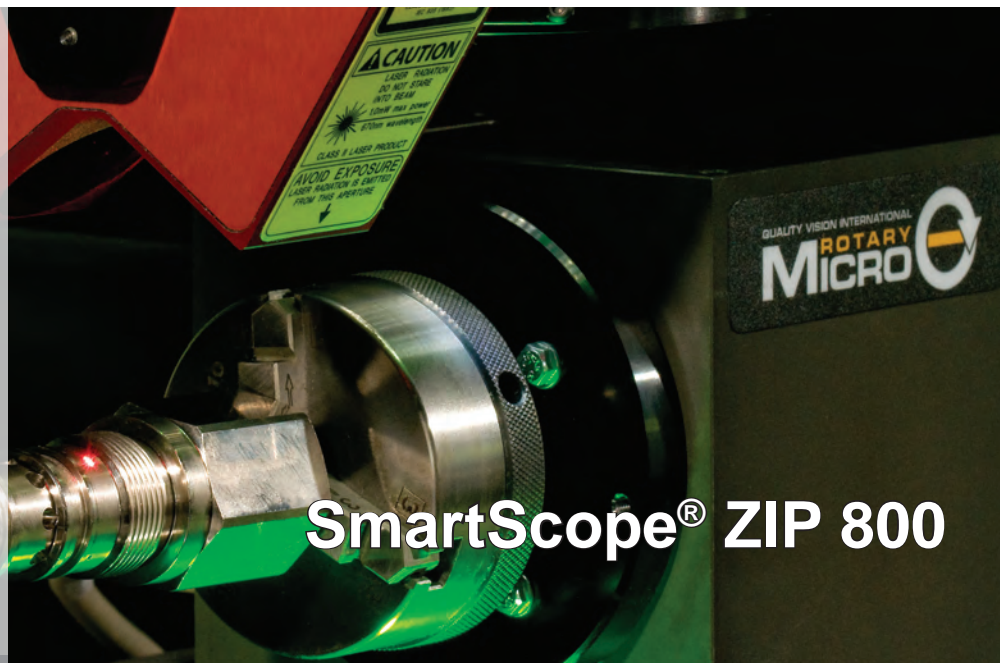




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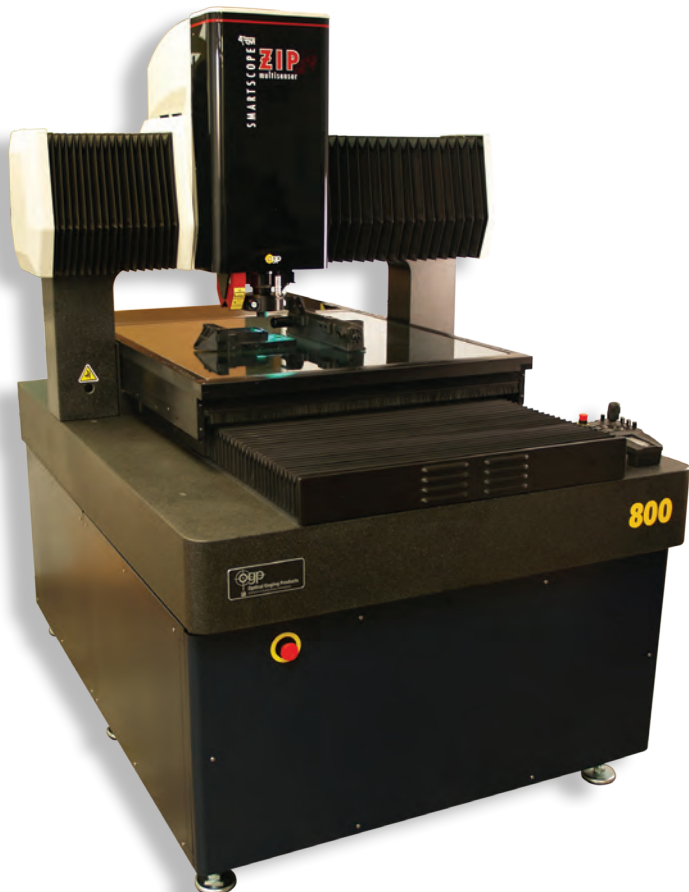
SmartScope[®] ZIP 800

- *Accurate video metrology* – 5:1 AccuCentric[®] motorized zoom lens autocalibrates with every magnification change
- *Measurement stability is built-in* – A granite base and bridge provide a rigid, orthogonal stage for measurement stability
- *Measure large parts* – Large measurement volume
- *Multisensor versatility* – Optional non-contact sensors, touch probes, and micro-probes

