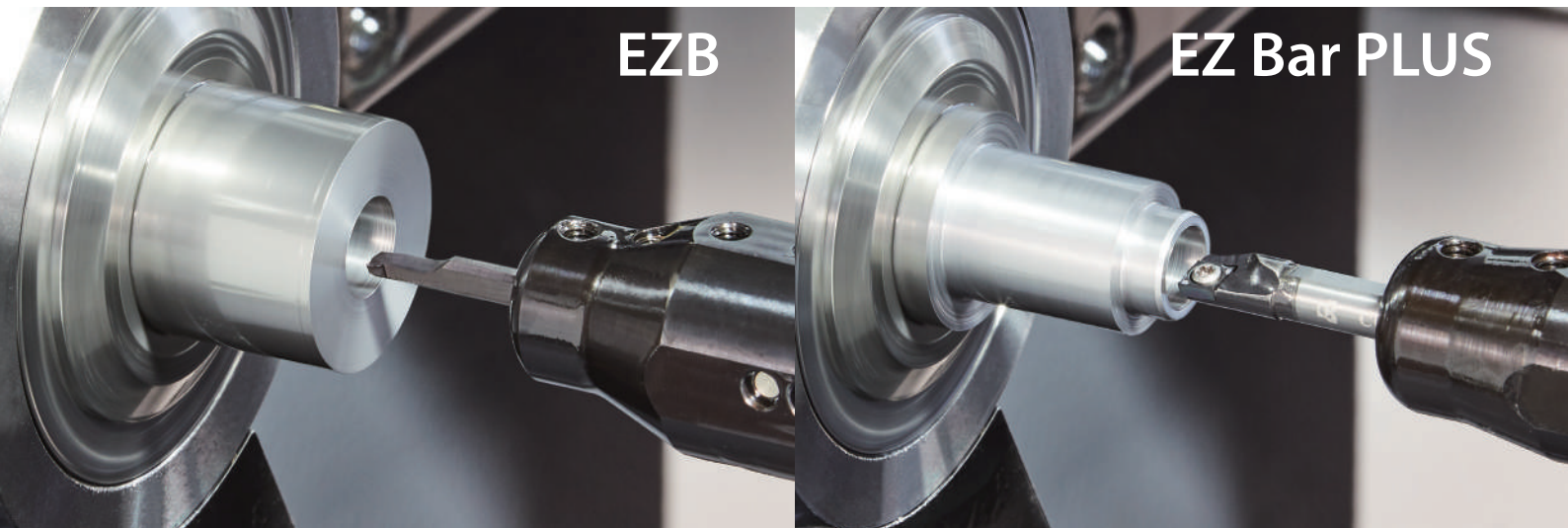


Small Internal Machining

EZ Bar Series



Easy Adjustment and High Precision for a Wide Range of Machining Applications

The EZ Bar prevents deviation with high-rigidity clamping

Unique design provides a smooth supply of coolant

Large tooling lineup for a wide application range

Internal Turning					
Boring	EZB	EZ Bar PLUS	NEW New PVD Coating PR1725	90 Degree Lead Angle	EZBF
Back Boring	EZBT		NEW	Copying	EZBP
Internal Facing · Internal Profiling	EZVB		NEW	45 Degree Chamfering	EZBC
Internal Grooving			Internal Threading		
Internal Grooving	EZG	Face Grooving	EZFG	Internal Threading	EZT



Small Internal Machining

EZ Bar Series

Min. Bore Dia. $\phi 2$ - Easy Adjustment and High Precision
 Large Tooling Lineup for a Wide Application Range

1 Large Tooling Lineup for a Wide Application Range

Can be used for boring, back boring, internal profiling, internal grooving, face grooving and threading
 Large lineup of sleeves for various tooling applications

Internal Turning

Boring EZB → P5 ~ 8

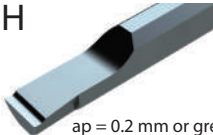
Select the HP bar for high precision and the ST bar for cost reduction (tolerances are different)

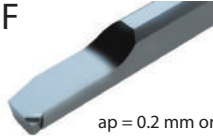


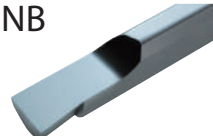
Bar Tolerance	Offset (WF)	Longitudinal Direction (L)	Cutting Edge Height (Y)	Min. Bore Dia.
HP	± 0.025 mm	± 0.05 mm	+ 0.05 mm / 0 mm	Same as Shank Dia.
ST	± 0.06 mm	± 0.1 mm	+ 0.06 mm / 0 mm	Different from Shank Dia.

Chipbreakers

Chipbreakers for Various Applications

H  1st Recommendation
 General Purpose
 Long type available
 ap = 0.2 mm or greater → P5 ~ 7

F  Finishing
 Sharpness Oriented
 ap = 0.2 mm or less → P5, 7

NB  GW05 Insert Grade for
 Aluminum Machining
 Available
 Without Chipbreaker → P8

EZ Bar PLUS → P19 ~ 20

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



Indexable EZ Bar
 Minimum Bore Diameter 5 mm

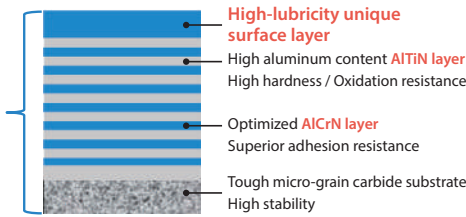
Internal Turning

NEW Newly developed PVD coating PR1725 added to EZB boring bar

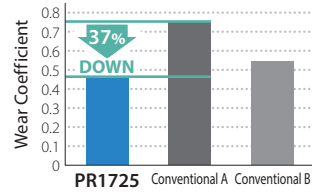
AlTiN/AlCrN Nano laminated film with superior wear resistance and adhesion resistance
Excellent surface finish and long tool life

<Reduces cracking>

Reduces abnormal damages such as chipping because of increased lamination layer with a thinner gap than conventional coatings



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)

SOLUTION

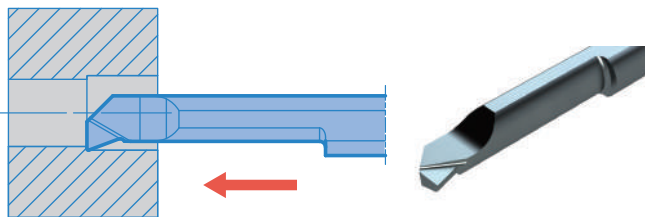
EZ Bar PR1725 18,000 pcs/edge **x2.8 Tool Life**

Conventional Conventional C 6,300 pcs/edge

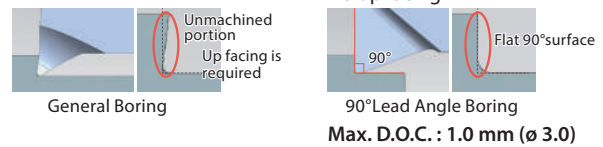
$V_c = 50 \text{ m/min}$
 $a_p = 0.2 \text{ mm}$
 $f = 0.045 \text{ mm/rev}$
Wet
EZBR035035HP-015F PR1725

The EZ bar (PR1725) showed **2.8 times** longer tool life than the conventional C (User Evaluation)

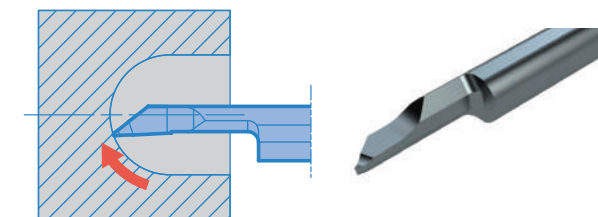
90 Degree Lead Angle EZBF → P9



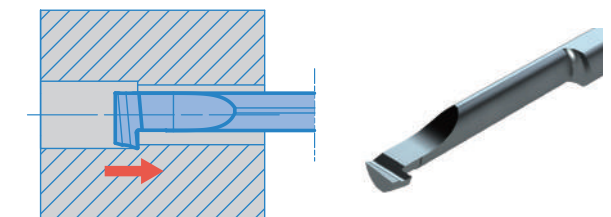
Creates a finished surface against the bore face



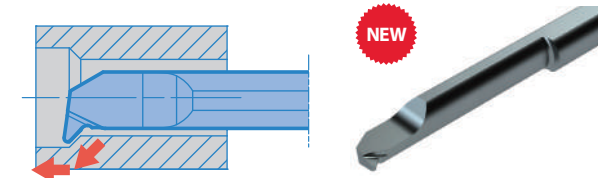
Internal Facing • Internal Profiling EZVB → P10



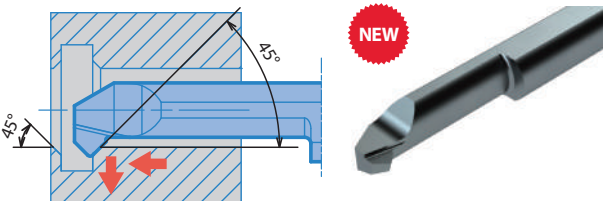
Back Boring EZBT → P10



Copying EZBP → P11

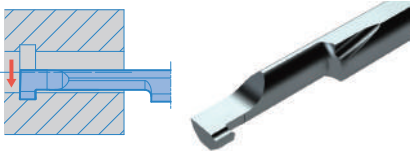


45 Degree Chamfering EZBC → P12



Internal Grooving and Threading

Internal Grooving EZG → P15



Two different overhang lengths (LU) are available



Short type with higher rigidity and chattering resistance

Chip Evacuation (Internal evaluation)

S45C

EZG EZGR040040-200 (Groove Width 2mm)			
f (mm/rev)	0.01	0.02	0.03

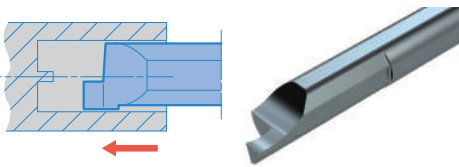
Cutting Conditions : Vc = 80 m/min, Groove depth 1.0 mm (ap = 0.2 x 5 times), Wet

SUS304

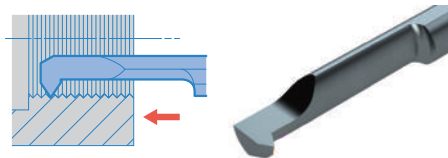
EZG EZGR040040-200 (Groove Width 2mm)		
f (mm/rev)	0.01	0.02

Cutting Conditions : Vc = 60 m/min, Groove depth 1.0 mm (ap = 0.2 x 5 times), Wet

Face Grooving EZFG → P16



Internal Threading EZT → P17 ~ 18



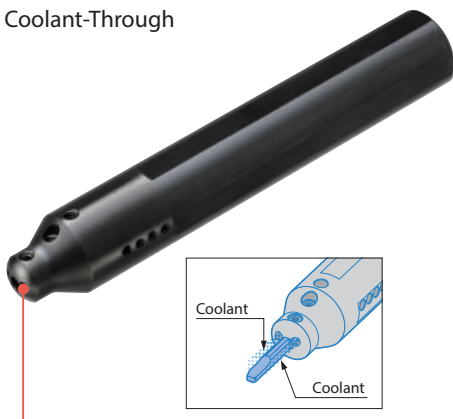
Minimum Bore Diameter 3 mm
Available for Threading M4 Metric Screw Threads

