

## Small Lathe Tools

# SumiSmall

## D1 to D29



Boring Bars E1~

Grooving / Cut-off / Threading Tools F1~

For Small Lathes

D

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External Holders	Special Tool Holders for Small Product Machining	SEC-PB Tool Holders SPB series .....	D8
	SEC-Round Shank Tool Holders	SEC-Wide-Cut Holders SGW series .....	D10
		SEC-Mini Tool Holders SBT series / PBT series .....	D11
		SEC-Front Turning Tool Holders SFT series .....	D12
		RS-SCL type .....	D13
		RS-SDU type / RS-SDX type .....	D14
		RS-SVX type / RS-SVVP type .....	D15
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	SEC-Mini Tool Holders Zero Offset Holders	PCLC-X type / SCLC-X type / SCAC-X type .....	D17
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	SEC-MINI Tool Holders PD series / SD series	SVJC-X type / PTXN-X type .....	D20
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SEC-Mini Tool Holders SV series (7° Positive)	SDAC type / SDNC type .....	D25	
SEC-Mini Tool Holders SV series (11° Positive)	SSBC type .....	D26	
	STGC type / STAC type .....	D27	
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	SVLP type / SVPP type .....	D29	

## E Boring Bars

Multi-functional Small Lathe Tools .....	E16
SEC-Boring Bars (for Bottom Facing) .....	E18
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SEC-Boring Bars (for Through Boring) .....	E36
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## F Grooving / Cut-off / Threading Tools

SEC-Grooving Tools (External) .....	F4
SEC-Grooving Tools (Internal) .....	F56
SEC-Small Diameter Cut-off Tool Holders .....	F78
SEC-Threading Tools (External) .....	F102, F110
SEC-Threading Tools (Internal) .....	F102, F115

### Stock Markings and Symbols

- mark: Standard stocked item
- mark: To be replaced with the new item featured on the same page
- ▲ mark: To be replaced by a new product, made to order, or discontinued (please confirm stock availability)
- \* mark: Semi-standard stock (please confirm stock availability)
- mark: Stock or planned stock (please confirm stock availability)
- Blank: Made-to-order item
- mark: Not available

# Small Lathe Tools Selection Guide

For Small Lathes

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## External Turning (1)

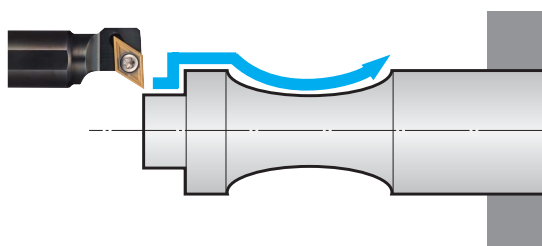
Application/Type/Page	Cutting Edge Shape
<b>Cut-off</b> SCT type F78~	
<b>Back Turning</b> SBT series PBT series D11	
<b>Profiling</b> SV series F28~	
<b>General External Turning</b> PD/SD series D24, D25	
<b>Grooving</b> GWC series F4	
<b>Grooving &amp; Cut-off</b> GND series F10~	

## External Turning (2)

Application/Type/Page	Cutting Edge Shape
<b>Turning</b> SFT series D12	
<b>Turning</b> PTXN-X type D20	
<b>Grooving Traverse Cut</b> SGE series F54	
<b>Threading</b> STH series F110	
<b>Threading</b> SSTE type F102~	
<b>Threading</b> THE series F114	

## External Turning (3)

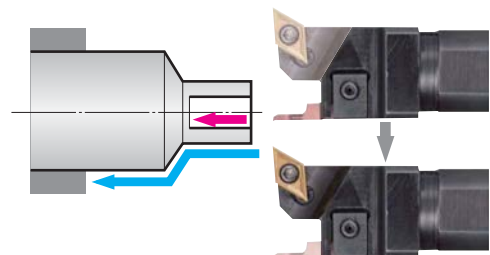
External turning made possible with holder sleeves.



<b>Application/Type/Page</b> <b>Round Shank Holder</b> RS series D13 to D16
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## Multi-functional Tool

A single holder capable of performing two operations.



<b>Application/Type/Page</b> <b>Twin Head Holder</b> I.D. + O.D. CKBE type E16	<b>Application/Type/Page</b> I.D. + I.D. CKBB type E17
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# Small Lathe Tools Selection Guide

## Internal Boring (1) Machining of very small diameters $\phi 1\text{mm}$ and above

Application/Type/Page	Very Small Dia. Boring	Very Small Dia. Boring	Solid Carbide Bar	Small Hole Boring Bars	
Application/Type/Page	Square Shank CKB series E66	Round Shank S-CKB type / S-CKB-S type E68	Square Shank L type Gang type Toolpost CKBS type E67	BXBR series E72~	SEXC series E76
Cutting Edge Shape	General KBMX type $\phi 1.0\text{mm}$ up, $10^\circ$ , $20^\circ$	Back Turning KBMZ type $5^\circ$	Grooving KBMG type $1.0, 2.0\text{mm}$	Face Grooving KBMFR type $1.5, 2.0, 3.0\text{mm}$	General BXBR series $\phi 2.0\text{mm}$ up, $10^\circ$ , $20^\circ$

## Internal Boring (2) Machining of small diameters $\phi 5\text{mm}$ and above

## Internal Grooving and Threading

Application/Type/Page	Boring	Internal Grooving	Internal Grooving	Internal Grooving	Internal Threading	Internal Threading
Application/Type/Page	SW type/ST type/SC type/SD type/SV type/SS type E18 to E63	SGIT series F57	SSH series F58~	GNDIS type F46~	STHI series F116	SSTI type F102~
Cutting Edge Shape	Stop Boring E42~ Bottom Facing E18~ Profiling E26~ Concave Facing and Bottom Facing E50 Through Boring E36~ Unit (mm)	$\phi 10.0$ up, Max. Groove Depth 0.8 to 2.8mm, 0.5 to 2.0mm	$\phi 8.0$ up, Max. Groove Depth 1.0 to 4.0mm, 0.74 to 3.00mm	$\phi 14.0$ up, Max. Groove Depth 2.6 to 6.8mm, 1.5 to 3.0mm	Pitch 0.4 to 1.0mm, $\phi 6.0$ up	Pitch 0.5 to 3.0mm, $\phi 18.0$ up

## SUMIBORON (CBN) Small Hole Boring Bars

## SUMIDIA (PCD) Small Hole Boring Bars

## Drilling

Application/Type/Page	Small Hole Boring Bars	Small Hole Boring Bars	Small Hole Boring Bars	Small Hole Boring Bars	General-purpose	For Aluminum Alloy
Application/Type/Page	BSME series E75	BNBX series E78	DABB-C type E81	DABB-N type E81	MultiDrill NeXEO MDE series J8~	MULTIDRILL MDA series J84~
Cutting Edge Shape	BSME series $\phi 0.5\text{mm}$ up, $10^\circ$	BNBX series $\phi 0.5\text{mm}$ up, $3^\circ$	DABB-C type $\phi 0.5\text{mm}$ up, $5^\circ$	DABB-N type $\phi 0.5\text{mm}$ up, $25^\circ$	$\phi 1.0$ to $200$	$\phi 1.0$ to $120$

# SumiSmall

For Small Lathes  
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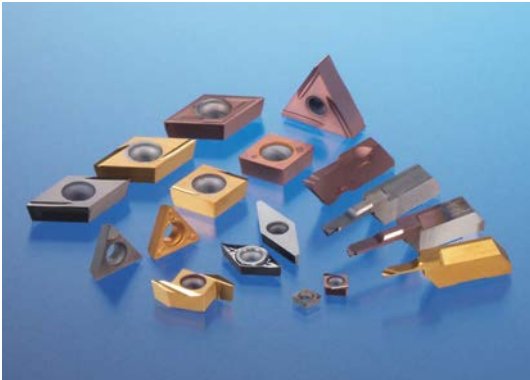


## General Features

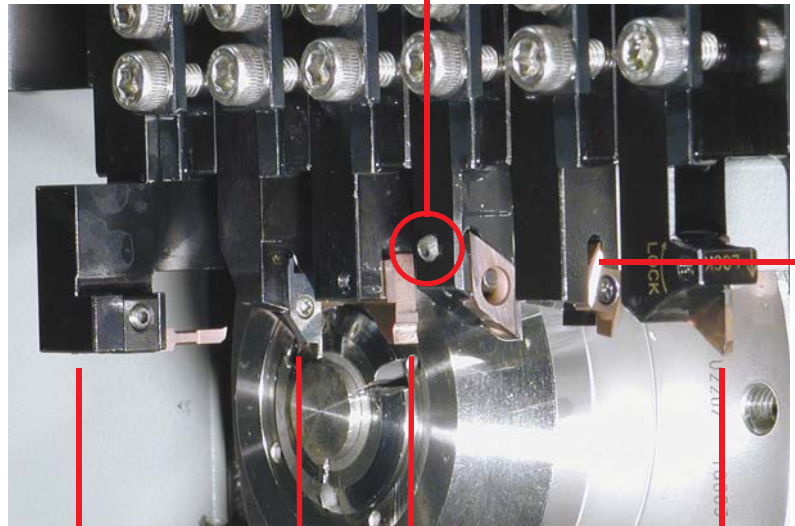
In 1984, Sumitomo Electric Hardmetal first released the SEC-MINI Tool Holder series for small product machining in small NC autolathes. Through these years of experience, new tool designs including our side lever lock tool holder were developed to meet various machining requirements such as back turning, profiling and cut-off; we continually strive to enhance the series.



## Full Lineup of Grades from Carbide to PCD



D6-



## Special Tools for Small Lathes to Cover Various types of Machining

- **MINI Boring Bar CKB series**  
Min. bore diameter  $\phi 1$  to  $\phi 5$ mm



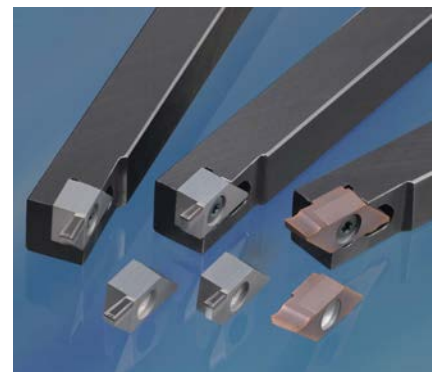
E66-

- **Very Small Diameter Part Turning Tool SPB series**  
Best suited for very small parts with diameter of less than  $\phi 10$ mm



D8-

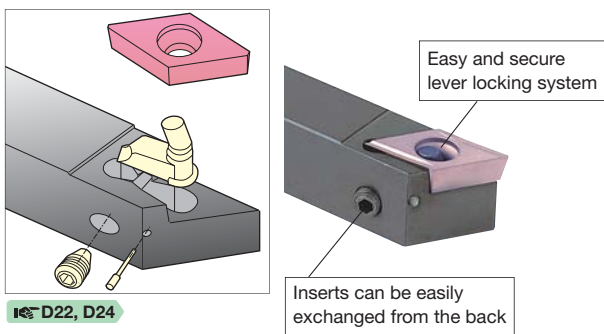
- **Wide-Cut Holders SGW series**  
Ideal for high-efficiency machining of long parts, eliminating chip control issues



D10

## ■ A Wide Selection of Easy-to-Use Holders

### ● PC/PD type Back Clamp Tool Holders



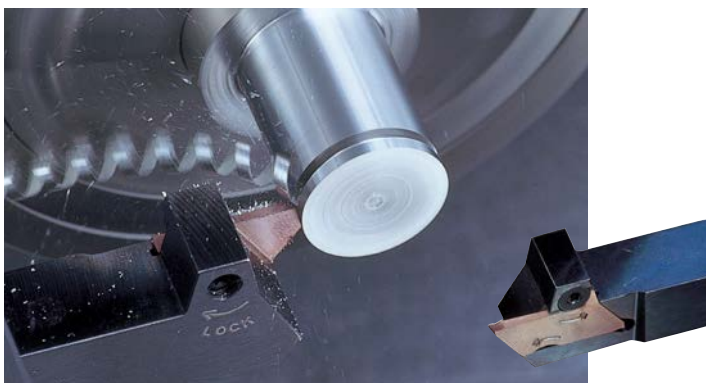
### ● Back-Turning Tool Holder SBT series / PBT series

