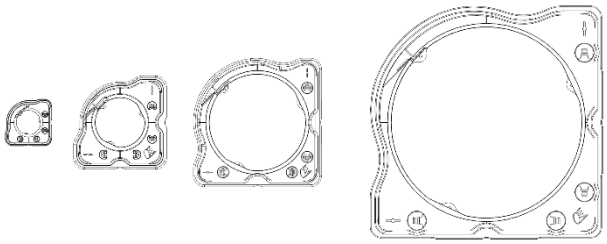
NEW

High-Stability Mirror Mount MHX RoHS

Higher moment of inertia to maximize stiffness and faster to reach thermal equilibrium characteristics are achieved by a hollow-frame design. Ideal for interference measurement or precision measurement.

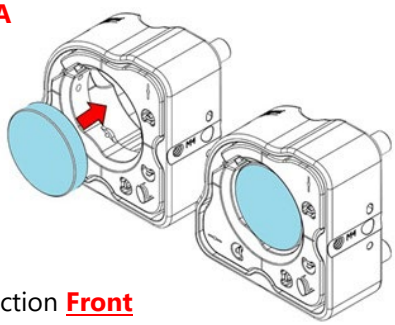
Compatible optics diameter			
0.5 in	1 in	2 in	4 in
ϕ12.7mm	ϕ25.4mm	ϕ50.8mm	ϕ101.6mm



- Adhesive holes for mirror adhesion and pin holes for anti-rotation and positioning are equipped.
- High-density stainless steel is used for the material, but the weight has been reduced by reducing the thickness.
- The frame design provides a higher moment of inertia to maximize stiffness and reduced-mass sections allowing it to reach thermal equilibrium faster for maximum stability.

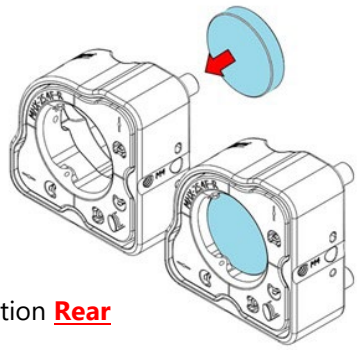
Mounting direction

MHX--*F / A**



Mounting direction **Front**

MHX--*F –R**

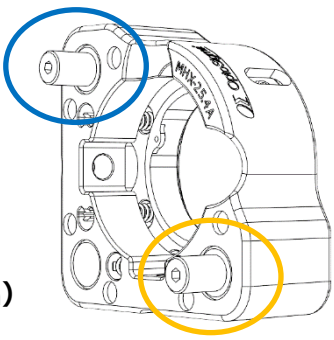


Mounting direction **Rear**

Number of adjustment axes

MHX-.*A**

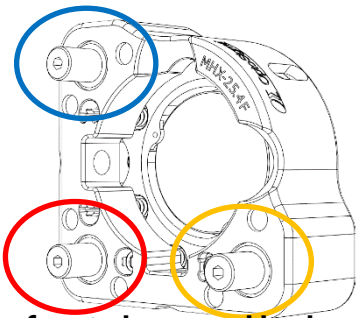
2 axes of adjustment



(Tilt・Rotation)

MHX-.*F / F-R**

3 adjustment axes



(Tilt・Rotation・allow the reflecting surface to be moved back and forth)

Guide

▶Please use a hexagonal wrench to adjust the tilt and rotation. Do not use bare hands to turn the tilt or rotation screws.
Hexagonal wrench with knob for MHX-12.7 (KCL-1513) is also available.
We also offer a screw-in knob (MHX-K-M6) specifically for MHX-25.4 /50.8/ 101.6instead of a hexagonal wrench.
▶ A special lock (MHK-L-M*) is also available to hold the adjusted angle.

Attention

▶MHX-12.7 is not compatible with tip threads rods.
▶MHX-25.4/50.8 cannot be attached to M6 rods (RO). Use M4 or 8-32 UNC rods (ROC, RO-UU) when using a rod.
▶To attach MHX-101.6 to rods, use M6 or 1/4-20UNC rods (RO-20, ROU-20).