Sleeves

How to Select Sleeves

Select between three types of sleeves

EZH-CT
With EZ Adjust Structure
Coolant-Through



Smooth coolant flow due to special head design

EZH-HP
With EZ Adjust Structure

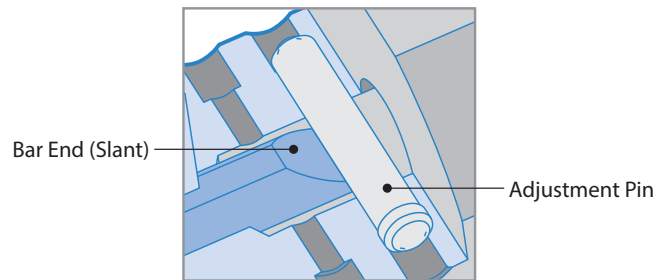
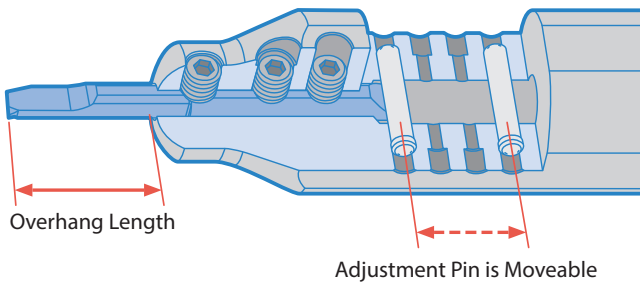


EZH-ST
Without EZ Adjust Structure
For Cost Oriented Machining



2 Adjustable Overhang Length (EZ Adjust Structure)

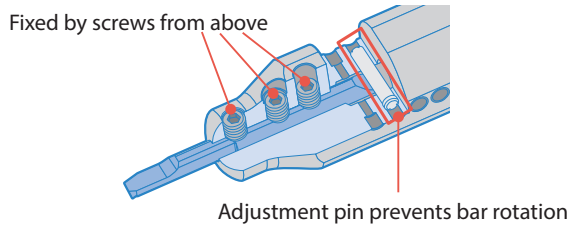
For CT sleeves with coolant holes and HP sleeves with positioning function, the overhang length can be set by moving adjustment pins



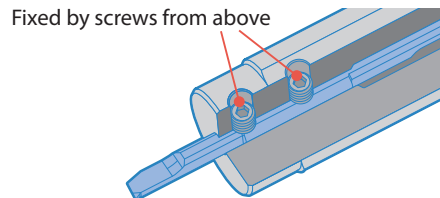
3 Minimized Deviation of Cutting Diameter

The adjustment pin prevents the bar from rotating during machining

EZ Bar

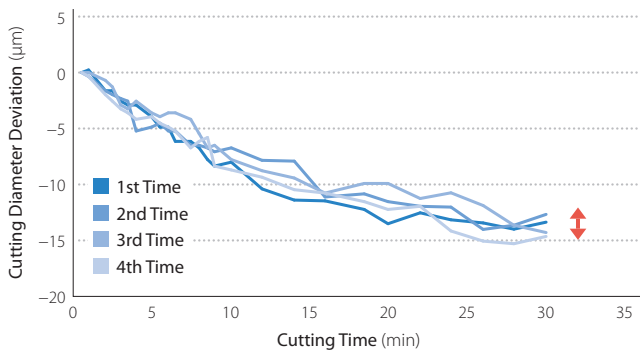


Competitor

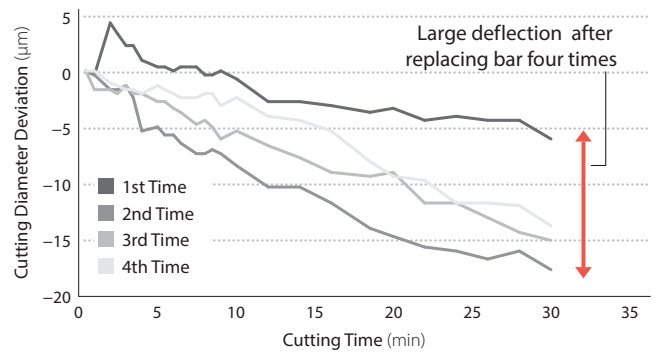


Cutting Diameter Deviation Comparison (Internal evaluation)

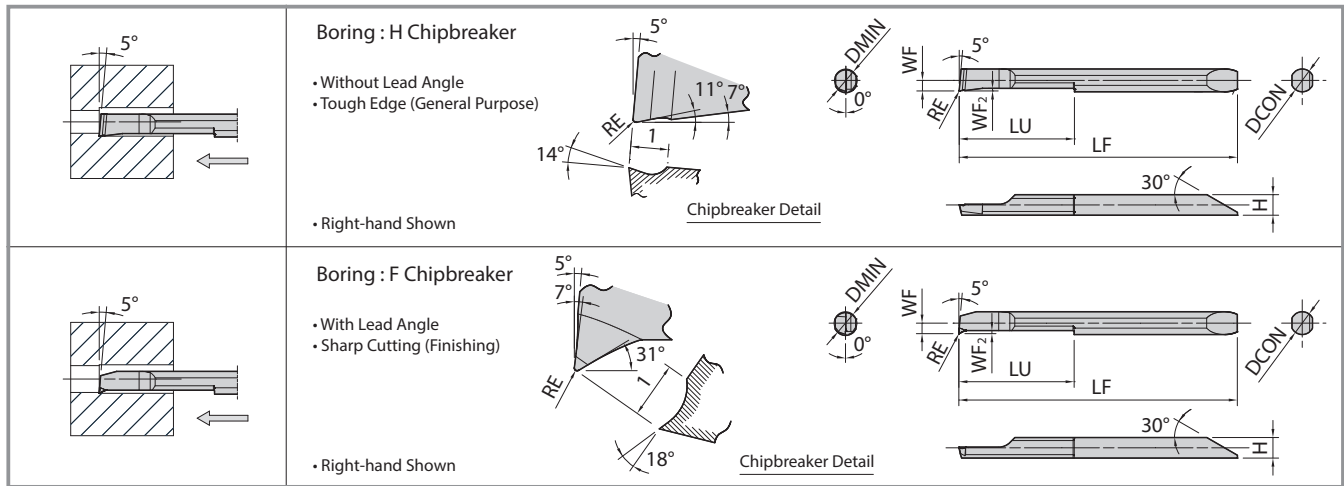
EZ Bar



Competitor A



Cutting Conditions : $V_c = 66 \text{ m/min}$, $a_p = 0.1 \text{ mm}$, $f = 0.02 \text{ mm/rev}$, Wet (oil) Workpiece : SK4

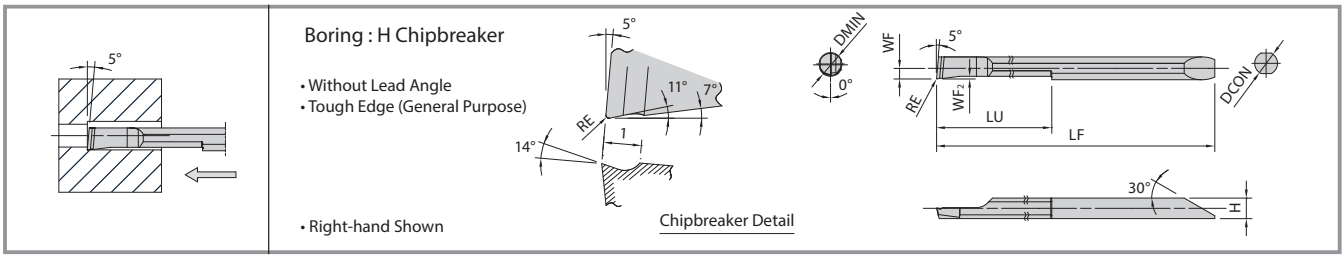


EZ Bar Dimensions

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

Tolerance (of the reference pin) : Offset ±0.025mm, Overall Length ±0.05mm, Edge Height +0.05/0mm
 *See P1 for details on tolerances

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



EZ Bar Dimensions

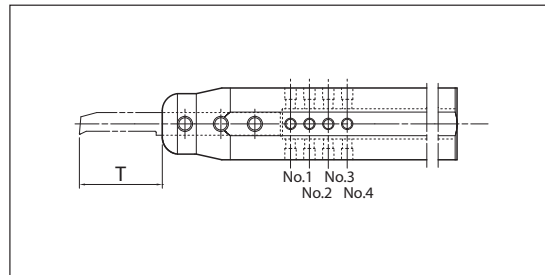
Description	Min. Bore Dia.	Dimensions (mm)										Grade MEGACOAT PR1225	Applicable Sleeve	
		DCON	H	LF	LU	*Overhang Length				WF	WF ₂			RE
						No.1	No.2	No.3	No.4					
EZBR 020020HP-008H-LT	2	2	1.8	36	12	12.5	8.5	-	-	0.85	0.25	0.08 ^{+0.015}	●	EZH020...
025025HP-008H-LT	2.5	2.5	2.3	39.5	15	15.5	11.5	-	-	1.1				
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				
040040HP-008H-LT	4	4	3.6	60.8	28	32.5	28.5	24.5	20.5	1.85	0.4		●	EZH035...
050050HP-008H-LT	5	5	4.6	73.1	35	40.5	35.5	30.5	25.5	2.35				
060060HP-008H-LT	6	6	5.6	83.1	42	47.5	42.5	37.5	32.5	2.85	0.6		●	EZH040...
													●	EZH050...
													●	EZH060...

