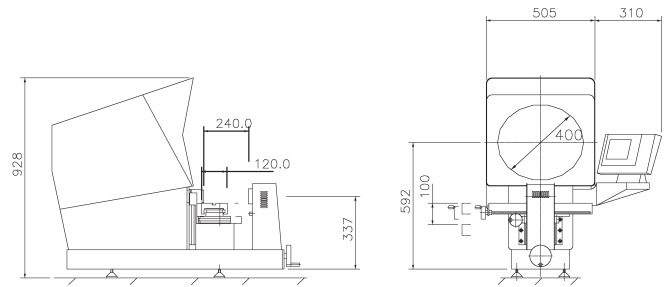


HE400



Horizontal Bench Top Optical Projector

Based on our most successful HE350, this machine offers a 400mm screen, 250mm x-axis table travel, bayonet fitting lenses and Q-axis angular readout; all to improve capacity and performance.

This latest horizontal projector is fitted with the industry leading Quadra-Chek digital readout systems as standard, making it simplicity itself to use, but having the power to satisfy the most complex of measuring requirements.

It is very competitively priced and built to the same mechanical standards as the rest of the Starrett range of projectors.

- ▶ Sturdy, all metal construction.
- ▶ Fully usable 400mm (16") diameter screen with integral hood.
- ▶ Large measuring travel - 254 x 100mm.
- ▶ High precision workstage with 480 x 120mm top plate, with machined slot for easy fixturing.
- ▶ Digital protractor for accurate angle measurements.
- ▶ Lamphouse mounted helix adjustment for accurate threadform inspection.
- ▶ Available with the full range of Quadra-Chek readout systems.
- ▶ Fine adjustment on all axes, plus zero backlash, fast traverse mechanism on the X-axis.
- ▶ Fully retractable duplex fibre optic surface illumination.
- ▶ Automatic edge detection option.
- ▶ Comprehensive choice of multi-element precision ground lenses.
- ▶ Large range of accessories available.

Technical Specification

Starrett®

Screen Diameter

400mm (16") with precision cross lines and calibration markings.

Workstage Measuring

Top plate - 480 x 120mm (18.9 x 4.7").

Travel - Measuring 254 x 100mm (10 x 4").

Workstage Capacity

25kg (55lb) maximum.

(Evenly distributed).

Workstage Capacity Between Centres

355mm.

Helix Angles

Lamphouse mounted control.

Illumination

Profile - Fan cooled halogen, switchable high/low intensity with yellow/green filter.

Surface - Fan cooled twin arm fibre optic system.

Measurement/display systems

Linear - Heidenhain scales (0.001mm resolution). Quadra-Chek readout systems with edge sensing option.

Angle - Digital protractor (1 minute resolution). Quadra-Chek Q-Axis.

Lenses

x10, x20, x25, x 31¹/₄, x50, x100.

Power Supply

110/120/230/240/250V.AC 50/60Hz.

Consumption 5A.

Visit our Web-Site at www.starrett-precision.co.uk

| HE400 Specification: | SR121 | SR221 | SR221e | SR515 | SR515 CNC |
|--|-------|-------|--------|-------|-----------|
| Rigid steel body | • | • | • | • | |
| Standard workstage 250 x 100mm travel | • | • | • | • | |
| Extended workstage | | | | | |
| Anti-corrosion nickel plated workstage top | | | | | |
| Rotary screen & clips | • | • | • | • | |
| Handwheel X and Y drive control | • | • | • | • | |
| Motorised joystick control | | | | | |
| CNC control | | | | | |
| Angular digital measurement in QC DRO | • | • | • | • | |
| X-Y axis only digital readout | • | | | | |
| Geometric function digital readout | | • | • | | |
| Computer with geometric s/ware readout. | | | | • | |
| On screen edge sensing | | | • | • | |
| Internal edge sensor | | | | | |
| Single interchangeable lens mount | • | • | • | • | |
| Dual lens slide | | | | | |
| Multi lens turret | | | | | |
| Fibre optic surface illumination | • | • | • | • | |
| On-axis surface illumination | | | | | |
| Single condenser | • | • | • | • | |
| Dual condenser slide | | | | | |
| Multi condenser turret | | | | | |
| Yellow/green light filter | • | • | • | • | |
| Available lenses (See guide below) | o | o | o | o | |
| X5 magnification lens | | | | | |
| X31¼ magnification lens option | o | o | o | o | |
| Standard or deluxe support cabinet | o | o | o | o | |
| Canopy and curtain | o | o | o | o | |
| Work holding accessories | o | o | o | o | |
| Magnification checking graticule | o | o | o | o | |
| OV² Optical video adaptor | o | o | o | o | |
| Screen overlay templates | o | o | o | o | |
| Standard • Optional o | | | | | |

| Guide to Maximum Component Size (mm) | | | | | | | |
|--------------------------------------|------------|----------------|-----|-----|-----|------|--|
| Magnification | X5 | X10 | X20 | X25 | X50 | X100 | |
| Field of View | N/A | 40 | 20 | 16 | 8 | 4 | |
| Working Distance | N/A | 80 | 76 | 62 | 50 | 41 | |
| Max Work Diameter | Half Field | N/A | 245 | 245 | 263 | 185 | |
| | Full Field | N/A | 180 | 200 | 250 | 125 | |
| Projected Image | | Fully Reversed | | | | | |

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 centre 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.