

# [Standard] X-Axis Cross Roller

# [High Precision] X-Axis Cross Roller Micrometer Head

Points on Similar Product Comparison | Travel Accuracy (Straightness) 30µm Parallelism 30µm

P.1918

Features: Economical stages with a micrometer head capable of 0.01mm resolution adjustments. Micrometer head position is selectable for X-Axis stages.

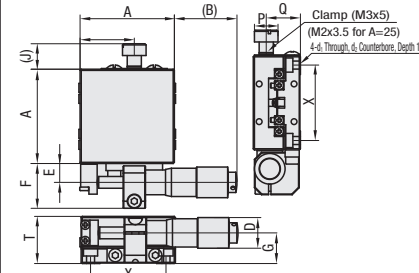
## X-Axis



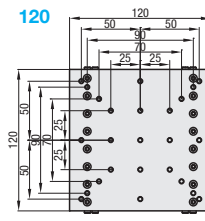
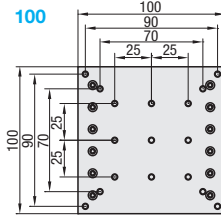
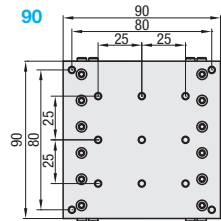
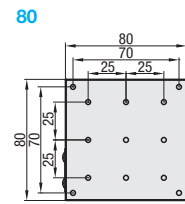
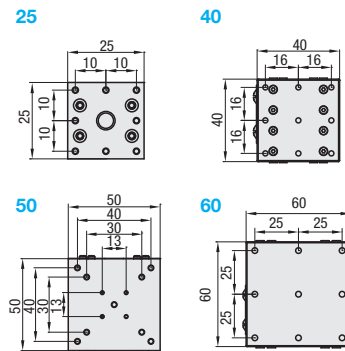
XY-Axis P.1942  
Z-Axis P.1967

RoHS 10

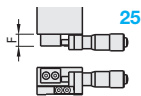
## XCRS



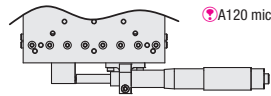
## Mounting Hole Dimensions of the Top Table



A25 has a different feed bracket configuration.  
See the CAD data for details.



A120 micrometer tip shape is different



Material: Aluminum Alloy  
Surface Treatment: Black Anodize

Part Number	Top View			Front View			Side View								
	A	(B)	Travel Distance (mm)	E	F	(J)	D	G	T	P	Q	X	d1	d2	ℓ
XCRS	25	29	±3.2	7	11.8	(6.8)	9.5	9.3	15	6	6.8	20	2.4	4.2	2.5
	40	26	±6.5	8	19	(10.8)	13	13	20	10	14.5	32	3.4	6	3.3
	50	23		8	19	(10.8)	13	13	20	10	14.5	40	3.4	6	3.5
	60	21	8	19	(10.8)	13	13	20	10	14.5	50	4.5	8	4.4	
	80	22	8	19	(10.8)	13	13	20	10	14.5	70	4.5	8	4.4	
	90	34.8	±12.5	8	19	(10.8)	13	13	20	10	14.5	80	4.5	8	5.3
100	20.8	8		19	(10.8)	13	13	20	10	14.5	90	4.5	8	5.3	
120	88	±25	13.5	26	(10.8)	19.1	11	20	10	14.5	100	4.5	8	5.3	

