

XZ Axis Steel Extended Contact Translation Stages

TSD-604 Stage Size 60 × 60 mm

TSD-654 Stage Size 65 × 65 mm

RoHS

RoHS

This XZ assembly incorporates an (X) axis steel linear stage and a (Z) vertical axis steel stage with a horizontal flat top plate.

There are options for micrometer position and fine pitch screws.



Guide

► Vacuum-compatible stainless steel stages (TSDS-604/654) are also available. [Reference](#) E212 [Catalog Code](#) W7064

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.

Specifications

Part Number	METRIC	TSD-604C	TSD-604S	TSD-654C-M6	TSD-654S-M6
	INCH	—	—	TSD-654CUU	TSD-654SUU
(Opposite Model)	METRIC	—	TSD-604SR	—	TSD-654SR-M6
	INCH	—	—	—	TSD-654SRUU
Stage Size [mm]		60×60	60×60	65×65	65×65
Axes of Travel		XZ axis			
Micrometer Position		Center	Side	Center	Side
Travel [mm]		X axis ±6.5 Z axis ±5	X axis ±6.5 Z axis ±5	X axis ±6.5 Z axis ±5	X axis ±6.5 Z axis ±5
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		Super black chrome + Black matte			
Load Capacity [N]		147 (15.0kgf)	147 (15.0kgf)	147 (15.0kgf)	147 (15.0kgf)
Travel Accuracy	Straightness [μm]	2.5	2.5	2.5	2.5
	Pitch [N·m]	6.9	6.9	6.9	6.9
Max. Moment Capacity	Roll [N·m]	6.9	6.9	6.9	6.9
	Pitch [°/N·cm]	0.73	0.73	0.73	0.73
Moment Stiffness	Roll [°/N·cm]	0.64	0.64	0.64	0.64
Parallelism [μm]		110	110	110	110
Options		FP	FP	FP	FP
Weight [kg]		1.5	1.5	1.7	1.7

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	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).

* The FP type requires a hex wrench or the optional hex wrench with knob (KCL) for driving operation. [Reference](#) F010 [Catalog Code](#) W8008

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XZ Axis Stages

XYZ Axis Stages

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Crossed Roller

Dovetail

Lapping

V Groove Screw

Others

15 × 15 mm

25 × 25 mm

40 × 40 mm

60 × 60 mm

65 × 65 mm

80 × 80 mm

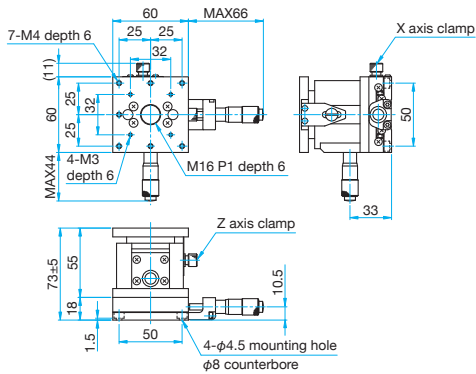
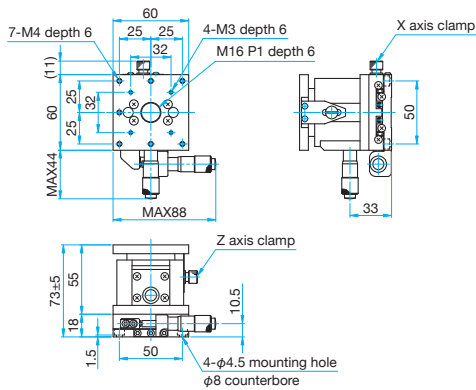
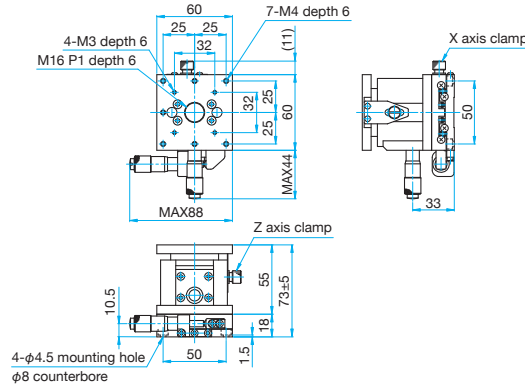
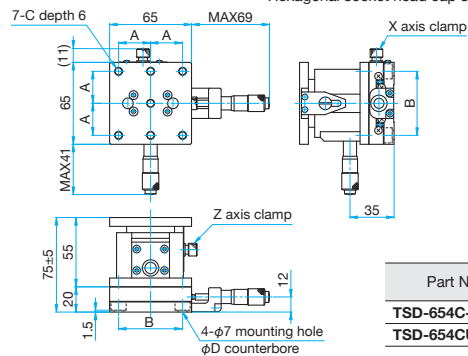
100 × 100 mm

120 × 120 mm

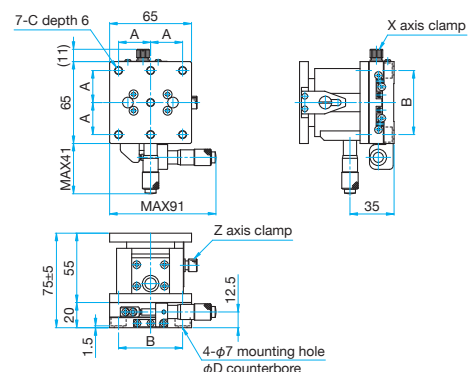
Others



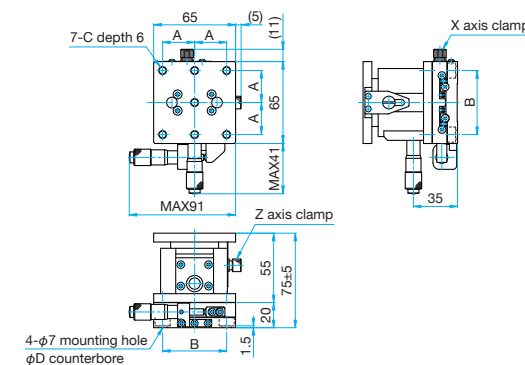
Outline Drawing

TSD-604C Hexagonal socket head cap screw M4×6...4 screws**TSD-604S** Hexagonal socket head cap screw M4×6...4 screws**TSD-604SR** Hexagonal socket head cap screw M4×6...4 screws**TSD-654C-M6/654CUU** Hexagonal socket head cap screw M6×6...4 screws (M6)
Hexagonal socket head cap screw 1/4-20UNC×1/4...4 screws (UU)

Part Number	A (mm)	B (mm)	C	D (mm)
TSD-654C-M6	25	50	M6 P1	11
TSD-654CUU	25.4	50.8	1/4-20UNC	12

TSD-654S-M6/654SUUHexagonal socket head cap screw M6×6...4 screws (M6)
Hexagonal socket head cap screw 1/4-20UNC×1/4...4 screws (UU)

Part Number	A (mm)	B (mm)	C	D (mm)
TSD-654S-M6	25	50	M6 P1	11
TSD-654SUU	25.4	50.8	1/4-20UNC	12

TSD-654SR-M6/654SRUUHexagonal socket head cap screw M6×6...4 screws (M6)
Hexagonal socket head cap screw 1/4-20UNC×1/4...4 screws (UU)

Part Number	A (mm)	B (mm)	C	D (mm)
TSD-654SR-M6	25	50	M6 P1	11
TSD-654SRUU	25.4	50.8	1/4-20UNC	12

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120 × 120 mm

Others