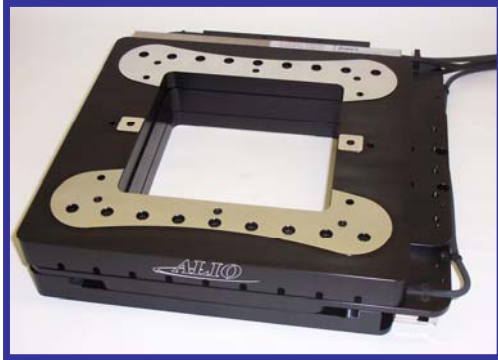


Nano-Precision Linear and Rotary Systems



Nano-Precision Motions Systems

In 2001 ALIO Industries was founded with the focus on building nano-precision motion systems without limits of design, manufacturing or legacy products. ALIO's initial systems were novel patented 6 DOF Hexapods which has evolved into over 200 standard serial and parallel kinematic products as well as many custom designs for our valued customers.



Nano-Precision Microscope Stages



- ✓ Ironless Core Linear Motors or Ceramic Servo Motors
- ✓ Non Contact Linear Optical Encoders
- ✓ Ultra High Precision Crossed Roller Bearings
- ✓ Near Air Bearing Flatness and Straightness!
- ✓ Engineered for Nano-Precision Motion Applications
- ✓ Custom OEM Stages
- ✓ Aluminum or Stainless Steel Structures Standard



AI-80R-D Precision Rotary

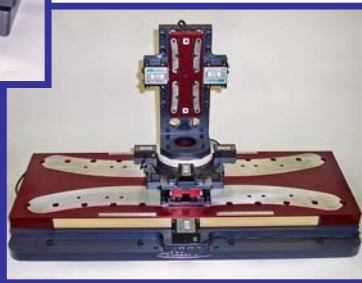


Nano-Precision Linear Motor Stages



AI-HR4-10000E Stack

Interferometer Calibration Available



AI-TRI-HR4



AI-HEX-HR2-HV High Vacuum (10⁻⁷ TORR)



NIST Traceable Laser Calibrated Performance

ALIO's passion has built a reputation for unmatched quality and performance with our nano-precision motion systems. ALIO's world leading performance is backed by our NIST referenced ML10 laser interferometer system from Renishaw. ALIO does not just use the word "nano" as others. ALIO has solely focused on providing nano systems for over 6 years.

Nano-Precision Planar Air Bearing System



XY Planar Air Bearing with Rotary



Open Center XY Planar Air Bearing

Planar Air Bearing Advantages:

- > Planar Air Bearing for Superior Flatness
- > High Force Linear Motors or Ceramic Servo Motor
- > Decoupled Thermal Influences
- > Travel Options up to 3 Meters
- > Sub Micron Accuracy
- > Sub Arc Second Pitch/Yaw/Roll
- > Willing to Customize for OEM Applications
- > Resolution: 5nm Standard
- > 38 picometer with Laser Interferometer
- > XY Planar Systems from 200 mm to 3 meters travel



Linear DC Servo Dovetail



Stacked Dovetail



Air Bearing Spindle



Linear + Rotary Assembly

ALIO Air Bearing Advantages:

- > Custom OEM Designs
- > Nano-Precision Specifications
- > Travel ranges from 50 mm to 3 meters

"ALIO is delivering nano while others are just talking about it."
- Planar Air Bearing Customer

Nano-Precision Vacuum Motion Systems

Standard Products for HV (10^{-7} TORR) or UHV (10^{-10} TORR)
Extremely low outgassing

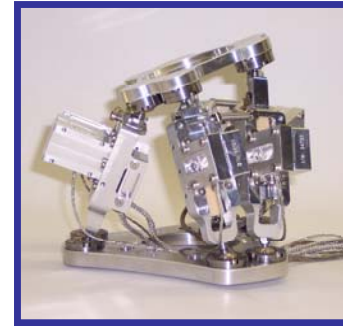


AI-HEX-HR2-HV



AI-HR4-15000E-150-XY-HV

Synchrotron Applications



AI-HEX-HR2-SS-HV



AI-HR2-5000E-HV



6-Axis HV System



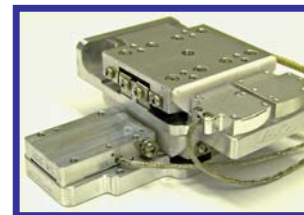
AI-40R-D-HV

Semiconductor Applications

E-Beam Applications

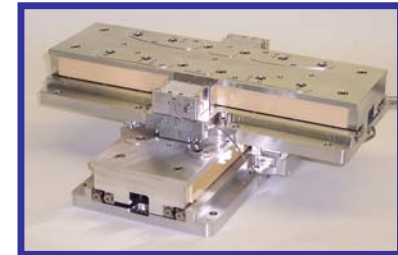


Vacuum Connectors



Miniature HV Goni Stack

World Renown
Vacuum Systems
Expertise



AI-D8-20000E-HV XY Stack