Sharp cutting edge produces good surface finish  
Maximum machining step 8.0mm, width of cut 2.5mm



### ● Cut-off Tool SCT type

Inserts can be changed easily even from the back, simply by loosening the screw  
Maximum cut-off diameters:  $\phi 5\text{mm}$ ,  $\phi 12\text{mm}$ ,  $\phi 16\text{mm}$



### ● Zero Offset Holders \*Products with part number suffix "-X"

Tool compensation not required for small gang-type lathes Icons: D17~



### ● Twin Head Holder

Multi-functional Autolathe Tool  
One holder performing 2 different operations Icons: E16~



### ● Round Shank Holder RS series

External turning made possible with holder sleeves Icons: D13~



### ● SEC-Grooving Tools SSH series Expansion

Internal coolant supply enables superb chip control, while the tough carbide body allows stable machining  
Supports internal grooving of  $\phi 8\text{mm}$  up Icons: F58~



### ● SEC-Grooving Tools GND series

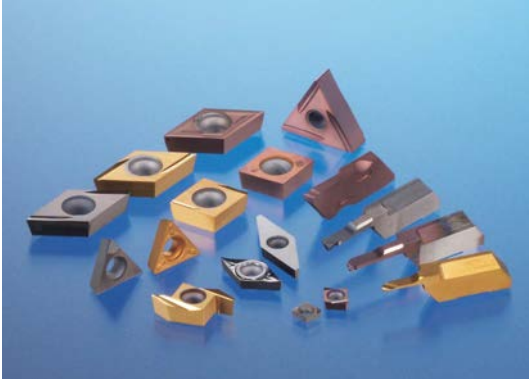
Lineup includes shanks for small lathes  
Suitable for grooving at 1.25mm up  
Internal coolant supply type now available in the series Icons: F10~



# Insert Grade Selection Guide

For Small Lathes

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In 1984, Sumitomo Electric Hardmetal first released the SEC-MINI Tool Holder series for small product machining in small NC autolathes.

A full range of insert grades including AC530U and AC1030U as well as Cermet T1500A, Cemented Carbide BL130, SUMIBORON BN2000, and SUMIDIA DA1000 are available to meet a variety of machining requirements.

In addition to the high-precision grade ACZ150, AC1030U has been added to support an even wider range of precision application requirements, from automotive to electrical component machining.

## Insert Grade Selection Guide

Insert Grades	Application Range			Applicable Work Material					
	High-precision	Finishing to Light Cutting	Medium Cutting	P General Steel	M Stainless Steel	K Cast Iron	N Non-Ferrous Metals	S Heat-Resistant Alloy	H Hardened Steel
Coated Carbide (PVD)	ACZ150			◎	◎		○		
	AC5015S			○	◎	○		◎	
	AC5025S			○	◎	○		◎	
	AC530U			◎	◎	○	○	○	
	AC1030U			◎	◎	○	○	○	
Uncoated Cermet Coated Cermet	T1000A			◎	○	◎	○		
	T1500A/T1500Z			◎	○	○	○		
Cemented Carbide	BL130			○	○	○	○		
	H1			○	○	○	◎		
	EH510			○	○	○	○	◎	
CBN (SUMIBORON)	BN1000/BN2000								◎
	BN7125					◎		○	
PCD (SUMIDIA)	DA1000						◎		

◎ 1st Recommendation ○ 2nd Recommendation

## Recommended Cutting Conditions

(Red text: 1st recommendation, Blue text: 2nd recommendation)

Work Material	P Free-Cutting Steel		P Carbon Steel		M Stainless Steel		S Heat-Resistant Alloy		H Hardened Steel		N Aluminum Alloy		N Brass	
	vc (m/min)	f (mm/rev)	vc (m/min)	f (mm/rev)	vc (m/min)	f (mm/rev)	vc (m/min)	f (mm/rev)	vc (m/min)	f (mm/rev)	vc (m/min)	f (mm/rev)	vc (m/min)	f (mm/rev)
ACZ150	50 to 200	0.02 to 0.10	50 to 150	0.01 to 0.08	50 to 150	0.01 to 0.05					70 to 300	0.05 to 0.20	70 to 300	0.05 to 0.20
AC5015S	50 to 200	0.02 to 0.15	50 to 200	0.02 to 0.10	50 to 200	0.02 to 0.10	30 to 100	0.02 to 0.10					70 to 300	0.05 to 0.20
AC5025S	50 to 200	0.02 to 0.15	50 to 200	0.02 to 0.10	50 to 200	0.02 to 0.10	30 to 100	0.02 to 0.10					70 to 300	0.05 to 0.20
AC530U	50 to 200	0.02 to 0.15	50 to 200	0.02 to 0.10	50 to 200	0.02 to 0.10							70 to 300	0.05 to 0.20
AC1030U	50 to 200	0.02 to 0.15	50 to 150	0.02 to 0.10	50 to 150	0.02 to 0.10							70 to 300	0.05 to 0.20
T1000A	50 to 200	0.02 to 0.15	50 to 200	0.02 to 0.10	50 to 150	0.02 to 0.10					70 to 300	0.05 to 0.20	70 to 300	0.05 to 0.20
T1500A	50 to 200	0.02 to 0.15	50 to 200	0.02 to 0.10	50 to 150	0.02 to 0.10					70 to 300	0.05 to 0.20	70 to 300	0.05 to 0.20
T1500Z	50 to 200	0.02 to 0.15	50 to 200	0.02 to 0.10	50 to 150	0.02 to 0.10					70 to 300	0.05 to 0.20	70 to 300	0.05 to 0.20
BN1000									120 to 300	0.03 to 0.15				
BN2000									50 to 200	0.03 to 0.20				
BN7125							50 to 200	0.05 to 0.25						
DA1000											70 to 300	0.02 to 0.10	70 to 300	0.02 to 0.10

# Chipbreaker Selection

## Insert Series

### Insert Precision Selection Guide

Insert Class	E Class	G Class	M Class
Height Tolerance	±0.025mm	±0.13mm	±0.13mm
Features	Peripheral faces are ground Thickness tolerances are tighter than G class inserts	Peripheral faces are ground	Peripheral faces have a sintered finish
Applications	High-precision to finishing	Finishing to Light Cutting	Roughing to Light Cutting
Cat. No.	CCET09T302R-FX DCET0702018L-FY	CCGT09T304R-FX DCGT11T302MN-SI(*)	CCMT09T304N-LU DCMT070208N-SU

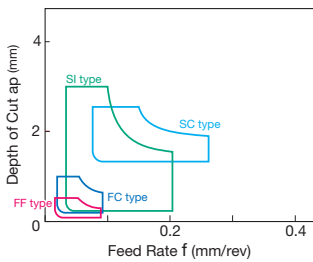
(\*) Catalogue numbers with a feed direction symbol prefixed with "M" means that the product has a corner radius with negative tolerance.

### Chipbreaker Selection

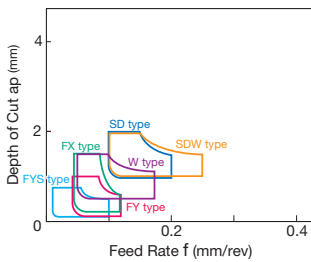
	Representative example	Features
Molded type	FC type SI type AG type 	3D chipbreaker with good chip evacuation and sharp cutting edge.
Parallel type	FX type 	Best suited for general-purpose external finishing with larger depths of cut.
Wide type	FYS type FY type 	Suppresses burrs in necking operation. Suppresses chattering during facing and external turning operations.

## Application Range of Chipbreakers for Finishing to Light Cutting

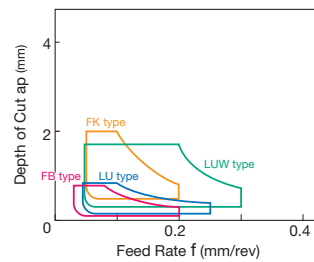
### G Class Chipbreaker



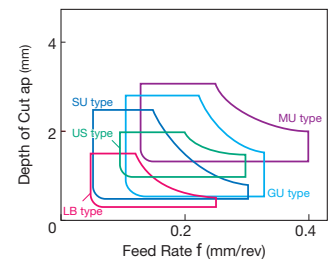
### G Class Ground type



### M Class Finishing to Light Cutting



### M Class Light Cutting



## Chipbreakers for Finishing to Light Cutting

### Positive type G Class

<b>FF type</b>  Realises outstanding chip evacuation in fine cutting conditions Relief Angle   5°   7° CCGT09T300 type	<b>FC type</b>  Peripheral ground 3D breaker with good chip control and cutting edge sharpness 0.9 15° Relief Angle   7°   11° CCGT09T300 type	<b>SI type</b>  Sharp-edged chipbreaker for a wide range of applications from finishing to light cutting 0.8 15° Relief Angle   7°   11° CCGT09T300 type	<b>SC type</b>  Two-step breaker for light cutting 1.0 6° Relief Angle   7° TCGT110300 type	<b>AG type</b>  Al chipbreaker for mirror finish and anti-adhesion 20° Relief Angle   7° CCGT09T300 type
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### Positive type G Class (Ground type)

<b>FX type</b>  Parallel breaker with sharp edge 0.9 15° Relief Angle   5°   7°   11° TPGT110300 type	<b>FYS type</b>  Fine cutting breaker with sharp edge 0.5 15° Relief Angle   5°   7° CCGT04X100 type	<b>FY type</b>  Wide breaker with sharp edge 1.5 15° Relief Angle   5°   7°   11° TPGT110300 type	<b>SD type</b>  Stepped parallel ground breaker 0.9 Relief Angle   7°   11° TPGT110300 type	<b>AY type</b>  High-quality ground aluminum breaker achieving excellent machined surface quality 2.5 15° Relief Angle   5°   7°   11° CCGT09T300 type
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### Positive type M Class

<b>FB type</b>  Finishing chipbreaker for mild steel turning with excellent chip control and surface finish 0.5 20° Relief Angle   5°   7°   11° CCMT09T300 type	<b>LU type</b>  Chip control significantly improved in fine cutting 0.8 15° Relief Angle   5°   7°   11° CCMT09T300 type	<b>LB type</b>  Light-cutting breaker with sharp edge and good chip control 0.8 15° Relief Angle   5°   7°   11° CCMT09T300 type	<b>SU type</b>  General purpose chipbreaker with excellent sharpness 1.45 8° Relief Angle   7°   11° TPMT160400 type	<b>GU type</b>  General-purpose Chipbreaker: 1st Recommendation 0.2, 1.6, 5, 15 Relief Angle   5°   7°   11° CCMT09T300 type
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Applicable Work Materials: P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metal S Exotic Alloy H Hardened Steel

# SPB series

For Small Lathes

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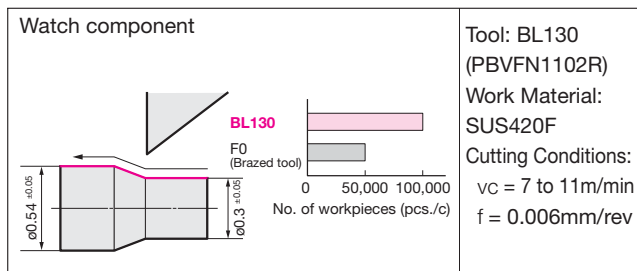
### ■ Features

- High rigidity type tools for gang-type NC lathes
- Inserts for various applications can be used on a single holder
- Can also be used on turret-type toolposts
- Uncoated insert blanks are stocked so cutting edges can be ground as required
- BL130 has wear resistance similar to coated grades and sharpness similar to uncoated grades
- Ultra-fine grained cemented carbide grade F1, typically used for brazed tools, is now available for indexable inserts

### ■ Grade Application

Applicable Work Material	Stainless Steel			Brass/ Aluminum Alloy
	General Steel/ SK Material	Austenitic	Martensitic Ferritic	
Insert Grade				
<b>BL130</b>	○	○	⊙	○
<b>F1</b>	○	⊙	○	○

### ■ Application Examples



Very Small Diameter Part Turning  
Screw-on

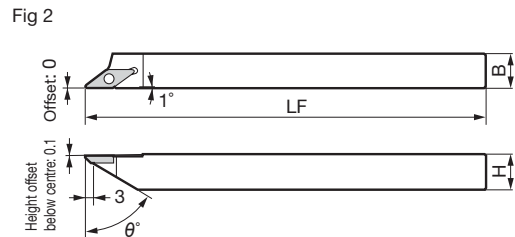
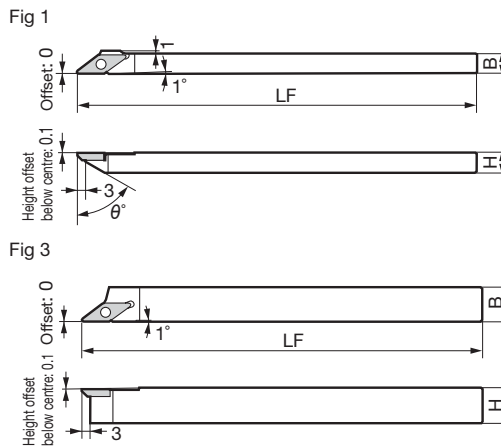
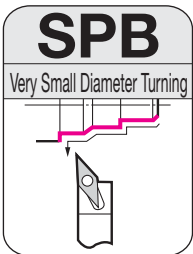


Figure shows right-handed (R) tool.

