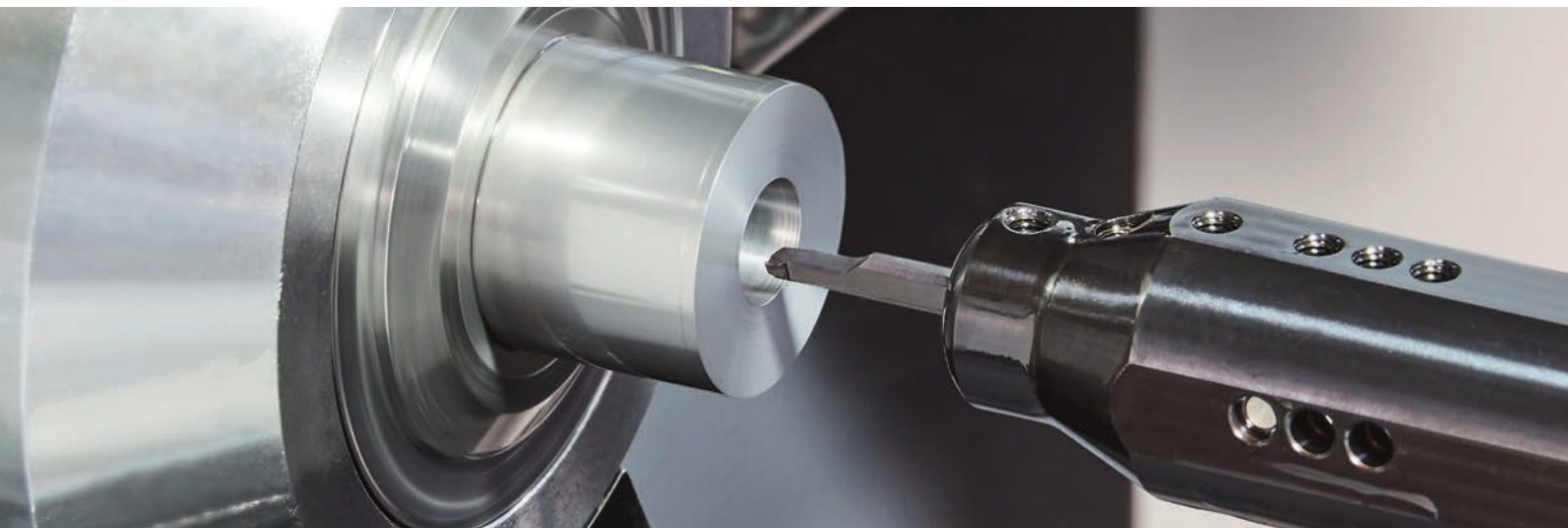


Small Internal Machining

EZ Bar Series



Complete Lineup for a Wide Range of Small Internal Machining Applications

Selecting the proper tool in a simple step

Easy adjustment and high precision

Four chipbreakers for a wide range of machining applications

- Internal Machining Solutions for
Numerous Processes -

**NEW**

G Chipbreaker
Chip Control Oriented

**PR1725**

EZ Bar Series

Large Tooling Lineup for a Wide Application Range

1 Machining Applications

2 Chipbreaker

3 Sleeve

4 Solid Bar

1

Large Tooling Lineup. Select the proper tool in a simple step

Internal Turning

Supports wide range of Internal Machining Applications

Boring

EZB → P8 ~ 12

Chipbreakers

H



1st Recommendation /
General Purpose
Extended reach
type available

→ P8,10 ~ 11 **PR1725**

G

NEW



Excellent Chip Control
Performance

→ P8 **PR1725**

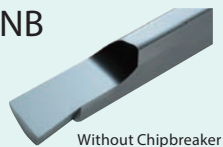
F



Finishing /
Sharpness Oriented

→ P9,11 **PR1725**

NB



GW05 Insert Grade for
Aluminum Machining
Available

→ P12 **PR1725**

45 Degree Chamfering

EZBC → P16

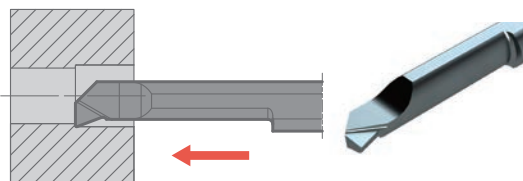
Copying

EZBP → P15

APMX 0.3 ~ 1.0 mm
Compatible with
45 degree copying

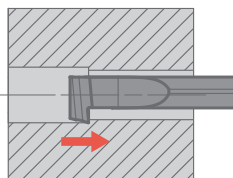
90 Degree Lead Angle

EZBF → P13



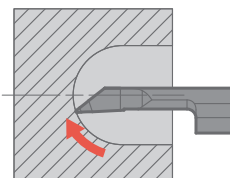
Back Boring

EZBT → P14



Internal Facing • Internal Profiling

EZVB → P14



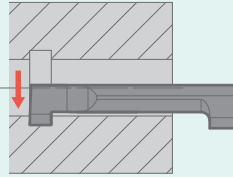
Grooving

High precision groove width tolerance $\pm 0.03\text{mm}$

Internal Grooving

EZG $\rightarrow$ P19

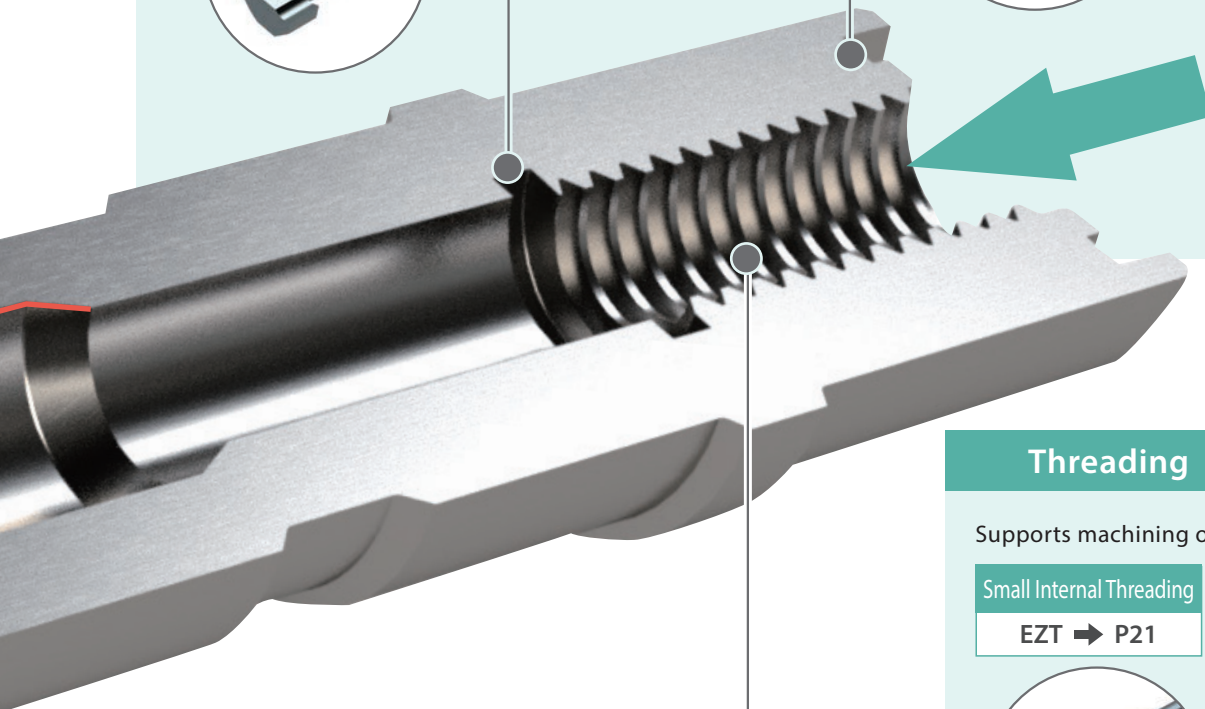
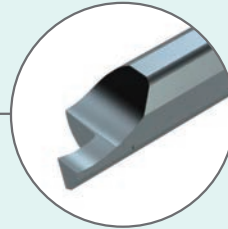
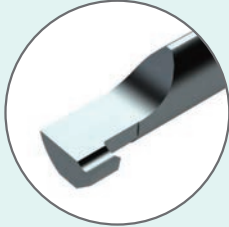
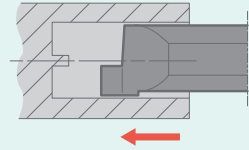
Two different overhang lengths (LU) are available
Groove width 0.5 ~ 2.0 mm



Face Grooving

EZFG $\rightarrow$ P20

Groove width 1.0 ~ 3.0 mm

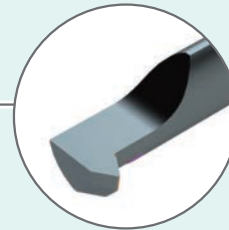
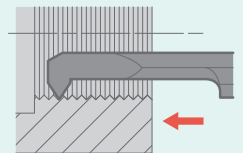


Threading

Supports machining of M4 metric screws

Small Internal Threading

EZT $\rightarrow$ P21



Point

Supports a **Wide Range of Small** Machining Diameters

			Min. Cutting Dia.(mm)									
Application	Details	Description	ø2	ø3	ø4	ø5	ø6	ø7	ø8	ø9	ø10	
Internal Turning	Boring	EZB										
	90 Degree Lead Angle	EZBF										
	Back Boring	EZBT										
	Copying	EZBP										
	Internal Facing • Internal Profiling	EZVB										
	45 Degree Chamfering	EZBC										
	EZ Bar PLUS											
Grooving	Internal Grooving	EZG										
	Face Grooving*	EZFG										
Threading	Small Internal Threading*	EZT										

* For Face Grooving, indicates the Min. Face Grooving Dia.

* For Small Internal Threading, indicates the minimum pilot hole diameter.

2

4 Chipbreakers and New PVD Coating PR 1725 for a Wide Range of Machining Processes

H Chipbreaker (Without Lead Angle)

1st Recommendation / General Purpose

Recommended a_p : 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

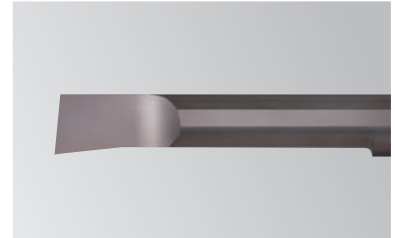
Recommended a_p : Less than 0.2mm

PR1725

Available

NB Chipbreaker (without Chipbreaker)

Non-ferrous Metal Machining



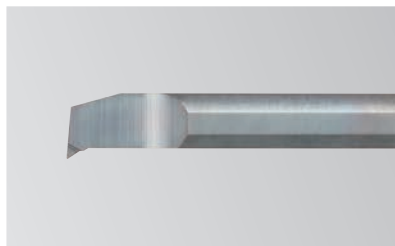
PCD.CBN Inserts Available

GW05 Insert Grade for Aluminum
Machining Available

NEW

G Chipbreaker (With Lead Angle)

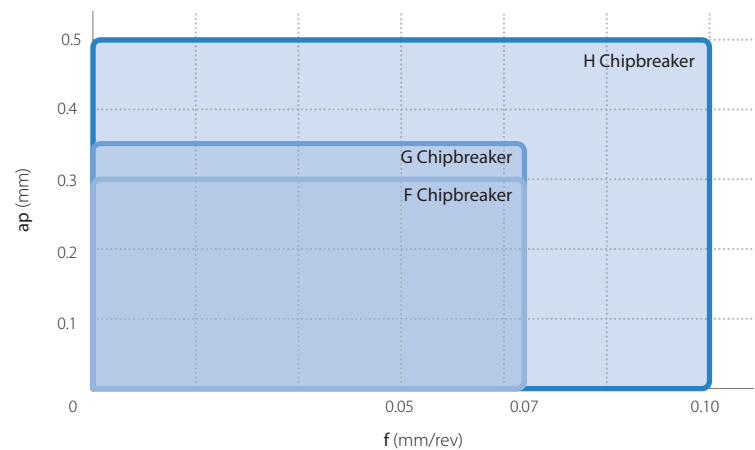
Chip Control Oriented



PR1725

Available

Applicable Chipbreaker Range

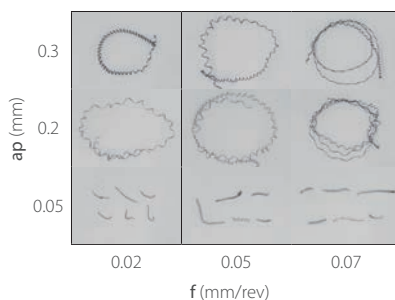


Check Cutting Performance Comparison

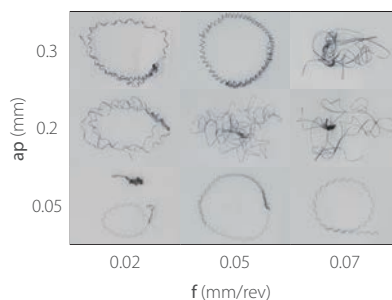
Chip Control Comparison

Stable Chip Curls and Good Chip Breaking

G Chipbreaker



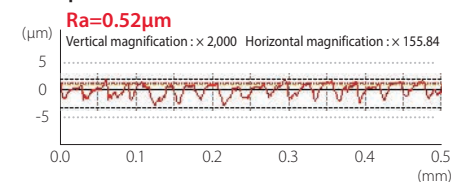
Competitor (With Lead Angle)

Cutting Conditions: $V_c = 80$ m/min, Wet Workpiece: S45C (Internal evaluation)

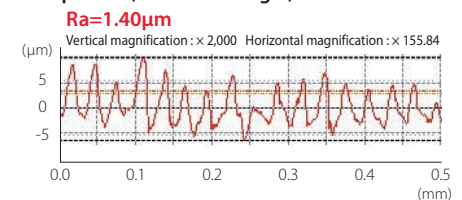
Surface Finish Comparison

Excellent Surface Finish

G Chipbreaker



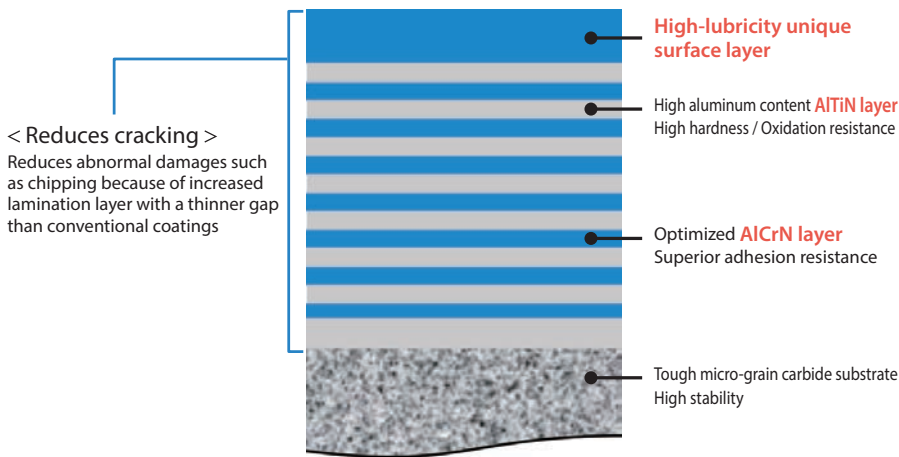
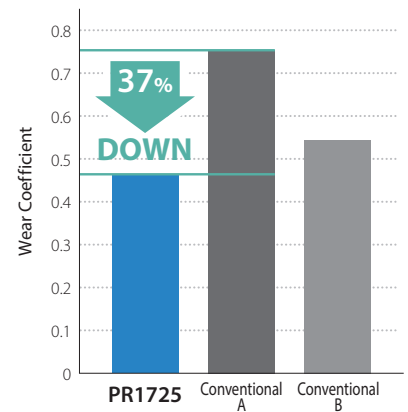
Competitor (With Lead Angle)

Using Tool : RE = 0.05 mm, Shank Diameter $\phi 4$ (Internal evaluation)

New PVD Coating

PR1725**MEGACOAT NANO PLUS Maintains Long Tool Life and Excellent Surface Finish. Great Performance in Small Parts Machining Applications****Long tool life leads to improved cycle time****Excellent surface finish with no tearing lowers quality control costs**

MEGACOAT® NANO PLUS

AlTiN/AlCrN Nano laminated film with superior wear resistance and adhesion resistance
Excellent Surface Finish and Long Tool Life**Wear Coefficient Comparison**
(Internal evaluation)

Superior Wear and Chipping Resistance

High hardness with nano laminated film layer properties
Internal stress optimization reduces chipping

Excellent Surface Finish

Special surface layer with great lubricity reduces adhesion

Applicable to Various Workpiece Materials

Excellent oxidation resistance. Superior high temperature properties maintains good performance in steel, stainless steel and free-cutting steel

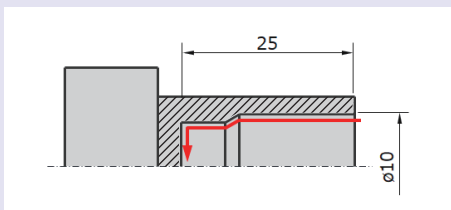
High Machining Stability

Tough micro-grain carbide substrate provides stable machining

SOLUTION 1

Improved machining efficiency. 2.8 times longer tool life

Automotive Parts (S45C)



Vc = 50 m/min
ap = 0.2 mm
f = 0.045 mm/rev
Wet
EZBR035035HP-015F PR1725

SOLUTION EZ Bar PR1725

18,000 pcs/edge**x2.8**
Tool Life

Conventional Conventional C

6,300 pcs/edgeThe EZ bar (PR1725) showed **2.8 times**
longer tool life than the conventional C

