

# X Axis Steel Extended Contact Translation Stages

# XY Axis Steel Extended Contact Translation Stages

TSD-801

Stage Size 80 x 80 mm

RoHS

TSD-802

Application Systems

Optics &amp; Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators &amp; Adjusters

Motorized Stages

Light Sources &amp; Laser Safety

Index

Guide

X Axis Stages

XY Axis Stages

Z Axis Stages

XZ Axis Stages

XYZ Axis Stages

Rotation Stages

Goniometer

Tilt Stages

Vacuum

Ball Bearing Guide

Crossed Roller

Dovetail

Lapping

V Groove Screw

Others

15 x 15 mm

25 x 25 mm

40 x 40 mm

60 x 60 mm

65 x 65 mm

80 x 80 mm

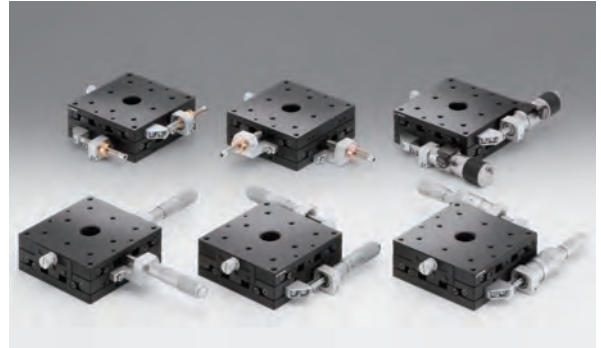
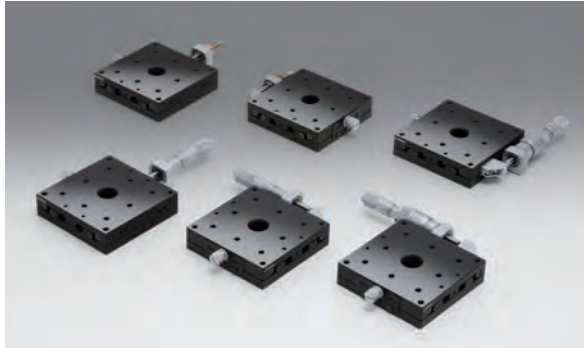
100 x 100 mm

120 x 120 mm

Others

Hardened steel linear stages with integrated bearing ways and a black chrome finish. Our “Extended Contact” technology yields superior stability, stiffness, accuracy, and durability. These XY stages are integrated and therefore have a lower profile vs. (2) single axis stages combined.

There are options for micrometer position and fine pitch screws.



### Attention

- ▶ Micrometer brackets may extend above the top surface of some stages. Check drawings for detailed information.
- ▶ Note that based upon payload size, rated travel could be reduced.

### Specifications

Part Number	METRIC	TSD-801C	TSD-801S	TSD-802C	TSD-802S
(Opposite Model)	METRIC	—	TSD-801SR	—	TSD-802SR
Stage Size [mm]		80x80	80x80	80x80	80x80
Axes of Travel		X axis		XY axis	
Micrometer Position		Center	Side	Center	Side
Travel [mm]		±12.5	±12.5	±12.5	±12.5
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			
Load Capacity [N]		490 (50.0kgf)	490 (50.0kgf)	490 (50.0kgf)	490 (50.0kgf)
Travel Accuracy	Straightness [μm]	0.5	0.5	0.5	0.5
	Pitch [ ″ ]	25	25	25	25
	Yaw [ ″ ]	15	15	15	15
Max. Moment Capacity	Pitch [N·m]	19.4	19.4	19.4	19.4
	Roll [N·m]	21.5	21.5	19.4	19.4
	Yaw [N·m]	19.5	19.5	19.5	19.5
Moment Stiffness	Pitch [ ″/N·cm]	0.04	0.04	0.06	0.06
	Roll [ ″/N·cm]	0.02	0.02	0.06	0.06
	Yaw [ ″/N·cm]	0.04	0.04	0.08	0.08
Parallelism [μm]		20	20	40	40
Running Parallelism [μm]		7	7	15	15
Orthogonality [μm]		—	—	10	10
Options		FP/DM/WP	FP/DM/WP	FP/DM/WP	FP/DM/WP
Weight [kg]		0.9	0.9	1.4	1.4

### 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-62550	0.25	—	E008
DM	Differential Micrometer Heads	MHF2-13F	Coars: 0.5 Fine: 0.025	Coars: 0.01 Fine: 0.0005	
WP	Sub-micron Worm Drive Micrometer Heads	WGP-13	Coars: 0.25 Fine: 0.005	Coars: 0.005 Fine: 0.0005	

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

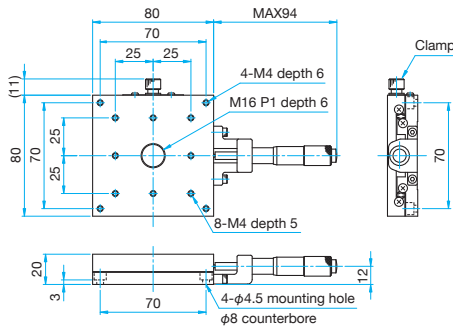
\* The travel of DM and WP is ±6.5 mm.

