



EZ Bar Series

Small Internal Machining



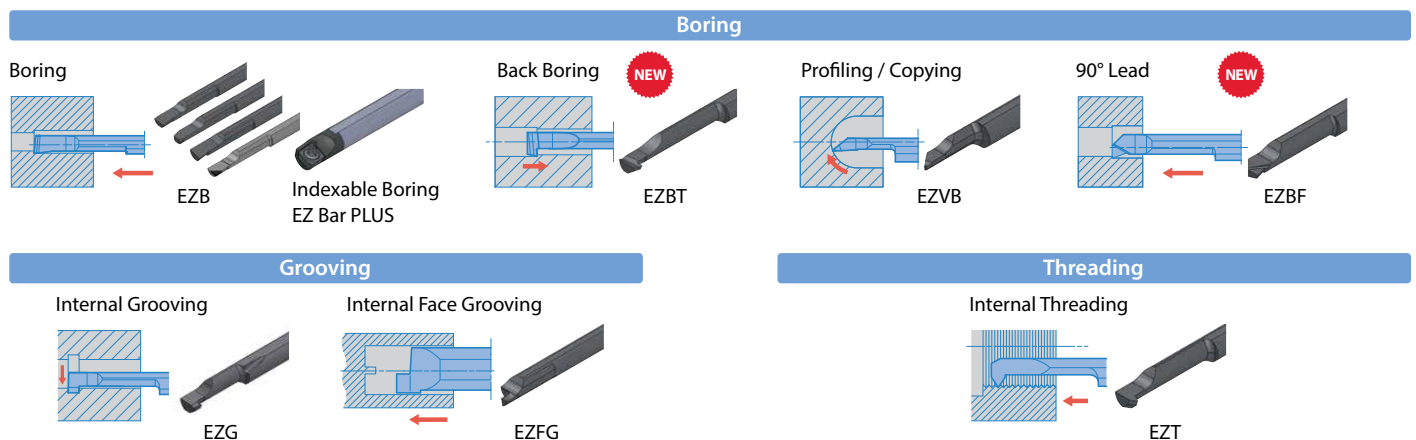
Easy Adjustment and High Precision for a Wide Range of Applications

The EZ Bar Prevents Deviation with High-rigidity Clamping

Unique Design Provides a Smooth Supply of Coolant

Large Lineup for Internal Grooving, Threading, Boring, and Back Turning Operations

NEW PR1725 MEGACOAT NANO PLUS Grade for Long Tool Life and Excellent Surface Finish



EZ Bar Series for Small Internal Machining

Min. Bore Dia. Ø2mm - Easy Adjustment and High Precision

Large Tooling Lineup for a Wide Application Range

1 Large Tooling Lineup for Various Internal Machining Operations

Wide range of machining processes and applications from internal turning to grooving and threading operations

Full compliment of various sleeve holder designs to choose from

Internal Diameter Boring and Turning

Boring

EZB → P6~9

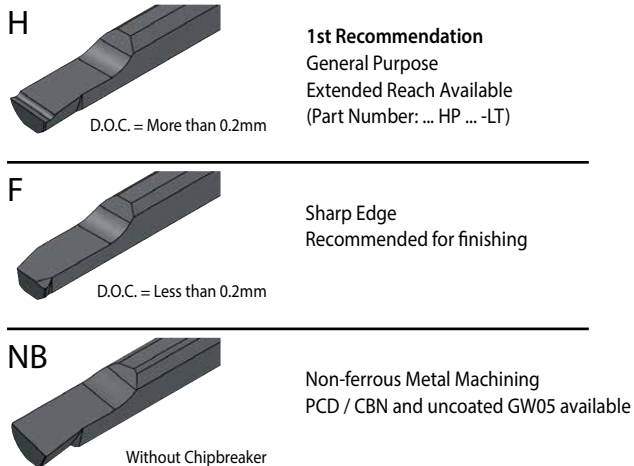
Choose from 2 different bar styles



Bar Tolerance	Offset (f)	Longitudinal Direction (Z)	Cutting Edge Height (Y)	Min. Bore Dia.
HP	± 0.025mm	± 0.05mm	+ 0.05mm / 0mm	Same as Shank Dia.
ST	± 0.060mm	± 0.10mm	+ 0.06mm / 0mm	Different than Shank Dia.

Chipbreakers

Choose between various chipbreakers for different applications



EZ Bar PLUS

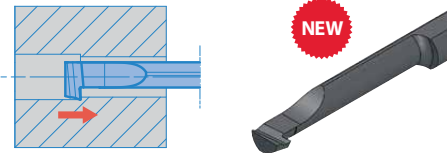
→ P18~19

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



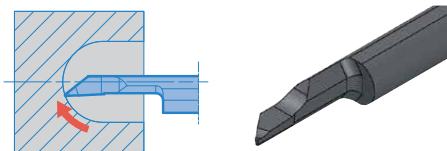
Back Boring

EZBT → P11



Profiling / Copying

EZVB → P11

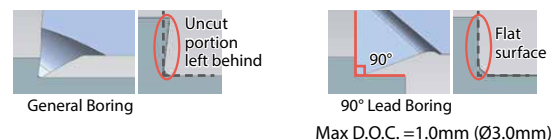


90° Lead Angle

EZBF → P10

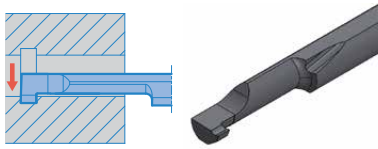


Turning with a flat, 90° face

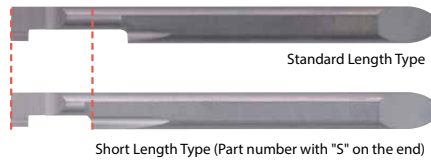


Internal Diameter Grooving and Threading

Internal Grooving EZG → P14



Two Usable Length (LU) Styles Available



Short type maintains higher rigidity

Chip Comparison (Internal Evaluation)

1045

EZG EZGR040040-200 (Groove Width: 2mm)			
Feed f (ipr)	0.0004	0.0008	0.0012

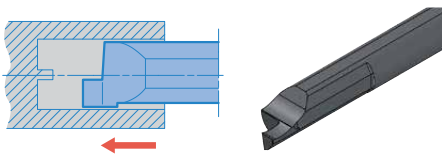
Cutting Conditions: Vc = 260 sfm, Groove Depth: 1.0mm (D.O.C. = 0.008" × 5 passes), Wet

304

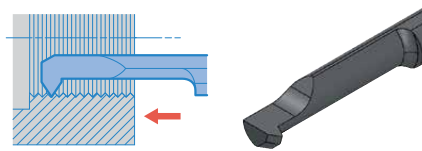
EZG EZGR040040-200 (Groove Width: 2mm)		
Feed f (ipr)	0.0004	0.0008

Cutting Conditions: Vc = 200 sfm, Groove Depth: 1.0mm (D.O.C. = 0.008" × 5 passes), Wet

Internal Face Grooving EZFG → P15



Threading EZT → P16~17



Minimum Bore Dia. Ø3mm
M4 Screws Easily Machined

Sleeves

How to Select Sleeves

Choose between three sleeve types including adjustable overhang and coolant-through designs

EZH-CT → P20~21
with EZ Adjust Structure
Coolant-Through



Smooth coolant flow due to unique head design

EZH-HP → P23~24
with EZ Adjust Structure
Non-Coolant-Through

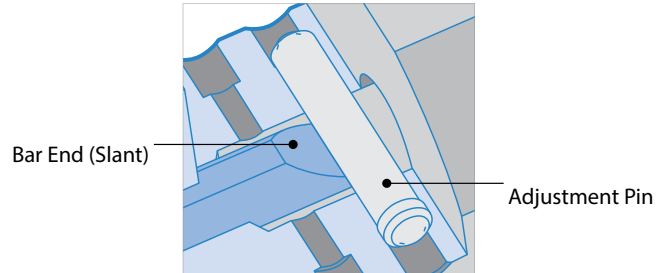
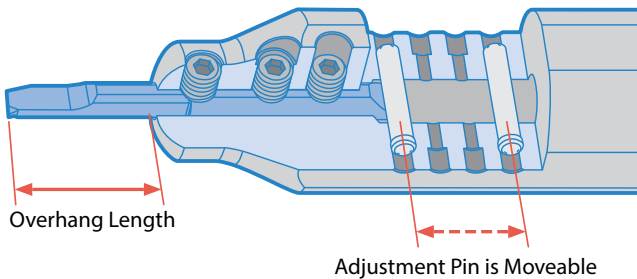


EZH-ST → P25
for Cost Oriented
Machining



2 Adjustable Overhang Length (EZ Adjust Structure)

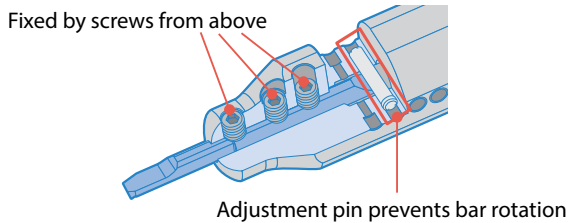
For CT sleeves with coolant holes and HP sleeves with positioning function, the overhang length can be set by moving adjustment pins



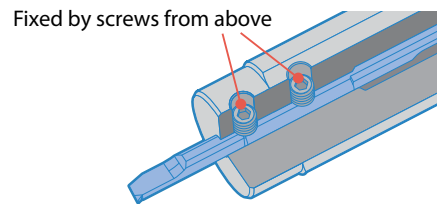
3 Minimized Deviation of Cutting Diameter

The adjustment pin prevents the bar from rotating during machining

EZ Bar

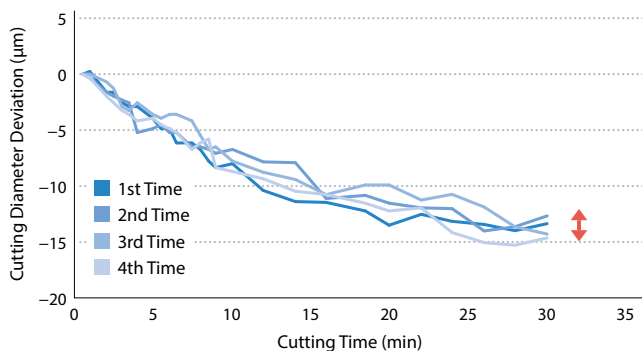


Competitor

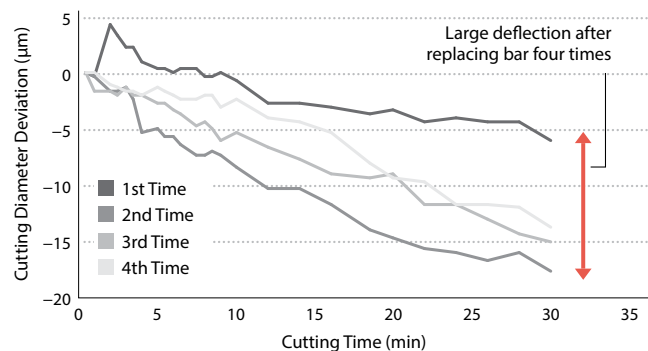


Cutting Diameter Deviation Comparison (Internal Evaluation)

