



Z axis Steel Extended Contact Slide Stages | **MLT3** Stage size □25/□40/□60mm

RoHS

- Application Systems
- Machine Vision

Manual Positions

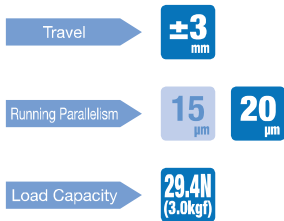
- Motion Control Products
- Optical & Mirror Holder
- F A Parts
- Measurement &Control
- FA Electrical Parts
- Tool & Measure
- Cleanroom & AntiStatic
- Index

- X Axis
- XY Axis
- Z Axis**
- XZ Axis
- XYZ Axis
- Rotation
- Goniometers /Tilt
- Multiaxis
- Linear Guide

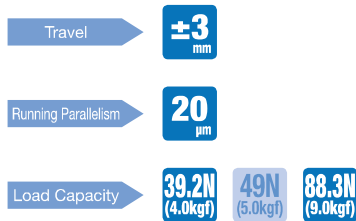
- 15mm
- 25mm**
- 40mm
- 50mm
- 60mm
- 70mm
- 80mm
- 100mm
- 120mm
- Others

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.

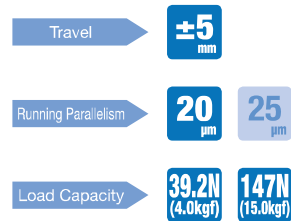
Stage □25mm



Stage □40mm



Stage □60mm



Guide

- ▶ Stainless steel types (MLT6) are available for superior corrosion resistance. **Reference** ▶ G084
- ▶ 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 (NSQ) 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 ±0.02mm for micrometer head 0.5mm/rotation).

SPEC UP

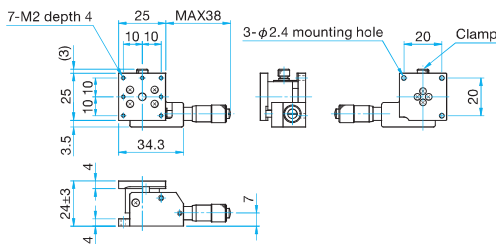
Specifications									
Part Number		MLT33-25	MLT33-25FP	MLT33-40	MLT33-40FP	MLT33-60	MLT33-60FP	MLT33-60DM	MLT33-60WP
Table Size [mm]		25×25	25×25	40×40	40×40	60×60	60×60	60×60	60×60
Travel [mm]		±3	±3	±3	±3	±5	±5	±5	±5
Lead of Actuator [mm/rotation]		0.5	0.25	0.5	0.25	0.5	0.25	Coarse: 0.5 Fine: 0.025	Coarse: 0.25 Fine: 0.005
Micrometer Readable Resolution [mm]		0.01	—	0.01	—	0.01	—	Coarse: 0.01 Fine: 0.0005	Coarse: 0.005 Fine: 0.0005
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	Extended contact ball guide	Extended contact ball guide
Primary Material		Steel	Steel	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	Super black chrome	Super black chrome
Load Capacity [N]		29.4 (3.0kgf)	29.4 (3.0kgf)	88.3 (9.0kgf)	39.2 (4.0kgf)	147 (15.0kgf)	39.2 (4.0kgf)	147 (15.0kgf)	39.2 (4.0kgf)
Travel Accuracy	Straightness [μm]	5	5	2.5	2.5	2.5	2.5	2.5	2.5
	Pitch [N·m]	1	1	3.9	3.9	6.9	6.9	6.9	6.9
Max. Moment Capacity	Roll [N·m]	1	1	3.9	3.9	6.9	6.9	6.9	6.9
	Pitch [°/N·cm]	7.14	7.14	1.84	1.84	0.51	0.51	0.51	0.51
Moment Stiffness	Roll [°/N·cm]	7.14	7.14	1.84	1.84	0.51	0.51	0.51	0.51
	Parallelism [μm]	80	80	80	80	80	80	80	80
Running Parallelism [μm]		20	20	20	20	20	20	20	20
Weight [kg]		0.1	0.1	0.25	0.25	1	1	1.06	1

