

XZ Axis Stainless Steel Extended Contact Translation Stages (Vertical)

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

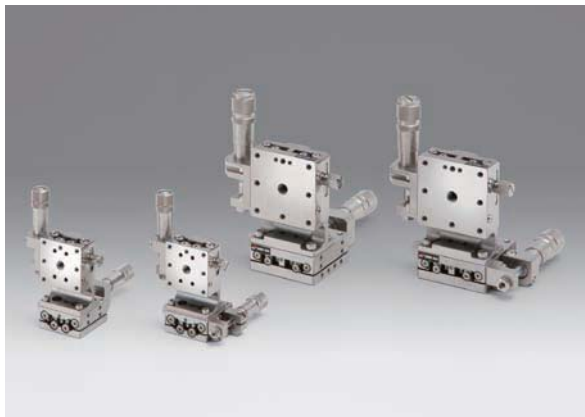
TSDS-4L

RoHS

XZ 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 E205z
 Also ideal for use in airtight spaces that have to avoid outgassing.

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

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

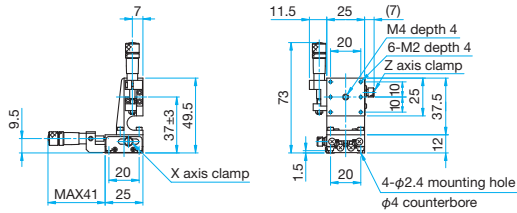
Specifications

| Part Number | METRIC | TSDS-254CL | TSDS-254SL | TSDS-404CL | TSDS-404SL | TSDS-604CL | TSDS-604SL | TSDS-654CL-M6 | TSDS-654SL-M6 |
|-------------------------------------|-------------------|-------------------------------------|------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | INCH | — | — | TSDS-404CLUU | TSDS-404SLUU | — | — | TSDS-654CLUU | TSDS-654SLUU |
| Stage Size [mm] | | 25×25 | 25×25 | 40×40 | 40×40 | 60×60 | 60×60 | 65×65 | 65×65 |
| Axes of Travel | | XZ axis | | | | | | | |
| Micrometer Position | | Center | Side | Center | Side | Center | Side | Center | Side |
| Travel [mm] | | X axis ±3 Z axis ±3 | X axis ±3 Z axis ±3 | X axis ±6.5 Z axis ±6.5 | X axis ±6.5 Z axis ±6.5 | X axis ±6.5 Z axis ±6.5 | X axis ±6.5 Z axis ±6.5 | X axis ±6.5 Z axis ±6.5 | X 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. (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 |
| Max. Moment Capacity | Pitch [N·m] | 2.2 | 2.2 | 3.9 | 3.9 | 8.0 | 8.0 | 8.0 | 8.0 |
| | Roll [N·m] | 2.1 | 2.1 | 3.9 | 3.9 | 8.0 | 8.0 | 8.0 | 8.0 |
| Moment Stiffness | Pitch [°/N·cm] | 5.1 | 5.1 | 0.96 | 0.96 | 0.45 | 0.45 | 0.45 | 0.45 |
| Weight [kg] | | 0.17 | 0.17 | 0.5 | 0.5 | 1.3 | 1.3 | 1.45 | 1.45 |

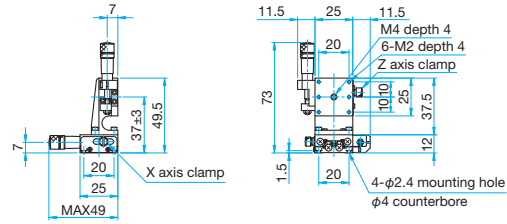


Outline Drawing

TSDS-254CL Hexagon socket head cap screw (stainless steel construction) M2x4...4 screws

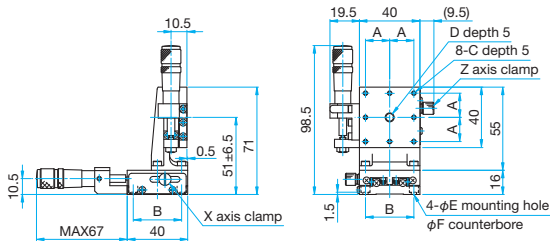


TSDS-254SL Hexagon socket head cap screw (stainless steel construction) M2x4...4 screws