### Holder

### Parts

Dimensions (mm)

Toolpost	Cat. No.	Stock		Height H	Width B	Overall Length LF	Relief Angle $\theta^\circ$	Fig	Flat Insert Screw		Wrench (For Torx hole)
		R	L							(N·m)	
Turret type	SPB R/L0707-70	●	—	7	7	140	70	1	BFTX02505N	1.1	LT08-06
	SPB R/L0808-60	●	—	8	8	140	60	2	BFTX02506N	1.5	
	SPB R/L0808-70	—	●	8	8	140	70	2	BFTX02505N	1.1	
	SPB R/L0909-70	—	●	9.5	9.5	140	70	2	BFTX02505N	1.1	
	SPB R/L1010-60	●	—	10	10	140	60	2	BFTX02506N	1.5	
	SPB R/L1212-60	●	—	12	12	140	60	2	BFTX02506N	1.5	
Gang type	SPB R/L0808	●	—	8	8	140	—	3	BFTX02506N	1.5	LT08-06
	SPB R/L1010	●	—	10	10	140	—	3	BFTX02506N	1.5	
	SPB R/L1212	●	—	12	12	140	—	3	BFTX02506N	1.5	



Inserts

(□ Cemented Carbide)

Insert Blank

Dimensions (mm)

Cat. No.	Stock				Overall Length L	Applications	Fig	Fig 1	Fig 2	Fig 3
	BL130		F1							
	R	L	R	L						
PBVX 1102 R/L-NB	●	●	●	●	17.2	Wide Range	1			Figure shows right-handed (R) tool.
PBVX 1102 R/L-SB	●	●	●	●	(20.14)	Sharp edge	2			
PBVX 1102 R/L-BB	●	●	●	●	17.2	Special	3			

( ) is a reference value

Dimensions (mm)

Front Turning Insert

Cat. No.	Stock				Effective Cutting Edge Length	Wiper Edge	Fig	Fig 1	Fig 2
	BL130		F1						
	R	L	R	L					
PBVFW 1102 R/L	●				1.0	Yes	1		
PBVFN 1102 R/L	●				1.0	No	2		

( ) is a reference value

Dimensions (mm)

Back Turning Insert

Cat. No.	Stock				Effective Cutting Edge Length	Wiper Edge	Fig	Fig 1	Fig 2
	BL130		F1						
	R	L	R	L					
PBVBW 1102 R/L	●				1.0	Yes (2°)	1		
PBVBN 1102 R/L	●				1.0	No (5°)	2		

( ) is a reference value

Dimensions (mm)

Grooving Insert

Dimensions (mm)

Cat. No.	Stock				Machining Groove Depth CDX	Width of Cut CW	Fig	Fig 1
	BL130		F1					
	R	L	R	L				
PBVG 1102 R/L-030	●				0.5	0.3	1	
PBVG 1102 R/L-050	●				1.0	0.5	1	
PBVG 1102 R/L-100	●				2.0	1.0	1	

Cut-off Insert

Dimensions (mm)

Cat. No.	Stock				Max. Cut-off Dia.	Width of Cut CW	Fig	Fig 1 Right-handed (R)	Left-handed (L)
	BL130		F1						
	R	L	R	L					
PBVC 1102 R/L-50	●	●			5.0	1.0	1		

Threading Insert

Dimensions (mm)

Cat. No.	Stock				Process Pitch	Fig	Fig 1	Fig 2
	BL130		F1					
	R	L	R	L				
PBVTF 1102 R/L	●				0.2 to 0.5	1		
PBVTB 1102 R/L	●				0.2 to 0.5	2		

Figure shows right-handed (R) tool.

Recommended Cutting Conditions

Work Material	P Free-Cutting Steel	P Carbon Steel	M Stainless Steel	N Non-Ferrous Metal
Cutting Speed $v_c$ (m/min)	5 to 80	5 to 80	5 to 50	5 to 100
Feed Rate $f$ (mm/rev)	0.003 to 0.05			
Coolant	Wet (oil-based)			



For Small Lathes  
**D**



■ **Features**

- Enables high-efficiency roughing of long parts
- Coin-shaped chips are less likely to tangle with work material or machinery



■ **Application Examples**

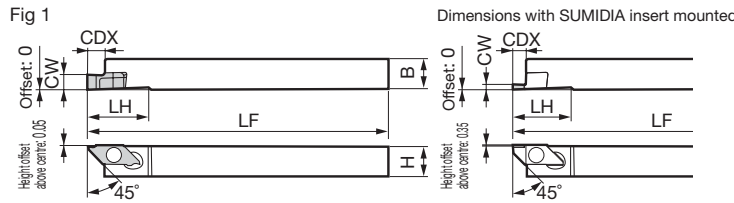
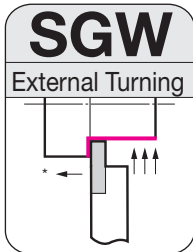
**LD type + DA1000**

Conventional Tool

Work Material: Valve (A6061) Tool Cat. No.: KGV R2004-LD (DA1000)  
Cutting Conditions:  $v_c = 250\text{m/min}$ ,  $f = 0.10\text{mm/rev}$ ,  $a_p = 0.5\text{mm}$  Wet

■ **SUMIDIA Multi-Function Tool with Chipbreaker SUMIDIA BREAK MASTER LD type**

- Provides excellent chip control in traverse cutting and grooving of aluminum alloy.
- Solves chip control problems and dramatically improves work efficiency.
- Achieves long, stable tool life by employing high-toughness grade SUMIDIA DA1000.



External Multi-purpose type (Grooving/Traverse Cutting) Screw-on

\*Use the SUMIDIA insert for traverse cutting.

**Holder**

**Parts**

Cat. No.	Stock	Height H	Width B	Overall Length LF	Maximum Groove Depth CDX	Head Length LH	Fig	Dimensions (mm)	
								Flat Insert Screw	Wrench
<b>SGW R1212</b>	●	12	12	120	7.0	24.5	1	BFTX0410T8R	1.1
<b>SGW R1616</b>	●	16	16	120	7.0	24.5	1		

The above dimensions for LF, CDX and LH are values with a carbide insert mounted. (Refer to the table below for dimensions with SUMIDIA insert mounted)

**Insert (Carbide)** (Coated Carbide)

Cat. No.	AC1030U	AC530U	Width of Cut CW	Overall Length L	Overall Length LF	Maximum Groove Depth CDX	Head Length LH	Effective Length	Fig	Dimensions (mm)	
										Effective Length	Fig
<b>KGV R400</b>	●	●	4.0	21.0	120	7.0	24.5	6.3	1		
<b>KGV R500</b>	●	●	5.0	21.0	120	7.0	24.5	6.3	1		
<b>KGV R600</b>	●	●	6.0	21.0	120	7.0	24.5	6.3	1		

**Insert (SUMIDIA)** (SUMIDIA)

Cat. No.	DA1000	Width of Cut CW	Overall Length L	Overall Length LF	Maximum Groove Depth CDX	Head Length LH	Effective Length	Fig	Dimensions (mm)	
									Effective Length	Fig
<b>KGV R2004-LD</b>	●	2.0	19.7	118.7	5.0	23.2	4.0	1		
<b>KGV R2504-LD</b>	●	2.5	19.7	118.7	5.0	23.2	4.0	1		
<b>KGV R2506-LD</b>	●	2.5	21.2	120.2	6.5	24.7	5.5	1		

The above dimensions for LF, CDX and LH are the holder dimensions with insert mounted.

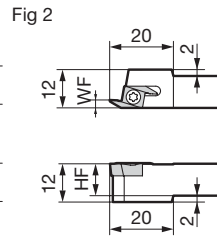
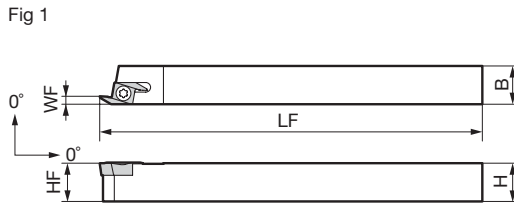
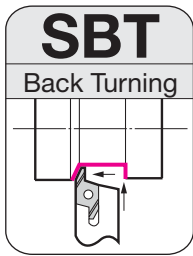
Note: The values in red (maximum groove depth CDX) have been changed from those in the 2021-2022 General Catalogue.

**Recommended Cutting Conditions**

Work Material	P Steel	M Stainless Steel	N Non-Ferrous Metal	N Non-Ferrous Metal
Insert Grades	AC1030U		DA1000	
Machining Details	Grooving		Grooving	Traverse Cutting
Spindle Speed $n$ (min <sup>-1</sup> )	4,000 to 6,000		4,500 to 8,000	4,500 to 8,000
Feed Rate $f$ (mm/rev)	0.05 to 0.15		0.07 to 0.15	0.07 to 0.15
Coolant	Wet (oil-based)			

Be careful with spindle power during use. For small lathes, insufficient spindle power during machining may cause the machine to stop.  
Be careful when machining carbon steel and stainless steel in particular.

