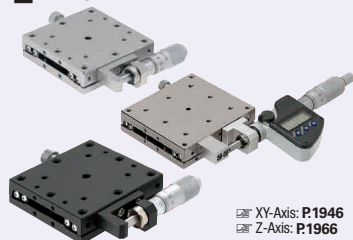


[High Precision] X-Axis, Linear Ball Slide

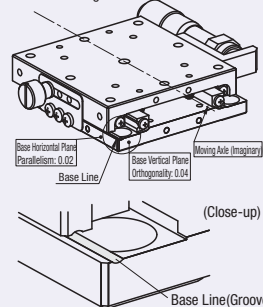
Micrometer Heads / Feed Screws / Digital Micrometer Heads / Coarse/Fine Micrometer Heads

■ **Features:** Highly accurate, rigid, and economical stages. When the feed scale reading is not necessary, further cost savings can be achieved by selecting the screw feed types. ⚡ XSKG has a fine feed of 0.25 pitch.

■ X-Axis



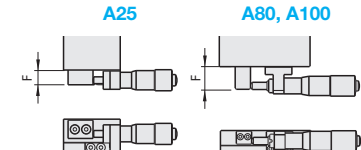
⚡ Standard Datum Configuration



⚡ MISUMI's Linear Ball Guide Stages have parallel and orthogonal datum in relation to the motion axis. The data are as illustrated.

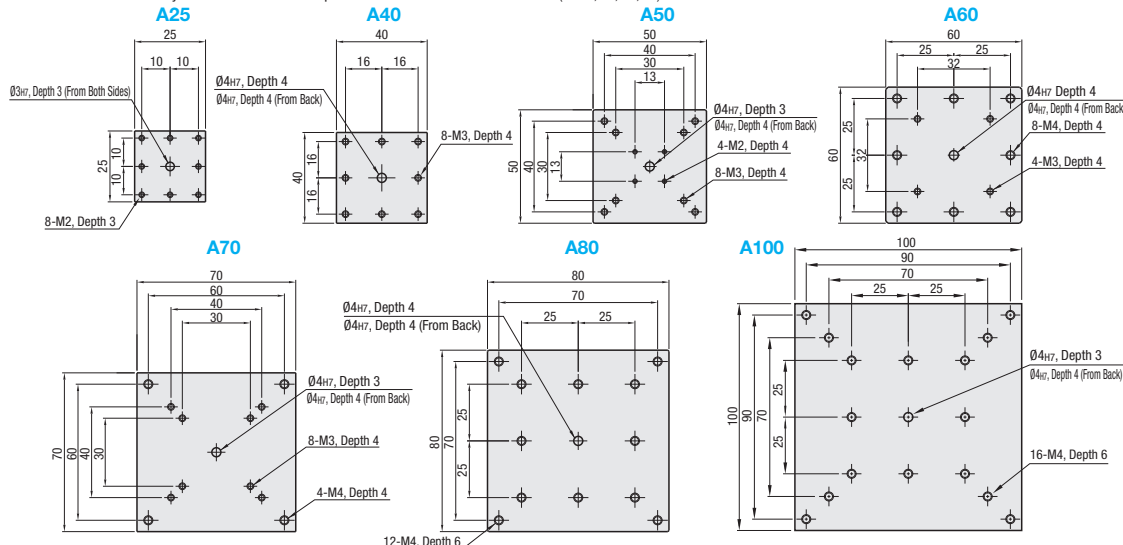
• Shapes of Feed Brackets

⚡ A25, 80, and 100 have different feed bracket configuration.