EZ Bar



Competitor A



Cutting Conditions: $V_c = 220$ sfm, D.O.C. = 0.0039", $f = 0.0008$ ipr, Wet (Oil-base) Workpiece: W1-9

PR1725 NEW

PVD Coating for Small Parts Machining

1st Recommendation for Steel Machining

Excellent Surface Finish and Long Tool Life

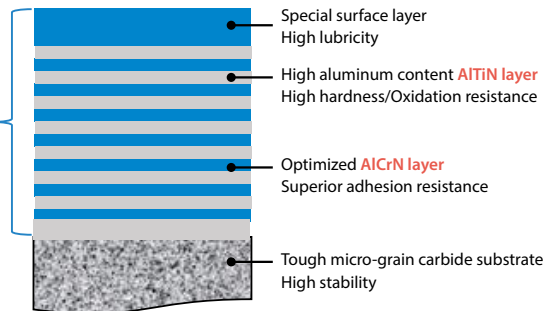
Great Performance in Small Parts Machining Applications

MEGACOAT NANO PLUS

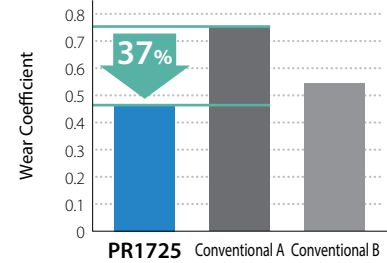
AlTiN/AlCrN Nano laminated film with superior wear resistance and adhesion resistance. Excellent surface finish and long tool life.

REDUCES CRACKING

Reduces abnormal damage 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 Strength 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

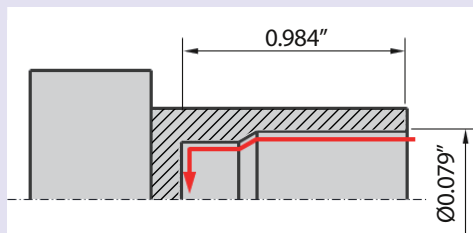
Superior high temperature properties and oxidation resistance make for great performance in steel, stainless steel and free-cutting steel

High Machining Stability

Tough micro-grain carbide substrate provides stable machining

Improved machining efficiency. 2.8 times longer tool life

Automotive Parts 1045



$V_c = 160 \text{ sfm}$

$f = 0.0018 \text{ ipr}$

D.O.C. = 0.008"

Wet

EZBR035035HP-015F PR1725

KYOCERA

EZ Bar PR1725

18,000 pcs/corner

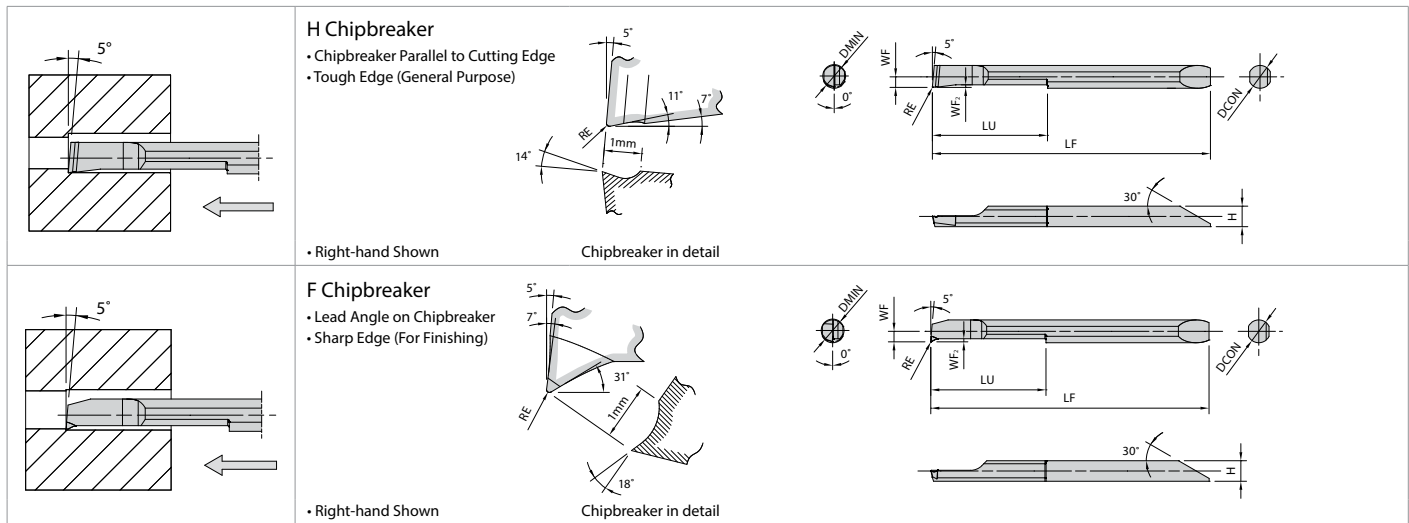
Tool Life
↑
x 2.8

Conventional
Conventional Tool A

6,300 pcs/corner

The EZ Bar (PR 1725) showed 2.8 times longer tool life than Conventional A's tooling.

(User Evaluation)



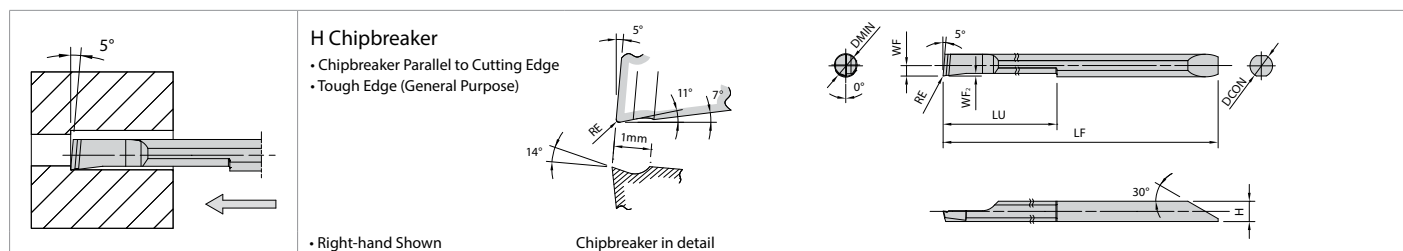
EZ Bar Dimensions

Part Number		Min. Bore Dia.	Dimensions (mm)							NEWGrades						Applicable Sleeve See P20-P25
										MEGACOAT NANO PLUS		MEGACOAT		Carbide		
		PR1725		PR1225		GW05										
		R	L	R	L	R	L									
EZB 	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 ±0.020	●		●				
	030030HP-008H	3	3	2.7	38.9	13	1.35	0.3	0.08 ±0.015	●		●	●	●		EZH030...
	030030HP-015H								0.15 ±0.020	●		●				
	035035HP-008H	3.5	3.5	3.2	41.9	15	1.6	0.4	0.08 ±0.015	●		●	●	●		EZH035...
	035035HP-015H								0.15 ±0.020	●		●				
	040040HP-008H	4	4	3.6	48.8	20	1.85	0.4	0.08 ±0.015	●		●	●	●		EZH040...
	040040HP-015H								0.15 ±0.020	●		●				
	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 ±0.020	●		●				
	050050HP-008H	5	5	4.6	58.1	25	2.35	0.5	0.08 ±0.015	●		●	●	●		EZH050...
	050050HP-015H								0.15 ±0.020	●		●				
	060060HP-008H	6	6	5.6	66.1	30	2.85	0.6	0.08 ±0.015	●		●	●	●		EZH060...
	060060HP-015H								0.15 ±0.020	●		●				
	070070HP-008H	7	7	6.3	73.8	35	3.3	0.7	0.08 ±0.015	●		●	●	●		EZH070...
	070070HP-015H								0.15 ±0.020	●		●				
	080080HP-008H	8	8	7.2	84.8	40	3.75	0.8	0.08 ±0.015	●		●	●	●		EZH080...
	080080HP-015H								0.15 ±0.020	●		●				
EZBR	020020HP-005F	2	2	1.8	32	8	0.85	0.25	0.05 ±0.010	●		●				EZH020...
	025025HP-005F	2.5	2.5	2.3	35	10.5	1.1	0.3	0.05 ±0.010	●		●				EZH025...
	025025HP-015F								0.15 ±0.020	●		●				
	030030HP-005F	3	3	2.7	38.9	13	1.35	0.4	0.05 ±0.010	●		●			EZH030...	
	030030HP-015F								0.15 ±0.020	●		●				
	035035HP-005F	3.5	3.5	3.2	41.9	15	1.6	0.5	0.05 ±0.010	●		●			EZH035...	
	035035HP-015F								0.15 ±0.020	●		●				
	040040HP-005F	4	4	3.6	48.8	20	1.85	0.5	0.05 ±0.010	●		●			EZH040...	
	040040HP-015F								0.15 ±0.020	●		●				
	045045HP-005F	4.5	4.5	4.1	51.1	22.5	2.1	0.7	0.05 ±0.010	●		●			EZH045...	
	045045HP-015F								0.15 ±0.020	●		●				
	050050HP-005F	5	5	4.6	58.1	25	2.35	0.7	0.05 ±0.010	●		●			EZH050...	
	050050HP-015F								0.15 ±0.020	●		●				
	060060HP-005F	6	6	5.6	66.1	30	2.85	0.9	0.05 ±0.010	●		●			EZH060...	
	060060HP-015F								0.15 ±0.020	●		●				
	070070HP-005F	7	7	6.3	73.8	35	3.3	1	0.05 ±0.010	●		●			EZH070...	
	070070HP-015F								0.15 ±0.020	●		●				
	080080HP-005F	8	8	7.2	84.8	40	3.75	1	0.05 ±0.010	●		●			EZH080...	
	080080HP-015F								0.15 ±0.020	●		●				

Tolerance: Offset ± 0.025 mm (of the reference pin), overall length ± 0.05 mm, edge height $+0.05/0$ mmRecommended Cutting Conditions [P12](#)

EZ Bars Sold in 1 Piece Boxes

● : Standard Item



EZ Bar Dimensions

Part Number	Min. Bore Dia.	Dimensions (mm)											Grades	Applicable Sleeve See  P20-P25	
													MEGACOAT		
		DMIN	DCON	H	LF	LU	*Overhang Length				WF	WF ₂	RE		PR1225
						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 ±0.025mm (of the reference pin), overall length ±0.05mm, edge height +0.05/0mm

* To use full overhang, bars with modified LU dimension are required.

