

Tooling Systems Cartridges G1 to G27

G

Tooling

G

Tooling

Cartridges



General Features of Tooling Systems	G2
ICTM HSK Tooling Systems	G3
Polygonal Taper Shank SumiPolygon	G8
Modular Taper Shank Supported by 2 Faces	G18
HSK Tooling Systems Supported by 2 Faces	G18
Smart Damper for Milling	G20
IGETALLOY ABS System	G22
SEC-Micro Units	G24
SEC-Cartridge Units	G25
Boring Quills / Carbide Line Boring Bars	G27

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

General Features of Tooling Systems

■ Tooling Systems

Applications	System Name		Feature	Ref. Page
Turning	ICTM STANDARD		These shanks are for turning applications in multi-tasking machines, conforming to the ICTM (Interface Committee for Turning Mill) Standard. The shanks are compatible with the HSK-A type, allowing sharing of tools in a multi-tasking machine and machining centre. Compliant with ISO standard ISO12164-3:2008.	G3 on
	HSK Tooling Systems		The polygonal keyless coupling system achieves an indexing accuracy of $\pm 2\mu\text{m}$. Supports both turning and rotating tools. Compliant with ISO standard ISO26623-1:2008.	G8 on
Milling	Polygon Taper Shank SumiPolygon		In this clamping system, the tool is supported by two faces, on the taper and flange, which increases tool rigidity at high speeds and enables high-precision machining. Compliant with ISO standard ISO 26622-1:2008.	G18
	Modular Taper Shank		The ISO standard for milling shanks supported by 2 faces.	G18
	HSK Tooling Systems		With a special anti-vibration mechanism built in to realize high-efficiency and high quality machining with a long overhang.	G20 on
	Smart Damper		This quick change system for round tools uses an independently developed mechanism characterised by its strong holding force. The system offers high rigidity and precision, and exhibits good indexing accuracy during tool changes.	G22 on
	IGETALLOY ABS System			

HSK Tooling Systems



ICTM
STANDARD

General Features

The HSK tooling system has been adopted by Japan's 17 major machine tool manufacturers as the interface for turning tools in multi-tasking machines. It is based on the ICTM (Interface Committee for Turning Mill) standard.

Based on the ISO standard HSK shank, this system is designed to improve precision in turning applications, and maintains compatibility with the HSK-A type that is in widespread use on machining centres.

* Catalogue numbers have been changed due to ISO standardisation (ISO 12164-3:2008).

For support with non-standard specifications, contact us directly.

General External Turning and Profiling
Double Clamp

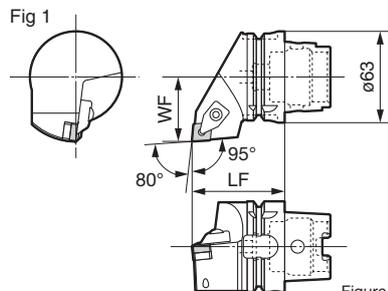
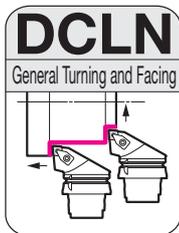


Figure shows right hand (R) tool.

Insert

Applicable Insert Cat. No.	Ref. Page	(Representative example)
CN□□1204□□	B22 on	 CNMG120408N-GE

Holder

Parts

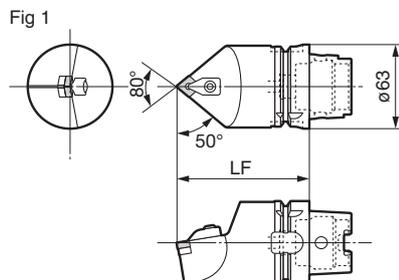
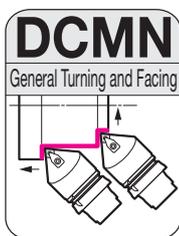
Dimensions (mm)

Cat. No.	Previous Cat. No.	Stock		Overhang LF	Cutting Edge WF	Fig	Clamp Set		Shim	Shim Screw	Wrench for Shims	Wrench
		R	L				(N·m)	(N·m)				
HSK63TH-DCLN R/L-DX12	H63A-WH-DCLN R/L-DX12			65	45	1	SCP-2	5.0	CNS1204	BFTX0409N	TRX15(*)	LH040

*Wrench for shim is sold separately from the main body.

Clamp Set Parts  **C46**

General External Turning and Profiling
Double Clamp



Insert

Applicable Insert Cat. No.	Ref. Page	(Representative example)
CN□□1204□□	B22 on	 CNMG120408N-GE

Holder

Parts

Dimensions (mm)

Cat. No.	Previous Cat. No.	Stock	Overhang LF	Fig	Clamp Set		Shim	Shim Screw	Wrench for Shims	Wrench
					(N·m)	(N·m)				
HSK63TH-DCMN N-H12	H63A-WH-DCMN N-H12		100	1	SCP-2	5.0	CNS1204	BFTX0409N	TRX15(*)	LH040
HSK63TH-DCMN N-L12	H63A-WH-DCMN N-L12		140	1	SCP-2	5.0	CNS1204	BFTX0409N	TRX15(*)	LH040

*Wrench for shim is sold separately from the main body.

Clamp Set Parts  **C46**

 Recommended Tightening Torque (N·m)

HSK Tooling Systems

Tooling

G

Tooling

Cartridges

General External Turning and Profiling
Double Clamp

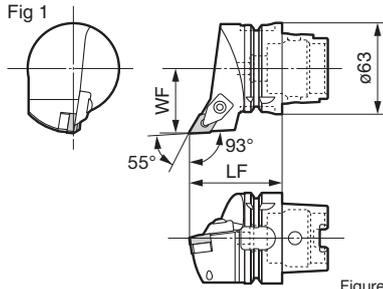
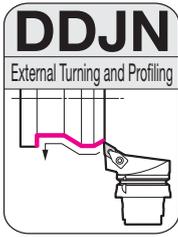


Figure shows right hand (R) tool.

Insert

Applicable Insert Cat. No.	Ref. Page	(Representative example)
DN□□1504□□	B32 on	
		DNMG150408N-GE

Holder

Cat. No.	Previous Cat. No.	Stock		Overhang LF	Cutting Edge WF	Fig
		R	L			
HSK63TH-DDJN R/L-DX15	H63A-WH-DDJN R/L-DX15			65	45	1

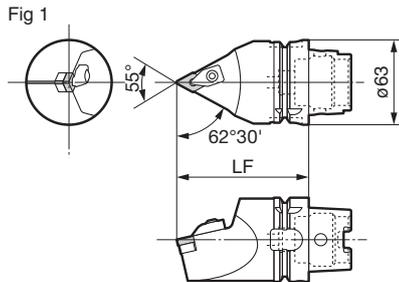
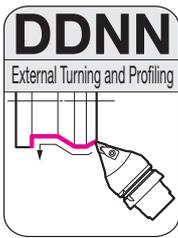
*Wrench for shim is sold separately from the main body.

Parts

Dimensions (mm)					
Clamp Set	Shim	Shim Screw	Wrench for Shims	Wrench	
					
SCP-2	DNS1504	BFTX0409N	TRX15(*)	LH040	

Clamp Set Parts **C46**

General External Turning and Profiling
Double Clamp



Insert

Applicable Insert Cat. No.	Ref. Page	(Representative example)
DN□□1504□□	B32 on	
		DNMG150408N-GE

Holder

Cat. No.	Previous Cat. No.	Stock	Overhang LF	Cutting Edge WF	Fig
HSK63TH-DDNN N-L15	H63A-WH-DDNN N-L15		140	1	

*Wrench for shim is sold separately from the main body.

Parts

Dimensions (mm)					
Clamp Set	Shim	Shim Screw	Wrench for Shims	Wrench	
					
SCP-2	DNS1504	BFTX0409N	TRX15(*)	LH040	

Clamp Set Parts **C46**

General External Turning and Profiling
Double Clamp

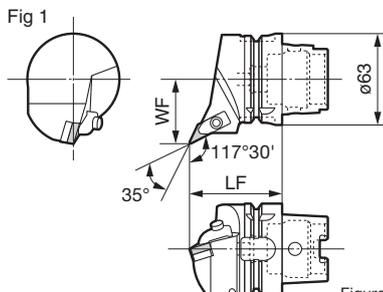
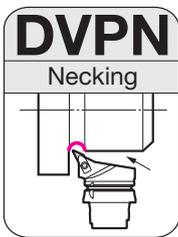


Figure shows right hand (R) tool.

Insert

Applicable Insert Cat. No.	Ref. Page	(Representative example)
VN□□1604□□	B66 on	
		VNMG 160408N-GE

Holder

Cat. No.	Previous Cat. No.	Stock		Overhang LF	Cutting Edge WF	Fig
		R	L			
HSK63TH-DVPN R/L-DX16	H63A-WH-DVPN R/L-DX16			65	45	1

*Wrench for shim is sold separately from the main body.

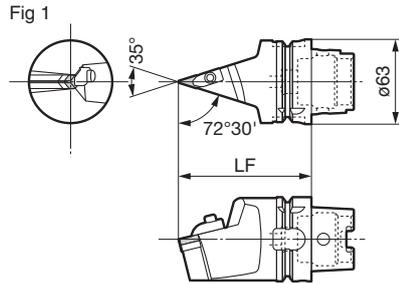
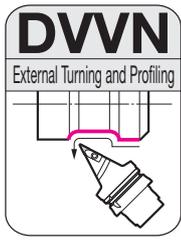
Parts

Dimensions (mm)					
Clamp Set	Shim	Shim Screw	Wrench for Shims	Wrench	
					
SCP-4	VNS1604	BFTX0307N	TRX10(*)	LH040	

Clamp Set Parts **C46**

HSK Tooling Systems

General External Turning and Profiling
Double Clamp



Insert

Applicable Insert Cat. No.	Ref. Page	(Representative example)
VN□□1604□□	B66 on	
		VNMG 160408N-GE

Holder

Parts

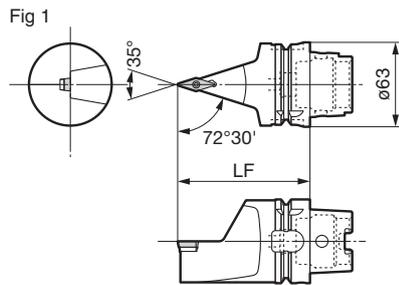
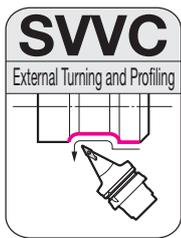
Dimensions (mm)

Cat. No.	Previous Cat. No.	Stock	Overhang LF	Fig	Dimensions (mm)					
					Clamp Set	Shim	Shim Screw	Wrench for Shims	Wrench	
HSK63TH-DVWN N-H16	H63A-WH-DVWN N-H16		100	1						
					SCP-4	5.0	VNS1604	BFTX0307N	TRX10(*)	LH040

*Wrench for shim is sold separately from the main body.

Clamp Set Parts **C46**

General External Turning and Profiling
Screw-on



Insert

Applicable Insert Cat. No.	Ref. Page	(Representative example)
VC□□1604□□	B127 on	
		VCMT160404N-SU

Holder

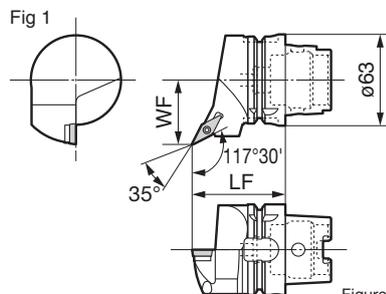
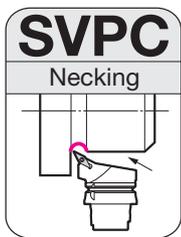
Parts

Dimensions (mm)

Cat. No.	Previous Cat. No.	Stock	Overhang LF	Fig	Dimensions (mm)					
					Pin	Nut	Shim	Flat Insert Screw	Wrench for Shims	Wrench
HSK63TH-SVVC N-H16	H63A-WH-SVVCN-H16		100	1						
HSK63TH-SVVC N-L16	H63A-WH-SVVCN-L16		140	1	VP25	CPV33N	SVP32	BFTX03508	TRX10(*)	LH025

*Wrench for shim is sold separately from the main body.

