HD400

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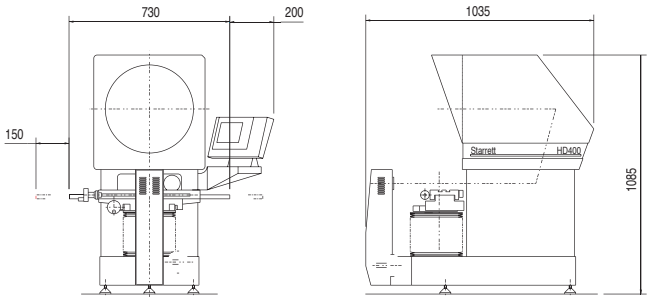

Horizontal Bench Top Optical Projector

The original HB400 is the leader in its class; the one all others are compared against.

Bad news for our competitors, the new HD400 has even more standard features: a dual lens slide providing ultra-quick lens change, even more X-axis travel and larger top plate area.

Once again the HD400 will be in a class of its own.

- Very rigid and inherently stable construction ensures optimum performance and accuracy.
- Fully usable 400mm (16”) diameter screen with integral hood.
- Dual lens slide with quick action change.
- Heavy duty, cast iron workstage with large area top plate and measuring capacity.
- Dual mirror design giving a vertically correct image.
- Rotary workstage helix adjustment.
- Fully retractable fibre optic surface illumination system.
- 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.
- Automatic edge detection option.
- Comprehensive choice of multi-element precision ground lenses.
- Large range of accessories available.

Technical Specification

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

Workstage Measuring
Top plate - 460 x 130mm (18.1 x 5.1”).
Travel - 305 x 152mm (12 x 6”).

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

Workstage Capacity Between Centres
335mm.

Helix Angles
Rotary workstage ±15° vernier scale.

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

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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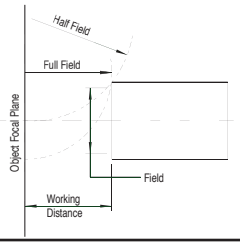
HD400 Specification:	SR121	SR221	SR221e	SR415	SR415 CNC
Rigid steel body	●	●	●	●	●
Standard workstage 300 x 150mm travel	●	●	●	●	●
Extended workstage 400 x 150mm travel	○	○	○	○	○
Anti-corrosion nickel plated workstage top	○	○	○	○	○
Rotary screen & clips	●	●	●	●	●
Handwheel X and Y drive control	●	●	●	●	
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		NA	40	20	16	8	4
Working Distance		NA	80	76	62	50	41
Max Work Diameter	Half Field	NA	245	245	263	185	106
	Full Field	NA	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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