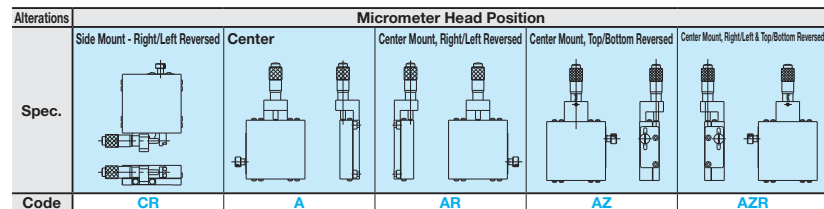
## Performance

A	Stage Surface (mm)	Load Capacity (N)		Max. Holding Force (N) (Ref.)	Travel Accuracy		Allowable Moment (N-cm)			Moment Rigidity (N-cm)			Parallelism	Weight (kg)	Unit Price
		Horizontal	Vertical		Straightness	Motion Parallelism	Pitching	Yawing	Rolling	Pitching	Yawing	Rolling			
25	25x25	9.8	4.9	60	30µm	30µm	1.1	0.8	0.4	3.03	2.85	1.80	50µm	0.04	
40	40x40	19.6	9.8				2.7	2.2	2.0	0.38	0.42	0.28			
50	50x50	29.4	14.7				3.5	3.0	3.3	0.20	0.22	0.12			
60	60x60	49	19.6				5.2	4.3	5.5	0.12	0.11	0.07			
80	80x80	98					19.2	15.1	17.3	0.05	0.05	0.04			
90	90x90	117.6					25.0	20.0	22.0	0.05	0.05	0.04			
100	100x100	147	49.0	36.0	30.0	33.0	0.06	0.07	0.05						
120	120x120	196		57.2	44.7	66.7	0.03	0.02	0.01						

Max. Holding Force (Ref.) will vary depending on the tightening torque variations. Ensure adequate safety margins for design.  
Micrometer Head Resolution: 10µm/division

Ordering Example: Model (Type, A) XCRS60

Alterations Part Number - (CR, A--etc.)  
XCRS40 - CR  
XCRS60 - AR



## Notes on Vertical Use of X-Axis Stages

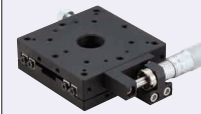
The carriage may drop if mounted vertically with the micrometer head pointed down with Standard, CR, A or AR selected. (A load exceeding the spring pull force will cause the carriage to drop.)  
The carriage does not drop when mounted vertically with the micrometer head pointed down with AZ or AZR selected. However, do not apply a load exceeding the specified vertical load capacity for X-Axis as it may decrease the accuracy.

Features: High precision lightweight X-Axis Stages with Cross Roller slides.

## X-Axis

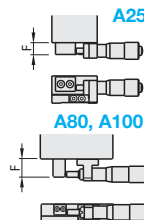
RoHS 10

## XPG

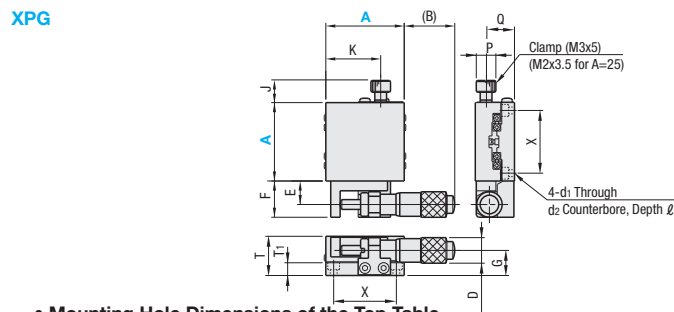


XY-Axis P.1943  
Z-Axis P.1968

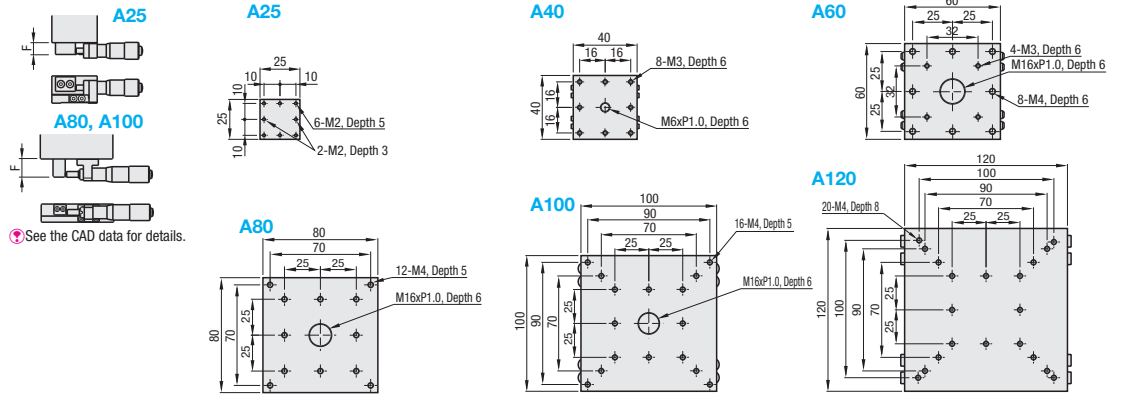
A25, 80, and 100 have different feed bracket configuration.



