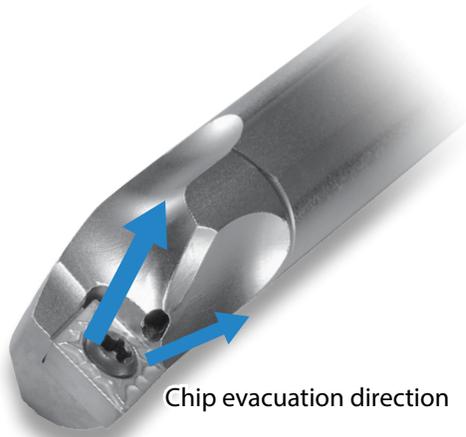


# F

Overview		F2~F17
<b>Solid Bars for Micro Boring</b>		
EZ Bars		F18
EZ Bar PLUS		F33
Swiss IQ Bars		F46
Twin Bars		F58
<b>Dynamic Bars / General Purpose Boring Bars</b>		
CC Inserts		F62
CP Inserts		F70
DC Inserts		F74
JC Inserts		F88
TB / TP Inserts		F90
TC Inserts		F100
VB / VC / VP Inserts		F102
WB / WP Inserts		F116
ZB Inserts		F124
SP Inserts		F129
<b>Boring Bars for Solid Inserts</b>		
SP Inserts	S-CSKP	F130
TP Inserts	S-CTUP	F131
<b>Boring Bars for Bearing Machining</b>		
RPMT Inserts	SRCP-B	F132
SNMF Inserts	CBSN-B	F133
<b>KAV Anti-Vibration Bars</b>		
CC Inserts	KAVH-SCLC	F134
DC Inserts	KAVH-SDUC	F135
TP Inserts	KAVH-STLP	F136
VB / VC Inserts	KAVH-SVUB	F137
CN Inserts	KAVH-PCLN	F138
DN Inserts	KAVH-PDUN	F140
TN Inserts	KAVH-PTFN	F142
Shank Adapters and Sleeves		F144
<b>Boring Bars for Negative Inserts</b>		
CN Inserts		F147
DN Inserts		F150
SN Inserts		F158
TN Inserts		F159
WN Inserts		F162
<b>Boring Bars for Solid Ceramic and CBN Inserts</b>		
EN Inserts	Ceramic	F167
TN Inserts	Ceramic / CBN	F168
<b>Sleeves / Coolant Joints</b>		
		F169~F173
<b>Recommended Cutting Conditions</b>		
		F174~F175

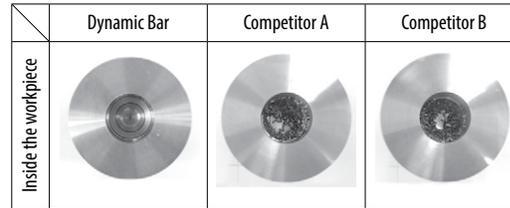
## Dynamic Bar

The Dynamic Bar achieves superior chip evacuation



Chip evacuation direction

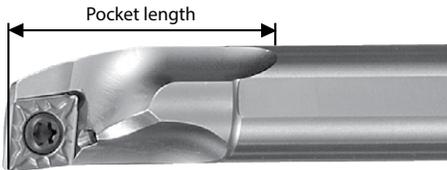
### Superior chip evacuation (External coolant)



In the products of competitor A and B chips remain inside the workpiece, but chips from the Dynamic Bar are all evacuated from the workpiece.

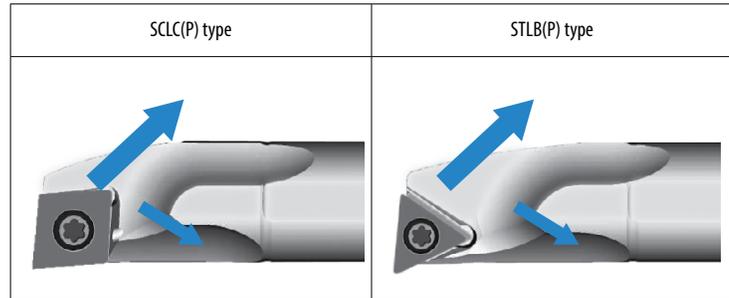
F BORING

### Comparison of Pocket Length



Part Number	Pocket length (mm)	
	Dynamic Bar	Competitor A
A16-SCLPR09-18 type	37	29
A20-SCLCR09-22 type	48	32

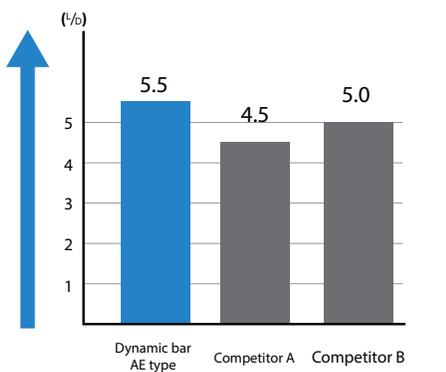
### Chip Evacuation Direction



Better evacuation with duel, backward chip flow

**High rigidity and chatter resistance are achieved by using a special alloy designed with innovative stress analysis technology.**

### Vibration Comparison



Maximum toolholder overhang length (L/D)

Cutting conditions	
4415	f = 0.004 ipr
Vc = 490 sfm	S16-SCLPR09 type
D.O.C. = 0.020"	CPMH321L-Y

### Surface Finish Comparison

Vibration of the Dynamic Bar was minimal even at high cutting speeds, enabling stable machining.

	Dynamic Bar	Competitor A	Competitor B
Surface Wall			
Surface Roughness			
Oscillatory Waveform			

**Cutting conditions**  
 4415  
 Vc = 690 sfm  
 D.O.C. = 0.020"  
 f = 0.004 ipr  
 A16Q-SCLPR09-18 type  
 CPMT321XP (PV7020)  
 L/D=4  
 External coolant

Direction of vibration measurement

# 1 KAV Series anti-vibration mechanism provides superior chatter resistance

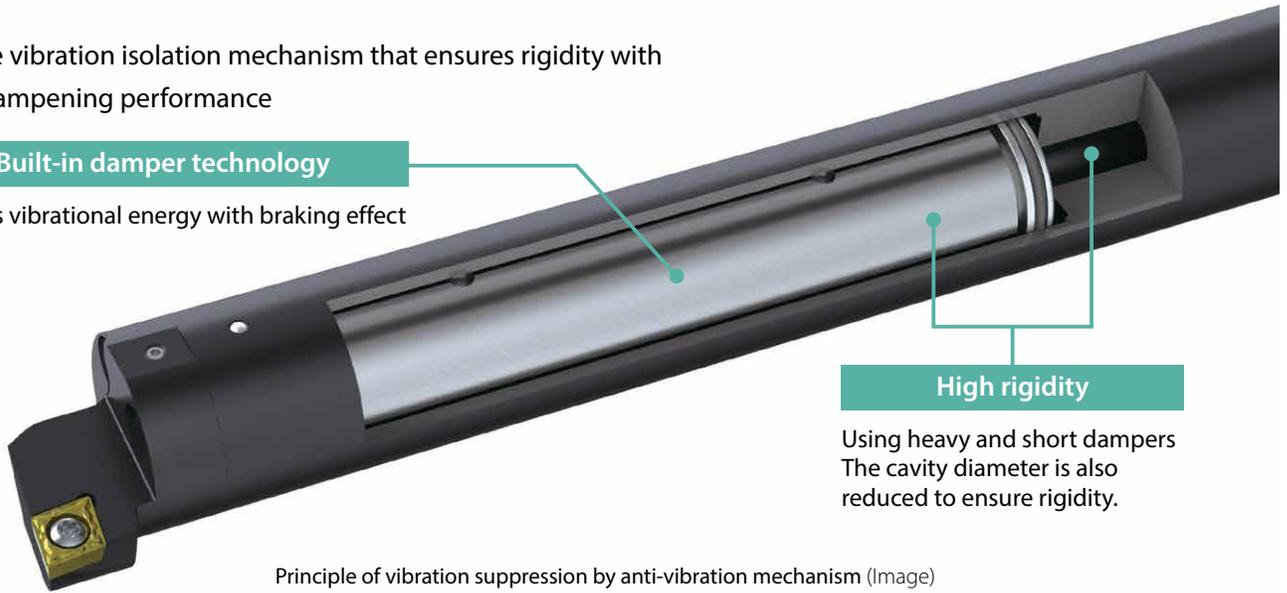
Unique vibration isolation mechanism that ensures rigidity with high dampening performance

## Built-in damper technology

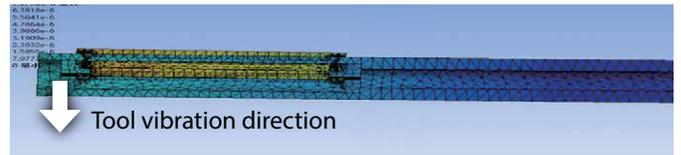
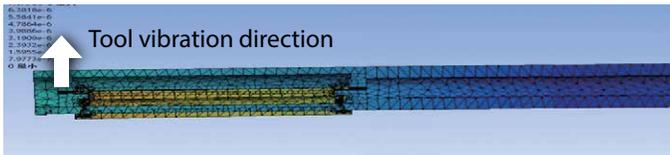
Absorbs vibrational energy with braking effect

## High rigidity

Using heavy and short dampers  
The cavity diameter is also reduced to ensure rigidity.



Principle of vibration suppression by anti-vibration mechanism (Image)

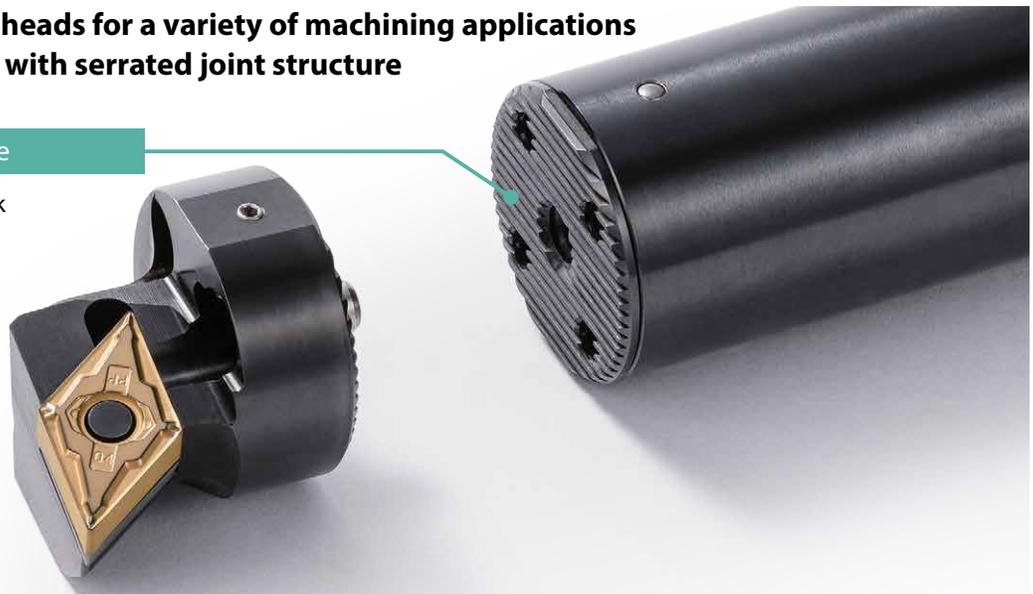


The damper vibrates late against the shank, effective for vibration damping.

# 2 Interchangeable heads for a variety of machining applications Strong fastening with serrated joint structure

## Serrated structure

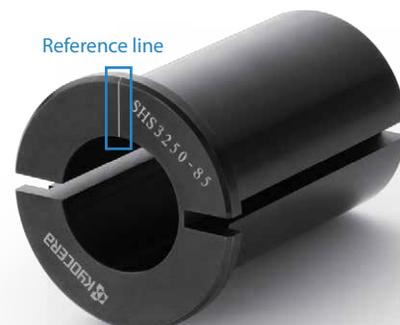
Securely fastens head and shank



# 3 Easy cutting edge adjustment with E-Sleeve Smooth machining setup

## E-Sleeve (Sold separately)

Separated structure with printed reference lines  
Easy adjustment reduces setup time



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

# EZ Bar Series for Small Internal Machining

Large Tooling Lineup for a Wide Application Range

## 1 Large Tooling Lineup for Various Internal Machining Operations

### Internal Turning

Supports a wide range of Internal Machining Applications

Boring **EZB**

#### Chipbreakers

H



1st Recommendation /  
General Purpose  
Extended reach  
type available

**PR1725**

G



Excellent Chip Control  
Performance

**PR1725**

F



Finishing /  
Sharpness Oriented

**PR1725**

NB



GW05 Insert Grade for  
Aluminum Machining

45 Degree Chamfering

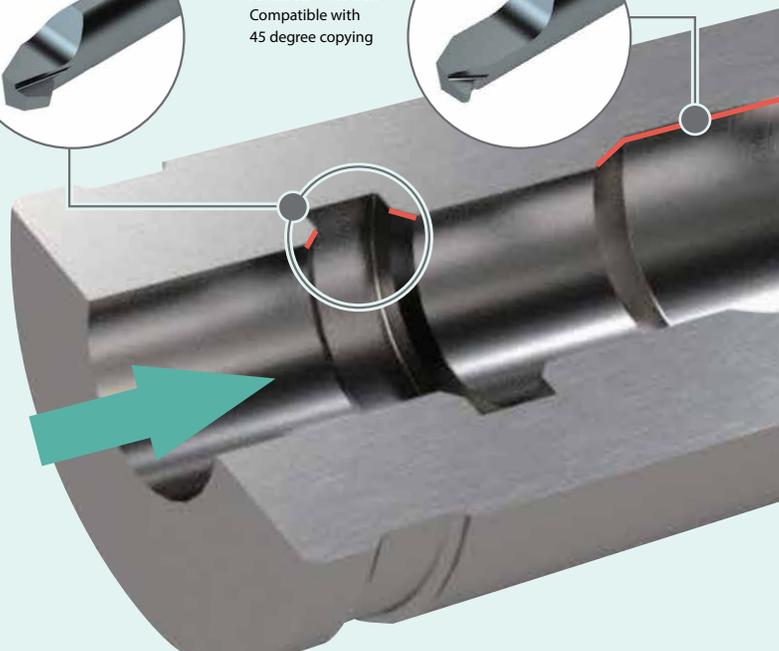
**EZBC**



Copying

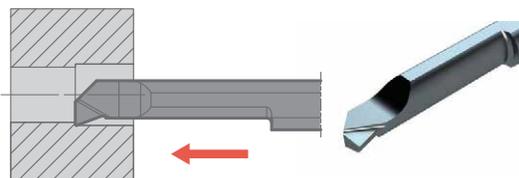
**EZBP**

APMX 0.3 ~ 1.0 mm  
Compatible with  
45 degree copying



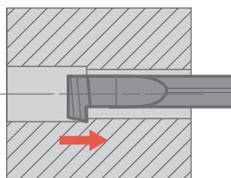
90 Degree Lead Angle

**EZBF**



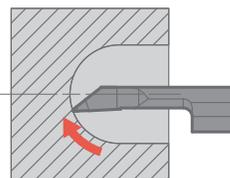
Back Boring

**EZBT**



Internal Facing • Internal Profiling

**EZVB**



## 2 Easy Adjustment and High Precision

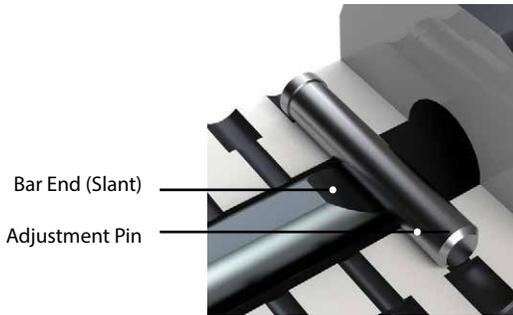
For CT sleeves with coolant holes and HP sleeves with positioning function, the overhang length can be set by moving adjustment pins

Smooth coolant flow due to unique head design

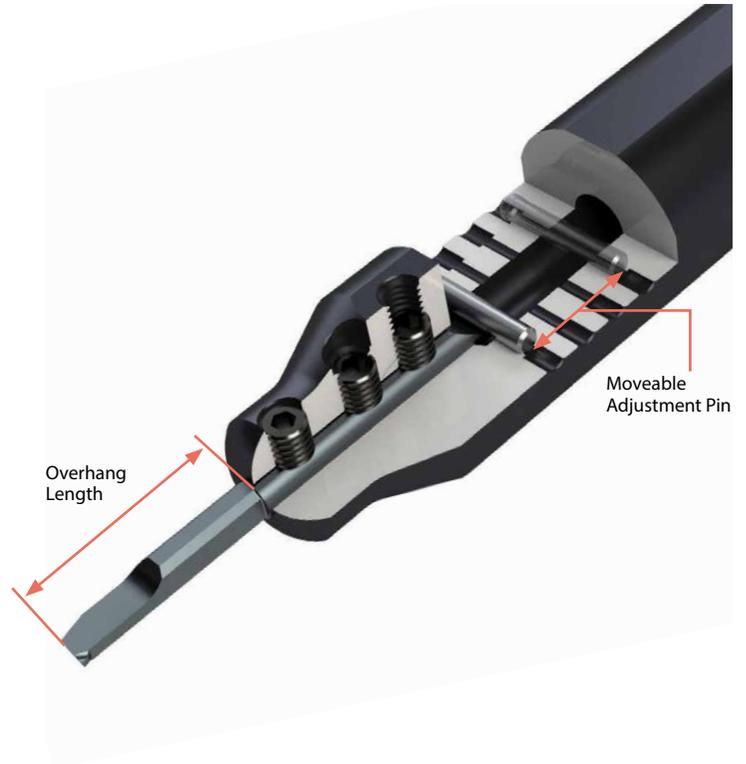


Coolant-Through : EZH-CT

High precision design by contacting the bar end (slant) with the adjustment pin

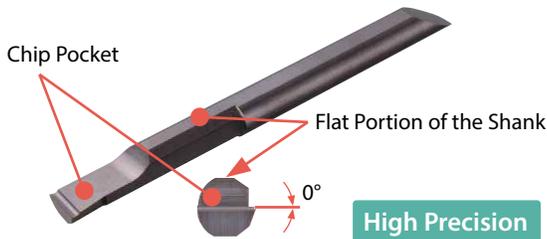


With EZ Adjust Structure : EZH-CT, EZH-HP

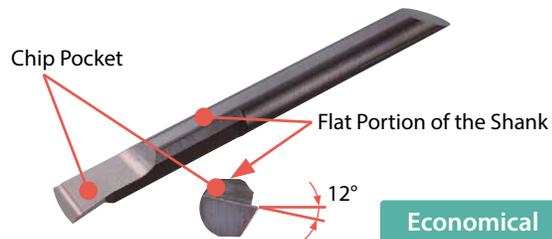


## 3 HP Bar for High Precision and ST Bar for Cost-Oriented Boring Applications (Tolerances are Different)

**HP** (EZB-HP)



**ST** (EZB-ST)



Bar Tolerances

	Bar Style	Offset (WF)	Longitudinal Direction (L)	Cutting Edge Height (Y)	Min. Bore Dia.
	HP	± 0.025 mm	± 0.05 mm	+ 0.05 mm / 0 mm	Same as Shank Dia.
	ST	± 0.06 mm	± 0.1 mm	+ 0.06 mm / 0 mm	Different from Shank Dia.

\*For [EZBR010040HP-005G-04 to EZBR015040HP-005G-06], the following tolerances apply:

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

4

# 4 Chipbreakers and New PVD Coating PR1725 for a Wide Range of Machining Processes

H Chipbreaker (without Lead Angle)

1st Recommendation / General Purpose



Recommended D.O.C. : More than 0.2mm

**PR1725** Available

GW05 Insert Grade for Aluminum

Machining Available

Left-hand Available (HP Type)

F Chipbreaker (with Lead Angle)

Finishing / Sharpness Oriented

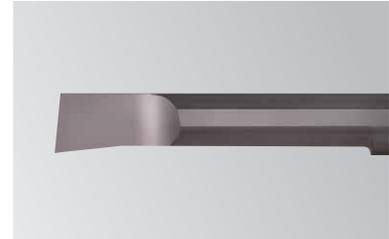


Recommended D.O.C. : Less than 0.2mm

**PR1725** Available

NB Chipbreaker (without Chipbreaker)

Non-ferrous Metal Machining



PCD/CBN Inserts Available

GW05 Insert Grade for Aluminum

Machining Available

F BORING

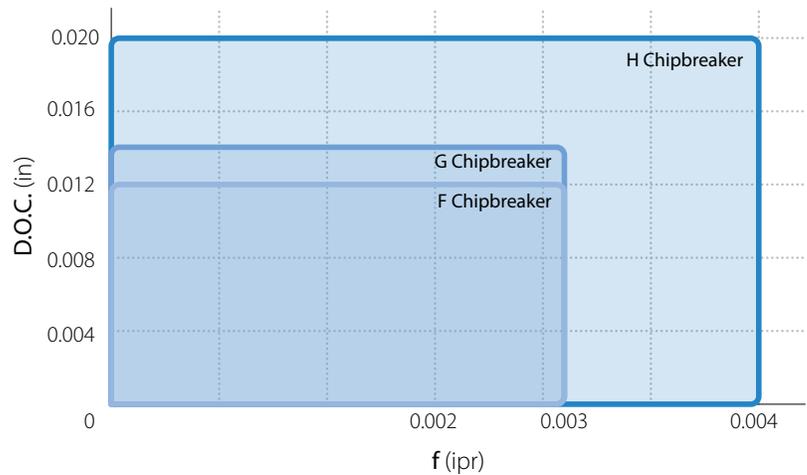
G Chipbreaker (with Lead Angle)

Chip Control Oriented



**PR1725** Available

Applicable Chipbreaker Range

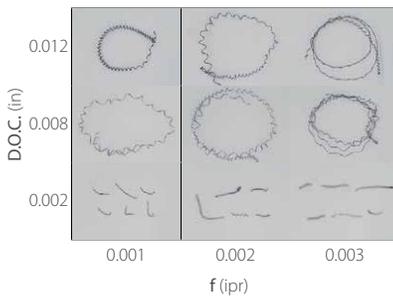


## Cutting Performance Comparison

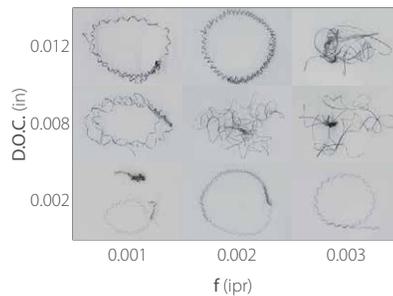
### Chip Control Comparison

Stable Chip Curls and Good Chip Breaking

G Chipbreaker



Competitor (With Lead Angle)

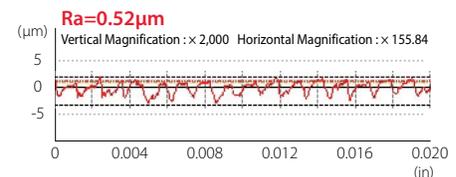


Cutting Conditions: Vc = 260 sfm, Wet Workpiece: 1045 (Internal evaluation)

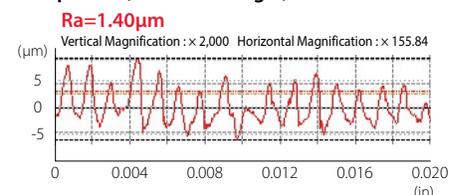
### Surface Finish Comparison

Excellent Surface Finish

G Chipbreaker



Competitor (With Lead Angle)



Using Tool : RE = 0.05 mm, Shank Diameter ø4 (Internal evaluation)

## Large Tooling Lineup that can be Customized for Your Machining Demands

### How to select sleeves

Select between three types of sleeves

#### EZH-CT

With EZ Adjust Structure  
Coolant-Through



#### EZH-HP

With EZ Adjust Structure



#### EZH-ST

Without EZ Adjust Structure

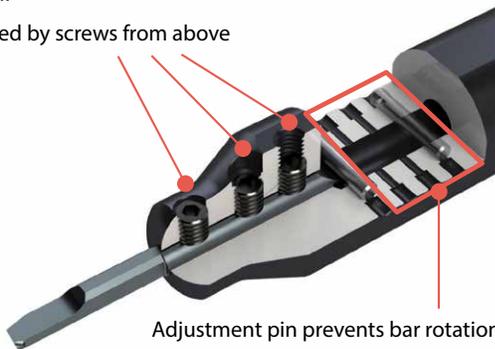


## The EZ Bar prevents deviation with high-rigidity clamping

The adjustment pin prevents the bar from rotating during machining

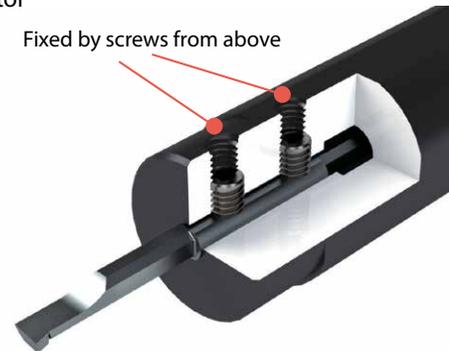
EZ Bar

Fixed by screws from above



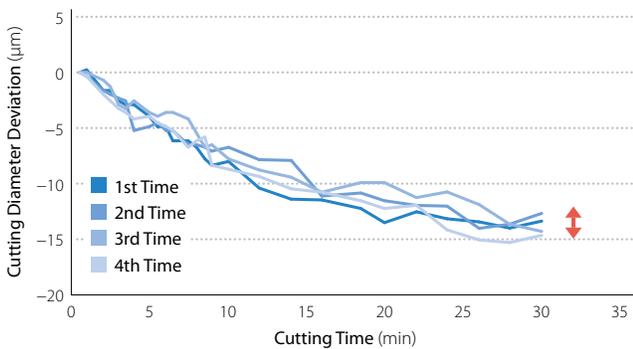
Competitor

Fixed by screws from above

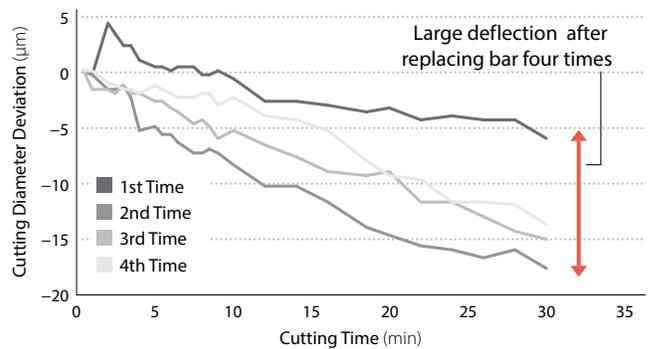


Cutting Diameter Deviation Comparison (Internal Evaluation)

EZ Bar



Competitor A



Cutting Conditions : Vc = 220 sfm, D.O.C. = 0.004", f = 0.0008 ipr, Coolant (Oil-based) Workpiece : W1-9

# EZ Bar PLUS

High Precision Solid Bar with the Convenience of Indexable Inserts  
Reduce Machining Costs

Minimum Bore Diameter 5mm

Carbide or steel bars are available depending on the machining scenario



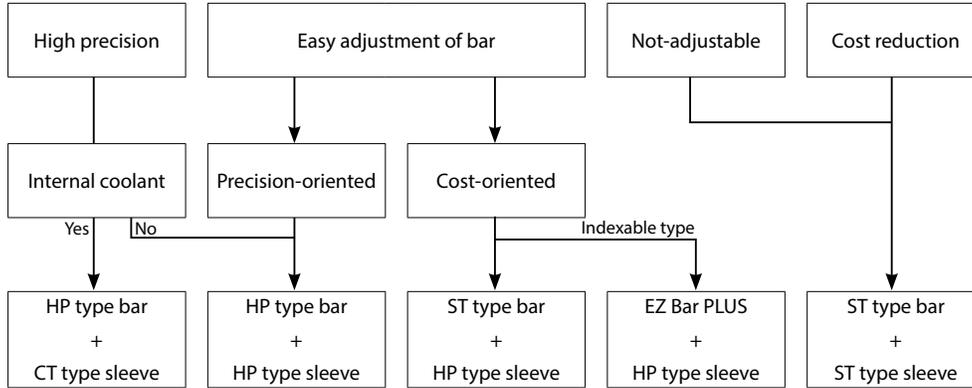
Indexable EZ Bar  
Minimum Bore Diameter 5mm

Reduces Installation Times by 1/3

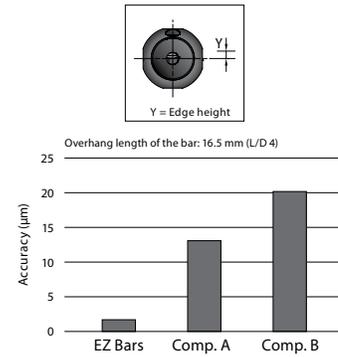
The EZ adjust structure features much lower mounting times compared to conventional boring bars

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

## How to select bars and sleeves for each application



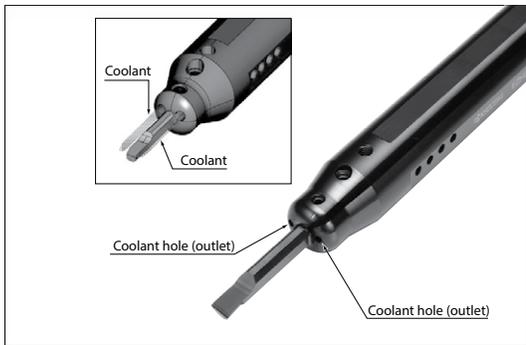
Excellent repeat accuracy by the combination of HP bar + CT / HP sleeve



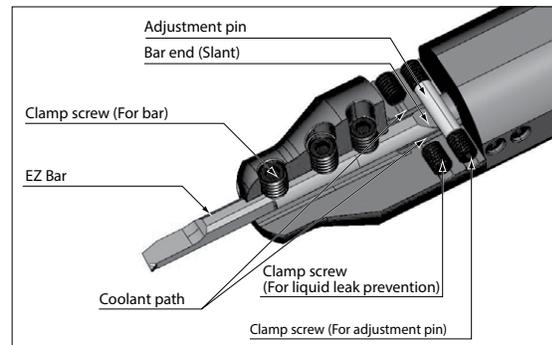
## EZH-CT type sleeve (high precision / with coolant hole)

Kyocera's unique EZ adjust structure and internal coolant system improve dimensional accuracy and surface

Coolant discharge system of EZH-CT



Structure of EZH-CT



## How to mount EZ Bars (EZH-CT sleeve)

### How to use adjustment pin and prevent liquid leak (Fig. 1)

- Put the adjustment pin into the hole according to the overhang length. Push it into the sleeve, using the wrench (LW-1.5).
- Tighten the clamp screw for the adjustment pin "HS3x3P" or "HS3x4P" using the wrench "LW-1.5" from the both sides of the sleeve.
- Put the clamp screws "HS3x3P" or "HS3x4P" into the holes for liquid leak prevention, using the wrench "LW-1.5" and fix them from the both sides of the sleeve.

### How to fix bar (Fig. 2)

- With the chip pocket upward, set the bar into the sleeve. Press the slant of the end of the bar with the adjustment pin. Make sure that the bar does not move (Fig. 3)
- Tighten the clamp screw with wrench (LW-2) and fix the bar. Use LW-1.5 if shank dia. is 3 mm or less

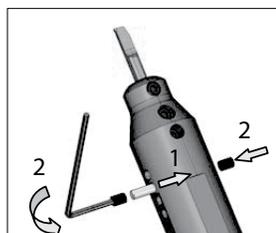


Fig. 1: How to use adjustment pin



Fig. 2: How to fix bar

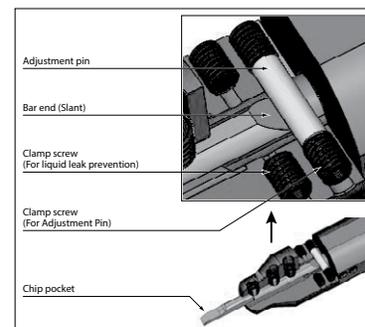
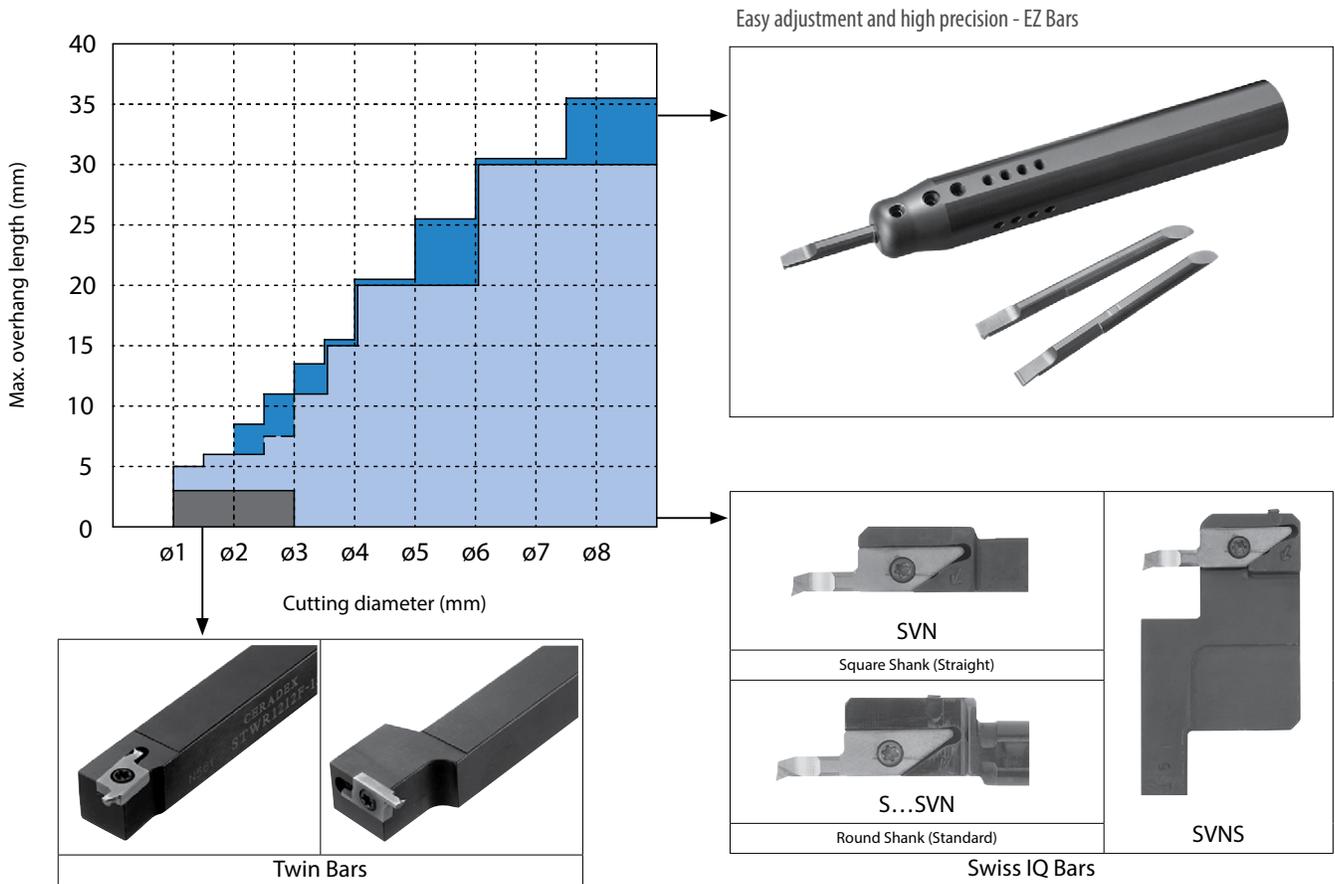


Fig. 3: Fixed bar

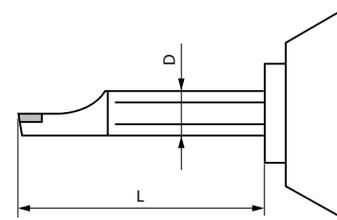
### Guide for usage (Adjustable overhang type)

Solid tip-bars type: Min. bore diameter  $\phi 1\text{mm}$ ~



### Guide line for overhang length of boring bar - Workpiece material: 1045

Overhang Length (L / D)	Shank Material
3	Steel
4	Steel (Dynamic Bar)
5	Excellent
5.5	Excellent (Dynamic Bar)
7	Carbide
10	KAV bars (with anti-vibration dampener system)



### Carbide shank boring bar

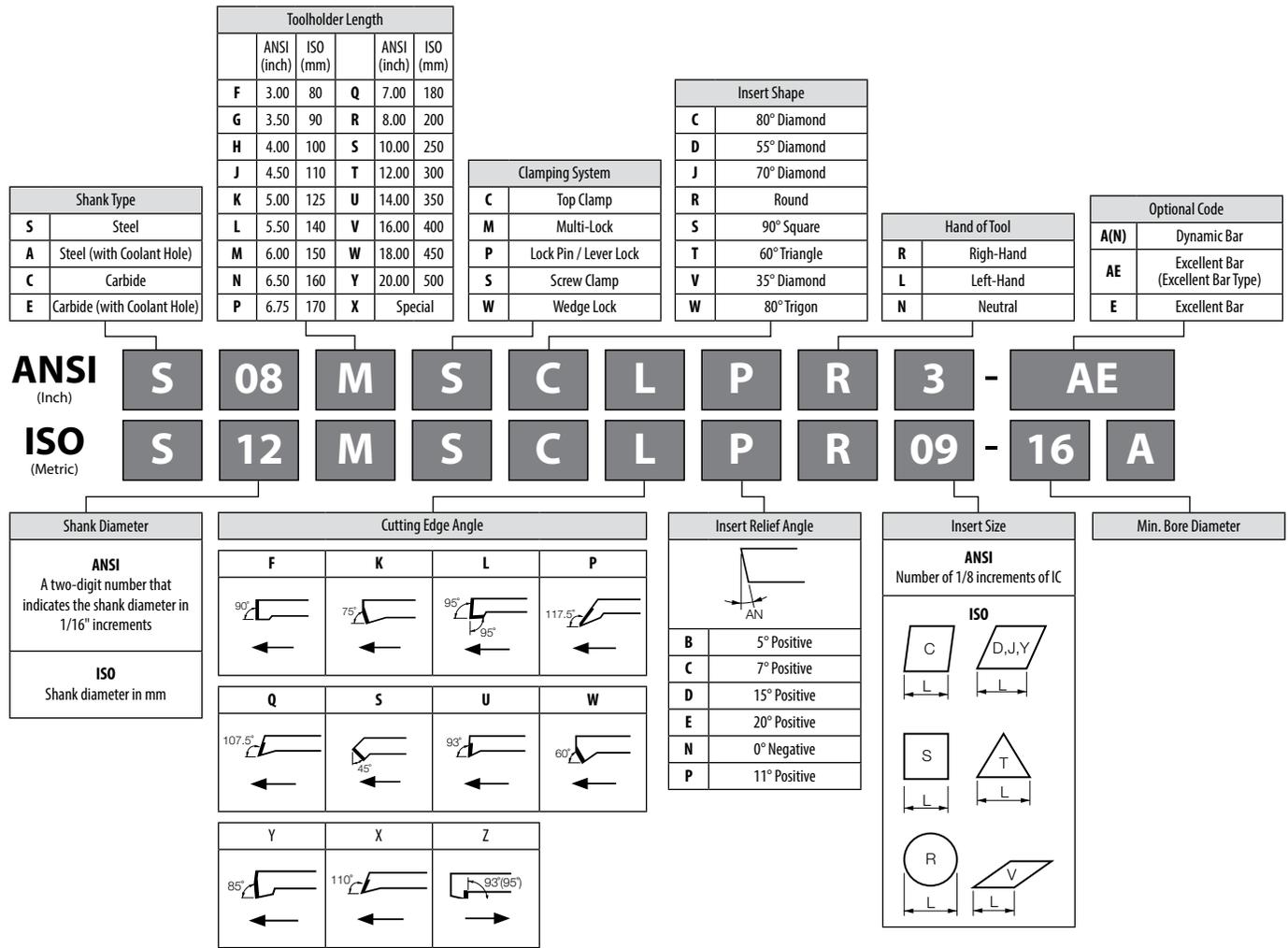
#### Short shank series

Short shank types with length of 1/2 and 2/3 of standard type are available. (-1/2 or -2/3 is shown at the end of the Part Number). When installing on machines, no additional machining (to change toolholder length) is required.



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

Boring Bar Identification System (Round Shank)



F BORING

Solid Micro Bars

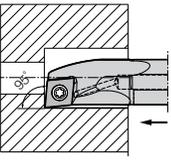
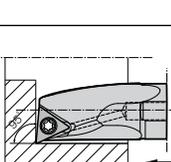
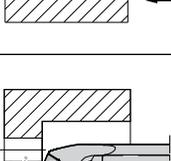
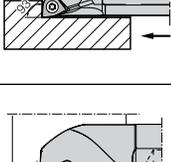
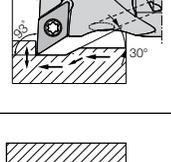
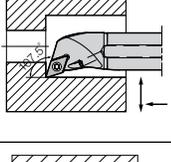
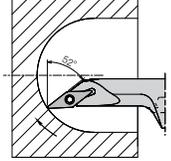
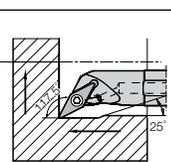
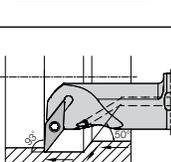
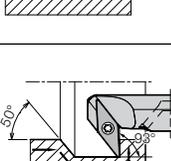
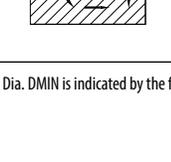
Metric

Application	Solid Micro Bars	Shape	Shank Type Max. Overhang Length L/D	Min. Bore Dia. DMIN (mm)														Toolholder / Sleeve Ref. Page	Application			
				1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5			8		
Boring	EZB-HP EZ Bar Ⓢ F18~F21		Solid L/D ≈ 5	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	F40~F45		
	EZB-HP-LT EZ Bar (Long Type) Ⓢ F19		Solid			●	●	●	●	●	●	●	●	●	●	●	●	●				
	EZB-ST EZ Bar Ⓢ F22~F23		Solid L/D ≈ 5			●	●	●	●	●	●	●	●	●	●	●	●	●	●			
	EZB-NB EZ Bar (PR1225 / GW05) Ⓢ F24		Solid L/D ≈ 5			●	●	●	●	●	●	●	●	●	●	●	●	●	●			
	EZB-NB EZ Bar Ⓢ F24	CBN PCD	Solid L/D ≈ 5					●	●	●	●	●	●	●	●	●	●	●				
	TWB Twin Bars Ⓢ F58		Solid	●	●	●	●	●												F58~F59		
	TWBT Twin Bars Ⓢ F60		Solid	●	●	●	●	●												F61		
	VNB-S Swiss IQ Bars Ⓢ F46		Solid	●	●	●	●	●	●	●										F50~F53		
	VNB Swiss IQ Bars Ⓢ F47~F48		Solid			●	●	●	●	●	●	●	●	●	●	●	●	●	●			
	VNBX-S Swiss IQ Bars Ⓢ F45		Solid	●	●	●	●	●	●	●										F55~F57		
90° Lead Angle	EZBF Ⓢ F26		Solid					●	●	●	●	●	●	●	●	●	●	●	F40~F45			
	Copying	EZBP Ⓢ F28		Solid			●	●	●	●	●	●	●	●	●	●	●	●	●	F40~F45		
EZVB Ⓢ F30			Solid						●	●	●	●	●	●	●	●	●	●	F40~F45			
Back Boring	EZBT EZ Bars Ⓢ F32		Solid							●	●	●	●	●	●	●	●	●	F41 F43 F45			
	VNBT Swiss IQ Bars Ⓢ F49		Solid							●	●	●	●	●	●	●	●	●	F50~F53			
45° Chamfering	EZBC Ⓢ F29		Solid																F41 F43 F45			

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

Dynamic Bars

Inch

Application	Shape	Boring Bar Type	Shank Type Max. Overhang Length L/D	Coolant Hole		Min. Bore Dia. DMIN (in)														Toolholder / Sleeve Ref. Page							
				Yes	No	0.240	0.312	0.392	0.413	0.450	0.480	0.512	0.551	0.580 (0.600)	0.630	0.700	0.770	0.787	0.790		0.825	0.930	0.980	1.180	1.200	1.240	1.300
Boring / Internal Facing		A...SCLC-AE	Excellent L/D = ~5.5	●							●								●								F62
		E...SCLC-A	Carbide L/D = ~7.0	●								●															F64
		A...SCLP-AE	Excellent L/D = ~5.5	●					●	●			●							●							F70
		A...STLB(P)-AE	Excellent L/D = ~5.5	●				●		●			●											●			F90
		S...STLB-AE	Excellent L/D = ~5.5		○		●																				
Boring		A...SWUB(P)-AE	Excellent L/D = ~5.5	●							●									●						F116	
		S...SWUB-AE	Excellent L/D = ~5.5		○	●	●																				
Copying		A...SDUC-AE	Excellent L/D = ~5.5	●							●		●										●			F74	
		E...SDUC-A	Carbide L/D = ~7.0	●								●		●												F76	
		A...SDQC-AE	Excellent L/D = ~5.5	●								●		●									●			F78	
		E...SDQC-A	Carbide L/D = ~7.0	●									●		●												F80
		A...SVJB-AE	Excellent L/D = ~5.5	●																			●	●			F102
		A...SVPC(B)-AE	Excellent L/D = ~5.5	●																	●		●	●			F106
Back Boring		A...SVUC(B)-AE	Excellent L/D = ~5.5	●																●		●				F108	
		A...SVZC(B)-AE	Excellent L/D = ~5.5	●																	●		●				F110

Min. Bore Dia. DMIN is indicated by the figure under ● depending on the boring bar size.



Dynamic Bars

Metric

Application	Shape	Boring Bar Type	Shank Type	Max. Overhang Length L/D	Coolant Hole		Min. Bore Dia. DMIN (mm)																								Toolholder / Sleeve Ref. Page		
					Yes	No	5	6	7	8	10	12	13	14	16	18	20	22	23	25	26	27	30	31	32	34	40	50					
Copying		A...SDUC-AE	Excellent	~5.5	●									●	●	●	●	●	●									F74 F75 F76					
		S...SDUC-A	Steel	~4.0	○									●	●	●	●	●	●														
		E...SDUC-A	Carbide	~7.0	●									●	●	●	●	●	●	●													
		A...SZLB-AE	Excellent	~5.5	●																	●			●	●			F127				
		A...SDQC-AE	Excellent	~5.5	●										●	●	●	●	●	●										F78 F79 F80			
		S...SDQC-A	Steel	~4.0	○										●	●	●	●	●	●													
		E...SDQC-A	Carbide	~7.0	●										●	●	●	●	●	●													
		A...SVJB(C)-AE	Excellent	~5.5	●											●	●	●	●	●						●	●		F102 F103				
		A...SVJP-AE			●												●																
	S...SVJB(C)-A	Steel	~4.0	○												●	●	●	●	●						●	●						
	S...SVJP-A			○													●																
		A...SZJB-AE	Excellent	~5.5	●																	●	●			●			F124				
		A...SZXB-AE	Excellent	~5.5	●																									F125			
		A...SQQB-AE	Excellent	~5.5	●																										F126		
		A...SVPC(B)-AE	Excellent	~5.5	●											●	●	●	●	●	●					●	●					F106 F107	
		S...SVPC(B)-A	Steel	~4.0	○											●	●	●	●	●	●					●	●						
		E...SVPC(B)-A	Carbide	~7.0	●											●	●	●	●	●	●					●	●						
			A...SVUB(C)-AE	Excellent	~5.5	●											●	●	●	●	●						●	●					F108 F109
			S...SVUB(C)-A	Steel	~4.0	○											●	●	●	●	●						●	●					
			E...SVUB(C)-A	Carbide	~7.0	●											●	●	●	●	●	●					●	●					
		A...SDZC-AE	Excellent	~5.5	●											●	●	●	●	●					●	●			F82 F83 F84				
S...SDZC-A		Steel	~4.0	○											●	●	●	●	●					●	●								
E...SDZC-A		Carbide	~7.0	●											●	●	●	●	●					●	●								
		A...SVZB(C)-AE	Excellent	~5.5	●											●	●	●	●	●						●	●		F110 F111				
		S...SVZB(C)-A	Steel	~4.0	○											●	●	●	●	●						●	●						
		A...SZZB-AE	Excellent	~5.5	●																					●	●		F128				

Min. Bore Dia. DMIN is indicated by the figure under ● depending on the boring bar size.

F BORING



General Purpose Boring Bars

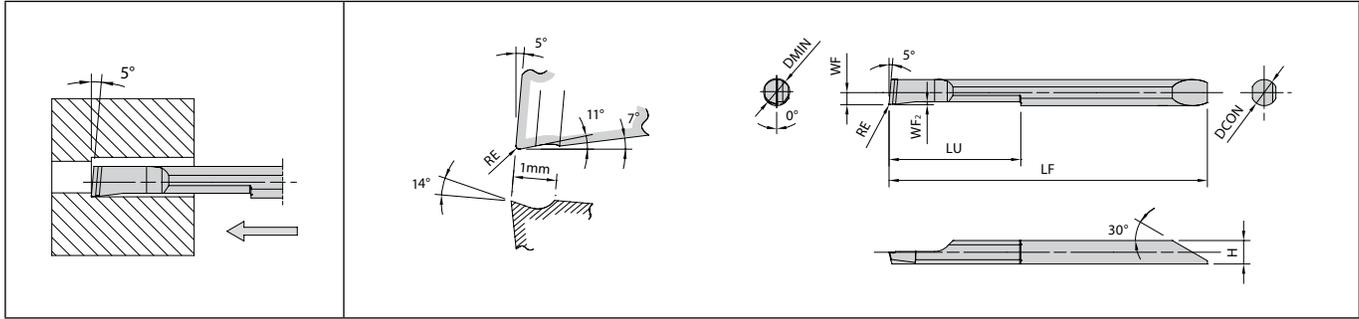
Metric

Application	Boring Bar Type	Overview Shape	Shank Type Max. Overhang Length L/D	Coolant Hole		Insert Type	Min. Bore Dia. DMIN (mm)											Toolholder / Sleeve Ref. Page				
				Yes	No		5	6	7	8	10	12	14	16	18	20	25		30	32	40	50
Boring / Internal Facing	A...DCLN12		Steel L/D ≈ 3.0	●		Negative												●	●	●	F147	
	S...PCLN00		Steel L/D ≈ 3.0		○	Negative												●	●	●	F148	
	A...PCLN09		Steel L/D ≈ 3.0	●		Negative												●	●	●		
	A...DWLN08		Steel L/D ≈ 3.0	●		Negative													●	●	●	F164
	S...PWLN00		Steel L/D ≈ 3.0		○	Negative												●	●	●	F162	
	A...PWLN06		Steel L/D ≈ 3.0	●		Negative												●	●	●		
	S...WWLN08-E		Excellent L/D ≈ 5.0		○	Negative												●	●	●	F165	
	C...STXP(B)		Carbide L/D ≈ 7.0		○	Positive			●	●	●											F98
	C...SJLC		Carbide L/D ≈ 7.0		○	Positive	●															F88
Copying	S...STWP-E		Excellent L/D ≈ 5.0		○	Positive					●	●					●	●	●	F96 F97		
	S...STWP		Steel L/D ≈ 3.0		○	Positive					●	●					●	●	●			
	A...DDUN15		Steel L/D ≈ 3.0	●		Negative													●	●	●	F152
	S...PDUN11		Steel L/D ≈ 3.0		○	Negative												●	●	●	F50	
	A...PDUN11		Steel L/D ≈ 3.0	●		Negative												●	●	●		
	S...PDUN15		Steel L/D ≈ 3.0		○	Negative													●	●	●	F154
Back Boring	S...PDQN15		Steel L/D ≈ 3.0		○	Negative												●	●	●	F155	
	C...STZB		Carbide L/D ≈ 7.0		○	Positive			●												F99	
	C...SJZC		Carbide L/D ≈ 7.0		○	Positive	●														F89	
Boring	S...PDZN15		Steel L/D ≈ 3.0		○	Negative												●	●	●	F156	
	S...CTUP		Steel L/D ≈ 3.0		○	Positive							●				●	●	●	F131		
	A...DTFN00		Steel L/D ≈ 3.0	●		Negative													●	●	●	F159
	S...PTUN00		Steel L/D ≈ 3.0		○	Negative												●	●	●	F160	
	A...PTUN11		Steel L/D ≈ 3.0	●		Negative												●	●	●		
	A...DSKN12		Steel L/D ≈ 3.0	●		Negative													●	●	●	F158
	S...SSKP		Steel L/D ≈ 3.0		○	Positive													●	●	●	F129 F130
S...CSKP		Steel L/D ≈ 3.0		○	Positive													●	●	●		

Min. Bore Dia. DMIN is indicated by the figure under ● depending on the boring bar size.



EZB-HP (H Chipbreaker) (Boring)



Right-hand shown | Without lead angle | Tough edge (General purpose)

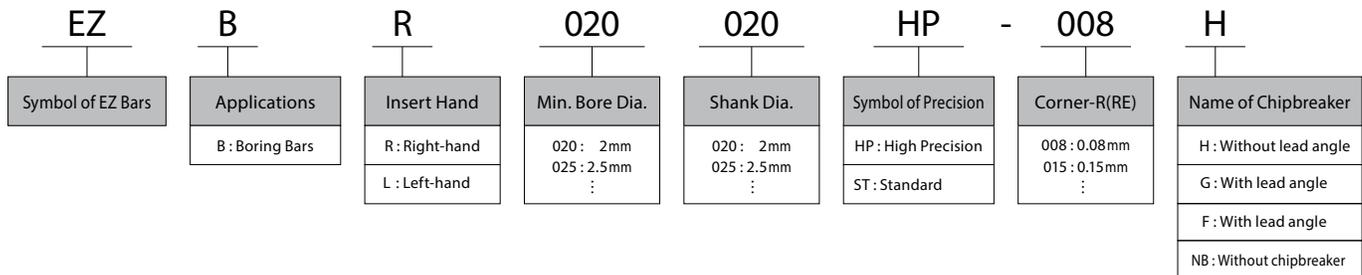
Dimensions

Unit	Part Number	No. of Edges	Dimensions								Tolerance (mm)			Carbide				Applicable Sleeve F40~F45
			DMIN	DCON	H	LF	LU	WF	WF <sub>2</sub>	RE	RE min.	RE max.	PVD		-			
													PR1225	PR1725	GW05			
																R	L	
mm	EZB% 020020HP-008H	1	2	2	1.8	32	8	0.85	0.25	0.08	-0.015	+0.015	●	●	●	●	EZH020...	
	EZB% 025025HP-008H	1	2.5	2.5	2.3	35	10.5	1.1	0.25	0.08	-0.015	+0.015	●	●	●	●	EZH025...	
	EZB% 025025HP-015H									0.15	-0.02	+0.02	●	●	●	●		
	EZB% 030030HP-008H	1	3	3	2.7	38.9	13	1.35	0.3	0.08	-0.015	+0.015	●	●	●	●	EZH030...	
	EZB% 030030HP-015H									0.15	-0.02	+0.02	●	●	●	●		
	EZB% 035035HP-008H	1	3.5	3.5	3.2	41.9	15	1.6	0.4	0.08	-0.015	+0.015	●	●	●	●	EZH035...	
	EZB% 035035HP-015H									0.15	-0.02	+0.02	●	●	●	●		
	EZB% 040040HP-008H	1	4	4	3.6	48.8	20	1.85	0.4	0.08	-0.015	+0.015	●	●	●	●	EZH040...	
	EZB% 040040HP-015H									0.15	-0.02	+0.02	●	●	●	●		
	EZB% 045045HP-008H	1	4.5	4.5	4.1	51.1	22.5	2.1	0.5	0.08	-0.015	+0.015	●	●	●	●	EZH045...	
	EZB% 045045HP-015H									0.15	-0.02	+0.02	●	●	●	●		
	EZB% 050050HP-008H	1	5	5	4.6	58.1	25	2.35	0.5	0.08	-0.015	+0.015	●	●	●	●	EZH050...	
	EZB% 050050HP-015H									0.15	-0.02	+0.02	●	●	●	●		
	EZB% 060060HP-008H	1	6	6	5.6	66.1	30	2.85	0.6	0.08	-0.015	+0.015	●	●	●	●	EZH060...	
	EZB% 060060HP-015H									0.15	-0.02	+0.02	●	●	●	●		
	EZB% 070070HP-008H	1	7	7	6.3	73.8	35	3.3	0.7	0.08	-0.015	+0.015	●	●	●	●	EZH070...	
EZB% 070070HP-015H	0.15									-0.02	+0.02	●	●	●	●			
EZB% 080080HP-008H	1	8	8	7.2	84.8	40	3.75	0.8	0.08	-0.015	+0.015	●	●	●	●	EZH080...		
EZB% 080080HP-015H									0.15	-0.02	+0.02	●	●	●	●			

Tolerance : Offset ±0.025 mm (of the reference pin), overall length ±0.05 mm, edge height +0.05/0 mm

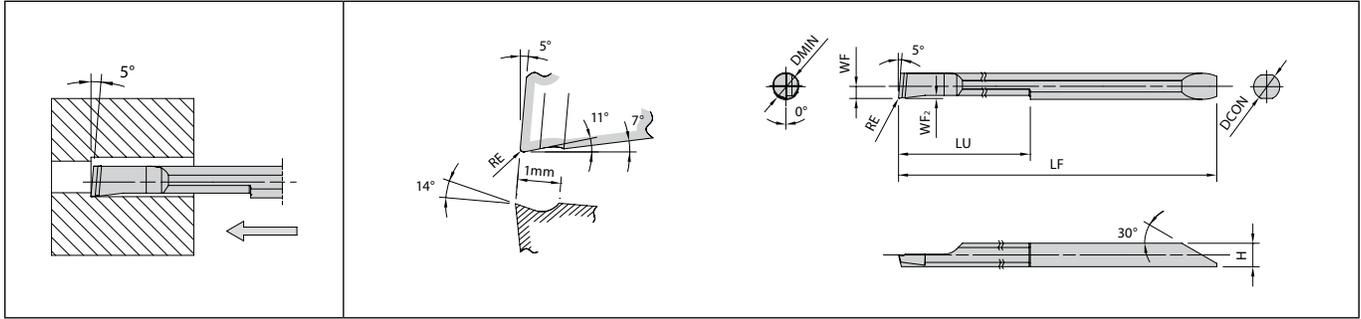
Recommended Cutting Conditions F25

EZ Bars Identification System



EZ Bars are sold in 1 piece boxes

**EZB-HP-LT (H Chipbreaker)** (Boring)



Right-hand shown | Without lead angle | Tough edge (General purpose)

Dimensions

Unit	Part Number	No. of Edges	Dimensions							Overhang length (mm)				Tolerance (mm)		Carbide	Applicable Sleeve F40~F45
			DMIN	DCON	H	LF	LU	WF	WF <sub>2</sub>	RE	#1	#2	#3	#4	RE min.	RE max.	
mm	EZBR 020020HP-008H-LT	1	2	2	1.8	36	12	0.85	0.25	12.5	8.5	-	-	-0.015	+0.015	●	EZH020...
	EZBR 025025HP-008H-LT	1	2.5	2.5	2.3	39.5	15	1.1		15.5	11.5	-	-			●	EZH025...
	EZBR 030030HP-008H-LT	1	3	3	2.7	47.9	18	1.35	0.3	22.5	18.5	14.5	-			●	EZH030...
	EZBR 035035HP-008H-LT	1	3.5	3.5	3.2	51.9	21	1.6	0.4	25.5	21.5	17.5	-			●	EZH035...
	EZBR 040040HP-008H-LT	1	4	4	3.6	60.8	28	1.85		32.5	28.5	24.5	20.5			●	EZH040...
	EZBR 050050HP-008H-LT	1	5	5	4.6	73.1	35	2.35	0.5	40.5	35.5	30.5	25.5			●	EZH050...
	EZBR 060060HP-008H-LT	1	6	6	5.6	83.1	42	2.85	0.6	47.5	42.5	37.5	32.5			●	EZH060...

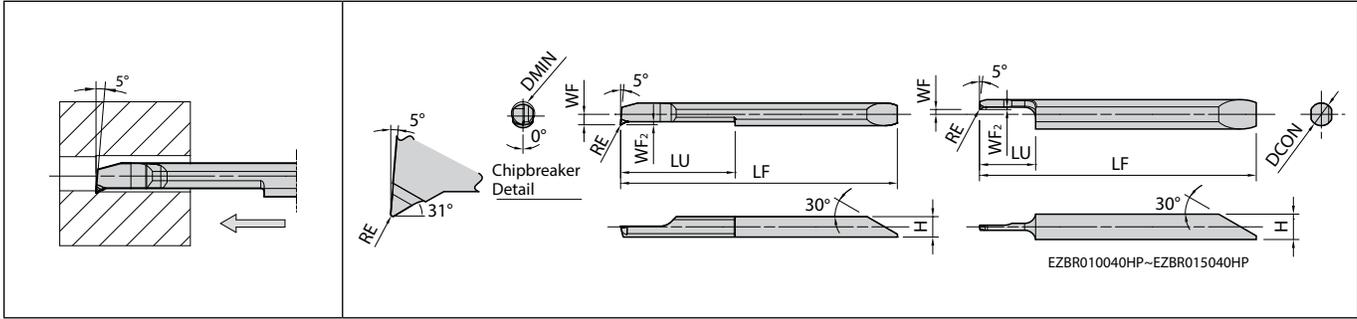
Tolerance : Offset ±0.025 mm (of the reference pin), overall length ±0.05 mm, edge height +0.05/0 mm  
 EZBR..H-LT : Inserts need to be modified for overhang length #1 in italics (DCON = 3 - 6 mm).

Recommended Cutting Conditions F25

EZ Bars are sold in 1 piece boxes

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

**EZB-HP (G Chipbreaker)** (Boring)



Right-hand shown | With lead angle | Chip control oriented

Dimensions

Unit	Part Number	No. of Edges	Dimensions									Tolerance (mm)			Carbide	Applicable Sleeve F40~F45
			DMIN	DCON	H	LF	LU	WF	WF <sub>2</sub>	RE	RE min.	RE max.	PR1725	PVD		
														●		
														R		
mm	EZBR 010040HP-005G-04 010040HP-005G-06	1	1	4	3.45	35.7 37.7	4 6	1.1 0.65	0.25	0.05 0.05	-0.01 -0.01	+0.01 +0.01	●	EZH040...		
	EZBR 015040HP-005G-04 015040HP-005G-06	1	1.5	4	3.45	37.7 40.7	6 9	0.65 0.55	0.25	0.05 0.05	-0.01 -0.01	+0.01 +0.01	●	EZH040...		
	EZBR 020020HP-005G	1	2	2	1.65	31.8	8	0.55	0.25	0.05	-0.01	+0.01	●	EZH020...		
	EZBR 025025HP-005G 025025HP-015G	1	2.5	2.5	2.15	34.8	10.5	0.8	0.3	0.05 0.15	-0.01 -0.02	+0.01 +0.02	●	EZH025...		
	EZBR 030030HP-005G 030030HP-015G	1	3	3	2.5	38.7	13	1.05	0.4	0.05 0.15	-0.01 -0.02	+0.01 +0.02	●	EZH030...		
	EZBR 035035HP-005G 035035HP-015G	1	3.5	3.5	3	41.7	15	1.3	0.5	0.05 0.15	-0.01 -0.02	+0.01 +0.02	●	EZH035...		
	EZBR 040040HP-005G 040040HP-015G	1	4	4	3.45	48.7	20	1.55	0.5	0.05 0.15	-0.01 -0.02	+0.01 +0.02	●	EZH040...		
	EZBR 045045HP-005G 045045HP-015G	1	4.5	4.5	3.95	50.9	22.5	1.8	0.7	0.05 0.15	-0.01 -0.02	+0.01 +0.02	●	EZH045...		
	EZBR 050050HP-005G 050050HP-015G	1	5	5	4.3	57.8	25	2.05	0.7	0.05 0.15	-0.01 -0.02	+0.01 +0.02	●	EZH050...		
	EZBR 060060HP-005G 060060HP-015G	1	6	6	5.15	65.7	30	2.55	0.9	0.05 0.15	-0.01 -0.02	+0.01 +0.02	●	EZH060...		
	EZBR 070070HP-005G 070070HP-015G	1	7	7	6.15	73.7	35	3.05	1	0.05 0.15	-0.01 -0.02	+0.01 +0.02	●	EZH070...		
	EZBR 080080HP-005G 080080HP-015G	1	8	8	7.1	84.8	40	3.55	1	0.05 0.15	-0.01 -0.02	+0.01 +0.02	●	EZH080...		

