



SMARTSCOPE MVP



Value Engineered Large Part Measurement

	Travel	mm
MVP 400	X axis	450
	Y axis	450
	Z axis	150

Large travel
video and
multisensor
measurement

The SmartScope® MVP 400 from OGP® offers a precision large-part measuring environment at a price aimed to be within reach of virtually every manufacturer.

This MVP system relies on the same OGP technologies that are utilized every day to measure precision parts in thousands of industrial installations around the world.

- **Automated operation.** SmartScope MVP 400 is equipped with motorized stages and Measure-X® metrology software for completely automated inspection and/or measurement.
- **Superior zoom optics.** A precise 6.5 to 1 automatic zoom lens keeps images in focus and on-axis throughout the zoom range. Optional lens attachments expand the magnification range.
- **Easy part access.** The stable cantilever design allows easy access to the XY stage for part and fixture setup.
- **Multisensor capability.** Use the optional touch probe or DRST™ laser to access difficult-to-image or otherwise inaccessible features, to more fully characterize parts in a single setup.



Technical Specifications

■ Standard ■ Optional

<ul style="list-style-type: none"> ■ Stage travel (XYZ): 450 x 450 x 150 mm ■ Measuring system dimensions (approx LWH): 132 x 102 x 170 cm, 1300 kg ■ Crated dimensions/weight: Contact OGP for crated size/weight ■ XYZ scale resolution: 0.5 μm ■ Motor drives: X,Y, and Z, DC servo; with joystick control (X,Y,Z, zoom) ■ Worktable: Hardcoat anodized with removable stage glass, 30 kg load capacity
<ul style="list-style-type: none"> ■ Zoom lens: 6.5:1, motorized ■ Lens accessories: 0.5x, 0.75x, 1.5x, and 2.0x lens attachments; 0.67x and 2.0x adapter tubes ■ Camera: ½" format 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
<ul style="list-style-type: none"> ■ Power requirements: 115/230 vac, 50/60 Hz, 1 φ, 700 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
<ul style="list-style-type: none"> ■ 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 ■ Operating system: Microsoft® Windows™ XP Professional ■ Computer accessory package: Single or dual 22" flat panel LCD monitor(s), keyboard, 3-button mouse (or user supplied) ■ Software: MeasureFit® Plus, SmartReport® powered by QC-Calc™, MeasureMenu™
<p>Where L=measuring length in mm. Applies to thermally stable system in rated environment. All optical accuracy specifications at maximum zoom lens setting.</p> <ul style="list-style-type: none"> ■ XY area accuracy: $E_2 = (3.0 + 8L/1000) \mu\text{m}^*$ ■ Z linear accuracy: $E_1 = (3.8 + 8L/1000) \mu\text{m}^{**}$ ■ Z linear accuracy: $E_1 = (3.0 + 8L/1000) \mu\text{m}^{***}$ (with optional 2.0x lens attachment) ■ Z linear accuracy: $E_1 = (2.5 + 8L/1000) \mu\text{m}^{***}$ (with optional TP-20 touch probe or DRS-300 laser)
<ul style="list-style-type: none"> ■ 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.



Optical Gaging Products Inc.

A Quality Vision International Company

Multisensor Measurements for Manufacturing Professionals

World Headquarters and Technology Center: 850 Hudson Avenue • Rochester, NY 14621 USA • Tel 585.544.0400 • Fax 585.544.8092
OGP Shanghai Co, Ltd: 17 Lane 593 • East Jin An Rd • Pu Dong New District • Shanghai, China 201204 • Tel 86.21.5045.8383/8989 • Fax 86.21.6845.8800
OGP Messtechnik GmbH: Nassastr. 11 • 65719 Hofheim-Wallau, Germany • Tel 49.6122.9968.0 • Fax 49.6122.9968.20
Optical Gaging (S) Pte Ltd: 21 Tannery Road, 347733 Singapore • Tel 65.67.41.8880 • Fax 65.68.46.8998
Internet: www.ogpnet.com • intl-sales@ogpnet.com