

Z axis Steel Extended Contact Slide Stages | MLT3 Stage size □80/□100/□120mm

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X Axis

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XZ Axis

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Rotation

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Linear Guide

□15mm

□25mm

□40mm

□50mm

□60mm

□70mm

□80mm

□100mm

□120mm

Others

Flat Z axis stages transmit the micrometer motion from a horizontal direction to a vertical direction using a pivot mechanism.

Stable in every direction and allowing precise height adjustment due to the steel balls contacting the R groove of the guide at four points during travel.

Stage □80mm

Travel ± 5 mm

Running Parallelism 20 μ m

Load Capacity 39.2 N (4.0kgf) 147 N (15.0kgf)

Stage □100mm

Travel ± 10 mm

Running Parallelism 20 μ m

Load Capacity 39.2 N (4.0kgf) 245 N (25.0kgf)

Stage □120mm

Travel ± 10 mm

Running Parallelism 20 μ m

Load Capacity 39.2 N (4.0kgf) 245 N (25.0kgf)



Guide

- ▶ The part number suffix FP indicates products with fine-pitch screws instead of standard micrometers.
- ▶ Fine Pitch screws have a screw pitch of 0.25mm and require a hex wrench or the optional hex wrench with knob (NSC) for adjustment.

Reference H010



Attention

- ▶ The structure does not allow upside down installation since the spring inside the stage might not be able to withstand the load and may stretch.
- ▶ Since the structure uses the principle of leverage, the feed rate fluctuates against the scale depending on the travel (about ± 0.02 mm for micrometer head 0.5mm/rotation).

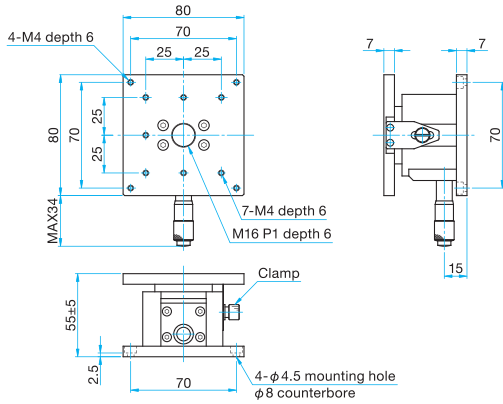
Specifications

Part Number	MLT33-80	MLT33-80FP	MLT33-100	MLT33-100FP	MLT33-120	MLT33-120FP
Table Size [mm]	80x80	80x80	100x100	100x100	120x120	120x120
Travel [mm]	± 5	± 5	± 10	± 10	± 10	± 10
Lead of Actuator [mm/rotation]	0.5	0.25	0.5	0.25	0.5	0.25
Micrometer Readable Resolution [mm]	0.01	—	0.01	—	0.01	—
Positioning Slide	Extended contact ball guide	Extended contact ball guide	Extended contact ball guide	Extended contact ball guide	Extended contact ball guide	Extended contact ball guide
Primary Material	Steel	Steel	Steel	Steel	Steel	Steel
Finish	Super black chrome	Super black chrome	Super black chrome	Super black chrome	Super black chrome	Super black chrome
Load Capacity [N]	147 (15.0kgf)	39.2 (4.0kgf)	245 (25.0kgf)	39.2 (4.0kgf)	245 (25.0kgf)	39.2 (4.0kgf)
Travel Accuracy	Straightness [μ m]	2.5	2.5	2.5	2.5	2.5
	Pitch [N·m]	6.9	6.9	9.8	9.8	9.8
Max. Moment Capacity	Roll [N·m]	6.9	6.9	9.8	9.8	9.8
	Pitch [$^{\circ}$ /N·cm]	0.51	0.51	0.36	0.36	0.36
Moment Stiffness	Roll [$^{\circ}$ /N·cm]	0.51	0.51	0.36	0.36	0.36
	Parallelism [μ m]	80	80	100	100	100
Running Parallelism [μ m]	20	20	20	20	20	20
Weight [kg]	1.2	1.2	3.5	3.5	4.2	4.2