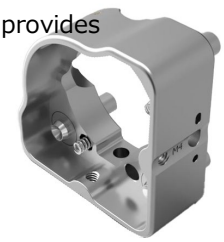
▶ Both MHXs can be secured to post stands (PST) or spacers with M4 or 8-32 UNC threads. (For MHX-12.7, use the supplied small head bolts.)
▶ When using a rod, it is not possible to change the beam transmission direction of the mirror holder. Use a post stand (PST) to change the direction.
▶ When used with a cross beam (optical system such as a Michelson interferometer), the effective diameter of the beam becomes smaller.

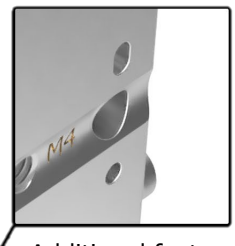
Part Number	Pedestal Bases (PST)	Posts (With tip thread)			
		M4	8-32 UNC	M6	1/4-20UNC
MHX-12.7	○ With small-head screw (attached)	×	×	×	×
MHX-25.4	○	○	○	×	×
MHX-50.8	○	○	○	×	×
MHX-101.6	○	×	×	○	○

MHX-25.4/50.8 Series

MHX Features at Glance

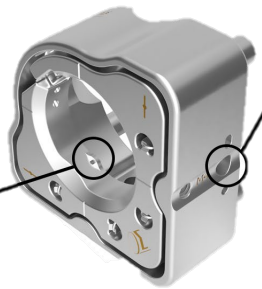
The hollow-frame design provides higher moment of inertia to maximize stiffness

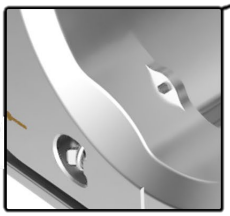




Additional features include "Keying Pin Slots"

Number of adjustable axes
Selectable from 2 or 3 axes



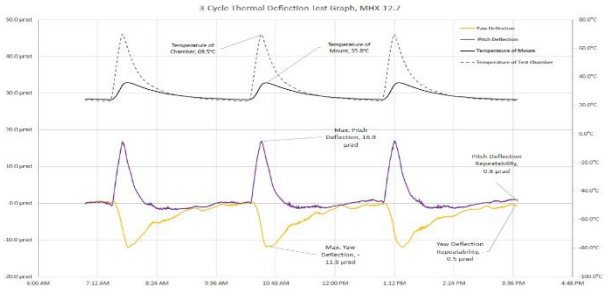


3 Adhesive Wells

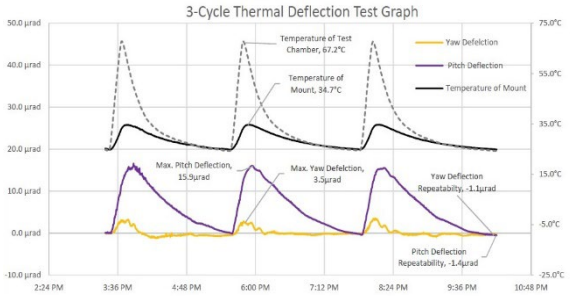
Mounting orientation of optics
Selectable from front or back side