Tolerance : Offset ±0.025mm, Overall Length ±0.05mm, Edge Height +0.05/0mm
 *See P1 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)

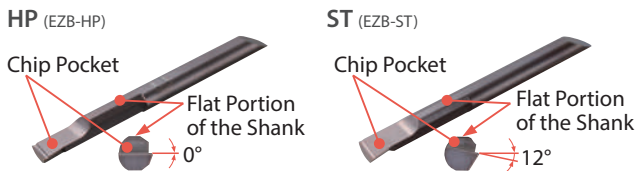
Description	Adjustment Pin Setting			
	No.1	No.2	No.3	No.4
EZBR 020020HP-008H-LT	12.5	8.5	-	-
025025HP-008H-LT	15.5	11.5	-	-
030030HP-008H-LT	22.5	18.5	14.5	-
035035HP-008H-LT	25.5	21.5	17.5	-
040040HP-008H-LT	32.5	28.5	24.5	20.5
050050HP-008H-LT	40.5	35.5	30.5	25.5
060060HP-008H-LT	47.5	42.5	37.5	32.5



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

How to Distinguish Bars

Chip Pocket Angles are Different



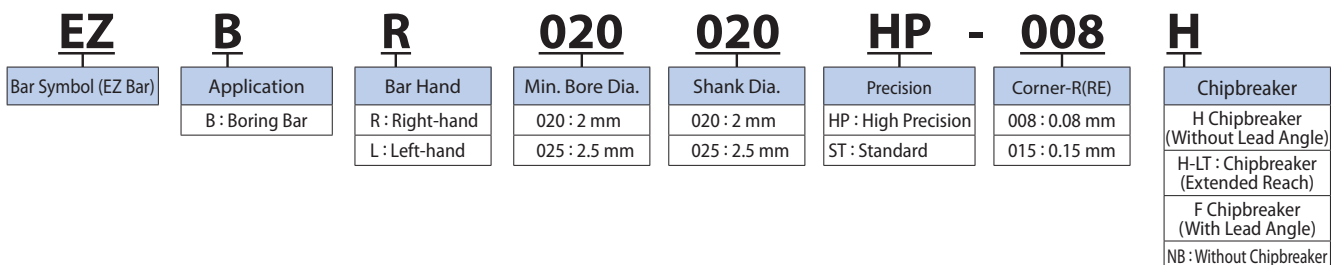
EZ Bar Compatibility

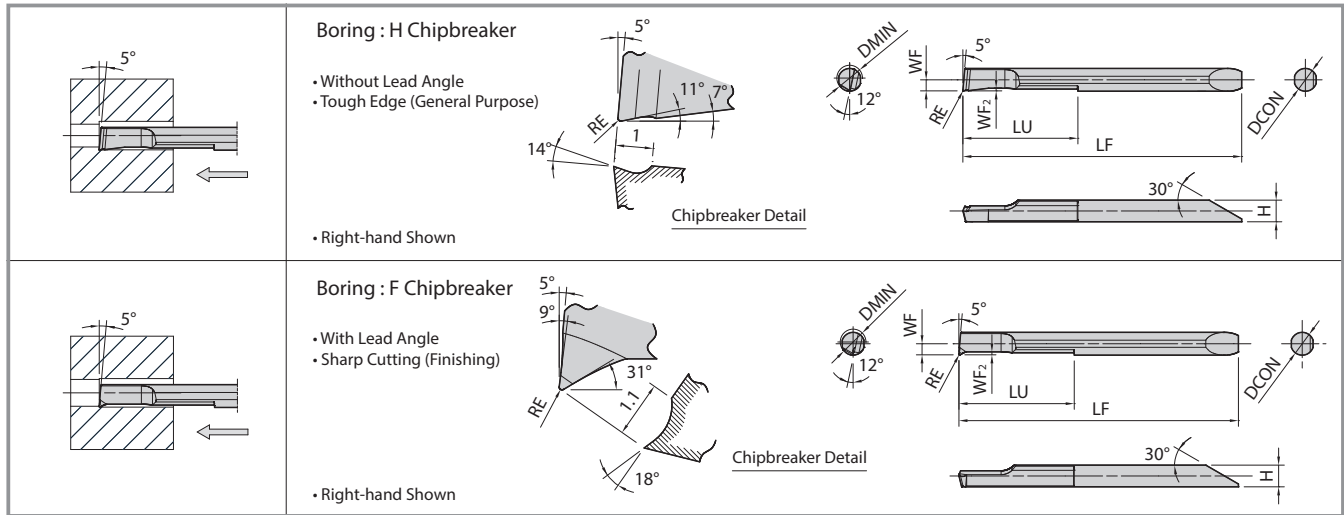
EZ Bar Compatible with Conventional Tip Bars

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



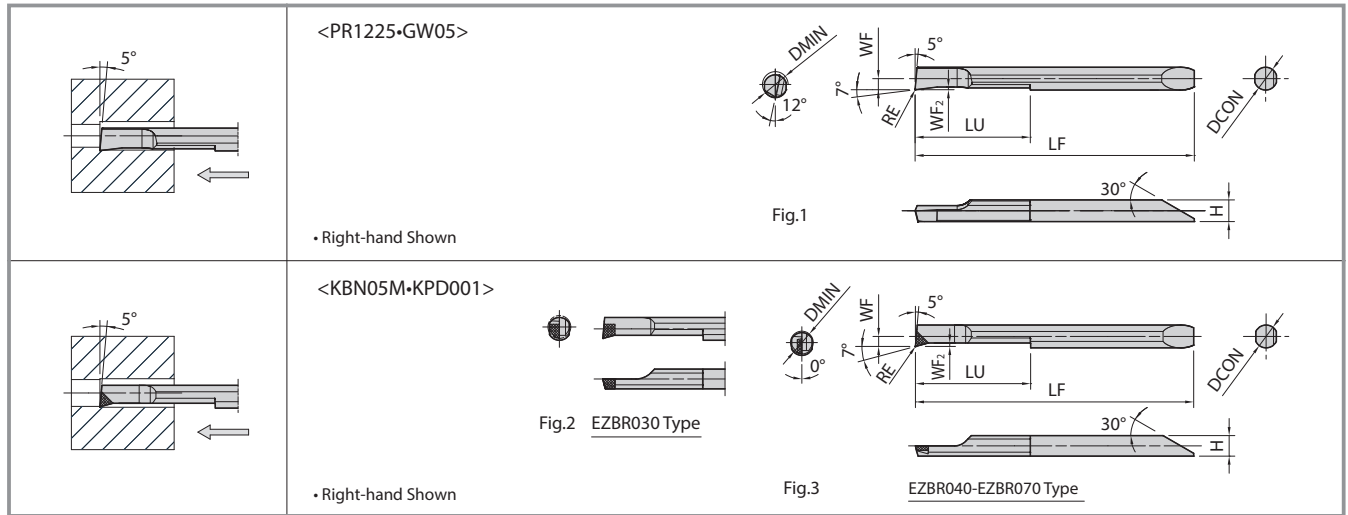


EZ Bar Dimensions

Description	Min. Bore Dia	Dimensions (mm)							Grade		Applicable Sleeve
		DMIN	DCON	H	LF	LU	WF	WF ₂	RE	MEGACOAT NANO PLUS NEW PR1725	
EZBR 020017ST-008H	2	1.7	1.5	27.3	7	0.79	0.19	0.08 ^{+0.015}	●	●	EZH017...
025020ST-008H	2.5	2	1.82	32	8	0.94	0.16	0.08 ^{+0.015}	●	●	EZH020...
025020ST-015H								0.15 ^{+0.002}	●	●	
030025ST-008H	3	2.5	2.3	35	10.5	1.19	0.15	0.08 ^{+0.015}	●	●	EZH025...
030025ST-015H								0.15 ^{+0.002}	●	●	
035030ST-008H	3.5	3	2.8	39	13	1.44	0.18	0.08 ^{+0.015}	●	●	EZH030...
035030ST-015H								0.15 ^{+0.002}	●	●	
040035ST-008H	4	3.5	3.3	42	15	1.69	0.24	0.08 ^{+0.015}	●	●	EZH035...
040035ST-015H								0.15 ^{+0.002}	●	●	
045040ST-008H	4.5	4	3.8	49	20	1.94	0.27	0.08 ^{+0.015}	●	●	EZH040...
045040ST-015H								0.15 ^{+0.002}	●	●	
055050ST-008H	5.5	5	4.8	58.2	25	2.44	0.33	0.08 ^{+0.015}	●	●	EZH050...
055050ST-015H								0.15 ^{+0.002}	●	●	
065060ST-008H	6.5	6	5.8	66.2	30	2.94	0.38	0.08 ^{+0.015}	●	●	EZH060...
065060ST-015H								0.15 ^{+0.002}	●	●	
075070ST-008H	7.5	7	6.8	74.2	35	3.44	0.44	0.08 ^{+0.015}	●	●	EZH070...
075070ST-015H								0.15 ^{+0.002}	●	●	
EZBR 020017ST-005F	2	1.7	1.5	27.3	7	0.79	0.2	0.05 ^{+0.001}	●	●	EZH017...
025020ST-005F	2.5	2	1.82	32	8	0.94	0.16	0.05 ^{+0.001}	●	●	EZH020...
025020ST-015F								0.15 ^{+0.002}	●	●	
030025ST-005F	3	2.5	2.3	35	10.5	1.19	0.2	0.05 ^{+0.001}	●	●	EZH025...
030025ST-015F								0.15 ^{+0.002}	●	●	
035030ST-005F	3.5	3	2.8	39	13	1.44	0.26	0.05 ^{+0.001}	●	●	EZH030...
035030ST-015F								0.15 ^{+0.002}	●	●	
040035ST-005F	4	3.5	3.3	42	15	1.69	0.33	0.05 ^{+0.001}	●	●	EZH035...
040035ST-015F								0.15 ^{+0.002}	●	●	
045040ST-005F	4.5	4	3.8	49	20	1.94	0.31	0.05 ^{+0.001}	●	●	EZH040...
045040ST-015F								0.15 ^{+0.002}	●	●	
055050ST-005F	5.5	5	4.8	58.2	25	2.44	0.45	0.05 ^{+0.001}	●	●	EZH050...
055050ST-015F								0.15 ^{+0.002}	●	●	
065060ST-005F	6.5	6	5.8	66.2	30	2.94	0.59	0.05 ^{+0.001}	●	●	EZH060...
065060ST-015F								0.15 ^{+0.002}	●	●	
075070ST-005F	7.5	7	6.8	74.2	35	3.44	0.65	0.05 ^{+0.001}	●	●	EZH070...
075070ST-015F								0.15 ^{+0.002}	●	●	

Tolerance : Offset ±0.06mm, Overall Length ±0.1mm, Edge Height +0.06/0mm
 *See P1 for details on tolerances

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



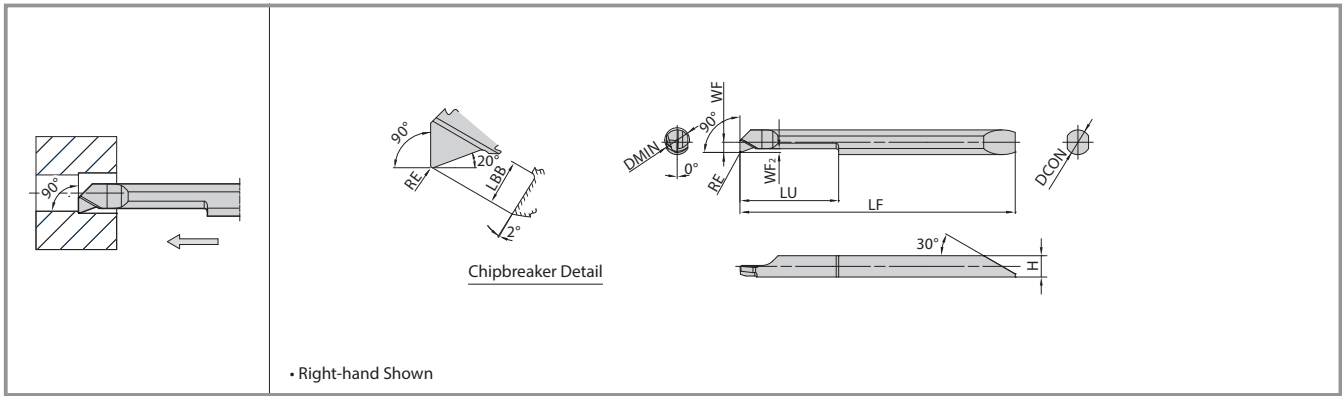
EZ Bar Dimensions

Description	Min. Bore Dia	Dimensions (mm)							Drawing	Grade				Applicable Sleeve	
		DMIN	DCON	H	LF	LU	WF	WF ₂		RE	MEGA COAT	Carbide	MEGA COAT CBN		PCD
											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	0.5	Fig.2			●		EZH030...	
040040-003NB	4	4	3.6	48.8	20	1.75							●		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	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...