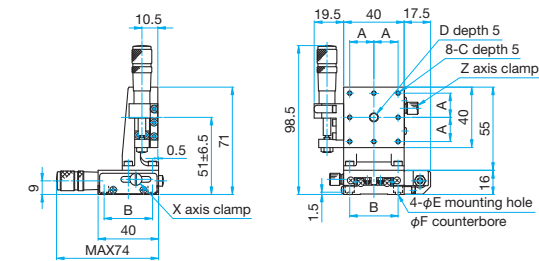
TSDS-404CL/404CLUU

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-404SL/404SLUU

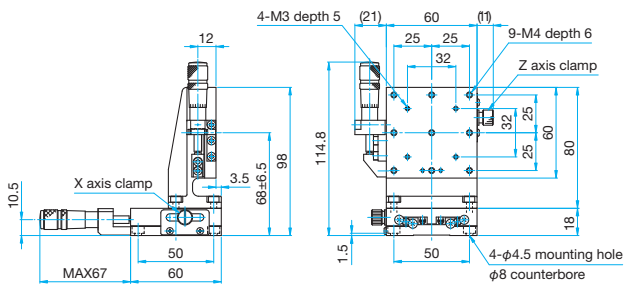
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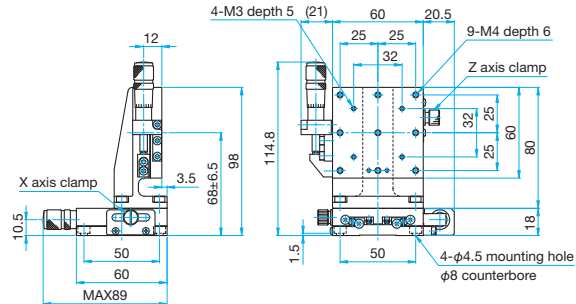
| Part Number | A (mm) | B (mm) | C | D | E (mm) | F (mm) |
|--------------|--------|--------|---------|-----------|--------|--------|
| TSDS-404CL | 16 | 32 | M3 | M6 P1 | 3.5 | 6 |
| TSDS-404CLUU | 15.875 | 31.75 | 6-32UNC | 1/4-20UNC | 4 | 6.5 |

| Part Number | A (mm) | B (mm) | C | D | E (mm) | F (mm) |
|--------------|--------|--------|---------|-----------|--------|--------|
| TSDS-404SL | 16 | 32 | M3 | M6 P1 | 3.5 | 6 |
| TSDS-404SLUU | 15.875 | 31.75 | 6-32UNC | 1/4-20UNC | 4 | 6.5 |

TSDS-604CL Hexagon socket head cap screw (stainless steel construction) M4x6...4 screws

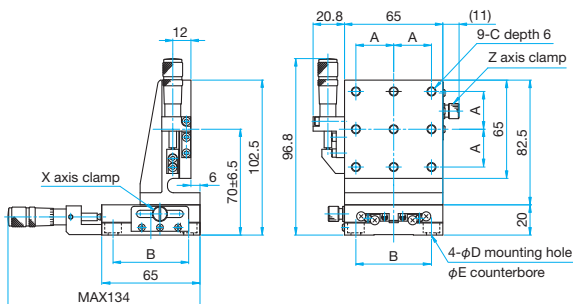


TSDS-604SL Hexagon socket head cap screw (stainless steel construction) M4x6...4 screws



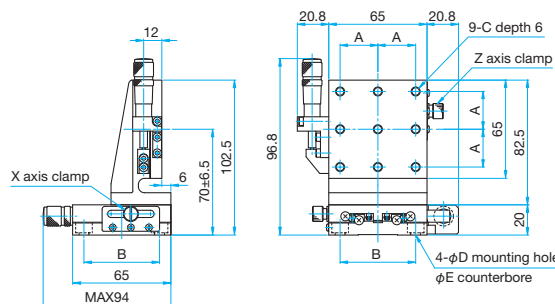
TSDS-654CL-M6/654CLUU

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-654SL-M6/654SLUU

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-654CL-M6 | 25 | 50 | M6 P1 | 6.5 | 11 |
| TSDS-654CLUU | 25.4 | 50.8 | 1/4-20UNC | 7 | 12 |

| Part Number | A (mm) | B (mm) | C | D (mm) | E (mm) |
|---------------|--------|--------|-----------|--------|--------|
| TSDS-654SL-M6 | 25 | 50 | M6 P1 | 6.5 | 11 |
| TSDS-654SLUU | 25.4 | 50.8 | 1/4-20UNC | 7 | 12 |

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