3-cycle thermal deflection test graph

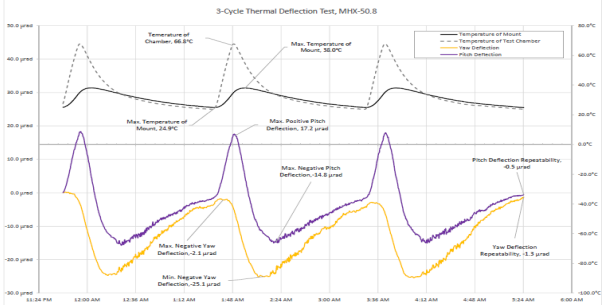
MHX-12.7



MHX-25.4



MHX-50.8

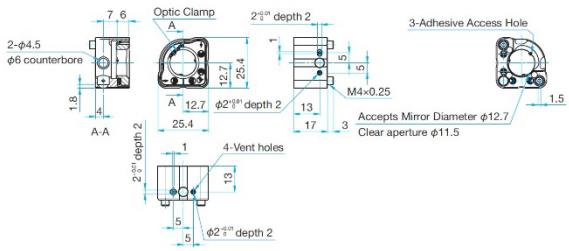


Specifications											Primary material: Stainless steel Finish: None
Part number	Price [JP Yen]	Compatible optics diameter ϕA [mm]	Compatible optics thickness [mm]	Effective diameter [mm]	Number of adjustment axes	Mounting direction	Adjustment range		Resolution		Weight [kg]
							Tilt [°]	Rotation [°]	Tilt [° /rotation]	Rotation [° /rotation]	
MHX-12.7A	10,000	ϕ12.7	2 - 6	ϕ11.5	2	Front	±3	±3	Approx. 0.8	Approx. 0.8	0.036
MHX-12.7F	10,500	ϕ12.7	2 - 6	ϕ11.5	3	Front	±3	±3	Approx. 0.8	Approx. 0.8	0.037
MHX-12.7F-R	11,000	ϕ12.7	2 - 6	ϕ11.5	3	Back	±3	±3	Approx. 0.8	Approx. 0.8	0.037
MHX-25.4A	11,900	ϕ25.4	3 - 7	ϕ23	2	Front	±3	±3	Approx. 0.41	Approx. 0.41	0.16
MHX-25.4F	11,900	ϕ25.4	3 - 7	ϕ23	3	Front	±3	±3	Approx. 0.41	Approx. 0.41	0.17
MHX-25.4F-R	11,900	ϕ25.4	3 - 7	ϕ23	3	Back	±3	±3	Approx. 0.41	Approx. 0.41	0.17
MHX-50.8A	18,900	ϕ50.8	5 - 13	ϕ48	2	Front	±3	±3	Approx. 0.26	Approx. 0.26	0.35
MHX-50.8F	20,900	ϕ50.8	5 - 13	ϕ48	3	Front	±3	±3	Approx. 0.26	Approx. 0.26	0.35
MHX-101.6A	94,000	ϕ101.6	10 – 20	ϕ96	2	Front	±2	±2	Approx. 0.13	Approx. 0.13	1.13
MHX-101.6F	97,000	ϕ101.6	10 - 20	ϕ96	3	Front	±2	±2	Approx. 0.13	Approx. 0.13	1.13

Outline Drawing (mm)

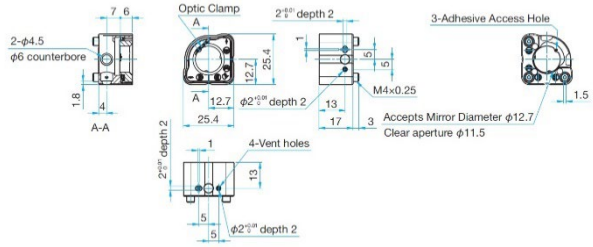
MHX-12.7A

Hexagonal socket head cap screw M4x6…1 screw
Hexagonal socket head cap screw 8-32UNCx1/4…1 screw



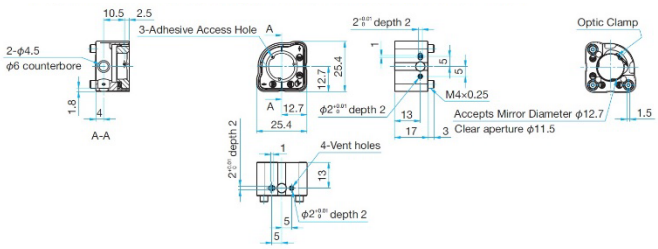
MHX-12.7F

Hexagonal socket head cap screw M4x6…1 screw
Hexagonal socket head cap screw 8-32UNCx1/4…1 screw



MHX-12.7F-R

Hexagonal socket head cap screw M4x6…1 screw
Hexagonal socket head cap screw 8-32UNCx1/4…1 screw