Catalog Code W7041

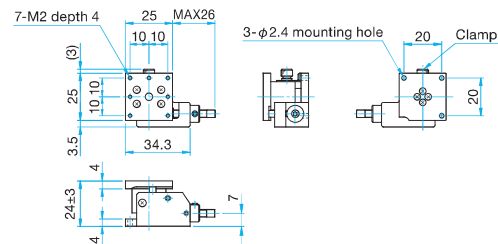


Outline Drawing

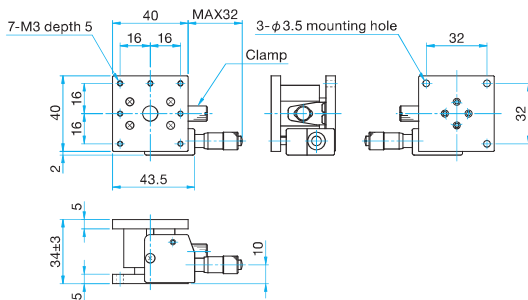
MLT33-25 Hexagonal socket head cap screw M2×6...3 screws



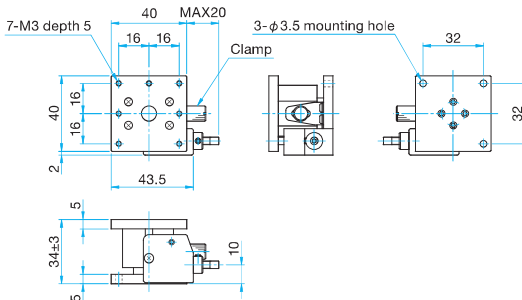
MLT33-25FP Hexagonal socket head cap screw M2×6...3 screws 2mm



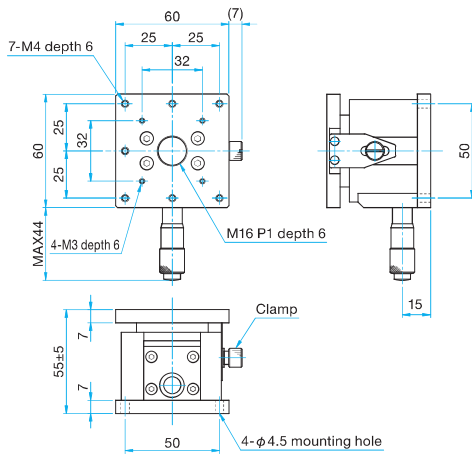
MLT33-40 Hexagonal socket head cap screw M3×8...3 screws



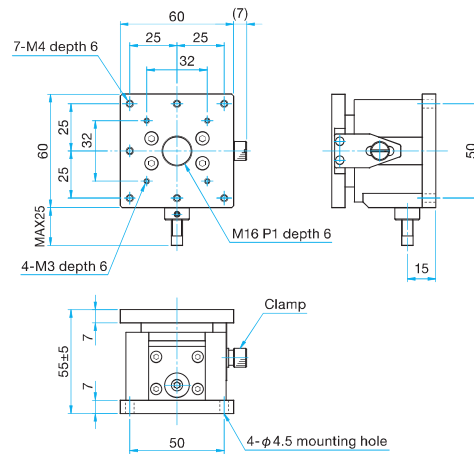
MLT33-40FP Hexagonal socket head cap screw M3×8...3 screws 2mm



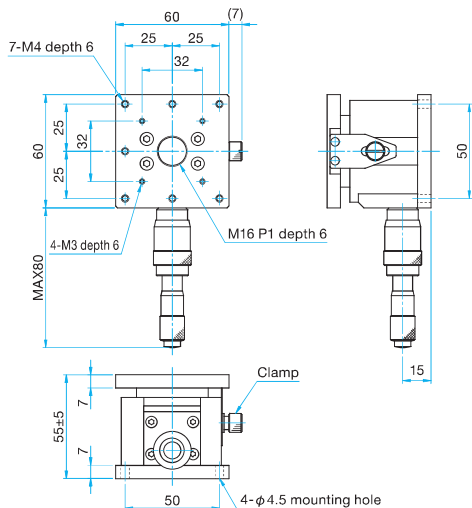
MLT33-60 Hexagonal socket head cap screw M4×12...4 screws