# SBT series/PBT series



Back Turning  
Screw-on

Holder

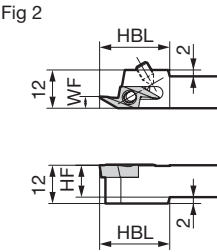
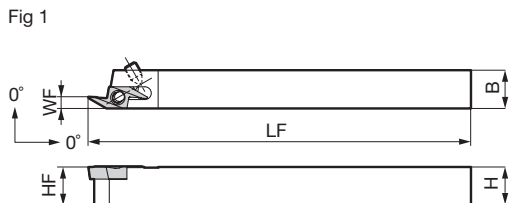
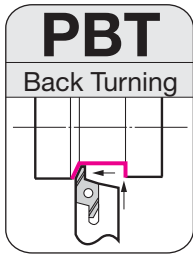
Parts

Dimensions (mm)

Cat. No.	Stock	Height H	Width B	Overall Length LF	Cutting Edge Distance WF	Cutting Edge Height HF	Applicable Insert	Fig	Flat Insert Screw		Wrench
SBT35 R1010	●	10	10	120	2.5	10	BTR3500	2 1 1 1		2.0	TRX10 <small>(For Torx hole)</small>
SBT35 R1212	●	12	12	120	2.5	12					
SBT35 R1616	●	16	16	120	2.5	16					
SBT35 R2020	●	20	20	125	2.5	20					

Back  
Clamp

Back Turning  
Lever Lock



Holder

Parts

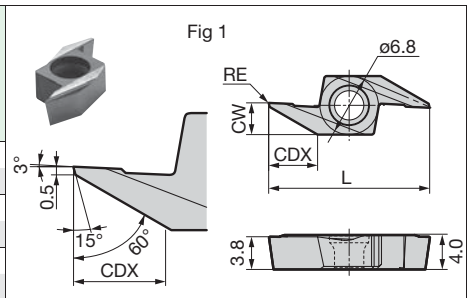
Dimensions (mm)

Cat. No.	Stock	Height H	Width B	Overall Length LF	Cutting Edge Distance WF	Cutting Edge Height HF	Offset HBL	Applicable Insert	Fig	Lever Pin	Set Screw	Pin	Wrench
PBT35 R1010	●	10	10	120	2.5	10	20	BTR3500	2 1 1 1	LCL09	BTT0407	LP07	TH020
PBT35 R1212	●	12	12	120	2.5	12	—						
PBT35 R1616	●	16	16	120	2.5	16	—						
PBT35 R2020	●	20	20	120	2.5	20	—						
PBT55 R1010	●	10	10	120	3.7	10	22	BTR5500	2 1 1 1	LCL09	BTT0407	LP07	TH020
PBT55 R1212	●	12	12	120	3.7	12	—						
PBT55 R1616	●	16	16	120	3.7	16	—						
PBT55 R2020	●	20	20	120	3.7	20	—						
PBT80 R1010	●	10	10	120	5.2	10	25	BTR8000	2 1 1 1	LCL09	BTT0407	LP07	TH020
PBT80 R1212	●	12	12	120	5.2	12	—						
PBT80 R1616	●	16	16	120	5.2	16	—						
PBT80 R2020	●	20	20	120	5.2	20	—						

Insert ( Coated Carbide / Cermet)

Dimensions (mm)

Cat. No.	AC1030U	AC530U	ACZ150	T1500A	Overall Length L	Maximum Depth of Cut CDX	Width of Cut CW	Corner Radius RE	Applicable Holder	Fig
BT R3515	●	●	●	●	15	3.5	2.5	0.15	PBT35R0000	1
BT R5505	●	●	●	—	19	5.5	3.7	0.05	PBT55R0000	1
BT R5515	●	●	●	—	19	5.5	3.7	0.15	PBT55R0000	1
BT R8005	●	●	●	—	24	8.0	5.2	0.05	PBT80R0000	1
BT R8015	●	●	●	—	24	8.0	5.2	0.15	PBT80R0000	1

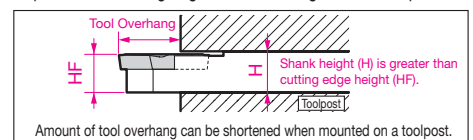


Recommended Cutting Conditions

Work Material	P Free-Cutting Steel		P Carbon Steel		M Stainless Steel	
	Plunging	Traverse Cut	Plunging	Traverse Cut	Plunging	Traverse Cut
Cutting Speed $v_c$ (m/min)	50 to 150		50 to 150		50 to 150	
Feed Rate $f$ (mm/rev)	0.02 to 0.10	0.02 to 0.15	0.02 to 0.05	0.02 to 0.10	0.02 to 0.04	0.02 to 0.06
Coolant	Wet (oil-based)					

Shank Tolerance of SBT series / PBT series

A positive tolerance (0.1 - 0.3) is applied to the shank height (H) to prevent the cutting edge from interfering with the toolpost.



# SFT series

General Turning  
Screw-on

For Small Lathes

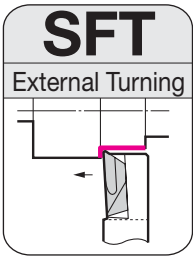
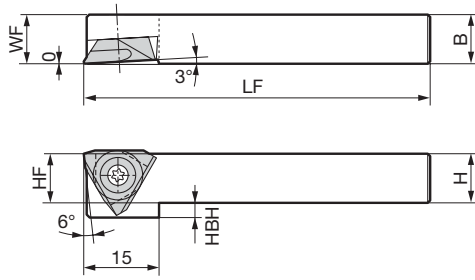


Fig 1



Holder

Parts Dimensions (mm)

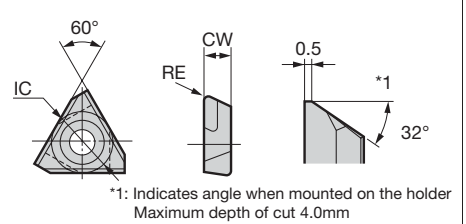
Cat. No.	Stock	Height H	Width B	Overall Length LF	Cutting Edge Distance WF	Cutting Edge Height HF	Offset HBH	Applicable Insert	Fig	Flat Insert Screw	Wrench
											 (For Torx hole)
SFT R1010	●	10	10	120	10	10	3	TFR3300	1		 (For Torx hole)
SFT R1212	●	12	12	120	12	12	1		1		
SFT R1616	●	16	16	120	16	16	—		1		
SFT R2020	●	20	20	120	20	20	—		1		

Insert ( Coated Carbide)

Dimensions (mm)

Cat. No.	ACZ150	Inscribed Circle IC	Width of Cut CW	Corner Radius RE	Applicable Holder	Fig
TF R3300	●	9.525	4.76	—	SFT R0000	1
TF R3305	●	9.525	4.76	0.05		1
TF R3315	●	9.525	4.76	0.15		1
TF R3320	●	9.525	4.76	0.20		1

Fig 1

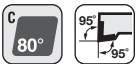


# RS-SCL type

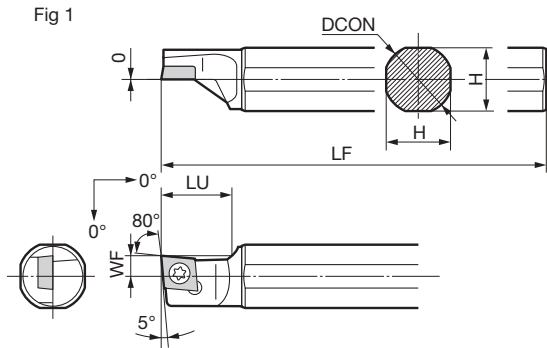
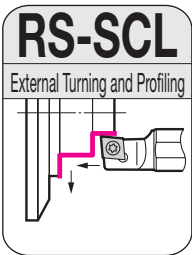


### ■ Features of Round Shank Holders

- Shank diameters from  $\varnothing 14$  to  $\varnothing 25$ mm are in stock. Holders can be fitted on various manufacturers' sleeve toolposts.
- Bars can be mounted from the rear of the sleeve toolpost to increase the tooling range.





General Turning  
Screw-on



### Holder

### Parts

Dimensions (mm)

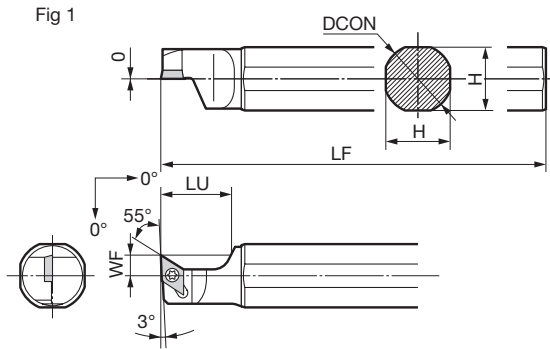
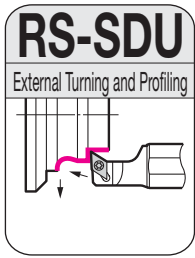
Cat. No.	Stock	Diameter DCON	Height H	Overall Length LF	Cutting Edge Distance WF	Usable Length LU	Applicable Inserts		Fig	Flat Insert Screw	Wrench
							Cat. No.	Ref. Page			 (For Torx hole)
RS15H-SCL L06	●	15.875	15	100	6.0	20	CC□□0602	B70~	1	BFTX02507NT	RT08
RS19X-SCL L06	●	19.05	18	120	6.0	20					
RS20X-SCL L06X	●	20	19	95	6.0	20					
RS20X-SCL L06	●	20	19	120	6.0	20					
RS22X-SCL L06	●	22	21	120	6.0	20					
RS25X-SCL L06	●	25	24	120	6.0	20					
RS25M-SCL L06	●	25.4	24	150	6.0	20	CC□□09T3	B73~	1	BFTX0408NT	LT25NT
RS15H-SCL L09	●	15.875	15	100	6.0	20					
RS19X-SCL L09	●	19.05	18	120	6.0	20					
RS20X-SCL L09S	●	20	19	95	6.0	20					
RS20X-SCL L09	●	20	19	120	6.0	20					
RS22X-SCL L09	●	22	21	120	6.0	20					
RS25X-SCL L09	●	25	24	120	6.0	20					
RS25M-SCL L09	●	25.4	24	150	6.0	20			1		

Right hand (R) or neutral (N) inserts can be used.

# RS-SDU type/RS-SDX type



General Turning  
Screw-on



For Small Lathes

D

Holder

Parts

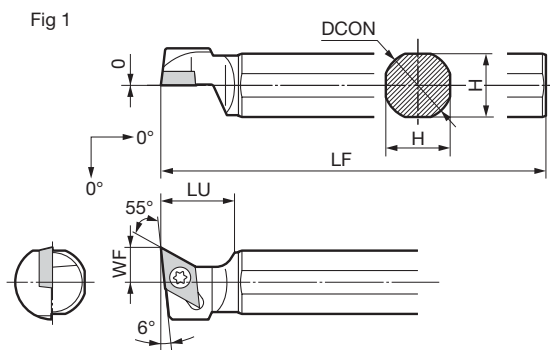
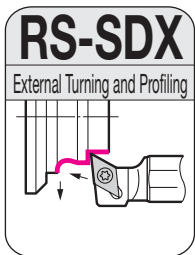
Dimensions (mm)

Cat. No.	Stock	Diameter DCON	Height H	Overall Length LF	Cutting Edge Distance WF	Usable Length LU	Applicable Inserts		Fig	Flat Insert Screw	Wrench
							Cat. No.	Ref. Page			
RS14F-SDU L07	●	14	13	80	6.0	20	DC□□0702	B80~	1	BFTX02507NT	RT08
RS15H-SDU L07	●	15.875	15	100	6.0	20					
RS16F-SDU L07	●	16	15	80	6.0	20					
RS16X-SDU L07	●	16	15	120	6.0	20					
RS19X-SDU L07	●	19.05	18	120	6.0	20					
RS20X-SDU L07S	●	20	19	95	6.0	20					
RS20X-SDU L07	●	20	19	120	6.0	20					
RS22X-SDU L07	●	22	21	120	6.0	20	DC□□11T3	B84~	1	BFTX0410NT	LT25NT
RS19X-SDU L11	●	19.05	18	120	10.0	20					
RS20X-SDU L11S	●	20	19	95	10.0	20					
RS20X-SDU L11	●	20	19	120	10.0	20					
RS22X-SDU L11	●	22	21	120	10.0	20					
RS25X-SDU L11	●	25	24	120	10.0	20					
RS25M-SDU L11	●	25.4	24	150	10.0	20					

Right hand (R) or neutral (N) inserts can be used.



General Turning  
Screw-on



Holder

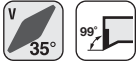
Parts

Dimensions (mm)

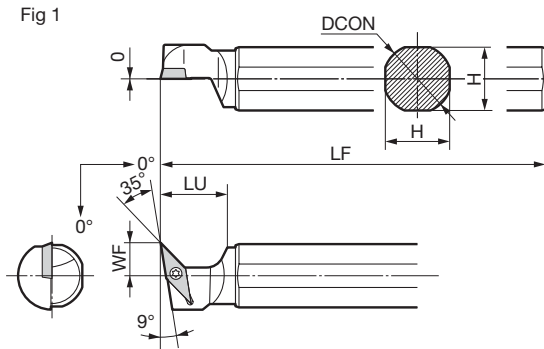
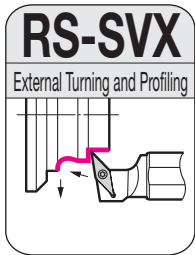
Cat. No.	Stock	Diameter DCON	Height H	Overall Length LF	Cutting Edge Distance WF	Usable Length LU	Applicable Insert		Fig	Flat Insert Screw	Wrench
							Cat. No.	Ref. Page			
RS19X-SDX L11	●	19.05	18	120	10.0	20	DC□□11T3	B84~	1	BFTX0410NT	LT25NT
RS20X-SDX L11S	●	20	19	95	10.0	20					
RS20X-SDX L11	●	20	19	120	10.0	20					
RS25X-SDX L11	●	25	24	120	10.0	20					

Right hand (R) or neutral (N) inserts can be used.