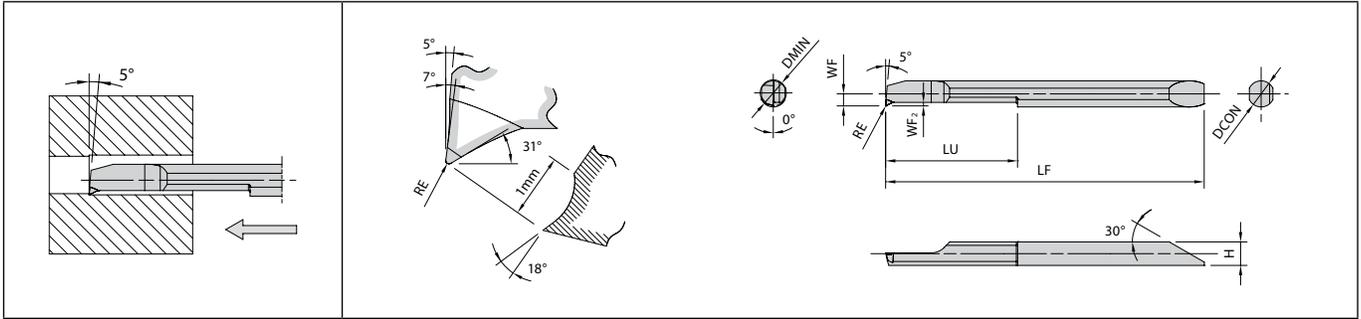
Tolerance (of the reference pin) : [010040HP-005G-04~015040HP-005G-06]  
[020020HP-005G~080080HP-015F]

Offset ±0.020mm, Overall Length ±0.04mm, Edge Height +0.03/0mm  
Offset ±0.025mm, Overall Length ±0.05mm, Edge Height +0.05/0mm

Recommended Cutting Conditions ● F25

EZ Bars are sold in 1 piece boxes

EZB-HP (F Chipbreaker) (Boring)



Right-hand shown | With lead angle | Sharp cutting (For finishing)

Dimensions

Unit	Part Number	No. of Edges	Dimensions									Tolerance (mm)			Carbide		Applicable Sleeve F40~F45
			DMIN	DCON	H	LF	LU	WF	WF <sub>2</sub>	RE	RE min.	RE max.	PVD				
													PR1225	PR1725			
													R	R			
mm	EZBR 020020HP-005F	1	2	2	1.8	32	8	0.85	0.25	0.05	-0.01	+0.01	●	●	EZH020...		
	EZBR 025025HP-005F	1	2.5	2.5	2.3	35	10.5	1.1	0.3	0.05	-0.01	+0.01	●	●	EZH025...		
	025025HP-015F									0.15	-0.02	+0.02	●	●			
	EZBR 030030HP-005F	1	3	3	2.7	38.9	13	1.35	0.4	0.05	-0.01	+0.01	●	●	EZH030...		
	030030HP-015F									0.15	-0.02	+0.02	●	●			
	EZBR 035035HP-005F	1	3.5	3.5	3.2	41.9	15	1.6	0.5	0.05	-0.01	+0.01	●	●	EZH035...		
	035035HP-015F									0.15	-0.02	+0.02	●	●			
	EZBR 040040HP-005F	1	4	4	3.6	48.8	20	1.85	0.5	0.05	-0.01	+0.01	●	●	EZH040...		
	040040HP-015F									0.15	-0.02	+0.02	●	●			
	EZBR 045045HP-005F	1	4.5	4.5	4.1	51.1	22.5	2.1	0.7	0.05	-0.01	+0.01	●	●	EZH045...		
045045HP-015F	0.15									-0.02	+0.02	●	●				
EZBR 050050HP-005F	1	5	5	4.6	58.1	25	2.35	0.7	0.05	-0.01	+0.01	●	●	EZH050...			
050050HP-015F									0.15	-0.02	+0.02	●	●				
EZBR 060060HP-005F	1	6	6	5.6	66.1	30	2.85	0.9	0.05	-0.01	+0.01	●	●	EZH060...			
060060HP-015F									0.15	-0.02	+0.02	●	●				
EZBR 070070HP-005F	1	7	7	6.3	73.8	35	3.3	1	0.05	-0.01	+0.01	●	●	EZH070...			
070070HP-015F									0.15	-0.02	+0.02	●	●				
EZBR 080080HP-005F	1	8	8	7.2	84.8	40	3.75	1	0.05	-0.01	+0.01	●	●	EZH080...			
080080HP-015F									0.15	-0.02	+0.02	●	●				

Tolerance : Offset ±0.025 mm (of the reference pin), overall length ±0.05 mm, edge height +0.05/0 mm

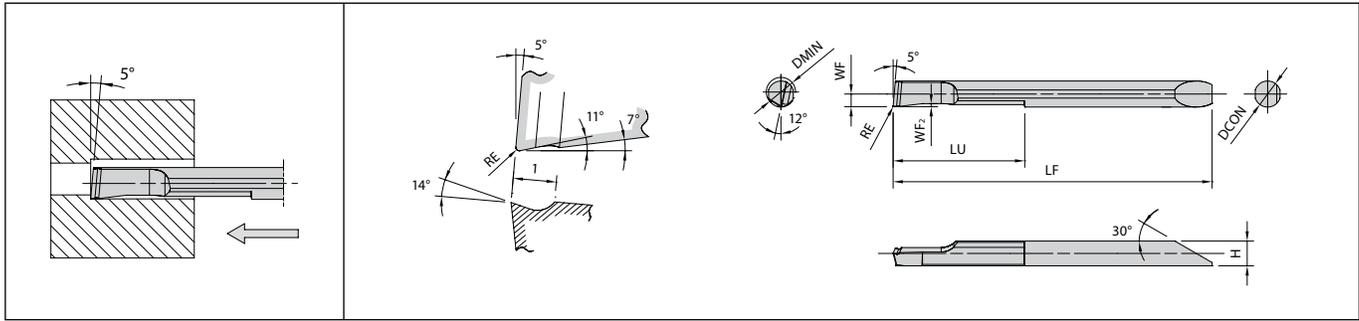
Recommended Cutting Conditions F25

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

EZ Bars are sold in 1 piece boxes

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

EZB-ST (H Chipbreaker) (Boring)



Right-hand shown | Without lead angle | Tough edge (General purpose)

Dimensions

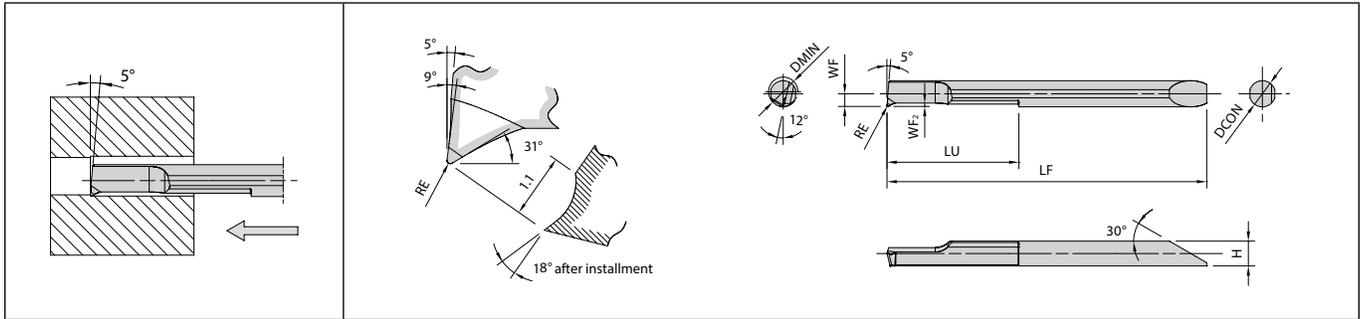
Unit	Part Number	No. of Edges	Dimensions								Tolerance (mm)			Carbide		Applicable Sleeve F40~F45
			DMIN	DCON	H	LF	LU	WF	WF <sub>2</sub>	RE	RE min.	RE max.	PVD			
													PR1225	PR1725		
													R	R		
mm	EZBR 020017ST-008H	1	2	1.7	1.5	27.3	7	0.79	0.19	0.08	-0.015	+0.015	●	●	EZH017...	
	EZBR 025020ST-008H	1	2.5	2	1.82	32	8	0.94	0.16	0.08	-0.015	+0.015	●	●	EZH020...	
	EZBR 025020ST-015H									0.15	-0.02	+0.02	●	●		
	EZBR 030025ST-008H	1	3	2.5	2.3	35	10.5	1.19	0.15	0.08	-0.015	+0.015	●	●	EZH025...	
	EZBR 030025ST-015H									0.15	-0.02	+0.02	●	●		
	EZBR 035030ST-008H	1	3.5	3	2.8	39	13	1.44	0.18	0.08	-0.015	+0.015	●	●	EZH030...	
	EZBR 035030ST-015H									0.15	-0.02	+0.02	●	●		
	EZBR 040035ST-008H	1	4	3.5	3.3	42	15	1.69	0.24	0.08	-0.015	+0.015	●	●	EZH035...	
	EZBR 040035ST-015H									0.15	-0.02	+0.02	●	●		
	EZBR 045040ST-008H	1	4.5	4	3.8	49	20	1.94	0.27	0.08	-0.015	+0.015	●	●	EZH040...	
EZBR 045040ST-015H	0.15									-0.02	+0.02	●	●			
EZBR 055050ST-008H	1	5.5	5	4.8	58.2	25	2.44	0.33	0.08	-0.015	+0.015	●	●	EZH050...		
EZBR 055050ST-015H									0.15	-0.02	+0.02	●	●			
EZBR 065060ST-008H	1	6.5	6	5.8	66.2	30	2.94	0.38	0.08	-0.015	+0.015	●	●	EZH060...		
EZBR 065060ST-015H									0.15	-0.02	+0.02	●	●			
EZBR 075070ST-008H	1	7.5	7	6.8	74.2	35	3.44	0.44	0.08	-0.015	+0.015	●	●	EZH070...		
EZBR 075070ST-015H									0.15	-0.02	+0.02	●	●			

Tolerance : Offset ±0.06 mm , overall length ±0.1 mm, edge height +0.06/0 mm

Recommended Cutting Conditions F25

EZ Bars are sold in 1 piece boxes

**EZB-ST (F Chipbreaker)** (Boring)



Right-hand shown | With lead angle | Sharp cutting (For finishing)

**Dimensions**

Unit	Part Number	No. of Edges	Dimensions								Tolerance (mm)			Carbide		Applicable Sleeve F40~F45
			DMIN	DCON	H	LF	LU	WF	WF <sub>2</sub>	RE	RE min.	RE max.	PVD			
													PR1225	PR1725		
													R	R		
mm	EZBR 020017ST-005F	1	2	1.7	1.5	27.3	7	0.79	0.2	0.05	-0.01	+0.01	●	●	EZH017...	
	EZBR 025020ST-005F	1	2.5	2	1.82	32	8	0.94	0.16	0.05	-0.01	+0.01	●	●	EZH020...	
	025020ST-015F									0.15	-0.02	+0.02	●	●		
	EZBR 030025ST-005F	1	3	2.5	2.3	35	10.5	1.19	0.2	0.05	-0.01	+0.01	●	●	EZH025...	
	030025ST-015F									0.15	-0.02	+0.02	●	●		
	EZBR 035030ST-005F	1	3.5	3	2.8	39	13	1.44	0.26	0.05	-0.01	+0.01	●	●	EZH030...	
	035030ST-015F									0.15	-0.02	+0.02	●	●		
	EZBR 040035ST-005F	1	4	3.5	3.3	42	15	1.69	0.33	0.05	-0.01	+0.01	●	●	EZH035...	
	040035ST-015F									0.15	-0.02	+0.02	●	●		
EZBR 045040ST-005F	1	4.5	4	3.8	49	20	1.94	0.31	0.05	-0.01	+0.01	●	●	EZH040...		
045040ST-015F									0.15	-0.02	+0.02	●	●			
EZBR 055050ST-005F	1	5.5	5	4.8	58.2	25	2.44	0.45	0.05	-0.01	+0.01	●	●	EZH050...		
055050ST-015F									0.15	-0.02	+0.02	●	●			
EZBR 065060ST-005F	1	6.5	6	5.8	66.2	30	2.94	0.59	0.05	-0.01	+0.01	●	●	EZH060...		
065060ST-015F									0.15	-0.02	+0.02	●	●			
EZBR 075070ST-005F	1	7.5	7	6.8	74.2	35	3.44	0.65	0.05	-0.01	+0.01	●	●	EZH070...		
075070ST-015F									0.15	-0.02	+0.02	●	●			

Tolerance : Offset ±0.06 mm , overall length ±0.1 mm, edge height +0.06/0 mm

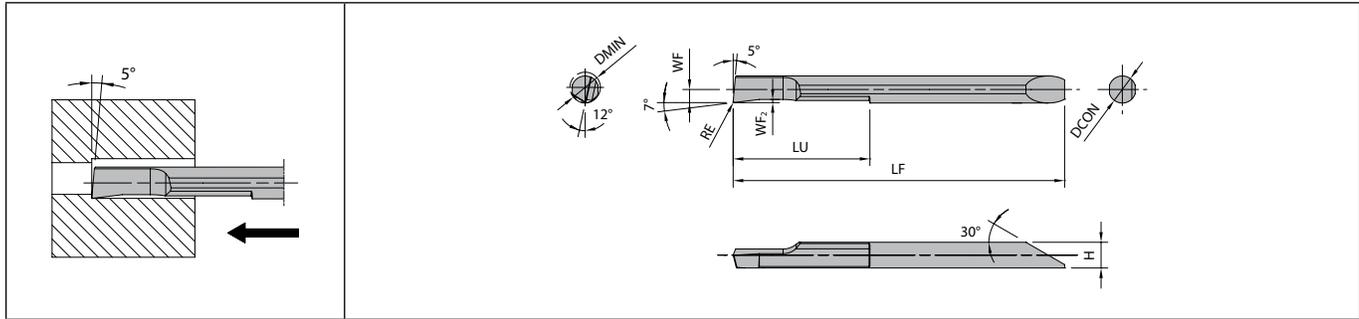
Recommended Cutting Conditions F25

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

EZ Bars are sold in 1 piece boxes

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

**EZB-NB** (Boring)



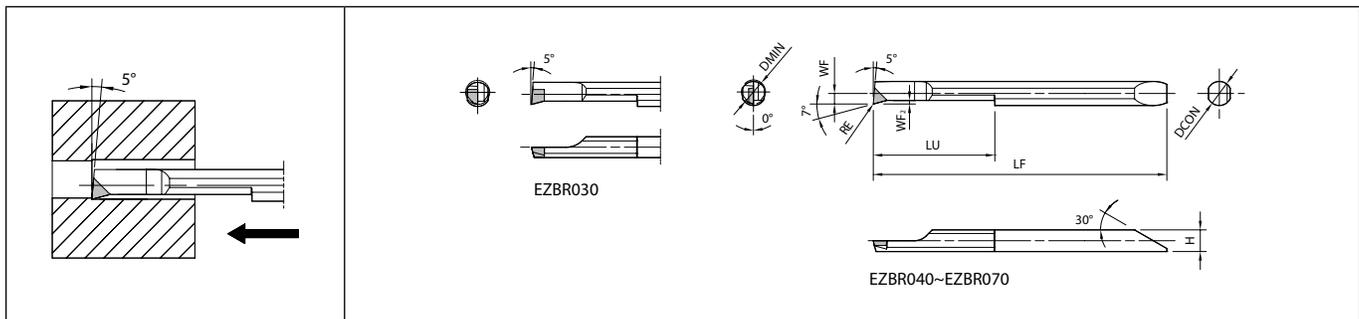
Right-hand shown

Dimensions

Unit	Part Number	No. of Edges	Dimensions								Tolerance (mm)		Carbide		Applicable Sleeve ● F40~F45
			DMIN	DCON	H	LF	LU	WF	WF <sub>2</sub>	RE	RE min.	RE max.	PVD	-	
													PR1225	GW05	
													R	R	
mm	EZBR 020017-005NB	1	2	1.7	1.5	27.3	7	0.79	0.2	0.05	-0.015	+0.015	●	●	EZH017...
	EZBR 025020-005NB	1	2.5	2	1.82	32	8	0.94	0.16	0.05	-0.015	+0.015	●	●	EZH020...
	EZBR 030025-005NB	1	3	2.5	2.3	35	10.5	1.19	0.16	0.05	-0.015	+0.015	●	●	EZH025...
	EZBR 035030-005NB	1	3.5	3	2.8	39	13	1.44	0.19	0.05	-0.015	+0.015	●	●	EZH030...
	EZBR 040035-005NB	1	4	3.5	3.3	42	15	1.69	0.25	0.05	-0.015	+0.015	●	●	EZH035...
	EZBR 045040-005NB	1	4.5	4	3.8	49	20	1.94	0.28	0.05	-0.015	+0.015	●	●	EZH040...
	EZBR 055050-005NB	1	5.5	5	4.8	58.2	25	2.44	0.33	0.05	-0.015	+0.015	●	●	EZH050...
	EZBR 065060-005NB	1	6.5	6	5.8	66.2	30	2.94	0.39	0.05	-0.015	+0.015	●	●	EZH060...
EZBR 075070-005NB	1	7.5	7	6.8	74.2	35	3.44	0.45	0.05	-0.015	+0.015	●	●	EZH070...	

Recommended Cutting Conditions ● F25

**EZB-NB** (Boring)



Right-hand shown

Dimensions

Unit	Part Number	No. of Edges	Dimensions								Tolerance (mm)		CBN	PCD	Applicable Sleeve ● F40~F45
			DMIN	DCON	H	LF	LU	WF	WF <sub>2</sub>	RE	RE min.	RE max.	PVD	-	
													KBN05M	KPD001	
													R	R	
mm	EZBR 030030-003NB	1	3	3	2.6	38.8	13	1.25	0.3	0.035	-0.015	+0.015	●		EZH030...
	EZBR 040040-003NB	1	4	4	3.6	48.8	20	1.75	0.5	0.035	-0.015	+0.015	●	●	EZH040...
	EZBR 050050-003NB	1	5	5	4.6	58.1	25	2.25	0.5	0.035	-0.015	+0.015	●	●	EZH050...
	EZBR 060060-003NB	1	6	6	5.6	66.1	30	2.75	0.5	0.035	-0.015	+0.015	●	●	EZH060...
	EZBR 070070-003NB	1	7	7	6.6	74.1	35	3.25	0.5	0.035	-0.015	+0.015	●	●	EZH070...

KBN05M edge preparation : T00815 ( 0.08mm x 15° Chamfered cutting edge)

KPD001 edge preparation : F (Sharp edge)

Recommended Cutting Conditions ● F25

EZ Bars are sold in 1 piece boxes

Recommended Cutting Conditions

H Chipbreaker (EZB-HP...H Type / EZB-ST...H Type)

Workpiece Material	Insert Grade (Vc : sfm)			EZB% 020/025		EZB% 030/035		EZB% 040/045		EZB% 050/055/060/065/070/075/080		Notes
	MEGACOAT NANO PLUS	MEGACOAT	Carbide	D.O.C. (inch), f (ipr)								
	PR1725	PR1225	GW05	D.O.C.	f	D.O.C.	f	D.O.C.	f	D.O.C.	f	
Carbon Steel / Alloy Steel	100~330	100~330	-	~0.0118	~0.0012	~0.0157	~0.0016	~0.0177	~0.0028	~0.0197	~0.0039	Coolant
Stainless Steel	100~260	100~260	-	~0.0079	~0.0008	~0.0118	~0.0012	~0.0138	~0.0020	~0.0157	~0.0028	
Non-Ferrous Material	-	-	~330	~0.0118	~0.0020	~0.0157	~0.0024	~0.0177	~0.0039	~0.0197	~0.0059	

H Chipbreaker (EZB-HP...H-LT Type (Long Type))

Workpiece Material	Insert Grade (Vc : sfm)	EZBR020/025/030/035				EZBR040/050/060				Notes
	MEGACOAT	D.O.C. (inch), f (ipr)								
	PR1225	D.O.C.		f		D.O.C.		f		
Carbon Steel / Alloy Steel	100~200	~0.0118		~0.0020		~0.0157		~0.0039		Coolant
Stainless Steel	70~130	~0.0098		~0.0020		~0.0118		~0.0028		

G Chipbreaker

Workpiece Material	Insert Grade (Vc : sfm)	EZBR010/015		EZBR020/025		EZBR030/035		EZBR040/045/050/060/070/080		Notes
	MEGACOAT NANO PLUS	D.O.C. (inch), f (ipr)								
	PR1725	D.O.C.	f	D.O.C.	f	D.O.C.	f	D.O.C.	f	
Carbon Steel / Alloy Steel	100~390	~0.0079	~0.0008	~0.0098	~0.0012	~0.0118	~0.0020	~0.0138	~0.0028	Coolant
Stainless Steel	100~330	~0.0059	~0.0006	~0.0079	~0.0008	~0.0098	~0.0012	~0.0118	~0.0020	

F Chipbreaker (EZB-HP...F Type / EZB-ST...F Type)

Workpiece Material	Insert Grade (Vc : sfm)		EZBR020/025		EZBR030/035		EZBR040/045		EZBR050/055/060/065/070/075/080		Notes
	MEGACOAT NANO PLUS	MEGACOAT	D.O.C. (inch), f (ipr)								
	PR1725	PR1225	D.O.C.	f	D.O.C.	f	D.O.C.	f	D.O.C.	f	
Carbon Steel / Alloy Steel	100~390	100~330	~0.0079	~0.0012	~0.0079	~0.0020	~0.0118	~0.0028	~0.0118	~0.0028	Coolant
Stainless Steel	100~330	100~260	~0.0079	~0.0008	~0.0079	~0.0012	~0.0098	~0.0020	~0.0098	~0.0020	

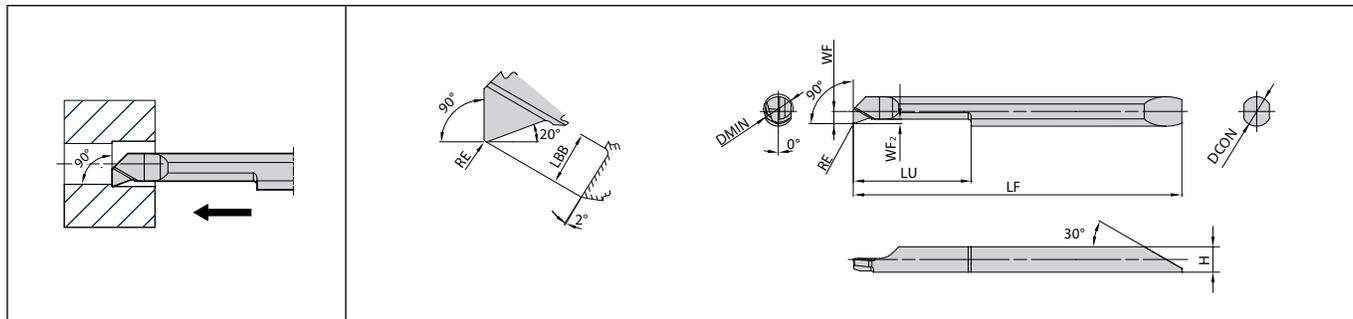
NB (Without Chipbreaker)

Workpiece Material	Insert Grade (Vc : sfm)		EZBR020/025		EZBR030/035		EZBR040/045		EZBR050/055/060/065/075		Notes
	MEGACOAT	Carbide	D.O.C. (inch), f (ipr)								
	PR1225	GW05	D.O.C.	f	D.O.C.	f	D.O.C.	f	D.O.C.	f	
Carbon Steel / Alloy Steel	100~330	-	~0.0118	~0.0012	~0.0157	~0.0016	~0.0177	~0.0028	~0.0197	~0.0039	Coolant
Stainless Steel	100~260	-	~0.0079	~0.0008	~0.0118	~0.0012	~0.0138	~0.0020	~0.0157	~0.0028	
Non-Ferrous Material	-	~330	~0.0118	~0.0020	~0.0157	~0.0024	~0.0177	~0.0028	~0.0197	~0.0039	

Workpiece Material	Insert Grade (Vc : sfm)		EZBR030		EZBR040/045		EZBR050/060/070		Notes		
	MEGACOAT CBN	PCD	D.O.C. (inch), f (ipr)								
	KBN05M	KPD001	D.O.C.	f	D.O.C.	f	D.O.C.	f			
Non-Ferrous Material	-	~980	-	-	~0.0177	~0.0039	~0.0197	~0.0059	Coolant		
Hardened Materials (Heat-Treated Steel)	~330	-	~0.0028	~0.0012	~0.0039	~0.0020	~0.0059	~0.0028			

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

**EZBF** (Boring, 90° Lead Angle)



Right-hand shown

Dimensions

Unit	Part Number	No. of Edges	Dimensions									Tolerance (mm)		Carbide	Applicable Sleeve F40~F45
			DMIN	DCON	H	LBB	LF	LU	WF	WF <sub>2</sub>	RE	RE min.	RE max.	PVD PR1225 R	
mm	EZBFR 030030-008	1	3	3	2.5	1.5	37.7	12	1.2	0.45	0.08	-0.015	+0.015	●	EZH030...
	EZBFR 040040-008	1	4	4	3.45	2	44.6	16	1.65	0.55	0.08	-0.015	+0.015	●	EZH040...
	EZBFR 050050-015	1	5	5	4.3	2.4	52.7	20	2.15	0.7	0.15	-0.02	+0.02	●	EZH050...
	EZBFR 060060-015	1	6	6	5.15	2.8	59.6	24	2.55	0.85	0.15	-0.02	+0.02	●	EZH060...

Recommended Cutting Conditions

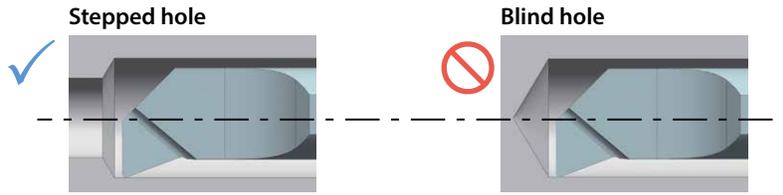
Workpiece Material	Insert Grade (Vc : sfm)	EZBFR030030-008		EZBFR040040-008		EZBFR050050/060060-015		Notes
	MEGACOAT	D.O.C. (in), f (ipr)						
	PR1225	D.O.C.	f	D.O.C.	f	D.O.C.	f	
Carbon Steel / Alloy Steel	100~330	~0.0079	~0.0020	~0.0118	~0.0020	~0.0197	~0.0020	Coolant
Stainless Steel	100~260	~0.0079	~0.0020	~0.0118	~0.0020	~0.0197	~0.0020	

EZ Bars are sold in 1 piece boxes

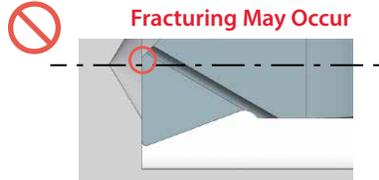
Precautions

✓ Recommended    ✗ Not Recommended

1. Machining in blind hole is not recommended



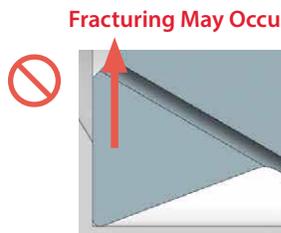
2. If front cutting edge exceeds beyond workpiece center line, fracturing may occur



Min boring diameter of  $\phi 4$ : 1.9 mm front cutting edge length

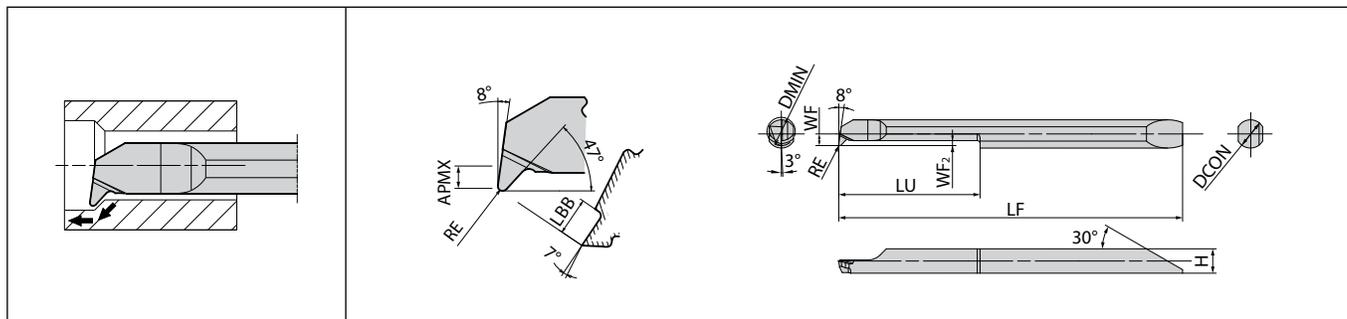
Off-center Boring

3. Up facing is not recommended



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

**EZBP** (Internal Copying)



Right-hand shown

**Dimensions**

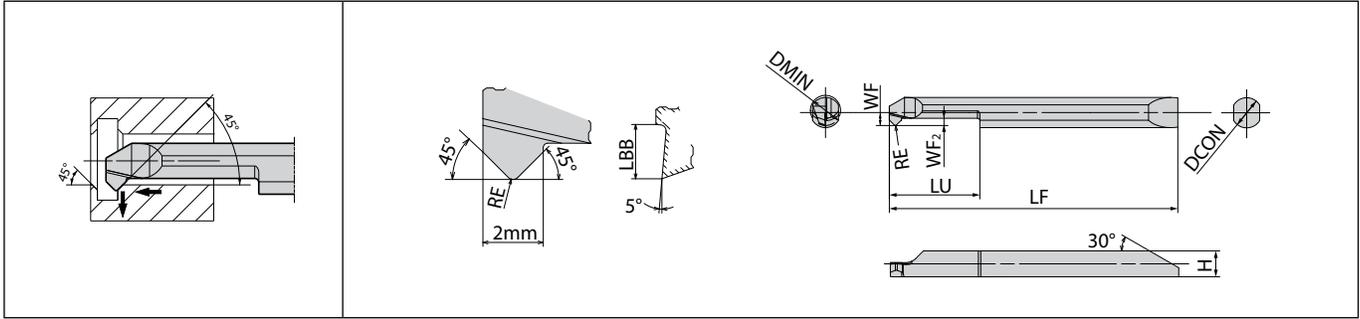
Unit	Part Number	No. of Edges	Dimensions										Tolerance (mm)		Carbide	Applicable Sleeve F40~F45		
			DMIN	DCON	H	LBB	LF	LU	WF	WF <sub>2</sub>	APMX	RE	RE min.	RE max.	PVD			
																	PR1225	●
																	R	
mm	EZBPR 020020-005-08 020020-005-10 020020-005-12	1	2	2	1.65	1	31.8 33.8 35.8	8 10 12	0.55	0.35	0.3	0.05	-0.01	+0.01	●	EZH020...		
	EZBPR 030030-005-12 030030-005-15	1	3	3	2.5	1.2	37.7 40.7	12 15	1.05	0.45	0.4	0.05	-0.01	+0.01	●		EZH030...	
	EZBPR 040040-015	1	4	4	3.45	1.5	48.7	20	1.65	0.65	0.6	0.15	-0.02	+0.02	●			EZH040...
	EZBPR 050050-015	1	5	5	4.3	2.2	57.8	25	2	1.1	0.8	0.15	-0.02	+0.02	●	EZH050...		
	EZBPR 060060-015	1	6	6	5.15	2.5	65.7	30	2.45	1.35	1	0.15	-0.02	+0.02	●	EZH060...		

**Recommended Cutting Conditions**

Workpiece Material	Insert Grade (Vc : sfm)	EZBPR020		EZBPR030		EZBPR040		EZBPR050		EZBPR060		Notes
	MEGACOAT	D.O.C. (in), f (ipr)										
	PR1225	D.O.C.	f	D.O.C.	f	D.O.C.	f	D.O.C.	f	D.O.C.	f	
Carbon Steel / Alloy Steel	100-330	~0.0118	~0.0020	~0.0157	~0.0020	~0.0236	~0.0020	~0.0315	~0.0020	~0.0394	~0.0020	Coolant
Stainless Steel	100-260	~0.0118	~0.0020	~0.0157	~0.0020	~0.0236	~0.0020	~0.0315	~0.0020	~0.0394	~0.0020	

EZ Bars are sold in 1 piece boxes

**EZBC** (Internal Chamfering)



Right-hand shown

**Dimensions**

Unit	Part Number	No. of Edges	Dimensions									Tolerance (mm)		Carbide		Applicable Sleeve F41 F43 F45
			DMIN	DCON	H	LBB	LF	LU	WF	WF <sub>2</sub>	RE	RE min.	RE max.	PVD	R	
mm	EZBCR 050050-020-15	1	5	5	4.3	1.8	47.8	15	2.15	1.2	0.2	-0.02	+0.02	●	EZH050...	
	050050-020-20						52.8	20						●		
	EZBCR 060060-020-18	1	6	6	5.15	2.5	53.7	18	2.65	1.9	0.2	-0.02	+0.02	●		EZH060...
	060060-020-24						59.7	24						●		
	EZBCR 070070-020-21	1	7	7	6.2	3.1	59.7	21	3	2.5	0.2	-0.02	+0.02	●		EZH070...
	070070-020-42						80.7	42						●		

**Recommended Cutting Conditions**

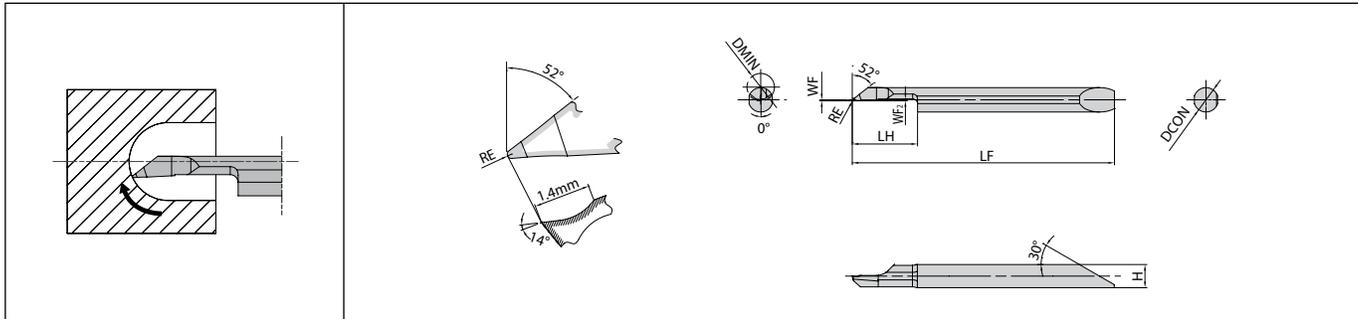
Workpiece Material	Insert Grade (Vc : sfm)	EZBC050		EZBC060		EZBC070		Notes
	MEGACOAT	D.O.C. (in), f (ipr)						
	PR1225	D.O.C.	f	D.O.C.	f	D.O.C.	f	
Carbon Steel / Alloy Steel	100-330	~0.0276	~0.0024	~0.0276	~0.0024	~0.0276	~0.0024	Coolant
Stainless Steel	100-260	~0.0276	~0.0024	~0.0276	~0.0024	~0.0276	~0.0024	

EZ Bars are sold in 1 piece boxes

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

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

**EZVB** (Boring / Internal Facing / Internal Copying)



Right-hand shown

Dimensions

Unit	Part Number	No. of Edges	Dimensions									Tolerance (mm)		Carbide	Applicable Sleeve F40~F45
			DMIN	DCON	H	LH	H	LF	WF	WF <sub>2</sub>	RE	RE min.	RE max.	PVD PR1225 R	
mm	EZVBR 035030-010	1	3.5	3	2.8	8	2.8	38	0.17	0.22	0.1	-0.015	+0.015	●	EZH030...
	EZVBR 045040-010	1	4.5	4	3.8	10	3.8	43		0.26				●	EZH040...
	EZVBR 055050-010	1	5.5	5	4.8	12	4.8	50.2		0.29				●	EZH050...
	EZVBR 065060-010	1	6.5	6	5.8	14	5.8	55.2		0.32				●	EZH060...

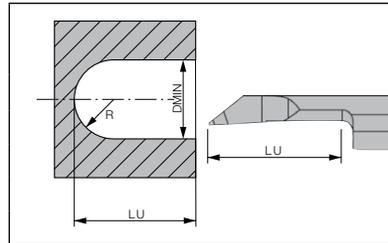
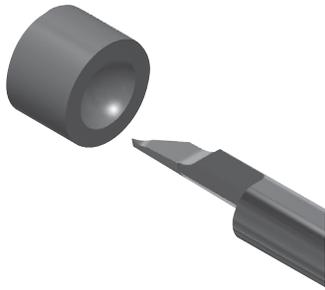
Recommended Cutting Conditions

Workpiece Material	Insert Grade (Vc : sfm)	EZVB035		EZVB045		EZVB055/065		Notes
	MEGACOAT	D.O.C. (in), f (ipr)						
	PR1225	D.O.C.	f	D.O.C.	f	D.O.C.	f	
Carbon Steel / Alloy Steel	100~330	~0.0020	~0.0016	~0.0028	~0.0028	~0.0039	~0.0028	Coolant
Stainless Steel	100~260	~0.0012	~0.0012	~0.0020	~0.0020	~0.0028	~0.0020	

EZ Bars are sold in 1 piece boxes

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

1. Application Range



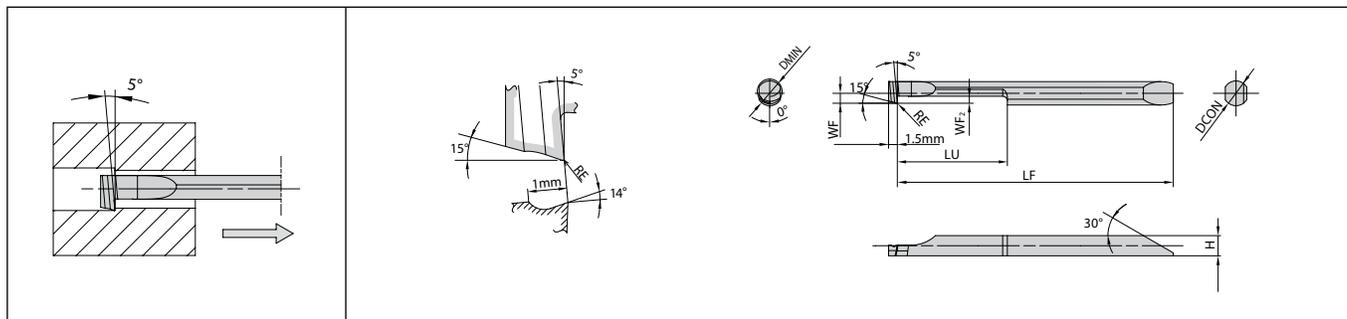
Part Number	Min. Bore Dia.	R	LU
	DMIN	mm	mm
EZVBR 035030-010	3.5	1.75	8.0
EZVBR 045040-010	4.5	2.25	10.0
EZVBR 055050-010	5.5	2.75	12.0
EZVBR 065060-010	6.5	3.25	14.0

2. Application

Without Existing Hole	Finishing
<p>(Note) f should be under 0.0012 ipr during internal facing</p>	
<p>With Pre-Drilled Hole</p> <p>(Note) f should be under 0.0012 ipr during internal facing</p>	<p>Machining Process                      (1) Finish the internal face first.                      (2) Next, finish the internal diameter.</p>

3. Caution

**EZBT** (Back Boring)



Right-hand shown

**Dimensions**

Unit	Part Number	No. of Edges	Dimensions									Tolerance (mm)		Carbide		Applicable Sleeve ● F41 ● F43 ● F45
			DMIN	DCON	H	LF	LU	WF	WF <sub>2</sub>	RE	RE min.	RE max.	PVD	-		
													PR1225	GW05		
mm	EZBTR 040040-005	1	4	4	3.45	47.2	18.5	1.7	1.2	0.05	-0.02	0	●	●	EZH040...	
	EZBTR 050050-005	1	5	5	4.3	57.2	23.5	2.15	1.5				●	●	EZH050...	

**Recommended Cutting Conditions**

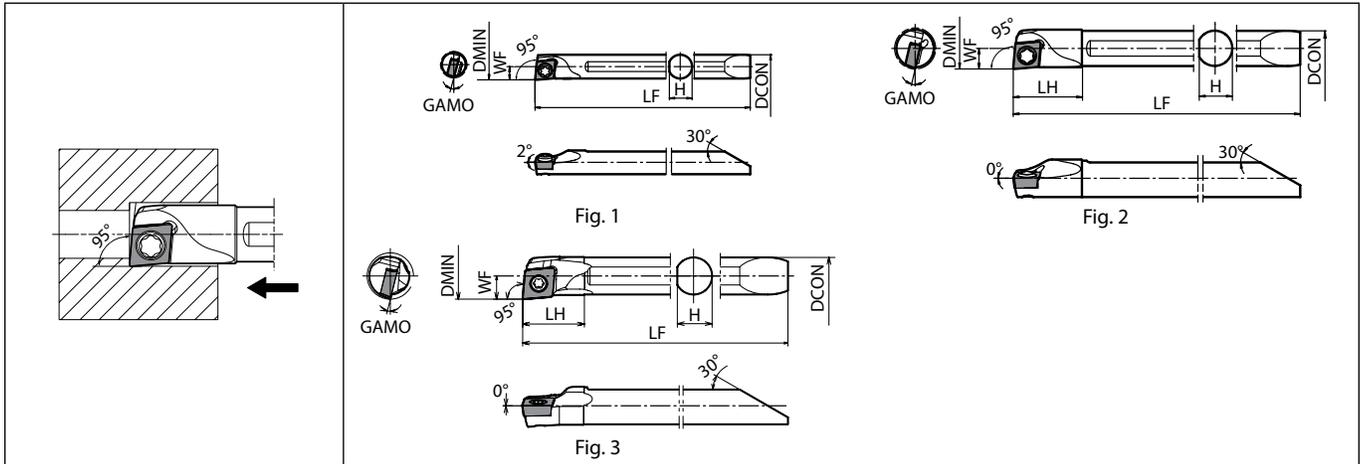
Workpiece Material	Insert Grade (Vc : sfm)		EZBTR040040-005		EZBTR050050-005		Notes
	MEGACOAT	Carbide	D.O.C. (in), f (ipr)				
	PR1225	GW05	D.O.C.	f	D.O.C.	f	
Carbon Steel / Alloy Steel	★ 100~330	-	~0.018	~0.003	~0.020	~0.004	Coolant
Stainless Steel	★ 100~260	-	~0.018	~0.002	~0.020	~0.003	
Non-Ferrous Metals	-	★ 100~330	~0.018	~0.004	~0.020	~0.006	

★ : 1st Recommendation

F BORING

MICRO BORING  
POSITIVE INSERTS  
ANTI-VIBE BARS  
NEGATIVE INSERTS

S-SCLC-EZP Steel Shank Bar (Boring)



Right-hand shown | Left-hand Insert for Right-hand Toolholder. | Max. Overhang Length L/D≈~3

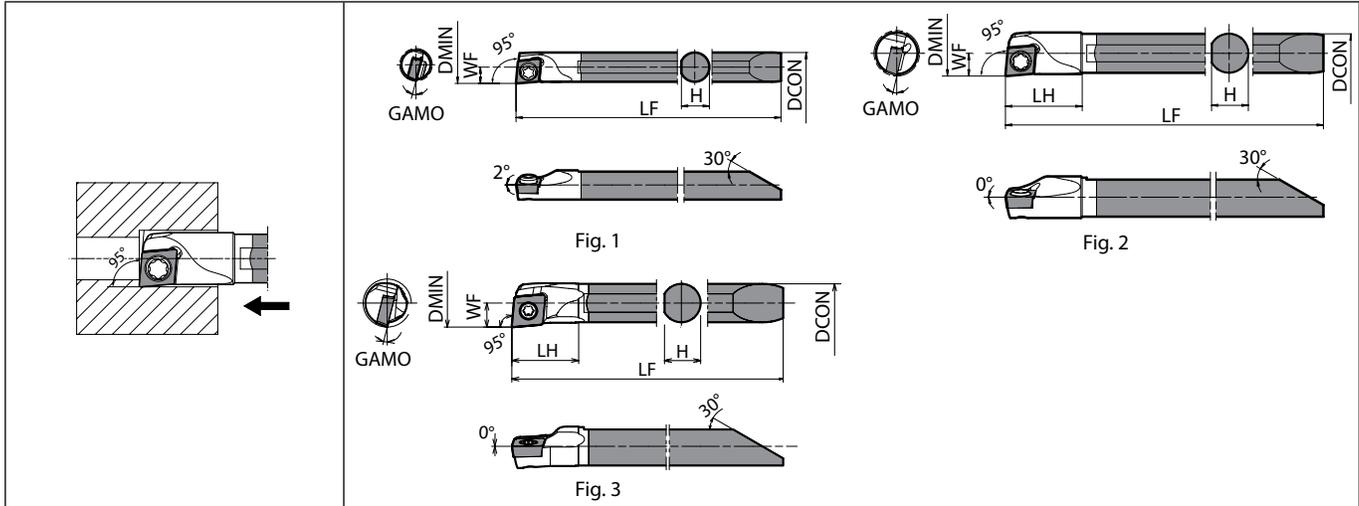
Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Spare Parts		Applicable Inserts	Applicable Sleeve F41 F43 F45
			R	DMIN	DCON	H	LH	LF	WF					Screw	Wrench		
																	
mm	S045X- SCLCR03-050EZP	●	5	4.5	4.3	-	42.4	2.5	15	0.2	No	1	SB-163STR	FT-6	CC□T1109... CC□W1109...	EZH045... EZH050...	
	S050X- SCLCR03-060EZP	●	6	5	4.7	9	48.4	3	13	0.2	No	2					
	S060X- SCLCR04-070EZP	●	7	6	5.7	10	54.4	3.5	13	0.2	No	2	SB-203STR	FT-6	CC□T1411... CC□W1411...	EZH060... EZH070...	
	S070X- SCLCR04-080EZP	●	8	7	6.7	10.3	60.4	4	11	0.2	No	3					
	S080X- SCLCR06-100EZP	●	10	8	7.5	13.3	69.5	5	14	0.4	No	3	SB-254STR	FT-8	CC□T215..., CC□W215...	EZH080...	

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

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

C-SCLC-EZP Carbide Shank Bar (Boring)



Right-hand shown | Left-hand Insert for Right-hand Toolholder. | Max. Overhang Length L/D≈~5

F BORING

Toolholder Dimensions

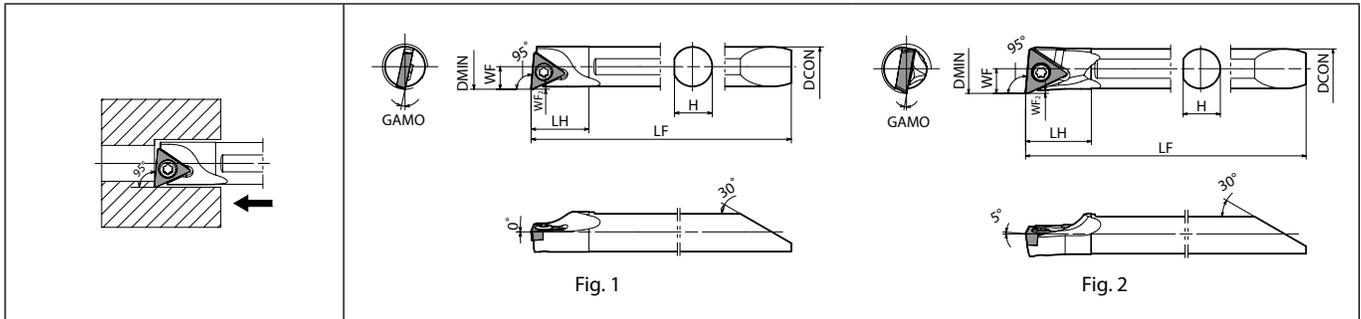
Unit	Part Number	Std. Item	Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Spare Parts		Applicable Inserts	Applicable Sleeve F41 F43 F45
			R	DMIN	DCON	H	LH	LF	WF					Screw	Wrench		
mm	C045X- SCLCR03-050EZP	●	5	4.5	4.3	-	51.4	2.5	15	0.2	No	1	SB-1635TR	FT-6	CC□T1109... CC□W1109...	EZH045... EZH050...	
	C050X SCLCR03-060EZP	●	6	5	4.7	9	58.4	3	13	0.2	No	2	SB-1635TR	FT-6	CC□T1109... CC□W1109...	EZH050... EZH060...	
	C060X- SCLCR04-070EZP	●	7	6	5.7	10	66.4	3.5	13	0.2	No	2	SB-2035TR	FT-6	CC□T1411... CC□W1411...	EZH060... EZH070...	
	C070X SCLCR04-080EZP	●	8	7	6.7	10.3	74.4	4	11	0.2	No	3	SB-2545TR	FT-8	CC□T215... CC□W215...	EZH070... EZH080...	
	C080X- SCLCR06-100EZP	●	10	8	7.5	13.3	85.5	5	14	0.4	No	3	SB-2545TR	FT-8	CC□T215... CC□W215...	EZH080...	

Applicable Inserts (S-SCLC-EZP / C- SCLC-EZP)

Applications	Minute D.O.C.	Finishing	Finishing	Finishing	Finishing	Finishing	Finishing - Medium	Finishing
Insert								
Chipbreaker Type	CF	PF	GF	SKS	SK	CK	GQ	WP
Page	B58	B58	B58	B59	B59	B59	B59	B60
Applications	Finishing	Finishing - Medium	Finishing - Medium	Medium	Medium	Finishing	Finishing	Low Feed
Insert								
Chipbreaker Type	PP	GK	HQ	Standard	MF	L-F	L-FSF	L-U
Page	B60	B60	B60	B60	B61	B62	B61	B63~B65
Applications	Low Feed	Low Feed	Cast Iron	Non-Ferrous Metals	Non-Ferrous Metals	Hard Materials		
Insert								
Chipbreaker Type	L-USF	L-J	No Chipbreaker	AP	PCD	CBN		
Page	B63	B65	B66	B66	C39	C20		

Recommended Cutting Conditions F174, F175

S-STLB(P)-EZP Steel Shank Bar (Boring)



Right-hand shown | Left-hand Insert for Right-hand Toolholder. | Max. Overhang Length L/D=~3

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions								GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Spare Parts		Applicable Inserts	Applicable Sleeve F41 F43 F45
			R	DMIN	DCON	H	LH	LF	WF	WF <sub>2</sub>					Screw	Wrench		
mm	S070X- STLBR06-080EZP	●	8	7	6.7	10.3	60.4	4	0.4	12	0.2	No	1	SB-2035TR	FT-6	TB□T121... TB□W121...	EZH070...	
	S080X- STLPR09-100EZP	●	10	8	7.5	13.3	69.5	5	0.5	10	0.4	No	2	SB-2545TR	FT-8	TP□B1815..., TP□H1815... TP□T1815..., TP□X1815...	EZH080...	

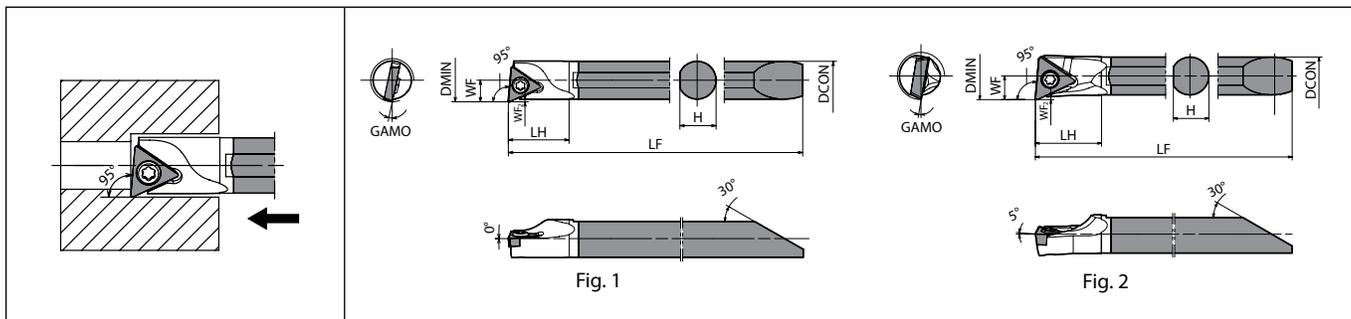
TB□□1212.. type inserts can not be used.

Use Right-handed P Chipbreaker

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

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

**C-STLB(P)-EZP** Carbide Shank Bar (Boring)



Right-hand shown | Left-hand Insert for Right-hand Toolholder. | Max. Overhang Length L/D≈~5

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions								GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Spare Parts		Applicable Inserts	Applicable Sleeve F41 F43 F45
			R	DMIN	DCON	H	LH	LF	WF	WF <sub>2</sub>					Screw	Wrench		
																		
mm	C070X- STLBR06-080EZP	●	8	7	6.7	11	74.4	4	0.4	12	0.2	No	1	SB-2035TR	FT-6	TB□T121... TB□W121...	EZH070...	
	C080X- STLPR09-100EZP	●	10	8	7.5	14	85.5	5	0.5	10	0.4	No	2	SB-2545TR	FT-8	TP□B1815..., TP□H1815... TP□T1815..., TP□X1815...	EZH080...	

TB□□1212.. type inserts can not be used.

Use Right-handed P Chipbreaker

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

**F**  
BORING

MICRO BORING

POSITIVE INSERTS

ANTI-VIBE BARS

NEGATIVE INSERTS

Applicable Inserts (S-STLB(P)-EZP / C-STLB(P)-EZP)

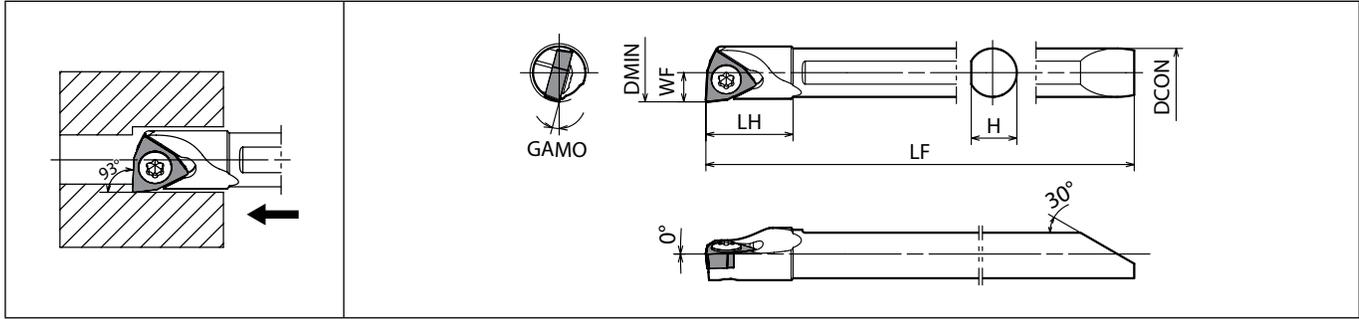
<b>Applications</b>	Minute D.O.C.	Finishing	Finishing	Finishing	Finishing	Finishing	Finishing	Finishing - Medium
<b>Insert</b>								
<b>Chipbreaker Type</b>	CF	PF	WP	PP	R-P	GP	DP	HQ
<b>Page</b>	B84, B88	B84, B88	B88	B88	B92	B89	B84	B89
<b>Applications</b>	Finishing	Medium	Low Carbon Steel	Cast Iron	Non-Ferrous Metals	Non-Ferrous Metals	Hard Materials	
<b>Insert</b>								
<b>Chipbreaker Type</b>	L	L-H	XP	No Chipbreaker	AP	PCD	CBN	
<b>Page</b>	B84, B90, B91	B93	B89	B84, B94	B94	C44, C46, C47	C23	

Recommended Cutting Conditions  F174, F175

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

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

**S-SWUB-EZP** Steel Shank Bar (Boring)

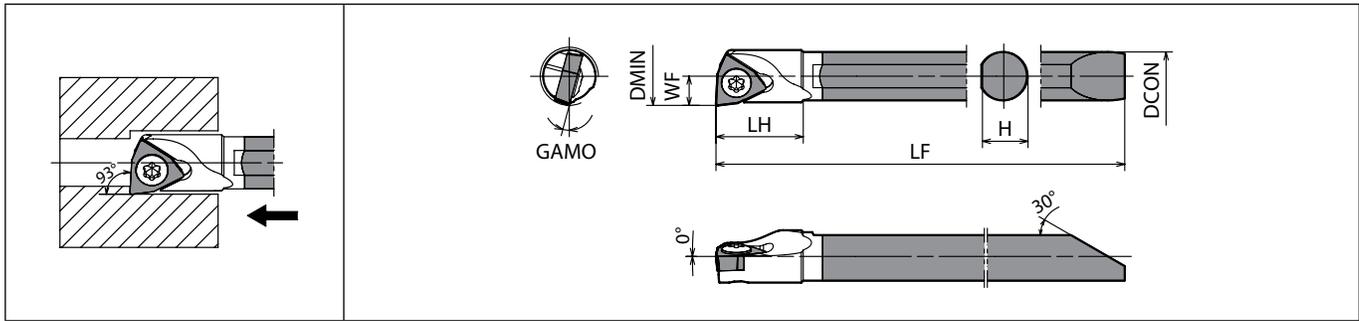


Right-hand shown | Left-hand Insert for Right-hand Toolholder. | Max. Overhang Length L/D≈3

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts		Applicable Inserts	Applicable Sleeve ● F41 F43 F45
			R	DMIN	DCON	H	LH	LF	WF				Screw	Wrench		
mm	S050X- SWUBR06-060EZP	●	6	5	4.7	9	48.4	3	15	0.2	No	SB-2035TR	FT-6	WB□T121... WB□W121...	EZH050... EZH060...	
	S060X- SWUBR06-070EZP	●	7	6	5.7	10	54.4	3.5	13							
	S070X- SWUBR08-080EZP	●	8	7	6.7	10.3	60.4	4	15	0.2	No	SB-2035TR	FT-6	WB□T1515..., WB□W1515...	EZH070...	

**C-SWUB-EZP** Carbide Shank Bar (Boring)



Right-hand shown | Left-hand Insert for Right-hand Toolholder. | Max. Overhang Length L/D≈5

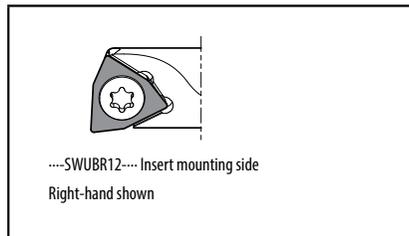
Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts		Applicable Inserts	Applicable Sleeve ● F41 F43 F45
			R	DMIN	DCON	H	LH	LF	WF				Screw	Wrench		
mm	C050X- SWUBR06-060EZP	●	6	5	4.7	9	58.4	3	15	0.2	No	SB-2035TR	FT-6	WB□T121... WB□W121...	EZH050... EZH060...	
	C060X- SWUBR06-070EZP	●	7	6	5.7	10	66.4	3.5	13							
	C070X- SWUBR08-080EZP	●	8	7	6.7	11	74.4	4	15	0.2	No	SB-2035TR	FT-6	WB□T1515..., WB□W1515...	EZH070...	

Applicable Inserts (S-SWUB-EZP / C-SWUB-EZP)

Applications	Minute D.O.C.	Finishing	Finishing	Finishing	Finishing	Cast Iron	Non-Ferrous Metals	Hard Materials
Insert								
Chipbreaker Type	L-CF	L-PF	L-DP	L-P	L-F	No Chipbreaker	PCD	CBN
Page	B105	B105	B105	B106	B106	B106	C51	C28

Recommended Cutting Conditions F174, F175



How to mount EZ Bars

How to use adjustment pin (Fig. 1)

1. Put the adjustment pin into the hole.
2. Push it into the sleeve, using the wrench (LW-1.5).
3. Tightening the clamp screw (HS3X4P) with wrench (LW-1.5) to fix the adjustment pin.

How to fix bar (Fig. 2)

1. With the chip pocket upward, set the bar into the sleeve. Press the slant of the end of the bar with the adjustment pin. Make sure that the bar does not move (Fig. 3)
2. Tighten the clamp screw with wrench (LW-2) and fix the bar. Use LW-1.5 if shank dia. is 3 mm or less.



Fig. 1  
How to use adjustment pin



Fig. 2  
How to fix bar

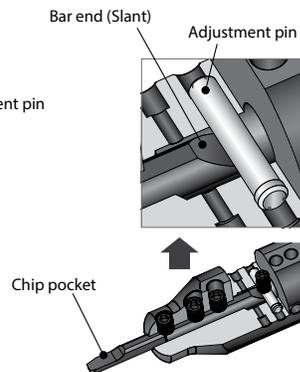
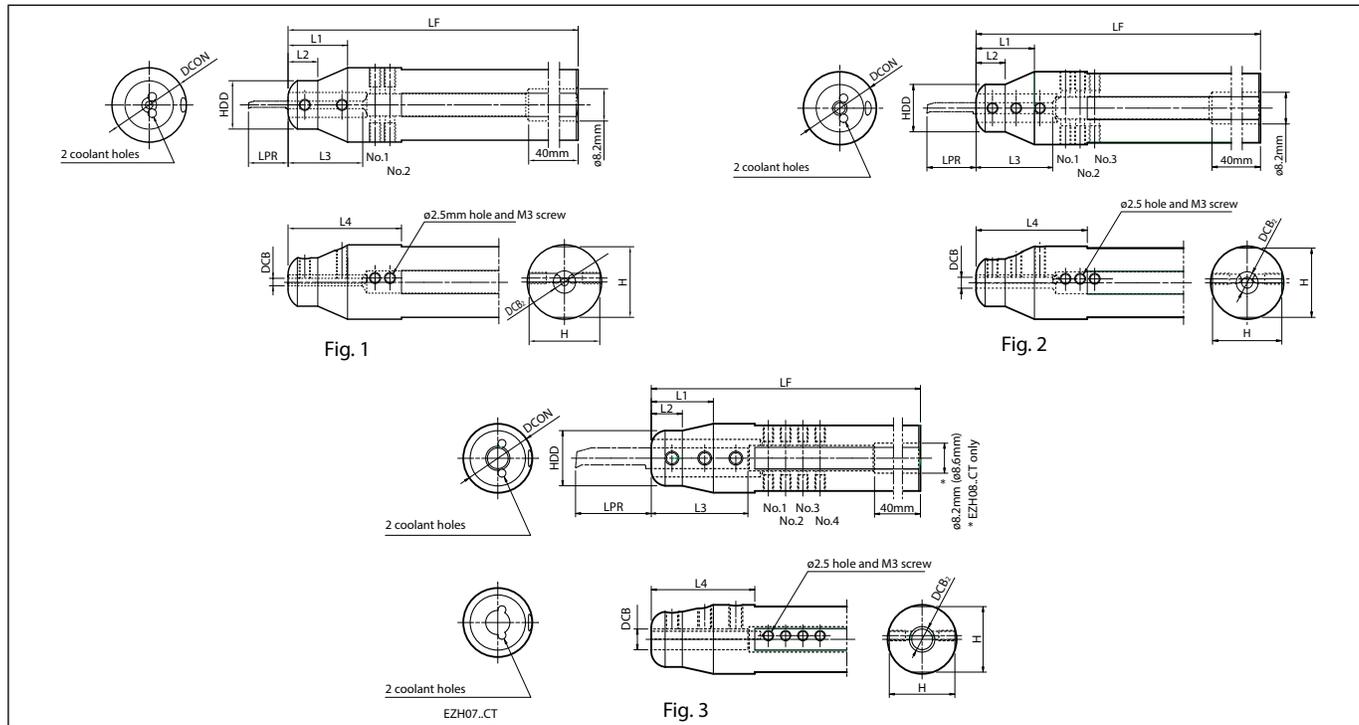


Fig. 3: Fixed bar

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

**EZH-CT** (Adjustable, Coolant-Through)



**F**  
BORING

**MICRO BORING**

POSITIVE INSERTS

ANTI-VIBE BARS

NEGATIVE INSERTS

Sleeve Dimensions

Unit	Part Number	Std. Item	Dimensions											Fig.	Applicable EZ Bars ● F18~F28, F30 ● G75 ● J44				
			DCB	DCB2	DCON	H	HDD	LF	L1	L2	L3	L4	LPR						
													No.1			No.2	No.3		
mm	EZH 01719CT-120	●	1.7	6	0.75"	18	13	120	16	8	16	30.5	7.5	3.5	-	1	EZBR...017...		
	EZH 01720CT-120	●			20	19												135	
	EZH 01722CT-135	●			22	21													120
	EZH 01725.0CT-135	●			25	24													
	EZH 01725.4CT-120	●			1.00"	24.4													
	EZH 02019CT-120	●	2	6	0.75"	18	13	120	16	8	20	30.5	8.5	4.5	-	1	EZB%...020... EZBPR...020...		
	EZH 02020CT-120	●			20	19												135	
	EZH 02022CT-135	●			22	21													120
	EZH 02025.0CT-135	●			25	24													
	EZH 02025.4CT-120	●			1.00"	24.4													
	EZH 02519CT-120	●	2.5	6	0.75"	18	13	120	16	8	20	30.5	11	7	-	1	EZB%...025... EZTR...025...		
	EZH 02520CT-120	●			20	19												135	
	EZH 02522CT-135	●			22	21													120
	EZH 02525.0CT-135	●			25	24													
	EZH 02525.4CT-120	●			1.00"	24.4													
EZH 03019CT-120	●	3	6	0.75"	18	13	120	16	8	21	30.5	13.5	9.5	5.5	2	EZB%...030... EZBFR...030... EZBPR...030... EZVBR...030... EZGR...030... EZTR...030...			
EZH 03020CT-120	●			20	19												135		
EZH 03022CT-135	●			22	21													120	
EZH 03025.0CT-135	●			25	24														
EZH 03025.4CT-120	●			1.00"	24.4														
EZH 03519CT-120	●	3.5	6	0.75"	18	13	120	16	8	21	31.1	15.5	11.5	7.5	2	EZB%...035... EZTR...035...			
EZH 03520CT-120	●			20	19												135		
EZH 03522CT-135	●			22	21													120	
EZH 03525.0CT-135	●			25	24														
EZH 03525.4CT-120	●			1.00"	24.4														

L3 shows DCB length.

LPR shows overhang length of the EZB Bar when attached to sleeve.

Choose sleeves (DCB) to meet with DCON dimension of bar.

A hole on the rear end of sleeve is prepared hole for Rc1/8 threading. Please modify by additional processing if necessary. The body hardness is 42HRC.

For how to mount EZ Bars (EZH-CT sleeve), please refer to F8.

Sleeve Dimensions

Unit	Part Number	Std. Item	Dimensions												Fig.	Applicable EZ Bars ● F18~F38 ● G75, G99 ● J44		
			DCB	DCB2	DCON	H	HDD	LF	L1	L2	L3	L4	LPR					
													No.1	No.2			No.3	No.4
mm	EZH 04019CT-120	●	4	6	0.75"	18	13	120	16	8	22	32.7	20.5	16.5	12.5	8.5	3	EZBR010040..., EZBR015040... EZBPR...040..., EZBFR...040... EZVBR...040..., EZVBR...040... EZBTR...040..., EZG%...040... EZFG%...040..., EZTR...040...
	04020CT-120	●			20	19												
	04022CT-135	●			22	21												
	04025.0CT-135	●			25	24												
	04025.4CT-120	●			1.00"	24.4												
	EZH 04519CT-120	●	4.5	6	0.75"	18	16	120	18	9	23	30	23	18.5	14	9.5	3	EZB%...045... _045X...050EZP
	04520CT-120	●			20	19												
	04522CT-135	●			22	21												
	04525.0CT-135	●			25	24												
	04525.4CT-120	●			1.00"	24.4												
	EZH 05019CT-120	●	5	6	0.75"	18	16	120	18	9	26	30	25.5	20.5	15.5	10.5	3	EZB%...050..., EZBFR...050... EZBPR...050..., EZBCR...050... EZVBR...050..., EZBTR...050... _050X...060EZP, EZG%...050... EZFG%...050..., EZTR...050...
	05020CT-120	●			20	19												
	05022CT-135	●			22	21												
	05025.0CT-135	●			25	24												
	05025.4CT-120	●			1.00"	24.4												
	EZH 06019CT-120	●	6	7.4	0.75"	18	16	120	18	9	28	30	30.5	25.5	20.5	15.5	3	EZB%...060..., EZBFR...060... EZBPR...060..., EZBCR...060... EZVBR...060..., _060X...070EZP EZG%...060..., EZTR...060...
	06020CT-120	●			20	19												
	06022CT-135	●			22	21												
	06025.0CT-135	●			25	24												
	06025.4CT-120	●			1.00"	24.4												
	EZH 07019CT-120	●	7	7.4	0.75"	18	16	120	18	9	29	30	35.5	30.5	25.5	20.5	3	EZB%...070..., EZBCR...070... _070X...080EZP, EZG%...070... EZFG%...070..., EZTR...070...
	07020CT-120	●			20	19												
	07022CT-135	●			22	21												
	07025.0CT-135	●			25	24												
07025.4CT-120	●	1.00"			24.4													
EZH 08019CT-120	●	8	8.6	0.75"	18	16	120	18	9	33	34	40.5	35.5	30.5	25.5	3	EZB%...080... _080X...100EZP	
08020CT-120	●			20	19													
08022CT-135	●			22	21													
08025.0CT-135	●			25	24													
08025.4CT-120	●			1.00"	24.4													

L3 shows DCB length.

LPR shows overhang length of the EZB Bar when attached to sleeve. ( ) value indicates the overhang length when installed the steel boring bar (EZ Bar PLUS).

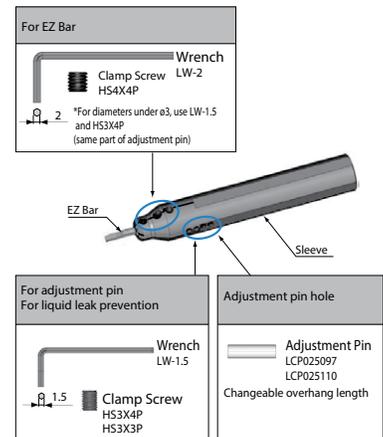
Choose sleeves (DCB) to meet with DCON dimension of bar.

A hole on the rear end of sleeve is prepared hole for Rc1/8 threading. Please modify by additional processing if necessary. The body hardness is 42HRC.

For how to mount EZ Bars (EZH-CT sleeve), please refer to F8.

Spare Parts Part Number (for EZH-CT Sleeves)

Part Number	Spare Parts											
	Adjustment Pin	Clamp Screw (for adjustment pin)	Wrench	Clamp Screw (for bar)	Wrench							
EZH 017...CT-... 020...CT-... 025...CT-... 030...CT-...	LCP025097	HS3X4P (for adjustment pin and liquid leak prevention)	LW-1.5 Tightening Torque 1N·m	HS3X4P	LW-1.5 Tightening Torque 1N·m							
EZH 035...CT-... 040...CT-... 045...CT-... 050...CT-... 060...CT-... 070...CT-...						LCP025097	HS3X4P (for adjustment pin and liquid leak prevention)	LW-1.5 Tightening Torque 1N·m	HS4X4P (for bar)	LW-2 Tightening Torque 2N·m		
080...CT-...											LCP025110	HS3X3P (for adjustment pin and liquid leak prevention)

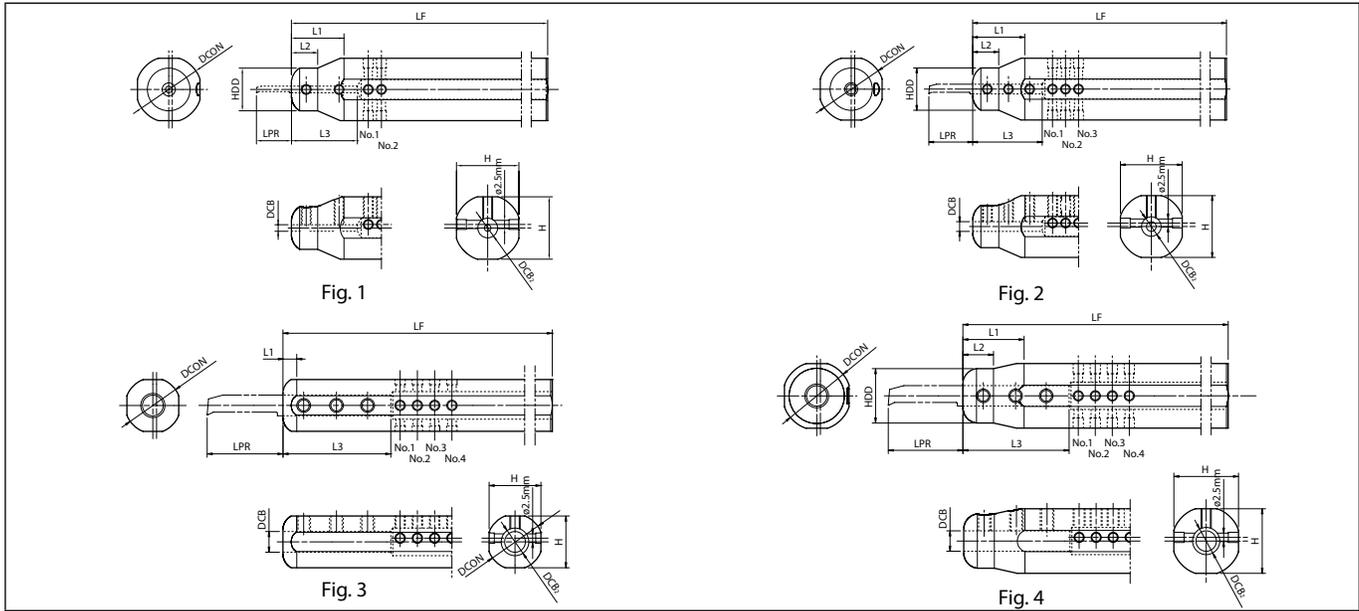


- 1) If shank dia. is ø2.5mm or less, use clamp screw (HS3X4P)  
For adjustment pin 2 pcs  
For liquid leak prevention 2 pcs  
For EZ Bar 2 pcs
- 2) If shank dia. is ø3mm, use clamp screw (HS3X4P)  
For adjustment pin 2 pcs  
For liquid leak prevention 4 pcs  
For EZ Bar 3 pcs

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

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

EZH-HP (Adjustable)



F BORING

Sleeve Dimensions

Unit	Part Number	Std. Item	Dimensions												Fig.	Applicable EZ Bars ● F18~F28, F30 ● G75 ● J44		
			DCB	DCB2	DCON	H	HDD	LF	L1	L2	L3	LPR						
												No.1	No.2	No.3			No.4	
mm	EZH 01716HP-100	●	1.7	6	16	15	13	100	16	8	16	7.5	3.5	-	-	1	EZBR...017...	
	EZH 01719HP-120	●			0.75"	18												120
	EZH 01720HP-120	●			20	19												135
	EZH 01722HP-135	●			22	21												120
	EZH 01725.0HP-135	●			25	24												120
	EZH 01725.4HP-120	●			1.00"	24.4												120
	EZH 02016HP-100	●	2	6	16	15	13	100	16	8	20	8.5	4.5	-	-	1	EZB%...020... EZBPR...020...	
	EZH 02019HP-120	●			0.75"	18												120
	EZH 02020HP-120	●			20	19												135
	EZH 02022HP-135	●			22	21												120
	EZH 02025.0HP-135	●			25	24												120
	EZH 02025.4HP-120	●			1.00"	24.4												120
	EZH 02516HP-100	●	2.5	6	16	15	13	100	16	8	20	11	7	-	-	1	EZB%...025... EZTR...025...	
	EZH 02519HP-120	●			0.75"	18												120
	EZH 02520HP-120	●			20	19												135
	EZH 02522HP-135	●			22	21												120
	EZH 02525.0HP-135	●			25	24												120
	EZH 02525.4HP-120	●			1.00"	24.4												120
	EZH 03016HP-100	●	3	6	16	15	13	100	16	8	21	13.5	9.5	5.5	-	2	EZB%...030... EZBFR...030... EZBPR...030... EZVBR...030... EZGR...030... EZTR...030...	
	EZH 03019HP-120	●			0.75"	18												120
	EZH 03020HP-120	●			20	19												135
	EZH 03022HP-135	●			22	21												120
	EZH 03025.0HP-135	●			25	24												120
	EZH 03025.4HP-120	●			1.00"	24.4												120
EZH 03516HP-100	●	3.5	6	16	15	13	100	16	8	22	15.5	11.5	7.5	-	2	EZB%...035... EZTR...035...		
EZH 03519HP-120	●			0.75"	18												120	
EZH 03520HP-120	●			20	19												135	
EZH 03522HP-135	●			22	21												120	
EZH 03525.0HP-135	●			25	24												120	
EZH 03525.4HP-120	●			1.00"	24.4												120	

L3 shows DCB length.

LPR shows overhang length of the EZB Bar when attached to sleeve.

Choose sleeves (DCB) to meet with DCON dimension of bar.

For how to mount EZ Bars (EZB-HP sleeve), please refer to F39.

