# **ZONDA** hexapod

**Very stable hexapod with high precision**

Symétrie

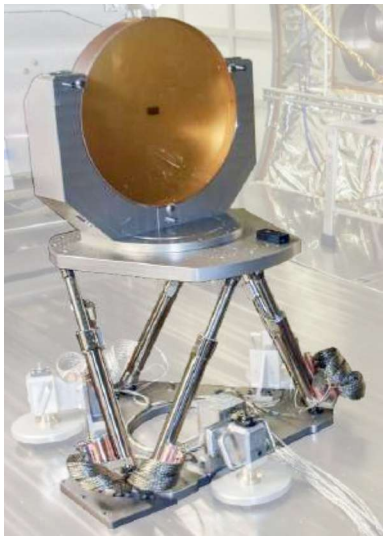

## KEY FEATURES

- Very high stability
- Payload capacity up to 400 kg
- Vacuum compatibility
- Large travel ranges
- Absolute linear encoders

## APPLICATIONS

- Synchrotrons
- Tests laboratories
- Metrology
- Aeronautics and space
- Optics
- Semiconductors
- Instrumentation

*ISO5 clean room compatible hexapod to test space optical instruments for MTG (Meteosat Third Generation) satellites at BERTIN Technologies.*



*ZONDA Hexapod in a vacuum chamber with a mirror for optical calibration at Thales Alenia Space.*

*This HV ZONDA hexapod is used for the thermal vacuum tests and calibration of some of the cameras of PLATO mission at IAS.*


*This ZONDA S hexapod aligns two parts of a space telescope in an ISO5 clean room.*

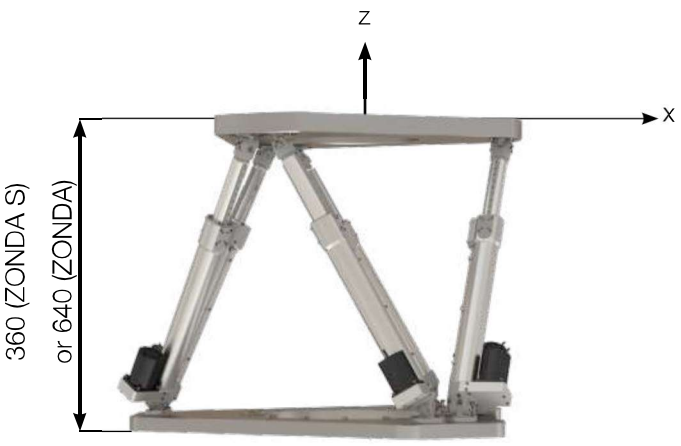
*This ZONDA S positions a coronograph in order to characterize it in a vacuum chamber at Liege Space Center (CSL).*

*This ZONDA hexapod positions a laser interferometer (Zygo) in order to characterize the X-ray mirrors at Synchrotron SOLEIL.*

| | ZONDA S | ZONDA |
|---|---|---|
| | for small travel range | for large travel range |
| **Motion and positioning** | | |
| Travel range Tx, Ty, (mm) | ± 50 | ± 200 |
| Travel range Tz (mm) | ± 25 | ± 150 |
| Travel range Rx, Ry (deg) | ± 10 | ± 20 |
| Travel range Rz (deg) | ± 20 | ± 20 |
| Resolution Tx, Ty, Tz (µm) | 0.1 | 0.1 |
| Resolution Rx, Ry, Rz (µrad) | 1.5 | 0.5 |
| Repeatability Tx, Ty, Tz (µm) | ± 0.25 | ± 0.25 |
| Repeatability Rx, Ry, Rz (µrad) | ± 2.5 | ± 1 |
| Speed Tx, Ty (mm/s) | 0.55 | 0.8 |
| Speed Tz (mm/s) | 0.4 | 0.4 |
| Speed Rx, Ry (deg/s) | 0.075 | 0.2 |
| Speed Rz (deg/s) | 0.12 | 0.4 |
| **Mechanical properties** | | |
| Stiffness X, Y (N/µm) | 5 | 8.5 |
| Stiffness Z (N/µm) | 50 | 30 |
| Payload capacity (kg)<br>(vertical orientation / horizontal orientation) | 400 / 140 | 400 / 140 |
| Motor type | Stepper | Stepper |
| Encoder type | Absolute linear encoder | Absolute linear encoder |
| **Miscellaneous** | | |
| Operating temperature range (°C) | 0 to + 75 | 0 to + 75 |
| Materials | Aluminum, stainless steel, Invar, Peek | Aluminum, stainless steel, Invar, Peek |
| Size mobile platform (mm) | Ø 320 | Ø 720 |
| Height in middle position (mm) | 360 | 640 |
| Mass (kg) | 37 | 99 |
| Cable length (m) | < 5 | < 5 |
| Options | Clean room compatibility<br>Vacuum compatibility<br>Customized platform design<br>Higher speed with brushless or DC motor<br>Hand-held control unit<br>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.*




Hexapod in middle position