Technical Information (2)

■Other Information about Stages
Stage Selection Table P.1639, P.1640
New Products P.1641
About Standard Stages P.1642
Overview: Technical Information P.1643, P.1644

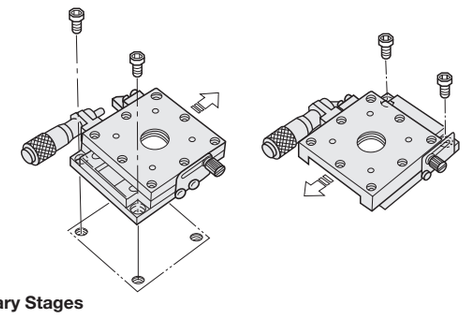
■Stage Operating Environment

Operating Environment: 10~50°C, 20~70% RH (No Condensation)
Recommended Operating Environment: 22±5°C, 20~70%RH (No Condensation)

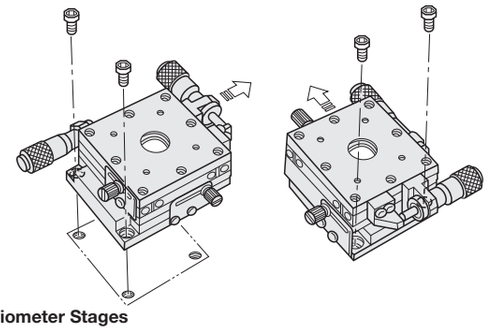
■Stage Installation Method

To mount a stage on the base surface, move the top plate to access mounting holes as shown below.

X-Axis Stages

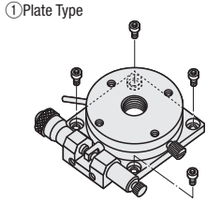


XY-Axis Stages

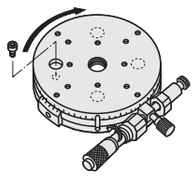


Rotary Stages

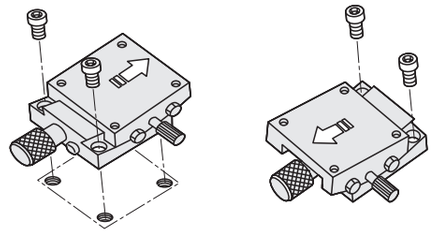
①Plate Type



②No Plate Type
(REG, RPG85, RPG110)



Goniometer Stages

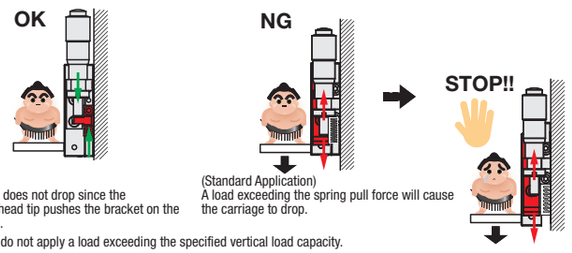


Notes on Mounting Surface Accuracies

Intended product performances may not be achieved if the stage mounting surface or the carried object's mounting surface do not have sufficient flatness.
(General Flatness Guideline: 10μm or better)

■Vertical Use of X-Axis Stages

When mounting a stage in vertical orientation, note the directions of the feed mechanisms and springs.
When installing Linear Ball Slide Stages and Cross Roller Stages, do not select the micrometer head position CR or A with the micrometer head pointing down since the carriage may drop. For the use of the micrometer head pointing down, select CZ to prevent the carriage from falling down.

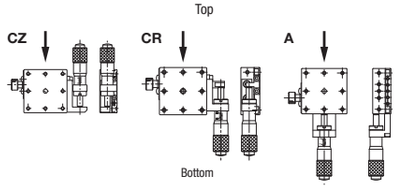


(CZ)
The carriage does not drop since the micrometer head tip pushes the bracket on the bottom plate.

(Standard Application)
A load exceeding the spring pull force will cause the carriage to drop.

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

How to mount stages vertically without the carriage drop when Micrometer Head Position Alteration is selected.



Standard Stages

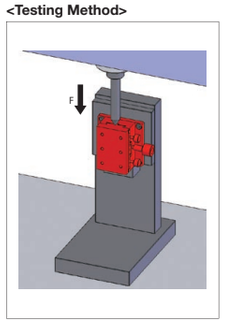
■About Holding Force (Ref.)

Holding Force is the (reference) value to hold the stage top surface rest when clamped.

■Measured Holding Force

<Test Conditions>Clamp screws are tightened with the tightening torque below and pressed with the test instrument (F in the diagram).
The max. holding force is the load measured where the stage top surface starts to move.
•Tightening Torque (Standard) (a) XDTS (Standard, Dovetail Slide, Rack & Pinion) Size 50 and 60: 0.1N·m; Size 90: 0.15N·m
(b) XDTSC (Standard, Dovetail Slide, Low Profile, Rack & Pinion) Size 50 and 60: 0.1N·m; Size 90: 0.15N·m
(c) XCRS (Standard, Cross Roller): 0.15N·m

<Testing Method>



<Max. Holding Force (Ref.)>

Type		Max. Holding Force (Ref.)
(a) XDTS	50	30N
	60	60N
	90	70N
(b) XDTSC	50	10N
	60	20N
	90	40N
(c) XCRS	40	60N
	60	60N
	80	70N

<Max. Holding Force (Ref.) depending on Tightening Torque>

Type	Tightening Torque (Standard at 100%)		
	50%	100%	150%
XDTS60	50N	60N	90N
XCRS60	40N	60N	100N

Ⓨ Max. Holding Force (Ref.) will vary depending on the tightening torque variations. Ensure adequate safety margins for design.

