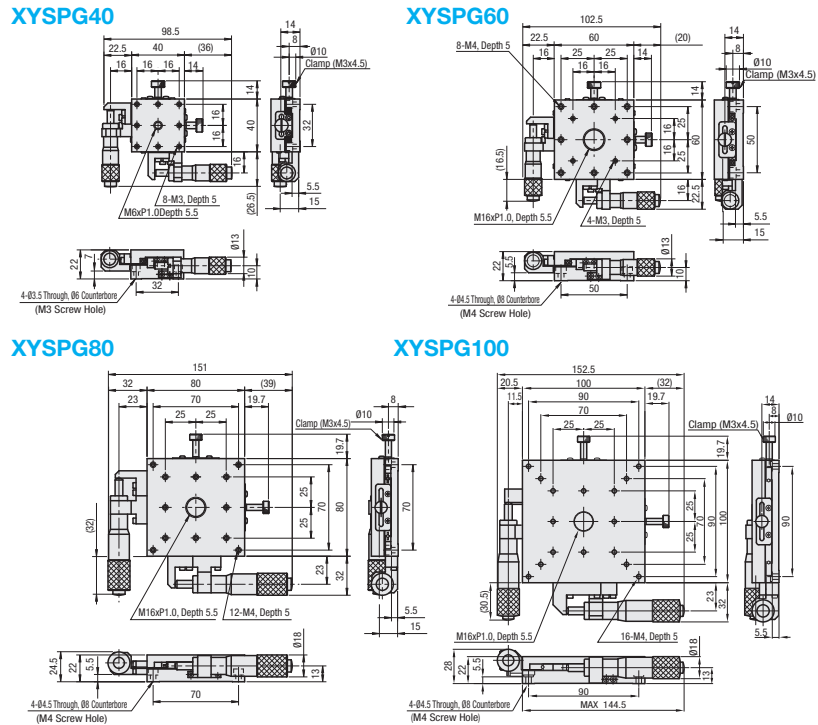
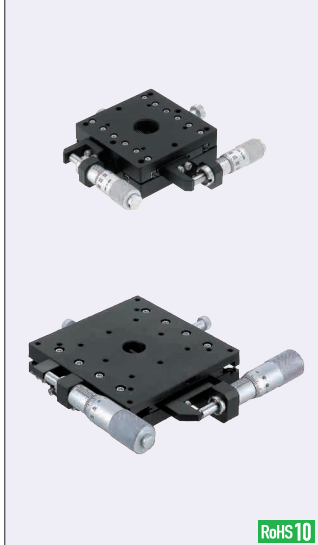


# [High Precision] Cross Roller

## Low Profile / Through Hole

**Features:** Extra low profile achieved by XY-Axis unitized construction in comparison to YYPG (P.1943). 28mm height or less and no need for orthogonal aligning.

### XY-Axis, Low Profile

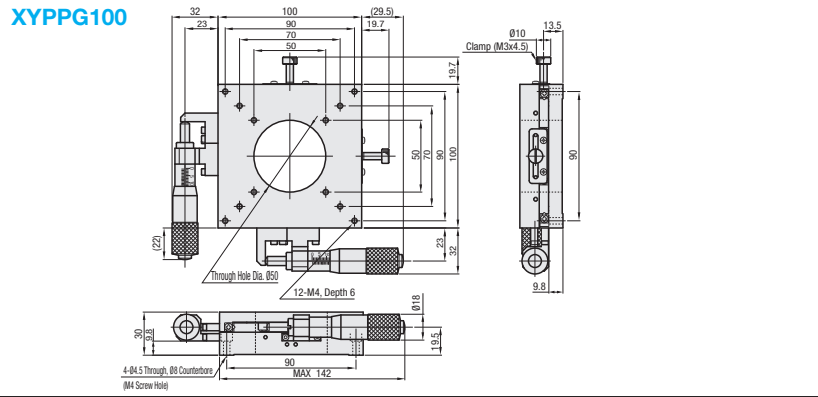
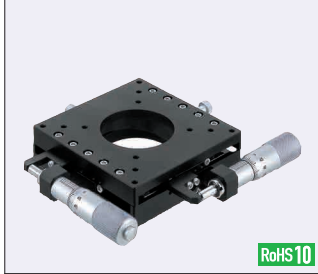