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

Sleeve Dimensions

Unit	Part Number	Std. Item	Dimensions											Fig.	Applicable EZ Bars ● F18~F38 ● G75, G99 ● J44		
			DCB	DCB2	DCON	H	HDD	LF	L1	L2	L3	LPR					
												No.1	No.2			No.3	No.4
mm	EZH 04016HP-100	●	4	6	16	15	13	100	16	8	24	20.5	16.5	12.5	8.5	4	EZBR010040..., EZBR015040... EZB%...040..., EZBFR...040... EZBPR...040..., EZVBR...040... EZBTR...040..., EZG%...040... EZFG%...040..., EZTR...040...
	EZH 04019HP-120	●			0.75"	18		120									
	EZH 04020HP-120	●			20	19		135									
	EZH 04022HP-135	●			22	21		120									
	EZH 04025.0HP-135	●			25	24		120									
	EZH 04025.4HP-120	●			1.00"	24.4		120									
	EZH 04516HP-100	●	4.5	6	16	15	16	100	4	-	25.3	23 (14)	18.5 (9.5)	14 (-)	9.5 (-)	3	EZB%...045... _045X...050EZP
	EZH 04519HP-120	●			0.75"	18		120									
	EZH 04520HP-120	●			20	19		135									
	EZH 04522HP-135	●			22	21		120									
	EZH 04525.0HP-135	●			25	24		120									
	EZH 04525.4HP-120	●			1.00"	24.4		120									
	EZH 05016HP-100	●	5	6	16	15	16	100	4	-	29	25.5 (15.5)	20.5 (10.5)	15.5 (-)	10.5 (-)	3	EZB%...050..., EZBFR...050... EZBPR...050..., EZBCR...050... EZVBR...050..., EZBTR...050... _050X...060EZP, EZG%...050... EZFG%...050..., EZTR...050...
	EZH 05019HP-120	●			0.75"	18		120									
	EZH 05020HP-120	●			20	19		135									
	EZH 05022HP-135	●			22	21		120									
	EZH 05025.0HP-135	●			25	24		120									
	EZH 05025.4HP-120	●			1.00"	24.4		120									
	EZH 06016HP-100	●	6	8	16	15	16	100	4	-	31	30.5 (18.5)	25.5 (13.5)	20.5 (-)	15.5 (-)	3	EZB%...060..., EZBFR...060... EZBPR...060..., EZBCR...060... EZVBR...060..., _060X...070EZP EZG%...060..., EZTR...060...
	EZH 06019HP-120	●			0.75"	18		120									
	EZH 06020HP-120	●			20	19		135									
	EZH 06022HP-135	●			22	21		120									
	EZH 06025.0HP-135	●			25	24		120									
	EZH 06025.4HP-120	●			1.00"	24.4		120									
EZH 07016HP-100	●	7	8	16	15	16	100	4	-	33	35.5 (21.5)	30.5 (16.5)	25.5 (11.5)	20.5 (-)	3	EZB%...070..., EZBCR...070... _070X...080EZP, EZG%...070... EZFG%...070..., EZTR...070...	
EZH 07019HP-120	●			0.75"	18		120										
EZH 07020HP-120	●			20	19		135										
EZH 07022HP-135	●			22	21		120										
EZH 07025.0HP-135	●			25	24		120										
EZH 07025.4HP-120	●			1.00"	24.4		120										
EZH 08019HP-120	●	8	8.4	0.75"	18	16	120	18	9	37	40.5 (24.5)	35.5 (19.5)	30.5 (14.5)	25.5 (-)	4	EZB%...080... _080X...100EZP	
EZH 08020HP-120	●			20	19		135										
EZH 08022HP-135	●			22	21		120										
EZH 08025.0HP-135	●			25	24		120										
EZH 08025.4HP-120	●			1.00"	24.4		120										

L3 shows DCB length.

LPR shows overhang length of the EZB Bar when attached to sleeve. ( ) value indicates the overhang length when installed the steel boring bar (EZ Bar PLUS).

Choose sleeves (DCB) to meet with DCON dimension of bar.

For how to mount EZ Bars (EZH-HP sleeve), please refer to F39.

Spare Parts Part Number (for EZH-HP Sleeves)

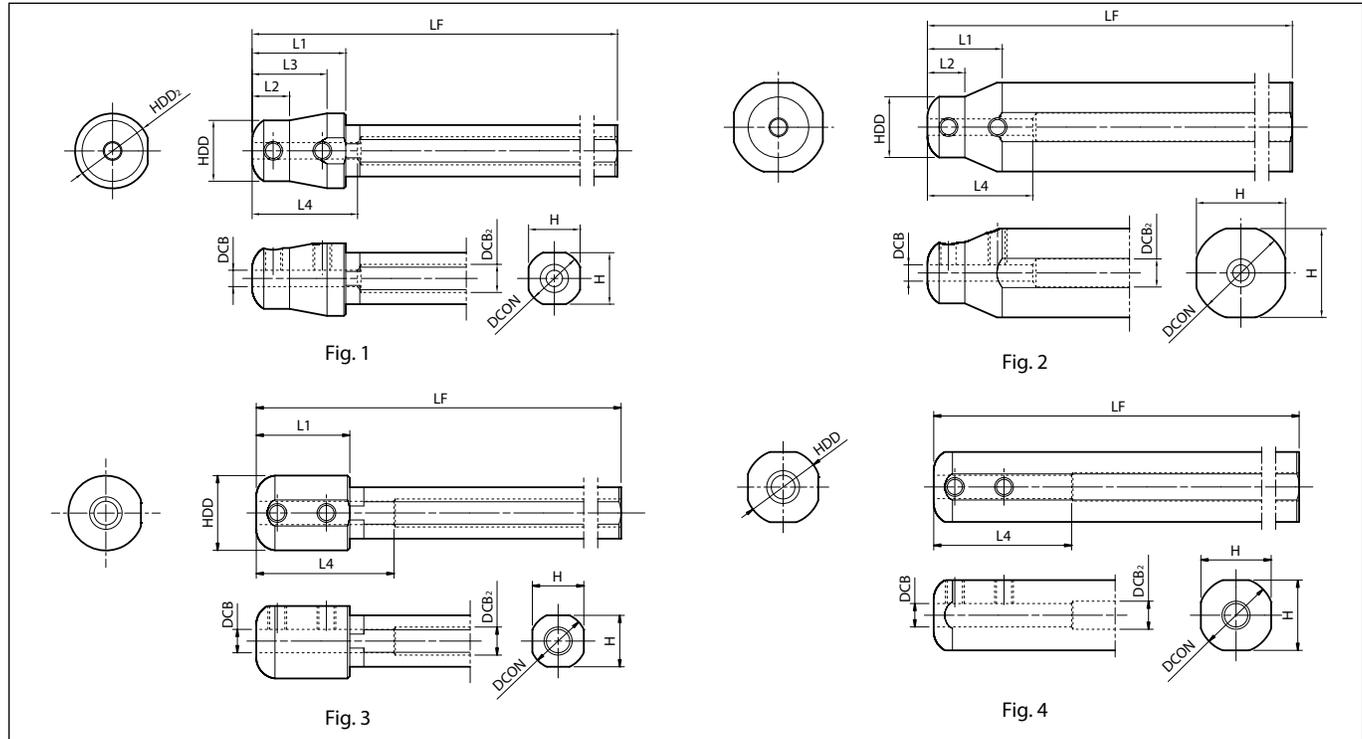
Part Number	Spare Parts					Applicable EZ Bars EZ Bar PLUS
	Adjustment Pin	Clamp Screw (for Adjustment Pin)	Wrench	Clamp Screw (for Bar)	Wrench	
EZH 017...HP-... 020...HP-... 025...HP-... 030...HP-...	LCP025140	HS3X4P (for both Adjustment Pin and Bar)	LW-1.5 Tightening Torque 1N-m	HS3X4P	LW-1.5 Tightening Torque 1N-m	EZBR...017...
EZB%...020...						EZ_R...020-...
EZB%...025...						EZ_R...025-...
EZB%...030...						EZ_R...030-...
EZH 035...HP-... 040...HP-... 045...HP-... 050...HP-... 060...HP-... 070...HP-... 080...HP-...	LCP025140	HS3X4P	LW-1.5 Tightening Torque 1N-m	HS4X4P	LW-2 Tightening Torque 2N-m	EZB%...035...
EZB%...040...						EZ_R%...040-...
EZB%...045...						_045X...050EZP
EZB%...050...						EZ_R%...050-...
EZB%...050X...060EZP						EZ_R%...060-...
EZB%...060...						EZ_R%...060-...
EZB%...070...						EZ_R%...070-...
EZB%...080...	_080X...100EZP					

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

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

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

**EZH-ST** (Not Adjustable)



- F BORING
- MICRO BORING
- POSITIVE INSERTS
- ANTI-VIBE BARS
- NEGATIVE INSERTS

**Sleeve Dimensions**

Unit	Part Number	Std. Item	Dimensions												Fig.	Applicable EZ Bars ● F18~F28, F30 ● G75 ● J44								
			DCB	DCB2	DCON	H	HDD	HDD2	LF	L1	L2	L3	L4											
mm	EZH 01712ST-80	●	1.7	6	12	11	13	16	80	20	16	8	-	16	1	EZBR...017...								
	01716ST-100	●			16	15											100							
	01719ST-120	●			0.75"	18											120							
	01720ST-120	●			20	19											13	16	8	-	16	2		
	01722ST-135	●			22	21											135							
	01725.0ST-135	●			25	24											120							
	01725.4ST-120	●			1.00"	24.4											120							
	EZH 02012ST-80	●	2	6	12	11	13	16	80	20	16	8	-	20	1		EZB%...020... EZBPR...020...							
	02016ST-100	●			16	15												100						
	02019ST-120	●			0.75"	18												120						
	02020ST-120	●			20	19												13	16	8	-	20	2	
	02022ST-135	●			22	21												135						
	02025.0ST-135	●			25	24												120						
	02025.4ST-120	●			1.00"	24.4												120						
	EZH 02512ST-80	●	2.5	6	12	11	13	16	80	20	16	8	-	20	1			EZB%...025... EZTR...025...						
	02516ST-100	●			16	15													100					
	02519ST-120	●			0.75"	18													120					
	02520ST-120	●			20	19													13	16	8	-	20	2
	02522ST-135	●			22	21													135					
	02525.0ST-135	●			25	24													120					
	02525.4ST-120	●			1.00"	24.4													120					
	EZH 03012ST-80	●	3	6	12	11	13	16	80	20	16	8	-	21	1				EZB%...030... EZBFR...030... EZBPR...030... EZVBR...030... EZGR...030... EZTR...030...					
	03016ST-100	●			16	15														100				
	03019ST-120	●			0.75"	18														120				
03020ST-120	●	20			19	13										16				8	-	21	2	
03022ST-135	●	22			21	135																		
03025.0ST-135	●	25			24	120																		
03025.4ST-120	●	1.00"			24.4	120																		

L4 shows DCB length.  
 Choose sleeves (DCB) to meet with DCON dimension of bar.  
 Adjustment pin cannot be installed to EZH-ST sleeves. To adjust overhang of the bar, please use EZH-CT / HP sleeves.

Sleeve Dimensions

Unit	Part Number	Std. Item	Dimensions											Fig.	Applicable EZ Bars ● F18~F38 ● G75, G99 ● J44		
			DCB	DCB2	DON	H	HDD	HDD2	LF	L1	L2	L3	L4				
mm	EZH 03512ST-80	●	3.5	6	12	11	13	-	16	80	20	16	1	EZB%...035... EZTR...035...			
	03516ST-100	●			16	15			100								
	03519ST-120	●			0.75"	18			120								
	03520ST-120	●			20	19			16	8	22						
	03522ST-135	●			22	21			135								
	03525.0ST-135	●			25	24			120								
	03525.4ST-120	●	1.00"	24.4	120												
	EZH 04012ST-80	●	4	6	12	11	13	-	16	80	20	16	1		EZBR010040..., EZBR015040... EZB%...040..., EZBFR...040... EZBPR...040..., EZVBR...040... EZBTR...040..., EZG%...040... EZFG%...040..., EZTR...040...		
	04016ST-100	●			16	15			100								
	04019ST-120	●			0.75"	18			120								
	04020ST-120	●			20	19			16	8	24						
	04022ST-135	●			22	21			135								
	04025.0ST-135	●			25	24			120								
	04025.4ST-120	●	1.00"	24.4	120												
	EZH 05012ST-80	●	5	6	12	11	16	-	80	20	-	-	29			EZB%...050..., EZBFR...050... EZBPR...050..., EZBCR...050... EZVBR...050..., EZBTR...050... _050X...-060EZP, EZG%...050... EZFG%...050..., EZTR...050...	
	05016ST-100	●			16	15			100	-							
	05019ST-120	●			0.75"	18			120								
	05020ST-120	●			20	19			18	9							
	05022ST-135	●			22	21			135								
	05025.0ST-135	●			25	24			120								
	05025.4ST-120	●	1.00"	24.4	120												
	EZH 06012ST-80	●	6	8	12	11	16	-	80	20	-	-	31				EZB%...060..., EZBFR...060... EZBPR...060..., EZBCR...060... EZVBR...060..., _060X...-070EZP EZG%...060..., EZTR...060...
	06016ST-100	●			16	15			100	-							
	06019ST-120	●			0.75"	18			120								
06020ST-120	●	20			19	18			9								
06022ST-135	●	22			21	135											
06025.0ST-135	●	25			24	120											
06025.4ST-120	●	1.00"	24.4	120													
EZH 07012ST-80	●	7	8	12	11	16	-	80	20	-	-	33	EZB%...070..., EZBCR...070... _070X...-080EZP, EZG%...070... EZFG%...070..., EZTR...070...				
07016ST-100	●			16	15			100	-								
07019ST-120	●			0.75"	18			120									
07020ST-120	●			20	19			18	9								
07022ST-135	●			22	21			135									
07025.0ST-135	●			25	24			120									
07025.4ST-120	●	1.00"	24.4	120													
EZH 08016ST-100	●	8	8.4	16	15	16	-	100	-	-	-	37		EZB%...080... _080X...-100EZP			
08019ST-120	●			0.75"	18			120									
08020ST-120	●			20	19			18	9								
08022ST-135	●			22	21			135									
08025.0ST-135	●			25	24			120									
08025.4ST-120	●			1.00"	24.4			120									

L4 shows DCB length.

Choose sleeves (DCB) to meet with DCON dimension of bar.

Adjustment pin cannot be installed to EZH-ST sleeves. To adjust overhang of the bar, please use EZH-CT / HP sleeves.

Spare Parts Part Number (for EZH-ST Sleeves)

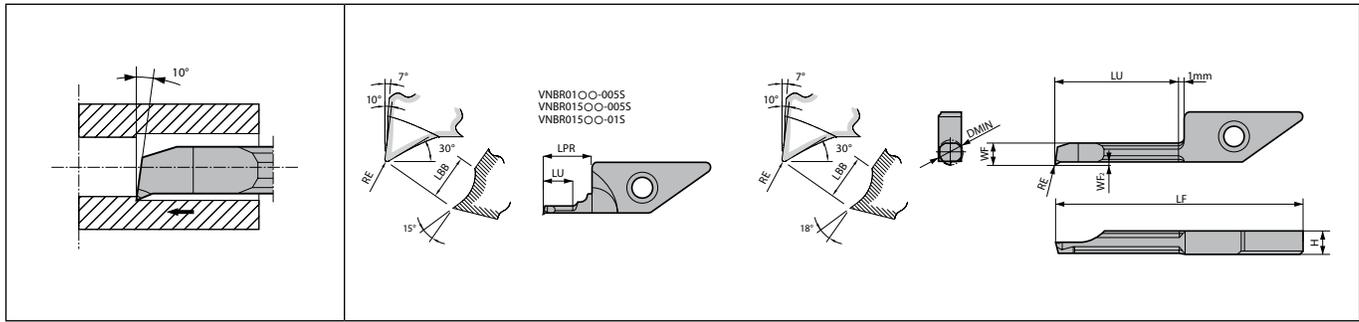
Part Number	Spare Parts		Applicable EZ Bars		EZ Bar PLUS S/C-SCLC S/C-STLB(P) S/C-SWUB
	Clamp Screw	Wrench	EZB-HP EZB-HP-LT EZB-ST EZB-NB	EZBT / EZBF EZBP / EZBC EZVB / EZG EZFG / EZT	
EZH 017...ST-..	HS3X4P	LW-1.5 Tightening Torque 1N-m	EZBR...017...	-	-
020...ST-..			EZB%...020...	EZ_R...020-...	-
025...ST-..			EZB%...025...	EZTR...025-...	-
030...ST-..			EZB%...030...	EZ_R...030-...	-
EZH 035...ST-..	HS4X4P	LW-2 Tightening Torque 2N-m	EZB%...035...	EZTR...035-...	-
040...ST-..			EZB%...040...	EZ_%...040-...	-
050...ST-..			EZB%...050...	EZ_%...050-...	_050X...-060EZP
060...ST-..			EZB%...060...	EZ_%...060-...	_060X...-070EZP
070...ST-..			EZB%...070...	EZ_%...070-...	_070X...-080EZP
080...ST-..			EZB%...080...	-	_080X...-100EZP

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

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

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

VNB-S (Boring)



Right-hand shown

Dimensions

Unit	Part Number	No. of Edges	Dimensions									Tolerance (mm)			Carbide		Applicable Toolholder F50~F53
			DMIN	H	LPR	LBB	LF	LU	WF	WF <sub>2</sub>	RE	RE min.	RE max.	PVD			
														PR1225	PR930		
mm	VNBR 0103-005S	1	1	3.9	7	0.7	26.5	3	0.85	0.2	0.05	-0.02	0	●	●	SVNR...-12N S...-SVNR12N S...-SVNR12SN	
	VNBR 0105-005S	1	1	3.9	7	0.7	26.5	5	0.85	0.2	0.05	-0.02	0	●	●		
	VNBR 01503-005S	1	1.5	3.9	7	0.7	26.5	3	1.3	0.2	0.05	-0.02	0	●	●		
	VNBR 01503-01S							3			0.1	-0.03		●	●		
	VNBR 01505-005S							5			0.05	-0.02		●	●		
	VNBR 01505-01S	5	0.1	-0.03	●	●											
	VNBR 0206-005S	1	2	3.9	-	0.8	26.5	6	1.8	0.25	0.05	-0.02	0	●	●	SVNR...-12N, SVNSR-12-06N S...-SVNR12N, S...-SVNR12SN	
	VNBR 0206-01S	1	2	3.9	-	0.8	26.5	6	1.8	0.25	0.05	-0.02	0	●	●		
	VNBR 025075-005S	1	2.5	3.9	-	0.8	28.1	7.5	2.1	0.4	0.05	-0.02	0	●	●	SVNR...-12NS..., -SVNR12N S...-SVNR12SN	
	VNBR 025075-01S	1	2.5	3.9	-	0.8	28.1	7.5	2.1	0.4	0.1	-0.03	0	●	●		
VNBR 0311-005S	1	3	3.9	-	0.8	30.8	11	2.6	0.4	0.05	-0.02	0	●	●	SVNR...-12N, SVNSR-12-11N S...-SVNR12N, S...-SVNR12SN		
VNBR 0311-01S	1	3	3.9	-	0.8	30.8	11	2.6	0.4	0.1	-0.03	0	●	●			
VNBR 03515-005S	1	3.5	3.9	-	0.8	34.8	15	3	0.5	0.05	-0.02	0	●	●	SVNR...-12NS..., -SVNR12N S...-SVNR12SN		
VNBR 03515-01S	1	3.5	3.9	-	0.8	34.8	15	3	0.5	0.1	-0.03	0	●	●			
VNBR 0411-005S	1	4	3.66	-	0.8	30.8	11	3.5	0.5	0.05	-0.02	0	●	●	SVNR...-12N, SVNSR-12-11N S...-SVNR12N, S...-SVNR12SN		
VNBR 0411-01S	1	4	3.66	-	0.8	30.8	11	3.5	0.5	0.1	-0.03	0	●	●			
VNBR 0411-02S	1	4	3.66	-	0.8	30.8	11	3.5	0.5	0.2	-0.04	0	●	●			
VNBR 0420-005S	1	4	3.66	-	0.8	39.8	20	3.5	0.5	0.05	-0.02	0	●	●	SVNR...-12N, SVNSR-12-20N S...-SVNR12N, S...-SVNR12SN		
VNBR 0420-01S	1	4	3.66	-	0.8	39.8	20	3.5	0.5	0.1	-0.03	0	●	●			
VNBR 0420-02S	1	4	3.66	-	0.8	39.8	20	3.5	0.5	0.2	-0.04	0	●	●			

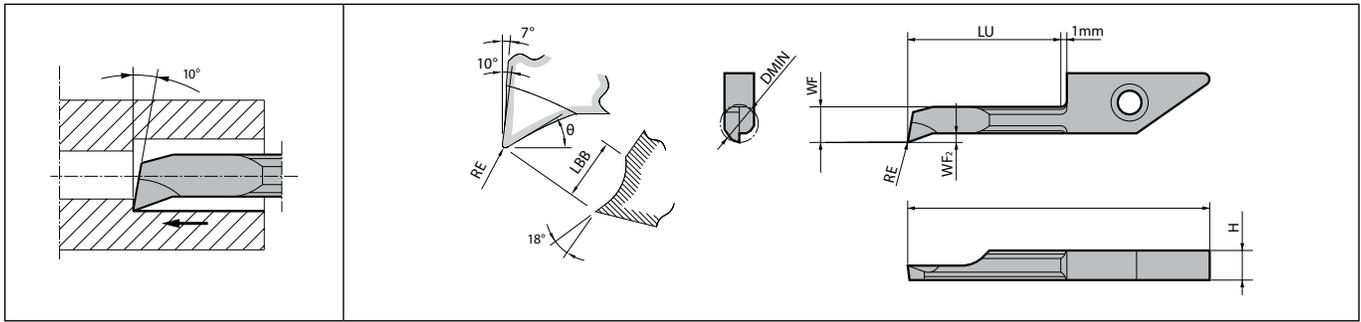
Recommended Cutting Conditions (VNB-S)

Workpiece Material	Insert Grades (Vc: sfm)		VNB01-S VNB015-S		VNB02-S VNB04-S		Notes
	MEGACOAT	PVD coated carbide					
	PR1225	PR930	D.O.C. (in), f (ipr)				
			D.O.C.	f	D.O.C.	f	
Carbon Steel / Alloy Steel	★ 100~390	☆ 100~330	~0.0039	~0.0004	~0.0079	~0.0012	Coolant
Stainless Steel	★ 100~300	☆ 100~260	~0.0039	~0.0004	~0.0079	~0.0008	

★ 1st recommendation ☆ 2nd recommendation

Swiss IQ Bars are sold in 5 piece boxes

VNB (Boring)



Right-hand shown

Dimensions

Unit	Part Number	No. of Edges	Dimensions								Angle θ (°)	Carbide			Applicable Toolholder F50~F53
			DMIN	H	LBB	LF	LU	WF	WF <sub>2</sub>	RE		PVD			
												PR1225	PR930	KW10	
mm	VNBR 0206-003 0206-01 0206-02	1	2	3.9	1.2	26.5	6	1.8	0.25	0.03 0.1 0.2	24	●	●	●	SVNR...-12N, SVNSR-12-06N S...-SVNR12N, S...-SVNR12SN
	VNBR 0311-003 0311-01 0311-02	1	3	3.9	1.8	30.8	11	2.6	0.4	0.03 0.1 0.2	24	●	●	●	SVNR...-12N, SVNSR-12-11N S...-SVNR12N, S...-SVNR12SN
	VNBR 0411-003 0411-01 0411-02	1	4	3.66	2.7	30.8	11	3.5	0.5	0.03 0.1 0.2	23	●	●	●	SVNR...-12N, SVNSR-12-11N S...-SVNR12N, S...-SVNR12SN
	VNBR 0420-003 0420-01 0420-02	1	4	3.66	2.7	39.8	20	3.5	0.5	0.03 0.1 0.2	23	●	●	●	SVNR...-12N, SVNSR-12-20N S...-SVNR12N, S...-SVNR12SN
	VNBR 0511-003 0511-01 0511-02	1	5	3.9	3	30.8	11	4.5	0.7	0.03 0.1 0.2	23	●	●	●	SVNR...-12N, SVNSR-12-11N S...-SVNR12N, S...-SVNR12SN
	VNBR 0520-003 0520-01 0520-02	1	5	3.9	3	39.8	20	4.5	0.7	0.03 0.1 0.2	23	●	●	●	SVNR...-12N, SVNSR-12-20N S...-SVNR12N, S...-SVNR12SN
	VNBR 0620-003 0620-01 0620-02	1	6	3.9	3	39.8	20	5.3	1	0.03 0.1 0.2	24	●	●	●	SVNR...-12N, SVNSR-12-20N S...-SVNR12N, S...-SVNR12SN
	VNBR 0630-003 0630-01 0630-02	1	6	3.9	3	49.8	30	5.3	1	0.03 0.1 0.2	24	●	●	●	SVNR...-12N S...-SVNR12N S...-SVNR12SN
	VNBR 0720-003 0720-01 0720-02	1	7	3.9	3	39.8	20	6.2	1	0.03 0.1 0.2	24	●	●	●	SVNR...-12N, SVNSR-12-20N S...-SVNR12N, S...-SVNR12SN
	VNBR 0730-003 0730-01 0730-02	1	7	3.9	3	49.8	30	6.2	1	0.03 0.1 0.2	24	●	●	●	SVNR...-12N S...-SVNR12N S...-SVNR12SN

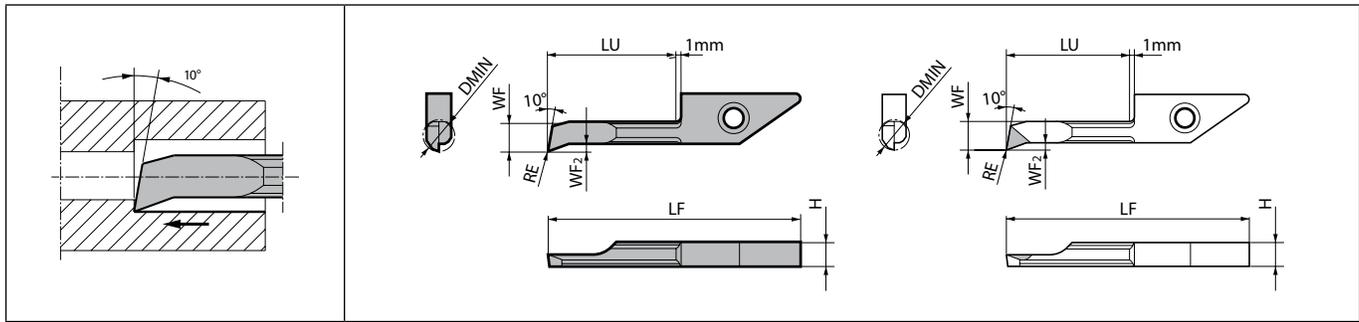
Recommended Cutting Conditions F49

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

Swiss IQ Bars are sold in 5 piece boxes

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

VNB-NB (Boring)



Right-hand shown

Dimensions

Unit	Part Number	No. of Edges	Dimensions							Angle θ (°)	Carbide		PCD	Applicable Toolholder F50~F53
			DMIN	H	LF	LU	WF	WF <sub>2</sub>	RE		PVD	-		
											PR930	KW10		
mm	VNBR 0206-003NB 0206-02NB	1	2	3.9	26.5	6	1.8	0.25	0.03 0.2	15	●	●		SVNR...-12N, SVNSR...-12-06N S...-SVNR12(N), S...-SVNR12SN
	VNBR 0311-003NB 0311-02NB	1	3	3.9	30.8	11	2.6	0.4	0.03 0.2	15	●	●		SVNR...-12N, SVNSR...-12-11(N) S...-SVNR12(N), S...-SVNR12SN
	VNBR 0411-003NB 0411-02NB	1	4	3.66	30.8	11	3.5	0.5	0.03 0.2	15	●	●	●	SVNR...-12N, SVNSR...-12-11(N) S...-SVNR12(N), S...-SVNR12SN
	VNBR 0420-003NB 0420-02NB	1	4	3.66	39.8	20	3.5	0.5	0.03 0.2	15	●	●	●	SVNR...-12N, SVNSR...-12-20(N) S...-SVNR12(N), S...-SVNR12SN
	VNBR 0511-003NB 0511-02NB	1	5	3.9	30.8	11	4.5	0.7	0.03 0.2	15	●	●	●	SVNR...-12N, SVNSR...-12-11(N) S...-SVNR12(N), S...-SVNR12SN
	VNBR 0520-003NB 0520-02NB	1	5	3.9	39.8	20	4.5	0.7	0.03 0.2	15	●	●	●	SVNR...-12N, SVNSR...-12-20(N) S...-SVNR12(N), S...-SVNR12SN
	VNBR 0620-003NB 0620-02NB	1	6	3.9	39.8	20	5.3	1	0.03 0.2	15	●	●	●	SVNR...-12N, SVNSR...-12-20(N) S...-SVNR12(N), S...-SVNR12SN
	VNBR 0630-003NB 0630-02NB	1	6	3.9	49.8	30	5.3	1	0.03 0.2	15	●	●	●	SVNR...-12N, S...-SVNR12(N) S...-SVNR12SN
	VNBR 0720-003NB 0720-02NB	1	7	3.9	39.8	20	6.2	1	0.03 0.2	15	●	●	●	SVNR...-12N, SVNSR...-12-20(N) S...-SVNR12(N), S...-SVNR12SN
	VNBR 0730-003NB 0730-02NB	1	7	3.9	49.8	30	6.2	1	0.03 0.2	15	●	●	●	SVNR...-12N, S...-SVNR12(N) S...-SVNR12SN

Recommended Cutting Conditions F49

**F**  
BORING

MICRO BORING

POSITIVE INSERTS

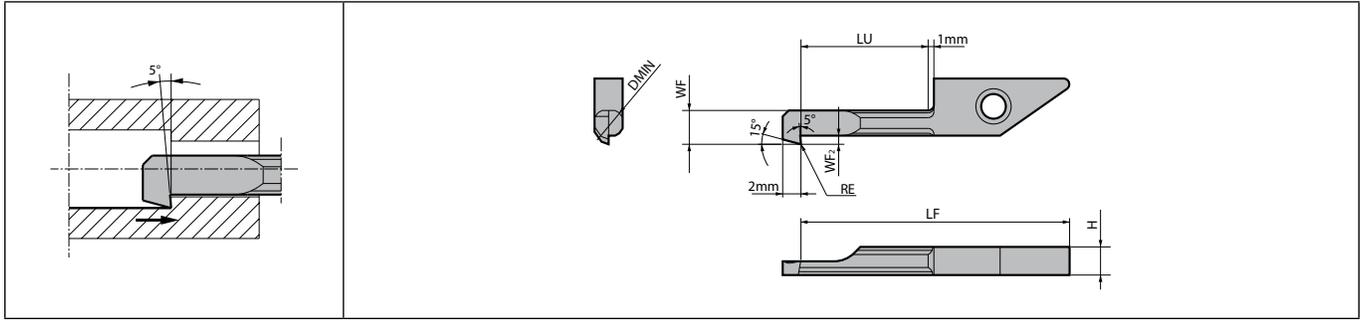
ANTI-VIBE BARS

NEGATIVE INSERTS

Swiss IQ Bars are sold in 5 piece boxes

PCD Swiss IQ Bars are sold in 1 piece boxes

**VNBT (Back Boring)**



Right-hand shown

**Dimensions**

Unit	Part Number	No. of Edges	Dimensions							Carbide			Applicable Toolholder F50~F53
			DMIN	H	LF	LU	WF	WF <sub>2</sub>	RE	PVD			
										PR1225	PR930	KW10	
mm	VNBTR 0411-003	1	4	3.66	28.8	9	3.6	1	0.03	●	●	SVNR...-12N, SVNSR...-12-11(N) S...-SVNR12(N), S...-SVNR12SN	
	0411-01								0.1	●	●		
	VNBTR 0420-003	1	4	3.66	37.8	18	3.6	1	0.03	●	●	SVNR...-12N, SVNSR...-12-20(N) S...-SVNR12(N), S...-SVNR12SN	
	0420-01								0.1	●	●		
	VNBTR 0511-003	1	5	3.9	28.8	9	4.6	1.3	0.03	●	●	SVNR...-12N, SVNSR...-12-11(N) S...-SVNR12(N), S...-SVNR12SN	
	0511-01								0.1	●	●		
	VNBTR 0520-003	1	5	3.9	37.8	18	4.6	1.3	0.03	●	●	SVNR...-12N, SVNSR...-12-20(N) S...-SVNR12(N), S...-SVNR12SN	
	0520-01								0.1	●	●		

**Recommended Cutting Conditions (VNB / VNB-NB / VNBT)**

Workpiece Material	Insert Grades (Vc: sfm)					VNB02	VNB03	VNB04 VNB04	VNB05 VNB06 VNB07 VNB05		Notes			
	MEGACOAT	PVD Coated Carbide	Carbide	PCD										
	PR1225	PR930	KW10	KPD001	KPD010									
	ap (mm), f (mm/rev)													
	D.O.C.	f	D.O.C.	f	D.O.C.	f	D.O.C.	f	D.O.C.	f				
Carbon Steel / Alloy Steel	★ 100~390	☆ 100~330				~0.0118	~0.0012	~0.0157	~0.0016	~0.0177	~0.0028	~0.0197	~0.0039	Coolant
Stainless Steel	★ 100~330	☆ 100~260				~0.0118	~0.0008	~0.0157	~0.0012	~0.0177	~0.0020	~0.0197	~0.0028	
Non-Ferrous Metals			☆ ~330	★ ~980	☆ ~980	~0.0118	~0.0020	~0.0157	~0.0024	~0.0177	~0.0039	~0.0197	~0.0059	

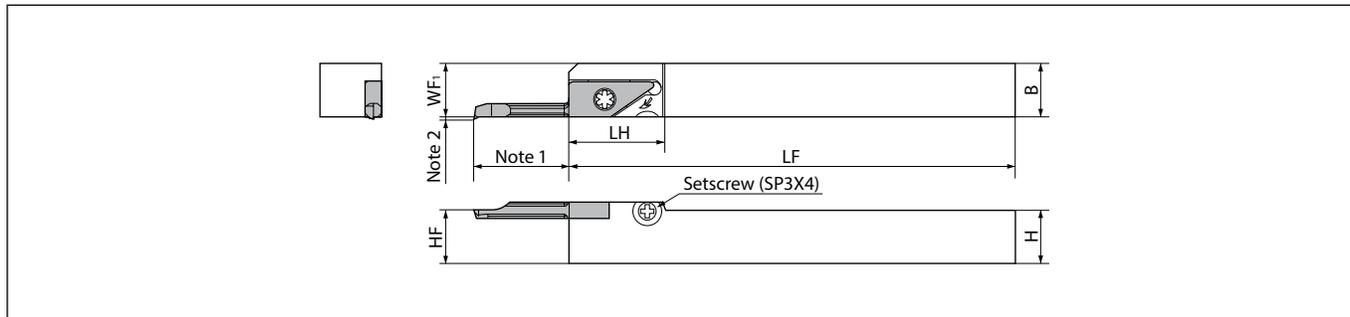
★ 1st recommendation ☆ 2nd recommendation

Swiss IQ Bars are sold in 5 piece boxes

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

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

**SVN-N** (without Side Stopper)



Right-hand shown | Right-hand Insert for Right-hand Toolholder.  
Note 1 & Note 2 (WF<sub>2</sub>) : For insert dimensions, see page (F46~F49)

**Toolholder Dimensions**

Unit	Part Number	Std. Item	Dimensions							Spare Parts			Applicable Inserts F46~F49
			R	H	B	LH	HF	LF	WF <sub>1</sub>	Screw	Set Screw	Wrench	
mm	SVNR 1010H-12N	●	10	10		10	100	10	SB-3080TR	SP3X4	FT-10	VNBR...-... VNBTR...-... VNGR...-... VNFGR...-... VNTR...-..	
	1212K-12N	●	12	12		12		12					
	1616K-12N	●	16	16	22	16	125	16					
	2020K-12N	●	20	20		20		20					
	2525M-12N	●	25	25		25	150	25					

SVN-N (without Side Stopper) retains high index accuracy with an easy restraint.  
SVN-N (without Side Stopper) has a setscrew SP3X4. Changing the set screw SP3X4 to a HS3X4 screw (sold separately) enables the toolholder's rigid clamping equivalent to the side stopper holders.

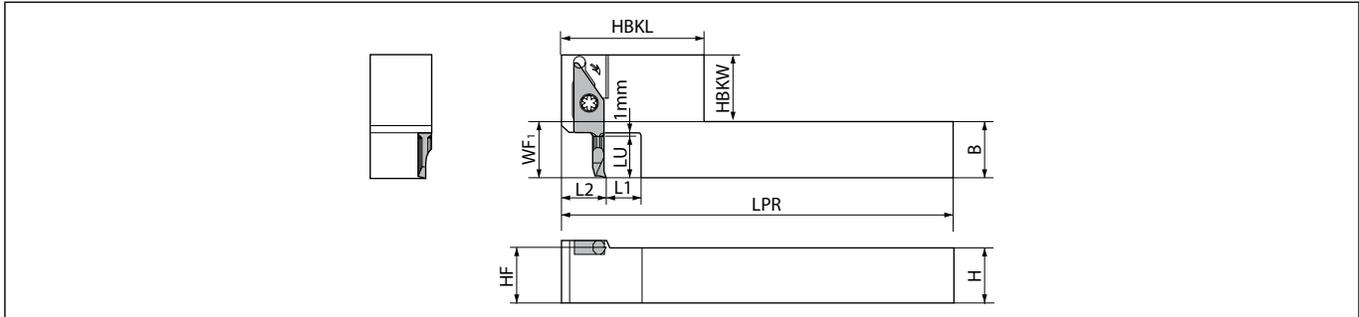
**Spare Parts (Optional)**

Screw (Side Stopper)	Wrench
HS3X4	LW-1.5

**F**  
BORING

MICRO BORING  
POSITIVE INSERTS  
ANTI-VIBE BARS  
NEGATIVE INSERTS

SVNS-N (without Side Stopper / without Set Screw)



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

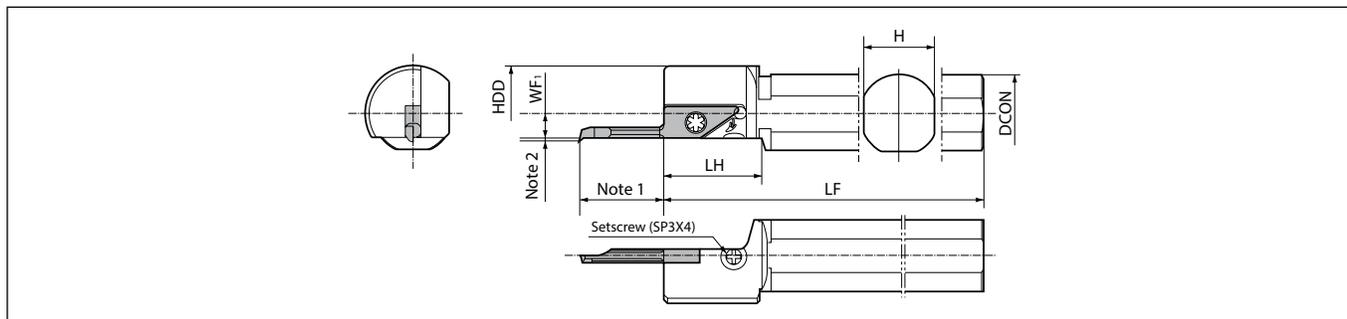
Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions										Spare Parts		Applicable Inserts F46~F49	
			R	H	B	LPR	HF	HBKW	HBKL	LU	WF <sub>i</sub>	L1	L2	Screw		Wrench
mm	SVNSR 1010K-12-06N	●	10	10	125	10	19	45	6	10	10	12	SB-3080TR	LTW-10S	VNBR..06...	
	1212M-12-06N	●	12	12	150	12	17			12						12
	1616M-12-06N	●	16	16		16	13			16						16
	SVNSR 1010K-12-11N	●	10	10	125	10	23	45	11	10	10	12	SB-3080TR	LTW-10S	VNBR..11-..., VNBTR..11-... VNGR...-11, VNTR...-11	
	1212M-12-11N	●	12	12	12	21	12			16						16
	1616M-12-11N	●	16	16	16	17	16			16						16
	SVNSR 1212M-12-20N	●	12	12	150	12	30	45	20	12	10	13	SB-3080TR	LTW-10S	VNBR..20-..., VNBTR20-... VNGR...-20	
	1616M-12-20N	●	16	16	16	26	16			16						16

All Swiss IQ Bar Inserts are used with SVNSR-N Toolholders. However, when setting the cutting edge at the face level of the toolholder as shown in the figure, use the applicable inserts described above. In these cases, the LU dimension of the toolholders corresponds to the LU dimension of the insert.

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

**S-SVN-N** (Round Shank / Standard / without Side Stopper)



Right-hand shown | Right-hand Insert for Right-hand Toolholder.  
Note 1 & Note 2 (WF<sub>2</sub>) : For insert dimensions, see page (F46~F49)

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions						Spare Parts			Applicable Inserts F46~F49
			R	DCON	H	LH	HDD	LF	WF <sub>1</sub>	Screw	Set Screw	
Inch	S19H- SVNR12N	●	0.750	0.669	0.945	0.945	3.937	0.236	SB-3080TR	SP3X4	FT-10	VNBR...-... VNBTR...-... VNGR...-... VNFR...-... VNTR...-...
	S19N- SVNR12N	●					6.299					
	S25H- SVNR12N	●	1.000	0.905	0.945	1.181	3.937					
	S25Q- SVNR12N	●					7.086					
mm	S12F- SVNR12N	●	12	11	23	20.0	80	4	SB-3080TR	SP3X4	FT-10	
	S14G- SVNR12N	●	14	13			90					
	S16H- SVNR12N	●	16	15	23	100	6					
	S20H- SVNR12N	●	20	18	24	100						

Spare Parts (Optional)

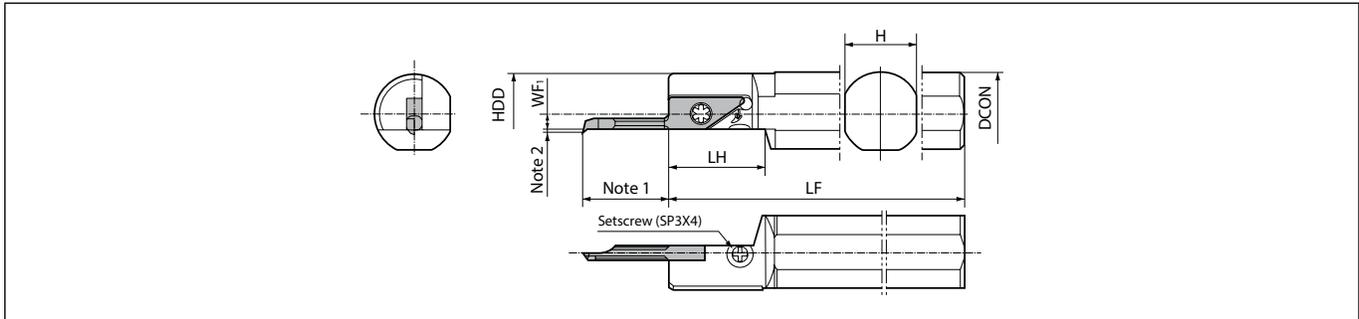
Screw (Side Stopper)	Wrench
HS3X4	LW-1.5

S-SVN-N (without Side Stopper) retains high index accuracy with an easy restraint.

S-SVN-N (without Side Stopper) has a setscrew SP3X4. Changing the set screw SP3X4 to a HS3X4 screw (sold separately) enables the toolholder's rigid clamping equivalent to the side stopper holders.

F  
BORING  
MICRO BORING  
POSITIVE INSERTS  
ANTI-VIBE BARS  
NEGATIVE INSERTS

S-SVN-SN (Round Shank / Straight / without Side Stopper)



Right-hand shown | Right-hand Insert for Right-hand Toolholder.  
Note 1 & Note 2 (WF<sub>2</sub>) : For insert dimensions, see page (F46~F49)

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions					Spare Parts			Applicable Inserts ● F46~F49	Spare Parts (Optional)			
			R	DCON	H	LH	HDD	LF	WF <sub>1</sub>	Screw		Set Screw	Wrench	Screw (Side Stopper)	Wrench
mm	S20H- SVNR12SN	●	20	18	23	19.5	100	4	SB-3080TR	SP3X4	FT-10	VNBR...-..., VNBTR...-... VNGR...-..., VNFGR...-... VNTR...-...	HS3X4	LW-1.5	
	S22K- SVNR12SN	●	22	20		21.5	125								
	S25.0G- SVNR12SN	●	25	23		24.5	90								

S-SVN-SN (without Side Stopper) retains high index accuracy with an easy restraint.

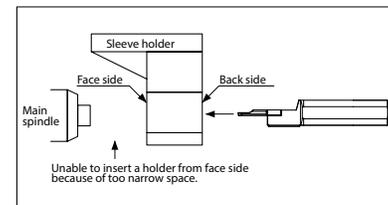
S-SVN-SN (without Side Stopper) has a setscrew SP3X4. Changing the set screw SP3X4 to a HS3X4 screw (sold separately) enables the toolholder's rigid clamping equivalent to the side stopper holders.

Swiss IQ Bar Selection

Gang-Type (Horizontal)	Gang-Type	Gang-Type Front loading sleeve type	Gang-Type Back loading sleeve type
Square shank (Straight)	Square shank (L-shape)	Square shank	Square shank
Round Shank (Standard)		Round Shank (Standard)	Round Shank (Standard)
Round Shank (Straight)		Round Shank (Straight)	Round Shank (Straight)

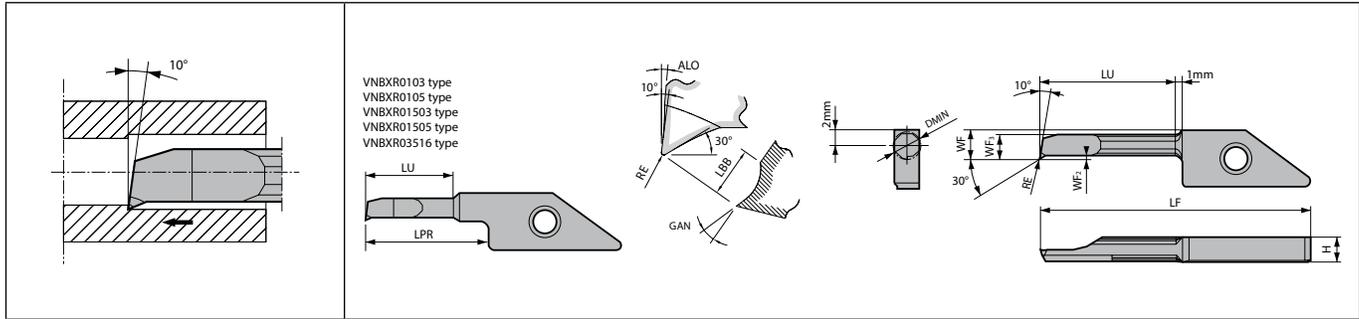
Q: There are standard types (head dia. is larger than shank) and straight types for round shanks. What is each one used for?

A: The straight type is used when it cannot be inserted from the face side of the sleeve holder and can be inserted only from the back side due to space limitation (Refer to Fig. below). On the other hand, the standard type should be installed when it can be inserted from the face side. The head end is used for positioning as stopper.



A  
B  
C  
D  
E  
F  
G  
H  
J  
K  
M  
N  
P  
R  
T

VNBX-S



Right-hand shown

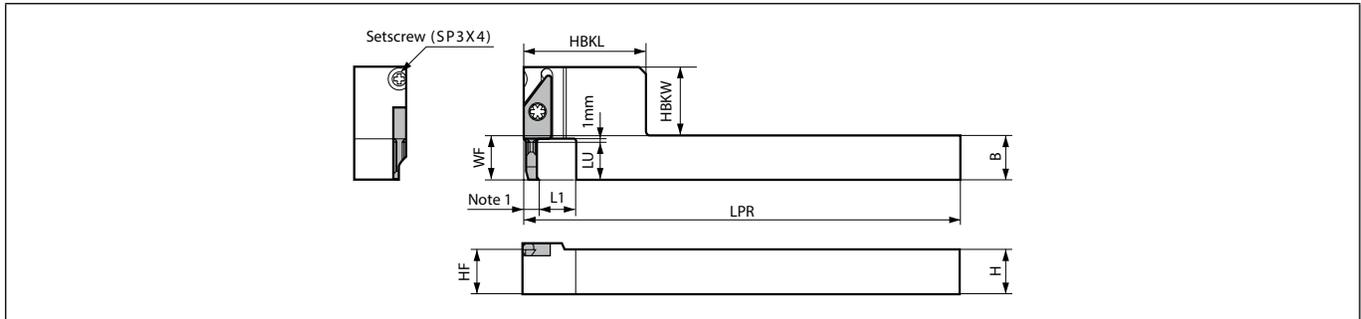
Dimensions

Unit	Part Number	No. of Edges	Dimensions										Angle (°)		Tolerance (mm)		Carbide	Applicable Toolholder F55~F57
			DMIN	H	LPR	LBB	LF	LU	WF	WF <sub>2</sub>	WF <sub>3</sub>	RE	ALO	GAN	RE min.	RE max.	PVD	
mm	VNBXR 0103-005S	1	1	3.9	7	0.7	26.5	3	2.95	0.2	0.85	0.05	7	15	-0.02	0	●	S...SVNR12XN S...SVNR12SXN
	VNBXR 0105-005S	1	1	3.9	7	0.7	26.5	5	2.95	0.2	0.85	0.05	7	15	-0.02	0	●	S...SVNR12XN S...SVNR12SXN
	VNBXR 01503-005S 01503-01S 01505-005S 01505-01S	1	1.5	3.9	7	0.7	26.5	3 3 5 5	2.95	0.2	1.3	0.05 0.1 0.05 0.1	7	15	-0.02 -0.03 -0.02 -0.03	0	● ● ● ●	S...SVNR12XN S...SVNR12SXN
	VNBXR 0206-005S 0206-01S	1	2	3.9	-	0.8	26.5	6	3	0.25	1.8	0.05 0.1	8	18	-0.02 -0.03	0	● ●	SVNSR...-12-06XN S...SVNR12XN S...SVNR12SXN
	VNBXR 0311-005S 0311-01S	1	3	3.9	-	0.8	30.8	11	3.5	0.4	2.6	0.05 0.1	8	18	-0.02 -0.03	0	● ●	SVNSR...-12-11XN S...SVNR12XN S...SVNR12SXN
	VNBXR 03511-005S 03511-01S 03516-005S 03516-01S	1	3.5	3.9	- - 21 21	0.8	30.8 30.8 39.8 39.8	11 11 16 16	3.75	0.45	3.1	0.05 0.1 0.05 0.1	8	18	-0.02 -0.03 -0.02 -0.03	0	● ● ● ●	SVNSR...-12-11XN, S...SVNR12XN S...SVNR12SXN S...SVNR12XN S...SVNR12SXN
	VNBXR 0411-005S 0411-01S 0411-02S	1	4	3.66	-	0.8	30.8	11	4	0.5	3.5	0.05 0.1 0.2	8	18	-0.02 -0.03 -0.04	0	● ● ●	SVNSR...-12-11XN S...SVNR12XN S...SVNR12SXN
	VNBXR 0420-005S 0420-01S 0420-02S	1	4	3.66	-	0.8	39.8	20	4	0.5	3.5	0.05 0.1 0.2	8	18	-0.02 -0.03 -0.04	0	● ● ●	SVNSR...-12-20XN S...SVNR12XN S...SVNR12SXN

Recommended Cutting Conditions F57

Swiss IQ Bars are sold in 5 piece boxes

SVNS-XN (without Side Stopper)



Right-hand shown | Right-hand Insert for Right-hand Toolholder.  
 Note 1 : The dimension of Note 1 is same size as the applicable insert (VNBX) WF dimension.

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions										Spare Parts			Applicable Inserts F54	
			R	H	B	LPR	L1	HF	HBKW	HBKL	LU	WF	Screw	Set Screw	Wrench		
mm	SVNSR 1010K-12-06XN	●	10	10	125	10	10	19	45	6	12	10	SB-3080TR	SP3X4	LTW-10S	VNBXR0206-...	
	1212M-12-06XN	●	12	12	150		12	17									16
	1616M-12-06XN	●	16	16	150	16	16	13	16								
	SVNSR 1010K-12-11XN	●	10	10	125	10	10	23	45	11	12	10	SB-3080TR	SP3X4	LTW-10S		VNBXR...11-...
	1212M-12-11XN	●	12	12	150		12	21									
	1616M-12-11XN	●	16	16	150	16	16	17	16								
SVNSR 1212M-12-20XN	●	12	12	150	10	12	30	45	20	12	12	SB-3080TR	SP3X4	LTW-10S	VNBXR0420-...		
1616M-12-20XN	●	16	16	150		16	16									26	

All VNBXR Swiss IQ Bar Inserts are used with a SVNS-XN Toolholder. However, when setting the cutting edge at the face level of the toolholder as shown in figure, use the applicable inserts shown above. SVNS-XN (without Side Stopper) retains high index accuracy with an easy restraint.

SVNS-XN (without Side Stopper) has a setscrew SP3X4. Changing the set screw SP3X4 to a H53X4 screw (sold separately) enables the toolholder's rigid clamping equivalent to the side stopper holders.

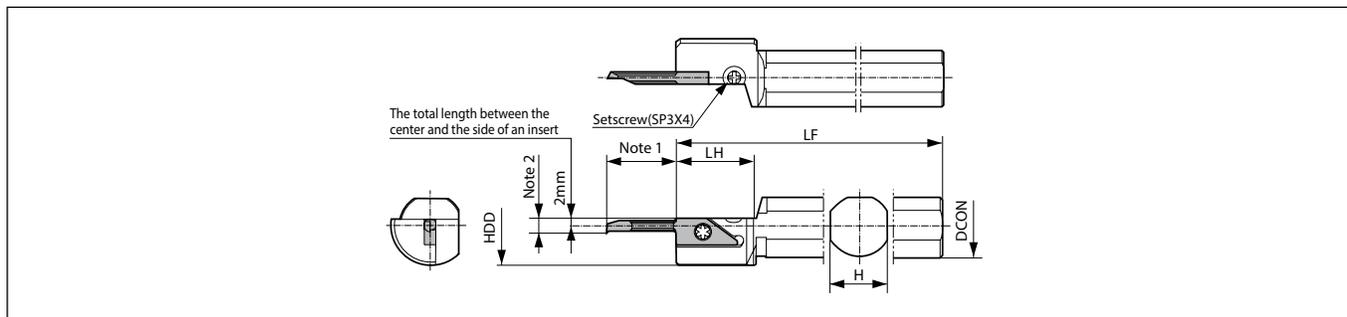
Spare Parts (Optional)

Screw (Side Stopper)	Wrench
H53X4	LW-1.5

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

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

S-SVN-XN (Round Shank / Standard / without Side Stopper)



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

Note 1 : The dimension of Note 1 shows the applicable insert (VNBX) LU +1 mm.  
 Note 2 : The dimension of Note 2 is same size as the applicable insert (VNBX) WF dimension.

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions					Spare Parts			Applicable Inserts F54
			R	DCON	H	LH	HDD	LF	Screw	Set Screw	
Inch	S19H- SVNR12XN	●	0.750	0.669	0.945	0.945	3.937	SB-3080TR	SP3X4	FT-10	VNBXR...
	S19N- SVNR12XN	●					6.299				
	S25H- SVNR12XN	●	1.000	0.905		1.181	3.937				
	S25Q- SVNR12XN	●					7.086				
mm	S12F- SVNR12XN	●	12	11	23	20	80	SB-3080TR	SP3X4	FT-10	
	S14G- SVNR12XN	●	14	13			90				
	S16H- SVNR12XN	●	16	15		24	100				
	S20H- SVNR12XN	●	20	18			100				

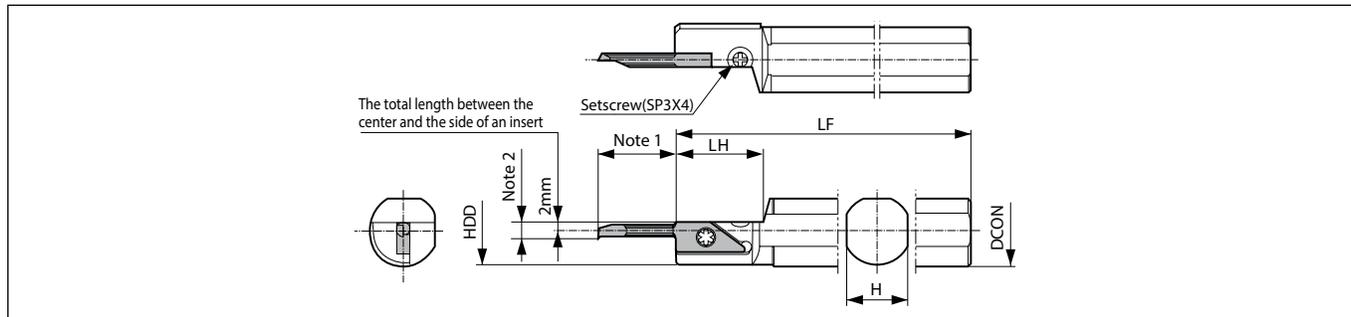
S-SVN-XN (without Side Stopper) retains high index accuracy with an easy restraint.

S-SVN-XN (without Side Stopper) has a setscrew SP3X4. Changing the set screw SP3X4 to a HS3X4 screw (sold separately) enables the toolholder's rigid clamping equivalent to the side stopper holders.

Spare Parts (Optional)

Screw (Side Stopper)	Wrench
HS3X4	LW-1.5

**S-SVN-SXN** (Round Shank / Straight / without Side Stopper)



Right-hand shown | Right-hand Insert for Right-hand Toolholder.  
 Note 1 : The dimension of Note 1 shows the applicable insert (VNBX) LU +1 mm.  
 Note 2 : The dimension of Note 2 is same size as the applicable insert (VNBX) WF dimension.

**Toolholder Dimensions**

Unit	Part Number	Std. Item	Dimensions					Spare Parts			Applicable Inserts F54
			R	DCON	H	LH	HDD	LF	Screw	Set Screw	
Inch	S19H- SVN12SXN	●	0.750	0.669	0.905	0.728	3.397	SB-3080TR	SP3X4	FT-10	VNBXR...
mm	S20H- SVN12SXN	●	20	18	23	19.5	100	SB-3080TR	SP3X4	FT-10	
	S22K- SVN12SXN	●	22	20		21.5	125				
	S25.0G- SVN12SXN	●	25	23		24.5	90				

S-SVN-SXN (without Side Stopper) retains high index accuracy with an easy restraint.  
 S-SVN-SXN (without Side Stopper) has a setscrew SP3X4. Changing the set screw SP3X4 to a HS3X4 screw (sold separately) enables the toolholder's rigid clamping equivalent to the side stopper holders.

**Spare Parts (Optional)**

Screw (Side Stopper)	Wrench
HS3X4	LW-1.5

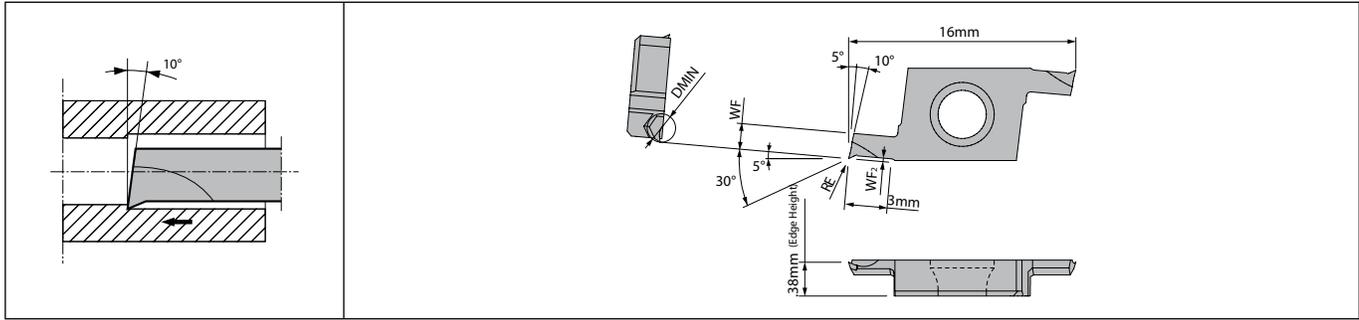
**Recommended Cutting Conditions (VNBX-S)**

Workpiece Material	Insert Grades (Vc: sfm)	VNBX01-S type VNBX015-S type		VNBX02-S type VNBX04-S type		Notes
	PVD Coated Carbide	D.O.C. (in), f (ipr)				
	PR930	D.O.C.	f	D.O.C.	f	
Carbon Steel / Alloy Steel	★ 100~330	~0.0039	~0.0004	~0.0079	~0.0012	Coolant
Stainless Steel	★ 100~260	~0.0039	~0.0004	~0.0079	~0.0008	

★ 1st recommendation

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

**TWB** (Micro Boring, Horizontal Type)



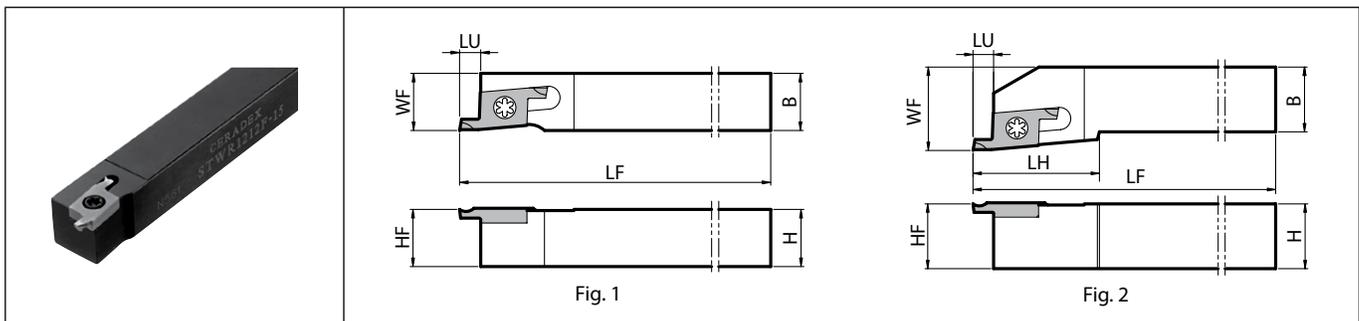
Right-hand shown

Dimensions

Unit	Part Number	No. of Edges	Dimensions				Tolerance (mm)		Carbide	Applicable Toolholder F58, F59
			DMIN	WF	WF <sub>2</sub>	RE	RE min.	RE max.		
mm	TWBR 01003-005	2	1	0.85	0.2	0.05	-0.02	0	●	STWR...-15 S..-STWR15
	TWBR 01503-005	2	1.5	1.3	0.2	0.05	-0.02	0	●	
	TWBR 01503-010								●	
	TWBR 02003-005	2	2	1.75	0.25	0.05	-0.02	0	●	
	TWBR 02003-010								●	
	TWBR 02503-005	2	2.5	2.1	0.3	0.05	-0.02	0	●	
TWBR 02503-010	●									
TWBR 03003-005	2	3	2.4	0.4	0.05	-0.02	0	●		
TWBR 03003-010								●		

Recommended Cutting Conditions F61

**STW** (Micro Boring, Square Shank for Horizontal Type Insert)



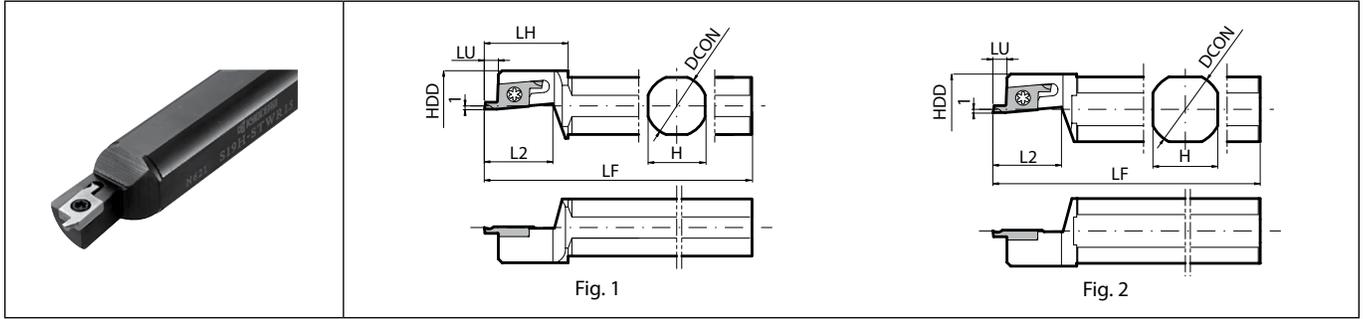
Right-hand shown | Right-hand Insert for Right-hand Toolholder.  
(For Left-hand toolholders for grooving, please see page G102.)

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions								Coolant Hole	Fig.	Spare Parts		Applicable Inserts F58
			R	CDX	H	B	LH	HF	LF	LU			WF	Screw	
mm	STWR 1212F-15	●	3	12	12	-	12	85	3	12	No	1	SB-3080TR	LTW-10S	TWBR...

Twin Bars are sold in 5 piece boxes

**S-STW** (Micro Boring, Round Shank for Horizontal Type Insert)



Right-hand shown | Right-hand Insert for Right-hand Toolholder.  
(For Left-hand toolholders for grooving, please see page G103.)

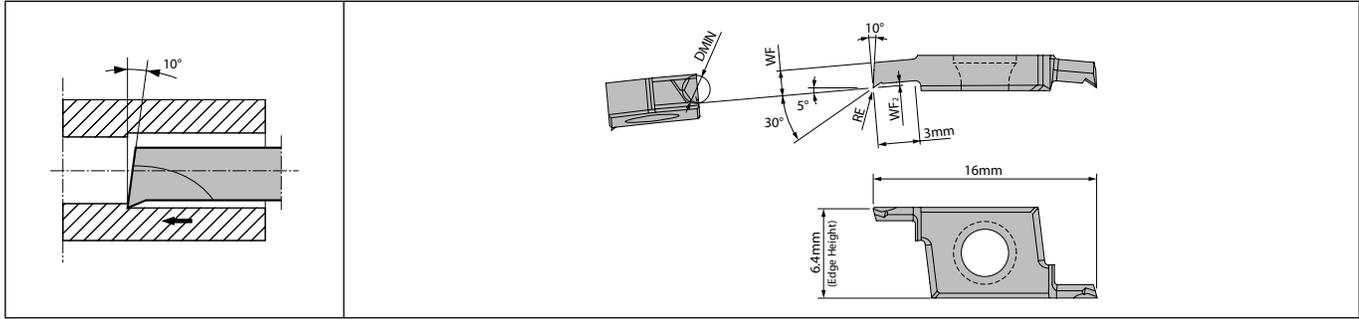
Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions							Coolant Hole	Fig.	Spare Parts		Applicable Inserts F58	
			R	DCON	H	LH	HDD	L2	LF			LU	Screw		Wrench
															
mm	S20G- STWR15	●	20	18	-	19.5	18	90	3	No	2	SB-3080TR	LTW-10S	TWBR...	
	S25.0J- STWR15	●	25	23	-	24.5	18	110	3	No	2	SB-3080TR	LTW-10S	TWBR...	