Recommended Cutting Conditions [P12](#)

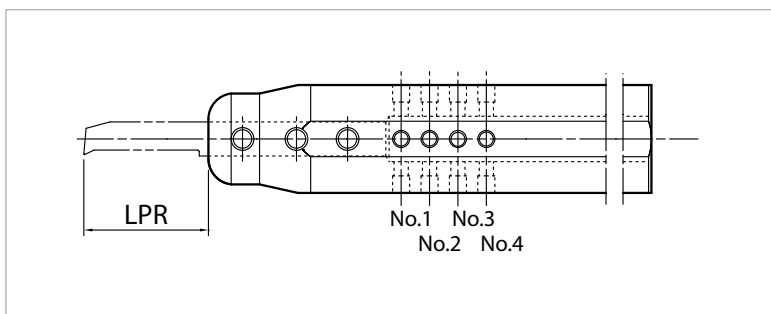
EZ Bars Sold in 1 Piece Boxes

● : Standard Item

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

Part Number	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

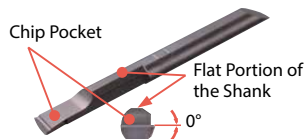
* To use full overhang, bars with modified LU dimension are required.



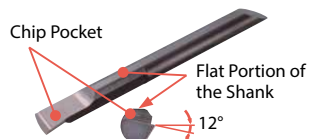
How to Distinguish Bars

Chip Pocket Angles are Different

HP (EZB-HP)



ST (EZB-ST)



EZ Bar Compatibility

EZ Bar is Compatible with Conventional Tip Bars

Sleeve	Bar	EZB ... HP	EZB ... ST	HPB ... (Conventional)
EZB ... HP		✓	✓	*1 *2 ✓ (Compatible)
EZB ... ST		✓	✓	*1 ✓ (Compatible)
HPB ... (Conventional)		*1 ✓ (Compatible)	*1 ✓ (Compatible)	✓

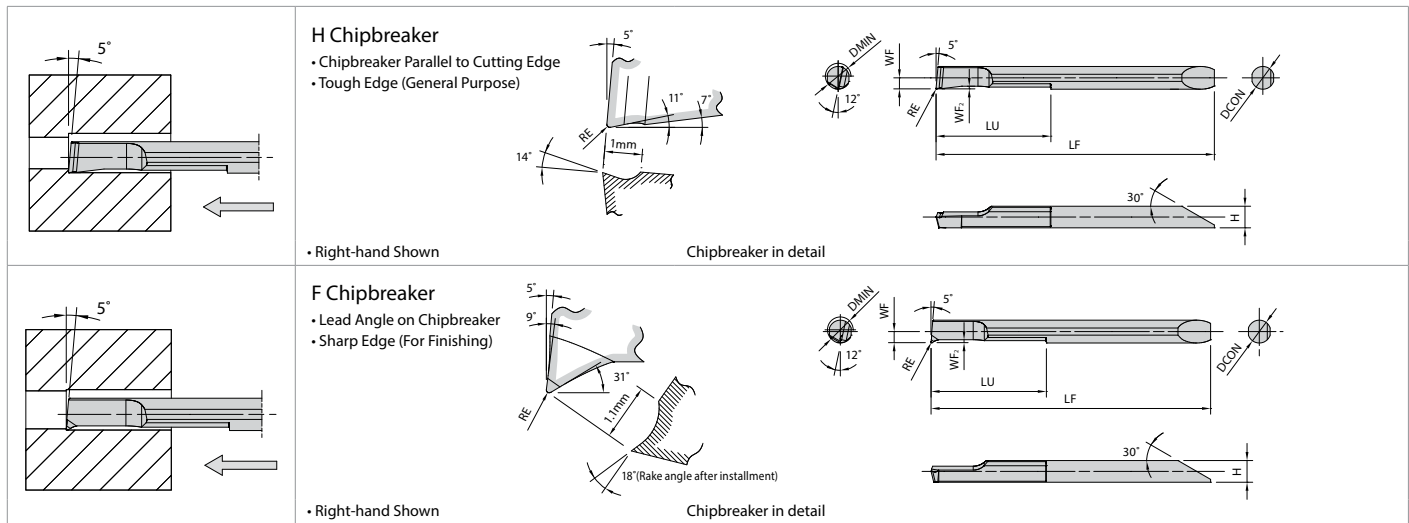
*1: Some diameters of conventional tip bars are incompatible.

*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 B : Boring Bar	Bar Hand R : Right-hand L : Left-hand	Min. Bore Dia. 020 : 2.0mm 025 : 2.5mm	Shank Dia. 020 : 2mm 025 : 2.5mm	Precision HP : High Precision ST : Standard		Corner-R (RE) 008 : 0.08mm 015 : 0.15mm	Chipbreaker H: Chipbreaker (Without Lead Angle) H-LT: Chipbreaker (Extended Reach) F: Chipbreaker (With Lead Angle) NB: Without Chipbreaker



EZ Bar Dimension

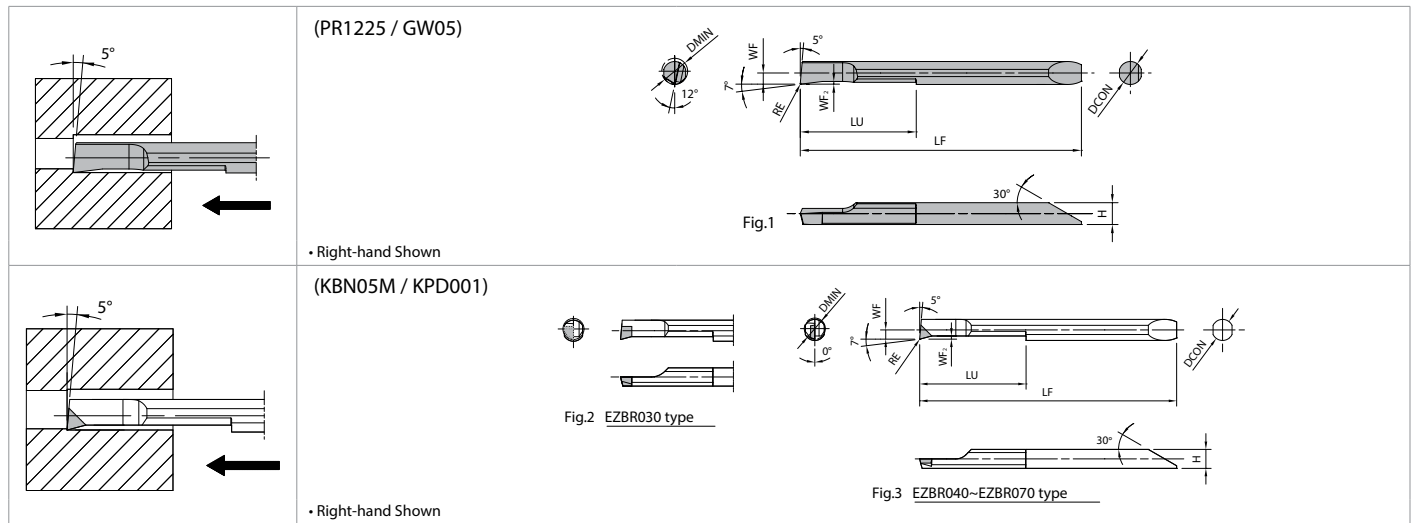
Part Number	Min. Bore Dia.	Dimensions (mm)							NEW Grades		Applicable Sleeve See P20-P25
									MEGACOAT NANO PLUS	MEGACOAT	
		DMIN	DCON	H	LF	LU	WF	WF ₂	RE	PR1725	PR1225
EZBR 020017ST-008H	2.0	1.7	1.50	27.3	7.0	0.79	0.19	0.08 ±0.015	●	●	EZH017...
	2.5	2.0	1.82	32.0	8.0	0.94	0.16	0.08 ±0.015	●	●	EZH020...
								0.15 ±0.020	●	●	
	3.0	2.5	2.30	35.0	10.5	1.19	0.15	0.08 ±0.015	●	●	EZH025...
								0.15 ±0.020	●	●	
	3.5	3.0	2.80	39.0	13.0	1.44	0.18	0.08 ±0.015	●	●	EZH030...
								0.15 ±0.020	●	●	
	4.0	3.5	3.30	42.0	15.0	1.69	0.24	0.08 ±0.015	●	●	EZH035...
								0.15 ±0.020	●	●	
	4.5	4.0	3.80	49.0	20.0	1.94	0.27	0.08 ±0.015	●	●	EZH040...
								0.15 ±0.020	●	●	
	5.5	5.0	4.80	58.2	25.0	2.44	0.33	0.08 ±0.015	●	●	EZH050...
								0.15 ±0.020	●	●	
	6.5	6.0	5.80	66.2	30.0	2.94	0.38	0.08 ±0.015	●	●	EZH060...
								0.15 ±0.020	●	●	
	7.5	7.0	6.80	74.2	35.0	3.44	0.44	0.08 ±0.015	●	●	EZH070...
								0.15 ±0.020	●	●	
EZBR 020017ST-005F	2.0	1.7	1.50	27.3	7.0	0.79	0.20	0.05 ±0.010	●	●	EZH017...
	2.5	2.0	1.82	32.0	8.0	0.94	0.16	0.05 ±0.010	●	●	EZH020...
								0.15 ±0.020	●	●	
	3.0	2.5	2.30	35.0	10.5	1.19	0.20	0.05 ±0.010	●	●	EZH025...
								0.15 ±0.020	●	●	
	3.5	3.0	2.80	39.0	13.0	1.44	0.26	0.05 ±0.010	●	●	EZH030...
								0.15 ±0.020	●	●	
	4.0	3.5	3.30	42.0	15.0	1.69	0.33	0.05 ±0.010	●	●	EZH035...
								0.15 ±0.020	●	●	
	4.5	4.0	3.80	49.0	20.0	1.94	0.31	0.05 ±0.010	●	●	EZH040...
								0.15 ±0.020	●	●	
	5.5	5.0	4.80	58.2	25.0	2.44	0.45	0.05 ±0.010	●	●	EZH050...
								0.15 ±0.020	●	●	
	6.5	6.0	5.80	66.2	30.0	2.94	0.59	0.05 ±0.010	●	●	EZH060...
								0.15 ±0.020	●	●	
	7.5	7.0	6.80	74.2	35.0	3.44	0.65	0.05 ±0.010	●	●	EZH070...
								0.15 ±0.020	●	●	

Tolerance: Offset ±0.06mm (of the reference pin), overall length ±0.10mm, edge height +0.06/0mm

Recommended Cutting Conditions [P12](#)