• Mounting Hole Dimensions of the Top Table

* Tolerance for the centrally located bores for low temp. black chromed XSBG and XSCGB is H8. (A=25, 40, 60, 80)



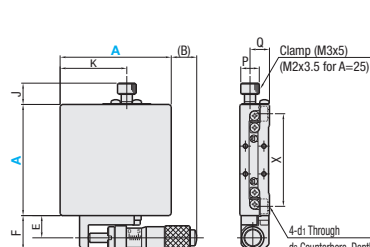
■ Micrometer Heads

XSG

(25≤A≤100)

XSBG (Low Temp. Black Chrome Plating)

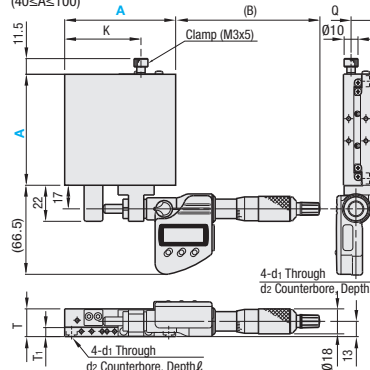
(A=25, 40, 60, 80)



■ Digital Micrometer Heads

XSDG*

(40≤A≤100)



■ Feed Screws

XSCG

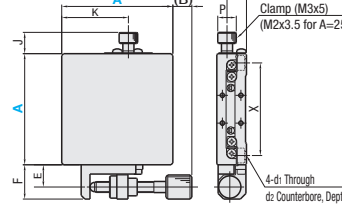
(Lead 0.5)

XSBG (Lead 1.0)

(40≤A≤100)

XSCGB (Low Temp. Black Chrome Plating, Lead 0.5)

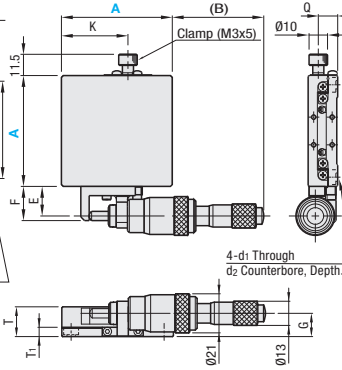
(A=25, 40, 60, 80)



■ Coarse/Fine Micrometer Heads

XSKG

(40≤A≤80)



■ Micrometer Head (XSG, XSBG) / Feed Screw (XSCG, XSBG, XSCGB) ⚡ Standard Stages Similar Products (available for limited sizes only): XLBS (P1920)

Part Number	Type	(B)		Top View		Front View										Side View				Accessory (4 pcs.)	
		A	Micrometer	Feed Screw	Travel Distance (mm)	E	F	J	K	D	G	T	T ₁	P	Q	X	d ₁	d ₂	ℓ	Type	M-L
XSG XSCG XSBG XSCGB (* only) XSG (* only) XSCGB (* only)	25*	25	11		±3.2	7	9	6.8	15	9.3	7	12	3.7	6	8.5	20	2.5	4.2	2.5	SCB2-4	
	40*	23.5	20			12	18.5	11.3	26	13	8.9	16	4.5	10	10.5	32	3.5	6	3.5	SCB3-6	
	50	18.5	15		±6.5	12	18.5	11.3	31	13	8.9	16	4.5	10	10.5	40	3.5	6	3.5	SCB3-6	
	60*	13.5	10			12	18.5	11.3	36	13	8.9	16	5	10	10.5	50	4.5	8	4	SCB4-6	
	70	14	10.5			12	18.5	11.3	46.5	13	10	18	6	10	11.5	60	4.5	8	4.5	SCB4-6	
	80*	43.5	10		±12.5**	17	22*	11.3	55	18	10.8	20	6.5	10	14.5	70	4.5	8	5.3	SCB4-6	
	100	28.5	-5*			17	22*	11.3	67.5	18	10.8	20	6.5	10	14.5	90	4.5	8	5.3	SCB4-6	

(*) Stroke of XSG80/100, XSBG80/100, XSCGB80 is ±5.5mm. (**) Ends of feed screw knob are at 5mm inside of the carriage edges for XSG and XSBG. (***) When dimension A of Feed Screw Type XSCG, XSBG, XSCGB is 80 or 100, F will be 20.

