



# OGP OQ-30B

## Heavy Duty Side-Screen Projector

	mm	in
Screen diameter	760	30
X travel	380	15
X travel extended (opt.)	450	18
Y travel	250	10
Worktable length	815	32
Worktable depth	200	8
Focus travel	75	3
Constant working clearance	265	10.4
Throat clearance	535	21.1

Maximum  
performance  
in a heavy duty  
optical comparator

Our top of the line comparator, the OQ-30B™ is designed for operation under the most demanding conditions. Its rigid construction and heavy duty components enable it to withstand the rigors of today's shop floor environments.

The unique side-screen design allows an operator to get "up close" for maximum viewing comfort and convenient operation. And the easy-to-reach control console, located directly beneath the screen, offers fatigue-free operation.

- True telecentric design for fully corrected images, guaranteed image accuracy, and image size that doesn't change with focus setting.
- Projection lenses with a huge 265 mm (10.4") constant working distance. You'll be able to measure your largest parts, even at the highest magnification.
- Unparalleled screen brightness and flat field. Measure with confidence, even at the extreme edges of the screen.
- Heavy duty, high precision, cast iron/nickel plated worktable, with 250 kg (550 pound) capacity, and DC servo motor drive with joystick control, for smooth, quiet, fast movement of the worktable.
- Extra value options include internally mounted Projectron™ edge detection, GageFit™ electronic overlay charts, and 32 bit SmartCheck® for Windows™ measurement software.

## Technical Specifications

● Standard ● Option

- **Screen size:** 760 mm (30") diameter
  - **Screen type:** Ground glass with 90° centerlines and clips for mounting standard overlay charts
  - **Protractor:** Screen rotation protractor with  $\pm 360^\circ$  motion, digital display, thermal compensation function, 0.01° or 1' display
  - **Optical system:** Telecentric, horizontal projection, with fully corrected image, constant working clearance 265 mm (10.4")
  - **Lenses:** Telecentric projection lenses; 10x, 20x, 31.25x, 50x, 62.5x, 100x
  - **Lens mount:** Five position, motorized turret, with automatic magnification sensing
  - **Throat clearance:** 535 mm (21.1")
  - **Illumination:** 200 W mercury arc direct projection and surface
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- **Travel:** XY - 380 x 250 mm (15" x 10"); Focal - 75 mm (3"), with precision fine adjustment
  - Extended X axis travel - 450 mm (18")
  - **XY motion:** Precision mechanical bearing slides attached to heavy duty cast worktable support structure
  - **XY positioning:** Motorized, DC servo, with variable speed joystick and X axis fine adjustment knob
  - **XY scale resolution:** 1.0  $\mu\text{m}$  (0.00004")
  - **Worktable:** Nickel plated iron with 3 fixturing slots, 815 x 200 mm (32" x 8"), 250 kg (550 lb) load capacity
  - **Helix motion:**  $\pm 15^\circ$  with pivoting worktable assembly and zero stop
  - **Dimensions (approx DWH):** 2235 x 1830 x 2030 mm (88" x 72" x 80"), 1650 kg (3600 lb)
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- **Geometric measuring processor:** Includes (2) 16 digit by 2 line LCDs and 25 key membrane panel with functions for inch/millimeter, Cartesian/polar, decimal degrees/dms, XY zero, skew alignment, absolute/incremental, point, distance, angle, width, radius, diameter, intersection, included angle, size, location, straightness, roundness, and serial and parallel interfaces
  - **Software:** SmartCheck®, GageFit™, SmartReport® Plus, QC-Calc™
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- **Power requirements:** 115 vac, 50/60 Hz, 1  $\phi$ , 250 W
  - **Rated environment:** 20-23° C (68-75° F), 30-80% humidity (non-condensing), vibration < 0.005g below 10 Hz
  - **Operating environment:** 15-30° C (59-86° F)
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- **XY accuracy (worktable linear):** Within 8  $\mu\text{m}$  (0.0003") total band over full travel\*
- \*Applies to thermally stable system in rated environment, checked at factory with 50x lens. Depending on load distribution, accuracy at maximum rated load may be less than standard accuracy.
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- Options:**
- **Projectron™** internally mounted automatic edge detection
  - Glass and plastic overlay charts; custom electronic chart gages via GageFit
  - Overscreen Fresnel lens
  - Surface illumination concentrator (for 50x and above lenses)
  - Adjustable iris assembly, adjustable slit iris assembly
  - Overhead curtain
  - Fixtures and calibration accessories
  - Service and support contracts
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- **Warranty:** Full on-site warranty first year, parts only second year (North America only)



**Optical  
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