

BREVA hexapod

High resolution hexapod medium size



BREVA S
Compact version

BREVA
High amplitude version

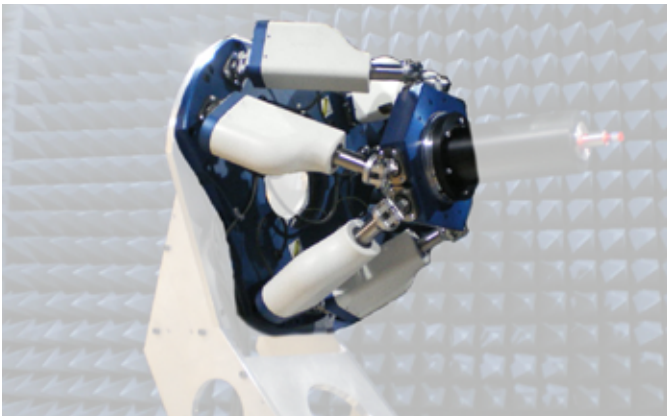
KEY FEATURES

- Travel range: ± 75 mm & $\pm 22^\circ$
- Resolution: $0.25 \mu\text{m}$
- Speed: ± 6 mm/s
- Payload capacity: 200 kg
- Diameter: $\varnothing 606$ mm
- Height in middle position: 350 mm
- Absolute encoders



APPLICATIONS

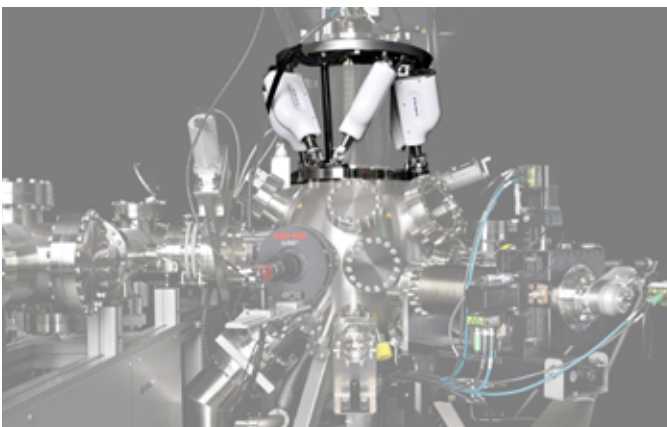
- Instrumentation
- Optics
- Testing laboratories
- Aeronautics and space
- Metrology
- Synchrotrons



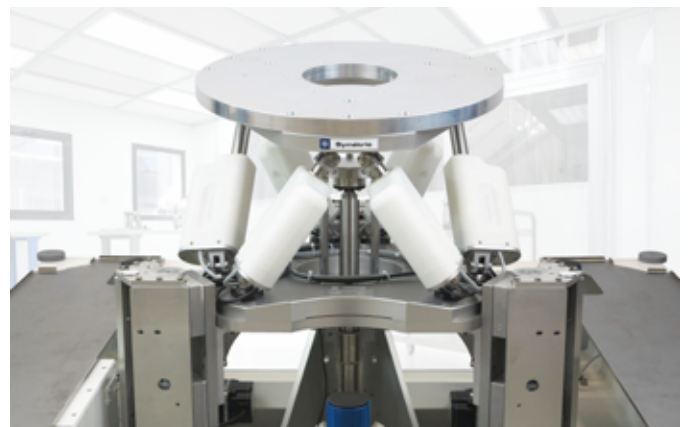
This hexapod integrates a 360° rotation in its mobile platform. It orientates a microwave source to qualify microwave antennas.



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



This hexapod doubles its load capacity thanks to the integration of gas struts. It features geometric modifications and specific adjustments that allow it to operate upside down



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



	BREVA S	BREVA
Motion and positioning		
Travel range Tx, Ty, (mm)	± 60	± 75
Travel range Tz (mm)	± 30	± 50
Travel range Rx, Ry (deg)	± 15	± 20
Travel range Rz (deg)	± 15	± 22
Resolution Tx, Ty, Tz (µm)	0.25	0.25
Resolution Rx, Ry, Rz (µrad)	1.5	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 310	Ø 289
Overall diameter (without movement)	Ø 380	Ø 606
Overall diameter (with movement)	Ø 442	Ø 655
Central aperture (mm)	Ø 130 for mobile platform Ø 136 for fixed platform	Ø 120 for mobile platform Ø 250 for fixed platform
Height in middle position (mm)	330	350
Mass (kg)	20.6	32
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.

