workpieces

Chip control comparison (Internal evaluation)

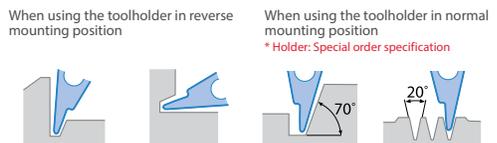


Cutting Conditions : Vc = 750 sfm, f = 0.006 ipr, D.O.C. = 0.008" - 0.020", Wet
Workpiece 4137 Facing

15° Inserts are also available upon requests

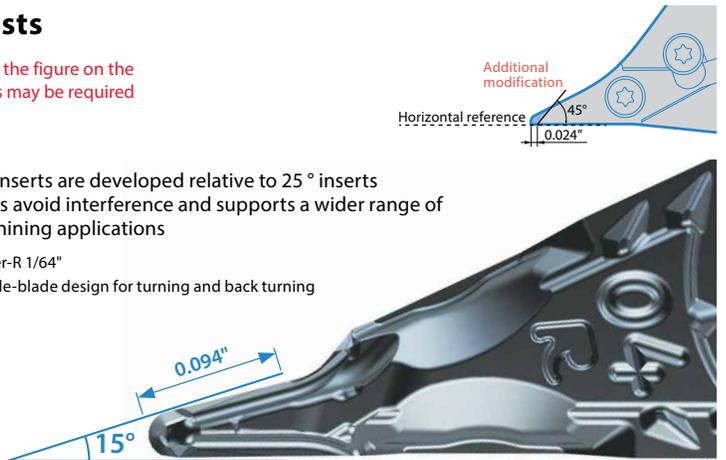
To avoid holder interference, additional modifications is required as shown in the figure on the right (Details: P8). Also, as shown in the figure below, special order for holders may be required depending on machining application.

Examples



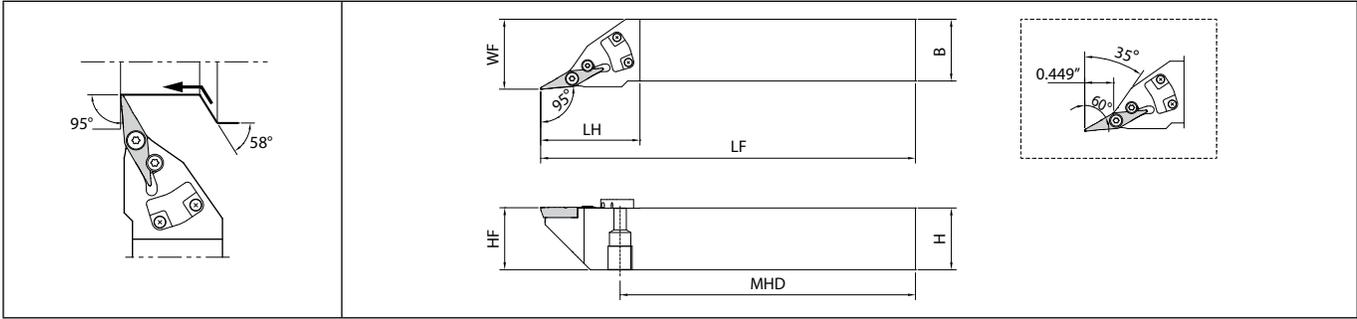
15° inserts are developed relative to 25° inserts
Helps avoid interference and supports a wider range of machining applications

Corner-R 1/64"
Double-blade design for turning and back turning



INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

SZLB (External Turning / External Copying, Screw Clamp, Coolant-Through Toolholder)



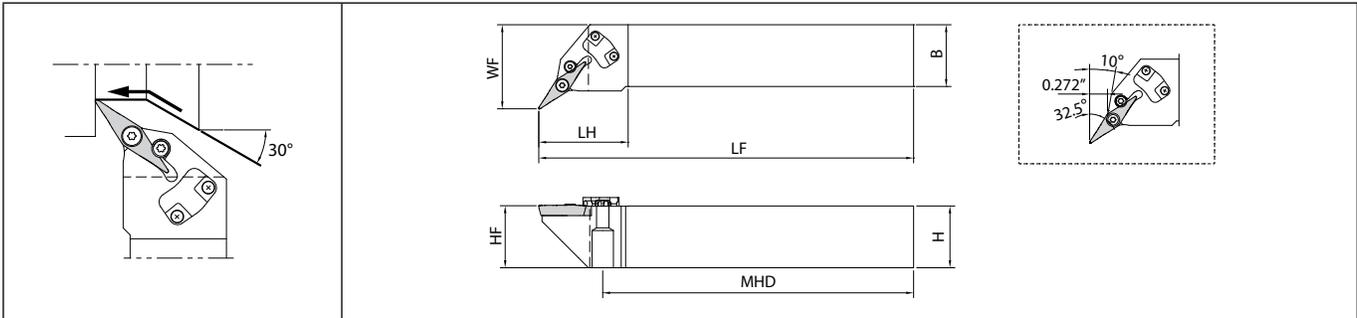
Right-hand shown | ZBMT13T304R-GF-15D is applicable to Right-hand Toolholder. | Applicable Pressure : ~435 psi

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						Standard Corner-R (RE)	Coolant Hole	Spare Parts				Applicable Inserts	
		R	L	H	B	LH	MHD	HF	LF			WF	Coolant block screw	Coolant block	Insert screw		Wrench
Inch	SZLB% 12-3C-C 16-3D-C	●	●	0.750	0.750	1.378	3.760	0.750	5.039	0.905	1/64	Yes	BH2X6	ZCP-13	SB-3079TR	FT-8	ZBMT13T3...
		●	●	1.000	1.000	1.575	4.779	1.000	6.039	1.110							
mm	SZLB% 2020K-13C 2525M-13C	●	●	20	20	40	92.6	20	125	23	0.4	Yes	BH2X6	ZCP-13	SB-3079TR	FT-8	
		●	●	25	25	118	25	150	28.2								

Please see page D13 for piping parts of coolant-through holders.

SZPB (External Turning / External Facing / External Copying / Undercutting, Screw Clamp, Coolant-Through Toolholder)



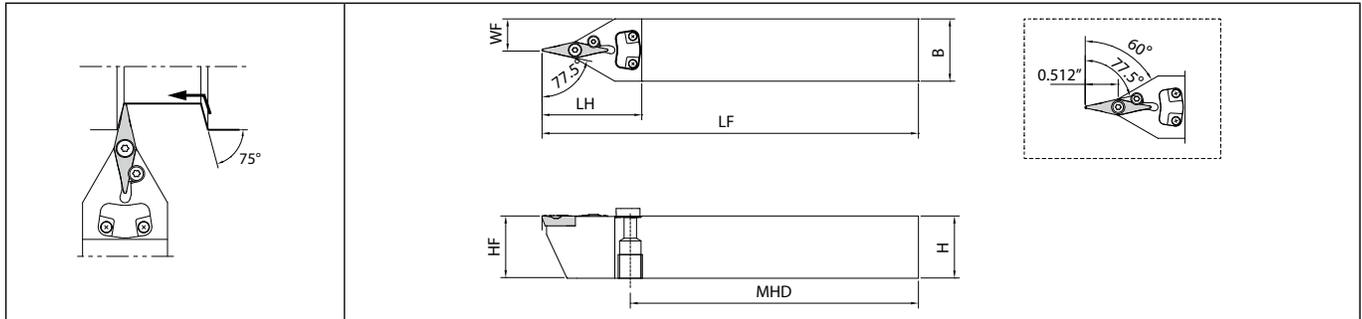
Right-hand shown | Applicable Pressure : ~435 psi

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						Standard Corner-R (RE)	Coolant Hole	Spare Parts				Applicable Inserts	
		R	L	H	B	LH	MHD	HF	LF			WF	Coolant block screw	Coolant block	Insert screw		Wrench
Inch	SZPB% 12-3C-C 16-3D-C	●	●	0.750	0.750	1.378	3.858	0.750	5.039	1.071	1/64	Yes	BH2X6	ZCP-13	SB-3079TR	FT-8	ZBMT13T3...
		●	●	1.000	1.000	1.378	5.023	1.000	6.039	1.334							
mm	SZPB% 2020K-13C 2525M-13C	●	●	20	20	37	95	20	125	27.2	0.4	Yes	BH2X6	ZCP-13	SB-3079TR	FT-8	
		●	●	25	25	36	124.2	25	150	33.9							

Please see page D13 for piping parts of coolant-through holders.

SZVB (External Turning / External Copying, Screw Clamp, Coolant-Through Toolholder)



Applicable Pressure : ~435 psi

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions						Standard Corner-R (RE)	Coolant Hole	Spare Parts				Applicable Inserts	
			N	H	B	LH	MHD	HF			LF	WF	Coolant block screw	Coolant block		Insert screw
Inch	SZVBN 12-3C-C 16-3D-C	●	0.750	0.750	1.574	3.645	0.750	5.039	0.373	1/64	Yes	BH2X6	ZCP-13	SB-3079TR	FT-8	ZBMT13T3...
		●	1.000	1.000	1.574	4.645	1.000	6.039	0.498							
mm	SZVBN 2020K-13C 2525M-13C	●	20	20	40	89.6	20	125	10	0.4	Yes	BH2X6	ZCP-13	SB-3079TR	FT-8	
			25	25		114.6	25	150	12.5							

Please see page D13 for piping parts of coolant-through holders.

Applicable Inserts

Applications	Finishing	Finishing	Finishing
Insert			
Chipbreaker	GF	R-GF-15D	PCD
Page	B108	B108	C50

R-GF-15D inserts are only for the right-hand toolholders of SZLB.

Recommended Cutting Conditions ➔ E77

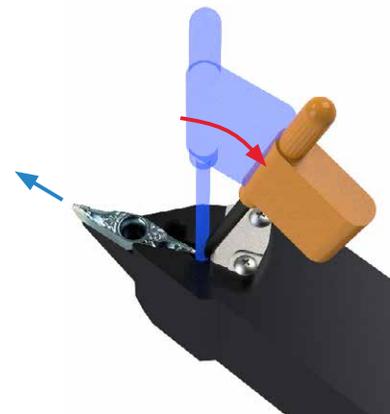
Instructions

When mounting the insert (Tightening torque: 1.2 N · m)



1. Tighten the main screw with the insert pressed against the contact surface with fingertips.
2. Tighten the side screw to complete the installation.