[Standard] Dovetail Slide, Feed Screw

■Other Information about Stages
Stage Selection Table P.1639, P.1640
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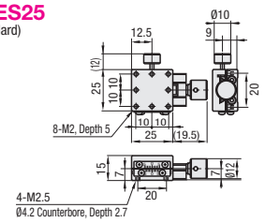
■**Feature:** Stages with 0.5mm fine lead. Existing Products: XEG, XYEG (**P.1677, 1693**)

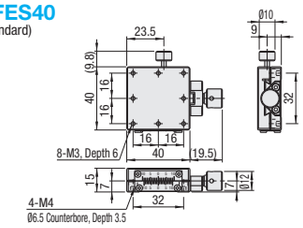
■X-Axis

RoHS

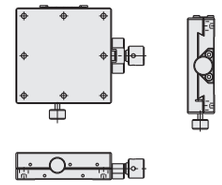
XFES25
(Standard)



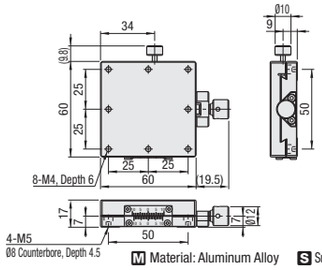
XFES40
(Standard)



Clamp Position Change
XFES_-R (Reversed)



XFES60
(Standard)



Ⓨ See the CAD data for the details.

M Material: Aluminum Alloy S Surface Treatment: Black Anodize

■X-Axis Stages

Ⓨ High Precision Stage Existing Product: XEG (**P.1677**)

Part Number Type	No.	Clamp Position	Stage Surface (mm)	Travel Distance (mm)	Travel per Knob Rotation (mm)	Load Capacity (N) Horizontal	Load Capacity (N) Vertical	Travel Accuracy Straightness	Weight (kg)	Unit Price 1~9 pc(s).
XFES	25	Not Specified (Standard)	25x25	±5	0.5	29.4	9.8	50μm	0.04	
	40	R (Reversed)	40x40	±7					0.08	
	60		60x60	±8		39.2	19.6		0.18	

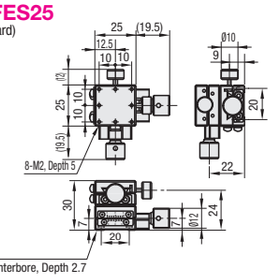
Ⓨ Resolution (Vernier Scale Indication): 0.1mm/division
Ⓨ Knob Extension Cover HDEXT12-_ (Sold Separately): Ø12 knobs can be extended by installing the cover. P.1683
(Caution) Please note that increased knob diameter may interfere with the stage mounting base surfaces.

Ordering Example Part Number XFES40 Days to Ship Configure Online Price Configure Online

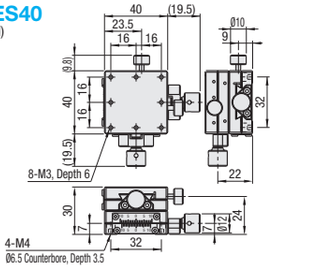
■XY-Axis

RoHS

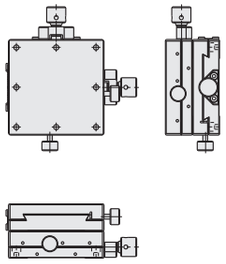
XYFES25
(Standard)



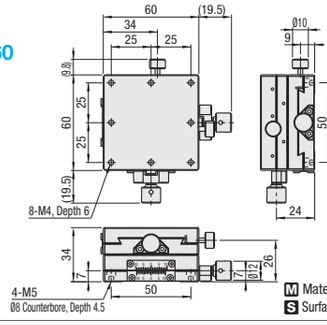
XYFES40
(Standard)



Clamp Position Change
XYFES_-R (Reversed)



XYFES60
(Standard)



Ⓨ See the CAD data for the details.

M Material: Aluminum Alloy S Surface Treatment: Black Anodize

■XY-Axis Stages

Ⓨ High Precision Stage Existing Product: XYEG (**P.1693**)

Part Number Type	No.	Clamp Position	Stage Surface (mm)	Travel Distance (mm)	Travel per Knob Rotation (mm)	Load Capacity (N)	Travel Accuracy Straightness	Weight (kg)	Unit Price 1~9 pc(s).
XYFES	25	Not Specified (Standard)	25x25	±5	0.5	27.4	50μm	0.09	
	40	R (Reversed)	40x40	±7				0.16	
	60		60x60	±8		33.3		0.36	

Ⓨ Resolution (Vernier Scale Indication): 0.1mm/division
Ⓨ Knob Extension Cover HDEXT12-_ (Sold Separately): Ø12 knobs can be extended by installing the cover. P.1683
(Caution) Please note that increased knob diameter may interfere with the stage mounting base surfaces.

Ordering Example Part Number XYFES40 Days to Ship Configure Online Price Configure Online