

# 簡單調整位置 · 高精度

Easy adjustment and High Precision

# EZ Bar

## EZ Bar

### 京瓷獨家開發 EZ 調整構造

Kyocera's original EZ adjust structure

- 簡單調整位置 · 高精度  
Easy adjustment and high precision
- EZ Bar的強拘束力可防止偏差  
EZ Bar prevents deviation with high-rigidity clamping

### 小內徑槽溝追加

Micro Internal Grooving Inserts are added in Lineup

### MEGACOAT PR1225長壽命 · 安定加工

MEGACOAT PR1225 for stable cutting and extended tool life

### 具有定位功能的HP型套筒 EZ調整構造

EZ Adjust Structure is applied to high precision HP sleeves

#### 特殊先端形狀 使冷卻液供給平穩

Smooth coolant supply due to the special top shape

#### MEGACOAT PR1225 採用 (鋼 · 不鏽鋼用)

MEGACOAT PR1225 for steel and stainless steel machining

#### 3種類的斷削槽 對應不同加工種類

3 types of chipbreakers available for various applications

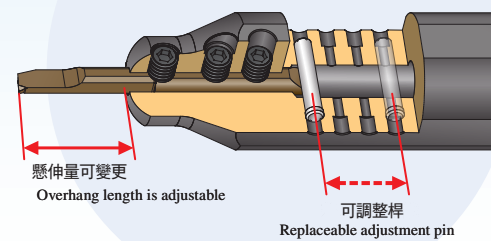
#### 多樣化刀片品項

Extensive Product Lineup of inserts



### 京瓷獨家 EZ調整構造

Kyocera's original EZ adjust structure



ADVANCING PRODUCTIVITY

生産性向上に貢献する京セラ

## 簡單調整位置 · 高精度

Easy adjustment and high precision EZ Bar

# EZBar 登場

### 何謂EZ調整構造

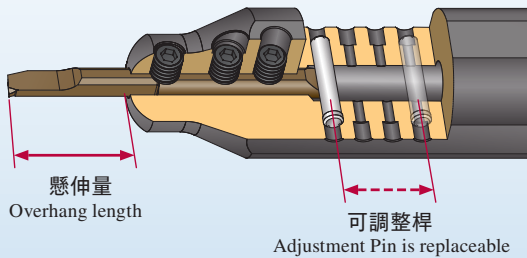
What's EZ Adjust Structure?

**POINT 1**

#### 懸伸量可做調整

overhang length of bars is adjustable

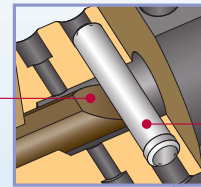
簡單調整位置 · 高精度 Easy adjustment / High precision



**POINT 2**

#### 強拘束力

Excellent clamping force



後端傾斜面  
與調整桿做緊固

Bar is firmly clamped on the slanted end by the Adjustment Pin

## EZ Bar 有2種套筒和3種斷削槽。

Chipbreakers and sleeves are 2 types for each. A wide range of lineup for various applications

### 如何選擇刀片 ①

How to select bars 1

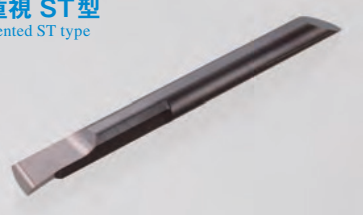
### 公差不同 精度重視HP型 成本重視ST型 2種類

HP type for high precision and ST type for cost reduction (Tolerances are different.)

精度重視 HP型  
Precision-oriented HP type



成本重視 ST型  
Cost-oriented ST type



※請參考第五頁“如何區別兩種刀片”  
Refer to page 5 for "How to distinguish 2 types of bars."

刀片公差一覽 Insert Tolerance	偏移 (f) Offset	全長 (Z) Longitudinal direction	刃先高 (Y) Cutting edge height	最小加工徑* Min. Bore Dia.
精度重視 HP型 Precision-oriented HP type	±0.025mm	±0.05mm	+0.05mm/0mm	與套筒同徑 Same as Shank Dia.
成本重視 ST型 Cost-oriented ST type	±0.06mm	±0.1mm	+0.06mm/0mm	與套筒不同徑 Not same as shank dia.

### 如何選擇刀片 ②

How to select bars 2

### 對應各式加工 3種斷削槽

3 Chipbreakers for various applications

H斷削槽 (平行斷削槽)  
H Chipbreaker Without lead angle



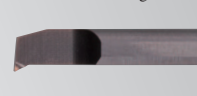
刃先強度重視  
汎用

Tough edge (General purpose)

建議切深  
Recommended ap

0.2mm以上  
More than 0.2mm

F斷削槽 (前角斷削槽)  
F Chipbreaker With lead angle



表面重視  
精修用

Sharp cutting (For finishing)

建議切深  
Recommended ap

0.2mm以下  
Less than 0.2mm

NB (無斷削槽)  
NB Chipbreaker (Without chipbreaker)



無斷削槽  
銅與其他非鐵加工

No chipbreaker  
(For Brass and non-ferrous materials)

PCD·CBN  
已發售  
PCD·CBN Inserts  
Available

· 3種類刀片的R角

H斷削槽: 0.08mm, 0.15mm

F斷削槽: 0.05mm, 0.15mm

NB (無斷削槽): 0.05mm (PR1225), 0.035mm (PCD·CBN)

3 types of corner-R for each chipbreaker

H Chipbreaker: 0.08mm, 0.15mm

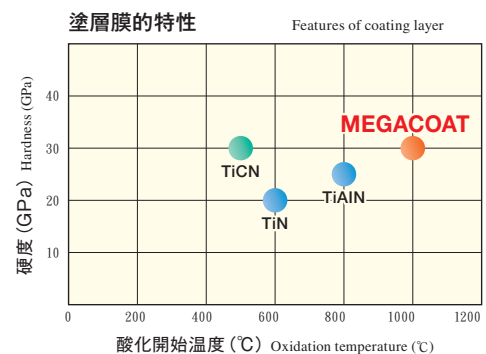
F Chipbreaker: 0.05mm, 0.15mm

NB (Without chipbreaker): 0.05mm (PR1225), 0.035mm (PCD/CBN)

Lineup depends on description

### MEGACOAT PR1225 長壽命

MEGACOAT: Long tool life by PR1225



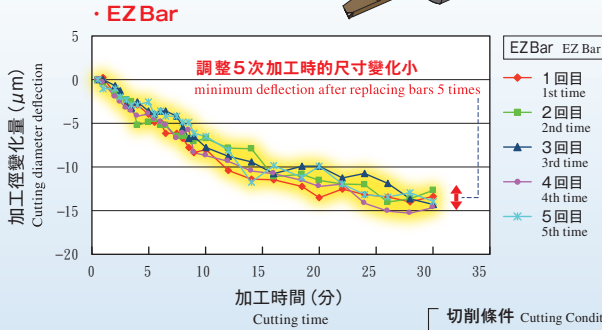
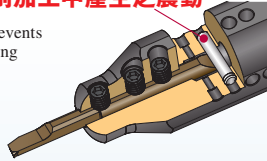
**POINT 3**

**縮小加工尺寸之變化**  
Minimized deviation of cutting diameter

**EZ Bar**  
EZ Bar

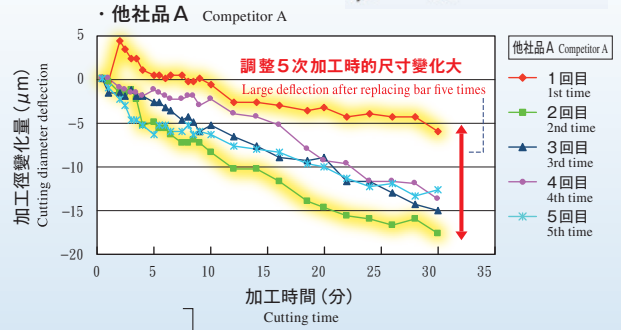
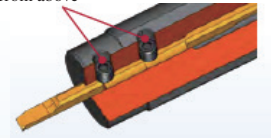
**可調整桿抑制加工中產生之震動**

Adjustment pin prevents the bar from rotating during cutting.



