

Application Systems

Optics & Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators & Adjusters

Motorized Stages

Light Sources & Laser Safety

Index

Guide

Mirrors

Lenses

Prisms

Polarizers

Lasers

Beam Shaping Diffusers

Filters

Shutter

Others

Fiber

Gimbal mirror holders designed for mirrors $\phi 100\text{mm}$ to $\phi 300\text{mm}$.

These mirror holders can minimize optical path length difference, a problem in large mirrors, caused by mirror tilt adjustment.

- It is structured to fix the mirror with the three resin tip screws from the back, and it is designed to fix the mirror of various thickness.
- Differential micrometer heads with large knobs are used for fine angular adjustment.



Guide

- Custom style MHD mounts can be made to order. Contact our Sales Division for more information.

Attention

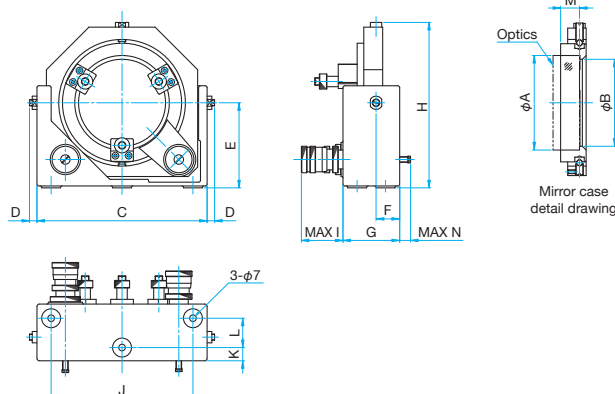
- Remove the retaining screw brackets to insert a mirror. Then screw the brackets back on.
- Pressing an optics hard with the resin tip screw of the mirror retainer may distort the mirror and worsen the surface accuracy.



Outline Drawing

MHD

- MHD-100: Hexagon socket head cap screw M6x10...3 screws
- MHD-150/200: Hexagon socket head cap screw M6x12...3 screws
- MHD-254: Hexagon socket head cap screw M6x14...3 screws
- MHD-300: Hexagon socket head cap screw M6x18...3 screws
- MHD-101.6/152.4/203.2: Hexagon socket head cap screw 1/4-20UNCx1/2...3 screws
- MHD-254-UU: Hexagon socket head cap screw 1/4-20UNCx1/2...3 screws
- Common Accessories
- Washer for M6...3 Pieces
- Special tool, long hexagon wrench...1 Piece



Part Number	ϕA (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	J (mm)	K (mm)	L (mm)	M (mm)	N (mm)
MHD-100	$\phi 100^{+0.7}_{-0.4}$	92	180	8	90	25	60	175	65	150	14	31	20	30
MHD-101.6	$\phi 101.6^{+0.7}_{-0.4}$	92	180	8	90	25	60	175	65	150	14	31	20	30
MHD-150	$\phi 150^{+0.7}_{-0.4}$	138	240	8	120	25	65	234	70	190	15	34	30	30
MHD-152.4	$\phi 152.4^{+0.7}_{-0.4}$	138	240	8	120	25	65	234	70	190	15	34	30	30
MHD-200	$\phi 200^{+0.8}_{-0.5}$	188	295	10	150	30	84	293	70	250	17	50	35	25
MHD-203.2	$\phi 203.2^{+0.8}_{-0.4}$	188	295	10	150	30	84	293	70	250	17	50	35	25
MHD-254	$\phi 254^{+0.8}_{-0.4}$	242	347	10	180	33	90	350	70	300	18	50	45	25
MHD-300	$\phi 300^{+1.1}_{-0.6}$	288	405	10	210	33	90	407	70	350	18	50	45	25

Specifications

Primary material: Aluminum
Finish: Black (main unit) Black Anodized (Holder)

