

# THE **4HPR** Our NEW 4-inch economy model Phase Fizeau Interferometer



**Model 4HPR Interferometer**

Our NEW Economy Model 4HPR Interferometer features a fused silica collimator and reference surface flat to  $\lambda/20$ . The 5.0 milliwatt Single-Mode Diode Laser source, operating at 635 nanometer wavelength is dithered to produce speckle-free live images on the computer monitor.

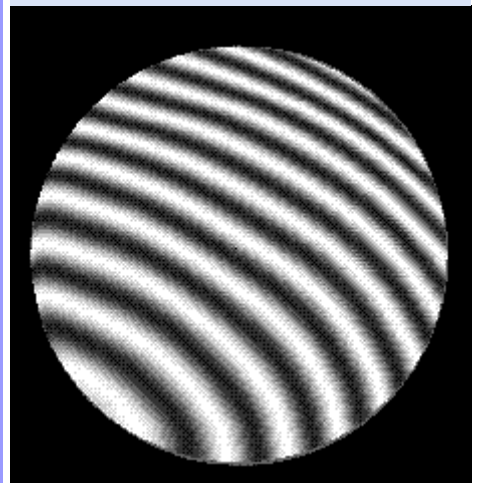
This new Fizeau phase shifts using EndoPhaze™ shifting and Durango Universal Interferometry Software for accurate and repeatable measurements. A two-spot alignment system permits quick test piece alignment.

The Model 4HPR interferometer is provided complete with Durango Universal Interferometry Software installed in a fully configured 2.93 GHz Computer with INTEL core i3-530 processor complete with 22 inch TFT monitor.

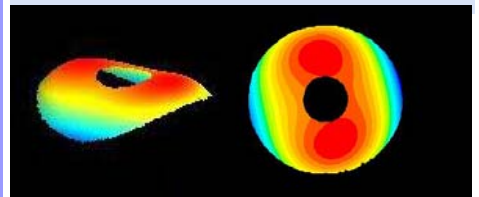
## SYSTEM SPECIFICATIONS

Aperture	4 inches (101.6 mm)
Imaging Lens	Economy Model 4X Zoom Manual Control
5mw Single-Mode Diode Laser	635 nm
Collimator/ reference surface	Fused Silica
Accuracy (uncalibrated)	$\lambda/20$
(calibrated)	$\lambda/100$
Repeatability	PV $\lambda/300$ $\lambda/1000$ RMS
Dimensions (L x W x H)	19 in. x 12 in. x 7.9 in.
Software	Durango Phase Software
Phase Shifter	EndoPhaze™
Data Acquisition Time	<30 milliseconds (typical)
Data Reduction Time	< 3 seconds (typical)
Computer	2.93 GHz INTEL core i1-530 with 22-inch TFT Monitor
Power	117 / 240 volts, 50 / 60 Hz
Warranty	One Year Standard Limited
Operator's Manual	Illustrated, User-friendly

## High Contrast Interferograms



## Typical Durango Plots



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### MODEL 4HPR SPECIAL FEATURES INCLUDE

FEATURES	BENEFITS
4-inch aperture (101.6 mm)	4-inch aperture (101.6 mm)
1/20 wave fused silica reference surface	High Accuracy
Proprietary Optics for superior performance	Highest contrast and cleanest interferogram of any interferometer available today
Rugged Construction	High mechanical stability
A Turnkey System	User-friendly and ready to go
Horizontal Orientation	Easy to use for Plano or Spherical work
Two spot alignment	For quick setup on each new part tested
Dithered 5mw Diode Laser (635 nm)	For sharp, speckle-free images
Zoom Optics (4X)	Readily accommodates test pieces from ½ inch to 4 inches diameter
Zoom, Focus, Iris, Intensity	Manual Control
EndoPhaze™ Shifter	For smooth hysteresis-free phase shifting.
CCD camera 768(H) x 494(V) pixels	High Resolution
2.93 GHz computer with Intel Core i3-530 Processor	For high speed data reduction and phase shift control
2-inch TFT wide Screen Monitor	For easy viewing
Live interferogram on computer monitor	For quick inspection with no extra video monitor
Reference surface is an integral part of the interferometer and always aligned to collimated beam	No need to purchase a separate Transmission Flat. No need to adjust Tip/Tilt of a Transmission Flat
Tip/Tilt Fixture and Bayonet mount available for attachment of Transmission Spheres. (Transmission Sphere not included)	Configured to Measure Spherical or Plano Surfaces – transmission sphere required
Repeatability	1/300 wave PV ( < 2 nm PV ) 1/10,000 wave rms ( < 0.1 nm rms )
Data Acquisition Time 30 milliseconds (typical)	Fast
Data reduction time <3 seconds (typical)	Fast
Dimensions (L x W x H) 19 x 12 x 7.9 inches	Small footprint
Weight 50 pounds	Solidly built
Power 117 V 60 Hz 2 A (or 250 V 50 Hz 2 A)	Wired with plug to suit user's power source
Manual	Illustrated Operator's Manual
Warranty	Standard on-year limited warranty against defective Components or workmanship

***We sell metrology solutions!***

Durango is a Trademark of Diffraction International