General External Turning and Profiling
Screw-on



Insert

Applicable Insert Cat. No.	Ref. Page	(Representative example)
VC□□1604□□	B127 on	
		VCMT160404N-SU

Figure shows right hand (R) tool.

Holder

Parts

Dimensions (mm)

Cat. No.	Previous Cat. No.	Stock		Overhang LF	Cutting Edge WF	Fig	Dimensions (mm)					
		R	L				Pin	Nut	Shim	Flat Insert Screw	Wrench for Shims	Wrench
HSK63TH-SVPC R/L-DX16	H63A-WH-SVPCL-DX16			65	45	1						
							VP20	CPV33N	SVP32	BFTX03508	TRX10(*)	LH025

*Wrench for shim is sold separately from the main body.

 Recommended Tightening Torque (N-m)

HSK Tooling Systems

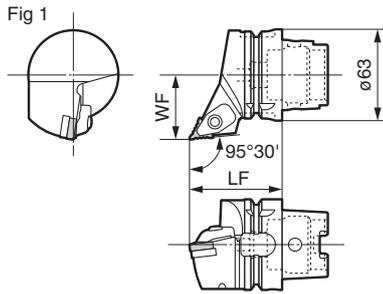
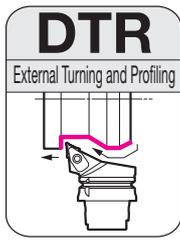
General External Turning and Profiling
Double Clamp

Tooling

G

Tooling

Cartridges



SumiTurn T-REX

Insert

Applicable Insert Cat. No.		Ref. Page	
TRM551700		C16	

Holder

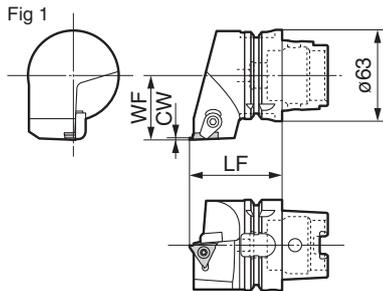
Parts

Dimensions (mm)

Cat. No.	Previous Cat. No.	Stock	Overhang		Cutting Edge	Fig	Parts									
			LF	WF			Clamp Plate	Spring	Cap Screw	N-m	Shim	Shim Screw	Wrench	Wrench for Shims		
HSK63TH-DTR55C R-DX17	H63A-WH-DTR55C R-DX17		65	45	1	TRCP3	S-SP4-20	BX0520	3.5 to 4.5	TRW5505	BFTX0307N	TSW040	TRX10(*)			

*Wrench for shim is sold separately from the main body.
Refer to TRM Type inserts on C16 for applicable inserts.

External Grooving
Double Clamp



Insert

Applicable Insert Cat. No.		Ref. Page	
TGAR4000□		F6 to F7	
TGAR4000BF		F8	

Holder

Parts

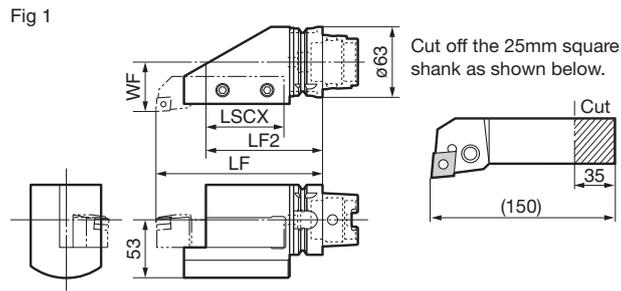
Dimensions (mm)

Cat. No.	Previous Cat. No.	Stock	Overhang		Cutting Edge	Width of Cut		Group No.	Fig	Parts					
			LF	WF		CW	Flat Insert Screw			Clamp Plate	Double Screw	Wrench	Wrench		
HSK63TH-GWC R-DX412	H63A-WH-GWC R-DX412		65	45	1.25 to 1.45	2	1	BFTX0511N	5.0	CCM8UL	WB8-22T	TRX20	LT27		
HSK63TH-GWC R-DX415	H63A-WH-GWC R-DX415		65	45	1.50 to 2.30	3	1								
HSK63TH-GWC R-DX425	H63A-WH-GWC R-DX425		65	45	2.50 to 4.80	4	1								

Refer to TGA Type insert group numbers on F6, F7 and F8 for applicable inserts. Select applicable inserts for the holders by using matching group numbers.

HSK Tooling Systems

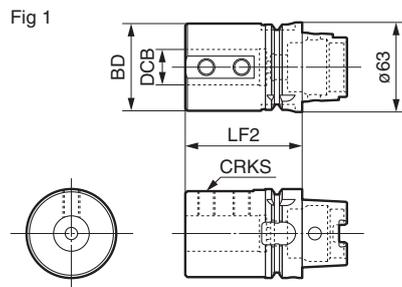
Square Shank Holder



Holder

Cat. No.	Previous Cat. No.	Stock	Overhang		Clamping Length LSCX	Cutting Edge WF	Fig	Parts	
			LF	LF2				Set Screw	Wrench
HSK63TH-S2525 R-105	H63A-WH-S2525 R-105		150	105	70	45	1	BTD0809	LH040

Holder for Boring Bar



Holder

Cat. No.	Previous Cat. No.	Stock	Shank Dia.		Min. Clamping Length LF2	Screw CRKS	Fig	Parts	
			DCB	BD				Set Screw	Wrench
HSK63TH-C08-65	H63A-WH-C08-65		8	28	65	M8	1	BTD0809	LH040
HSK63TH-C10-70	H63A-WH-C10-70		10	35	70	M8	1	BTD0812	
HSK63TH-C12-70	H63A-WH-C12-70		12	42	70	M8	1	BTD1015	LH050
HSK63TH-C16-75	H63A-WH-C16-75		16	48	75	M10	1		
HSK63TH-C20-75	H63A-WH-C20-75		20	52	75	M10	1	BTD1218	LH060
HSK63TH-C25-83	H63A-WH-C25-83		25	62	83	M12	1		
HSK63TH-C32-87	H63A-WH-C32-87		32	62	87	M12	1	BTD1215	LH060
HSK63TH-C40-97	H63A-WH-C40-97		40	65	97	M16	1		

Cut the boring bar to fit.

SumiPolygon

Tooling

G

Tooling

Cartridges



■ General Features

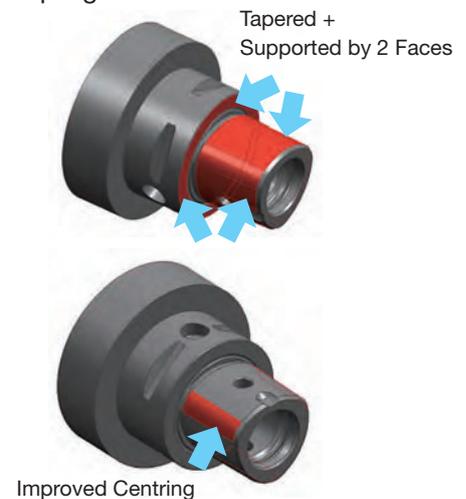
SumiPolygon shanks feature keyless couplings with the characteristic polygonal shape, which bear cutting torque evenly on three surfaces, providing high rigidity and high indexing accuracy.

For support with non-standard design specifications, contact us directly.

■ Features

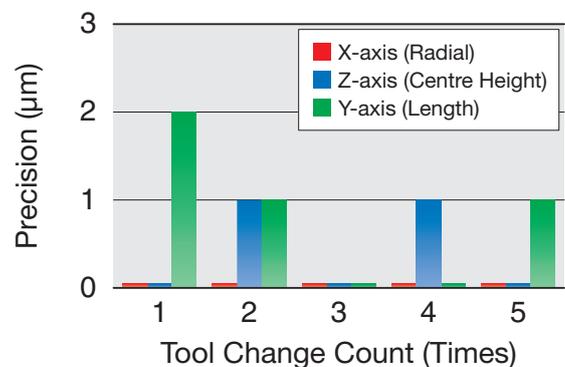
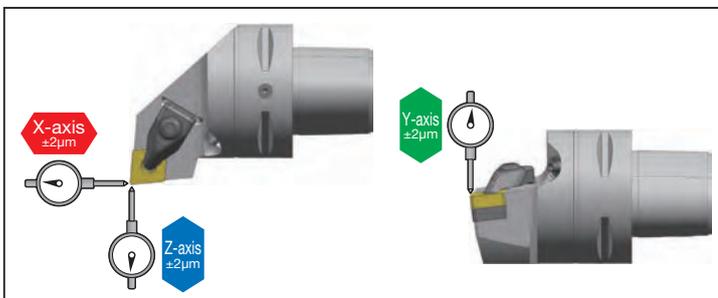
- Sizes
 - Supports shank sizes PSC32 (DCSFMS = 32mm) through PSC80 (DCSFMS = 80mm)
- High Rigidity/High Precision
 - 1/20 polygon tapered shape supported on 2 faces for high rigidity
 - Keyless coupling distributes cutting torque uniformly to 3 faces, reducing fluctuations in cutting edge height
 - Repeatability when tools are changed is within $\pm 2\mu\text{m}$ on all 3 axes
- Reduced Tool Change Time
 - No need to change inserts on the machine, so the tool change time is significantly reduced
- Coolant supported (up to 1MPa)

■ Coupling Structure

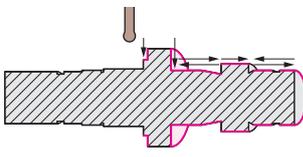
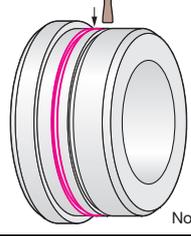
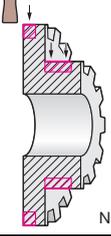


■ Repeat Accuracy

Repeatability when tools are changed is within $\pm 2\mu\text{m}$ on all 3 axes X-axis (Radial Direction) Y-axis (Centre Height Direction), Z-axis (Lengthwise Direction)



Application Examples

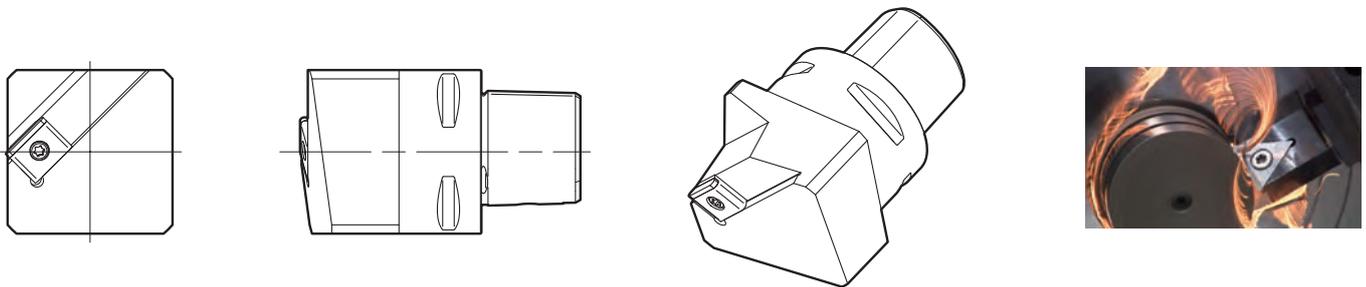
Nickel-Chromium Molybdenum Alloy Output Shaft Grooving	Stainless Steel Socket Joint Grooving	Sintered Alloy Sprocket Grooving/Facing
 <p>No Abnormal Chatter or Vibration</p>	 <p>No Abnormal Chatter or Vibration</p>	 <p>No Abnormal Chatter or Vibration</p>
<p>Holders : PSC40 Special Type Insert : GCMN4020-RG (AC425K) Cutting Conditions : $v_c = 120$ to 140m/min, $f = 0.2$ to 0.35mm/rev $a_p = 2$mm Wet</p>	<p>Holders : PSC40 Special Type Insert : GCMN4008-MG (AC530U) Cutting Conditions : $v_c = 100$m/min, $f = 0.1$mm/rev $a_p = 3$mm Wet</p>	<p>Holders : PSC40 Special Type Insert : Special Insert (Diameter 6.35mm) MG (AC530U) Cutting Conditions : Grooving $v_c = 180$m/min, $f = 0.16$mm/rev, $a_p = 4$mm x2 passes Wet Facing $v_c = 190$m/min, $f = 0.18$mm/rev, $a_p = 0.2$mm Wet</p>

Made-to-Order Product Design Example

For support with non-standard design specifications, contact us directly.

