

BREVA hexapod

High resolution hexapod medium size



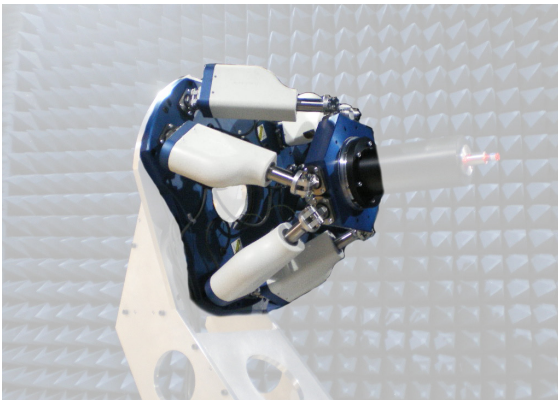
KEY FEATURES

- Payload capacity up to 200 kg
- Linear travel range ± 75 mm
- Angular travel range $\pm 22^\circ$
- Absolute encoders
- Resolution Tx, Ty: 0.5 μ m

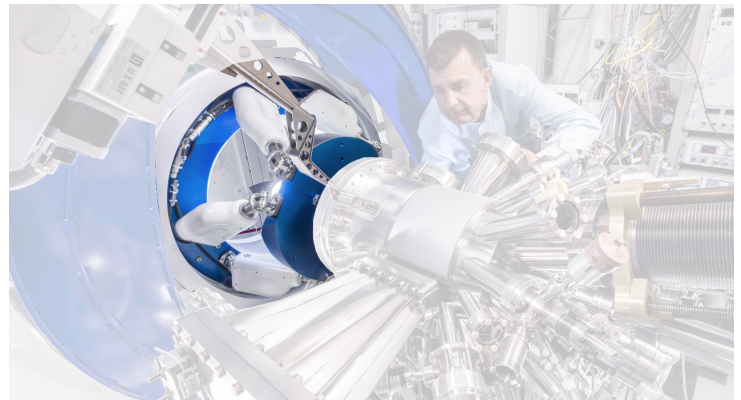


APPLICATIONS

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



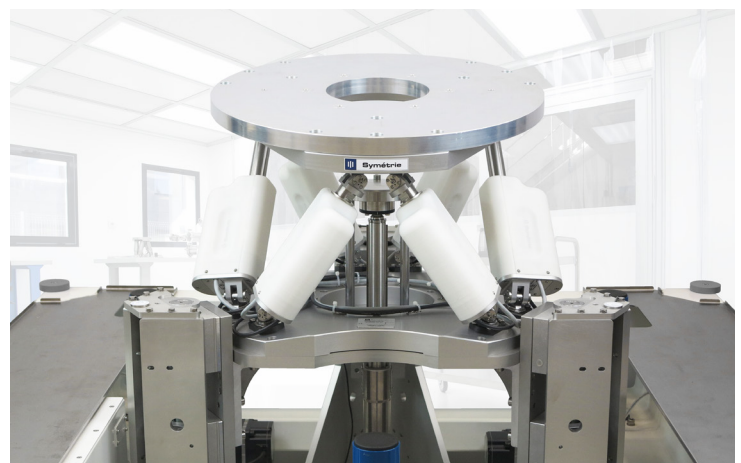
This hexapod integrates a 360° rotation in its mobile platform. It orientates a microwave source to qualify microwave antennas.



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 hexapod is coupled to a Tz elevation stage in order to achieve larger travel range for space optical calibration.



	BREVA	BREVA S
Motion and positioning		
Travel range Tx, Ty, (mm)	± 75	± 60
Travel range Tz (mm)	± 50	± 25
Travel range Rx, Ry (deg)	± 20	± 12.5
Travel range Rz (deg)	± 22	± 30
Resolution Tx, Ty, Tz (µm)	0.5	0,25
Resolution Rx, Ry, Rz (µrad)	2.5	1,5
Repeatability Tx, Ty, Tz (µm)	± 0.5	± 0.5
Repeatability Rx, Ry, Rz (µrad)	± 2.5	± 2.5
Speed Tx, Ty (mm/s)	6	6
Speed Tz (mm/s)	4	4
Speed Rx, Ry (deg/s)	1.5	1.5
Speed Rz (deg/s)	2.25	2.25
Mechanical properties		
Payload capacity (kg) (vertical orientation / horizontal orientation)	200 / 80	200 / 80
Motor type	Stepper motor, gearhead	Stepper motor, gearhead
Encoder type	Absolute encoder	Absolute encoder
Miscellaneous		
Operating temperature range (°C)	0 to + 50	0 to + 50
Material	Aluminum, steel, stainless steel, plastic	Aluminum, steel, stainless steel, plastic
Size mobile platform (mm)	Ø 289	Ø310
Overall diameter (without mouvement)	Ø 606	Ø 380
Overall diameter (with mouvement)	Ø 655	Ø 442
Central aperture (mm)	Ø 120 for mobile platform Ø 250 for fixed platform	Ø 130 for mobile platform Ø 136 for fixed platform
Height in middle position (mm)	350	330
Mass (kg)	32	20.6
Cable length (m)	3	3
Options	Clean room compatibility Hand-held control unit	Clean room compatibility Hand-held control unit
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.