EZ Bars Sold in 1 Piece Boxes

● : Standard Item



EZ Bar Dimensions

Part Number	Min. Bore Dia.	Dimensions (mm)							Drawing	Grades				Applicable Sleeve See P20-P25
										MEGACOAT	Uncoated Carbide	MEGACOAT CBN	PCD	
		DMIN	DCON	H	LF	LU	WF	WF ₂		PR1225	GW05	KBN05M	KPD001	
EZBR 020017-005NB	2.0	1.7	1.50	27.3	7.0	0.79	0.20	0.05 ±0.015	Fig.1	●	●			EZH017...
025020-005NB	2.5	2.0	1.82	32.0	8.0	0.94	0.16			●	●			EZH020...
030025-005NB	3.0	2.5	2.30	35.0	10.5	1.19	0.16			●	●			EZH025...
035030-005NB	3.5	3.0	2.80	39.0	13.0	1.44	0.19			●	●			EZH030...
040035-005NB	4.0	3.5	3.30	42.0	15.0	1.69	0.25			●	●			EZH035...
045040-005NB	4.5	4.0	3.80	49.0	20.0	1.94	0.28			●	●			EZH040...
055050-005NB	5.5	5.0	4.80	58.2	25.0	2.44	0.33			●	●			EZH050...
065060-005NB	6.5	6.0	5.80	66.2	30.0	2.94	0.39			●	●			EZH060...
075070-005NB	7.5	7.0	6.80	74.2	35.0	3.44	0.45			●	●			EZH070...
EZBR 030030-003NB	3.0	3.0	2.60	38.8	13.0	1.25	0.30	0.035 ±0.015	Fig.2			●		EZH030...
040040-003NB	4.0	4.0	3.60	48.8	20.0	1.75	0.50	0.035 ±0.015	Fig.3			●		EZH040...
050050-003NB	5.0	5.0	4.60	58.1	25.0	2.25	0.50					●		EZH050...
060060-003NB	6.0	6.0	5.60	66.1	30.0	2.75	0.50					●		EZH060...
070070-003NB	7.0	7.0	6.60	74.1	35.0	3.25	0.50					●		EZH070...
EZBR 040040-003NB	4.0	4.0	3.60	48.8	20.0	1.75	0.50	0.035 ±0.015	Fig.3				●	EZH040...
050050-003NB	5.0	5.0	4.60	58.1	25.0	2.25	0.50						●	EZH050...
060060-003NB	6.0	6.0	5.60	66.1	30.0	2.75	0.50						●	EZH060...
070070-003NB	7.0	7.0	6.60	74.1	35.0	3.25	0.50						●	EZH070...

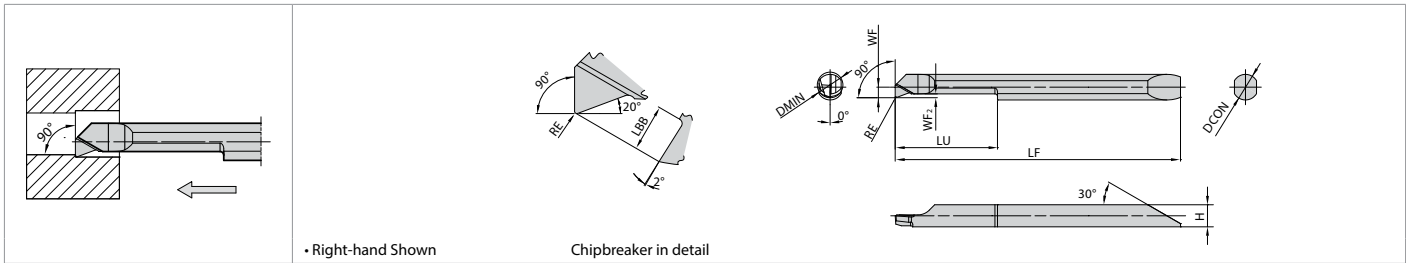
Recommended Cutting Conditions [P12](#)

EZ Bars Sold in 1 Piece Boxes

● : Standard Item

Edge Preparation

Carbide	Edge Preparation	Notes
PR1225	Shape Edge	-
KBN05M	T00315	0.003" × 15° Chamfered Cutting Edge
KPD001	Shape Edge	-



EZ Bar Dimensions

Part Number	Min. Bore Dia.	Dimensions (mm)								Grades	Applicable Sleeve See P20-P25
										MEGACOAT	
		DMIN	DCON	H	LF	LU	WF	WF ₂	LBB	RE	
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 ±0.020	●	EZH050...
060060-015	6	6	5.15	59.6	24	2.55	0.85	2.8	0.15 ±0.020	●	EZH060...

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

EZ Bars Sold in 1 Piece Boxes

● : Standard Item

Recommended Cutting Conditions

Workpiece	Insert Grade (Vc : sfm)	EZBFR030		EZBFR040		EZBFR050/060		Notes
	MEGACOAT	Depth of Cut: D.O.C. (inch), Feed: f (ipr)						
	PR1225	D.O.C.	f	D.O.C.	f	D.O.C.	f	
Carbon Steel / Alloy Steel	100 - 330	~0.0079	~0.0020	~0.0118	~0.0020	~0.0197	~0.0020	Wet
Stainless Steel	100 - 260	~0.0079	~0.0020	~0.0118	~0.0020	~0.0197	~0.0020	

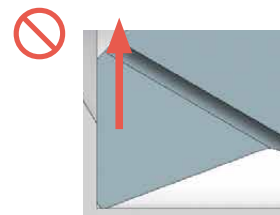
EZBF Machining Notes

✓ Recommended
 ⊘ Not Recommended
 ⊘ High Defect Probability

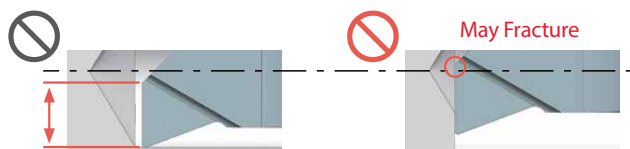
1. Machining into blind holes is not recommended



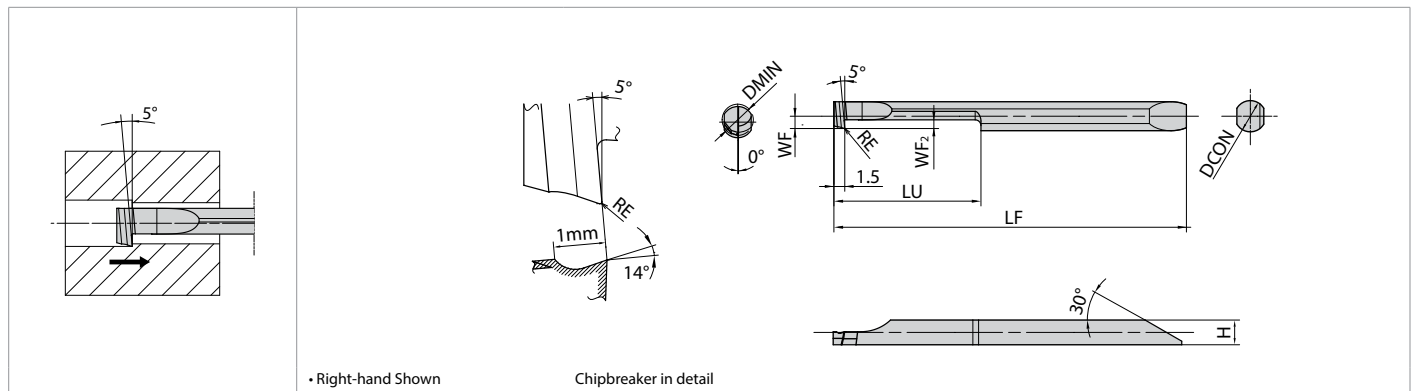
3. Up facing is not recommended



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



For Min Bore Diameter: Ø4mm, Front cutting edge length: 1.9mm



EZ Bar Dimensions

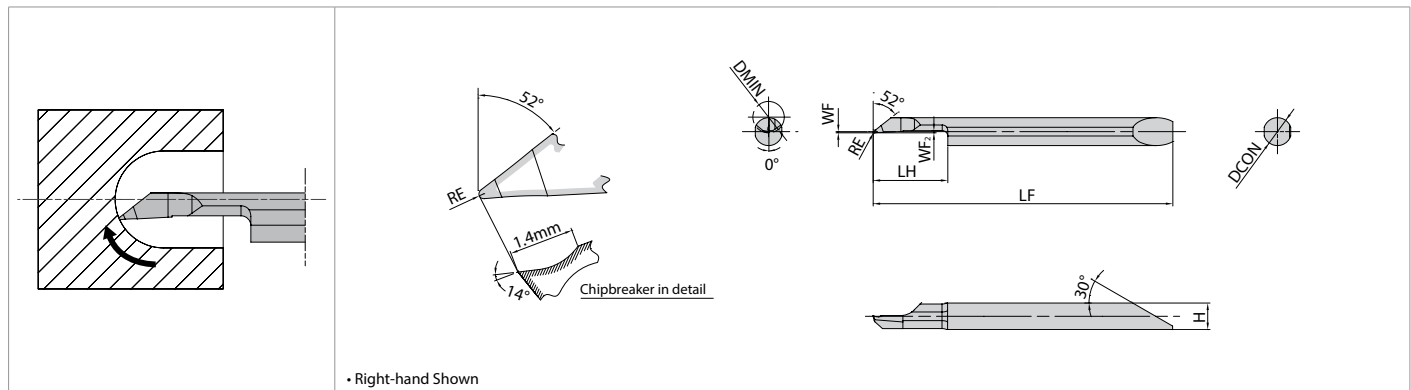
Part Number	Min. Bore Dia.	Dimensions (mm)							Grades		Applicable Sleeve See P20-P25
									MEGACOAT	Uncoated Carbide	
		DMIN	DCON	H	LF	LU	WF	WF ₂	RE	PR1225	GW05
EZBTR 040040-005	4	4	3.45	48.7	20	1.7	1.2	0.05 ⁺⁰ _{-0.020}	●	●	EZH040...
050050-005	5	5	4.3	58.7	25	2.15	1.5		●	●	EZH050...

EZ Bars Sold in 1 Piece Boxes

● : Standard Item

Recommended Cutting Conditions [P13](#)

EZVB (Internal Facing / Internal Profiling)

Internal
Profiling

EZ Bar Dimensions

Part Number	Min. Bore Dia.	Dimensions (mm)							Grades		Applicable Sleeve See P20-P25
									MEGACOAT		
		DMIN	DCON	H	LF	LU	WF	WF ₂	RE	PR1225	
EZVBR 035030-010	3.5	3	2.8	38.0	8	0.17	0.22	0.10 ^{±0.015}	●	●	EZH030...
045040-010	4.5	4	3.8	43.0	10	0.17	0.26		●	●	EZH040...
055050-010	5.5	5	4.8	50.2	12	0.17	0.29		●	●	EZH050...
065060-010	6.5	6	5.8	55.2	14	0.17	0.32		●	●	EZH060...