**他社品 A**  
Competitor A

僅靠螺絲緊固  
Fixed by a screw from above



切削條件 Cutting Condition  
n=5000min<sup>-1</sup> (Vc=66m/min) Workpiece Material  
ap=0.1mm f=0.02mm/rev Wet (油性) 被削材: SK4

**適合的套筒選擇**

**如何選擇套筒**

How to select sleeves

**可調位置 HP型 與不可調位置(汎用)ST型 2種類**

Adjustable HP type and not-adjustable ST type

可調位置HP型

簡單調整構造

懸伸量可設定

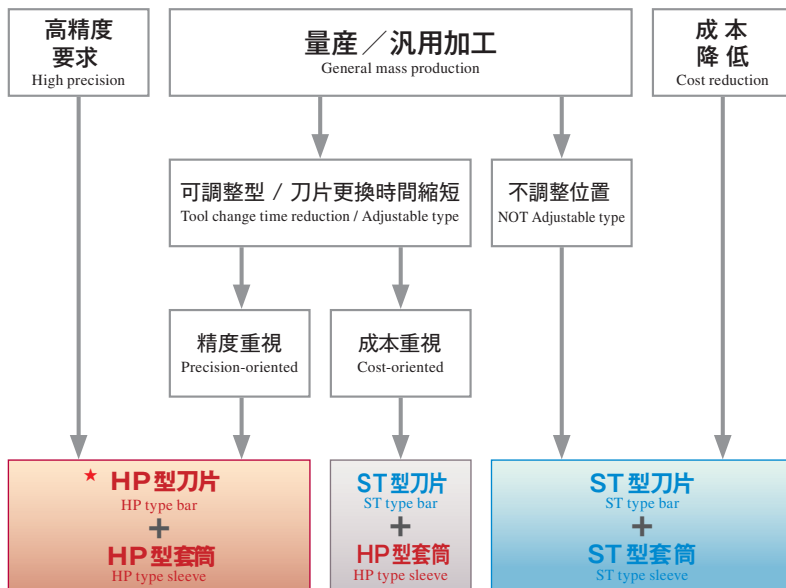
EZ Adjust Structure: Overhang length of HP type is adjustable



兩種型番、  
特殊先端形狀  
冷卻液都能平穩供給  
Both types provide smooth coolant supply

**針對不同加工、如何選擇刀片與套筒**

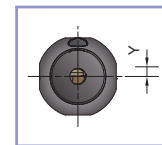
How to select bars and sleeves for each application



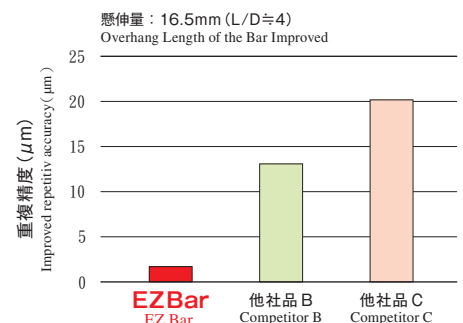
**★ HP型刀片 + HP型套筒**  
HP type bar + HP type sleeve

**重複換刀下保持高精度  
更換刀具時間縮短**

Excellent repeat accuracy and drastic tool change time reduction

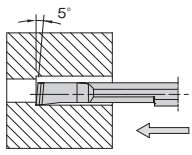
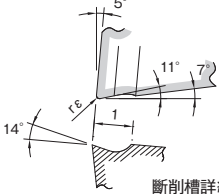
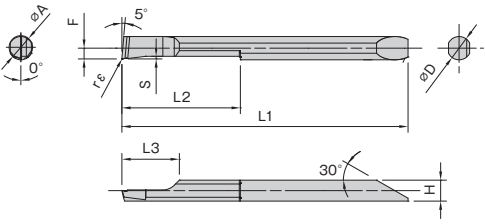
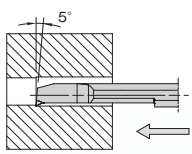
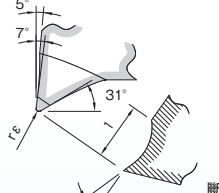
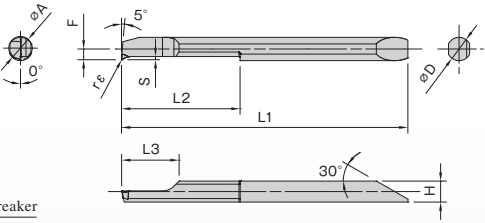


重複精度比較  
Comparison of Repetitive Accuracy  
Y = 刃先高  
Cutting edge height



## ■ EZB-HP型 刀片

EZB-HP type

 <p>内径加工：H 断削槽 Boring: H Chipbreaker</p> <ul style="list-style-type: none"> <li>· 平行無前角 Without lead angle</li> <li>· 刃先強度重視 (汎用) Tough edge (General purpose)</li> </ul> <p>· 本圖為右手 (R) Right-hand Shown</p>	 <p>断削槽詳細 Detail of Chipbreaker</p>	
 <p>内径加工：F 断削槽 Boring: F Chipbreaker</p> <ul style="list-style-type: none"> <li>· 有前角 With lead angle</li> <li>· 面粗重視 (精修用) Sharp cutting (For finishing)</li> </ul> <p>· 本圖は右勝手 (R) を示す Right-hand Shown</p>	 <p>断削槽詳細 Detail of Chipbreaker</p>	

## ・刀片尺寸 EZ Bar Dimension

型番 Description	最小加工径 Min. Bore Dia.	尺寸 (mm) Dimension (mm)									材種 Grade	適合套筒 Applicable Sleeve
		φA	φD	H	L1	L2	L3	F	S	rε	MEGACOAT	
											PR1225	
EZBR 020020HP-008H 025025HP-008H 025025HP-015H 030030HP-008H 030030HP-015H 035035HP-008H 035035HP-015H 040040HP-008H 040040HP-015H 050050HP-008H 050050HP-015H 060060HP-008H 060060HP-015H	2	2	1.8	32	8	4.9	0.85	0.25	0.08 ±0.015	●	EZH020...	
	2.5	2.5	2.3	35	10.5	4.9	1.1	0.25	0.08 ±0.015	●		EZH025...
									0.15 ±0.02	●		
	3	3	2.7	38.9	13	6.9	1.35	0.3	0.08 ±0.015	●	EZH030...	
									0.15 ±0.02	●		
	3.5	3.5	3.2	41.9	15	6.9	1.6	0.4	0.08 ±0.015	●	EZH035...	
									0.15 ±0.02	●		
	4	4	3.6	48.8	20	9.8	1.85	0.4	0.08 ±0.015	●	EZH040...	
									0.15 ±0.02	●		
	5	5	4.6	58.1	25	9.8	2.35	0.5	0.08 ±0.015	●	EZH050...	
0.15 ±0.02									●			
6	6	5.6	66.1	30	11.8	2.85	0.6	0.08 ±0.015	●	EZH060...		
								0.15 ±0.02	●			
EZBR 020020HP-005F 025025HP-005F 025025HP-015F 030030HP-005F 030030HP-015F 035035HP-005F 035035HP-015F 040040HP-005F 040040HP-015F 050050HP-005F 050050HP-015F 060060HP-005F 060060HP-015F	2	2	1.8	32	8	4.9	0.85	0.25	0.05 ±0.01	●	EZH020...	
	2.5	2.5	2.3	35	10.5	4.9	1.1	0.3	0.05 ±0.01	●		EZH025...
									0.15 ±0.02	●		
	3	3	2.7	38.9	13	6.9	1.35	0.4	0.05 ±0.01	●	EZH030...	
									0.15 ±0.02	●		
	3.5	3.5	3.2	41.9	15	6.9	1.6	0.5	0.05 ±0.01	●	EZH035...	
									0.15 ±0.02	●		
	4	4	3.6	48.8	20	9.8	1.85	0.5	0.05 ±0.01	●	EZH040...	
									0.15 ±0.02	●		
	5	5	4.6	58.1	25	9.8	2.35	0.7	0.05 ±0.01	●	EZH050...	
0.15 ±0.02									●			
6	6	5.6	66.1	30	11.8	2.85	0.9	0.05 ±0.01	●	EZH060...		
								0.15 ±0.02	●			

公差：偏移±0.025mm (調整棒基準)、全長±0.05mm、刃先高+0.05/0mm  
Tolerance: Offset ±0.025mm (of the reference pin), overall length ±0.05mm, edge height +0.05/0mm

●：標準在庫 Std. Stock

EZ Bar 1盒1個入  
Bars are sold in 1 piece boxes.

## ◆ EZ Bar 型番表示

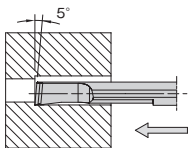
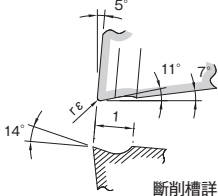
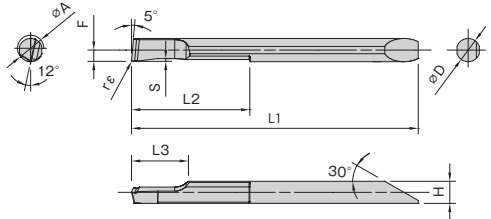
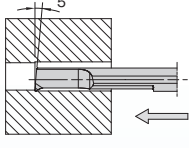
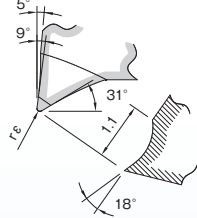
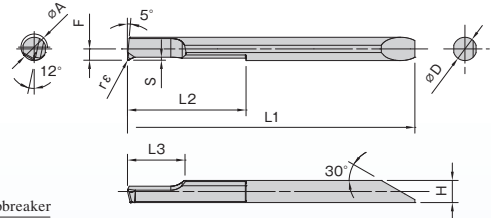
Bar Identification System (EZ Bar)

<b>EZ</b>	<b>B</b>	<b>R</b>	<b>020</b>	<b>020</b>	<b>HP</b>	<b>- 008</b>	<b>H</b>
EZ Bar 名稱 Symbol of Bar (EZ Bar)	用途 Application B: 内徑刀 B-Boring Bar	左右手 Hand of Bar R: 右勝手 R-hand	最小加工径 Min. Bore Dia. 020: 2mm 025: 2.5mm	套筒徑 Shank Dia. 020: 2mm 025: 2.5mm	精度名稱 Symbol of Precision HP: 高精度 High Precision ST: 標準 Standard	R (rε) Corner-R (rε) 008: 0.08mm 015: 0.15mm	断削槽名稱 Chipbreaker Symbol H: 平行断削槽 H Chipbreaker (without lead angle) F: 前角断削槽 F Chipbreaker (with lead angle) NB: 無断削槽 NB: Without chipbreaker

