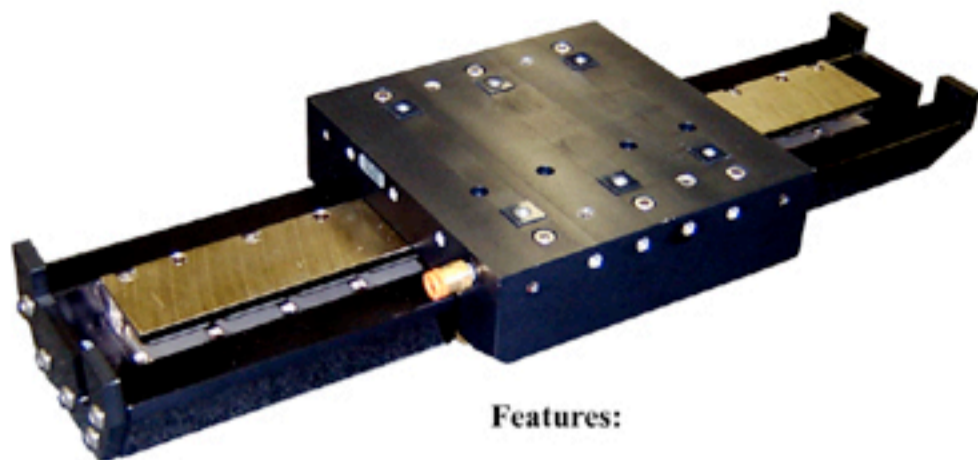


## MX Linear Air Bearing Stage



### Features:

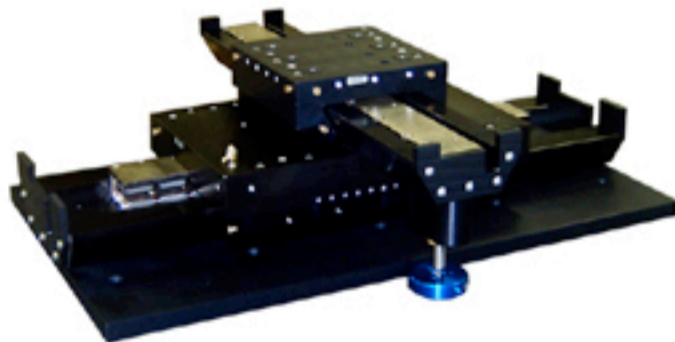
- Fully preloaded, frictionless precision air bearings
- Straightness 5 micron-inch/inch
- Stiffness greater than 600,000 lbs/inch
- Non-contact linear motor drive
- Non-contact optical encoder
- 5 micron to 10 nanometer resolution
- Repeatability +/- 1 encoder count
- Integrated XY and XYZ configurations available
- Up to 1000mm travel range

### Typical Applications:

- Advanced Imaging & Inspection
- Semiconductor Test and Inspection
- Flat Panel Test and Inspection
- High Accuracy Electronic Assembly
- High Accuracy Metrology
- Laser Machining

### Product Description:

The MX line of linear air bearing stages offer superior positioning performance in a compact package. High performance air bearings with integrated non-contact/non-cogging linear servo motors and optical encoders deliver frictionless motion with submicron resolution and repeatability. Designed to meet the needs of precision production systems, these stages are equally suited to laboratory and R&D environments where flexibility and ease of use are equally critical.



### Air Bearing Technology:

Air Bearings are the proven standard for superior smoothness of motion and positioning control in high precision applications and systems. The MX series employs fully pre-loaded air bearings with large bearing surfaces providing excellent mechanical stiffness and load capability as compared to traditional cross roller bearing stages. Manufactured to exacting standards, this design offers superior pitch, roll, yaw and straightness characteristics. The non-contact, inherently frictionless nature of air bearings and lack of particle generation also translates into increased reliability and a limitless lifetime.

### Precision Positioning:

Employing non-contact linear servo motors, MX series stages deliver positioning performance on the order of +/- 1 encoder count with excellent velocity control. Combined with encoder resolution options from 5 micron to 10 nanometer these stages are designed to meet the requirements of a wide range of precision applications.

### Design Flexibility:

MX series stages can be configured in any number configurations and lengths of travel. These range from integration of multiple XY and XYZ axes. Vertical operation includes the use of a fast acting pneumatic counter balance system to normalize the load. Motion X can also provide the MX series as a complete package with a Delta Tau based motion controller, analog linear amplifiers, laser interferometer feedback, custom base plate or granite, custom tooling plates, theta stage, vibration isolation and system enclosures. Optional drive systems utilizing leadscrews with DC servo motors and piezo motor drives are also available.