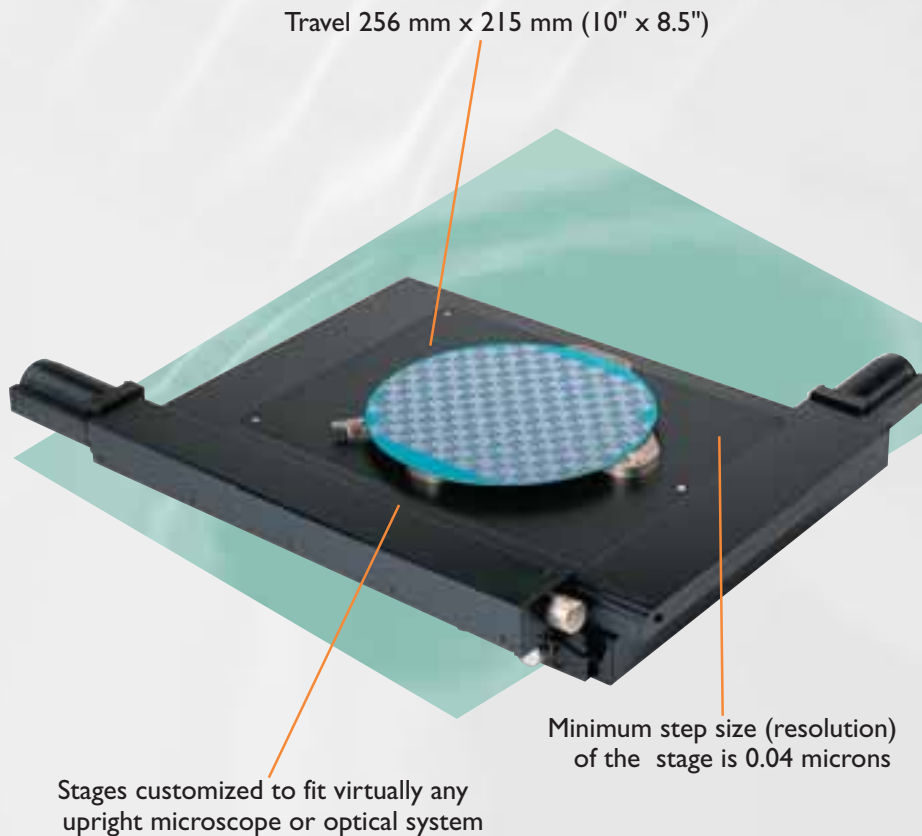


# H116 Stage

## 10"x8.5" Travel, Programmable, Motorized Stepper Stage for Semiconductor Microscopes

### Features



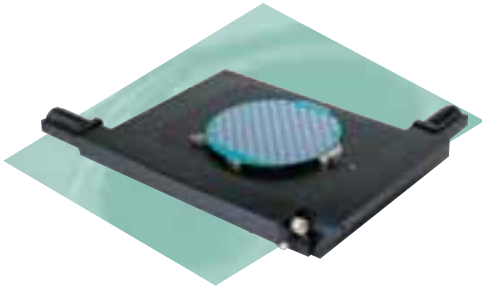
Now add the highest quality, precision motorized stepper stage to your semiconductor inspection microscope: the Prior H116. The H116 is one of a full range of motorized stepper stages from Prior Scientific, adaptable to virtually any microscope or optical system. The H116 is especially well-suited for applications that typically involve large specimens. For example, the H116 is perfect for performing scanning of a wide range of semiconductor wafers, photo masks, flat panel displays, and printed circuit boards. The H116 can easily accommodate 8" (200mm) wafers. A variety of sample holders are available and stage inserts can be customized for any application.

The H116 features:

- Travel 256 mm x 215 mm (10" x 8.5")
- Optional linear scales provide precise and exact positioning, with repeatabilities to 0.3 microns and accuracies to 1 micron.
- Minimum step size (resolution) of the stage is 0.04 microns
- H116 is available with a 2 mm or 5 mm pitch ball screw
- Stages customized to fit virtually any upright microscope or optical system

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 H116 and all its products, Prior provides full support and service both direct and indirect – through a professional, knowledgeable and extensive dealer network.