\* Replacement work requires a special tool (MNS). Reference F006 Catalog Code W8005

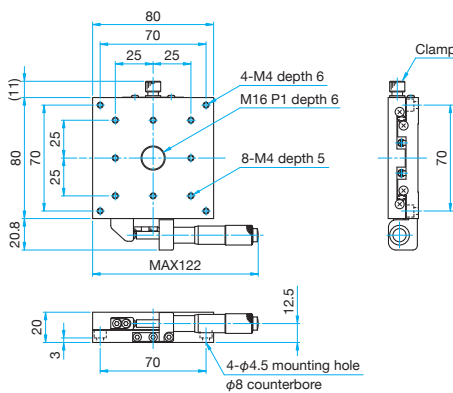


Outline Drawing

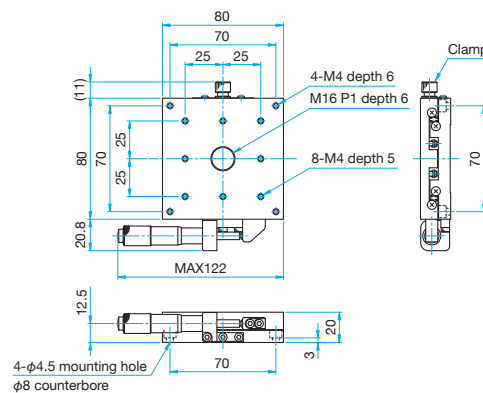
**TSD-801C** Hexagonal socket head cap screw M4x8...4 screws



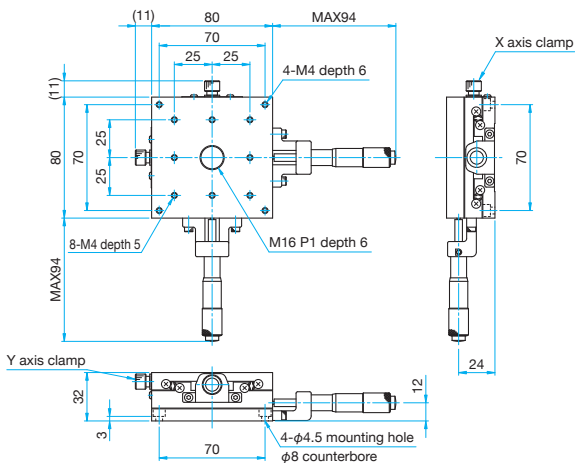
**TSD-801S** Hexagonal socket head cap screw M4x8...4 screws



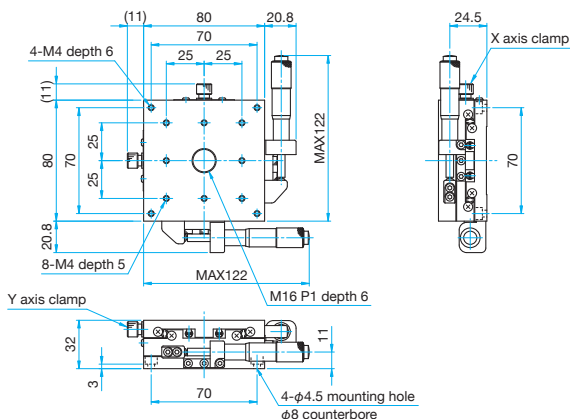
**TSD-801SR** Hexagonal socket head cap screw M4x8...4 screws



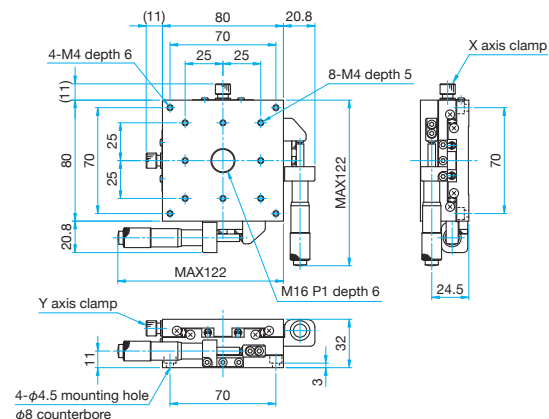
**TSD-802C** Hexagonal socket head cap screw M4x8...4 screws



**TSD-802S** Hexagonal socket head cap screw M4x8...4 screws



**TSD-802SR** Hexagonal socket head cap screw M4x8...4 screws



Application Systems

Optics & Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators & Adjusters

MotORIZED Stages

Light Sources & Laser Safety

Index

Guide

X Axis Stages

XY Axis Stages

Z Axis Stages

XZ Axis Stages

XYZ Axis Stages

Rotation Stages

Goniometer

Tilt Stages

Vacuum

Ball Bearing Guide

Crossed Roller

Dovetail

Lapping

V Groove Screw

Ohters

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