When removing the insert

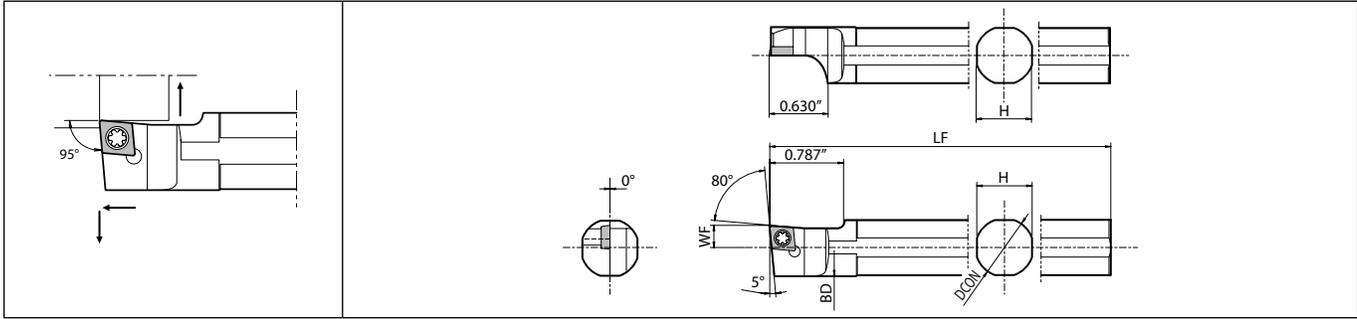


Remove the two screws and put the wrench into the gap at the back end of the insert. It can be easily removed by pushing out the insert as shown above.

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)
Contact your local Kyocera sales engineer to upgrade old products to new technology

- INSERT GRADES **A**
- TURNING INSERTS **B**
- CBN/PCD INSERTS **C**
- TURNING HOLDERS **D**
- SMALL TOOLS **E**
- BORING **F**
- GROOVING **G**
- CUT-OFF **H**
- THREADING **J**
- DRILLING **K**
- MILLING **M**
- QUICK CHANGE TOOLING **N**
- SPARE PARTS **P**
- TECHNICAL **R**
- INDEX **T**

S-SCLC (External Turning / External Facing)



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

Toolholder Dimensions

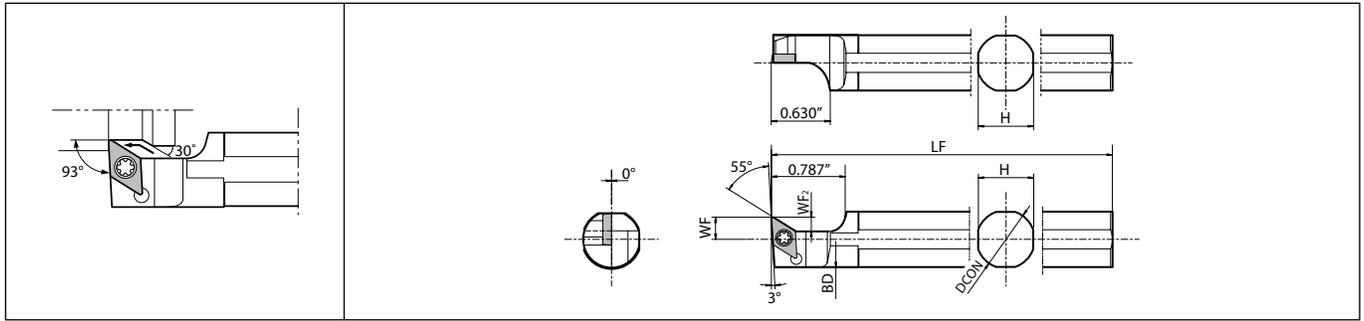
Unit	Part Number	Std. Item	Dimensions					Standard Corner-R (RE)	Spare Parts			Applicable Inserts
			L	DCON	H	BD	LF		WF	Screw	Wrench	
Inch	S15F- SCLCL06	●	0.625	0.590	0.606	3.346	0.236	1/64	SB-2570TR	-	FT-8	CC□T215... CC□W215...
	S19G- SCLCL06	●	0.750	0.669	0.724	3.543						
	S19K- SCLCL06	●	0.750	0.669	0.724	4.724						
	S19G- SCLCL09	●	0.750	0.669	0.724	3.543						
	S19K- SCLCL09	●	0.750	0.669	0.724	4.724						
S25K- SCLCL09	●	1.000	0.905	0.976	4.724	6	0.4	SB-2560TR	-	FT-8	CC□T215... CC□W215...	
S12F- SCLCL06	●	12	11	13.4	80							
S14H- SCLCL06	●	14	13	13.4	100							
S16F- SCLCL06	●	16	15	15.4	85							
S20G- SCLCL06	●	20	18	19.4	90							
mm	S20K- SCLCL06	●	20	18	19.4	120	6	0.4	SB-2570TR	-	FT-8	CC□T215... CC□W215...
	S20G- SCLCL09	●	20	18	19.4	90						
	S20K- SCLCL09	●	20	18	19.4	120						
	S20K- SCLCL09	●	20	18	19.4	120						
	S25.0H- SCLCL09	●	25	23	24.4	100						

Applicable Inserts

Applications	Finishing	Finishing	Finishing	Finishing	Finishing	Finishing - Medium	Finishing	Finishing
Insert								
Chipbreaker	PF	GF	SKS	SK	CK	GQ	WP	PP
Page	B58	B58	B59	B59	B59	B59	B60	B60
Applications	Finishing - Medium	Finishing - Medium	Medium	Medium	Low Feed	Low Feed	Stainless Steel / Heat-Resistant Alloys	Cast Iron
Insert								
Chipbreaker	GK	HQ	Standard	MF	R-U	R-J	MQ	No Chipbreaker
Page	B60	B60	B60	B61	B63~B65	B65	B61	B66
Applications	Non-Ferrous Metals	Hard Materials						
Insert								
Chipbreaker	AP	R-A3	AH	PCD	APD	CBN		
Page	B66	B66	B66	C39	C40	C20		

Recommended Cutting Conditions E74, E75

S-SDUC (External Turning / External Copying)



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

Toolholder Dimensions

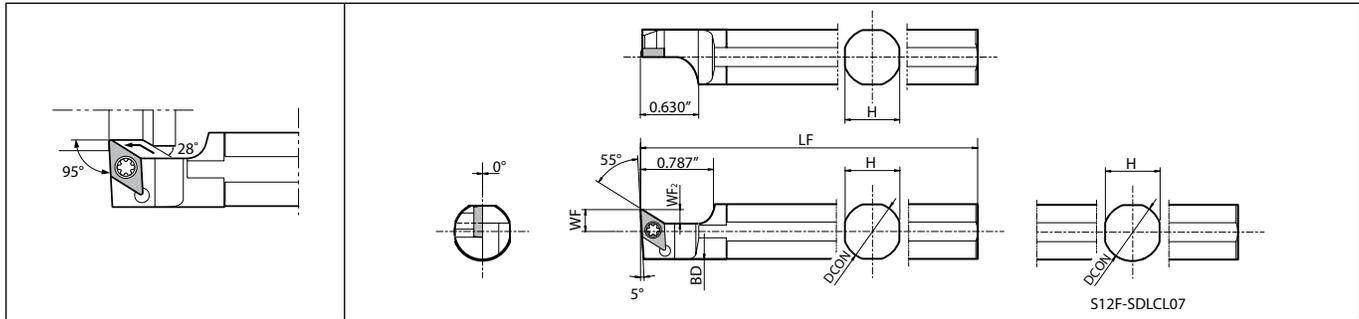
Unit	Part Number	Std. Item	Dimensions						Standard Corner-R (RE)	Spare Parts			Applicable Inserts
			L	DCON	H	BD	LF	WF		WF2	Screw	Wrench	
Inch	S15F- SDUCL07	●	0.625	0.590	0.606	3.346	0.236	0.150	1/64	SB-2560TR	-	FT-8	DC□T215... DC□W215... DC□X215...
	S19G- SDUCL07	●	0.750	0.669	0.724	3.543	0.236	0.150					
	S19K- SDUCL07	●	0.750	0.669	0.724	4.724	0.236	0.150					
	S19G- SDUCL11	●	0.750	0.669	0.724	3.543	0.393	0.228	1/64	SB-4085TR	FT-15	-	DC□T325... DC□W325... DC□X325...
	S19K- SDUCL11	●	0.750	0.669	0.724	4.724	0.393	0.228					
	S25K- SDUCL11	●	1.000	0.905	0.976	4.724	0.393	0.228					
mm	S14H- SDUCL07	●	14	13	13.4	100	6	3.8	0.4	SB-2560TR	-	FT-8	DC□T215... DC□W215... DC□X215...
	S20G- SDUCL07	●	20	18	19.4	90	6	3.8					
	S20K- SDUCL07	●	20	18	19.4	120	6	3.8					
	S20G- SDUCL11	●	20	18	19.4	90	10	5.8	0.4	SB-4085TR	FT-15	-	DC□T325... DC□W325... DC□X325...
	S20K- SDUCL11	●	20	18	19.4	120	10	5.8					
	S22K- SDUCL11	●	22	20	21.4	120	10	5.8					
S25.0H- SDUCL11	●	25	23	24.4	100	10	5.8						

For WP chipbreaker, cutting edge offsets or program corrections are required on R42 and R43.

