

# H105 Stage

## 6"x6" Travel, Programmable, Motorized Stepper Stage for Upright Microscopes

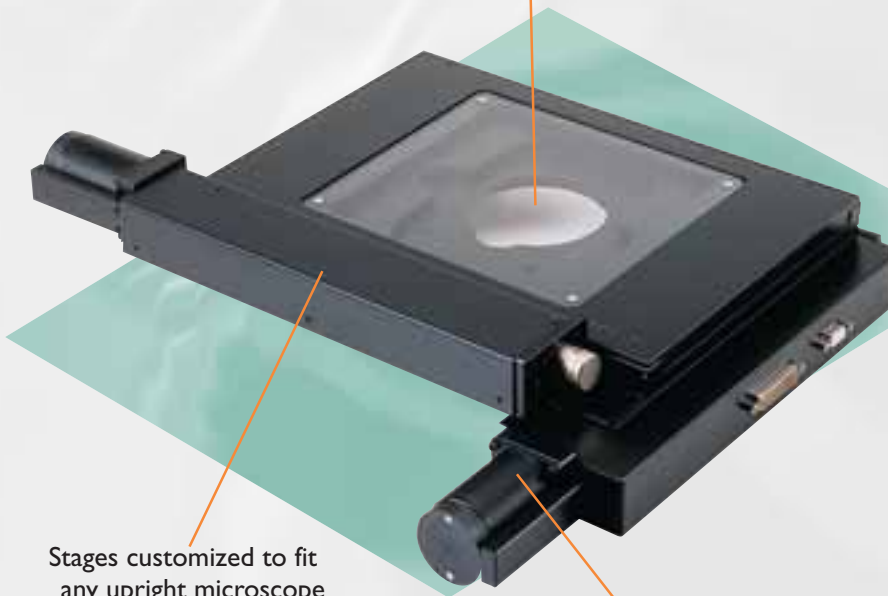
### Features

Now add the highest quality, precision motorized stepper stage to your upright microscope: the Prior Model H105. The H105 is one of a full range of motorized stepper stages from Prior Scientific, adaptable to virtually any microscope or optical system. The H105 is especially well-suited for applications that typically involve large specimens. For example, the H105 is perfect for performing scanning of a wide range of semiconductor wafers, photo masks, and printed circuit boards. The H105 can easily accommodate 6" wafers. A variety of sample holders are available and stage inserts can be customized for any application. The H105 features:

- Travel 153 mm x 153 mm (6" x 6")
- Repeatability to  $\pm 0.3$  micron with optional linear scales
- Minimum step size (resolution) of the stage is 0.04 microns
- Stages customized to fit any upright microscope or optical system
- Closed loop capability with optional rotary or linear encoders

Prior stages have a well-deserved reputation for quality and repeatability. They are manufactured using the highest quality components: crossed roller ways, zero backlash recirculating ball screws, X and Y limit switches, two high precision stepper motors even a tough scratch resistant coating. They are available with standard and custom sample holders to suit the user's application and requirements. Stages can be driven by the Prior series of motor controllers or compatible systems in existing OEM configurations. The controller can be accessed via RS-232 serial port or with an optional joystick or keyboard. For the H105 and all its products, Prior provides full support and service both direct and indirect – through a professional, knowledgeable and extensive dealer network.

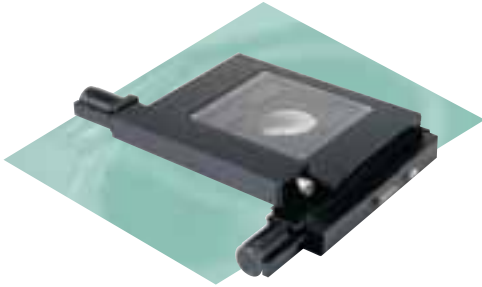
Travel 153 mm x 153 mm (6" x 6")



