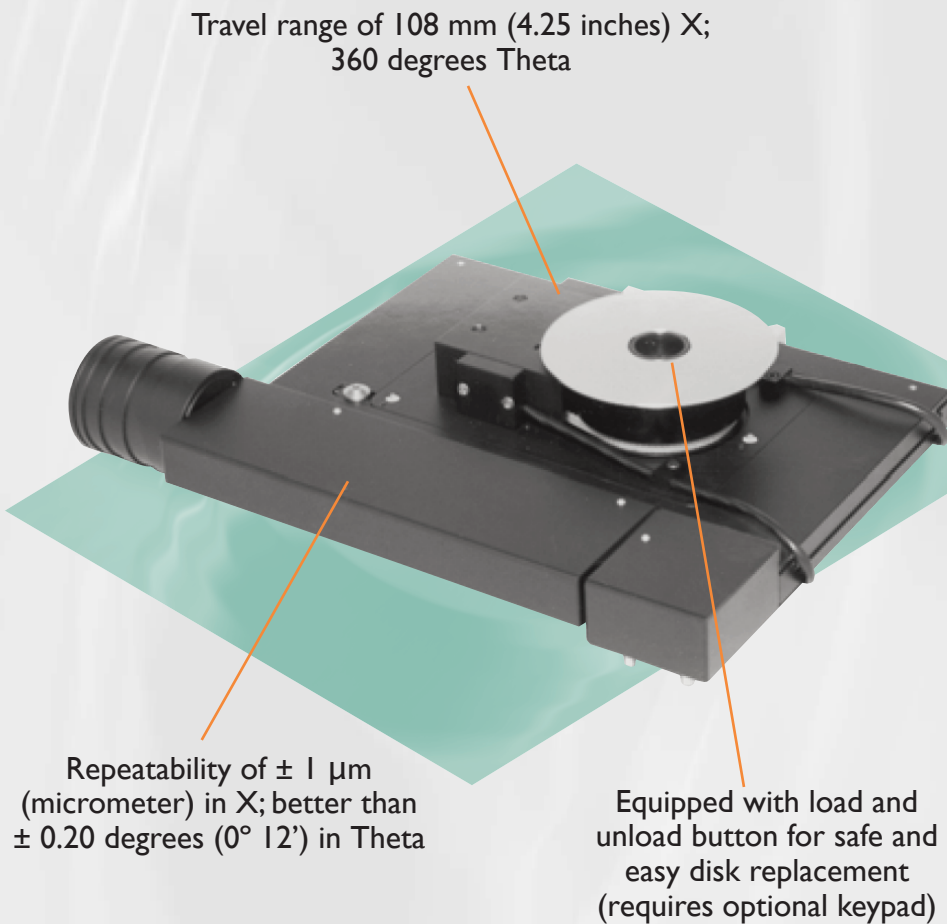


X-Theta Stage System

Converts Existing Microscopes Into Automated Inspection Stations

Features



The Prior X-Theta stage system enables your microscope to function as a stand-alone inspection station, with a keypad providing all the necessary tools to program 50 different rotation and/or index patterns. It mounts (or retrofits) onto virtually any microscope and setup is simple. The easy-to-use menu driven keypad steps you through the programming of the stage. The system, when compared with manual inspection systems, greatly reduces operator fatigue and error. No computer or other external devices are required, making it especially well-suited to hard disk drive inspection.

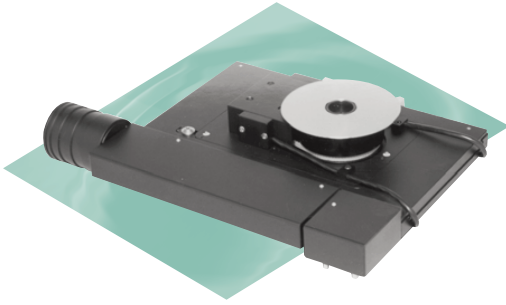
The X-Theta stage is available with chucks for 65 and 95-millimeter disks and offers precise, repeatable results. Points can be input, stored and recalled. A standard communications port allows the system to be controlled from a PC for expanded measurement and data collection techniques.

Features of the Prior X-Theta stage, keypad/joystick and controller system are:

- Travel range of 108 mm (4.25 inches) X; 360 degrees Theta
- Repeatability of $\pm 1 \mu\text{m}$ (micrometer) in X; better than ± 0.20 degrees ($0^\circ 12'$) in Theta
- Step size (resolution) as small as $0.04 \mu\text{m}$ in X; 0.01 degrees ($0^\circ 0'36''$) in Theta
- Optional keypad is equipped with load and unload button for safe and easy disk replacement
- Ergonomically designed for joystick and/or keypad operation
- Keypad provides precise readout of the X and Theta positions

Prior provides full support and service through an extensive network of knowledgeable, professional dealers.