Hard Skiving Tool

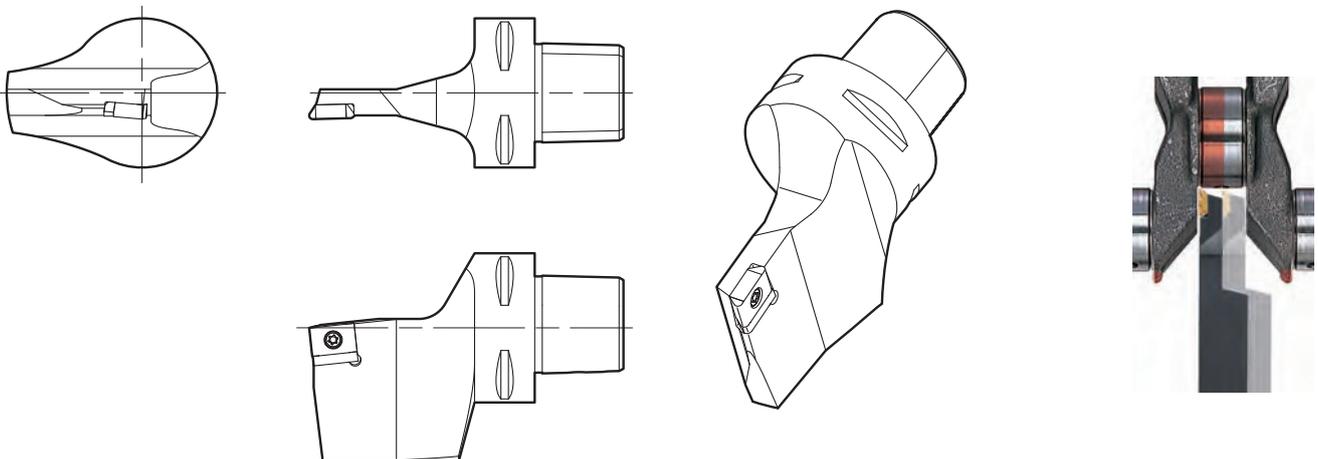
High-efficiency Hardened Steel Machining Tool



SEC-XD Type Holders

For details on SEC-XD Type Tool Holders (holders and inserts), see the separate "Tools for Machining Automotive Engine Parts" catalogue.

Tools for Crank Shaft Machining



SumiPolygon

Tooling

G

Tooling

Cartridges

External Internal Coolant

External Turning
Double Clamp

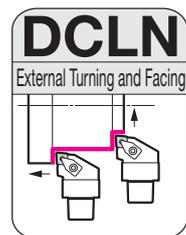


Fig 1

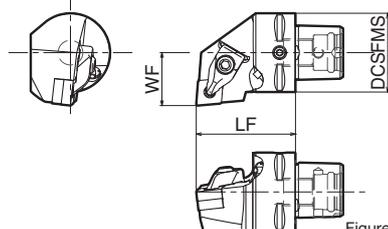


Figure shows right hand (R) tool

Insert

Applicable Insert Cat. No.	Ref. Page
CN□□1204□□	B22 on

(Representative example)



CNMG120408N-GE

Holder

Parts

Dimensions (mm)

Cat. No.	Stock		Cutting Edge WF	Overhang LF	Mounting DCSFMS	Fig	Clamp Set		Shim	Shim Screw	Wrench for Shims	Top Hex Wrench	Bottom Hex Wrench	Coolant Nozzle
	R	L												
PSC40 DCLN R/L 27050-12	●	●	27	50	40	1								
PSC50 DCLN R/L 35060-12	●	●	35	60	50	1	SCP-2	5.0	CNS1204	BFTX0409N	TRX15(*)	LH040	LH025	C4-CNZ
PSC63 DCLN R/L 45065-12	●	●	45	65	63	1								

*Wrench for shim is sold separately from the main body.

Clamp Set Parts

External Internal Coolant

External Turning
Lever Lock

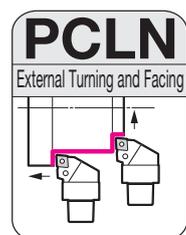


Fig 1

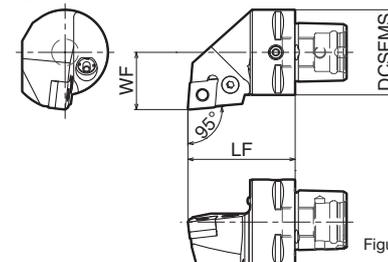


Figure shows right hand (R) tool.

Insert

Applicable Insert Cat. No.	Ref. Page
CN□□1204□□	B22 on

(Representative example)



CNMG120408N-GE

Holder

Parts

Dimensions (mm)

Cat. No.	Stock		Cutting Edge WF	Overhang LF	Mounting DCSFMS	Fig	Lever Pin	Set Screw	Shim	Shim Retainer	Wrench	Coolant Nozzle
	R	L										
PSC40 PCLN R/L 27050-12	●	●	27	50	40	1						
PSC50 PCLN R/L 35060-12	●	●	35	60	50	1	LCL4	LCS4	LSC42	LSP4	LH030	C4-CNZ
PSC63 PCLN R/L 45065-12	●	●	45	65	63	1						

External Internal Coolant

External Turning
Double Clamp

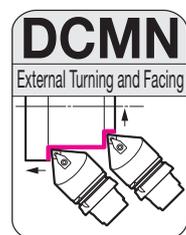
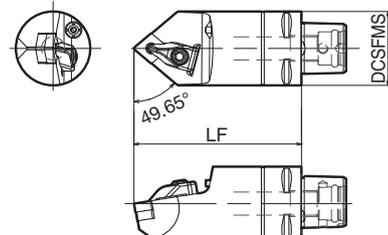


Fig 1



Insert

Applicable Insert Cat. No.	Ref. Page
CN□□1204□□	B22 on

(Representative example)



CNMG120408N-GE

Holder

Parts

Dimensions (mm)

Cat. No.	Stock	Overhang LF	Mounting DCSFMS	Fig	Clamp Set		Shim	Shim Screw	Wrench for Shims	Top Hex Wrench	Bottom Hex Wrench	Coolant Nozzle
	N											
PSC40 DCMN N 00090-12	●	90	40	1								
PSC50 DCMN N 00105-12	●	105	50	1	SCP-2	5.0	CNS1204	BFTX0409N	TRX15(*)	LH040	LH025	C4-CNZ
PSC63 DCMN N 00140-12	●	140	63	1								

*Wrench for shim is sold separately from the main body.

Clamp Set Parts

SumiPolygon



External Turning
Double Clamp

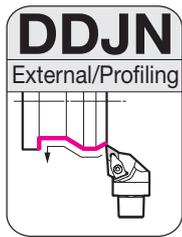


Fig 1

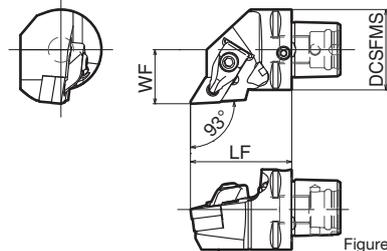


Figure shows right hand (R) tool

Insert (Representative example)

Applicable Insert Cat. No.	Ref. Page
DN□□1504□□	B32 on

DNMG150408N-GE

Holder

Parts

Dimensions (mm)

Cat. No.	Stock		Cutting Edge		Overhang	Mounting	Fig	Clamp Set		Shim	Shim Screw	Wrench for Shims	Top Hex Wrench	Bottom Hex Wrench	Coolant Nozzle
	R	L	WF	LF				DCSFMS	SCP-2						
PSC40 DDJN R/L 27050-15*	●	●	27	50	40	1									
PSC50 DDJN R/L 35060-15	●	●	35	60	50	1									
PSC63 DDJN R/L 45065-15	●	●	45	65	63	1	SCP-2	5.0	DNS1504	BFTX0409N	TRX15(*)	LH040	LH025	C4-CNZ	
PSC63 DDJN R/L 45130-15	●	●	45	130	63	1									

*Depending on the design, ATC and extension bars may not be usable in some cases. Contact your local sales office prior to use.

*Wrench for shim is sold separately from the main body.

Clamp Set Parts **C46**



External Turning
Lever Lock

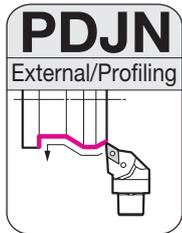


Fig 1

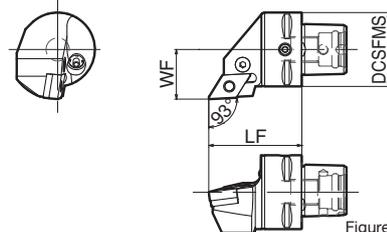


Figure shows right hand (R) tool.

Insert (Representative example)

Applicable Insert Cat. No.	Ref. Page
DN□□1504□□	B32 on

DNMG150408N-GE

Holder

Parts

Dimensions (mm)

Cat. No.	Stock		Cutting Edge		Overhang	Mounting	Fig	Lever Pin	Set Screw	Shim	Shim Retainer	Wrench	Coolant Nozzle
	R	L	WF	LF				DCSFMS	LCL4	LCS4	LSD42	LSP4	LH030
PSC40 PDJN R/L 27050-15	●	●	27	50	40	1							
PSC50 PDJN R/L 35060-15	●	●	35	60	50	1							
PSC63 PDJN R/L 45065-15	●	●	45	65	63	1							



External Turning
Double Clamp

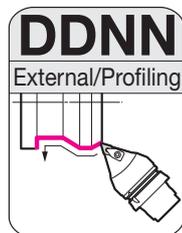
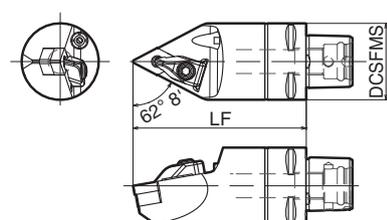


Fig 1



Insert (Representative example)

Applicable Insert Cat. No.	Ref. Page
DN□□1504□□	B32 on

DNMG150408N-GE

Holder

Parts

Dimensions (mm)

Cat. No.	Stock	Overhang	Mounting	Fig	Clamp Set		Shim	Shim Screw	Wrench for Shims	Top Hex Wrench	Bottom Hex Wrench	Coolant Nozzle
	N	LF	DCSFMS		SCP-2	N·m						
PSC40 DDNN N 00090-15	●	90	40	1								
PSC50 DDNN N 00090-15	●	90	50	1								
PSC50 DDNN N 00125-15	●	125	50	1	SCP-2	5.0	DNS1504	BFTX0409N	TRX15(*)	LH040	LH025	C4-CNZ
PSC63 DDNN N 00100-15	●	100	63	1								
PSC63 DDNN N 00140-15	●	140	63	1								

*Wrench for shim is sold separately from the main body.

