

H112/2ST / HE12/2ST

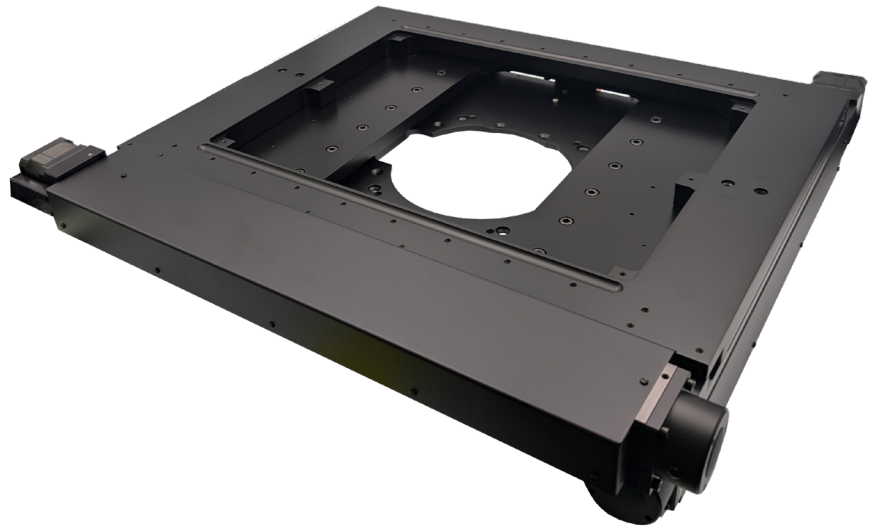
Motorized 12-inch travel stage for upright microscopy

The ProScan H112/2ST motorized XY stage is compatible with Nikon and Evident/Olympus upright industrial microscopes, Prior's OpenStand-L platform, and is easily integrated into custom microscopes.

Designed for scanning large, heavy samples such as 12-inch semiconductor wafers, flat panel displays, and printed circuit boards, it offers the longest travel range of any of Prior's XY stages. It is compatible with transmitted light applications.

The H112/2ST and HE12/2ST feature Prior's patented Intelligent Scanning Technology (IST) to enhance accuracy and linearity together with a 2 mm ballscrew for speed.

These stages are compatible with Nikon NIS Elements, Olympus Stream Motion and Evident PRECiV software (appropriate package required).