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	-



• Right-hand Shown

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...	

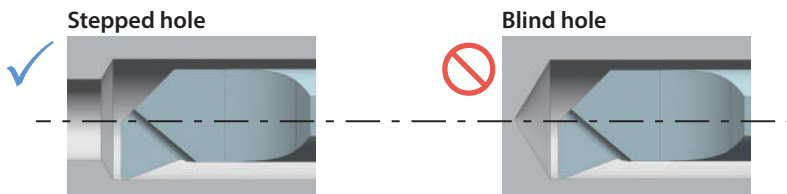
Tolerance : Offset ±0.05mm, Overall Length ±0.05mm, Edge Height +0.05/0mm
 *See P1 for details on tolerances

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

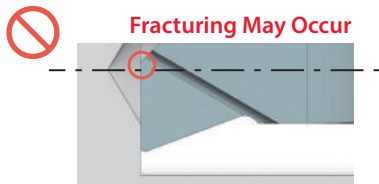
Precautions

✓ Recommended ✗ Not Recommended

1. Machining in blind hole is not recommended



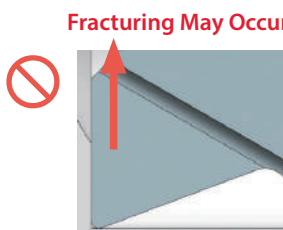
2. If front cutting edge exceeds beyond workpiece center line, fracturing may occur

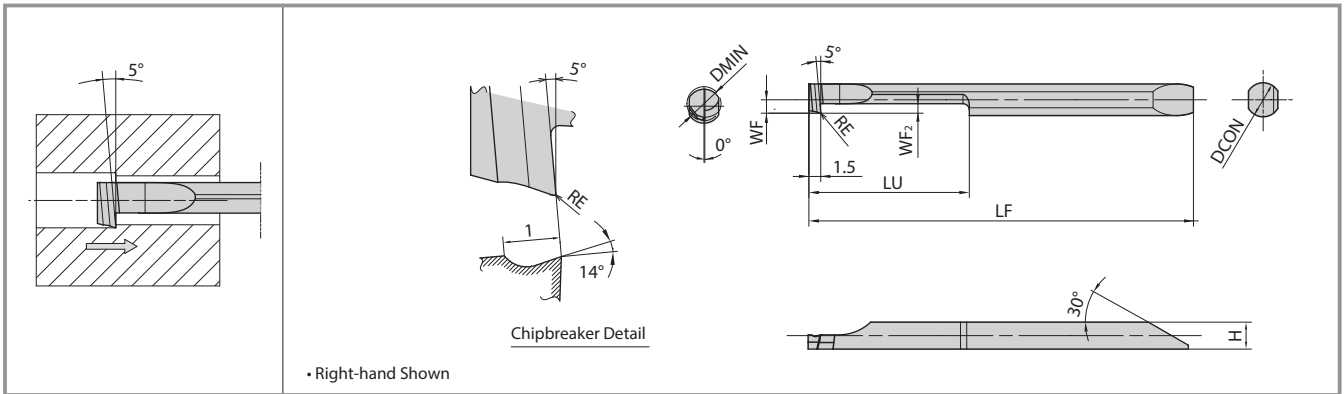


Min boring diameter of $\phi 4$: 1.9 mm front cutting edge length

Off-center Boring

3. Up facing is not recommended



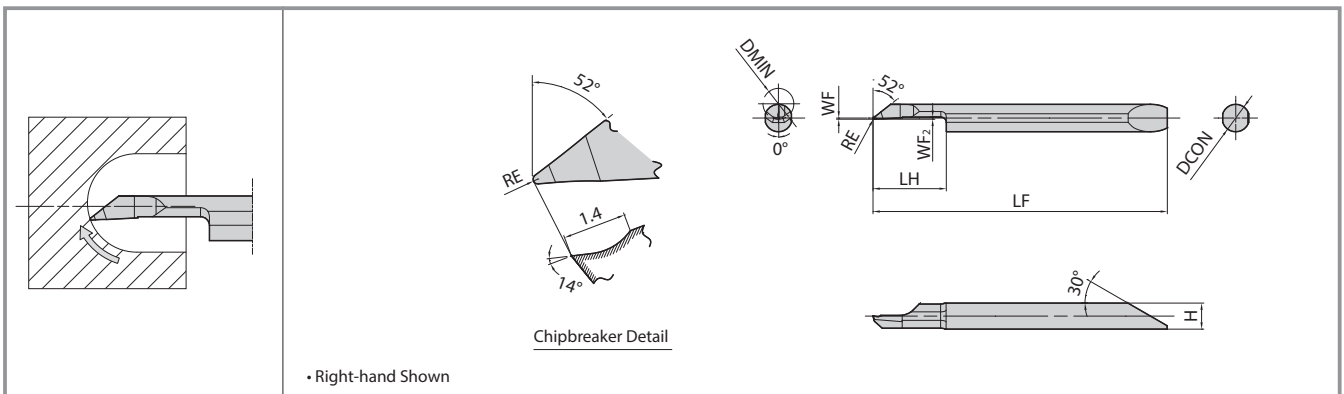


EZ Bar Dimensions

Description	Min. Bore Dia.	Dimensions (mm)							Grade		Applicable Sleeve
		DCON	H	LF	LU	WF	WF ₂	RE	MEGACOAT	Carbide	
									PR1225	GW05	
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

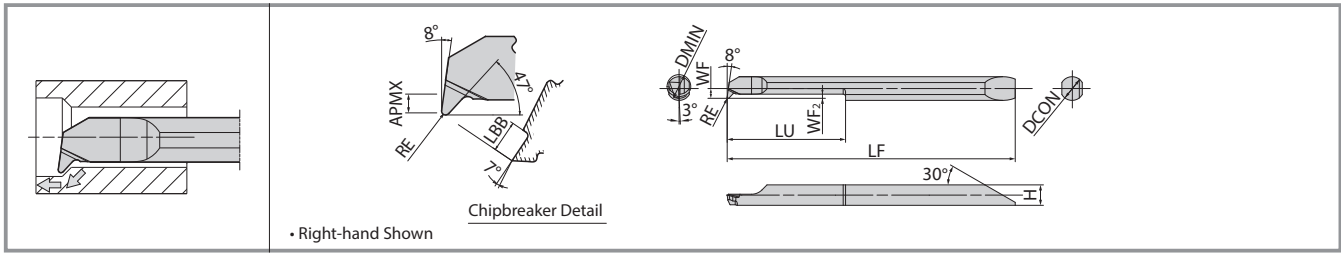
EZVB (Boring • Internal Facing • Internal Profiling)



EZ Bar Dimensions

Description	Min. Bore Dia.	Dimensions (mm)							Grade		Applicable Sleeve
		DCON	H	LF	LH	WF	WF ₂	RE	MEGACOAT		
									PR1225		
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				●	EZH040...	
055050-010	5.5	5	4.8	50.2	12				●	EZH050...	
065060-010	6.5	6	5.8	55.2	14				●	EZH060...	

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



EZ Bar Dimensions

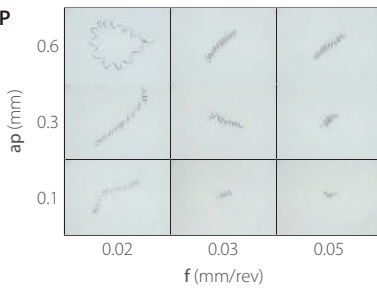
Description	Min. Bore Dia.	Dimensions (mm)									Grade	Applicable Sleeve	
		DMIN	DCON	H	LF	LU	WF	WF ₂	LBB	RE	APMX		MEGACOAT
PR1225													
EZBPR 020020-005-08	2	2	1.65	31.8	8	0.55	0.35	1.0	0.05 ^{±0.01}	0.3	0.3	●	EZH020...
020020-005-10				33.8	10							●	
020020-005-12				35.8	12							●	
030030-005-12	3	3	2.5	37.7	12	1.05	0.45	1.2	0.05 ^{±0.01}	0.4	0.4	●	EZH030...
030030-005-15				40.7	15							●	
040040-015	4	4	3.45	48.7	20	1.65	0.65	1.5	0.15 ^{±0.02}	0.6	0.6	●	EZH040...
050050-015	5	5	4.3	57.8	25	2	1.1	2.2	0.15 ^{±0.02}	0.8	0.8	●	EZH050...
060060-015	6	6	5.15	65.7	30	2.45	1.35	2.5	0.15 ^{±0.02}	1	1	●	EZH060...

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

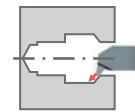
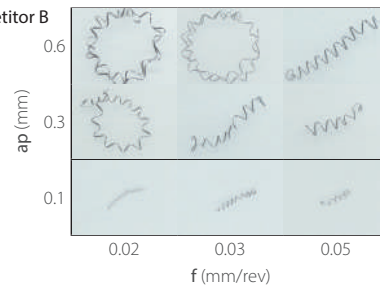
Chip Control Comparison (Internal evaluation)

Copying

EZBP



Competitor B

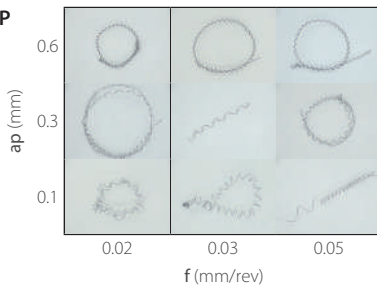


Cutting Conditions : Vc = 80 m/min, Wet
Workpiece : S45C (ø14)
EZBPR040040-015 PR1225

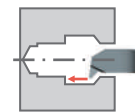
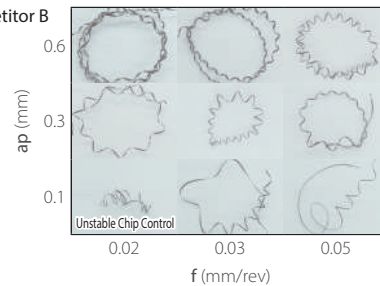
EZBP showed better chip breaking in a wide range of machining applications compared to competitor B