Clamp Set Parts **C46**

Recommended Tightening Torque (N·m)

SumiPolygon

Tooling

G

Tooling

Cartridges



External Turning
Double Clamp



Fig 1

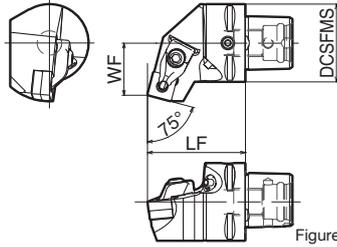


Figure shows right hand (R) tool.

Insert

Applicable Insert Cat. No.	Ref. Page	
SN□□1204□□	B41 on	

(Representative example)
SNMG120404N-GU

Holder

Parts

Dimensions (mm)

Cat. No.	Stock		Cutting Edge	Overhang	Mounting	Fig	Clamp Set	Shim	Shim Screw	Wrench for Shims	Top Hex Wrench	Bottom Hex Wrench	Coolant Nozzle	
	R	L	WF	LF	DCSFMS									
PSC40 DSBN R/L 27050-12	●	●	27	50	40	1								
PSC50 DSBN R/L 35060-12	●	●	35	60	50	1	SCP-2	5.0	SNS1204	BFTX0409N	TRX15(*)	LH040	LH025	C4-CNZ
PSC63 DSBN R/L 45065-12	●	●	45	65	63	1								

*Wrench for shim is sold separately from the main body.

Clamp Set Parts C46



External Turning
Double Clamp

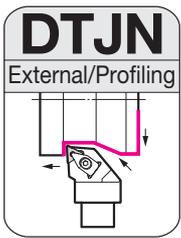


Fig 1

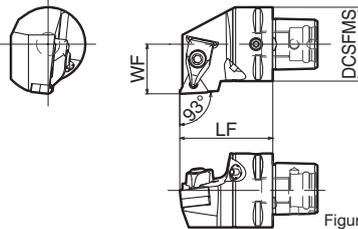


Figure shows right hand (R) tool.

Insert

Applicable Insert Cat. No.	Ref. Page	
TN□□1604□□	B56 on	

(Representative example)
TNMG160404N-GU

Holder

Parts

Dimensions (mm)

Cat. No.	Stock		Cutting Edge	Overhang	Mounting	Fig	Clamp Set	Shim	Shim Screw	Wrench for Shims	Top Hex Wrench	Bottom Hex Wrench	Coolant Nozzle	
	R	L	WF	LF	DCSFMS									
PSC40 DTJN R/L 27050-16	●	●	27	50	40	1								
PSC50 DTJN R/L 35060-16	●	●	35	60	50	1	SCP-1	5.0	TNS1604	BFTX0307N	TRX10(*)	LH040	LH025	C4-CNZ

*Wrench for shim is sold separately from the main body.

Clamp Set Parts C46

SumiPolygon



Internal Coolant

External Turning
Screw-on



Fig 1

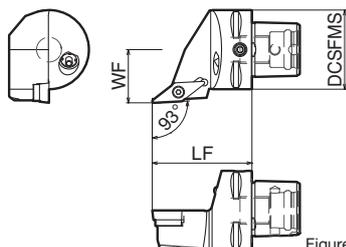


Figure shows right hand (R) tool.

Insert

Applicable Insert Cat. No.	Ref. Page	(Representative example)
VC□□1604□□	B127 on	
VCMT160404N-SU		

Holder

Parts

Dimensions (mm)

Cat. No.	Stock		Cutting Edge WF	Overhang LF	Mounting DCSFMS	Fig	Pin	Nut	Shim	Flat Insert Screw		Wrench for Shims	Wrench	Coolant Nozzle
	R	L								N·m	N·m			
PSC40 SVJC R/L 27050-16*	●	●	27	50	40	1	VP20							
PSC50 SVJC R/L 35060-16	●	●	35	60	50	1	VP25	CPV33N	SVP32	BFTX03508	2.0	LH025	TRX10	C4-CNZ
PSC63 SVJC R/L 45065-16	●	●	45	65	63	1								

*Depending on the design, ATC and extension bars may not be usable in some cases. Contact your local sales office prior to use.



Internal Coolant

External Turning
Screw-on

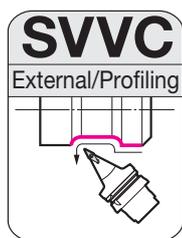
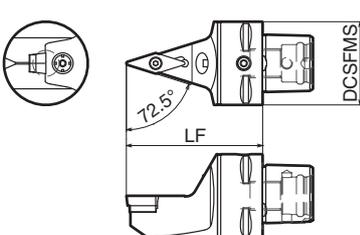


Fig 1



Insert

Applicable Insert Cat. No.	Ref. Page	(Representative example)
VC□□1604□□	B127 on	
VCMT160404N-SU		

Holder

Parts

Dimensions (mm)

Cat. No.	Stock		Overhang LF	Mounting DCSFMS	Fig	Pin	Nut	Shim	Flat Insert Screw		Wrench for Shims	Wrench	Coolant Nozzle
	N								N·m	N·m			
PSC40 SVVC N 00065-16	●		65	40	1	VP20							
PSC50 SVVC N 00090-16	●		90	50	1								
PSC50 SVVC N 00125-16	●		125	50	1	VP25	CPV33N	SVP32	BFTX03508	2.0	LH025	TRX10	C4-CNZ
PSC63 SVVC N 00100-16	●		100	63	1								
PSC63 SVVC N 00140-16	●		140	63	1								



Internal Coolant

External Turning
Double Clamp

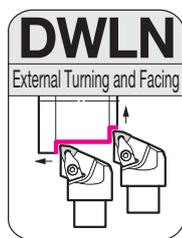


Fig 1

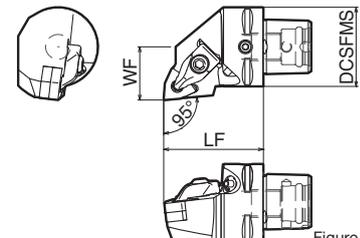


Figure shows right hand (R) tool.

Insert

Applicable Insert Cat. No.	Ref. Page	(Representative example)
WN□□0804□□	B71 on	
WNMG080404N-GU		

Holder

Parts

Dimensions (mm)

Cat. No.	Stock		Cutting Edge WF	Overhang LF	Mounting DCSFMS	Fig	Clamp Set		Shim	Shim Screw	Wrench for Shims	Top Hex Wrench	Bottom Hex Wrench	Coolant Nozzle
	R	L					N·m	N·m						
PSC40 DWLN R/L 27050-08	●	●	27	50	40	1	SCP-2	5.0	WNS0804	BFTX0409N	TRX15(*)	LH040	LH025	C4-CNZ

*Wrench for shim is sold separately from the main body.

Clamp Set Parts **C46**

Recommended Tightening Torque (N·m)

SumiPolygon

Tooling

G

Tooling

Cartridges



Internal Boring
Lever Lock

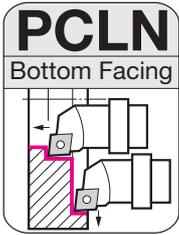


Fig 1

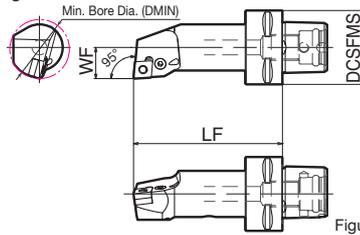


Figure shows right hand (R) tool.

Insert

Applicable Insert Cat. No.	Ref. Page	(Representative example)
CN□□0903□□	B20	
		CNMG090308N-GU

Holder

Parts

Dimensions (mm)

Cat. No.	Stock		Min. Bore Dia. DMIN	Cutting Edge WF	Overhang LF	Mounting DCSFMS	Fig	Lever Pin	Set Screw	Shim	Shim Retainer	Wrench
	R	L										
PSC40 PCLN R/L 17080-09	●	●	32	17	80	40	1	LCL3	LCS3	LSC32	LSP3	LH025



Internal Boring
Double Clamp

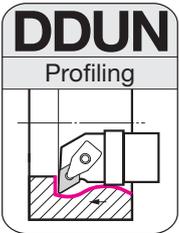


Fig 1

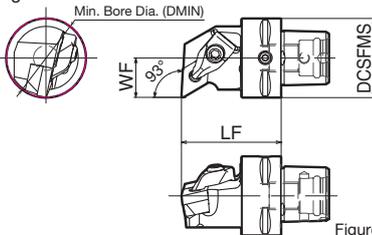


Figure shows right hand (R) tool.

Insert

Applicable Insert Cat. No.	Ref. Page	(Representative example)
DN□□1504□□	B32 on	
		DNMG150408N-GE

Holder

Parts

Dimensions (mm)

Cat. No.	Stock		Min. Bore Dia. DMIN	Cutting Edge WF	Overhang LF	Mounting DCSFMS	Fig	Clamp Set		Shim	Shim Screw	Wrench for Shims	Top Hex Wrench	Bottom Hex Wrench
	R	L												
PSC40 DDUN R/L 20050-15	●	●	40	20	50	40	1			DNS1504B	BFTX0409N	TRX15(*)	LH040	LH025
PSC40 DDUN R/L 20070-15	●	●	40	20	70	40	1	SCP-2	5.0	DNS1504B	BFTX0409N	TRX15(*)	LH040	LH025
PSC40 DDUN R/L 27090-15	●	●	54	27	90	40	1							

*Wrench for shim is sold separately from the main body.

Clamp Set Parts E76



Internal Boring
Lever Lock

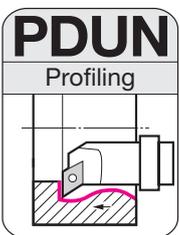


Fig 1

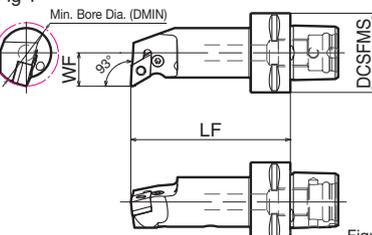


Figure shows right hand (R) tool.

Insert

Applicable Insert Cat. No.	Ref. Page	(Representative example)
DN□□1104□□	B31 on	
		DNMG150408N-GE

Holder

Parts

Dimensions (mm)

Cat. No.	Stock		Min. Bore Dia. DMIN	Cutting Edge WF	Overhang LF	Mounting DCSFMS	Fig	Lever Pin	Set Screw	Shim	Shim Retainer	Wrench
	R	L										
PSC40 PDUN R/L 17080-11	●	●	32	17	80	40	1	LCL3	LCS3	LSD317	LSP3	LH025

SumiPolygon

Internal Internal Coolant

Internal Boring
Lever Lock

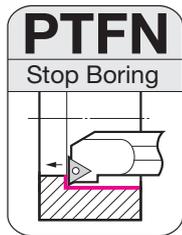


Fig 1

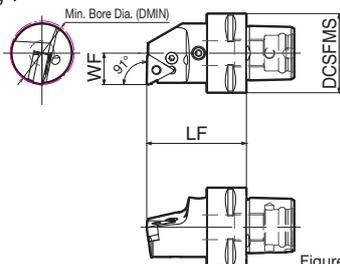


Figure shows right hand (R) tool.

