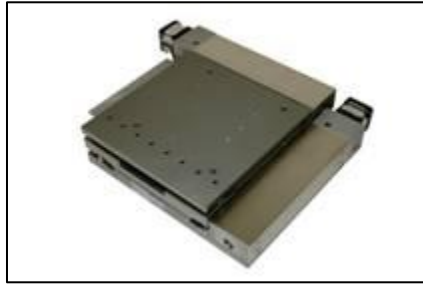


METROSTAGE



METROSTAGE XY compound table Series are high precision stages designed as an integral X/Y compound table for precise positioning. METROSTAGE is available with either solid top or in an open frame configuration.

DESCRIPTION

- Precision XY compound Table, with low-profile 3 tier construction
- Linear Servo or Roller Lead screw Drive System
- Integrated non-contacting position encoders
- Resolution down to 1 nanometer
- Integrally pre-loaded roller guide system
- Available with integrated servo control

METROSTAGE XY Compound Table Features & Benefits

This stage structure is a three-piece construction, which has been designed for minimum distortion and highest precision stage geometry. Stiffness and stability have been maximized to achieve the highest support and integrity. The backlash-free preloaded guide system achieves smooth, low-friction, precision motion for highly accurate positioning and trouble free long-term performance.

Applications

The METROSTAGE XY Compound Table Series has a very wide range of application, because of adaptable and configurations and execution, offering many different motion platforms with different characteristics. Many applications are found in the metrology and fabrication fields, where a precise, compact X/Y motion platform is desirable. Other typical applications are found in semiconductor assembly, testing, and fabrication areas, video inspection, micro-machining, laser machining, high-speed fabrication, laser and inspection work. Many customers utilize the stage with manual turn knobs, because of the insufficient precision performance of conventional microscope stages.

METROSTAGE Configurations

- Travels from 100mm x 100mm to 300 mm x 300mm
- Stage height as low as 60 mm

- Open Frame or Solid Top
- Clean Room Compatible
- Vacuum Compatible
- Non-Magnetic

METROSTAGE Guide Systems

- Cross Roller
- Quad-Vee Lock Needle
- Hybrid Guide Bearings

METROSTAGE Drive Systems

- Roller Lead screw
- Linear Motor iron core/ironless
- Ceramic Servo Motor

METROSTAGE Position Feedback Systems

- Rotary Encoders
- Linear Encoders
- Laser Scale Encoders

METROSTAGE Specifications

	MS100 -ST	MS150-ST	MS200-ST	MS300-ST	MS-OFT
Travel length (mm)	100 x 100	150 x 150	200 x 200	300 x 300	100 x 150
Trajectory controls					
Accuracy					
Standard Precision SP	± 7.5µm	± 10µm	± 15µm	± 20µm	± 15µm
High Precision HP	± 5µm	± 7.5µm	± 10µm	± 10µm	n/a
Extra High Precision XHP	± 3µm	± 4µm	± 6µm	± 6µm	n/a
Straightness/Flatness					
Standard Precision SP	± 8 µm	± 10 µm	± 12 µm	± 20 µm	± 20 µm
High Precision HP	± 3µm	± 4 µm	± 6 µm	± 10 µm	n/a
Extra High Precision XHP	± 3µm	± 4 µm	± 5 µm	± 7 µm	n/a
Yaw/Pitch/Roll					
Standard Precision SP	20 arc-sec	20 arc-sec	20 arc-sec	20 arc-sec	30 arc-sec

High Precision HP	10 arc-sec	10 arc-sec	10 arc-sec	10u arc-sec	n/a
2-Axis System					
Orthogonally					
Standard Precision SP	10 arc-sec	10 arc-sec	10 arc-sec	10 arc-sec	20 arc-sec
High Precision HP	5 arc-sec	5 arc-sec	5 arc-sec	5 arc-sec	n/a
Extra High Precision XHP	3 arc-sec	3 arc-sec	3 arc-sec	3 arc-sec	na

NOTES:

- All trajectory data based on axis uniformly supported over full length on precision mounting surface with vibration isolation.
- Payload capacities are recommended values to achieve maximum lifetime in the worst-case scenario featuring maximum dynamic operation and off-center loading.
- Force, acceleration and speed performance are based on operations with NUTEC ELECTRONIC controls.