



SMARTSCOPE FLASH CNC



Compact Metrology System

	Travel	mm
Flash CNC 200	X axis	200
	Y axis	200
	Z axis	150

Unique
automatic
measurement
versatility

With more than two thousand systems sold, SmartScope® Flash™ CNC 200 from OGP® is one of the most popular video and multisensor measurement systems on the market. Its innovative, compact design meets the measurement needs of manufacturers in a broad range of industries.

SmartScope Flash CNC 200 is the most productive general purpose dimensional measuring system that fits on a benchtop. It excels at video measurement and can be configured as a cost-effective multisensor system with optional through-the-lens (TTL) laser or touch probe.

- **Mechanically Innovative.** The unique “elevating bridge” design creates the most compact system of any machine with comparable travel.
- **Precision Optics.** Flash CNC 200 has a high-quality 12:1 zoom lens that provides excellent optical performance over its entire range. This patented AccuCentric® lens maintains accuracy by automatically calibrating itself with each magnification change, over the life of the system.
- **Versatile Illumination.** Patented profile illumination features a fixed 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 LED surface illuminator and the patented SmartRing™ light as standard equipment.
- **Capable Metrology Software.** Flash CNC 200 includes the robust yet easy to use Measure-X® metrology software. Optional MeasureMind® 3D MultiSensor metrology software provides full 3D functionality.



■ Standard ■ Optional

<ul style="list-style-type: none"> ■ Stage travel (XYZ): 200 x 200 x 150 mm ■ Measuring unit dimensions (approx LWH): 76 x 60 x 73 cm, 100 kg ■ Shipping crate dimensions (approx LWH): 94 x 87 x 90 cm, 149 kg ■ XYZ scale resolution: 0.5 μm ■ Motor drives: DC servo with joystick control (X, Y, Z, zoom) ■ Interactive stage control: 4-axis (X, Y, Z, zoom) with ergonomic, multifunction hand controller (requires MeasureMind 3D metrology software) ■ Worktable: Hardcoat anodized, with fixture holes and removable stage glass, 16 kg load capacity
<ul style="list-style-type: none"> ■ Zoom lens: Patented[†] 12:1 AccuCentric[®] auto-calibrating with up to 25 calibrated positions ■ Optical accessories: 0.5x, 0.75x, 1.5x, and 2.0x lens attachments; 2.5x and 5.0x replacement lenses; LED grid projector, laser pointer (not available with TTL laser) ■ Camera: ½" format high resolution color CCD with 768 x 494 pixel array ■ Illumination: Patented^{††} LED numeric aperture matching substage, LED coaxial TTL surface, patented^{†††} 8 sector/8 ring SmartRing[™] LED ■ Image processing: 256 level grayscale processing with 10:1 sub-pixel resolution ■ Multisensor options: On-axis TTL laser, touch probe and change rack
<ul style="list-style-type: none"> ■ Power requirements: 115/230 vac, 50/60 Hz, 1 φ, 500 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: 15-30° C
<ul style="list-style-type: none"> ■ Metrology software: OGP Measure-X[®] ■ Controller: Minimum configuration Pentium[®] processor @ 2.8 GHz, 1 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 accessories: Single or dual 22" flat panel LCD monitor(s), keyboard, three-button mouse (or user supplied) ■ Software: For use with Measure-X or MeasureMind 3D; MeasureFit[®] Plus, SmartReport[®] powered by QC-Calc[™], MeasureMenu[™], Scan-X[®] ■ Software: For use with MeasureMind 3D only; SmartScript[®], SmartTree[™], SmartProfile[™]
<p>Where L=measuring length in mm. Applies to thermally stable system in rated environment. All optical accuracy specifications at maximum zoom setting.</p> <ul style="list-style-type: none"> ■ XY area accuracy: $E_z=(2.0 + 6L/1000) \mu\text{m}^*$ ■ Z linear accuracy: $E_z=(3.5 + 6L/1000) \mu\text{m}^{**}$ ■ Z linear accuracy: $E_z=(2.5 + 6L/1000) \mu\text{m}^{**}$ (with optional 2.0 lens attachment and grid projector) ■ Z linear accuracy: $E_z=(2.0 + 6L/1000) \mu\text{m}^{**}$ (with optional TTL laser and 5.0x replacement lens) ■ Z linear accuracy: $E_z=(1.4 + 6L/1000) \mu\text{m}^{**}$ (with optional TP-200 touch probe)
<ul style="list-style-type: none"> ■ Warranty: One year ■ Accessories: Fixtures and calibration artifacts, rotary indexers

[†]Patent Number 5,389,774 ^{††}Patent Number 6,161,940 ^{†††}Patent Number 5,690,417

*With 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. 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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