# RS-SVX type/RS-SVVP type





General Turning  
Screw-on

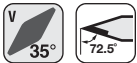


Holder

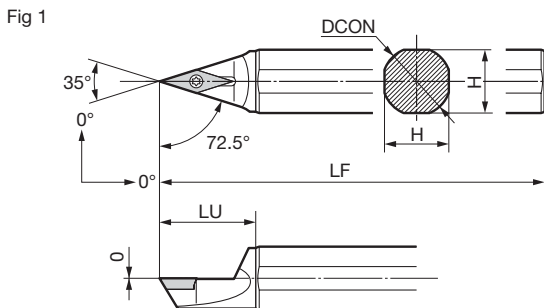
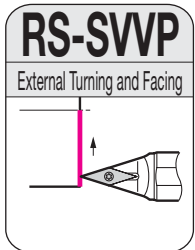
Parts Dimensions (mm)

Cat. No.	Stock	Diameter DCON	Height H	Overall Length LF	Cutting Edge Distance WF	Usable Length LU	Applicable Insert		Fig	Flat Insert Screw 	Wrench  (For Torx hole)
							Cat. No.	Ref. Page			
RS15H-SVX L11	●	15.875	15	100	10.0	20	VC□□1103	B121~	1	BFTX02507NT	RT08
RS19X-SVX L11	●	19.05	18	120	10.0	20					
RS20X-SVX L11S	●	20	19	95	10.0	20					
RS20X-SVX L11	●	20	19	120	10.0	20					
RS22X-SVX L11	●	22	21	120	10.0	20					
RS25X-SVX L11	●	25.4	24	150	10.0	20					

Right hand (R) or neutral (N) inserts can be used.





General Turning  
Screw-on



Holder

Parts Dimensions (mm)

Cat. No.	Stock	Diameter DCON	Height H	Overall Length LF	Usable Length LU	Applicable Insert		Fig	Flat Insert Screw 	Wrench  (For Torx hole)
						Cat. No.	Ref. Page			
RS19X-SVVP N11	●	19.05	18	120	27	VP□□1103	B125	1	BFTX02507NT	RT08
RS22X-SVVP N11	●	22	21	120	27					

# RS-PTXN type



General Turning  
Lever Lock

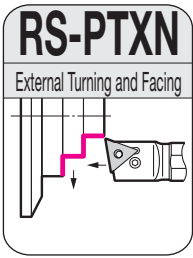
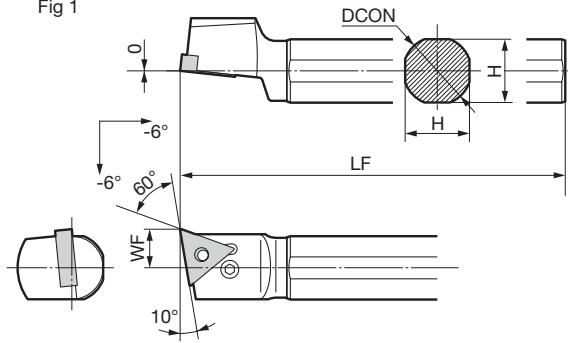


Fig 1



For Small Lathes

## Holder

## Parts

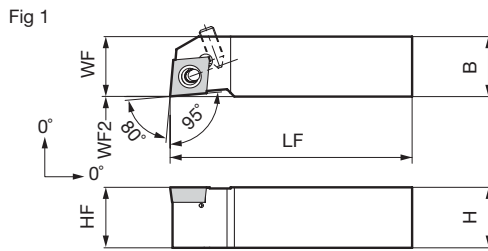
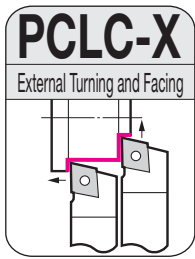
Dimensions (mm)

Cat. No.	Stock	Diameter DCON	Height H	Overall Length LF	Cutting Edge Distance WF	Applicable Insert		Fig	Parts		
						Cat. No.	Ref. Page		Lever Pin	Bolt	Wrench
<b>RS19X-PTXN L16</b>	●	19.05	18	120	11.0			1			
<b>RS20X-PTXN L16</b>	●	20	19	120	11.0	TN□□1604	<b>B50~</b>	1	LCL33NT	LCS33NT	LH020NT
<b>RS25M-PTXN L16</b>	●	25.4	24	150	13.0			1			(For Hexagonal hole)

Right hand (R) or neutral (N) inserts can be used.



# Zero Offset Holders



For PCLC R/L1212-K09X

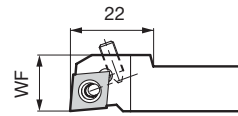


Figure shows right-handed (R) tool.

## Holder

## Parts

Dimensions (mm)

Cat. No.	Stock		Height H	Width B	Overall Length LF	Cutting Edge Distance WF	Cutting Edge Height HF	Offset WF2	Applicable Inserts		Fig	Lever Pin	Set Screw	Pin	Wrench
	R	L							Cat. No.	Ref. Page		(For Hexagonal hole)			
PCLC R/L1010-K06X	●		10	10	125	10	10	0	CC□T0602	B70~	1	LCL06	BTT0407	LP07	TH020
PCLC R/L1212-K09X	●		12	12	125	15	12	0			1				
PCLC R/L1616-K09X	●		16	16	125	16	16	0	CC□T09T3	B73~	1	LCL09	BTT0411	LP06	TH020

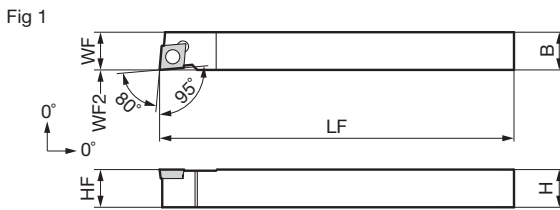
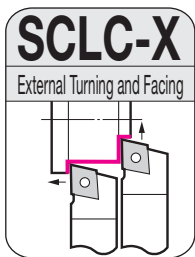


Figure shows right-handed (R) tool.

## Holder

## Parts

Dimensions (mm)

Cat. No.	Stock		Height H	Width B	Overall Length LF	Cutting Edge Distance WF	Cutting Edge Height HF	Offset WF2	Applicable Inserts		Fig	Flat Insert Screw		Wrench
	R	L							Cat. No.	Ref. Page		(For Torx hole)		
SCLC R/L1010-H06X	●	●	10	10	100	10	10	0	CC□T0602	B70~	1	BFTX02506N	1.5	TRX08
SCLC R/L1215-K09X	●	●	12	15	125	15	12	0			1			
SCLC R/L1215-F09X*	●	●	12	15	85	15	12	0	CC□T09T3	B73~	1	BFTX0409N	3.4	TRX15

\*85mm Shank

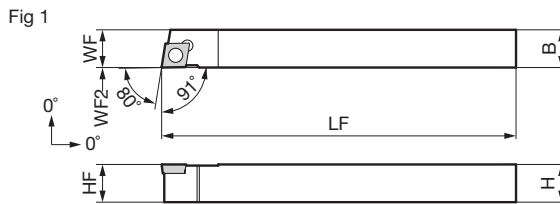
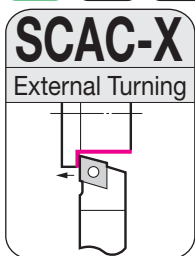


Figure shows right-handed (R) tool.

## Holder

## Parts

Dimensions (mm)

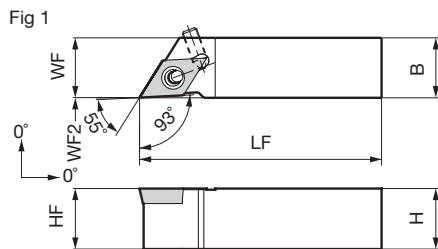
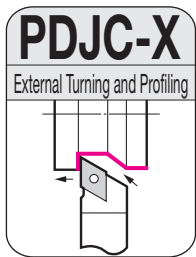
Cat. No.	Stock		Height H	Width B	Overall Length LF	Cutting Edge Distance WF	Cutting Edge Height HF	Offset WF2	Applicable Inserts		Fig	Flat Insert Screw		Wrench
	R	L							Cat. No.	Ref. Page		(For Torx hole)		
SCAC R/L1010-H06X	●	●	10	10	100	10	10	0	CC□T0602	B70~	1	BFTX02506N	1.5	TRX08
SCAC R/L1215-F09X*	●	●	12	15	85	15	12	0			1			
SCAC R/L1215-K09X	●	●	12	15	125	15	12	0	CC□T09T3	B73~	1	BFTX0409N	3.4	TRX15

\*85mm Shank

# Zero Offset Holders

For Small Lathes

D



For PDJC R/L1212-K11X

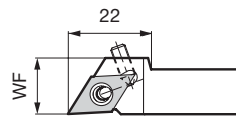


Figure shows right-handed (R) tool.

## Holder

## Parts

Dimensions (mm)

Cat. No.	Stock		Height H	Width B	Overall Length LF	Cutting Edge Distance WF	Cutting Edge Height HF	Offset WF2	Applicable Inserts			Lever Pin	Set Screw	Pin	Wrench <small>(For Hexagonal hole)</small>
	R	L							Cat. No.	Ref. Page	Fig				
PDJC R/L1010-K07X	●		10	10	125	10	10	0	DC□T0702	B80~	1	LCL06	BTT0407	LP04	TH020
PDJC R/L1212-K11X	●		12	12	125	15	12	0	DC□T11T3	B84~	1	LCL09	BTT0411	LP07	TH020
PDJC R/L1616-K11X	●		16	16	125	16	16	0							

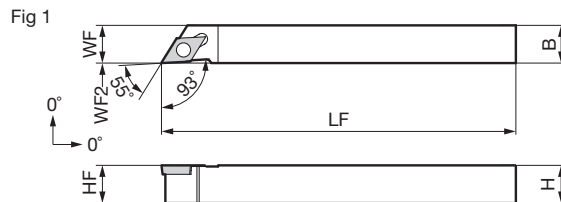
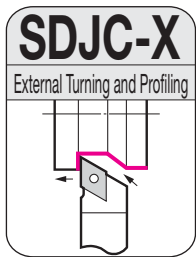


Figure shows right-handed (R) tool.

## Holder

## Parts

Dimensions (mm)

Cat. No.	Stock		Height H	Width B	Overall Length LF	Cutting Edge Distance WF	Cutting Edge Height HF	Offset WF2	Applicable Inserts			Flat Insert Screw	Wrench <small>(For Torx hole)</small>	
	R	L							Cat. No.	Ref. Page	Fig			
SDJC R/L1010-H07X	●	●	10	10	100	10	10	0	DC□T0702	B80~	1	BFTX02506N	1.5	TRX08
SDJC R/L1215-F11X*	●	●	12	15	85	15	12	0	DC□T11T3	B84~	1	BFTX0409N	3.4	TRX15
SDJC R/L1215-K11X	●	●	12	15	125	15	12	0						

\*85mm Shank

# Zero Offset Holders

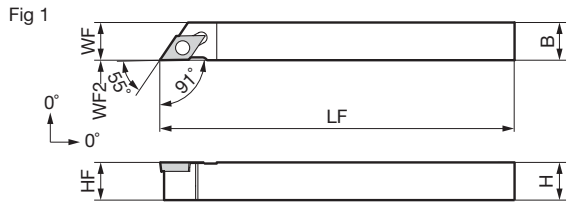
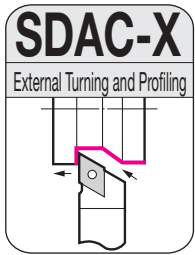


Figure shows right-handed (R) tool.