# H116 Stage



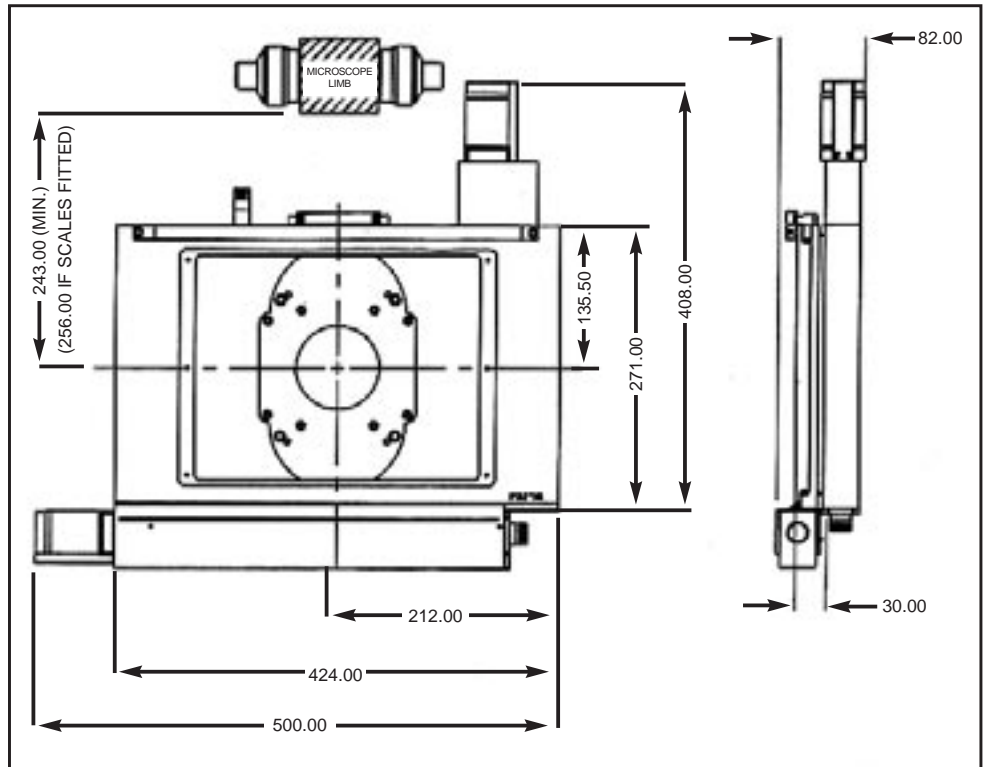
**10"x8.5" Travel,  
Programmable,  
Motorized Stepper Stage  
for Semiconductor  
Microscopes**

## Standard Sample Holders

<b>500-H225</b>	Glass Plate
<b>500-H232</b>	Solid Aluminum Plate
<b>500-H148</b>	Chuck, Wafer, Spring Loaded for 150 mm Wafers
<b>500-H149N</b>	Chuck, Wafer, Spring Loaded for 200 mm Notched Wafers
<b>500-HWC20S</b>	Chuck, Wafer, Rotatable with Steps for 150 and 200 mm Wafers
<b>500-HWC20V</b>	Chuck, Wafer, Rotatable, with Vacuum for 200 mm Wafers
<b>500-HWC116</b>	Chuck, Wafer Pod, Vacuum

## Ordering Information

<b>500-H116/2</b>	Stage with 2 mm pitch screws
<b>500-H116/5</b>	Stage with 5 mm pitch screws
<b>500-H116JENK</b>	Add linear encoders
<b>500-H116/S</b>	Add rotary encoders
<b>500-HK16</b>	Add manual override knobs



Dimensions in millimeters. Drawings shown with optional linear scale.

## General Specifications

### Travel Range

256 mm x 215 mm (10" x 8.5")

### Repeatability\*

± 4 µm (micrometer), open loop  
± .3 µm with linear scales

### Minimum Step Size (Resolution)

0.1 µm

### Load Capacity

25 kg (55 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 or 5 mm pitch

### Limit Switches

X and Y standard

### Stage Profile

Approximately 30 mm (1.2")  
with solid glass plate installed

### Weight

7.7 kg (17 lbs)

### Finish

Electrophoretic black plate

### Accuracy

± 8 µm open loop to ± 1 µm  
with linear scales

### Flatness

5 µm

### Angular Accuracy

±2 arc seconds

\*Specifications valid only if used with Prior Controller.

**PRIOR**  
Scientific

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

Specifications subject to change without notice.