EZ Bars Sold in 1 Piece Boxes

● : Standard Item

Recommended Cutting Conditions [P13](#)

Recommended Cutting Conditions

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

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

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

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

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

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

NB Type (without Chipbreaker)

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

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

Recommended Cutting Conditions

EZBF (90° Lead Boring)

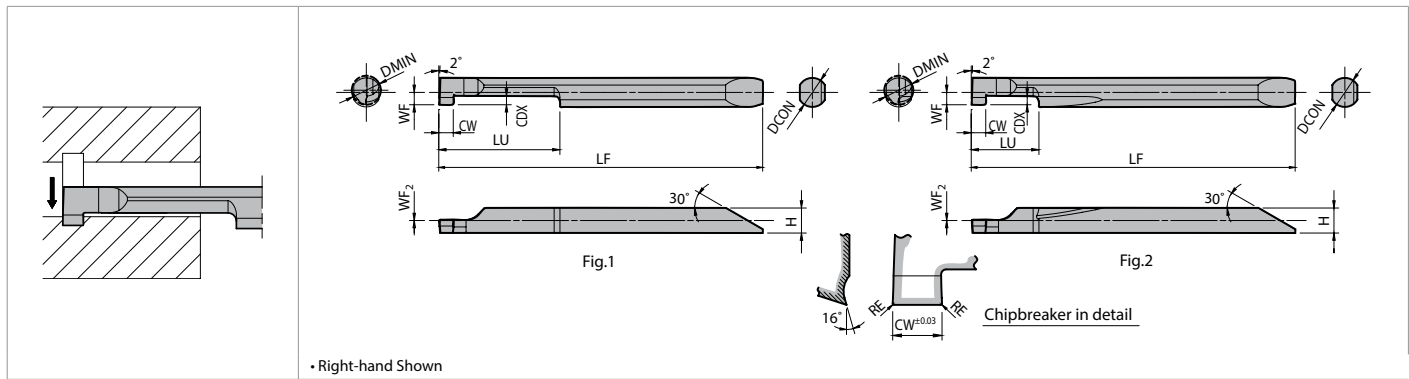
Workpiece	Insert Grade (Vc: sfm)		EZBTR040		EZBTR050		Notes
	MEGACOAT	Carbide	D.O.C. : (inch), f: (ipr)				
	PR1225	GW05	D.O.C.	f	D.O.C.	f	
Carbon Steel / Alloy Steel	100 - 330	-	- 0.012	- 0.0012	- 0.020	- 0.0039	Wet
Stainless Steel	100 - 260	-	- 0.008	- 0.0008	- 0.016	- 0.0028	
Non-ferrous Metals	-	- 330	- 0.012	- 0.0020	- 0.020	- 0.0059	

EZBT (Back Boring)

Workpiece	Insert Grade (Vc : sfm)		EZBTR040		EZBTR050		Notes
	MEGACOAT	Carbide	D.O.C. : (inch), f : (ipr)				
	PR1225	GW05	D.O.C.	f	D.O.C.	f	
Carbon Steel / Alloy Steel	100 - 330	-	- 0.012	- 0.0012	- 0.020	- 0.0039	Wet
Stainless Steel	100 - 260	-	- 0.008	- 0.0008	- 0.016	- 0.0028	
Non-ferrous Metals	-	- 330	- 0.012	- 0.0020	- 0.020	- 0.0059	

EZVB (Boring / Internal Facing / Internal Profiling)

Workpiece	Insert Grade (Vc : sfm)	EZVBR035 Type		EZVBR045		EZVBR055/065		Notes
	MEGACOAT	D.O.C. : (inch), f: (ipr)						
	PR1225	D.O.C.	f	D.O.C.	f	D.O.C.	f	
Carbon Steel / Alloy Steel	100~330	~0.0020	~0.0016	~0.0028	~0.0028	~0.0039	~0.0028	Wet
Stainless Steel	100~260	~0.0012	~0.0012	~0.0020	~0.0020	~0.0028	~0.0020	



EZ Bar Dimensions

Part Number	Min. Bore Dia.	Dimensions (mm)									Drawing	MEGACOAT		Carbide		Applicable Sleeve See P20-P25
		CW ^{±0.03}	RE	DCON	H	LF	LU	WF	L4	CDX		PR1225		GW05		
												R	L	R	L	
EZG ^{RL} 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	0.05 ^{±0.013}	4	3.45	44.7	12	1.70	0	1.0	Fig.2	●	●	●		EZH040..
		1.0										●	●	●		
		1.5										●	●	●		
		2.0										●	●	●		
	5	1.0		5	4.30	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	20	2.65	0	2.0	Fig.1	●	●	●		EZH060..
		2.0										●	●	●		
		1.0										●	●	●		
		1.5										●	●	●		
	7	1.5		7	6.20	63.7	25	3.05	0	2.0	Fig.1	●	●	●		EZH070..
		2.0										●	●	●		
		1.0										●	●	●		
		1.5										●	●	●		
8	1.5	7	6.20	63.7	25	3.45	0	2.0	Fig.1	●	●	●		EZH070..		
	2.0									●	●	●				
	1.0									●	●	●				
	1.5									●	●	●				
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	0.05 ^{±0.013}	3	2.50	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	1.70	0	1.0	Fig.2	●				EZH040..
		2.0										●				
		1.0										●				
		1.5										●				
	5	1.5		5	4.30	52.8	10	2.15	0	1.5	Fig.2	●				EZH050..
		2.0										●				
		1.0										●				
		1.5										●				
	6	1.5		6	5.15	60.7	10	2.65	0	2.0	Fig.2	●	●			EZH060..
		2.0										●				
		1.0										●				
		1.5										●				
7	1.5	7	6.20	63.7	10	3.05	0	2.0	Fig.2	●				EZH070..		
	2.0									●						
	1.0									●						
	1.5									●						
8	1.5	7	6.20	63.7	10	3.45	0	2.0	Fig.2	●				EZH070..		
	2.0									●						
	1.0									●						
	1.5									●						

Dimension CDX shows available grooving depth
 "S" in part number represents short length

EZ Bars Sold in 1 Piece Boxes

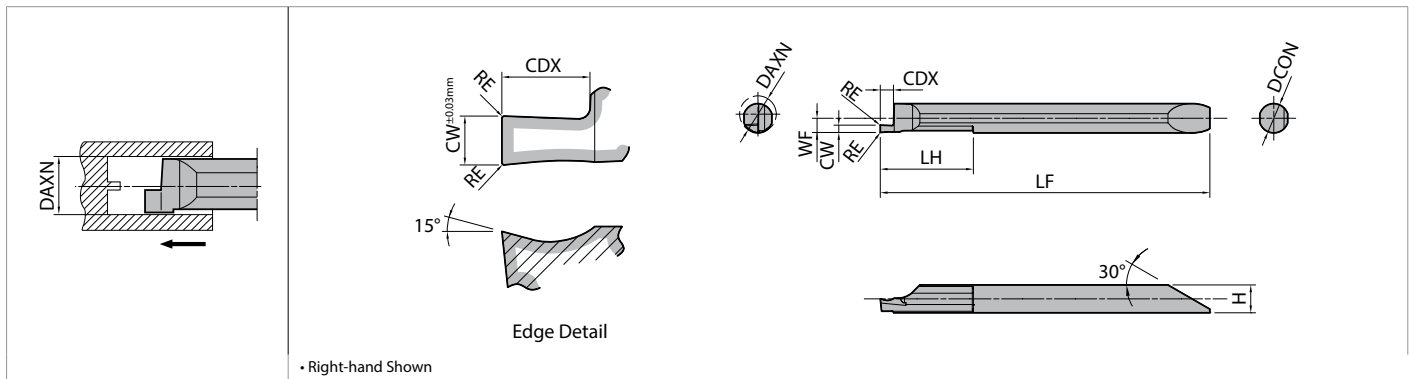
● : Standard Item

Recommended Cutting Conditions

Workpiece	Insert Grade (Vc : sfm)		EZGR030030-...S (Short Length)	EZGR040040-... EZGR050050-... (Short Length)	EZGR060060-... EZGR070070-... EZGR080070-... (Short Length)	EZGR060060-...S EZGR070070-...S EZGR080070-...S (Short Length)	Notes
	MEGACOAT	Uncoated Carbide					
	PR1225	GW05					
Carbon Steel / Alloy Steel	★ 100~330	-	~0.0008	~0.0012	~0.0020		Wet
Stainless Steel	★ 100~260	-	~0.0004	~0.0008	~0.0012		
Non-ferrous Metals	-	★ ~980	-	~0.0020	~0.0031		

★ : 1st Recommendation

EZFG (Internal Face Grooving)



EZ Bar Dimensions

Part Number		Min. Face Groove Dia.	Dimensions (mm)							MEGACOAT		Carbide		Applicable Sleeve See P20-P25	
			CW ^{±0.03}	RE	DCON	H	LF	LU	WF	CDX	PR1225		GW05		
		DAXN									R	L	R		L
EZFG ^{9%}	050040-100	5	1.0	0.05 ^{±0.013}	4	3.8	45.0	12	1.9	1.5	●	●	●		EZH040..
	050040-150		1.5							2.0	●	●	●		
	060050-100	6	1.0	0.05 ^{±0.013}	5	4.8	53.2	25	2.4	1.5	●	●	●		EZH050..
	060050-150		1.5							2.5	●	●	●		
	060050-200		2.0							3.0	●	●	●		
	080070-100	8	1.0	0.05 ^{±0.013}	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							3.0	●	●	●		

Dimension CDX shows available grooving depth

EZ Bars Sold in 1 Piece Boxes

● : Standard Item

Recommended Cutting Conditions

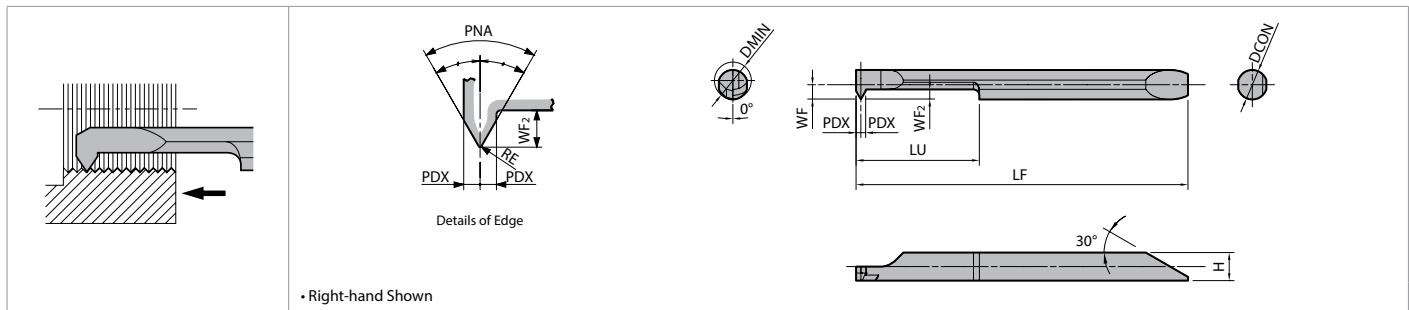
Workpiece	Insert Grade (Vc : sfm)		EZFGR050040-100 EZFGR060050-100 EZFGR080070-100	EZFGR050040-150 EZFGR060050-150 EZFGR080070-150	EZFGR060050-200 EZFGR080070-200	EZFGR080070-300	Notes
	MEGACOAT	Uncoated Carbide					
	PR1225	GW05					
Carbon Steel / Alloy Steel	★ 100~330	-	~0.0008	~0.0012	~0.0016	~0.0020	Wet
Stainless Steel	★ 100~260	-	~0.0004	~0.0008	~0.0008	~0.0012	
Non-ferrous Metals	-	★ ~980	~0.0012	~0.0020	~0.0024	~0.0031	