Holder

Parts

Dimensions (mm)

Cat. No.	Stock		Height H	Width B	Overall Length LF	Cutting Edge Distance WF	Cutting Edge Height HF	Offset WF2	Applicable Inserts			Flat Insert Screw		Wrench
	R	L							Cat. No.	Ref. Page	Fig		(N·m)	(For Torx hole)
<b>SDAC R/L1010-H07X</b>	●	●	10	10	100	10	10	0	DC□T0702	<b>B80~</b>	1	BFTX02506N	<b>1.5</b>	TRX08
<b>SDAC R/L1215-F11X*</b>	●	●	12	15	85	15	12	0	DC□T11T3	<b>B84~</b>	1	BFTX0409N	<b>3.4</b>	TRX15
<b>SDAC R/L1215-K11X</b>	●	●	12	15	125	15	12	0	DC□T11T3	<b>B84~</b>	1	BFTX0409N	<b>3.4</b>	TRX15

\*85mm Shank

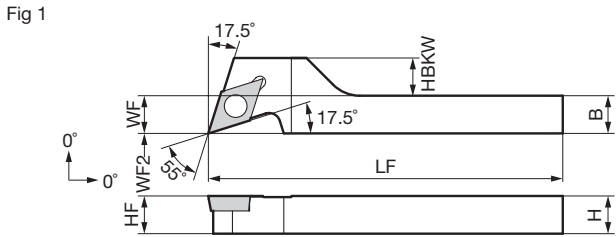
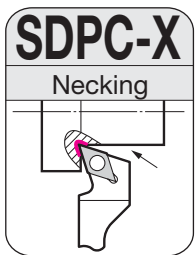


Figure shows right-handed (R) tool.

Holder

Parts

Dimensions (mm)

Cat. No.	Stock		Height H	Width B	Overall Length LF	Cutting Edge Distance WF	Cutting Edge Height HF	Step HBKW	Offset WF2	Applicable Insert			Flat Insert Screw		Wrench
	R	L								Cat. No.	Ref. Page	Fig		(N·m)	(For Torx hole)
<b>SDPC R/L1010-H11X</b>	●	●	10	10	100	10	10	10	0	DC□T11T3	<b>B84~</b>	1	BFTX0409N	<b>3.4</b>	TRX15

# Zero Offset Holders

For Small Lathes

D

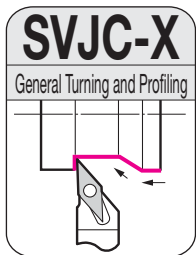


Fig 1

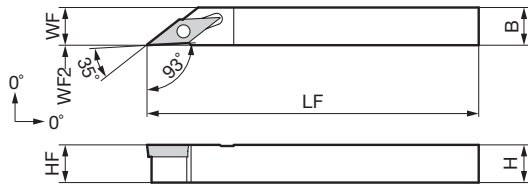


Figure shows right-handed (R) tool.

## Holder

## Parts

Dimensions (mm)

Cat. No.	Stock		Height H	Width B	Overall Length LF	Cutting Edge Distance WF	Cutting Edge Height HF	Offset WF2	Applicable Insert		Fig	Flat Insert Screw		Wrench (For Torx hole)
	R	L							Cat. No.	Ref. Page			N-m	
SVJC R/L1010-H11X	●	●	10	10	100	10	10	0			1			
SVJC R/L1212-F11X*	●	●	12	12	85	12	12	0	VC□T1103	B121~	1	BFTX02508NV	1.5	TRX08
SVJC R/L1212-K11X	●	●	12	12	125	12	12	0			1			

\*85mm Shank

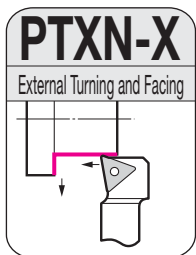
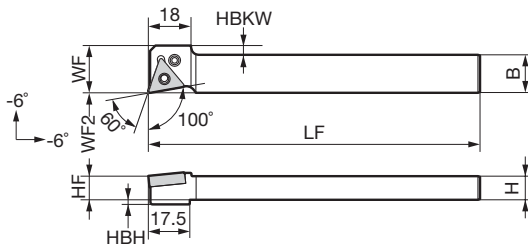


Fig 1



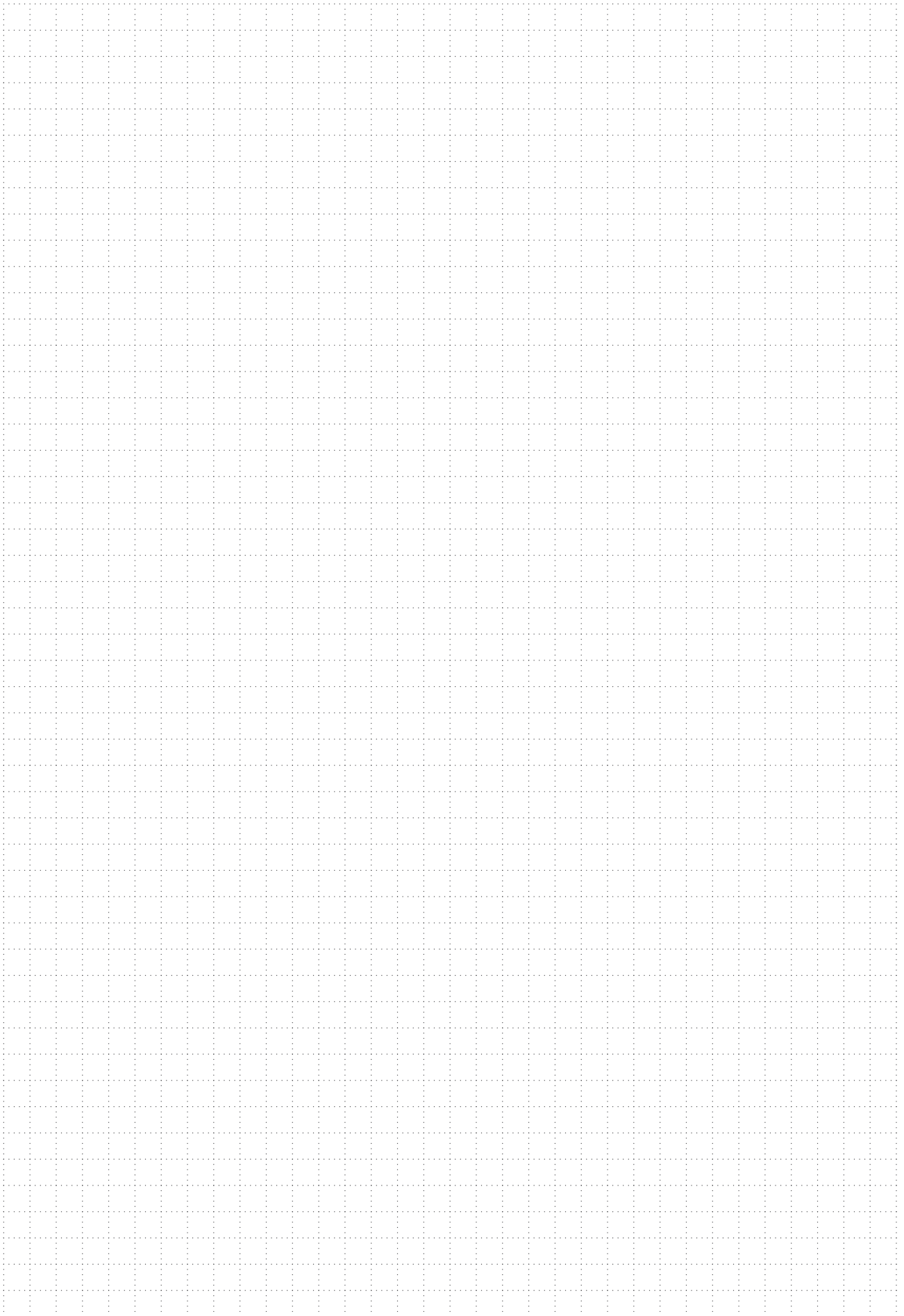
## Holder

## Parts

Dimensions (mm)

Cat. No.	Stock	Height H	Width B	Overall Length LF	Cutting Edge Distance WF	Cutting Edge Height HF	Step HBH	Step HBKW	Offset WF2	Applicable Insert		Fig	Lever Pin	Bolt	Wrench (For Hexagonal hole)
										Cat. No.	Ref. Page				
PTXN R1016-X16X	●	10	16	120	20	10	2	4	0			1			
PTXN R1216-X16X	●	12	16	120	20	12	0	4	0			1			
PTXN R1616-X16X	●	16	16	120	20	16	0	4	0	TN□□1604	B50~	1	LCL33NT	LCS33NT	LH020NT
PTXN R2020-X16X	●	20	20	120	20	20	0	0	0			1			

# MEMO



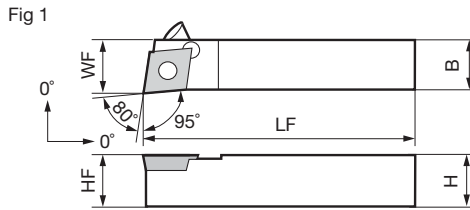
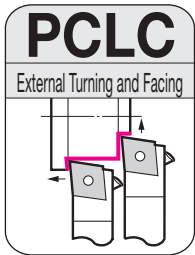
# PC series/SC series

For Small Lathes

D



General External Turning  
Lever Lock



For PCLC R/L0810-K06

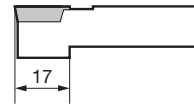


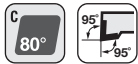
Figure shows right-handed (R) tool.

## Holder

## Parts

Dimensions (mm)

Cat. No.	Stock		Height H	Width B	Overall Length LF	Cutting Edge Distance WF	Cutting Edge Height HF	Applicable Inserts		Fig	Lever Pin	Set Screw	Pin	Wrench <small>(For Hexagonal hole)</small>
	R	L						Cat. No.	Ref. Page					
PCLC R/L0810-K06	●	●	8	10	125	10.5	8	CC□□0602	<b>B70~</b>	1	LCL06	BTT0407	LP07	TH020
PCLC R/L1010-K06	●	●	10	10	125	10.5	10			1				
PCLC R/L1212-M09	●	●	12	12	150	12.5	12			1		BTT0407		
PCLC R/L1616-M09	●	●	16	16	150	16.5	16	CC□□09T3	<b>B73~</b>	1	LCL09	BTT0411	LP06	TH020
PCLC R/L2020-M09	●	●	20	20	150	20.5	20			1				



General External Turning  
Screw-on

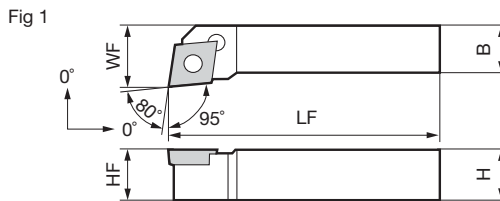
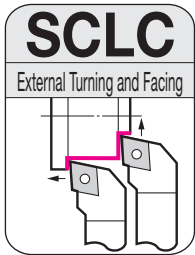


Figure shows right-handed (R) tool.

## Holder

## Parts

Dimensions (mm)

Cat. No.	Previous Cat. No.	Stock		Height H	Width B	Overall Length LF	Cutting Edge Distance WF	Cutting Edge Height HF	Applicable Inserts		Fig	Flat Insert Screw		Wrench <small>(For Torx hole)</small>
		R	L						Cat. No.	Ref. Page			N·m	
SCLC R/L0808H06	SCLC R/L0808-06	●	●	8	8	100	10	8	CC□□0602	<b>B70~</b>	1	BFTX02506N	<b>1.5</b>	TRX08
SCLC R/L1010H06	SCLC R/L1010-06	●	●	10	10	100	12	10			1			
SCLC R/L1212H09	SCLC R/L1212-09	●	●	12	12	100	16	12			1			
SCLC R/L1616H09	SCLC R/L1616-09	●	●	16	16	100	20	16	CC□□09T3	<b>B73~</b>	1	BFTX0409N	<b>3.4</b>	TRX15
SCLC R/L2020K09	SCLC R/L2020-09	●	●	20	20	125	<b>25</b>	20			1			

When using handed breaker inserts for facing, the holder and insert are opposite handed.