**Material:** Aluminum Alloy  
**Surface Treatment:** Black Anodize  
**Accessory:** SCB3-10 (4 pcs.)

XYSPG	40	60	80	100
	SCB3-10	SCB4-10	SCB4-10	SCB4-10
	4	4	4	4

**Features:** There is a Ø50 through hole in the stage center. Useful for illuminating from directly below.

### XY-Axis, Through Hole



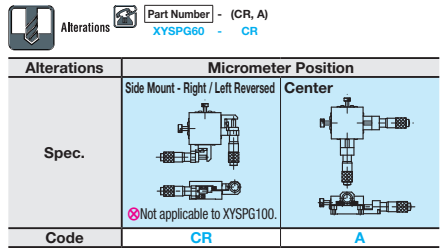
**Material:** Aluminum Alloy  
**Surface Treatment:** Black Anodize  
**Accessory:** SCB4-14 (4 pcs.)

Standard Stages Similar Products (available for limited sizes only): XYCRSC (P.1944)

Part Number	Type	Stage Surface (mm)	Travel Distance (mm)	Load Capacity (N)	Straightness	Travel Accuracy			Moment Load Capacity (N·m)			Moment Rigidity (1/N·cm)			Parallelism	Weight (kg)	Unit Price	
						Pitching	Yawing	Rolling	Pitching	Yawing	Rolling	Pitching	Yawing	Rolling				
XYSPG	40	40x40	±6.5	9.8	3µm	20µm	40°	20°	0.7	0.8	0.7	0.57	0.50	0.64	50µm	0.2	0.4	
	60	60x60	±12.5	29.4		2.3	1.9	2.3	0.19	0.13	0.15	0.13	0.13	0.11				0.7
	80	80x80	±12.5	39.2		5.1	4.2	5.1	0.13	0.13	0.11	0.08	0.10	0.08				1.1
XYPPG	100	100x100	±12.5	63.7	3µm	20µm	25°	15°	4.6	3.9	4.6	0.07	0.08	0.10	50µm	1.0		
	100	100x100	±12.5	63.7		5.1	4.2	5.1	0.13	0.13	0.11	0.08	0.10	0.08				1.1

Micrometer Head Resolution: 10µm/division

Ordering Example: Part Number XYSPG80



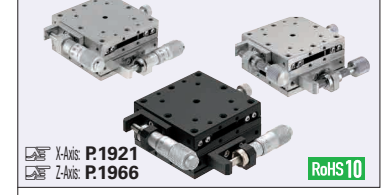
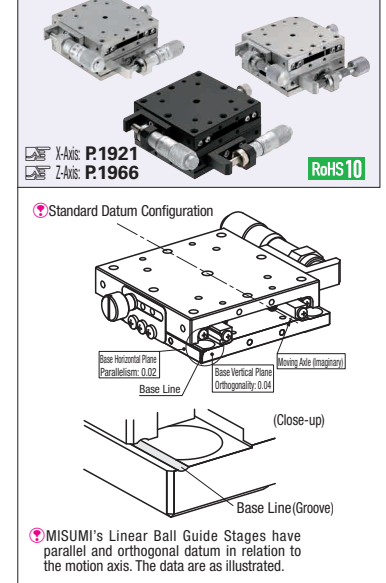
Mounting dimensions of micrometer head, feed screw and clamp are different from those of standard products. See the CAD data for details.  
 Knob Cover HDCVR13 (Sold Separately): Ø13 micrometer knob can be increased in diameter by installing the cover. P2004  
 Extension Cover HDEXT13 (Sold Separately): Ø13 micrometer head knob can be extended. P2004

# [High Precision] Linear Ball

## Micrometer Head / Feed Screw

**Features:** Highly accurate, rigid, and economical stages. Even an XY stack is only 40mm high or less, and orthogonality alignment is not needed.