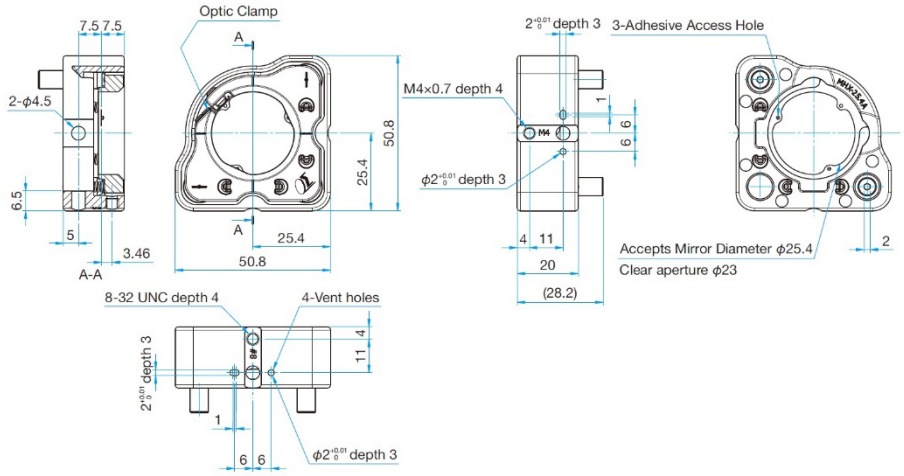


- The MHX-12.7 series does not have threaded holes in the body, so rods with tip threads cannot be attached.
- Using the accessory small head screw, Pedestal Bases (PST) and spacers can be secured with M4 or 8-32UNC screws.

Outline Drawing

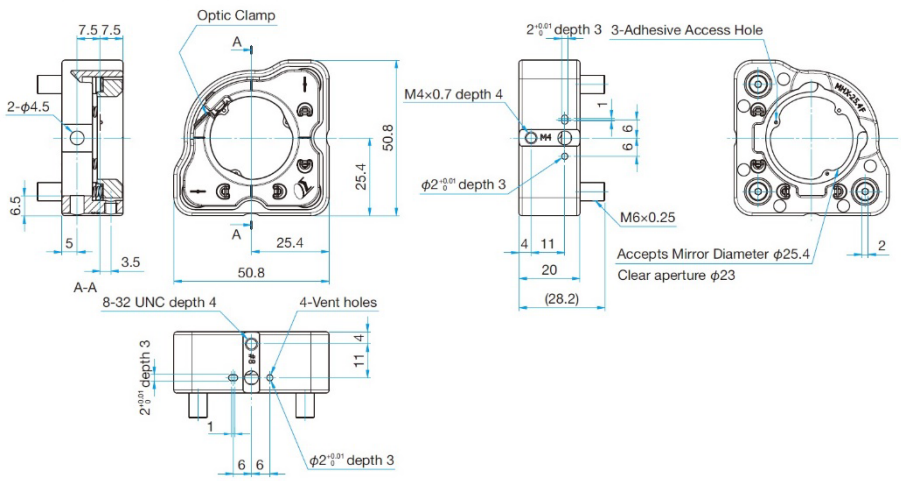
MHX-25.4A

SUS Hexagonal socket head cap screw M4×12…1screw
SUS Hexagonal socket head cap screw 8-32UNC×1/2…1screw



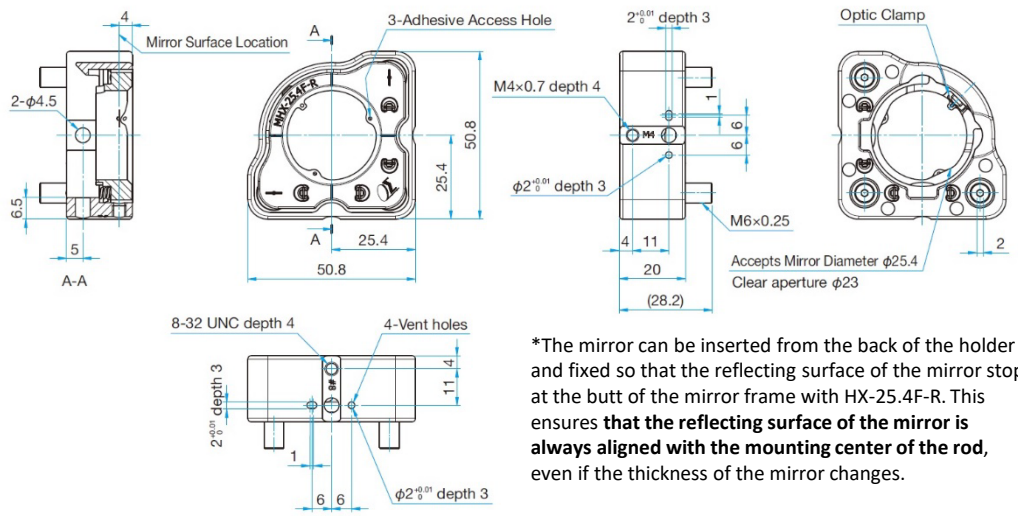
MHX-25.4F

SUS Hexagonal socket head cap screw M4×12…1screw
SUS Hexagonal socket head cap screw 8-32UNC×1/2…1screw