Note: The values in red (cutting edge WF) have been changed from those in the 2021-2022 General Catalogue.



General External Turning  
Screw-on

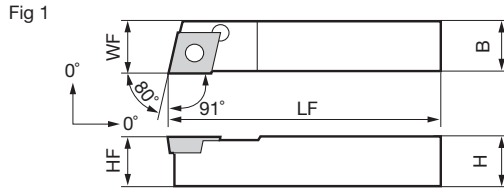
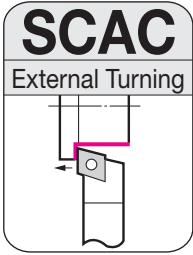


Figure shows right-handed (R) tool.

Holder

Parts

Dimensions (mm)

Cat. No.	Stock		Height H	Width B	Overall Length LF	Cutting Edge Distance WF	Cutting Edge Height HF	Applicable Inserts		Fig	Flat Insert Screw		Wrench (For Torx hole)
	R	L						Cat. No.	Ref. Page				
SCAC R/L0808-06	●		8	8	100	8.5	8	CC□□0602	B70~	1		1.5	TRX08
SCAC R/L1010-06	●	●	10	10	100	10.5	10			1			
SCAC R/L1212-09	●	●	12	12	100	12.5	12			1			
SCAC R/L1616-09	●	●	16	16	100	16.5	16	CC□□09T3	B73~	1		3.4	TRX15
SCAC R/L2020-09	●	●	20	20	125	20.5	20			1			

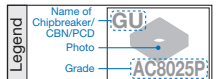
For Small Lathes

D

Applicable Inserts ◀ PCLC type/SCLC type/SCAC type

1st Recommended Insert

- Refer as well to the Insert Selection Guide (A10~).
- Depending on the insert size, some combinations cannot be made-to-order or manufactured.



Application Range	P (Steel)			M (Stainless Steel)			K (Cast Iron)			S (Exotic Alloy)	N (Non-Ferrous)		H (Hardened Steel)		Hard Brittle Material
	Finishing	Medium Cutting	Roughing	Finishing	Medium Cutting	Roughing	High-speed Finishing	Finishing to Medium Cutting	Medium to Roughing	Finishing to Medium Cutting	High-precision/Finishing	Finishing to Medium Cutting	Coated	Uncoated	—
General Machining									No Chipbreaker						
	T1500Z	AC8025P	AC8025P	AC6030M	AC6030M	AC6040M	BN7125/BNC500	AC4015K	AC4015K	AC5015S	DA1000	H1	BNC2125	BN2000	DA90
High-precision								—	—			—			
	AC1030U	AC1030U	AC1030U	AC1030U	AC1030U	AC1030U	BN7125/BNC500	—	—	AC5015S	DA1000	—	BNC2115	BN1000	NPD10
Recommended Cutting Conditions	A10~			A14~			A16~			A18~	A22~		A20~		M2~

BNC500 is for ductile cast iron.

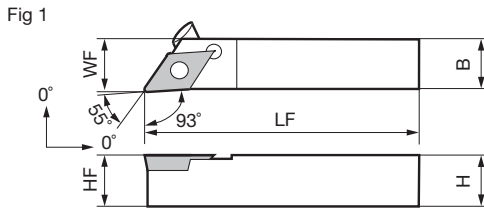
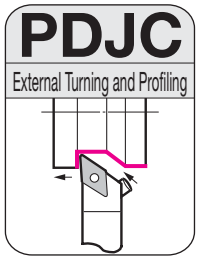
# PD series/SD series

For Small Lathes

D



General External Turning and Profiling  
Lever Lock



For PDJC R/L0810-K07

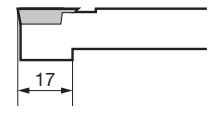


Figure shows right-handed (R) tool.

Holder

Parts

Dimensions (mm)

Cat. No.	Stock		Height H	Width B	Overall Length LF	Cutting Edge Distance WF	Cutting Edge Height HF	Applicable Inserts		Fig	Lever Pin	Set Screw	Pin	Wrench <small>(For Hexagonal hole)</small>
	R	L						Cat. No.	Ref. Page					
PDJC R/L0810-K07	●	●	8	10	125	10.5	8	DC□□0702	B80~	1	LCL06	BTT0407	LP04	TH020
PDJC R/L1010-K07	●	●	10	10	125	10.5	10			1		BTT0407		
PDJC R/L1212-M11	●	●	12	12	150	12.5	12			1				
PDJC R/L1616-M11	●	●	16	16	150	16.5	16	DC□□11T3	B84~	1	LCL09	BTT0411	LP07	TH020
PDJC R/L2020-M11	●	●	20	20	150	20.5	20			1				



General External Turning and Profiling  
Screw-on

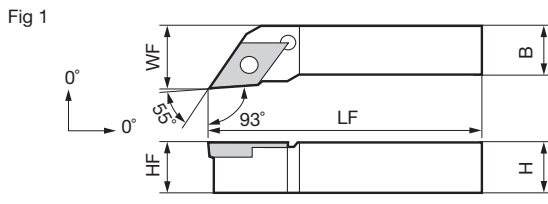
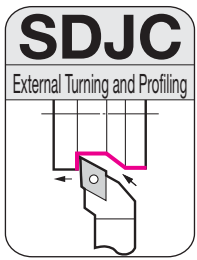


Figure shows right-handed (R) tool.

Holder

Parts

Dimensions (mm)

Cat. No.	Previous Cat. No.	Stock		Height H	Width B	Overall Length LF	Cutting Edge Distance WF	Cutting Edge Height HF	Applicable Inserts		Fig	Flat Insert Screw		Wrench <small>(For Torx hole)</small>
		R	L						Cat. No.	Ref. Page			N·m	
SDJC R/L0808H07	SDJC R/L0808-07	●	●	8	8	100	10	8	DC□□0702	B80~	1	BFTX02506N	1.5	TRX08
SDJC R/L1010H07	SDJC R/L1010-07	●	●	10	10	100	12	10			1			
SDJC R/L1212H11	SDJC R/L1212-11	●	●	12	12	100	16	12			1			
SDJC R/L1616H11	SDJC R/L1616-11	●	●	16	16	100	20	16	DC□□11T3	B84~	1	BFTX0409N	3.4	TRX15
SDJC R/L2020K11	SDJC R/L2020-11	●	●	20	20	125	24	20			1			



# SD series



General External Turning and Profiling Screw-on

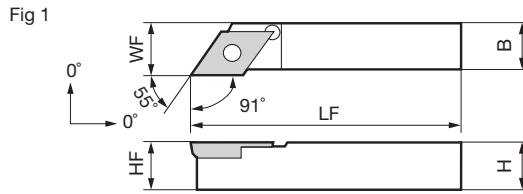
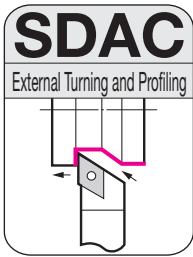


Figure shows right-handed (R) tool.

### Holder

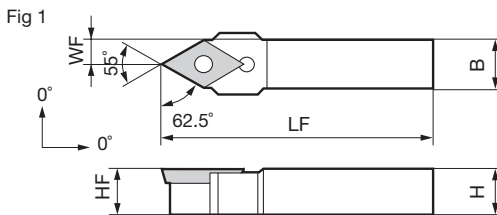
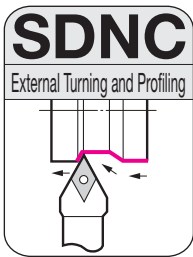
### Parts

Dimensions (mm)

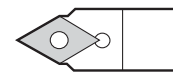
Cat. No.	Stock		Height H	Width B	Overall Length LF	Cutting Edge Distance WF	Cutting Edge Height HF	Applicable Inserts			Flat Insert Screw		Wrench (For Torx hole)
	R	L						Cat. No.	Ref. Page	Fig		N·m	
SDAC R/L0808-07	●	●	8	8	100	8.5	8	DC□□0702	B80~	1	BFTX02506N	1.5	TRX08
SDAC R/L1010-07	●	●	10	10	100	10.5	10			1			
SDAC R/L1212-11	●	●	12	12	100	12.5	12			1			
SDAC R/L1616-11	●	●	16	16	100	16.5	16	DC□□11T3	B84~	1	BFTX0409N	3.4	TRX15
SDAC R/L2020-11	●	●	20	20	125	20.5	20			1			



General External Turning and Profiling Screw-on



For SDNC N1616  
SDNC N2020



### Holder

### Parts

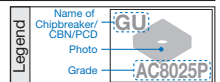
Dimensions (mm)

Cat. No.	Stock	Height H	Width B	Overall Length LF	Cutting Edge Distance WF	Cutting Edge Height HF	Applicable Inserts			Flat Insert Screw		Wrench (For Torx hole)
							Cat. No.	Ref. Page	Fig		N·m	
SDNC N0808-07		8	8	100	4	8	DC□□0702	B80~	1	BFTX02506N	1.5	TRX08
SDNC N1010-07	●	10	10	100	5	10			1			
SDNC N1212-11	●	12	12	100	6	12			1			
SDNC N1616-11	●	16	16	100	8	16	DC□□11T3	B84~	1	BFTX0409N	3.4	TRX15
SDNC N2020-11	●	20	20	125	10	20			1			

## Applicable Inserts ◀ PDJC type/SDJC type/SDAC type/SDNC type

### 1st Recommended Insert

- Refer as well to the Insert Selection Guide (A10~).
- Depending on the insert size, some combinations cannot be made-to-order or manufactured.



Application Range	P (Steel)			M (Stainless Steel)			K (Cast Iron)			S (Exotic Alloy)	N (Non-Ferrous)		H (Hardened Steel)		Hard Brittle Material
	Finishing	Medium Cutting	Roughing	Finishing	Medium Cutting	Roughing	High-speed Finishing	Finishing to Medium Cutting	Medium to Roughing	Finishing to Medium Cutting	High-precision/Finishing	Finishing to Medium Cutting	Coated	Uncoated	—
General Machining	FB T1500Z	GU AC8025P	MU AC8025P	LB AC6030M	GU AC6030M	MU AC6030M	SUMIBORON BN7125/BNCS00	MU AC4015K	No Chipbreaker AC4015K	FX AC5015S	SUMIDIA DA1000	AG H1	SUMIBORON BNC2125	SUMIBORON BN2000	SUMIDIA DA90
High-precision	FF AC1030U	SI AC1030U	SC AC1030U	FF AC1030U	SI AC1030U	SC AC1030U	SUMIBORON BN7125/BNCS00	—	—	SI AC5015S	SUMIDIA DA1000	—	SUMIBORON BNC2115	SUMIBORON BN1000	SUMIDIA BINDERLESS NPD10
Recommended Cutting Conditions	A10~			A14~			A16~			A18~	A22~		A20~		M2~

BNC500 is for ductile cast iron.

# SS series



General External Turning  
Screw-on

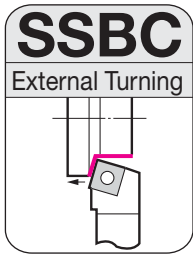


Fig 1

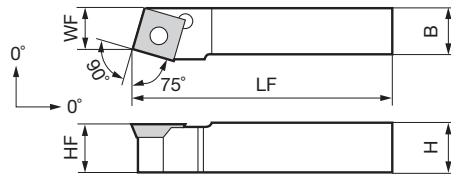


Figure shows right-handed (R) tool.

