

MAUKA hexapod

High precision in a small diameter



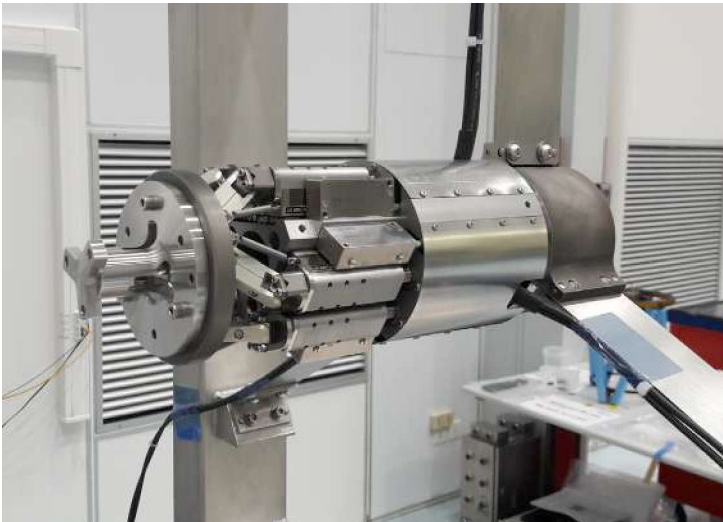
KEY FEATURES

- Small diameter of 107 mm
- Payload capacity up to 5 kg
- Angular travel range $\pm 8^\circ$
- Absolute encoders



APPLICATIONS

- Optics
- Synchrotrons
- Space
- Astronomy



MAUKA hexapod with the interface to the glue box that will fix a mirror on a space telescope.

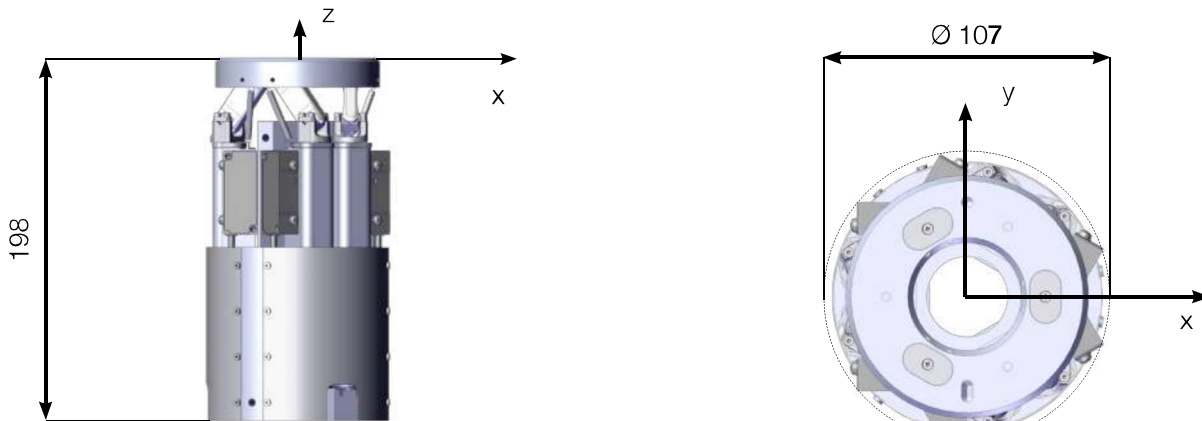


MAUKA hexapod has a very small diameter of 107 mm.

MAUKA	
Motion and positioning	
Travel range Tx, Ty (mm)	± 5
Travel range Tz (mm)	± 10
Travel range Rx, Ry (deg)	± 8
Travel range Rz (deg)	± 8
Resolution Tx, Ty, Tz (µm)	0.5
Resolution Rx, Ry, Rz (µrad)	5
Repeatability Tx, Ty, Tz (µm)	± 1
Repeatability Rx, Ry, Rz (µrad)	± 10
Speed Tx, Ty (mm/s)	1.6
Speed Tz (mm/s)	1
Speed (deg/s)	2
Mechanical properties	
Stiffness X, Y (N/µm)	0.7
Stiffness Z (N/µm)	4
Payload capacity (kg) (vertical orientation / horizontal orientation)	5 / 2.5
Motor type	DC motor, gearhead
Encoder type	Absolute linear encoder
Miscellaneous	
Operating temperature range (°C)	0 to + 50
Materials	Aluminum, steel, stainless steel
Mobile platform size (mm)	Ø 90
Fixed platform size (mm)	Ø 100
Central aperture (mm)	Ø 38 for mobile platform ; Ø 30 for fixed platform
Height in middle position (mm)	198
Footprint (mm)	Ø 107
Mass (kg)	3
Cable length (m)	3
Options	Clean room compatibility Vacuum compatibility Customized platform design Hand-held control unit Outdoor use Scalable size
Controller	
Controller type	ALPHA+
Interface	Ethernet
Power supply	110-240 VAC / 50-60 Hz

Datasheet subject to change without notice. All data are superseded by any new release. R220524

The performances are specified for single axis motions, with all other axes at midrange and for a rotation center in the middle of the mobile platform.



Hexapod in middle position