★ : 1st Recommendation

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 : 3mm : Face Grooving Dia. 050 : 5mm :	Shank Dia. 030 : 3mm :	Groove Width 050 : 0.5mm 100 : 1.0mm 150 : 1.5mm 200 : 2.0mm	Type S : Short Length (LU Dimension)

EZT (Threading)



EZ Bar Dimensions

Part Number	Min. Bore Dia.	Dimensions (mm)								MEGA COAT PR1225	Uncoated Carbide GW05	Applicable Threads						
												Metric		Unified		American National Pipe		
		DMIN	DCON	H	LF	LU	WF	S	PDX			RE	PNA	Applicable Thread	Pitch (mm)	Applicable Thread	Pitch (TPI)	Applicable Thread
EZTR 030025-60-002	3.0	2.5	2.3	35.0	6.5	1.19	1.0	0.50	0.020 ^{±0.010}	60°	●	●	M4 or more Fine Thread: M3.5 or more	P0.50~P0.80	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	0.60			●	●	M4.5 or more Fine Thread: M4.5 or more	P0.50~P1.00	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	0.60	0.040 ^{±0.010}	60°	●	●	M5 or more Fine Thread: M6 or more	P0.75~P1.25	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			●	●	M7 or more Fine Thread: M6 or more	P0.75~P1.50	1/4-20UNC 1/4-28UNF or more	28~18	-	-
060050-60-004	6.0	5.0	4.8	53.2	20.0	2.44	1.6	0.80			●	●	M8 or more Fine Thread: M7 or more	P0.75~P1.50	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	25.0	2.94	2.0	1.00			●	●	M9 or more Fine Thread: M8 or more	P0.75~P1.75	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	20.0	2.44	1.6	0.80	0.085 ^{±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	64.2	25.0	3.44	2.0	1.00			●	●	W11 TPI 220 or more	20~18	G1/8 or more R1/8 or more	28,19	-	-

For American National Pipe (NPT), use EZTR...-60-004 [P17](#)
Applicable Sleeves [P20-P25](#)

EZ Bars Sold in 1 Piece Boxes

● : Standard Item

D.O.C. & Number of Passes (Metric)

Pitch (mm)	Total D.O.C. (mm)	No. of Passes	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
0.50	0.30	9	0.05	0.05	0.04	0.04	0.03	0.03	0.02	0.02	0.02											
0.70	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										
0.80	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	0.03				
1.75	1.10	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

D.O.C. & Number of Passes (Whitworth)

TPI	Total D.O.C. (in)	No. of Passes	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	0.026	13	0.0028	0.0028	0.0024	0.0024	0.0024	0.0020	0.0020	0.0020	0.0016	0.0016	0.0016	0.0012	0.0012				
20	0.032	15	0.0028	0.0028	0.0028	0.0028	0.0024	0.0024	0.0024	0.0024	0.0020	0.0020	0.0020	0.0016	0.0016	0.0012	0.0012		
18	0.036	17	0.0028	0.0028	0.0028	0.0028	0.0028	0.0024	0.0024	0.0024	0.0024	0.0020	0.0020	0.0020	0.0016	0.0016	0.0012	0.0012	0.0012

D.O.C. & Number of Passes (Unified)

TPI	Total D.O.C. (in)	No. of Passes	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	0.017	10	0.0024	0.0024	0.0024	0.0020	0.0020	0.0020	0.0016	0.0012	0.0008	0.0008								
32	0.020	11	0.0024	0.0024	0.0024	0.0020	0.0020	0.0020	0.0016	0.0016	0.0012	0.0012	0.0012							
28	0.022	12	0.0028	0.0024	0.0020	0.0020	0.0020	0.0020	0.0020	0.0016	0.0016	0.0012	0.0012	0.0012						
24	0.026	12	0.0028	0.0028	0.0024	0.0024	0.0024	0.0024	0.0020	0.0020	0.0020	0.0020	0.0016	0.0012						
20	0.031	14	0.0028	0.0028	0.0028	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0020	0.0020	0.0016	0.0016	0.0012				
18	0.035	17	0.0028	0.0028	0.0028	0.0024	0.0024	0.0024	0.0024	0.0024	0.0020	0.0020	0.0020	0.0016	0.0016	0.0016	0.0016	0.0012	0.0012	
16	0.039	18	0.0028	0.0028	0.0028	0.0028	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0020	0.0020	0.0016	0.0020	0.0016	0.0016	0.0016	0.0012

Recommended Cutting Conditions

Workpiece	Recommended Insert Grade (Vc : sfm)	
	MEGACOAT	Uncoated Carbide
	PR1225	GW05
Carbon Steel / Alloy Steel	★ 100~160	-
Stainless Steel	★ 100~160	-
Non-ferrous Metals	-	★ 100~160

Note

- 1) The standard cutting speed is Vc = 100 - 160 sfm. 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 & Tapered Pipe Thread

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

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

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

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

When using "EZT" type for Parallel Pipe / Tapered Pipe threading, the 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.

D.O.C. & Number of Passes (Parallel Pipe / Tapered Pipe)

TPI	Total D.O.C. (in)	No. of Passes	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	0.024	12	0.0028	0.0028	0.0024	0.0024	0.0024	0.0020	0.0020	0.0020	0.0016	0.0016	0.0012	0.0012						
19	0.037	18	0.0028	0.0028	0.0028	0.0028	0.0024	0.0024	0.0024	0.0024	0.0024	0.0020	0.0020	0.0020	0.0016	0.0016	0.0016	0.0016	0.0012	0.0012

Application of American National Pipe Thread (NPT)

Applicable Thread	TPI	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 and the above bars are not available for NPTF.

D.O.C. & Number of Passes (American National Pipe Thread)

TPI	Total D.O.C. (in)	No. of Passes	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	0.048	16	0.0071	0.0055	0.0047	0.0047	0.0039	0.0035	0.0031	0.0031	0.0028	0.0024	0.0020	0.0016	0.0012	0.0012	0.0008	0.0008			
14	0.061	19	0.0071	0.0063	0.0055	0.0055	0.0047	0.0039	0.0035	0.0035	0.0031	0.0028	0.0028	0.0024	0.0020	0.0020	0.0016	0.0016	0.0012	0.0012	0.0008

Toolholder Dimensions (CC... Inserts)

Applicable Inserts: ...SCLCR03-... = CC..1109..
 ...SCLCR04-... = CC..1411..
 ...SCLCR06-... = CC..215..

S-SCLC

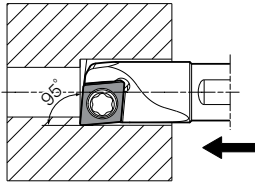


Fig.1

Fig.2

Fig.3

• Right-hand shown

• Left-hand insert for Right-hand toolholder

C-SCLC

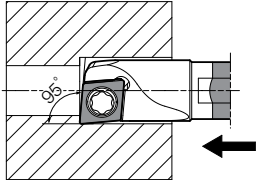


Fig.4

Fig.5

Fig.6

• Right-hand shown

• Left-hand insert for Right-hand toolholder

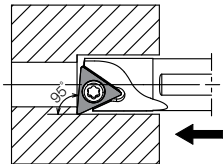
Part Number		Stock	Min. Bore Dia.	Dimensions (mm)				GAMO	Standard Corner-R (RE)	Coolant Hole	Drawing	Spare Parts		Applicable Sleeve See P20-P25		
				DCON	H	LF	LH					Clamp Screw	Wrench			
		R	DMIN													
Steel	S045X-SCLCR03-050Ezp	●	5	4.5	4.3	42.4	-	2.5	15°	0.2	Fig.1	SB-1635TR	FT-6	EZH045...		
	S050X-SCLCR03-060Ezp	●	6	5.0	4.7	48.4	9.0	3.0	13°	0.2	Fig.2			EZH050...		
	S060X-SCLCR04-070Ezp	●	7	6.0	5.7	54.4	10.0	3.5	13°	0.2	Fig.2	SB-2035TR		EZH060...		
	S070X-SCLCR04-080Ezp	●	8	7.0	6.7	60.4	10.3	4.0	11°	0.2	Fig.2			EZH070...		
	S080X-SCLCR06-100Ezp	●	10	8.0	7.5	69.5	13.3	5.0	14°	0.4	Fig.3	SB-2545TR	FT-8	EZH080...		
Carbide	C045X-SCLCR03-050Ezp	●	5	4.5	4.3	51.4	-	2.5	15°	0.2	Fig.4	SB-1635TR	FT-6	EZH045...		
	C050X-SCLCR03-060Ezp	●	6	5.0	4.7	58.4	9.0	3.0	13°	0.2	Fig.5			EZH050...		
	C060X-SCLCR04-070Ezp	●	7	6.0	5.7	66.4	10.0	3.5	13°	0.2	Fig.5	SB-2035TR		EZH060...		
	C070X-SCLCR04-080Ezp	●	8	7.0	6.7	74.4	11.0	4.0	11°	0.2	Fig.5			EZH070...		
	C080X-SCLCR06-100Ezp	●	10	8.0	7.5	85.5	14.0	5.0	14°	0.4	Fig.6	SB-2545TR	FT-8	EZH080...		

● : Standard Item

Toolholder Dimensions (TB... / TP... Inserts)

Applicable Inserts: ...STLBR06... = TB..121..
...STLPR09... = TP.1815..

S-STLB(P)



• Right-hand shown

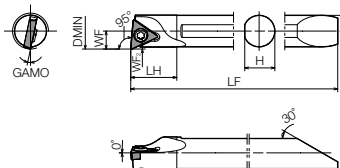


Fig.1

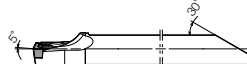
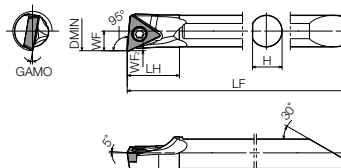
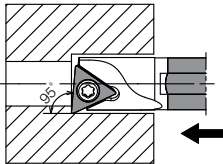


Fig.2

• Left-hand insert for Right-hand toolholder

C-STLB(P)



• Right-hand shown

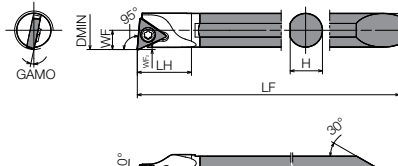


Fig.3

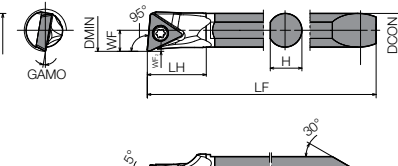


Fig.4

• Left-hand insert for Right-hand toolholder

Part Number		Stock	Min. Bore Dia.	Dimensions (mm)								θ	Standard Corner-R (rε)	Coolant Hole	Drawing	Spare Parts		Applicable Sleeve See P20-P25	
		R	ØA	ØD	H	L1	L2	L3	L4	F	S								
Steel	S070X-STLBR06-080EZP*	●	8	7	6.7	60.4	10.3	-	12	4	0.4	12°	0.2	No	Fig.1	SB-2035TR	FT-6	EZH070...	
	S080X-STLPR09-100EZP	●	10	8	7.5	69.5	13.3	15	15	5	0.5	10°	0.4		Fig.2	SB-2545TR	FT-8	EZH080...	
Carbide	C070X-STLBR06-080EZP*	●	8	7	6.7	74.4	11.0	-	12	4	0.4	12°	0.2		Fig.3	SB-2035TR	FT-6	EZH070...	
	C080X-STLPR09-100EZP	●	10	8	7.5	85.5	14.0	15	15	5	0.5	10°	0.4		Fig.4	SB-2545TR	FT-8	EZH080...	

