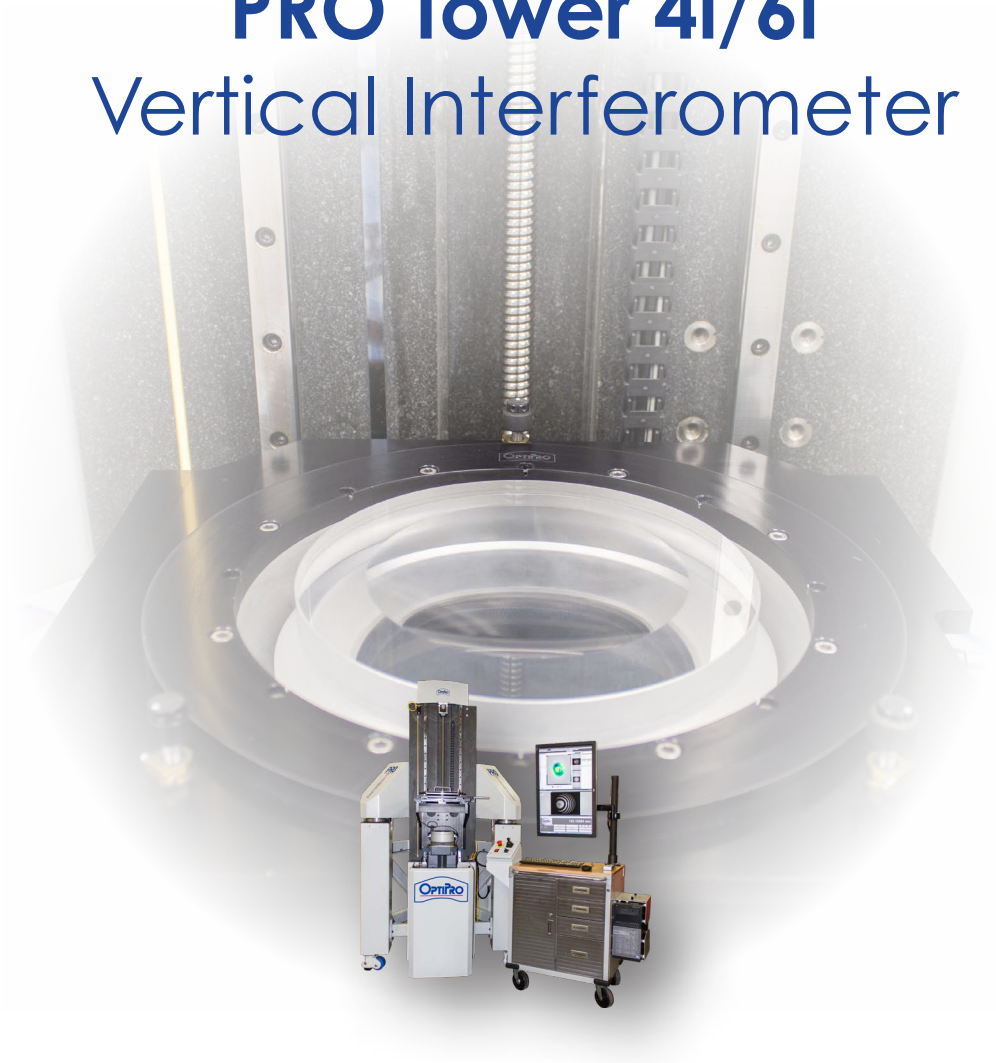
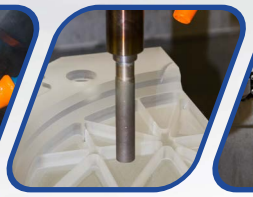
PRO Tower 4i/6i

