

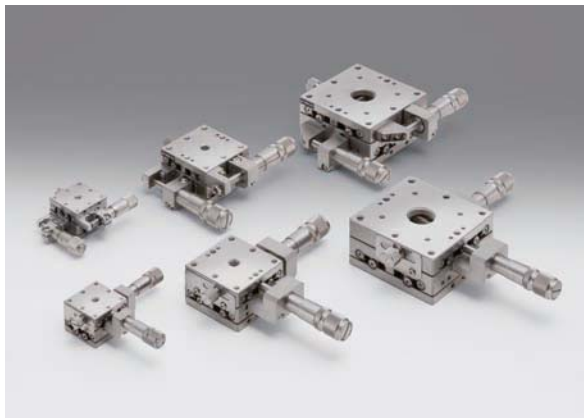
XY Axis Stainless Steel Extended Contact Translation Stages

Stage Size 25 × 25 mm / 40 × 40 mm / 60 × 60 mm / 65 × 65 mm

TSDS-2

RoHS

Stainless Steel Linear Stages suitable for hard vacuum and clean room applications. Made entirely of stainless steel, they yield excellent corrosion resistance. The stage bearingways and the stainless steel micrometer heads are lubricated with a high grade vacuum grease (YVAC2).



Guide

- ▶ The TSDS series stages are suitable for use in clean rooms or vacuum applications.
- Reference** ▶ Vacuum measurement data E205
- Also ideal for use in airtight spaces that have to avoid outgassing.

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	TSDS-252C	TSDS-252S	TSDS-402C	TSDS-402S	TSDS-602C	TSDS-602S	TSDS-652C-M6	TSDS-652S-M6
	INCH	—	—	TSDS-402CUU	TSDS-402SUU	—	—	TSDS-652CUU	TSDS-652SUU
Stage Size [mm]		25×25	25×25	40×40	40×40	60×60	60×60	65×65	65×65
Axes of Travel		XY axis							
Micrometer Position		Center	Side	Center	Side	Center	Side	Center	Side
Travel [mm]		±3	±3	±6.5	±6.5	±6.5	±6.5	±6.5	±6.5
Lead of Actuator [mm/rotation]		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Micrometer Readable Resolution [mm]		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Guide Method		Extended contact ball bearing guide							
Primary Material		Stainless steel							
Finish		None							
Load Capacity [N]		49 (5.0kgf)	49 (5.0kgf)	147 (15.0kgf)	147 (15.0kgf)	343 (35.0kgf)	343 (35.0kgf)	343 (35.0kgf)	343 (35.0kgf)
Travel Accuracy	Straightness [μm]	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Pitch [″]	30	30	30	30	25	25	25	25
	Yaw [″]	25	25	25	25	15	15	15	15
Max. Moment Capacity	Pitch [N·m]	3.0	3.0	3.9	3.9	6.4	6.4	8.8	8.8
	Roll [N·m]	3.0	3.0	3.9	3.9	6.4	6.4	8.8	8.8
	Yaw [N·m]	1.5	1.5	2.5	2.5	4.9	4.9	4.9	4.9
Moment Stiffness	Pitch [°/N·cm]	3.4	3.4	0.66	0.66	0.41	0.41	0.41	0.41
	Roll [°/N·cm]	3.4	3.4	0.66	0.66	0.41	0.41	0.41	0.41
	Yaw [°/N·cm]	4.0	4.0	0.8	0.8	0.41	0.41	0.41	0.41
Parallelism [μm]		50	50	30	30	30	30	50	50
Running Parallelism [μm]		20	20	20	20	20	20	20	20
Orthogonality [μm]		10	10	10	10	10	10	10	10
Weight [kg]		0.1	0.1	0.3	0.3	0.9	0.9	1.2	1.2

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Tilt Stages

Vacuum

Ball Bearing Guide

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

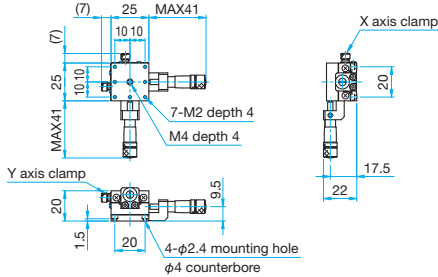
120 × 120 mm

Others

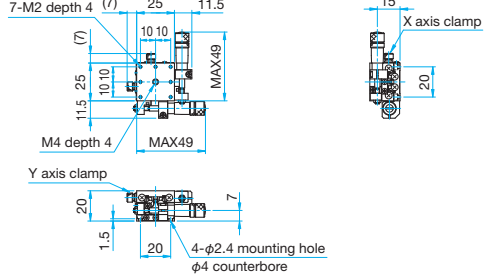


Outline Drawing

TSDS-252C Hexagon socket head cap screw (stainless steel construction) M2x4...4 screws

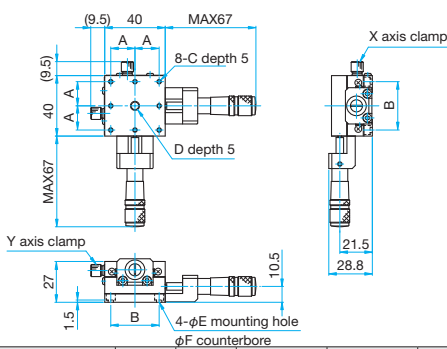


TSDS-252S Hexagon socket head cap screw (stainless steel construction) M2x4...4 screws