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)
Contact your local Kyocera sales engineer to upgrade old products to new technology

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

S-SDLC (External Turning / External Copying)



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

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions						Standard Corner-R (RE)	Spare Parts			Applicable Inserts
			L	DCON	H	BD	LF	WF		WF2	Screw	Wrench	
Inch	S15F- SDLCL07	●	0.625	0.590	0.606	3.346	0.236	0.150	1/64	SB-2560TR	-	FT-8	DC□T215... DC□W215...
	S19G- SDLCL07	●	0.750	0.669	0.724	3.543	0.236	0.150					
	S19K- SDLCL07	●	0.750	0.669	0.724	4.724	0.236	0.150					
	S19G- SDLCL11	●	0.750	0.669	0.724	3.543	0.393	0.228	1/64	SB-4085TR	FT-15	-	DC□T325... DC□W325...
	S19K- SDLCL11	●	0.750	0.669	0.724	4.724	0.393	0.228					
	S25K- SDLCL11	●	1.000	0.905	0.976	4.724	0.393	0.228					
mm	S12F- SDLCL07	●	12	11	13.4	80	6	3.8	0.4	SB-2560TR	-	FT-8	DC□T215... DC□W215...
	S14H- SDLCL07	●	14	13	13.4	100	6	3.8					
	S16F- SDLCL07	●	16	15	15.4	85	6	3.8					
	S20G- SDLCL07	●	20	18	19.4	90	6	3.8					
	S20K- SDLCL07	●	20	18	19.4	120	6	3.8					
	S20G- SDLCL11	●	20	18	19.4	90	10	5.8	0.4	SB-4085TR	FT-15	-	DC□T325... DC□W325...
	S20K- SDLCL11	●	20	18	19.4	120	10	5.8					
	S22K- SDLCL11	●	22	20	21.4	120	10	5.8					
	S25.0H- SDLCL11	●	25	23	24.4	100	10	5.8					

E SMALL TOOLS

Applicable Inserts (S-SDUC / S-SDLC)

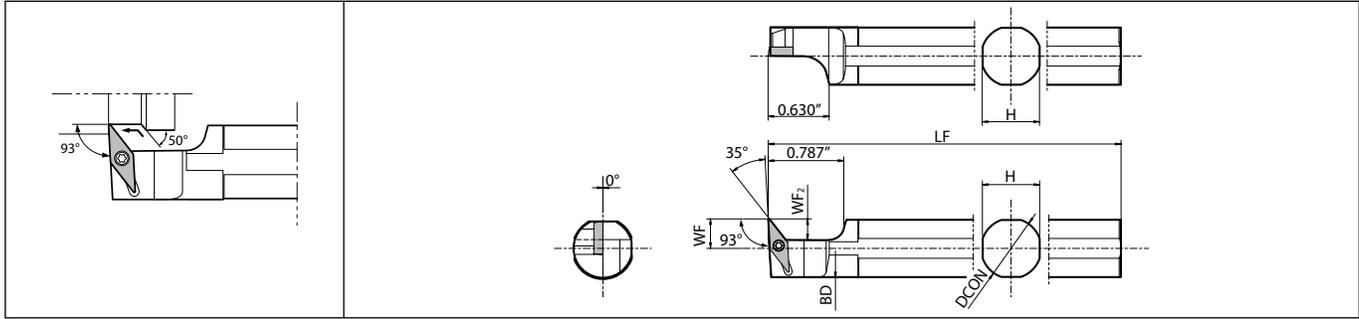
Applications	Minute D.O.C.	Finishing	Finishing	Finishing	Finishing	Finishing - Medium	Finishing	Finishing
Insert								
Chipbreaker	CF	GF	SKS	SK	CK	GQ	WP*	R-WP*
Page	B68	B68	B68	B68	B68	B69	B69	B69
Applications	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Medium	Medium	Finishing	Finishing
Insert								
Chipbreaker	PP	GP	GK	HQ	Standard	MF	R-F	R-FSF
Page	B69	B69	B70	B70	B70	B70	B72, B73	B72
Applications	Low Feed	Low Feed	Low Feed	Low Feed	Low Carbon Steel	Low Carbon Steel	Stainless Steel / Heat-Resistant Alloys	Cast Iron
Insert								
Chipbreaker	R-U	R-USF	R-J	R-JSF	XP	XQ	MQ	No Chipbreaker
Page	B74~B76	B74	B77	B76	B71	B71	B71	B78
Applications	Non-Ferrous Metals	Hard Materials						
Insert								
Chipbreaker	AP	R-A3	AH	PCD	APD	CBN		
Page	B78	B78	B78	C42	C42	C22		

For WP chipbreaker, cutting edge offsets or program corrections are required on R42 and R43. (S-SDLC cannot be used)

Recommended Cutting Conditions  E74, E75

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

S-SVUB (External Turning / External Copying)



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

Toolholder Dimensions

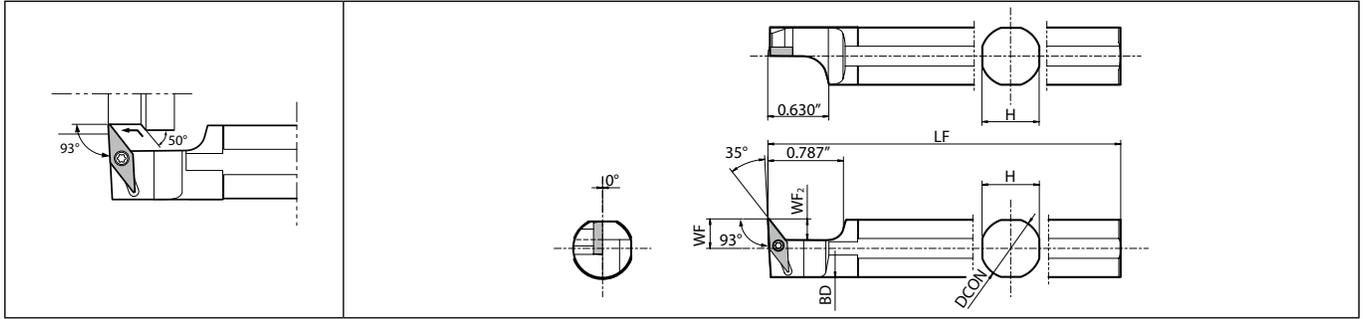
Unit	Part Number	Std. Item	Dimensions						Standard Corner-R (RE)	Coolant Hole	Spare Parts		Applicable Inserts
			L	DCON	H	BD	LF	WF			WF2	Screw	
Inch	S19K- SVUBL11	●	0.750	0.669	0.724	4.724	0.413	0.315	1/64	No	SB-2570TR	FT-8	VB□T22... VB□W22...
	S25K- SVUBL11	●	1.000	0.906	0.976	4.724	0.413	0.315					
mm	S20G- SVUBL11	●	20	18	19.4	90	10.5	8	0.4	No	SB-2570TR	FT-8	
	S20K- SVUBL11	●	20	18	19.4	120	10.5	8					
	S25.0H- SVUBL11	●	25	23	24.4	100	10.5	8					

Applicable Inserts

Applications	Finishing	Finishing	Finishing	Finishing - Medium	Finishing	Finishing	Finishing - Medium	Non-Ferrous Metals
Insert								
Chipbreaker	PP	GP	VF	HQ	R-F	R-FSF	R-Y	PCD
Page	B97	B97	B97	B97	B98	B98	B99	C49
Applications	Hard Materials							
Insert								
Chipbreaker	CBN							
Page	C26							

Recommended Cutting Conditions ➔ E74, E75

S-SVUC (External Turning / External Copying)



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

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions						Standard Corner-R (RE)	Coolant Hole	Spare Parts		Applicable Inserts
			L	DCON	H	BD	LF	WF			WF2	Screw	
Inch	S15F- SVUCL08	●	0.625	0.591	0.606	3.346	0.315	0.217	1/64	No	SB-2050TR	FT-6	VC□T1515... VC□W1515...
	S19G- SVUCL11	●	0.750	0.669	0.724	3.543	0.413	0.315	0.008	No	SB-2570TR	FT-8	VC□T22...
	S19K- SVUCL11	●	0.750	0.669	0.724	4.724	0.413	0.315					
	S25K- SVUCL11	●	1.000	0.906	0.976	4.724	0.413	0.315					
mm	S12F- SVUCL08	●	12	11	13.4	80	7.5	5.5	0.4	No	SB-2050TR	FT-6	VC□T1515... VC□W1515...
	S14H- SVUCL08	●	14	13	13.4	100	7.5	5.5					
	S16F- SVUCL08	●	16	15	15.4	85	8	5.5					
	S20G- SVUCL11	●	20	18	19.4	90	10.5	8	0.2	No	SB-2570TR	FT-8	VC□T22...
	S20K- SVUCL11	●	20	18	19.4	120	10.5	8					
	S25.0H- SVUCL11	●	25	23	24.4	100	10.5	8					

Applicable Inserts

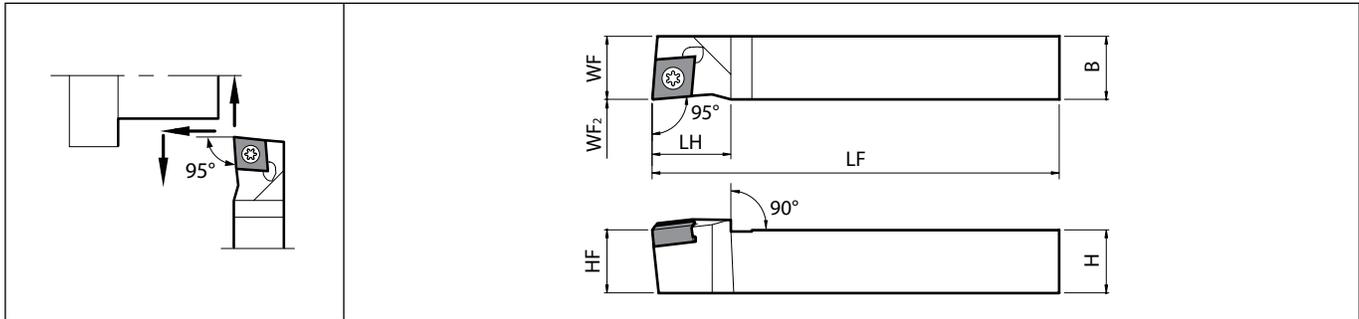
Applications	Minute D.O.C.	Finishing	Finishing	Finishing	Finishing	Finishing - Medium	Finishing	Finishing - Medium
Insert								
Chipbreaker	CF	GF	SKS	PP	VF	HQ	R-F	R-Y
Page	B100	B100	B100	B100	B100	B100	B101	B101
Applications	Non-Ferrous Metals	Hard Materials						
Insert								
Chipbreaker	PCD	CBN						
Page	C50	C27						

Recommended Cutting Conditions ➔ E74, E75

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)
Contact your local Kyocera sales engineer to upgrade old products to new technology

A INSERT GRADES
B TURNING INSERTS
C CBN / PCD INSERTS
D TURNING HOLDERS
E SMALL TOOLS
F BORING
G GROOVING
H CUT-OFF
J THREADING
K DRILLING
M MILLING
N QUICK CHANGE TOOLING
P SPARE PARTS
R TECHNICAL
T INDEX

