

[High Precision] Dovetail Feed Screw Stages

Z-Axis Extended Handle / Reinforced Clamp (Pitch 0.5 mm)

Travel per Rotation	Small	Medium	Large
Stroke	Short	Medium	Long
Load Capacity	Light	Medium	Heavy

Z-Axis Extended Handle
(Pitch 0.5 mm)

ZEGL25

ZEGL40

ZEGL60

Materials: (Main Body) Low Cadmium Brass (Feed Knob) Low Cadmium Brass
Surface Treatment: Black Fluororesin Treatment

Part Number Type	Stage Surface No.	Stage Surface (mm)	Travel Distance (mm)	Travel per Knob Rotation (mm)	Load Capacity (N)	Travel Accuracy Straightness (µm)	Moment Capacity (N·m)			Weight (kg)	Accessories (4 pcs.) Type M-L		
							Pitching	Yawing	Rolling				
ZEGL	25	25 x 25	±5	0.5	9.8	30	2.0	1.5	1.5	0.12	SCB2-8		
	40	40 x 40	±7				4.0	3.0	3.0			0.27	SCB3-8
	60	60 x 60	±9				5.0	4.0	4.0				

- Resolution (Vernier Scale Indication): 0.1 mm/division
- Extension Cover HDEX12 (Sold Separately): extends Ø 12 feed screw knob. P.2035
- XY-Axis Mounting Plate XPLTE: Use this plate when connecting stages with non-matching mounting holes. P.2021

Part Number Example

Part Number: **ZEGL60**

Knob Extension Method
Knob length and diameter can be increased by utilizing the M6, Depth 14 tapped hole. (Ex.) Seven Lobe Knob P.3222 NKSMM6-30 can be mounted to extend the knob by 36 mm. Use an adhesive to retain the cover to the knob.

Part Number Alterations

Part Number - (R)
ZEGL60 - R

Alteration	Clamp Position Change (Left/Right Reversed)
Spec.	
Code	R

See the CAD data for the details.

Z-Axis Reinforced Clamp
(Pitch 0.5 mm)

ZEGCL25

ZEGCL40

ZEGCL60

Materials: (Body) Low Cadmium Brass (Feed Handle) Aluminum
Surface Treatment: Black Fluororesin Treatment

Part Number Type	Stage Surface No.	Stage Surface (mm)	Travel Distance (mm)	Travel per Knob Rotation (mm)	Load Capacity (N)	Travel Accuracy Straightness (µm)	Moment Capacity (N·m)			Weight (kg)	Accessories (4 pcs.) Type M-L		
							Pitching	Yawing	Rolling				
ZEGCL	25	25 x 25	±5	0.5	9.8	30	2.0	1.5	1.5	0.10	SCB2-8		
	40	40 x 40	±7				4.0	3.0	3.0			0.27	SCB3-8
	60	60 x 60	±9				5.0	4.0	4.0				

- Resolution (Vernier Scale Indication): 0.1 mm/division
- Extension Cover HDEX12 (Sold Separately): extends Ø 12 feed screw knob. P.2035
- XY-Axis Mounting Plate XPLTE: Use this plate when connecting stages with non-matching mounting holes. P.2021
- There will be residual clearances with carriage retaining when using only a Reinforced Clamp. Use in combination with a Clamp Screw.

Part Number Example

Part Number: **ZEGCL40**

Part Number Alterations

Part Number - (R)
ZEGCL60 - R

Part Number Alterations

Part Number - (R)
ZEGCL60 - R

Alteration	Clamp Position Change (Right / Left Reversed)
Spec.	
Code	R

When alteration R is specified for ZEGCL, reinforced clamp position will not change.

[High Precision] Linear Ball Guide Slides

Z-Axis Micrometer Head / Feed Screw

Travel per Rotation	Small	Medium	Large
Stroke	Short	Medium	Long
Load Capacity	Light	Medium	Heavy

Z-Axis

RoHS10

- Z-Axis of A25 has different bracket shape.
- For top surface mounting dimensions and feed bracket shapes, see Linear Ball Slide X-Axis Stages on (P.2066)
- Standard Datum Configuration

- MISUMI's Linear Ball Guide Stages have Parallel and Orthogonal datums in relation to the motion axis.
- The Datums are as illustrated.

