

# GPI<sup>LC</sup> GPI<sup>ST</sup>

## GPI MODELS

<b>LC</b>	Entry-level Fizeau interferometer for visual inspection. Requires operator fringe pattern interpretation.
<b>ST</b>	Entry-level model with 1-6X continuous zoom, aperture focus, and light level control for greater imaging capability. Requires operator fringe pattern interpretation.

## SYSTEM

Measurement Capability	Measure form and flatness characteristics of super finished, highly reflective surfaces and optics
Measurement Technique	Laser-based visual interferometry
Test Beam Diameter	4 inch (102 mm) or 6 inch (152 mm)
Mounting Options	Horizontal or Vertical
Optical Centerline	4.25 in. (108 mm)
Alignment System	Quick Fringe Acquisition System (QFAS) with twin spot reticle
Zoom Range	1:6X (ST)
Alignment Field of View	4 inch: ±3 degrees 6 inch: ±2 degrees
Pupil Focus Range	4 inch: ±1 m 6 inch: ±1 m
Camera Resolution	320 x 240 pixels
Part Viewing	Fringe monitor
Video Output	525 lines/60 Hz (2:1 interlace) RS-170, or 625 lines/60 Hz

## LASER

Type	Helium-Neon, Class II
Wavelength	632.8 nm
Output Power	≤1 milliwatt
Polarization	Nominally circular (1.2:1 or better)
Coherence Length	Greater than 328 ft (100 m)

## PHYSICAL CHARACTERISTICS

Dimensions (HWD) (without handles)	4 inch: 12.1 x 23.6 x 12.1 in. (308 x 600 x 308 mm) 6 inch: 12.1 x 32.6 x 12.1 in. (308 x 828 x 308 mm)
Weight	4 inch: LC 70 lb (32 kg) ST 77 lb (35 kg) 6 inch: LC 87 lb (39 kg) ST 95 lb (43 kg)



## UTILITY REQUIREMENTS

Power	100 to 240 VAC, 50/60 Hz
Compressed Air	80 psi (5.5 bar); dry and filtered source (for optional vibration isolation)

## OPERATIONAL ENVIRONMENT

Temperature	15 to 30°C (59 to 86°F)
Rate of Temp. Change	<1.0°C per 15 min
Humidity	5 to 95% relative, noncondensing
Vibration Isolation	Required for vibration frequencies in the range of 1 Hz to 120 Hz

## TEST PART CHARACTERISTICS

Material	Various; glass, super-finished metals, ceramics, and plastics
Preparation	None; measurements are noncontact, nondestructive, and performed under ambient conditions
Reflectivity	0.1% to 100% (based on transmission element)

## OPTIONS

- 4 inch or 6 inch output aperture

See the *GPI and VeriFire Accessory Guide, OMP-0463* for a complete listing of available options.

## Note

The capabilities of visual metrology depend on the accuracy of the transmission element, geometric distortion of the optical and video system used for imaging, the number of fringes used in the evaluation, and the user's ability to interpret the fringe pattern.