MHX-25.4F-R

SUS Hexagonal socket head cap screw M4×12…1screw
SUS Hexagonal socket head cap screw 8-32UNC×1/2…1screw



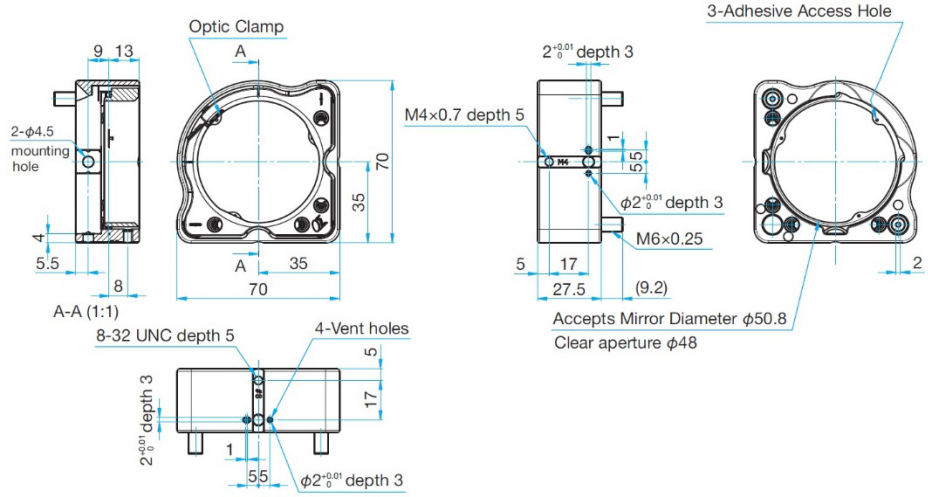
*The mirror can be inserted from the back of the holder and fixed so that the reflecting surface of the mirror stops at the butt of the mirror frame with HX-25.4F-R. This ensures **that the reflecting surface of the mirror is always aligned with the mounting center of the rod**, even if the thickness of the mirror changes.

- MHX-25.4 series cannot be attached to M6 rods (RO). Use M4 or 8-32 UNC rods (ROC, RO-UU) when using a rod.
- Both MHXs can be secured to post stands (PST) or spacers with M4 or 8-32 UNC threads.

Outline Drawing

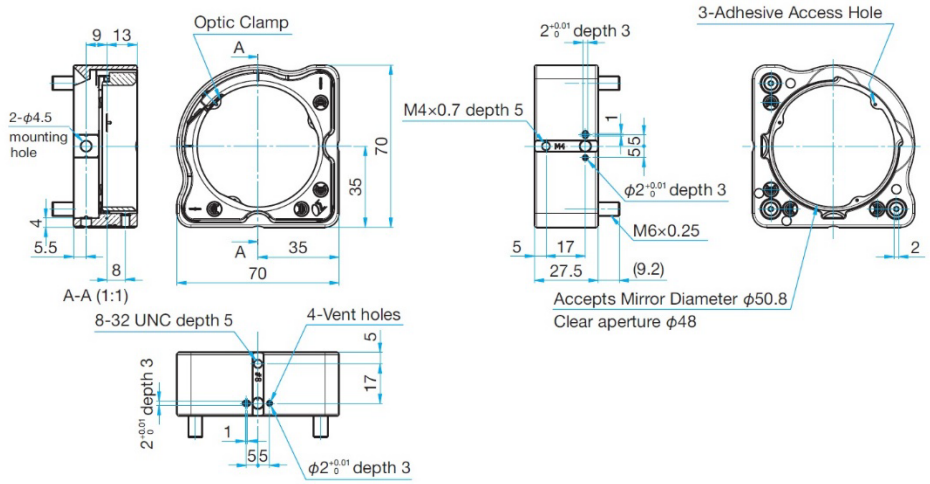
MHX-50.8A

SUS Hexagonal socket head cap screw M4×10…1screw
SUS Hexagonal socket head cap screw 8-32UNC×3/8…1screw



MHX-50.8F

SUS Hexagonal socket head cap screw M4×10…1screw
SUS Hexagonal socket head cap screw 8-32UNC×3/8…1screw