SCLN-FF (External Turning / External Facing, Screw Clamp, Without Offset)

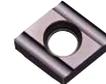


Right-hand shown

Toolholder Dimensions

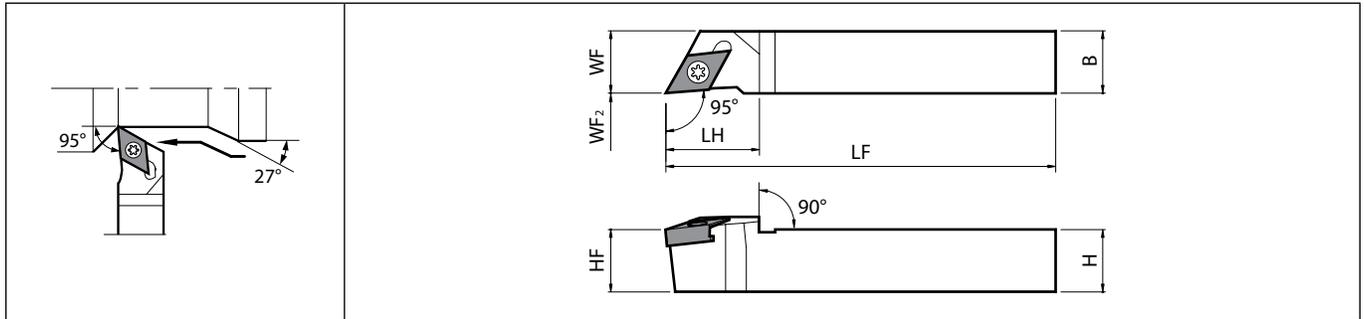
Unit	Part Number	Std. Item	Dimensions							Standard Corner-R (RE)	Side rake angle (°)	Inclination angle (°)	Spare Parts		Applicable Inserts	
			R	H	B	LH	HF	LF	WF				WF2	Screw		Wrench
																
Inch	SCLNR 6-2.4FF	●	0.375	0.375	0.590	0.375	6.000	0.375	0	0.008	-6	-6	SB-3080TR	LTW-10SS	CN□U242...	
	8-2.4DF	●	0.500	0.500	0.590	0.500	6.000	0.500								
	10-2.4CF	●	0.625	0.625	0.590	0.625	5.000	0.625								
mm	SCLNR 1010K-07FF	●	10	10	15	10	120	10	0	0.2	-6	-6	SB-3080TR	LTW-10SS		
	1212F-07FF	●	12	12		12	85	12								
	1212K-07FF	●				16	16	120								16
	1616K-07FF	●						16							16	16

Applicable Inserts

Applications	Finishing - Medium	Medium - Roughing	Finishing	Low Feed
Insert				
Chipbreaker	SK	GK	R-F	R-U
Page	B55	B55	B55	B55

Recommended Cutting Conditions  E66

SDLN-FF (External Turning / External Copying, Screw Clamp, Without Offset)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions							Standard Corner-R (RE)	Side rake angle (°)	Inclination angle (°)	Spare Parts		Applicable Inserts	
			R	H	B	LH	HF	LF	WF				WF2	Screw		Wrench
																
Inch	SDLNR 6-2.2FF	●	0.375	0.375	0.708	0.375	6.000	0.375	0	0.008	-6	-7	SB-3080TR	LTW-10SS	DN□U222...	
	8-2.2DF	●	0.500	0.500	0.708	0.500	6.000	0.500								
	10-2.2CF	●	0.625	0.625	0.708	0.625	5.000	0.625								
mm	SDLNR 1010K-08FF	●	10	10	18	10	120	10	0	0.2	-6	-7	SB-3080TR	LTW-10SS		
	1212F-08FF	●	12	12		12	85	12								
	1212K-08FF	●				120	16									
	1616K-08FF	●				16	16									

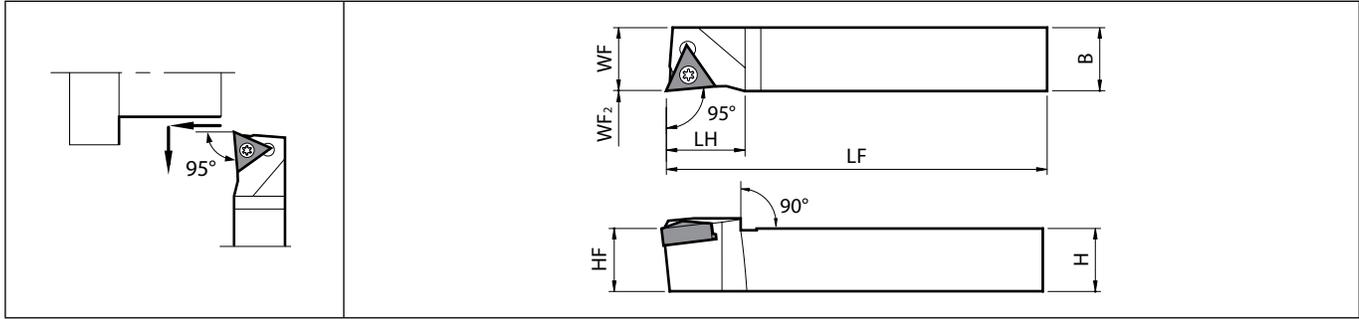
Applicable Inserts

Applications	Finishing - Medium	Medium - Roughing	Finishing	Low Feed
Insert				
Chipbreaker	SK	GK	R-F	R-U
Page	B56	B56	B56	B56

Recommended Cutting Conditions ➔ E66

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

STLN-FF (External Turning, Screw Clamp, Without Offset)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions							Standard Corner-R (RE)	Side rake angle (°)	Inclination angle (°)	Spare Parts		Applicable Inserts
			R	H	B	LH	HF	LF	WF				WF2	Screw	
Inch	STLNR 6-1.8FF	●	0.375	0.375	0.590	0.375	6.000	0.375	0	0.008	-6	-7	SB-2570TR	LTW-8SS	TNGU182...
	8-1.8DF	●	0.500	0.500	0.590	0.500	6.000	0.500							
mm	STLNR 1010K-09FF	●	10	10	15	10	120	10	0	0.2	-6	-7	SB-2570TR	LTW-8SS	
	1212F-09FF	●	12	12		12	85	12							
	1212K-09FF	●	12	12		12	120	12							
	1616K-09FF	●	16	16		16	120	16							

Applicable Inserts

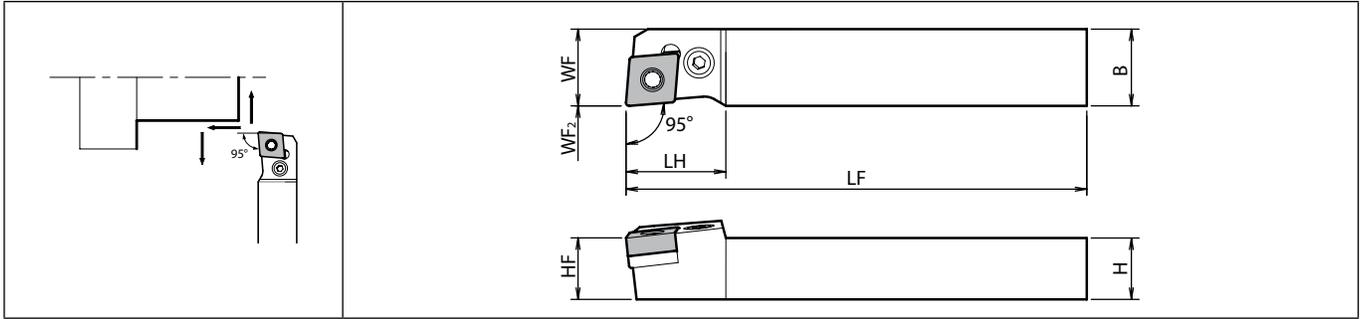
Applications	Finishing	Low Feed
Insert		
Chipbreaker	R-F	R-U
Page	B57	B57

Recommended cutting conditions

Workpiece Material	PR1225	PR1535	PR1705	PR1725
Free-cutting steel	-	-	● Vc = 330 sfm 200 ~ 490	☺ Vc = 330 sfm 200 ~ 490
Carbon Steel / Alloy Steel	☺ Vc = 330 sfm 200 ~ 490	☺ Vc = 330 sfm 200 ~ 490	☺ Vc = 430 sfm 200 ~ 720	● Vc = 430 sfm 200 ~ 660
Stainless Steel	☺ Vc = 260 sfm 160 ~ 490	● Vc = 330 sfm 200 ~ 590	-	☺ Vc = 330 sfm 260 ~ 490

● : Continuous to light interruption: 1st recommendation
 ☺ : Continuous to light interruption: 2nd recommendation

PCLN-FF (External Turning / External Facing, Without Offset)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions										Spare Parts						Applicable Inserts	
			R	H	B	LH	HF	LF	WF	WF2	Standard Corner-R (RE)	Side rake angle (°)	Inclination angle (°)	Lever	Lock Screw	Punch	Shim Pin	Shim		Wrench
mm	PCLNR 1620JX-12FF 2020JX-12FF	●	16	20	26	16	120	20	0	0.8	-6	-6	LL-2N	LS-2N	PC-2	LSP-2	LC-42N	LW-3	CN□G43...	