Insert

(Representative example)

Applicable Insert Cat. No.	Ref. Page
TN□□1604□□	B56 on

TNMG160404N-GU

Holder

Parts

Dimensions (mm)

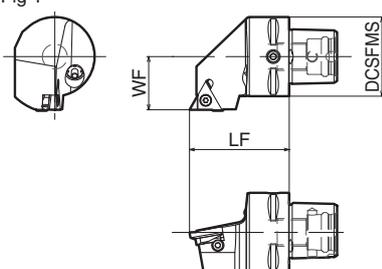
Cat. No.	Stock		Min. Bore Dia. DMIN	Cutting Edge WF	Overhang LF	Mounting DCSFMS	Fig	Lever Pin	Set Screw	Shim	Shim Retainer	Wrench
	R	L										
PSC40 PTFN R/L 16050-16	●	●	32	16	50	40	1	LCL3	LCS3	LST317CA	LSP3	LH025

External

External Threading
Screw-on



Fig 1



Insert

(Representative example)

Applicable Insert Cat. No.	Ref. Page
16ER□□□□CB	F96

16ERA60-CB

Holder

Parts

Dimensions (mm)

Cat. No.	Stock	Cutting Edge WF	Overhang LF	Mounting DCSFMS	Fig	Shim	Shim Retainer	Flat Insert Screw	Wrench for Shims	Wrench	Flat Washer	Coolant Nozzle	
PSC40 SSTE R 27050-16ER	●	27	50	40	1								
PSC50 SSTE R 35060-16ER	●	35	60	50	1	YE3	BX0304	BFTX0312N	2.0	LH025(*)	TRX10	PW3	C4-CNZ
PSC63 SSTE R 45065-16ER	●	45	65	63	1								

*Wrench for shim is sold separately from the main body.

Clamp Set Parts

Applicable Clamp Set Cat. No.	Spring	Cap Screw		
SCP-1	CSP08 ●	CP-M5-20-1 ●	CP-M5-20-1 ●	5.0
SCP-2	CSP08 ●	CP-M5-20-1 ●	CP-M5-20-1 ●	

CP-M5-20-1 can also be fastened from the other end of the screw.

SumiPolygon



SumiPolygon Cassette for External Grooving
Clamp-on

Tooling

G

Tooling

Cartridges



Fig 1

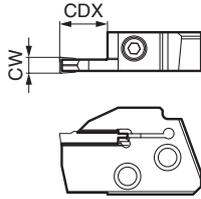


Figure shows right hand (R) tool.

Insert

Applicable Insert Cat. No.	Ref. Page	
GC□□○○○○□□	F49	

(Representative example)
GCMN2002-GG

SumiPolygon GND Type Cassette

Parts

Dimensions (mm)

Cat. No.	Stock		Width of Cut CW	Maximum Groove Depth CDX	Applicable Holder	Fig	Cap Screw		Wrench
	R	L					N·m		
GNDCM R/L 212	●	●	2	12		1			
GNDCM R/L 312	●	●	3	12		1			
GNDCM R/L 418	●	●	4	18	PSC○○GND○○○○○○ R/L	1	BX0512	5.0	LH040
GNDCM R/L 518	●	●	5	18	PSC○○GND○○○○○○90 R/L	1			
GNDCM R/L 618	●	●	6	18		1			

Match inserts and holders with identical widths of cut (CW). Refer to F49 for applicable inserts.

Maximum groove depth CDX is the figure during grooving. For maximum depth of cut during traverse cutting and profiling, refer to F19.

Identification Code
Cassette

GNDCM R 2 12

Series Feed Direction Width of Cut (mm) Maximum Groove Depth (mm)

Fig 1

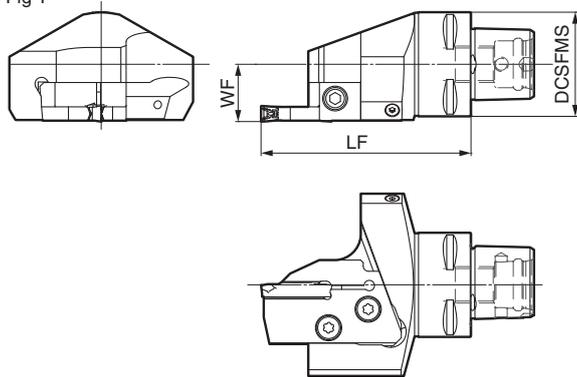


Figure shows right hand (R) tool.

Fig 1

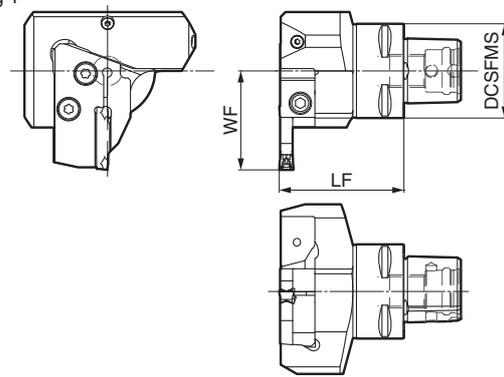


Figure shows right hand (R) tool.

SumiPolygon GND Type Tool Holder (Straight) Parts

Dimensions (mm)

Cat. No.	Stock		Cutting Edge WF	Overhang LF	Mounting DCS-FMS	Applicable Cassette	Fig	Flat Screw		Wrench
	R	L						N·m		
PSC40 GND 228000 R/L	●	●	22	80	40		1			
PSC50 GND 278000 R/L	●	●	27	80	50	GNDCM R/LOOO	1	BFTX0619N	7.5	TT25
PSC63 GND 338000 R/L	●	●	33	80	63		1			

Inserts and cassettes are not embedded into tool holders.

SumiPolygon GND Type Tool Holder (L Type) Parts

Dimensions (mm)

Cat. No.	Stock		Cutting Edge WF	Overhang LF	Mounting DCS-FMS	Applicable Cassette	Fig	Flat Screw		Wrench
	R	L						N·m		
PSC40 GND 425290 R/L	●	●	42	52.5	40		1			
PSC50 GND 475590 R/L	●	●	47	55	50	GNDCM L/R000	1	BFTX0619N	7.5	TT25
PSC63 GND 545790 R/L	●	●	54	57	63		1			

Inserts and cassettes are not embedded into tool holders.

Identification Code
Holder

PSC40 GND 42 52 90 R

SumiPolygon Shank Size Series: GND Type WF Dimensions (mm) LF Dimensions (mm) 00: Straight Feed Direction 90: L Type

Polygonal Taper Shank SumiPolygon

Square Shank Holder

Adapter

Fig 1

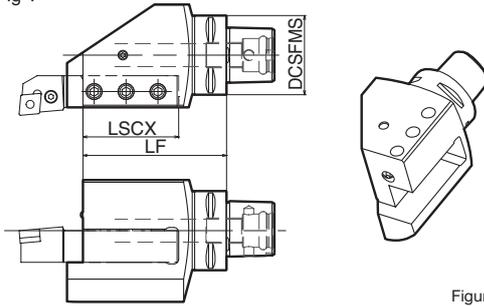


Figure shows right hand (R) tool.

Holder

Parts

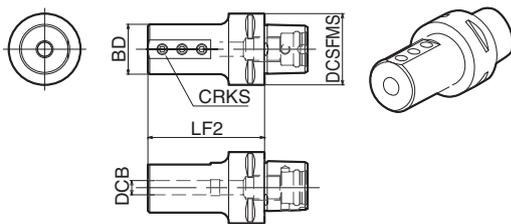
Dimensions (mm)

Cat. No.	Stock		Cutting Edge	Overhang	Mounting	Fig	Set Screw	Wrench	Coolant Nozzle
	R	L	LSCX	LF	DCSFMS				
PSC50 S2020 R/L -90	●	●	60	90	50	1			
PSC63 S2525 R/L -100	●	●	70	100	63	1	BTD1012	LH050	C4-CNZ

Holder for Boring Bar

Adapter

Fig 1



Holder

Parts Dimensions (mm)

Cat. No.	Stock N	Cutting Edge	Overhang	Shank Dia.	Screw	Mounting	Fig	Set Screw	Wrench
		BD	LF2	DCB	CRKS	DCSFMS			
PSC40 C08-65	●	28	65	8	M6	40	1	BTD0609	LH030
PSC40 C10-70	●	35	70	10	M8	40	1	BTD0812	LH040
PSC40 C12-70	●	42	70	12	M10	40	1		
PSC40 C16-75	●	48	75	16	M10	40	1		
PSC40 C20-75	●	52	75	20	M10	40	1	BTD1012	LH050
PSC40 C25-83	●	62	83	25	M10	40	1		
PSC40 C32-87	●	62	87	32	M10	40	1		
PSC50 C08-65	●	28	65	8	M6	50	1	BTD0609	LH030
PSC50 C10-70	●	35	70	10	M8	50	1	BTD0812	LH040
PSC50 C12-70	●	42	70	12	M10	50	1		
PSC50 C16-75	●	48	75	16	M10	50	1		
PSC50 C20-75	●	52	75	20	M10	50	1		
PSC50 C25-83	●	62	83	25	M10	50	1	BTD1012	LH050
PSC50 C32-87	●	62	87	32	M10	50	1		
PSC63 C12-70	●	42	70	12	M10	63	1		
PSC63 C16-75	●	48	75	16	M10	63	1		
PSC63 C20-75	●	52	75	20	M10	63	1		

Tooling

G

Tooling

Cartridges

Modular Taper Shank/HSK Tooling Systems

*Catalogue numbers have been changed due to the establishment of ISO standard ISO 26622-1:2008.

Tooling

G

Tooling

Cartridges

Modular Taper Shank



This has widespread use throughout Europe and the United States.

HSK Tooling Systems



This hollow shank was developed by RWTH Aachen University and the German Industry Association, and has been adopted as an ISO standard.

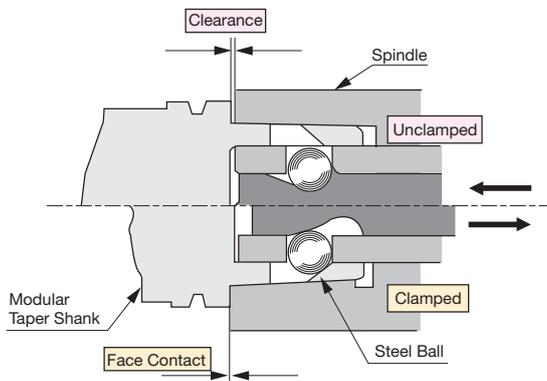
Features

- Tool shape suitable for high-speed spindles.
- This clamping system supports the tool by two faces, on the taper and the flange, enabling high rigidity at high speeds and high-precision machining.
- The hollow short-tapered design reduces weight and shortens ATC times.

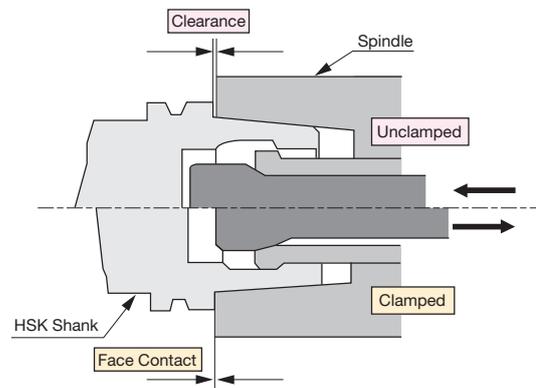
Feature

- The DIN standard for supporting tools by 2 faces.
- Support by 2 faces, on the taper and flange, for high precision and high rigidity machining.
- The hollow short-tapered design reduces weight and allows for high-speed ATC.