Vertical Interferometer



Innovative Machines for Precision Optics and Technical Ceramics

CNC Optical Grinding Machines



Ultrasonic Machining Centers

Optical Centering Machines

CNC Spherical Polishing Machines

CNC Asphere/Freeform Polishing Machines

Planetary Polishing Machines

Non-Contact Metrology Solutions

Enhanced Wavefront and Radius Measurement

Maximize the performance of your laser interferometer with the PRO Tower. PRO Tower is a highly stable platform that transforms your existing 4" or 6" horizontal interferometer into an upward looking configuration. PRO Tower works perfectly with interferometer models from all the major brands, including Zygo, 4D Technology, and more. PRO Tower can also be equipped with a new 4" (PRO Tower 4i) or 6" (PRO Tower 6i) interferometer if you don't currently own an interferometer or are looking to add capacity. Experience enhanced measurement speed, safety, and reliability that comes with vertical interferometry by adding PRO Tower to your manufacturing or metrology lab.

Part Apertures Up To

300

mm can be measured as well as radius up to 1200 mm

Incredible Stability

4,000

lbs. machine with granite base for accurate measurements, even on shop floor

Precision Positioning

10

nanometer resolution when moving Z-axis to radius distance measured

Capabilities

● Standard ○ Available — N/A

PRO Tower: Vertical Interferometer

Standard Features:

• 127 TPI tip tilt stage • Lab grade granite core with precision rails
• Servo driven Z axis with variable speed joystick
• Available with an upward looking 6" or 4" Zygo Verifier

Optional Features:

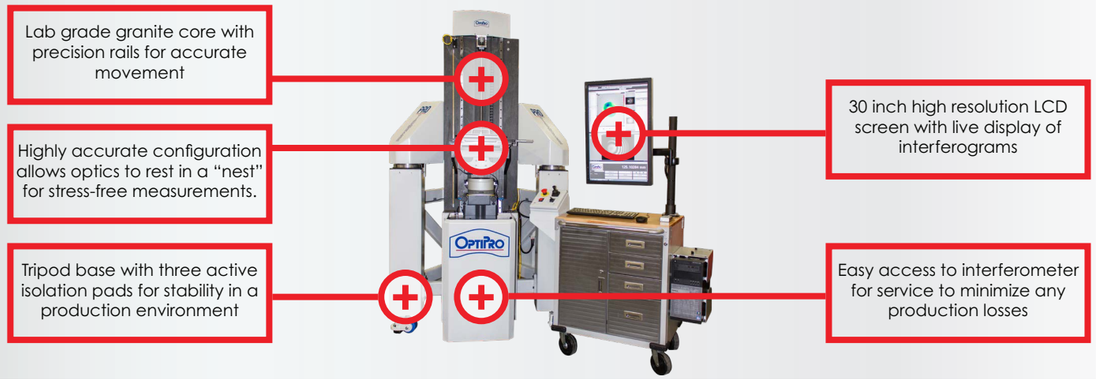
• CGH stage for measuring aspheres

Planos	Spheres	Aspheres	Cylinders Acylinders	Prisms	Freeforms
●	●	○	—	—	—

Sphere & asphere part size limit

High Performance Equipment

Engineered for precision and repeatability

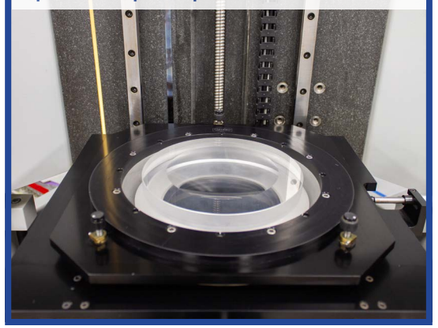


Vertical Interferometer Advantages

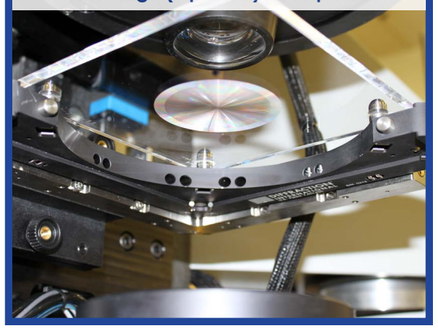
Upgrade Your Interferometer	PRO Tower Vertical Interferometer Compatible with 4" or 6" interferometer	Interferometer Horizontal-Orientation Without PRO Tower upgrade
Surface power measurement	✓	
Surface irregularity measurement	✓	✓
High precision radius measurement	✓	
Asphere measurements with CGH	✓	✓
High speed production metrology	✓	
Stable granite base for shop floor use	✓	
Minimal floor space requirement	✓	
Optics measured in relaxed state	✓	
Minimal handling of workpiece and transmission sphere	✓	
Safe changing of transmission spheres	✓	
Programmable Z-axis stage	✓	

