Gimbal Mirror Mounts >300mm

OS 300-600 series mounts were developed to support large mirrors such as off-axis paraboloids in applications where stability of pointing is important. Tests in our laboratory give pointing stability of <1 arc sec over 72 hours at ±0.5 degrees C.

Four sizes are manufactured giving optical apertures from 305mm (12 inches) to 550 mm (21.6 inches), Micrometer movements give controlled tilt in two orthogonal directions of ±2 degrees for the larger sizes. For the OS300 mount, tilt is ±3 degrees, but a special edition of this and the OS400 is made for applications requiring ±7 degrees.

The mount base includes adjustable feet with 2.5mm pitch threads giving ±10mm height adjustment. These feet have oversized central holes for 6mm tie down bolts to a metric optical table. Special base plates can be provided for rotary movement or further height adjustment.

The mounts are finished in tough black, and a mirror cover is provided.

Options:
• Differential micrometers giving higher resolution.
• PC controlled motors giving control at a distance.
• Alignment mirrors to define pointing direction of off-axis paraboloids
• Vacuum compatibility

To ensure stress free mounting, we recommend that customers purchase mirrors and mounts together from us. We will then take responsibility for fitting the mirror and supplying test results in after coating and mounting.

For mirrors of 100mm to 255mm please see separate data sheet. For applications requiring 360 rotation or special requirement not listed, please contact us.
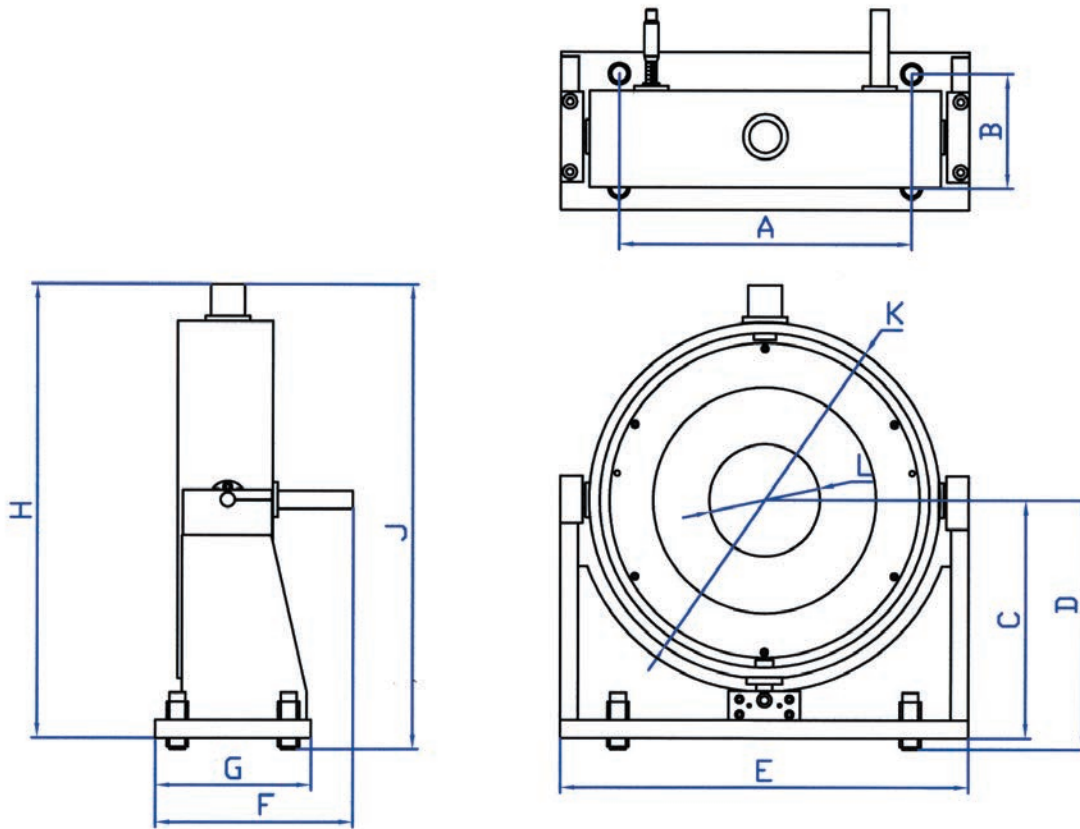
Dimensions

Product Code:	A	B	C	D	E	F	G	H	J	K	L
OS-300	325 (13")	125 (5")	263	275 ±10	458	252	175	501	513 ±10	395	124
OS-400	400	150	300	312 +10	535	285	200	585	597 ±10	470	200
OS-500	550	250	400	412 ±10	682	352	306	724	736 ±10	618	250
OS-550	550	250	400	412 ±10	682	352	306	730	742 ±10	618	250

Selection Table

Product Code:	Max Mirror	C A (mm)	Max Edge	Resolution (")	Angular Range (°)	Weight (kg)
OS-300	320	316	53	Az = 4" Elev = 2.3"	Az = ±3° Elev = ±3°	26
OS-400	408	390	75	Az = 3.2" Elev = 0.2"	Az = ±3° Elev = ±2.5°	32
OS-500	510	450	92	Az = 2.5" Elev = 1.5"	Az = ±3° Elev = ±2°	61
OS-550	550	500	102	Az = 2.5" Elev = 1.5"	Az = ±3° Elev = ±2°	61