Mechanism



Mechanism



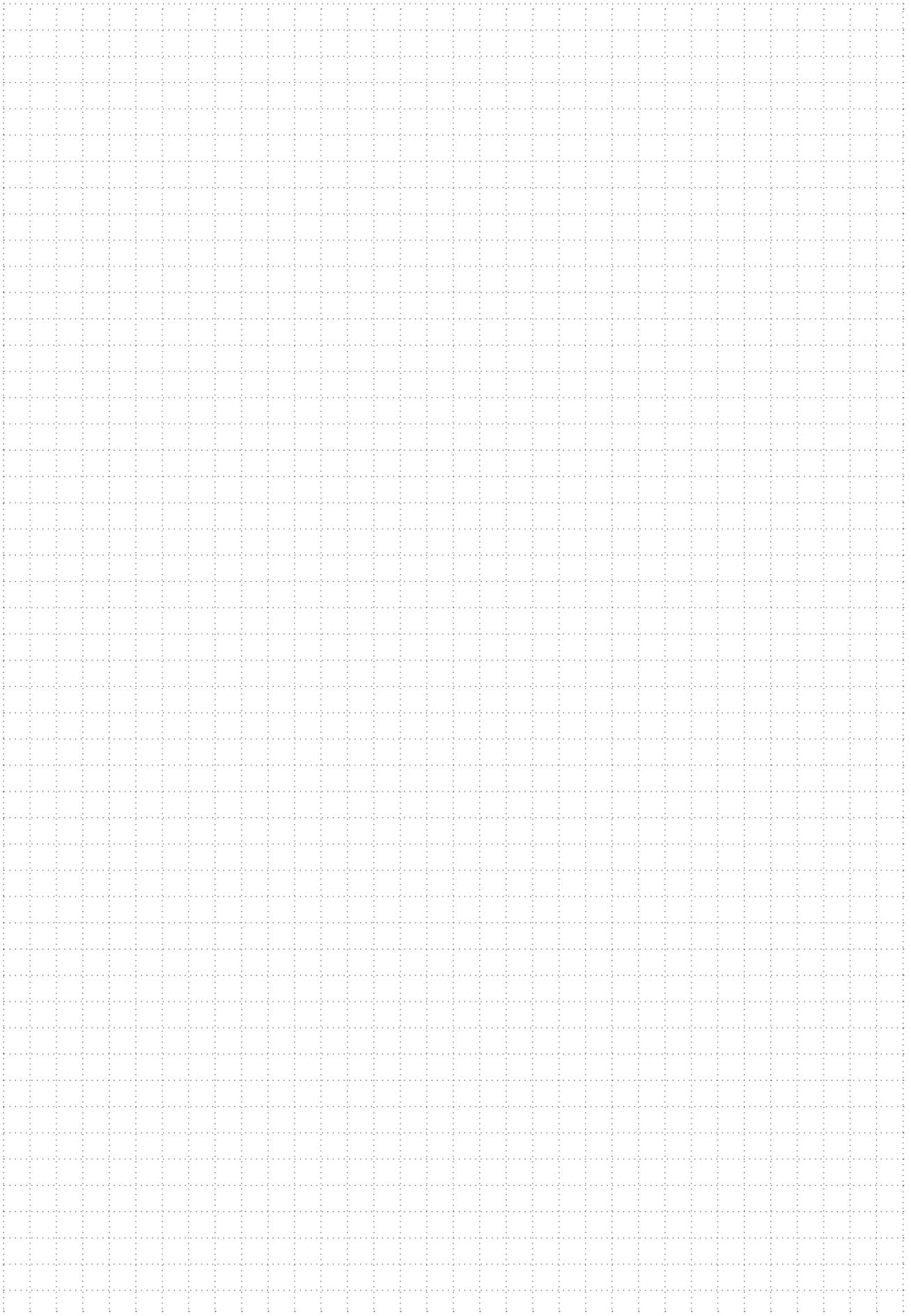
Size

Cat. No.	Mounting Dia.	
	DCON	DCON2
TS32	32	24
TS40	40	30
TS50	50	40
TS63	63	50
TS80	80	64

Size

Cat. No.	Mounting Dia.	
	DCON	DCON2
HSK A32	32	24
HSK A40	40	30
HSK A50	50	38
HSK A63	63	48
HSK A80	80	60
HSK A100	100	75

MEMO



Smart Damper



General Features

Smart Dampers are arbors equipped with a special anti-vibration mechanism that has both counter damping and friction damping effects.

This suppresses chatter and prevents decreased machined surface quality and tool life when machining with a large overhang.

Expanded Internal Boring Lineup Smart Dampers for Internal Boring E10

Features



- Using a basic holder and damper head in combination
- Basic holder lineup supports **BBT50 (BIG-PLUS™)** Arbor and **HSK-A100** arbors in different lengths.
- Through-centre coolant compatible.

Face Milling Example with 347mm Overhang Length

Arbor	Results	
	Machined Surface	Vibration
Competitor's Arbor No Anti-Vibration Mechanism		
Smart Damper With Anti-Vibration Mechanism		

Suppress chatter by using a smart damper!!

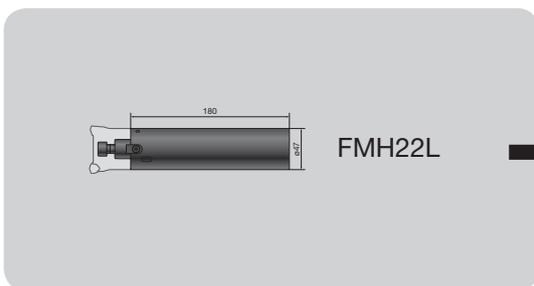
Work Material: S50C
Tool: Tool Diameter $\phi 63$ (5-teeth)
Cutting Conditions: $v_c = 100\text{m/min}$, $f_z = 1.0\text{mm/t}$, $a_p = 1.4\text{mm}$, $a_e = 30\text{mm}$

Smart Damper Combination Example (BBT50 Type)

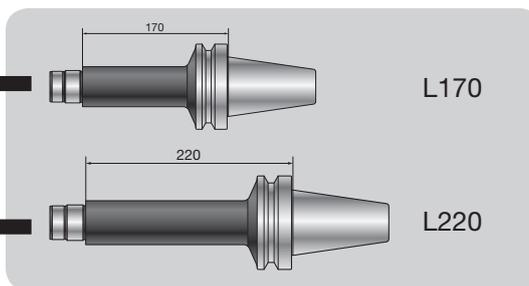
Damper Head

Basic Holder

$\phi 47$
Type

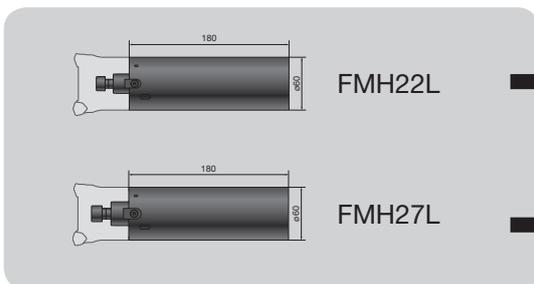


S-SDF3647FMH□□L180

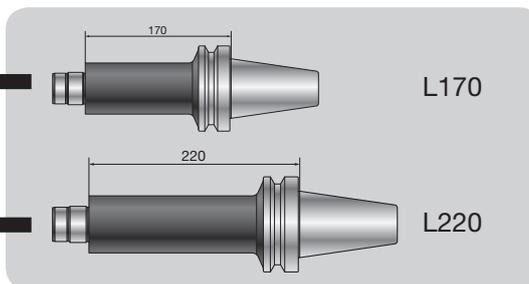


S-SDF3647L□□□-BBT50

$\phi 60$
Type



S-SDF3660FMH□□L180



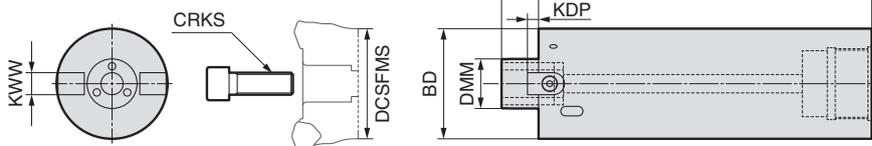
S-SDF3660L□□□-BBT50

*Smart Damper™ and BIG-PLUS™ are registered trademarks of BIG DAISHOWA Co., Ltd.

Smart Damper

Damper Head

Fig 1



Stock Table

Dimensions (mm)

Cat. No.	Stock	Shank Dia. DMM	Body Dia. BD	Overhang LF	Shank Length LS	Keyway Width KWW	Keyway Depth KDP	Screw CRKS	Weight (kg)	Mounting DCSFMS	Fig
S-SDF3647FMH22L180	●	22	47	180	18	10	5	M10	3.0	36 up	1
S-SDF3660FMH22L180	●	22	60	180	18	10	5	M10	4.5	49 up	1
S-SDF3660FMH27L180	●	27	60	180	20	12	6	M12	4.5	46 up	1

Refer to the user's manual for methods of mounting to basic tool holders.

The cutter is not included in the weight.

A hook wrench and clamp bolt for tightening the cutter are included.

DCSFMS shows the cutter mounting surface diameter. Take care if the mounting surface diameter is small relative to the cutter outer diameter.

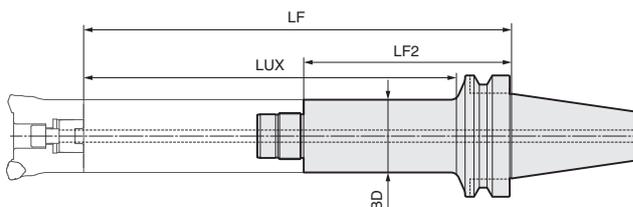
Identification Code

S-SDF36 47 FMH 22 L180

Connection Method Body Dia. Series Code Shank Dia. Overhang

Basic Holder BBT50 Type

Fig 1



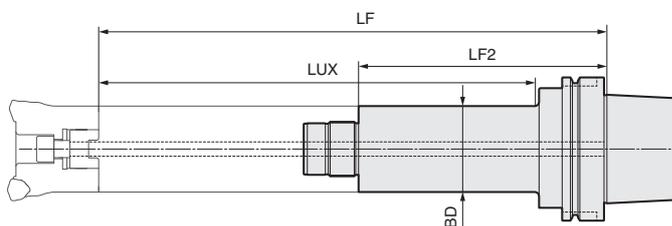
Stock Table

Dimensions (mm)

Cat. No.	Stock	Body Dia. BD	Overhang LF	Min. Clamping Length LF2	Effective Overhang LUX	Weight (kg)	Applicable Damper Head	Fig
S-SDF3647L170-BBT50	●	47	350	170	297	5.6	S-SDF3647FMH00L000	1
S-SDF3647L220-BBT50	●	47	400	200	347	6.3	S-SDF3647FMH00L000	1
S-SDF3660L170-BBT50	●	60	350	170	297	6.7	S-SDF3660FMH00L000	1
S-SDF3660L220-BBT50	●	60	400	200	347	7.8	S-SDF3660FMH00L000	1

Basic Holder HSK-A100 Type

Fig 1



Stock Table

Dimensions (mm)

Cat. No.	Stock	Body Dia. BD	Overhang LF	Min. Clamping Length LF2	Effective Overhang LUX	Weight (kg)	Applicable Damper Head	Fig
S-SDF3647L170-HSKA100	●	47	350	170	310	4.4	S-SDF3647FMH00L000	1
S-SDF3647L220-HSKA100	●	47	400	220	360	5.0	S-SDF3647FMH00L000	1
S-SDF3660L170-HSKA100	●	60	350	170	310	5.5	S-SDF3660FMH00L000	1
S-SDF3660L220-HSKA100	●	60	400	220	360	6.0	S-SDF3660FMH00L000	1

Identification Code

S-SDF36 47 L170 - BBT50

Connection Method Body Dia. Min. Clamping Length Shank type

ABS System

Tooling

G

Tooling

Cartridges



General Features

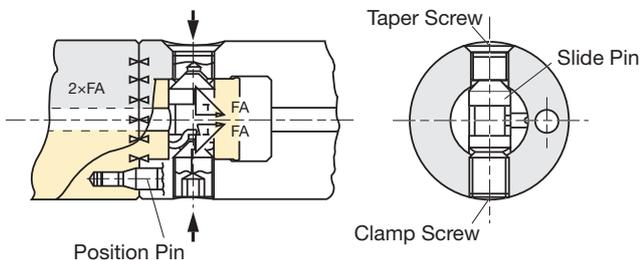
The IGETALLOY ABS system has received high acclamation worldwide for its strong clamping force, high rigidity and high precision. ABS is one of the quick change systems for round tools, which increases our customers' productivity in special tooling applications, while simplifying and standardising these special tools.

