

XYMR Microscope Stage



Dover Motion

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Features

- :: Thin cross section
- :: 3" Diameter Aperture
- :: Precision bearings
- :: Superior Repeatability

Description

The Microscope Stage brings automated, highly accurate XY positioning to a wide range of Microscope based applications including wafer, mask, and die inspection; cell counting and analysis; video profilometry. The Microscope Stage utilizes crossed roller ways and precision ground leadscrews with anti-backlash nuts, resulting in exceptional flatness, straightness, and linear positioning accuracy. This stage features the three-piece construction found in our XY and XYR Series, which machines orthogonality into the center section; resulting in an extremely low profile.

The stage body is only 1.2" thick, which, together with the large 3.00" clear aperture, permits the microscope stage to be used with closely spaced, high numerical aperture objectives and condensers. This stage is also available with a solid top. Locking DA-15 connectors for both axes are mounted to the same section, simplifying cabling. Note that since both motors are mounted to the center section, they both move when the lower axis moves.

Stage Specifications

Base Model	XYMR-8080
Travel (in)	6 x 6
Travel (mm)	150 x 150
Leadscrew Accuracy, per axis ($\pm \mu\text{m}$) ¹	15
Bi-directional Repeatability ($\pm \mu\text{m}$)	1.5
Flatness & Straightness (μm TIR)	10
Pitch and Yaw (arc-sec)	40
Orthogonality (arc-sec)	30
Load Capacity (for all, kg) ²	10
Maximum Leadscrew Velocity (rps) ³	15
Moving Mass - Upper Axis (kg)	1.1
Moving Mass - Lower Axis (kg)	3.9
Total Mass (kg)	5

¹ Stepper motor; open loop.

² Please contact our Applications Engineers for loads exceeding the specification.

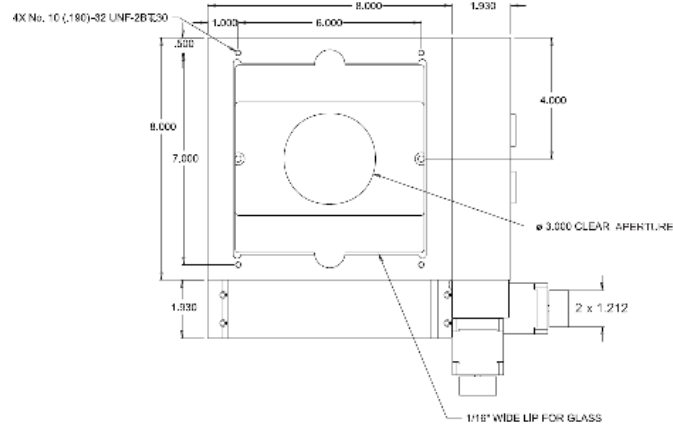
³ Multiply leadscrew velocity by chosen lead to determine maximum linear velocity.

Configurations (Available for all Models)

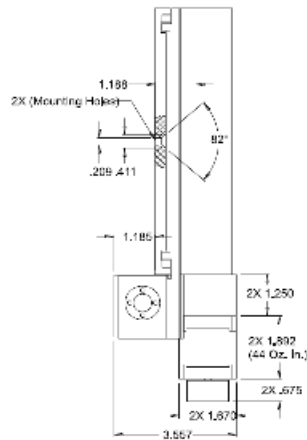
Leadscrew Lead	0.1 inch Standard, also available with 0.5 in, 0.4 in, 0.2 in, or 2 mm
Motor	200 step / rev Standard, also available with 400 step / rev or Servo
Encoder	Standard option has no encoder, options include: Rotary encoder with 2,000 or 4,000 counts/rev

Dimensions

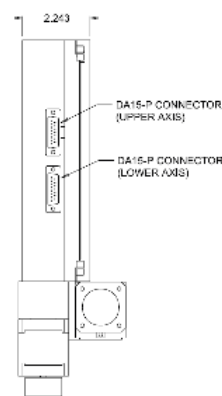
Top View



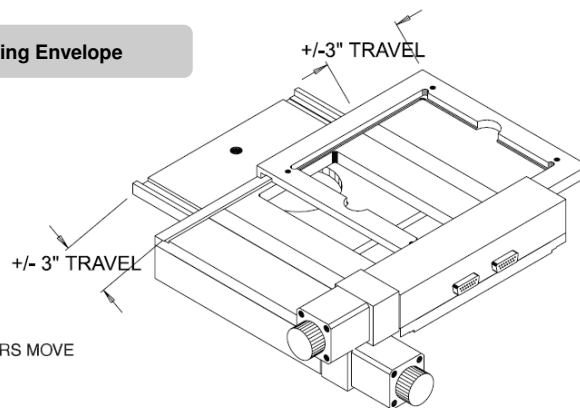
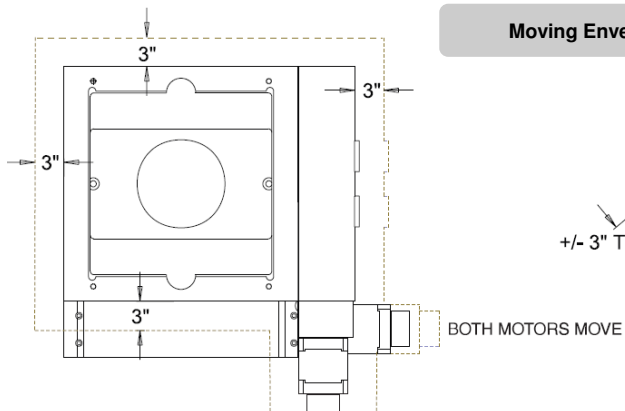
Side View



Side View



Moving Envelope



Third Angle Projection
Note: All Dimensions in Inches