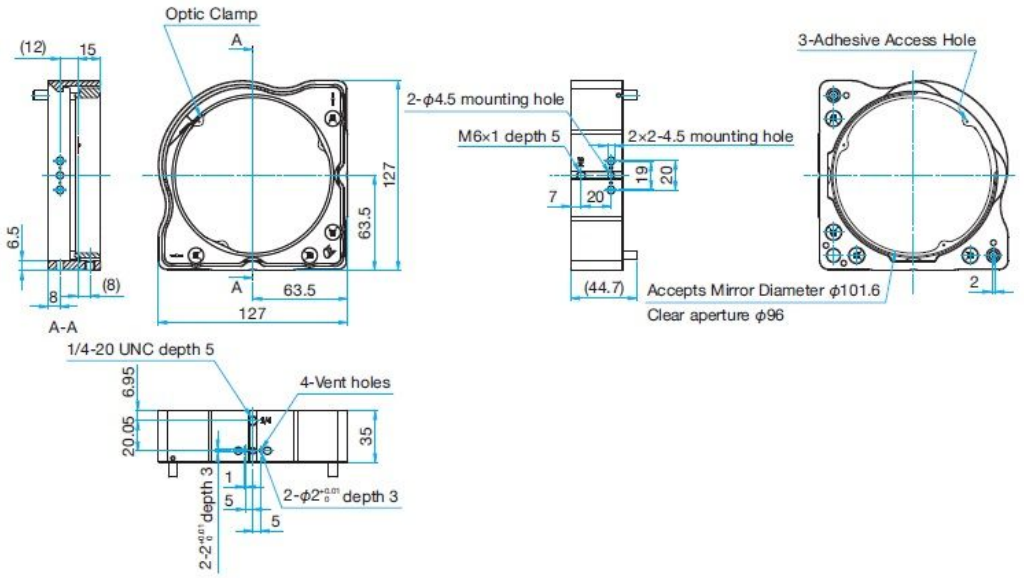


- MHX-50.8 series cannot be attached to M6 rods (RO). Use M4 or 8-32 UNC rods (ROC, RO-UU) when using a rod.
- Both MHXs can be secured to post stands (PST) or spacers with M4 or 8-32 UNC threads.

Outline Drawing (mm)

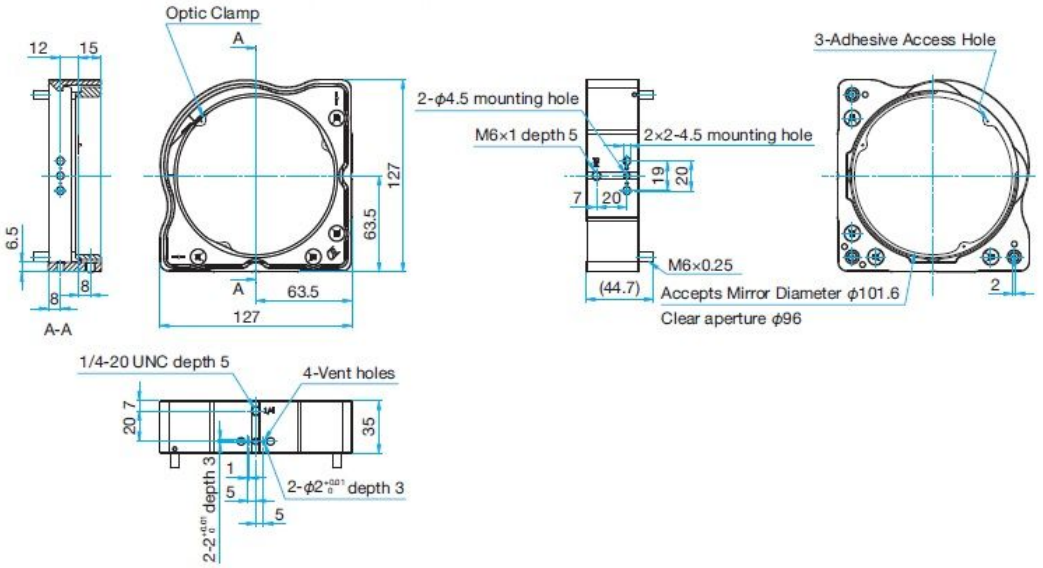
MHX-101.6A

SUS Hexagonal socket head cap screw M4×12…3 screw
SUS Hexagonal socket head cap screw 8-32UNC×1/2…3 screw