The SBA system is also available. For details, please contact us.

Features and Applications

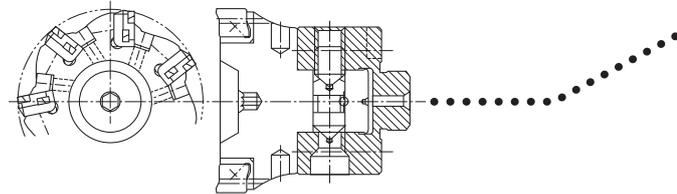
- The clamp screw, taper screw and slide pin act as a wedge for strong holding force.
- High rigidity, high precision. High indexing accuracy during tool changes.
- A wide array of sizes are available to cover a variety of tools.
- Easy handling allows short tool change times.
- Allows coolant supply from inside the spindle.
- Strong clamping force even with small diameters.

Clamp Mechanism

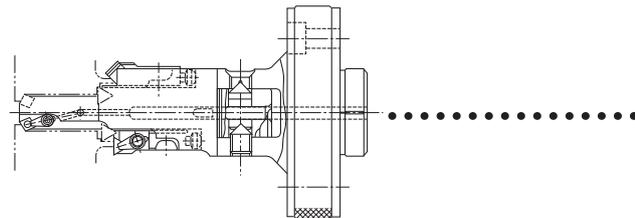


ABS Design Examples

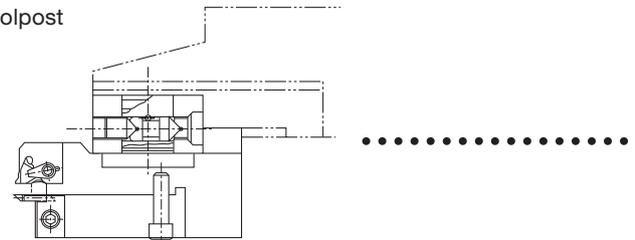
Indexable Cutters



Boring Quills



Toolpost



ABS Standard (Head)

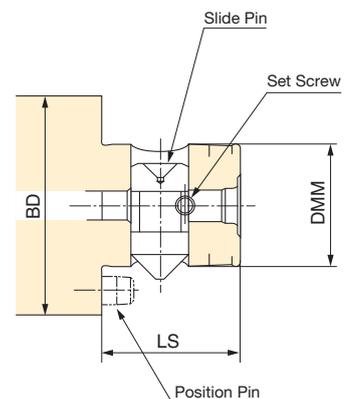
Head Dimensions

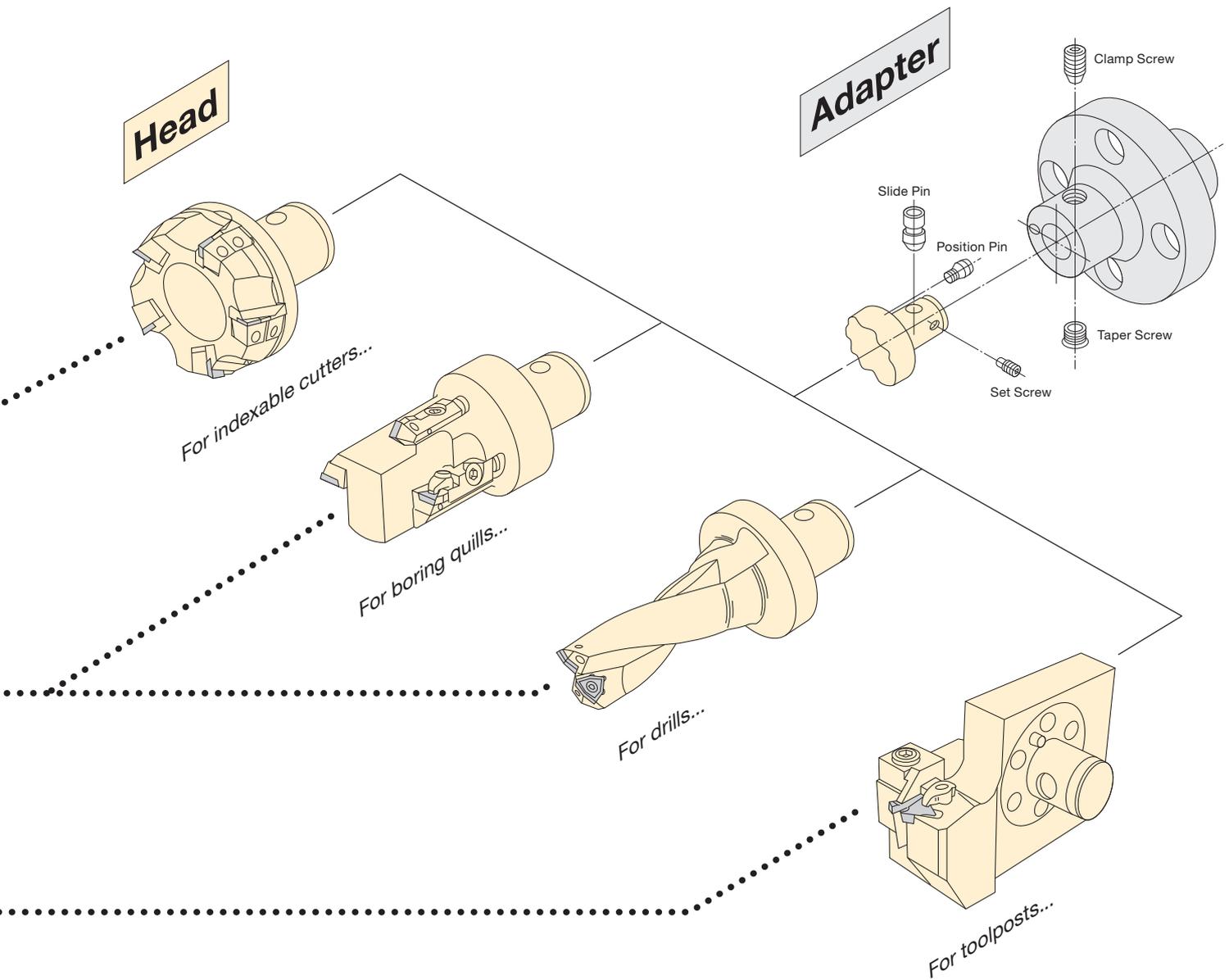
Dimensions (mm)

Cat. No.	Body Dia.		
	BD	DMM	LS
ABS 25M	25	13	20
ABS 32M	32	16	23
ABS 40M	40	20	26
ABS 50M	50	28	31
ABS 63M	63	34	38
ABS 80M	80	46	43
ABS100M	100	56	55
ABS125M	125	70	70
ABS160M	160	90	90
ABS200M	200	112	110

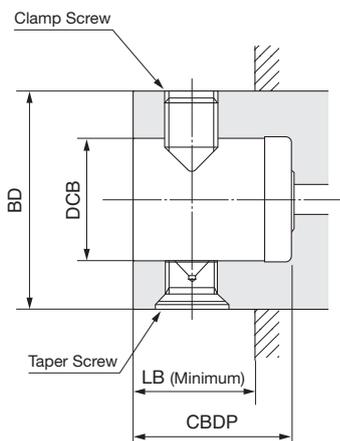
Spare Parts

Set Cat. No.	Slide Pin	Position Pin	Set Screw
ABS 25-ES-M	ABS 25-E3	ABS 25-E4	ABS 25-E5
ABS 32-ES-M	ABS 32-E3	ABS 32-E4	ABS 32-E5
ABS 40-ES-M	ABS 40-E3	ABS 40-E4	ABS 40-E5
ABS 50-ES-M	ABS 50-E3	ABS 50-E4	ABS 50-E5
ABS 63-ES-M	ABS 63-E3	ABS 63-E4	ABS 63-E5
ABS 80-ES-M	ABS 80-E3	ABS 80-E4	ABS 80-E5
ABS100-ES-M	ABS100-E3	ABS100-E4	ABS100-E5
ABS125-ES-M	ABS125-E3	ABS125-E4	ABS125-E5
ABS160-ES-M	ABS160-E3	ABS160-E4	ABS160-E5
ABS200-ES-M	ABS200-E3	ABS200-E4	ABS200-E5





■ ABS Standard (Adapter)



• Adapter Dimensions

Dimensions (mm)

Cat. No.	Body Dia.	Shank Dia.	Shank Length	Min. Clamping Length
	BD	DCB	CBDP	LB
ABS 25W	25	13	22	13.0
ABS 32W	32	16	25	16.0
ABS 40W	40	20	30	18.5
ABS 50W	50	28	34	22.0
ABS 63W	63	34	41	28.0
ABS 80W	80	46	48	34.0
ABS100W	100	56	58	40.5
ABS125W	125	70	76	51.0
ABS160W	160	90	96	53.0
ABS200W	200	112	116	82.0

• Spare Parts

Set Cat. No.	Clamp Screw	Taper Screw
ABS 25-FS-W	ABS 25-F1	ABS 25-F2
ABS 32-FS-W	ABS 32-F1	ABS 32-F2
ABS 40-FS-W	ABS 40-F1	ABS 40-F2
ABS 50-FS-W	ABS 50-F1	ABS 50-F2
ABS 63-FS-W	ABS 63-F1	ABS 63-F2
ABS 80-FS-W	ABS 80-F1	ABS 80-F2
ABS100-FS-W	ABS100-F1	ABS100-F2
ABS125-FS-W	ABS125-F1	ABS125-F2
ABS160-FS-W	ABS160-F1	ABS160-F2
ABS200-FS-W	ABS200-F1	ABS200-F2

SEC-Micro Units

This section introduces an overview of the series. Refer to the separate "SEC-Cartridge Unit/Micro Unit" catalogue for details on Micro Units (holders, inserts, spare parts) and quill unit seat machining.

Note: Use MUP type micro units when designing new tooling. Conventional tool types (MUN type) are manufactured only as replacement parts.

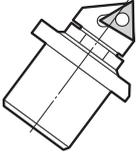
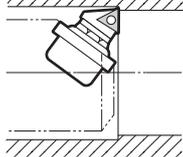
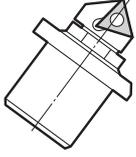
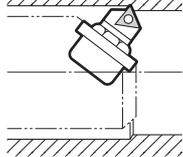
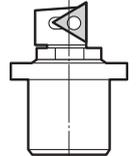
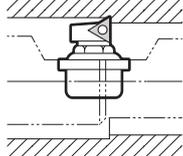
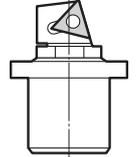
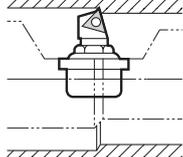
Tooling

G

Tooling

Cartridges

Micro Unit Cat. No. by Model/Tooling Type

		MUP Type			MUN Type		
							
Illustrations	Tooling	Cat. No.	Min. Bore Dia. (mm)	Stock	Cat. No.	Min. Bore Dia. (mm)	Stock
		MUP1-A0	25	●	MUN2 -A0	36	
		MUP2-A0	36	●	MUN3 -A0	47	
		MUP3-A0	47	●	MUN3L-A0	54	
		MUP4-A0	73		MUN4 -A0	73	
						MUN4L-A0	78
		MUP1-A15	25		MUN2 -A15	36	
		MUP2-A15	36		MUN3 -A15	47	
		MUP3-A15	47		MUN3L-A15	54	
		MUP4-A15	73		MUN4 -A15	73	
						MUN4L-A15	78
		MUP1-V0	25	●	MUN2 -V0	36	
		MUP2-V0	36	●	MUN3 -V0	47	
		MUP3-V0	47	●	MUN3L-V0	54	
		MUP4-V0	73		MUN4 -V0	73	
						MUN4L-V0	78
		MUP1-V15	25		MUN2 -V15	36	
		MUP2-V15	36		MUN3 -V15	47	
		MUP3-V15	47		MUN3L-V15	54	
		MUP4-V15	73		MUN4 -V15	73	
						MUN4L-V15	78

*If a left hand unit is required, include "LH" after the catalogue number. (Ex.: MUP1-A0-LH, MUP1-V0-LH)

*Inserts and wrenches are not included with Micro Units.