• Performance

Part Number	Type	A	Stage Surface		Load Capacity (N)		Travel Accuracy		Moment Load Capacity (N·m)		Moment Rigidity (°/N·cm)		Parallelism		Weight (kg)		Unit Price			
			Horizontal	Vertical	Horizontal	Vertical	Pitching	Yawing	Pitching	Yawing	Pitching	Yawing	Pitching	Yawing	Microstage	Feed Screw	XSG	XSCG	XSBG	XSCGB
XSG XSCG XSBG XSCGB (* only) XSG (* only) XSCGB (* only)	25*	25x25	39.2	9.8	3μm	10μm	30°	25°	2.0	2.0	3.5	1.9	1.1	1.1	30μm	0.07	0.07	-	-	-
	40*	40x40	98						5.0	5.0	5.0	0.42	0.35	0.21		0.23	0.23	-	-	-
	50	50x50	147						6.8	6.8	6.0	0.15	0.14	0.09		0.28	0.28	-	-	-
	60*	60x60	196						10.0	10.0	9.0	0.08	0.08	0.05		0.40	0.40	-	-	-
	70	70x70	225.4						13.8	13.8	12.9	0.06	0.05	0.03		0.58	0.58	-	-	-
	80*	80x80	264.6						18.2	18.2	17.7	0.04	0.04	0.02		0.90	0.84	-	-	-
	100	100x100	343						31.8	31.8	30.7	0.02	0.02	0.01		1.33	1.27	-	-	-

⚡ XSG, XSBG Micrometer Head Resolution: 10μm/division ⚡ Straightness of XSBG and XSCGB40/60 is 3μm.

■ Digital Micrometer Heads (XSDG) / Coarse/Fine Micrometer Head (XSKG)

Part Number		Top View				Front View				Side View				Accessory (4 pcs.)			
Type	A	XSDG		XSKG		E	F	K	G	T	T ₁	Q	X	d ₁	d ₂	ℓ	TypeM-L
	(B)	Travel Distance (mm)		(B)	Travel Distance (mm)												
XSDG	40	121.5		60		16	18.5	26	11.6	16	4.5	10.5	32	3.5	6	3.5	SCB3-6
	50	116.5		55		16	18.5	31	11.6	16	4.5	10.5	40	3.5	6	3.5	SCB3-6
	60	111.5	±6.5	50	Coarse Feed ±0.5	16	18.5	36	11.6	16	5	10.5	50	4.5	8	4	SCB4-6
XSKG (40≤A≤80)	70	112		50	Fine Feed 0.2	16	18.5	46.5	12.5	18	6	11.5	60	4.5	8	4.5	SCB4-6
	80	104	±12.5	49.5		17	25	55	11	20	6.5	14.5	70	4.5	8	5.3	SCB4-6
	100	89		-		-	-	67.5	-	20	6.5	14.5	90	4.5	8	5.3	SCB4-6

• Performance

Part Number Type	A	Stage Surface (mm)	Load Capacity (N)		Travel Accuracy				Moment Load Capacity (N·m)				Moment Rigidity (°/N·cm)				Parallelism	Weight (kg)		Unit Price	
			Horizontal	Vertical	Straightness	Motion Parallelism	Pitching	Yawing	Pitching	Yawing	Rolling	Pitching	Yawing	Rolling	XSDG	XSKG		XSDG	XSKG		
XSDG	40	40x40	98	49	1μm	7μm	25"	15"	5.0	5.0	5.0	0.42	0.35	0.21	15μm	0.43	0.30				
	50	50x50	147						6.8	6.8	6.0	0.15	0.14	0.09		0.48	0.35				
	60	60x60	196						10.0	10.0	9.0	0.08	0.08	0.05		0.60	0.47				
70	70x70	225.4	13.8						13.8	12.9	0.06	0.05	0.03	0.78		0.65					
XSKG (40≤A≤80)	80	80x80	264.6		3μm	8μm	18.2	18.2	17.7	0.04	0.04	0.02	20μm	1.10	0.97						
	100	100x100	343				31.8	31.8	30.7	0.02	0.02	0.01	1.53	-	-			-			

⚡ XSKG: Coarse / Fine Micrometer Head Coarse Resolution 10μm, Fine Resolution 0.5μm XSDG: Digital Micrometer Head Resolution 1μm

⚡ Knob Cover HDCVR13 (Sold Separately): Ø13 micrometer knob diameter can be increased by installing the cover. ⚡ P2004

⚡ Extension Cover HDEXT13 (Sold Separately): Feed knob of Ø13 micrometer head and feed screw can be extended. ⚡ P2004

Ordering Example

Part Number XSG80

Alterations Part Number - (CR, CZ, A... etc.)

