

Z Axis Stainless Steel Extended Contact Translation Stages - Footprints

Stage Size 80 × 80 mm / 100 × 100 mm / 120 × 120 mm

TSD-3

RoHS

Horizontal (Flat) Z axis steel translation stages. In-line micrometer utilizes an internal pivot mechanism to enable vertical translation.

High stiffness due to steel extended contact bearing ways. Black chrome finish.



Attention

- ▶ This translation stage type is not suitable for inverted use. In this condition, all load would be pulling against the spring.
- ▶ These stages use a pivot mechanism to transfer horizontal motion to vertical motion. This mechanism induces a small non-linearity between the distance the micrometer moves and the distance the stage platform moves. Contact our Sales Division for more information.

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15 × 15 mm

25 × 25 mm

40 × 40 mm

60 × 60 mm

65 × 65 mm

80 × 80 mm

100 × 100 mm

120 × 120 mm

Others

Specifications

Part Number	METRIC	TSD-803	TSD-1003	TSD-1203	TSD-1203-M6
	INCH	—	—	—	TSD-1203UU
Stage Size [mm]		80×80	100×100	120×120	120×120
Axes of Travel		Z axis			
Travel [mm]		±5	±10	±10	±10
Lead of Actuator [mm/rotation]		0.5	0.5	0.5	0.5
Micrometer Readable Resolution [mm]		0.01	0.01	0.01	0.01
Guide Method		Extended contact ball bearing guide			
Primary Material		Steel			
Finish		Black matte			
Load Capacity [N]		147 (15.0kgf)	245 (25.0kgf)	245 (25.0kgf)	245 (25.0kgf)
Travel Accuracy	Straightness [μm]	2.5	2.5	2.5	2.5
Max. Moment Capacity	Pitch [N·m]	6.9	9.8	9.8	9.8
	Roll [N·m]	6.9	9.8	9.8	9.8
Moment Stiffness	Pitch ["/N·cm]	0.41	0.36	0.36	0.36
	Roll ["/N·cm]	0.41	0.36	0.36	0.36
Parallelism [μm]		80	100	100	100
Running Parallelism [μm]		20	20	20	20
Options		FP ¹	FP ²	FP ²	FP ²
Weight [kg]		1.2	3.5	4.2	4.2

Option

Option Code	Compatible product		Lead of Actuator [mm/rotation]	Micrometer Readable Resolution [mm]	Reference
	Products Name	Part Number			
FP	Fine-pitch Screw Adjusters	FPSA-62540 ¹ FPSA-62555 ²	0.25	—	E008

* Please add an option code as the part number suffix to specify various optional specifications.

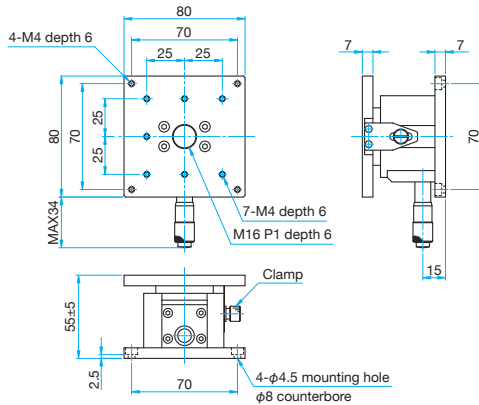
* The load capacity of the FP type is 39.2N (4.0kgf).



Outline Drawing

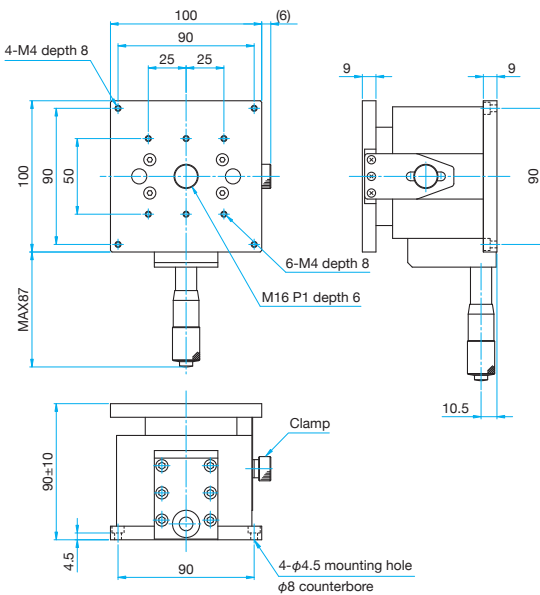
TSD-803

Hexagonal socket head cap screw M4x8...4 screws



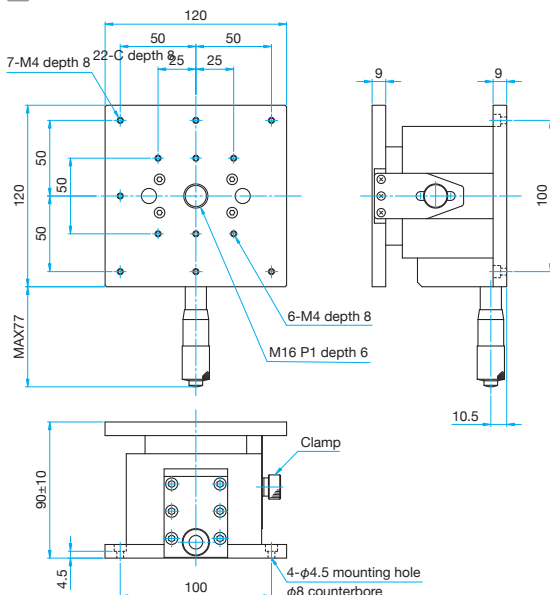
TSD-1003

Hexagonal socket head cap screw M4x10...4 screws, Spring washers



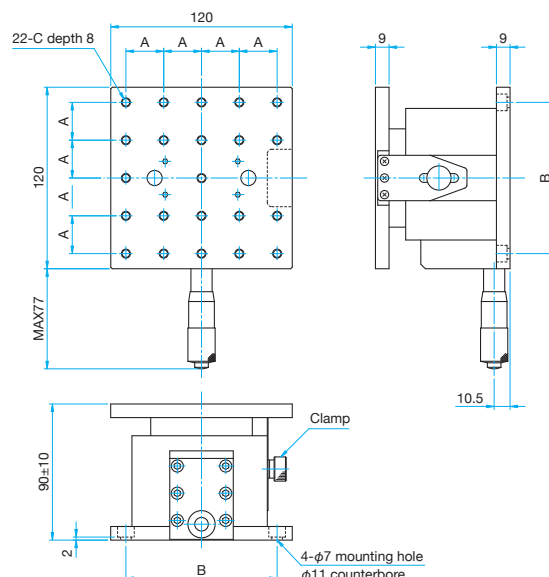
TSD-1203

Hexagonal socket head cap screw M4x10...4 screws, Spring washers



TSD-1203-M6/1203UU

Hexagonal socket head cap screw M6x8...4 screws (M6)
Hexagonal socket head cap screw 1/4-20UNCx3/8...4 screws (UU)



Part Number	A (mm)	B (mm)	C
TSD-1203-M6	25	100	M6 P1
TSD-1203UU	25.4	101.6	1/4-20UNC

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