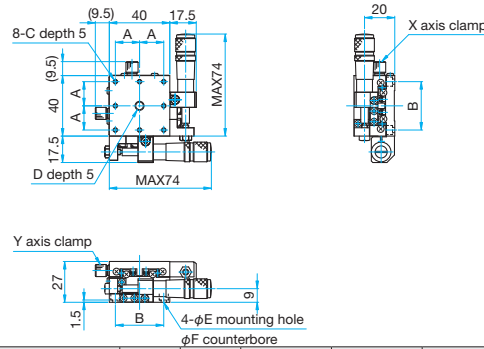
TSDS-402C/402CUU

Hexagon socket head cap screw (stainless steel construction) M3x6...4 screws, Spring washers
Hexagon socket head cap screw (stainless steel construction) 6-32UNCx3/16...4 screws (UU)



TSDS-402S/402SUU

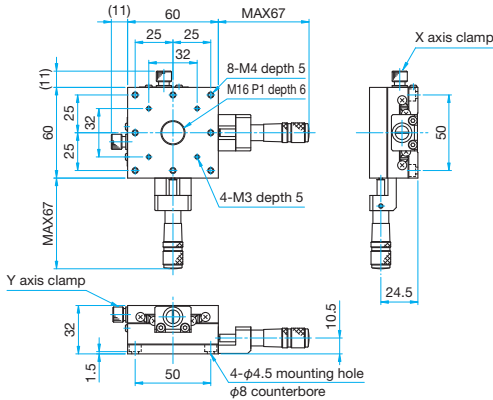
Hexagon socket head cap screw (stainless steel construction) M3x6...4 screws, Spring washers
Hexagon socket head cap screw (stainless steel construction) 6-32UNCx3/16...4 screws (UU)



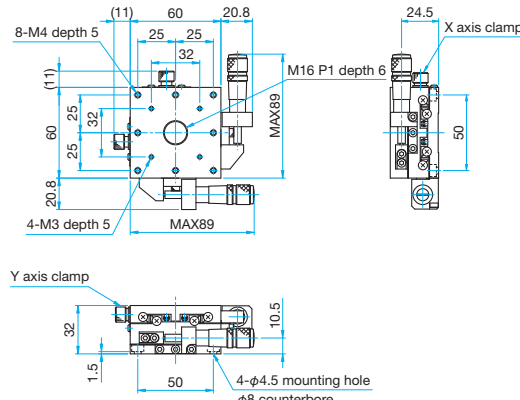
Part Number	A (mm)	B (mm)	C	D	E (mm)	F (mm)
TSDS-402C	16	32	M3	M6 P1	3.5	6
TSDS-402CUU	15.875	31.75	6-32UNC	1/4-20UNC	4	6.5

Part Number	A (mm)	B (mm)	C	D	E (mm)	F (mm)
TSDS-402S	16	32	M3	M6 P1	3.5	6
TSDS-402SUU	15.875	31.75	6-32UNC	1/4-20UNC	4	6.5

TSDS-602C Hexagon socket head cap screw (stainless steel construction) M4x6...4 screws

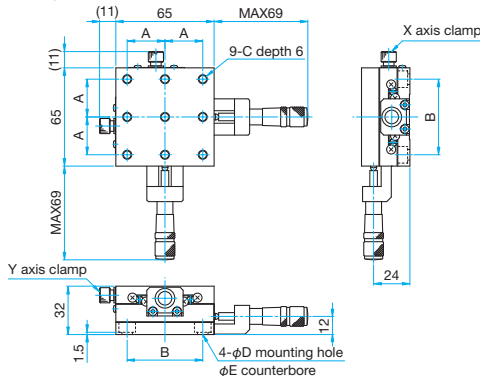


TSDS-602S Hexagon socket head cap screw (stainless steel construction) M4x6...4 screws



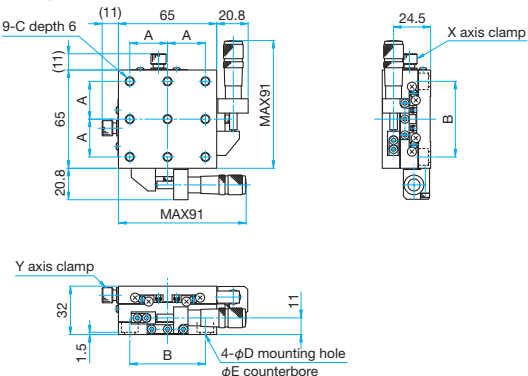
TSDS-652C-M6/652CUU

Hexagon socket head cap screw (stainless steel construction) M6x6...4 screws (M6)
Hexagon socket head cap screw (stainless steel construction) 1/4-20UNCx1/4...4 screws (UU)



TSDS-652S-M6/652SUU

Hexagon socket head cap screw (stainless steel construction) M6x6...4 screws (M6)
Hexagon socket head cap screw (stainless steel construction) 1/4-20UNCx1/4...4 screws (UU)



Part Number	A (mm)	B (mm)	C	D (mm)	E (mm)
TSDS-652C-M6	25	50	M6 P1	6.5	11
TSDS-652CUU	25.4	50.8	1/4-20UNC	7	12

Part Number	A (mm)	B (mm)	C	D (mm)	E (mm)
TSDS-652S-M6	25	50	M6 P1	6.5	11
TSDS-652SUU	25.4	50.8	1/4-20UNC	7	12

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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