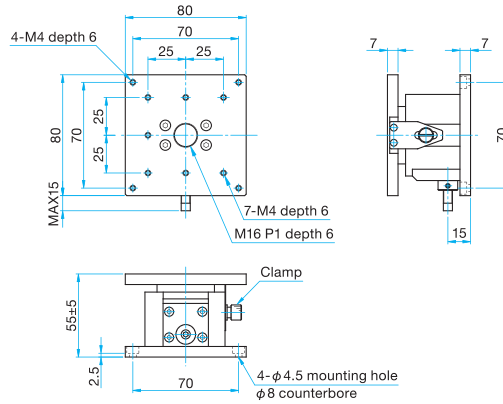


Outline Drawing

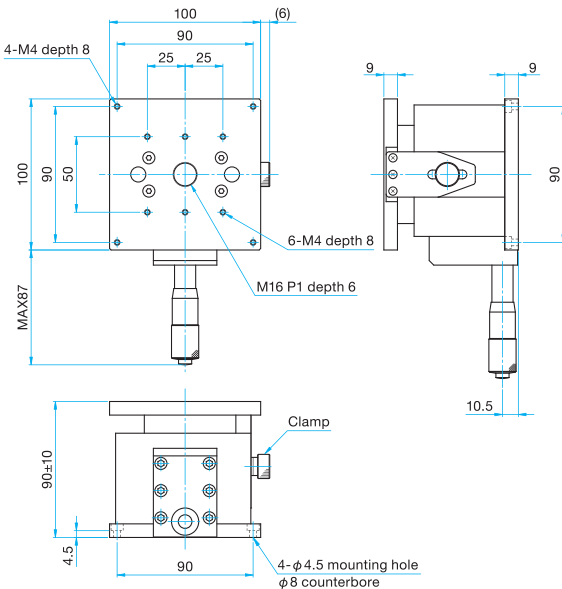
MLT33-80 Hexagonal socket head cap screw M4x8...4 screws



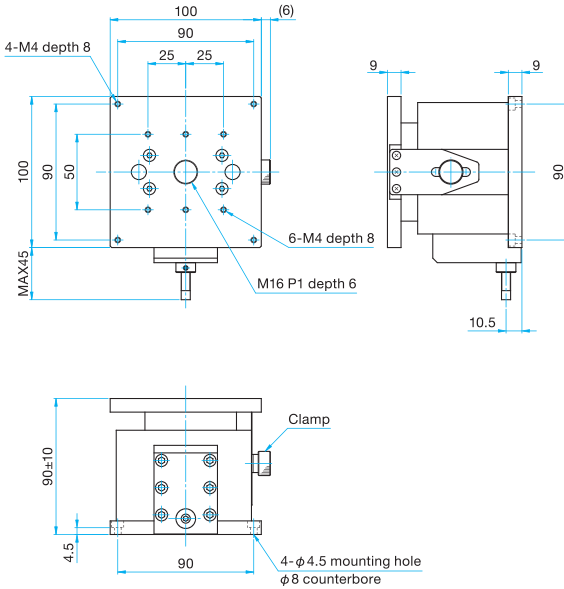
MLT33-80FP Hexagonal socket head cap screw M4x8...4 screws 3mm



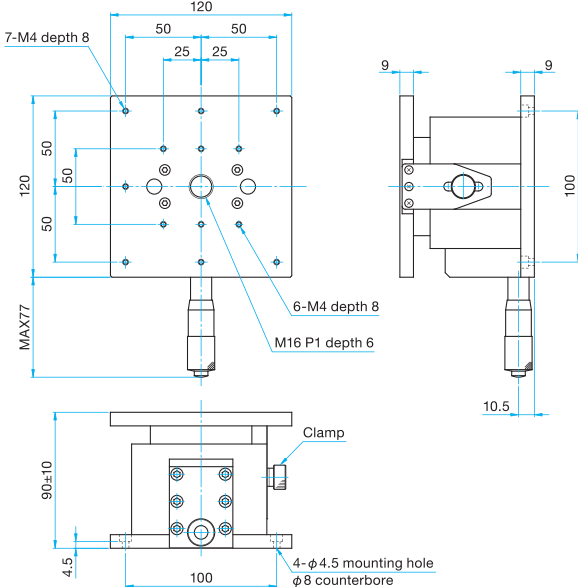
MLT33-100 Hexagonal socket head cap screw M4x10...4 screws Spring washers



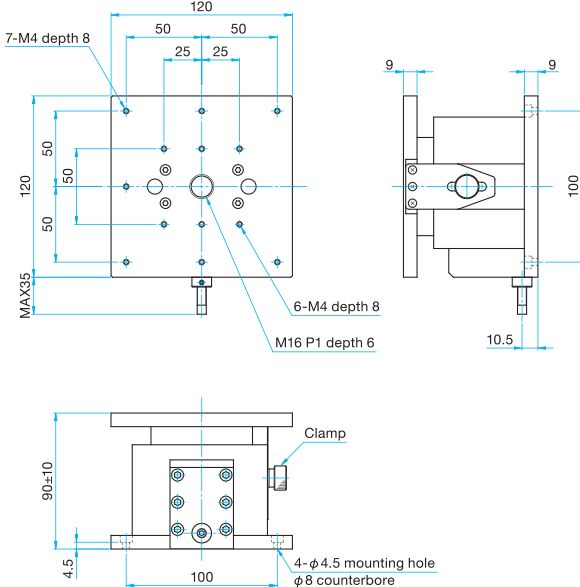
MLT33-100FP Hexagonal socket head cap screw M4x10...4 screws Spring washers 3mm



MLT33-120 Hexagonal socket head cap screw M4x10...4 screws Spring washers



MLT33-120FP Hexagonal socket head cap screw M4x10...4 screws Spring washers 3mm



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