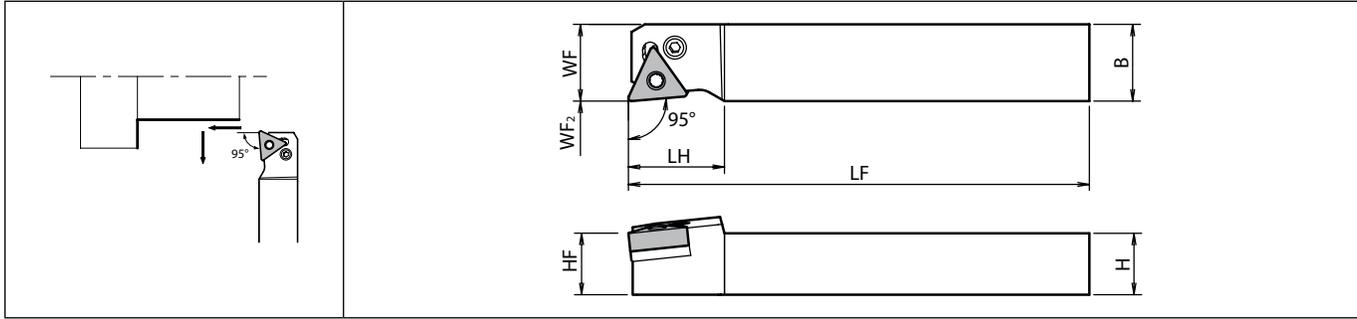
Applicable Inserts

Applications	Finishing - Medium	Medium - Roughing
Insert		
Chipbreaker	SK	FP-TK
Page	B19	B19

Recommended Cutting Conditions E66

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

PTLN-FF (External Turning, Without Offset)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions								Standard Corner-R (RE)	Side rake angle (°)	Inclination angle (°)	Spare Parts						Applicable Inserts
			R	H	B	LH	HF	LF	WF	WF2				Lever	Lock Screw	Punch	Shim Pin	Shim	Wrench	
mm	PTLNR 1620JX-16FF 2020JX-16FF	●	16	20	24	16	120	20	0	0.8	-6	-6	LL-1N	LS-1N	PC-1	LSP-1	LT-32N *LT-32N-20	FH-2.5	TN□G33...	
		●	20			20														

When using inserts with corner-R(RE) greater than 1/16" (1.6mm), please purchase shim LT-32N-20 (sold separately) to prevent workpiece and shim from interfering with each other.

Applicable Inserts

Applications	Finishing - Medium	Medium - Roughing	Large D.O.C.
Insert			
Chipbreaker	SK	FP-TK	R-LD
Page	B42	B42	B42

Recommended Cutting Conditions E66

Sub-Spindle Holders

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

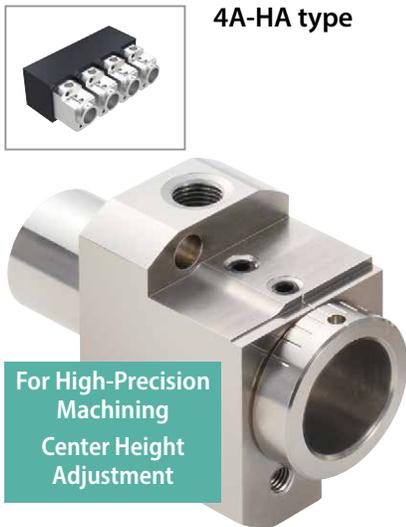
Highly rigid and supports internal coolant
 Holders with center height adjustment mechanism are available

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

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

For 4-spindle tool post

For 8-spindle tool post



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 with superior adjustment accuracy.



Feature 2

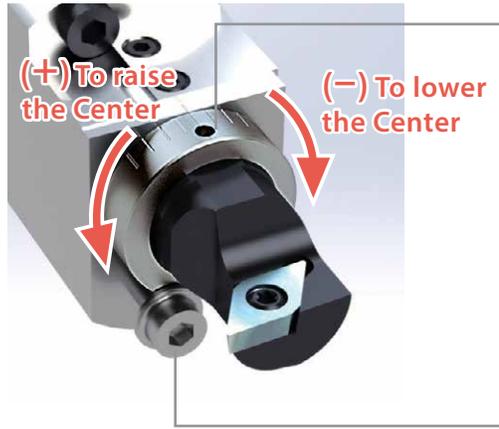
Supports internal coolant

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



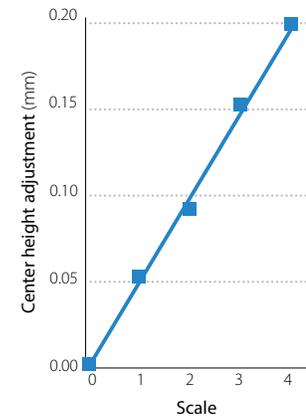
Scale of adjustable sleeve



Adjust the scale of the adjustable sleeve to the reference position of the body (Center height adjustment range : $\pm 0.2\text{mm}$)
Please check the machining diameter after adjusting the center height.

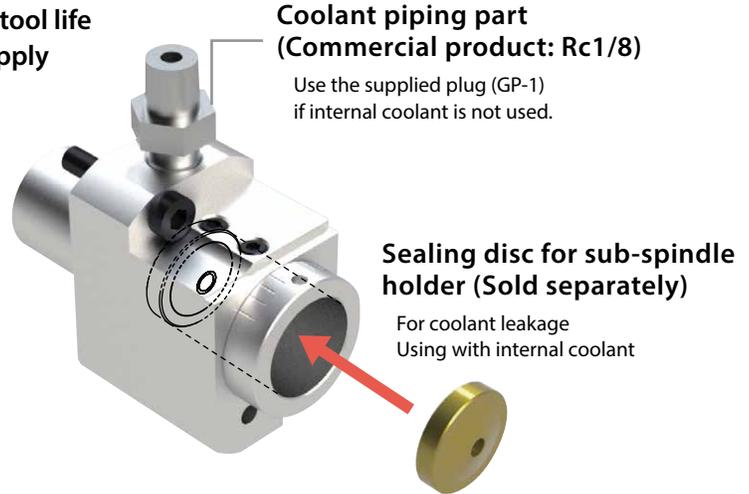
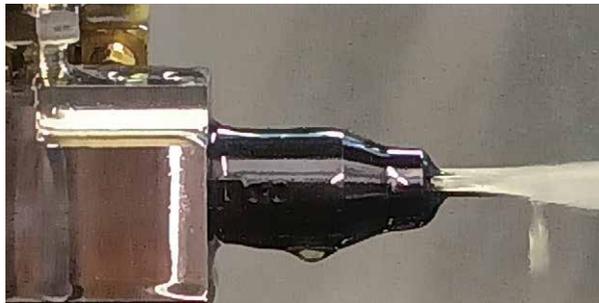
- Screw for temporarily fixing adjustable sleeve
- Temporarily fix after adjusting center height
 - Remove before machining

Center height adjustment scale (Internal evaluation)



Supports internal coolant

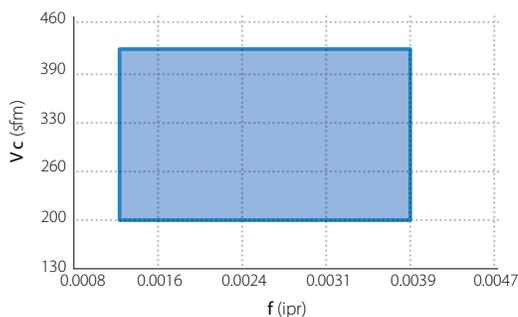
Accelerates chip evacuation and supports extended tool life
Special sealing discs provide more stable coolant supply



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

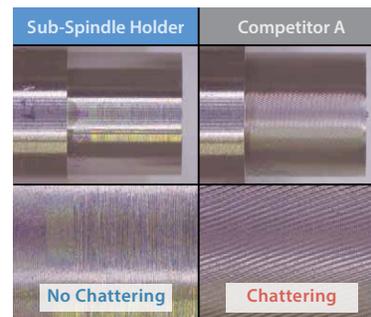
Cutting condition range for stable machining (No chattering)



Cutting conditions: $V_c = 200 \sim 430 \text{ sfm}$, $f = 0.0012 \sim 0.0039 \text{ ipr}$, D.O.C. = 0.079",
Wet, 304 SF22H-SH20-4A-HA S20K-SDUCL11 DCGT32505MFP-SK

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.

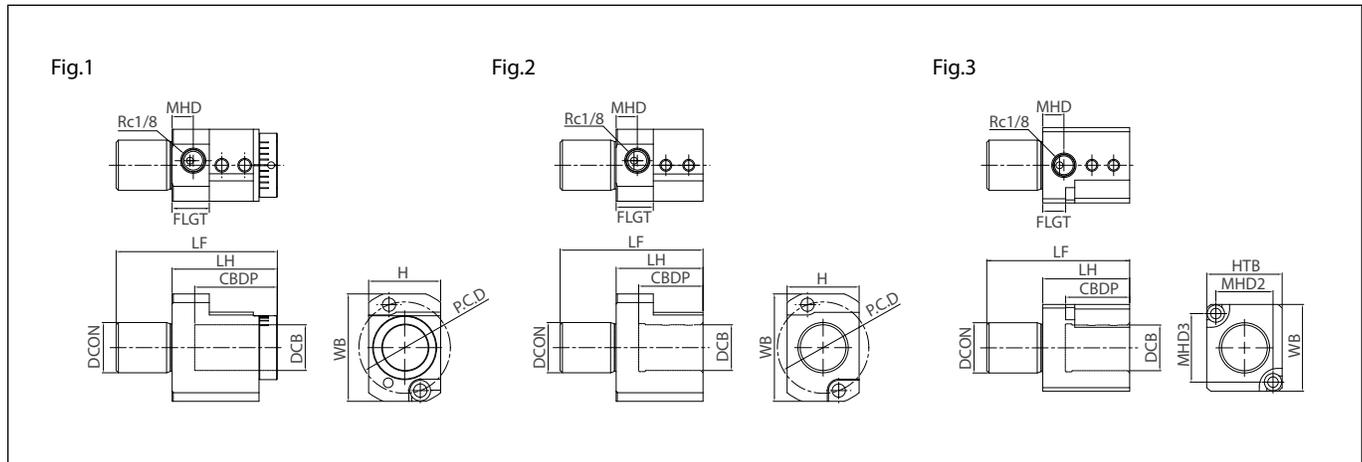
Chattering Resistance Comparison (Internal Evaluation)



Cutting conditions: $V_c = 330 \text{ sfm}$, $f = 0.002 \text{ ipr}$, D.O.C. = 0.079",
Wet, 304

Sub-Spindle Holders for STAR Machines

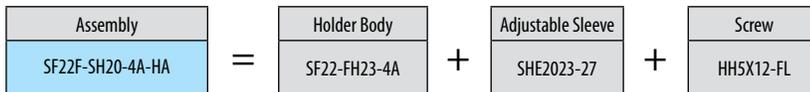
KSTB-TT (Sub-Spindle Holders for STAR™ Machines)



Holder Dimensions

Unit	Part Number	Std. Item	Tool Post Type	Center Height Adjustment	Dimensions (mm)													Fig.
					CBDP	DCB	DCON	FLGT	H	HTB	LF	LH	WB	MHD	MHD2	MHD3	P.C.D	
mm	SF22F- SH20-4A-HA*	●	4-spindle tool post	Yes	36.2	20	22	16.3	31.5	-	70.5	46	47	9.3	-	-	40	1
	SF22F- SH20-4A	●		-	28.2						62.5	38						
	SF22F- SH20-8A	●	8-spindle tool post	-	28.2	20	22	10	-	33	62.5	38	38	9.3	25	30	-	

*SF22F-SH20-4A-HA is a combined unit with holder body (SF22-FH23-4A) + sleeve (SHE2023-27). Holder body and sleeve are also available to purchase separately.