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

● : Standard Item

Toolholder Dimensions (WB... Inserts)

Applicable Inserts: ...SWUBR06... = WB..121..
...SWUBR08... = WB..1515..

S-SWUB

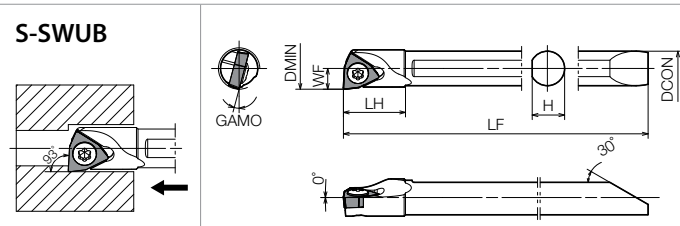


Fig.1

- Right-hand shown
- Left-hand insert for Right-hand toolholder

C-SWUB

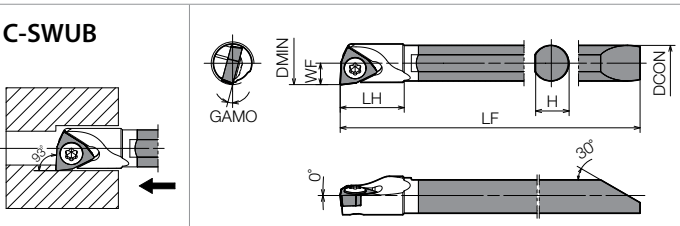
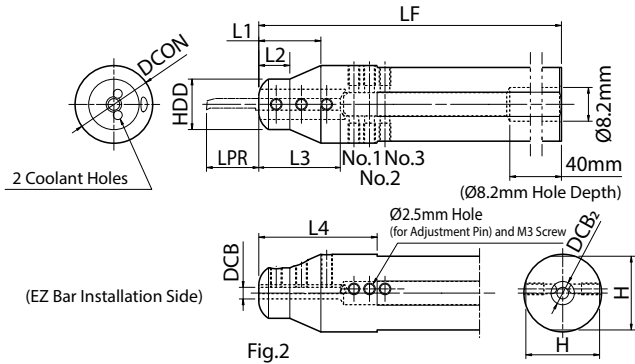
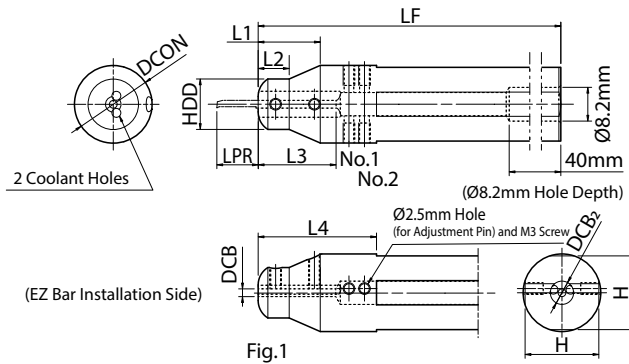


Fig.2

- Right-hand shown
- Left-hand insert for Right-hand toolholder

Part Number		Stock	Min. Bore Dia.	Dimensions (mm)				GAMO	Standard Corner-R (RE)	Coolant Hole	Drawing	Spare Parts		Applicable Sleeve See P20-P25	
		R	DMIN	DCON	H	LF	LH					Clamp Screw	Wrench		
Steel	S050X-SWUBR06-060EZP	●	6	5	4.7	48.4	9.0	3.0	15°	0.2	No	Fig.1	SB-2035TR	FT-6	EZH050...
	S060X-SWUBR06-070EZP	●	7	6	5.7	54.4	10.0	3.5	13°	0.2					EZH060...
	S070X-SWUBR08-080EZP	●	8	7	6.7	60.4	10.3	4.0	15°	0.2					EZH070...
Carbide	C050X-SWUBR06-060EZP	●	6	5	4.7	58.4	9.0	3.0	15°	0.2		Fig.2	SB-2035TR	FT-6	EZH050...
	C060X-SWUBR06-070EZP	●	7	6	5.7	66.4	10.0	3.5	13°	0.2					EZH060...
	C070X-SWUBR08-080EZP	●	8	7	6.7	74.4	11.0	4.0	15°	0.2					EZH070...

● : Standard Item



Sleeve Dimensions

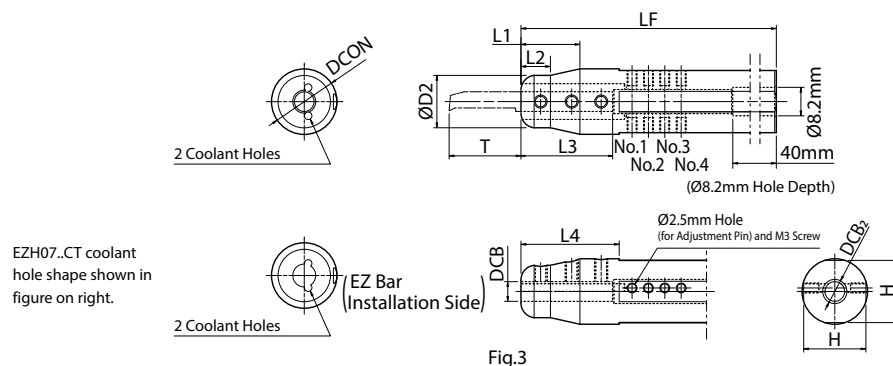
Part Number	Stock	Dimensions (mm)										Bar Overhang Length *LPR (mm)				Drawing	Applicable EZ Bar See P6-P16
		DCB	DCON	HDD	DCB2	H	LF	L1	L2	*L3	L4	No.1	No.2	No.3	No.4		
EZH 01719CT-120	●		0.750"			18.0	120				30.5					Fig.1	EZBR...017...
01720CT-120	●		20.00			19.0	120				30.5						
01722CT-135	●	1.7	22.00	13	6	21.0	135	16	8	16	41.5	7.5	3.5	-	-		
01725.0CT-135	●		25.00			24.0	135				30.5						
01725.4CT-120	●		1.000"			24.4	120				30.5						
EZH 02019CT-120	●		0.750"			18.0	120				30.5					Fig.1	EZB%...020...
02020CT-120	●		20.00			19.0	120				30.5						
02022CT-135	●	2.0	22.00	13	6	21.0	135	16	8	20	41.5	8.5	4.5	-	-		
02025.0CT-135	●		25.00			24.0	135				30.5						
02025.4CT-120	●		1.000"			24.4	120				30.5						
EZH 02519CT-120	●		0.750"			18.0	120				30.5					Fig.1	EZB%...025... EZTR...025...
02520CT-120	●		20.00			19.0	120				30.5						
02522CT-135	●	2.5	22.00	13	6	21.0	135	16	8	20	41.5	11	7	-	-		
02525.0CT-135	●		25.00			24.0	135				30.5						
02525.4CT-120	●		1.000"			24.4	120				30.5						
EZH 03019CT-120	●		0.750"			18.0	120				30.5					Fig.2	EZB%...030... EZBFR...030... EZVBR...030... EZGR...030... EZTR...030...
03020CT-120	●		20.00			19.0	120				30.5						
03022CT-135	●	3.0	22.00	13	6	21.0	135	16	8	21	41.5	13.5	9.5	5.5	-		
03025.0CT-135	●		25.00			24.0	135				30.5						
03025.4CT-120	●		1.000"			24.4	120				30.5						
EZH 03519CT-120	●		0.750"			18.0	120				31.1					Fig.2	EZB%...035... EZTR...035...
03520CT-120	●		20.00			19.0	120				31.1						
03522CT-135	●	3.5	22.00	13	6	21.0	135	16	8	21	41.5	15.5	11.5	7.5	-		
03525.0CT-135	●		25.00			24.0	135				31.1						
03525.4CT-120	●		1.000"			24.4	120				31.1						

*1: L3 shows DCB length. Choose sleeves (DCB) to match with DCON dimension of the bar

*2: Dimension LPR shows overhang length of the EZB Bar when attached to sleeve (with the exception of extended reach bars).

Ø8.2mm hole on the sleeve end is prepared with Rc1/8 threading. Please modify with additional machining if necessary. The sleeve hardness is 42HR.

● : Standard Item



Sleeve Dimensions

Part Number	Stock	Dimensions (mm)										Bar Overhang Length *LPR (mm)				Drawing	Applicable EZ Bar See P6-P19
		DCB	DCON	HDD	DCB2	H	LF	L1	L2	*L3	L4	No.1	No.2	No.3	No.4		
EZH 04019CT-120	●		0.750"			18.0	120				32.7					Fig.3	EZB%...040... EZBFR...040... EZBTR...040... EZVBR045040-... EZG%...040-... EZFG%...040-... EZTR...040-...
04020CT-120	●		20.00			19.0	120				32.7						
04022CT-135	●	4	22.00	13	6.0	21.0	135	16	8	22	41.5	20.5	16.5	12.5	8.5		
04025.0CT-135	●		25.00			24.0	135				32.7						
04025.0CT-135	●		1.000"			24.4	120				32.7						
EZH 04519CT-120	●		0.75"			18	120				30.0					Fig.3	EZB%...045... _045X-...050EZ(P)
04520CT-120	●		20			19	120				30.0						
04522CT-135	●	4.5	22	16	6	21	135	18	9	23	44.0	23 (14)	18.5 (9.5)	14 (-)	9.5 (-)		
04525.0CT-135	●		25			24	135				30.0						
04525.4CT-120	●		1.00"			24.4	120				30.0						
EZH 05019CT-120	●		0.750"			18.0	120				30.0					Fig.3	EZB%...050... EZBFR...050... EZBTR...050... EZVBR055050-... EZG%...050-... EZFG%...050-... EZTR...050-... _050X-...-060EZP
05020CT-120	●		20.00			19.0	120				30.0						
05022CT-135	●	5	22.00	16	6.0	21.0	135	18	9	26	44.0	25.5 (15.5)	20.5 (10.5)	15.5 (-)	10.5 (-)		
05025.0CT-135	●		25.00			24.0	135				30.0						
05025.4CT-120	●		1.000"			24.4	120				30.0						
EZH 06019CT-120	●		0.750"			18.0	120				30.0					Fig.3	EZB%...060... EZBFR...050... EZVBR065060-... EZG%...060-... EZTR...060-... _060X-...-070EZ(P)
06020CT-120	●		20.00			19.0	120				30.0						
06022CT-135	●	6	22.00	16	7.4	21.0	135	18	9	28	41.5	30.5 (18.5)	25.5 (13.5)	20.5 (-)	15.5 (-)		
06025.0CT-135	●		25.00			24.0	135				30.0						
06025.4CT-120	●		1.000"			24.4	120				30.0						
EZH 07019CT-120	●		0.750"			18.0	120				30.0					Fig.3	EZB%...070... EZG%...070-... EZFG%...070-... EZTR...070-... _070X-...-080EZP
07020CT-120	●		20.00			19.0	120				30.0						
07022CT-135	●	7	22.00	16	7.4	21.0	135	18	9	29	44.0	35.5 (21.5)	30.5 (16.5)	25.5 (11.5)	20.5 (-)		
07025.0CT-135	●		25.00			24.0	135				30.0						
07025.4CT-120	●		1.000"			24.4	120				30.0						
EZH 08019CT-120	●		0.75"			18	120				34.0					Fig.3	EZB%...080... _080X-...-100EZP
08020CT-120	●		20			19	120				34.0						
08022CT-135	●	8.0	22	16	8.6	21	135	18	9	33	44.0	40.5 (24.5)	35.5 (19.5)	30.5 (14.5)	25.5 (-)		
08025.0CT-135	●		25			24	135				34.0						
08025.4CT-120	●		1.00"			24.4	120				34.0						

*1: L3 shows DCB length.

