

X Axis General-Purpose Stainless Steel Translation Stages

XY Axis General-Purpose Stainless Steel Translation Stages

TSDH-401

Stage Size 40 x 40 mm

TSDH-402W

RoHS

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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

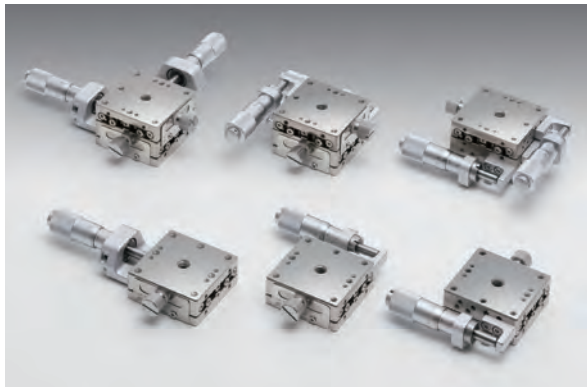
100 x 100 mm

120 x 120 mm

Others

High precision stainless steel translation stages with “Extended Contact” bearing ways. High stiffness. Not intended for vacuum applications.

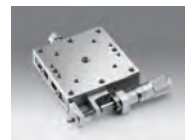
- Stage body consists of stainless steel (440C). To prevent rusting, the finish has been processed with electro less nickel plating.



Guide

- ▶ Also available with a super black chrome surface finish. Please contact sales for more information.
- ▶ For the TSDH series, you can select opposite side locking by specifying the option code (suffix: OC).

Option Code	Products Name
OC	opposite clamp



Attention

- ▶ Micrometer brackets may extend above the top surface of some stages. Check drawings for detailed information.

Specifications					
Part Number	METRIC	TSDH-401C	TSDH-401S	TSDH-402WC	TSDH-402WS
(Opposite Model)	METRIC	—	TSDH-401SR	—	TSDH-402WSR
Stage Size [mm]		40×40	40×40	40×40	40×40
Axes of Travel		X axis		XY axis	
Micrometer Position		Center	Side	Center	Side
Travel [mm]		±6.5	±6.5	±6.5	±6.5
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		SUS440C quench hardened			
Finish		Electroless nickel			
Load Capacity [N]		196 (20kgf)	196 (20kgf)	196 (20kgf)	196 (20kgf)
Travel Accuracy	Straightness [μm]	1	1	1	1
	Pitch [″]	30	30	30	30
	Yaw [″]	25	25	25	25
Max. Moment Capacity	Pitch [N·m]	7.8	7.8	7.8	7.8
	Roll [N·m]	7.8	7.8	7.8	7.8
	Yaw [N·m]	5	5	5	5
Moment Stiffness	Pitch [″/N·cm]	0.3	0.3	0.66	0.66
	Roll [″/N·cm]	0.2	0.2	0.66	0.66
	Yaw [″/N·cm]	0.23	0.23	0.6	0.6
Parallelism [μm]		30	30	50	50
Running Parallelism [μm]		10	10	20	20
Orthogonality [μm]		—	—	10	10
Options		FP/DL	FP/DL	FP/DL	FP
Weight [kg]		0.2	0.2	0.4	0.4

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-62540	0.25	—	E008
DL	Differential Micrometer Heads	MDC-13	0.5	0.01	

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

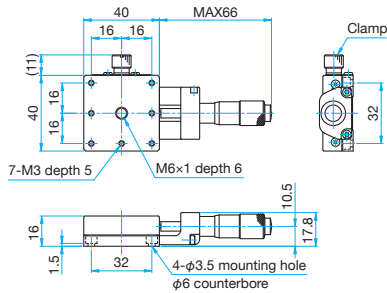
* Installation may not be possible depending on the direction of DL.

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

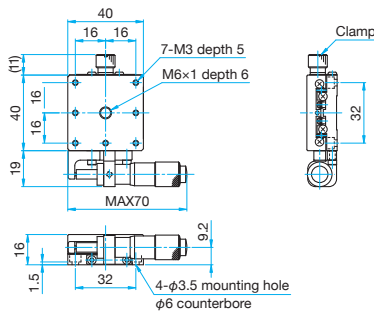


Outline Drawing

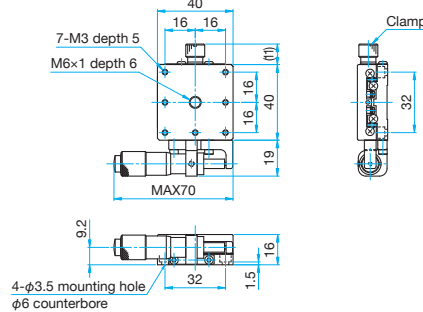
TSDH-401C Hexagonal socket head cap screw (stainless steel construction)
M3×6...4 screws, Spring washers



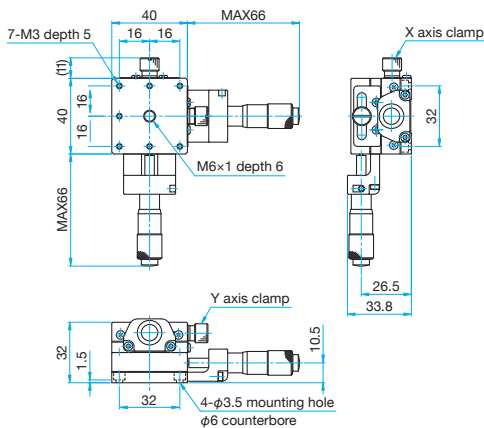
TSDH-401S Hexagonal socket head cap screw (stainless steel construction)
M3×6...4 screws, Spring washers



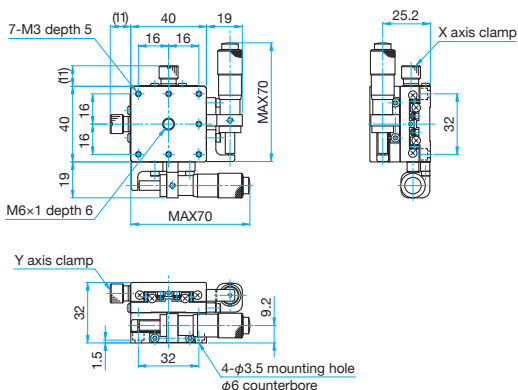
TSDH-401SR Hexagonal socket head cap screw (stainless steel construction)
M3×6...4 screws, Spring washers



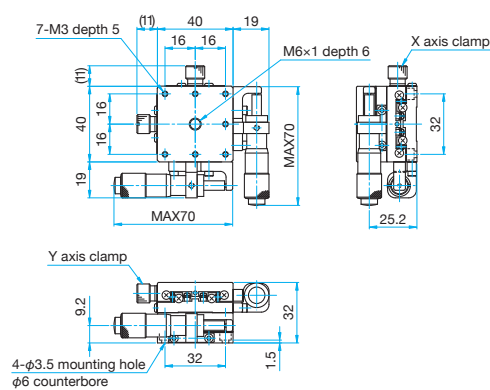
TSDH-402WC Hexagonal socket head cap screw (stainless steel construction)
M3×6...4 screws, Spring washers



TSDH-402WS Hexagonal socket head cap screw (stainless steel construction)
M3×6...4 screws, Spring washers



TSDH-402WSR Hexagonal socket head cap screw (stainless steel construction)
M3×6...4 screws, Spring washers



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