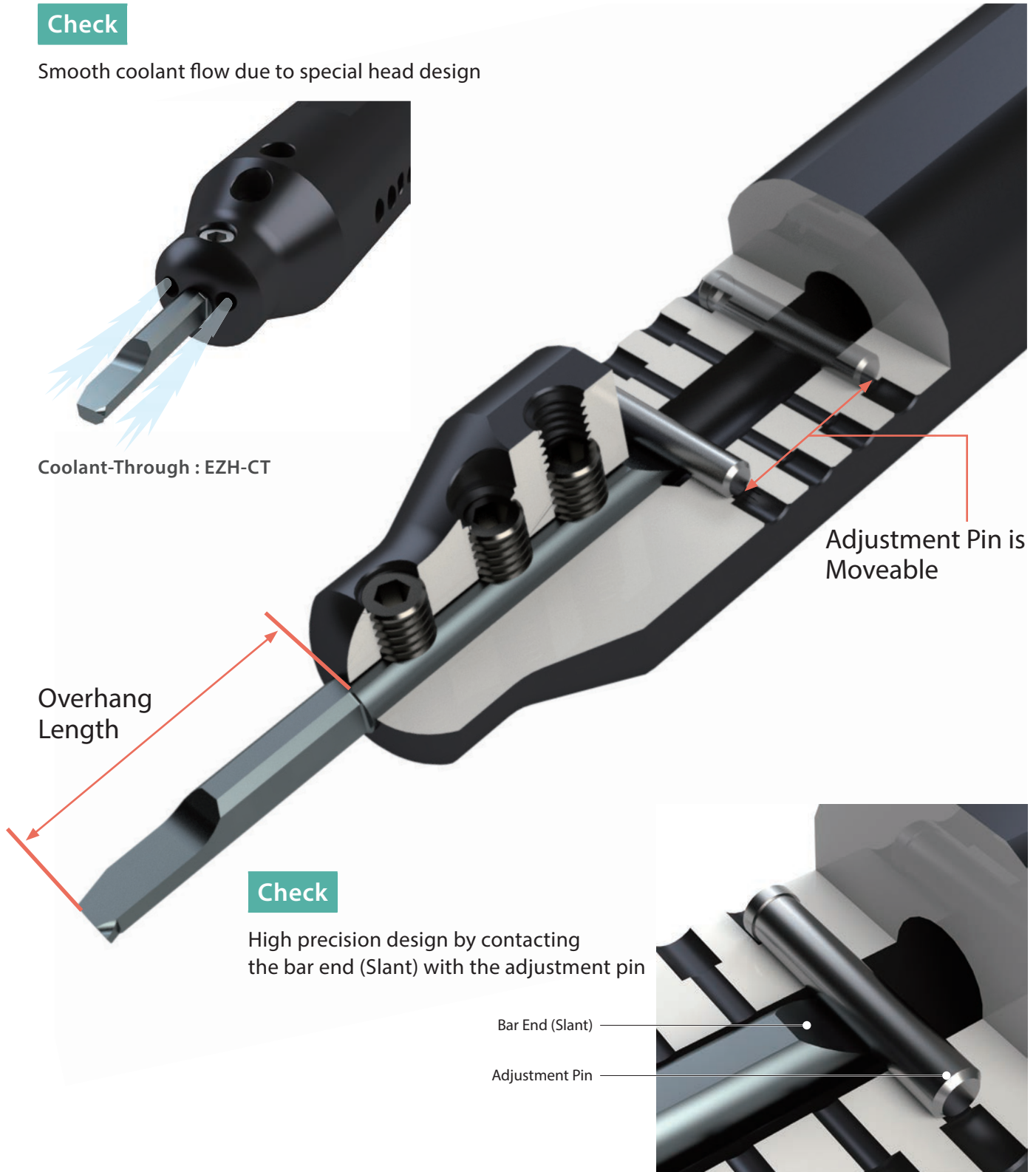
(User Evaluation)

3 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

Check

Smooth coolant flow due to special head design



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



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

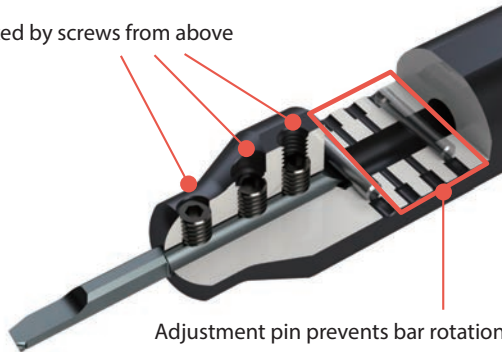


The EZ Bar prevents deviation with high-rigidity clamping

The adjustment pin prevents the bar from rotating during machining

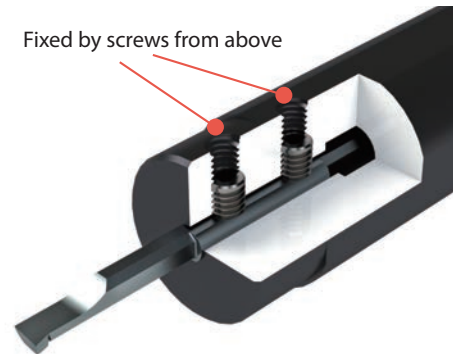
EZ Bar

Fixed by screws from above



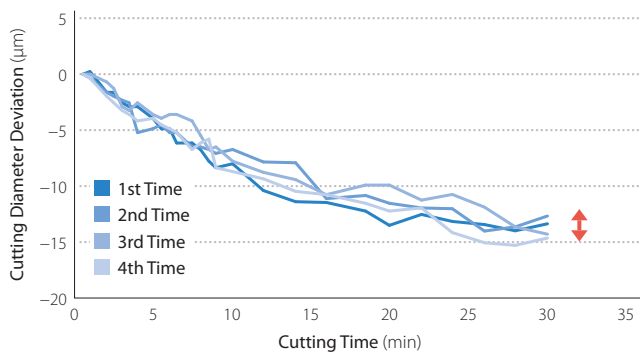
Competitor

Fixed by screws from above

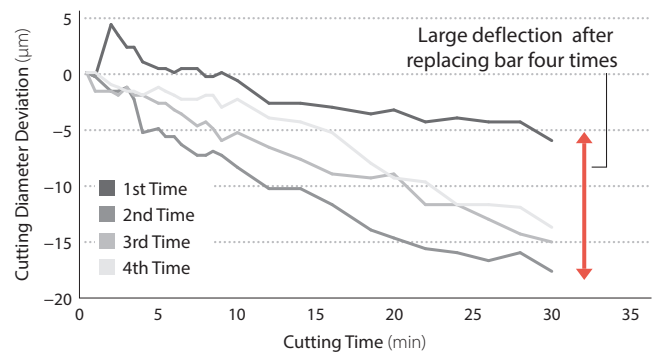


Cutting Diameter Deviation Comparison (Internal Evaluation)

EZ Bar



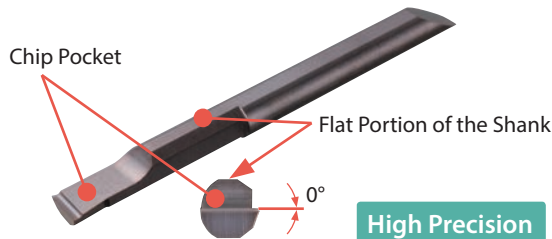
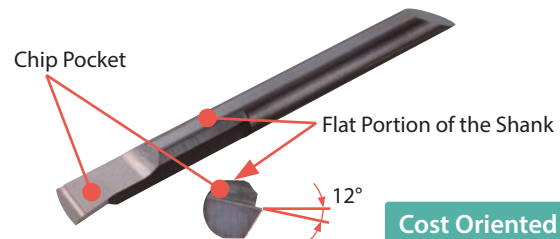
Competitor A



Cutting conditions : $V_c = 66$ m/min, $a_p = 0.1$ mm, $f = 0.02$ mm/rev, Wet (Oil-based) Workpiece : SK4

4

Select the HP bar for high precision and the ST bar for cost reduction for Boring (tolerances are different)

HP (EZB-HP)**ST** (EZB-ST)

Bar Tolerance

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

EZ Bar PLUS → P23 ~ 24

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

**Indexable EZ Bar**

Minimum Bore Diameter 5 mm

Point

Minimum Bore Diameter 5 mm

Point

Reduces Installing Times by 1/3

Carbide or steel bars can be selected
depending on the machining purpose



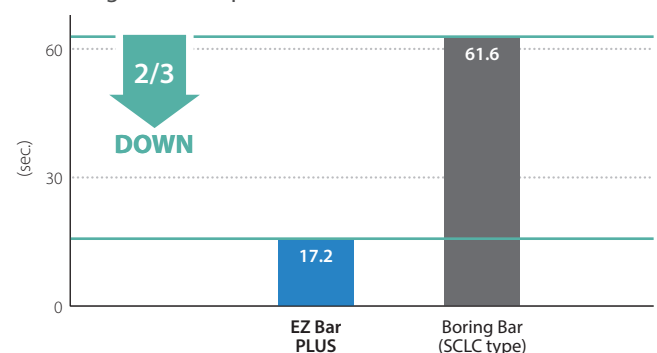
Carbide Bar



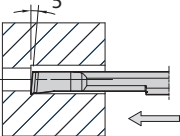
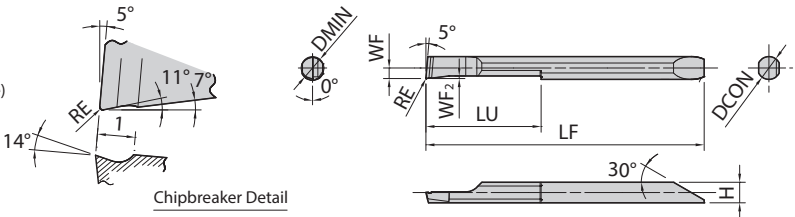
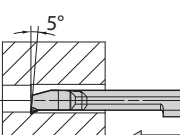
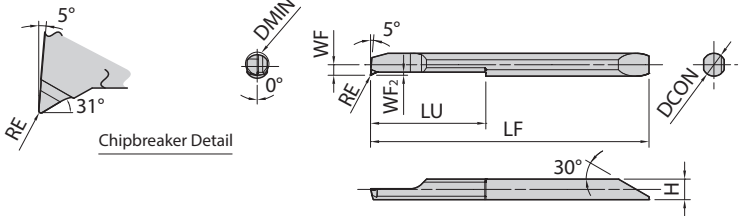
Steel Bar

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

Mounting Time Comparison (Internal Evaluation)



*Average values from 5 tests

	Boring : H Chipbreaker • Without Lead Angle • Tough Edge (General Purpose) • Right-hand Shown Chipbreaker Detail 
NEW 	Boring : G Chipbreaker • Chip Control Oriented • Right-hand Shown Chipbreaker Detail 

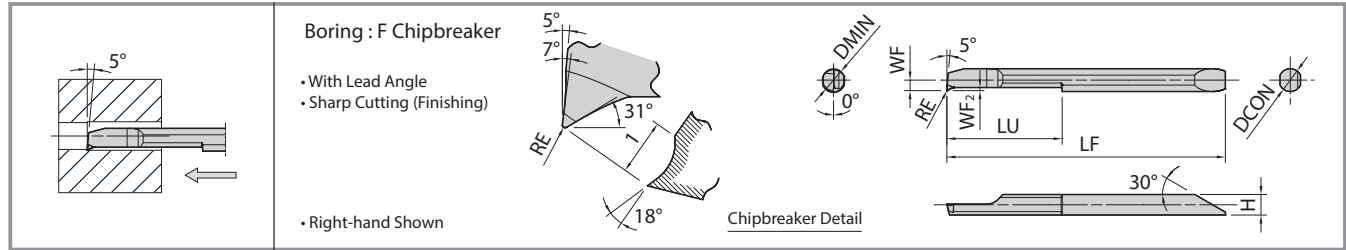
EZ Bar Dimensions HP

High Precision

Description		Min. Bore Dia.	Dimensions (mm)							Grade						Applicable Sleeve
										MEGACOAT NANO PLUS		MEGACOAT		Carbide		
										PR1725		PR1225		GW05		
			DMIN	DCON	H	LF	LU	WF	WF ₂	RE	R	L	R	L	R	
EZB ^{R/L}	020020HP-008H	2	2	1.8	32	8	0.85	0.25	0.08 ^{±0.015}	●		●	●	●		EZH020...
	025025HP-008H	2.5	2.5	2.3	35	10.5	1.1	0.25	0.08 ^{±0.015}	●		●	●	●		EZH025...
	025025HP-015H								0.15 ^{±0.02}	●		●				
	030030HP-008H	3	3	2.7	38.9	13	1.35	0.3	0.08 ^{±0.015}	●		●	●	●		EZH030...
	030030HP-015H								0.15 ^{±0.02}	●		●				
	035035HP-008H	3.5	3.5	3.2	41.9	15	1.6	0.4	0.08 ^{±0.015}	●		●	●	●		EZH035...
	035035HP-015H								0.15 ^{±0.02}	●		●				
	040040HP-008H	4	4	3.6	48.8	20	1.85	0.4	0.08 ^{±0.015}	●		●	●	●		EZH040...
	040040HP-015H								0.15 ^{±0.02}	●		●				
	045045HP-008H	4.5	4.5	4.1	51.1	22.5	2.1	0.5	0.08 ^{±0.015}	●		●	●	●		EZH045...
	045045HP-015H								0.15 ^{±0.02}	●		●				
	050050HP-008H	5	5	4.6	58.1	25	2.35	0.5	0.08 ^{±0.015}	●		●	●	●		EZH050...
	050050HP-015H								0.15 ^{±0.02}	●		●				
	060060HP-008H	6	6	5.6	66.1	30	2.85	0.6	0.08 ^{±0.015}	●		●	●	●		EZH060...
	060060HP-015H								0.15 ^{±0.02}	●		●				
	070070HP-008H	7	7	6.3	73.8	35	3.3	0.7	0.08 ^{±0.015}	●		●	●	●		EZH070...
	070070HP-015H								0.15 ^{±0.02}	●		●				
	080080HP-008H	8	8	7.2	84.8	40	3.75	0.8	0.08 ^{±0.015}	●		●	●	●		EZH080...
	080080HP-015H								0.15 ^{±0.02}	●		●				
EZBR	020020HP-005G	2	2	1.65	31.8	8	0.55	0.25	0.05 ^{±0.01}	●						EZH020...
	025025HP-005G	2.5	2.5	2.15	34.8	10.5	0.8	0.3	0.05 ^{±0.01}	●						EZH025...
	025025HP-015G								0.15 ^{±0.02}	●						
	030030HP-005G	3	3	2.5	38.7	13	1.05	0.4	0.05 ^{±0.01}	●						EZH030...
	030030HP-015G								0.15 ^{±0.02}	●						
	035035HP-005G	3.5	3.5	3	41.7	15	1.3	0.5	0.05 ^{±0.01}	●						EZH035...
	035035HP-015G								0.15 ^{±0.02}	●						
	040040HP-005G	4	4	3.45	48.7	20	1.55	0.5	0.05 ^{±0.01}	●						EZH040...
	040040HP-015G								0.15 ^{±0.02}	●						
	045045HP-005G	4.5	4.5	3.95	50.9	22.5	1.8	0.7	0.05 ^{±0.01}	●						EZH045...
	045045HP-015G								0.15 ^{±0.02}	●						
	050050HP-005G	5	5	4.3	57.8	25	2.05	0.7	0.05 ^{±0.01}	●						EZH050...
	050050HP-015G								0.15 ^{±0.02}	●						
	060060HP-005G	6	6	5.15	65.7	30	2.55	0.9	0.05 ^{±0.01}	●						EZH060...
	060060HP-015G								0.15 ^{±0.02}	●						
	070070HP-005G	7	7	6.15	73.7	35	3.05	1	0.05 ^{±0.01}	●						EZH070...
	070070HP-015G								0.15 ^{±0.02}	●						
	080080HP-005G	8	8	7.1	84.8	40	3.55	1	0.05 ^{±0.01}	●						EZH080...
	080080HP-015G								0.15 ^{±0.02}	●						

Tolerance (of the reference pin) : Offset ±0.025mm, Overall Length ±0.05mm, Edge Height +0.05/0mm
 *See P7 for details on tolerances

Bars are Sold in 1 Piece Boxes
 ● : Std. Item



EZ Bar Dimensions HP High Precision

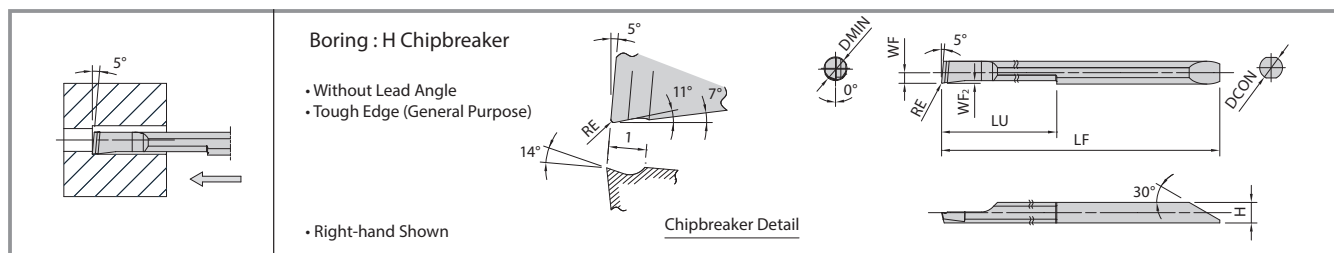
Description		Min. Bore Dia.	Dimensions (mm)							Grade						Applicable Sleeve	
										MEGACOAT NANO PLUS		MEGACOAT		Carbide			
			DMIN	DCON	H	LF	LU	WF	WF ₂	RE	PR1725		PR1225		GW05		
											R	L	R	L	R		L
EZBR	020020HP-005F	2	2	1.8	32	8	0.85	0.25	0.05 ^{±0.01}	●		●				EZH020...	
	025025HP-005F	2.5	2.5	2.3	35	10.5	1.1	0.3	0.05 ^{±0.01}	●		●				EZH025...	
	025025HP-015F								0.15 ^{±0.02}	●		●					
	030030HP-005F	3	3	2.7	38.9	13	1.35	0.4	0.05 ^{±0.01}	●		●				EZH030...	
	030030HP-015F								0.15 ^{±0.02}	●		●					
	035035HP-005F	3.5	3.5	3.2	41.9	15	1.6	0.5	0.05 ^{±0.01}	●		●				EZH035...	
	035035HP-015F								0.15 ^{±0.02}	●		●					
	040040HP-005F	4	4	3.6	48.8	20	1.85	0.5	0.05 ^{±0.01}	●		●				EZH040...	
	040040HP-015F								0.15 ^{±0.02}	●		●					
	045045HP-005F	4.5	4.5	4.1	51.1	22.5	2.1	0.7	0.05 ^{±0.01}	●		●				EZH045...	
	045045HP-015F								0.15 ^{±0.02}	●		●					
	050050HP-005F	5	5	4.6	58.1	25	2.35	0.7	0.05 ^{±0.01}	●		●				EZH050...	
	050050HP-015F								0.15 ^{±0.02}	●		●					
	060060HP-005F	6	6	5.6	66.1	30	2.85	0.9	0.05 ^{±0.01}	●		●				EZH060...	
	060060HP-015F								0.15 ^{±0.02}	●		●					
	070070HP-005F	7	7	6.3	73.8	35	3.3	1	0.05 ^{±0.01}	●		●				EZH070...	
	070070HP-015F								0.15 ^{±0.02}	●		●					
	080080HP-005F	8	8	7.2	84.8	40	3.75	1	0.05 ^{±0.01}	●		●				EZH080...	
	080080HP-015F								0.15 ^{±0.02}	●		●					

Tolerance (of the reference pin) : Offset ±0.025mm, Overall Length ±0.05mm, Edge Height +0.05/0mm

*See P7 for details on tolerances

Bars are Sold in 1 Piece Boxes

● : Std. Item



EZ Bar Dimensions HP High Precision Extended reach type

Description		Min. Bore Dia.	Dimensions (mm)										Grade	Applicable Sleeve	
													MEGACOAT		
			DMIN	DCON	H	LF	LU	*Overhang Length				WF	WF ₂		RE
No.1	No.2	No.3						No.4							
EZBR	020020HP-008H-LT	2	2	1.8	36	12	12.5	8.5	-	-	0.85	0.25	0.08 ^{±0.015}	●	EZH020...
	025025HP-008H-LT	2.5	2.5	2.3	39.5	15	15.5	11.5	-	-	1.1			●	EZH025...
	030030HP-008H-LT	3	3	2.7	47.9	18	22.5	18.5	14.5	-	1.35	0.3		●	EZH030...
	035035HP-008H-LT	3.5	3.5	3.2	51.9	21	25.5	21.5	17.5	-	1.6	0.4		●	EZH035...
	040040HP-008H-LT	4	4	3.6	60.8	28	32.5	28.5	24.5	20.5	1.85			●	EZH040...
	050050HP-008H-LT	5	5	4.6	73.1	35	40.5	35.5	30.5	25.5	2.35	0.5		●	EZH050...
	060060HP-008H-LT	6	6	5.6	83.1	42	47.5	42.5	37.5	32.5	2.85	0.6		●	EZH060...