Boring

EZBP



Competitor B

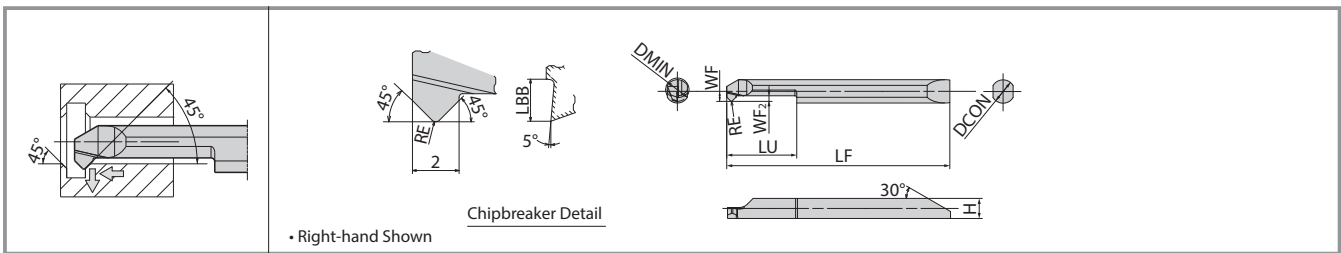


Cutting Conditions : Vc = 80 m/min, Wet
Workpiece : S45C (ø14)
EZBPR040040-015 PR1225

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

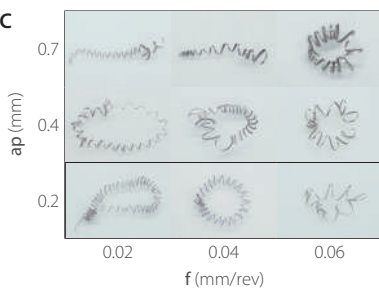
Description	Min. Bore Dia.	Dimensions (mm)								Grade	Applicable Sleeve
		DMIN	DCON	H	LF	LU	WF	WF ₂	LBB	RE	
EZBCR 050050-020-15	5	5	4.3	47.8	15	2.15	1.2	1.8	0.2 ^{+0.02}	●	EZH050...
				52.8	20					●	
060060-020-18	6	6	5.15	53.7	18	2.65	1.9	2.5		●	EZH060...
59.7				24	●						
070070-020-21	7	7	6.2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

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

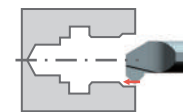
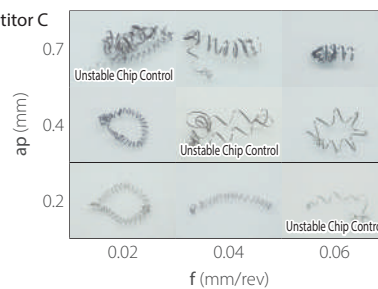
Chip Control Comparison (Internal evaluation)

Boring

EZBC



Competitor C

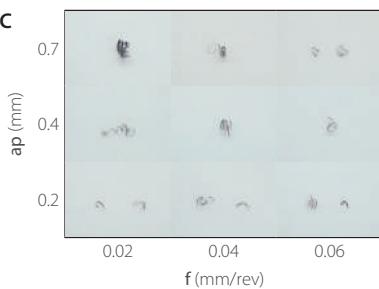


Cutting Conditions : Vc = 80 m/min, Wet
Workpiece : SUS304 (ø14)
EZBCR050050-020-15 PR1225

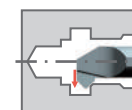
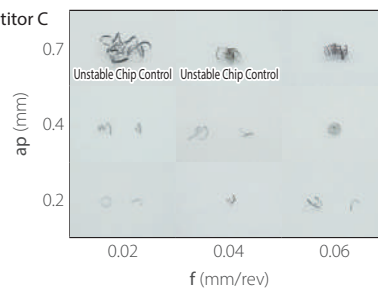
EZBC reduced chip clogging and showed stable chip control

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	

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	

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	

Recommended Cutting Conditions

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)

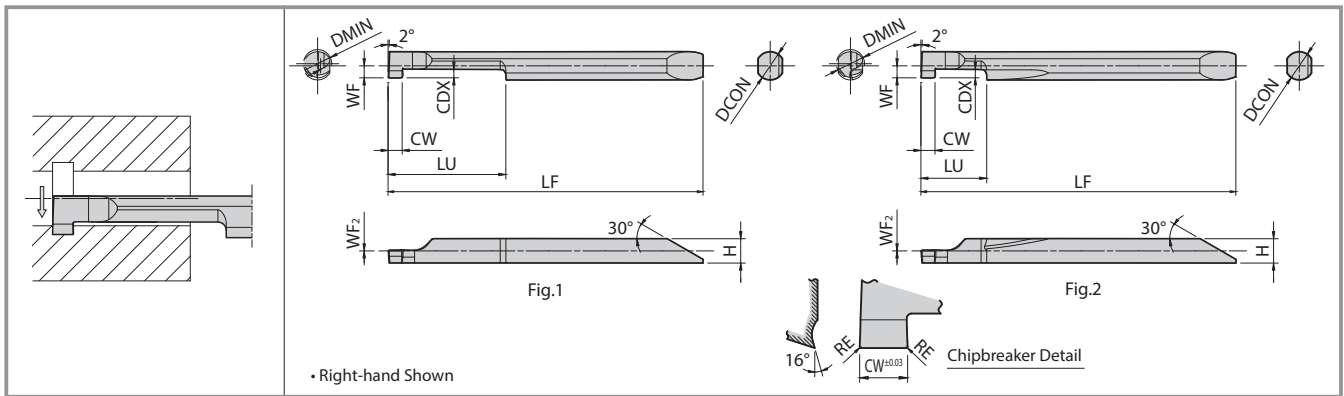
Workpiece	Insert Grade (Vc: m/min)	EZVB035 Type		EZVB045 Type		EZVB055/065 Type		Notes
	MEGACOAT	ap (mm), f (mm/rev)						
	PR1225	ap	f	ap	f	ap	f	
Carbon Steel • Alloy Steel (S45C • SCM)	30 ~ 100	~ 0.05	~ 0.04	~ 0.07	~ 0.07	~ 0.1	~ 0.07	Wet
Stainless Steel (SUS304)	30 ~ 80	~ 0.03	~ 0.03	~ 0.05	~ 0.05	~ 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
		CDX	RE	DCON	H	LF	LU	WF	WF ₂	CDX		PR1225		GW05						
												R	L	R	L					
EZG ^{R/L} 040040-050 040040-100 040040-150 040040-200 050050-100 050050-150 050050-200 060060-100 060060-150 060060-200 070070-100 070070-150 070070-200 080070-100 080070-150 080070-200	4	0.5	±0.013 0.05	4	3.45	44.7	12	1.7	0	1	Fig.2	●	●	●		EZH040..				
		1.0										●	●	●						
		1.5										●	●	●						
		2.0										●	●	●						
	5	1.0		5	4.3	52.8	20	2.15	0	1.5		Fig.1	●	●	●		EZH050..			
		1.5											●	●	●					
		2.0											●	●	●					
		1.0											●	●	●					
	6	1.5		6	5.15	60.7	25	2.65	0	2			●	●	●		EZH060..			
		2.0											●	●	●					
		1.0											●	●	●					
		1.5											●	●	●					
	7	2.0		7	6.2	63.7	3.05	3.45	0	2			●	●	●		EZH070..			
		1.0											●	●	●					
1.5		●	●								●									
2.0		●	●								●									
EZGR 030030-050S 030030-100S 040040-050S 040040-100S 040040-150S 040040-200S 050050-100S 050050-150S 050050-200S 060060-100S 060060-150S 060060-200S 070070-100S 070070-150S 070070-200S 080070-100S 080070-150S 080070-200S	3	0.5	±0.013 0.05	3	2.5	38.7	5	1.25	0	0.8	Fig.2		●				EZH030..			
		1.0											●							
		0.5										●								
		1.0										●								
	4	1.5		4	3.45	44.7	8	1.7	0	1		●				EZH040..				
		2.0										●								
		1.0										●								
		1.5										●								
	5	2.0		5	4.3	52.8	10	2.15	0	1.5		●				EZH050..				
		1.0										●								
		1.5										●								
		2.0										●								
	6	1.0		6	5.15	60.7	10	2.65	0	2		●				EZH060..				
		1.5										●								
2.0		●																		
1.0		●																		
7	1.5	7	6.2	63.7	10	3.05	0	2	●				EZH070..							
	2.0								●											
	1.0								●											
	1.5								●											
8	2.0	8	3.45	63.7	10	3.45	0	2	●				EZH070..							
	1.0								●											
	1.5								●											
	2.0								●											

CDX : Available Grooving Depth
Description : With suffix "S" indicates a short type

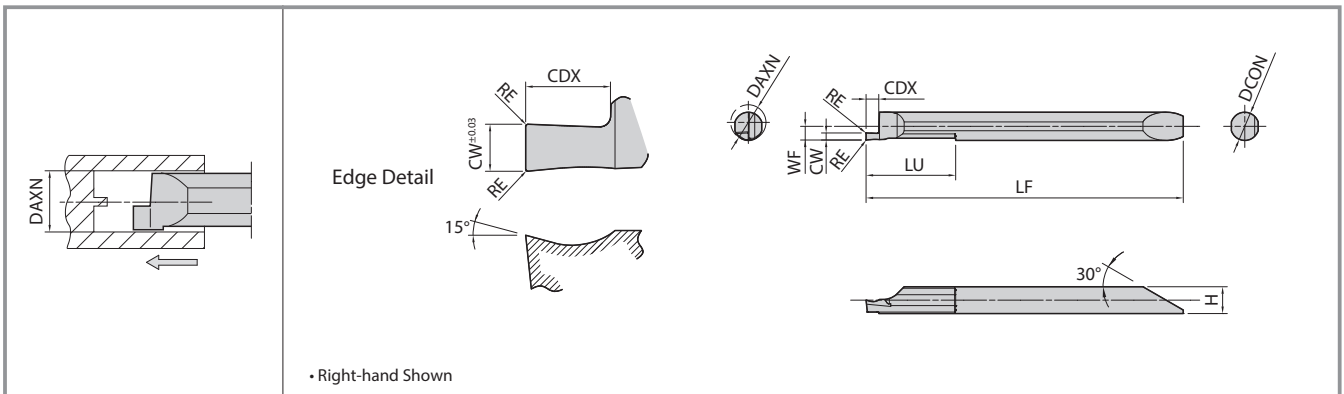
Bars are Sold in 1 Piece Boxes
● : Std. Item

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

EZFG (Face Grooving)



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..	
EZFG ^{R/L} 050040-150		1.5								●	●	●			
EZFG ^{R/L} 060050-100	6	1.0	±0.013	5	4.8	53.2	25	2.4	1.5	●	●	●		EZH050..	
EZFG ^{R/L} 060050-150		1.5							●	●	●				
EZFG ^{R/L} 060050-200		2.0							●	●	●				
EZFG ^{R/L} 080070-100	8	1.0	±0.013	7	6.8	64.2	25	3.4	2.0	●	●	●		EZH070..	
EZFG ^{R/L} 080070-150		1.5							●	●	●				
EZFG ^{R/L} 080070-200		2.0							●	●	●				
EZFG ^{R/L} 080070-300		3.0							●	●	●				