### XY-Axis

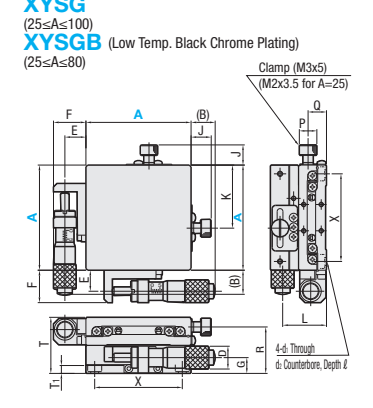
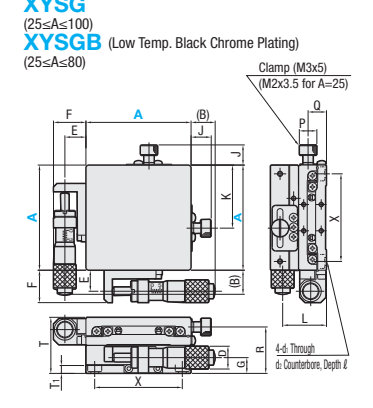


**Material:** Aluminum Alloy  
**Surface Treatment:** Black Anodize  
**Accessory:** SCB3-10 (4 pcs.)

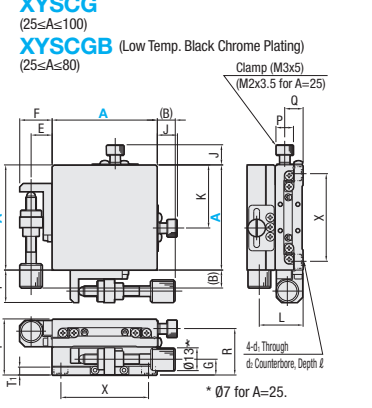
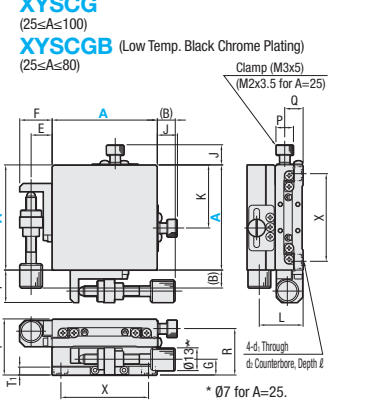
Standard Datum Configuration

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

### Micrometer Head



### Feed Screw (Pitch 0.5)



Type	Main Body	Ball	Spring	Micrometer Head Bracket	Tip Holder
XYSG (Micrometer)	SUS440C	SUS440C	SUS304WPB	A5052	SUS303
XYSCG (Feed Screw)	Electroless Nickel Plating	58HRC-		Clear Anodize	-
XYSGB (Micrometer, Low Temp. Black Chrome Plating)	Low Temp. Black Chrome Plating			Black Anodize	Low Temp. Black Chrome Plating
XYSCGB (Feed Screw, Low Temp. Black Chrome Plating)	Low Temp. Black Chrome Plating				

### Micrometer Head (XYSG, XYSGB) / Feed Screw (XYSCG, XYSCGB)

Part Number	Type	Top View										Side View				Accessory (4 pcs.)						
		A	(B)		Travel Distance (mm)		E	F	J	K	D	G	R	T	T <sub>1</sub>		P	Q	L	X	d <sub>1</sub>	d <sub>2</sub>
XYSG	25*	25	25	11	±3.2	7	9	6.8	15	9.3	7	20.5	24	3.7	6	8.5	19	20	2.5	4.2	2.5	SCB2-4
XYSCG	40*	23.5	23	20	±6.5	12	18.5		26		8.9	26.5	32	4.5	10	10.5	24.9	32	3.5	6	3.5	SCB3-6
XYSGB	60*	14	10.3	10.3				11.3	31	13								40	6	4	4	SCB4-6
XYSCGB	70*	14.5	10.8	10.8					36		10	29.5	36	6		11.5	28	60	4.5	8	4.5	SCB4-6
	80*	43.5	10	10	±12.5*	17	22*		55							14.5	30.8	70	8	5.3	8	SCB4-6
	100*	28.5	-5*	-5*	±12.5**				67.5	18	10.8	34.5	40	6.5			90	90	8	5.3	8	SCB4-6

\*1. Ends of feed screw knob are at 5mm inside of the carriage edges for XYSCG and XYSCGB. \*2. Stroke of XYSCG80 and 100 is ±6.5mm. \*3. When dimension A of Feed Screw Type XYSCG and XYSCGB are 80 or 100, F will be 20.