成本重視  
Cost Reduction

EZB-ST型刀片

EZB-ST type

	<p>内径加工：H 断削槽 Boring: H Chipbreaker</p> <ul style="list-style-type: none"> <li>· 无前角 Without lead angle</li> <li>· 刃先强度重视 (汎用) Tough edge (General purpose)</li> </ul>		
	<p>内径加工：F 断削槽 Boring: F Chipbreaker</p> <ul style="list-style-type: none"> <li>· 有前角 With lead angle</li> <li>· 面粗重视 (精修用) Sharp cutting (For finishing)</li> </ul>		

刀片尺寸 EZ Bar Dimension

型番 Description	最小加工径 Min. Bore Dia.	尺寸 (mm) Dimension (mm)									材種 Grade	適合套筒 Applicable Sleeve
		φA	φD	H	L1	L2	L3	F	S	rε	MEGACOAT	
											PR1225	
EZBR 020017ST-008H 025020ST-008H 025020ST-015H 030025ST-008H 030025ST-015H 035030ST-008H 035030ST-015H 040035ST-008H 040035ST-015H 045040ST-008H 045040ST-015H 055050ST-008H 055050ST-015H 065060ST-008H 065060ST-015H 075070ST-008H 075070ST-015H	2	1.7	1.5	27.3	7	4.7	0.79	0.19	0.08 ±0.015	●	EZH017...	
	2.5	2	1.82	32	8	4.8	0.94	0.16	0.08 ±0.015	●	EZH020...	
										●	EZH025...	
	3	2.5	2.3	35	10.5	4.8	1.19	0.15	0.08 ±0.015	●	EZH030...	
										●	EZH035...	
	3.5	3	2.8	39	13	6.8	1.44	0.18	0.08 ±0.015	●	EZH040...	
										●	EZH050...	
	4	3.5	3.3	42	15	6.7	1.69	0.24	0.08 ±0.015	●	EZH060...	
										●	EZH070...	
	4.5	4	3.8	49	20	9.7	1.94	0.27	0.08 ±0.015	●	EZH070...	
										●	EZH070...	
	5.5	5	4.8	58.2	25	9.7	2.44	0.33	0.08 ±0.015	●	EZH070...	
										●	EZH070...	
	6.5	6	5.8	66.2	30	11.8	2.94	0.38	0.08 ±0.015	●	EZH070...	
										●	EZH070...	
	7.5	7	6.8	74.2	35	11.7	3.44	0.44	0.08 ±0.015	●	EZH070...	
●										EZH070...		
EZBR 020017ST-005F 025020ST-005F 025020ST-015F 030025ST-005F 030025ST-015F 035030ST-005F 035030ST-015F 040035ST-005F 040035ST-015F 045040ST-005F 045040ST-015F 055050ST-005F 055050ST-015F 065060ST-005F 065060ST-015F 075070ST-005F 075070ST-015F	2	1.7	1.5	27.3	7	4.7	0.79	0.2	0.05 ±0.01	●	EZH017...	
	2.5	2	1.82	32	8	4.8	0.94	0.16	0.05 ±0.01	●	EZH020...	
										●	EZH025...	
	3	2.5	2.3	35	10.5	4.8	1.19	0.2	0.05 ±0.01	●	EZH030...	
										●	EZH035...	
	3.5	3	2.8	39	13	6.8	1.44	0.26	0.05 ±0.01	●	EZH040...	
										●	EZH050...	
	4	3.5	3.3	42	15	6.7	1.69	0.33	0.05 ±0.01	●	EZH060...	
										●	EZH070...	
	4.5	4	3.8	49	20	9.7	1.94	0.31	0.05 ±0.01	●	EZH070...	
										●	EZH070...	
	5.5	5	4.8	58.2	25	9.7	2.44	0.45	0.05 ±0.01	●	EZH070...	
										●	EZH070...	
	6.5	6	5.8	66.2	30	11.7	2.94	0.59	0.05 ±0.01	●	EZH070...	
										●	EZH070...	
	7.5	7	6.8	74.2	35	11.7	3.44	0.65	0.05 ±0.01	●	EZH070...	
●										EZH070...		

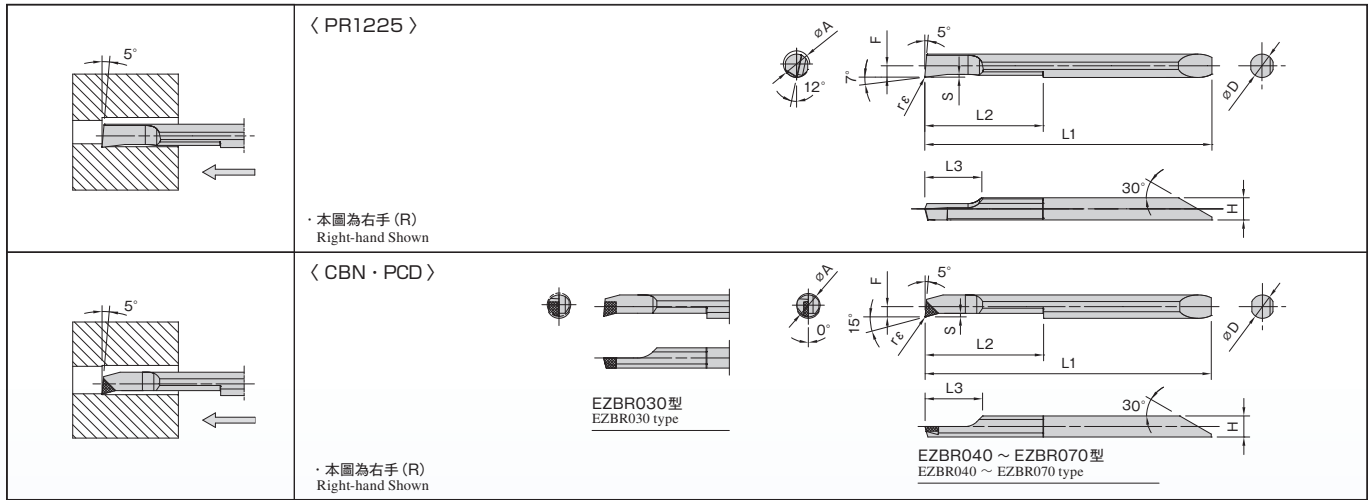
公差：偏移±0.06mm (調整桿基準)、全長±0.1mm、刃先高+0.06/0mm  
Tolerance: Offset ±0.06mm (of the reference pin), overall length ±0.1mm, edge height +0.06/0mm

●：標準在庫 Std. Stock

EZ Bar 1盒1個入  
Bars are sold in 1 piece boxes.

## ■ EZB-NB型 刀片

EZB-NB type



## · 刀片尺寸 EZ Bar Dimension

型番 Description	最小加工徑 Min. Bore Dia.	尺寸 (mm) Dimension (mm)								材種 Grade			適合套筒 Applicable Sleeve		
		φA	φD	H	L1	L2	L3	F	S	rε	MEGA COAT	MEGA CBN		鑽石 Diamond	
											PR1225	KBN05M		KPD001	
EZBR 020017-005NB 025020-005NB 030025-005NB 035030-005NB 040035-005NB 045040-005NB 055050-005NB 065060-005NB 075070-005NB	2	1.7	1.5	27.3	7	4.7	0.79	0.2	0.05 ±0.015				●		EZH017...
	2.5	2	1.82	32	8	4.8	0.94	0.16					●		EZH020...
	3	2.5	2.3	35	10.5	4.8	1.19	0.16					●		EZH025...
	3.5	3	2.8	39	13	6.8	1.44	0.19					●		EZH030...
	4	3.5	3.3	42	15	6.7	1.69	0.25					●		EZH035...
	4.5	4	3.8	49	20	9.7	1.94	0.28					●		EZH040...
	5.5	5	4.8	58.2	25	9.7	2.44	0.33					●		EZH050...
	6.5	6	5.8	66.2	30	11.7	2.94	0.39					●		EZH060...
EZBR 030030-003NB 040040-003NB 050050-003NB 060060-003NB 070070-003NB	3	3	2.6	38.8	13	6.8	1.25	0.3	0.5	0.035 ±0.015			●		EZH030...
	4	4	3.6	48.8	20	9.8	1.75	0.3					●		EZH040...
	5	5	4.6	58.1	25	9.8	2.25	0.3					●		EZH050...
	6	6	5.6	66.1	30	11.8	2.75	0.3					●		EZH060...
	7	7	6.6	74.1	35	11.8	3.25	0.3					●		EZH070...
EZBR 040040-003NB 050050-003NB 060060-003NB 070070-003NB	4	4	3.6	48.8	20	9.8	1.75	0.3	0.5	0.035 ±0.015				●	EZH040...
	5	5	4.6	58.1	25	9.8	2.25	0.3						●	EZH050...
	6	6	5.6	66.1	30	11.8	2.75	0.3						●	EZH060...
	7	7	6.6	74.1	35	11.8	3.25	0.3						●	EZH070...

