



SMARTSCOPE FLASH

High-Precision Video Metrology System

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

Great value in a
benchtop
metrology system

SmartScope® Flash™ 250 from OGP® offers great value, high precision, and superb optics mounted on a space-saving benchtop platform. In addition to its accurate video metrology capability, Flash 250 also supports a variety of multisensor options, including touch probes, micro-probes, and through-the-lens (TTL) or off-axis laser sensors.

- Our patented 12:1 AccuCentric® zoom lens calibrates itself automatically after every magnification change, ensuring highest accuracy throughout its entire range.
- Rugged benchtop machine with 300 mm of X axis travel in a compact package — provides measurements of large parts while maintaining a small system footprint, so it can be used virtually anywhere.
- Exclusive OGP illumination technology provides the programmable power you need to image the most challenging parts — including prismatic or cylindrical parts. LED profile and TTL coaxial illuminators — even our patented programmable SmartRing™ white LED illuminator — are all standard with SmartScope Flash 250.
- Field proven OGP full field-of-view image processing and advanced Z-axis autofocus deliver high precision non-contact measurement.
- OGP Measure-X™ metrology software uses point-and-click tools to simplify complex measurements, and provides a versatile measurement package for general use. SmartScope Flash 250 is also available with MeasureMind® 3D MultiSensor, for full 3D functionality.



Technical Specifications

■ Standard ■ Optional

■	Measuring range (XYZ): 300 x 150 x 200 mm
■	Measuring unit dimensions (approx DWH): 74 x 64 x 81 cm, 115 kg
■	Computer dimensions (approx DWH): 21 x 45 x 8 cm, 14 kg
■	XYZ scale resolution: 0.5 µm
■	0.1 µm
■	Motor drives: DC servo with joystick control (X, Y, Z, zoom)
■	Worktable: Hardcoat anodized with fixture holes and removable stage glass, 25 kg load capacity
■	Zoom lens: Patented [†] 12:1 AccuCentric® auto-calibrating with up to 25 calibrated positions
■	Lens Accessories: 0.5x, 1.5x, and 2.0x lens attachments; 2.5x and 5.0x front objectives; LED grid projector
■	Camera: ½" format high resolution color CCD with 768 x 494 pixel array
■	Illumination: LED substage, LED coaxial TTL surface, patented ^{††} 8 sector/8 ring SmartRing™ LED (white)
■	8 sector/8 ring SmartRing LED, red or green (in lieu of white)
■	Image processing: 256 level grayscale processing with 10:1 sub-pixel resolution
■	Multisensor options: Touch probe/change rack, Feather Probe™, Rainbow Probe™, on-axis TTL laser, off-axis DRS™ laser (contact OGP for possible combinations of sensors)
■	Power requirements: 115-230 vac, ± 5%, 50/60 Hz, 1 φ, 700 W
■	Rated environment: 18-22° C ± 2° C/hr, 30-80% humidity (non-condensing), vibration <0.002g below 15 Hz
■	Operating environment: 15-30° C
■	Metrology software: Measure-X™
■	MeasureMind® 3D MultiSensor
■	Computer: Minimum configuration Pentium® 4 processor @ 2.6 GHz, 1 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
■	Computer accessory package: 15" or 20" flat panel LCD monitor, keyboard, mouse (or user supplied)
■	Software: For use with Measure-X or MeasureMind 3D; MeasureFit® Plus, SmartReport® Plus, MeasureMenu™, XML import/export, QC-Calc™, Scan-X®
■	Software: For use with MeasureMind 3D only; SmartCAD® 3D, Advanced Centroid, SoftSectioner™, SmartFit® 3D, SmartFeature™, SmartScript, I++ DME
■	XY accuracy: $E_z = (2.5 + 6L/1000) \mu\text{m}^*$
■	Z accuracy: $E_z = (3.0 + 5L/1000) \mu\text{m}^*$
■	Z accuracy: $E_z = (2.0 + 5L/1000) \mu\text{m}^*$ (with optional front lens attachment/grid projector, on-axis TTL laser w/5.0x objective, or off-axis DRS-2000 laser)
■	Z accuracy: $E_z = (1.0 + 5L/1000) \mu\text{m}^*$ (with optional TP-20/-200 touch probe, or off-axis DRS-300/-500 laser)
■	Warranty: One year, on-site
■	Accessories: Fixtures and calibration artifacts, service and support contracts, granite base workstation, rotary indexers

[†]Patent Number 5,389,774 ^{††}Patent Number 5,690,417

*Where L=measuring length in mm. Applies to thermally stable system in rated environment, maximum zoom lens setting, and evenly distributed 5 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.



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