

# Model 4VPS 4-inch aperture Vertical Phase Interferometer



The Model 4VPS incorporates many features of our Model 4HP interferometer, in a vertical format instrument. Provided with a 1/20 wave Transmission Flat, the interferometer can be used for spherical work with the addition of the appropriate transmission sphere.

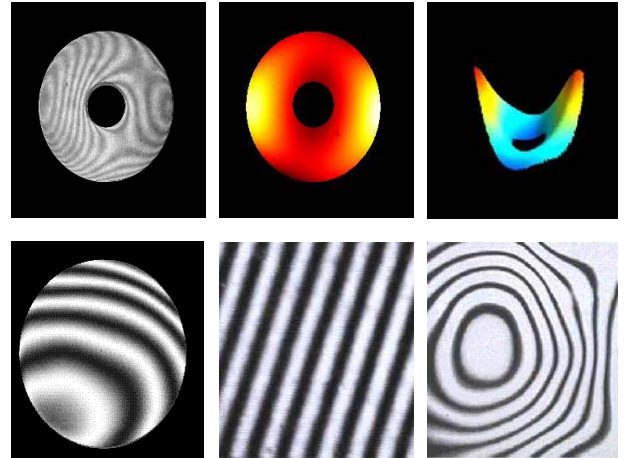
The 4VPS has an integral Tip/Tilt table whose height can be adjusted to accommodate thicker samples. The Single Mode Diode Laser source operating at 635 nm is dithered to produce speckle-free live images on the computer monitor.

This Phase Fizeau interferometer with EndoPhase™ system produces smooth phase shifting with no hysteresis. The proprietary optical system of the 4VPS achieves high contrast interferograms with no Bull's-eye aliases. Durango Universal Interferometry Software produces highly accurate and repeatable measurements. A two-spot alignment system facilitates quick test piece alignment. The Model 4VPS includes a 2.2 GHz Computer with Intel Dual Core Processor and a 19-inch TFT flat screen monitor. All software is installed and configured for the Model 4VPS.



High Contrast  
Or Low...

The 4VPS and  
Durango Software  
can handle it!



Typical Interferograms and Durango Graphics

FEATURE	BENEFIT
Customer selects length of vertical rails	To suit the application
Vertical format (May be removed from rails)	For Plano or Spherical measurements
Dithered Single Model Diode Laser	For speckle-free interferograms with no Bull's-eye aliases
Live interferogram on computer monitor	No additional video monitor required
Phase system utilizes EndoPhase™	For smooth phase shifting with no hysteresis
Two spot alignment system	For quick alignment of test pieces
Adjustable height Tip / Tilt Table	To accommodate thicker test pieces
2.2 GHz computer Intel Dual Core Processor	Complete with 19 inch TFT flat screen monitor
Durango Universal Interferometry Software	Installed and configured for the 4VPS
Operator's Manual	Illustrated Manual with simple instructions
Warranty	Standard one-year limited warranty
Extended warranty and service contracts	Available
Lease-to-own programs	Available please inquire



### Special Features of Durango—the Universal Interferometry Software™

- For data acquisition, analysis, evaluation, exchange, import/export and simulation.
- Durango uses only published algorithms and gives you access to raw measurement data and intermediate results.
- Durango offers power, speed, flexibility, hardware independence, ease of use and value in one comprehensive package.
- Fast 32-bit code running under Windows XP
- Intuitive interface makes keyboard almost unnecessary.
- Responsive, anticipates user requests while responding promptly to user input.
- Online, context-sensitive help.
- Knowledgeable and responsive technical support.
- Affordable, permanent license includes 1st year support and upgrades

### Data Acquisition and Control

- User can specify number of frames and phase shifts
- Automatic or manual calibration of phase shifter
- Live Image window makes separate monitor unnecessary
- Remote triggering and/or automatic data saving
- Import images (.raw, .bmp, .jpg, .png) or data files (MetroPro, Opticode).

### Data Analysis

- Published algorithms, no voodoo
- Robust, correctly computes and unwraps even noisy phase data
- Select from numerous phase algorithms, before or after data acquisition
- Re-purpose any phase algorithm as a spatial-carrier static algorithm
- Editable pixel masks for computation and analysis
- User control of pixel rejection criteria
- User control of Unit Circle for aperture scaling and registration
- Fitting algorithms handle circular and non-circular apertures
- Remove tilt, power, coma, astigmatism, cylinder, reference, residual
- Unlimited Zernike or monomial fitting terms
- Unlimited fiducials with graphic and spreadsheet editing
- FFT-based diffraction analysis for PSF, Encircled/Ensquared energy, MTF
- OPD Arithmetic for analyzing multiple surface or wavefront maps.
- Synthetic data support, with optional phase and intensity noise
- Save ALL data, or just the OPD map.

### Presentation

- Supports all screen resolutions
- Unlimited windows may be opened, closed, moved, resized, minimized
- Bitmap display of OPD, frames, phase, modulation, intensity and slope
- Dynamically review frames, tilt phase maps, rotate 3D surfaces
- Histogram display of phase step, OPD, modulation, intensity and slope
- Printable reports from fully customizable HTML templates Export to CodeV, Excel, ASCII, .xml, .raw, .bmp, .jpg.



**How tall?**  
**30 inches?**  
**36 inches?**  
**42 inches?**  
**48 inches?**



***We sell metrology solutions!***

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