●: 標準在庫 Std. Stock

## · 刃先規格 Edge Preparation

材種 Grade	刃先規格 Edge Preparation	備考 Remarks
PR1225	鋒利刃 Shape Edge	-
KBN05M	0.08mm × 15° 導角 Chamfered Cutting Edge	T00815
KPD001	鋒利刃 Shape Edge	-

## ■ 如何區分刀片 How to distinguish bars



## ■ EZ Bar的互換性 Compatibility of EZ Bar

EZ Bar 可與之前舊產品互換。EZ Bar is compatible with conventional Tip Bar

套筒 Sleeve	Bar 刀片	EZB····HP	EZB····ST	HPB····(從來品) (Conventional)
EZB····HP	EZH····HP	○	○	※1 ※2 ○ (可互換) (Compatible)
	EZH····ST	○	○	○ (可互換) (Compatible)
PHS····(從來品) (Conventional)	PHS····HP	※1 ○ (可互換) (Compatible)	○ (可互換) (Compatible)	○
	PHS····ST	○ (可互換) (Compatible)	○ (可互換) (Compatible)	○

※1 部分直徑的刀片無法做互換。Some diameter types of conventional Tip-Bar are incompatible  
 ※2 使用不需調整桿。懸伸量無法調整。Use them without Adjustment Pins. Overhang length of bar is not adjustable.

**EZH-HP型套筒**

Applicable Sleeve

**位置可調整**  
Adjustable

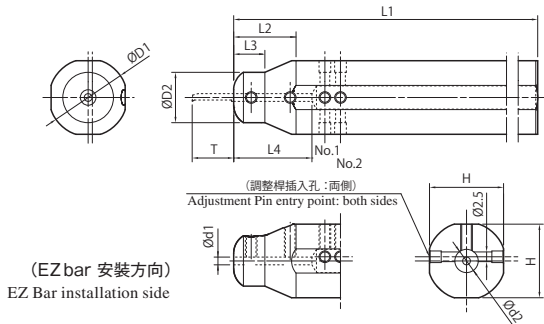


圖-1 Fig.1

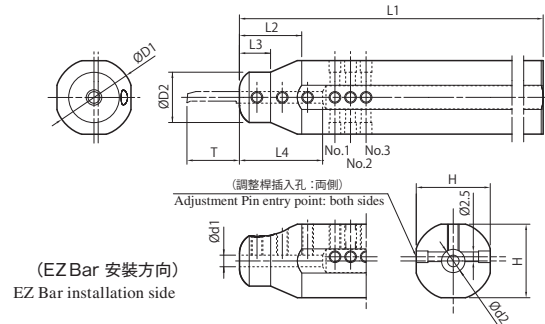


圖-2 Fig.2

型番 Description	在庫 Stock	尺寸 (mm) Dimension(mm)									懸伸量 *T(mm) Overhang length of bar				形狀 Shape	適合EZB型刀片 Applicable EZB Bar
		Ød1	ØD1	ØD2	Ød2	H	L1	L2	L3	*L4	設定調整桿的位置 Adjustment Pin Setting Position					
											No1	No2	No3	No4		
EZH 01716HP-100	●	1.7	16	13	6	15	100	16	8	16	7.5	3.5	-	-	圖-1 Fig.1	EZBR020017...
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	-	-	圖-1 Fig.1	EZBR020020... EZBR025020...
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	-	-	圖-1 Fig.1	EZBR025025... EZBR030025...
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	-	圖-2 Fig.2	EZBR030030... EZBR035030...
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	-	圖-2 Fig.2	EZBR035035... EZBR040035...
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									

\*: L4表示Ød1長度。 L4 shows Ød1 length.

· 選擇符合Ød1的刀片。 Choose sleeves (Ød1) to meet with ØD dimension of bar.

· T尺寸表示刀片裝在EZB型刀桿上的懸伸量。 Dimension T shows Overhang length of the EZB Bar when attached to sleeve.

●: 標準在庫 Std.Stock

· 部品型番表 (EZH-HP型套筒用)

Spare Parts Description (for EZH-HP Sleeves)

型番 Description	部品 Spare Parts					適合EZB型刀片 Applicable EZB Bar	
	螺絲 Screw	板手 Wrench	螺絲 Screw	板手 Wrench	調整桿 Adjustment Pin		
EZH 017...HP-..	HS3×4P (固定調整桿與 固定刀片兼用) (for both Adjustment Pin and bar)	LW-1.5  緊固扭力 1N·m Tightening Torque	-	-	LCP025140	-	EZBR020017...
020...HP-..						EZBR020020HP...	EZBR025020...
025...HP-..						EZBR025025HP...	EZBR030025...
030...HP-..						EZBR030030HP...	EZBR...030...
EZH 035...HP-..	HS3×4P (調整桿固定用) (only for Adjustment Pin)	LW-1.5  緊固扭力 1N·m Tightening Torque	HS4×4P (刀片固定用) (for bar)	LW-2  緊固扭力 2N·m Tightening Torque	LCP025140	EZBR035035HP...	EZBR040035...
040...HP-..						EZBR040040HP...	EZBR...040...
050...HP-..						EZBR050050HP...	EZBR...050...
060...HP-..						EZBR060060HP...	EZBR...060...
070...HP-..						-	EZBR...070...

## EZH-HP型套筒

Applicable Sleeve

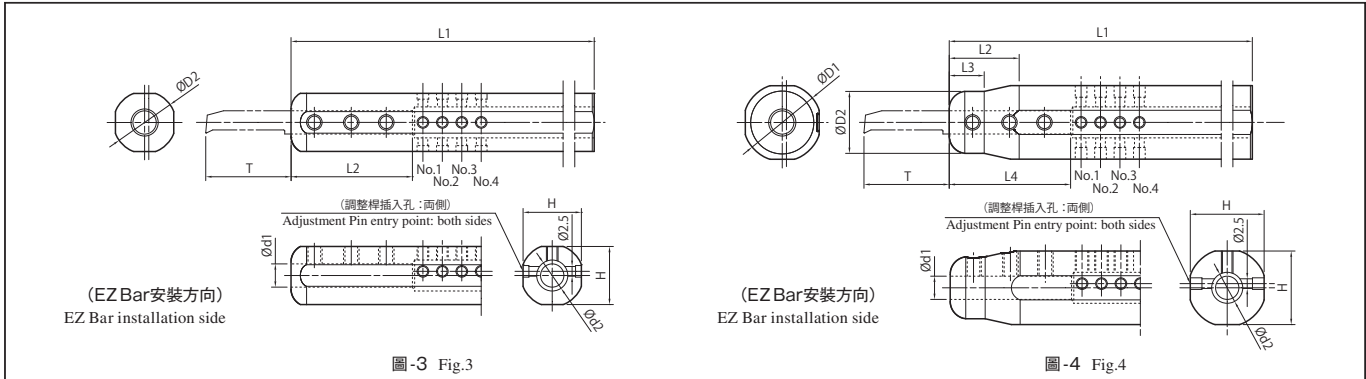


圖-3 Fig.3

圖-4 Fig.4

型番 Description	在庫 Stock	尺寸 (mm) Dimension(mm)								懸伸量 *T(mm) Overhang length of bar				形狀 Shape	適合EZB型刀片 Applicable EZB Bar	
		φd1	φD1	φD2	φd2	H	L1	L2	L3	*L4	設定調整桿的位置 Adjustment Pin Setting Position					
											No1	No2	No3			No4
EZH 04016HP-100	●	4	16	13	6	15	100	16	8	24	20.5	16.5	12.5	8.5	圖-4 Fig.4	EZBR040040... EZBR045040...
04019HP-120	●		19.05			120										
04020HP-120	●		20			120										
04022HP-135	●		22			135										
04025.0HP-135	●		25			135										
04025.4HP-120	●		25.4			120										
EZH 05016HP-100	●	5	16	16	6	15	100	18	9	29	25.5	20.5	15.5	10.5	圖-3 Fig.3  圖-4 Fig.4	EZBR050050... EZBR055050...
05019HP-120	●		19.05			120										
05020HP-120	●		20			120										
05022HP-135	●		22			135										
05025.0HP-135	●		25			135										
05025.4HP-120	●		25.4			120										
EZH 06016HP-100	●	6	16	16	8	15	100	18	9	31	30.5	25.5	20.5	15.5	圖-3 Fig.3  圖-4 Fig.4	EZBR060060... EZBR065060...
06019HP-120	●		19.05			120										
06020HP-120	●		20			120										
06022HP-135	●		22			135										
06025.0HP-135	●		25			135										
06025.4HP-120	●		25.4			120										
EZH 07016HP-100	●	7	16	16	8	15	100	18	9	33	35.5	30.5	25.5	20.5	圖-3 Fig.3  圖-4 Fig.4	EZBR070070... EZBR075070...
07019HP-120	●		19.05			120										
07020HP-120	●		20			120										
07022HP-135	●		22			135										
07025.0HP-135	●		25			135										
07025.4HP-120	●		25.4			120										

\*: L4表示φd1長度。L4 shows φd1 length.

· 選擇符合φd1的刀片。Choose sleeves (φd1) to meet with φD dimension of bar.

· T尺寸表示刀片裝在EZB型刀桿上的懸伸量。Dimension T shows Overhang length of the EZB Bar when attached to sleeve.