Part Number	Options specified*	Compatible Optics Diameter [mm]	Compatible Optics Thickness [mm]	Adjustment Range Tilt [°]	Adjustment Range Rotation [°]	Coarse Adjustment Tilt [°/rotation]	Coarse Adjustment Rotation [°/rotation]	Fine Adjustment Tilt [°/DIV]	Fine Adjustment Rotation [°/DIV]	Weight [kg]
MHD-100	—	$\phi 100$	5 – 28	± 5.7	± 5.7	about 0.57	about 0.57	about 0.0008	about 0.0008	2.1
MHD-101.6	—	$\phi 101.6$	5 – 28	± 5.7	± 5.7	about 0.57	about 0.57	about 0.0008	about 0.0008	2.1
MHD-150	—	$\phi 150$	5 – 38	± 4.3	± 4.3	about 0.43	about 0.43	about 0.0006	about 0.0006	3.3
MHD-152.4	—	$\phi 152.4$	5 – 38	± 4.3	± 4.3	about 0.43	about 0.43	about 0.0006	about 0.0006	3.3
MHD-200	—	$\phi 200$	20 – 44	± 3.4	± 3.4	about 0.34	about 0.34	about 0.0005	about 0.0005	4.9
MHD-203.2	—	$\phi 203.2$	20 – 44	± 3.4	± 3.4	about 0.34	about 0.34	about 0.0005	about 0.0005	4.9
MHD-254	UU	$\phi 254$	40 – 54	± 2.8	± 2.8	about 0.28	about 0.28	about 0.0004	about 0.0004	6.2
MHD-300	—	$\phi 300$	40 – 54	± 2.3	± 2.3	about 0.23	about 0.23	about 0.0003	about 0.0003	11.0

* For specifying options, please refer to "Conversion of Posts, Post Holders and Pedestal Bases of Holders". [Reference](#) W4507

Option Plates for MHD Large Precision Gimbal Mirror Holders | MHD-P

RoHS

Catalog Code

W4507

Base plates for mounting large precision gimbal mirror holders (MHD) on optical breadboards or optical baseplates.

- Available in both inch and metric hole patterns.

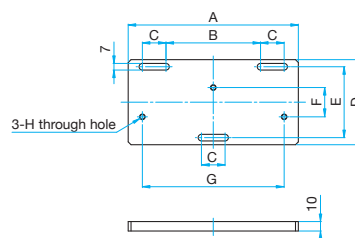


Specifications		Primary material: Aluminum Finish: Black Anodized
Part Number		Compatible Holders
METRIC	INCH	
MHD-100PEE	MHD-100PUU	MHD-100, MHD-101.6
MHD-150PEE	MHD-150PUU	MHD-150, MHD-152.4
MHD-200PEE	MHD-200PUU	MHD-200, MHD-203.2
MHD-254PEE	MHD-254PUU	MHD-254

Outline Drawing

MHD-100P/150P/200P/254P

- Hexagon socket head cap screw M6x18...3 screws (EE)
- Hexagon socket head cap screw 1/4-20UNCx3/4...3 screws (UU)



Part Number	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H
MHD-100PEE	180	100	25	90	75	31	150	M6 P1
MHD-150PEE	240	150	25	120	100	34	190	M6 P1
MHD-200PEE	295	200	25	120	100	50	250	M6 P1
MHD-254PEE	348	250	25	140	125	50	300	M6 P1
MHD-100PUU	180	101.6	25.4	90	76.2	31	150	1/4-20UNC
MHD-150PUU	240	152.4	25.4	90	76.2	34	190	1/4-20UNC
MHD-200PUU	295	203.2	25.4	120	101.6	50	250	1/4-20UNC
MHD-254PUU	348	254	25.4	140	127	50	300	1/4-20UNC

Application Systems

Optics & Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators & Adjusters

Motoeized Stages

Light Sources & Laser Safety

Index

Guide

Mirrors

Lenses

Prisms

Polarizers

Lasers

Beam Shaping Diffusers

Filters

Shutter

Others

Fiber