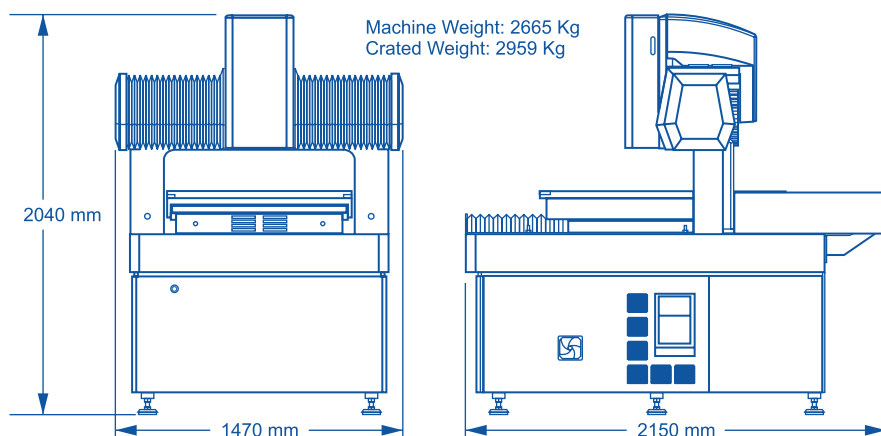
Large Travel Multisensor Measuring System for Large Parts



Axis	Travel (mm)
X axis	800
Y axis	820
Z axis	200
Extended Z (opt)	300



SmartScope® ZIP 800



	Standard	Optional
XYZ travel	800 x 820 x 200 mm	Extended Z axis, 300 mm
XYZ scale resolution	0.1 µm	0.05 µm
Drive system	DC servo with 4-axis control (X,Y,Z,zoom); with multifunction handheld controller (for MeasureMind® 3D) or joystick (for Measure-X®)	
Worktable	Hardcoat anodized, with fixture holes, removable stage glass, 75 kg recommended max payload	
Optics	5:1 AccuCentric® auto-calibrating zoom, motorized; 1.0x front replacement lens; 1.0x adapter tube; 2.0x lens attachment	0.5x, 0.75x, 1.5x lens attachments; 1.0x LWD (not for use with SmartRing™ light), 2.5x, 5.0x, 10.0x front replacement lenses; 0.67x, 2.0x adapter tubes; autofocus LED grid projector; laser adapter (includes laser pointer)
FOV size (std optical configuration)	Measured diagonally, 5.0 mm (low mag) to 0.9 mm (high mag)	
Illumination	Substage servo-driven LED profile (green), coaxial LED surface (white), patented SmartRing LED ring light (white)	VuLight™ oblique illuminator, small fiber optic ring light, fiber optic surface light, large fiber optic ring light
Camera	High resolution, color	High resolution, black & white digital metrology camera
Image processing	256 level grayscale processing with 10:1 subpixel resolution	
Sensor options (contact OGP for possible combinations of sensors)		Touch probe and change rack, SP25 scanning probe, off-axis DRS™ laser, on-axis TTL laser, Rainbow Probe™ scanning white light sensor, Feather Probe™
Controller	Windows® based, with up-to-date processor and on board networking/communication ports	
Controller accessory package		24" flat panel LCD monitor, or dual 24" flat panel LCD monitors, keyboard, 3-button mouse (or user supplied)
Metrology software	MeasureMind® 3D MultiSensor	Measure-X®, MeasureMind 3D Offline
Productivity software		MeasureFit® Plus, SmartReport® powered by QC-Calc, SmartFit® 3D, SmartProfile®, Scan-X®, TrueMap™, SmartScript®, SmartTree™
Power requirements	115/230 vac, 50/60 Hz, 1 phase, 1380 W	
Rated environment	Temperature 18-22° C, stable to ±1° C; 30-80% humidity; vibration <0.001g below 15 Hz	
Operating environment, safe operation	15-30° C	
XYZ volumetric accuracy ¹	$E_3 = 2.8 + 6L/1000 \mu\text{m}^{2,4,5}$	$E_3 = 2.4 + 7L/1000 \mu\text{m}^{2,4,5}$
XY area accuracy ¹	$E_2 = (2.0 + 5L/1000) \mu\text{m}^{2,3,4}$	$E_2 = (1.5 + 6L/1000) \mu\text{m}^{2,3,4}$ (with optional 0.05 µm scale resolution)
Z linear accuracy ¹	$E_1 = (2.0 + 5L/1000) \mu\text{m}^4$ (with 2.0x lens attachment)	$E_1 = (1.8 + 5L/1000) \mu\text{m}^4$ (with optional TTL laser, or DRS-2000 laser) $E_1 = (1.3 + 5L/1000) \mu\text{m}^4$ (with optional DRS-300 or -500 laser, or TP20 or 200 touch probe)

¹Patent Number 5,690,417

²Where L = measuring length in mm. Applies to thermally stable system in rated environment. Maximum rate of temperature change: 1° C/hour. Maximum vertical temperature gradient: 1° C/meter. All optical accuracy specifications at maximum zoom lens setting. Volumetric accuracy performance requires use of QVI 3D metrology software, such as MeasureMind 3D or CSP.

³With evenly distributed load up to 10 kg. Depending on load distribution, accuracy at maximum rated load may be less than standard accuracy.

⁴Measured in the standard measuring plane. The standard measuring plane is defined as a plane that is within 25 mm of the worktable surface.

⁵ E_1 , Z axis linear, E_2 XY area, and E_3 XYZ volumetric accuracy standards are described in QVI Publication Number 790762. ⁶On-site verification optional.



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