Tolerance : Offset ± 0.025 mm, Overall Length ± 0.05 mm, Edge Height $+0.05/0$ mm

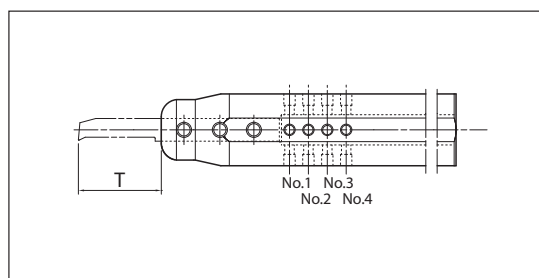
*See P7 for details on tolerances. * In case of overhang length mentioned in *italics*, modified insert is required

Bars are Sold in 1 Piece Boxes

● : Std. Item

Extended Reach (...HP...-LT) Bar Overhang Length T (mm)

Description	Adjustment Pin Setting			
	No.1	No.2	No.3	No.4
EZBR 020020HP-008H-LT	12.5	8.5	-	-
025025HP-008H-LT	15.5	11.5	-	-
030030HP-008H-LT	22.5	18.5	14.5	-
035035HP-008H-LT	25.5	21.5	17.5	-
040040HP-008H-LT	32.5	28.5	24.5	20.5
050050HP-008H-LT	40.5	35.5	30.5	25.5
060060HP-008H-LT	47.5	42.5	37.5	32.5



* In case of overhang length mentioned in *italics*, modified insert is required

EZ Bar Compatibility

EZ Bar Compatible with Conventional Tip Bars

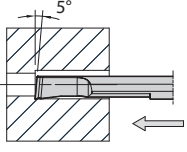
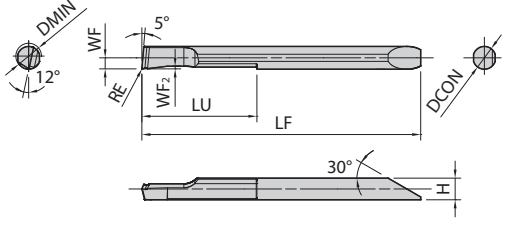
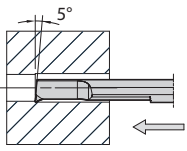
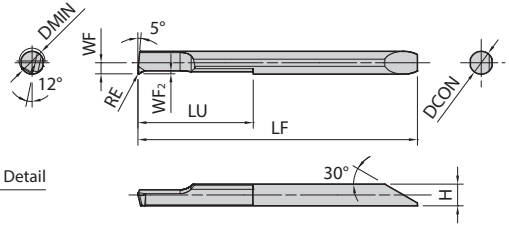
Bar	EZB ... HP	EZB ... ST	HPB ... (EOL)
Sleeve			
EZH ... CT	✓	✓	✓ ^{*1 *2} (Compatible)
EZH ... HP	✓	✓	✓ ^{*1 *2} (Compatible)
EZH ... ST	✓	✓	✓ ^{*1} (Compatible)
PSH ... (EOL)	✓ ^{*1} (Compatible)	✓ ^{*1} (Compatible)	✓

*1 : Some diameters of conventional tip bars are incompatible

*2 : Use conventional tip bars without adjustment pins. The overhang length of bar is not adjustable

EZ Bar Identification System

EZ	B	R	020	020	HP	-	008	H
Bar Symbol (EZ Bar)	Application	Bar Hand	Min. Bore Dia.	Shank Dia.	Precision		Corner-R(RE)	Chipbreaker
	B : Boring Bar	R : Right-hand L : Left-hand	020 : 2 mm 025 : 2.5 mm	020 : 2 mm 025 : 2.5 mm	HP : High Precision ST : Standard		005 : 0.05 mm 008 : 0.08 mm 015 : 0.15 mm	H Chipbreaker (Without Lead Angle) H-LT : Chipbreaker (Extended Reach) G Chipbreaker (With Lead Angle) F Chipbreaker (With Lead Angle) NB : Without Chipbreaker

	Boring : H Chipbreaker • Without Lead Angle • Tough Edge (General Purpose) • Right-hand Shown Chipbreaker Detail 
	Boring : F Chipbreaker • With Lead Angle • Sharp Cutting (Finishing) • Right-hand Shown Chipbreaker Detail 

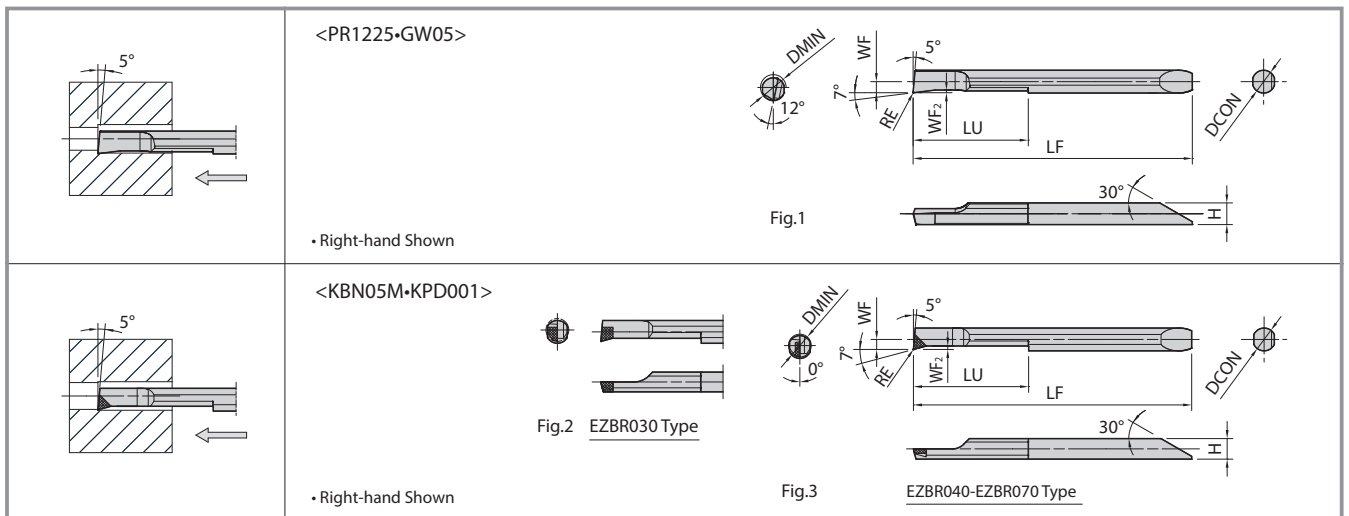
EZ Bar Dimensions ST

Cost Oriented

Description	Min. Bore Dia	Dimensions (mm)								Grade		Applicable Sleeve
		DMIN	DCON	H	LF	LU	WF	WF ₂	RE	MEGACOAT NANO PLUS PR1725	MEGACOAT PR1225	
EZBR 020017ST-008H	2	1.7	1.5	27.3	7	0.79	0.19	0.08 ^{±0.015}	0.08 ^{±0.015}	●	●	EZH017...
	2.5	2	1.82	32	8	0.94	0.16	0.08 ^{±0.015}	0.08 ^{±0.015}	●	●	EZH020...
	3	2.5	2.3	35	10.5	1.19	0.15	0.08 ^{±0.015}	0.08 ^{±0.015}	●	●	EZH025...
	3.5	3	2.8	39	13	1.44	0.18	0.08 ^{±0.015}	0.08 ^{±0.015}	●	●	EZH030...
	4	3.5	3.3	42	15	1.69	0.24	0.08 ^{±0.015}	0.08 ^{±0.015}	●	●	EZH035...
	4.5	4	3.8	49	20	1.94	0.27	0.08 ^{±0.015}	0.08 ^{±0.015}	●	●	EZH040...
	5.5	5	4.8	58.2	25	2.44	0.33	0.08 ^{±0.015}	0.08 ^{±0.015}	●	●	EZH050...
	6.5	6	5.8	66.2	30	2.94	0.38	0.08 ^{±0.015}	0.08 ^{±0.015}	●	●	EZH060...
	7.5	7	6.8	74.2	35	3.44	0.44	0.08 ^{±0.015}	0.08 ^{±0.015}	●	●	EZH070...
	2	1.7	1.5	27.3	7	0.79	0.2	0.05 ^{±0.01}	0.05 ^{±0.01}	●	●	EZH017...
	2.5	2	1.82	32	8	0.94	0.16	0.05 ^{±0.01}	0.05 ^{±0.01}	●	●	EZH020...
	3	2.5	2.3	35	10.5	1.19	0.2	0.05 ^{±0.01}	0.05 ^{±0.01}	●	●	EZH025...
	3.5	3	2.8	39	13	1.44	0.26	0.05 ^{±0.01}	0.05 ^{±0.01}	●	●	EZH030...
	4	3.5	3.3	42	15	1.69	0.33	0.05 ^{±0.01}	0.05 ^{±0.01}	●	●	EZH035...
	4.5	4	3.8	49	20	1.94	0.31	0.05 ^{±0.01}	0.05 ^{±0.01}	●	●	EZH040...
	5.5	5	4.8	58.2	25	2.44	0.45	0.05 ^{±0.01}	0.05 ^{±0.01}	●	●	EZH050...
	6.5	6	5.8	66.2	30	2.94	0.59	0.05 ^{±0.01}	0.05 ^{±0.01}	●	●	EZH060...
	7.5	7	6.8	74.2	35	3.44	0.65	0.05 ^{±0.01}	0.05 ^{±0.01}	●	●	EZH070...

Tolerance : Offset ± 0.06 mm, Overall Length ± 0.1 mm, Edge Height $+0.06/0$ mm
 *See P7 for details on tolerances

Bars are Sold in 1 Piece Boxes
 ● : Std. Item



EZ Bar Dimensions Without chipbreaker (PCD • CBN)

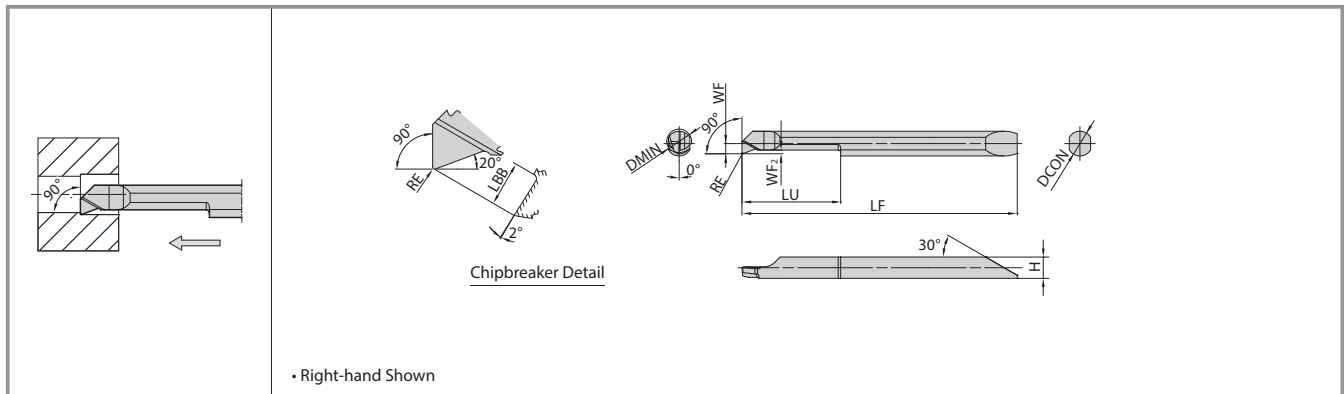
Description		Min. Bore Dia	Dimensions (mm)							Drawing	Grade				Applicable Sleeve
											MEGA COAT	Carbide	MEGA COAT CBN	PCD	
		DMIN	DCON	H	LF	LU	WF	WF ₂	RE		PR1225	GW05	KBN05M	KPD001	
EZBR	020017-005NB	2	1.7	1.5	27.3	7	0.79	0.2	0.05 ^{±0.015}	Fig.1	●	●			EZH017...
	025020-005NB	2.5	2	1.82	32	8	0.94	0.16			●	●			EZH020...
	030025-005NB	3	2.5	2.3	35	10.5	1.19	0.16			●	●			EZH025...
	035030-005NB	3.5	3	2.8	39	13	1.44	0.19			●	●			EZH030...
	040035-005NB	4	3.5	3.3	42	15	1.69	0.25			●	●			EZH035...
	045040-005NB	4.5	4	3.8	49	20	1.94	0.28			●	●			EZH040...
	055050-005NB	5.5	5	4.8	58.2	25	2.44	0.33			●	●			EZH050...
	065060-005NB	6.5	6	5.8	66.2	30	2.94	0.39			●	●			EZH060...
	075070-005NB	7.5	7	6.8	74.2	35	3.44	0.45			●	●			EZH070...
EZBR	030030-003NB	3	3	2.6	38.8	13	1.25	0.3	0.035 ^{±0.015}	Fig.2			●		EZH030...
	040040-003NB	4	4	3.6	48.8	20	1.75	0.5		Fig.3			●		EZH040...
	050050-003NB	5	5	4.6	58.1	25	2.25						●		EZH050...
	060060-003NB	6	6	5.6	66.1	30	2.75						●		EZH060...
	070070-003NB	7	7	6.6	74.1	35	3.25						●		EZH070...
EZBR	040040-003NB	4	4	3.6	48.8	20	1.75	0.5	0.035 ^{±0.015}					●	EZH040...
	050050-003NB	5	5	4.6	58.1	25	2.25							●	EZH050...
	060060-003NB	6	6	5.6	66.1	30	2.75							●	EZH060...
	070070-003NB	7	7	6.6	74.1	35	3.25							●	EZH070...

Bars are Sold in 1 Piece Boxes

●: Std. Item

Edge Preparation

Grade	Edge Preparation	Notes
PR1225 • GW05	Sharp Edge	—
KBN05M	T00815	0.08 mm × 15° Chamfered Cutting Edge
KPD001	Sharp Edge	—



EZ Bar Dimensions

Description	Min. Bore Dia.	Dimensions (mm)								Grade	Applicable Sleeve
		DMIN	DCON	H	LF	LU	WF	WF ₂	LBB	RE	MEGACOAT
											PR1225
EZBFR 030030-008	3	3	2.5	37.7	12	1.2	0.45	1.5	0.08 ^{±0.015}	●	EZH030...
040040-008	4	4	3.45	44.6	16	1.65	0.55	2.0	0.08 ^{±0.015}	●	EZH040...
050050-015	5	5	4.3	52.7	20	2.15	0.7	2.4	0.15 ^{±0.02}	●	EZH050...
060060-015	6	6	5.15	59.6	24	2.55	0.85	2.8	0.15 ^{±0.02}	●	EZH060...