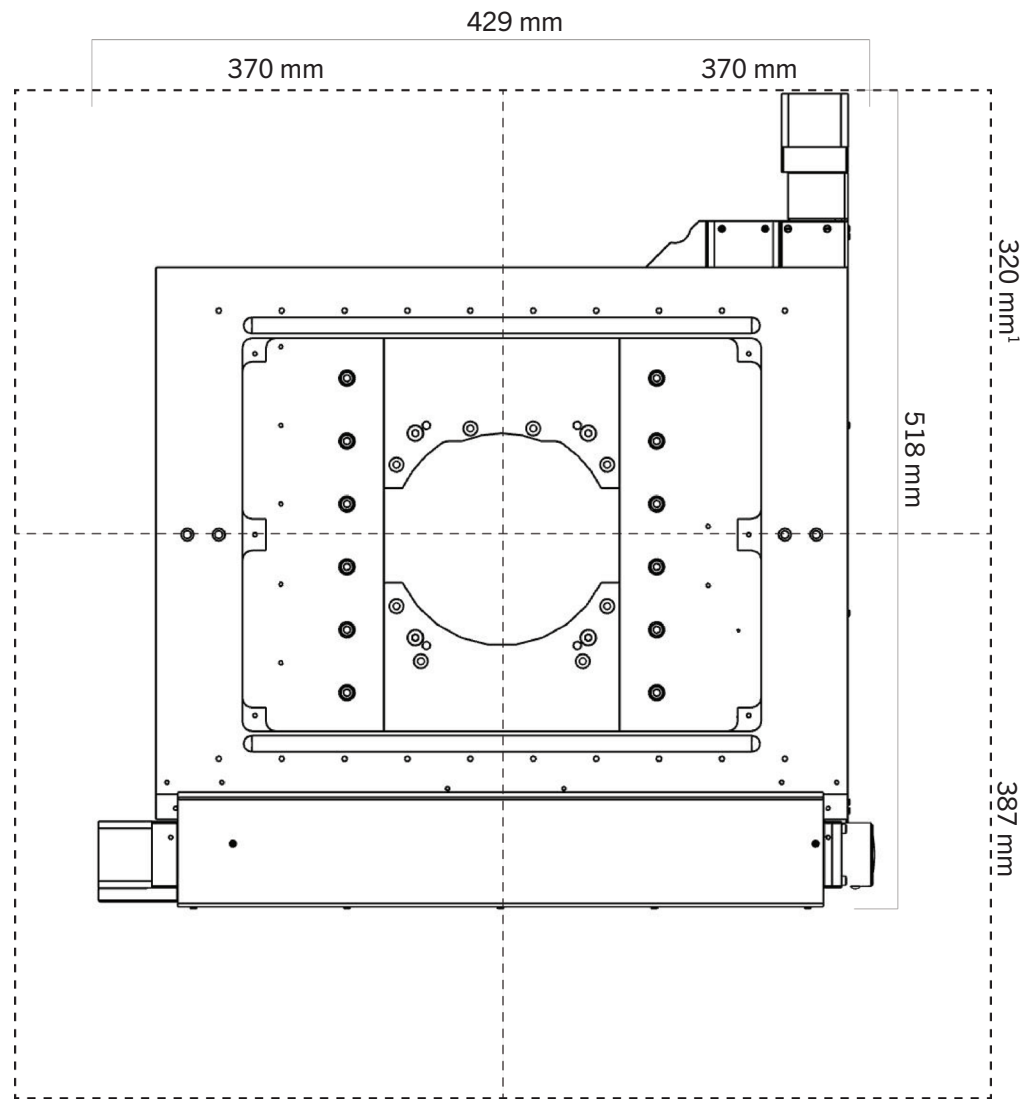
Key Features

- Directly compatible with Nikon and Evident/Olympus industrial microscopes and software.
- Lightweight and slim design facilitates integration.
- 12-inch travel range for semiconductor applications.
- Intelligent Scanning Technology™ (US Patent 7,330,307).

Applications

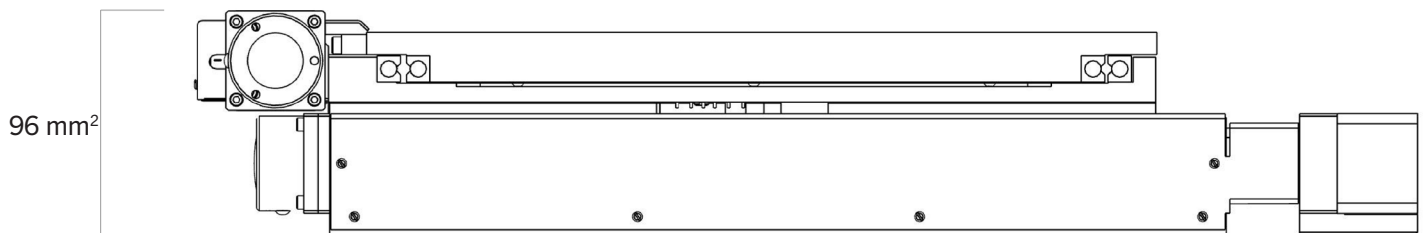
- Metrology
- Industrial microscopy
- Semiconductor inspection

Dimensions*



*Outer dotted line shows the maximum footprint of the stage when at the limits of travel.

1. Increases to 360 mm with HE12/2ST.



2. Increases to 108 mm with HE12/2ST.

Specifications

	H112/2ST	HE12/2ST
Travel range	302 mm x 302 mm	302 mm x 302 mm
Unidirectional repeatability ¹	<1.4 µm	<0.9 µm
Bidirectional repeatability ¹	<4.1 µm	<1.8 µm
Metric accuracy ¹	0.20 µm/mm	0.15 µm/mm
Full travel metric accuracy ¹	<60.0 µm	<45.0 µm
Resolution ²	0.04 µm	0.1 µm
Squareness ¹	<55 arcsec	<40 arcsec
Maximum velocity ³	60 mm/s	60 mm/s
Maximum load ⁴	25 kg	25 kg
Encoders	No	0.1 µm linear encoders
Motor type	200 step	200 step
Screw pitch	2 mm	2 mm
Weight	13 kg	13 kg

1. As per Prior Scientific's test methodology, typical value.

2. Defined as the minimum motor step resolution for non-encoded stages, defined as the encoder resolution for encoded stages.

3. Defined as 2.5x the default velocity, true maximum velocity is dependent on sample mass.

4. Unbalanced loads may damage the stage. Contact Prior for more information.

All specifications correct when using a ProScan controller.

Ordering Information

Part Number	Description
H112/2ST	Large format ProScan® stage for larger upright microscopes, travel range of 302 x 302 mm, 2 mm pitch ball screw and 200 step motors.
HE12/2ST	Large format ProScan® stage for larger upright microscopes, travel range of 302 x 302 mm, 2 mm pitch ball screw and 200 step motors. Encoded with 0.1 µm linear encoders.

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