

XYZ Axis Stainless Steel Extended Contact Translation Stages (Vertical)

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

TSDS-5L

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XY Axis Stages

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XZ Axis Stages

XYZ Axis Stages

Rotation Stages

Goniometer

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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

XYZ axis Stainless Steel Linear Stages suitable for hard vacuum and clean room applications. Same design and performance as TSD stages.

Completely made of stainless steel for excellent corrosion resistance.

Both the stage and the stainless steel micrometer head 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

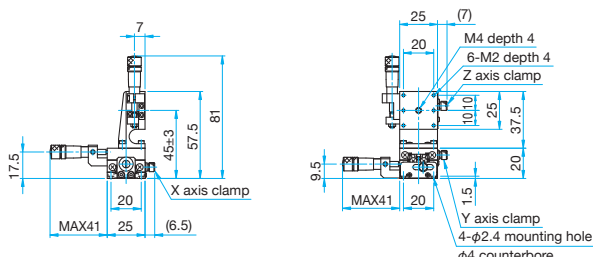
Also ideal for use in airtight spaces that have to avoid outgassing.

Specifications

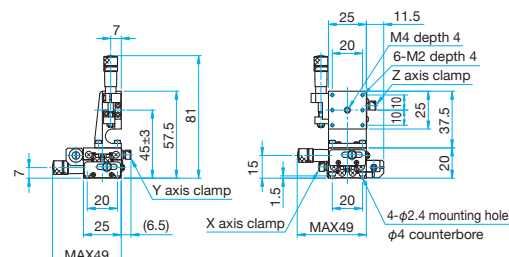
Part Number	METRIC	TSDS-255CL	TSDS-255SL	TSDS-405CL	TSDS-405SL	TSDS-605CL	TSDS-605SL	TSDS-655CL-M6	TSDS-655SL-M6
	INCH	—	—	TSDS-405CLUU	TSDS-405SLUU	—	—	TSDS-655CLUU	TSDS-655SLUU
Stage Size [mm]		25×25	25×25	40×40	40×40	60×60	60×60	65×65	65×65
Axes of Travel		XYZ axis							
Micrometer Position		Center	Side	Center	Side	Center	Side	Center	Side
Travel [mm]		XY axis ±3 Z axis ±3	XY axis ±3 Z axis ±3	XY axis ±6.5 Z axis ±6.5	XY axis ±6.5 Z axis ±6.5	XY axis ±6.5 Z axis ±6.5	XY axis ±6.5 Z axis ±6.5	XY axis ±6.5 Z axis ±6.5	XY axis ±6.5 Z axis ±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]		14.7 (1.5kgf)	14.7 (1.5kgf)	49 (5kgf)	49 (5kgf)	49 (5kgf)	49 (5kgf)	49 (5kgf)	49 (5kgf)
Travel Accuracy	Straightness [μm]	1	1	1	1	1	1	1	1
	Pitch [N·m]	2.2	2.2	3.9	3.9	8.0	8.0	8.0	8.0
Max. Moment Capacity	Roll [N·m]	2.1	2.1	3.9	3.9	8.0	8.0	8.0	8.0
	Pitch [°/N·cm]	6.7	6.7	1.26	1.26	0.58	0.58	0.58	0.58
Moment Stiffness		6.7	6.7	1.26	1.26	0.58	0.58	0.58	0.58
Weight [kg]		0.2	0.2	0.6	0.6	1.7	1.7	2.0	2.0

Outline Drawing

TSDS-255CL Hexagon socket head cap screw (stainless steel construction)
M2x4...4 screws

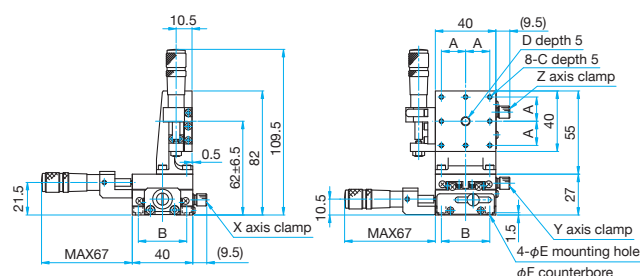


TSDS-255SL Hexagon socket head cap screw (stainless steel construction)
M2x4...4 screws