Tolerance : Offset ± 0.05 mm, Overall Length ± 0.05 mm, Edge Height $+0.05/0$ mm

*See P7 for details on tolerances

Bars are Sold in 1 Piece Boxes

● : Std. Item

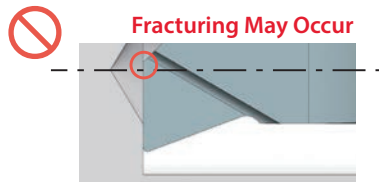
Precautions

Recommended
 Not Recommended

1. Machining in blind hole is not recommended

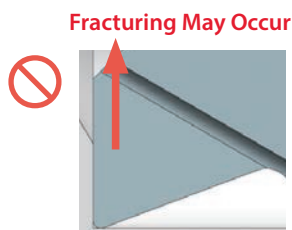


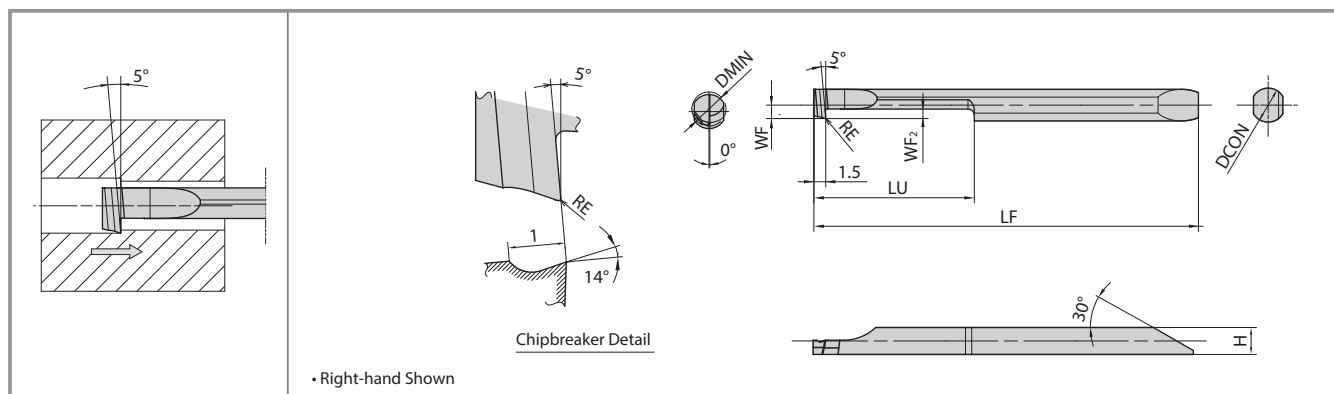
2. If front cutting edge exceeds beyond workpiece center line, fracturing may occur

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

Off-center Boring

3. Up facing is not recommended



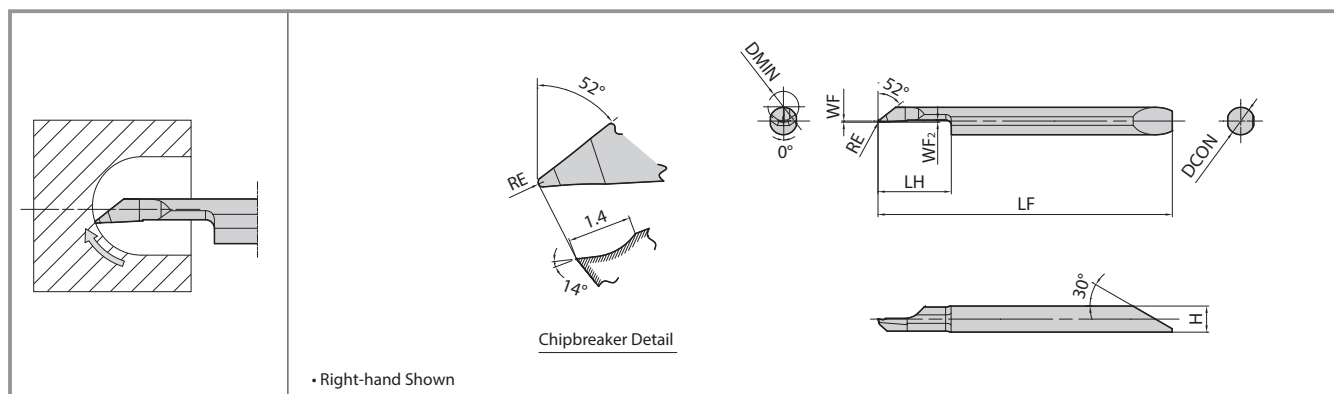


EZ Bar Dimensions

Description	Min. Bore Dia.	Dimensions (mm)							Grade		Applicable Sleeve
									MEGACOAT	Carbide	
EZBTR 040040-005	4	4	3.45	48.7	20	1.7	1.2	0.05 ⁺⁰ _{-0.02}	●	●	EZH040...
050050-005	5	5	4.3	58.7	25	2.15	1.5		●	●	EZH050...

Bars are Sold in 1 Piece Boxes

●: Std. Item

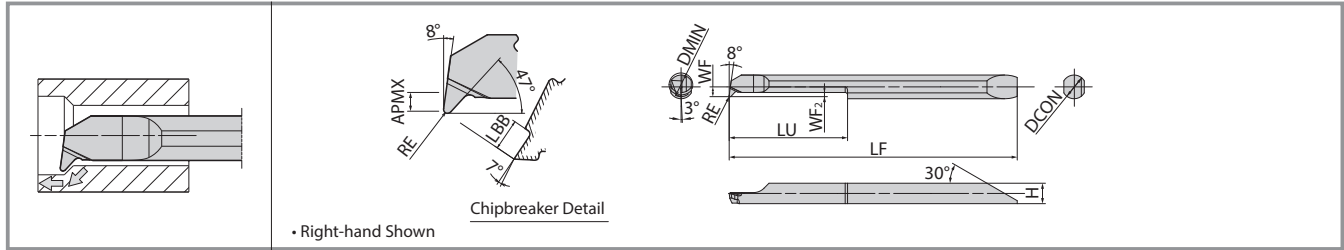


EZ Bar Dimensions

Description	Min. Bore Dia.	Dimensions (mm)							Grade		Applicable Sleeve
									MEGACOAT	Carbide	
EZVBR 035030-010	3.5	3	2.8	38	8	0.17	0.22	0.1 ^{±0.015}	●	●	EZH030...
045040-010	4.5	4	3.8	43	10		0.26		●	●	EZH040...
055050-010	5.5	5	4.8	50.2	12		0.29		●	●	EZH050...
065060-010	6.5	6	5.8	55.2	14		0.32		●	●	EZH060...

Bars are Sold in 1 Piece Boxes

●: Std. Item



EZ Bar Dimensions

Description	Min. Bore Dia.	Dimensions (mm)									Grade	Applicable Sleeve
		DMIN	DCON	H	LF	LU	WF	WF ₂	LBB	RE	MEGACOAT	
											PR1225	
EZBPR 020020-005-08	2	2	1.65	31.8	8	0.55	0.35	1.0	0.05 ^{±0.01}	0.3	●	EZH020...
020020-005-10					10						●	
020020-005-12					12						●	
030030-005-12	3	3	2.5	37.7	12	1.05	0.45	1.2	0.05 ^{±0.01}	0.4	●	EZH030...
030030-005-15				40.7	15						●	
040040-015				48.7	20						●	
050050-015	5	5	4.3	57.8	25	2	1.1	2.2	0.15 ^{±0.02}	0.8	●	EZH050...
060060-015	6	6	5.15	65.7	30	2.45	1.35	2.5	0.15 ^{±0.02}	1	●	EZH060...

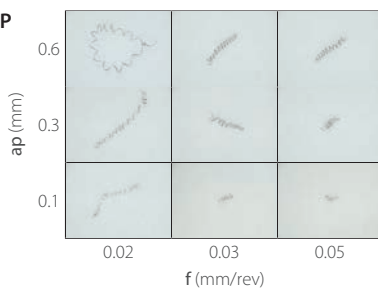
Bars are Sold in 1 Piece Boxes

● : Std. Item

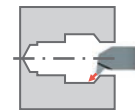
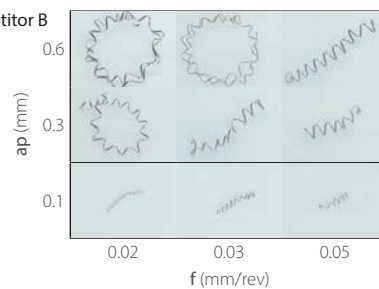
Chip Control Comparison (Internal evaluation)

Copying

EZBP



Competitor B

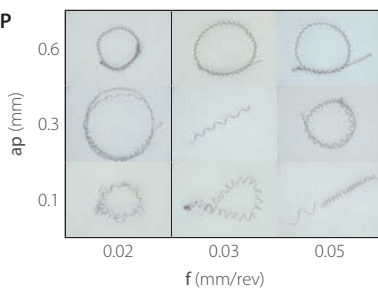


Cutting Conditions : Vc = 80 m/min, Wet
Workpiece : S45C (ø14)
EZBPR040040-015 PR1225

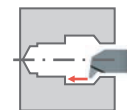
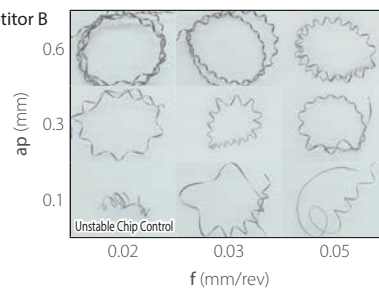
EZBP showed better chip breaking in a wide range of machining applications compared to competitor B

Boring

EZBP



Competitor B

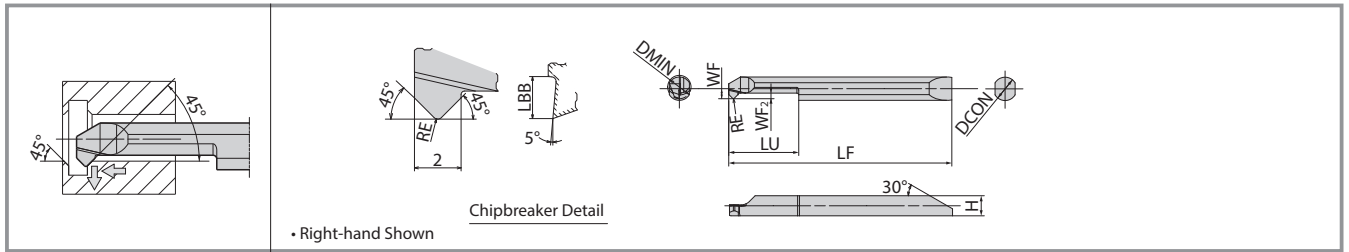


Cutting Conditions : Vc = 80 m/min, Wet
Workpiece : S45C (ø14)
EZBPR040040-015 PR1225

EZBP showed better chip control than competitor B

Recommended Cutting Conditions

Workpiece	Insert Grade (Vc : m/min)	EZBPR020020-005-08/10/12		EZBPR030030-005-12/15		EZBPR040040-015		EZBPR050050-015		EZBPR060060-015		Notes
	MEGACOAT	ap (mm), f (mm/rev)										
	PR1225	ap	f	ap	f	ap	f	ap	f	ap	f	
Carbon Steel • Alloy Steel (S45C • SCM)	30 ~ 100	~ 0.3	~ 0.05	~ 0.4	~ 0.05	~ 0.6	~ 0.05	~ 0.8	~ 0.05	~ 1.0	~ 0.05	Wet
Stainless Steel (SUS304)	30 ~ 80	~ 0.3	~ 0.05	~ 0.4	~ 0.05	~ 0.6	~ 0.05	~ 0.8	~ 0.05	~ 1.0	~ 0.05	



EZ Bar Dimensions

Description		Min. Bore Dia.	Dimensions (mm)							Grade	Applicable Sleeve	
										MEGACOAT		
			DMIN	DCON	H	LF	LU	WF	WF ₂	LBB		RE
EZBCR	050050-020-15	5	5	4.3	47.8	15	2.15	1.2	1.8	0.2 ^{±0.02}	●	EZH050...
	050050-020-20				52.8	20					●	
	060060-020-18	6	6	5.15	53.7	18	2.65	1.9	2.5		●	EZH060...
	060060-020-24				59.7	24					●	
	070070-020-21	7	7	6.2	59.7	21	3	2.5	3.1		●	EZH070...
	070070-020-42				80.7	28					●	

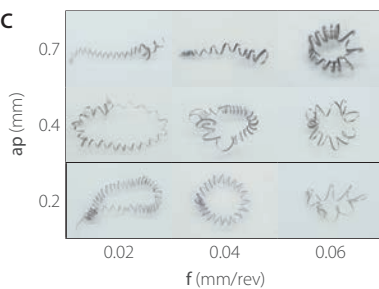
Bars are Sold in 1 Piece Boxes

● : Std. Item

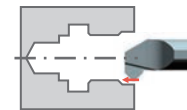
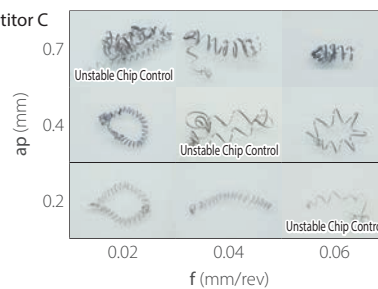
Chip Control Comparison (Internal evaluation)

Boring

EZBC



Competitor C

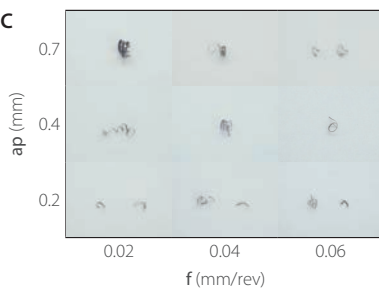


Cutting Conditions : Vc = 80 m/min, Wet
Workpiece : SUS304 (ø14)
EZBCR050050-020-15 PR1225

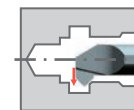
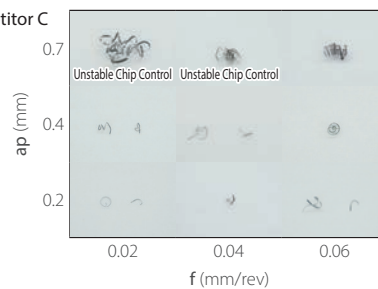
EZBC reduced chip clogging and showed stable chip control

Chamfering

EZBC



Competitor C



Cutting Conditions : Vc = 80 m/min, Wet
Workpiece : SUS304 (ø14)
EZBCR050050-020-15 PR1225

EZBC showed improved chip evacuation and better chip control at large D.O.C. compared to competitor C

Recommended Cutting Conditions

Workpiece	Insert Grade (Vc : m/min)	EZBC050050-020-15/20		EZBC060060-020-18/24		EZBC070070-020-21/42		Notes
	MEGACOAT	ap (mm), f (mm/rev)						
	PR1225	ap	f	ap	f	ap	f	
Carbon Steel • Alloy Steel (S45C • SCM)	30 ~ 100	~ 0.7	~ 0.06	~ 0.7	~ 0.06	~ 0.7	~ 0.06	Wet
Stainless Steel (SUS304)	30 ~ 80	~ 0.7	~ 0.06	~ 0.7	~ 0.06	~ 0.7	~ 0.06	

Recommended Cutting Conditions

H Chipbreaker EZB-HP • H Type EZB-ST • H Type

Workpiece	Insert Grade (Vc : m/min)			EZB020/025 Type		EZB030/035 Type		Notes
	MEGACOAT NANO PLUS	MEGACOAT	Carbide	ap (mm), f (mm/rev)				
	PR1725	PR1225	GW05	ap	f	ap	f	
Carbon Steel • Alloy Steel (S45C • SCM)	30 ~ 120	30 ~ 100	—	~ 0.3	~ 0.03	~ 0.4	~ 0.04	Wet
Stainless Steel (SUS304)	30 ~ 100	30 ~ 80	—	~ 0.2	~ 0.02	~ 0.3	~ 0.03	
Non-ferrous Metals (Aluminum • Brass)	—	—	~ 100	~ 0.3	~ 0.05	~ 0.4	~ 0.06	

Workpiece	Insert Grade (Vc : m/min)			EZB040/045 Type		EZB050/055/060/ 065/070/075/080 Type		Notes
	MEGACOAT NANO PLUS	MEGACOAT	Carbide	ap (mm), f (mm/rev)				
	PR1725	PR1225	GW05	ap	f	ap	f	
Carbon Steel • Alloy Steel (S45C • SCM)	30 ~ 120	30 ~ 100	—	~ 0.45	~ 0.07	~ 0.5	~ 0.1	Wet
Stainless Steel (SUS304)	30 ~ 100	30 ~ 80	—	~ 0.35	~ 0.05	~ 0.4	~ 0.07	
Non-ferrous Metals (Aluminum • Brass)	—	—	~ 100	~ 0.45	~ 0.1	~ 0.5	~ 0.15	

H Chipbreaker (Long Type)

Workpiece	Insert Grade (Vc : m/min)	EZB020/025/030/035 Type		EZB040/050/060 Type		Notes
	MEGACOAT	ap (mm), f (mm/rev)				
	PR1225	ap	f	ap	f	
Carbon Steel • Alloy Steel (S45C • SCM)	30 ~ 60	~ 0.3	~ 0.05	~ 0.4	~ 0.1	Wet
Stainless Steel (SUS304)	20 ~ 40	~ 0.25	~ 0.05	~ 0.3	~ 0.07	

G Chipbreaker

Workpiece	Insert Grade (Vc: m/min)	EZB020/025 Type		EZB030/035 Type		EZB040/045/050/060/070/080 Type		Notes
	MEGACOAT NANO PLUS	ap (mm), f (mm/rev)						
	PR1725	ap	f	ap	f	ap	f	
Carbon Steel • Alloy Steel (S45C • SCM)	30 ~ 120	~ 0.25	~ 0.03	~ 0.3	~ 0.05	~ 0.35	~ 0.07	Wet
Stainless Steel (SUS304)	30 ~ 100	~ 0.2	~ 0.02	~ 0.25	~ 0.03	~ 0.3	~ 0.05	

F Chipbreaker EZB-HP • F Type EZB-ST • F Type

Workpiece	Insert Grade (Vc : m/min)		EZB020/025 Type		EZB030/035 Type		EZB040/045 Type		EZB050/055/060/ 065/070/075/080 Type		Notes
	MEGACOAT NANO PLUS	MEGACOAT	ap (mm), f (mm/rev)								
	PR1725	PR1225	ap	f	ap	f	ap	f	ap	f	
Carbon Steel • Alloy Steel (S45C • SCM)	30 ~ 120	30 ~ 100	~ 0.2	~ 0.03	~ 0.2	~ 0.05	~ 0.3	~ 0.07	~ 0.3	~ 0.07	Wet
Stainless Steel (SUS304)	30 ~ 100	30 ~ 80		~ 0.02		~ 0.03	~ 0.25	~ 0.05	~ 0.25	~ 0.05	

NB Chipbreaker (without Chipbreaker)

