

Ultrathin Rotation Stage with Central Aperture

Stage Size 40 × 40 mm / 60 × 60 mm

KSPT

RoHS

Square footprint of rotation stages with a clear aperture at the center. total stage thickness 10mm. Can be installed in arbitrary orientations such as vertical or inverted due to superior stiffness inherent to the intergrated bearing way design.

- Ideal for use in systems that require angular adjustment of high loads or that are constrained for space.



Guide

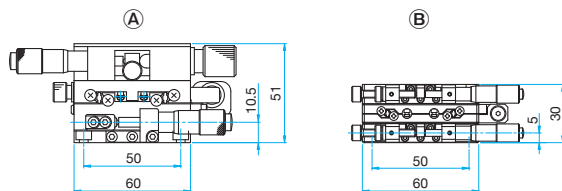
- ▶ Low-profile X axis steel stage (TSDT) with stage thickness of 10mm is also available. [Reference](#) E016 [Catalog Code](#) W7003
- ▶ Opposed clamp locking mechanism standard.
- ▶ The part number suffix FP indicates products with fine-pitch screws instead of standard micrometers. Fine Pitch screws have a screw pitch of 0.25mm and require a hex wrench or the optional hex wrench with knob (KCL) for adjustment. [Reference](#) F010 [Catalog Code](#) W8008



Attention

- ▶ When installing on a vertical surface, please make sure to place the micrometer head pointing down so that gravity pulls in the same direction as the springs. If the springs oppose gravity, they may not be able to withstand the load and not be able to hold the stage against the micrometer.

Comparison of Thickness when the KSPT is Used (KSP and TSD → KSPT and TSDT)



| Part Number | (A) | (B) |
|-------------|----------|------------|
| θ axis | KSP-606M | KSPT-606MH |
| Y axis | | TSDT-601S |
| X axis | TSD-602S | TSDT-601S |



TSDT-601S + KSPT-606MH combination

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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

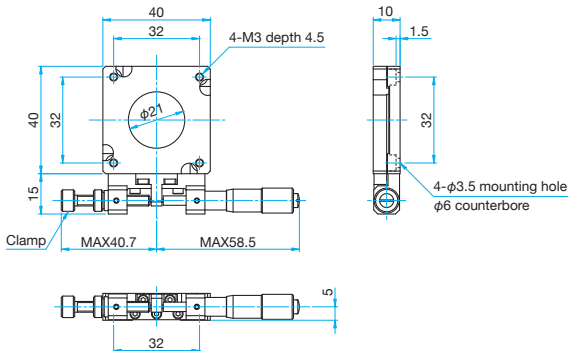
Specifications

| Part Number | KSPT-406MH | KSPT-406MHFP | KSPT-606MH | KSPT-606MHFP |
|----------------------------|-------------------------------------|---------------|---------------|---------------|
| Opposite Model/Part Number | KSPT-406MRH | KSPT-406MRHFP | KSPT-606MRH | KSPT-606MRHFP |
| Stage Size [mm] | 40×40 | 40×40 | 60×60 | 60×60 |
| Rotation Range [°] | ±10 | ±10 | ±10 | ±10 |
| Guide Method | Extended contact ball bearing guide | | | |
| Primary Material | Steel | | | |
| Finish | Black matte | | | |
| Load Capacity [N] | 78.4 (8.0kgf) | 78.4 (8.0kgf) | 147 (15.0kgf) | 147 (15.0kgf) |
| Max. Moment Capacity | Pitch [N·m] | 3.9 | 3.9 | 6.4 |
| | Roll [N·m] | 3.9 | 3.9 | 6.4 |
| Moment Stiffness | Pitch [°/N·cm] | 0.3 | 0.3 | 0.15 |
| | Roll [°/N·cm] | 0.6 | 0.6 | 0.3 |
| Parallelism [μm] | 30 | 30 | 30 | 30 |
| Eccentricity [μm] | 10 | 10 | 10 | 10 |
| Wobble [μm] | 10 | 10 | 10 | 10 |
| Weight [kg] | 0.11 | 0.11 | 0.18 | 0.18 |

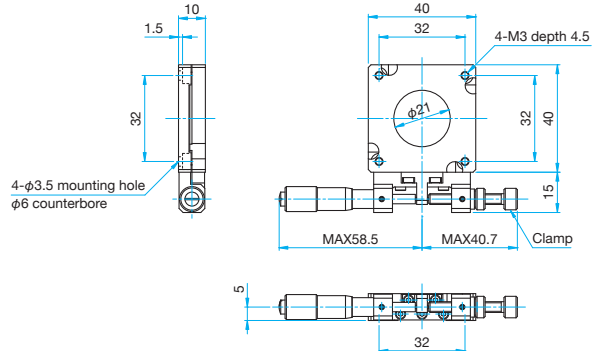


Outline Drawing

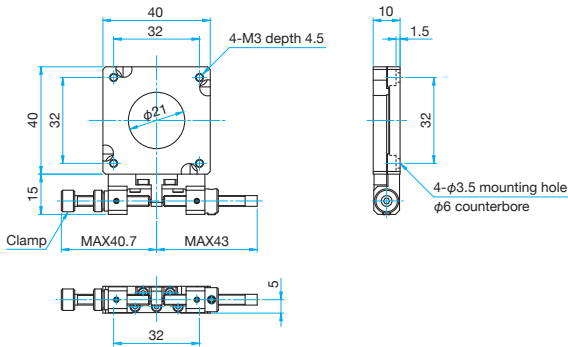
KSPT-406MH Low head hexagon socket head cap screw
M3×5...4 screws