### Performance

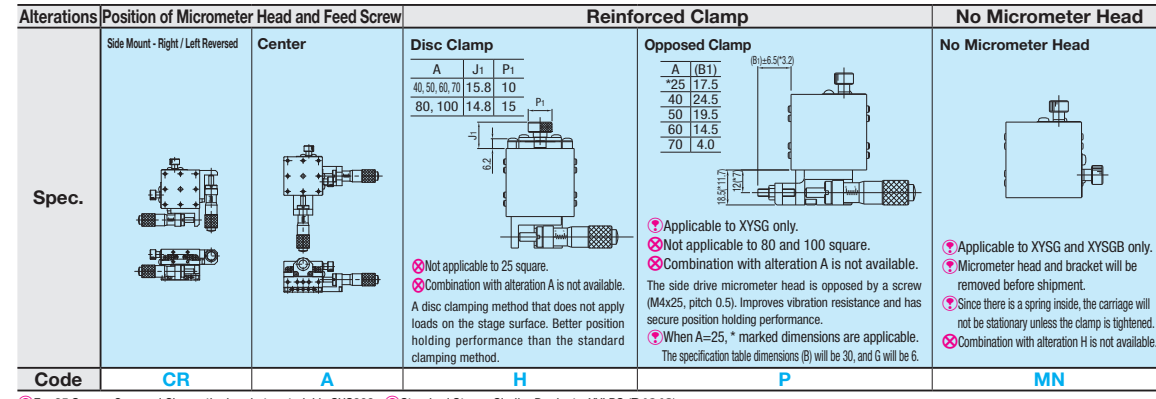
Part Number	Type	Stage Surface (mm)	Horizontal Load Capacity (N)	Travel Accuracy			Moment Load Capacity (N·m)			Moment Rigidity (1/N·cm)			Parallelism	Weight (kg)	Unit Price			
				Straightness	Motion Parallelism	Pitching	Pitching	Yawing	Rolling	Pitching	Yawing	Rolling			XYSG	XYSCG	XYSGB	XYSCGB
XYSG	25*	25x25	38.2	3µm	10µm	30°	25°	2.0	2.0	2.0	3.00	2.20	3.00	0.14				
XYSCG	40*	40x40	95.1	1µm**	12µm	25°	15°	5.0	5.0	5.0	0.63	0.70	0.63	0.46				
XYSGB	50	50x50	144.1					6.0	6.8	6.0	0.24	0.28	0.24	0.56				
XYSCGB	60*	60x60	192.1					9.0	10.0	9.0	0.13	0.16	0.13	0.80				
	70*	70x70	219.5					12.9	13.8	12.9	0.09	0.10	0.09	1.16				
	80*	80x80	255.8					17.7	18.2	17.7	0.06	0.08	0.06	1.80				
	100*	100x100	329.6					30.7	31.8	30.7	0.03	0.04	0.03	2.66				

XYSG, XYSGB Micrometer Head Resolution: 10µm/division \*4. XYSGB, XYSCGB40 and 60 straightness is 3µm.

Ordering Example: Part Number XYSG40 XYSCGB60

Knob Cover HDCVR13 (Sold Separately): Ø13 micrometer head knobs can be increased in diameter by installing the cover. P2004  
 Extension Cover HDEXT13 (Sold Separately): Feed knob of Ø13 micrometer head and feed screw can be extended. P2004

Alterations: Part Number - (CR, A, H, P, MN) XYSG40 - A



For 25 Square Opposed Clamp, the bracket material is SUS303. Standard Stages Similar Products: XYLSB (P.1942)  
 When Position Change Alteration is selected, mounting dimensions of micrometer head, feed screw and clamp are different from those of standard products. See the CAD data for details.  
 For micrometer head or feed screw mounted in positions other than shown below, see "Specification Selectable Type" (P.1989).