X-Theta Stage System



**Converts Existing
Microscopes into Automated
Inspection Stations**

Ordering Information

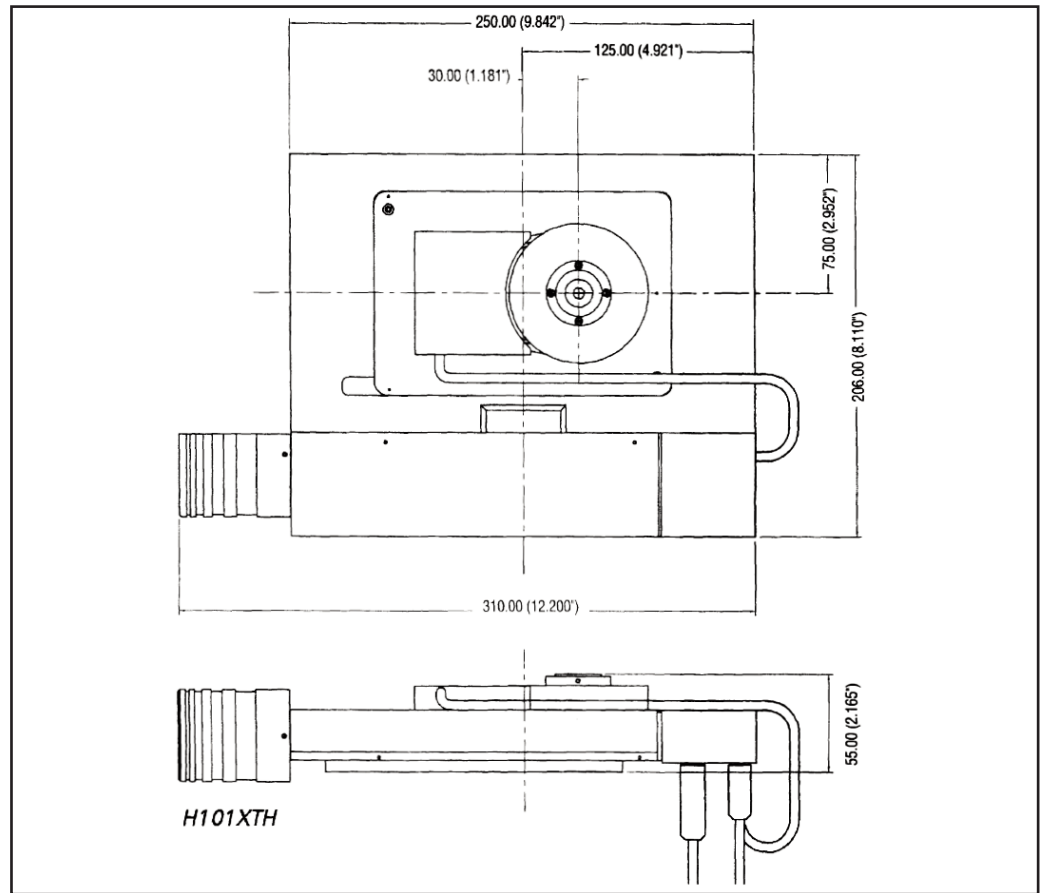
Stage:

H101XTH X-Theta Stage, 108mm travel in X for 95mm disk

H138XTH X-Theta Stage, 230mm travel in X for 95mm disk

Options

- Linear scale and rotary encoder
- Manual Y adjustment knob
- 65mm disk holder



General Specifications*

Travel Range

108mm (4.25 inches) X; 360 degrees Theta

Repeatability*

$\pm 1 \mu\text{m}$ (micrometer) in X; better than ± 0.20 degrees (0 degrees 12' in Theta)

Step Size (Resolution)

As small as $0.04 \mu\text{m}$ in X;
0.01 degrees (0 degrees 0'36") in Theta

Load Capacity

0.5 kg (1.1 lbs)

Slides

Precision 3 mm bearings in X; Four-point contact ball bearing in Theta

Drive Mechanism

Zero backlash, recirculating ball screws;
2 mm pitch in X; Precision timing belt in Theta

Limit Switches

Standard in X

Stage Profile

Approximately 55 mm to top of wafer chuck

Weight

Approximately 2.5 kg (5.5 lbs)

Finish

Plated Electro-phoretic black on stage

Chuck Material

Aluminum, black anodize finish

PRIOR
Scientific

* Specifications subject to change without notice.

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