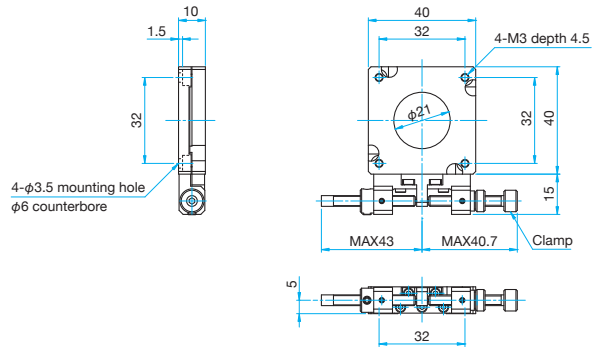
KSPT-406MRH Low head hexagon socket head cap screw
M3×5...4 screws



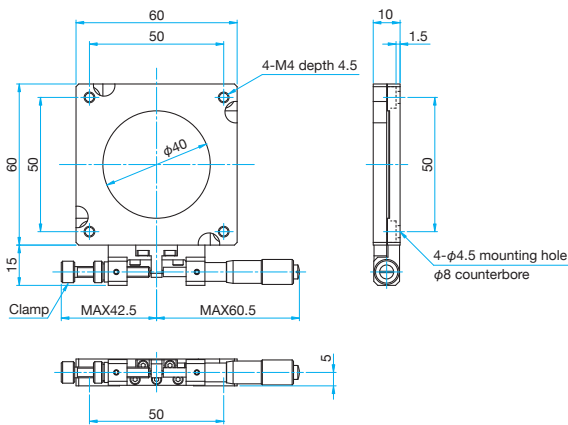
KSPT-406MHFP Low head hexagon socket head cap screw
M3×5...4 screws 3mm



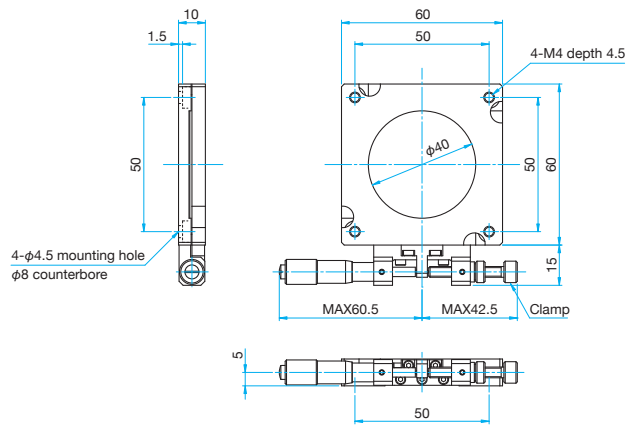
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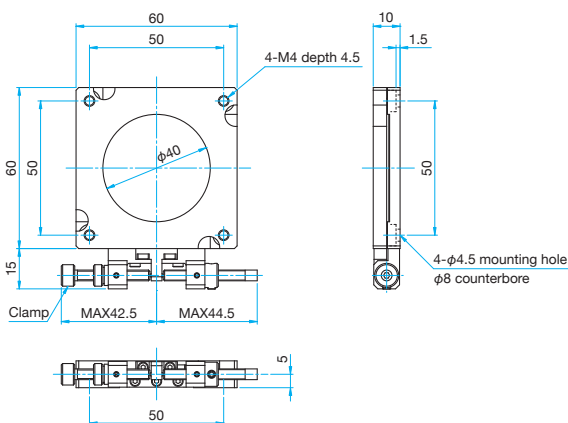
KSPT-606MH Low head hexagon socket head cap screw
M4×6...4 screws



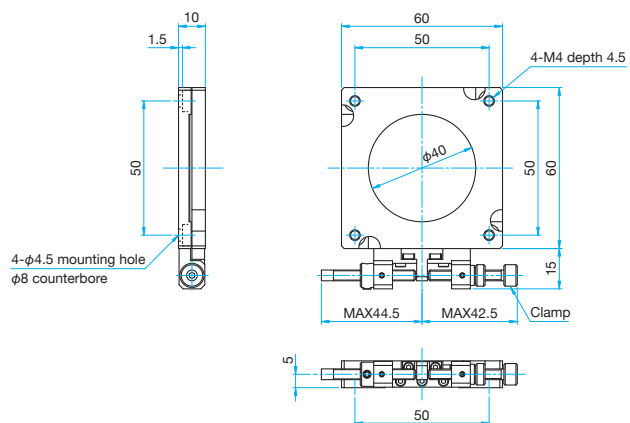
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