Parts and Assembly

Part Number	Parts								
	Holder Body	Adjustable Sleeve	Screw	Screw	Wrench	Plug	Screw	Wrench	Disc
SF22F- SH20-4A-HA*									
SF22F- SH20-4A	-	-	-	H55X5	LW-2.5	GP-1	HH5X25	LW-4	SD-D20
SF22F- SH20-8A	-	-	-	-	-	-	HH4X16	LW-3	-

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 □ : Made to Order △ : Phaseout Item (will be removed from next catalog)

Contact your local Kyocera sales engineer to upgrade old products to new technology

INSERT GRADES **A**

TURNING INSERTS **B**

CBN / PCD INSERTS **C**

TURNING HOLDERS **D**

SMALL TOOLS **E**

BORING **F**

GROOVING **G**

CUT-OFF **H**

THREADING **J**

DRILLING **K**

MILLING **M**

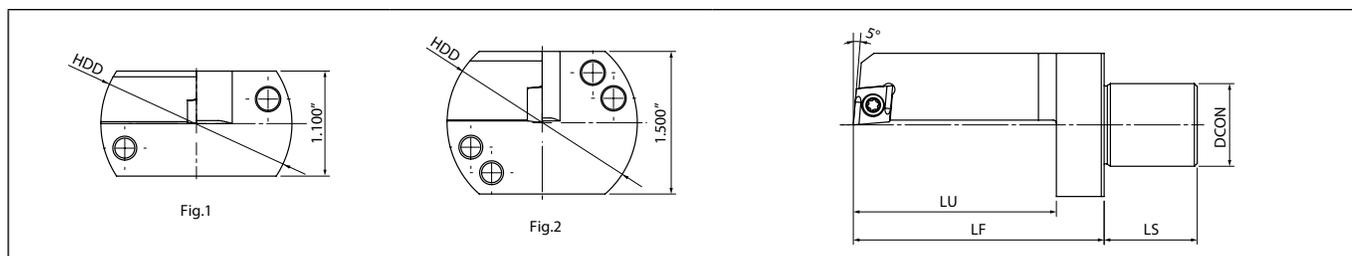
QUICK CHANGE TOOLING **N**

SPARE PARTS **P**

TECHNICAL **R**

INDEX **T**

KSTB-CCET (Sub-Spindle Turning for STAR™ Machines)

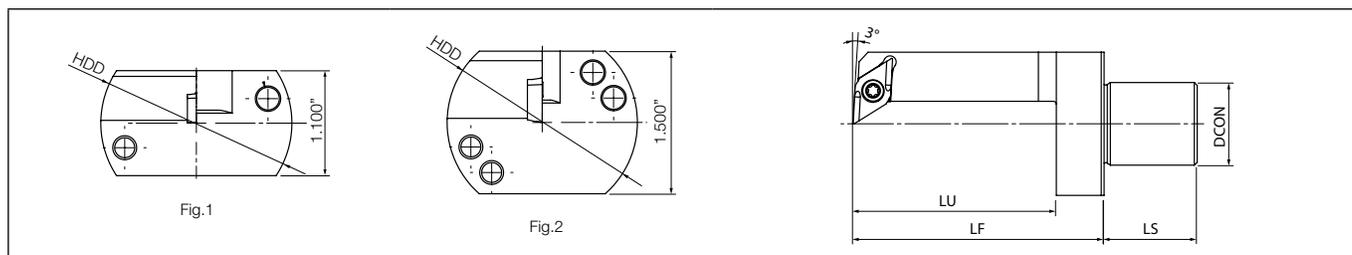


Toolholder Dimensions

Right-hand shown

Unit	Part Number	Std. Item	Dimensions					Fig.	Spare Parts			Applicable Inserts ● B58~B66	Reference Machine
			R	DCON	HDD	LF	LU		LS	Screw	Wrench		
Inch	KSTB SR16/20CCET215	●	0.866	2.000	2.250	1.875	1.073	1	SB-2560TR	-	FT-8	CCET215... CCGT215...	SR16, SR20
	KSTB SR16/20CCET325	●	0.866	2.000	2.250	1.875	1.073	1	SB-4085TR	FT-15	-	CCET325... CCGT325...	SR16, SR20
	KSTB SR32JCCET325	●	0.866	2.000	2.625	2.125	0.980	2	SB-4085TR			SR32J	

KSTB-DCET (Sub-Spindle Turning for STAR™ Machines)

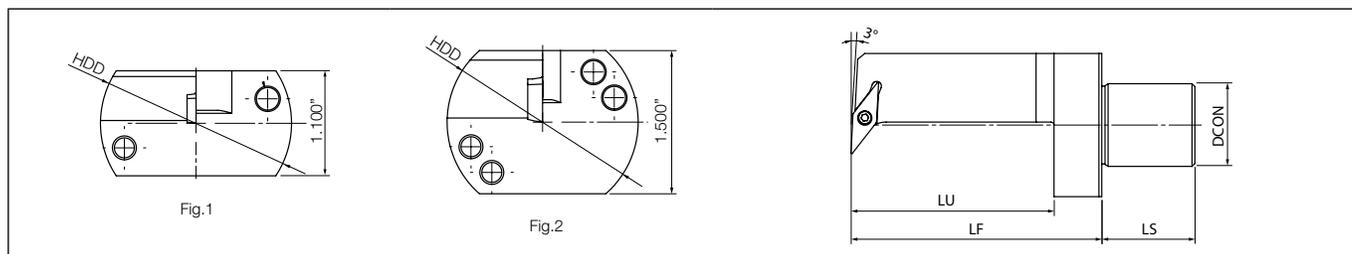


Toolholder Dimensions

Right-hand shown

Unit	Part Number	Std. Item	Dimensions					Fig.	Spare Parts			Applicable Inserts ● B68~B78	Reference Machine
			R	DCON	HDD	LF	LU		LS	Screw	Wrench		
Inch	KSTB SR16/20DCET215	●	0.866	2.000	2.250	1.875	1.073	1	SB-2560TR	-	FT-8	DCET215... DCGT215...	SR16, SR20
	KSTB SR16/20DCET325	●	0.866	2.000	2.250	1.875	1.073	1	SB-4085TR	FT-15	-	DCET325... DCGT325...	SR16, SR20
	KSTB SR32JDCET325	●	0.866	2.000	2.625	2.125	0.980	2	SB-4085TR			SR32J	

KSTB-VBET (Sub-Spindle Turning for STAR™ Machines)



Toolholder Dimensions

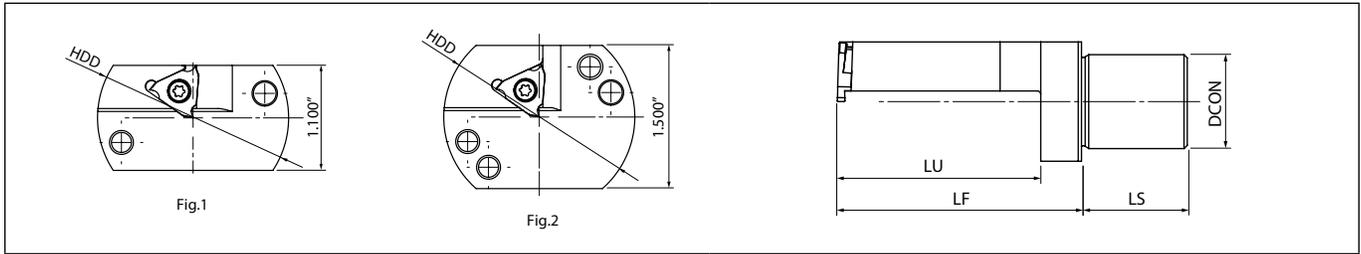
Right-hand shown

Unit	Part Number	Std. Item	Dimensions					Fig.	Spare Parts		Applicable Inserts ● B98~B99	Reference Machine
			R	DCON	HDD	LF	LU		LS	Screw		
Inch	KSTB SR16/20VBET22	●	0.866	2.000	2.250	1.875	1.073	1	SB-2570TR	FT-8	VBET22...	SR16, SR20
	KSTB SR32JVBET22	●	0.866	2.000	2.625	2.125	0.980	2	SB-2570TR			SR32J

Note: All KSTB holders are right-hand, which require neutral or left-hand inserts

● : Standard Item □ : Made to Order △ : Phaseout Item (will be removed from next catalog)
Contact your local Kyocera sales engineer to upgrade old products to new technology

KSTB-TT (Sub-spindle Threading for STAR™ Machines)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions					Fig.	Spare Parts		Applicable Inserts ● J40	Reference Machine
			DCON	HDD	LF	LU	LS		Screw	Wrench		
												
Inch	KSTB SR16/20TT32	●	0.866	2.000	2.250	1.875	1.073	1			TT32...	SR16, SR20
	KSTB SR32JT32	●	0.866	2.000	2.625	2.125	0.980	2	SB-4070TRS	FT-10		SR32J

Note: All KSTB holders are right-hand, which require neutral or left-hand inserts

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

Recommended Cutting Conditions

External Turning (Positive Insert) - Cutting diameter under $\phi 0.630"$ ($\phi 16\text{mm}$)

[D.O.C. Indicates Radius]