Stages customized to fit any upright microscope or optical system

Minimum step size (resolution) of the stage is 0.04 microns

# H105 Stage



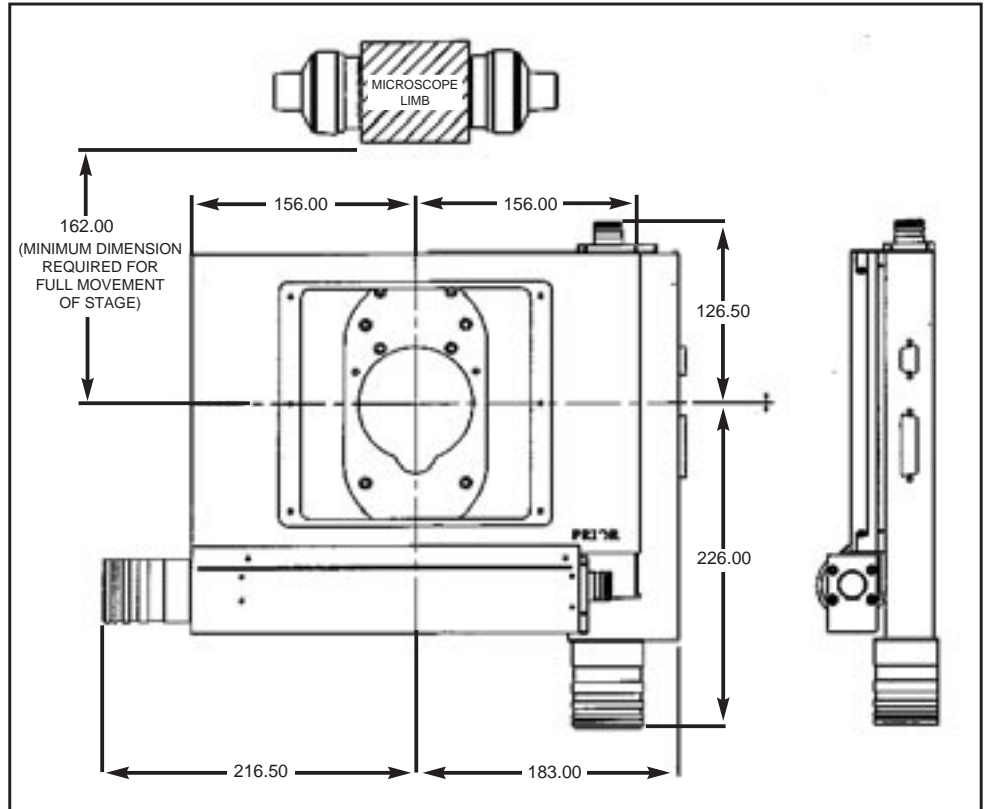
**6"x6" Travel, Programmable,  
Motorized Stepper Stage for  
Upright Microscopes**

## Standard Sample Holders

<b>500-H226</b>	Slide Holder, Holds One 1" x 3" Slide
<b>500-H227</b>	Glass Plate
<b>500-H231</b>	Solid Aluminum Plate
<b>500-H143</b>	Chuck, Wafer, Spring Loaded for 75 mm Wafers
<b>500-H146</b>	Chuck, Wafer, Spring Loaded for 150 mm Wafers
<b>500-HWC155</b>	Chuck, Wafer, Rotatable with Steps for 100 and 150 mm Wafers
<b>500-HWC15V</b>	Chuck, Wafer, Rotatable, with Vacuum for 150 mm Wafers
<b>500-HWC105</b>	Chuck, Wafer Pod, Vacuum
<b>500-H246</b>	Motorized Rotating Holder, 71 mm Diameter Table

## Ordering Information

<b>500-H105/2</b>	Stage with 2 mm pitch screws
<b>500-H105/5</b>	Stage with 5 mm pitch screws
<b>500-H105JENK</b>	Add linear encoders
<b>500-H105/S</b>	Add rotary encoders
<b>500-HK05</b>	Add manual override knobs



Dimensions in millimeters.

## General Specifications

### Travel Range

153 mm x 153 mm (6" x 6")

### Repeatability\*

±2 µm (micrometer), open loop  
± 0.3 µm with linear scales

### Minimum Step Size (Resolution)

0.04 µm

### Load Capacity

20 kg (44 lbs)

### Stepper Motor

4 phase, 1 amp per phase,  
micro stepping

### Linear Slides

Crossed 3 mm roller bearings

### Drive Screws

Zero backlash, recirculating ball screws;  
2 mm pitch or 5 mm pitch

### Limit Switches

X and Y standard

### Stage Profile

Approximately 30 mm (1.2") with  
glass plate installed

### Weight

5.0 kg (11 lbs)

### Finish

Electro-phoretic black plate

### Accuracy

±8 µm open loop, 1.0 µm  
with optional linear scales

### Flatness

5 µm

### Angular Accuracy

±2 arc seconds

\* Specifications valid only if used with Prior controller.

**PRIOR**  
Scientific

PRIOR SCIENTIFIC INSTRUMENTS LIMITED,  
UNIT 4, WILBRAHAM ROAD, FULBOURN,  
CAMBRIDGE CB1 5ET  
TELEPHONE 01223 881711  
FAX 01223 881710

PRIOR SCIENTIFIC INC.,  
80 RESERVOIR PARK DRIVE,  
ROCKLAND, MA 02370-1062  
TELEPHONE 781-878-8442  
FAX 781-878-8736

**VISIT PRIOR ON THE WEB AT [www.prior.com](http://www.prior.com)**

Specifications subject to change without notice.