CDX : Available Grooving Depth

Bars are Sold in 1 Piece Boxes

● : Std. Item

Recommended Cutting Conditions

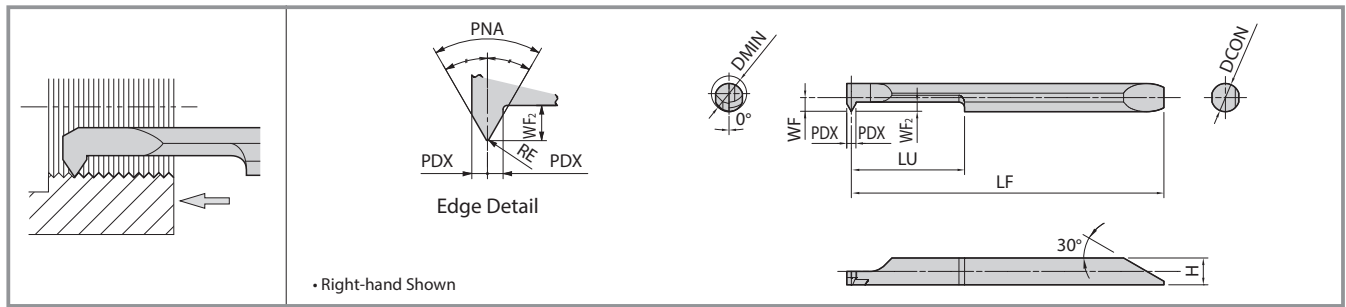
Workpiece	Insert Grade (Vc: m/min)		EZFG050040-100 EZFG060050-100 EZFG080070-100	EZFG050040-150 EZFG060050-150 EZFG080070-150	EZFG060050-200 EZFG080070-200	EZFG080070-300	Notes
	MEGACOAT PR1225	Carbide GW05					
Carbon Steel • Alloy Steel (SxxC • SCM)	★ 30 ~ 100	—	~ 0.02	~ 0.03	~ 0.04	~ 0.05	Wet
Stainless 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 G : Internal Grooving FG : Face Grooving	Bar Hand R : Right-hand L : Left-hand	Min. Bore Dia. 030 : 3 mm ⋮ Face Grooving Dia. 050 : 5 mm ⋮	Shank Dia. 030 : 3 mm ⋮	Groove Width 050 : 0.5 mm 100 : 1.0 mm 150 : 1.5 mm 200 : 2.0 mm	Type S : Short Type (LU Dimension)

EZT (Internal Threading)



EZ Bar Dimensions

Description	Min. Bore Dia.	Dimensions (mm)									MEGA COAT	Carbide	Applicable Threads						
		DMIN	DCON	H	LF	LU	WF	WF ₂	PDX	RE			PNA	Metric		Unified		American National Pipe	
														Applicable Thread	Pitch (mm)	Applicable Thread	Pitch (TPI)	Applicable Thread	Pitch (TPI)
EZTR 030025-60-002	3.0	2.5	2.3	34.5	6.0	1.19	1.0	0.5	±0.01	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	38.4	8.4	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	41.4	10.4	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	44.35	15.35	1.94	1.3			0.65	●	●	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	52.4	19.2	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	60.2	24.0	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
EZTR 060050-55-008	6.0	5.0	4.8	52.4	19.2	2.44	1.6	0.8	±0.015	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	63.2	24.0	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 18
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	0.06	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	0.05	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 Symbol (Previous Symbol)	TPI (TPI/inch)	Internal Threading		Same Root's Radius External Threading Internal Threading
		Insert	Bore Dia.	
G 1/16 (-)	28	EZTR 060050-55-008	6.56	0.12
G 1/8 (PF 1/8)			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 Symbol (Previous Symbol)	TPI (TPI/inch)	Internal Threading		Same Root's Radius External Threading Internal Threading
		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)			–	
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	–	16R14NPT

Application of NPTF Thread

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

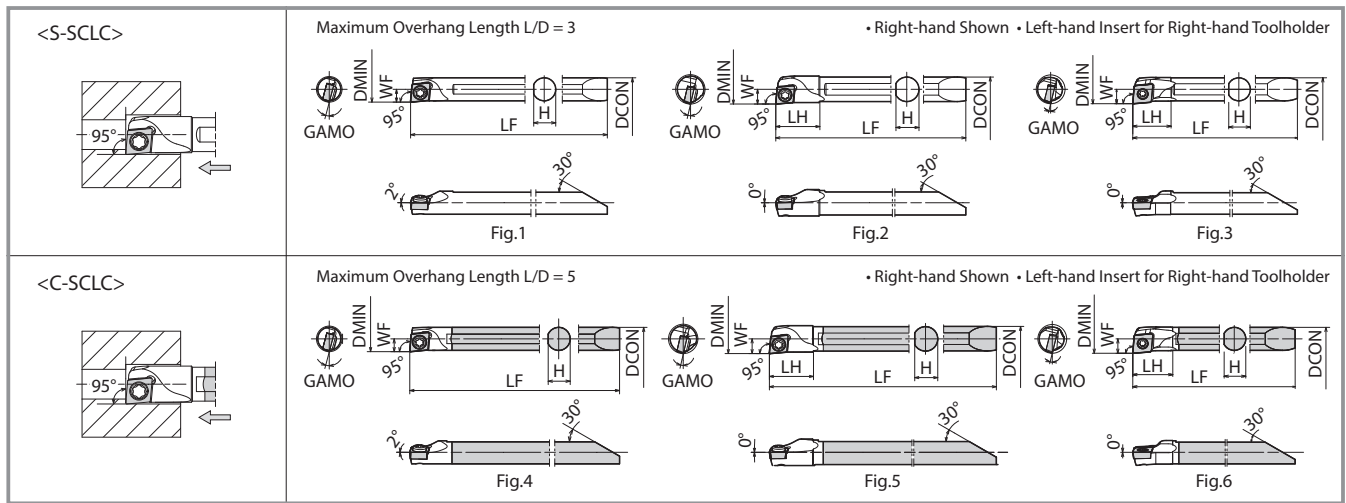
Thread symbol is similar to NPT but the tolerance is different from that of NPT, therefore the above inserts are not available for NPTF

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

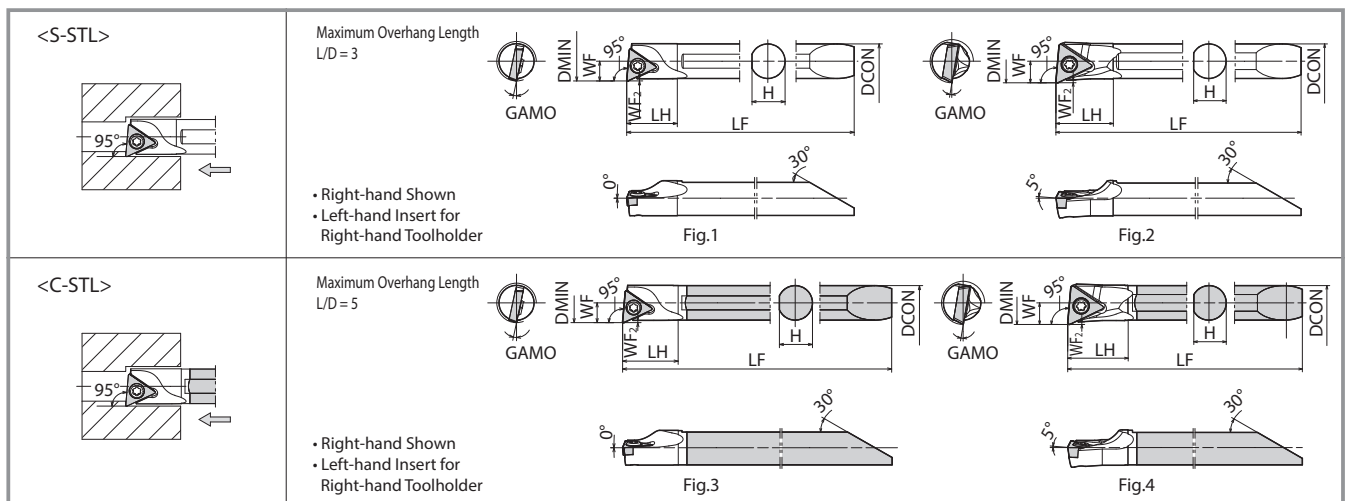


Description	Stock	Min. Bore Dia.	Dimensions (mm)					GAMO	Std. Corner-R(RE)	Coolant Hole	Drawing	Spare Parts		Applicable Sleeve
	R		DMIN	DCON	H	LF	LH					WF	Clamp Screw	
Steel	●	5	4.5	4.3	42.4	-	2.5	15°	0.2	No	Fig.1	SB-1635TR	FT-6	EZH045...
	●	6	5	4.7	48.4	9	3	13°			Fig.2			EZH050...
	●	7	6	5.7	54.4	10	3.5	11°	Fig.2		SB-2035TR	EZH060...		
	●	8	7	6.7	60.4	10.3	4	14°	Fig.3		SB-2545TR	FT-8	EZH070...	
	●	10	8	7.5	69.5	13.3	5	0.4	Fig.3		SB-2545TR	FT-8	EZH080...	
Carbide	●	5	4.5	4.3	51.4	-	2.5	15°	0.2	No	Fig.4	SB-1635TR	FT-6	EZH045...
	●	6	5	4.7	58.4	9	3	13°			Fig.5			EZH050...
	●	7	6	5.7	66.4	10	3.5	11°	Fig.5		SB-2035TR	EZH060...		
	●	8	7	6.7	74.4	11	4	14°	Fig.6		SB-2545TR	FT-8	EZH070...	
	●	10	8	7.5	85.5	14	5	0.4	Fig.6		SB-2545TR	FT-8	EZH080...	

● : Std. Item

Toolholder Dimensions

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



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	WF ₂		Clamp Screw
Steel	●	8	7	6.7	60.4	10.3	4	0.4	12°	0.2	No	Fig.1	SB-2035TR	FT-6	EZH070...
	●	10	8	7.5	69.5	13.3	5	0.5	10°			0.4	Fig.2	SB-2545TR	FT-8
Carbide	●	8	7	6.7	74.4	11	4	0.4	12°	0.2	No	Fig.3	SB-2035TR	FT-6	EZH070...
	●	10	8	7.5	85.5	14	5	0.5	10°			0.4	Fig.4	SB-2545TR	FT-8

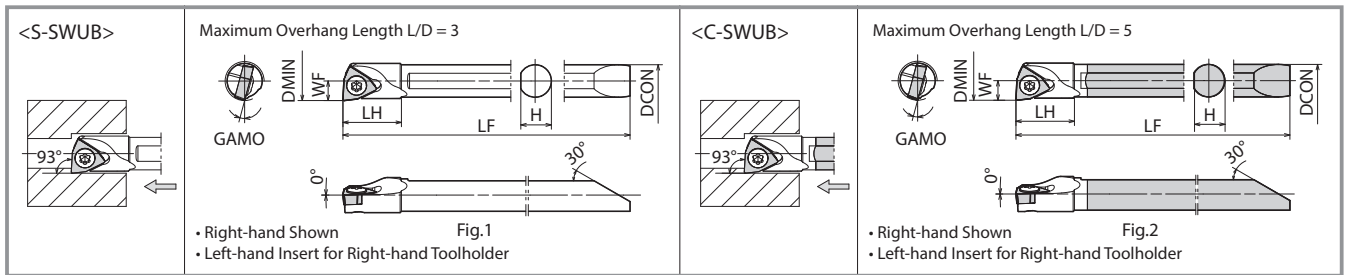
*TB**06**08 Inserts cannot be used

● : Std. Item

EZ Bar PLUS (Indexable Boring Bar)