●: 標準在庫 Std.Stock

## ◆ 套筒型番表示 Sleeve Identification System

<b>EZ</b>	<b>H</b>	<b>017</b>	<b>16</b>	<b>HP</b>	<b>100</b>
EZ Bar 名稱 Symbol of Bar (EZ Bar)	用途 Application H: 套筒 H-Sleeve	EZB型的刀片柄徑 Shank Dia. of EZB bar 017: 1.7mm   025: 2.5mm	套筒柄徑 Sleeve Shank Dia. 16: 16mm   25.4: 25.4mm	精度名稱 Symbol of Precision HP: 高精度 High Precision   ST: 標準 Standard	套筒全長 Overall Length of Sleeve 100: 100mm   120: 120mm

## ◆ EZBar如何安裝 How to attach bar to sleeve

### ■ 如何使用調整桿 (圖1)

- 將調整桿插入孔內。
- 使用板手 (LW-1.5) 將調整桿壓入孔內。
- 將緊固螺絲 (HS3×4P) 與板手 (LW-1.5) 把調整桿固定。



圖1  
如何使用調整桿  
Fig. 1:  
How to use adjustment pin

### ■ 刀片安裝方法 (圖2)

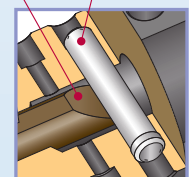
- 將排屑溝朝上、將刀片放入套筒內，調整桿壓住刀片斜面，確認刀片不會移動。(圖3參照)。
- 用板手 (LW-2) 將刀片固定。  
(如果柄徑φ3以下，使用LW-1.5)



圖2  
如何安裝刀片  
Fig. 2:  
How to fix bar

刀片後端傾斜面  
Bar end (Slant)

調整桿  
Adjustment pin



排屑溝  
Chip pocket

圖3 刀片固定狀態  
Fig. 3: Fixed bar

### ■ How to use adjustment pin (Fig.1)

- Put the adjustment pin into the hole.
- Push it into the sleeve, using the wrench "LW-1.5"
- Tighten the clamp screw "HS3x4p" with wrench "LW-1.5" to fix the adjustment screw.

### ■ How to fix bar (Fig.2)

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



**EZH-ST型套筒**

Applicable Sleeve

位置不可調整  
NOT Adjustable

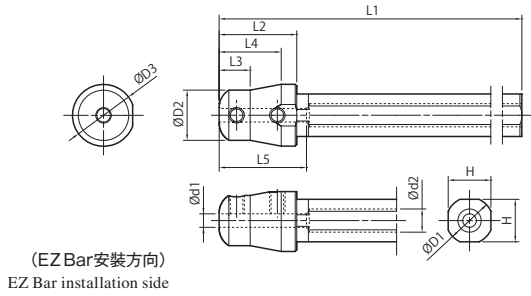


圖-1 Fig.1

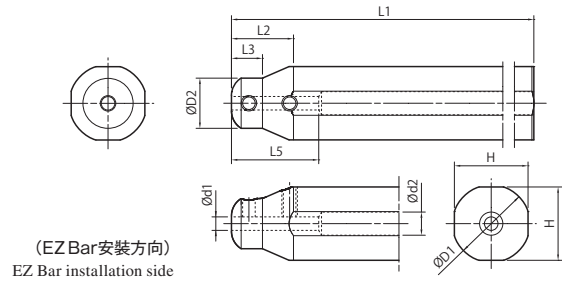


圖-2 Fig.2

型番 Description	在庫 Stock	尺寸 (mm) Dimension(mm)										形状 Shape	適合EZB型Bar Applicable EZB Bar	
		φd1	φD1	φD2	φD3	φd2	H	L1	L2	L3	L4			*L5
EZH 01712ST-80	●	1.7	12	13	—	6	11	80	16	8	—	16	圖-1 Fig.1	EZBR020017...
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	—	6	11	80	16	8	—	20	圖-1 Fig.1	EZBR020020... EZBR025020...
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	—	6	11	80	16	8	—	20	圖-1 Fig.1	EZBR025025... EZBR030025...
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	—	6	11	80	16	8	—	21	圖-1 Fig.1	EZBR030030... EZBR035030...
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	—	6	11	80	16	8	—	22	圖-1 Fig.1	EZBR035035... EZBR040035...
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	—	6	11	80	16	8	—	24	圖-1 Fig.1	EZBR040040... EZBR045040...
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						

※：L5表示d1長度。 L5 shows ød1 length.

·選擇符合φd1的刀片。

·調整桿無法用在EZH-ST型刀桿上。要調整刀片懸伸量，請使用EZB-HP型刀桿。

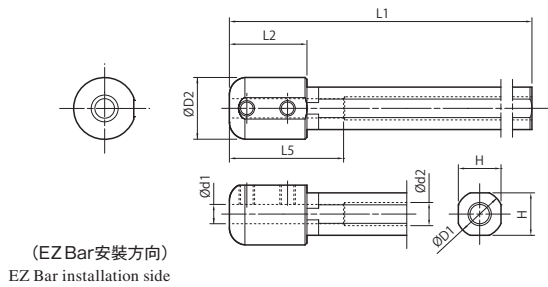
Choose sleeves (ød1) to meet with øD dimension of bar.

Adjustment Pin cannot be installed to EZH-ST Sleeves. To adjust overhang of the bar, please use EZH-HP Sleeves.

●：標準在庫 Std.Stock

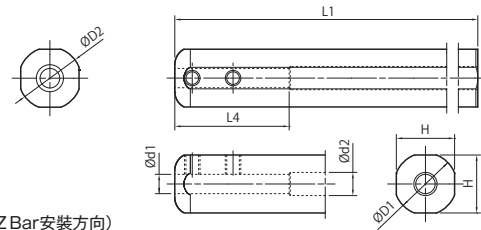
## EZH-ST型套筒

Applicable Sleeve



(EZ Bar安裝方向)  
EZ Bar installation side

圖-3 Fig.3



(EZ Bar安裝方向)  
EZ Bar installation side

圖-4 Fig.4

型番 Description	在庫 Stock	尺寸 (mm) Dimension(mm)										形狀 Shape	適合EZB型 Bar Applicable EZB Bar		
		φd1	φD1	φD2	φD3	φd2	H	L1	L2	L3	L4			*L5	
EZH 05012ST-80	●	5	12	16	-	6	11	80	20	-	-	-	29	圖-3 Fig.3	EZBR050050... EZBR055050...
05016ST-100	●		16				15	100	-						
05019ST-120	●		19.05				18	120	18					9	
05020ST-120	●		20				19	120							
05022ST-135	●		22				21	135							
05025.0ST-135	●		25				24	135							
05025.4ST-120	●		25.4				24.4	120							
EZH 06012ST-80	●	6	12	16	-	8	11	80	20	-	-	-	31	圖-3 Fig.3	EZBR060060... EZBR065060...
06016ST-100	●		16				15	100	-						
06019ST-120	●		19.05				18	120	18					9	
06020ST-120	●		20				19	120							
06022ST-135	●		22				21	135							
06025.0ST-135	●		25				24	135							
06025.4ST-120	●		25.4				24.4	120							
EZH 07012ST-80	●	7	12	16	-	8	11	80	20	-	-	-	33	圖-3 Fig.3	EZBR070070... EZBR075070...
07016ST-100	●		16				15	100	-						
07019ST-120	●		19.05				18	120	18					9	
07020ST-120	●		20				19	120							
07022ST-135	●		22				21	135							
07025.0ST-135	●		25				24	135							
07025.4ST-120	●		25.4				24.4	120							

\*: L5表示φd1長度。L5 shows φd1 length.

●: 標準在庫 Std.Stock

- 選擇符合φd1的刀片。
- 調整桿無法使用在EZH-ST型刀桿上。要調整刀片懸伸量，請使用EZH-HP型刀桿。

Choose sleeves (φd1) to meet with φD dimension of bar.  
Adjustment Pin cannot be installed to EZH-ST Sleeves. To adjust overhang of the bar, please use EZH-HP Sleeves.

### · 部品型番表 (EZH-HP型套筒用) Spare Parts Description (for EZH-HP Sleeves)

型番 Description	部品 Spare Parts		適合EZB型刀片 Applicable EZB Bar		
	螺絲 Screw	扳手 Wrench	EZB-HP型 EZB-HP type	EZB-ST型 EZB-ST type	EZB-NB型 EZB-NB type
EZH 017...ST-..	HS3×4P	LW-1.5 緊固扭力 1N·m Tightening Torque	-	EZBR020017ST...	EZBR020017...NB
020...ST-..			EZBR020020HP...	EZBR025020ST...	EZBR025020...NB
025...ST-..			EZBR025025HP...	EZBR030025ST...	EZBR030025...NB
030...ST-..			EZBR030030HP...	EZBR035030ST...	EZBR030030...NB EZBR035030...NB
EZH 035...ST-..	HS4×4P	LW-2 緊固扭力 2N·m Tightening Torque	EZBR035035HP...	EZBR040035ST...	EZBR040035...NB
040...ST-..			EZBR040040HP...	EZBR045040ST...	EZBR040040...NB EZBR045040...NB
050...ST-..			EZBR050050HP...	EZBR055050ST...	EZBR050050...NB EZBR055050...NB
060...ST-..			EZBR060060HP...	EZBR065060ST...	EZBR060060...NB EZBR065060...NB
070...ST-..			-	EZBR075070ST...	EZBR070070...NB EZBR075070...NB

