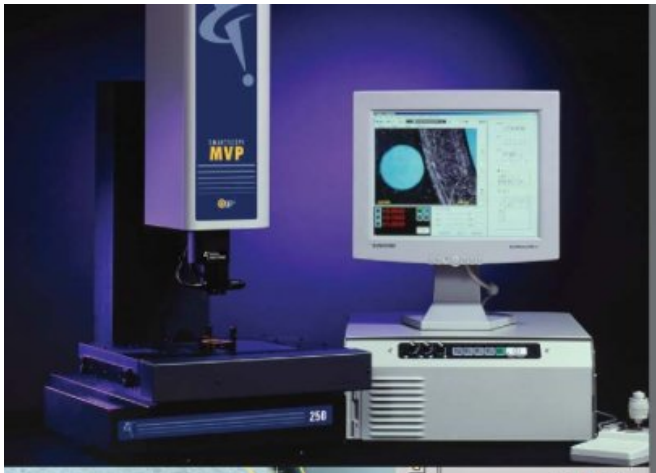
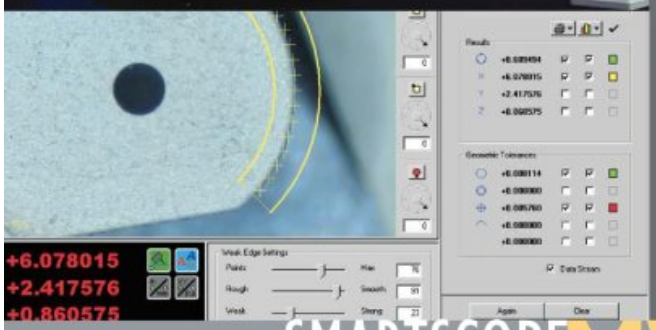






SMARTSCOPE MVP

ogp Inc.

Low-Cost, High-Capability Automated Inspection Systems

	Range	mm	in
MVP 200	X axis	200	8
	Y axis	150	6
	Z axis	150	6
MVP 250	X axis	300	12
	Y axis	150	6
	Z axis	150	6
MVP 300	X axis	300	12
	Y axis	300	12
	Z axis	150	6

Smooth automated performance in a high-value SmartScope

SmartScope® MVP metrology system is a cost-effective way to get the benefits of automated video-based inspection and measurement from the leading name in the industry – Optical Gaging Products (OGP® company).

- **Automatic operation.** Automated SmartScope MVP systems are equipped with servo-driven motorized stages, and use OGP's powerful and intuitive Measure-X™ metrology software, for completely automated inspection and/or measurement.
- **Superior zoom optics.** A precise 6.5 to 1 automatic zoom lens with ample 80 mm working distance keeps images in focus and on-axis throughout the zoom range. Optional screw-on lens attachments expand the magnification range – a low cost way to increase system versatility. Surface and back lighting in conjunction with a high-resolution color camera provide high contrast, true-color images.
- **Robust staging.** SmartScope MVP features a joystick-controlled precision mechanical bearing XYZ stage, with 0.5 µm (X and Y axes) and 1.0 µm (Z axis) linear glass scales mounted on a metrologically stable granite base and column.
- **Advanced image processing.** MVP features full field-of-view image processing with advanced edge detection algorithms designed for repeatability in real-world applications.
- **Multisensor capable.** Add a touch probe to access difficult-to-image or otherwise inaccessible features, to more fully characterize parts in a single setup.

Technical Specifications

■ Standard □ Optional

200	250	300	
■			**Measuring range (XYZ) / Dimensions (approx DWH):** 200 x 150 x 150 mm / 54 x 53 x 80 cm, 113kg
	■		**Measuring range (XYZ) / Dimensions (approx DWH):** 300 x 150 x 150 mm / 54 x 56 x 80 cm, 115 kg
		■	**Measuring range (XYZ) / Dimensions (approx DWH):** 300 x 300 x 150 mm / 82 x 58 x 80 cm, 140 kg
■	■	■	**Controller dimensions (approx DWH):** 52 x 45 x 19 cm, 14 kg
■	■	■	**XY Scale resolution:** 0.5 µm
■	■	■	**Z Scale resolution:** 1.0 µm
■	■	■	**Worktable:** Anodized with removable stage glass, 14 kg load capacity
■	■	■	**Zoom lens:** 6.5:1, motorized, working distance 80 mm
□	□	□	**Lens accessories:** 0.5x, 1.5x, and 2.0x lens attachments
■	■	■	**Camera:** ½" format high resolution color CCD with 768 x 494 pixel array
■	■	■	**Illumination:** LED substage, fiber optic ring
□	□	□	Coaxial, tungsten light source
□	□	□	TTL coaxial, patented[1] 8 sector/6 ring SmartRing™ white LED (in lieu of standard ring light and optional coaxial illumination)
■	■	■	**Image processing:** 256 level grayscale processing with 10:1 sub-pixel resolution
□	□	□	**Multisensor option:** Touch probe and change rack
■	■	■	**Power requirements:** 110/220 vac (manually switchable), ± 5%, 50/60 Hz, 1 ϕ, 250 W
■	■	■	**Rated environment:** 18-22° C ± 2° C/hr, 30-80% humidity (non-condensing), vibration <0.002g below 15 Hz
■	■	■	**Operating environment, safe operation:** 5-40° C
■	■	■	**Metrology software:** Measure-X metrology software
■	■	■	**Controller:** Minimum configuration Pentium® IV processor @ 2.6 GHz, 1.0 GB RAM, 40 GB hard drive, 1.44 MB floppy drive, CD-ROM drive, parallel, serial, and USB 2.0 ports, on board 10/100 LAN
■	■	■	**Operating system:** Microsoft® Windows™ XP
□	□	□	**Controller accessory package:** 15" or 20" flat panel LCD monitor, keyboard, mouse (or user supplied)
□	□	□	**Software:** MeasureFit® Plus, SmartReport® Plus, MeasureMenu™, SmartCAD®, and QC-Calc™ software
■			**XY area accuracy:** $E_2 = (2.5 + 4L/1000)$ µm*
	■	■	**XY area accuracy:** $E_2 = (2.5 + 6L/1000)$ µm*
■	■	■	**Z linear accuracy:** $E_1 = (4.0 + 8L/1000)$ µm**
□	□	□	**Z linear accuracy:** $E_1 = (2.5 + 5L/1000)$ µm (with optional TP-20 touch probe)*
■	■	■	**Warranty:** One year, by distributor
□	□	□	**Accessories:** Fixtures, calibration artifacts, granite base workstation, rotary indexers

[1] Patent Number 5,690,417

* Applies to thermally stable system in rated environment, and 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. The standard measuring plane is defined as a plane that is 25 mm above the worktable.

** Applies to highest zoom setting

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Multisensor Metrology

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