Workpiece	Insert Grade (Vc : m/min)		EZB020/025 Type		EZB030/035 Type		EZB040/045 Type		EZB055/ 065/075 Type		Notes
	MEGACOAT	Carbide	ap (mm), f (mm/rev)								
	PR1225	GW05	ap	f	ap	f	ap	f	ap	f	
Carbon Steel • Alloy Steel (S45C • SCM)	30 ~ 100	—	~ 0.3	~ 0.03	~ 0.4	~ 0.04	~ 0.45	~ 0.07	~ 0.5	~ 0.1	Wet
Stainless Steel (SUS304)	30 ~ 80	—	~ 0.2	~ 0.02	~ 0.3	~ 0.03	~ 0.35	~ 0.05	~ 0.4	~ 0.07	
Non-ferrous Metals (Aluminum • Brass)	—	~ 100	~ 0.3	~ 0.05	~ 0.4	~ 0.06	~ 0.45	~ 0.07	~ 0.5	~ 0.1	

Recommended Cutting Conditions

NB Chipbreaker (without Chipbreaker)

Workpiece	Insert Grade(Vc : m/min)		EZB030 Type		EZB040/045 Type		EZB050/060/070 Type		Notes
	MEGACOAT CBN	PCD	ap (mm), f (mm/rev)						
	KBN05M	KPD001	ap	f	ap	f	ap	f	
Non-ferrous Metals (Aluminum • Brass)	—	~ 300	—	—	~ 0.45	~ 0.1	~ 0.5	~ 0.15	Wet
Hard Materials (Heat-treated Steel)	~ 100	—	~ 0.07	~ 0.03	~ 0.10	~ 0.05	~ 0.15	~ 0.07	

EZBF (90 Degree Lead Angle)

Workpiece	Insert Grade (Vc : m/min)	EZBFR030030-008		EZBFR040040-008		EZBFR050050/ 060060-015		Notes
	MEGACOAT	ap (mm), f (mm/rev)						
	PR1225	ap	f	ap	f	ap	f	
Carbon Steel • Alloy Steel (S45C • SCM)	30 ~ 100	~ 0.2	~ 0.05	~ 0.3	~ 0.05	~ 0.5	~ 0.05	Wet
Stainless Steel (SUS304)	30 ~ 80	~ 0.2	~ 0.05	~ 0.3	~ 0.05	~ 0.5	~ 0.05	

EZBT (Back Boring)

Workpiece	Insert Grade (Vc : m/min)		EZBTR040 Type		EZBTR050 Type		Notes
	MEGACOAT	Carbide	ap (mm), f (mm/rev)				
	PR1225	GW05	ap	f	ap	f	
Carbon Steel • Alloy Steel (S45C • SCM)	30 ~ 100	—	~ 0.45	~ 0.07	~ 0.5	~ 0.1	Wet
Stainless Steel (SUS304)	30 ~ 80	—		~ 0.05		~ 0.07	
Non-ferrous Metals (Aluminum • Brass)	—	30 ~ 100		~ 0.1		~ 0.15	

EZVB (Boring • Internal Facing • Internal Profiling)

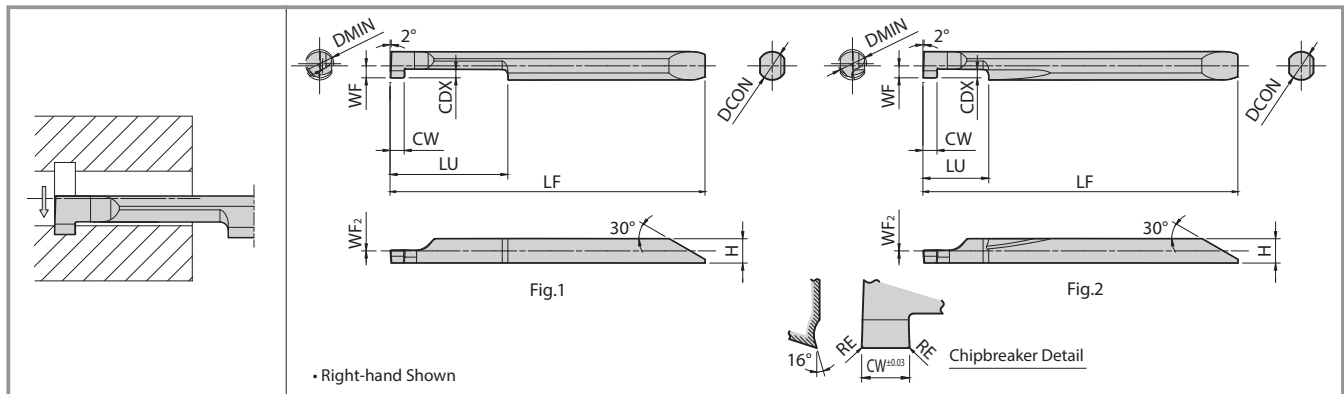
Workpiece	Insert Grade (Vc : m/min)	EZVB035 Type		EZVB045 Type		EZVB055/065 Type		Notes
	MEGACOAT	ap (mm), f (mm/rev)						
	PR1225	ap	f	ap	f	ap	f	
Carbon Steel • Alloy Steel (S45C • SCM)	30 ~ 100	~ 0.05	~ 0.04	~ 0.07	~ 0.07	~ 0.1	~ 0.07	Wet
Stainless Steel (SUS304)	30 ~ 80	~ 0.03	~ 0.03	~ 0.05	~ 0.05	~ 0.07	~ 0.05	

EZBP (Copying)

Workpiece	Insert Grade (Vc: m/min)	EZBPR020020-005-08/10/12		EZBPR030030-005-12/15		EZBPR040040-015		EZBPR050050-015		EZBPR060060-015		Notes
	MEGACOAT	ap (mm), f (mm/rev)										
	PR1225	ap	f	ap	f	ap	f	ap	f	ap	f	
Carbon Steel • Alloy Steel (S45C • SCM)	30 ~ 100	~ 0.3	~ 0.05	~ 0.4	~ 0.05	~ 0.6	~ 0.05	~ 0.8	~ 0.05	~ 1.0	~ 0.05	Wet
Stainless Steel (SUS304)	30 ~ 80	~ 0.3	~ 0.05	~ 0.4	~ 0.05	~ 0.6	~ 0.05	~ 0.8	~ 0.05	~ 1.0	~ 0.05	

EZBC (45 Degree Chamfering)

Workpiece	Insert Grade (Vc : m/min)	EZBC050050-020-15/20		EZBC060060-020-18/24		EZBC070070-020-21/42		Notes
	MEGACOAT	ap (mm), f (mm/rev)						
	PR1225	ap	f	ap	f	ap	f	
Carbon Steel • Alloy Steel (S45C • SCM)	30 ~ 100	~ 0.7	~ 0.06	~ 0.7	~ 0.06	~ 0.7	~ 0.06	Wet
Stainless Steel (SUS304)	30 ~ 80	~ 0.7	~ 0.06	~ 0.7	~ 0.06	~ 0.7	~ 0.06	



EZ Bar Dimensions

Description	Min. Bore Dia.	Dimensions (mm)									Drawing	MEGACOAT		Carbide		Applicable Sleeve							
		DMIN	CW ^{±0.03}	RE	DCON	H	LF	LU	WF	WF ₂		CDX	PR1225	GW05									
												R	L	R	L								
EZG ^{R/L}	040040-050	4	0.5	±0.013 0.05	4	3.45	44.7	12	1.7	0	1	Fig.2	●	●	●		EZH040..						
	040040-100		1.0										●	●	●								
	040040-150		1.5										●	●	●								
	040040-200		2.0										●	●	●								
	050050-100	1.0	5		5	4.3	52.8	20	2.15		1.5	Fig.1	●	●	●		EZH050..						
	050050-150	1.5											●	●	●								
	050050-200	2.0											●	●	●								
	060060-100	1.0											●	●	●								
	060060-150	1.5	6		6	5.15	60.7	2.65	2	●	●		●		EZH060..								
	060060-200	2.0								●	●		●										
	070070-100	1.0								7	7		6.2	63.7		25	3.05	2	●	●	●		EZH070..
	070070-150	1.5																	●	●	●		
	070070-200	2.0	●		●	●																	
	080070-100	1.0	8		8	080070-150	1.5	3.45	2			●			●				●		EZH070..		
	080070-200	2.0								●	●	●											
	030030-050S	0.5								±0.013 0.05	3	2.5	38.7	5	1.25	0.8	Fig.2	●					EZH030..
030030-100S	1.0	●																					
040040-050S	0.5	4	4	3.45	44.7	8	1.7	1	●												EZH040..		
040040-100S	1.0								●														
040040-150S	1.5								●														
040040-200S	2.0								●														
050050-100S	1.0	5	5	4.3	52.8	10	2.15	1.5	0		2	●				EZH050..							
050050-150S	1.5											●											
050050-200S	2.0											●											
060060-100S	1.0											6	6	5.15	60.7			2.65	2	●			
060060-150S	1.5	●																					
060060-200S	2.0	●																					
070070-100S	1.0	7	7	6.2	63.7	3.05	2	●														EZH070..	
070070-150S	1.5							●															
070070-200S	2.0							●															
080070-100S	1.0							8	8		080070-150S	1.5	3.45	2	●					EZH070..			
080070-200S	2.0	●																					

CDX : Available Grooving Depth

Description : With suffix "S" indicates a short type

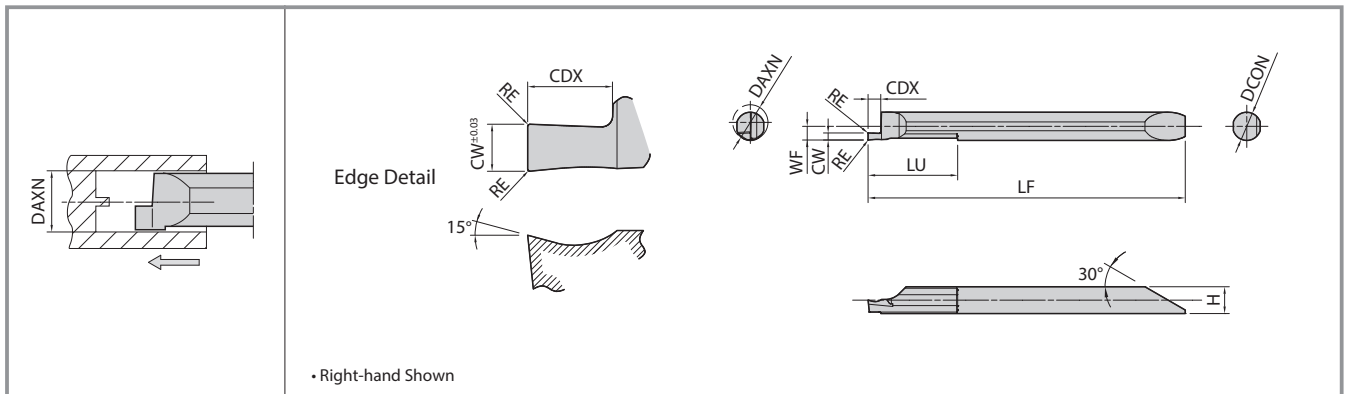
Bars are Sold in 1 Piece Boxes

● : Std. Item

Recommended Cutting Conditions

Workpiece	Insert Grade (Vc : m/min)		EZGR030030-...S	EZGR040040-... EZGR050050-... EZGR040040-...S EZGR050050-...S	EZGR060060-... EZGR070070-... EZGR080070-... EZGR060060-...S EZGR070070-...S EZGR080070-...S	Notes
	MEGACOAT	Carbide				
	PR1225	GW05				
Carbon Steel • Alloy Steel (SxxC • SCM)	★ 30 ~ 100	—	~ 0.02	~ 0.03	~ 0.05	Wet
Stainless Steel (SUS304)	★ 30 ~ 80	—	~ 0.01	~ 0.02	~ 0.03	
Non-ferrous Metals	—	★ ~ 300	—	~ 0.05	~ 0.08	

★ : 1st Recommendation



EZ Bar Dimensions

Description		Face Grooving Dia. (MIN.)	Dimensions (mm)								MEGACOAT		Carbide		Applicable Sleeve
			DAXN	CW ^{±0.03}	RE	DCON	H	LF	LU	WF	CDX	PR1225		GW05	
		R										L	R	L	
EZFG ^{R/L}	050040-100	5	1.0	±0.013	4	3.8	45.0	12	1.9	1.5	●	●	●	EZH040..	
	050040-150		1.5							2.0	●	●	●		
EZFG ^{R/L}	060050-100	6	1.0		5	4.8	53.2	25	2.4	1.5	●	●	●	EZH050..	
	060050-150		1.5							2.5	●	●	●		
	060050-200		2.0							3.0	●	●	●		
EZFG ^{R/L}	080070-100	8	1.0		7	6.8	64.2	25	3.4	2.0	●	●	●	EZH070..	
	080070-150		1.5							2.5	●	●	●		
	080070-200		2.0							3.0	●	●	●		
	080070-300		3.0								●	●	●		

CDX : Available Grooving Depth

Bars are Sold in 1 Piece Boxes

● : Std. Item

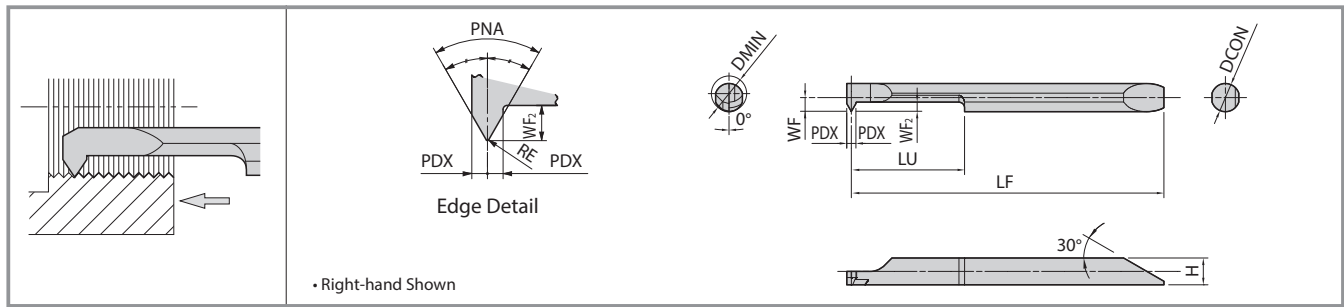
Recommended Cutting Conditions

Workpiece	Insert Grade (Vc : m/min)		EZFGR050040-100 EZFGR060050-100 EZFGR080070-100	EZFGR050040-150 EZFGR060050-150 EZFGR080070-150	EZFGR060050-200 EZFGR080070-200	EZFGR080070-300	Notes
	MEGACOAT	Carbide					
	PR1225	GW05					
Carbon Steel • Alloy Steel (SxxC • SCM)	★ 30 ~ 100	—	~ 0.02	~ 0.03	~ 0.04	~ 0.05	Wet
Stainless Steel (SUS304)	★ 30 ~ 80	—	~ 0.01	~ 0.02	~ 0.02	~ 0.03	
Non-ferrous Metals	—	★ ~ 300	~ 0.03	~ 0.05	~ 0.06	~ 0.08	

★ : 1st Recommendation

EZ Bar Identification System (Internal Grooving, Face Grooving)

EZ	G	R	030	030 - 050	S
Bar Symbol (EZ Bar)	Application	Bar Hand	Min. Bore Dia.	Shank Dia.	Groove Width
	G : Internal Grooving FG : Face Grooving	R : Right-hand L : Left-hand	030 : 3 mm ⋮	030 : 3 mm ⋮	050 : 0.5 mm 100 : 1.0 mm 150 : 1.5 mm 200 : 2.0 mm
			Face Grooving Dia.		Type
			050 : 5 mm ⋮		S : Short Type (LU Dimension)



EZ Bar Dimensions

Description		Min. Bore Dia.	Dimensions (mm)								MEGA COAT	Carbide	Applicable Threads						
													Metric		Unified		American National Pipe		
			DMIN	DCON	H	LF	LU	WF	WF ₂	PDX			RE	PNA	PR1225	GW05	Applicable Thread	Pitch (mm)	Applicable Thread
EZTR	030025-60-002	3.0	2.5	2.3	35.0	6.5	1.19	1.0	0.5	±0.01 0.02	60°	●	●	M4 or more (M3.5 or more)	0.35 ~ 0.8	No.8-32UNC No.8-36UNF or more	36 ~ 32	—	—
	035030-60-002	3.5	3.0	2.8	39.0	9.0	1.44	1.2	0.6			●	●	M4.5 or more (M4.5 or more)	0.5 ~ 1.0	No.10-24UNC No.8-36UNF or more	36 ~ 24	—	—
	040035-60-004	4.0	3.5	3.3	42.0	11.0	1.69	1.2	0.6			●	●	M5 or more (M6 or more)	0.75 ~ 1.25	No.12-24UNC No.12-28UNF or more	28 ~ 20	—	—
	050040-60-004	5.0	4.0	3.8	45.0	16.0	1.94	1.3	0.65	±0.01 0.04		●	●	M7 or more (M6 or more)	0.75 ~ 1.5	1/4-20UNC 1/4-28UNF or more	28 ~ 18	—	—
	060050-60-004	6.0	5.0	4.8	53.2	19.5	2.44	1.6	0.8			●	●	M8 or more (M7 or more)	0.75 ~ 1.5	5/16-18UNC 5/16-24UNF or more	24 ~ 16	1/4NPT 3/8NPT	18
	070060-60-004	7.0	6.0	5.8	61.2	24.5	2.94	2.0	1.0			●	●	M9 or more (M8 or more)	0.75 ~ 1.75	3/8-16UNC 3/8-24UNF or more	24 ~ 16	1/4NPT or more	18,14
															Whitworth		Parallel Pipe / Tapered Pipe		
EZTR	060050-55-008	6.0	5.0	4.8	53.2	19.5	2.44	1.6	0.8	±0.015 0.085	55°	●	●	W10 TPI 24 or more	24 ~ 20	G1/16 or more R1/16 or more	28	—	—
	080070-55-008	8.0	7.0	6.8	64.2	24.5	3.44	2.0	1.0			●	●	W11 TPI 20 or more	20 ~ 18	G1/8 or more R1/8 or more	28,19	—	—