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

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

**TWBT** (Micro Boring, Vertical Type)



Right-hand shown

Dimensions

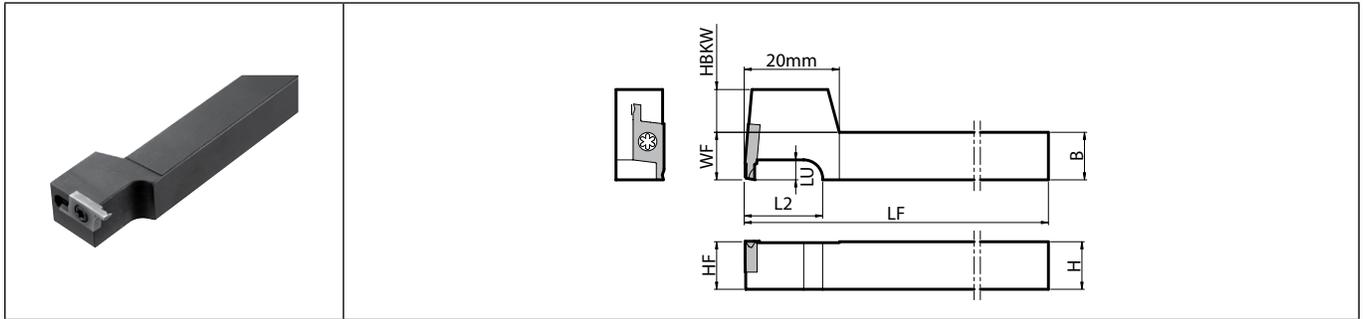
Unit	Part Number	No. of Edges	Dimensions				Tolerance (mm)		Carbide		Applicable Toolholder F61
			DMIN	WF	WF <sub>2</sub>	RE	RE min.	RE max.	PVD	PR1535	
mm	TWBTR 01003-005	2	1	0.85	0.2	0.05	-0.02	0	●	STWSR...-15T	
	TWBTR 01503-005	2	1.5	1.3	0.2	0.05	-0.02	0	●		
	TWBTR 01503-010								●		
	TWBTR 02003-005	2	2	1.75	0.25	0.05	-0.02	0	●		
	TWBTR 02003-010								●		
TWBTR 02503-005	2	2.5	2.1	0.3	0.05	-0.02	0	●			
TWBTR 02503-010								●			
TWBTR 03003-005	2	3	2.3	0.4	0.05	-0.02	0	●			
TWBTR 03003-010								●			

Recommended Cutting Conditions F61

- F BORING
- MICRO BORING
- POSITIVE INSERTS
- ANTI-VIBE BARS
- NEGATIVE INSERTS

Twin Bars are sold in 5 piece boxes

**STWS** (Micro Boring, Square Shank for Vertical Type Insert)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions								Spare Parts		Applicable Inserts F60	
			R	H	B	L2	HF	HBKW	LF	LU	WF	Screw		Wrench
mm	STWSR 1010F-15T	●	10	10	16	10	9	85	3	10	SB-3080TR	LTW-10S	TWBTR...	
	1010JX-15T	●				12	7	120		12				
	1212F-15T	●	12	12	12	7	85	12						
	1212JX-15T	●			16	3	120	16						
	1616JX-15T	●	16	16	20	16	3	16						

Recommended Cutting Conditions (TWB / TWBT)

Workpiece Material	Insert Grades Vc: sfm		TWBR01003 TWBR01503 TWBTR01003 TWBTR01503		TWBR02003 TWBR02503 TWBR03003 TWBTR02003 TWBTR02503 TWBTR03003		Notes
	MEGACOAT NANO	PVD Coated Carbide	D.O.C. (in), f (ipr)				
	PR1535	PR1025	D.O.C.	f	D.O.C.	f	
Carbon Steel / Alloy Steel	★ 30~100	☆ 30~100	~0.0039	~0.0004	~0.0079	~0.0012	Coolant
Stainless Steel	★ 30~80	☆ 30~80	~0.0039	~0.0004	~0.0079	~0.0008	

★ 1st recommendation ☆ 2nd recommendation

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

A/S-SCLC-AE Excellent Bar (Boring / Internal Facing)

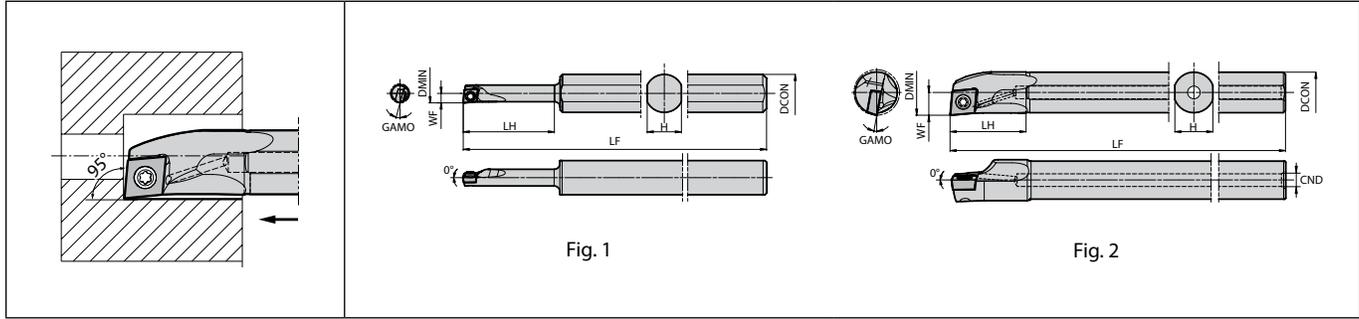


Fig. 1

Fig. 2

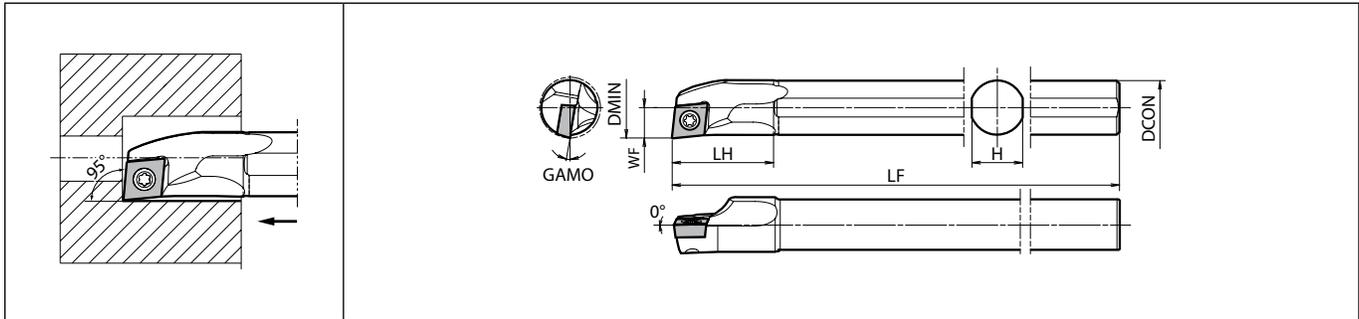
Max. Overhang Length L/D≈5.5 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions								GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Spare Parts			Applicable Inserts
		R	L	DMIN	DCON	CND	H	LH	LF	WF	Screw					Wrench	Wrench		
Inch	A06M- SCLC% 2AE	●	●	0.480	0.375	0.118	0.336	0.787	6.000	0.236	12	1/64	Yes	2	SB-2545TR	-	FT-8	CC□T215... CC□W215...	
	A08M- SCLC% 2AE	●	●	0.600	0.500	0.158	0.461	0.945	6.000	0.276	10								
	A10R- SCLC% 3AE	●	●	0.770	0.625	0.197	0.586	1.181	8.000	0.354	10								
	A12S- SCLC% 3AE	●	●	0.930	0.750	0.197	0.711	1.417	10.000	0.413	8	1/64	Yes	2	SB-4065TR	FT-15	-	CC□T325... CC□W325...	
	A16T- SCLC% 3AE	●	●	1.200	1.000	0.197	0.961	1.811	12.000	0.531	6								
mm	S10H- SCLC% 03-05AE	●	●	5	10	-	9	24	100	2.5	15	0.2	No	1	SB-1635TR	-	FT-6	CC□T1109... CC□W1109...	
	S10H- SCLC% 03-06AE	●	●	6				28		3	13								
	S10H- SCLC% 04-07AE	●	●	7	10	-	9	32	100	3.5	13	0.2	No	1	SB-2035TR	-	FT-6	CC□T1411... CC□W1411...	
	S10H- SCLC% 04-08AE	●	●	8				37		4	11								
	A08X- SCLC% 06-10AE	●	●	10	8	2.5	7	16	120	5	14	0.4	Yes	2	SB-2545TR	-	FT-8	CC□T215... CC□W215...	
	A10L- SCLC% 06-12AE	●	●	12	10	3	9	20	140	6	12								
	A12M- SCLC% 06-14AE	●	●	14	12	4	11	24	150	7	10	0.4	Yes	2	SB-4065TR	FT-15	-	CC□T325... CC□W325...	
	A16Q- SCLC% 09-18AE	●	●	18	16	5	15	30	180	9	10								
A20R- SCLC% 09-22AE	●	●	22	20	5	19	36	200	11	8	0.4	Yes	2	SB-4065TR	FT-15	-	CC□T325... CC□W325...		
A25S- SCLC% 09-27AE	●	●	27	25	5	24	46	250	13.5	6									

When using P chipbreaker : Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

**S-SCLC-A** Steel Shank Bar (Boring / Internal Facing)



Max. Overhang Length  $L/D \sim 4$  | Right-hand shown  
 Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

**Toolholder Dimensions**

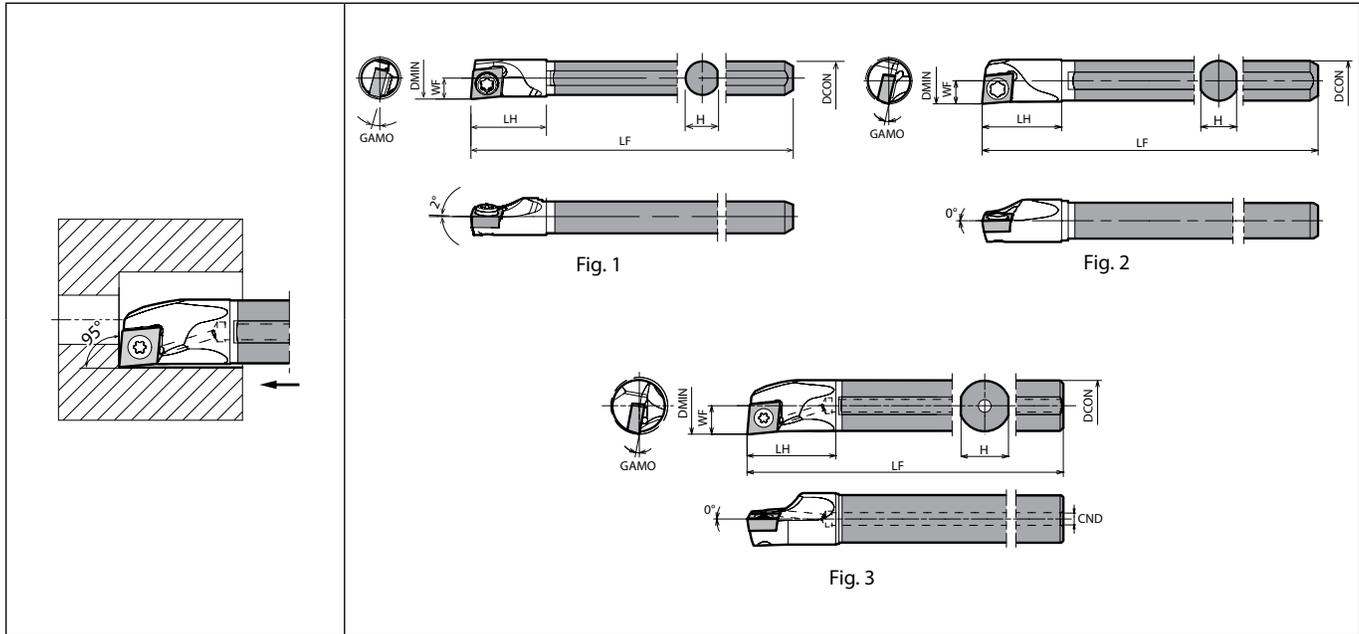
Unit	Part Number	Std. Item		Dimensions						GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts			Applicable Inserts
		R	L	DMIN	DCON	H	LH	LF	WF				Screw	Wrench	Wrench	
mm	S08X- SCLC%L 06-10A	●	●	10	8	7	16	120	5	14	0.4	No	SB-2545TR	-	FT-8	CC□T215... CC□W215...
	S10L- SCLC%L 06-12A	●	●	12	10	9	20	140	6	12						
	S12M- SCLC%L 06-14A	●	●	14	12	11	24	150	7	10						
	S16Q- SCLC%L 09-18A	●	●	18	16	15	30	180	9	10						
	S20R- SCLC%L 09-22A	●	●	22	20	19	36	200	11	8						
S25S- SCLC%L 09-27A	●	●	27	25	24	46	250	13.5	6	0.4	No	SB-4065TR	FT-15	-	CC□T325... CC□W325...	

When using P chipbreaker : Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

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

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

C/E-SCLC-A(N) Carbide Shank Bar (Boring / Internal Facing)



Max. Overhang Length L/D ~ 7 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Spare Parts			Applicable Inserts
		R	L	DMIN	DCON	CND	H	LH	LF	WF					Screw	Wrench	Wrench	
Inch	E06N- SCLC% 2A	●	●	0.480	0.375	0.118	0.336	0.787	6.300	0.236	12	1/64	Yes	3	SB-2545TR	-	FT-8	CC□T215... CC□W215...
	E08Q- SCLC% 2A	●	●	0.600	0.500	0.158	0.461	0.906	7.100	0.276	10							
	E10X- SCLC% 3A	●	●	0.770	0.625	0.197	0.586	1.102	8.700	0.354	10	1/64	Yes	3	SB-4065TR	FT-15	-	CC□T325... CC□W325...
	E10X- SCLCR3A-2/3	●							5.800									
mm	C04G- SCLC% 03-05AN	●	●	5	4	-	3.8	7	90	2.5	15	0.2	No	1	SB-1635TR	-	FT-6	CC□T1109..., CC□W1109...
	C05H- SCLC% 03-06AN	●	●	6	5	-	4.4	9	100	3	13	0.2	No	2	SB-1635TR	-	FT-6	CC□T1109..., CC□W1109...
	C06J- SCLC% 04-07AN	●	●	7	6	-	5.4	10	110	3.5	13	0.2	No	2	SB-2035TR	-	FT-6	CC□T1411... CC□W1411...
	C07K- SCLC% 04-08AN	●	●	8	7	-	6.4	11	125	4	11							
	E08L- SCLC% 06-10AN	●	●	10	8	3	7	14	140	5	14	0.4	Yes	3	SB-2545TR	-	FT-8	CC□T215... CC□W215...
	SCLCR06-10AN2/3	●							90									
	E10N- SCLC% 06-12AN	●	●	12	10				9	18	160							
	SCLCR06-12AN2/3	●				105												
	E12Q- SCLC% 06-14A	●	●	14	12	4	11	23	180	7	10	0.4	Yes	3	SB-4065TR	FT-15	-	CC□T325... CC□W325...
	SCLCR06-14A-2/3	●							120									
E16X- SCLC% 09-18A	●	●	18	16	4	15	28	220	9	10								
SCLCR09-18A-2/3	●				6			145										
E20S- SCLC% 09-22A	●	●	22	20	6	19	32	250	11	8	0.4	Yes	3	SB-4065TR	FT-15	-	CC□T325... CC□W325...	
SCLCR09-22A-2/3	●							165										
E25T- SCLC% 09-27A	●	●	27	25				24	38	300								13.5
SCLCR09-27A-2/3	●				200													

When using P chipbreaker : Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

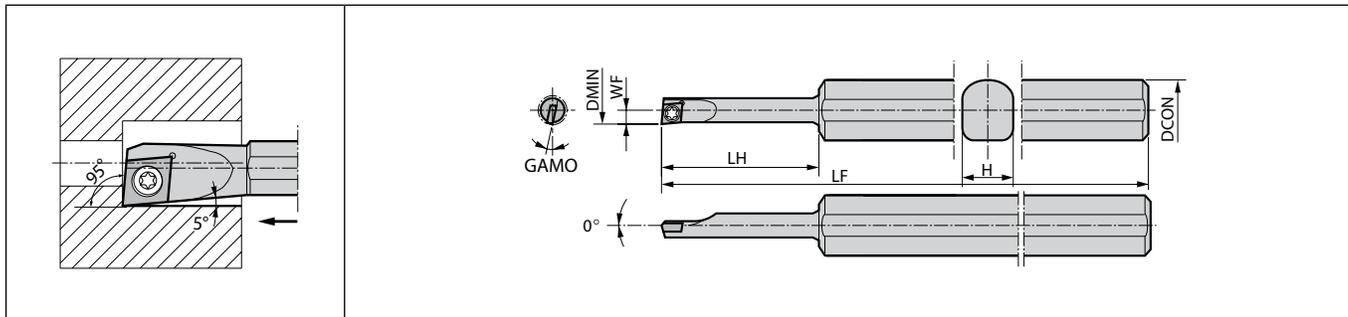
Applicable Inserts (A/S-SCLC-AE / S-SCLC-A / C/E-SCLC-A(N))

Applications	Minute D.O.C.	Finishing	Finishing	Finishing	Finishing	Finishing	Finishing - Medium	Finishing
Insert								
Chipbreaker Type	CF	PF	GF	SKS	SK	CK	GQ	WP
Page	B58	B58	B58	B59	B59	B59	B59	B60
Applications	Finishing	Finishing - Medium	Finishing - Medium	Medium	Medium	Finishing	Finishing	Finishing
Insert								
Chipbreaker Type	PP	GK	HQ	Standard	MF	P/L-F	P/L-FSF	P/L-P
Page	B60	B60	B60	B60	B61	B62	B61	B63
Applications	Low Feed	Low Feed	Low Feed	Stainless Steel / Heat-Resistant Alloys	Cast Iron	Non-Ferrous Metals	Non-Ferrous Metals	Non-Ferrous Metals
Insert								
Chipbreaker Type	P/L-U	P/L-USF	P/L-J	MQ	No Chipbreaker	AP	P/L-A3	AH
Page	B63~B65	B63	B65	B61	B66	B66	B66	B66
Applications	Non-Ferrous Metals	Non-Ferrous Metals	Hard Materials					
Insert								
Chipbreaker Type	PCD	APD	CBN					
Page	C39	C40	C20					

Recommended Cutting Conditions  F174, F175  
 Applicable Sleeves  F171~F173

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

**S-SCLC-E** Excellent Steel Shank Bar (Boring / Internal Facing)



Max. Overhang Length  $L/D \approx 5$  | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions						GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts		Applicable Inserts	
			R	DMIN	DCON	H	LH	LF				WF	Screw		Wrench
			Inch	S06H- SCLCR1.1E	●	0.197	0.375	0.335				0.900	4.000		0.098

When using P chipbreaker : Right-hand Insert for Right-hand Toolholder.  
Optional sleeve SL2.5-10 (0.625" dia.) is available. (Sleeve screw: SLS-2, sleeve wrench: LW-2)

**F**  
BORING

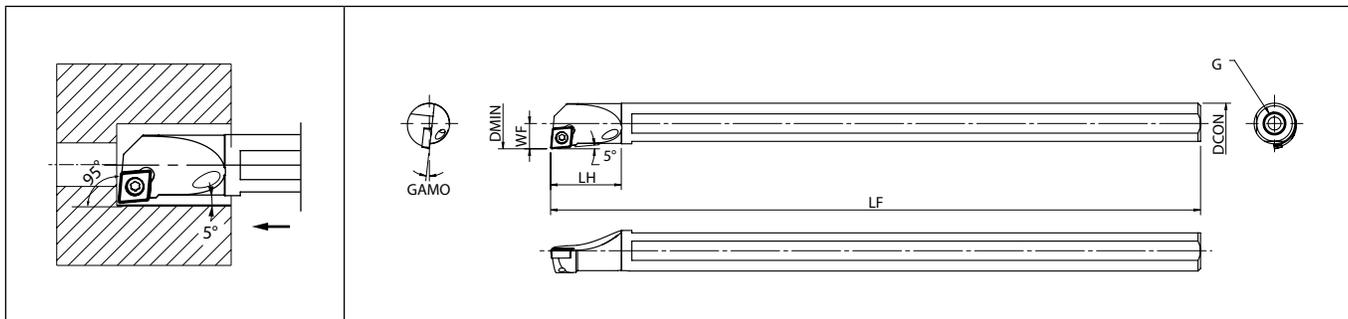
MICRO BORING

POSITIVE INSERTS

ANTI-VIBE BARS

NEGATIVE INSERTS

**A-SCLC** Steel Bar (Boring / Internal Facing)



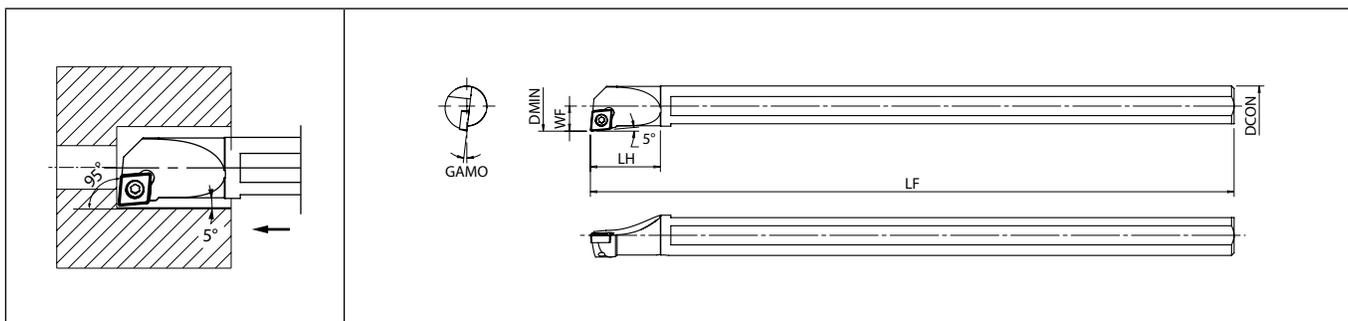
Max. Overhang Length  $L/D \approx 3$  | Right-hand shown  
 Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

**Toolholder Dimensions**

Unit	Part Number	Std. Item		Dimensions				GAMO (°)	G	Standard Corner-R (RE)	Coolant Hole	Spare Parts		Applicable Inserts	
		R	L	DMIN	DCON	LH	LF					WF	Screw		Wrench
Inch	A05K- SCLCR2	●		0.415	0.313	0.870	5.000	0.218	11	-				CC□T215... CC□W215...	
	A08R- SCLCR2	●		0.600	0.500	0.870	8.000	0.312	6	-	1/64	Yes	SB-2545TR FT-8		
	A10S- SCLCR2	●		0.770	0.625	0.870	10.000	0.406	4	1/8 NPT					

When using P chipbreaker : Right-hand Insert for Right-hand Toolholder  
 Optional sleeve SL2.5-10 (0.625" dia.) is available. (Sleeve screw: SLS-2, sleeve wrench: LW-2)

**S-SCLC** Steel Bar (Boring / Internal Facing)



Max. Overhang Length  $L/D \approx 3$  | Right-hand shown  
 Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

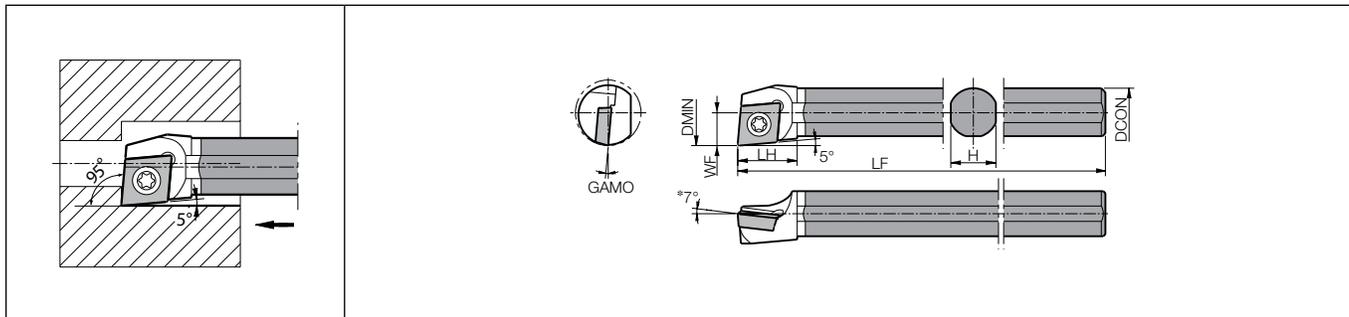
**Toolholder Dimensions**

Unit	Part Number	Std. Item		Dimensions				GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts		Applicable Inserts	
		R	L	DMIN	DCON	LH	LF				WF	Screw		Wrench
Inch	S05K- SCLC□L2	●	●	0.394	0.312	0.625	5.000	0.197	12	0.004	No	SB-2545TR FT-8	CC□T215... CC□W215...	

When using P chipbreaker : Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.  
 Optional sleeve SL2.5-10 (0.625" dia.) is available. (Sleeve screw: SLS-2, sleeve wrench: LW-2)

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

**C-SCLC** Carbide Shank Bar (Boring / Internal Facing)



Max. Overhang Length  $L/D \approx 7$  | Right-hand shown  
 Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions						GAMO (°)	Standard Corner-R (BE)	Coolant Hole	Spare Parts		Applicable Inserts	
			R	DMIN	DCON	H	LH	LF				WF	Screw		Wrench
															
Inch	COSK- SCLCR2	●	0.394	0.312	0.282	0.625	5.000	0.197	12	0.004	No	SB-2545TR	FT-8	CC□T215... CC□W215...	

When using P chipbreaker : Right-hand Insert for Right-hand Toolholder.  
 Optional sleeve SL2.5-10 (0.625" dia.) is available. (Sleeve screw: SLS-2, sleeve wrench: LW-2)

- F BORING
- MICRO BORING
- POSITIVE INSERTS
- ANTI-VIBE BARS
- NEGATIVE INSERTS

Applicable Inserts (S-SCLC-E / S-SCLC / A-SCLC / C-SCLC)

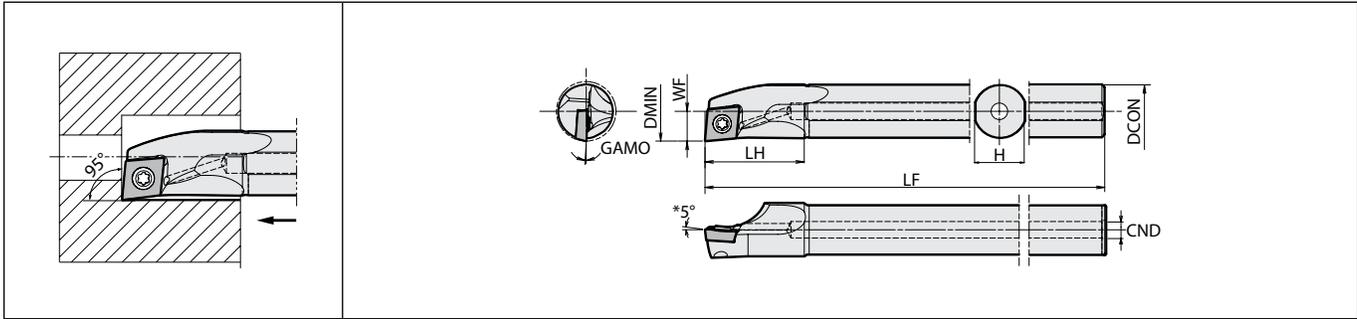
Applications	Minute D.O.C.	Finishing	Finishing	Finishing	Finishing	Finishing	Finishing - Medium	Finishing
Insert								
Chipbreaker Type	CF	PF	GF	SKS	SK	CK	GQ	WP
Page	B58	B58	B58	B59	B59	B59	B59	B60
Applications	Finishing	Finishing - Medium	Finishing - Medium	Medium	Medium	Finishing	Finishing	Finishing
Insert								
Chipbreaker Type	PP	GK	HQ	Standard	MF	P/L-F	P/L-FSF	P/L-P
Page	B60	B60	B60	B60	B61	B62	B61	B63
Applications	Low Feed	Low Feed	Low Feed	Stainless Steel / Heat-Resistant Alloys	Cast Iron	Non-Ferrous Metals	Non-Ferrous Metals	Non-Ferrous Metals
Insert								
Chipbreaker Type	P/L-U	P/L-USF	P/L-J	MQ	No Chipbreaker	AP	P/L-A3	AH
Page	B63~B65	B63	B65	B61	B66	B66	B66	B66
Applications	Non-Ferrous Metals	Non-Ferrous Metals	Hard Materials					
Insert								
Chipbreaker Type	PCD	APD	CBN					
Page	C39	C40	C20					

Recommended Cutting Conditions  F174, F175

Applicable Sleeves  F171~F173

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

**A-SCLP-AE** Excellent Bar (Boring / Internal Facing)



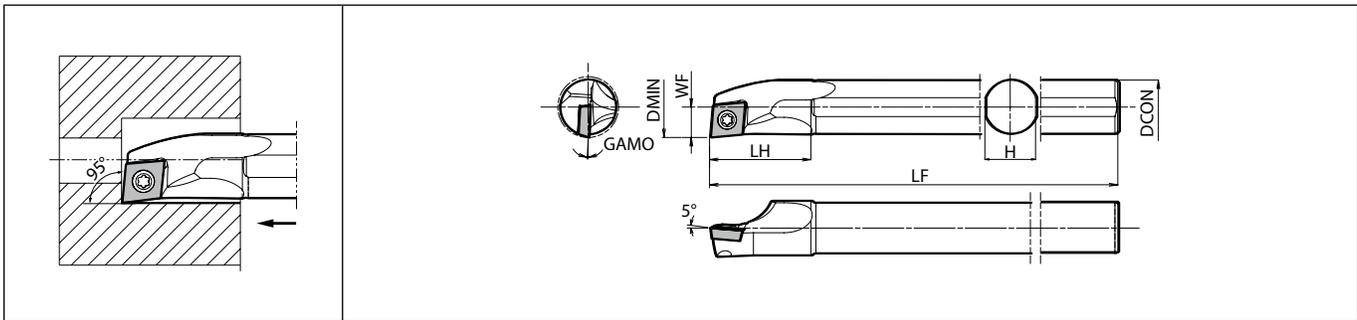
Max. Overhang Length L/D≈5.5 | Right-hand shown

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

**Toolholder Dimensions**

Unit	Part Number	Std. Item		Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts			Applicable Inserts
		R	L	DMIN	DCON	CND	H	LH	LF	WF				Screw	Wrench	Wrench	
Inch	A05K- SCLP%L 2AE	●	●	0.413	0.312	0.098	0.273	0.630	5	0.197	10	1/64	Yes	SB-2545TR	-	FT-8	CPGT215...
	A06M- SCLP%L 2.5AE	●	●	0.480	0.375	0.118	0.336	0.787	6	0.236	5	1/64	Yes	SB-3060TR	-	FT-10	CP□B2515..., CP□H2515... CP□T2515...
	A08M- SCLP%L 2.5AE	●	●	0.580	0.500	0.157	0.461	0.945	6	0.276	4	1/64	Yes	SB-3060TR	-	FT-10	CP□B2515..., CP□H2515... CP□T2515...
	A10R- SCLP%L 3AE	●	●	0.700	0.625	0.197	0.586	1.181	8	0.354	3.5	1/64	Yes	SB-4065TR	FT-15	-	CP□B32... CP□H32... CP□T32...
	A12S- SCLP%L 3AE	●	●	0.825	0.750	0.197	0.711	1.417	10	0.413	2	1/64	Yes	SB-4065TR	FT-15	-	CP□B32... CP□H32... CP□T32...
mm	A16T- SCLP%L 3AE	●	●	1.200	1.000	0.197	0.961	1.811	12	0.531	0	1/64	Yes	SB-4065TR	FT-15	-	CP□B32... CP□H32... CP□T32...
	A10L- SCLP%L 08-12AE	●	●	12	10	3	9	20	140	6	5	0.4	Yes	SB-3060TR	-	FT-10	CP□B2515..., CP□H2515... CP□T2515...
	A12M- SCLP%L 08-14AE	●	●	14	12	4	11	24	150	7	4	0.4	Yes	SB-3060TR	-	FT-10	CP□B2515..., CP□H2515... CP□T2515...
	A12M- SCLP%L 09-16AE	●	●	16	12	4	11	24	150	8	4	0.4	Yes	SB-4065TR	FT-15	-	CP□B32... CP□H32... CP□T32...
	A16Q- SCLP%L 09-18AE	●	●	18	16	5	15	30	180	9	3.5	0.4	Yes	SB-4065TR	FT-15	-	CP□B32... CP□H32... CP□T32...
	A20R- SCLP%L 09-22AE	●	●	22	20	5	19	36	200	11	2	0.4	Yes	SB-4065TR	FT-15	-	CP□B32... CP□H32... CP□T32...
A25S- SCLP%L 09-27AE	●	●	27	25	5	24	46	250	13.5	0	0.4	Yes	SB-4065TR	FT-15	-	CP□B32... CP□H32... CP□T32...	

**S-SCLP-A** Steel Shank Bar (Boring / Internal Facing)



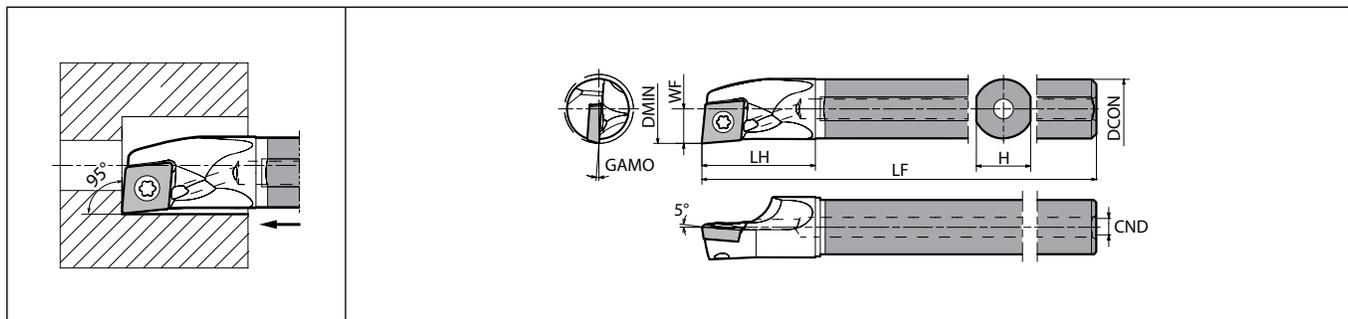
Max. Overhang Length L/D≈4 | Right-hand shown

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

**Toolholder Dimensions**

Unit	Part Number	Std. Item		Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts			Applicable Inserts
		R	L	DMIN	DCON	H	LH	LF	WF	Screw				Wrench	Wrench		
mm	S10L- SCLP%L 08-12A	●	●	12	10	9	20	140	6	5	0.4	No	SB-3060TR	-	FT-10	CP□B2515..., CP□H2515... CP□T2515...	
	S12M- SCLP%L 08-14A	●	●	14	12	11	24	150	7	4	0.4	No	SB-3060TR	-	FT-10	CP□B2515..., CP□H2515... CP□T2515...	
	S12M- SCLP%L 09-16A	●	●	16	12	11	24	150	8	4	0.4	No	SB-4065TR	FT-15	-	CP□B32... CP□H32... CP□T32...	
	S16Q- SCLP%L 09-18A	●	●	18	16	15	30	180	9	3.5	0.4	No	SB-4065TR	FT-15	-	CP□B32... CP□H32... CP□T32...	
	S20R- SCLP%L 09-22A	●	●	22	20	19	36	200	11	2	0.4	No	SB-4065TR	FT-15	-	CP□B32... CP□H32... CP□T32...	
	S25S- SCLP%L 09-27A	●	●	27	25	24	46	250	13.5	0	0.4	No	SB-4065TR	FT-15	-	CP□B32... CP□H32... CP□T32...	

**E-SCLP-A(N)** Carbide Shank Bar (Boring / Internal Facing)



Max. Overhang Length L/D≈~7 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

**Toolholder Dimensions**

Unit	Part Number	Std. Item		Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts			Applicable Inserts
		R	L	DMIN	DCON	CND	H	LH	LF	WF				Screw	Wrench	Wrench	
mm	E10N- SCLP% 08-12AN SCLPR08-12AN2/3 SCLPR08-12AN1/2	●	●	12	10	3	9	18	160	6	5	0.4	Yes	SB-3060TR	-	FT-10	CP□B2515... CP□H2515... CP□T2515...
	E12Q- SCLP% 08-14A SCLPR08-14A-2/3 SCLPR08-14A-1/2	●	●	14	12	4	11	23	180	7	4						
	E12Q- SCLP% 09-16A SCLPR09-16A-2/3 SCLPR09-16A-1/2	●	●	16	12	4	11	23	180	8	5						
	E16X- SCLP% 09-18A SCLPR09-18A-2/3 SCLPR09-18A-1/2	●	●	18	16		15	28	220	9	3.5						
	E20S- SCLP% 09-22A SCLPR09-22A-2/3 SCLPR09-22A-1/2	●	●	22	20		19	32	250	11	2						
	E25T- SCLP% 09-27A SCLPR09-27A-2/3	●	●	27	25	6	24	38	300	13.5	0						
									110								
								125									

**Applicable Inserts (A-SCLP-AE / S-SCLP-A / E-SCLP-A(N))**

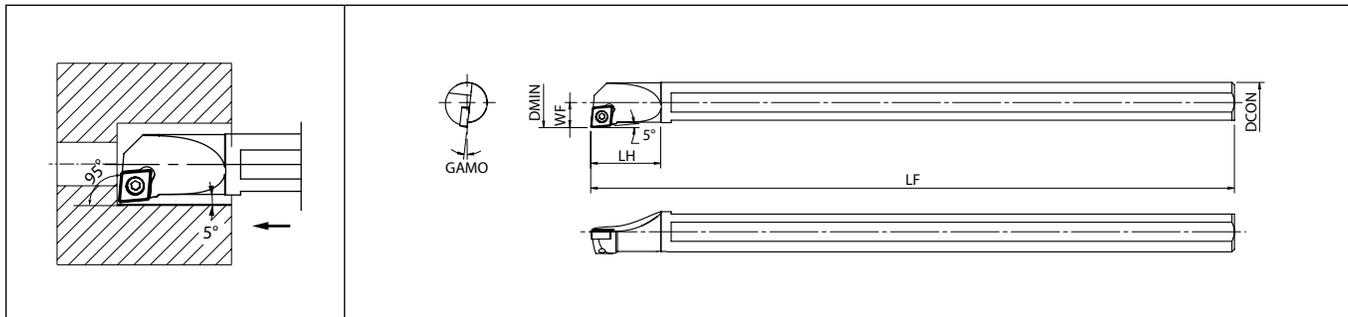
Applications	Finishing	Finishing	Finishing - Medium	Medium	Low Carbon Steel	Low Carbon Steel	Finishing - Medium	Cast Iron
Insert								
Chipbreaker Type	PP	GP	HQ	Standard	XP	XQ	%-Y	No Chipbreaker
Page	B67	B67	B67	B67	B67	B67	B67	B67
Applications	Non-Ferrous Metals		Hard Materials					
Insert								
Chipbreaker Type	PCD	CBN						
Page	C41	C21						

Recommended Cutting Conditions [F174, F175](#)  
Applicable Sleeves [F171~F173](#)

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

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

S-SCLP Steel Bar (Boring / Internal Facing)



Max. Overhang Length L/D≈~3 | Right-hand shown

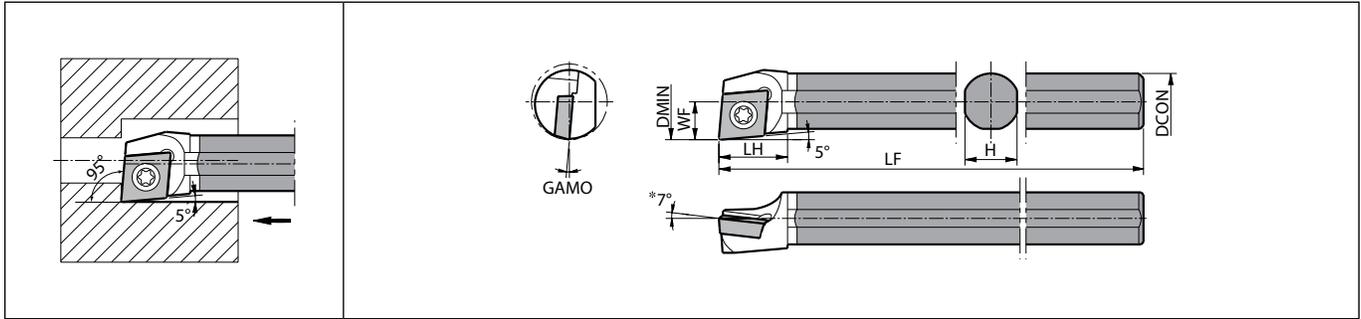
Toolholder Dimensions

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

Unit	Part Number	Std. Item		Dimensions				GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts			Applicable Inserts	
		R	L	DMIN	DCON	LH	LF				WF	Screw	Wrench		Wrench
Inch	S06M- SCLP <sup>®</sup> L 2.5	●	●	0.472	0.375	1.000	6.00	0.236	5	1/64	No	SB-3STR	-	FT-10	CP□B2515..., CP□H2515... CP□T2515...
	S08M- SCLP <sup>®</sup> L 3	●	●	0.630	0.500	1.180	6.00	0.315	4	1/64	No	SB-4TR	FT-15	-	CP□B32... CP□H32... CP□T32...
	S10X- SCLP <sup>®</sup> L 3	●	●	0.788	0.625	1.380	7.00	0.394	3	1/64	No				
	S12R- SCLP <sup>®</sup> L 3	●	●	0.984	0.750	1.560	8.00	0.492	0	1/64	No				
	S16T- SCLP <sup>®</sup> L 3	●	●	1.338	1.000	1.750	12.00	0.669	0	1/64	No				

- F BORING
- MICRO BORING
- POSITIVE INSERTS
- ANTI-VIBE BARS
- NEGATIVE INSERTS

C-SCLP Carbide Shank Bar (Boring / Internal Facing)



Max. Overhang Length L/D≈~7 | Right-hand shown

Toolholder Dimensions

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

Unit	Part Number	Std. Item	Dimensions						GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts			Applicable Inserts	
			R	DMIN	DCON	H	LH	LF				WF	Screw	Wrench		Wrench
Inch	C06M- SCLPR2.5	●	0.472	0.375	0.334	1.000	6.00	0.236	5	1/64	No	SB-3STR	-	FT-10	CP□B2515..., CP□H2515... CP□T2515...	
	C08R- SCLPR3	●	0.630	0.500	0.480	1.180	8.00	0.315	4	1/64	No	SB-4TR	FT-15	-	CP□B32... CP□H32... CP□T32...	
	C10S- SCLPR3	●	0.788	0.625	0.584	1.380	10.00	0.394	3	1/64	No					
	C12S- SCLPR3	●	0.984	0.750	0.710	1.560	10.00	0.492	0	1/64	No					

Applicable Inserts (S-SCLP / C-SCLP)

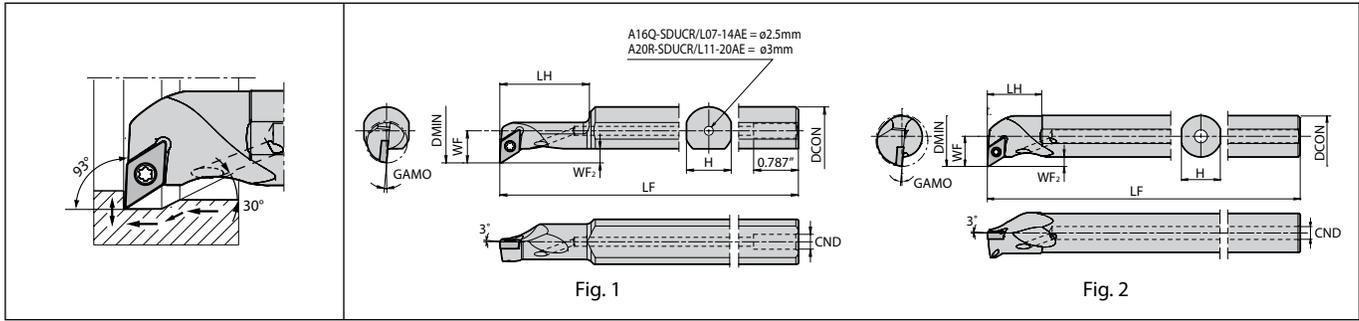
Applications	Finishing	Finishing	Finishing - Medium	Medium	Low Carbon Steel	Low Carbon Steel	Finishing - Medium	Cast Iron
Insert								
Chipbreaker Type	PP	GP	HQ	Standard	XP	XQ	%-Y	No Chipbreaker
Page	B67	B67	B67	B67	B67	B67	B67	B67
Applications	Non-Ferrous Metals	Hard Materials						
Insert								
Chipbreaker Type	PCD	CBN						
Page	C41	C21						

Recommended Cutting Conditions [F174, F175](#)  
Applicable Sleeves [F171~F173](#)

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

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

A-SDUC-AE Excellent Bar (Internal Copying)



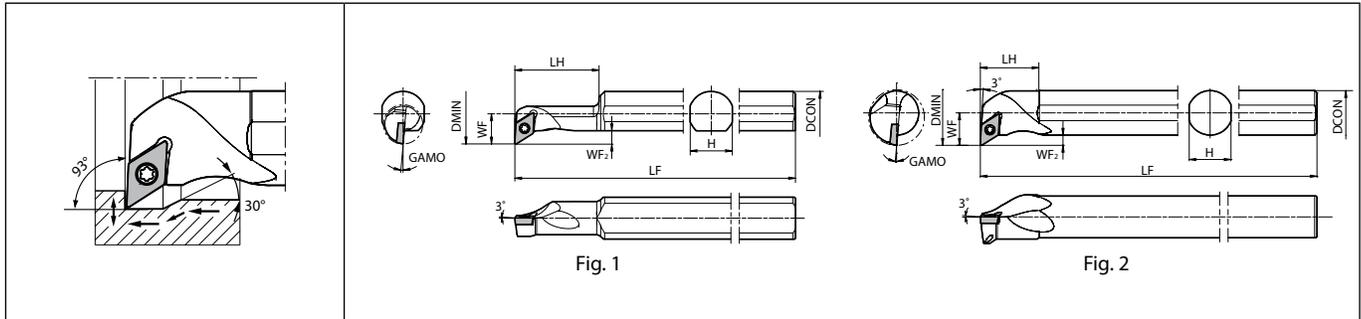
Max. Overhang Length L/D≈~5.5 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions								GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Spare Parts			Applicable Inserts		
		R	L	DMIN	DCON	CND	H	LH	LF	WF	WF2					Screw	Wrench	Wrench			
Inch	A06M- SDUC%L 2AE	●	●	0.551	0.375	0.118	0.336	0.748	6.000	0.341	0.130	5	1/64	Yes	Fig.1		-	FT-8	DC□T215... DC□W215... DC□X215...		
	A08M- SDUC%L 2AE	●	●	0.630	0.500	0.157	0.461	0.827	6.000	0.360											
	A10R- SDUC%L 2AE	●	●	0.787	0.625	0.197	0.586	0.827	8.000	0.459											
	A12S- SDUC%L 3AE	●	●	1.063	0.750	0.197	0.711	0.866	10.000	0.650											
mm	A16T- SDUC%L 3AE	●	●	1.300	1.000	0.197	0.961	0.945	12.000	0.748	0.240	5	1/64	Yes	Fig.1		FT-15	-	DC□T325..., DC□W325... DC□X325...		
	A10L- SDUC%L 07-14AE	●	●	14	10	3	9	19	140	8.7											
	A12M- SDUC%L 07-16AE	●	●	16	12	4	11	21	150	9.7	3.3	5	0.4	Yes	2		-	FT-8	DC□T215... DC□W215... DC□X215...		
	A16Q- SDUC%L 07-14AE	●	●	14	16	5	15	28	180	10.8											
	A16Q- SDUC%L 07-20AE	●	●	20							21	11.7	3.3								
	A16Q- SDUC%L 11-23AE	●	●	23	16	5	19	21	180	14.5	6.1	5	0.4	Yes	2		FT-15	-	DC□T325... DC□W325... DC□X325...		
	A20R- SDUC%L 11-20AE	●	●	20	20															48	15.6
	A20R- SDUC%L 11-27AE	●	●	27	20															23	16.5
A25S- SDUC%L 11-32AE	●	●	32	25	24															24	250

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

S-SDUC-A Steel Shank Bar (Internal Copying)



Max. Overhang Length L/D≈~4 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

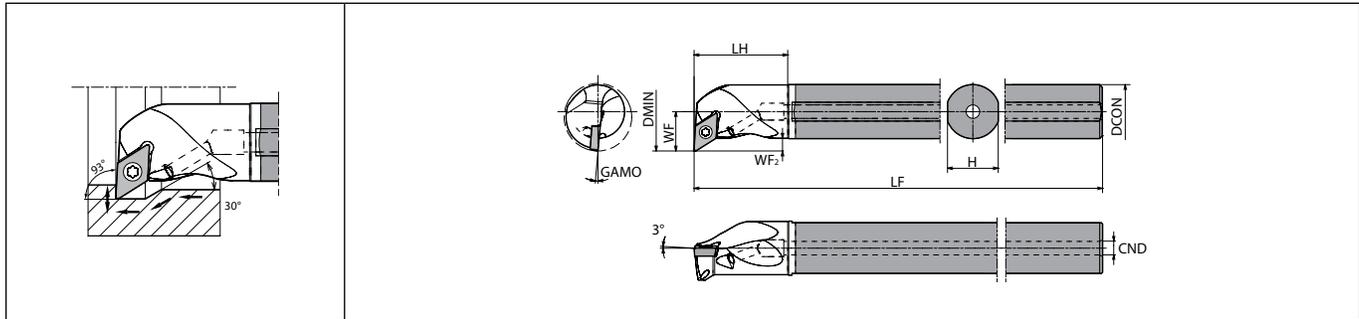
Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							GAMMO (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Spare Parts			Applicable Inserts
		R	L	DMIN	DCON	H	LH	LF	WF	WF2					Screw	Wrench	Wrench	
mm	S10L- SDUC% 07-14A	●	●	14	10	9	19	140	8.7	3.3	5	0.4	No	2	SB-2560TR	-	FT-8	DC□T215... DC□W215... DC□X215...
	S12M- SDUC% 07-16A	●	●	16	12	11	21	150	9.7	2								
	S16Q- SDUC% 07-14A SDUC% 07-20A	●	●	14 20	16	15	28 21	180	10.8 11.7	4.4 3.3								
	S16Q- SDUC% 11-23A	●	●	23	16	15	21	180	14.5	6.1	5	0.4	No	2	SB-4065TR	FT-15	-	DC□T325... DC□W325... DC□X325...
	S20R- SDUC% 11-20A SDUC% 11-27A	●	●	20 27	20	19	48 23	200	15.6 16.5	1								
	S25S- SDUC% 11-32A	●	●	32	25	24	24	250	19	2								

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

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

E-SDUC-A Carbide Shank Bar (Internal Copying)



Max. Overhang Length  $L/D \approx 7$  | Right-hand shown  
 Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions								GAMMO (°)	Standard Corner-F (RE)	Coolant Hole	Spare Parts			Applicable Inserts
		R	L	DMIN	DCON	CND	H	LH	LF	WF	WF <sub>2</sub>				Screw	Wrench	Wrench	
Inch	E06N- SDUCR2A	●		0.551	0.375	0.118	0.336	0.776	6.300	0.341	0.130	5	1/64	Yes	SB-2560TR	-	FT-8	DC□T215... DC□W215... DC□X215...
	E08Q- SDUCR2A	●		0.630	0.500	0.157	0.461	0.894	7.100	0.360	0.098							
	E10X- SDUCR2A	●		0.787	0.625	0.157	0.586	1.091	8.700	0.459	0.130							
mm	E10N- SDUC% 07-14A SDUCR07-14A-2/3	●	●	14	10	3	9	20	160 105	8.7	3.3	5	0.4	Yes	SB-2560TR	-	FT-8	DC□T215... DC□W215... DC□X215...
	E12Q- SDUC% 07-16A SDUCR07-16A-2/3	●	●	16	12	4	11	23	180 120	9.7								
	E16X- SDUC% 07-20A SDUCR07-20A-2/3	●	●	20	16		15	28	220 145	11.7								
	E16X- SDUC% 11-23A SDUCR11-23A-2/3	●	●	23	16	4	15	28	220 145	14.5								
	E20S- SDUC% 11-27A SDUCR11-27A-2/3	●	●	27	20	6	19	32	250 165	16.5								
	E25T- SDUC% 11-32A SDUCR11-32A-2/3	●	●	32	25		24	38	300 200	19								

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

Applicable Inserts (A-SDUC-AE / S-SDUC-A / E-SDUC-A)

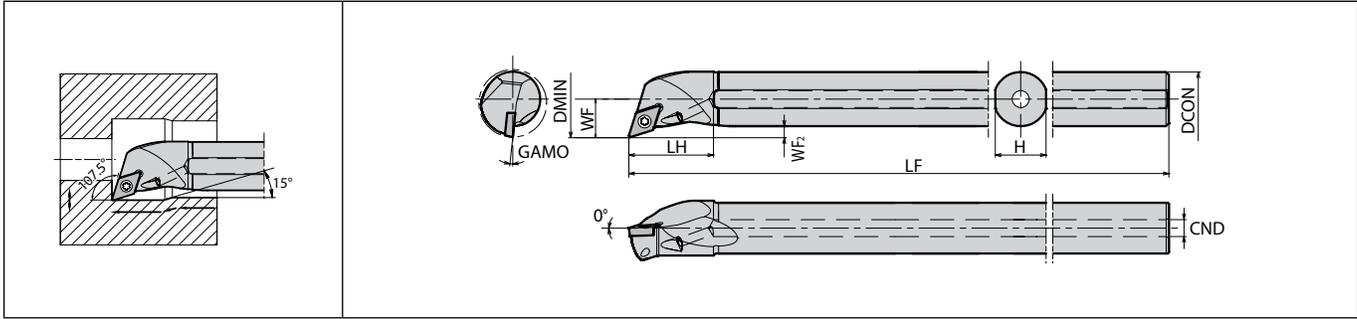
<b>Applications</b>	Minute D.O.C.	Finishing	Finishing	Finishing	Finishing	Finishing - Medium	Finishing	Finishing
<b>Insert</b>								
<b>Chipbreaker Type</b>	CF	GF	SKS	SK	CK	GQ	WP	%L-WP
<b>Page</b>	B68	B68	B68	B68	B68	B69	B69	B69
<b>Applications</b>	Finishing	Finishing	Finishing - Medium	Finishing -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

Recommended Cutting Conditions [F174, F175](#)

Applicable Sleeves [F171~F173](#)

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

**A-SDQC-AE** Excellent Bar (Internal Copying)



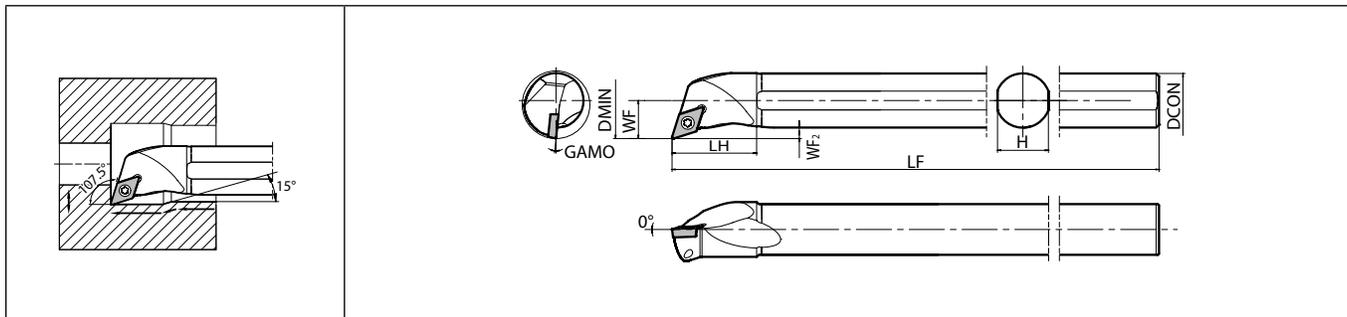
Max. Overhang Length L/D≈~5.5 | Right-hand shown  
 Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions								GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts			Applicable Inserts
		R	L	DMIN	DCON	CND	H	LH	LF	WF	WF <sub>2</sub>				Screw	Wrench	Wrench	
		  																
Inch	A06M- SDQC <sup>●</sup> L 2AE	●	●	0.512	0.375	0.118	0.336	0.736	6.0	0.295	0.083	10	1/64	Yes	SB-2560TR	-	FT-8	DC□T215... DC□W215...
	A08M- SDQC <sup>●</sup> L 2AE	●	●	0.630	0.500	0.157	0.461	0.866	6.0	0.364	0.102	8						
	A10R- SDQC <sup>●</sup> L 2AE	●	●	0.787	0.625	0.197	0.586	0.984	8.0	0.443	0.102	6						
	A12S- SDQC <sup>●</sup> L 3AE	●	●	0.980	0.750		0.711	1.220	10.0	0.565	0.146	5						
mm	A10L- SDQC <sup>●</sup> L 07-13AE	●	●	13	10	3	9	19	140	7.5	2.1	10	0.4	Yes	SB-2560TR	-	FT-8	DC□T215... DC□W215...
	A12M- SDQC <sup>●</sup> L 07-16AE	●	●	16	12	4	11	22	150	9.25	2.6	8						
	A16Q- SDQC <sup>●</sup> L 07-20AE	●	●	20	16	5	15	25	180	11.3	6	6						
	A20R- SDQC <sup>●</sup> L 11-25AE	●	●	25	20	5	19	31	200	14.4	3.7	5						
	A25S- SDQC <sup>●</sup> L 11-30AE	●	●	30	25		24	38	250	16.9	4	4						

WP chipbreaker (DCMX-WP : Wiper insert) is not applicable to A-SDQC-AE Toolholders.

S-SDQC-A Steel Shank Bar (Internal Copying)



Max. Overhang Length L/D≈~4 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

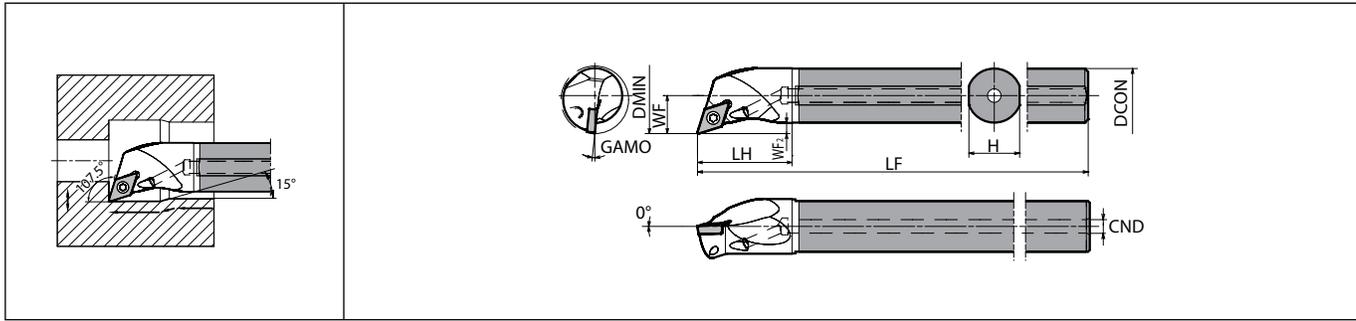
Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts			Applicable Inserts
		R	L	DMIN	DCON	H	LH	LF	WF	WF2				Screw	Wrench	Wrench	
		  															
mm	S10L- SDQC% 07-13A	●	●	13	10	9	19	140	7.5	2.1	10	0.4	No	SB-2560TR	-	FT-8	DC□T215... DC□W215...
	S12M- SDQC% 07-16A	●	●	16	12	11	22	150	9.25	2.6							
	S16Q- SDQC% 07-20A	●	●	20	16	15	25	180	11.3	6							
	S20R- SDQC% 11-25A	●	●	25	20	19	31	200	14.4	5	3.7	0.4	No	SB-4065TR	FT-15	-	DC□T325... DC□W325...
	S25S- SDQC% 11-30A	●	●	30	25	24	38	250	16.9	4							

WP chipbreaker (DCMX-WP : Wiper insert) is not applicable to S-SDQC-A Toolholders.

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

E-SDQC-A Carbide Shank Bar (Internal Copying)



Max. Overhang Length L/D≈~7 | Right-hand shown  
 Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions								GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts			Applicable Inserts
		R	L	DMIN	DCON	CND	H	LH	LF	WF	WF2				Screw	Wrench	Wrench	
Inch	E08Q- SDQCL2A		●	0.630	0.500	0.157	0.461	0.906	7.1	0.364	0.102	8	1/64	Yes	SB-2560TR	-	FT-8	DC□T215... DC□W215...
mm	E10N- SDQC% 07-13A SDQCR07-13A-2/3	●	●	13	10	3	9	20	160 105	7.5	2.1	10						DC□T215... DC□W215...
	E12Q- SDQC% 07-16A SDQCR07-16A-2/3	●	●	16	12	4	11	23	180 120	9.25	2.6	8	0.4	Yes	SB-2560TR	-	FT-8	
	E16X- SDQC% 07-20A SDQCR07-20A-2/3	●	●	20	16		15	28	220 145	11.3								6
	E20S- SDQC% 11-25A SDQCR11-25A-2/3	●	●	25	20	6	19	32	250 165	14.4	3.7	5	0.4	Yes	SB-4065TR	FT-15	-	DC□T325... DC□W325...
	E25T- SDQC% 11-30A SDQCR11-30A-2/3	●	●	30	25		24	38	300 200	16.9								

WP chipbreaker (DCMX-WP : Wiper insert) is not applicable to E-SDQC-A Toolholders.

**F**  
BORING

MICRO BORING

POSITIVE INSERTS

ANTI-VIBE BARS

NEGATIVE INSERTS

Applicable Inserts (A-SDQC-AE / S-SDQC-A / E-SDQC-A)

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

Recommended Cutting Conditions  F174, F175

Applicable Sleeves  F171~F173

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

**A-SDZC-AE** Excellent Bar (Back Boring)

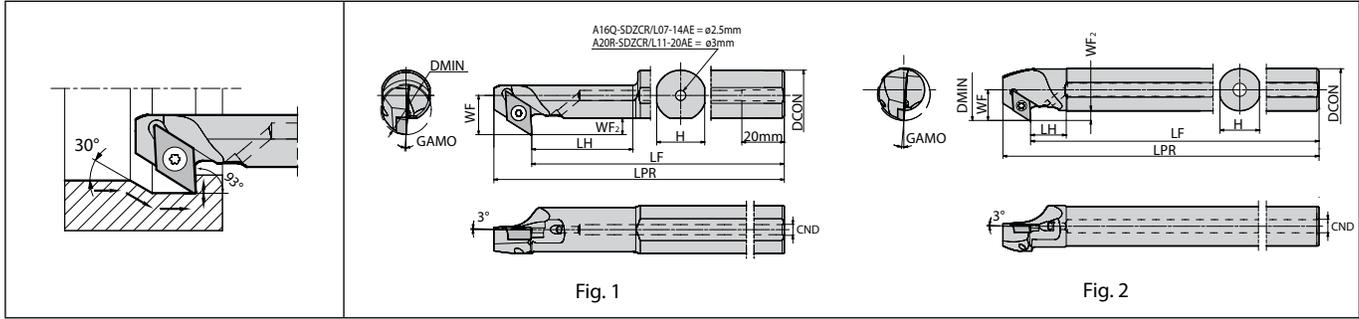


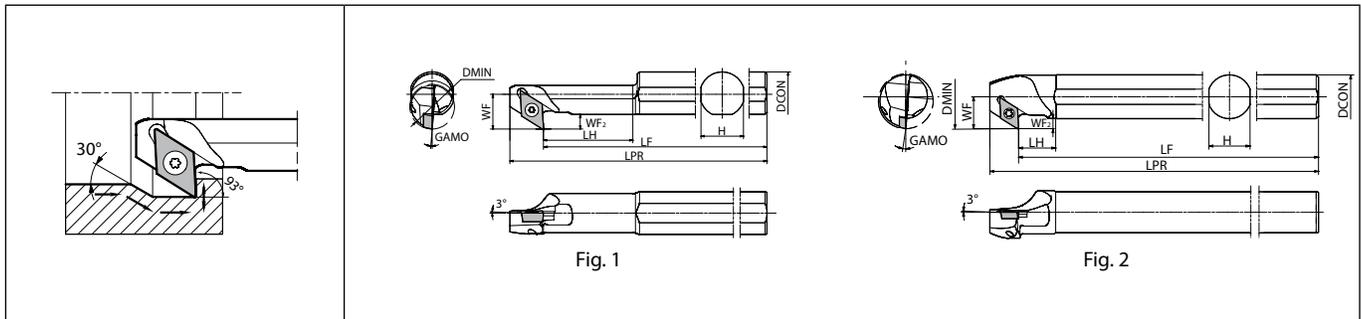
Fig. 1 Fig. 2  
Max. Overhang Length L/D≈~5.5 | Right-hand shown  
Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions										GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Spare Parts			Applicable Inserts		
		R	L	DMIN	DCON	CND	H	LH	LPR	LF	WF	WF2	Screw					Wrench	Wrench				
mm	A10L- SDZC% 07-14AE	●	●	14	10	3	9	14	140	130.5	8.7	3.3	5	0.4	Yes	2	SB-2545TR	-	FT-8	DC□T215... DC□W215... DC□X215...			
	A12M- SDZC% 07-16AE	●	●	16	12	4	11		150	139.5	9.7												
	A16Q- SDZC% 07-14AE	●	●	14	16	5	15	30	180	170	10.8	4.4				1	SB-2545TR						
	A16Q- SDZC% 07-20AE	●	●	20				14	169.5	11.7	3.3	2				SB-2560TR							
	A16Q- SDZC% 11-23AE	●	●	23	16	5	15	15	180	165	14.5	6.1				5	0.4	Yes	2		SB-4065TR	FT-15	DC□T325... DC□W325... DC□X325...
	A20R- SDZC% 11-20AE	●	●	20	20		19	40	200	185	15.6								1				
A20R- SDZC% 11-27AE	●	●	27	15	15		200	185	16.5	2													
A25S- SDZC% 11-32AE	●	●	32	25	24	250	235	19	2														

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

S-SDZC-A Steel Shank Bar (Back Boring)



Max. Overhang Length L/D≈~4 | Right-hand shown  
Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

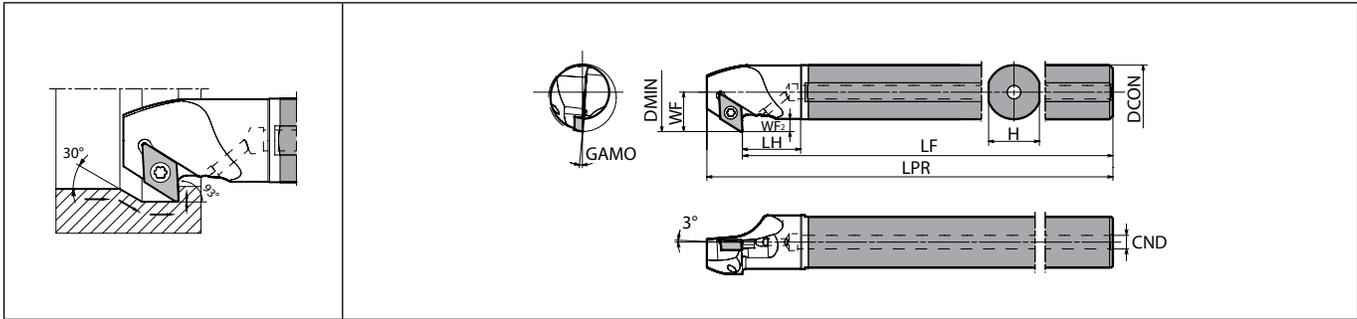
Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions								GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Spare Parts			Applicable Inserts				
		R	L	DMIN	DCON	H	LH	LPR	LF	WF	WF2					Screw	Wrench	Wrench					
																							
mm	S10L- SDZC% 07-14A	●	●	14	10	9	14	140	130.5	8.7	3.3	5	0.4	No	2	SB-2545TR	-	FT-8	DC□T215... DC□W215... DC□X215...				
	S12M- SDZC% 07-16A	●	●	16	12	11		150	139.5	9.7						2				SB-2560TR			
	S16Q- SDZC% 07-14A	●	●	14	16	15	30	180	170	10.8	4.4				2	SB-2545TR							
							14										169.5	11.7		3.3	2	SB-2560TR	
	S16Q- SDZC% 11-23A	●	●	23	16	15	15	180	165	14.5	6.1				5	0.4	No	2		SB-4065TR	FT-15	-	DC□T325... DC□W325... DC□X325...
	S20R- SDZC% 11-20A	●	●	20	20	19	40	200	185	15.6													
							15				250							235					
S25S- SDZC% 11-32A	●	●	32	25	24	2																	

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

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

**E-SDZC-A** Carbide Shank Bar (Back Boring)



Max. Overhang Length L/D≈~7 | Right-hand shown  
Right-hand Insert for Right-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions										GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts			Applicable Inserts
			R	DMIN	DCON	CND	H	LH	LPR	LF	WF	WF2				Screw	Wrench	Wrench	
																SB-2545TR		FT-8	
mm	E10N- SDZCR07-14A	●	14	10	3	9	10.5	160	150.5	8.7	3.3	5	0.4	Yes	SB-2545TR	-	FT-8	DC□T215... DC□W215... DC□X215...	
	E12Q- SDZCR07-16A	●	16	12	4	11	12.5	180	169.5	9.7					SB-2560TR				
	E16X- SDZCR07-20A	●	20	16		15	17.5	220	209.5	11.7	6.1	5	0.4	Yes	SB-4065TR	FT-15	-	DC□T325..., DC□W325... DC□X325...	
	E16X- SDZCR11-23A	●	23	16	4	15	13	220	205	14.5									
	E20S- SDZCR11-27A	●	27	20	6	19	17	250	235	16.5									

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

**F**  
BORING

MICRO BORING

POSITIVE INSERTS

ANTI-VIBE BARS

NEGATIVE INSERTS

Applicable Inserts (A-SDZC-AE / S-SDZC-A / E-SDZC-A)

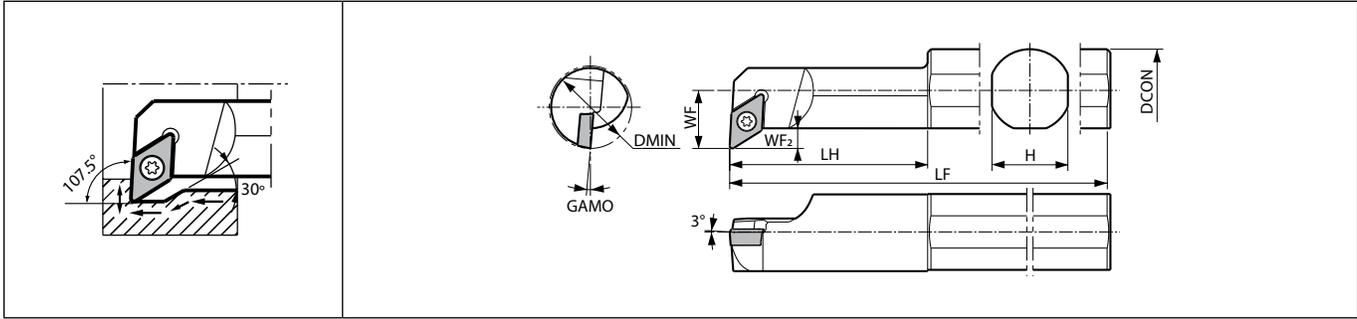
Applications	Minute D.O.C.	Finishing	Finishing	Finishing	Finishing	Finishing - Medium	Finishing	Finishing
Insert								
Chipbreaker Type	CF	GF	SKS	SK	CK	GQ	WP	¾-WP
Page	B68	B68	B68	B68	B68	B69	B69	B69
Applications	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Medium	Medium	Finishing	Finishing
Insert								
Chipbreaker Type	PP	GP	GK	HQ	Standard	MF	¾-F	¾-FSF
Page	B69	B69	B70	B70	B70	B70	B72, B73	B72
Applications	Low Feed	Low Feed	Low Feed	Low Feed	Low Carbon Steel	Low Carbon Steel	Stainless Steel / Heat-Resistant Alloys	Cast Iron
Insert								
Chipbreaker Type	¾-U	¾-USF	¾-J	¾-JSF	XP	XQ	MQ	No Chipbreaker
Page	B74~B76	B74	B77	B76	B71	B71	B71	B78
Applications	Non-Ferrous Metals	Hard Materials						
Insert								
Chipbreaker Type	AP	¾-A3	AH	PCD	APD	CBN		
Page	B78	B78	B78	C42	C42	C22		

Recommended Cutting Conditions  F174, F175

Applicable Sleeves  F171~F173

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

S-SDUC Steel Bar (Internal Copying)



Max. Overhang Length L/D≈~3 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							GAMMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts			Applicable Inserts
		R	L	DMIN	DCON	H	LH	LF	WF	WF2				Screw	Wrench	Wrench	
																	
Inch	S08M- SDUCR2	●		0.564	0.500	0.480	1.125	6.00	0.346	0.145	5	1/64	No	SB-2560TR	-	FT-8	DC□T215..., DC□W215... DC□X215...
	S10X- SDUC <sup>R</sup> L 2	●	●	0.564	0.625	0.584	1.125	7.00	0.346	0.145							
	S12R- SDUC <sup>R</sup> L 3	●	●	0.750	0.750	0.710	1.500	8.00	0.476	0.224	5	1/32	No	SB-4085TR	FT-15	DC□T325..., DC□W325... DC□X325...	
	S16X- SDUCR3	△		0.980	1.000	0.945	2.360	9.00	0.693	0.240							

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

**F**  
BORING

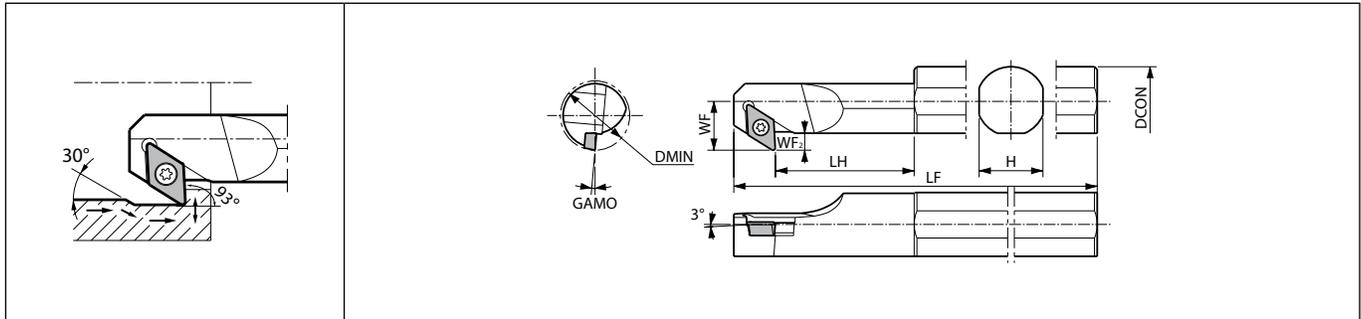
MICRO BORING

POSITIVE INSERTS

ANTI-VIBE BARS

NEGATIVE INSERTS

S-SDZC Steel Bar (Back Boring)



Max. Overhang Length L/D≈3 | Right-hand shown  
Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							GAMMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts			Applicable Inserts
		R	L	DMIN	DCON	H	LH	LF	WF	WF <sub>2</sub>				Screw	Wrench	Wrench	
Inch	S10X- SDZC <sup>®</sup> 2	●	●	0.630	0.625	0.596	1.52	7.00	0.449	0.173	5	1/64	No	SB-2560TR	-	FT-8	DC□T215..., DC□W215... DC□X215...
	S12R- SDZCR3	●		0.787	0.750	0.710	1.60	8.00	0.595	0.240	5	1/32	No	SB-4085TR	FT-15	-	DC□T325..., DC□W325... DC□X325...
	S16X- SDZCR3	●		0.984	1.000	0.960	2.09	9.00	0.693	0.240							

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

Applicable Inserts (S-SDUC / S-SDZC)

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

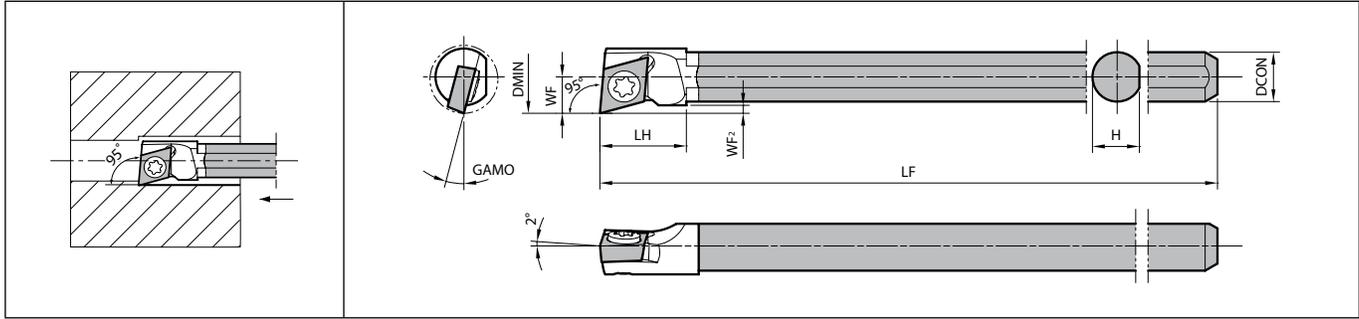
Recommended Cutting Conditions F174, F175

Applicable Sleeves F171~F173

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

A  
B  
C  
D  
E  
F  
G  
H  
J  
K  
M  
N  
P  
R  
T

**C-SJLC** Carbide Shank Bar (Boring / Internal Facing)



Max. Overhang Length  $L/D \approx 7$  | Right-hand shown  
 Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts		Applicable Inserts
		R	L	DMIN	DCON	H	LH	LF	WF	WF <sub>2</sub>				Screw	Wrench	
		mm	C04X- SJLC% 03-055	●	●	5.5	4	3.8	7	91				2.95	0.65	

Applicable Inserts

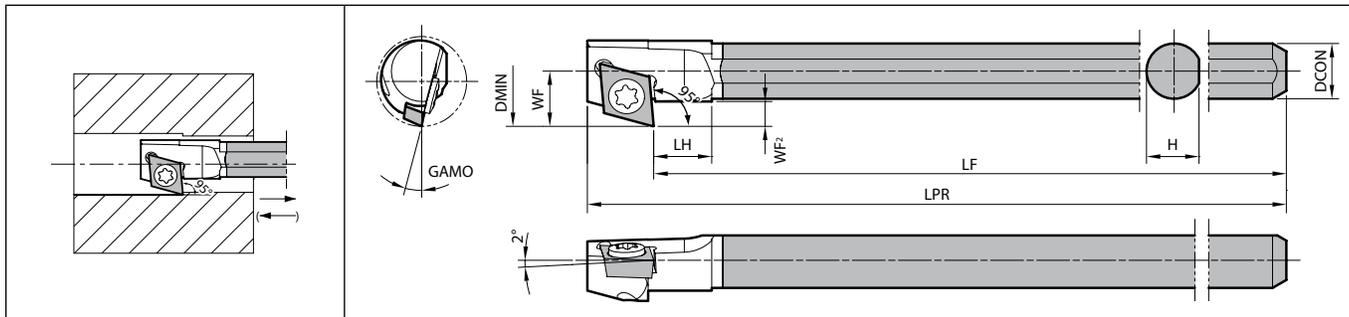
Applications	Finishing	Finishing
Insert		
Chipbreaker Type	℞ -F	℞ -FSF
Page	B80	B80

Recommended Cutting Conditions ➔ **F174, F175**  
 Applicable Sleeves ➔ **F170, F172, F173**

• Features of C-SJLC

1. Specially designed for minimized bore dia.
2. A relief angle of 15° ensures high flexibility of the tool pass during pecking.
3. Retaining front relief angle 5° and good surface finish during Internal Facing.