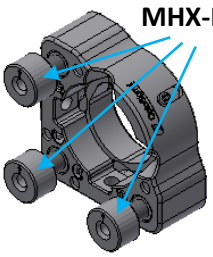
MHX-101.6F

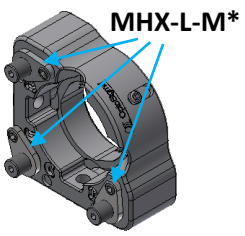
SUS Hexagonal socket head cap screw M4×12…3 screw
SUS Hexagonal socket head cap screw 8-32UNC×1/2…3 screw

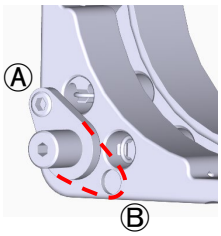


- To attach MHX-101.6 to rods, use M6 or 1/4-20UNC rods (RO-20, ROU-20).
- Both MHXs can be secured to post stands (PST) or spacers with M4 or 8-32 UNC threads.

Option



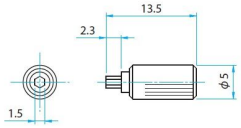




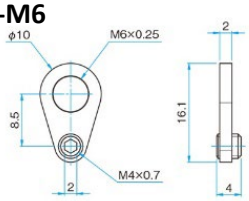
* When installing the lock (MHX-L-M6) on the fulcrum shaft of the MHX-50.8F, fix the lock so that the tip of the set screw of the lock enters the upward clevis against the mounting surface(A). If the lock is fixed at the position (B), the MHX-L-M6 may interfere with the mounting surface.

Outline Drawing (mm)

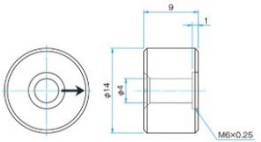
KCL-1513



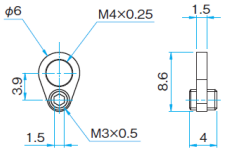
MHX-L-M6



MHX-K-M6



MHX-L-M4



Specifications — Primary material : Stainless steel, Finish : None

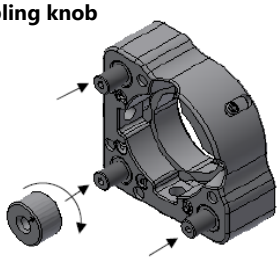
Part number	Price [JP Yen]	Product name	Compatible holder	Qty [pcs]	Weight [kg]
KCL-1513	500	Knob	MHX-12.7	1	0.002
MHX-K-M6	1,500	Knob	MHX-25.4 MHX-50.8 MHX-101.6	3	0.03
MHX-L-M6	2,800	Lock			0.006
MHX-L-M4	2,800	Lock	MHX-12.7	3	0.003

Attention

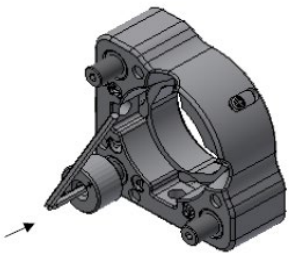
▶When installing the locks, make sure the screws are free of dust and dirt, and install them carefully so that they do not bite. (Apply a small amount of grease to the screws for smooth installation.)
▶For delivery with knobs and locks installed, please contact Sales.

How to assemble the knob and the lock

Assembling knob

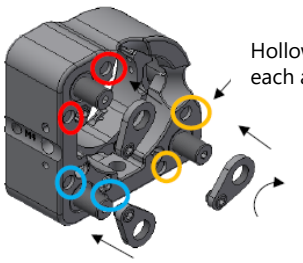


① Turn the knob to each fine adjustment screw.

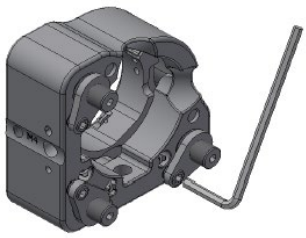


② Insert a hexagon wrench into the fine adjustment screw and turn the knob while fixing the hexagon wrench to fix it.

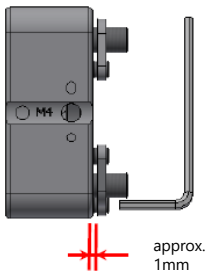
Assembling lock



① Turn the lock to each fine adjustment screw.



＊Appropriate mounting depth for the lock.



② Turn the holo set into one of the two hollows.
③ The fine adjustment screw is locked by turning the holo set.
＊Appropriate mounting depth for the lock.