For Small Lathes

D

Holder

Parts

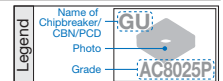
Dimensions (mm)

Cat. No.	Stock		Height H	Width B	Overall Length LF	Cutting Edge Distance WF	Cutting Edge Height HF	Applicable Inserts		Fig	Flat Insert Screw		Wrench <small>(For Torx hole)</small>
	R	L						Cat. No.	Ref. Page			N·m	
<b>SSBC R/L1010-07</b>	●	●	10	10	100	9	10	SC□□0702	<b>B90</b>	1	BFTX0307N	<b>2.0</b>	TRX10
<b>SSBC R/L1212-09</b>	●	●	12	12	100	11	12	SC□□09T3	<b>B91</b>	1	BFTX0409N	<b>3.4</b>	TRX15
<b>SSBC R/L1616-09</b>	●	●	16	16	100	15	16			1			
<b>SSBC R/L2020-09</b>	●	●	20	20	125	19	20			1			

Applicable Inserts ◀ SSBC type

1st Recommended Insert

- Refer as well to the Insert Selection Guide (A10~).
- Depending on the insert size, some combinations cannot be made-to-order or manufactured.



Application Range / Process	P (Steel)			M (Stainless Steel)			K (Cast Iron)		N (Non-Ferrous)
	Finishing	Medium Cutting	Roughing	Finishing	Medium Cutting	Roughing	Finishing to Medium Cutting	Medium to Roughing	—
General Machining	FB T1500Z	GU AC8025P	MU AC8025P	LB AC6030M	GU AC6030M	MU AC6040M	MU AC4015K	No Chipbreaker AC4015K	SUMIDIA DA1000
High-precision	FX T1500A	SC AC1030U	SC AC1030U	FX AC1030U	SC AC1030U	SC AC1030U	—	—	SUMIDIA DA1000
Recommended Cutting Conditions	🔪 A10~			🔪 A14~			🔪 A16~		🔪 A22~



General External Turning  
Screw-on

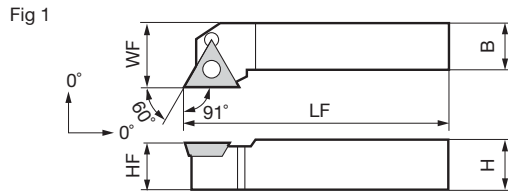


Figure shows right-handed (R) tool.

Holder

Parts

Dimensions (mm)

Cat. No.	Stock		Height H	Width B	Overall Length LF	Cutting Edge Distance WF	Cutting Edge Height HF	Applicable Inserts			Flat Insert Screw		Wrench
	R	L						Cat. No.	Ref. Page	Fig			
STGC R/L0808-09	●		8	8	100	10	8	TC□□0902	B102	1		0.5	TRX06
STGC R/L1010-09	●	●	10	10	100	12	10						
STGC R/L1212-11	●	●	12	12	100	16	12	TC□□1102	B103	1		1.5	TRX08
STGC R/L1616-11	●	●	16	16	100	20	16						
STGC R/L2020-11	●	●	20	20	125	25	20						



General External Turning  
Screw-on

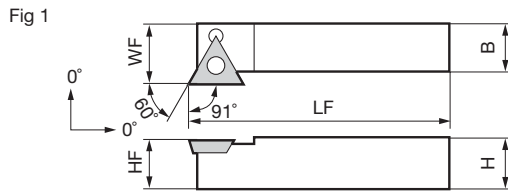
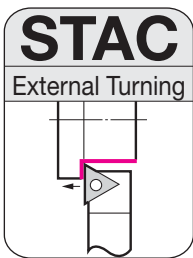


Figure shows right-handed (R) tool.

Holder

Parts

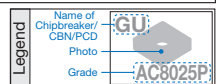
Dimensions (mm)

Cat. No.	Stock		Height H	Width B	Overall Length LF	Cutting Edge Distance WF	Cutting Edge Height HF	Applicable Inserts			Flat Insert Screw		Wrench
	R	L						Cat. No.	Ref. Page	Fig			
STAC R/L0808-09		●	8	8	100	8.5	8	TC□□0902	B102	1		0.5	TRX06
STAC R/L1010-09	●		10	10	100	10.5	10						
STAC R/L1212-11	●	●	12	12	100	12.5	12	TC□□1102	B103	1		1.5	TRX08
STAC R/L1616-11	●	●	16	16	100	16.5	16						
STAC R/L2020-11	●	●	20	20	125	20.5	20						

Applicable Inserts ◀ STGC type/STAC type

1st Recommended Insert

- Refer as well to the Insert Selection Guide (A10~).
- Depending on the insert size, some combinations cannot be made-to-order or manufactured.



Application Range	P (Steel)			M (Stainless Steel)			K (Cast Iron)		N (Non-Ferrous)
	Finishing	Medium Cutting	Roughing	Finishing	Medium Cutting	Roughing	Finishing to Medium Cutting	Medium to Roughing	—
General Machining	LU	SU	SU	LB	SU	SU	MU	No Chipbreaker	SUMIDIA
	T1500Z	AC8025P	AC8025P	AC6030M	AC6030M	AC6040M	AC4015K	AC4015K	DA1000
High-precision	FF	SI	SC	FF	SI	SC	—	—	SUMIDIA
	AC1030U	AC1030U	AC1030U	AC1030U	AC1030U	AC1030U	—	—	DA1000
Recommended Cutting Conditions	A10~			A14~			A16~		A22~

# SV series (7° Pos.)

For Small Lathes



General External Turning and Profiling  
Screw-on

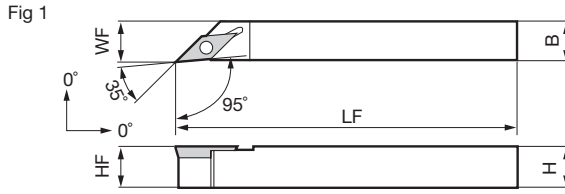


Figure shows right-handed (R) tool.

Holder

Parts

Dimensions (mm)

Cat. No.	Stock		Height H	Width B	Overall Length LF	Cutting Edge Distance WF	Cutting Edge Height HF	Applicable Insert		Fig	Flat Insert Screw		Wrench (For Torx hole)
	R	L						Cat. No.	Ref. Page		⌀	N·m	
SVLC R/L1010-H11	●	●	10	10	100	10.5	10	VC□□1103	B121~	1	BFTX02508NV	1.5	TRX08
SVLC R/L1212-H11	●	●	12	12	100	12.5	12						
SVLC R/L1616-H11	●	●	16	16	100	16.5	16						
SVLC R/L2020-K11*	●	●	20	20	125	20.5	20						

\* Old Cat. No. SVLC R/L 2020-H11



General External Turning and Profiling  
Screw-on

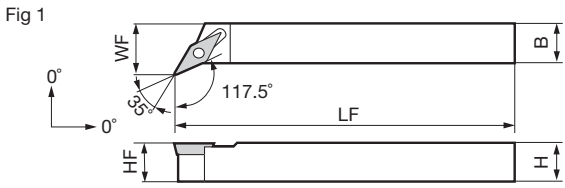
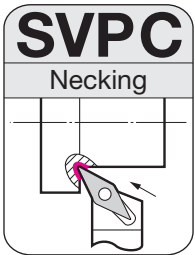


Figure shows right-handed (R) tool.

Holder

Parts

Dimensions (mm)

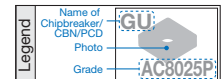
Cat. No.	Stock		Height H	Width B	Overall Length LF	Cutting Edge Distance WF	Cutting Edge Height HF	Applicable Insert		Fig	Flat Insert Screw		Wrench (For Torx hole)
	R	L						Cat. No.	Ref. Page		⌀	N·m	
SVPC R/L1010-H11	●	●	10	10	100	14.5	10	VC□□1103	B121~	1	BFTX02508NV	1.5	TRX08
SVPC R/L1212-H11	●	●	12	12	100	16.5	12						
SVPC R/L1616-H11	●	●	16	16	100	20.5	16						
SVPC R/L2020-K11*	●	●	20	20	125	24.5	20						

\* Old Cat. No. SVPC R/L 2020-H11

Applicable Inserts ◀ SVLC type/SVPC type

1st Recommended Insert

- Refer as well to the Insert Selection Guide (A10~).
- Depending on the insert size, some combinations cannot be made-to-order or manufactured.



Application Range	P (Steel)		M (Stainless Steel)		S (Exotic Alloy)		N (Non-Ferrous)		H (Hardened Steel)		Hard Brittle Material
	Finishing	Medium Cutting	Finishing	Medium Cutting	Finishing to Medium Cutting	Medium to Roughing	High-precision/Finishing	Finishing to Medium Cutting	Coated	Uncoated	
General Machining	FB T1500Z	GU AC8025P	LB AC6030M	GU AC6030M	SU AC5015S	SU AC5025S	SUMIDIA DA1000	AG H1	SUMIBORON BNC2125	SUMIBORON BN2000	SUMIDIA DA90
High-precision	FF AC1030U	SI AC1030U	FF AC1030U	SI AC1030U	FF AC1030U	SI AC5015S	SUMIDIA DA1000	—	SUMIBORON BNC2115	SUMIBORON BN1000	SUMIDIA BINDERLESS NPD10
Recommended Cutting Conditions	A10~		A14~		A18~		A22~		A20~		M2~

# SV series (11° Pos.)



General External Turning and Profiling  
Screw-on

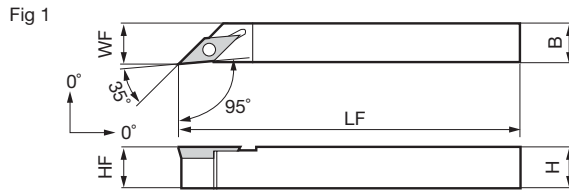
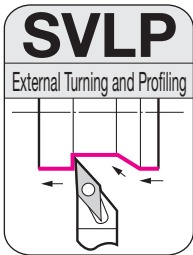


Figure shows right-handed (R) tool.

Holder

Parts

Dimensions (mm)

Cat. No.	Stock		Height H	Width B	Overall Length LF	Cutting Edge Distance WF	Cutting Edge Height HF	Applicable Insert			Flat Insert Screw		Wrench
	R	L						Cat. No.	Ref. Page	Fig		N·m	
SVLP R/L1010-H11	●	●	10	10	100	10.5	10	VP□T1103	B125	1		1.5	TRX08 <small>(For Torx hole)</small>
SVLP R/L1212-H11	●	●	12	12	100	12.5	12						
SVLP R/L1616-H11	●	●	16	16	100	16.5	16						



General External Turning and Profiling  
Screw-on

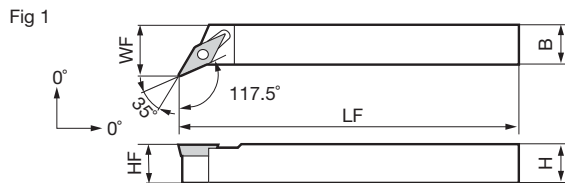
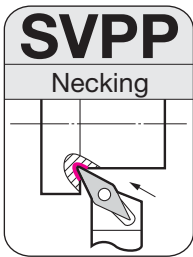


Figure shows right-handed (R) tool.

Holder

Parts

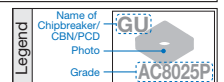
Dimensions (mm)

Cat. No.	Stock		Height H	Width B	Overall Length LF	Cutting Edge Distance WF	Cutting Edge Height HF	Applicable Insert			Flat Insert Screw		Wrench
	R	L						Cat. No.	Ref. Page	Fig		N·m	
SVPP R/L1010-H11	●	●	10	10	100	14.5	10	VP□T1103	B125	1		1.5	TRX08 <small>(For Torx hole)</small>
SVPP R/L1212-H11	●	●	12	12	100	16.5	12						
SVPP R/L1616-H11	●	●	16	16	100	20.5	16						

Applicable Inserts ◀ SVLP type/SVPP type

1st Recommended Insert

- Refer as well to the Insert Selection Guide (A10~).
- Depending on the insert size, some combinations cannot be made-to-order or manufactured.



Process	Application Range	
	P (Steel)	M (Stainless Steel)
High-precision	FX AC1030U	FX AC1030U
Recommended Cutting Conditions	⚙️ A24~	⚙️ A24~