**C-SJZC** Carbide Shank Bar (Back Boring)



Max. Overhang Length  $L/D \approx 7$  | Right-hand shown  
 Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.  
 When using Right-hand Toolholder, use Right-hand insert if machining from back to front in this direction (→).  
 Use Left-hand insert if machining from front to back in this direction (←).

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions								GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts		Applicable Inserts
		R	L	DMIN	DCON	H	LH	LPR	LF	WF	WF <sub>2</sub>				Screw	Wrench	
		mm	C04X- SJZC%L03-065	●	●	6.5	4	3.8	4	93	88.1				4	1.8	

Applicable Inserts

Applications	Finishing	Finishing
Insert		
Chipbreaker Type	%L -F	%L -FSF
Page	B80	B80

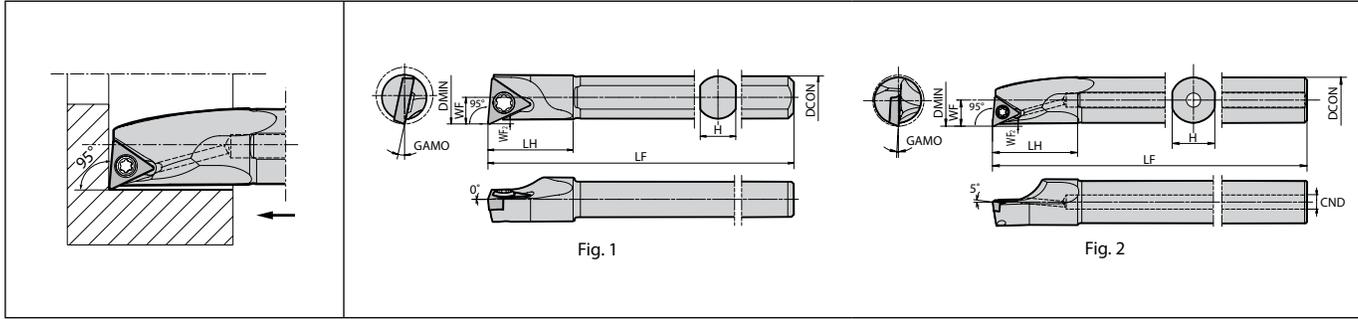
Recommended Cutting Conditions ➡ F174, F175  
 Applicable Sleeves ➡ F170, F172, F173

• Features of C-SJZC

1. Back Boring bars for workpiece that require high concentric circle accuracy and when a change of chuck is not possible.
2. Available for back boring and pecking.
3. Despite the small size of minimum boring dia. as  $\phi 6.5\text{mm}$ , the edge gap is retained as large as 1.8 mm.

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

A/S-STLB(P)-AE Excellent Bar (Boring / Internal Facing)



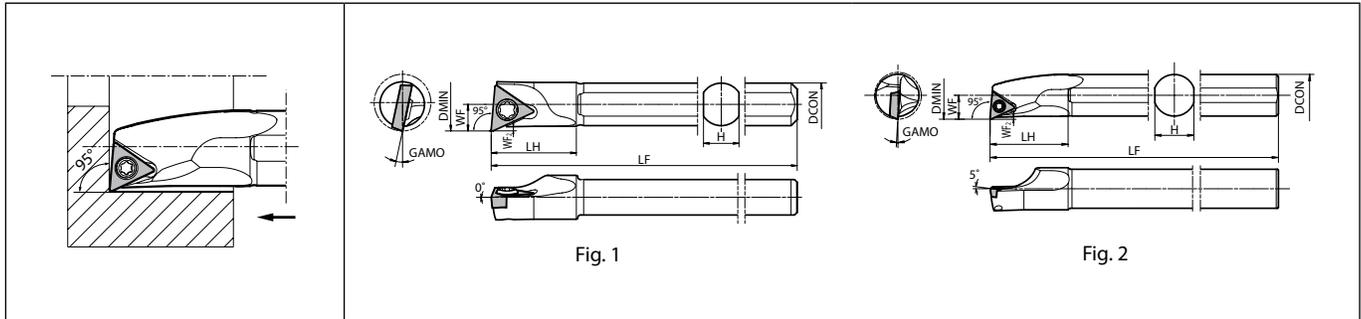
Max. Overhang Length L/D≈5.5 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions								GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Spare Parts			Applicable Inserts
		R	L	DMIN	DCON	CND	H	LH	LF	WF	WF2					Screw	Wrench	Wrench	
Inch	S04H- STLB%L 1.2AE	●	●	0.312	0.250	-	0.211	0.472	4	0.150	0.025	12	0.008	No	1	SB-2035TR	-	FT-6	TB□T121...,TB□W121...
	A05K- STLB%L 1.2AE	●	●	0.392	0.312	0.098	0.273	0.630	5	0.201	0.031	12	0.008	Yes	2				
	A05K- STLP%L 1.8AE	●	●	0.392	0.312		0.273	0.630	5	0.197	0.022	10	1/64	Yes	2	SB-2545TR	-	FT-8	TP□B1815...,TP□H1815... TP□T1815...,TP□X1815...
	A06M- STLP%L 1.8AE	●	●	0.480	0.375	0.118	0.336	0.787	6	0.244	0.036	8							
	A06M- STLP%L 2AE	●	●	0.480	0.375		0.336	0.787	6	0.236	0.030	10	1/64	Yes	2	SB-3060TR	-	FT-10	TP□B22... TP□H22... TP□T22... TP□X22...
	A08M- STLP%L 2AE	●	●	0.580	0.500	0.157	0.461	0.945	6	0.283	0.032	7							
	A10R- STLP%L 2AE	●	●	0.700	0.625	0.197	0.586	1.181	8	0.362	0.036	3.5							
	A12S- STLP%L 2AE	●	●	0.825	0.750	0.197	0.711	1.417	10	0.421	0.031	2							
	A16T- STLP%L 3AE	●	●	1.280	1.000	0.197	0.961	1.811	12	0.539	0.031	0	1/64	Yes	2	SB-4065TR	FT-15	-	TP□B32...,TP□H32... TP□T32...
mm	S06H- STLB%L 06-08AE	●	●	8	6	-	5	12	100	3.8	0.5	12	0.2	No	1	SB-2035TR	-	FT-6	TB□T121...,TB□W121...
	A08X- STLP%L 08-10AE	●	●	10	8	2.5	7	16	120	5	0.5	10	0.4	Yes	2	SB-1TR	-	FT-6	TP□B1515...,TP□H1515... TP□T1515...
	A08X- STLP%L 09-10AE	●	●	10	8	2.5	7	16	120	5	0.5	10	0.4	Yes	2	SB-2545TR	-	FT-8	TP□B1815... TP□H1815... TP□T1815... TP□X1815...
	A10L- STLP%L 09-12AE	●	●	12	10	3	9	20	140	6.2	0.9	8							
	A12M- STLP%L 09-16AE	●	●	16	12	4	11	24	150	8	0.6	5	0.4	Yes	2	SB-3060TR	-	FT-10	TP□B22... TP□H22... TP□T22... TP□X22...
	A10L- STLP%L 11-12AE	●	●	12	10	3	9	20	140	6	0.7	10							
	A12M- STLP%L 11-14AE	●	●	14	12	4	11	24	150	7.2	0.8	7	0.7	Yes	2	SB-4065TR	FT-15	-	TP□B32... TP□H32... TP□T32...
	A16Q- STLP%L 11-18AE	●	●	18	16	5	15	30	180	9.2	0.7	2							
	A20R- STLP%L 11-22AE	●	●	22	20		19	36	200	11.2			0	0.4	Yes	2	SB-4065TR	FT-15	-
	A20R- STLP%L 16-25AE	●	●	25	20	5	19	36	200	13	0.7	0	0.4	Yes	2	SB-4065TR	FT-15	-	TP□B32... TP□H32... TP□T32...
A25S- STLP%L 16-27AE	●	●	27	25	24		46	250	13.7										

For WP chipbreaker, cutting edge offsets or program corrections are required on R42 and R43.  
When using P chipbreaker : Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

S-STLB(P)-A Steel Shank Bar (Boring / Internal Facing)



Max. Overhang Length L/D≈~4 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

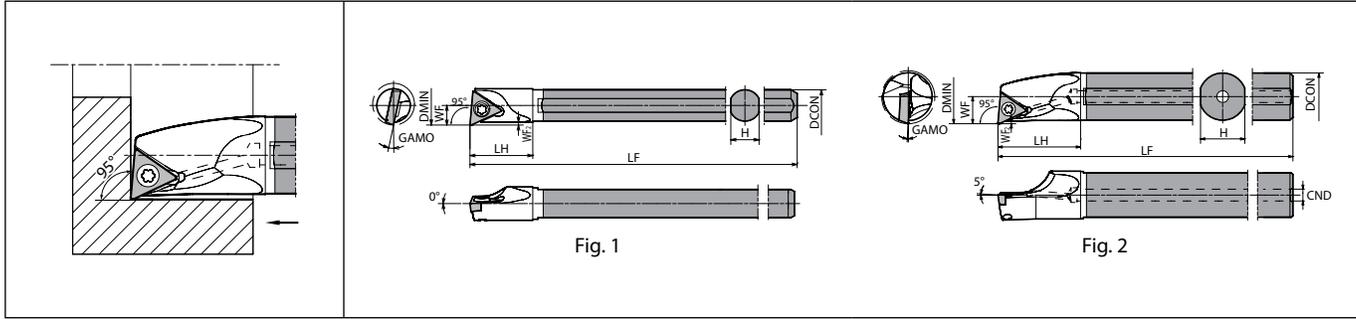
Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole Fig.	Spare Parts			Applicable Inserts	
		R	L	DMIN	DCON	H	LH	LF	WF	WF2				Screw	Wrench	Wrench		
mm	S06H- STLB06-08A	●	●	8	6	5	12	100	3.8	0.5	12	0.2	No	1	SB-2035TR		FT-6	TB□T121...,TB□W121...
	S08X- STLP% 08-10A	●	●	10	8	7	16	120	5	0.5	10	0.4	No	2	SB-1TR	-	FT-6	TP□B1515...,TP□H1515... TP□T1515...
	S08X- STLP% 09-10A	●	●	10	8	7	16	120	5	0.5	10	0.4	No	2	SB-2545TR	-	FT-8	TP□B1815... TP□H1815... TP□T1815... TP□X1815...
	S10L- STLP% 09-12A	●	●	12	10	9	20	140	6.2	0.9	8							
	S12M- STLP% 09-16A	●	●	16	12	11	24	150	8	0.6	5							
	S10L- STLP% 11-12A	●	●	12	10	9	20	140	6	0.7	10	0.4	No	2	SB-3060TR	-	FT-10	TP□B22... TP□H22... TP□T22... TP□X22...
	S12M- STLP% 11-14A	●	●	14	12	11	24	150	7.2	0.8	7							
	S16Q- STLP% 11-18A	●	●	18	16	15	30	180	9.2	0.7	3.5							
	S20R- STLP% 11-22A	●	●	22	20	19	36	200	11.2	0.7	2	0.4	No	2	SB-4065TR	FT-15	-	TP□B32...,TP□H32... TP□T32...
S25S- STLP% 16-27A	●	●	27	25	24	46	250	13.7	0.7	0								

For WP chipbreaker, cutting edge offsets or program corrections are required on R42 and R43.  
When using P chipbreaker : Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

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

C/E-STLB(P)-A(N) Carbide Shank Bar (Boring / Internal Facing)



Max. Overhang Length L/D≈~7 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions								GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Spare Parts			Applicable Inserts	
		R	L	DMIN	DCON	CND	H	LH	LF	WF	WF2					Screw	Wrench	Wrench		
mm	C06J- STLB% 06-08AN	●	●	8	6	-	5.4	10	110	3.8	0.5	12	0.2	No	1	SB-2035TR	-	FT-6	TB□T121..., TB□W121...	
	E08L- STLP% 08-10AN	●	●	10	8	3	7	14	140	5	0.5	10	0.4	Yes	2	SB-1TR	-	FT-6	TP□B1515..., TP□H1515... TP□T1515...	
	E08L- STLP% 09-10AN	●	●	10	8		7	14	140	5	0.5	10								
	E10N- STLP% 09-12AN	●	●																	
	STLPR09-12AN2/3	●		12	10	3	9	18	160	6.2	0.9	8	0.4	Yes	2	SB-2545TR	-	FT-8	TP□B1815... TP□H1815... TP□T1815... TP□X1815...	
	STLPR09-12AN1/2	●							105											
	E12Q- STLP% 09-16A	●	●																	
	STLPR09-16A-2/3	●		16	12	4	11	23	180	8	0.6	5								
	STLPR09-16A-1/2	●							120											
									90											
	E10N- STLP% 11-12AN	●	●																	
	STLPR11-12AN2/3	●		12	10	3	9	18	160	6	0.7	10								
	STLPR11-12AN1/2	●							105											
								80												
E12Q- STLP% 11-14A	●	●																		
STLPR11-14A-2/3	●		14	12		11	23	180	7.2	0.8	7	0.4	Yes	2	SB-3060TR	-	FT-10	TP□B22... TP□H22... TP□T22... TP□X22...		
STLPR11-14A-1/2	●							120												
								90												
E16X- STLP% 11-18A	●	●																		
STLPR11-18A-2/3	●		18	16	4	15	28	220	9.2		3.5									
STLPR11-18A-1/2	●							145												
								110												
E20S- STLP% 11-22A	●	●																		
STLPR11-22A-2/3	●		22	20	6	19	32	250	11.2		2									
STLPR11-22A-1/2	●							165												
								125												
E20S- STLP% 16-25A	●	●																		
STLPR16-25A-2/3	●		25	20		19	32	250	13		0.7	0	0.4	Yes	2	SB-4065TR	FT-15	-	TP□B32... TP□H32... TP□T32...	
STLPR16-25A-1/2	●							165												
								125												
E25T- STLP% 16-27A	●	●																		
STLPR16-27A-2/3	●		27	25	6	24	38	300	13.7											
								200												

For WP chipbreaker, cutting edge offsets or program corrections are required on R42 and R43.  
When using P chipbreaker : Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

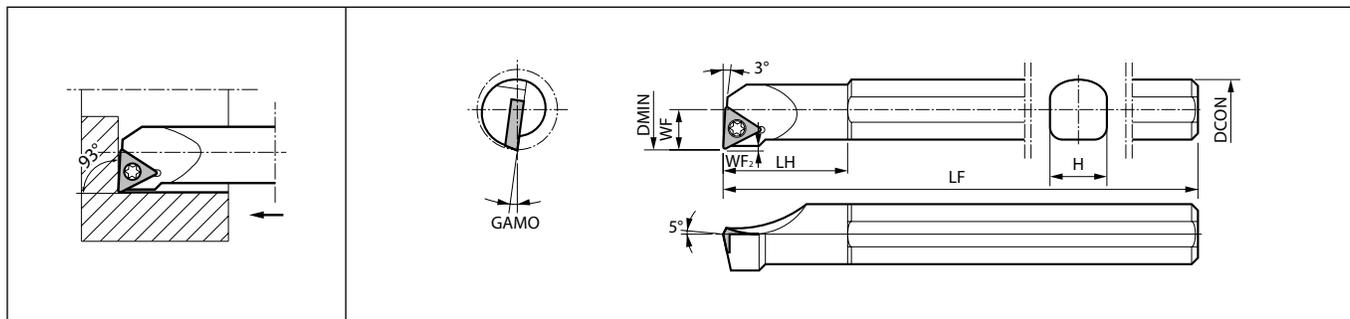
Applicable Inserts (A/S-STLB(P)-AE / S-STLB(P)-A / C/E-STLB(P)-A(N))

Applications	Minute D.O.C.	Finishing	Finishing	Finishing	Finishing	Finishing	Finishing	Finishing - Medium
Insert								
Chipbreaker Type	CF	PF	WP	1/2-WP	PP	GP	DP	HQ
Page	B84, B88	B84, B88	B88	B88	B88	B89	B84	B89
Applications	Finishing	Finishing	Finishing	Medium	Low Feed	Low Carbon Steel	Low Carbon Steel	Cast Iron
Insert								
Chipbreaker Type	R/L	1/2-FSF	1/2-P	1/2-H	1/2-USF	XP	XQ	No Chipbreaker
Page	B84, B90, B91	B92	B92	B93	B94	B89	B89	B84, B94
Applications	Non-Ferrous Metals	Non-Ferrous Metals	Non-Ferrous Metals	Hard Materials				
Insert								
Chipbreaker Type	AP	PCD	APD	CBN				
Page	B94	C44, C46, C47	C47	C23				

Recommended Cutting Conditions  F174, F175  
 Applicable Sleeves  F170~F173

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

**S-STUB(P)** Steel Bar (Boring)



Max. Overhang Length  $L/D \approx 3$  | Right-hand shown  
 Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							GAMMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts			Applicable Inserts
		R	L	DMIN	DCON	H	LH	LF	WF	WF <sub>2</sub>				Screw	Wrench	Wrench	
Inch	S04H- STUBR1.2	●		0.312	0.250	0.224	0.50	4.00	0.148	0.023	12	1/64	No	SB-1STR	-	FT-6	TB□T121..., TB□W121...
	S05K- STUPR1.5	●		0.392	0.313	0.270	0.75	5.00	0.196	0.020	13	1/64	No	SB-1TR	-	FT-6	TP□B1515..., TP□H1515... TP□T1515...
	S06M- STUP <sup>1/2</sup> 1.8	●	●	0.472	0.375	0.356	1.01	6.00	0.236	0.015	13	1/64	No	SB-2TR	-	FT-8	TP□B1815..., TP□H1815... TP□T1815..., TP□X1815...
	S08M- STUPR1.8	●		0.630	0.500	0.480	1.18	6.00	0.315	0.090	10	1/64	No	SB-2TR	-	FT-8	TP□B1815..., TP□H1815... TP□T1815..., TP□X1815...
	S10X- STUP <sup>1/2</sup> 2	●	●	0.787	0.625	0.584	1.38	7.00	0.394	0.100	7	1/64	No	SB-3TR	FT-10	-	TP□B22..., TP□H22... TP□T22..., TP□X22...
	S12R- STUP <sup>1/2</sup> 2	●	●	0.912	0.750	0.710	1.58	8.00	0.456	0.115	5	1/64	No	SB-3TR	FT-10	-	TP□B22..., TP□H22... TP□T22..., TP□X22...

For WP chipbreaker, cutting edge offsets or program corrections are required on **R42** and **R43**.  
 When using P chipbreaker : Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

**F**  
BORING

MICRO BORING

POSITIVE INSERTS

ANTI-VIBE BARS

NEGATIVE INSERTS

Applicable Inserts (S-STUB(P))

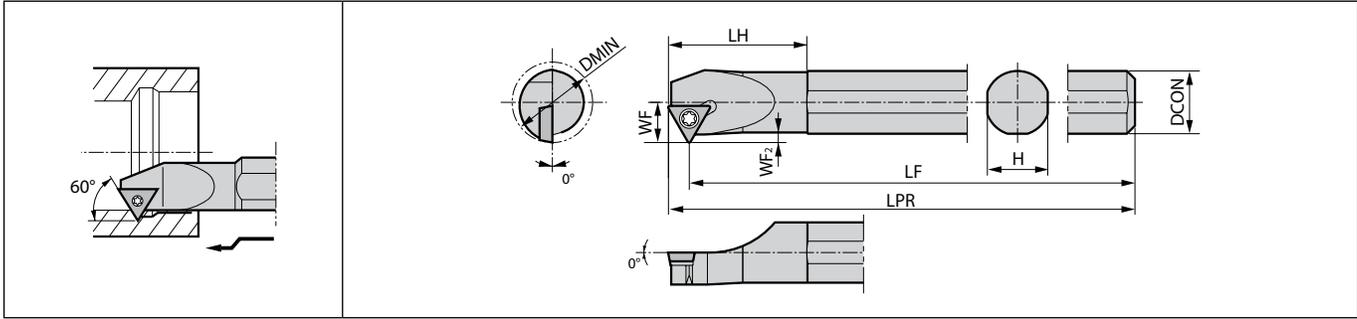
Applications	Minute D.O.C.	Finishing	Finishing	Finishing	Finishing	Finishing	Finishing	Finishing - Medium
Insert								
Chipbreaker Type	CF	PF	WP	1/2-WP	PP	GP	DP	HQ
Page	B84, B88	B84, B88	B88	B88	B88	B89	B84	B89
Applications	Finishing	Finishing	Finishing	Medium	Low Feed	Low Carbon Steel	Low Carbon Steel	Cast Iron
Insert								
Chipbreaker Type	R/L	1/2-FSF	1/2-P	1/2-H	1/2-USF	XP	XQ	No Chipbreaker
Page	B84, B90, B91	B92	B92	B93	B94	B89	B89	B84, B94
Applications	Non-Ferrous Metals	Non-Ferrous Metals	Non-Ferrous Metals	Hard Materials				
Insert								
Chipbreaker Type	AP	PCD	APD	CBN				
Page	B94	C44, C46, C47	C47	C23				

Recommended Cutting Conditions  F174, F175

Applicable Sleeves  F170~F173

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

**S-STWP-E** Excellent Bar (Internal Copying)



Max. Overhang Length L/D≈5 | This toolholder is also available for threading. | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

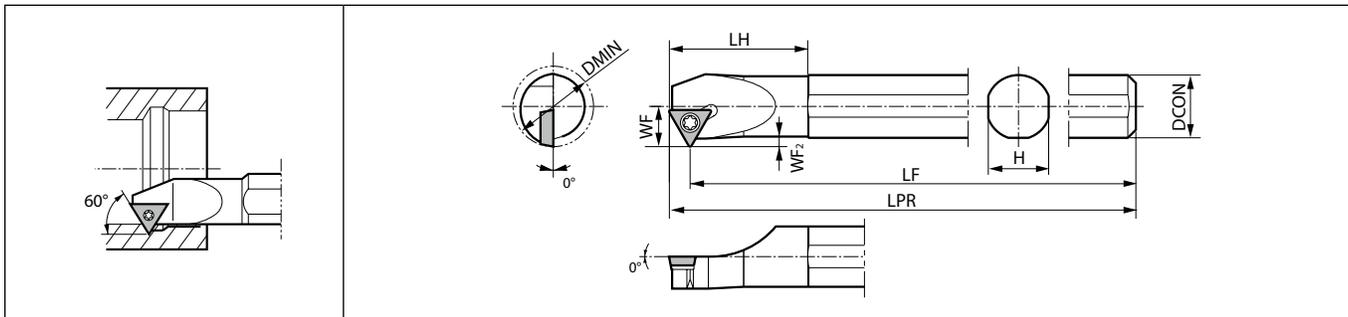
Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions								GAMMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts			Applicable Inserts			
		R	L	DMIN	DCON	H	LH	LPR	LF	WF	WF2				Screw	Wrench	Wrench				
mm	S10M- STWP% 11-12E	●	●	12	10	9.2	23	150	144.5	6	1	0	0.1	No	SB-3STR	-	FT-10	TP□B215..., TP□H215...			
	S12M- STWP% 11-16E	●	●	16	12	11	30	200	194.5	8	1.5				SB-3TR	-	FT-10	TP□B22... TP□H22... TP□T22...			
	S16R- STWP% 11-20E	●	●	20	16	15	35	220	214.5	10	2				SB-4TR	FT-15	-	TP□B32..., TP□H32... TP□T32...			
	S20X- STWP% 11-25E	●	●	25	20	19	40	220	212.3	14	4				0	0.8	No	SB-4TR	FT-15	-	TP□B32..., TP□H32... TP□T32...
	S20X- STWP% 16-25E	●	●	25	20	19	40	220	212.3	14	4				0	0.8	No	SB-4TR	FT-15	-	TP□B32..., TP□H32... TP□T32...
	S25X- STWP% 16-32E	●	●	32	25	24	42	270	262.3	16.5	4				0	0.8	No	SB-4TR	FT-15	-	TP□B32..., TP□H32... TP□T32...

WP chipbreaker (TPMX-WP : Wiper insert) is not applicable to S-STWP-E Toolholders.

F BORING  
MICRO BORING  
POSITIVE INSERTS  
ANTI-VIBE BARS  
NEGATIVE INSERTS

**S-STWP** Steel Shank Bar (Internal Copying)



Max. Overhang Length L/D≈3 | This toolholder is also available for threading. | Right-hand shown  
Left-hand Insert for Right-hand Toolholder.

**Toolholder Dimensions**

Unit	Part Number	Std. Item	Dimensions								GAMMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts		Applicable Inserts
			R	DMIN	DCON	H	LH	LPR	LF	WF				WF <sub>2</sub>	Screw	
Inch	S06M- STWPR2	●	0.476	0.375	0.350	0.91	6.00	5.795	0.238	0.056	0	1/64	No	SB-3STR	FT-10	TP□B215..., TP□H215...
	S12R- STWPR2	●	0.970	0.750	0.726	1.60	8.00	7.795	0.485	0.115						
mm	S10M- STWPR11-12	●	12	10	9.2	23	150	144.5	6	1	0	0.1	No	SB-3STR	FT-10	TP□B215..., TP□H215...
	S12M- STWPR11-16	●	16	12	11	30			8	1.5						
	S16Q- STWPR11-20	●	20	16	15	35	180	174.5	10	2				TP□B22... TP□H22... TP□T22...		
	S20R- STWPR11-25	●	25	20	19	40	200	194.5	12.5	2.5						

WP chipbreaker (TPMX-WP : Wiper insert) is not applicable to S-STWP Toolholders.

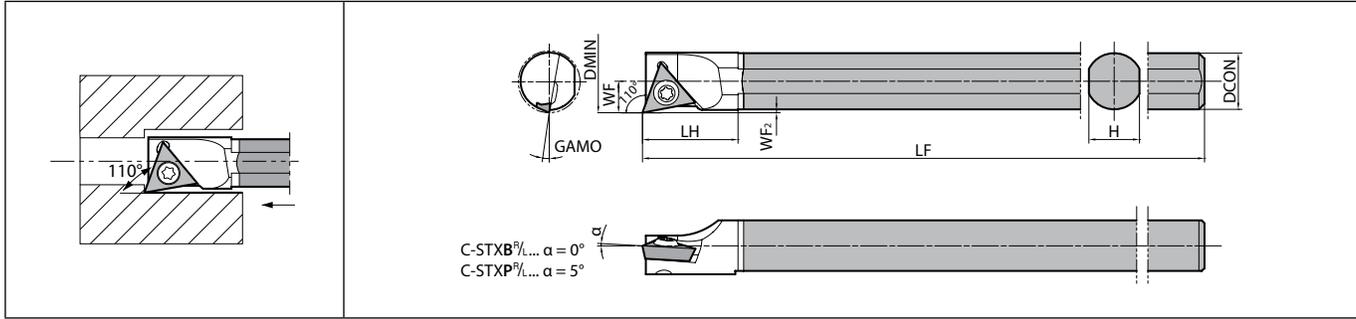
**Applicable Inserts (S-STWP-E / S-STWP)**

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

Recommended Cutting Conditions F174, F175

Applicable Sleeves F170~F173

C-STXB(P) Carbide Shank Bar (Boring / Internal Facing)



Max. Overhang Length L/D ≈ 7 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts		Applicable Inserts
		R	L	DMIN	DCON	H	LH	LF	WF	WF2				Screw	Wrench	
mm	C06J-STXB%L 06-075	●	●	7.5	6	5.4	11	110	3.75	0.5	10	0.03	No	SB-1STR	FT-6	TB□T121..., TB□W121...
	C08X-STXP%L 08-09	●	●	9	8	7	14	143	4.6	0.5	10	0.03	No	SB-1TR	FT-6	TP□B1515..., TP□H1515..., TP□T1515...
	C10X-STXP%L 09-11	●	●	11	10	9	17	164	5.6	0.5	10	0.03	No	SB-2TR	FT-8	TP□B1815..., TP□H1815..., TP□T1815...

WP chipbreaker (TPMX-WP : Wiper insert) is not applicable to C-STXP Toolholders.

Applicable Inserts

Applications	Minute D.O.C.	Finishing	Finishing	Finishing	Finishing	Finishing - Medium	Finishing	Finishing
Insert								
Chipbreaker Type	CF	PF	PP	GP	DP	HQ	R/L	%L-FSF
Page	B84, B88	B84, B88	B88	B89	B84	B89	B84, B90, B91	B92
Applications	Medium	Low Feed	Low Carbon Steel	Cast Iron	Non-Ferrous Metals	Non-Ferrous Metals	Hard Materials	
Insert								
Chipbreaker Type	%L-H	%L-USF	XP	No Chipbreaker	AP	PCD	CBN	
Page	B93	B94	B89	B84, B94	B94	C44, C46, C47	C23	

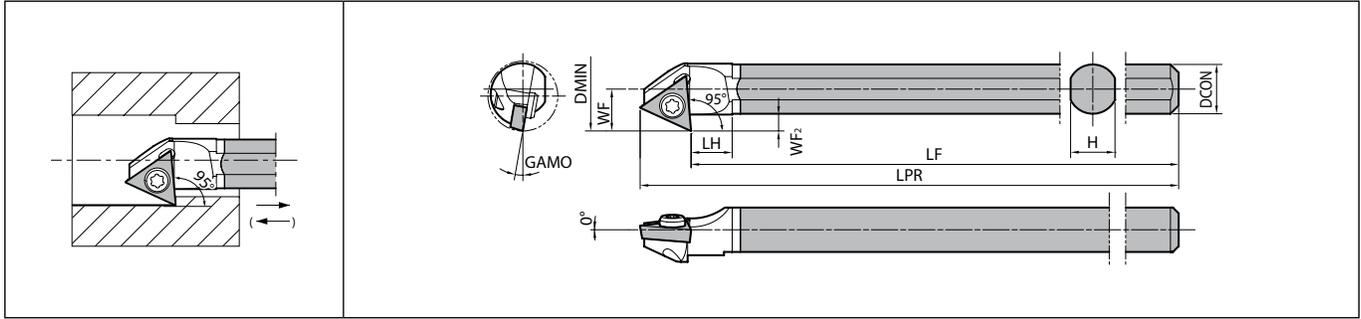
Recommended Cutting Conditions ● F174, F175

Applicable Sleeves ● F170~F173

C-STXP(B) Boring Bar Cutting Conditions (Workpiece Material : Alloy Steel)

Toolholder Part Number	Insert Part Number (Grades)	Vc (sfm)	D.O.C. (in)	f (ipr)	Coolant
C06J-STXB%L 06-075	TBGT12101 1/8 (PR930)	100~330	0.0008~0.0039	0.0008~0.0016	Yes
C08X-STXP%L 08-09	TPGH151502 1/8 (PR930)	100~330	0.0020~0.0059	0.0012~0.0031	Yes
C10X-STXP%L 09-11	TPGH181502 1/8 (PR930)	100~330	0.0020~0.0059	0.0012~0.0031	Yes

**C-STZB** Carbide Shank Bar (Back Boring)



Max. Overhang Length  $L/D \approx 7$  | Right-hand shown  
 Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.  
 When using Right-hand Toolholder, use Right-hand insert if machining from back to front in this direction (→).  
 Use Left-hand insert if machining from front to back in this direction (←).

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions								GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts		Applicable Inserts	
			R	DMIN	DCON	H	LH	LPR	LF	WF				WF <sub>2</sub>	Screw		Wrench
			mm	C06J- STZBR06-085	●	8.5	6	5.4	5	110				104.3	5.1		1.8

Applicable Inserts

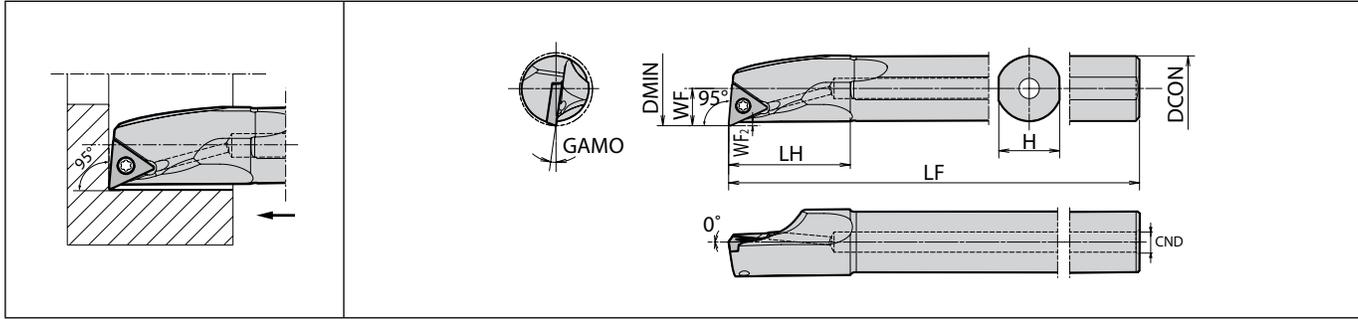
Applications	Minute D.O.C.	Finishing	Finishing	Finishing	Cast Iron	Non-Ferrous Metals
Insert						
Chipbreaker Type	CF	PF	DP	R/L	No Chipbreaker	PCD
Page	B84	B84	B84	B84	B84	C44

Recommended Cutting Conditions [F174](#), [F175](#)

Applicable Sleeves [F170~F173](#)

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

**A-STLC-AE** Excellent Bar (Boring / Internal Facing)



Max. Overhang Length L/D≈5.5 | Right-hand shown  
 Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions								GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts		Applicable Inserts
		R	L	DMIN	DCON	CND	H	LH	LF	WF	WF <sub>2</sub>				Screw	Wrench	
																	
mm	A08X- STLC% 09-10AE	●	●	10	8	2.5	7	16	120	5	0.5	14	0.4	Yes	SB-2250TR	FT-7	TCMT1815... TCMX1815...
	A10L- STLC% 09-12AE	●	●	12	10	3	9	20	140	6.2	0.9	12	0.4	Yes	SB-2560TR	FT-8	TCMT215... TCMX215...
	A10L- STLC% 11-12AE	●	●	12	10	3	9	20	140	6.2	0.9	12					
	A12M- STLC% 11-14AE	●	●	14	12	4	11	24	150	7.2	0.7	8	0.4	Yes	SB-2560TR	FT-8	TCMT215... TCMX215...
	A16Q- STLC% 11-18AE	●	●	18	16	5	15	30	180	9.2							
	A20R- STLC% 11-22AE	●	●	22	20		19	36	200	11.2	6						

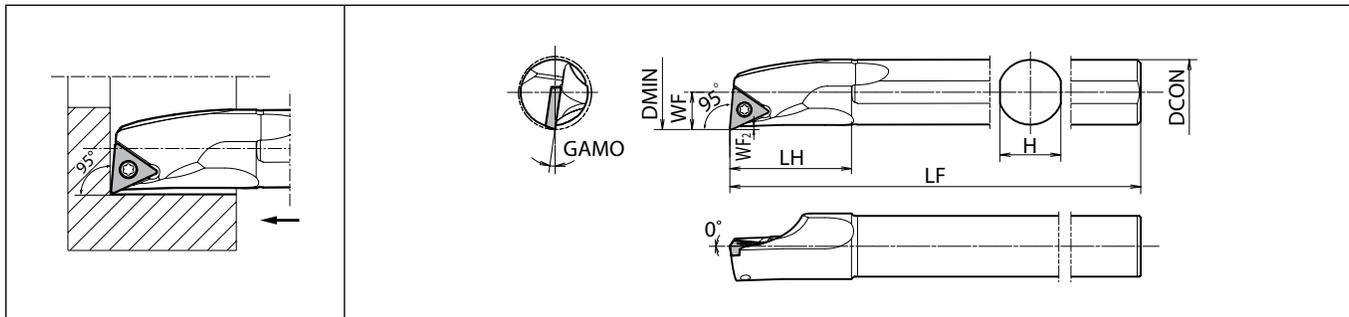
For WP chipbreaker, cutting edge offsets or program corrections are required on **R42** and **R43**.

Applicable Inserts

Applications	Finishing	Finishing - Medium
Insert		
Chipbreaker Type	<b>WP</b>	<b>HQ</b>
Page	<b>B85</b>	<b>B85</b>

Recommended Cutting Conditions  **F174, F175**  
 Applicable Sleeves  **F170~F173**

**S-STLC-A** Steel Shank Bar (Boring / Internal Facing)



Max. Overhang Length  $L/D \approx 4$  | Right-hand shown  
 Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions								GAMMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts		Applicable Inserts
		R	L	DMIN	DCON	H	LH	LF	WF	WF2	Screw				Wrench		
mm	S08X- STLC% 09-10A	●	●	10	8	7	16	120	5	0.5	14	0.4	No	SB-2250TR	FT-7	TCMT1815... TCMX1815...	
	S10L- STLC% 09-12A	●	●	12	10	9	20	140	6.2	0.9	12						
	S10L- STLC% 11-12A	●	●	12	10	9	20	140	6.2	0.9	12	0.4	No	SB-2560TR	FT-8	TCMT215... TCMX215...	
	S12M- STLC% 11-14A	●	●	14	12	11	24	150	7.2	10							
	S16Q- STLC% 11-18A	●	●	18	16	15	30	180	9.2	0.7	8						
	S20R- STLC% 11-22A	●	●	22	20	19	36	200	11.2	6							

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

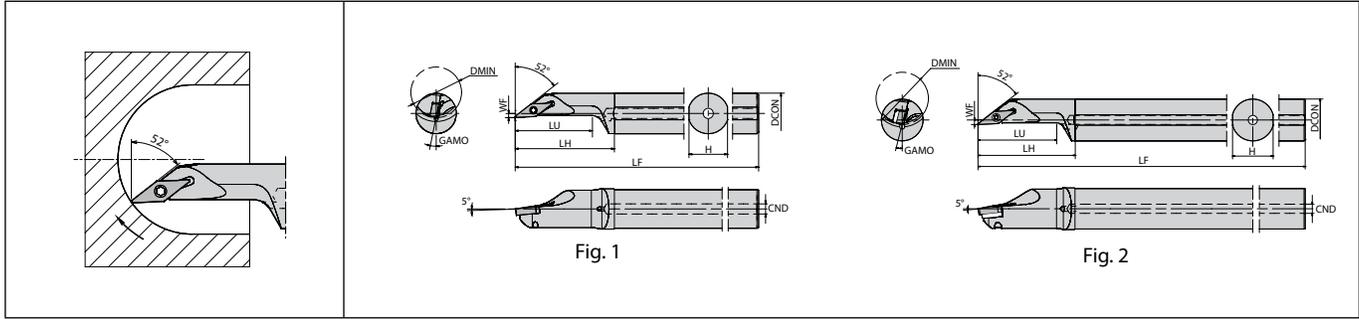
Applicable Inserts

Applications	Finishing	Finishing - Medium
Insert		
Chipbreaker Type	WP	HQ
Page	B85	B85

Recommended Cutting Conditions **F174, F175**  
 Applicable Sleeves **F170~F173**

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

**A-SVJP(C)(B)-AE** Excellent Bar (Spherical Machining / Internal Facing / Internal Copying)



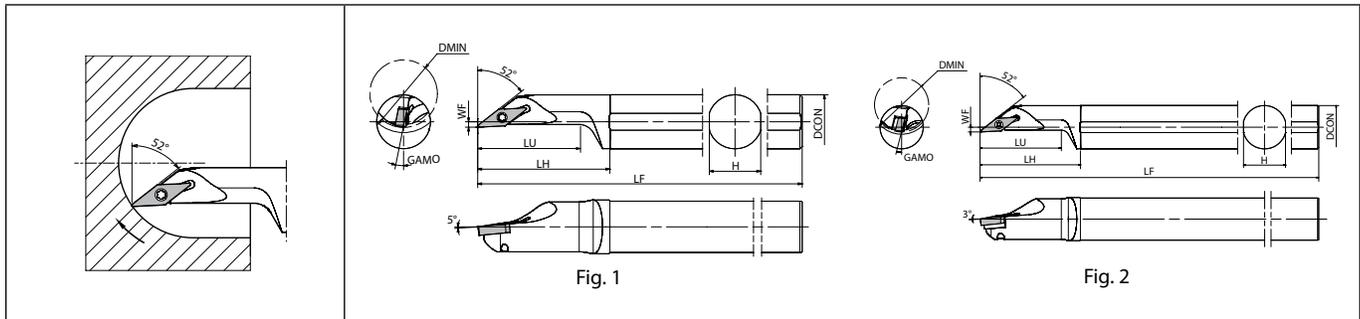
Max. Overhang Length L/D≈5.5 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions								GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Spare Parts						Applicable Inserts
		R	L	DMIN	DCON	CND	H	LH	LF	LU	WF					Screw	Wrench	Wrench	Shim	Shim Screw	Wrench	
Inch	A12S- SVJB%L 2AE	●	●	0.984	0.750	0.197	0.711	-	10	1.476	0.079	5			1	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...
	A16T- SVJB%L 2AE	●	●	1.180	1.000	0.197	0.961	-	12	1.772	0.138	5			1	SB-40125TRN	FT-15	-	SVN-32N (SVN-32S*)	SS-4N	LW-4	VB□T33... VB□W33... VC□T33...
	A16T- SVJBR3AE	●		1.180	1.000	0.197	0.961	2.240	12	1.950	0.236	5	1/64	Yes	1	SB-40125TRN	FT-15	-	SVN-32N (SVN-32S*)	SS-4N	LW-4	VB□T33... VB□W33... VC□T33...
mm	A12M- SVJP%L 08-16AE	●	●	16	12	4	11	33	150	26	2	5	0.2	Yes	1	SB-2050TR	-	FT-6	-	-	-	VP□T1515...
	A12M- SVJC%L 08-16AE	●	●	16	12	4	11	33	150	26	2	5	0.4	Yes	1	SB-2050TR	-	FT-6	-	-	-	VC□T1515... VC□W1515...
	A16Q- SVJC%L 08-20AE	●	●	20	16		15	43	180	36		5	0.4	Yes	1	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...
	A20R- SVJB%L 11-25AE	●	●	25	20	5	19	48	200	37.5	2	5	0.4	Yes	1	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...
	A25S- SVJB%L 11-30AE	●	●	30	25	7	24	58	250	45	3.5	5	0.4	Yes	1	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...
	A32S- SVJB%L 16-40AE	●	●	40	32	7	31	74	250	60	3.5	8	0.4	Yes	2	SB-40125TRN	FT-15	-	SVN-32N (SVN-32S*)	SS-4N	LW-4	VB□T33... VB□W33... VC□T33...
A40T- SVJB%L 16-50AE	●	●	50	40	9	39	91	300	75	4.5	7	0.4	Yes	2	SB-40125TRN	FT-15	-	SVN-32N (SVN-32S*)	SS-4N	LW-4	VB□T33... VB□W33... VC□T33...	

Use of VB□T22...-Y / VB□T33...-Y inserts with A-SVJB-AE is not recommended.  
When using inserts with corner-R(RE) of 0.008" (0.2mm) or 1/64" (0.4mm), shim (SVN-32S) is recommended (sold separately).

**S-SVJP(C)(B)-A** Steel Shank Bar (Spherical Machining / Internal Facing / Internal Copying)



Max. Overhang Length L/D≈~4 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions								GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Spare Parts						Applicable Inserts
		R	L	DMIN	DCON	H	LH	LF	LU	WF	Screw					Wrench	Wrench	Shim	Shim Screw	Wrench		
mm	S12M- SVJP% 08-16A	●	●	16	12	11	33	150	26	2	5	0.2	No	1	SB-2050TR	-	FT-6	-	-	-	VP□T1515...	
	S12M- SVJC% 08-16A	●	●	16	12	11	33	150	26	2	5	0.4	No	1	SB-2050TR	-	FT-6	-	-	-	VC□T1515... VC□W1515...	
	S16Q- SVJC% 08-20A	●	●	20	16	15	43	180	36	2	5	0.4	No	1	SB-2050TR	-	FT-6	-	-	-	VC□T1515... VC□W1515...	
	S20R- SVJB% 11-25A	●	●	25	20	19	48	200	37.5	2	5	0.4	No	1	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...	
	S25S- SVJB% 11-30A	●	●	30	25	24	58	250	45	3.5	5	0.4	No	1	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...	
	S32S- SVJB% 16-40A	●	●	40	32	31	74	250	60	3.5	8	0.4	No	2	SB-40125TRN	FT-15	-	SVN-32N (SVN-32S*)	SS-4N	LW-4	VB□T33... VB□W33... VC□T33...	
S40T- SVJB% 16-50A	●	●	50	40	39	91	300	75	4.5	7	0.4	No	2	SB-40125TRN	FT-15	-	SVN-32N (SVN-32S*)	SS-4N	LW-4	VB□T33... VB□W33... VC□T33...		

Use of VB□T22...-Y / VB□T33...-Y inserts with S-SVJB-A is not recommended.  
When using inserts with corner-R(RE) of 0.008" (0.2mm) or 1/64" (0.4mm), shim (SVN-32S) is recommended (sold separately).

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

Applicable Inserts (A-SVJP(C)(B)-AE / S-SVJP(C)(B)-A)

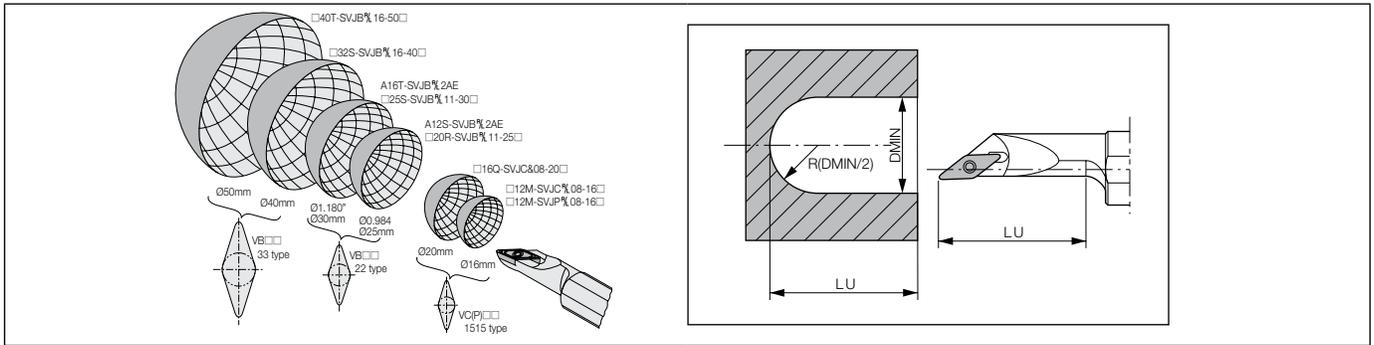
Applications	Finishing	Finishing	Finishing	Finishing	Finishing - Medium	Finishing	Finishing	Low Feed
Insert								
Chipbreaker Type	CK	VF	PP	GP	HQ	%-F	%-FSF	%-U
Page	B102	B97, B100	B97, B100	B97	B97, B100	B98, B103	B98, B103	B104
Applications	Low Feed	Finishing - Medium	Non-Ferrous Metals	Hard Materials				
Insert								
Chipbreaker Type	%-USF	%-Y	PCD	CBN				
Page	B104	B99	C49, C50	C26, C27				

Recommended Cutting Conditions  F174, F175

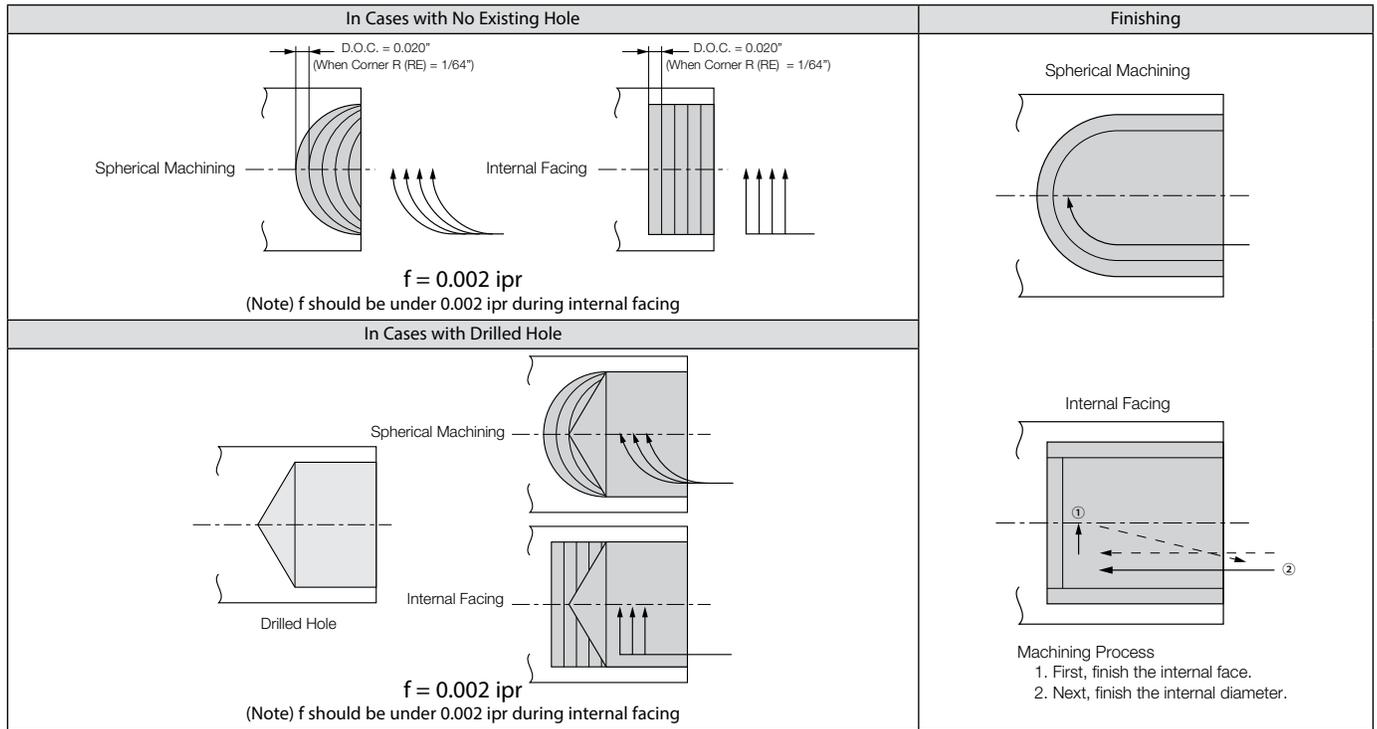
Applicable Sleeves  F170~F173

Application of A...SVJP(C)-□, S...SVJP(C)-□

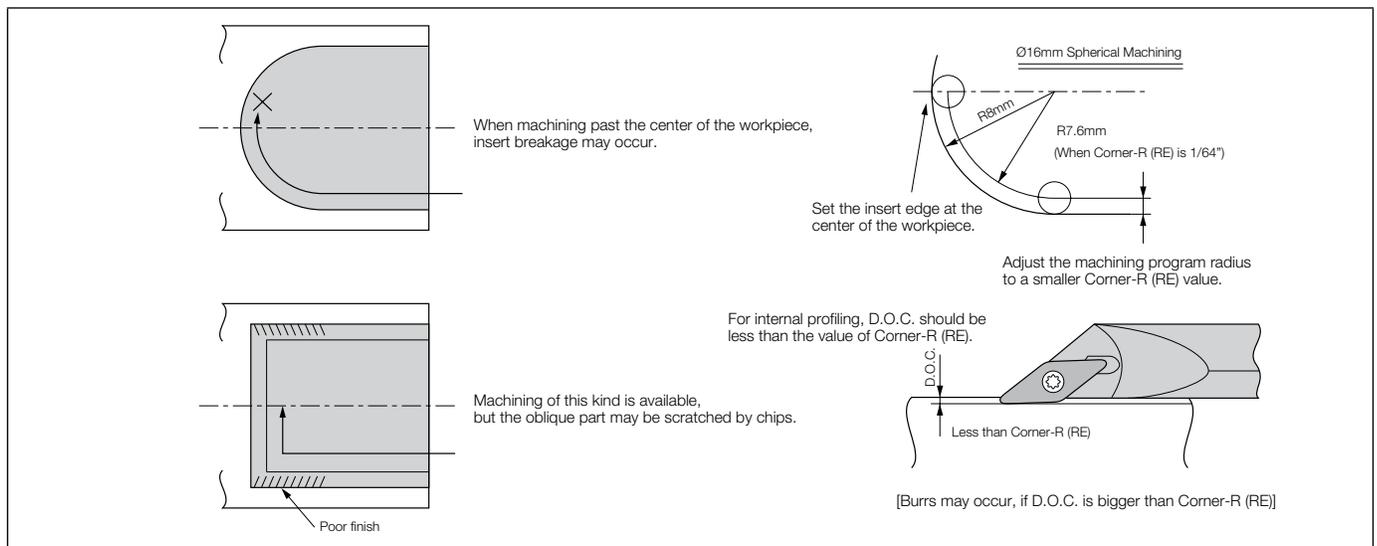
1. Application Range



2. Machining Method

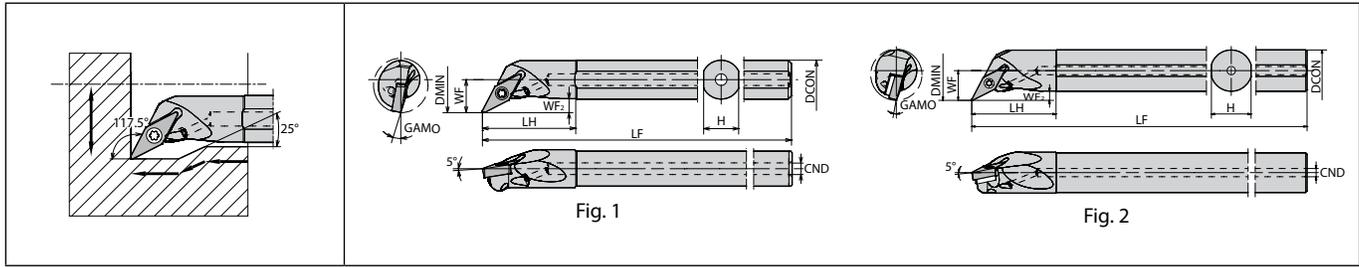


3. Caution



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

**A-SVPC(B)-AE** Excellent Bar (Internal Copying / Undercutting)



Max. Overhang Length L/D≈5.5 | Right-hand shown

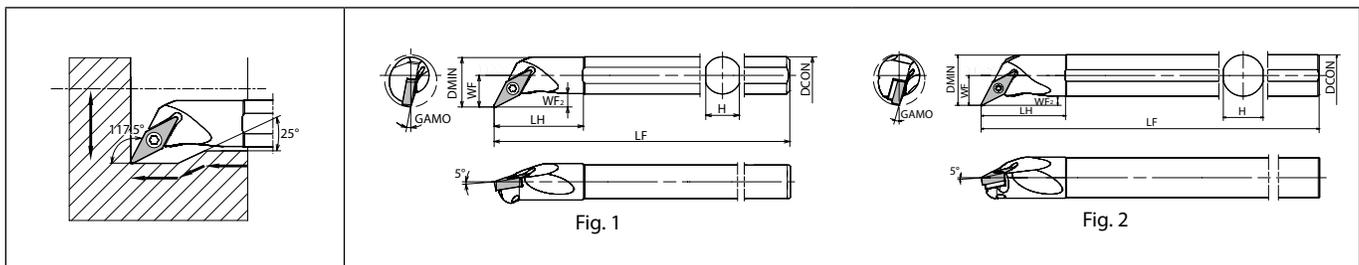
**Toolholder Dimensions**

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

Unit	Part Number	Std. Item		Dimensions								GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Spare Parts						Applicable Inserts
		R	L	DMIN	DCON	CND	H	LH	LF	WF	WF <sub>2</sub>					Screw	Wrench	Wrench	Shim	Shim Screw	Wrench	
Inch	A06M- SVPC% 1.5AE	●	●	0.630	0.375	0.118	0.336	0.945	6	0.335	0.118	8	1/64	Yes	1	SB-2570TR	-	FT-8	-	-	-	VC□T1515... VC□W1515...
	A08M- SVPC% 2AE	●	●	0.790	0.500	0.157	0.461	1.142	6	0.433	0.177	8	1/64	Yes	1	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...
	A10R- SVPB% 2AE	●	●	0.980	0.625	0.197	0.586	1.378	8	0.531	0.197	5										
	A12S- SVPB% 2AE	●	●	1.180	0.750	0.197	0.711	1.575	10	0.610	0.197	5										
mm	A16T- SVPB% 3AE	●	●	1.240	1.000	0.197	0.961	2.008	12	0.709	0.197	13°	1/64	Yes	2	SB-40125TRN	FT-15	-	SVN-32N (SVN-32S*)	SS-4N	LW-4	VB□T33... VB□W33... VC□T33...
	A10L- SVPC% 08-14AE	●	●	14	10	3	9	24	140	8.5	3	8	0.4	Yes	1	SB-2050TR	-	FT-6	-	-	-	VC□T1515... VC□W1515...
	A12M- SVPB% 11-18AE	●	●	18	12	4	11	29	150	11	4.5	8	0.4	Yes	1	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...
	A16Q- SVPB% 11-22AE	●	●	22	16	5	15	35	180	13.5	5	5										
	A20R- SVPB% 11-26AE	●	●	26	20	5	19	41	200	15.5	5	5	0.4	Yes	1	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...
	A25S- SVPB% 16-31AE	●	●	31	25	5	24	51	250	18	5	13	0.4	Yes	2	SB-40125TRN	FT-15	-	SVN-32N (SVN-32S*)	SS-4N	LW-4	VB□T33... VB□W33... VC□T33...
A32S- SVPB% 16-40AE	●	●	40	32	5	31	54	250	23	6.5	9	0.4	Yes	2	SB-40125TRN	FT-15	-	SVN-32N (SVN-32S*)	SS-4N	LW-4	VB□T33... VB□W33... VC□T33...	

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

**S-SVPC(B)-A** Steel Shank Bar (Internal Copying / Undercutting)



Max. Overhang Length L/D≈4 | Right-hand shown

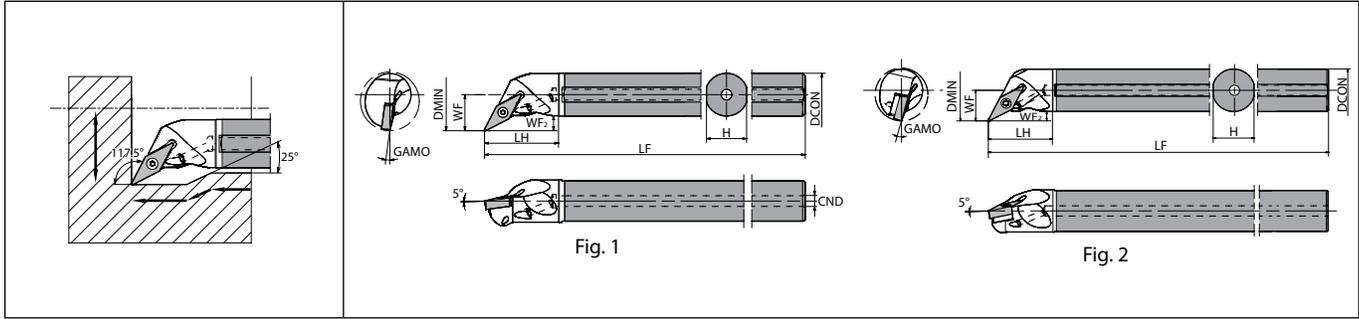
**Toolholder Dimensions**

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

Unit	Part Number	Std. Item		Dimensions								GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Spare Parts						Applicable Inserts
		R	L	DMIN	DCON	H	LH	LF	WF	WF <sub>2</sub>	Screw					Wrench	Wrench	Shim	Shim Screw	Wrench		
mm	S10L- SVPC% 08-14A	●	●	14	10	9	24	140	8.5	3	8	0.4	No	1	SB-2050TR	-	FT-6	-	-	-	VC□T1515..., VC□W1515...	
	S12M- SVPB% 11-18A	●	●	18	12	11	29	150	11	4.5	8	0.4	No	1	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...	
	S16Q- SVPB% 11-22A	●	●	22	16	15	35	180	13.5	5	5											
	S20R- SVPB% 11-26A	●	●	26	20	19	41	200	15.5	5	5	0.4	No	2	SB-40125TRN	FT-15	-	SVN-32N (SVN-32S*)	SS-4N	LW-4	VB□T33..., VB□W33... VC□T33...	
	S32S- SVPB% 16-40A	●	●	40	32	31	54	250	23	6.5	9	0.4	No	2	SB-40125TRN	FT-15	-	SVN-32N (SVN-32S*)	SS-4N	LW-4	VB□T33..., VB□W33... VC□T33...	

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

**E-SVPC(B)-A** Carbide Shank Bar (Internal Copying / Undercutting)



Max. Overhang Length L/D≈7 | Right-hand shown | Left-hand Insert for Right-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions								GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Spare Parts						Applicable Inserts	
			R	DMIN	DCON	CND	H	LH	LF	WF					WF <sub>2</sub>	Screw	Wrench	Wrench	Shim	Shim Screw		Wrench
mm	E10N- SVP CR08-14A	●	14	10	3	9	20	160	8.5	3	8	0.4	Yes	1	SB-2050TR	-	FT-6	-	-	-	VC□T1515... VC□W1515...	
	E12Q- SVPBR11-18A	●	18	12	4	11	23	180	11	4.5	8	0.4	Yes	1	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...	
	E16X- SVPBR11-22A	●	22	16	6	15	28	220	13.5	5	5											
	E20S- SVPBR11-26A	●	26	20	6	19	32	250	15.5	5	5											
	E25T- SVPBR16-31A	●	31	25	6	24	38	300	18	5	13	0.4	Yes	2	SB-4012STRN	FT-15	-	SVN-32N (SVN-32S*)	SS-4N	LW-4	VB□T33... VB□W33... VC□T33...	

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

Applicable Inserts (A-SVPC(B)-AE / S-SVPC(B)-A / E-SVPC(B)-A)

Applications	Finishing	Finishing	Finishing	Finishing - Medium	Finishing	Finishing	Finishing - Medium	Non-Ferrous Metals
Insert								
Chipbreaker Type	VF	PP	GP	HQ	%-F	%-FSF	%-Y	PCD
Page	B97, B100	B97, B100	B97	B97, B100	B98	B98	B99	C49, C50
Applications	Hard Materials							
Insert								
Chipbreaker Type	CBN							
Page	C26, C27							

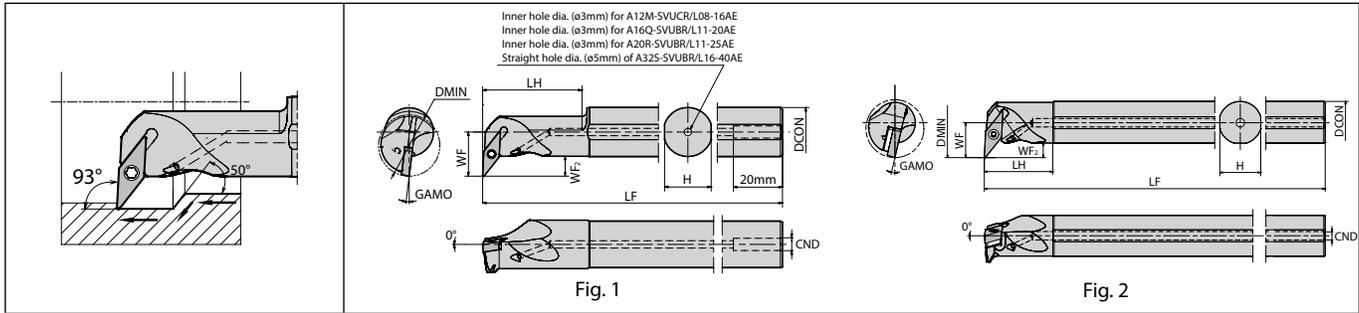
Recommended Cutting Conditions [F174, F175](#)

Applicable Sleeves [F170~F173](#)

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

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

**A-SVUC(B)-AE** Excellent Bar (Internal Copying)



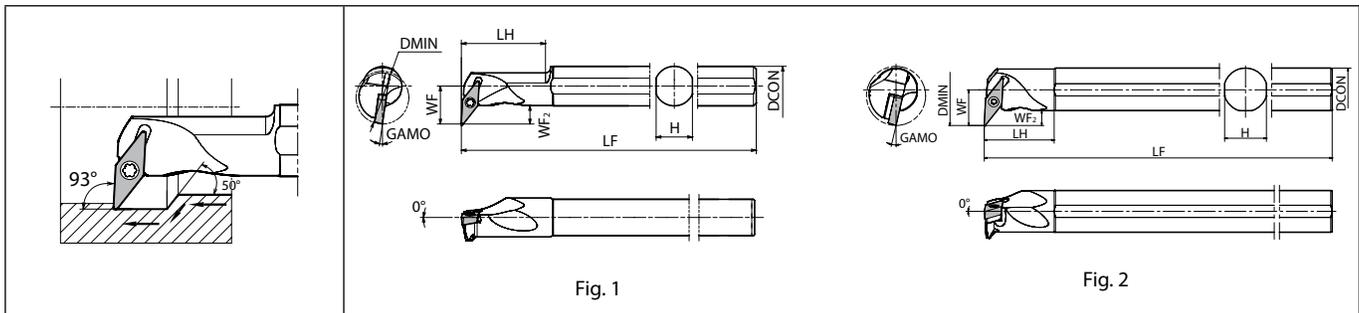
**Toolholder Dimensions**

Max. Overhang Length L/D≈5.5 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Unit	Part Number	Std. Item		Dimensions								GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Spare Parts						Applicable Inserts
		R	L	DMIN	DCON	CND	H	LH	LF	WF	WF <sub>2</sub>					Screw	Wrench	Wrench	Shim	Shim Screw	Wrench	
Inch	A08M- SVUC% 1.5AE	●	●	0.630	0.500	0.157	0.461	1.004	6	0.453	0.217	8	1/64	Yes	1	SB-2050TR	-	FT-6	-	-	-	VC□T1515... VC□W1515...
	A10R- SVUB% 2AE	●	●	0.790	0.625	0.197	0.586	1.280	8	0.630	0.315	8	1/64	Yes	1	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...
	A12S- SVUB% 2AE	●	●	0.980	0.750	0.197	0.711	1.595	10	0.709	0.315	7	1/64	Yes	1	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...
mm	A16T- SVUB% 3AE	●	●	1.340	1.000	0.197	0.961	1.583	12	0.807	0.335	13	1/64	Yes	2	SB-40125TRN	FT-15	-	SVN-32N (SVN-32S*)	SS-4N	LW-4	VB□T33... VB□W33... VC□T33...
	A12M- SVUC% 08-16AE	●	●	16	12	4	11	25.5	150	11.5	5.5	8	0.4	Yes	1	SB-2050TR	-	FT-6	-	-	-	VC□T1515... VC□W1515...
	A16Q- SVUB% 11-20AE	●	●	20	16	5	15	32.5	180	16	8	8	0.4	Yes	1	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...
	A20R- SVUB% 11-25AE	●	●	25	20		19	40.5	200	18		7	0.4	Yes	1	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...
	A25S- SVUB% 16-34AE	●	●	34	25	5	24	40	250	20.5	8.5	13	0.4	Yes	2	SB-40125TRN	FT-15	-	SVN-32N (SVN-32S*)	SS-4N	LW-4	VB□T33... VB□W33... VC□T33...
A32S- SVUB% 16-40AE	●	●	40	32	5	31	84	250	28	12	9	0.4	Yes	1	SB-40125TRN	FT-15	-	SVN-32N (SVN-32S*)	SS-4N	LW-4	VB□T33... VB□W33... VC□T33...	

