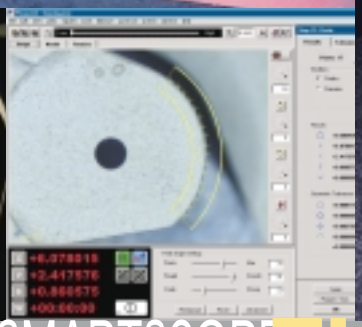

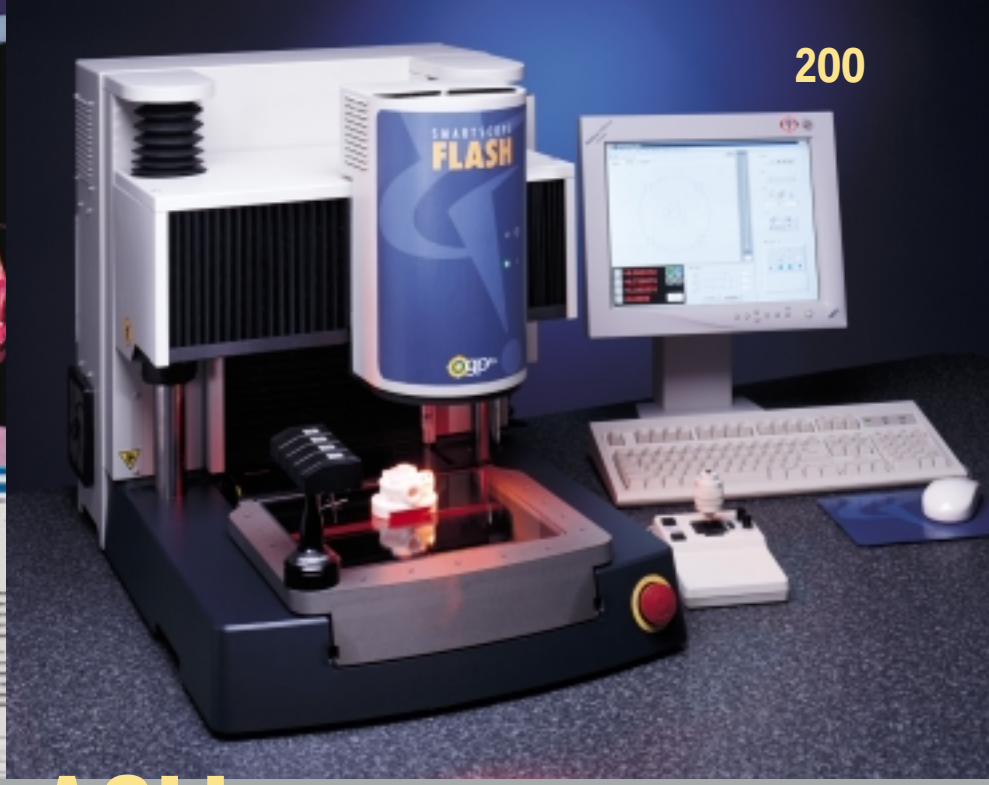

SMARTSCOPE FLASH 200

Personal Metrology System

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

When we set out to create a new generation of metrology system, we didn't start with a clean sheet of paper. We started with 20 years of video measuring experience. And by listening — to you.

The result is a unique metrology system from OGP.® SmartScope® Flash™ 200 is a versatile benchtop system that combines state-of-the-art video and autofocus to deliver the most productive general purpose dimensional measurement system available.

- Flash is mechanically innovative. Its unique "elevating bridge" design creates the most compact system of any machine with comparable travel. The entire system, including computer, fits in a volume under 0.3 cubic meters.
- Accuracy is built-in. Axial straightness and perpendicularity are machined in, while camera alignment and lens parfocalization are permanently adjusted at the factory.
- Flash's patented profile illumination features a linear array of LED lights beneath the stage glass that tracks the optical system as it moves in the X axis. Flash also has a TTL coaxial illuminator, fiber optic ring light, and the patented SmartRing™ light — all as standard equipment.
- Flash features OGP's robust 32 bit Measure-X™ metrology software. Measure-X includes a wealth of functions for general purpose dimensional measurement, wrapped in a powerful, easy-to-use graphic interface.

A unique way of looking at automatic measurement

SMARTSCOPE FLASH

Technical Specifications and Configurations

200 — ● Standard ○ Option

- ● **Measuring range (XYZ):** 200 x 200 x 150 mm
- ● **Measuring unit dimensions (approx DWH):** 760 x 600 x 675 mm, 103 kg
- ● **Scale resolution:** 0.5 µm
- ● **Motor drives:** DC servo with 4 axis joystick (X, Y, Z, zoom)
- ● **Worktable:** Hardcoat anodized with fixture holes and removable stage glass, 16 kg load capacity

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- ● **Zoom lens:** Patented† 12:1 AccuCentric™ auto-calibrating, (32x – 280x on-screen)*
- ○ **Accessories:** 1.5x lens attachment, 2x lens attachment
- ● **Camera:** ½" format high resolution color CCD with 768 x 494 pixel array
- ● **Illumination:** Patented†† LED numeric aperture matching substage (amber light), patented††† 8 sector/6 ring SmartRing LED (red light),
- ● TTL coaxial surface (white light), fiber optic ring (white light)
- ○ Patented†††† SmartRing Horizon II low incidence LED (red light)
- ● **Image processing:** 256 level grayscale processing with 10:1 sub-pixel resolution
- ○ **Hardware options:** Touch probe and docking station, granite base workstation, color video printer

*On-screen magnification depends on monitor size. Figures shown are for a typical 15" flat panel monitor.
†Patent Number 5,389,774 ††Patent Number 6,161,940 †††Patent Number 5,690,417 ††††Patent Number 6,179,439

- ● **Power requirements:** 115/230 vac, ± 5%, 50/60 Hz, 1 , 500 W
- ● **Rated environment:** 18-23° C ± 2° C/hr, 30-80% humidity (non-condensing), vibration <0.002g below 15 Hz
- ● **Operating environment:** 15-30° C

- ● **Metrology software:** OGP 32 bit Measure-X™
- ● **Computer:** Min configuration embedded Pentium class CPU with 64 MB RAM, 10+ GB hard drive, 1.44 MB floppy, CD-ROM, 2 serial ports, 1 parallel port
- ● **Operating system:** Microsoft® Windows™ 98
- ○ Microsoft Windows NT

Computer accessory packages:

- ○ 17" SVGA 1024 x 768 monitor, keyboard, three button mouse
- ○ 15" flat panel 1024 x 768 monitor, keyboard, three button mouse
- ○ **Software:** MeasureFit™, SmartCAD®, SmartReport®, QC-Calc™, MeasureMenu™

- ● **XY accuracy:** $E_2=(2.5 + 5L/1000)$ µm*
- ● **Z accuracy:** $E_1=(3.0 + 6L/1000)$ µm*

*Where L=measuring length in mm. Applies to thermally stable system in rated environment, maximum zoom lens setting, and evenly distributed 5 kg load. Depending on load distribution, accuracy at maximum rated load may be less than standard accuracy. XY axis artifact: QVI 25 intersection grid reticle at standard measuring plane. Z axis artifact: QVI step gage or master gage blocks.

- ● **Warranty:** One year, on-site
- ○ **Accessories:** Fixtures, calibration artifacts
- ○ **Service:** Service and support contracts

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A Quality Vision International Company

Technology by QVI

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