Micrometer Heads

ZSG (25≤A≤80)
ZSGB (Low Temp. Black Chrome Plating A25, 40, 60, 80)

Feed Screw (Pitch 0.5)

ZSCG (25≤A≤80)
ZSCGB (Low Temp. Black Chrome Plating A25, 40, 60, 80)

Type	Main Body Material	Main Body Surface Treatment	Ball Material	Ball Hardness	Spring Material	Micrometer Head Bracket Material	Micrometer Head Bracket Surface Treatment	Tip Holder Material	Tip Holder Surface Treatment
ZSG	440C Stainless Steel	Electroless Nickel Plating	440C Stainless Steel	58 HRC min.	304 Stainless Steel PB	5052 Aluminum Alloy	Clear Anodize	303 Stainless Steel	—
ZSGB	440C Stainless Steel	Low Temp. Black Chrome Plating	440C Stainless Steel	58 HRC min.	304 Stainless Steel PB	5052 Aluminum Alloy	Black Anodize	303 Stainless Steel	Low Temp. Black Chrome Plating

For Micrometer Head and Feed Screw materials, see P.2102-2103
Characteristics of Black Chrome Plating: P.213

Micrometer Head (ZSG, ZSGB) / Feed Screw (ZSCG, ZSCGB)

Part Number Type	Front View				Side View				Top View				Accessories (4 pcs.) Type M-L								
	A	H	Micrometer (C)	Feed Screw	F	K	J	D	G	N	W	t		P	Q	X	Y	y	Z	d	
ZSG ZSCG ZSGB (* only) ZSCGB (* only)	25*	12.5	37	23	±3.2	13	10	6.6	9.3	10	12	20	5	6	3.5	20	10	2.5	19.5	2.5	SCB2-8
	40*	35	58.5	55	±6.5	20	14	11.3	13	13	14	31	5	10	5.5	32	16	4	25	3.5	SCB3-10
	50	30				20	19	11.3	13	13	14	57	5	10	5.5	40	6	25	3.5	SCB3-10	
	60*	25	20	24		11.3	13	13	14	42	8	10	5.5	50	25	5	26	4.5	SCB4-12		
	70	25	20	23.5		11.3	13	14	16	55	8	10	6.5	40	4	27	3.5	SCB3-12			
	80*	20	96	±12.5*		24	25	11.3	18	16.5	20	45	7	10	5.5	50	25	5	35	4.5	SCB4-12

*1 When A=80, the feed screw (ZSCG / ZSCGB) travel is ±6.5.

Performance

Part Number Type	Stage Surface (mm)	Load Capacity (N)	Accuracy			Moment Capacity (N·m)			Moment Rigidity (1/N·cm)			Weight (kg)	
			Straightness	Pitching	Yawing	Pitching	Yawing	Rolling	Pitching	Yawing	Rolling		
ZSG ZSCG ZSGB (* only) ZSCGB (* only)	25*	25 x 25	9.8	3 µm	30"	25"	2.0	2.0	3.5	1.90	1.10	1.10	0.23
	40*	40 x 40	49	1 µm *2	25"	15"	5.0	5.0	5.0	0.42	0.35	0.21	0.32
	50	50 x 50					6.8	6.8	6.0	0.15	0.14	0.09	0.44
	60*	60 x 60					10.0	10.0	9.0	0.08	0.08	0.05	0.58
	70	70 x 70					13.8	13.8	12.9	0.06	0.05	0.03	0.84
	80*	80 x 80					18.2	18.2	17.7	0.04	0.04	0.02	1.20

ZSG and ZSGB: Micrometer Head Resolution 10µm/division * 2 ZSGB and ZSCGB straightness is 3 µm.

Part Number Example

Part Number: **ZSG60 ZSGB60**

Part Number Alterations

Part Number - (C / CR / CU / H / P)
ZSG40 - C

Alterations	Position of Micrometer and Feed Screw			Disc Clamp	Reinforced Clamp
	Side up	Side up and right and left reversed	Side down		
Spec.					
Code	C	CR	CU	H	P

Not applicable to 25 square.
A disc clamping method that does not apply loads on the stage surface. Better position holding performance than the standard clamping method.

Not applicable to ZSCG, ZSGB, and ZSCGB.
Applicable only when C/CR alterations are selected with ZSG25, 40, 50, 60, and 70.
The Micrometer shaft is opposed by a screw (M4x25, Pitch 0.5) from the tip end. Improves vibration resistance and locking power.
When A=25, * dimensions are applicable, and the G dimension in the table will be 6. Additionally, the Micrometer protrudes 17.5mm (±3.2) from the Z axis bracket.

- For micrometer head or feed screw mounted in positions other than shown below, see "Specification Selectable Type". P.2084
- Knob Cover HDC/R13 (Sold Separately): increases diameter of Ø 13 mm knob. P.2035
- Extension Cover HDEX13 (Sold Separately): extends Ø 13 mm head or feed screw knobs. P.2035