See the CAD data for details.



## Mounting Hole Dimensions of the Top Table



Material: Aluminum Alloy  
Surface Treatment: Black Anodize

Standard Stages Similar Products (available for limited sizes only): XCRS (P.1917)

Part Number	Top View					Front View					Side View						
	A	(B)	Travel Distance (mm)	E	F	J	K	D	G	T	T1	P	Q	X	d1	d2	ℓ
XPG	25	25	±3.2	4.5	6.5	6.6	15.0	9.3	8.5	15	4.5	6	10.5	20	2.5	4.75	2.0
	40	26	±6.5	12.0	18.5	11.3	28.0	13.0	12.8	20	6.5	10	14.5	32	3.5	6.0	3.5
	60	19.8		12.0	18.5	11.3	42.5	13.0	12.8	20	6.5	10	14.5	50	4.5	8.0	4.0
	80	43.5	±12.5	17.0	22.0	11.3	55.0	18.0	10.8	20	5.7	10	14.5	70	4.5	8.0	4.5
	100	28.5		17.0	22.0	11.3	67.5	18.0	10.8	20	5.7	10	14.5	90	4.5	8.0	4.5
	120	67.5	±25	13.0	20.0	11.5	67.5	21.0	18.0	30	9.5	10	18.0	100	4.5	8.0	4.5

## Performance

A	Stage Surface (mm)	Load Capacity (N)		Travel Accuracy		Moment Load Capacity (N-m)			Moment Rigidity (N-cm)			Parallelism	Weight (kg)	Accessory (4 pcs.)	Unit Price		
		Horizontal	Vertical	Straightness	Motion Parallelism	Pitching	Yawing	Rolling	Pitching	Yawing	Rolling						
25	25x25	9.8	4.9	3µm	10µm	25"	15"	30"	30"	1.1	0.8	0.4	3.03	2.85	1.80	30µm	TypeM-L
40	40x40	19.6	9.8							2.7	2.2	2.0	0.38	0.42	0.28		
60	60x60	49.0	19.6							5.2	4.3	5.5	0.12	0.11	0.07		
80	80x80	98.0								19.2	15.1	17.3	0.05	0.05	0.04		
100	100x100	147.0								36.0	30.0	33.0	0.06	0.07	0.05		
120	120x120	196.0								57.2	44.7	66.7	0.03	0.02	0.01		

Micrometer Head Resolution: 10µm/division, Travel per Rotation: 0.5mm

Ordering Example: Part Number XPG60

Alterations Part Number - (CR, CZ, A--etc.)  
XPG40 - CZ

Alterations	Micrometer Head Position			No Micrometer Head
Spec.	Side Mount - Right/Left Reversed	Side Mount - Top/Bottom Reversed*	Center	No Micrometer Head
Code	CR	CZ	A	MN

\* CZ: Attach Micrometer on the upper table (Standard Type has them attached to the bottom plate).  
Mounting dimensions of micrometer head, feed screw and clamp are different from those of standard products. See the CAD data for details.  
When other micrometer head mounting positions are desired, select from the "Specification Selectable Type" on P.1989.  
Knob Cover HDCVR13 (Sold Separately): Ø13 micrometer knob diameter can be increased by installing the cover. P2004  
Extension Cover HDEX113 (Sold Separately): Feed knob of Ø13 micrometer head and feed screw can be extended. P2004