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

**S-SVUC(B)-A** Steel Shank Bar (Internal Copying)



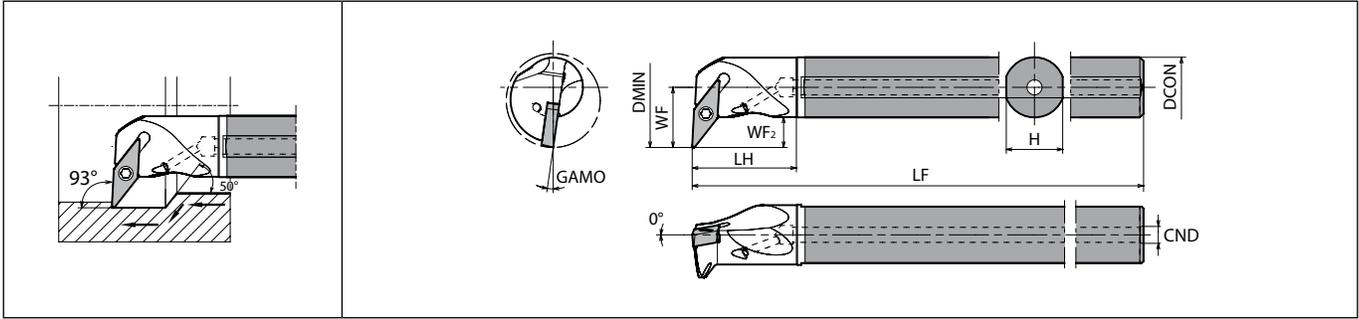
**Toolholder Dimensions**

Max. Overhang Length L/D≈4 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Unit	Part Number	Std. Item		Dimensions								GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Spare Parts						Applicable Inserts
		R	L	DMIN	DCON	H	LH	LF	WF	WF <sub>2</sub>	Screw					Wrench	Wrench	Shim	Shim Screw	Wrench		
mm	S12M- SVUC% 08-16A	●	●	16	12	11	25.5	150	11.5	5.5	8	0.4	No	1	SB-2050TR	-	FT-6	-	-	-	VC□T1515... VC□W1515...	
	S16Q- SVUB% 11-20A	●	●	20	16	15	32.5	180	16	8	8	0.4	No	1	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...	
	S20R- SVUB% 11-25A	●	●	25	20	19	40.5	200	18	8	7	0.4	No	1	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...	
	S25S- SVUB% 16-34A	●	●	34	25	24	40	250	20.5	8.5	13	0.4	No	2	SB-40125TRN	FT-15	-	SVN-32N (SVN-32S*)	SS-4N	LW-4	VB□T33... VB□W33... VC□T33...	
	S32S- SVUB% 16-40A	●	●	40	32	31	84	250	28	12	9	0.4	No	1	SB-40125TRN	FT-15	-	SVN-32N (SVN-32S*)	SS-4N	LW-4	VB□T33... VB□W33... VC□T33...	

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

**E-SVUC(B)-A** Carbide Shank Bar (Internal Copying)



Max. Overhang Length L/D≈~7 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder.

**Toolholder Dimensions**

Unit	Part Number	Std. Item	Dimensions										GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts						Applicable Inserts
			R	DMIN	DCON	CND	H	LH	LF	WF	WF2	Screw				Wrench	Wrench	Shim	Shim Screw	Wrench		
mm	E12Q- SVUCR08-18A	●	18	12	4	11	23	180	11.5	5.5	8	0.4	Yes	SB-2050TR	-	FT-6	-	-	-	VC□T1515... VC□W1515...		
	E16X- SVUBR11-25A	●	25	16	4	15	28	220	16	8	0.4	Yes	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...			
	E20S- SVUBR11-29A	●	29	20	6	19	32	250	18	8	0.4	Yes	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...			
	E25T- SVUBR16-34A	●	34	25	6	24	38	300	21	8.5	13	0.4	Yes	SB-40125TRN	FT-15	-	SVN-32N (SVN-32S*)	SS-4N	LW-4	VB□T33... VB□W33... VC□T33...		

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

**Applicable Inserts (A-SVUC(B)-AE / S-SVUC(B)-A / E-SVUC(B)-A)**

Applications	Finishing	Finishing	Finishing	Finishing - Medium	Finishing	Finishing	Finishing - Medium	Non-Ferrous Metals
Insert								
Chipbreaker Type	VF	PP	GP	HQ	%-F	%-FSF	%-Y	PCD
Page	B97, B100	B97, B100	B97	B97, B100	B98	B98	B99	C49, C50
Applications	Hard Materials							
Insert								
Chipbreaker Type	CBN							
Page	C26, C27							

Recommended Cutting Conditions F174, F175  
Applicable Sleeves F170~F173

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

A-SVZC(B)-AE Excellent Bar (Back Boring)

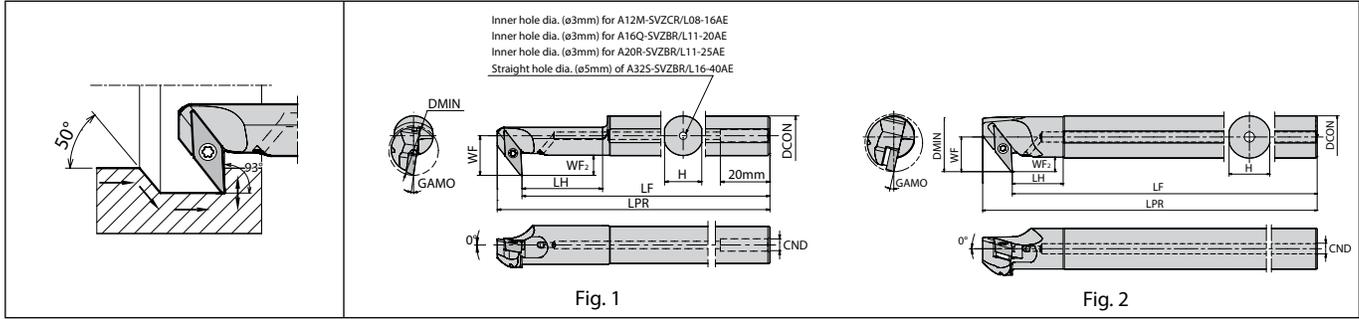


Fig. 1

Fig. 2

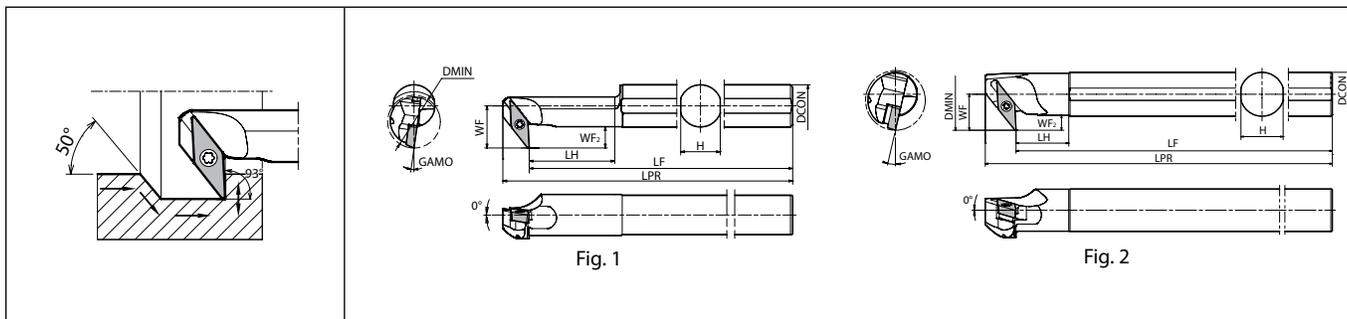
Max. Overhang Length L/D≈~5.5 | Right-hand shown  
Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions										GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Spare Parts						Applicable Inserts
		R	L	DMIN	DCON	CND	H	LH	LPR	LF	WF	WF2	Screw					Wrench	Wrench	Shim	Shim Screw	Wrench		
Inch	A08M- SVZC% 1.5AE	●	●	0.630	0.500	0.157	0.461	1.004	-	6	0.453	0.217	8	1/64	Yes	6	SB-2050TR	-	FT-6	-	-	-	VC□T1515... VC□W1515...	
	A10R- SVZB% 2AE	●	●	0.790	0.625	0.197	0.586	1.280	-	8	0.630	0.315	8	-	-	6	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...	
	A12S- SVZB% 2AE	●	●	0.980	0.750	0.197	0.711	1.595	-	10	0.709	0.315	7	1/64	Yes	6	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...	
mm	A16T- SVZB% 3AE	●	●	1.340	1.000	0.197	0.961	1.181	-	12	0.807	0.335	13	1/64	Yes	7	SB-4012STRN	FT-15	-	SVN-32N (SVN-32S*)	SS-4N	LW-4	VB□T33... VB□W33... VC□T33...	
	A12M- SVZC% 08-16AE	●	●	16	12	4	11	25.5	150	142.5	11.5	5.5	8	0.4	Yes	1	SB-2050TR	-	FT-6	-	-	-	VC□T1515... VC□W1515...	
	A16Q- SVZB% 11-20AE	●	●	20	16	5	15	32.5	180	170	16	8	8	0.4	Yes	1	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...	
	A20R- SVZB% 11-25AE	●	●	25	20	5	19	40.5	200	190	18	8	7	0.4	Yes	1	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...	
	A25S- SVZB% 16-34AE	●	●	34	25	5	24	30	250	232.5	20.5	8.5	13	0.4	Yes	2	SB-4012STRN	FT-15	-	SVN-32N (SVN-32S*)	SS-4N	LW-4	VB□T33... VB□W33... VC□T33...	
A32S- SVZB% 16-40AE	●	●	40	32	5	31	72.5	250	232.5	28	12	9	0.4	Yes	1	SB-4012STRN	FT-15	-	SVN-32N (SVN-32S*)	SS-4N	LW-4	VB□T33... VB□W33... VC□T33...		

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

S-SVZC(B)-A Steel Shank Bar (Back Boring)



Max. Overhang Length L/D≈~4 | Right-hand shown  
Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions										GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Spare Parts						Applicable Inserts
		R	L	DMIN	DCON	H	LH	LPR	LF	WF	WF <sub>2</sub>	Screw	Wrench					Wrench	Shim	Shim Screw	Wrench			
mm	S12M- SVZC% 08-16A	●	●	16	12	11	25.5	150	142.5	11.5	5.5	8	0.4	No	1	SB-2050TR	-	FT-6	-	-	-	VC□T1515... VC□W1515...		
	S16Q- SVZB% 11-20A	●	●	20	16	15	32.5	180	170	16	8	0.4	No	1	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...			
	S20R- SVZB% 11-25A	●	●	25	20	19	40.5	200	190	18	7	0.4	No	1	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...			
	S25S- SVZB% 16-34A	●	●	34	25	24	30	250	232.5	20.5	8.5	13	0.4	No	2	SB-40125TRN	FT-15	-	SVN-32N (SVN-325*)	SS-4N	LW-4	VB□T33... VB□W33... VC□T33...		
S32S- SVZB% 16-40A	●	●	40	32	31	72.5	250	232.5	28	12	9	0.4	No	1	SB-40125TRN	FT-15	-	SVN-32N (SVN-325*)	SS-4N	LW-4	VB□T33... VB□W33... VC□T33...			

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

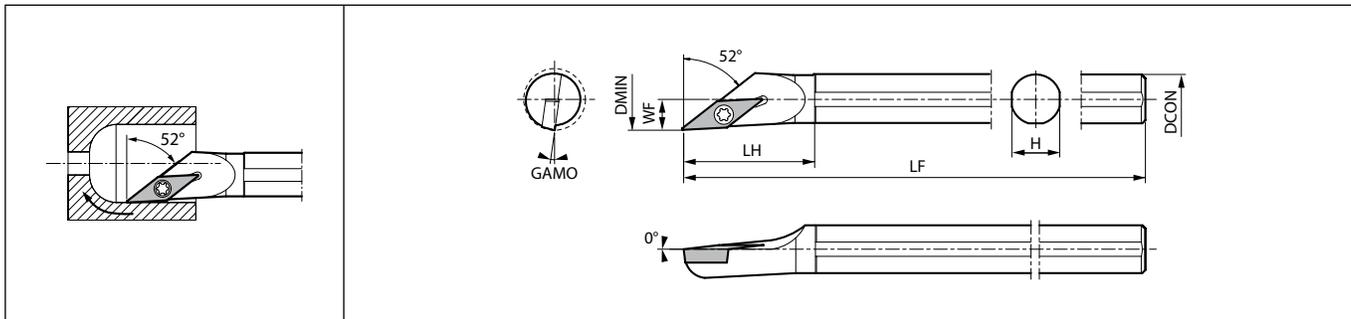
Applicable Inserts (A-SVZC(B)-AE / S-SVZC(B)-A)

Applications	Finishing	Finishing	Finishing	Finishing - Medium	Finishing	Finishing	Finishing - Medium	Non-Ferrous Metals
Insert								
Chipbreaker Type	VF	PP	GP	HQ	%-F	%-FSF	%-Y	PCD
Page	B97, B100	B97, B100	B97	B97, B100	B98	B98	B99	C49, C50
Applications	Hard Materials							
Insert								
Chipbreaker Type	CBN							
Page	C26, C27							

Recommended Cutting Conditions F174, F175  
Applicable Sleeves F170~F173

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

**S-SVJB** Steel Bar (Spherical Machining / Internal Facing / Internal Copying)



Max. Overhang Length  $L/D \approx 3$  | Right-hand shown  
 Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts			Applicable Inserts
		R	L	DMIN	DCON	H	LH	LF	WF				Screw	Wrench	Wrench	
Inch	S08M- SVJB $\frac{1}{2}$ 2	●	●	0.620	0.500	0.480	1.25	6.00	0.310	8	1/64	No		-	FT-8	VB□T22... VB□W22...
	S10X- SVJB $\frac{1}{2}$ 2	●	●	0.780	0.625	0.584	1.44	7.00	0.390	8				-	FT-8	VB□T22... VB□W22...
	S12R- SVJB $\frac{1}{2}$ 3	●	●	0.984	0.750	0.710	1.86	8.00	0.492	8			1/32	No	SB-4085TR	FT-15

**F**  
BORING

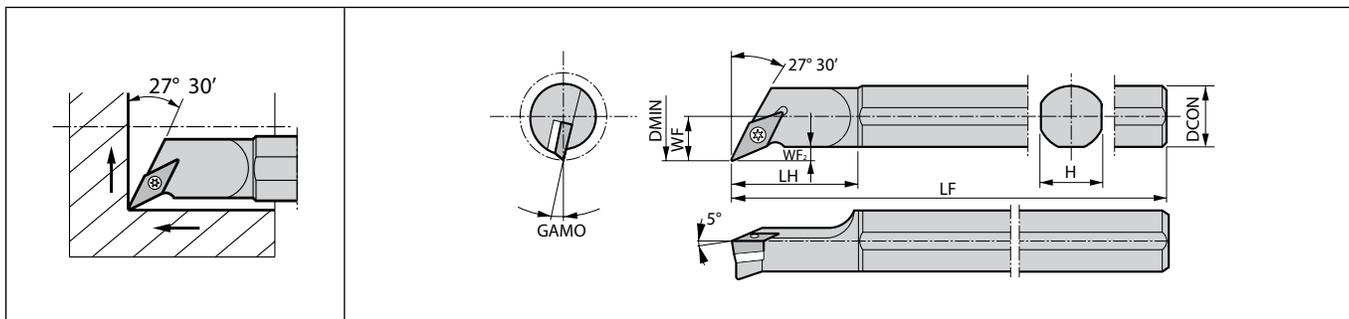
MICRO BORING

POSITIVE INSERTS

ANTI-VIBE BARS

NEGATIVE INSERTS

**S-SVPB-E** Excellent Bar (Copying / undercutting)

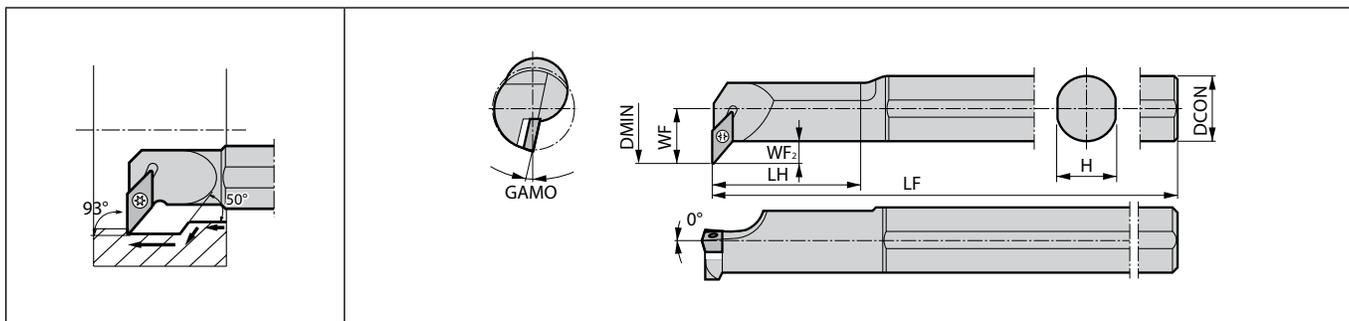


Max. Overhang Length L/D≈~5 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts						Applicable Inserts
			R	DMIN	DCON	H	LH	LF	WF				WF <sub>2</sub>	Screw	Wrench	Wrench	Shim	Shim Screw	
Inch	S10Q- SVPBR2E	△	0.98	0.63	0.59	1.10	7.00	0.492	0.194	5	1/64	No	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...
	S16X- SVPBR3E	●	1.34	1.00	0.97	2.26	9.00	0.807	0.197	13	1/32	No	SB-40115TR	FT-15	-	SVN-32	SB-2050TR	FT-6	VB□T33... VB□W33... VC□T33...
	S20S- SVPBR3E	△	1.57	1.25	1.18	2.17	10.0	0.866	0.256	9									

**S-SVUC(B)-E** Excellent Bar (Copying)



Max. Overhang Length L/D≈~5 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

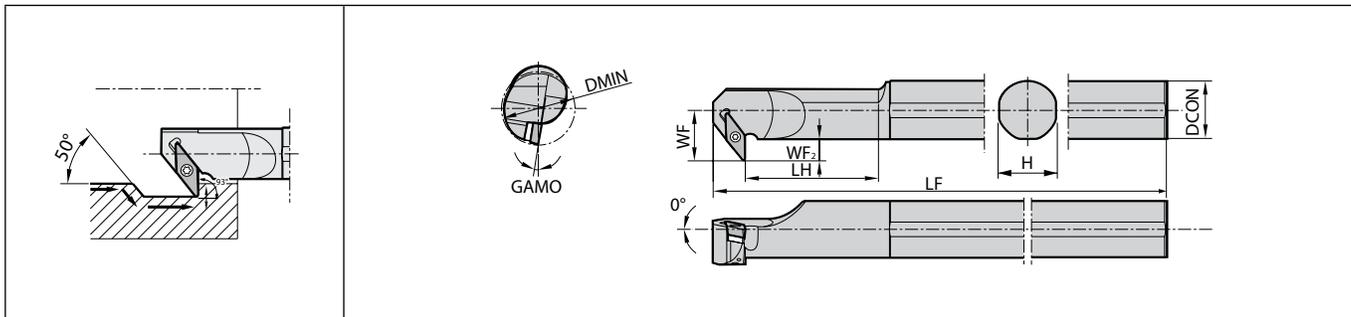
Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts						Applicable Inserts	
			R	L	DMIN	DCON	H	LH	LF				WF	WF <sub>2</sub>	Screw	Wrench	Wrench	Shim		Shim Screw
Inch	S08M- SVUCR1.5E	●		0.63	0.50	0.46	1.10	6.00	0.433	0.217	8	1/64	No	SB-2050TR	-	FT-8	-	-	-	VC□T1515... VC□W1515...
	S10Q- SVUB <sup>PL</sup> 2E	● △		0.79	0.63	0.59	1.28	7.00	0.610	0.315	8	1/64	No	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...
	S12R- SVUB <sup>PL</sup> 2E	△ △		0.98	0.75	0.71	1.59	8.00	0.689	0.355	7									
	S16X- SVUBR3E	△		1.34	1.00	0.97	1.97	9.00	0.689	0.195	13	1/32	No	SB-40115TR	FT-15	-	SVN-32	SB-2050TR	FT-6	VB□T33... VB□W33... VC□T33...
	S20S- SVUBR3E	△		1.57	1.25	1.18	3.31	10.00	1.080	0.472	9									

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

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

**S-SVZB-E** Excellent Bar (Back Boring)



Max. Overhang Length  $L/D \approx 5$  | Right-hand shown  
 Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions								GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts						Applicable Inserts
			R	DMIN	DCON	H	LH	LF	WF	WF2				Screw	Wrench	Wrench	Shim	Shim Screw	Wrench	
																				
Inch	S12R- SVZBR2E	●	0.98	0.75	0.71	1.73	8.00	0.689	0.355	7	1/64	No	SB-2570TR	-	FT-8	-	-	-	VB□T22... VB□W22...	

- F BORING
- MICRO BORING
- POSITIVE INSERTS
- ANTI-VIBE BARS
- NEGATIVE INSERTS

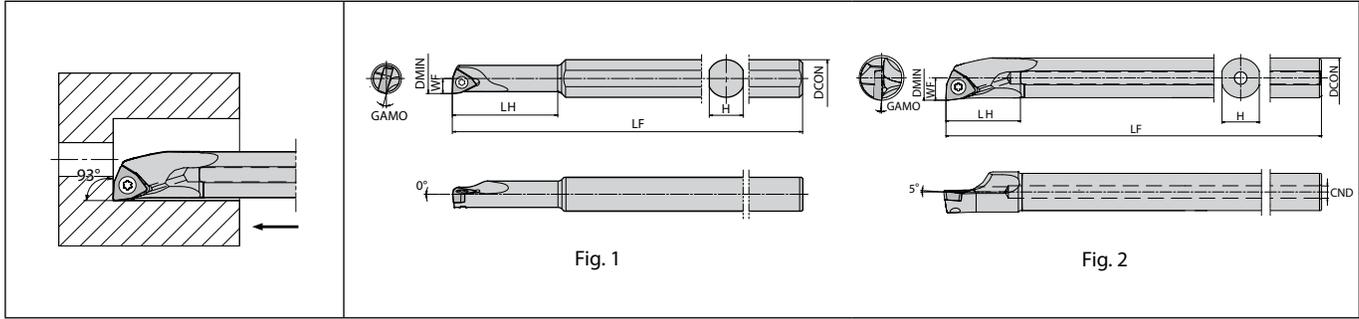
Applicable Inserts (S-SVJB-E / S-SVJB / S-SVPB-E / S-SVUC(B)-E / S-SVZB-E)

Applications	Finishing	Finishing	Finishing	Finishing - Medium	Finishing	Finishing	Finishing - Medium	Non-Ferrous Metals
Insert								
Chipbreaker Type	VF	PP	GP	HQ	$\frac{R}{L}$ -F	$\frac{R}{L}$ -FSF	$\frac{R}{L}$ -Y	PCD
Page	B97, B100	B97, B100	B97	B97, B100	B98	B98	B99	C49, C50
Applications	Hard Materials							
Insert								
Chipbreaker Type	CBN							
Page	C26, C27							

Recommended Cutting Conditions  F174, F175  
 Applicable Sleeves  F170~F173

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

A/S-SWUB(P)-AE Excellent Bar (Boring)



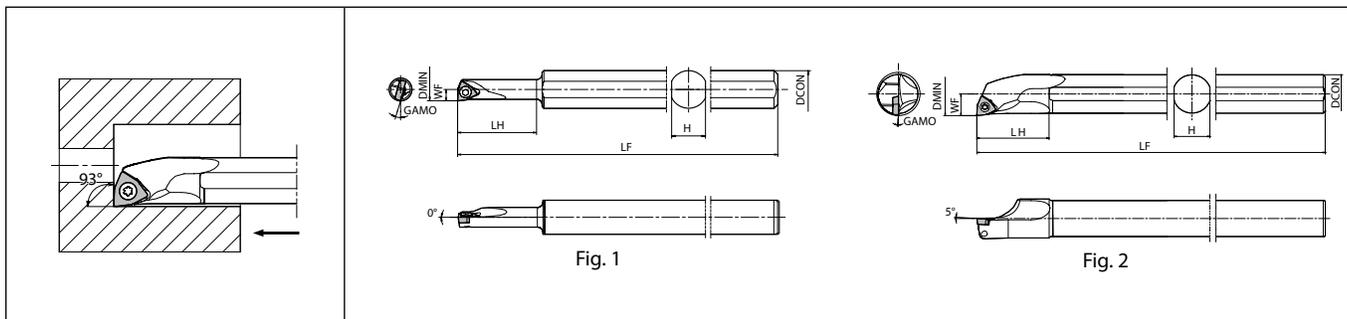
Max. Overhang Length L/D≈~5.5 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Spare parts			Applicable Inserts
		R	L	DMIN	DCON	CND	H	LH	LF	WF					Screw	Wrench	Wrench	
Inch	S06H- SWUB <sup>®</sup> 1.2AE	●	●	0.240	0.375	0.118	0.336	0.827	4	0.118	15	0.008	No	1	SB-2035TR	-	FT-6	WB□T121... WB□W121...
	S06H- SWUBR1.5AE	●		0.312	0.375	0.118	0.336	1.102	4	0.157	15	0.008	No	1	SB-2035TR	-	FT-6	WB□T1515... WB□W1515...
	A06M- SWUB <sup>®</sup> 1.5AE	●	●	0.472	0.375	0.118	0.336	0.787	6	0.236	10	0.008	Yes	2	SB-2050TR	-	FT-6	WB□T1515... WB□W1515...
	A08M- SWUP <sup>®</sup> 2AE	●	●	0.630	0.500	0.157	0.461	0.945	6	0.276	4	1/64	Yes	2	SB-2545TR	-	FT-8	WP□T215... WP□W215...
	A10R- SWUP <sup>®</sup> 3AE	●	●	0.770	0.625	0.197	0.586	1.181	8	0.354	3.5							WP□T32... WP□W32...
	A12S- SWUP <sup>®</sup> 3AE	●	●	0.930	0.750	0.197	0.711	1.417	10	0.413	2		1/32	Yes	2	SB-4065TR	FT-15	-
mm	A16T- SWUP <sup>®</sup> 3AE	●	●	1.200	1.000	0.197	0.961	1.811	12	0.531	0							
	S10H- SWUB <sup>®</sup> 06-06AE	●	●	6	10	-	9	21	100	3	15	0.2	No	1	SB-2035TR	-	FT-6	WB□T121... WB□W121...
	S10H- SWUB <sup>®</sup> 06-07AE	●	●	7	10	-	9	25	100	3.5	13	0.2	No	1	SB-2035TR	-	FT-6	WB□T121... WB□W121...
	S10H- SWUB <sup>®</sup> 08-08AE	●	●	8	10	-	9	28	100	4	15	0.2	No	1	SB-2035TR	-	FT-6	WB□T1515... WB□W1515...
	A08X- SWUB <sup>®</sup> 08-10AE	●	●	10	8	2.5	7	16	120	5	13	0.2	Yes	2	SB-2050TR	-	FT-6	WB□T1515... WB□W1515...
	A10L- SWUB <sup>®</sup> 08-12AE	●	●	12	10	3	9	20	140	6	10	0.2	Yes	2	SB-2050TR	-	FT-6	WB□T1515... WB□W1515...
	A12M- SWUP <sup>®</sup> 11-14AE	●	●	14	12	4	11	24	150	7	4	0.4	Yes	2	SB-2545TR	-	FT-8	WP□T215... WP□W215...
	A16Q- SWUP <sup>®</sup> 11-18AE	●	●	18	16	5	15	30	180	9	1	0.4	Yes	2	SB-2545TR	-	FT-8	WP□T215... WP□W215...
A16Q- SWUP <sup>®</sup> 16-18AE	●	●	18	16	5	15	30	180	9	3.5	0.8	Yes	2	SB-4065TR	FT-15	-	WP□T32... WP□W32...	
A20R- SWUP <sup>®</sup> 16-22AE	●	●	22	20	5	19	36	200	11	2	0.8	Yes	2	SB-4065TR	FT-15	-	WP□T32... WP□W32...	

- F BORING
- MICRO BORING
- POSITIVE INSERTS
- ANTI-VIBE BARS
- NEGATIVE INSERTS

S-SWUB(P)-A Steel Shank Bar (Boring)



Max. Overhang Length L/D≈~4 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

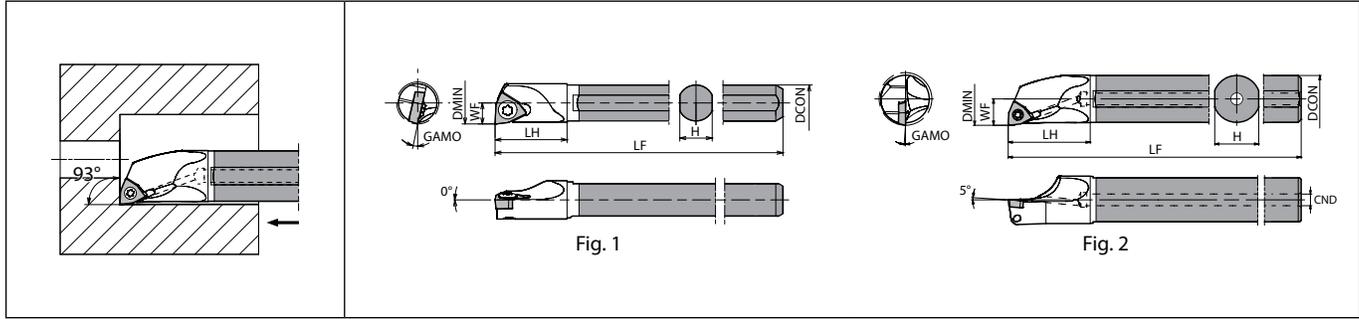
Toolholder Dimensions

Unit	Part 3Number	Std. Item		Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Spare parts			Applicable Inserts
		R	L	DMIN	DCON	H	LH	LF	WF	Screw					Wrench	Wrench		
																		
mm	S10H- SWUB%L 06-06A	●	●	6	10	9	21	100	3	15	0.2	No	1	SB-2035TR	-	FT-6	WB□T121... WB□W121...	
	S10H- SWUB%L 06-07A	●	●	7	10	9	25	100	3.5	13								
	S10H- SWUB%L 08-08A	●	●	8	10	9	28	100	4	15	0.2	No	2	SB-2050TR	-	FT-6	WB□T1515... WB□W1515...	
	S08X- SWUB%L 08-10A	●	●	10	8	7	16	120	5	13								
	S10L- SWUB%L 08-12A	●	●	12	10	9	20	140	6	10	0.4	No	2	SB-2545TR	-	FT-8	WP□T215... WP□W215...	
	S12M- SWUP%L 11-14A	●	●	14	12	11	24	150	7	4								
	S16Q- SWUP%L 11-18A	●	●	18	16	15	30	180	9	1	0.8	No	2	SB-4065TR	FT-15	-	WP□T32... WP□W32...	
	S16Q- SWUP%L 16-18A	●	●	18	16	15	30	180	9	3.5								
S20R- SWUP%L 16-22A	●	●	22	20	19	36	200	11	2									

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

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

C/E-SWUB(P)-A(N) Carbide Shank Bar (Boring)

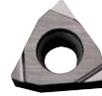
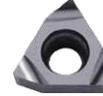
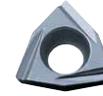
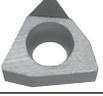


Max. Overhang Length L/D≈~7 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Spare Parts			Applicable Inserts	
		R	L	DMIN	DCON	CND	H	LH	LF	WF					Screw	Wrench	Wrench		
mm	C05H- SWUB% 06-06AN	●	●	6	5	-	4.4	9	100	3	15	0.2	No	1	SB-2035TR	-	FT-6	WB□T121... WB□W121...	
	C06J- SWUB% 06-07AN	●	●	7	6	-	5.4	10	110	3.5	13								
	C07K- SWUB% 08-08AN	●	●	8	7	-	6.4	11	125	4	15	0.2	No	1	SB-2035TR				
	E08L- SWUB% 08-10AN	●	●	10	8			7	14	140	5	13							
	E10N- SWUB% 08-12AN	●	●			3		9	18	160		10	0.2	Yes	2	SB-2050TR	-	FT-6	WB□T1515... WB□W1515...
		SWUBR08-12AN2/3	●		12	10				105	6								
		SWUBR08-12AN1/2	●							80									
	E12Q- SWUP% 11-14A	●	●							180									
		SWUPR11-14A-2/3	●		14	12		11	23	120	7	4							
		SWUPR11-14A-1/2	●				4			90									
	E16X- SWUP% 11-18A	●	●							220		1	0.4	Yes	2	SB-2545TR	-	FT-8	WP□T215... WP□W215...
		SWUPR11-18A-2/3	●		18	16		15	28	145	9								
		SWUPR11-18A-1/2	●							110									
E16X- SWUP% 16-18A	●	●							220										
	SWUPR16-18A-2/3	●		18	16	4	15	28	145	9	3.5								
	SWUPR16-18A-1/2	●							110										
E20S- SWUP% 16-22A	●	●							250			0.8	Yes	2	SB-4065TR	FT-15	-	WP□T32... WP□W32...	
	SWUPR16-22A-2/3	●		22	20	6	19	32	165	11	2								
	SWUPR16-22A-1/2	●							125										

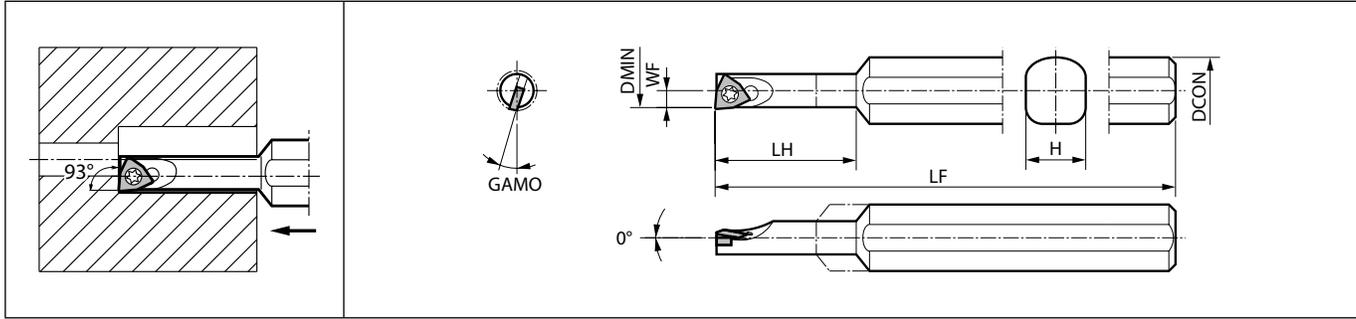
Applicable Inserts

<b>Applications</b>	Minute D.O.C.	Finishing	Finishing	Finishing	Finishing - Medium	Finishing	Finishing	Finishing - Medium
<b>Insert</b>								
<b>Chipbreaker Type</b>	¾ - CF	¾ - PF	GP	¾ - DP	HQ	¾ - F	¾ - P	¾ - Y
<b>Page</b>	B105	B105	B107	B105	B107	B105, B106	B106	B107
<b>Applications</b>	Cast Iron	Non-Ferrous Metals	Hard Materials					
<b>Insert</b>								
<b>Chipbreaker Type</b>	No Chipbreaker	PCD	CBN					
<b>Page</b>	B107	C51	C28					

Recommended Cutting Conditions [F174, F175](#)

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

S-SWUB Steel Bar (Boring / Internal Facing)



Max. Overhang Length  $L/D \approx 3$  | Right-hand shown  
 Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

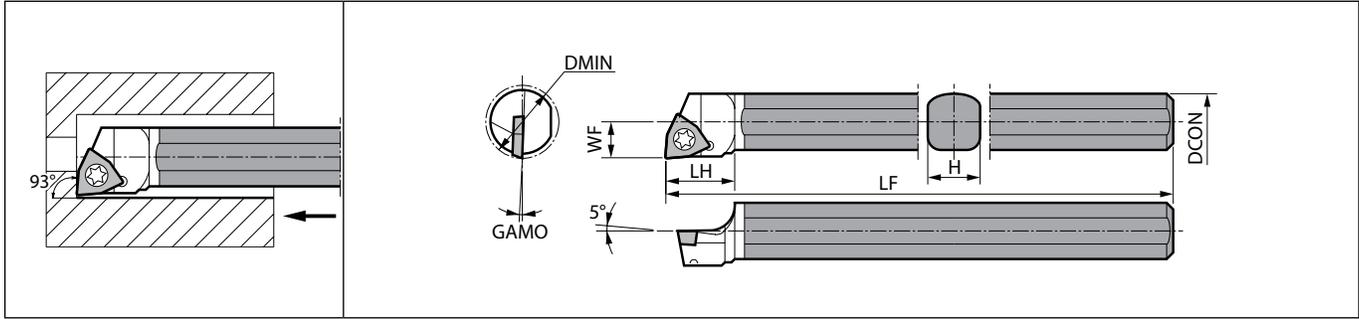
Unit	Part Number	Std. Item		Dimensions						GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare parts		Applicable Inserts
		R	L	DMIN	DCON	H	LH	LF	WF				Screw	Wrench	
Inch	S06H- SWUB $\frac{3}{8}$ 1.2	●	●	0.240	0.375	0.356	0.825	4.00	0.115	15	0.004	No	SB-2040TR	FT-6	WB□T121... WB□W121...
	S06X- SWUBR1.5	●		0.312	0.375	0.356	1.102	4.33	0.156	15	1/64	No	SB-2050TR	FT-6	WB□T1515... WB□W1515...

Applicable Inserts

Applications	Minute D.O.C.	Finishing	Finishing	Finishing	Finishing	Cast Iron	Non-Ferrous Metals	Hard Materials
Insert								
Chipbreaker Type	$\frac{3}{8}$ -CF	$\frac{3}{8}$ -PF	$\frac{3}{8}$ -DP	$\frac{3}{8}$ -F	$\frac{3}{8}$ -P	No Chipbreaker	PCD	CBN
Page	B105	B105	B105	B105, B106	B106	B107	C51	C28

Recommended Cutting Conditions  $\rightarrow$  F174, F175

C-SWUB Carbide Shank Bar (Boring)



Max. Overhang Length  $L/D \approx 7$  | Right-hand shown  
 Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare parts		Applicable Inserts
		R	L	DMIN	DCON	H	LH	LF	WF				Screw	Wrench	
															
Inch	C0325K- SWUB <sup>®</sup> 1.2	●	●	0.240	0.203	0.180	0.50	5.00	0.118	15	1/64	No	SB-2040TR	FT-6	WB□T121... WB□W121...
	C045K- SWUB <sup>®</sup> 1.5	●	●	0.312	0.281	0.252	0.55	5.00	0.157	15	1/64	No	SB-2050TR	FT-6	WB□T1515... WB□W1515...

Applicable Inserts

Applications	Minute D.O.C.	Finishing	Finishing	Finishing	Finishing	Cast Iron	Non-Ferrous Metals	Hard Materials
Insert								
Chipbreaker Type	¾ -CF	¾ -PF	¾ -DP	¾ -F	¾ -P	No Chipbreaker	PCD	CBN
Page	B105	B105	B105	B105, B106	B106	B107	C51	C28

Recommended Cutting Conditions  F174, F175

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

# ZBMT Series

## 25° Insert Profiling Tools

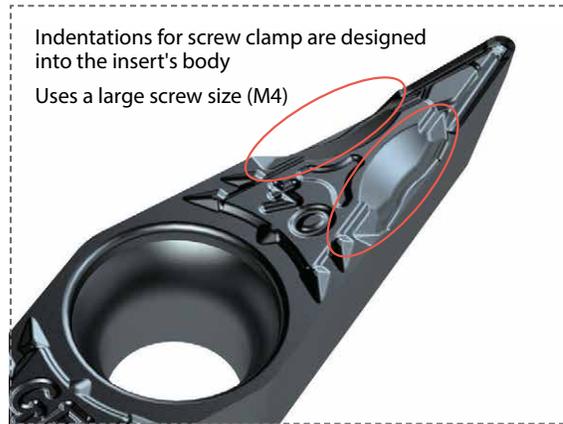
Unique clamping structure and a wide lineup of external toolholders and boring bars

Wide range of applications including copying, undercutting, tapering, V-slotting, spherical machining, and more

### 1 Newly Developed Self-Clamping Mechanism Achieves a Higher Rigidity

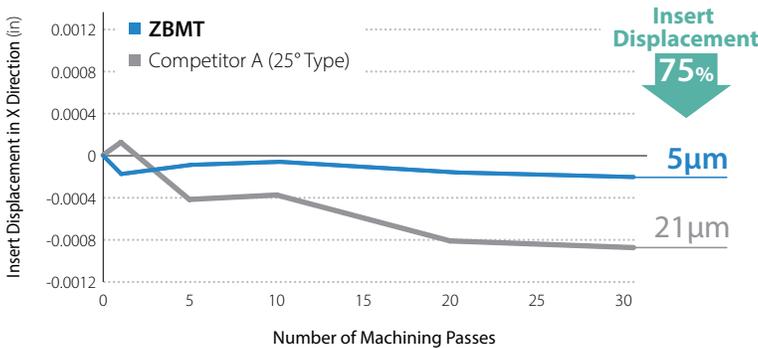
#### Side Lock Mechanism

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



- F
- BORING
- MICRO BORING
- POSITIVE INSERTS
- ANTI-VIBE BARS
- NEGATIVE INSERTS

Insert Displacement During Facing Comparison (Internal Evaluation)



#### Insert Design

By controlling insert displacement,

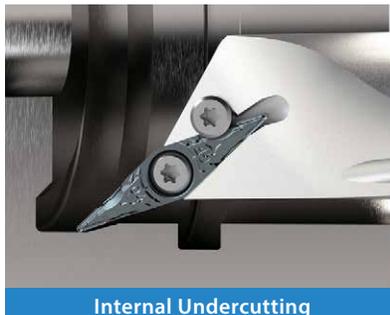
- Machining precision is stabilized and long tool life is enable
- Reduces defect rate due to sudden dimensional deviation

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

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

### Provides High Quality and Stable Machining in Various Machining Applications

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



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

## 2 Unique Holder Design to Meet Customers' Needs

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

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

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

**Fine Tuned and Adjustable**  
± 4° Adjustable Oscillation

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

**Effective for facing applications**

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

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

### GF Chipbreaker Solving chip control issues leads to high-quality surface finishes

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

**Two-step dot**  
Responds to chip fluctuation

**Molded cutting edge**  
Improved chip control at small D.O.C.

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

Chip control comparison (Internal evaluation)

**GF Chipbreaker** vs **Competitor A (25° Type)**

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

### 15° Inserts are also available upon requests

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

#### Examples

When using the toolholder in reverse mounting position

When using the toolholder in normal mounting position  
\* Holder: Special order specification

70°  
20°

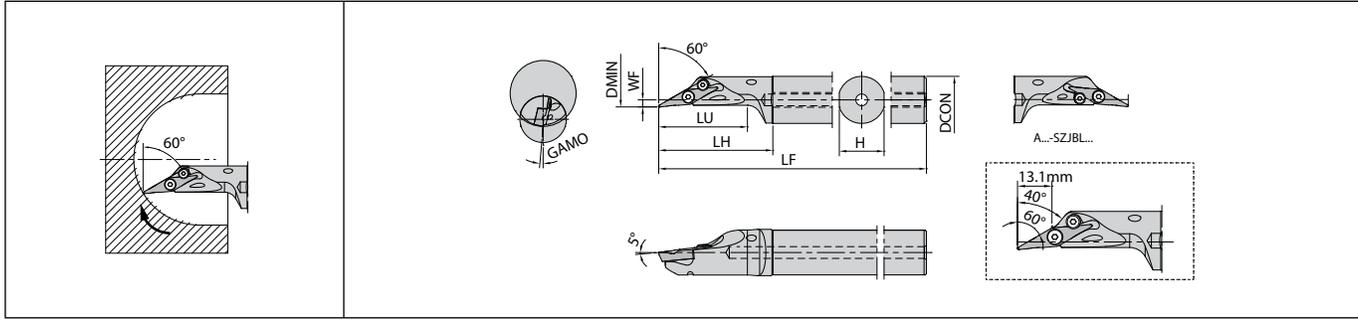
15° inserts are developed relative to 25° inserts  
Helps avoid interference and supports a wider range of machining applications

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

Additional modification  
45°  
Horizontal reference  
0.024"

0.094"  
15°

**A-SZJB-AE** Excellent Bar (Spherical Machining / Internal Facing / Internal Copying)



Max. Overhang Length L/D≈5.5 | Right-hand shown | ZBMT13T304R-GF-15D is applicable to Right-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts		Applicable Inserts	
		R	L	DMIN	DCON	CND	H	LH	LF	LU				WF	Screw		Wrench
		 															
mm	A20R- SZJB% 13-28AE	●	●	28	20		19	48	200	37.5	3	5	0.4	Yes	SB-3079TR	FT-8	ZBMT13T3...
	A25S- SZJB% 13-30AE	●	●	30	25	5	24	58	250	47	3.5						
	A32S- SZJB% 13-40AE	●	●	40	32		31	72		61.5							

For application of A-SZJB-AE, please refer to F93.

Applicable Inserts

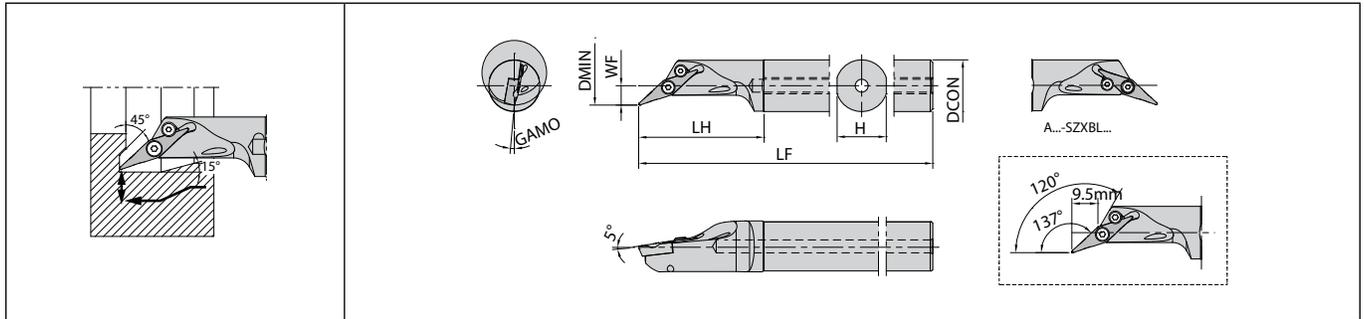
Applications	Finishing	Finishing
Insert		
Chipbreaker Type	GF	R-GF-15D
Page	B108	B108

R-GF-15D inserts are only for the right-hand toolholders of A-SZJB-AE.

Recommended Cutting Conditions ➔ F174, F175

Applicable Sleeves ➔ F172

**A-SZXB-AE** Excellent Bar (Internal Facing / Internal Copying / Undercutting)



Max. Overhang Length L/D≈~5.5 | Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts		Applicable Inserts	
		R	L	DMIN	DCON	CND	H	LH	LF	LU				WF	Screw		Wrench
mm	A20R- SZXB% 13-25AE	●	●	25	20		19	48	200	37.5	7.5	5	0.4	Yes	SB-3079TR	FT-8	ZBMT13T3...
	A25S- SZXB% 13-30AE	●	●	30	25	5	24	58	250	45.2	7						
	A32S- SZXB% 13-40AE	●	●	40	32		31	74									

Applicable Inserts

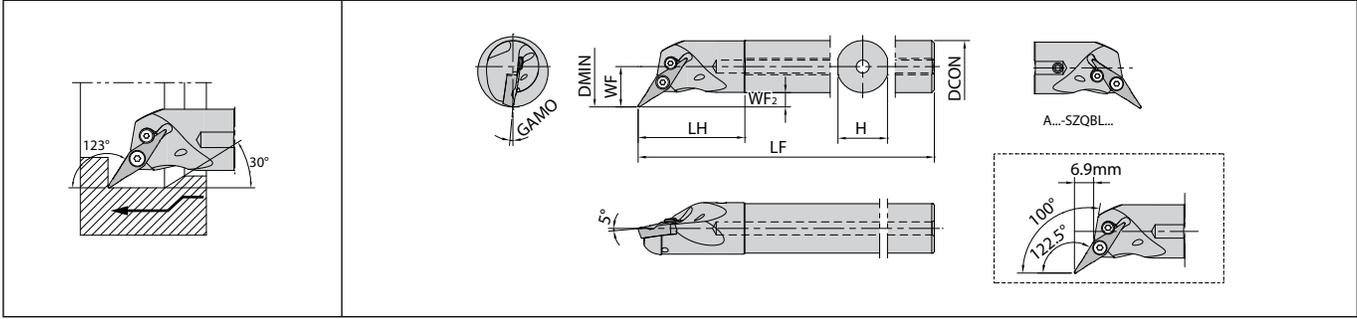
Applications	Finishing
Insert	
Chipbreaker Type	GF
Page	B108

Recommended Cutting Conditions [F174](#), [F175](#)

Applicable Sleeves [F172](#)

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

**A-SZQB-AE** Excellent Bar (Internal Copying / Undercutting)



Max. Overhang Length L/D≈~5.5 | Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts		Applicable Inserts	
		R	L	DMIN	DCON	CND	H	LH	LF	WF				WF <sub>2</sub>	Screw		Wrench
mm	A20R- SZQB 13-27AE	●	●	27	20		19	41	200	15.5	5.5	5	0.4	Yes	SB-3079TR	FT-8	ZBMT13T3...
	A25S- SZQB 13-32AE	●	●	32	25	5	24	51	250	18	5.5	5	0.4	Yes	SB-3079TR	FT-8	
	A32S- SZQB 13-40AE	●	●	40	32		31	54	250	22.5	6.5	5	0.4	Yes	SB-3079TR	FT-8	

Applicable Inserts

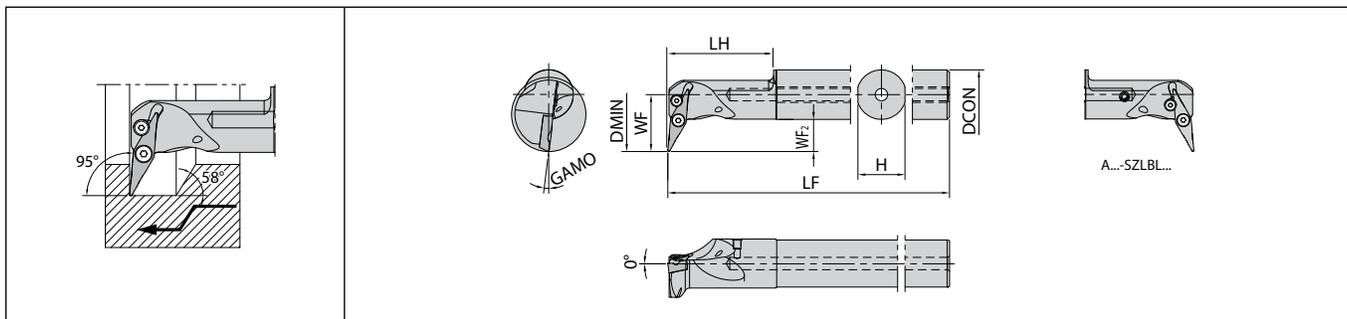
Applications	Finishing
Insert	
Chipbreaker Type	GF
Page	B108

Recommended Cutting Conditions ➔ **F174, F175**

Applicable Sleeves ➔ **F172**

F BORING  
MICRO BORING  
POSITIVE INSERTS  
ANTI-VIBE BARS  
NEGATIVE INSERTS

**A-SZLB-AE** Excellent Bar (Internal Copying)



Max. Overhang Length L/D≈5.5 | Right-hand shown | ZBMT13T304R-GF-15D is applicable to Left-hand Toolholder.

**Toolholder Dimensions**

Unit	Part Number	Std. Item		Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts		Applicable Inserts	
		R	L	DMIN	DCON	CND	H	LH	LF	WF				WF <sub>2</sub>	Screw		Wrench
		 															
mm	A20R- SZLB% 13-30AE	●	●	30	20		19	42	200	23							ZBMT13T3...
	A25S- SZLB% 13-34AE	●	●	34	25	5	24	64	250	25.5	13	7	0.4	Yes	SB-3079TR	FT-8	
	A32S- SZLB% 13-40AE	●	●	40	32		31	86		29							

**Applicable Inserts**

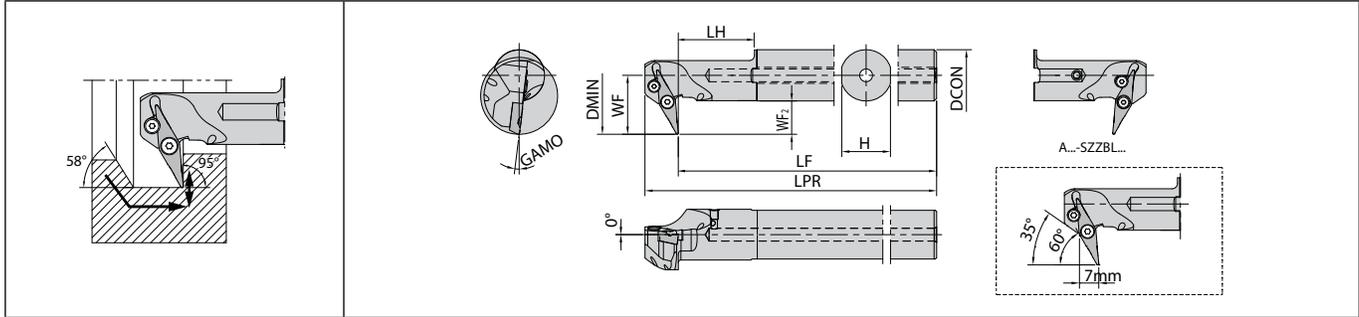
Applications	Finishing	Finishing
Insert		
Chipbreaker Type	GF	R-GF-15D
Page	B108	B108

R-GF-15D inserts are only for the left-hand toolholders of A-SZLB-AE.

Recommended Cutting Conditions [F174](#), [F175](#)  
Applicable Sleeves [F172](#)

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

**A-SZZB-AE** Excellent Bar (Back Boring)



Max. Overhang Length L/D≈5.5 | Right-hand shown | ZBMT13T304R-GF-15D is applicable to Right-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions								GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts		Applicable Inserts	
		R	L	DMIN	DCON	CND	H	LH	LPR	LF	WF				WF <sub>2</sub>	Screw		Wrench
mm	A20R- SZZB% 13-30AE	●	●	30	20		19	42	200	187	23							
	A25S- SZZB% 13-34AE	●	●	34	25	5	24	58			25.5	13	7	0.4	Yes	SB-3079TR	FT-8	ZBMT13T3...
	A32S- SZZB% 13-40AE	●	●	40	32		31	74			237							

Applicable Inserts

Applications	Finishing	Finishing
Insert		
Chipbreaker Type	GF	R-GF-15D
Page	B108	B108

R-GF-15D inserts are only for the right-hand toolholders of A-SZZB-AE.

Recommended Cutting Conditions **F174, F175**

Applicable Sleeves **F172**

Instructions

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

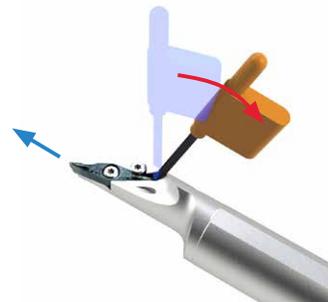


1. Tighten the main screw with the insert pressed against the contact surface with fingertips.



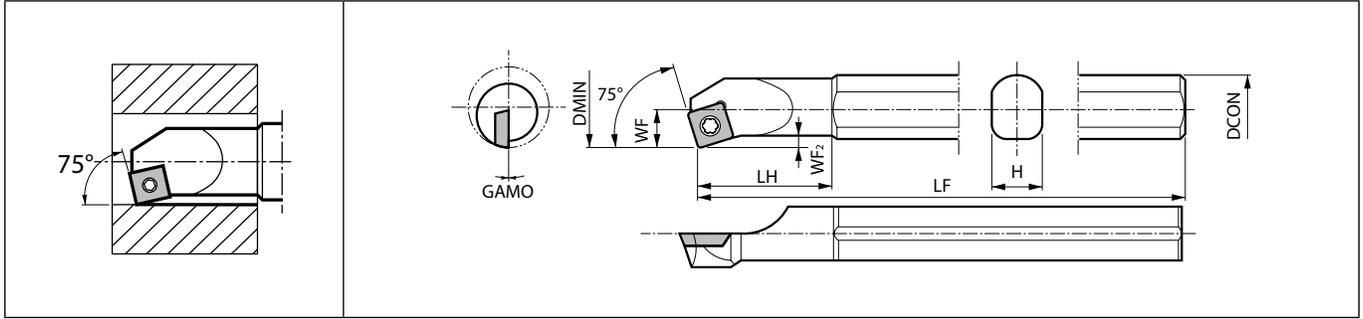
2. Tighten the side screw to complete the installation.

When removing the insert



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

S-SSKP Steel Shank Bar (Boring)



Max. Overhang Length L/D≈3 | Right-hand shown | Left-hand Insert for Right-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions								GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts		Applicable Inserts
			R	DMIN	DCON	H	LH	LF	WF	WF <sub>2</sub>				Screw	Wrench	
			mm	S16Q-SSKPR09-20	●	20	16	14	30	180				10	2	

Applicable Inserts

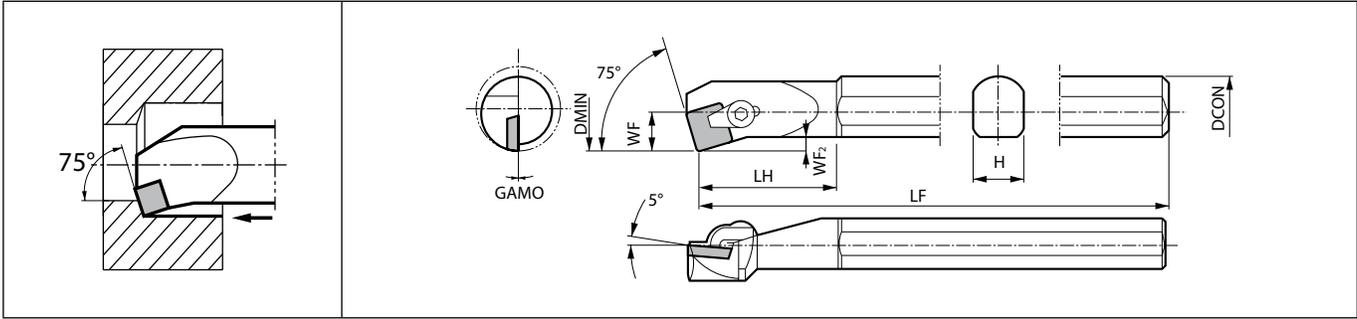
Applications	Finishing
Insert	
Chipbreaker Type	L
Page	B82

Recommended Cutting Conditions ● F174, F175

Applicable Sleeves ● F172, F173

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

S-CSKP Steel Shank Bar (Boring)



Max. Overhang Length L/D≈3 | Right-hand shown | Left-hand Insert for Right-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts			Applicable Inserts	
			R	DMIN	DCON	H	LH	LF	WF				WF2	Clamp Set	Wrench		Wrench
			mm	S16N- CSKPR09-20	●	20	16	14	40				160	10	2		0
mm	S20Q- CSKPR09-27	●	27	20	18	45	180	13.5	3.5	0	0.8	No	CPS-2	-	FH-2.5	SP□32... SP□R32...	
mm	S25X- CSKPR12-34	●	34	25	23	60	220	17	4.5	0	0.8	No	CPS-3	LW-3	-	SP□42..., SP□R42...	

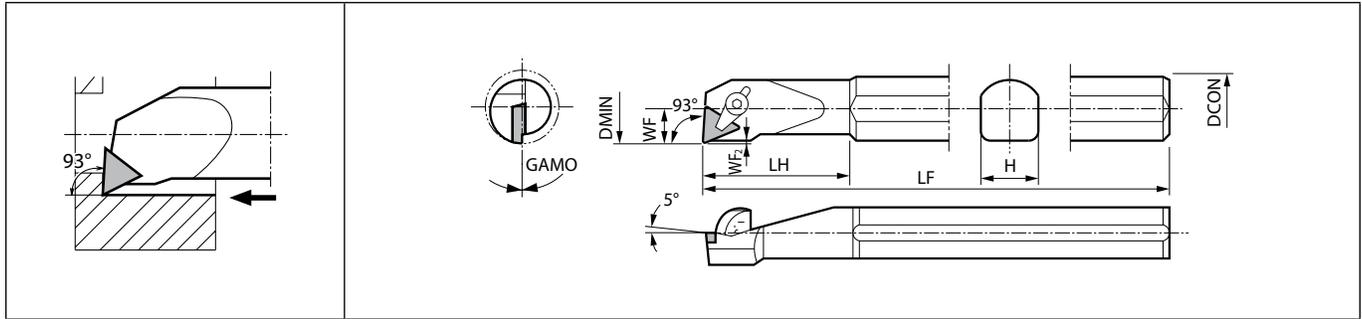
Applicable Inserts

Applications	Medium	Medium	Finishing - Medium	Cast Iron	Cast Iron	Non-Ferrous Metals
Insert						
Chipbreaker Type	G	Standard	L	No Chipbreaker	Ceramic	PCD
Page	B83	B83	B83	B83	B121	C43

Recommended Cutting Conditions ➡ F174, F175

Applicable Sleeves ➡ F172, F173

S-CTUP Steel Shank Bar (Boring)



Max. Overhang Length L/D≈~3 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts						Applicable Inserts
		R	L	DMIN	DCON	H	LH	LF	WF	WF2				Clamp Set	Clamp Set	Shim Screw	Shim	Wrench	Wrench	
Inch	S10X-CTUPR2	●		0.625	0.625	0.584	1.25	7.00	0.313	0.03	0	1/64	No	-	CPS-25	-	-	-	FT-15	TP□22... TP□R22...
	S12X-CTUPR2	●		1.060	0.750	0.710	1.50	7.00	0.520	0.05	0	1/64	No	-	CPS-2	-	-	LW-2.5	-	TP□22... TP□R22...
	S16R-CTUPR3	●		1.350	1.000	0.910	2.10	8.00	0.669	0.04	0	1/32	No	-	CPS-3	-	-	LW-3	-	TP□32... TP□R32...
mm	S12L-CTUPR09-16	●		16	12	11	32	140	8	0.5	0	0.4	No	CPS-1	-	-	-	-	FH-2	TP□1815... TP□R1815...
	S16N-CTUP% 11-20	●	●	20	16	15	30	160	10	0.5	0	0.4	No	-	CPS-2	-	-	-	FH-2.5	TP□22... TP□R22...
	S20Q-CTUP% 11-27	●	●	27	20	18	40	180	13.5	1.3	0	0.4	No	-	CPS-2	-	-	-	FH-2.5	TP□22... TP□R22...
	S25X-CTUP% 16-34	●	●	34	25	23	60	220	17	1	0	0.8	No	-	CPS-3	-	-	LW-3	-	TP□32... TP□R32...
	S32S-CTUP% 16-43	●	●	43	32	30	70	250	21.5	1	0	0.8	No	-	CPS-3	SP3X10	KPT-32	LW-3	-	TP□32... TP□R32...
S40X-CTUP% 16-50	●	●	50	40	37	80	315	25	1	0	0.8	No	-	CPS-3	SP3X10	KPT-32	LW-3	-	TP□32... TP□R32...	

Applicable Inserts

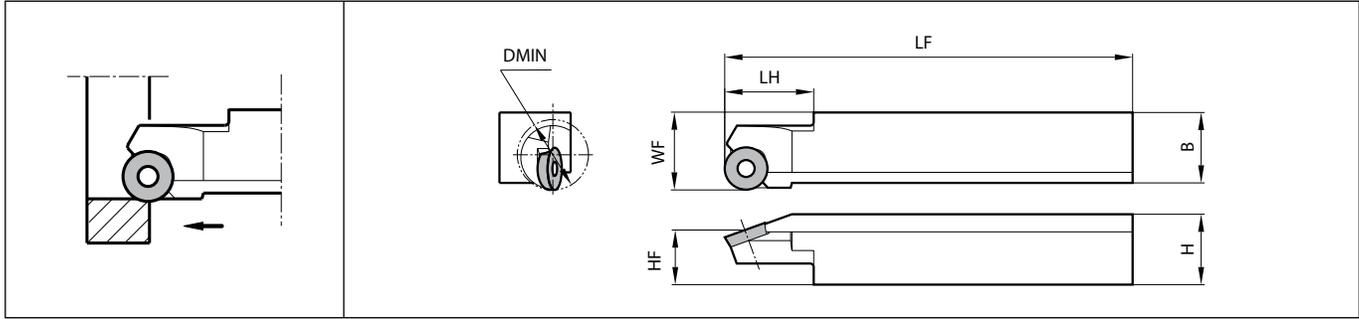
Applications	Finishing	Finishing	Finishing - Medium	Medium	Medium	Finishing	Finishing	Finishing - Medium
Insert								
Chipbreaker Type	DP	GP	HQ	G	Standard	%-F	%-A	%-B
Page	B95	B95	B95	B95	B95	B96	B96	B96
Applications	Medium	Cast Iron	Cast Iron	Non-Ferrous Metals	Hard Materials			
Insert								
Chipbreaker Type	%-C	No Chipbreaker	Ceramic	PCD	CBN			
Page	B96	B96	B122	C48	C25			

Recommended Cutting Conditions F174~F175

Applicable Sleeves F171~F173

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

**SRCP-B** (Boring)



Right-hand shown

**Toolholder Dimensions**

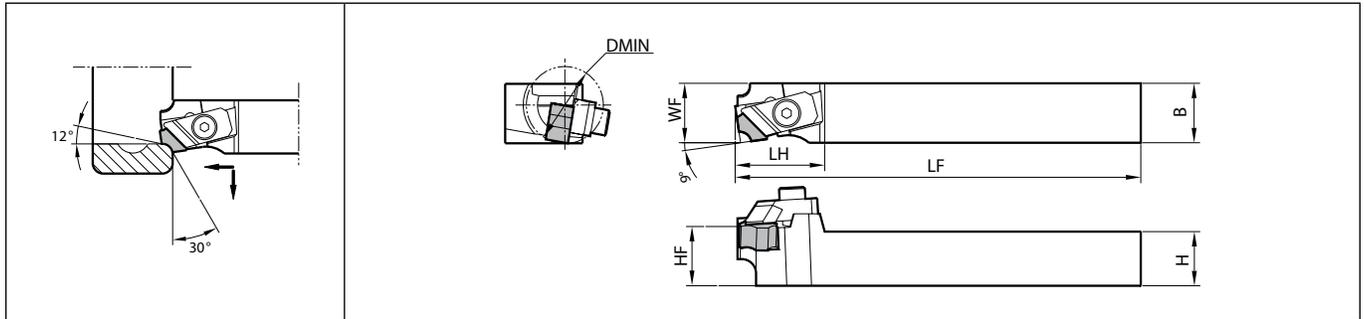
Unit	Part Number	Std. Item		Dimensions								Spare Parts			Applicable Inserts
		R	L	DMIN	H	B	LH	HF	LF	WF	Screw	Wrench	Wrench		
															
mm	SRCP% 2020B-12-A20	●	●	20	20	20	25	15.5	125	22	SB-4TR	FT-15	-	RPMT42M0-BB	
	SRCPR 2525B-16-A32	●		32	25	25	31	20	150	27	SB-5090TR	-	LTW-20	RPMT1604M0-BB	

**Applicable Inserts**

<b>Applications</b>	Bearing Machining
<b>Insert</b>	
<b>Chipbreaker Type</b>	BB
<b>Page</b>	B109

F BORING  
MICRO BORING  
POSITIVE INSERTS  
ANTI-VIBE BARS  
NEGATIVE INSERTS

**CBSN-B** (Internal Corner Filleting)



Right-hand shown

Toolholder Dimensions

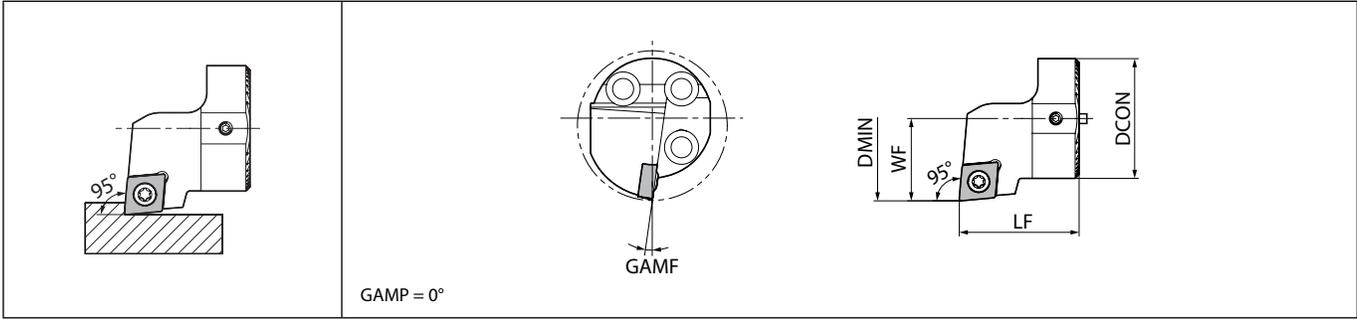
Unit	Part Number	Std. Item	Dimensions							Spare Parts		Applicable Inserts	
			R	DMIN	H	B	LH	HF	LF	WF	Clamp Set (R)		Wrench
													
mm	CBSNR 2020B-12-A20 2525B-12-A20	●	20	20	20	32	21	125	20	CP-RCR	LW-5	SNMF1204.-21	
		●	20	25	25	32	26	150	25				

Applicable Inserts

Applications	Bearing Machining
Insert	
Chipbreaker Type	21
Page	B109

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

**KAVH-SCLC** (Boring / Internal Facing)



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

**Toolholder Dimensions**

Unit	Part Number	Std. Item		Dimensions				GAMF (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts		Applicable Shank Adapter	Applicable Inserts
		R	L	DMIN	DCON	LF	WF				Screw	Wrench		
mm	KAVH 16-SCLC $\frac{P}{L}$ 06	●	●	20	16	20	11	-7	0.4	Yes	SB-2545TR	FT-8	KAV-D16/G16...	CC□T215... CC□W215...
	KAVH 20-SCLC $\frac{P}{L}$ 09	●	●	25	20	20	13	-8	0.4	Yes	SB-4065TR	FT-15	KAV-D20/G20...	CC□T325... CC□W325...
	25-SCLC $\frac{P}{L}$ 09	●	●	32	25	20	17							
	32-SCLC $\frac{P}{L}$ 09	●	●	40	32	32	22							
	40-SCLC $\frac{P}{L}$ 09	●	●	50	40	32	27							

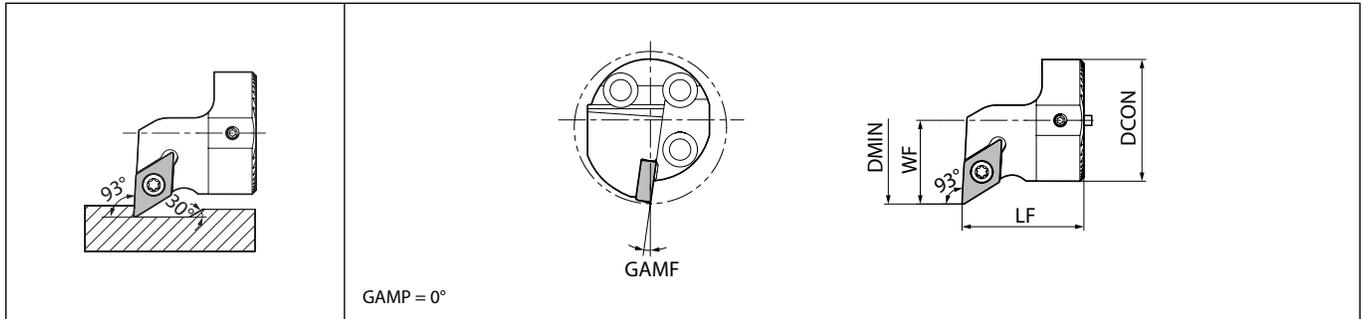
When using P chipbreaker : Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

**Applicable Inserts**

<b>Applications</b>	Finishing	Finishing	Finishing	Finishing	Finishing - Medium	Finishing	Finishing	Finishing - Medium
<b>Insert</b>								
<b>Chipbreaker Type</b>	GF	SKS	SK	CK	GQ	WP	PP	GK
<b>Page</b>	B58	B59	B59	B59	B59	B60	B60	B60
<b>Applications</b>	Finishing - Medium	Medium	Medium	Finishing	Low Feed	Low Feed	Low Feed	Stainless Steel / Heat-Resistant Alloys
<b>Insert</b>								
<b>Chipbreaker Type</b>	HQ	Standard	MF	$\frac{P}{L}$ -P	$\frac{P}{L}$ -U	$\frac{P}{L}$ -USF	$\frac{P}{L}$ -J	MQ
<b>Page</b>	B60	B60	B61	B63	B63~B65	B63	B65	B61
<b>Applications</b>	Cast Iron	Non-Ferrous Metals	Hard Materials					
<b>Insert</b>								
<b>Chipbreaker Type</b>	No Chipbreaker	AP	$\frac{P}{L}$ -A3	AH	PCD	APD	CBN	
<b>Page</b>	B66	B66	B66	B66	C39	C40	C20	

Recommended Cutting Conditions F174, F175

KAVH-SDUC (Internal Copying)



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

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions				GAMF (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts		Applicable Shank Adapter	Applicable Inserts
		R	L	DMIN	DCON	LF	WF				Screw	Wrench		
mm	KAVH 16-SDUC <sup>●</sup> L07	●	●	20	16	20	11	-7	0.4	Yes	SB-254STR	FT-8	KAV-D16/G16...	DC□T215... DC□W215... DC□X215...
	KAVH 20-SDUC <sup>●</sup> L11	●	●	25	20	20	13	-9	0.4	Yes	SB-406STR	FT-15	KAV-D20/G20...	DC□T325... DC□W325... DC□X325...
	25-SDUC <sup>●</sup> L11	●	●	32	25	20	17	-8						
	32-SDUC <sup>●</sup> L11	●	●	40	32	32	22	-8						
	40-SDUC <sup>●</sup> L11	●	●	50	40	32	27	-7						

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

Applicable Inserts

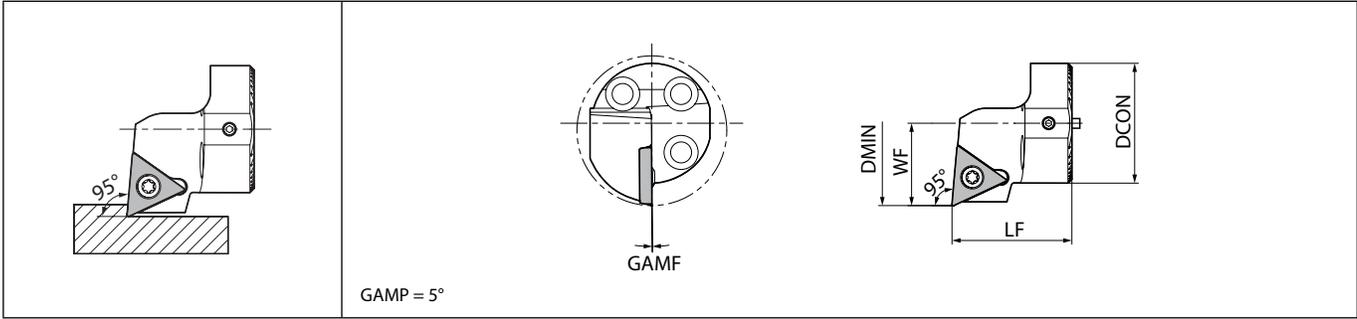
Applications	Minute D.O.C.	Finishing	Finishing	Finishing	Finishing	Finishing - Medium	Finishing	Finishing
Insert								
Chipbreaker Type	CF	GF	SKS	SK	CK	GQ	WP	L-WP
Page	B68	B68	B68	B68	B68	B69	B69	B69
Applications	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Medium	Medium	Finishing - Medium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

Recommended Cutting Conditions F174, F175

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

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

**KAVH-STLP** (Boring / Internal Facing)



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

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions				GAMP (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts		Applicable Shank Adapter	Applicable Inserts
		R	L	DMIN	DCON	LF	WF				Screw	Wrench		
mm	KAVH 16-STLP  11			20	16	20	11	-3.5	0.4	Yes		FT-8	KAV-D16/G16...	TP  T22... TP  H22... TP  B22... TP  X22...
	20-STLP  11			25	20	20	13	-2						
	25-STLP  11			32	25	20	17	0						
	KAVH 32-STLP  16			40	32	32	22	0	0.4	Yes		FT-15	KAV-D32...	
	40-STLP  16			50	40	32	27	0					KAV-D40...	

