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SmartScope ZIP[®] 800

- Accurate video metrology -7:1 AccuCentric® motorized zoom lens autocalibrates with every magnification change
- Measurement stability is • built-in -A granite base and bridge provide a rigid, orthogonal structure for measurement stability
- Measure large parts -• Large measurement volume
- Multisensor versatility -• Optional non-contact sensors, touch probes, and micro-probes

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

Large Travel **Multisensor Measuring System for Large Parts**







Shown with optional DRS™ laser





SmartScope ZIP® 800





Choose the QVI metrology software best suited to your manufacturing setting — 3D CAD-based ZONE3®, MeasureMind[®] 3D, Measure-X[®], VMS[™] or Elements[®].

Machine Weight: 2665 Kg Crated Weight: 2959 Kg

	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		
Worktable	Hardcoat anodized, with fixture holes, removable stage glass, 75 kg recommended max payload		
Optics	7:1 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 pointer (not available with optional TTL laser)	
FOV size (std optical configuration)	Measured diagonally, 5.0 mm (low mag) to 0.9 mm (high mag)		
Illumination	Substage servo-driven LED profile (mono- chromatic), coaxial LED surface (white), SmartRing LED ring light (white)	VuLight™ LED oblique illuminator, small fiber optic ring light, fiber optic surface light, large fiber optic ring light	
Camera	High resolution color metrology camera	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)	
Software	QVI Portal, including: • Portal Navigator • Independent Calibration Engine (ICE) • Multimedia Content Viewer • SmartLink™	Metrology software: ZONE3® or ZONE3 Pro, MeasureMind® 3D MultiSensor, Measure-X [®] , VMS [™] , Elements [®] Productivity software: MeasureFit [®] Plus, SmartFit [®] 3D, SmartProfile [®] Offline software: ZONE3, MeasureMind 3D MultiSensor, Measure-X, VMS	
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) μm ^{2.4,5}	E ₃ = (2.4 + 7L/1000) μm ^{2,4,5}	
XY area accuracy ¹	E ₂ = (2.0 + 5L/1000) μm ^{2,3,4}	$E_2 = (1.5 + 6L/1000) \mu m^{2.3.4}$ (requires optional 0.05 μm scale resolution)	
Z linear accuracy ¹	$E_{1} = (2.0 + 5L/1000) \ \mu m^{4}$ (with 2.0x lens attachment)	E_1 = (1.8 + 5L/1000) μm^4 (with optional TTL laser, or DRS-2000 laser) E_1 = (1.3 + 5L/1000) μm^4 (with optional DRS-300 or -500 laser, or TP20 or TP200 touch probe)	

¹Where 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 ZONE3. ³With evenly distributed load up to 10 kg. Depending on load distribution, accuracy at maximum rated load may be less than standard accuracy. ³Measured in the standard measuring plane. The standard measuring plane is defined as a plane that is within 25 mm of the worktable surface. ⁴E, Z axis linear, E₂ XY area, and E₃ XYZ volumetric accuracy standards are described in QVI Publication Number 790762. ⁶On-site verification optional.



Phone: (585) 544-0400 • (800) 647-4243 Fax: (585) 544-8092 info@ogpnet.com www.ogpnet.com