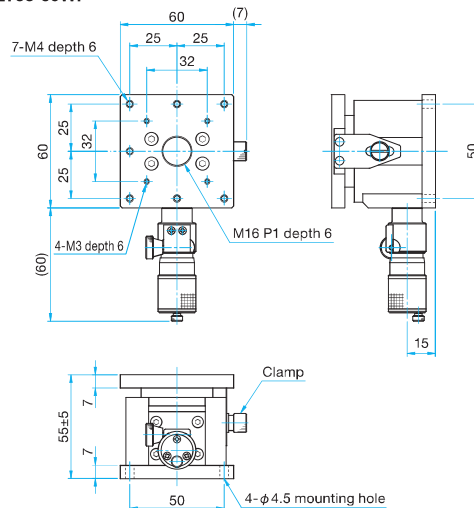
MLT33-60FP Hexagonal socket head cap screw M4×12...4 screws 3mm



MLT33-60DM Hexagonal socket head cap screw M4×12...4 screws



MLT33-60WP Hexagonal socket head cap screw M4×12...4 screws



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X Axis

XY Axis

Z Axis

XZ Axis

XYZ Axis

Rotation

Goniometers /Tilt

Multiaxis

Linear Guide

□15mm

□25mm

□40mm

□50mm

□60mm

□70mm

□80mm

□100mm

□120mm

Others



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

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- 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 μm**

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

■ Stage □100mm

Travel **±10 mm**

Running Parallelism **20 μm**

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

■ Stage □120mm

Travel **±10 mm**

Running Parallelism **20 μm**

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

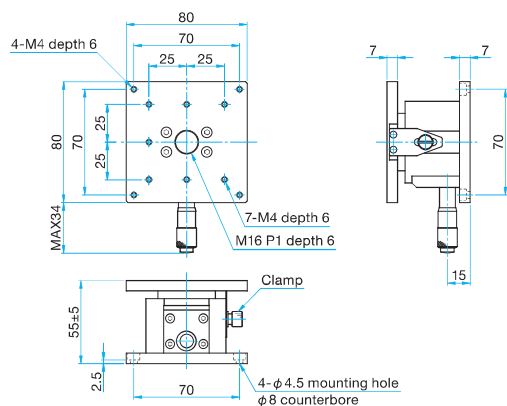
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Specifications							
Part Number		MLT33-80	MLT33-80FP	MLT33-100	MLT33-100FP	MLT33-120	MLT33-120FP
Table Size [mm]		80×80	80×80	100×100	100×100	120×120	120×120
Travel [mm]		±5	±5	±10	±10	±10	±10
Lead of Actuator [mm/rotation]		0.5	0.25	0.5	0.25	0.5	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 [μm]	2.5	2.5	2.5	2.5	2.5	2.5
	Pitch [N·m]	6.9	6.9	9.8	9.8	9.8	9.8
Max. Moment Capacity	Roll [N·m]	6.9	6.9	9.8	9.8	9.8	9.8
	Pitch [°/N·cm]	0.51	0.51	0.36	0.36	0.36	0.36
Moment Stiffness	Roll [°/N·cm]	0.51	0.51	0.36	0.36	0.36	0.36
Parallelism [μm]		80	80	100	100	100	100
Running Parallelism [μm]		20	20	20	20	20	20
Weight [kg]		1.2	1.2	3.5	3.5	4.2	4.2

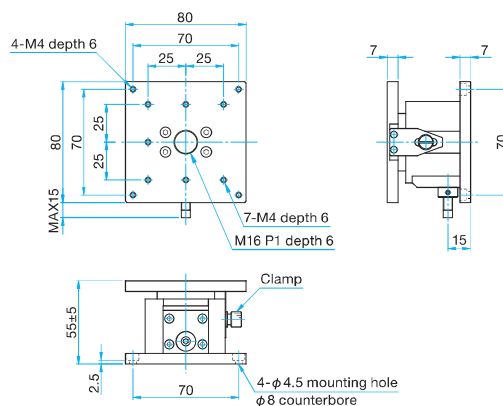


Outline Drawing

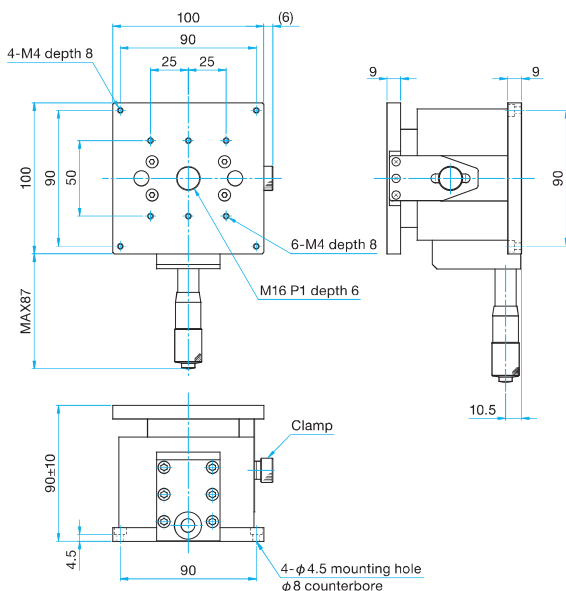
MLT33-80 Hexagonal socket head cap screw M4×8...4 screws