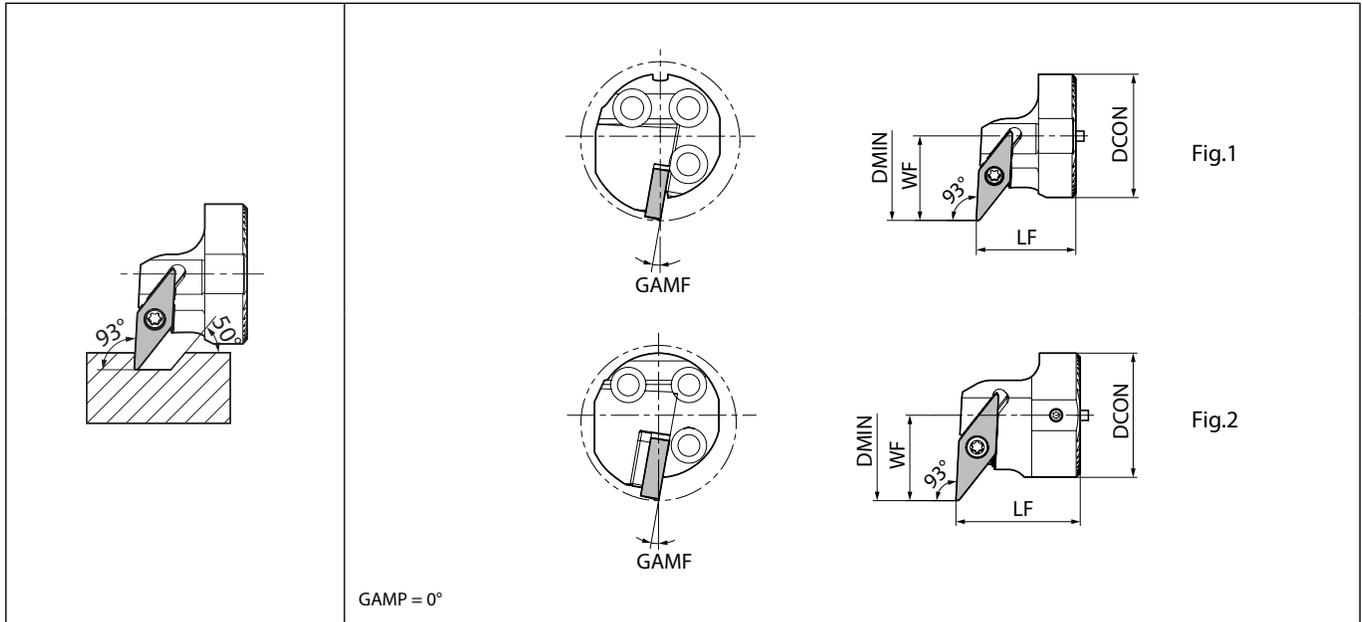
For WP chipbreaker, cutting edge offsets or program corrections are required on **R42** and **R43**.  
When using P chipbreaker : Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

Applicable Inserts

Applications	Finishing	Finishing	Finishing	Finishing	Finishing	Finishing - Medium	Finishing	Finishing
Insert								
Chipbreaker Type	WP	-WP	PP	GP	DP	HQ	R/L	-FSF
Page	B88	B88	B88	B89	B84	B89	B84, B90, B91	B92
Applications	Finishing	Medium	Low Feed	Low Carbon Steel	Low Carbon Steel	Cast Iron	Non-Ferrous Metals	Non-Ferrous Metals
Insert								
Chipbreaker Type	-P	-H	-USF	XP	XQ	No Chipbreaker	AP	PCD
Page	B92	B93	B94	B89	B89	B84, B94	B94	C44, C46, C47
Applications	Non-Ferrous Metals	Hard Materials						
Insert								
Chipbreaker Type	APD	CBN						
Page	C47	C23						

Recommended Cutting Conditions F174, F175

KAVH-SVUB (Internal Copying)



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

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions				GAMP (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Spare Parts					Applicable Shank Adapter	Applicable Inserts
		R	L	DMIN	DCON	LF	WF					Screw	Wrench	Shim	Shim Screw	Wrench		
mm	KAVH 20-SVUB <sup>●</sup> 11	●	●	25	20	20	13	-10	0.4	Yes	1	SB-2570TR	FT-8	-	-	-	KAV-D16/G16...	VB□T22...
	KAVH 25-SVUB <sup>●</sup> 11	●	●	32	25	20	17										KAV-D20/G20...	VB□W22...
	KAVH 32-SVUB <sup>●</sup> 16	●	●	40	32	32	22	-10	0.4	Yes	2	SB-40125TRN	FT-15	SVN-32N (SVN-32S*)	SS-4N	LW-4	KAV-D32...	VB□T33...
	KAVH 40-SVUB <sup>●</sup> 16	●	●	50	40	32	27										-9	KAV-D40...

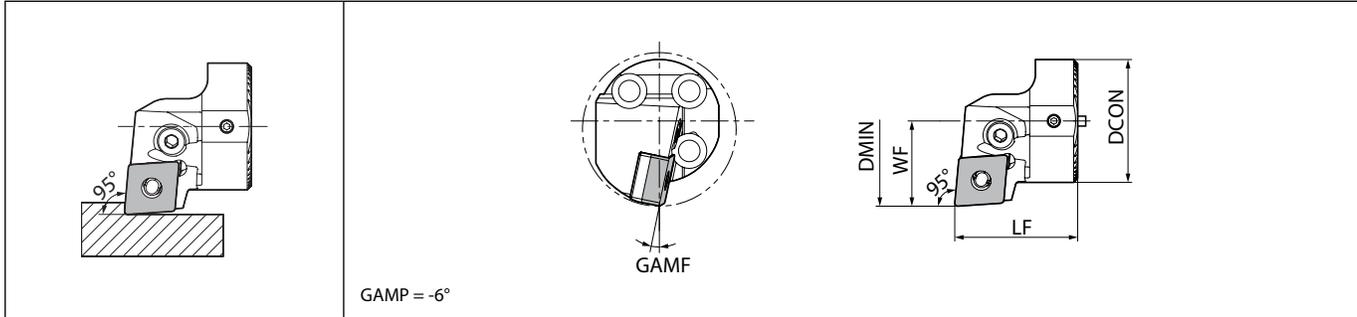
When using inserts with corner-R(RE) of 0.008" (0.2mm) or 1/64" (0.4mm), shim (SVN-32S) is recommended (sold separately).

Applicable Inserts

Applications	Finishing	Finishing	Finishing	Finishing - Medium	Finishing	Finishing	Finishing - Medium	Non-Ferrous Metals
Insert								
Chipbreaker Type	VF	PP	GP	HQ	□-F	□-FSF	□-Y	PCD
Page	B97, B100	B97, B100	B97	B97, B100	B98	B98	B99	C49, C50
Applications	Hard Materials							
Insert								
Chipbreaker Type	CBN							
Page	C26, C27							

Recommended Cutting Conditions F174, F175

**KAVH-PCLN** (Boring / Internal Facing)



GAMP = -6°

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

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions				GAMF (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts						Applicable Shank Adapter	Applicable Inserts
		R	L	DMIN	DCON	LF	WF				Lever	Lock Screw	Punch	Shim Pin	Shim	Wrench		
mm	KAVH 32-PCLN % 12	●	●	40	32	32	22.2	-11.5	0.8	Yes	LL-2N	LS-2N	PC-2	LSP-2	LC-42N %	LW-3	KAV-D32...	CN□A43...
	40-PCLN % 12	●	●	50	40	32	27	-10									KAV-D40...	CN□G43...

Shim: LC-42NR for Right-hand toolholder, LC-42NL for Left-hand toolholder

**F**  
BORING

MICRO BORING

POSITIVE INSERTS

ANTI-VIBE BARS

NEGATIVE INSERTS

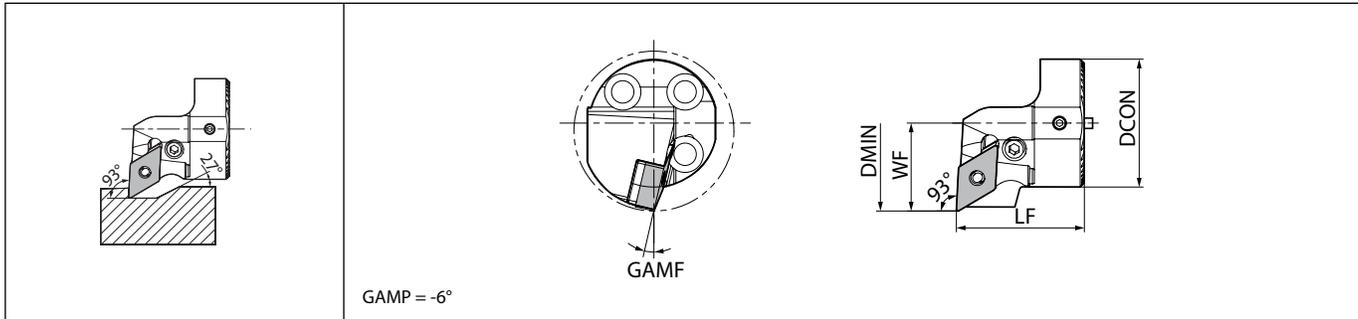
Applicable Inserts

Applications	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Finishing	Finishing	Finishing - Medium	Finishing - Medium
Insert								
Chipbreaker Type	<b>WF</b>	<b>WP</b>	<b>WE</b>	<b>WQ</b>	<b>PP</b>	<b>GP</b>	<b>PQ</b>	<b>HQ</b>
Page	<b>B16</b>	<b>B16</b>	<b>B16</b>	<b>B16</b>	<b>B16</b>	<b>B16</b>	<b>B16</b>	<b>B17</b>
Applications	Finishing - Medium	Finishing - Medium	Medium	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing
Insert								
Chipbreaker Type	<b>CQ</b>	<b>CJ</b>	<b>TN-V</b>	<b>PMG</b>	<b>GS</b>	<b>PG</b>	<b>PS</b>	<b>PT</b>
Page	<b>B17</b>	<b>B17</b>	<b>B17</b>	<b>B17</b>	<b>B17</b>	<b>B17</b>	<b>B18</b>	<b>B18</b>
Applications	Medium - Roughing	Roughing	Roughing	Roughing	Medium	Medium - Roughing	Medium - Roughing	Low Carbon Steel
Insert								
Chipbreaker Type	<b>GT</b>	<b>Standard</b>	<b>PH</b>	<b>PX</b>	<b>R/L</b>	<b>R/L -25R</b>	<b>Z</b>	<b>XF</b>
Page	<b>B18</b>	<b>B18</b>	<b>B18</b>	<b>B19</b>	<b>B23</b>	<b>B23</b>	<b>B23</b>	<b>B19</b>
Applications	Low Carbon Steel	Low Carbon Steel	Low Carbon Steel	Finishing - Medium	Medium - Roughing	Stainless Steel / Heat-Resistant Alloys	Stainless Steel / Heat-Resistant Alloys	Stainless Steel / Heat-Resistant Alloys
Insert								
Chipbreaker Type	<b>XP</b>	<b>XQ</b>	<b>XS</b>	<b>SK</b>	<b>FP-TK</b>	<b>TK</b>	<b>MQ</b>	<b>MS</b>
Page	<b>B19</b>	<b>B19</b>	<b>B19</b>	<b>B19</b>	<b>B19</b>	<b>B20</b>	<b>B20</b>	<b>B20</b>
Applications	Stainless Steel / Heat-Resistant Alloys	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Insert								
Chipbreaker Type	<b>MU</b>	<b>KQ</b>	<b>KG</b>	<b>KH</b>	<b>C</b>	<b>ZS</b>	<b>GC</b>	<b>No Chipbreaker</b>
Page	<b>B20</b>	<b>B21</b>	<b>B21</b>	<b>B21</b>	<b>B22</b>	<b>B22</b>	<b>B22</b>	<b>B22</b>
Applications	Cast Iron / Hard Materials	Non-Ferrous Metals	Non-Ferrous Metals	Non-Ferrous Metals	Heat-Resistant Alloys	Heat-Resistant Alloys	Hard Materials	Hard Materials
Insert								
Chipbreaker Type	<b>Ceramic</b>	<b>A3</b>	<b>AH</b>	<b>PCD</b>	<b>SQ</b>	<b>SG</b>	<b>HH</b>	<b>HL</b>
Page	<b>B113</b>	<b>B23</b>	<b>B23</b>	<b>C34</b>	<b>B20</b>	<b>B21</b>	<b>C9</b>	<b>C9</b>
Applications	Hard Materials	Hard Materials / Cast Iron						
Insert								
Chipbreaker Type	<b>HD</b>	<b>CBN</b>						
Page	<b>C9</b>	<b>C8</b>						

Recommended Cutting Conditions [F174](#), [F175](#)

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

**KAVH-PDUN** (Internal Copying)



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

**Toolholder Dimensions**

Unit	Part Number	Std. Item		Dimensions				GAMF (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts						Applicable Shank Adapter	Applicable Inserts
		R	L	DMIN	DCON	LF	WF				Lever	Lock Screw	Punch	Shim Pin	Shim	Wrench		
mm	KAVH 32-PDUN $\frac{R}{L}$ 11	●	●	40	32	32	22	-13	0.4	Yes	LL-1DN	LS-1SN	PC-1	LSP-1	LD-32N	FH-2.5	KAV-D32...	DN□G33...

Unit	Part Number	Std. Item		Dimensions				GAMF (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts					Applicable Shank Adapter	Applicable Inserts
		R	L	DMIN	DCON	LF	WF				Lock Pin	Wrench	Shim	Screw	Wrench		
mm	KAVH 32-PDUN $\frac{R}{L}$ 15	●	●	40	32	32	22	-12.5	0.8	Yes	PP-4	LW-3	PD-42	SB-2050TR	FT-6	KAV-D32...	DN□A43... DN□G43... DN□M43... DN□X43...
	40-PDUN $\frac{R}{L}$ 15	●	●	50	40	27	KAV-D40...										

For WF chipbreaker, cutting edge offsets or program corrections are required on **R40** and **R41**.

When using inserts with corner-R (RE) greater than 1/16" (1.6mm), additional modifications to the shim are necessary to prevent workpiece and shim from interfering with each other.

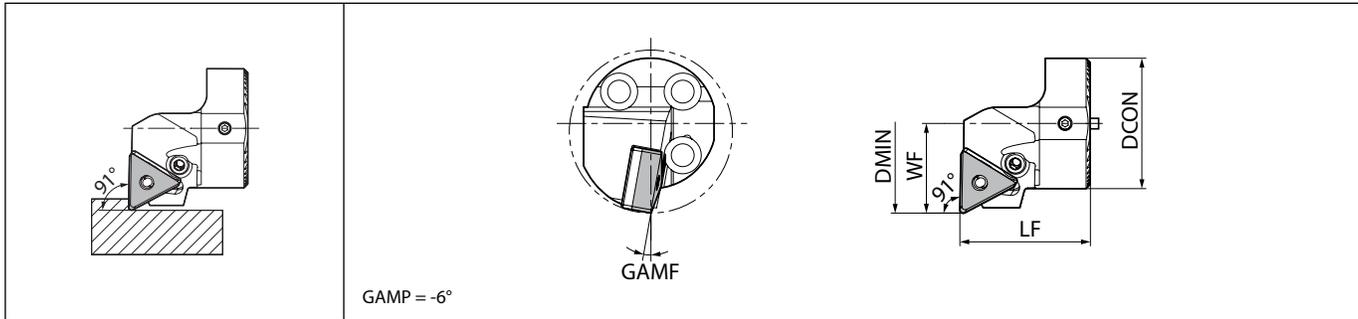
Applicable Inserts

Applications	Finishing	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Finishing - Medium	Finishing - Medium	Medium
Insert								
Chipbreaker	<b>WF*</b>	<b>PP</b>	<b>GP</b>	<b>PQ</b>	<b>HQ</b>	<b>CQ</b>	<b>CJ</b>	<b>TN-V</b>
Page	B24	B24	B24	B24	B25	B25	B25	B25
Applications	Medium - Roughing	Medium - Roughing	Roughing	Roughing				
Insert								
Chipbreaker	<b>PMG</b>	<b>GS</b>	<b>PG</b>	<b>PS</b>	<b>PT</b>	<b>GT</b>	<b>Standard</b>	<b>PH</b>
Page	B25	B25	B26	B26	B26	B26	B27	B27
Applications	Roughing	Finishing	Medium	Low Carbon Steel	Low Carbon Steel	Low Carbon Steel	Low Carbon Steel	Finishing - Medium
Insert								
Chipbreaker	<b>PX</b>	<b>P/L-S</b>	<b>R/L</b>	<b>XF</b>	<b>XP</b>	<b>XQ</b>	<b>XS</b>	<b>SK</b>
Page	B27	B32	B32	B27	B27	B27	B27	B28
Applications	Large D.O.C.	Medium - Roughing	Stainless Steel / Heat-Resistant Alloys	Stainless Steel / Heat-Resistant Alloys	Stainless Steel / Heat-Resistant Alloys	Stainless Steel / Heat-Resistant Alloys	Cast Iron	Cast Iron
Insert								
Chipbreaker	<b>R-LD</b>	<b>FP-TK</b>	<b>TK</b>	<b>MQ</b>	<b>MS</b>	<b>MU</b>	<b>KQ</b>	<b>KG</b>
Page	B28	B28	B28	B28	B29	B29	B30	B30
Applications	Cast Iron	Cast Iron / Hard Materials	Non-Ferrous Metals	Non-Ferrous Metals				
Insert								
Chipbreaker	<b>KH</b>	<b>C</b>	<b>ZS</b>	<b>GC</b>	<b>No Chipbreaker</b>	<b>Ceramic</b>	<b>P/L-A3</b>	<b>AH</b>
Page	B30	B30	B30	B30	B31	B114	B31	B31
Applications	Non-Ferrous Metals	Heat-Resistant Alloys	Heat-Resistant Alloys	Hard Materials / Cast Iron	Hard Materials	Hard Materials	Hard Materials	
Insert								
Chipbreaker	<b>PCD</b>	<b>SQ</b>	<b>SG</b>	<b>CBN</b>	<b>HH</b>	<b>HL</b>	<b>HD</b>	
Page	C35	B29	B29	C10	C11	C11	C11	

Recommended Cutting Conditions  F174, F175

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

**KAVH-PTFN** (Internal Copying)



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

**Toolholder Dimensions**

Unit	Part Number	Std. Item		Dimensions				GAMF (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts						Applicable Shank Adapter	Applicable Inserts
		R	L	DMIN	DCON	LF	WF				Lever	Lock Screw	Punch	Shim Pin	Shim	Wrench		
mm	KAVH 32-PTFN $\frac{P}{L}$ 16	●	●	40	32	32	22	-10	0.8	Yes	LL-1N	LS-1N	PC-1	LSP-1	LT-32N (LT-32N-20)	FH-2.5	KAV-D32...	TN□A33...
	KAVH 40-PTFN $\frac{P}{L}$ 16	●	●	50	40		27	-9									KAV-D40...	TN□G33...

When using inserts with corner-R (RE) greater than 1/16" (1.6mm), shim (LT-32N-20) is recommended (sold separately).

**F**  
BORING

MICRO BORING

POSITIVE INSERTS

ANTI-VIBE BARS

NEGATIVE INSERTS

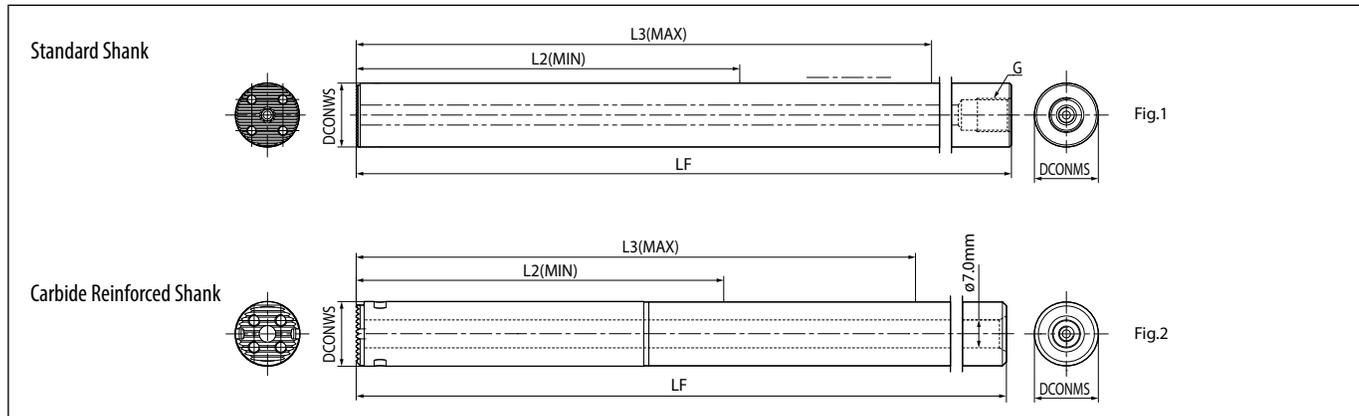
Applicable Inserts

Applications	Finishing	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Finishing - Medium	Medium - Roughing	Medium - Roughing
Insert								
Chipbreaker Type	WF	PP	GP	PQ	HQ	CQ	PMG	GS
Page	B39	B39	B39	B39	B39	B39	B40	B40
Applications	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing	Roughing	Roughing	Roughing	Finishing
Insert								
Chipbreaker Type	PG	PS	PT	GT	Standard	PH	PX	%-SSF
Page	B40	B40	B40	B40	B40	B41	B41	B45
Applications	Finishing - Medium	Medium - Roughing	Medium - Roughing	Low Carbon Steel	Low Carbon Steel	Low Carbon Steel	Low Carbon Steel	Finishing - Medium
Insert								
Chipbreaker Type	%-B	%-C	%-25R	XF	XP	XQ	XS	SK
Page	B45	B46	B46	B41	B41	B41	B41	B42
Applications	Large D.O.C.	Medium - Roughing	Stainless Steel / Heat-Resistant Alloys	Stainless Steel / Heat-Resistant Alloys	Stainless Steel / Heat-Resistant Alloys	Stainless Steel / Heat-Resistant Alloys	Stainless Steel	Cast Iron
Insert								
Chipbreaker Type	R-LD	FP-TK	TK	MQ	MS	MU	%-ST	KQ
Page	B42	B42	B42	B42	B42	B42	B43	B43
Applications	Cast Iron	Cast Iron	Cast Iron / Hard Materials	Non-Ferrous Metals				
Insert								
Chipbreaker Type	KG	KH	C	ZS	GC	No Chipbreaker	Ceramic	%-A3
Page	B43	B43	B43	B43	B43	B44	B118	B44
Applications	Non-Ferrous Metals	Non-Ferrous Metals	Heat-Resistant Alloys	Hard Materials / Cast Iron				
Insert								
Chipbreaker Type	AH	PCD	SG	CBN				
Page	B44	C36	B43	C13				

Recommended Cutting Conditions  F174, F175

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

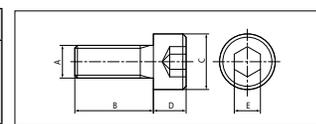
### Boring Bar Shank Adapter



### Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions						Spare Parts				
			DCONWS	DCONMS	G	LF	L2 (Min.)	L3 (Max.)	Fig.	Head Fastening Bolts (3 pcs)	Wrench	O-Ring	
mm	Standard Shank	KAV- D16-7D	●	16	16	G1/8	157.5	44	92	1	HH3X10S	LW-2.5	-
		D20-7D	●	20	20	G1/4	201.5	60	120		HH3.5X10S		
		D25-7D	●	25	25		256.5	80	155		HH4X12S	LW-3	
		D25-10D	●			331.5	155	230					
		D32-7D	●	32	32	G3/8	321.5	96	192		HH5X12	LW-4	
		D32-10D	●			417.5	192	288					
		D40-7D	●	40	40	G1/2	409.5	128	248		HH6X12	LW-5	
		D40-10D	●			529.5	248	368					
mm	Carbide Reinforced Shank	KAV- G16-10D	●	16.2	16	-	205.5	92	140	2	HH3X10S	LW-2.5	-
		G20-10D	●	20.2	20	-	261.5	120	180		HH3.5X10S		

### Head Fastening Bolt

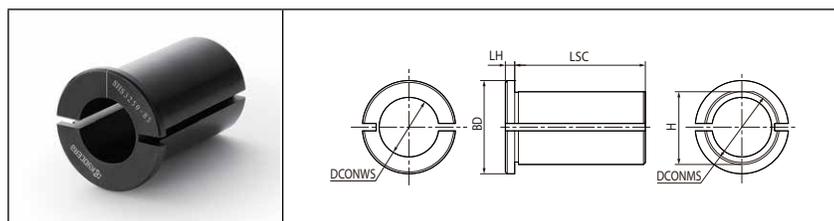


Part Number	Dimensions (mm)					Tightening Torque [N·m]
	A	B	C	D	E	
HH3X10S	M3X0.5	10	5	3	2.5	2.2
HH3.5X10S	M3.5X0.6	10	5.5	3	2.5	2.2
HH4X12S	M4X0.7	12	7	4	3	3.0
HH5X12	M5X0.8	12	8.5	5	4	5.0
HH6X12	M6X1.0	12	10	6	5	8.5

L2 (Min.) = Minimum Overhang Length  
L3 (Max.) = Maximum Overhang Length

If cutting the back end, consider the length of the shank grip in addition to the amount of overhang length: See page F146.

### KAV Sleeve (E-Sleeve)



### Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions					Applicable Shank	
			DCONMS	DCONWS	BD	LSC	LH		H
Inch	SHS 1615N-75	●	1.500	0.630	1.969	2.756	0.197	1.461	KAV-D16-7D/10D, KAV-G16-10D
		●		0.787					KAV-D20-7D/10D, KAV-G20-10D
		●		0.984					KAV-D25-7D/10D
		●		1.260					KAV-D32-7D/10D
		●		1.260					KAV-D25-7D/10D
mm	SHS 2520N-85	●	2.000	0.984	2.362	3.150	0.197	1.941	KAV-D25-7D/10D
		●		1.260					KAV-D32-7D/10D
		●		16					KAV-D16-7D/10D, KAV-G16-10D
		●		20					KAV-D20-7D/10D, KAV-G20-10D
		●		25					KAV-D25-7D/10D
	SHS 1640-75	●	40	32	50	70	5	39	KAV-D32-7D/10D
		●		25					KAV-D25-7D/10D
		●		32					KAV-D32-7D/10D
		●		25					KAV-D25-7D/10D
		●		32					KAV-D32-7D/10D
SHS 2550-85	●	50	40	60	80	5	48.5	KAV-D40-7D/10D	
	●		32					KAV-D32-7D/10D	
	●		40					KAV-D40-7D/10D	

Choose the sleeve DCONWS together with the shank DCONMS.

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

## Internal coolant: Piping connections

### 1 Screw standard for shank back end (pipe connection)

- The thread standard depends on the description. Please refer to the dimension chart "G" on page 11 when using commercially available piping parts.
  - When using our piping components, they must be converted to "UNF3/8" or "G1/8."
- Check the table below and select the required joint parts (sold separately).

#### ● Steel shank (Pressure ~ 1,015 psi)

Type	Thread Standards and Conversion Joints
ø16-7D	G1/8
ø20-7D ø25-7D/10D	G1/8 ⇐ G1/4 J-ST-G1/4-G1/8
ø32-7D/10D	G1/8 ⇐ G1/4 ⇐ G3/8 J-ST-G3/8-G1/4 J-ST-G1/4-G1/8
ø40-7D/10D	G1/8 ⇐ G1/4 ⇐ G3/8 ⇐ G1/2 J-ST-G1/2-G3/8 J-ST-G3/8-G1/4 J-ST-G1/4-G1/8

If a leak occurs, use a commercially available washer.  
Joint

Shape	Part Number	Std. Item	M1	M2	L1	L2
	J-ST-G1/4-G1/8	●	G1/8	G1/4	27	12
	J-ST-G3/8-G1/4	●	G1/4	G3/8	33	13
	J-ST-G1/2-G3/8	●	G3/8	G1/2	37	17

#### ● Carbide reinforced shank (Pressure ~ 145 psi)

Type	Thread Standards and Conversion Joints
ø16-10D ø20-10D	<p>UNF3/8 ⇐ ø7mm Straight Hole *The shank side is not threaded.</p>

#### Resin joint (with O-ring)

Shape	Part Number	Std. Item	Thread Standard
	PRO7-ST-UNF3/8	●	UNF3/8

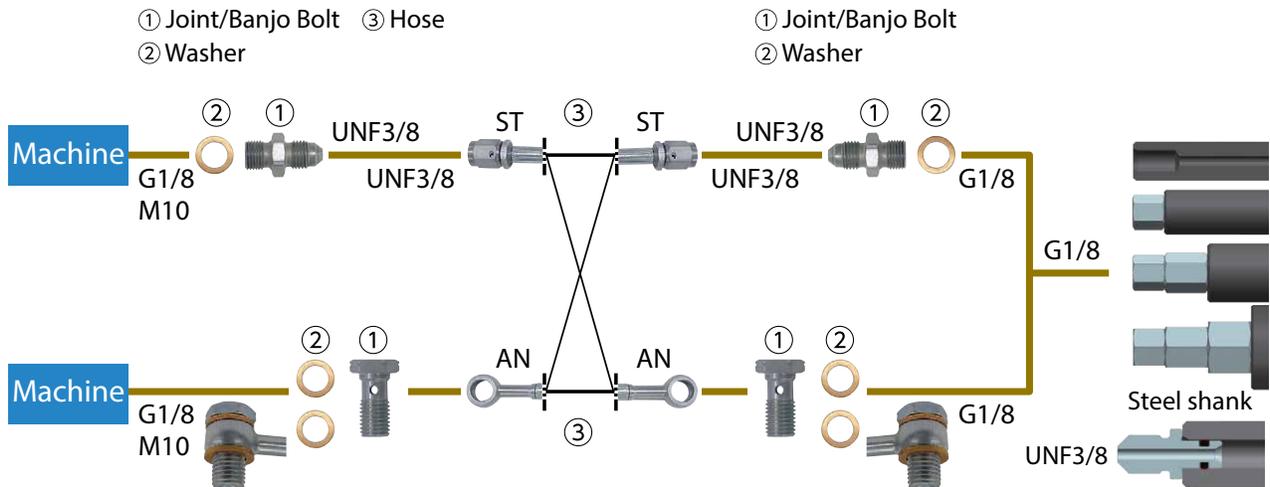
You can order only the included O-ring (GR-004-2).

### 2 How to connect when using our plumbing parts

#### Easy to use with high pressure capable hoses and joints

- Can be used as internal coolant at normal pressure without a high-pressure pump unit
- Banjo bolts for angle hoses available. Supports a wide variety of machines.

#### < Piping Installation Guide >



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

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

About the Dedicated E-Sleeve

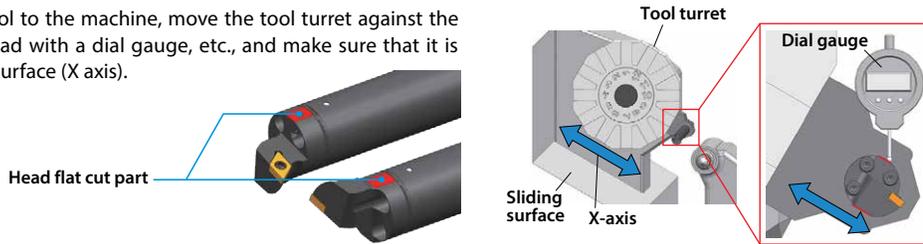
The shank does not have a flat cut. In order to ensure vibration-proof performance, we recommend using a special sleeve (SHS \*\*\*\*\_\*\*) that is sold separately.



How to adjust cutting edge position

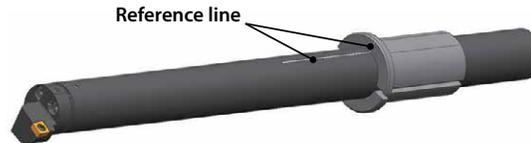
When using a head flat cut part

After attaching the tool to the machine, move the tool turret against the flat cut part of the head with a dial gauge, etc., and make sure that it is parallel to the sliding surface (X axis).



When using the reference lines of the shank/dedicated sleeve (E-Sleeve)

Align the reference lines printed on the shank and the dedicated sleeve (SHS \*\*\*\*\_\*\*). It is easier to adjust the cutting edge position than using the flat on the head to align.



Recommendations for internal coolant

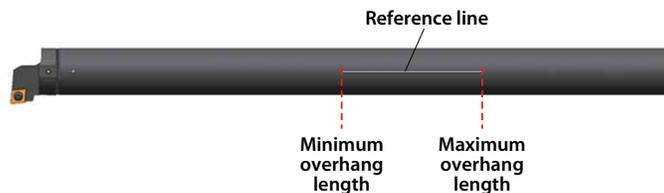
Under high temperatures, the anti-vibration mechanism may deteriorate or become damaged. Please use with **internal coolant**. The coolant pressure resistance of the shank is 1015 PSI. However, when using coolant parts (PR07-ST-UNF 3/8) for internal coolant in the carbide reinforced shank (KAV-G \*\*\*), the coolant pressure is 145 PSI. Please be careful.



Available overhang length range

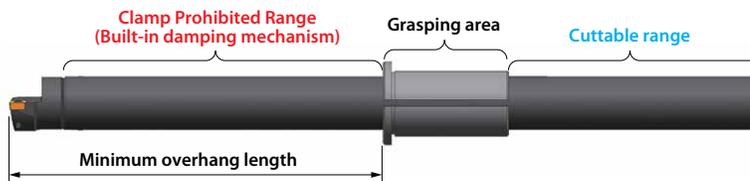
Available overhang length is set for this tool. To adjust the overhang length, please use the reference line printed on the shank.

Available Overhang Length Range		
Part Number	Minimum Overhang Length	Maximum Overhang Length
KAV-***-10D	Shank diameter × 7	Shank diameter × 10
KAV-***-7D	Shank diameter × 4	Shank diameter × 7



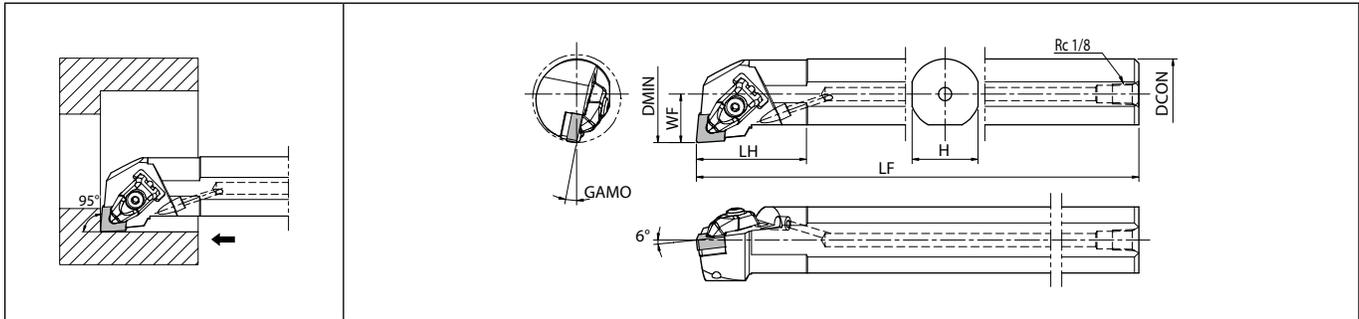
Shank cut

If the shank needs to be cut or modified, do so within the cutting range and do not clamp the built-in damping mechanism.



- Use the appropriate inserts and parts. Use of damaged parts may result in tool breakage and injury.
- Do not touch the cutting edge of the insert directly with your bare hands. There is a risk of injury.
- Make sure that there are no foreign materials such as chips in the insert seating area, serrated area, or shank grip area before mounting.
- Do not use the product under chattering conditions. This can lead to damage of the built-in damping mechanism.
- If tool falls or hits the part while machining, do not use it. The impact can cause tool damage and lead to large chattering.
- Avoid high humidity and store at room temperature (about 20°C).

A-DCLN (Boring / Internal Facing)



Max. Overhang Length L/D≈~3 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

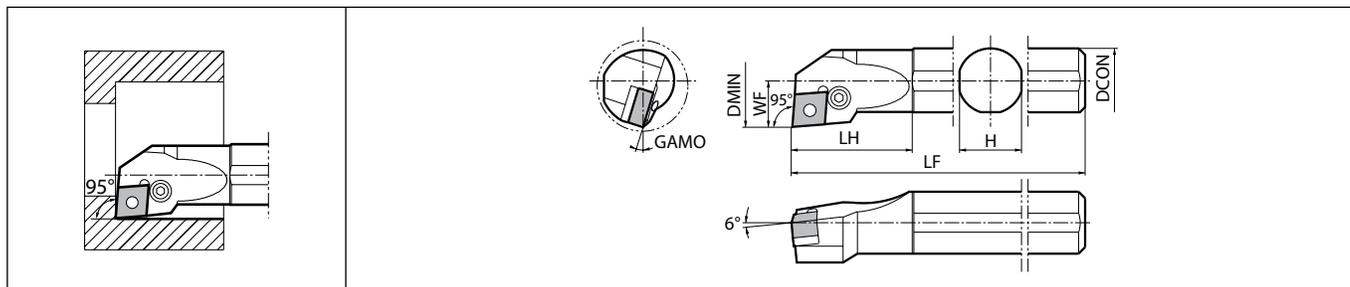
Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts							Applicable Inserts
		R	L	DMIN	DCON	H	LH	LF	WF	Clamp				Screw (for clamp)	Spring	Wrench (for clamp)	Shim	Screw (for shim)	Wrench* (for shim)	Nozzle	
Inch	A16T- DCLNR4	●		1.25	1.00	0.905	1.575	12.0	0.640	12	1/32	Yes									CN□A43... CN□G43... CN□M43...
	A20T- DCLNR4	●		1.50	1.25	1.181	1.614	12.0	0.765	11											
	A24T- DCLNR4	●		1.75	1.50	1.374	2.362	12.0	0.905	13											
mm	A25R- DCLN%L 12-32	●	●	32	25	23	42	200	17	11	0.8	Yes									CN□A43... CN□G43... CN□M43...
	A32S- DCLN%L 12-40	●	●	40	32	30	50	250	22												
	A40T- DCLN%L 12-50	●	●	50	40	37	60	300	27												

Not applicable to high-pressure coolant  
Wrench (FT-15) is sold separately.

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

S-PCLN (Boring / Internal Facing)



Max. Overhang Length L/D≈~3 | Right-hand shown

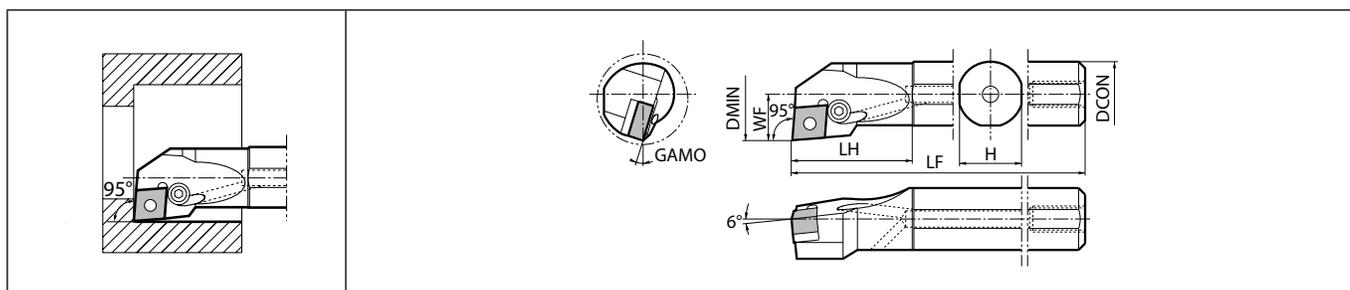
Toolholder Dimensions

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

Unit	Part Number	Std. Item		Dimensions						GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts							Applicable Inserts	
		R	L	DMIN	DCON	H	LH	LF	WF				Lever	Lock Screw	Punch	Shim Pin	Shim Pin	Shim	Wrench		Wrench
Inch	S20S- PCLNR4	●		1.55	1.25	1.17	2.00	10.00	0.75	10	1/32	No	LL-2N	LS-2N	PC-2	LSP-2	-	LC-42N%	LW-3	-	CN□A43... CN□G43... CN□M43...
	S24T- PCLNR4	●		2.02	1.50	1.42	2.50	12.00	1.00				LL-03SN	LS-03SN	-	-	P-03S	-	-	-	-
mm	S16M- PCLN%L 09-20	●	●	20	16	15	34	150	11	16	0.8	No	LL-1N	LS-1SN	PC-1	LSP-1	-	LC-32N	-	FH-2.5	CN□G33...
	S20Q- PCLN%L 09-27	●	●	27	20	19	37	180	14.2				LL-1N	LS-1SN	PC-1	LSP-1	-	LC-32N	-	FH-2.5	CN□G33...
	S25R- PCLN%L 09-32	●	●	32	25	24	42	200	15.7				LL-1N	LS-1SN	PC-1	LSP-1	-	LC-32N	-	FH-2.5	CN□G33...
	S25R- PCLN%L 12-32	●	●	32	25	24	42	200	16.3				LL-1N	LS-1SN	PC-1	LSP-1	-	LC-32N	-	FH-2.5	CN□G33...
mm	S32S- PCLN%L 12-40	●	●	40	32	30	50	250	21	10	0.8	No	LL-2N	LS-2N	PC-2	LSP-2	-	LC-42N%	LW-3	-	CN□A43... CN□G43... CN□M43...
	S40T- PCLN%L 12-50	●	●	50	40	37	60	300	25				LL-2N	LS-2N	PC-2	LSP-2	-	LC-42N%	LW-3	-	CN□A43... CN□G43... CN□M43...

LC-42NR for Right-hand Toolholder, LC-42NL for Left-hand Toolholder.

A-PCLN (Boring / Internal Facing)



Max. Overhang Length L/D≈~3 | Right-hand shown | Left-hand Insert for Right-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts							Applicable Inserts	
		R	L	DMIN	DCON	H	LH	LF	WF				Lever	Lock Screw	Punch	Shim Pin	Shim Pin	Shim	Wrench		
Inch	A10M- PCLN%L 3	●	●	0.79	0.63	0.59	1.34	6.00	-	16	1/32	Yes	LL-03SN	LS-03SN	-	-	P-03S	-	-	-	CN□G33...
	A12Q- PCLN%L 3	●	●	1.06	0.75	0.71	1.46	7.00	-				LL-1N	LS-1SN	PC-1	LSP-1	-	LC-32N	-	FH-2.5	CN□G33...
	A16Q- PCLN%L 3	●	●	1.26	1.00	0.97	1.65	7.00	-				LL-1N	LS-1SN	PC-1	LSP-1	-	LC-32N	-	FH-2.5	CN□G33...
mm	A16M- PCLNR09-20	●		20	16	15	34	150	11	16	0.8	Yes	LL-03SN	LS-03SN	-	-	P-03S	-	-	-	CN□G33...
	A20Q- PCLNR09-27	●		27	20	19	37	180	14.2				LL-1N	LS-1SN	PC-1	LSP-1	-	LC-32N	-	FH-2.5	CN□G33...
	A25R- PCLNR09-32	●		32	25	24	42	200	15.7				LL-1N	LS-1SN	PC-1	LSP-1	-	LC-32N	-	FH-2.5	CN□G33...

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

Applicable Inserts (A-DCLN / S-PCLN / A-PCLN )

Applications	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Finishing	Finishing	Finishing - Medium	Finishing - Medium
Insert								
Chipbreaker Type	WF	WP	WE	WQ	PP	GP	PQ	HQ
Page	B16	B16	B16	B16	B16	B16	B16	B17
Applications	Finishing - Medium	Finishing - Medium	Medium	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing
Insert								
Chipbreaker Type	CQ	CJ	TN-V	PMG	GS	PG	PS	PT
Page	B17	B17	B17	B17	B17	B17	B18	B18
Applications	Medium - Roughing	Roughing	Roughing	Roughing	Finishing	Medium	Medium - Roughing	Medium - Roughing
Insert								
Chipbreaker Type	GT	Standard	PH	PX	P/L-S	R/L	P/L-25R	Z
Page	B18	B18	B18	B19	B23	B23	B23	B23
Applications	Low Carbon Steel	Low Carbon Steel	Low Carbon Steel	Low Carbon Steel	Finishing - Medium	Medium - Roughing	Stainless Steel / Heat-Resistant Alloys	Stainless Steel / Heat-Resistant Alloys
Insert								
Chipbreaker Type	XF	XP	XQ	XS	SK	FP-TK	TK	MQ
Page	B19	B19	B19	B19	B19	B19	B20	B20
Applications	Stainless Steel / Heat-Resistant Alloys	Stainless Steel / Heat-Resistant Alloys	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Insert								
Chipbreaker Type	MS	MU	KQ	KG	KH	C	ZS	GC
Page	B20	B20	B21	B21	B21	B22	B22	B22
Applications	Cast Iron	Cast Iron / Hard Materials	Non-Ferrous Metals	Non-Ferrous Metals	Non-Ferrous Metals	Heat-Resistant Alloys	Heat-Resistant Alloys	Hard Materials
Insert								
Chipbreaker Type	No Chipbreaker	Ceramic	P/L-A3	AH	PCD	SQ	SG	HH
Page	B22	B113	B23	B23	C34	B20	B21	C9
Applications	Hard Materials	Hard Materials	Hard Materials / Cast Iron					
Insert								
Chipbreaker Type	HL	HD	CBN					
Page	C9	C9	C8					

Recommended Cutting Conditions F174, F175

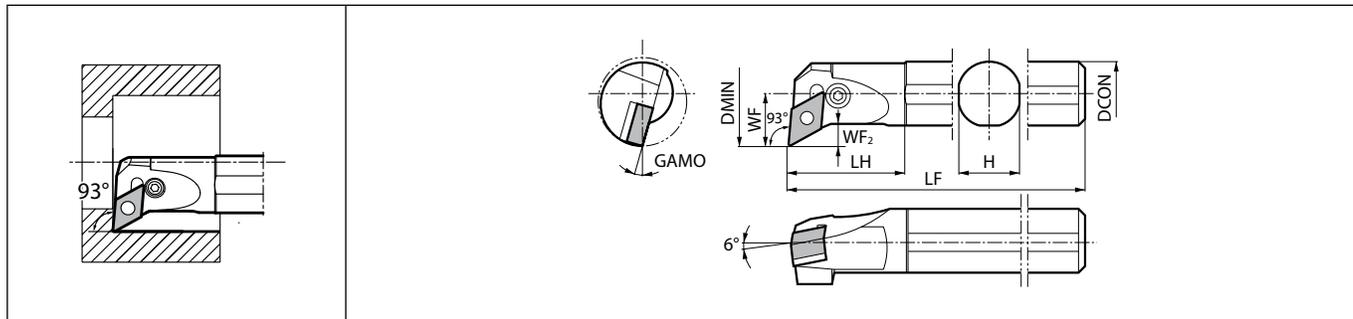
Applicable Coolant Sleeve / Joint

Toolholder Part Number	Applicable Coolant Sleeve	Applicable Coolant Joint
A16M -PCLN P/L 09-20	SHC1640-70, SHC1650-95	SJS-8
A20Q -PCLN P/L 09-27	SHC2040-70, SHC2050-95	
A25R -PCLN P/L 09-32	SHC2540-70, SHC2550-95	

For Coolant Sleeve, Coolant Joint See Page F172~F173

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

S-PDUN11 (Boring / Internal Facing)

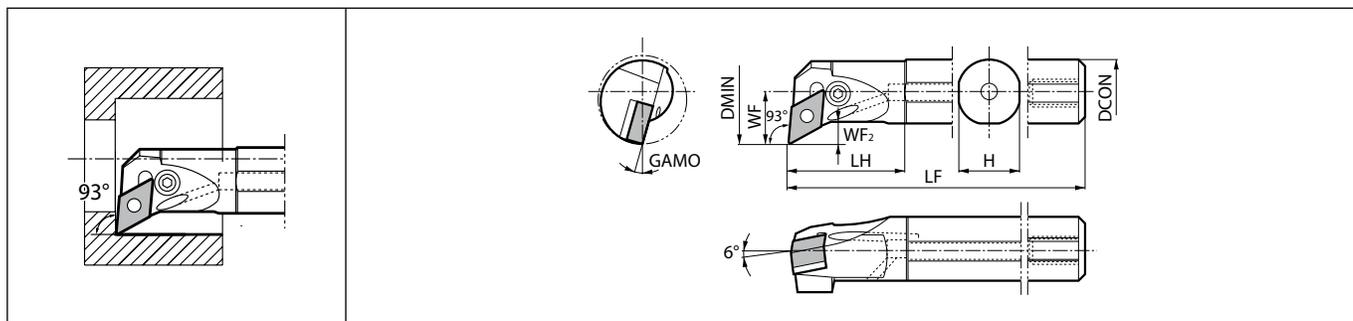


Max. Overhang Length L/D≈~3 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts						Applicable Inserts
		R	L	DMIN	DCON	H	LH	LF	WF	WF <sub>2</sub>				Lever	Lock Screw	Punch	Shim Pin	Shim	Wrench	
		mm	S20Q- PDUN%L 11-27	●	●	27	20	19	35	180				16	7.6	17	0.4	No		
mm	S25R- PDUN%L 11-32	●	●	32	25	24	40	200	17	7.6	15	0.4	No							DN□G33...
mm	S32S- PDUN%L 11-40	●	●	40	32	31	45	250	22	8.5	12	0.4	No							DN□G33...

A-PDUN3/11 (Boring / Internal Facing)



Max. Overhang Length L/D≈~3 | Right-hand shown | Left-hand Insert for Right-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts						Applicable Inserts
		R	L	DMIN	DCON	H	LH	LF	WF	WF <sub>2</sub>				Lever	Lock Screw	Punch	Shim Pin	Shim	Wrench	
		Inch	A12Q- PDUN%L 3	●	●	1.06	0.75	0.71	1.37	7.00				-	-	17	1/32	Yes		
Inch	A16R- PDUN%L 3	●	●	1.26	1.00	0.97	1.37	8.00	-	-	15	1/32	Yes							DN□G33...
Inch	A20S- PDUN%L 3	●	●	1.57	1.25	1.18	1.37	10.00	-	-	12	1/32	Yes							DN□G33...
mm	A20Q- PDUNR11-27	●		27	20	19	35	180	16	7.6	17	0.4	Yes							DN□G33...
mm	A25R- PDUNR11-32	●		32	25	24	40	200	17	7.6	15	0.4	Yes							DN□G33...
mm	A32S- PDUNR11-40	●		40	32	31	45	250	22	8.5	12	0.4	Yes							DN□G33...

## Applicable Inserts (S-PDUN / A-PDUN)

Applications	Finishing	Finishing - Medium	Medium - Roughing	Finishing	Medium
Insert					
Chipbreaker Type	GP	HQ	GS	R/L-S	R/L
Page	B24	B25	B25	B32	B32

Recommended Cutting Conditions  **F174, F175**

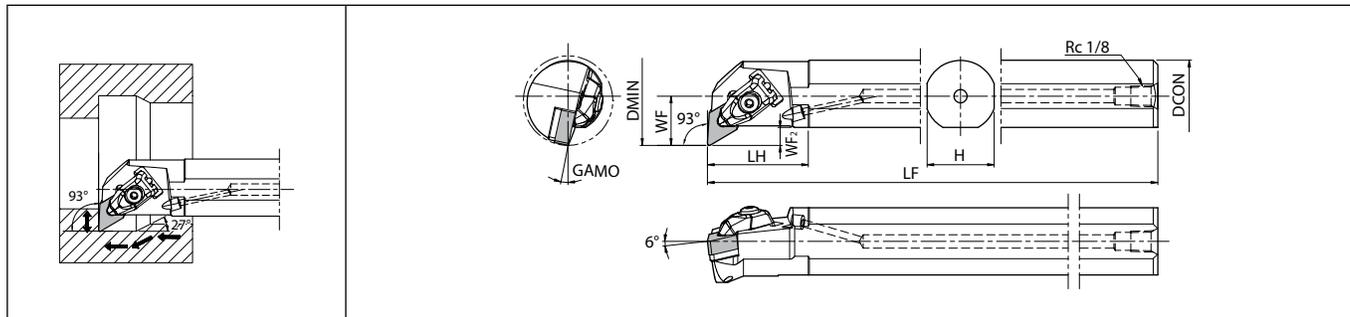
## Applicable Coolant Sleeve / Joint

Toolholder Part Number	Applicable Coolant Sleeve	Applicable Coolant Joint
A20Q-PDUNR11-27	SHC2040-70, SHC2050-95	SJS-8
A25R-PDUNR11-32	SHC2540-70, SHC2550-95	
A32S-PDUNR11-40	-	

For Coolant Sleeve, Coolant Joint See Page  **F172~F173**

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

A-DDUN (Boring / Internal Copying)



Max. Overhang Length L/D≈~3 | Right-hand shown  
 Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts							Applicable Inserts	
		R	L	DMIN	DCON	H	LH	LF	WF	WF <sub>2</sub>				Clamp	Screw (for clamp)	Spring	Wrench (for clamp)	Shim	Screw (for shim)	Wrench* (for shim)		Nozzle
Inch	A16T- DDUN $\frac{R}{L}$ 4	●		1.500	1.000	0.905	1.575	12	0.750	0.297	15	1/32	Yes					DD-42 (DD-42-16*)	SB-4085TR	FT-15	DN10	DN□A43... DN□G43... DN□M43... DN□X43...
	A20T- DDUN $\frac{R}{L}$ 4	●		1.750	1.250	1.181	1.772	12	0.905	0.299	13		Yes					DD-42 (DD-42-16*)	SB-4085TR	FT-15	DN10	
mm	A32S- DDUN $\frac{R}{L}$ 15-40	●	●	40	32	30	45	250	22	8	12	0.8	Yes					DD-42 (DD-42-16*)	SB-4085TR	FT-15	DN10	
	A40T- DDUN $\frac{R}{L}$ 15-50	●	●	50	40	37	55	300	27	8.5											DN10	
	A50U- DDUN $\frac{R}{L}$ 15-63	●	●	63	50	47	65	350	35	10.5											DN20	

When using inserts with corner-R (RE) greater than 1/16" (1.6 mm), please purchase shim DD-42-16\* to prevent workpiece interference.

Not applicable to high-pressure coolant

When using insert with WF chipbreaker, tool edge offset or program corrections are required on **R40** and **R41**.

Wrench (FT-15) is sold separately.

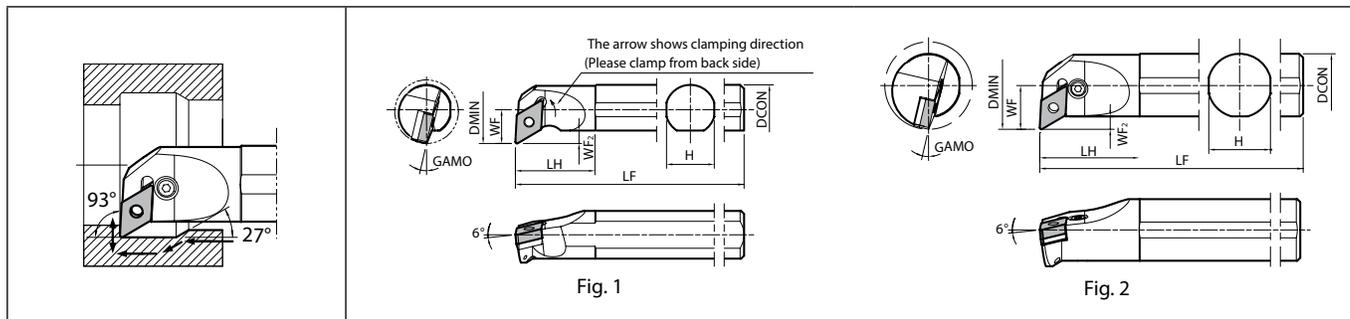
Applicable Inserts

Applications	Finishing	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Finishing - Medium	Finishing - Medium	Medium
Insert								
Chipbreaker Type	WF	PP	GP	PQ	HQ	CQ	CJ	TN-V
Page	B24	B24	B24	B24	B25	B25	B25	B25
Applications	Medium - Roughing	Medium - Roughing	Roughing	Roughing				
Insert								
Chipbreaker Type	PMG	GS	PG	PS	PT	GT	Standard	PH
Page	B25	B25	B26	B26	B26	B26	B27	B27
Applications	Roughing	Medium	Low Carbon Steel	Low Carbon Steel	Low Carbon Steel	Low Carbon Steel	Finishing - Medium	Large D.O.C.
Insert								
Chipbreaker Type	PX	R/L	XF	XP	XQ	XS	SK	R-LD
Page	B27	B32	B27	B27	B27	B27	B28	B28
Applications	Medium - Roughing	Stainless Steel / Heat-Resistant Alloys	Cast Iron	Cast Iron	Cast Iron			
Insert								
Chipbreaker Type	FP-TK	TK	MQ	MS	MU	KQ	KG	KH
Page	B28	B28	B28	B29	B29	B30	B30	B30
Applications	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron / Hard Materials	Non-Ferrous Metals	Non-Ferrous Metals	Non-Ferrous Metals
Insert								
Chipbreaker Type	C	ZS	GC	No Chipbreaker	Ceramic	A3	AH	PCD
Page	B30	B30	B30	B31	B114	B31	B31	C35
Applications	Heat-Resistant Alloys	Heat-Resistant Alloys	Hard Materials	Hard Materials	Hard Materials	Hard Materials / Cast Iron		
Insert								
Chipbreaker Type	SQ	SG	HH	HL	HD	CBN		
Page	B29	B29	C11	C11	C11	C10		

Recommended Cutting Conditions  F174, F175

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

## S-PDUN15 (Internal Copying)



Max. Overhang Length  $L/D \approx 3$  | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

## Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Applicable Inserts	
		R	L	DMIN	DCON	H	LH	LF	WF						WF <sub>2</sub>
mm	S25R- PDUN% 15-32	●	●	32	25	24	40	200	17	6.5	13	0.8	No	1	DN□A43..., DN□G43... DN□M43..., DN□X43...
	S32S- PDUN% 15-44	●	●	44	32	31	50	250	22	6.5	13				
	S40T- PDUN% 15-54	●	●	54	40	39	65	300	27	7.5	12				

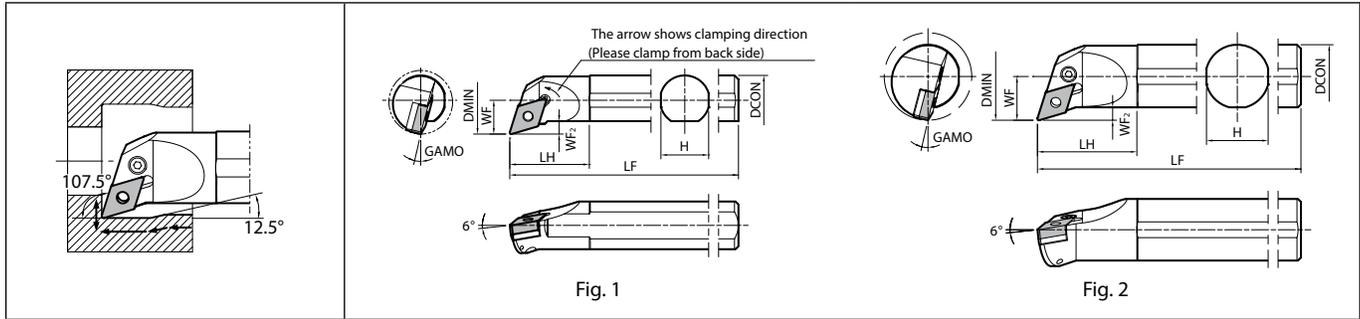
Unit	Part Number	Spare Parts									
		Lever	Lock Pin	Lock Screw	Wrench	Shim	Shim	Screw	Wrench	Shim Pin	Punch
mm	S25R- PDUN% 15-32	-	PP-4	-	LW-3	-	PD-42	SB-2050TR	FT-6	-	-
	S32S- PDUN% 15-44	LL-3N	-	LS-2N		LD-42 (LD-42-20*)	-	-	-	LSP-2	PC-2
	S40T- PDUN% 15-54		-	-		-	-	-	-	-	-

When using insert with WF chipbreaker, tool edge offset or program corrections are required on **R40** and **R41**.

When using inserts with corner-R (RE) is greater than 1/16" (1.6 mm) for S25R-PDUN% 15-32, modifications to the shim are required to prevent workpiece interference.

When using inserts with corner-R (RE) is greater than 1/16" (1.6 mm) for S32S-PDUN% 15-44 and S40T-PDUN% 15-54, please purchase shim LD-42-20\* to prevent workpiece interference.

S-PDQN15 (Internal Copying)



Max. Overhang Length L/D≈~3 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

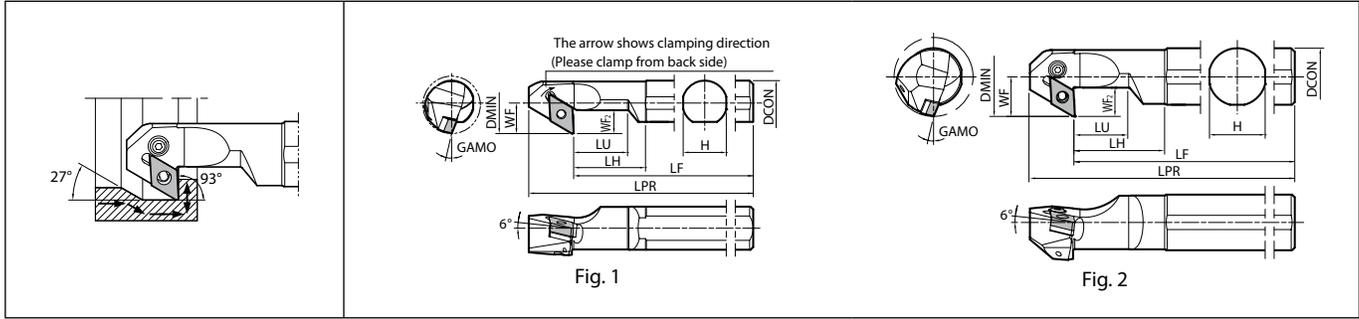
Unit	Part Number	Std. Item		Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Applicable Inserts
		R	L	DMIN	DCON	H	LH	LF	WF	WF <sub>2</sub>					
		mm	S25R- PDQN% 15-32	●	●	32	25	24	40	200					
mm	S32S- PDQN% 15-44	●	●	44	32	31	50	250	22	6.5	13	0.8	No	2	DN□A43... DN□G43... DN□M43...
mm	S40T- PDQN% 15-54	●	●	54	40	39	65	300	27	7.5	12	0.8	No	2	DN□A43... DN□G43... DN□M43...

Unit	Part Number	Spare Parts									
		Lever	Lock Pin	Lock Screw	Wrench	Shim	Shim	Screw	Wrench	Shim Pin	Punch
		mm	S25R- PDQN% 15-32	-	PP-4	-	-	-	PD-42	SB-2050TR	FT-6
mm	S32S- PDQN% 15-44	LL-3N	-	LS-2N	LW-3	LD-42 (LD-42-20*)	-	-	-	LSP-2	PC-2
mm	S40T- PDQN% 15-54	LL-3N	-	LS-2N	LW-3	LD-42 (LD-42-20*)	-	-	-	LSP-2	PC-2

When using inserts with corner-R (RE) is greater than 1/16" (1.6 mm) for S25R-PDQN% 15-32, modifications to the shim are required to prevent workpiece interference.  
When using inserts with corner-R (RE) is greater than 1/16" (1.6 mm) for S32S-PDQN% 15-44 and S40T-PDQN% 15-54, please purchase shim LD-42-20\* to prevent workpiece interference.  
WF chipbreaker can not be used for S-PDQN15 toolholder.

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

S-PDZN15 (Back Boring)



Max. Overhang Length L/D≈~3 | Right-hand shown  
Right-hand Insert for Right-hand Toolholder, Left-hand Insert for Left-hand Toolholder.

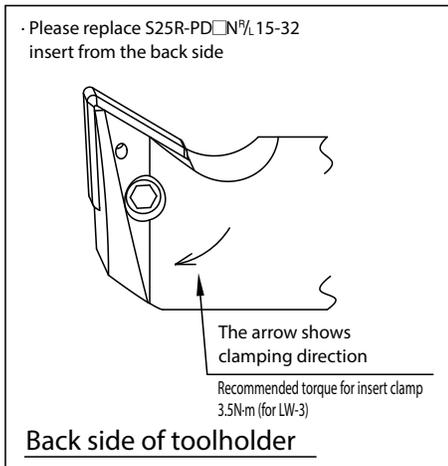
Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions								GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Fig.	Applicable Inserts
		R	L	DMIN	DCON	H	LH	LPR	LU	WF	WF <sub>2</sub>					
mm	S25R- PDZN% 15-32	●	●	32	25	24	40	225	30	17	13	13	0.8	No	1	DN□A43..., DN□G43...
	S32S- PDZN% 15-44	●	●	44	32	31	50	275	30	22	16	12				
	S40T- PDZN% 15-54	●	●	54	40	39	65	325	50	27	16	12				

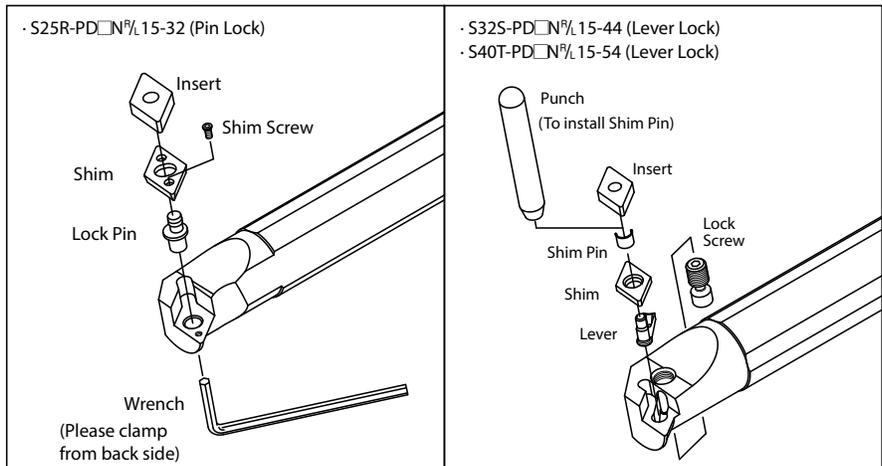
Unit	Part Number	Spare Parts									
		Lever	Lock Pin	Lock Screw	Wrench	Shim	Shim	Screw	Wrench	Shim Pin	Punch
mm	S25R- PDZN% 15-32	-	PP-4	-	LW-3	-	PD-42	SB-2050TR	FT-6	-	-
	S32S- PDZN% 15-44	LL-3N	-	LS-2N		LD-42 (LD-42-20*)	-	-	-	LSP-2	PC-2
	S40T- PDZN% 15-54	LL-3N	-	LS-2N		LD-42 (LD-42-20*)	-	-	-	LSP-2	PC-2

When using insert with WF chipbreaker, tool edge offset or program corrections are required on R40 and R41.  
When using inserts with corner-R (RE) is greater than 1/16" (1.6 mm) for S25R-PDZN15-32, modifications to the shim are required to prevent workpiece interference.  
When using inserts with corner-R (RE) is greater than 1/16" (1.6 mm) for S32S-PDZN15-44 and S40T-PDZN15-54, please purchase shim LD-42-20\* to prevent workpiece interference.

