

BREVA hexapod

High resolution hexapod medium size



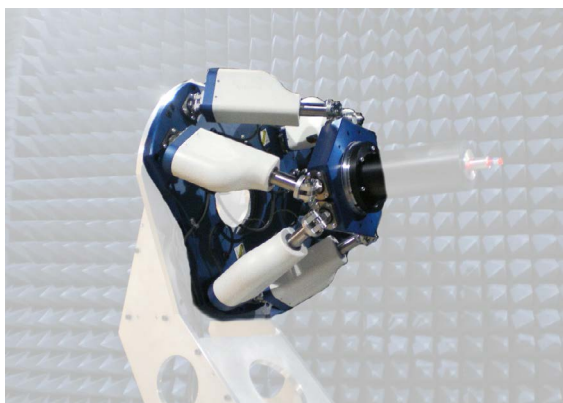
KEY FEATURES

- Payload capacity up to 200 kg
- Linear travel range ± 75 mm
- Angular travel range $\pm 22^\circ$



APPLICATIONS

- Instrumentation
- Optics
- Testing laboratories
- Aeronautics and space
- Metrology
- Synchrotrons



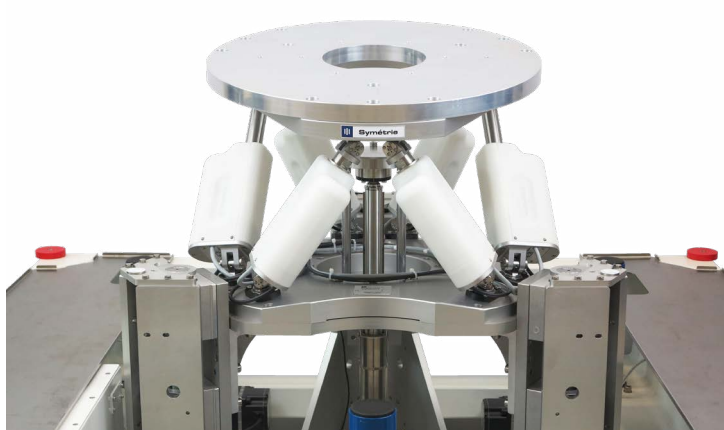
This hexapod integrates a 360° rotation in its mobile platform. It orientates a microwave source to qualify microwave antennas.



Diffractometer with BREVA hexapod on CEA BM32 beamline at ESRF synchrotron for the development and analysis of nanomaterials.



This hexapod positions a vacuum chamber containing a gas sample and offers a $\pm 20^\circ$ angular range.



This BREVA hexapod is coupled to a Tz stage in order to achieve $\pm 6^\circ$ rotation at a pivot point 1400 mm away from the hexapod. It is used to calibrate a space optical instrument developed by Leonardo.

	BREVA
Motion and positioning	
Travel range Tx, Ty (mm)	± 75
Travel range Tz (mm)	± 50
Travel range Rx, Ry (deg)	± 20
Travel range Rz (deg)	± 22
Resolution Tx, Ty, Tz (µm)	0.5
Resolution Rx, Ry, Rz (µrad)	2.5
Repeatability Tx, Ty, Tz (µm)	± 0.5
Repeatability Rx, Ry, Rz (µrad)	± 2.5
Speed Tx, Ty (mm/s)	6
Speed Tz (mm/s)	4
Speed Rx, Ry (deg/s)	1.5
Speed Rz (deg/s)	2.25
Mechanical properties	
Stiffness X, Y (N/µm)	5
Stiffness Z (N/µm)	32
Payload capacity (kg) (vertical orientation / horizontal orientation)	200 / 80
Motor type	Stepper motor, gearhead
Encoder type	Absolute encoder
Miscellaneous	
Operating temperature range (°C)	0 to + 50
Material	Aluminum, steel, stainless steel, plastic
Size mobile platform (mm)	Ø 289
Central aperture (mm)	Ø120
Height in middle position (mm)	350
Mass (kg)	36
Cable length (m)	3
Options	Clean room compatibility Customized platform design Hand-held control unit Scalable size
Controller	
Controller type	ALPHA+
Interface	Ethernet
Power supply	110-240 VAC / 50-60 Hz

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.