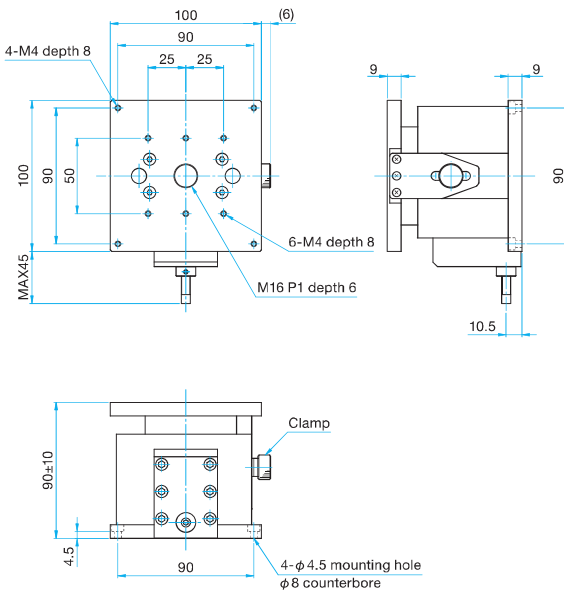
MLT33-80FP Hexagonal socket head cap screw M4×8...4 screws 3mm



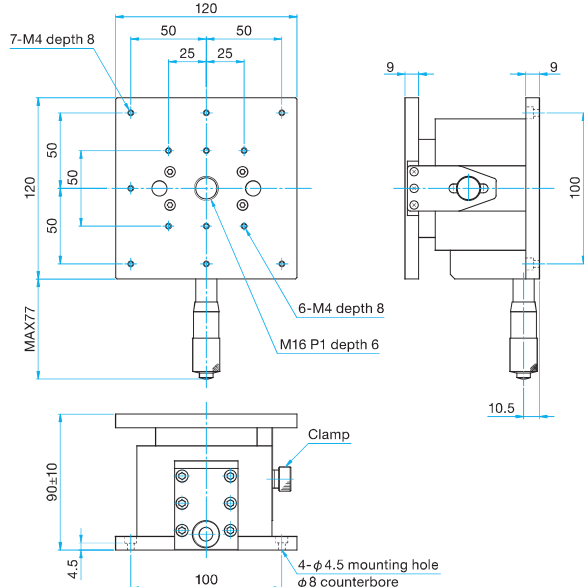
MLT33-100 Hexagonal socket head cap screw M4×10...4 screws Spring washers



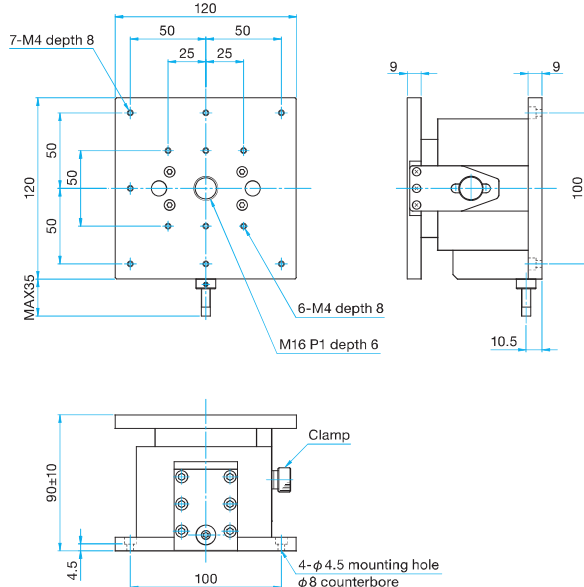
MLT33-100FP Hexagonal socket head cap screw M4×10...4 screws Spring washers 3mm



MLT33-120 Hexagonal socket head cap screw M4×10...4 screws Spring washers



MLT33-120FP Hexagonal socket head cap screw M4×10...4 screws Spring washers 3mm



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