

# HE400 MkIII

## Horizontal Benchtop Measuring Projector

The New Starrett HE400 MkIII features a 16" (400mm) screen



### Features

- Sturdy, all metal construction
- 16" (400mm) screen with integral hood
- Large measuring travel – 10" x 4" (254mm x 100mm)
- High precision workstage with 18.9" x 4.7" (480mm x 120mm) top plate with machined slots for easy fixturing
- Digital protractor (1 minute res.) Q-Axis for accurate angular measurements
- Quick-change, bayonet style lens mount
- Lamphouse mounted helix adjustment for accurate threadform inspection
- Available with a choice of several Quadra-Chek® readout systems
- Fine adjustment on all axes, plus zero backlash, fast traverse X-axis mechanism
- Fully retractable duplex fiber optic surface illumination
- Optical edge detection (optional)
- 10x, 20x, 25x, 31.25x, 50x, and 100x magnifications available
- Large range of accessories available
- Available with the OV<sup>2</sup>, Starrett's innovative Optical-Video Adaptor

# Starrett®

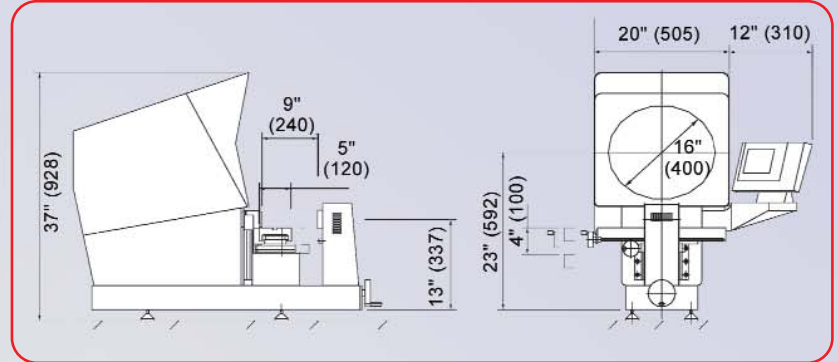
Metrology Systems Division

Specifications subject to change.

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# HE400 Horizontal Benchtop Measuring Projector MkIII

## Specifications & Reference



### Technical Specifications

**Screen Diameter:** 16" (400mm) diameter screen with integral hood, crosslines and calibration marks

**Workstage Measuring:**

*Top Plate* – 18.9" x 4.7" (480mm x 120mm) staging area  
*Travel* – 10" x 4" (254mm x 100mm) measuring range

**Workstage Capacity:**

55 lbs. (25kg) maximum

**Workstage Capacity Between Centers:**

13.8" (355mm)

**Helix Angles:** Lamphouse mounted control

**Illumination**

*Profile* – Fan cooled halogen with high/low intensity and yellow/green filter  
*Surface* – Fully retractable duplex fiber optic system

**Measurement Display Systems:**

*Linear* – Heidenhain .00005" (0.001mm) resolution scales  
 Quadra-Chek readout systems: QC121 with X, Y & Q, QC221 with X, Y & Q and geometric functions, QC221e with X, Y & Q, geometric functions and edge sensing  
*Angle* – Digital protractor (1 min. resolution)  
**Lenses:** 10x, 20x, 25x, 31.25x, 50x, and 100x magnifications available

### Terminology

**Working Distance** is the distance between the objective lens and the component when the component is in focus.

**Field of View (FOV)** is the viewing area of the component. A 30mm FOV using a 10x lens would produce a screen image of 300mm.

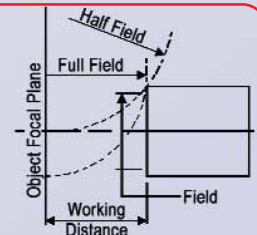
**Half Field View** is the maximum size a component can be projected to the center of the screen before colliding with the lens.

**Full Field View** is the maximum size a component can be projected over the full screen before colliding with the lens.

**Projected Image** is how a component is projected onto the screen in relation to its placement on the workstage.

### Guide to Maximum Component Size (In inches)

Magnification	10X	20X	25X	50X	100X	
Field of View	1.57	0.79	0.63	0.31	0.16	
Working Distance	3.15	2.99	2.44	1.97	1.61	
Max Work Diameter	Half Field	9.65	9.65	10.35	7.28	4.17
	Full Field	7.09	7.87	9.84	4.92	3.86
Projected Image	Vertically Correct					



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