For American National Pipe (NPT), use EZTR.-60-004. See Page 22
See back cover for applicable sleeves

ap & Number of Passes (Metric)

Pitch (mm)	Total ap (mm)	No. of Passes (Times)	1 Pass	2 Pass	3 Pass	4 Pass	5 Pass	6 Pass	7 Pass	8 Pass	9 Pass	10 Pass	11 Pass	12 Pass	13 Pass	14 Pass	15 Pass	16 Pass	17 Pass	18 Pass	19 Pass	20 Pass
0.5	0.3	9	0.05	0.05	0.04	0.04	0.03	0.03	0.02	0.02	0.02											
0.7	0.42	10	0.06	0.05	0.05	0.05	0.05	0.04	0.04	0.03	0.03	0.02										
0.75	0.45	10	0.06	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.03	0.03										
0.8	0.48	11	0.06	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03									
1.00	0.61	12	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.04	0.04	0.03	0.03								
1.25	0.77	14	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.05	0.05	0.04	0.04	0.04	0.03						
1.50	0.93	17	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.03			
1.75	1.1	20	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03

ap & Number of Passes (Whitworth)

TPI (TPI/inch)	Total ap (mm)	No. of Passes (Times)	1 Pass	2 Pass	3 Pass	4 Pass	5 Pass	6 Pass	7 Pass	8 Pass	9 Pass	10 Pass	11 Pass	12 Pass	13 Pass	14 Pass	15 Pass	16 Pass	17 Pass
24	0.65	13	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.03	0.03				
20	0.81	15	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.05	0.05	0.05	0.04	0.04	0.03	0.03		
18	0.91	17	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.05	0.05	0.05	0.04	0.04	0.03	0.03	0.03

ap & Number of Passes (Unified)

TPI (TPI/inch)	Total ap (mm)	No. of Passes (Times)	1 Pass	2 Pass	3 Pass	4 Pass	5 Pass	6 Pass	7 Pass	8 Pass	9 Pass	10 Pass	11 Pass	12 Pass	13 Pass	14 Pass	15 Pass	16 Pass	17 Pass	18 Pass
36	0.44	10	0.06	0.06	0.06	0.05	0.05	0.05	0.04	0.03	0.02	0.02								
32	0.5	11	0.06	0.06	0.06	0.05	0.05	0.05	0.04	0.04	0.03	0.03	0.03							
28	0.55	12	0.07	0.06	0.05	0.05	0.05	0.05	0.04	0.04	0.03	0.03	0.03	0.03						
24	0.65	12	0.07	0.07	0.06	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.04	0.03						
20	0.78	14	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.05	0.05	0.04	0.04	0.03					
18	0.88	17	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.05	0.05	0.04	0.04	0.04	0.04	0.03	0.03		
16	0.99	18	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.03	0.03

Bars are Sold in 1 Piece Boxes
● : Std. Item

Recommended Cutting Conditions

Workpiece	Recommended Insert Grade (Vc : m/min)	
	MEGACOAT	Carbide
	PR1225	GW05
Carbon Steel • Alloy Steel (S45C • SCM435)	★ 30 ~ 50	—
Stainless Steel (SUS304)	★ 30 ~ 50	—
Non-ferrous Metals (Aluminum • Brass)	—	★ 30 ~ 50

<Note>

1) The standard cutting speed is Vc = 30 ~ 50 m/min
The table feed may not follow the expected conditions when machining small diameter workpieces at high speeds

2) Coolant is recommended

★ : 1st Recommendation

Application of Parallel Pipe and Tapered Pipe Thread

Parallel Pipe : G (PF), Rp (PS)

Applicable Thread	TPI (TPI/inch)	Internal Threading		Same Root's Radius External Threading Internal Threading
Symbol (Previous Symbol)		Insert	Bore Dia.	
G 1/16 (—)	28	EZTR 060050-55-008	6.56	0.12
G 1/8 (PF 1/8)		080070-55-008	8.57	
G 1/4 (PF 1/4)	19	EZTR 080070-55-008	11.45	0.18
G 3/8 (PF 3/8)			14.95	

Tapered Pipe : R, Rc (PT) (BSPT)

Applicable Thread	TPI (TPI/inch)	Internal Threading		Same Root's Radius External Threading Internal Threading
Symbol (Previous Symbol)		Insert	Bore Dia.	
R 1/16, Rc 1/16 (—)	28	EZTR 060050-55-008	—	0.12
R 1/8, Rc 1/8 (PT 1/8)		080070-55-008	—	
R 1/4, Rc 1/4 (PT 1/4)	19	EZTR 080070-55-008	—	0.18
R 3/8, Rc 3/8 (PT 3/8)			—	

When using "EZT type" for Parallel Pipe / Tapered Pipe threading, thread's corners become sharp edged due to its partial profile, and the shape will not be the same as the standard shape for Parallel Pipe / Tapered Pipe

ap & Number of Passes (Parallel Pipe / Tapered Pipe)

TPI (TPI/inch)	Total ap (mm)	No. of Passes (Times)	1 Pass	2 Pass	3 Pass	4 Pass	5 Pass	6 Pass	7 Pass	8 Pass	9 Pass	10 Pass	11 Pass	12 Pass	13 Pass	14 Pass	15 Pass	16 Pass	17 Pass	18 Pass
28	0.61	12	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.04	0.04	0.03	0.03						
19	0.95	18	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.03	0.03

Application for NPT

Applicable Thread	TPI (TPI/inch)	Internal Threading		
		Toolholder	Insert	
			Partial Profile	Full Profile
1/16 NPT 1/8 NPT	27	No Tools Available		
1/4 NPT 3/8 NPT	18	EZH Sleeve	EZTR060050-60-004 EZTR070060-60-004	—
1/2 NPT 3/4 NPT	14	EZH Sleeve	EZTR070060-60-004	—
1/2 NPT 3/4 NPT	14	SINR1616S-16 SINR2016S-16	—	16IR14NPT

Application of NPTF Thread

NPTF is the thread for sealing pipes without using any sealing material

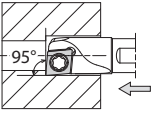
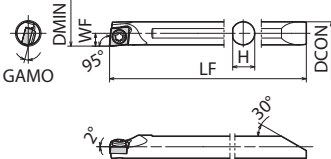
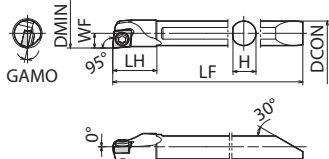
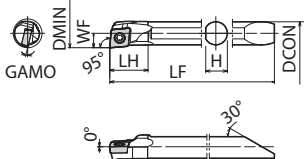
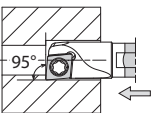
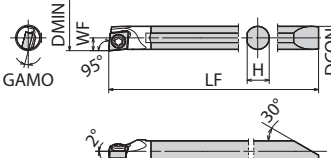
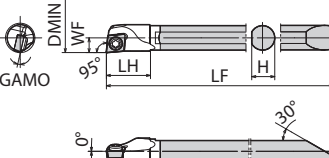
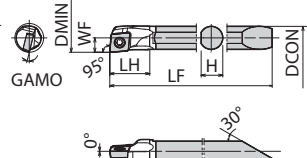
Thread symbol is similar to NPT but the tolerance is different from that of NPT, therefore the above inserts are not available for NPTF

ap & Number of Passes (American National Pipe)

TPI (TPI/inch)	Total ap (mm)	No. of Passes (Times)	1 Pass	2 Pass	3 Pass	4 Pass	5 Pass	6 Pass	7 Pass	8 Pass	9 Pass	10 Pass	11 Pass	12 Pass	13 Pass	14 Pass	15 Pass	16 Pass	17 Pass	18 Pass	19 Pass
18	1.23	16	0.18	0.14	0.12	0.12	0.10	0.09	0.08	0.08	0.07	0.06	0.05	0.04	0.03	0.03	0.02	0.02			
14	1.56	19	0.18	0.16	0.14	0.14	0.12	0.10	0.09	0.09	0.08	0.07	0.07	0.06	0.05	0.05	0.04	0.04	0.03	0.03	0.02

Applicable Inserts : ☐ 045X... = CC...03... ☐ 050X... = CC...03...
☐ 060X... = CC...04... ☐ 070X... = CC...04...
☐ 080X... = CC...06...

Toolholder Dimensions

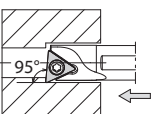
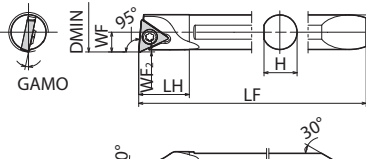
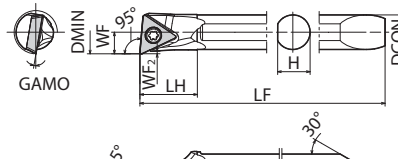
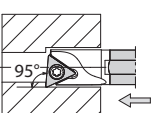
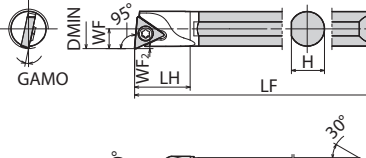
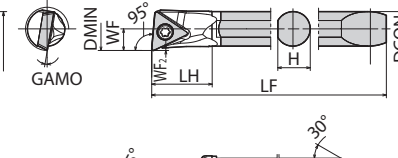
<S-SCLC> 	Maximum Overhang Length L/D = 3 • Right-hand Shown • Left-hand Insert for Right-hand Toolholder    Fig.1 Fig.2 Fig.3
<C-SCLC> 	Maximum Overhang Length L/D = 5 • Right-hand Shown • Left-hand Insert for Right-hand Toolholder    Fig.4 Fig.5 Fig.6

Description		Stock	Min. Bore Dia.	Dimensions (mm)					GAMO	Std. Corner-R(RE)	Coolant Hole	Drawing	Spare Parts		Applicable Sleeve
		R	DMIN	DCON	H	LF	LH	WF					Clamp Screw	Wrench	
Steel	S045X-SCLCR03-050Ezp	●	5	4.5	4.3	42.4	—	2.5	15°	0.2	No	Fig.1	SB-1635TR	FT-6	EZH045...
	S050X-SCLCR03-060Ezp	●	6	5	4.7	48.4	9	3	13°			Fig.2			EZH050...
	S060X-SCLCR04-070Ezp	●	7	6	5.7	54.4	10	3.5	11°			Fig.2			EZH060...
	S070X-SCLCR04-080Ezp	●	8	7	6.7	60.4	10.3	4	11°			Fig.3			EZH070...
	S080X-SCLCR06-100Ezp	●	10	8	7.5	69.5	13.3	5	14°			Fig.3			EZH080...
Carbide	C045X-SCLCR03-050Ezp	●	5	4.5	4.3	51.4	—	2.5	15°	0.2	No	Fig.4	SB-1635TR	FT-6	EZH045...
	C050X-SCLCR03-060Ezp	●	6	5	4.7	58.4	9	3	13°			Fig.5			EZH050...
	C060X-SCLCR04-070Ezp	●	7	6	5.7	66.4	10	3.5	11°			Fig.5			EZH060...
	C070X-SCLCR04-080Ezp	●	8	7	6.7	74.4	11	4	11°			Fig.6			EZH070...
	C080X-SCLCR06-100Ezp	●	10	8	7.5	85.5	14	5	14°			Fig.6			EZH080...

● : Std. Item

Toolholder Dimensions

Applicable Inserts : ☐ 070X... = TB...06...
☐ 080X... = TP...09...

<S-STL> 	Maximum Overhang Length L/D = 3 • Right-hand Shown • Left-hand Insert for Right-hand Toolholder   Fig.1 Fig.2
<C-STL> 	Maximum Overhang Length L/D = 5 • Right-hand Shown • Left-hand Insert for Right-hand Toolholder   Fig.3 Fig.4

Description		Stock	Min. Bore Dia.	Dimensions (mm)					GAMO	Std. Corner-R(RE)	Coolant Hole	Drawing	Spare Parts		Applicable Sleeve
		R	DMIN	DCON	H	LF	LH	WF					Clamp Screw	Wrench	
Steel	S070X-STLBR06-080Ezp *	●	8	7	6.7	60.4	10.3	4	0.4	12°	No	Fig.1	SB-2035TR	FT-6	EZH070...
	S080X-STLPR09-100Ezp	●	10	8	7.5	69.5	13.3	5	0.5	10°		Fig.2			EZH080...
Carbide	C070X-STLBR06-080Ezp *	●	8	7	6.7	74.4	11	4	0.4	12°		Fig.3			EZH070...
	C080X-STLPR09-100Ezp	●	10	8	7.5	85.5	14	5	0.5	10°		Fig.4			EZH080...

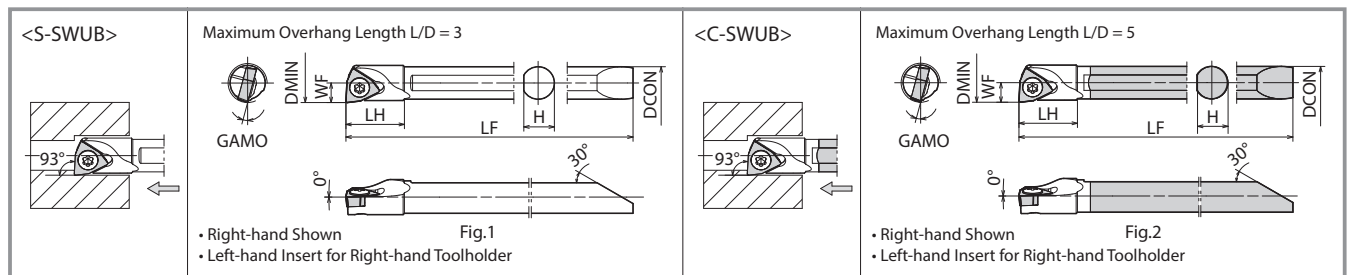
*TB**06**08 Inserts cannot be used

● : Std. Item

EZ Bar PLUS (Indexable Boring Bar)

Toolholder Dimensions

Applicable Inserts : □ 050X... = WB...06... □ 060X... = WB...06...
□ 070X... = WB...08...

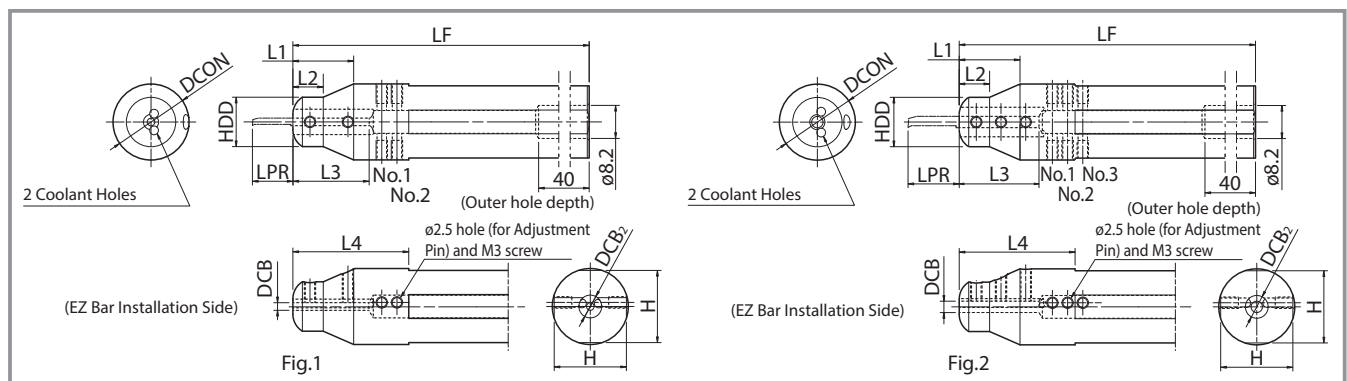


Description		Stock	Min. Bore Dia.	Dimensions (mm)					GAMO	Std. Corner-R(RE)	Coolant Hole	Drawing	Spare Parts		Applicable Sleeve
		R	DMIN	DCON	H	LF	LH	WF					Clamp Screw	Wrench	
Steel	S050X-SWUBR06-060EZP	●	6	5	4.7	48.4	9	3	15°	0.2	No	Fig.1	SB-2035TR	FT-6	EZH050...
	S060X-SWUBR06-070EZP	●	7	6	5.7	54.4	10	3.5	13°						EZH060...
	S070X-SWUBR08-080EZP	●	8	7	6.7	60.4	10.3	4	15°						EZH070...
Carbide	C050X-SWUBR06-060EZP	●	6	5	4.7	58.4	9	3	15°	0.2	No	Fig.2	SB-2035TR	FT-6	EZH050...
	C060X-SWUBR06-070EZP	●	7	6	5.7	66.4	10	3.5	13°						EZH060...
	C070X-SWUBR08-080EZP	●	8	7	6.7	74.4	11	4	15°						EZH070...