## EZ Bar適合之機台表 Applicable Sleeve

套筒型番		Sleeve Description		適合EZB型刀片		Applicable EZB Bar		適合機械公司 Applicable Machine Manufacturer
EZH-HP型 (可調整位置) EZH-HP type Adjustable type	EZH-ST型 EZH-ST type	套筒柄徑 Sleeve Shank Dia.		型番 Description	柄徑 Shank Dia.			
		ΦD1 (mm)				ΦD (mm)		
—	EZH	01712ST-80	12	EZBR...0017ST/NB	1.7	汎用 General machines		
		02012ST-80		EZBR...020HP/ST/NB	2			
		02512ST-80		EZBR...025HP/ST/NB	2.5			
		03012ST-80		EZBR...030HP/ST/NB	3			
		03512ST-80		EZBR...035HP/ST/NB	3.5			
		04012ST-80		EZBR...040HP/ST/NB	4			
		05012ST-80		EZBR...050HP/ST/NB	5			
		06012ST-80		EZBR...060HP/ST/NB	6			
		07012ST-80		EZBR...070ST/NB	7			
EZH	01716HP-100 02016HP-100 02516HP-100 03016HP-100 03516HP-100 04016HP-100 05016HP-100 06016HP-100 07016HP-100	EZH	16	01716ST-100	EZBR...017ST/NB	1.7	汎用 General machines	
				02016ST-100	EZBR...020HP/ST/NB	2		
				02516ST-100	EZBR...025HP/ST/NB	2.5		
				03016ST-100	EZBR...030HP/ST/NB	3		
				03516ST-100	EZBR...035HP/ST/NB	3.5		
				04016ST-100	EZBR...040HP/ST/NB	4		
				05016ST-100	EZBR...050HP/ST/NB	5		
				06016ST-100	EZBR...060HP/ST/NB	6		
				07016ST-100	EZBR...070ST/NB	7		
EZH	01719HP-120 02019HP-120 02519HP-120 03019HP-120 03519HP-120 04019HP-120 05019HP-120 06019HP-120 07019HP-120	EZH	19.05	01719ST-120	EZBR...017ST/NB	1.7	CITIZEN MACHINERY MIYANO CO., LTD.	
				02019ST-120	EZBR...020HP/ST/NB	2		
				02519ST-120	EZBR...025HP/ST/NB	2.5		
				03019ST-120	EZBR...030HP/ST/NB	3		
				03519ST-120	EZBR...035HP/ST/NB	3.5		
				04019ST-120	EZBR...040HP/ST/NB	4		
				05019ST-120	EZBR...050HP/ST/NB	5		
				06019ST-120	EZBR...060HP/ST/NB	6		
				07019ST-120	EZBR...070ST/NB	7		
EZH	01720HP-120 02020HP-120 02520HP-120 03020HP-120 03520HP-120 04020HP-120 05020HP-120 06020HP-120 07020HP-120	EZH	20	01720ST-120	EZBR...017ST/NB	1.7	汎用 AMADA MACHINE TOOLS CO.,LTD. EGURO.LTD TSUGAMI CORPORATION CITIZEN MACHINERY MIYANO CO., LTD. General machines	
				02020ST-120	EZBR...020HP/ST/NB	2		
				02520ST-120	EZBR...025HP/ST/NB	2.5		
				03020ST-120	EZBR...030HP/ST/NB	3		
				03520ST-120	EZBR...035HP/ST/NB	3.5		
				04020ST-120	EZBR...040HP/ST/NB	4		
				05020ST-120	EZBR...050HP/ST/NB	5		
				06020ST-120	EZBR...060HP/ST/NB	6		
				07020ST-120	EZBR...070ST/NB	7		
EZH	01722HP-135 02022HP-135 02522HP-135 03022HP-135 03522HP-135 04022HP-135 05022HP-135 06022HP-135 07022HP-135	EZH	22	01722ST-135	EZBR...017ST/NB	1.7	STAR MICRONICS CO., LTD. Nomura VTC Automatic Lathe Co., Ltd. TSUGAMI CORPORATION	
				02022ST-135	EZBR...020HP/ST/NB	2		
				02522ST-135	EZBR...025HP/ST/NB	2.5		
				03022ST-135	EZBR...030HP/ST/NB	3		
				03522ST-135	EZBR...035HP/ST/NB	3.5		
				04022ST-135	EZBR...040HP/ST/NB	4		
				05022ST-135	EZBR...050HP/ST/NB	5		
				06022ST-135	EZBR...060HP/ST/NB	6		
				07022ST-135	EZBR...070ST/NB	7		
EZH	01725.0HP-135 02025.0HP-135 02525.0HP-135 03025.0HP-135 03525.0HP-135 04025.0HP-135 05025.0HP-135 06025.0HP-135 07025.0HP-135	EZH	25	01725.0ST-135	EZBR...017ST/NB	1.7	汎用 AMADA MACHINE TOOLS CO.,LTD. EGURO.LTD TSUGAMI CORPORATION CITIZEN MACHINERY MIYANO CO., LTD. General machines	
				02025.0ST-135	EZBR...020HP/ST/NB	2		
				02525.0ST-135	EZBR...025HP/ST/NB	2.5		
				03025.0ST-135	EZBR...030HP/ST/NB	3		
				03525.0ST-135	EZBR...035HP/ST/NB	3.5		
				04025.0ST-135	EZBR...040HP/ST/NB	4		
				05025.0ST-135	EZBR...050HP/ST/NB	5		
				06025.0ST-135	EZBR...060HP/ST/NB	6		
				07025.0ST-135	EZBR...070ST/NB	7		
EZH	01725.4HP-120 02025.4HP-120 02525.4HP-120 03025.4HP-120 03525.4HP-120 04025.4HP-120 05025.4HP-120 06025.4HP-120 07025.4HP-120	EZH	25.4	01725.4ST-120	EZBR...017ST/NB	1.7	CITIZEN MACHINERY MIYANO CO., LTD.	
				02025.4ST-120	EZBR...020HP/ST/NB	2		
				02525.4ST-120	EZBR...025HP/ST/NB	2.5		
				03025.4ST-120	EZBR...030HP/ST/NB	3		
				03525.4ST-120	EZBR...035HP/ST/NB	3.5		
				04025.4ST-120	EZBR...040HP/ST/NB	4		
				05025.4ST-120	EZBR...050HP/ST/NB	5		
				06025.4ST-120	EZBR...060HP/ST/NB	6		
				07025.4ST-120	EZBR...070ST/NB	7		

・選擇符合φd1的刀片。

・調整桿無法使用在EZH-ST型刀桿上，要調整刀片懸伸量，請使用EZH-HP型刀桿。

Choose sleeves (φd1) to meet with φD dimension of bar.

Adjustment Pin cannot be installed to -ST Sleeves. To adjust overhang of the bar, please use EZH-HP Sleeves.

## ◆ 推薦切削條件 Recommended Cutting Conditions

・H 斷削槽 H Chipbreaker EZB-HP・H EZB-ST・H

被削材 Workpiece Material	刀片材種 (切削速度 Vc:m/min) Insert Grade (Vc:m/min)	EZB020/025 EZB020/025 type		EZB030/035 EZB030/035 type		EZB040/045 EZB040/045 type		EZB050/055/ 060/065/075 EZB050/055/ 060/065/075 type		備考 Remarks
	MEGACOAT	切深 : ap (mm), 進給 : f (mm/rev)								
	PR1225	ap	f	ap	f	ap	f	ap	f	
炭素鋼・合金鋼 (S45C・SCM等) Carbon steel / Alloy steel	30 ~ 100	~ 0.3	~ 0.03	~ 0.4	~ 0.04	~ 0.45	~ 0.07	~ 0.5	~ 0.1	濕式 Coolant
不鏽鋼 (SUS304等) Stainless Steel	30 ~ 80	~ 0.2	~ 0.02	~ 0.3	~ 0.03	~ 0.35	~ 0.05	~ 0.4	~ 0.07	

・F 斷削槽 F Chipbreaker EZB-HP・F EZB-ST・F

被削材 Workpiece Material	刀片材種 (切削速度 Vc:m/min) Insert Grade (Vc:m/min)	EZB020/025 EZB020/025 type		EZB030/035 EZB030/035 type		EZB040/045 EZB040/045 type		EZB050/055/ 060/065/075 EZB050/055/ 060/065/075 type		備考 Remarks
	MEGACOAT	切深 : ap (mm), 進給 : f (mm/rev)								
	PR1225	ap	f	ap	f	ap	f	ap	f	
炭素鋼・合金鋼 (S45C・SCM等) Carbon steel / Alloy steel	30 ~ 100	~ 0.2	~ 0.03	~ 0.2	~ 0.05	~ 0.3	~ 0.07	~ 0.3	~ 0.07	濕式 Coolant
不鏽鋼 (SUS304等) Stainless Steel	30 ~ 80	~ 0.2	~ 0.02	~ 0.2	~ 0.03	~ 0.25	~ 0.05	~ 0.25	~ 0.05	

・NB (無斷削槽) NB Chipbreaker (Without chipbreaker)