XSG60 - MN
XSG80 - CR-P
XSCG40 - A

Alterations	Position of Micrometer Head and Feed Screw			Reinforced Clamp			No Micrometer Head																					
Spec.	Side Mount, Right/Left Reversed	Side Mount, Top/Bottom Reversed * 5	Center	Disc Clamp	Opposed Clamp		No Micrometer Head																					
				<table><tr><td>A</td><td>J1</td><td>P1</td></tr><tr><td>40</td><td></td><td></td></tr><tr><td>50</td><td>15.8</td><td>10</td></tr><tr><td>60</td><td></td><td></td></tr><tr><td>70</td><td></td><td></td></tr><tr><td>80</td><td>14.8</td><td>15</td></tr><tr><td>100</td><td></td><td></td></tr></table>	A	J1	P1	40			50	15.8	10	60			70			80	14.8	15	100					
	A	J1	P1																									
	40																											
	50	15.8	10																									
60																												
70																												
80	14.8	15																										
100																												
			<ul style="list-style-type: none">✗ 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.	<ul style="list-style-type: none">✗ Applicable to XSG only.✗ Not applicable to 80 and 100 square.✗ Not applicable in combination with alterations GZ and A.✗ The side drive micrometer head is opposed by a screw (MMax25, pitch 0.5). Improves vibration resistance and has secure position holding performance.✗ When A=25, * marked dimensions are applicable. The specification table dimensions (B) will be 30, and G will be 6.		<ul style="list-style-type: none">✗ Applicable to XSG and XSGB only.✗ Micrometer head and bracket will be removed before shipment.✗ Since there is a spring inside, the carriage will not be stationary unless the clamp is tightened.✗ Combination with alteration H is not available.																						
	✗ Not applicable to XSDG.	✗ Not applicable to XSGB, XSCGB and XSDG.																										
Code	CR	CZ	A	H	P	MN																						

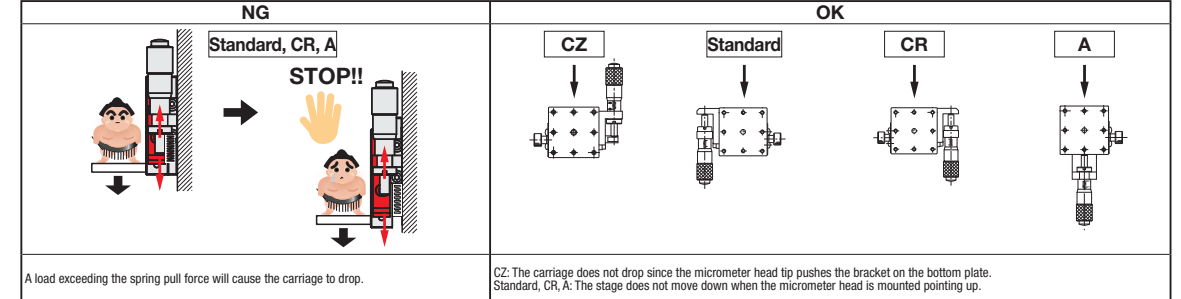
* 5 CZ: The micrometer head or the feed screw will be mounted on the top table (mounted on the bottom plate for Standard Type).

⚡ For micrometer head or feed screw mounted in positions other than shown below, see "Specification Selectable Type" (P.1989).

⚡ For 25 Square Opposed Clamp, the bracket material is SUS303.

■ Vertical Use of X-Axis Stages

When mounting a stage in vertical orientation, note the directions of the feed mechanisms and springs.



A load exceeding the spring pull force will cause the carriage to drop.

CZ: The carriage does not drop since the micrometer head tip pushes the bracket on the bottom plate. Standard, CR, A: The stage does not move down when the micrometer head is mounted pointing up.

⚡ However, do not apply a load exceeding the specified vertical load capacity.

⚡ See the CAD data for details.

⚡ For Micrometer Head and Feed Screw materials, see P2005 and P2006.