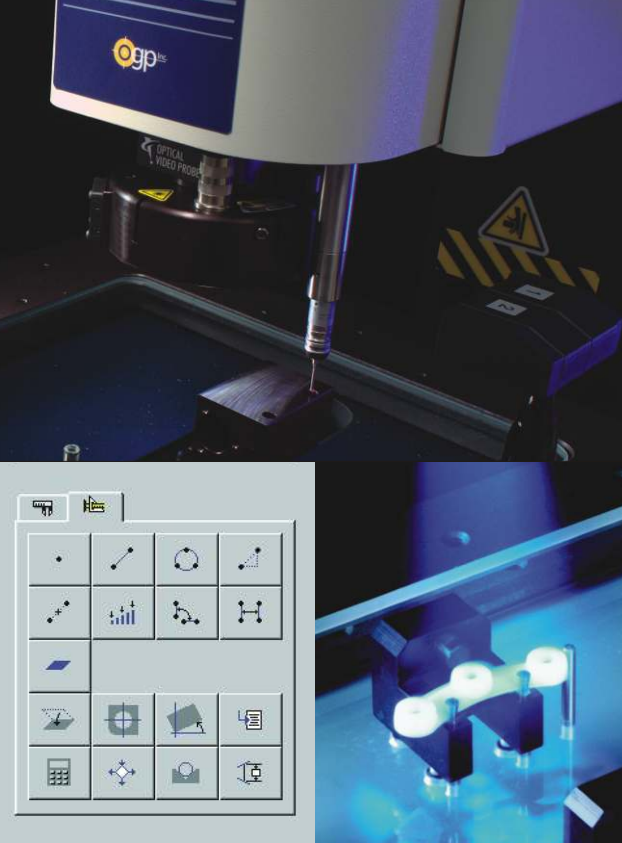


200/250/300



SMARTSCOPE MVP



Automatic CNC Measurement Systems

	Travel	mm
MVP 200	X axis	200
	Y axis	150
	Z axis	150
MVP 250	X axis	300
	Y axis	150
	Z axis	150
MVP 300	X axis	300
	Y axis	300
	Z axis	150

SmartScope® MVP from OGP® is the cost-effective way of getting the benefits of completely automatic video-based inspection and measurement. All MVP models include:

- **Intuitive metrology software.** Automated SmartScope MVP systems use full-featured Measure-X® metrology software, with ample functions for general purpose dimensional measurement and a powerful, yet easy-to-use interface.
- **Precision zoom optics.** SmartScope MVP includes a precise 6.5 to 1 motorized zoom lens that keeps images in focus and on-axis throughout the zoom range. Optional lens attachments expand the magnification range – a low cost way to increase system versatility. The high-resolution digital color camera provides high contrast, true-color images.
- **Structural integrity.** Each SmartScope MVP features joystick-controlled precision mechanical bearing motorized XYZ stages (microstepper motors for XY, DC servo for Z), with 0.5 μm linear scales mounted to a metrologically stable granite base and column.
- **Illumination flexibility.** SmartScope MVP systems provide illumination flexibility with LED profile light, LED coaxial surface light, and the patented full-LED SmartRing™ light.
- **Multisensor capability.** Add true multisensor versatility by choosing the optional touch probe or DRS™ laser to measure difficult-to-image or otherwise inaccessible features.

SmartScope performance
in a powerful CNC
video metrology system



Technical Specifications

■ Standard ■ Optional

200	250	300	
■	■	■	Stage travel (XYZ): 200 x 150 x 150 mm Stage travel (XYZ): 300 x 150 x 150 mm Stage travel (XYZ): 300 x 300 x 150 mm Measuring unit dimensions (approx LWH): 55 x 56 x 85 cm, 113 kg Measuring unit dimensions (approx LWH): 55 x 71 x 85 cm, 115 kg Measuring unit dimensions (approx LWH): 82 x 71 x 85 cm, 140 kg XYZ scale resolution: 0.5 μm Motor drives: X,Y microstepper; Z DC servo; with joystick control (X,Y,Z, zoom) Worktable: Hardcoat anodized with removable stage glass, 14 kg load capacity
■	■	■	Zoom lens: 6.5:1, motorized Accessories: 0.5x, 0.75x, 1.5x, and 2.0x lens attachments; 0.67x and 2.0x adapter tubes Camera: High resolution color CCD with 768 x 494 pixel array Illumination: LED profile light (collimated, green), LED coaxial surface (white), patented [†] 7 sector/6 ring SmartRing™ LED (white) Image processing: 256 level grayscale processing with 10:1 sub-pixel resolution Multisensor options: Touch probe and change rack, off-axis DRS™ laser
■	■	■	Power requirements: 115/230 vac, ± 5%, 50/60 Hz, 1 φ, 300 W Rated environment: Temperature between 18 and 22° C, stable to ± 1° C; 30-80% humidity (non-condensing); vibration <0.001g below 15 Hz Operating environment, safe operation: 15-30° C
■	■	■	Metrology software: OGP Measure-X® OGP MeasureMind® 3D MultiSensor Computer: Minimum configuration Dual Core processor @ 1.8 GHz, 1.0 GB RAM, 80 GB hard drive, 1.44 MB floppy drive, DVD-RW drive, parallel, serial, and USB 2.0 ports, on board 10/100 LAN Computer accessory package: Single or dual 22" flat panel LCD monitor(s), keyboard, 3-button mouse (or user supplied) Operating system: Microsoft® Windows™ XP Professional Software: SmartReport® powered by QC-Calc™, MeasureFit® Plus, MeasureMenu™
■	■	■	Where L=measuring length in mm. Applies to thermally stable system in rated environment. All optical accuracy specifications at maximum zoom lens setting. XY area accuracy: $E_2 = (2.5 + 4L/1000) \mu\text{m}^*$ XY area accuracy: $E_2 = (3.0 + 6L/1000) \mu\text{m}^*$ Z linear accuracy: $E_1 = (4.0 + 8L/1000) \mu\text{m}^{**}$ Z linear accuracy: $E_1 = (2.5 + 5L/1000) \mu\text{m}^{**}$ (with optional TP-20 or -200 touch probe, or DRS-300 or -500 laser)
■	■	■	Warranty: One year Accessories: Fixtures, calibration artifacts, rotary indexers

[†] Patent Number 5,690,417

*With evenly distributed 10 kg load in the standard measuring plane. Depending on load distribution, accuracy at maximum rated load may be less than standard accuracy. XY axis artifact: QVI 25 intersection grid reticle in the standard measuring plane. The standard measuring plane is defined as a plane that is 25 mm above the worktable.

**Z axis artifact: QVI step gage or master gage blocks.



Multisensor Measurements for Manufacturing Professionals

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