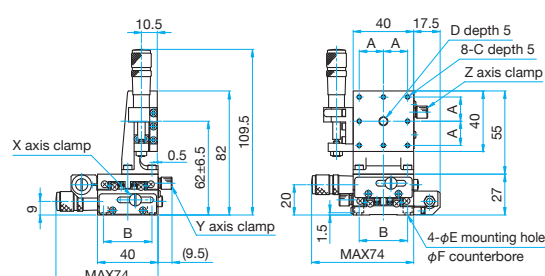
TSDS-405CL/405CLUU

- 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-405SL/405SLUU

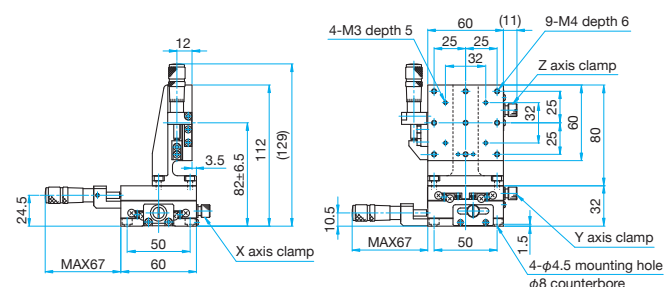
- Hexagon socket head cap screw (stainless steel construction) M3×6...4 screws, Spring washers
Hexagon socket head cap screw (stainless steel construction) 6-32UNC×3/16...4 screws (UU)



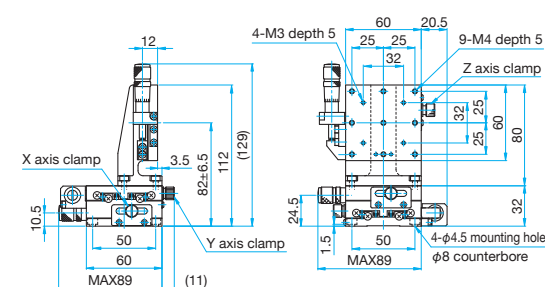
Part Number	A (mm)	B (mm)	C	D	E (mm)	F (mm)
TSDS-405CL	16	32	M3	M6 P1	3.5	6
TSDS-405CLUU	15.875	31.75	6-32UNC	1/4-20UNC	4	6.5

Part Number	A (mm)	B (mm)	C	D	E (mm)	F (mm)
TSDS-405SL	16	32	M3	M6 P1	3.5	6
TSDS-405SLUU	15.875	31.75	6-32UNC	1/4-20UNC	4	6.5

TSDS-605CL Hexagon socket head cap screw (stainless steel construction)
M4x6...4 screws

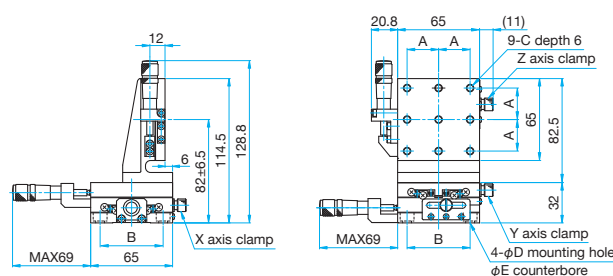


TSDS-605SL Hexagon socket head cap screw (stainless steel construction)
M4x6...4 screws

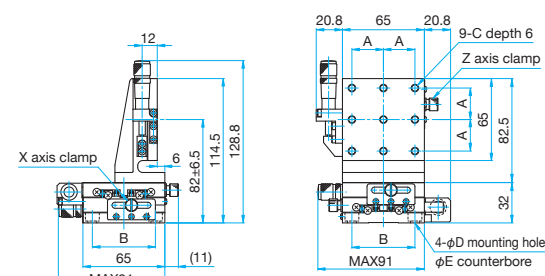


TSDS-655CL-M6/655CLUU

- 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-655SL-M6/655SLUU**

- Hexagon socket head cap screw (stainless steel construction) M6x...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-655CL-M6	25	50	M6 P1	6.5	11
TSDS-655CLUU	25.4	50.8	1/4-20UNC	7	12

Part Number	A (mm)	B (mm)	C	D (mm)	E (mm)
TSDS-655SL-M6	25	50	M6 P1	6.5	11
TSDS-655SLUU	25.4	50.8	1/4-20UNC	7	12