Toolholder Dimensions

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

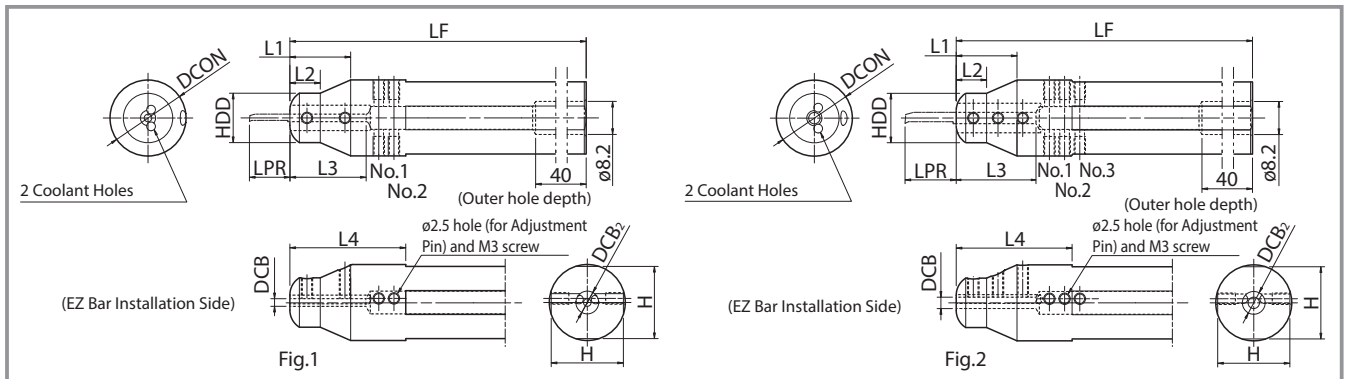


Description	Stock	Min. Bore Dia.	Dimensions (mm)						GAMO	Std. Corner-R(RE)	Coolant Hole	Drawing	Spare Parts		Applicable Sleeve
			R	DMIN	DCON	H	LF	LH					WF	Clamp Screw	
Steel	S050X-SWUBR06-060EZP	●	6	5	4.7	48.4	9	3	15°	0.2	No	Fig.1	SB-2035TR	FT-6	EZH050...
	S060X-SWUBR06-070EZP	●	7	6	5.7	54.4	10	3.5	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	Adjustment Pin Setting							
												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...		
	●					19	120												
	●					21	135												
	●					24	135												
	●					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...		
	●					19	120												
	●					21	135												
	●					24	135												
	●					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...		
	●					19	120												
	●					21	135												
	●					24	135												
	●					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...		
	●					19	120												
	●					21	135												
	●					24	135												
	●					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...		
	●					19	120												
	●					21	135												
	●					24	135												
	●					24.4	120												

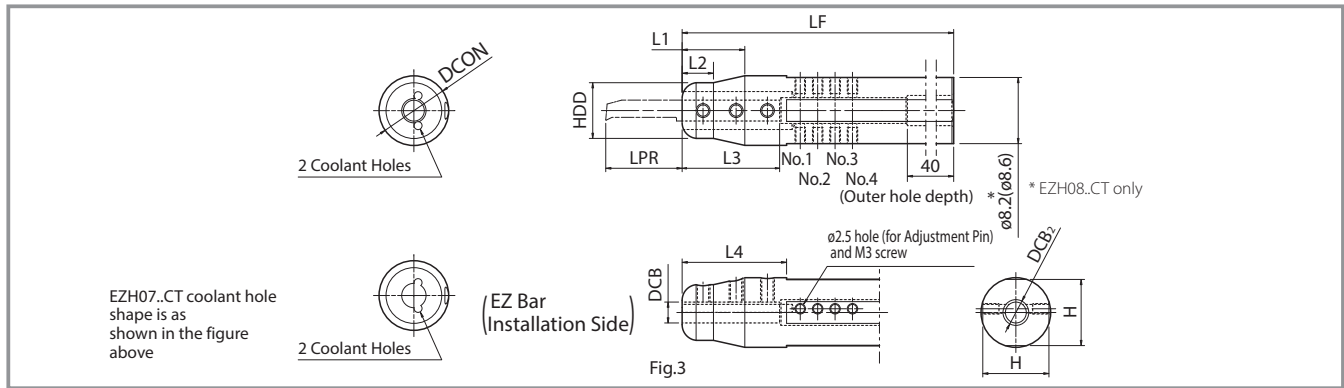
*1. L3 shows DCB length *2. LPR shows overhang length of the EZB Bar (except for long type) when attached to sleeve

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

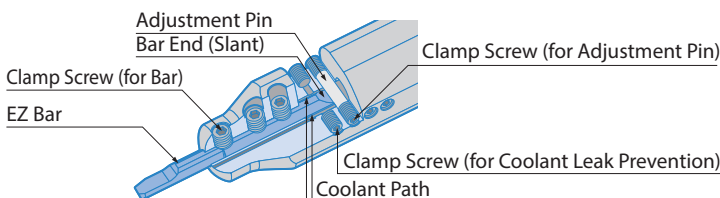


Sleeve Dimensions

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

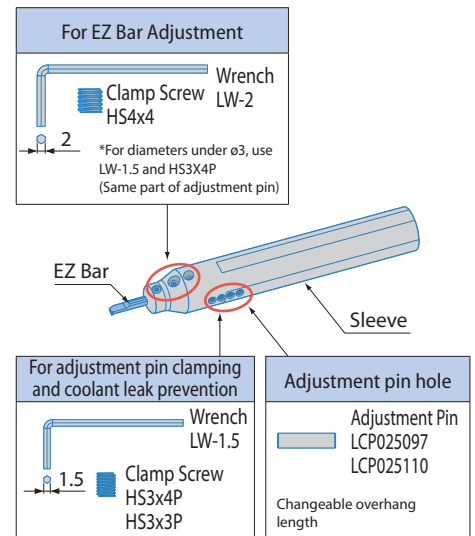
*1. L3 shows DCB length *2. LPR shows overhang length of the EZB Bar (except for long type) when attached to sleeve. () value indicates the overhang length when installed the steel boring bar (EZ Bar PLUS) ● : Std. Item
Choose sleeves (DCB) to meet with DCON dimension of bar
A hole on the rear end of sleeve is prepared hole for Rc1/8 threading. Please modify by additional processing if necessary. The body hardness is 42HRC

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-..	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 $\phi 2.5$ 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)

- Put the adjustment pin into the hole. Push it into the sleeve, using the wrench "LW-1.5"
- Tighten the clamp screw for the adjustment pin (HS3X4P, HS3X3P) using the wrench (LW-1.5) from the both sides of the sleeve
- 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)

- 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)
- Tighten the clamp screw with wrench "LW-2" and secure the bar
 (Use "LW-1.5" if shank dia. is 3 mm or less)

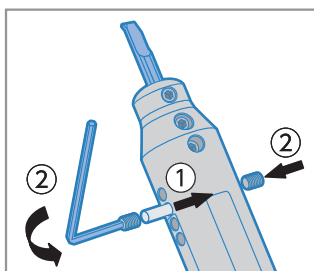


Fig.4 How to Use Adjustment Pin

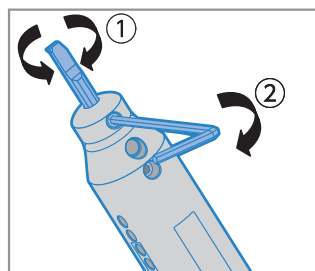


Fig.5 How to Secure Bar

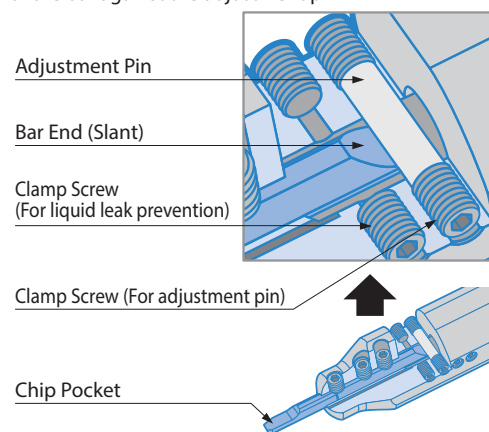
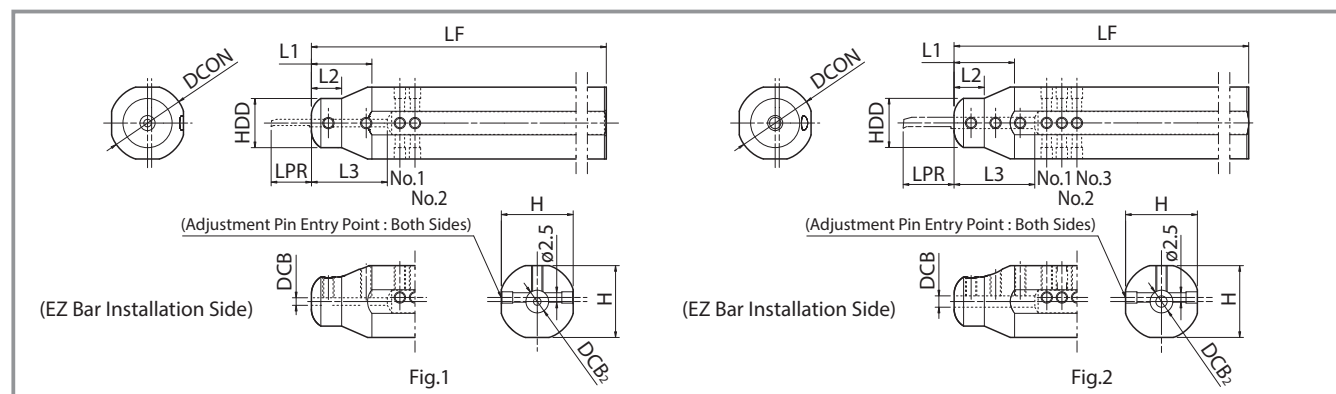


Fig.6 Clamped Bar

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



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									

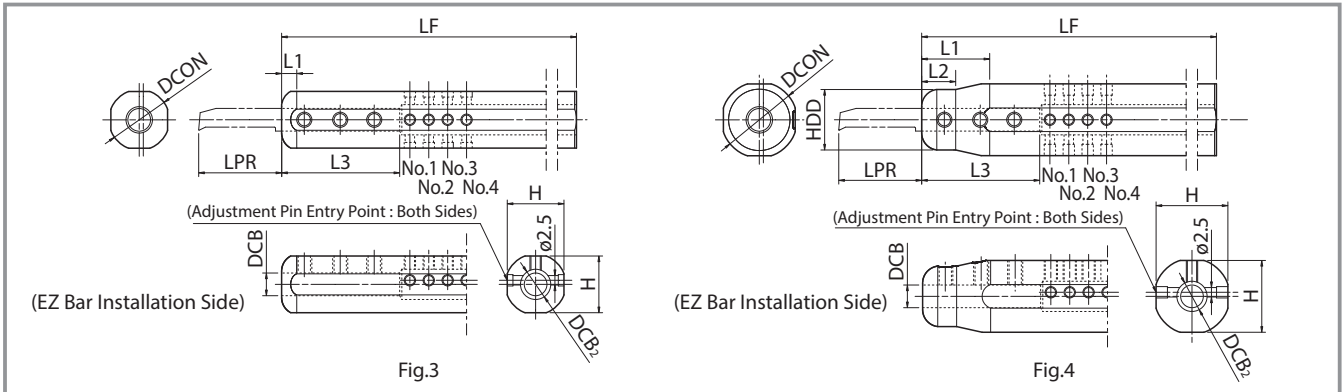
*1. L3 shows DCB length *2. LPR shows overhang length of the EZ Bar when attached to sleeve
Choose sleeves (DCB) to meet with DCON dimension of bar