PRO Tower Applications:

Spherical Optics up to 300mm in Diameter



CGH Stage (Optional) for Aspheres



High Speed Production Metrology: For jobs with high volume quantities, the operator can easily set up the interferometer to null fringes using a master, then place workpieces in and out of the nest of the PRO Tower to quickly measure power and irregularity.

Minimal Floor Space Requirement: PRO Tower's compact vertical configuration saves valuable floor space, compared to horizontal interferometer set up which typically requires an 8 foot isolation table.

Minimal Handling of Workpiece and Transmission Sphere: Once the transmission sphere and workpiece are placed in the PRO Tower, they no longer need to be touched. Measurements are performed by programming the Z-axis stage to move up and down, or by manually jogging the Z-axis stage.

Safe Changing of Transmission Spheres: Ergonomically designed with objective at waist-level, making is easy and safe to change out expensive transmission spheres.

Programmable Z-Axis Stage: By entering the radius of the spherical optic and with the simple click of a button, Z-Axis automatically moves up and down to the distance of the radius entered with 10 nanometer resolution, making it easy to measure radius and irregularity.

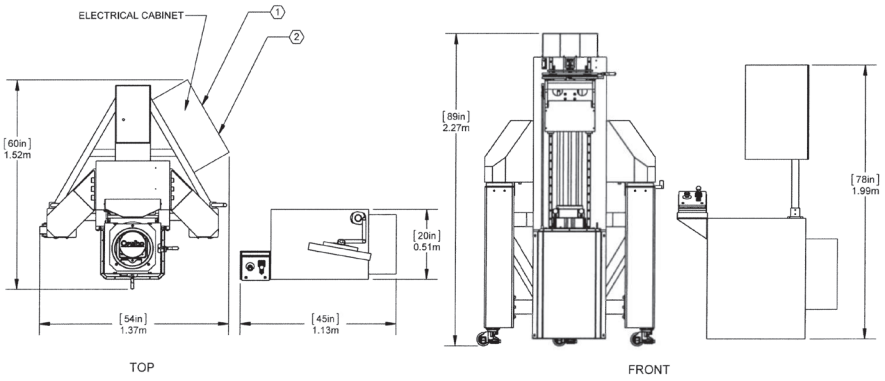
Specifications*

	PRO Tower 4i/6i
Working Diameter Range	1-300 mm (0.04"-11.8")
Objective Size	Up to 203.2 mm (8", Custom)
Resolution of Encoder	0.0001 mm (0.000004")
Wavefront Measurement Accuracy	lambda/20 (dependent on objective accuracy)
Z-Axis Stage Travel	
6" Zygo Verifier	1,000 mm (39.4")
4" Zygo Verifier	1,250 mm (49.2")
Cross Slide Travel	
X-Axis	50.8 mm (2")
Y-Axis	50.8 mm (2")
Machine Dimensions	
Width	1,700 mm (66.9")
Depth	1,600 mm (63")
Height	2,200 mm (86.6")
Weight	1,814 kg (4,000 lbs.)

* Specifications subject to change. Contact OptiPro for the latest specifications.

Minimum Shipping Height	89in
Compressed Air	100psi @ 5CFM [1]
Weight (Approx.)	4000 lbs.
Voltage	1Φ, 120V±10%
Frequency	60Hz
Current Draw (FLA)	15A

(1) - POWER INPUT
(2) - AIR INPUT



TOP FRONT

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