ISO Class	Workpiece Material	Hardness	Cutting Range	Application	Recommended Chipbreaker	Recommended Insert Grade	Corner-R (RE)	Lower Limit - Recommendation - Upper Limit		
								Vc (sfm)	D.O.C. (in)	f (ipr)
P*	Low Carbon Steel Low Carbon Alloy	HB \leq 300	Precision finishing	Continuous	F	PR1725	0.002	330 - 490 - 660	0.002 - 0.003 - 0.006	0.001 - 0.002 - 0.004
				Interruption		PR1725	0.008	260 - 390 - 520	0.002 - 0.004 - 0.008	0.001 - 0.004 - 0.006
			Precision finishing Molded Chipbreaker	Continuous	CF	PR1725	0.008	330 - 490 - 660	0.001 - 0.002 - 0.004	0.001 - 0.002 - 0.005
			Finishing	Continuous	SKS	PR1725	0.008	330 - 460 - 590	0.008 - 0.020 - 0.039	0.002 - 0.004 - 0.008
				Interruption		PR1725	1/64	260 - 390 - 520	0.008 - 0.020 - 0.039	0.002 - 0.004 - 0.008
	Finishing-Medium	Continuous	SK	PR1725	0.008	260 - 390 - 520	0.031 - 0.118 - 0.197	0.001 - 0.002 - 0.004		
	Interruption	PR1725		1/64	200 - 330 - 460	0.031 - 0.079 - 0.118	0.001 - 0.002 - 0.004			
	Low Feed & Large D.O.C.	Continuous	J, U	PR1725	0.008	260 - 330 - 460	0.020 - 0.079 - 0.138	0.001 - 0.002 - 0.004		
	Medium Carbon Steel Medium Carbon Alloy	HB \leq 330	Precision finishing	Continuous	F	PR1725	0.002	330 - 490 - 660	0.002 - 0.003 - 0.006	0.001 - 0.002 - 0.004
				Interruption		PR1725	0.008	260 - 390 - 520	0.002 - 0.004 - 0.008	0.001 - 0.004 - 0.006
			Precision finishing Molded Chipbreaker	Continuous	CF	PR1725	0.008	330 - 490 - 660	0.001 - 0.002 - 0.004	0.001 - 0.002 - 0.005
			Finishing	Continuous	SKS	PR1725	0.008	330 - 460 - 590	0.008 - 0.020 - 0.039	0.002 - 0.004 - 0.008
				Interruption		PR1725	1/64	260 - 390 - 520	0.008 - 0.020 - 0.039	0.002 - 0.004 - 0.008
	Finishing-Medium	Continuous	SK	PR1725	0.008	260 - 390 - 520	0.031 - 0.118 - 0.197	0.001 - 0.002 - 0.004		
	Interruption	PR1725		1/64	200 - 330 - 460	0.031 - 0.079 - 0.118	0.001 - 0.002 - 0.004			
Low Feed & Large D.O.C.	Continuous	J, U	PR1725	0.008	260 - 330 - 460	0.020 - 0.079 - 0.138	0.001 - 0.002 - 0.004			
High Carbon Alloy	HB \leq 280	Precision finishing	Continuous	F	PR1725	0.002	330 - 490 - 660	0.002 - 0.003 - 0.006	0.001 - 0.002 - 0.004	
			Interruption		PR1725	0.008	260 - 390 - 520	0.002 - 0.004 - 0.008	0.001 - 0.004 - 0.006	
		Precision finishing Molded Chipbreaker	Continuous	CF	PR1725	0.008	330 - 490 - 660	0.001 - 0.002 - 0.004	0.001 - 0.002 - 0.005	
		Finishing	Continuous	SKS	PR1725	0.008	330 - 460 - 590	0.008 - 0.020 - 0.039	0.002 - 0.004 - 0.008	
			Interruption		PR1725	1/64	260 - 390 - 520	0.008 - 0.020 - 0.039	0.002 - 0.004 - 0.008	
Finishing-Medium	Continuous	SK	PR1725	0.008	260 - 390 - 520	0.012 - 0.059 - 0.118	0.001 - 0.002 - 0.004			
Interruption	PR1725		1/64	200 - 330 - 460	0.012 - 0.039 - 0.079	0.001 - 0.002 - 0.004				
Low Feed & Large D.O.C.	Continuous	J, U	PR1725	0.008	260 - 330 - 460	0.020 - 0.079 - 0.138	0.001 - 0.002 - 0.004			
M	Stainless Steel (Austenitic Related)	HB \leq 220	Finishing	Continuous Interruption	SKS	PR1725	0.008	260 - 330 - 390	0.004 - 0.012 - 0.020	0.001 - 0.002 - 0.004
			Interruption			PR1535	1/64	200 - 260 - 330	0.012 - 0.020 - 0.039	0.002 - 0.004 - 0.006
	Medium	Continuous Interruption	SK	PR1725	0.008	260 - 330 - 390	0.020 - 0.059 - 0.118	0.001 - 0.003 - 0.005		
				PR1535	1/64	200 - 260 - 330	0.020 - 0.039 - 0.079	0.002 - 0.004 - 0.006		
Stainless Steel (Precipitation Hardened)	HB \leq 300	Finishing	Continuous Interruption	SKS	PR1725	0.008	130 - 200 - 260	0.004 - 0.012 - 0.020	0.001 - 0.002 - 0.004	
		Interruption			PR1535	1/64	100 - 160 - 230	0.012 - 0.020 - 0.039	0.002 - 0.004 - 0.006	
Medium	Continuous Interruption	SK	PR1725	0.008	130 - 200 - 260	0.020 - 0.039 - 0.079	0.001 - 0.003 - 0.005			
			PR1535	1/64	100 - 160 - 230	0.020 - 0.039 - 0.059	0.002 - 0.004 - 0.006			

* For machining free-cutting steels, use PR1705 at Vc = 660 sfm or less.
For D.O.C. and f, refer to specs for low carbon steels.



Recommended Cutting Conditions

External Turning (Positive Insert) - Cutting diameter under $\phi 0.630''$ ($\phi 16\text{mm}$)

[D.O.C. Indicates Radius]

ISO Class	Workpiece Material	Hardness	Cutting Range	Applications	Chipbreaker	Insert grade	Corner-R (RE)	Lower limit - Recommendation - Upper limit			
								Vc (sfm)	D.O.C. (in)	f (ipr)	
K	Gray Cast Iron	HB \leq 250	Finishing	Continuous Interruption	Standard	CA410K CA415K	1/64 1/64	330 - 620 - 1150 310 - 490 - 700	0.008 - 0.020 - 0.039 0.008 - 0.020 - 0.039	0.004 - 0.006 - 0.008 0.002 - 0.004 - 0.006	
			Medium	Continuous Interruption	Standard	CA410K CA415K	1/64 1/32	330 - 620 - 1150 310 - 490 - 700	0.020 - 0.039 - 0.079 0.020 - 0.039 - 0.079	0.004 - 0.006 - 0.008 0.002 - 0.004 - 0.006	
	Nodular Cast Iron	HB \leq 270	Finishing	Continuous Interruption	Standard	CA410K CA415K	1/64 1/64	350 - 580 - 780 250 - 360 - 530	0.008 - 0.020 - 0.039 0.008 - 0.020 - 0.039	0.004 - 0.006 - 0.008 0.002 - 0.004 - 0.006	
			Medium	Continuous Interruption	Standard	CA410K CA415K	1/64 1/32	350 - 580 - 780 250 - 360 - 530	0.020 - 0.039 - 0.079 0.020 - 0.039 - 0.079	0.004 - 0.006 - 0.008 0.002 - 0.004 - 0.006	
	N	Non-Ferrous Metals Copper Alloy Aluminum Aluminum Alloys (Si 10% or less) etc.	HB \leq 100	High Speed Machining (Glossy Surface Finish)	Continuous	Without Chipbreaker	KPD001	0.008	490 - 820 - 1150	0.002 - 0.004 - 0.012	0.002 - 0.004 - 0.006
				Finishing (Long Tool Life)	Continuous Interruption	F	PDL025 PDL025	0.008 1/64	330 - 490 - 660 330 - 490 - 660	0.002 - 0.012 - 0.020 0.002 - 0.012 - 0.020	0.001 - 0.003 - 0.004 0.001 - 0.003 - 0.004
Finishing				Continuous Interruption	F	KW10 KW10	0.008 1/64	330 - 490 - 660 330 - 490 - 660	0.002 - 0.012 - 0.020 0.002 - 0.012 - 0.020	0.001 - 0.003 - 0.004 0.001 - 0.003 - 0.004	
Medium				Continuous Interruption	U	KW10 KW10	0.008 1/64	330 - 490 - 660 330 - 490 - 660	0.008 - 0.020 - 0.059 0.008 - 0.020 - 0.059	0.001 - 0.004 - 0.008 0.001 - 0.004 - 0.008	
S	Titanium Alloys	HB \leq 400	Precision Finishing (Glossy Surface Finish)	Continuous Interruption	Without Chipbreaker	KPD001 KPD001	0.008 1/64	330 - 390 - 490 230 - 330 - 390	0.002 - 0.004 - 0.012 0.002 - 0.004 - 0.012	0.001 - 0.003 - 0.004 0.001 - 0.003 - 0.004	
			Medium	Continuous Interruption	F, U	KW10 KW10	1/64 1/64	100 - 160 - 230 100 - 160 - 230	0.004 - 0.020 - 0.039 0.004 - 0.020 - 0.039	0.001 - 0.004 - 0.008 0.001 - 0.004 - 0.008	
	Heat-Resistant Alloys	HB \leq 350	Finishing	Continuous Interruption	F, U Without Chipbreaker	KW10 KW10	1/64 1/32	30 - 100 - 160 30 - 100 - 160	0.004 - 0.012 - 0.020 0.008 - 0.020 - 0.028	0.001 - 0.002 - 0.004 0.001 - 0.002 - 0.004	
			Finishing	Continuous Interruption	MQ	PR1535 PR1535	1/64 1/32	130 - 200 - 260 130 - 200 - 260	0.004 - 0.012 - 0.020 0.004 - 0.012 - 0.020	0.001 - 0.002 - 0.004 0.001 - 0.002 - 0.004	
	H	Hardened Steel Hard Materials	40 ~ 50 HRC	Finishing	Continuous Interruption	GK	PR1725 PR1725	0.008 1/64	130 - 200 - 260 130 - 200 - 260	0.004 - 0.012 - 0.020 0.004 - 0.012 - 0.020	0.001 - 0.003 - 0.004 0.001 - 0.003 - 0.004
			50 ~ 68 HRC	Finishing	Continuous Interruption	ME MET	KBN010 KBN020	0.008 1/64	260 - 390 - 490 200 - 330 - 390	0.004 - 0.012 - 0.020 0.004 - 0.012 - 0.020	0.001 - 0.003 - 0.004 0.001 - 0.003 - 0.004

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

Recommended Cutting Conditions

External Turning (Positive Insert) - Cutting diameter under $\varnothing 0.630''$ ($\varnothing 16\text{mm}$)