● : 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										
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										
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										
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										
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

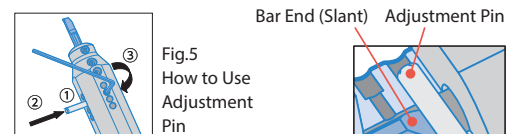
() value indicates the overhang length when installed the steel boring bar (EZ Bar PLUS). Choose sleeves (DCB) to meet with DCON dimension of bar

● : Std. Item

EZ Bar Mounting Procedure (EZH-HP sleeve)

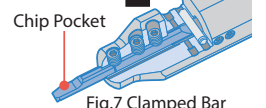
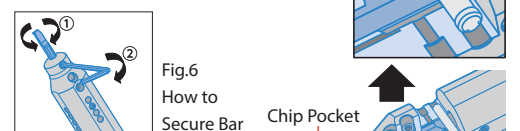
How to Use Adjustment Pin (Fig.5)

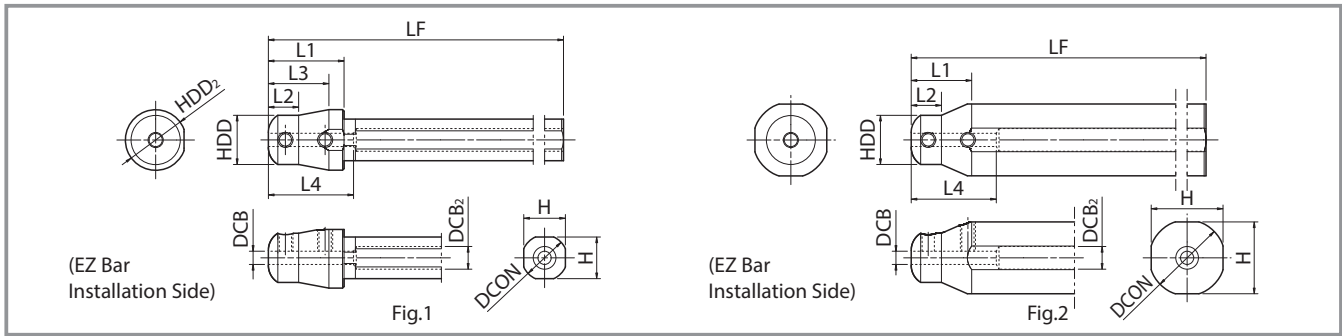
- (1) Put the adjustment pin into the hole
- (2) Push it into the sleeve, using the wrench "LW-1.5"
- (3) Tighten the clamp screw "HS3X4P" with wrench "LW-1.5" to fix the adjustment screw



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)



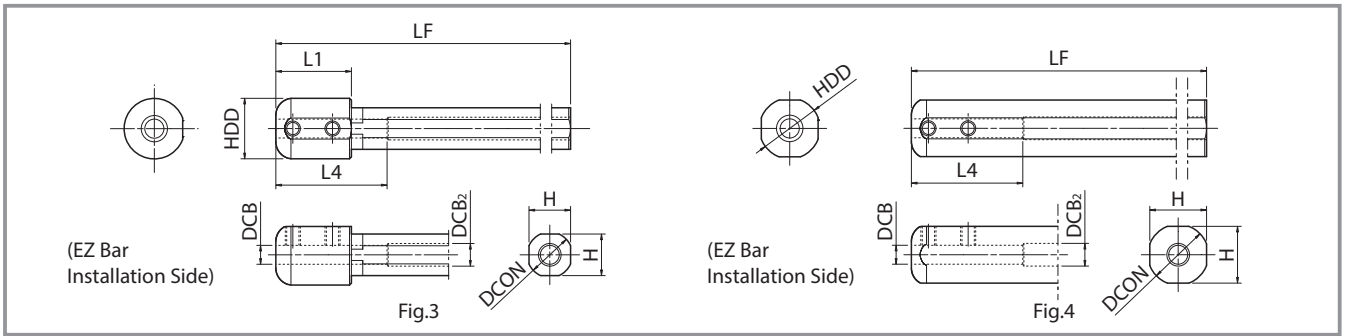


Sleeve Dimensions

Description	Stock	Dimensions (mm)											Drawing	Applicable EZ Bar
		DCB	DCON	HDD	HDD ₂	DCB ₂	H	LF	L1	L2	L3	L4		
EZH 01712ST-80	●	1.7	12	13	16	6	11	80	20	8	16	16	Fig.1	EZBR...017...
01716ST-100	●		16				15	100						
01719ST-120	●		19.05				18	120						
01720ST-120	●		20				19	120						
01722ST-135	●		22				21	135						
01725.0ST-135	●		25				24	135						
01725.4ST-120	●		25.4				24.4	120						
EZH 02012ST-80	●	2	12	13	16	6	11	80	20	8	16	20	Fig.1	EZB ^R /L...020... EZBPR...020...
02016ST-100	●		16				15	100						
02019ST-120	●		19.05				18	120						
02020ST-120	●		20				19	120						
02022ST-135	●		22				21	135						
02025.0ST-135	●		25				24	135						
02025.4ST-120	●		25.4				24.4	120						
EZH 02512ST-80	●	2.5	12	13	16	6	11	80	20	8	16	20	Fig.1	EZB ^R /L...025... EZTR...025...
02516ST-100	●		16				15	100						
02519ST-120	●		19.05				18	120						
02520ST-120	●		20				19	120						
02522ST-135	●		22				21	135						
02525.0ST-135	●		25				24	135						
02525.4ST-120	●		25.4				24.4	120						
EZH 03012ST-80	●	3	12	13	16	6	11	80	20	8	16	21	Fig.1	EZB ^R /L...030... EZBFR...030... EZVBR...030... EZBPR...030... EZGR...030... EZTR...030...
03016ST-100	●		16				15	100						
03019ST-120	●		19.05				18	120						
03020ST-120	●		20				19	120						
03022ST-135	●		22				21	135						
03025.0ST-135	●		25				24	135						
03025.4ST-120	●		25.4				24.4	120						
EZH 03512ST-80	●	3.5	12	13	16	6	11	80	20	8	16	22	Fig.1	EZB ^R /L...035... EZTR...035...
03516ST-100	●		16				15	100						
03519ST-120	●		19.05				18	120						
03520ST-120	●		20				19	120						
03522ST-135	●		22				21	135						
03525.0ST-135	●		25				24	135						
03525.4ST-120	●		25.4				24.4	120						
EZH 04012ST-80	●	4	12	13	16	6	11	80	20	8	16	24	Fig.1	EZB ^R /L...040... EZBFR...040... EZBTR...040... EZVBR...040... EZBPR...040... EZG ^R /L...040... EZFG ^R /L...040... EZTR...040...
04016ST-100	●		16				15	100						
04019ST-120	●		19.05				18	120						
04020ST-120	●		20				19	120						
04022ST-135	●		22				21	135						
04025.0ST-135	●		25				24	135						
04025.4ST-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



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... EZBFR...050... EZBTR...050... EZVBR...050... EZBPR...050... EZBCR...050... EZG ^{R/L} ...050... EZFG ^{R/L} ...050... EZTR...050... _050X...-060EZP	
EZH 05016ST-100	●		16				15	100	-					-		Fig.4
EZH 05019ST-120	●		19.05				18	120	-					-		Fig.2
EZH 05020ST-120	●		20				19	120	18					9		
EZH 05022ST-135	●		22				21	135	-					-		
EZH 05025.0ST-135	●		25				24	135	-					-		
EZH 05025.4ST-120	●		25.4				24.4	120	-					-		
EZH 06012ST-80	●	6	12	16	-	8	11	80	20	-	-	-	31	Fig.3	EZB ^{R/L} ...060... EZBFR...060... EZVBR...060... EZBPR...060... EZBCR...060... EZG ^{R/L} ...060... EZTR...060... _060X...-070EZP	
EZH 06016ST-100	●		16				15	100	-					-		Fig.4
EZH 06019ST-120	●		19.05				18	120	-					-		Fig.2
EZH 06020ST-120	●		20				19	120	18					9		
EZH 06022ST-135	●		22				21	135	-					-		
EZH 06025.0ST-135	●		25				24	135	-					-		
EZH 06025.4ST-120	●		25.4				24.4	120	-					-		
EZH 07012ST-80	●	7	12	16	-	8	11	80	20	-	-	-	33	Fig.3	EZB ^{R/L} ...070... EZBCR...070... EZG ^{R/L} ...070... EZFG ^{R/L} ...070... EZTR...070... _070X...-080EZP	
EZH 07016ST-100	●		16				15	100	-					-		Fig.4
EZH 07019ST-120	●		19.05				18	120	-					-		Fig.2
EZH 07020ST-120	●		20				19	120	18					9		
EZH 07022ST-135	●		22				21	135	-					-		
EZH 07025.0ST-135	●		25				24	135	-					-		
EZH 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... _080X...-100EZP	
EZH 08019ST-120	●		19.05				18	120	-					-		Fig.2
EZH 08020ST-120	●		20				19	120	18					9		
EZH 08022ST-135	●		22				21	135	-					-		
EZH 08025.0ST-135	●		25				24	135	-					-		
EZH 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 EZBC EZG EZFG EZT	
EZH 017...ST-..	HS3x4P	LW-1.5 Tightening Torque 1N·m	EZBR...017...	-	-
EZH 020...ST-..			EZB ^{R/L} ...020...	EZBPR...020-...	-
EZH 025...ST-..			EZB ^{R/L} ...025...	EZTR...025-...	-
EZH 030...ST-..			EZB ^{R/L} ...030...	EZ_R...030-...	-
EZH 035...ST-..	HS4x4P	LW-2 Tightening Torque 2N·m	EZB ^{R/L} ...035...	EZTR...035-...	-
EZH 040...ST-..			EZB ^{R/L} ...040...	EZ_R...040-...	-
EZH 050...ST-..			EZB ^{R/L} ...050...	EZ_R...050-...	_050X...-060EZP
EZH 060...ST-..			EZB ^{R/L} ...060...	EZ_R...060-...	_060X...-070EZP
EZH 070...ST-..			EZB ^{R/L} ...070...	EZ_R...070-...	_070X...-080EZP
EZH 080...ST-..			EZB ^{R/L} ...080...	-	_080X...-100EZP

