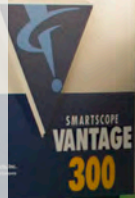




Optical Gaging Products



A Division of Quality Vision International



SmartScope® Vantage 300

Advanced-Technology, Large Volume Dimensional Measuring System that Fits on a Benchtop

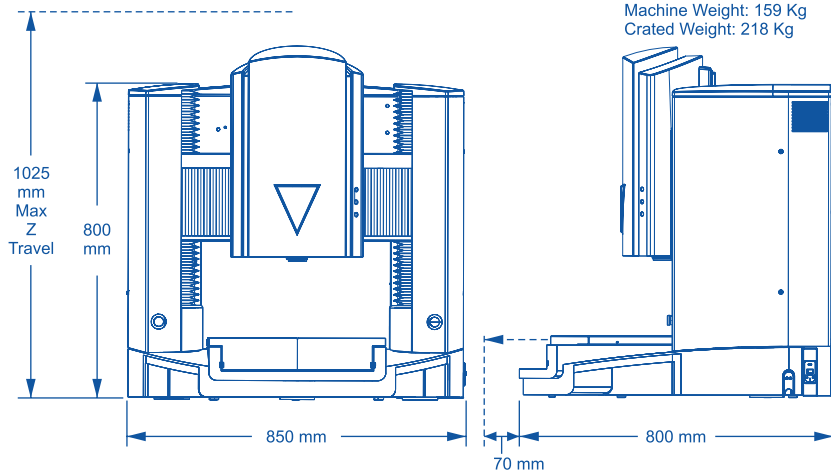


- *Accurate video metrology* – TeleStar® telecentric 10:1 zoom optics for the highest level of optical performance
- *Multisensor versatility* – Optional touch probe, TTL interferometric laser, micro-probe, and SP25 continuous contact scanning probe
- *State-of-the-art metrology software* – Choose from MeasureMind® 3D MultiSensor that tracks all data points in 3D space and incorporates them into a common coordinate system, or intuitive yet powerful Measure-X®

Axis	Travel (mm)
X axis	300
Y axis	300
Z axis	250



SmartScope® Vantage 300



	Standard	Optional
XYZ travel	300 x 300 x 250 mm	
XYZ scale resolution	0.1 µm	0.05 µm
Drive system	DC servo with 4-axis control (X,Y,Z,zoom); with multifunction handheld controller (for MeasureMind® 3D) or joystick (for Measure-X®)	
Worktable	Hardcoat anodized, with fixture holes, removable stage glass, 30 kg recommended max payload	
Optics	Patented* 10:1 AccuCentric® TeleStar® auto-calibrating, telecentric zoom, motorized; mag range 0.8x-8x, with up to 10 calibrated positions; 1.0x replacement lens	Replacement lenses, optical: 0.5x/130 mm WD, 2.0x/32 mm WD, 4.0x/20 mm WD Replacement lenses, optical/laser: 0.5x/130 mm WD, 2.0x, 4.0x Optical accessories: LED grid projector, laser adapter (includes laser pointer)
FOV size (std optical configuration)	Measured diagonally, 8.9 mm (low mag) to 0.9 mm (high mag)	
Illumination	Patented** LED numeric matching substage (green), LED coaxial TTL surface (green), patented*** 8 sector/6 ring SmartRing™ LED (green)	Patented**** 8 sector/6 ring SmartRing™ LED (white)
Camera	High resolution, black & white digital metrology camera	High resolution color camera
Image processing	256 level grayscale processing with 10:1 subpixel resolution	
Sensor options (contact OGP for possible combinations of sensors)		Touch probe and change rack, SP25 scanning probe, patented**** on-axis TeleStar Plus interferometric TTL laser, Feather Probe™
Controller	Windows® based, with up-to-date processor and networking/communication ports	
Controller accessory package		24" flat panel LCD monitor, or dual 24" flat panel LCD monitors, keyboard, 3-button mouse (or user supplied)
Metrology software	MeasureMind® 3D MultiSensor	Measure-X®, MeasureMind 3D Offline
Productivity software		MeasureFit® Plus, SmartReport® powered by QC-Calc, SmartFit® 3D, SmartProfile®, Scan-X®, TrueMap™, SmartScript®, SmartTree™
Power requirements	115/230 vac, 50/60 Hz, 1 phase, 600 W	
Rated environment	Temperature 18-22° C, stable to ±1° C; 30-80% humidity; vibration <0.001g below 15 Hz	
Operating environment, safe operation	15-30° C	
XYZ volumetric accuracy ¹	$E_3 = (3.0 + 5L/1000) \mu\text{m}^{2.4.5}$	
XY area accuracy ¹	$E_2 = (1.5 + 5L/1000) \mu\text{m}^{2.3.4}$	
Z linear accuracy ¹	$E_1 = (2.5 + 5L/1000) \mu\text{m}^4$	$E_1 = (2.0 + 5L/1000) \mu\text{m}^4$ (with optional 2.0x replacement lens and grid projector; on-axis TeleStar Plus TTL laser; or TP20 or 200 touch probe)

*Patent Number 6,292,306 **Patent Number 6,161,940 ***Patent Number 5,690,417 ****Patent Number 7,791,731

¹Where L = measuring length in mm. Applies to thermally stable system in rated environment. Maximum rate of temperature change: 1° C/hour. Maximum vertical temperature gradient: 1° C/meter. All optical accuracy specifications at maximum zoom lens setting. Volumetric accuracy performance requires use of QVI 3D metrology software, such as MeasureMind 3D or CSP.

²With evenly distributed load up to 5 kg. Depending on load distribution, accuracy at maximum rated load may be less than standard accuracy.

³Measured in the standard measuring plane. The standard measuring plane is defined as a plane that is within 25 mm of the worktable surface.

⁴E₁, Z axis linear, E₂, XY area, and E₃, XYZ volumetric accuracy standards are described in QVI Publication Number 790762. ⁵On-site verification optional.



World Headquarters: Rochester, NY, USA • 585.544.0400 • www.ogpnet.com
 OGP Shanghai Co, Ltd: Shanghai, China • 86.21.5045.8383/8989 • www.smartscope.com.cn
 OGP Messtechnik GmbH: Hofheim-Wallau, Germany • 49.6122.9968.0 • www.ogpmesstechnik.de
 Optical Gaging (S) Pte Ltd: Singapore • 65.6741.8880 • www.smartscope.com.sg