KTKF

Workpiece Material		MEGACOAT NANO PLUS		MEGACOAT NANO		MEGACOAT		Notes
		PR1725		PR1535		PR1225		
		Grooving	Turning	Grooving	Turning	Grooving	Turning	
Carbon Steel / Alloy Steel	Vc (sfm)	★ 200 ~ 660		☆ 200 ~ 490		☆ 200 ~ 490		Coolant
	f (ipr)	0.0004 ~ 0.0012	0.0008 ~ 0.0059	0.0004 ~ 0.0012	0.0008 ~ 0.0059	0.0004 ~ 0.0012	0.0008 ~ 0.0059	
Stainless Steel	Vc (sfm)	☆ 200 ~ 490		★ 200 ~ 430		☆ 200 ~ 430		
	f (ipr)	0.0004 ~ 0.0008	0.0008 ~ 0.0039	0.0004 ~ 0.0008	0.0008 ~ 0.0039	0.0004 ~ 0.0008	0.0008 ~ 0.0039	

Workpiece Material		Carbide		PCD		Notes
		KW10		KPD001		
		Grooving	Turning	Grooving	Turning	
Cast Iron	Vc (sfm)	160 ~ 330		-		Coolant
	f (ipr)	0.0004 ~ 0.0008	0.0008 ~ 0.0059	-		
Aluminum	Vc (sfm)	660 ~ 1,480		660 ~ 1,640		
	f (ipr)	0.0004 ~ 0.0012	0.0008 ~ 0.0059	0.0004 ~ 0.0012	0.0008 ~ 0.0047	
Brass	Vc (sfm)	330 ~ 660		330 ~ 1,150		
	f (ipr)	0.0004 ~ 0.0020	0.0008 ~ 0.0079	0.0004 ~ 0.0020	0.0008 ~ 0.0059	

KTKF (GTP Chipbreaker)

Workpiece Material		MEGACOAT NANO PLUS		MEGACOAT NANO		Notes
		PR1725		PR1535		
		Grooving	Turning	Grooving	Turning	
Carbon Steel / Alloy Steel	Vc (sfm)	★ 200 ~ 660		☆ 200 ~ 490		Coolant
	f (ipr)	0.0012 ~ 0.0028	0.0020 ~ 0.0059	0.0012 ~ 0.0028	0.0020 ~ 0.0059	
Stainless Steel	Vc (sfm)	☆ 200 ~ 490		★ 200 ~ 430		
	f (ipr)	0.0008 ~ 0.0020	0.0012 ~ 0.0039	0.0008 ~ 0.0020	0.0012 ~ 0.0039	

KTKF (GQ Chipbreaker)

Workpiece Material		MEGACOAT NANO PLUS		MEGACOAT NANO		MEGACOAT		Notes
		PR1725		PR1535		PR1225		
		Grooving	Turning	Grooving	Turning	Grooving	Turning	
Carbon Steel / Alloy Steel	Vc (sfm)	★ 200 ~ 200		☆ 200 ~ 490		☆ 200 ~ 490		Coolant
	f (ipr)	0.0004 ~ 0.0016	0.0008 ~ 0.0059	0.0004 ~ 0.0016	0.0008 ~ 0.0059	0.0004 ~ 0.0016	0.0008 ~ 0.0059	
Stainless Steel	Vc (sfm)	☆ 200 ~ 490		★ 200 ~ 430		☆ 200 ~ 430		
	f (ipr)	0.0004 ~ 0.0012	0.0008 ~ 0.0039	0.0004 ~ 0.0012	0.0008 ~ 0.0039	0.0004 ~ 0.0012	0.0008 ~ 0.0039	

KTKF (AGT Chipbreaker)

Workpiece Material		PCD		Notes
		KPD001		
		Grooving	Turning	
Aluminum	Vc (sfm)	660 ~ 1,640		Coolant
	f (ipr)	0.0012 ~ 0.0059	0.0012 ~ 0.0079	
Brass	Vc (sfm)	330 ~ 1,150		
	f (ipr)	0.0012 ~ 0.0059	0.0012 ~ 0.0079	

ABS15, ABW15, ABW23

Workpiece Material		MEGACOAT NANO PLUS				MEGACOAT		PVD coated carbide		Notes
		PR1725		PR1705		PR1225		PR930		
		Grooving	Turning	Grooving	Turning	Grooving	Turning	Grooving	Turning	
Carbon Steel / Alloy Steel	Vc (sfm)	★ 200 ~ 590		☆ 260 ~ 660		☆ 200 ~ 490		☆ 260 ~ 330		Coolant
	f (ipr)	0.0008	0.0008 ~ 0.0028	0.0008	0.0008 ~ 0.0028	0.0008	0.0008 ~ 0.0028	0.0008	0.0008 ~ 0.0028	
Stainless Steel	Vc (sfm)	☆ 100 ~ 430		☆ 130 ~ 490		★ 130 ~ 390		☆ 100 ~ 160		
	f (ipr)	0.0008	0.0008 ~ 0.0020	0.0008	0.0008 ~ 0.0020	0.0008	0.0008 ~ 0.0020	0.0008	0.0008 ~ 0.0020	

Workpiece Material		Carbide		Notes
		KW10		
		Grooving	Turning	
Aluminum	Vc (sfm)	490 ~ 660		Coolant
	f (ipr)	0.0008	0.0008 ~ 0.0039	
Brass	Vc (sfm)	330 ~ 520		
	f (ipr)	0.0012	0.0008 ~ 0.0059	

★: 1st Recommendation

☆: 2nd Recommendation

Recommended Cutting Conditions

ZBMT

Workpiece	Insert Tip Angle	Corner-R (RE) (in)	Insert Grade	Vc (sfm)	D.O.C. (in)	f (ipr)
Carbon Steel / Alloy Steel	25°	0.008	PR1725	200 - 490 - 660	0.008 - 0.012 - 0.059	0.002 - 0.004 - 0.006
			PR1535	200 - 390 - 590	0.008 - 0.012 - 0.059	0.002 - 0.004 - 0.006
		1/64 1/32	PR1725	200 - 490 - 660	0.008 - 0.012 - 0.079	0.002 - 0.006 - 0.010
			PR1535	200 - 390 - 590	0.008 - 0.012 - 0.079	0.002 - 0.006 - 0.010
			PV720	460 - 590 - 790	0.008 - 0.012 - 0.059	0.002 - 0.005 - 0.008
			PV730	460 - 590 - 790	0.008 - 0.012 - 0.059	0.002 - 0.005 - 0.008
	15°	1/64	PR1725	200 - 490 - 660	0.008 - 0.012 - 0.039	0.002 - 0.004 - 0.006
			PR1535	200 - 390 - 590	0.008 - 0.012 - 0.039	0.002 - 0.004 - 0.006
Stainless Steel	25°	0.008	PR1725	200 - 490 - 590	0.008 - 0.012 - 0.039	0.002 - 0.004 - 0.006
			PR1535	200 - 390 - 490	0.008 - 0.012 - 0.039	0.002 - 0.004 - 0.006
		1/64 1/32	PR1725	200 - 490 - 590	0.008 - 0.012 - 0.039	0.002 - 0.006 - 0.010
			PR1535	200 - 390 - 490	0.008 - 0.012 - 0.039	0.002 - 0.006 - 0.010
	15°	1/64	PR1725	200 - 490 - 590	0.008 - 0.012 - 0.039	0.002 - 0.004 - 0.006
			PR1535	200 - 390 - 490	0.008 - 0.012 - 0.039	0.002 - 0.004 - 0.006
Cast Iron	25°	0.008	PR1725	200 - 490 - 590	0.008 - 0.012 - 0.059	0.002 - 0.004 - 0.006
		1/64 1/32	PR1725	200 - 490 - 590	0.008 - 0.012 - 0.079	0.002 - 0.006 - 0.010
	15°	1/64	PR1725	200 - 490 - 590	0.008 - 0.012 - 0.039	0.002 - 0.004 - 0.006
Non-Ferrous Metals (Aluminum Alloys)	25°	0.004 0.008 1/64	KPD001	660 - 1,640 - 2,620	0.004 - 0.008 - 0.020	0.001 - 0.002 - 0.003

When machining at D.O.C. 0.059" or more, reduce the feed by about 50%.

A PCD insert (KPD001) can not be reground.

When a PCD insert (KPD001) enters a workpiece or contacts a wall, keep the feed rate below 50% of normal use to prevent damage to the insert.

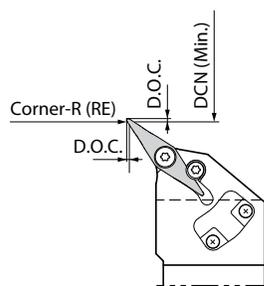
Boring/Facing Available Cutting Dia. and Max. D.O.C.



Standard Corner-R 1/64" (RE)

Cutting Dia.	Depth (in)
Ø1.181	0.020
Ø1.969	0.059
Ø2.559	0.118
Ø3.150	0.236
Ø3.937	0.394
Ø5.906	0.551

SZPB Type Cutting Diameter for Undercutting



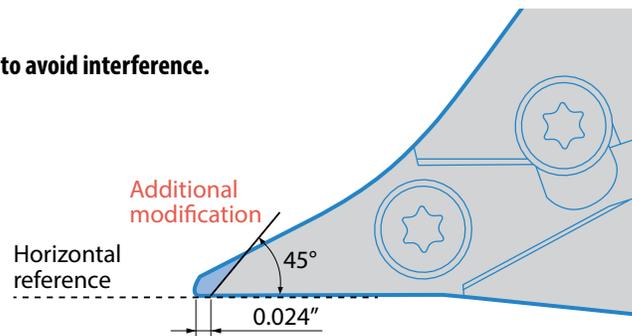
Corner-R (RE)	D.O.C. (in)	DCN (Min)
0.008"	0.020	Ø1.181
	0.039	Ø1.378
1/64"	0.020	Ø1.181
	0.039	Ø1.378
1/32"	0.020	Ø4.331
	0.039	Ø5.906

How to Modify Toolholder when Using 15° Insert

When using 15° insert, additional modification are required for the holder to avoid interference.

Recommended Additional Modification

- Set the edge of insert bearing surface at the end of the holder at horizontal reference shown.
- Modify the holder to 0.024" from the tip at an angle no less than 45° from the horizontal.



INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