SEC-Cartridge Units

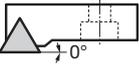
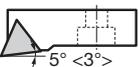
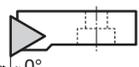
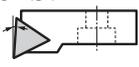
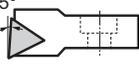
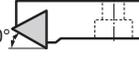
This section introduces an overview of the series.
Refer to the separate "SEC-Cartridge Unit/Micro Unit" catalogue for details on Micro Units (holders, inserts, spare parts) and quill unit seat machining.

■ Features of Each Model

Classification	Standard Type	MINIT Type		ISO Type			
	Cat. No.	MINIT P24 Type	MINIT N38 Type	SP Type	CP Type	CE Type	PN Type
Shape	BU Type The most common type of cartridge units 	Mini type with good edge sharpness and chip control 	Compact type for multi-tooling configurations 	Screw-locked positive inserts with sharp cutting edge and good chip evacuation 	Positive edge type for low-rigidity work 	High rake edge type for non-ferrous metal machining 	Economical type using common negative inserts 
Items							
Clamp Mechanism	Pin Lock	Screw-on	Pin Lock	Screw-on	Clamp-on	Clamp-on	Pin Lock
Adjustability	Yes	Axial: No Radial: Yes	No (By using shims)	Yes	Yes	Yes	Yes
Rake Angle	Neg.	Pos.	Neg.	Pos.	Pos.	Pos.	Neg.
Usable Insert Relief Angle	0°	11°	0°	11°	11°	20°	0°
Cutting Edge Position	Above Centre	Above Centre	Above Centre	On Centre	On Centre	On Centre	On Centre
Min. Bore Dia. (mm)	ø24	ø24	ø38	ø30	ø30	ø30	ø38

■ Cartridge Unit Cat. No. (For Triangular Inserts) by Model/Tooling Type

() shows the min. bore diameter (mm).

Configuration	BU Type	MINIT P24 Type		MINIT N38 Type		SP Type		CP Type		CE Type		PN Type	
		Stock R/L	Stock L/R	Stock R/L	Stock L/R	Stock R/L	Stock L/R	Stock R/L	Stock L/R	Stock R/L	Stock L/R	Stock R/L	Stock L/R
				MTGN3 R/L(38)	●●	STGP R/L-10CA(38)	●●	CTGP R/L10CA(38)	●●	CTGE R/L10CA(38)	●●	PTGN R/L10CA(38)	●●
						STGP R/L-12CA(50)	●●	CTGP R/L12CA(50)	●●	CTGE R/L12CA(50)	●●	PTGN R/L12CA(50)	●●
						STGP R/L-16CA(60)	●●	CTGP R/L16CA(60)	●●			PTGN R/L16CA(60)	●●
												PTGN R/L20CA(70)	●●
	BU224 R/L(48) ●● BU225 R/L(60) ●●		MTJP22 R/L(24) ●●	MTJN3 R/L(38) ●●		STJP R/L-10CA(38)	●●	CTJP R/L10CA(38)	●●	CTJE R/L10CA(38)	●●		
< >: MINIT P24						STJP R/L-12CA(50)	●●	CTJP R/L12CA(50)	●●	CTJE R/L12CA(50)	●●		
						STJP R/L-16CA(55)	●●	CTJP R/L16CA(55)	●●				
	BU252 R/L(24) ●● BU253 R/L(30) ●● BU254 R/L(38) ●● BU255 R/L(48) ●● BU256 R/L(55) ●●		MTFP22 R/L(24) ●●	MTFN3 R/L(38) ●●		STFP R/L- 8CA(30)	●●	CTFP R/L 8CA(30)	●●	CTFE R/L 8CA(30)	●●	PTFN R/L10CA(38)	●●
						STFP R/L-10CA(38)	●●	CTFP R/L10CA(38)	●●	CTFE R/L10CA(38)	●●	PTFN R/L12CA(50)	●●
						STFP R/L-12CA(50)	●●	CTFP R/L12CA(50)	●●	CTFE R/L12CA(50)	●●	PTFN R/L16CA(55)	●●
						STFP R/L-16CA(55)	●●	CTFP R/L16CA(55)	●●	CTFE R/L16CA(55)	●●	PTFN R/L20CA(70)	●●
								CTFP R/L20CA(70)	●●	CTFE R/L20CA(70)	●●		
	BU293 R/L(30) ●● BU294 R/L(38) ●● BU295 R/L(48) ●●		MTUP22 R/L(24) ●●	MTUN3 R/L(38) ●●		STUP R/L-10CA(38)	●●	CTUP R/L10CA(38)	●●	CTUE R/L10CA(38)	●●		
< >: MINIT P24/N38						STUP R/L-12CA(50)	●●	CTUP R/L12CA(50)	●●	CTUE R/L12CA(50)	●●		
						STUP R/L-16CA(55)	●●	CTUP R/L16CA(55)	●●				
	BU295ER/L(48) ●●												
						STTP R/L- 8CA(30)	●●	CTTP R/L 8CA(30)	●●	CTTE R/L 8CA(30)	●●	PTTN R/L10CA(38)	●●
						STTP R/L-10CA(38)	●●	CTTP R/L10CA(38)	●●	CTTE R/L10CA(38)	●●	PTTN R/L12CA(50)	●●
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						STSP R/L-10CA(38)	●●	CTSP R/L10CA(38)	●●	CTSE R/L 8CA(30)	●●		
						STSP R/L-12CA(50)	●●	CTSP R/L12CA(50)	●●	CTSE R/L10CA(38)	●●		
						STSP R/L-16CA(55)	●●	CTSP R/L16CA(55)	●●	CTSE R/L12CA(50)	●●		
										CTSE R/L16CA(55)	●●		
			MTWP22 R/L(24) ●●	MTWN3 R/L(38) ●●		STWP R/L- 8CA(30)	●●	CTWP R/L 8CA(30)	●●	CTWE R/L 8CA(30)	●●		
						STWP R/L-10CA(38)	●●	CTWP R/L10CA(38)	●●	CTWE R/L10CA(38)	●●		
						STWP R/L-12CA(50)	●●	CTWP R/L12CA(50)	●●	CTWE R/L12CA(50)	●●		
						STWP R/L-16CA(55)	●●	CTWP R/L16CA(55)	●●	CTWE R/L16CA(55)	●●		

*Inserts and wrenches are not included with Cartridge Units.

SEC-Cartridge Units

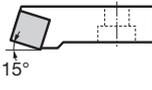
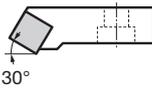
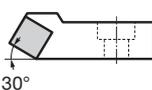
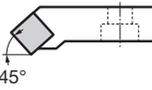
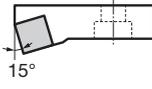
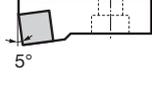
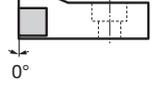
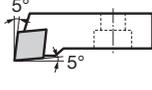
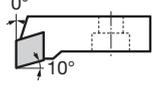
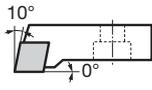
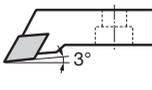
Tooling

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Tooling

Cartridges

■ Tool Holder Cat. No. (For Square Inserts, 55°/80° Diamond Type Inserts) by Model/Tooling Type () shows the min. bore diameter (mm).

Configuration	BU Type	Stock		MINIT P24 Type	Stock		MINIT N38 Type	Stock		SP Type	Stock		CP Type	Stock		CE Type	Stock		PN Type	Stock	
		R	L		R	L		R	L		R	L		R	L		R	L		R	L
 15°	BU113 R/L(30)	●					MSRN4 R/L(38)	●	●	SSRP R/L-10CA(38)	●	●	CSRP R/L10CA(38)	●		CSRE R/L10CA(38)	●				
	BU114 R/L(38)	●											CSRP R/L12CA(50)	●		CSRE R/L12CA(50)	●				
	BU115 R/L(48)	●											CSRP R/L16CA(55)	●							
 30°	BU133 R/L(30)	●		MSTP04 R/L(24)	●	●	MSTN4 R/L(38)	●	●												
	BU134 R/L(38)	●	●																		
	BU135 R/L(48)	●	●																		
 30°	BU134E R/L(30)		●																		
	BU135E R/L(38)		●																		
 45°	BU142 R/L(24)	●	●	MSSP04 R/L(24)	●	●	MSSN4 R/L(38)	●	●	SSSP R/L- 8CA(30)	●	●	CSSP R/L 8CA(30)	●		CSSE R/L 8CA(30)	●		PSSN R/L10CA(38)	●	●
	BU143 R/L(30)	●								SSSP R/L-10CA(38)	●	●	CSSP R/L10CA(38)	●	●	CSSE R/L10CA(38)	●	●	PSSN R/L12CA(50)	●	●
	BU144 R/L(38)	●	●										CSSP R/L12CA(50)	●	●	CSSE R/L12CA(50)	●		PSSN R/L16CA(55)	●	●
	BU145 R/L(48)	●	●										CSSP R/L16CA(55)	●		CSSE R/L16CA(55)					
 15°	BU152 R/L(24)	●	●				MSKN4 R/L(38)	●	●	SSKP R/L- 8CA(30)	●	●	CSKP R/L 8CA(30)	●		CSKE R/L 8CA(30)	●	●	PSKN R/L10CA(38)	●	●
	BU153 R/L(30)	●	●							SSKP R/L-10CA(38)	●	●	CSKP R/L10CA(38)	●	●	CSKE R/L10CA(38)	●	●	PSKN R/L12CA(50)	●	●
	BU154 R/L(38)	●	●										CSKP R/L12CA(50)	●	●	CSKE R/L12CA(50)	●	●	PSKN R/L16CA(55)	●	●
	BU155 R/L(48)	●	●										CSKP R/L16CA(55)	●	●	CSKE R/L16CA(55)	●	●	PSKN R/L20CA(70)	●	●
 5°	BU183 R/L(30)	●		MSP04 R/L(24)	●	●	MSYN4 R/L(38)	●	●	SSYP R/L- 8CA(30)	●	●	CSYP R/L 8CA(30)	●		CSYE R/L 8CA(30)	●		PSYN R/L10CA(38)	●	●
	BU184 R/L(38)	●								SSYP R/L-10CA(38)	●	●	CSYP R/L10CA(38)	●	●	CSYE R/L10CA(38)	●	●	PSYN R/L12CA(50)	●	●
	BU185 R/L(48)	●											CSYP R/L12CA(50)	●	●	CSYE R/L12CA(50)	●	●	PSYN R/L16CA(55)	●	●
 0°	BU194 R/L(30)		●																		
	BU195 R/L(38)		●																		
 5°							MCLN4 R/L(38)	●	●										PCLN R/L12CA(50)	●	●
																			PCLN R/L16CA(55)	●	●
																			PCLN R/L20CA(70)	●	●
 0°							MCFN4 R/L(38)	●	●												
 10°							MCGN4 R/L(38)	●	●												
 3°							MDJN4 R/L(38)	●	●												

*Inserts and wrenches are not included with Cartridge Units.

Boring Quill / Carbide Line Boring Bar

This section introduces an overview of the series. Refer to the separate "SEC-Cartridge Unit/Micro Unit" catalogue for details on Micro Units (holders, inserts, spare parts) and quill unit seat machining.

Indexable Cartridges and Boring Quills



Carbide Line Boring Bar

Carbide Line Bar Equipped with Cartridges