How to change S25R-PD□N% 15-32 inserts



How to assemble spare parts



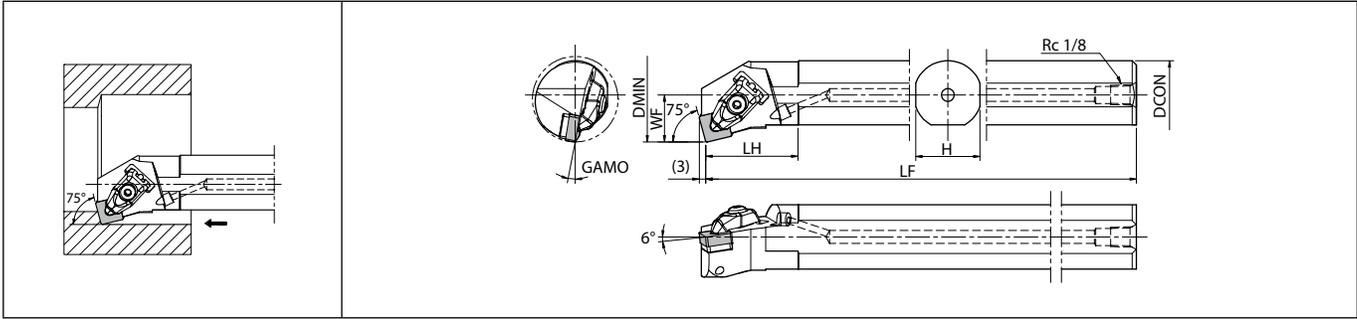
## Applicable Inserts (S-PDUN15 / S-PDQN15 / S-PDZN15)

Applications	Finishing	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Finishing - Medium	Finishing - Medium	Medium
Insert								
Chipbreaker Type	WF	PP	GP	PQ	HQ	CQ	CJ	TN-V
Page	B24	B24	B24	B24	B25	B25	B25	B25
Applications	Medium - Roughing	Medium - Roughing	Roughing	Roughing				
Insert								
Chipbreaker Type	PMG	GS	PG	PS	PT	GT	Standard	PH
Page	B25	B25	B26	B26	B26	B26	B27	B27
Applications	Roughing	Medium	Low Carbon Steel	Low Carbon Steel	Low Carbon Steel	Low Carbon Steel	Finishing - Medium	Large D.O.C.
Insert								
Chipbreaker Type	PX	R/L	XF	XP	XQ	XS	SK	R-LD
Page	B27	B31	B27	B27	B27	B27	B28	B28
Applications	Medium - Roughing	Stainless Steel / Heat-Resistant Alloys	Cast Iron	Cast Iron	Cast Iron			
Insert								
Chipbreaker Type	FP-TK	TK	MQ	MS	MU	KQ	KG	KH
Page	B28	B28	B28	B29	B29	B30	B30	B30
Applications	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron / Hard Materials	Non-Ferrous Metals	Non-Ferrous Metals	Non-Ferrous Metals
Insert								
Chipbreaker Type	C	ZS	GC	No Chipbreaker	Ceramic	A3	AH	PCD
Page	B30	B30	B30	B31	B114	B31	B31	C35
Applications	Heat-Resistant Alloys	Heat-Resistant Alloys	Hard Materials	Hard Materials	Hard Materials	Hard Materials / Cast Iron		
Insert								
Chipbreaker Type	SQ	SG	HH	HL	HD	CBN		
Page	B29	B29	C11	C11	C11	C10		

Recommended Cutting Conditions [F174](#), [F175](#)

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

A-DSKN (Boring)



Max. Overhang Length  $L/D \approx 3$  | Right-hand shown  
 Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts							Applicable Inserts
		R	L	DMIN	DCON	H	LH	LF	WF	Clamp				Screw (for clamp)	Spring	Wrench (for clamp)	Shim	Screw (for shim)	Wrench* (for shim)	Nozzle	
mm	A25R- DSKN $\frac{1}{2}$ 12-32	●	●	32	25	23	43	200	17	11	0.8	Yes	CP-3D	CS-3D	SP-3D	LW-3	DS-42	SB-4085TR	FT-15	DN10	SN□A43... SN□G43... SN□M43...
	A32S- DSKN $\frac{1}{2}$ 12-40	●	●	40	32	30	43	250	22											DN20	
	A40T- DSKN $\frac{1}{2}$ 12-50	●	●	50	40	37	53	300	27												

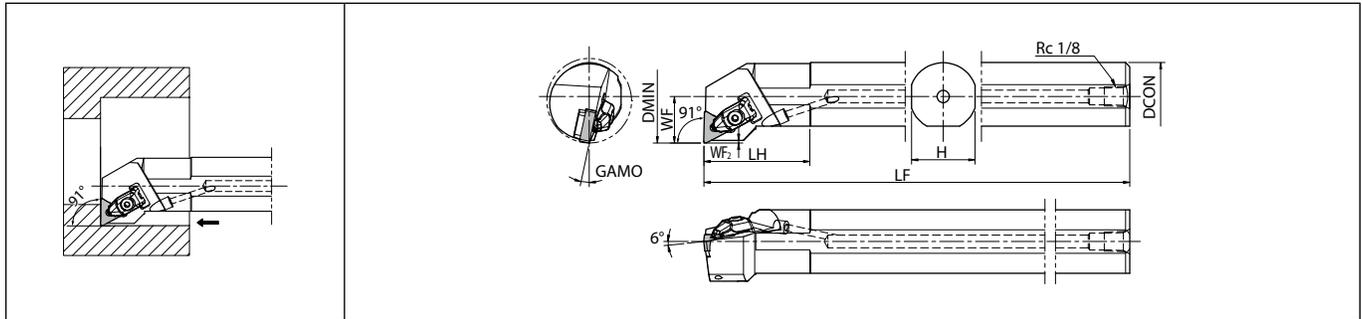
Not applicable to high-pressure coolant  
 Wrench (FT-15) is sold separately.

Applicable Inserts

Applications	Finishing - Medium	Finishing - Medium	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing	Roughing	Roughing
Insert									
Chipbreaker Type	PQ	HQ	PMG	PG	PS	PT	Standard	PH	PH
Page	B34	B34	B34	B34	B34	B34	B34	B35	B35
Applications	Roughing	Medium - Roughing	Medium - Roughing	Low Carbon Steel	Low Carbon Steel	Low Carbon Steel	Stainless Steel / Heat-Resistant Alloys	Stainless Steel / Heat-Resistant Alloys	Stainless Steel / Heat-Resistant Alloys
Insert									
Chipbreaker Type	PX	$\frac{1}{2}$ -C	$\frac{1}{2}$ -25R	XP	XQ	XS	MQ	MS	MS
Page	B35	B37	B37	B35	B35	B35	B36	B36	B36
Applications	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron / Hard Materials	Heat-Resistant Alloys	Heat-Resistant Alloys
Insert									
Chipbreaker Type	KG	KH	C	ZS	GC	No Chipbreaker	Ceramic	SG	SG
Page	B36	B36	B36	B37	B37	B37	B117	B36	B36
Applications	Hard Materials / Cast Iron								
Insert									
Chipbreaker Type	CBN								
Page	C12								

Recommended Cutting Conditions F174, F175

A-DTFN (Boring)



Max. Overhang Length L/D≈3 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Applicable Inserts
		R	L	DMIN	DCON	H	LH	LF	WF	WF <sub>2</sub>				
mm	A25R- DTFN% 16-32	●	●	32	25	23	42	200	17	0.8	12	0.8	Yes	TN□A33..., TN□G33...
	A32S- DTFN% 16-40	●	●	40	32	30	50	250	22	1.2	12	0.8	Yes	TN□M33..., TN□X33...
	A40T- DTFN% 22-50	●	●	50	40	37	60	300	27	1.5	12	0.8	Yes	TN□G43..., TN□M43...

Unit	Part Number	Spare Parts								
		Clamp	Screw (for clamp)	Spring	Wrench (for clamp)	Shim	Screw (for shim)	Wrench* (for shim)	Wrench* (for shim)	Nozzle
mm	A25R- DTFN% 16-32									
	A32S- DTFN% 16-40	CP-2D	CS-2D	SP-2D	LW-2.5	DT-32	SB-3080TR	FT-10	-	DN10
	A40T- DTFN% 22-50	CP-3D	CS-3D	SP-3D	LW-3	DT-42	SB-4085TR	-	FT-15	DN20

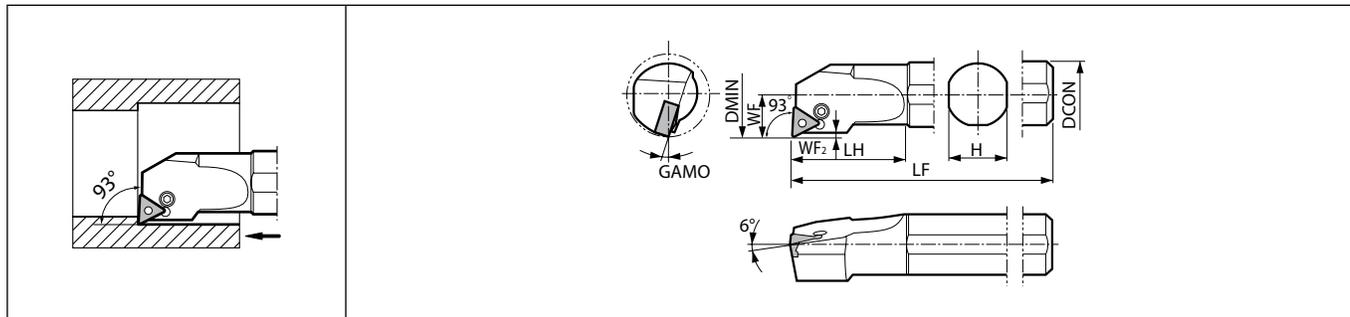
Not applicable to high-pressure coolant

When using insert with WF chipbreaker, tool edge offset or program corrections are required on R40 and R41.

Wrench (FT-10 or FT-15) is sold separately

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

S-PTUN (Boring)



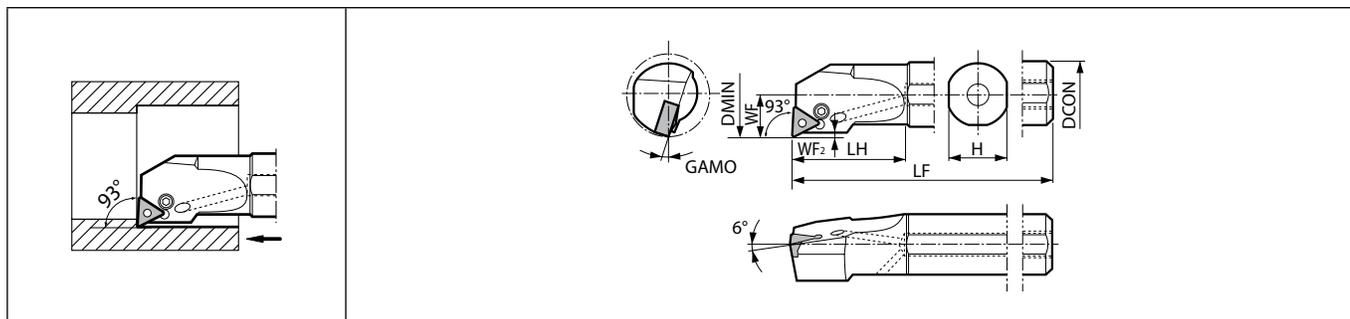
Max. Overhang Length  $L/D \approx 3$  | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts						Applicable inserts	
		R	L	DMIN	DCON	H	LH	LF	WF	WF <sub>2</sub>				Lever	Lock Screw	Punch	Shim	Shim Pin	Shim Pin		Wrench
		mm																			
mm	S16M- PTUN% 11-20	●	●	20	16	15	34	150	11	0.3	18	0.8	No	LL-03TN	LS-03SN	-	-	-	P-03S	FH-2.5	TN□G23...
	S20Q- PTUN% 11-25	●	●	25	20	19	37	180	13.2	0.2	17		LL-03SN	LS-03SN	-	-	-	P-03S	FH-2.5	TN□A33... TN□G33... TN□M33...	
	S25R- PTUN% 11-32	●	●	32	25	24	42	200	15.7	0.3	16	0.8	No	LL-1N	LS-1N	PC-1	LT-32N (LT-32N-20*)	LSP-1	-	FH-2.5	TN□A33... TN□G33... TN□M33...
	S16M- PTUN% 16-20	●	●	20	16	15	34	150	11		18										
	S20Q- PTUN% 16-25	●	●	25	20	19	37	180	13.2	1.3	17										
	S25R- PTUN% 16-30	●	●	30	25	24	42	200	15.5		13										
	S32S- PTUN% 16-40	●	●	40	32	30	50	250	22	0.7											
	S40T- PTUN% 16-50	●	●	50	40	37	60	300	27	0.6	11										

When using inserts with corner-R (RE) is greater than 1/16" (1.6 mm), please purchase shim LT-32N-20\* to prevent workpiece interference.

A-PTUN (Boring)



Max. Overhang Length  $L/D \approx 3$  | Right-hand shown  
Left-hand Insert for Right-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts				Applicable Inserts
		R	DMIN	DCON	H	LH	LF	WF	WF <sub>2</sub>	Lever				Lock Screw	Shim Pin	Wrench		
		mm																
mm	A16M- PTUNR11-20	●	20	16	15	34	150	11	0.3	18	0.8	Yes	LL-03TN	LS-03SN	P-03S	FH-2.5	TN□G23...	
	A20Q- PTUNR11-25	●	25	20	19	37	180	13.2	0.2	17								
	A25R- PTUNR11-32	●	32	25	24	42	200	15.7	0.3	16								

Applicable Inserts (A-DTFN / S-PTUN / A-PTUN)

Applications	Finishing	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Finishing - Medium	Medium - Roughing	Medium - Roughing
Insert								
Chipbreaker Type	WF*	PP	GP	PQ	HQ	CQ	PMG	GS
Page	B39	B39	B39	B39	B39	B39	B40	B40
Applications	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing	Roughing	Roughing	Roughing	Finishing
Insert								
Chipbreaker Type	PG	PS	PT	GT	Standard	PH	PX	P%-SSF
Page	B40	B40	B40	B40	B40	B41	B41	B45
Applications	Finishing	Finishing - Medium	Medium - Roughing	Medium - Roughing	Medium - Roughing	Low Carbon Steel	Low Carbon Steel	Low Carbon Steel
Insert								
Chipbreaker Type	P%-S	P%-B	P%-C	R/L	P%-25R	XF	XP	XQ
Page	B45	B45	B46	B46	B46	B41	B41	B41
Applications	Low Carbon Steel	Finishing - Medium	Large D.O.C.	Medium - Roughing	Stainless Steel / Heat-Resistant Alloys			
Insert								
Chipbreaker Type	XS	SK	R-LD	FP-TK	TK	MQ	MS	MU
Page	B41	B42	B42	B42	B42	B42	B42	B42
Applications	Stainless Steel	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Insert								
Chipbreaker Type	P%-ST	KQ	KG	KH	C	ZS	GC	No Chipbreaker
Page	B43	B43	B43	B43	B43	B43	B43	B44
Applications	Cast Iron / Hard Materials	Non-Ferrous Metals	Non-Ferrous Metals	Non-Ferrous Metals	Heat-Resistant Alloys	Hard Materials / Cast Iron		
Insert								
Chipbreaker Type	Ceramic	P%-A3	AH	PCD	SG	CBN		
Page	B118	B44	B44	C36	B43	C13		

When using insert with WF chipbreaker, tool edge offset or program corrections are required on R40 and R41. The insert with WF chipbreaker is not applicable for S-PTUN type and A-PTUN type toolholder.

Recommended Cutting Conditions F174, F175

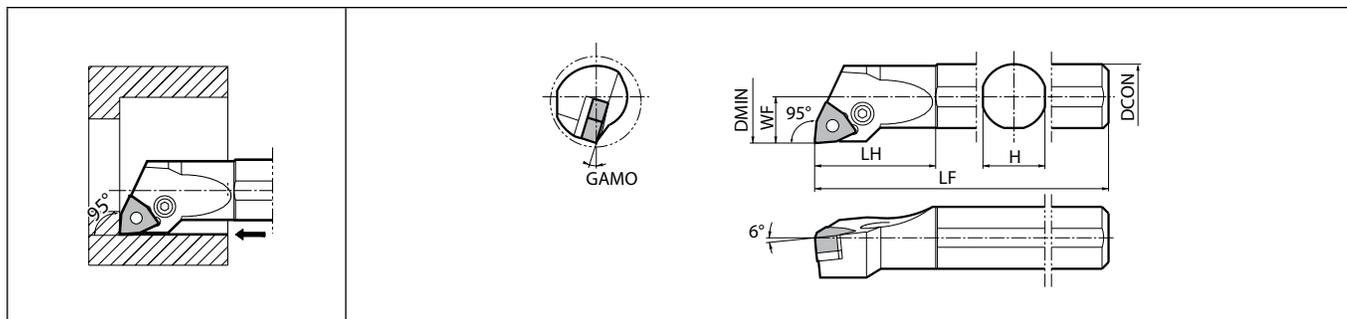
Applicable Coolant Sleeve / Joint

Toolholder Part Number	Applicable Coolant Sleeve	Applicable Coolant Joint
A16M-PTUN P% 11-20	SHC1640-70, SHC1650-95	SJS-8
A20Q-PTUN P% 11-25	SHC2040-70, SHC2050-95	
A25R-PTUN P% 11-32	SHC2540-70, SHC2550-95	

For Coolant Sleeve, Coolant Joint See Page F172~F173

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

S-PWLN (Boring / Internal Facing)



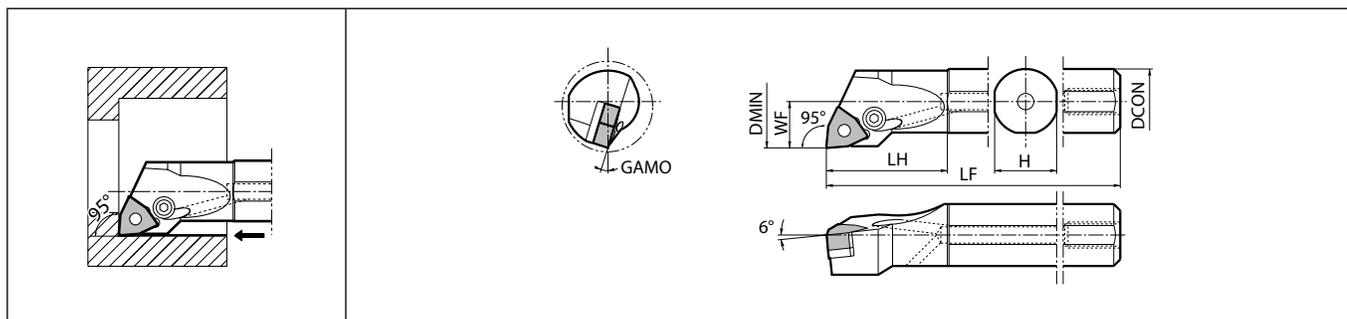
Max. Overhang Length L/D≈3 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts							Applicable Inserts	
		R	L	DMIN	DCON	H	LH	LF	WF	Lever				Lock Screw	Punch	Shim	Shim Pin	Shim Pin	Wrench	Wrench		
mm	S16M- PwLN%L06-20	●	●	20	16	15	34	150	11	16	0.8	No	LL-03SN	LS-03SN	-	-	-	P-03S	-	FH-2.5	WN□G33...	
	S20Q- PwLN%L06-27	●	●	27	20	19	37	180	14.2	17			LL-1N	LS-1SN	PC-1	LW-32N	LSP-1	-	-	-	-	-
	S25R- PwLN%L06-32	●	●	32	25	24	42	200	15.7	15	10	0.8	No	LL-2N	LS-2N	PC-2	LW-42N%	LSP-2	-	LW-3	-	WN□A43... WN□G43... WN□M43...
	S32S- PwLN%L08-40	●	●	40	32	30	50	250	22													
	S40T- PwLN%L08-50	●	●	50	40	37	60	300	27													

Shim : LW-42NR for Right-hand Toolholder, LW-42NL for Left-hand Toolholder.

A-PWLN (Boring / Internal Facing)



Max. Overhang Length L/D≈3 | Right-hand shown  
Left-hand Insert for Right-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts							Applicable Inserts
		R	DMIN	DCON	H	LH	LF	WF	Lever	Lock Screw				Punch	Shim	Shim Pin	Shim Pin	Wrench			
mm	A16M- PwLNRO6-20	●	20	16	15	34	150	11	16	0.8	Yes	LL-03SN	LS-03SN	-	-	-	P-03S	FH-2.5	WN□G33...		
	A20Q- PwLNRO6-27	●	27	20	19	37	180	14.2	17			LL-1N	LS-1SN	PC-1	LW-32N	LSP-1	-			-	
	A25R- PwLNRO6-32	●	32	25	24	42	200	15.7	15												

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

Applicable Inserts (S-PWLN / A-PWLN)

Applications	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Finishing	Finishing	Finishing - Medium	Finishing - Medium
Insert								
Chipbreaker Type	WF	WP	WE	WQ	PP	GP	PQ	HQ
Page	B50	B50	B50	B50	B50	B50	B50	B51
Applications	Finishing - Medium	Finishing - Medium	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing	Medium - Roughing
Insert								
Chipbreaker Type	CQ	CJ	PMG	GS	PG	PS	PT	GT
Page	B51	B51	B51	B51	B51	B51	B51	B52
Applications	Roughing	Roughing	Finishing	Medium	Low Carbon Steel	Low Carbon Steel	Low Carbon Steel	Stainless Steel / Heat-Resistant Alloys
Insert								
Chipbreaker Type	Standard	PH	R/L-S	R/L	XP	XQ	XS	TK
Page	B52	B52	B54	B54	B52	B52	B52	B52
Applications	Stainless Steel / Heat-Resistant Alloys	Stainless Steel / Heat-Resistant Alloys	Stainless Steel / Heat-Resistant Alloys	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Insert								
Chipbreaker Type	MQ	MS	MU	KQ	KG	KH	C	ZS
Page	B53	B53	B53	B53	B53	B53	B54	B54
Applications	Cast Iron	Cast Iron	Non-Ferrous Metals	Cast Iron / Hard Materials	Non-Ferrous Metals	Heat-Resistant Alloys	Hard Materials / Cast Iron	
Insert								
Chipbreaker Type	GC	No Chipbreaker	AH	Ceramic	PCD	SG	CBN	
Page	B54	B54	B54	B119	C38	B53	C15	

Recommended Cutting Conditions  F174, F175

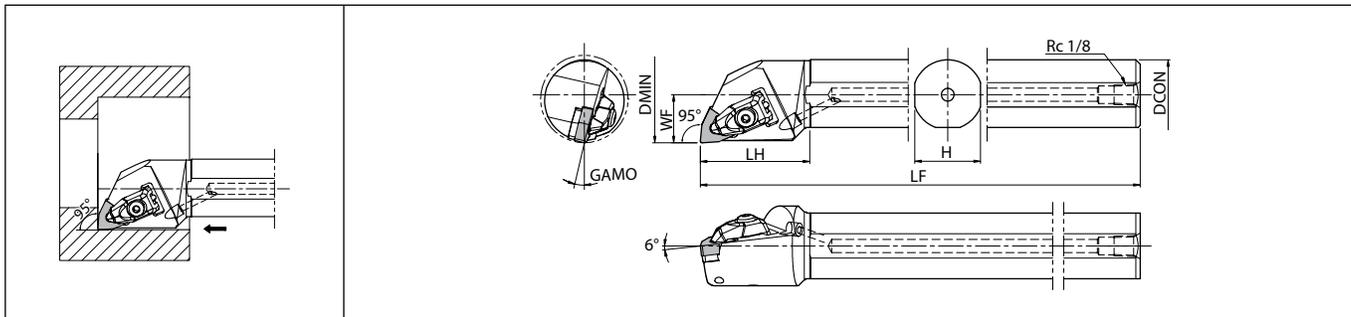
Applicable Coolant Sleeve / Joint

Toolholder Part Number	Applicable Coolant Sleeve	Applicable Coolant Joint
A16M-PWLNRO6-20	SHC1640-70, SHC1650-95	SJS-8
A20M-PWLNRO6-27	SHC2040-70, SHC2050-95	
A25R-PWLNRO6-32	SHC2540-70, SHC2550-95	

For Coolant Sleeve, Coolant Joint See Page  F172~F173

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

## A-DWLN (Boring / Internal Facing)



Max. Overhang Length  $L/D \approx 3$  | Right-hand shown  
 Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

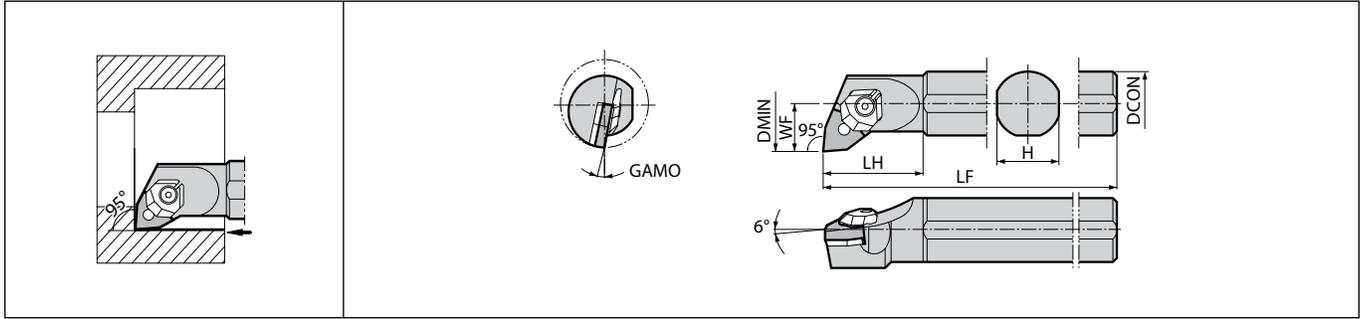
## Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Applicable Inserts
		R	L	DMIN	DCON	H	LH	LF	WF				
Inch	A16T- DWLNR4	●		1.250	1.000	0.905	1.575	12	0.640	12	1/32	Yes	WN□A43... WN□G43... WN□M43...
	A20T- DWLNR4	●		1.500	1.250	1.181	1.614	12	0.765	11			
	A24T- DWLNR4	●		1.750	1.500	1.374	2.362	12	0.905	13			
mm	A25R- DWLN%L 08-32	●	●	32	25	23	50	200	17	13	0.8	Yes	
	A32S- DWLN%L 08-40	●	●	40	32	30			250				
	A40T- DWLN%L 08-50	●	●	50	40	37	60	300	27				

Unit	Part Number	Spare Parts															
		Clamp	Screw (for clamp)	Spring	Wrench (for clamp)	Shim	Screw (for shim)	Wrench* (for shim)	Nozzle								
Inch	A16T- DWLN%L 4																
	A20T- DWLN%L 4									CP-3D	CS-3D	SP-3D	LW-3	DW-42	SB-4085TR	FT-15	DN10
	A24T- DWLN%L 4									CP-3D	CS-3D	SP-3D	LW-3	DW-42	SB-4085TR	FT-15	DN10
mm	A25R- DWLN%L 08-32	CP-3D	CS-3D	SP-3D	LW-3	DW-42	SB-4085TR	FT-15	DN10								
	A40T- DWLN%L 08-50								DN20								

Not applicable to high-pressure coolant  
 Wrench (FT-15) is sold separately.

S-WWLN-E Excellent Bar (Boring / Internal Facing)



Max. Overhang Length L/D≈5 | Right-hand shown  
 Left-hand Insert for Right-hand Toolholder, Right-hand Insert for Left-hand Toolholder.

Toolholder Dimensions

Unit	Part Number	Std. Item		Dimensions						GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts					Applicable Inserts
		R	L	DMIN	DCON	H	LH	LF	WF				Clamp Set	Wrench	Shim	Shim Pin	Wrench	
mm	S25S- WWLN% 08-28E	●	●	28	25	24	36	250	14	13	1.2	No	WCS-8	LW-3	WWP-42 (WWP-42-16*)	WPSX11	LW-2	WN□A43... WN□G43... WN□M43...
	WWLN% 08-34E	●	●	34		40	17		11									
	S32S- WWLN% 08-40E	●	●	40	32	30	50		20	10								

When using inserts with corner-R (RE) is greater than 1/16" (1.6 mm), please purchase shim WWP-42-16\* to prevent workpiece interference.  
 In wedge lock, use of ceramic insert other than silicon nitride insert is not recommended due to strong restrain force.

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

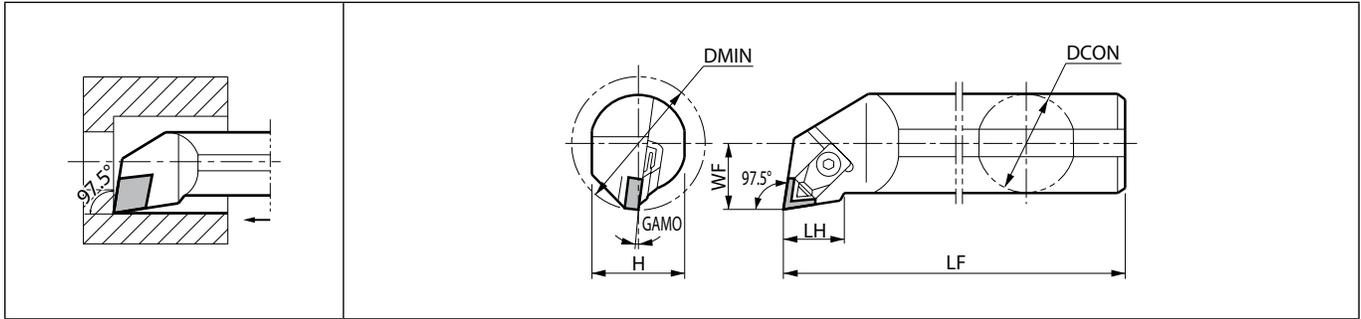
Applicable Inserts (A-DWLN / S-WWLN-E)

Applications	Finishing	Finishing	Finishing - Medium	Finishing - Medium	Finishing	Finishing	Finishing - Medium	Finishing - Medium
Insert								
Chipbreaker Type	WF	WP	WE	WQ	PP	GP	PQ	HQ
Page	B50	B51						
Applications	Finishing - Medium	Finishing - Medium	Medium - Roughing					
Insert								
Chipbreaker Type	CQ	CJ	PMG	GS	PG	PS	PT	GT
Page	B51	B52						
Applications	Roughing	Roughing	Low Carbon Steel	Low Carbon Steel	Low Carbon Steel	Stainless Steel / Heat-Resistant Alloys	Stainless Steel / Heat-Resistant Alloys	Stainless Steel / Heat-Resistant Alloys
Insert								
Chipbreaker Type	Standard	PH	XP	XQ	XS	TK	MQ	MS
Page	B52	B53						
Applications	Stainless Steel / Heat-Resistant Alloys	Cast Iron						
Insert								
Chipbreaker Type	MU	KQ	KG	KH	C	ZS	GC	No Chipbreaker
Page	B53	B53	B53	B53	B54	B54	B54	B54
Applications	Non-Ferrous Metals	Cast Iron / Hard Materials	Non-Ferrous Metals	Heat-Resistant Alloys	Hard Materials / Cast Iron			
Insert								
Chipbreaker Type	AH	Ceramic	PCD	SG	CBN			
Page	B54	B119	C38	B53	C15			

Recommended Cutting Conditions  F174, F175

F BORING  
MICRO BORING  
POSITIVE INSERTS  
ANTI-VIBE BARS  
NEGATIVE INSERTS

S-CELN (Boring / Internal Facing)



Max. Overhang Length L/D≈~3 | Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions							GAMO (°)	Standard Corner-R (RE)	Coolant Hole	Spare Parts					Applicable Inserts
			R	DMIN	DCON	H	LH	LF	WF				Chipbreaker	Clamp Set	Wrench	Shim	Shim Screw	
mm	S40T- CELNR13-50	●	50	40	37	32	300	27	12	0.8	No						ENG45...	

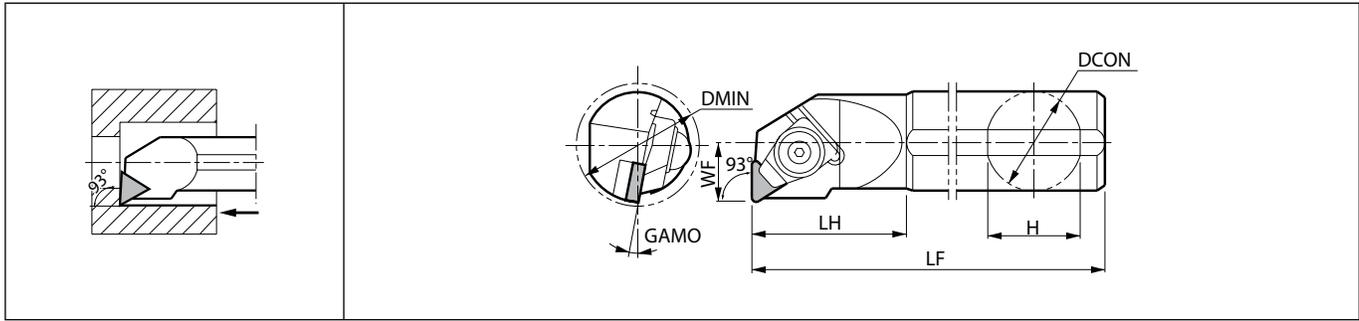
Applicable Inserts

Applications	Cast Iron / Hard Materials
Insert	
Type	Ceramic
Page	B115

Recommended Cutting Conditions F174, F175

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

S-CTUN-A (Boring)



Right-hand shown

Toolholder Dimensions

Unit	Part Number	Std. Item	Dimensions							GAMO (°)	Standard Corner-R (RE)	Spare Parts				Applicable Inserts
			R	DMIN	DCON	H	LH	LF	WF			Clamp Set	Shim Screw	Shim	Wrench	
mm	S25X- CTUNR11-30A	●	30	25	24	40	220	15	10	0.8					TN□22...	

Applicable Inserts

Applications	Hard Materials / Cast Iron	Cast Iron / Hard Materials
Insert		
Type	CBN	Ceramic
Page	C19	B118

Recommended Cutting Conditions → F174, F175



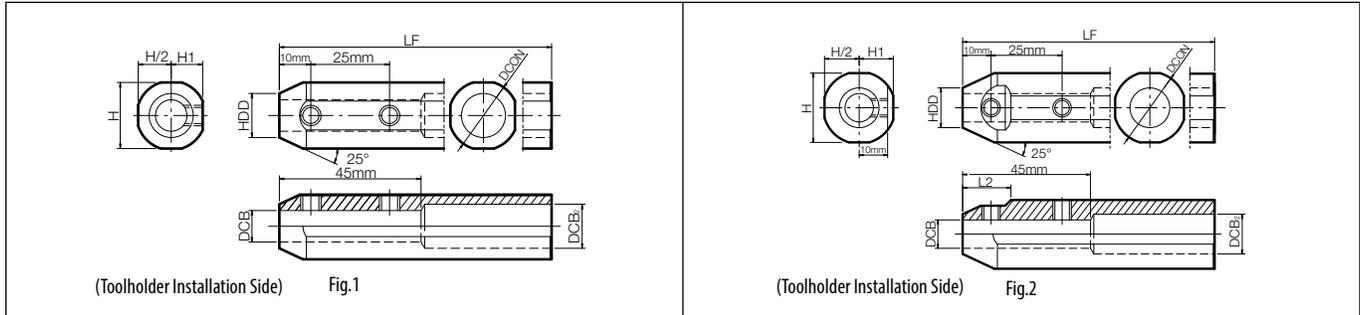
EZH Sleeves and Applicable Inserts / Toolholders

Shank Size (Hole Dia. : mm)		017 (1.7mm)	020 (2.0mm)	025 (2.5mm)	03 (3.0mm)	035 (3.5mm)	
EZH-CT Sleeve Part Number (Internal Coolant) EZH-HP Sleeve Part Number (Adjustable Overhang Length)	EZH	01716HP-100	EZH	02016HP-100	EZH	03016HP-100	
		01719CT/HP-120		02019CT/HP-120		03019CT/HP-120	
		01720CT/HP-120		02020CT/HP-120		03020CT/HP-120	
		01722CT/HP-135		02022CT/HP-135		03022CT/HP-135	
		01725.0CT/HP-135		02025.0CT/HP-135		03025.0CT/HP-135	
	01725.4CT/HP-120		02025.4CT/HP-120		03025.4CT/HP-120		
EZH-ST Sleeve Part Number	EZH	01712ST-80	EZH	02012ST-80	EZH	03012ST-80	
		01716ST-100		02016ST-100		03016ST-100	
		01719ST-120		02019ST-120		03019ST-120	
		01720ST-120		02020ST-120		03020ST-120	
		01722ST-135		02022ST-135		03022ST-135	
		01725.0ST-135		02025.0ST-135		03025.0ST-135	
		01725.4ST-120		02025.4ST-120		03025.4ST-120	
EZ Bar	Boring Bar	EZBR	020017ST-	EZB%	020020HP-	EZB%	020020HP-
		EZBR	020017-...NB	EZBR	025020ST-	EZBR	030025ST-
				EZBR	025020-...NB	EZBR	030025-...NB
						EZVBR	035030-
						EZBFR	030030-
	Internal Grooving				EZGR	030030-	
	Face Grooving						
	Internal Threading			EZTR	030025-	EZTR	035030-
EZ Bar - Plus							

Shank Size (Hole Dia. : mm)		04 (4.0mm)	045 (4.5mm)	05 (5.0mm)	06 (6.0mm)	07 (7.0mm)	08 (8.0mm)	
EZH-CT Sleeve Part Number (Internal Coolant) EZH-HP Sleeve Part Number (Adjustable Overhang Length)	EZH	04016HP-100	EZH	04516HP-100	EZH	05016HP-100	EZH	06016HP-100
		04019CT/HP-120		04519CT/HP-120		05019CT/HP-120		06019CT/HP-120
		04020CT/HP-120		04520CT/HP-120		05020CT/HP-120		06020CT/HP-120
		04022CT/HP-135		04522CT/HP-135		05022CT/HP-135		06022CT/HP-135
		04025.0CT/HP-135		04525.0CT/HP-135		05025.0CT/HP-135		06025.0CT/HP-135
	04025.4CT/HP-120		04525.4CT/HP-120		05025.4CT/HP-120		06025.4CT/HP-120	
EZH-ST Sleeve Part Number	EZH	04012ST-80		EZH	05012ST-80	EZH	06012ST-80	
		04016ST-100			05016ST-100		06016ST-100	
		04019ST-120			05019ST-120		06019ST-120	
		04020ST-120			05020ST-120		06020ST-120	
		04022ST-135			05022ST-135		06022ST-135	
		04025.0ST-135			05025.0ST-135		06025.0ST-135	
		04025.4ST-120			05025.4ST-120		06025.4ST-120	
EZ Bar	Boring Bar	EZB%	040040HP-		EZB%	050050HP-	EZB%	060060HP-
		EZBR	045040ST-		EZBR	055050ST-	EZBR	065060ST-
		EZBR	...040-...NB		EZBR	...050-...NB	EZBR	...060-...NB
		EZVBR	045040-		EZVBR	055050-	EZVBR	065060-
		EZBTR	040040-		EZBTR	050050-		
		EZBFR	040040-		EZBFR	050050-	EZBFR	060060-
	Internal Grooving	EZG%	040040-		EZG%	050050-	EZG%	060060-
	Face Grooving	EZFG%	050040-		EZFG%	060050-	EZFG%	080070-
	Internal Threading	EZTR	050040-		EZTR	060050-	EZTR	070060-
EZ Bar - Plus			S/C045X-SCLCR03-050EZP	S/C050X-SWUBR03-060EZP	S/C060X-SCLCR04-070EZP	S/C070X-SCLCR04-080EZP	S/C080X-SCLCR06-100EZP	
				S/C050X-SWUBR06-060EZP	S/C060X-SWUBR06-070EZP	S/C070X-STLBR06-080EZP	S/C080X-STLBR09-100EZP	
Boring Bar		C04-...		C05-...	C06-...	C07-...	C/E08-...	
					S06-...		A/S08-...	

Note 1) When attaching Double-sided Micro Bars to EZH-CT/HP Sleeve (Adjustable overhang length), detach Adjustable Pin. Overhang length of bar is not adjustable.

SHA Sleeves (Applicable Toolholders F172)



Unit	Part Number	Std. Item	Dimensions								Fig.	Spare Parts		Applicable Inserts
			DCB	DCON	HDD	DCB <sub>2</sub>	H	H1	LF	L2		Screw	Wrench	
mm	SHA 0820-120	<input type="checkbox"/>	8	20.00	14	12	19.0	9.25	120	-	1	HS6X4P	LW-3	Eguro Tsugami Citizen Machinery
	SHA 1020-120	<input checked="" type="checkbox"/>	10											
	SHA 0825.0-135	<input checked="" type="checkbox"/>	8	25.00	14	14	24.0	11.5	135	17	2	HS6X4P	LW-3	
	SHA 1025.0-135	<input checked="" type="checkbox"/>	10											
	SHA 1225.0-135	<input checked="" type="checkbox"/>	12	25.00	16									
	SHA 0819-120	<input type="checkbox"/>	8	0.75"	14	12	18.0	8.75	120	-	1	HS6X4P	LW-3	
	SHA 1019-120	<input type="checkbox"/>	10											
	SHA 0820-120	<input type="checkbox"/>	8	20.00	14	12	19.0	9.25	120	-	1	HS6X4P	LW-3	
	SHA 1020-120	<input checked="" type="checkbox"/>	10											
	SHA 0825.4-120	<input checked="" type="checkbox"/>	8	1.00"	14	14	24.4	12.0	120	17	2	HS6X4P	LW-3	
	SHA 1025.4-120	<input checked="" type="checkbox"/>	10											
	SHA 1225.4-120	<input checked="" type="checkbox"/>	12	1.00"	16									
	SHA 0822-125	<input checked="" type="checkbox"/>	8	22.00	14	14	21.0	10.0	125	-	1	HS6X4P	LW-3	Star Micronics Nomura DS
	SHA 1022-125	<input checked="" type="checkbox"/>	10											
	SHA 1222-125	<input type="checkbox"/>	12	22.00	16									
SHA 0823-120	<input type="checkbox"/>	8	23.00	14	14	22.0	10.5	120	16	2	HS6X4P	LW-3	Nomura DS	
SHA 1023-120	<input type="checkbox"/>	10												
SHA 1223-120	<input type="checkbox"/>	12	23.00	16										

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

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

Sleeves for Boring Bars

Shape	Unit	Part Number	Std. Item	Dimensions					Spare Parts	
				DCON	DCB	DCB2	H	LF	Screw	Wrench
	Inch	SL -1	●	0.625	0.203	0.250	0.292	4.00	SLS-1	LW-2
		SL -2	●		0.281	0.312			SLS-2	
		SL -2.5-10	●		0.156	0.197			SLS-1	
	mm	SH 0416-100	●	16	4	5	14	100	HS4X4	LW-2
		SH 0516-100	●		5	6				
		SH 0616-100	●		6	7				
		SH 0716-100	●		7	8				
		SH 0820-120	●		20	8				
	SH 1020-120	●	32	10	11	180	150	HS5X5	LW-2.5	
	SH 1225-150	●		12	13					23
	SH 1632-180	●		16	18					30
	SH 2032-180	●		20	22					30

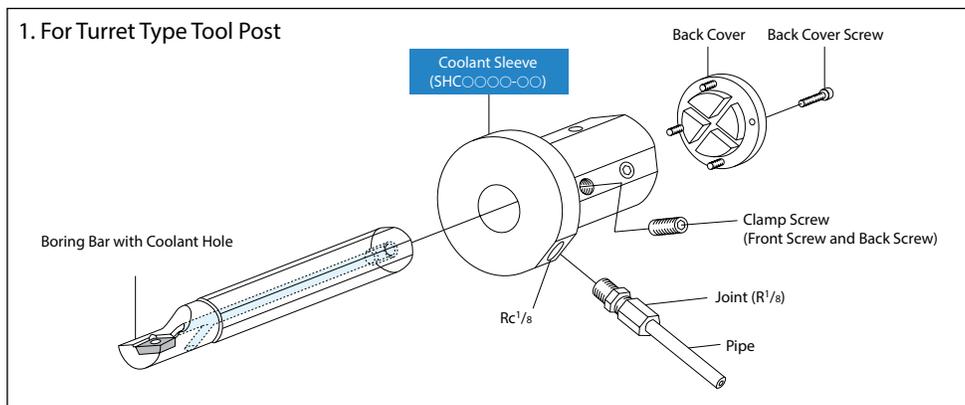
Coolant Sleeve Dimensions

**Accessories**  
 Back Cover / SHL-4...SHC○○○○40-70  
 SHL-5...SHC○○○○50-95  
 Back Cover Screw  
 Shank Clamp Screw

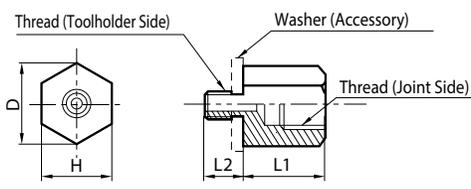
(Note) To stabilize the Toolholder and to prevent coolant leaks, tighten all 4 screws of coolant sleeve securely.

Unit	Part Number	Std. Item	Dimensions							Fig.	Spare Parts						
			DCON	HDD	DCB	LS	LH	H	A		Front Screw	Wrench	Back Screw	Wrench	Back Cover	Back Cover Screw	Wrench
mm	SHC 0840-70	●	40	56	8	70	16	38	27.0	1	HS6X22	LW-3	HS6X14	LW-3	SHL-4	HH3X6	LW-2.5
	SHC 1040-70	●			10												
	SHC 1240-70	●			12												
	SHC 1640-70	●			16												
	SHC 2040-70	●			20												
	SHC 2540-70	●	25														
	SHC 0850-95	●	50	65	8	95	16	47	30.5	1	HS6X22	LW-3	HS6X14	LW-3	SHL-5	HH3X12	LW-2.5
	SHC 1050-95	●			10												
	SHC 1250-95	●			12												
	SHC 1650-95	●			16												
SHC 2050-95	●	20															
SHC 2550-95	●	25															

How to Install

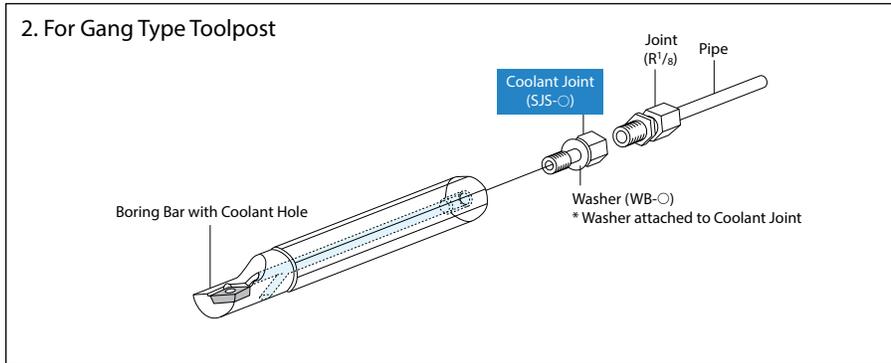


## Coolant Joint Dimensions \*This coolant joint is not applicable for Dynamic Bars



Unit	Part Number	Std. Item	Dimensions				Thread (Toolholder Side)	Thread (Joint Side)	Spare Parts
			D	L1	L2	H			Washer
mm	SJS-5	●	15	15	7	13	M5XP0.8	Rc1/8 (PT1/8)	WB-5
	SJS-6	●	15	15	9	13	M6XP1.0		WB-6
	SJS-8	●	15	15	13	13	M8XP1.25		WB-8

### List of Toolholders and Applicable Joints



Toolholder Part Number	Applicable Coolant Joint
A08-----OOE	SJS-5
A10-----OOE	SJS-5
A12-----OOE	SJS-6
A16-----OOE	SJS-8
A20-----OOE	SJS-8
A25-----OOE	SJS-8
E08-----OO	SJS-5
E10-----OO	SJS-5
E12-----OO	SJS-6
E16-----OO	SJS-8
E20-----OO	SJS-8

\* This Coolant Joint is not applicable for Dynamic Bar

## SHA / SH / SHC Sleeves and Applicable Toolholders

Shank Size (Hole Dia. : mm)	04 (4mm)	05 (5mm)	06 (6mm)	07 (7mm)	08 (8mm)	10 (10mm)	12 (12mm)	16 (16mm)	20 (20mm)	25 (25mm)
Sleeve Part Number	SH0416-100	SH0516-100	SH0616-100	SH0716-100	SH0820-120	SH1020-120	SH1225-150	SH1632-180	SH2032-180	
					SHA0819-120	SHA1019-120				
					SHA0820-120	SHA1020-120				
					SHA0822-125	SHA1022-125	SHA1222-125			
					SHA0823-120	SHA1023-120	SHA1223-120			
					SHA0825.0-135	SHA1025.0-135	SHA1225.0-135			
					SHA0825.4-120	SHA1025.4-120	SHA1225.4-120			
					SHC0840-70	SHC1040-70	SHC1240-70	SHC1640-70	SHC2040-70	SHC2540-70
Boring Bars Part Number	C04-----	C05-----	C06-----	C07-----	A08-----	A10-----	A12-----	A16-----	A20-----	A25-----
					E08-----	E10-----	E12-----	E16-----	E20-----	E25-----
			S06-----		S08-----	S10-----	S12-----	S16-----	S20-----	S25-----
Internal Grooving Toolholder Part Number			SIGC% 0806-WH		SIGC% 1008-WH-L85	SIGCR1210-WH-L95	SIGC% 0812-EH	SIGC% 1016-EH		
					SIGCR1008-WH-L100	SIGC% 1210-WH-110		SIGC% 1216-EH		
					SIGE% 0808A-EH	SIGE% 1010B-EH	SIGE% 1412C-EH	SIGE% 1616C-EH	SIGE% 2020D-EH	SIGE% 2525E-EH
						SIGE% 1210B-EH	SIGE% 1612C-EH			KIGBA% 3525-16
					SIGE% 0808A-WH	SIGE% 1010B-WH	SIGE% 1412C-WH	KGDI% ...16B-	KGDI% 2520B-	KGDI% 3225B-
						SIGE% 1210B-WH	SIGE% 1612C-WH			
					SIGER1008B-WH-90	SIGER1210B-WH-90	SIGER1412C-WH-90			
							GIV% 1412-15E	GIV% 1216-15S	GIV% 1420-15	GIV% 2025-1B
Internal Threading Toolholder Part Number							SINR0612S-06E	SINR0816S-08E	SIN% 2420S-16	CIN% 3025S-16
								SIN% 1216S-11E	SINR2420S-22	CINR3025S-22
								SIN% 1516S-11		
								SIN% 1616S-16		
								SIN% 2016S-16		
									GIV% 2020-18W	GIV% 2525-1CW

For SHA sleeves, see page [F171](#)

For SL / SH / SHC sleeves, see page [F172](#)

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

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

# Recommended Cutting Conditions

Boring: (Positive Insert) - Cutting Diameter under  $\phi 0.394"$  ( $\phi 10\text{mm}$ )

[D.O.C. Indicates Radius]

ISO Class	Workpiece Material	Hardness	Cutting Range	Application	Recommended Chipbreaker	Recommended Insert Grade	Corner-R (RE)	Lower Limit - Recommendation - Upper Limit		
								Vc (sfm)	D.O.C. (in)	f (ipr)
P*	Low-Carbon Steel Low-Carbon Alloy	HB $\leq$ 300	Finishing (Solid Bar)	Continuous Interruption	EZB-F EZB-H	PR1725	0.002 0.006	100 - 230 - 360 100 - 200 - 300	0.002 - 0.004 - 0.008 0.002 - 0.004 - 0.008	0.0004 - 0.0016 - 0.0028 0.0012 - 0.0028 - 0.0039
			Finishing	Continuous Interruption	F	PR1725	0.004 0.008	130 - 260 - 390 130 - 230 - 330	0.002 - 0.003 - 0.004 0.002 - 0.004 - 0.006	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
			Finishing-Medium	Continuous Interruption	CF	PR1725	0.004 0.008	130 - 260 - 390 130 - 230 - 330	0.002 - 0.006 - 0.010 0.002 - 0.006 - 0.010	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
	Medium-Carbon Steel Medium-Carbon Alloy	HB $\leq$ 300	Finishing (Solid Bar)	Continuous Interruption	EZB-F EZB-H	PR1725	0.002 0.006	100 - 230 - 360 100 - 200 - 300	0.002 - 0.004 - 0.008 0.002 - 0.004 - 0.008	0.0004 - 0.0016 - 0.0028 0.0012 - 0.0028 - 0.0039
			Finishing	Continuous Interruption	F	PR1725	0.004 0.008	130 - 260 - 390 130 - 230 - 390	0.002 - 0.003 - 0.004 0.002 - 0.004 - 0.006	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
			Finishing-Medium	Continuous Interruption	CF	PR1725	0.004 0.008	130 - 260 - 390 130 - 230 - 330	0.002 - 0.006 - 0.010 0.002 - 0.006 - 0.010	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
	High-Carbon Alloy	HB $\leq$ 280	Finishing (Solid Bar)	Continuous Interruption	EZB-F EZB-H	PR1725	0.002 0.006	100 - 230 - 360 100 - 200 - 300	0.002 - 0.004 - 0.008 0.002 - 0.004 - 0.008	0.0004 - 0.0016 - 0.0028 0.0012 - 0.0028 - 0.0039
			Finishing	Continuous Interruption	F	PR1725	0.004 0.008	130 - 260 - 390 130 - 230 - 330	0.002 - 0.003 - 0.004 0.002 - 0.004 - 0.006	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
			Finishing-Medium	Continuous Interruption	CF	PR1725	0.004 0.008	130 - 260 - 390 130 - 230 - 330	0.002 - 0.006 - 0.010 0.002 - 0.006 - 0.010	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
M	Stainless Steel	HB $\leq$ 220	Finishing (Solid Bar)	Continuous Interruption	EZB-F EZB-H	PR1725	0.002 0.006	100 - 200 - 260 100 - 200 - 260	0.002 - 0.004 - 0.008 0.002 - 0.004 - 0.008	0.0004 - 0.0012 - 0.0020 0.0008 - 0.0020 - 0.0028
			Finishing	Continuous Interruption	F	PR1225 PR1535	0.004 0.008	100 - 200 - 260 100 - 200 - 260	0.002 - 0.003 - 0.004 0.002 - 0.004 - 0.006	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
			Finishing-Medium	Continuous Interruption	CF	PR1225 PR1535	0.004 0.008	100 - 200 - 260 100 - 200 - 260	0.002 - 0.006 - 0.010 0.002 - 0.006 - 0.010	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
	Stainless Steel	HB $\leq$ 300	Finishing (Solid Bar)	Continuous Interruption	EZB-F EZB-H	PR1725	0.002 0.006	100 - 200 - 260 100 - 200 - 260	0.002 - 0.004 - 0.008 0.002 - 0.004 - 0.008	0.0004 - 0.0012 - 0.0020 0.0008 - 0.0020 - 0.0028
			Finishing	Continuous Interruption	F	PR1225 PR1535	0.004 0.008	100 - 200 - 260 100 - 200 - 260	0.002 - 0.003 - 0.004 0.002 - 0.004 - 0.006	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
			Finishing-Medium	Continuous Interruption	CF	PR1225 PR1535	0.004 0.008	100 - 200 - 260 100 - 200 - 260	0.002 - 0.006 - 0.010 0.002 - 0.006 - 0.010	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
K	Gray Cast Iron	HB $\leq$ 250	Finishing (Solid Bar)	Continuous Interruption	(VNB) (VNB-NB)	KW10	0.001 0.008	100 - 200 - 330 100 - 200 - 330	0.002 - 0.003 - 0.004 0.002 - 0.004 - 0.006	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
			Finishing	Continuous Interruption	F	KW10	0.004 0.008	100 - 200 - 330 100 - 200 - 260	0.002 - 0.003 - 0.004 0.002 - 0.004 - 0.006	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
			Finishing-Medium	Continuous Interruption	Without Chipbreaker	KW10	0.008 1/64	100 - 200 - 330 100 - 200 - 260	0.004 - 0.008 - 0.012 0.004 - 0.008 - 0.012	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
	Nodular Cast Iron	HB $\leq$ 270	Finishing (Solid Type)	Continuous Interruption	(VNB) (VNB-NB)	KW10	0.001 0.008	100 - 200 - 260 100 - 200 - 260	0.002 - 0.003 - 0.004 0.002 - 0.004 - 0.006	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
			Finishing	Continuous Interruption	F, U	KW10	0.004 0.008	100 - 200 - 260 100 - 200 - 260	0.002 - 0.003 - 0.004 0.002 - 0.004 - 0.006	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
			Finishing-Medium	Continuous Interruption	Without Chipbreaker	KW10	0.008 1/64	100 - 200 - 330 100 - 200 - 260	0.004 - 0.008 - 0.012 0.004 - 0.008 - 0.012	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
N	Non-Ferrous Metals Copper Alloy Aluminum Aluminum Alloy	HB $\leq$ 100	High Speed Finishing (Surface Finish Oriented)	Continuous	Without Chipbreaker	KPD001	0.002	490 - 660 - 980	0.002 - 0.004 - 0.012	0.0020 - 0.0039 - 0.0059
			Finishing (Long Tool Life)	Continuous Interruption	F, U	PDL025	0.004 0.008	330 - 490 - 660 330 - 490 - 660	0.002 - 0.012 - 0.020 0.002 - 0.012 - 0.020	0.0012 - 0.0039 - 0.0079 0.0012 - 0.0039 - 0.0079
			Finishing	Continuous Interruption	F, U	KW10	0.004 0.008	330 - 490 - 660 330 - 490 - 660	0.002 - 0.012 - 0.020 0.002 - 0.012 - 0.020	0.0012 - 0.0039 - 0.0079 0.0012 - 0.0039 - 0.0079
S	Titanium Alloy	HB $\leq$ 400	Precision Finishing (Surface Finish Oriented)	Continuous Interruption	Without Chipbreaker	KPD001	0.004 0.008	330 - 390 - 490 230 - 330 - 390	0.002 - 0.004 - 0.012 0.002 - 0.004 - 0.012	0.0012 - 0.0028 - 0.0039 0.0012 - 0.0028 - 0.0039
			Finishing	Continuous Interruption	F, U	KW10	0.004 0.008	70 - 130 - 200 70 - 130 - 200	0.002 - 0.008 - 0.020 0.002 - 0.008 - 0.020	0.0012 - 0.0039 - 0.0079 0.0012 - 0.0039 - 0.0079
	Heat-Resistant Alloys	HB $\leq$ 350	Finishing (Solid Bar)	Continuous Interruption	(VNB)	KW10	0.008 0.008	30 - 100 - 160 30 - 100 - 160	0.002 - 0.004 - 0.012 0.002 - 0.004 - 0.012	0.0012 - 0.0020 - 0.0039 0.0012 - 0.0020 - 0.0031
			Finishing	Continuous Interruption	F, U	KW10	0.008 0.008	30 - 100 - 160 30 - 100 - 160	0.002 - 0.008 - 0.016 0.002 - 0.008 - 0.016	0.0012 - 0.0020 - 0.0039 0.0012 - 0.0020 - 0.0039
H	Hardened Steel Hardened Materials	40 ~ 50 HRC	Finishing	Continuous Interruption	(VNB)	PR930	0.008 0.008	100 - 160 - 230 100 - 160 - 230	0.002 - 0.004 - 0.016 0.002 - 0.004 - 0.008	0.0004 - 0.0008 - 0.0020 0.0004 - 0.0008 - 0.0012
		45 ~ 68 HRC	Finishing	Continuous Interruption	ME MES	KBN010	0.008 1/64	200 - 330 - 460 200 - 260 - 390	0.002 - 0.004 - 0.008 0.002 - 0.004 - 0.008	0.0008 - 0.0020 - 0.0039 0.0008 - 0.0020 - 0.0039

\* For machining free-cutting steels, use PR1725 at Vc = 490 sfm or less.  
For D.O.C. and f, refer to specs for low carbon steels.

# Recommended Cutting Conditions

Boring: (Positive Insert) - Cutting Diameter over  $\phi 0.394"$  ( $\phi 10\text{mm}$ )

[D.O.C. Indicates Radius]

ISO Class	Workpiece Material	Hardness	Cutting Range	Application	Recommended Chipbreaker	Recommended Insert Grade	Corner-R (RE)	Lower Limit - Recommendation - Upper Limit		
								Vc (sfm)	D.O.C. (in)	f (ipr)
P*	Low-Carbon Steel Low-Carbon Alloy	HB $\leq$ 300	Precision Finishing	Continuous Interruption	F, U	TN620 PR1725	0.004 0.008	820 - 980 - 1150 390 - 560 - 720	0.002 - 0.004 - 0.008 0.002 - 0.004 - 0.008	0.0004 - 0.0016 - 0.0028 0.0012 - 0.0028 - 0.0039
			Finishing	Continuous Interruption	XP	PV710 CA125P	0.016 0.016	660 - 820 - 980 490 - 660 - 820	0.002 - 0.003 - 0.004 0.002 - 0.004 - 0.006	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
			Finishing-Medium	Continuous Interruption	XQ	PV710 CA125P	0.016 0.016	490 - 660 - 820 330 - 490 - 660	0.002 - 0.003 - 0.004 0.002 - 0.004 - 0.006	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
			Medium	Continuous Interruption	Standard	PV720 CA125P	0.032 0.032	330 - 490 - 660 260 - 390 - 490	0.002 - 0.003 - 0.004 0.002 - 0.004 - 0.006	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
	Medium-Carbon Steel Medium-Carbon Alloy	HB $\leq$ 300	Precision Finishing	Continuous Interruption	F, U	TN620 PR1725	0.008 0.016	490 - 660 - 820 390 - 460 - 560	0.002 - 0.003 - 0.004 0.002 - 0.004 - 0.006	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
			Finishing	Continuous Interruption	PP	PV710 CA125P	0.016 0.016	490 - 660 - 820 390 - 590 - 660	0.002 - 0.003 - 0.004 0.002 - 0.004 - 0.006	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
			Finishing-Medium	Continuous Interruption	HQ	PV710 CA125P	0.016 0.016	390 - 590 - 720 330 - 490 - 660	0.002 - 0.003 - 0.004 0.002 - 0.004 - 0.006	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
			Medium	Continuous Interruption	Standard	PV720 CA125P	0.032 0.032	330 - 490 - 660 260 - 390 - 490	0.002 - 0.003 - 0.004 0.002 - 0.004 - 0.006	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
	High-Carbon Alloy	HB $\leq$ 280	Precision Finishing	Continuous Interruption	F, U	TN620 PR1725	0.008 0.016	390 - 490 - 590 360 - 430 - 520	0.002 - 0.004 - 0.008 0.002 - 0.004 - 0.008	0.0004 - 0.0016 - 0.0028 0.0012 - 0.0028 - 0.0039
			Finishing	Continuous Interruption	PP	PV710 CA125P	0.016 0.016	390 - 490 - 590 330 - 390 - 490	0.002 - 0.003 - 0.004 0.002 - 0.004 - 0.006	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
			Finishing-Medium	Continuous Interruption	HQ	PV710 CA125P	0.016 0.016	390 - 490 - 590 330 - 390 - 490	0.002 - 0.006 - 0.010 0.002 - 0.006 - 0.010	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
			Medium	Continuous Interruption	Standard	CA515 CA125P	0.032 0.032	330 - 390 - 490 260 - 330 - 390	0.002 - 0.006 - 0.010 0.002 - 0.006 - 0.010	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
M	Stainless Steel	HB $\leq$ 220	Finishing	Continuous Interruption	MQ	CA6525 PR1535	0.016 0.032	390 - 490 - 590 330 - 390 - 490	0.002 - 0.004 - 0.008 0.002 - 0.004 - 0.008	0.0004 - 0.0012 - 0.0020 0.0008 - 0.0020 - 0.0028
			Medium	Continuous Interruption	Standard	CA6525 PR1535	0.016 0.032	390 - 490 - 590 330 - 390 - 490	0.002 - 0.006 - 0.010 0.002 - 0.006 - 0.010	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
	Stainless Steel	HB $\leq$ 300	Finishing	Continuous Interruption	MQ	CA6525 PR1535	0.016 0.032	260 - 330 - 390 200 - 260 - 330	0.002 - 0.004 - 0.008 0.002 - 0.004 - 0.008	0.0004 - 0.0012 - 0.0020 0.0008 - 0.0020 - 0.0028
			Medium	Continuous Interruption	Standard	CA6525 PR1535	0.016 0.032	260 - 330 - 390 200 - 260 - 330	0.002 - 0.006 - 0.010 0.002 - 0.006 - 0.010	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
K	Gray Cast Iron	HB $\leq$ 250	High Speed Machining	Continuous Interruption	Without Chipbreaker	KBN475 PT600M	0.016 0.032	1310 - 1640 - 1970 660 - 820 - 1150	0.002 - 0.003 - 0.004 0.002 - 0.004 - 0.006	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
			Finishing (Surface Finish Oriented)	Continuous Interruption	Standard	PV7005 TN620	0.032 0.032	660 - 820 - 980 390 - 590 - 750	0.002 - 0.003 - 0.004 0.002 - 0.004 - 0.006	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
			Finishing	Continuous Interruption	Standard	CA410K CA415K	0.016 0.032	490 - 940 - 1550 400 - 730 - 1060	0.004 - 0.008 - 0.012 0.004 - 0.008 - 0.012	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
			Medium	Continuous Interruption	Standard	CA410K CA415K	0.032 0.032	330 - 780 - 1550 310 - 580 - 880	0.004 - 0.008 - 0.012 0.004 - 0.008 - 0.012	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
	Nodular Cast Iron	HB $\leq$ 270	High Speed Machining	Continuous Interruption	Without Chipbreaker	KBN60M PT600M	0.016 0.032	660 - 980 - 1310 490 - 660 - 820	0.002 - 0.003 - 0.004 0.002 - 0.004 - 0.006	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
			Finishing (Surface Finish Oriented)	Continuous Interruption	Standard	PV7005 TN620	0.032 0.032	490 - 660 - 820 390 - 490 - 660	0.002 - 0.003 - 0.004 0.002 - 0.004 - 0.006	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
			Finishing	Continuous Interruption	Standard	CA410K CA415K	0.016 0.032	530 - 850 - 1180 410 - 540 - 780	0.004 - 0.008 - 0.012 0.004 - 0.008 - 0.012	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
			Medium	Continuous Interruption	Standard	CA410K CA415K	0.032 0.032	440 - 680 - 980 330 - 460 - 620	0.004 - 0.008 - 0.012 0.004 - 0.008 - 0.012	0.0012 - 0.0020 - 0.0028 0.0012 - 0.0028 - 0.0039
N	Non-Ferrous Metals Copper Alloy Aluminum Aluminum Alloy	HB $\leq$ 100	High Speed Finishing (Surface Finish Oriented)	Continuous	Without Chipbreaker	KPD001	0.008	660 - 1310 - 3280	0.002 - 0.004 - 0.012	0.0020 - 0.0039 - 0.0059
			Finishing (Long Tool Life)	Continuous Interruption	F, U	PDL025	0.016 0.016	330 - 660 - 1310 330 - 660 - 1310	0.002 - 0.012 - 0.020 0.002 - 0.012 - 0.020	0.0012 - 0.0039 - 0.0079 0.0012 - 0.0039 - 0.0079
			Finishing	Continuous Interruption	F, U	KW10	0.016 0.016	330 - 660 - 1310 330 - 660 - 1310	0.002 - 0.012 - 0.020 0.002 - 0.012 - 0.020	0.0012 - 0.0039 - 0.0079 0.0012 - 0.0039 - 0.0079
S	Titanium Alloy	HB $\leq$ 400	Precision Finishing (Surface Finish Oriented)	Continuous Interruption	Without Chipbreaker	KPD001	0.008 0.016	330 - 390 - 490 230 - 330 - 390	0.002 - 0.004 - 0.012 0.002 - 0.004 - 0.012	0.0012 - 0.0028 - 0.0039 0.0012 - 0.0028 - 0.0039
			Finishing	Continuous Interruption	F, U	KW10	0.008 0.016	100 - 160 - 230 100 - 160 - 230	0.002 - 0.008 - 0.020 0.002 - 0.008 - 0.020	0.0012 - 0.0039 - 0.0079 0.0012 - 0.0039 - 0.0079
	Heat-Resistant Alloys	HB $\leq$ 350	Finishing	Continuous Interruption	F, U	KW10	0.016 0.016	30 - 100 - 160 30 - 100 - 160	0.002 - 0.004 - 0.012 0.002 - 0.004 - 0.012	0.0012 - 0.0020 - 0.0039 0.0012 - 0.0020 - 0.0039
			Finishing	Continuous Interruption	MQ	PR1155	0.016 0.032	130 - 200 - 260 130 - 200 - 260	0.002 - 0.008 - 0.016 0.002 - 0.008 - 0.016	0.0012 - 0.0020 - 0.0039 0.0012 - 0.0020 - 0.0039
H	Hardened Steel Hardened Materials	40 ~ 50 HRC	Finishing	Continuous Interruption	HQ Standard	CA515	0.032 0.032	200 - 260 - 330 100 - 160 - 230	0.002 - 0.004 - 0.016 0.002 - 0.004 - 0.008	0.0004 - 0.0008 - 0.0020 0.0004 - 0.0008 - 0.0012
			Finishing	Continuous Interruption	ME MET	KBN010 KBN015	0.016 0.032	330 - 460 - 590 300 - 390 - 520	0.002 - 0.008 - 0.016 0.002 - 0.008 - 0.016	0.0012 - 0.0020 - 0.0039 0.0012 - 0.0020 - 0.0039
		Medium	Continuous	Without Chipbreaker (Negative)	KBN900	0.032	200 - 260 - 330	0.002 - 0.004 - 0.008	0.0008 - 0.0020 - 0.0039	

\* For machining free-cutting steels:  
 Use PR1725 when machining Vc = 660 sfm or less  
 Use PV720 or CA515 when machining Vc = 660 or more  
 For D.O.C. and f, refer to specs for low carbon steels.

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