*2: Dimension LPR shows overhang length of the EZB Bar when attached to sleeve (with the exception of extended reach bars).

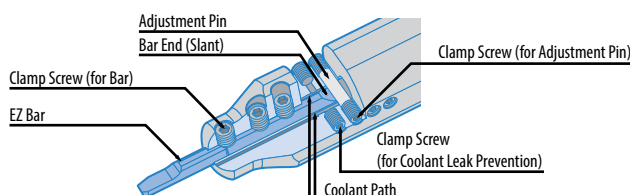
Dimension in () shows overhang length of the EZ Bar PLUS when installed into the sleeve.

Choose sleeves (DCB) that match DCON dimension of bar.

Ø8.2mm hole on the sleeve end is prepared with Rc1/8 threading. Please modify with additional machining if necessary. The sleeve hardness is 42HRC.

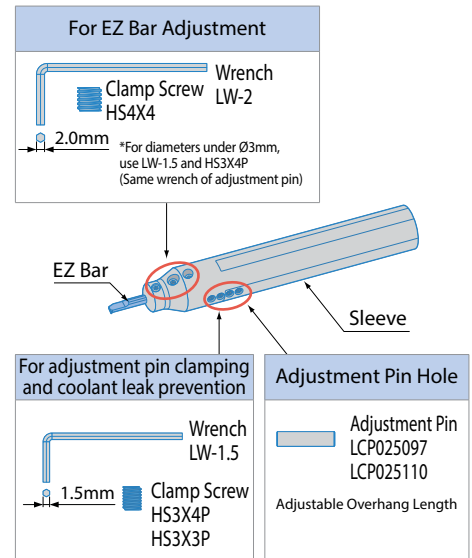
● : Standard Item

EZH-CT Internal Structure



Spare Parts (for EZH-CT Sleeves)

Part Number	Spare Parts				
	Adjustment Pin	Clamp Screw	Wrench	Clamp Screw	Wrench
EZH 017...CT-..	LCP025097	HS3X4P (For Adjustment Pin, Coolant Leak Prevention, and Bar)	LW-1.5 Tightening Torque 1 Nm	HS3X4P	LW-1.5 Tightening Torque 1 Nm
020...CT-..					
025...CT-..					
030...CT-..					
EZH 035...CT-..	LCP025097	HS3X4P (For Adjustment Pin, Coolant Leak Prevention, and Bar)	LW-1.5 Tightening Torque 1 Nm	HS4X4P (For Bar)	LW-2 Tightening Torque 2 Nm
040...CT-..					
045...CT-..					
050...CT-..					
060...CT-..					
070...CT-..					
080...CT-..	LCP025110	HS3X4P (For Adjustment Pin, Coolant Leak Prevention, and Bar)			



- 1) If shank dia. is $\varnothing 2.5\text{mm}$ or less, use 6 clamp screws (HS3X4P), distributed as follows:
- For Adjustment Pin2pcs
For Coolant Leak Prevention2pcs
For Bar2pcs
- 2) If shank dia. is $\varnothing 3\text{mm}$, use 9 clamp screws (HS3X4P), distributed as follows:
- For Adjustment Pin2pcs
For Coolant Leak Prevention4pcs
For Bar3pcs

How to Install Bar Into Sleeve

How to Use Adjustment Pin and Prevent Coolant Leakage (Fig.1)

- Put the adjustment pin into the hole according to the overhang length and push it into the sleeve using the wrench "LW-1.5".
- Tighten the clamp screw for the adjustment pin "HS3X4P" using the wrench "LW-1.5" from both sides of the sleeve.
- Put the additional clamp screws "HS3X4P" into the un-used adjustment pin holes to prevent coolant leakage using the wrench "LW-1.5" and fix them from both sides of the sleeve.

How to Secure the Bar (Fig.2)

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

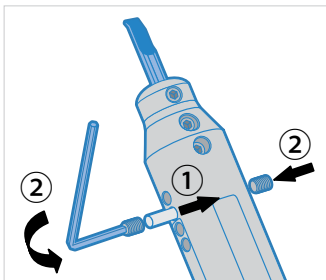


Fig. 1 How to Use Adjustment Pin

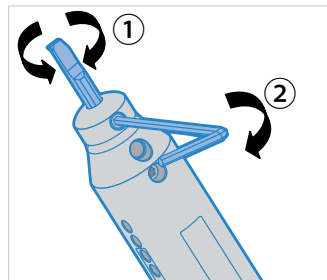


Fig. 2 How to Secure the Bar

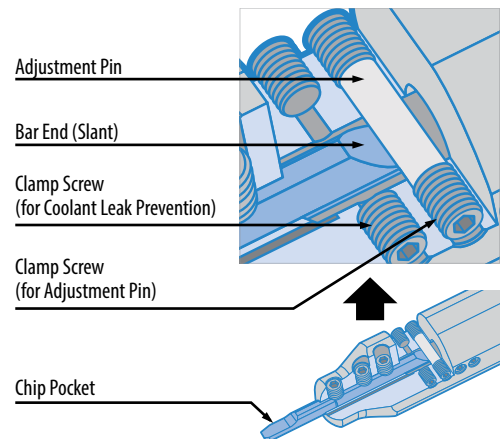


Fig. 3 Clamped Bar

Sleeve Identification System

EZ	H	020	19	CT	-	120
Bar Symbol (EZ Bar)	Application H-Sleeve	Shank Dia. of EZ Bar 020 : 2.0mm 025 : 2.5mm	Sleeve Shank Dia. 19 : 19.05mm 25.4 : 25.40mm	Precision Symbol CT: With Coolant Hole and EZ Adjust Structure HP: EZ Adjust Structure ST: Standard		Overall Length of Sleeve 120 : 120mm 135 : 135mm

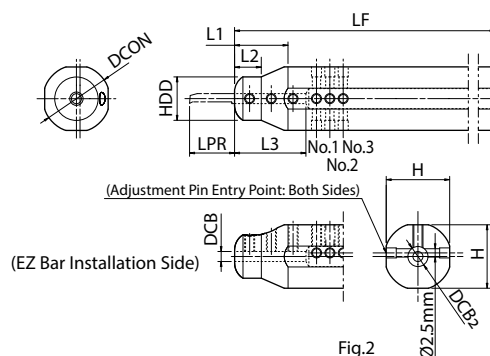


Fig.1

Fig.2

Part Number	Stock	Dimensions (mm)									Bar Overhang Length*LPR (mm)				Drawing	Applicable EZ Bar See P6-P16
		DCB	DCON	HDD	DCB2	H	LF	L1	L2	*L3	No.1	No.2	No.3	No.4		
EZH 01716HP-100 01719HP-120 01720HP-120 01722HP-135 01725.0HP-135 01725.4HP-120	●	1.7	16.00	13	6	15.0	100	16	8	16	7.5	3.5	-	-	Fig.1	EZBR...017...
	●		0.750"			18.0	120									
	●		20.00			19.0	120									
	●		22.00			21.0	135									
	●		25.00			24.0	135									
	●		1.000"			24.4	120									
EZH 02016HP-100 02019HP-120 02020HP-120 02022HP-135 02025.0HP-135 02025.4HP-120	●	2.0	16.00	13	6	15.0	100	16	8	20	8.5	4.5	-	-	Fig.1	EZB %/...020...
	●		0.750"			18.0	120									
	●		20.00			19.0	120									
	●		22.00			21.0	135									
	●		25.00			24.0	135									
	●		1.000"			24.4	120									
EZH 02516HP-100 02519HP-120 02520HP-120 02522HP-135 02525.0HP-135 02525.4HP-120	●	2.5	16.00	13	6	15.0	100	16	8	20	11.0	7.0	-	-	Fig.1	EZB %/...025... EZTR...025...
	●		0.750"			18.0	120									
	●		20.00			19.0	120									
	●		22.00			21.0	135									
	●		25.00			24.0	135									
	●		1.000"			24.4	120									
EZH 03016HP-100 03019HP-120 03020HP-120 03022HP-135 03025.0HP-135 03025.4HP-120	●	3.0	16.00	13	6	15.0	100	16	8	21	13.5	9.5	5.5	-	Fig.2	EZB %/...030... EZBFR...030... EZVBR...030... EZGR...030... EZTR...030...
	●		0.750"			18.0	120									
	●		20.00													

*1: L3 shows DCB length.

*2: Dimension LPR shows overhang length of the EZB Bar when attached to sleeve (with the exception of extended reach bars).

Choose sleeves (DCB) that match DCON dimension of bar.

● : Standard Item

Part Number	Spare Parts				
	Clamp Screw	Wrench	Clamp Screw	Wrench	Adjustment Pin
EZH 017...HP-- 020...HP-- 025...HP-- 030...HP--	HS3X4P (for Both Adjustment Pin and Bar)	LW-1.5 Tightening Torque 1 Nm	-	-	LCP025140
EZH 035...HP-- 040...HP-- 045...HP-- 050...HP-- 060...HP-- 070...HP--	HS3X4P (Only for Adjustment Pin)	LW-1.5 Tightening Torque 1 Nm	HS4X4P (For Bar)	LW-2 Tightening Torque 2 Nm	LCP025140

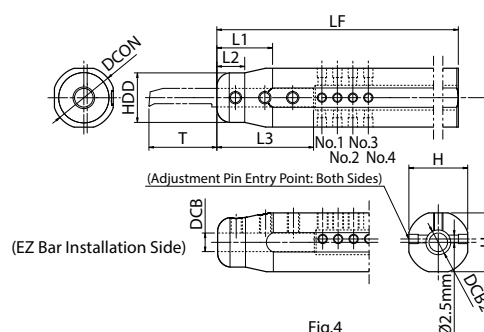


Fig.3

Fig.4

Fig. 3: Clamped Bar

Spare Parts (for EZH-ST Sleeves)

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

Applicable Sleeves for Machine Manufacturers

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



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