● : Std. Item

Applicable Sleeve

With Coolant Hole and EZ Adjust Structure



Sleeve Dimensions

Description		Stock	Dimensions (mm)									Bar Overhang Length* LPR (mm)				Drawing	Applicable EZ Bar	
			DCB	DCON	HDD	DCB ₂	H	LF	L1	L2	*1L3	L4	No.1	No.2	No.3			No.4
EZH	01719CT-120	●	1.7	19.05	13	6	18	120	16	8	16	30.5	7.5	3.5	-	-	Fig.1	EZBR...017...
	01720CT-120	●		20			19	120										
	01722CT-135	●		22			21	135										
	01725.0CT-135	●		25			24	135										
	01725.4CT-120	●		25.4			24.4	120										
EZH	02019CT-120	●	2	19.05	13	6	18	120	16	8	20	30.5	8.5	4.5	-	-	Fig.1	EZB ^{R/L} ...020... EZBPR...020...
	02020CT-120	●		20			19	120										
	02022CT-135	●		22			21	135										
	02025.0CT-135	●		25			24	135										
	02025.4CT-120	●		25.4			24.4	120										
EZH	02519CT-120	●	2.5	19.05	13	6	18	120	16	8	20	30.5	11	7	-	-	Fig.1	EZB ^{R/L} ...025... EZTR...025...
	02520CT-120	●		20			19	120										
	02522CT-135	●		22			21	135										
	02525.0CT-135	●		25			24	135										
	02525.4CT-120	●		25.4			24.4	120										
EZH	03019CT-120	●	3	19.05	13	6	18	120	16	8	21	30.5	13.5	9.5	5.5	-	Fig.2	EZB ^{R/L} ...030... EZBFR...030... EZVBR...030... EZBPR...030... EZGR...030... EZTR...030...
	03020CT-120	●		20			19	120										
	03022CT-135	●		22			21	135										
	03025.0CT-135	●		25			24	135										
	03025.4CT-120	●		25.4			24.4	120										
EZH	03519CT-120	●	3.5	19.05	13	6	18	120	16	8	21	31.1	15.5	11.5	7.5	-	Fig.2	EZB ^{R/L} ...035... EZTR...035...
	03520CT-120	●		20			19	120										
	03522CT-135	●		22			21	135										
	03525.0CT-135	●		25			24	135										
	03525.4CT-120	●		25.4			24.4	120										

*1. L3 shows DCB length *2. LPR shows overhang length of the EZB Bar (except for long type) when attached to sleeve

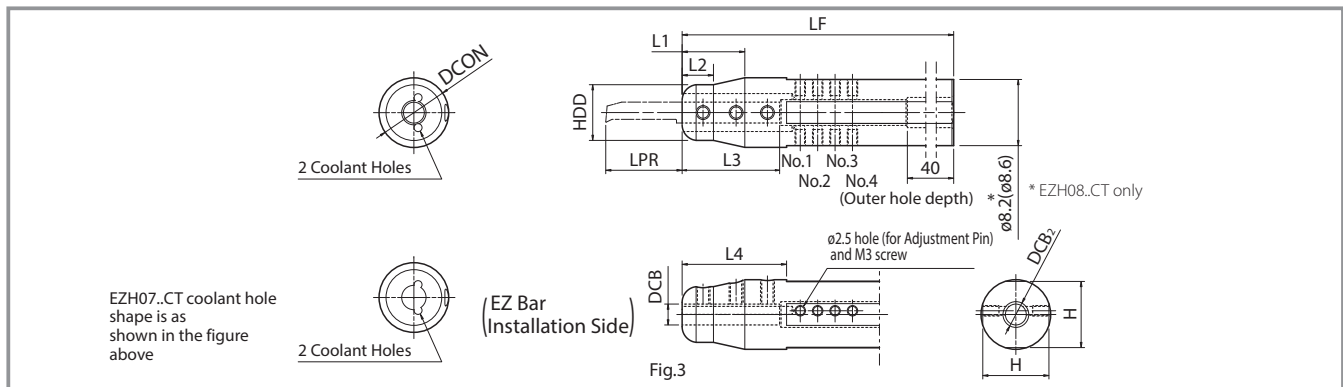
Choose sleeves (DCB) to meet with DCON dimension of bar

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

● : Std. Item

Applicable Sleeve

With Coolant Hole and
EZ Adjust Structure

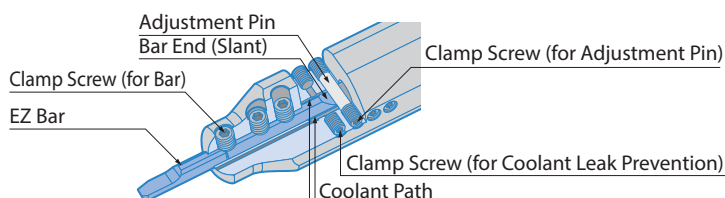


Sleeve Dimensions

Description	Stock	Dimensions (mm)										Bar Overhang Length*2 LPR (mm)				Drawing	Applicable EZ Bar
		DCB	DCON	HDD	DCB ₂	H	LF	L1	L2	*1 L3	L4	No.1	No.2	No.3	No.4		
EZH 04019CT-120	●		19.05			18	120				32.7					Fig.3	EZB ^{R/L} ...040... EZBFR...040... EZBTR...040... EZVBR...040... EZBPR...040... EZG ^{R/L} ...040... EZFG ^{R/L} ...040... EZTR...040...
04020CT-120	●		20			19	120										
04022CT-135	●	4	22	13	6	21	135	16	8	22	41.5	20.5	16.5	12.5	8.5		
04025.0CT-135	●		25			24	135				32.7						
04025.4CT-120	●		25.4			24.4	120										
EZH 04519CT-120	●		19.05			18	120				30.0					Fig.3	EZB ^{R/L} ...045... _045X...-050EZP
04520CT-120	●		20			19	120										
04522CT-135	●	4.5	22	16	6	21	135	18	9	23	44.0	23	18.5	14	9.5		
04525.0CT-135	●		25			24	135				30.0	(14)	(9.5)	(-)	(-)		
04525.4CT-120	●		25.4			24.4	120										
EZH 05019CT-120	●		19.05			18	120				30.0					Fig.3	EZB ^{R/L} ...050... EZBFR...050... EZBTR...050... EZVBR...050... EZBPR...050... EZBCR...050... EZG ^{R/L} ...050... EZFG ^{R/L} ...050... EZTR...050... _050X...-060EZP
05020CT-120	●		20			19	120										
05022CT-135	●	5	22	16	6	21	135	18	9	26	44.0	25.5	20.5	15.5	10.5		
05025.0CT-135	●		25			24	135				30.0	(15.5)	(10.5)	(-)	(-)		
05025.4CT-120	●		25.4			24.4	120										
EZH 06019CT-120	●		19.05			18	120				30.0					Fig.3	EZB ^{R/L} ...060... EZBFR...060... EZVBR...060... EZBPR...060... EZBCR...060... EZG ^{R/L} ...060... EZTR...060... _060X...-070EZP
06020CT-120	●		20			19	120										
06022CT-135	●	6	22	16	7.4	21	135	18	9	28	41.5	30.5	25.5	20.5	15.5		
06025.0CT-135	●		25			24	135				30.0	(18.5)	(13.5)	(-)	(-)		
06025.4CT-120	●		25.4			24.4	120										
EZH 07019CT-120	●		19.05			18	120				30.0					Fig.3	EZB ^{R/L} ...070... EZBCR...070... EZG ^{R/L} ...070... EZFG ^{R/L} ...070... EZTR...070... _070X...-080EZP
07020CT-120	●		20			19	120										
07022CT-135	●	7	22	16	7.4	21	135	18	9	29	44.0	35.5	30.5	25.5	20.5		
07025.0CT-135	●		25			24	135				30.0	(21.5)	(16.5)	(11.5)	(-)		
07025.4CT-120	●		25.4			24.4	120										
EZH 08019CT-120	●		19.05			18	120				34.0					Fig.3	EZB ^{R/L} ...080... _080X...-100EZP
08020CT-120	●		20			19	120										
08022CT-135	●	8	22	16	8.6	21	135	18	9	33	44.0	40.5	35.5	30.5	25.5		
08025.0CT-135	●		25			24	135				34.0	(24.5)	(19.5)	(14.5)	(-)		
08025.4CT-120	●		25.4			24.4	120										

*1. L3 shows DCB length *2. LPR shows overhang length of the EZB Bar (except for long type) when attached to sleeve. () value indicates the overhang length when installed the steel boring bar (EZ Bar PLUS) ● : Std. Item
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(except EZH080CT...)

EZH-CT Internal Structure

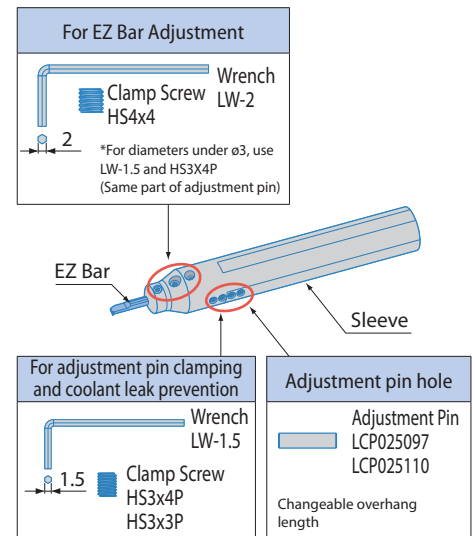


Parts (For EZH-CT Sleeves)

Description	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-..			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 $\phi 2.5$ mm 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 $\phi 3$ mm,
use clamp screw (HS3X4P)
For Adjustment Pin 2 pcs
For liquid leak prevention 4 pcs
For EZ Bar 3 pcs



EZ Bar Mounting Procedure (EZH-CT sleeve)

How to use adjustment pin and prevent liquid leak (Fig. 4)

- (1) Put the adjustment pin into the hole. Push it into the sleeve, using the wrench "LW-1.5"
- (2) Tighten the clamp screw for the adjustment pin (HS3X4P, HS3X3P) using the wrench (LW-1.5) from the both sides of the sleeve
- (3) Put the clamp screws (HS3X4P, HS3X3P) 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 Secure Bar (Fig.5)

- (1) With the chip pocket upward, set the bar in sleeve. Press the slant of the end of the bar against the adjustment pin
Make sure that the bar does not rotate (Fig.6)
- (2) Tighten the clamp screw with wrench "LW-2" and secure the bar
(Use "LW-1.5" if shank dia. is 3 mm or less)

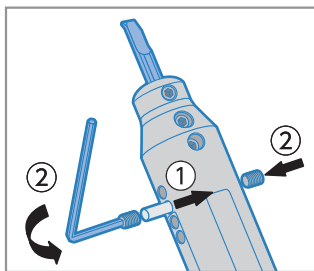


Fig.4 How to Use Adjustment Pin

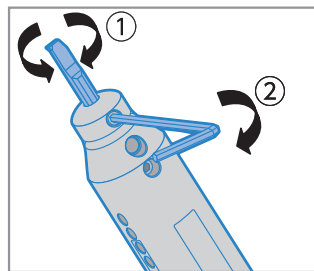


Fig.5 How to Secure Bar

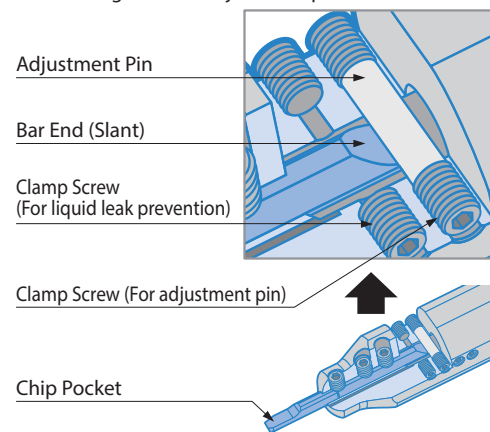


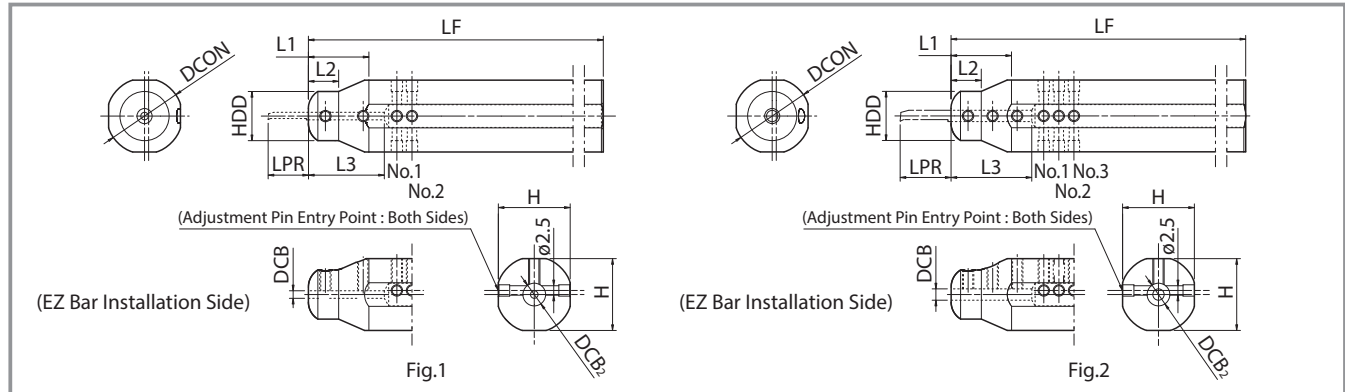
Fig.6 Clamped Bar

Sleeve Identification System

EZ	H	020	19	CT - 120	
Bar Symbol (EZ Bar)	Application H : Sleeve	Shank Dia. of EZ Bar 020 : 2.0 mm 025 : 2.5 mm	Sleeve Shank Dia. 19 : 19.05 mm 25.4 : 25.4 mm	Precision Symbol CT : With Coolant Hole and EZ Adjust Structure HP : EZ Adjust Structure ST : Standard	Overall Length of Sleeve 120 : 120 mm 135 : 135 mm

Applicable Sleeve

EZ Adjust
Structure



Sleeve Dimensions

Description	Stock	Dimensions (mm)									Bar Overhang Length ^{*2} LPR (mm)				Drawing	Applicable EZ Bar	
		DCB	DCON	HDD	DCB ₂	H	LF	L1	L2	*1 L3	No.1	No.2	No.3	No.4			
EZH 01716HP-100	●	1.7	16	13	6	15	100	16	8	16	7.5	3.5	-	-	Fig.1	EZBR...017...	
01719HP-120	●		19.05			18	120										
01720HP-120	●		20			19	120										
01722HP-135	●		22			21	135										
01725.0HP-135	●		25			24	135										
01725.4HP-120	●		25.4			24.4	120										
EZH 02016HP-100	●	2	16	13	6	15	100	16	8	20	8.5	4.5	-	-	Fig.1	EZB ^R /L...020... EZBPR...020...	
02019HP-120	●		19.05			18	120										
02020HP-120	●		20			19	120										
02022HP-135	●		22			21	135										
02025.0HP-135	●		25			24	135										
02025.4HP-120	●		25.4			24.4	120										
EZH 02516HP-100	●	2.5	16	13	6	15	100	16	8	20	11	7	-	-	Fig.1	EZB ^R /L...025... EZTR...025...	
02519HP-120	●		19.05			18	120										
02520HP-120	●		20			19	120										
02522HP-135	●		22			21	135										
02525.0HP-135	●		25			24	135										
02525.4HP-120	●		25.4			24.4	120										
EZH 03016HP-100	●	3	16	13	6	15	100	16	8	21	13.5	9.5	5.5	-	Fig.2	EZB ^R /L...030... EZBFR...030... EZVBR...030... EZBPR...030... EZGR...030... EZTR...030...	
03019HP-120	●		19.05			18	120										
03020HP-120	●		20			19	120										
03022HP-135	●		22			21	135										
03025.0HP-135	●		25			24	135										
03025.4HP-120	●		25.4			24.4	120										
EZH 03516HP-100	●	3.5	16	13	6	15	100	16	8	22	15.5	11.5	7.5	-	Fig.2	EZB ^R /L...035... EZTR...035...	
03519HP-120	●		19.05			18	120										
03520HP-120	●		20			19	120										
03522HP-135	●		22			21	135										
03525.0HP-135	●		25			24	135										
03525.4HP-120	●		25.4			24.4	120										
EZH 04016HP-100	●	4	16	13	6	15	100	16	8	24	20.5	16.5	12.5	8.5	Fig.4	EZB ^R /L...040... EZBFR...040... EZBTR...040... EZVBR...040... EZBPR...040... EZG ^R /L...040... EZFG ^R /L...040... EZTR...040...	
04019HP-120	●		19.05			18	120										
04020HP-120	●		20			19	120										
04022HP-135	●		22			21	135										
04025.0HP-135	●		25			24	135										
04025.4HP-120	●		25.4			24.4	120										

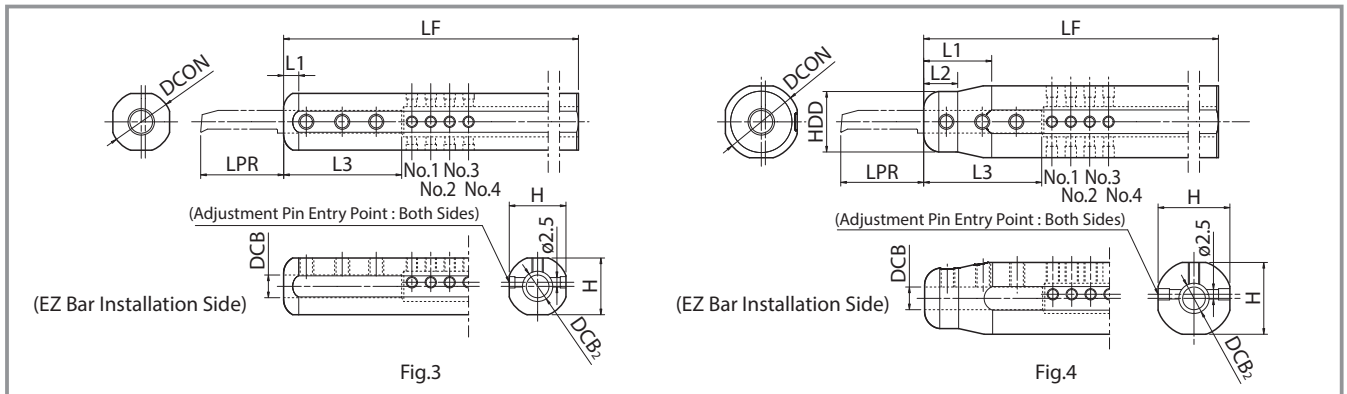
*1. L3 shows DCB length *2. LPR shows overhang length of the EZB Bar when attached to sleeve
Choose sleeves (DCB) to meet with DCON dimension of bar

● : Std. Item

Parts (For EZH-HP Sleeves)

Description	Spare Parts				
	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
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