被削材 Workpiece Material	刀片材種 (切削速度 Vc:m/min) Insert Grade (Vc:m/min)	EZB020/025 EZB020/025 type		EZB030/035 EZB030/035 type		EZB040/045 EZB040/045 type		EZB055/ 065/075 EZB055/ 065/075 type		備考 Remarks
	MEGACOAT	切深 : ap (mm), 進給 : f (mm/rev)								
	PR1225	ap	f	ap	f	ap	f	ap	f	
炭素鋼・合金鋼 (S45C・SCM等) Carbon steel / Alloy steel	30 ~ 100	~ 0.3	~ 0.03	~ 0.4	~ 0.04	~ 0.45	~ 0.07	~ 0.5	~ 0.1	濕式 Coolant
不鏽鋼 (SUS304等) Stainless Steel	30 ~ 80	~ 0.2	~ 0.02	~ 0.3	~ 0.03	~ 0.35	~ 0.05	~ 0.4	~ 0.07	
非鐵 (鋁・黃銅等) Non-ferrous Material	60 ~ 100	~ 0.3	~ 0.05	~ 0.4	~ 0.06	~ 0.45	~ 0.07	~ 0.5	~ 0.1	

被削材 Workpiece Material	刀片材種 (切削速度 Vc:m/min) Insert Grade (Vc:m/min)	EZB030 EZB030 type		EZB040/045 EZB040/045 type		EZB050/060/ 070 EZB050/060/070 type		備考 Remarks	
	MEGACOAT CBN 鑽石刀片 Diamond	切深 : ap (mm), 進給 : f (mm/rev)							
	KBN05M KPD001	ap	f	ap	f	ap	f		
非鐵 (鋁・黃銅等) Non-ferrous Material	—	~ 300	—	—	~ 0.45	~ 0.1	~ 0.5	~ 0.15	濕式 Coolant
高硬度材 (燒結鋼等) Hard Materials (including heat-treated steel)	~ 100	—	~ 0.07	~ 0.03	~ 0.10	~ 0.05	~ 0.15	~ 0.07	

## ■ 加工事例 Case Studies

SUS304		S45C		SCM435	
<b>閥體件</b> Valve Part ・Vc=80m/min ・ap=0.1mm ・f=0.03mm/rev ・濕式 Wet ・EZBR030030HP-015F (PR1225) ・EZH03025.0HP-135		<b>套筒 (自動車部品)</b> Sleeve (Automotive part) ・Vc=48m/min ・ap=0.05mm ・f=0.06mm/rev ・濕式 Wet ・EZBR045040ST-008H (PR1225) ・EZH04016HP-100		<b>套筒</b> Sleeve ・Vc=30m/min ・ap=0.5 (2パス) (2 passes) ・f=0.03mm/rev ・濕式 Wet ・EZBR045040ST-008H (PR1225) ・EZH04019HP-100	
<b>PR1225</b>	3,000個/刃 3,000pcs/edge	<b>PR1225</b>	2,000個/刃 2,000pcs/edge	<b>PR1225</b>	300個/刃 (繼續加工可能) 300pcs/edge (Farther machining possible)
他社品 D Competitor D	2,000個/刃 2,000pcs/edge	他社品 E Competitor E	1,000個/刃 1,000pcs/edge	他社品 F Competitor F	150個/刃 150pcs/edge
EZ Bar與他社品D相比, 加工尺寸安定, 工具壽命多1.5倍以上。 Compared to the Competitor D, EZ Bar showed 1.5 times longer tool life with superior stability and accuracy of cutting edge position. (根據客戶評價) Evaluation by the user		EZ Bar與他社品E相比, 工具壽命多2倍以上。操作容易的換刀方式 縮短加工的時間。 Compared to Competitor E, EZ Bar doubled tool life. Excellent operability of the sleeve reduced the cycle time and improved productivity. (根據客戶評價) Evaluation by the user		與他社品F相比, PR1225工具壽命多2倍以上。切削處理良好, 更換刀片操作性便利。 PR1225 has double tool life of that of Competitor F. Good chip control (根據客戶評價) Evaluation by the user	

# 簡單

# EZ Bar

EZ Bar's Easy Selection Guide

## 選擇指南



## 讓我們一起使用EZ Bar !

Let's use EZ Bar!

### 1 簡單操作、節省成本

Case 1 Easy Operability and Cost Reduction

組合方式 Combination

可調整懸伸位置HP型套筒  
Adjustable Overhang Length HP Sleeve

+

成本重視ST型刀片  
Cost Reduction ST Type

第 1 點 Point 1

減少運行成本、  
便利的懸伸量位置更改！

Reduced running cost and high operability with adjustable overhang length

第 2 點 Point 2

ST型刀片可減少運行成本  
高便利性調整懸伸量減少運做時間

ST Type Bar reduces running cost due to the reasonable bar price. Very high operability due to adjustable overhang length of the sleeves

### 2 追求高精度加工

Case 2 Designed for high precision cutting

組合方式 Combination

可調整懸伸位置HP型套筒  
Adjustable Overhang Length HP Sleeve

+

精度重視HP型刀片  
High Precision HP Type

第 1 點 Point 1

高精度、刀片拘束力強  
提供安定加工！

Stable cutting due to high precision and rigid bar clamping force

第 2 點 Point 2

EZBar的設計，重覆更換刀片亦可保持精準性和  
穩定加工。

調整桿防止加工中刀片震動與位移。

EZ Bar is designed for high repeat accuracy and stable cutting. The Adjustment Pins prevent the bar from rotating and moving during cutting.

## 結論 Conclusion

### EZ Bar有4大優點！

As conclusion, EZ Bar has 4 advantage points!

第 1 點  
Point 1

當選擇刀片時，HP型為第一選項  
When you choose bars to use, select HP Type as 1st choice.

第 2 點  
Point 2

成本考量時，選擇ST型  
Select ST type for cost oriented cutting.

第 3 點  
Point 3

精度重視時，選擇HP型  
Select HP type for precision oriented cutting

第 4 點  
Point 4

MEGACOAT塗層採用，壽命更長  
Long tool life with MEGACOAT on bars



## EZG型 小内径溝槽刀

EZG Series for Small Bore Grooving

### 第 1 點

Point 1

兩種懸伸長(L2尺寸) “標準(無記號)”  
“短型(型號尾端標註為S)”

2 types of overhang length (Dimension L2): Standard Type (without symbol) and Short Type (Descriptions finished by "S")

標準型 Standard Type



短型 Short Type



高剛性防震動 High Rigidity and Anti-chattering

### 第 2 點

Point 2

H斷削槽(有前角)、切屑排出良好

H Chipbreaker (with lead angle) designed for excellent chip evacuation

〈切屑處理〉

Chip Evacuation

●S45C

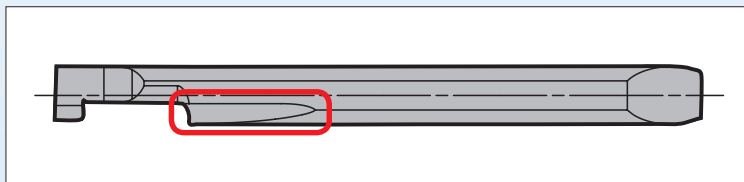
EZG型 EZGR04040-200 (溝幅2mm)			
	進給 mm/rev Feed	0.01	0.02

〈切削條件〉Vc=80m/min,溝深1.0mm (ap=0.2×5回),濕式  
Cutting Condition Groove Depth times

●SUS304

EZG型 EZGR04040-200 (溝幅2mm)		
	進給 mm/rev Feed	0.01

〈切削條件〉Vc=60m/min,溝深1.0mm (ap=0.2×5回),濕式  
Cutting Condition Groove Depth times



EZG型刀片

如左圖顯示有部分刀片為側固式。

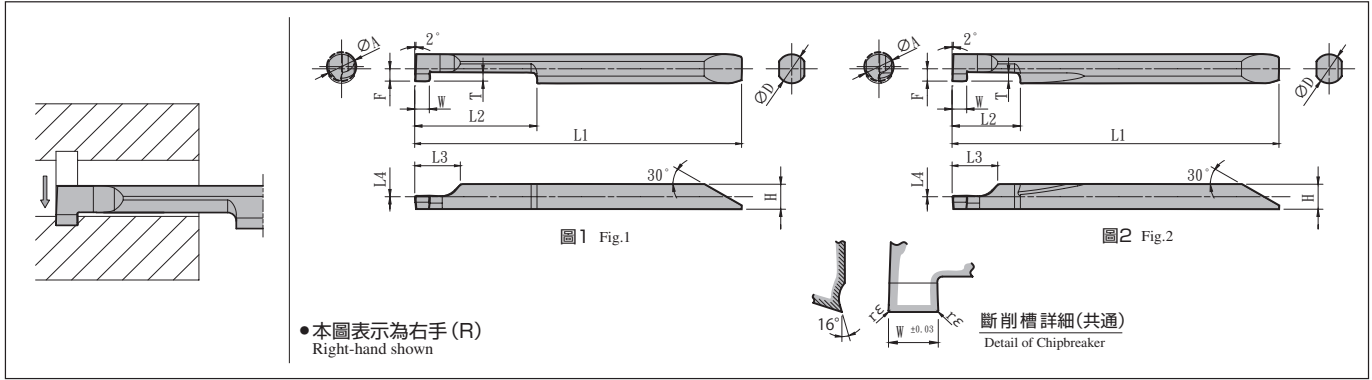
As shown in the left figure some items of the EZG sleeves are welded shanks.

