HB400

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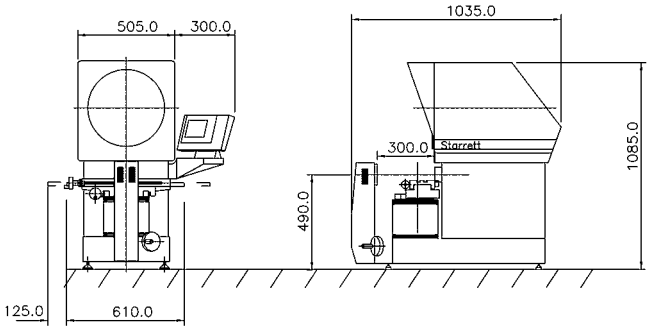

Horizontal Bench Top Optical Projector

A robust, very compact horizontal axis bench top projector, the leader in its class and the one all others are compared against.

The HB400 provides a vertically correct image on a fully useable 400mm (16") diameter screen. Having a significantly larger measuring capacity, this projector provides measurement previously only possible on floor standing units.

- Very rigid and inherently stable metal construction ensures optimum performance and accuracy.
- Fully usable 400mm (16") diameter screen with integral hood.
- Quick action single lens mount.
- Heavy duty cast iron workstage with 50kg (110lb) measuring capacity.
- Rotary workstage helix adjustment.
- 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.
- Motorised and CNC workstage options.
- Fully retractable duplex fibre optic surface illumination.
- Automatic edge detection option.
- Large range of accessories available.

Technical Specification

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

Workstage Measuring
Top plate - 420 x 125mm (17 x 5").
Travel - Measuring 254 x 152mm (10 x 6").

Workstage Capacity
10kg (22lb) negligible deflection,
50kg (110lb) maximum.

Workstage Capacity Between Centres
305mm.

Helix Angles
Rotary workstage ± 15° vernier scale.

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 $31^{1}/_{4}$, x50, x100 (x5 to special order).

Power Supply
110/120/230/240/250V.AC 50/60Hz.
Consumption 5A.

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

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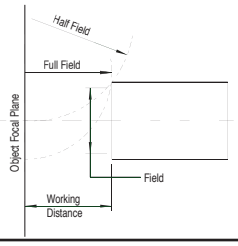
HB400 Specification:	SR121	SR221	SR221e	SR415	SR415 CNC
Rigid steel body	●	●	●	●	●
Standard workstage 250 x 150mm travel	●	●	●	●	●
Extended workstage 300 x 150mm travel	○	○	○	○	○
Anti-corrosion nickel plated workstage top	○	○	○	○	○
Rotary screen & clips	●	●	●	●	●
Handwheel X and Y drive control	●	●	●	●	
Motorised joystick control	○	○	○	○	
CNC control					●
Angular digital protractor					
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)	○	○	○	○	○
X5 magnification lens	○	○	○	○	○
X31¼ magnification lens option	○	○	○	○	○
Standard or deluxe support cabinet	○	○	○	○	○
Canopy and curtains	○	○	○	○	○
Work holding accessories	○	○	○	○	○
Magnification checking graticule	○	○	○	○	○
OV² Optical video adaptor	○	○	○	○	○
Screen overlay templates	○	○	○	○	○

Standard ● Optional ○

Guide to Maximum Component Size (mm)							
Magnification		**X5**	**X10**	**X20**	**X25**	**X50**	**X100**
Field of View		80	40	20	16	8	4
Working Distance		135	80	76	62	50	41
Max Work Diameter	Half Field	280	245	245	263	185	106
	Full Field	280	180	200	250	125	98
Projected Image		Vertically Correct					



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.*

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