Applicable Sleeve



Sleeve Dimensions

Description	Stock	Dimensions (mm)									Bar Overhang Length ² LPR (mm)				Drawing	Applicable EZ Bar
		DCB	DCON	HDD	DCB ₂	H	LF	L1	L2	¹ L3	No.1	No.2	No.3	No.4		
EZH 04516HP-100	●	4.5	16	16	6	15	100	4	—	25.3	23 (14)	18.5 (9.5)	14 (—)	9.5 (—)	Fig.3	EZB ^R / _L ...045... _045X...-050EZP
04519HP-120	●		19.05			18	120	18	9							
04520HP-120	●		20			19	120									
04522HP-135	●		22			21	135									
04525.0HP-135	●		25			24	135									
04525.4HP-120	●		25.4			24.4	120									
EZH 05016HP-100	●	5	16	16	6	15	100	4	—	29	25.5 (15.5)	20.5 (10.5)	15.5 (—)	10.5 (—)	Fig.3	EZB ^R / _L ...050... EZBFR...050... EZBTR...050... EZVBR...050... EZBPR...050... EZBCR...050... EZG ^R / _L ...050... EZFG ^R / _L ...050... EZTR...050... _050X...-060EZP
05019HP-120	●		19.05			18	120	18	9							
05020HP-120	●		20			19	120									
05022HP-135	●		22			21	135									
05025.0HP-135	●		25			24	135									
05025.4HP-120	●		25.4			24.4	120									
EZH 06016HP-100	●	6	16	16	8	15	100	4	—	31	30.5 (18.5)	25.5 (13.5)	20.5 (—)	15.5 (—)	Fig.3	EZB ^R / _L ...060... EZBFR...060... EZVBR...060... EZBPR...060... EZBCR...060... EZG ^R / _L ...060... EZTR...060... _060X...-070EZP
06019HP-120	●		19.05			18	120	18	9							
06020HP-120	●		20			19	120									
06022HP-135	●		22			21	135									
06025.0HP-135	●		25			24	135									
06025.4HP-120	●		25.4			24.4	120									
EZH 07016HP-100	●	7	16	16	8	15	100	4	—	33	35.5 (21.5)	30.5 (16.5)	25.5 (11.5)	20.5 (—)	Fig.3	EZB ^R / _L ...070... EZBCR...070... EZG ^R / _L ...070... EZFG ^R / _L ...070... EZTR...070... _070X...-080EZP
07019HP-120	●		19.05			18	120	18	9							
07020HP-120	●		20			19	120									
07022HP-135	●		22			21	135									
07025.0HP-135	●		25			24	135									
07025.4HP-120	●		25.4			24.4	120									
EZH 08019HP-120	●	8	19.05	16	8.4	18	120	18	9	37	40.5 (24.5)	35.5 (19.5)	30.5 (14.5)	25.5 (—)	Fig.4	EZB ^R / _L ...080... _080X...-100EZP
08020HP-120	●		20			19	120									
08022HP-135	●		22			21	135									
08025.0HP-135	●		25			24	135									
08025.4HP-120	●		25.4			24.4	120									

*1. L3 shows DCB length *2. 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

● : Std. Item

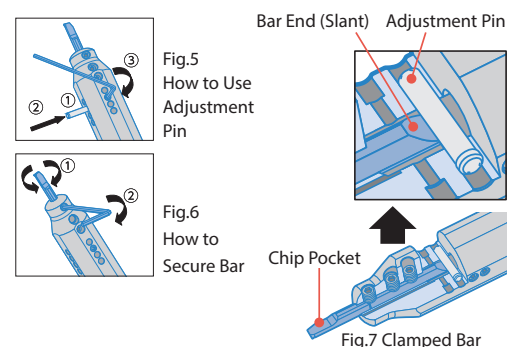
EZ Bar Mounting Procedure (EZH-HP sleeve)

How to Use Adjustment Pin (Fig.5)

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

How to Secure Bar (Fig.6)

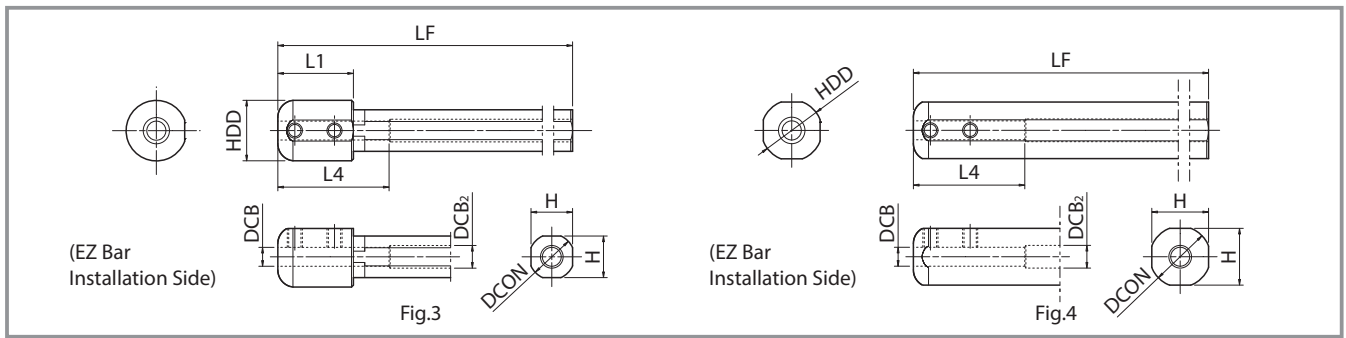
- (1) With the chip pocket upward, set the bar in sleeve. Press the slant of the end of the bar against the adjustment pin. Make sure that the bar does not rotate (Fig.7)
- (2) Tighten the clamp screw with wrench "LW-2" and secure the bar
(Use "LW-1.5" if shank dia. is 3 mm or less)



NOT Adjustable



*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

Description	Stock	Dimensions (mm)											Drawing	Applicable EZ Bar	
		DCB	DCON	HDD	HDD ₂	DCB ₂	H	LF	L1	L2	L3	L4			
EZH 05012ST-80	●	5	12	16	-	6	11	80	20	-	-	29	Fig.3	EZB ^{R/L} ...050...	
	05016ST-100		●				16	15	100				-	Fig.4	EZBFR...050...
	05019ST-120		●				19.05	18	120	18	9	-	29	Fig.2	EZVBR...050...
	05020ST-120		●				20	19	120						EZBPR...050...
	05022ST-135		●				22	21	135						EZBCR...050...
	05025.0ST-135		●				25	24	135						EZG ^{R/L} ...050...
	05025.4ST-120		●				25.4	24.4	120						EZFG ^{R/L} ...050...
EZH 06012ST-80	●	6	12	16	-	8	11	80	20	-	-	31	Fig.3	EZB ^{R/L} ...060...	
	06016ST-100		●				16	15	100				-	Fig.4	EZBFR...060...
	06019ST-120		●				19.05	18	120	18	9	-	31	Fig.2	EZVBR...060...
	06020ST-120		●				20	19	120						EZBPR...060...
	06022ST-135		●				22	21	135						EZBCR...060...
	06025.0ST-135		●				25	24	135						EZG ^{R/L} ...060...
	06025.4ST-120		●				25.4	24.4	120						EZTR...060...
EZH 07012ST-80	●	7	12	16	-	8	11	80	20	-	-	33	Fig.3	EZB ^{R/L} ...070...	
	07016ST-100		●				16	15	100				-	Fig.4	EZBCR...070...
	07019ST-120		●				19.05	18	120	18	9	-	33	Fig.2	EZG ^{R/L} ...070...
	07020ST-120		●				20	19	120						EZFG ^{R/L} ...070...
	07022ST-135		●				22	21	135						EZTR...070...
	07025.0ST-135		●				25	24	135						_070X...-080EZP
	07025.4ST-120		●				25.4	24.4	120						
EZH 08016ST-100	●	8	16	16	-	8.4	15	100	-	-	-	37	Fig.4	EZB ^{R/L} ...080...	
	08019ST-120		●				19.05	18	120	18			9	-	37
	08020ST-120		●				20	19	120						
	08022ST-135		●				22	21	135						
	08025.0ST-135		●				25	24	135						
	08025.4ST-120		●				25.4	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

● : Std. Item

Parts (For EZH-ST Sleeves)

Description	Spare Parts		Applicable EZ Bar		EZ Bar PLUS
	Clamp Screw	Wrench	EZB-HP EZB-HP-LT EZB-ST EZB-NB	EZBF EZBT EZVB EZBP EZFG EZT	
EZH 017...ST-...	HS3×4P	LW-1.5 Tightening Torque 1N・m	EZBR...017...	-	-
020...ST-...			EZB R/L...020...	EZBPR...020-...	-
025...ST-...			EZB R/L...025...	EZTR...025-...	-
030...ST-...			EZB R/L...030...	EZ_R...030-...	-
EZH 035...ST-...	HS4×4P	LW-2 Tightening Torque 2N・m	EZB R/L...035...	EZTR...035-...	-
040...ST-...			EZB R/L...040...	EZ_R...040-...	-
050...ST-...			EZB R/L...050...	EZ_R...050-...	_050X...-060EZP
060...ST-...			EZB R/L...060...	EZ_R...060-...	_060X...-070EZP
070...ST-...			EZB R/L...070...	EZ_R...070-...	_070X...-080EZP
080...ST-...			EZB R/L...080...	-	_080X...-100EZP

Applicable Sleeves for Machine Manufacturers

Sleeve Description				Applicable EZ Bar				Applicable Machine Manufacturer	
EZH-CT (EZ Adjust Structure and with Coolant Hole)	EZH-HP (Adjustable)	EZH-ST	Sleeve Shank Dia.	EZB	EZBF • EZBT • EZVB • EZBP • EZBC • EZG • EZFG • EZT	EZ Bar PLUS	Shank Dia.		
			DCON (mm)				DCON (mm)		
-	-	EZH 01712ST-80	12	EZBR ...017...	-	-	1.7	(General Machines)	
		02012ST-80		EZB R/L ...020...	EZBPR ...020...		2		
		02512ST-80		EZB R/L ...025...	EZ ...025...		2.5		
		03012ST-80		EZB R/L ...030...	EZ ...030...		3		
		03512ST-80		EZB R/L ...035...	EZ ...035...		3.5		
		04012ST-80		EZB R/L ...040...	EZ ...040...		4		
		05012ST-80		EZB R/L ...050...	EZ ...050...		5		
		06012ST-80		EZB R/L ...060...	EZ ...060...		6		
		07012ST-80		EZBR ...070...	EZ ...070...		7		
-	EZH 01716HP-100	EZH 01716ST-100	16	EZBR ...017...	-	-	1.7	(General Machines)	
	02016HP-100	02016ST-100		EZB R/L ...020...	EZBPR ...020...		2		
	02516HP-100	02516ST-100		EZB R/L ...025...	EZ ...025...		2.5		
	03016HP-100	03016ST-100		EZB R/L ...030...	EZ ...030...		3		
	03516HP-100	03516ST-100		EZB R/L ...035...	EZ ...035...		3.5		
	04016HP-100	04016ST-100		EZB R/L ...040...	EZ ...040...		4		
	04516HP-100	-		EZB R/L ...045...	-		5/c 045X- ...050EZP		4.5
	05016HP-100	05016ST-100		EZB R/L ...050...	EZ ...050...		5/c 050X- ...060EZP		5
	06016HP-100	06016ST-100		EZB R/L ...060...	EZ ...060...		5/c 060X- ...070EZP		6
07016HP-100	07016ST-100	EZBR ...070...	EZ ...070...	5/c 070X- ...080EZP	7				
-	-	08016ST-100	EZB R/L ...080...	-	5/c 080X- ...100EZP	8			
EZH 01719CT-120	EZH 01719HP-120	EZH 01719ST-120	19.05	EZBR ...017...	-	-	1.7	Citizen Machinery	
02019CT-120	02019HP-120	02019ST-120		EZB R/L ...020...	EZBPR ...020...		2		
02519CT-120	02519HP-120	02519ST-120		EZB R/L ...025...	EZ ...025...		2.5		
03019CT-120	03019HP-120	03019ST-120		EZB R/L ...030...	EZ ...030...		3		
03519CT-120	03519HP-120	03519ST-120		EZB R/L ...035...	EZ ...035...		3.5		
04019CT-120	04019HP-120	04019ST-120		EZB R/L ...040...	EZ ...040...		4		
04519CT-120	04519HP-120	-		EZB R/L ...045...	-		5/c 045X- ...050EZP		4.5
05019CT-120	05019HP-120	05019ST-120		EZB R/L ...050...	EZ ...050...		5/c 050X- ...060EZP		5
06019CT-120	06019HP-120	06019ST-120		EZB R/L ...060...	EZ ...060...		5/c 060X- ...070EZP		6
07019CT-120	07019HP-120	07019ST-120	EZBR ...070...	EZ ...070...	5/c 070X- ...080EZP	7			
08019CT-120	08019HP-120	08019ST-120	EZB R/L ...080...	-	5/c 080X- ...100EZP	8			
EZH 01720CT-120	EZH 01720HP-120	EZH 01720ST-120	20	EZBR ...017...	-	-	1.7	Eguro Tsugami Citizen Machinery (General Machines)	
02020CT-120	02020HP-120	02020ST-120		EZB R/L ...020...	EZBPR ...020...		2		
02520CT-120	02520HP-120	02520ST-120		EZB R/L ...025...	EZ ...025...		2.5		
03020CT-120	03020HP-120	03020ST-120		EZB R/L ...030...	EZ ...030...		3		
03520CT-120	03520HP-120	03520ST-120		EZB R/L ...035...	EZ ...035...		3.5		
04020CT-120	04020HP-120	04020ST-120		EZB R/L ...040...	EZ ...040...		4		
04520CT-120	04520HP-120	-		EZB R/L ...045...	-		5/c 045X- ...050EZP		4.5
05020CT-120	05020HP-120	05020ST-120		EZB R/L ...050...	EZ ...050...		5/c 050X- ...060EZP		5
06020CT-120	06020HP-120	06020ST-120		EZB R/L ...060...	EZ ...060...		5/c 060X- ...070EZP		6
07020CT-120	07020HP-120	07020ST-120	EZBR ...070...	EZ ...070...	5/c 070X- ...080EZP	7			
08020CT-120	08020HP-120	08020ST-120	EZB R/L ...080...	-	5/c 080X- ...100EZP	8			
EZH 01722CT-135	EZH 01722HP-135	EZH 01722ST-135	22	EZBR ...017...	-	-	1.7	Star Micronics Nomura DS Tsugami	
02022CT-135	02022HP-135	02022ST-135		EZB R/L ...020...	EZBPR ...020...		2		
02522CT-135	02522HP-135	02522ST-135		EZB R/L ...025...	EZ ...025...		2.5		
03022CT-135	03022HP-135	03022ST-135		EZB R/L ...030...	EZ ...030...		3		
03522CT-135	03522HP-135	03522ST-135		EZB R/L ...035...	EZ ...035...		3.5		
04022CT-135	04022HP-135	04022ST-135		EZB R/L ...040...	EZ ...040...		4		
04522CT-135	04522HP-135	-		EZB R/L ...045...	-		5/c 045X- ...050EZP		4.5
05022CT-135	05022HP-135	05022ST-135		EZB R/L ...050...	EZ ...050...		5/c 050X- ...060EZP		5
06022CT-135	06022HP-135	06022ST-135		EZB R/L ...060...	EZ ...060...		5/c 060X- ...070EZP		6
07022CT-135	07022HP-135	07022ST-135	EZBR ...070...	EZ ...070...	5/c 070X- ...080EZP	7			
08022CT-135	08022HP-135	08022ST-135	EZB R/L ...080...	-	5/c 080X- ...100EZP	8			
EZH 01725.0CT-135	EZH 01725.0HP-135	EZH 01725.0ST-135	25	EZBR ...017...	-	-	1.7	Eguro Tsugami Citizen Machinery (General Machines)	
02025.0CT-135	02025.0HP-135	02025.0ST-135		EZB R/L ...020...	EZBPR ...020...		2		
02525.0CT-135	02525.0HP-135	02525.0ST-135		EZB R/L ...025...	EZ ...025...		2.5		
03025.0CT-135	03025.0HP-135	03025.0ST-135		EZB R/L ...030...	EZ ...030...		3		
03525.0CT-135	03525.0HP-135	03525.0ST-135		EZB R/L ...035...	EZ ...035...		3.5		
04025.0CT-135	04025.0HP-135	04025.0ST-135		EZB R/L ...040...	EZ ...040...		4		
04525.0CT-135	04525.0HP-135	-		EZB R/L ...045...	-		5/c 045X- ...050EZP		4.5
05025.0CT-135	05025.0HP-135	05025.0ST-135		EZB R/L ...050...	EZ ...050...		5/c 050X- ...060EZP		5
06025.0CT-135	06025.0HP-135	06025.0ST-135		EZB R/L ...060...	EZ ...060...		5/c 060X- ...070EZP		6
07025.0CT-135	07025.0HP-135	07025.0ST-135	EZBR ...070...	EZ ...070...	5/c 070X- ...080EZP	7			
08025.0CT-135	08025.0HP-135	08025.0ST-135	EZB R/L ...080...	-	5/c 080X- ...100EZP	8			
EZH 01725.4CT-120	EZH 01725.4HP-120	EZH 01725.4ST-120	25.4	EZBR ...017...	-	-	1.7	Citizen Machinery	
02025.4CT-120	02025.4HP-120	02025.4ST-120		EZB R/L ...020...	EZBPR ...020...		2		
02525.4CT-120	02525.4HP-120	02525.4ST-120		EZB R/L ...025...	EZ ...025...		2.5		
03025.4CT-120	03025.4HP-120	03025.4ST-120		EZB R/L ...030...	EZ ...030...		3		
03525.4CT-120	03525.4HP-120	03525.4ST-120		EZB R/L ...035...	EZ ...035...		3.5		
04025.4CT-120	04025.4HP-120	04025.4ST-120		EZB R/L ...040...	EZ ...040...		4		
04525.4CT-120	04525.4HP-120	-		EZB R/L ...045...	-		5/c 045X- ...050EZP		4.5
05025.4CT-120	05025.4HP-120	05025.4ST-120		EZB R/L ...050...	EZ ...050...		5/c 050X- ...060EZP		5
06025.4CT-120	06025.4HP-120	06025.4ST-120		EZB R/L ...060...	EZ ...060...		5/c 060X- ...070EZP		6
07025.4CT-120	07025.4HP-120	07025.4ST-120	EZBR ...070...	EZ ...070...	5/c 070X- ...080EZP	7			
08025.4CT-120	08025.4HP-120	08025.4ST-120	EZB R/L ...080...	-	5/c 080X- ...100EZP	8			

- 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
- Machine manufacturers in random order