### ◆EZG型刀片型番表示 Bar Identification System (EZG)

	<b>EZ</b>	<b>G</b>	<b>R</b>	<b>030</b>	<b>030</b>	<b>-</b>	<b>050</b>	<b>S</b>
<b>EZ Bar 名稱</b> Symbol of Bar	<b>用途</b> Application	<b>左右手</b> Hand	<b>最小加工徑</b> Min. Bore Dia.	<b>柄徑</b> Shank Dia.	<b>刃幅</b> Width		<b>型號</b> Type	
	G: 内径槽溝 Internal Grooving	R: 右勝手 Right-hand	030: 3mm :	030: 3mm :	050: 0.5mm 100: 1.0mm 150: 1.5mm 200: 2.0mm		S: 短型 (L2尺寸) Short Type (L2 dimension)	

**EZG型 (小内徑槽溝)** Small Dia. Internal Grooving

**NEW**



· 刀片一尺寸 Tip-Bars Dimension

型番 Description	最小加工徑 Min. Bore Dia.	尺寸 (mm) Dimension (mm)										形状 Shape	MEGACOAT PR1225	適合套筒 Applicable Sleeves	
		W <sup>±0.03</sup>	rε	φ D	H	L1	L2	L3	L4	F	T				
EZGR 040040-050	4	0.5	±0.013 0.05	4	3.45	44.7	12	6.2	0	1.7	1	圖-2 Fig.2	●	EZH040..	
EZGR 040040-100		1.0											●		
EZGR 040040-150		1.5											●		
EZGR 040040-200		2.0											●		
EZGR 050050-100	5	1.0		5	4.3	52.8	20	6.7		2.15	1.5	圖-1 Fig.1	●	EZH050..	
EZGR 050050-150		1.5											●		
EZGR 050050-200		2.0											●		
EZGR 060060-100	6	1.0		6	5.15	60.7	7.6	25		2.65	2	圖-1 Fig.1	●	EZH060..	
EZGR 060060-150		1.5											●		
EZGR 060060-200		2.0											●		
EZGR 070070-100	7	1.0		7	6.2	63.7	7.6	3.05		2	3.45	2	圖-1 Fig.1	●	EZH070..
EZGR 070070-150		1.5												●	
EZGR 070070-200	8	2.0		7	6.2	63.7	7.6	3.05		2	3.45	2	圖-1 Fig.1	●	EZH070..
EZGR 080070-100		1.0												●	
EZGR 080070-150	8	1.5		7	6.2	63.7	7.6	3.05		2	3.45	2	圖-1 Fig.1	●	EZH070..
EZGR 080070-200		2.0												●	
EZGR 030030-050S	3	0.5	±0.013 0.05	3	2.5	38.7	5	4.8	0	1.25	0.8	圖-2 Fig.2	●	EZH030..	
EZGR 030030-100S		1.0											●		
EZGR 040040-050S	4	0.5		4	3.45	44.7	8	6.2		8	1.7	1	圖-2 Fig.2	●	EZH040..
EZGR 040040-100S		1.0												●	
EZGR 040040-150S		1.5												●	
EZGR 040040-200S		2.0												●	
EZGR 050050-100S	5	1.0		5	4.3	52.8	10	6.7		2.15	1.5	圖-2 Fig.2	●	EZH050..	
EZGR 050050-150S		1.5											●		
EZGR 050050-200S		2.0											●		
EZGR 060060-100S	6	1.0		6	5.15	60.7	10	2.65		2	圖-2 Fig.2	●	EZH060..		
EZGR 060060-150S		1.5										●			
EZGR 060060-200S		2.0										●			
EZGR 070070-100S	7	1.0		7	6.2	63.7	7.6	3.05		2	圖-2 Fig.2	●	EZH070..		
EZGR 070070-150S		1.5										●			
EZGR 070070-200S	8	2.0		7	6.2	63.7	7.6	3.05		2	圖-2 Fig.2	●	EZH070..		
EZGR 080070-100S		1.0										●			
EZGR 080070-150S	8	1.5	7	6.2	63.7	7.6	3.05	2	圖-2 Fig.2	●	EZH070..				
EZGR 080070-200S		2.0								●					

· T尺寸：加工可能溝深表示。  
· Dimension T: Available grooving depth

●：標準在庫 Std. Stock

EZ Bar 1盒1個入  
Bars are sold in 1 piece boxes.

◆ 推薦切削條件 Recommended Cutting Condition

被削材 Workpiece Material	刀片材種 Insert Grade (切削速度 Vc: m/min)	EZGR030030-S	EZGR040040 EZGR050050 EZGR040040-S EZGR050050-S	EZGR060060 EZGR070070 EZGR080070 EZGR060060-S EZGR070070-S EZGR080070-S	備考 Notes
	MEGACOAT				
	PR1225				
炭素鋼・合金鋼 Carbon Steel / Alloy Steel (SxxC・SCM等)	★ 30 ~ 100	~ 0.02	~ 0.03	~ 0.05	濕式 Wet
不鏽鋼 Stainless Steel (SUS304等)	★ 30 ~ 80	~ 0.01	~ 0.02	~ 0.03	

★：第1推薦 1st Recommendation

套筒型番 Sleeve Description			適合EZG型槽溝刀片 Applicable EZG bars for grooving		適合機械公司 Applicable Machine Manufacturers
EZH-HP型 (可調整位置) (Adjustable overhang length)	EZH-ST型	套筒柄徑 Sleeve Shank Dia.	型番 Description	刀片柄徑 Bar Shank Dia.	
		φD1 (mm)		φD (mm)	
	EZH 03012ST-80	12	EZGR030030-...	3	(汎用) (General use)
	04012ST-80		EZGR040040-...	4	
	05012ST-80		EZGR050050-...	5	
	06012ST-80		EZGR060060-...	6	
	07012ST-80		EZGR070070-... EZGR080070-...	7	
EZH 03016HP-100 04016HP-100 05016HP-100 06016HP-100 07016HP-100	EZH 03016ST-100	16	EZGR030030-...	3	(汎用) (General use)
	04016ST-100		EZGR040040-...	4	
	05016ST-100		EZGR050050-...	5	
	06016ST-100		EZGR060060-...	6	
	07016ST-100		EZGR070070-... EZGR080070-...	7	
EZH 03019HP-120 04019HP-120 05019HP-120 06019HP-120 07019HP-120	EZH 03019ST-120	19.05	EZGR030030-...	3	CITIZEN MACHINERY MIYANO CO., LTD.
	04019ST-120		EZGR040040-...	4	
	05019ST-120		EZGR050050-...	5	
	06019ST-120		EZGR060060-...	6	
	07019ST-120		EZGR070070-... EZGR080070-...	7	
EZH 03020HP-120 04020HP-120 05020HP-120 06020HP-120 07020HP-120	EZH 03020ST-120	20	EZGR030030-...	3	(汎用) AMADA MACHINE TOOLS CO.,LTD. EGURO.LTD CITIZEN MACHINERY MIYANO CO., LTD. TSUGAMI CORPORATION (General use)
	04020ST-120		EZGR040040-...	4	
	05020ST-120		EZGR050050-...	5	
	06020ST-120		EZGR060060-...	6	
	07020ST-120		EZGR070070-... EZGR080070-...	7	
EZH 03022HP-135 04022HP-135 05022HP-135 06022HP-135 07022HP-135	EZH 03022ST-135	22	EZGR030030-...	3	STAR MICRONICS CO., LTD. Nomura VTC Automatic Lathe Co., Ltd.
	04022ST-135		EZGR040040-...	4	
	05022ST-135		EZGR050050-...	5	
	06022ST-135		EZGR060060-...	6	
	07022ST-135		EZGR070070-... EZGR080070-...	7	
EZH 03025.0HP-135 04025.0HP-135 05025.0HP-135 06025.0HP-135 07025.0HP-135	EZH 03025.0ST-135	25	EZGR030030-...	3	(汎用) AMADA MACHINE TOOLS CO.,LTD. EGURO.LTD CITIZEN MACHINERY MIYANO CO., LTD. TSUGAMI CORPORATION (General use)
	04025.0ST-135		EZGR040040-...	4	
	05025.0ST-135		EZGR050050-...	5	
	06025.0ST-135		EZGR060060-...	6	
	07025.0ST-135		EZGR070070-... EZGR080070-...	7	
EZH 03025.4HP-120 04025.4HP-120 05025.4HP-120 06025.4HP-120 07025.4HP-120	EZH 03025.4ST-120	25.4	EZGR030030-...	3	CITIZEN MACHINERY MIYANO CO., LTD.
	04025.4ST-120		EZGR040040-...	4	
	05025.4ST-120		EZGR050050-...	5	
	06025.4ST-120		EZGR060060-...	6	
	07025.4ST-120		EZGR070070-... EZGR080070-...	7	

- ・EZG型槽溝刀，選擇符合φd1的刀片。
- ・EZH-ST型無法使用調整桿。需調整EZG刀片懸伸位置，請使用EZH-HP型套筒。
- ・機械製造商排列順序為隨機。
- ・Choose sleeves φd1 to meet with φD of EZG bars.
- ・Adjustment Pins can not be installed to EZH-ST Sleeves. To adjust overhang length of the EZG Bar for grooving, please use EZH-HP Sleeves.
- ・Machine manufacturers in random order.

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