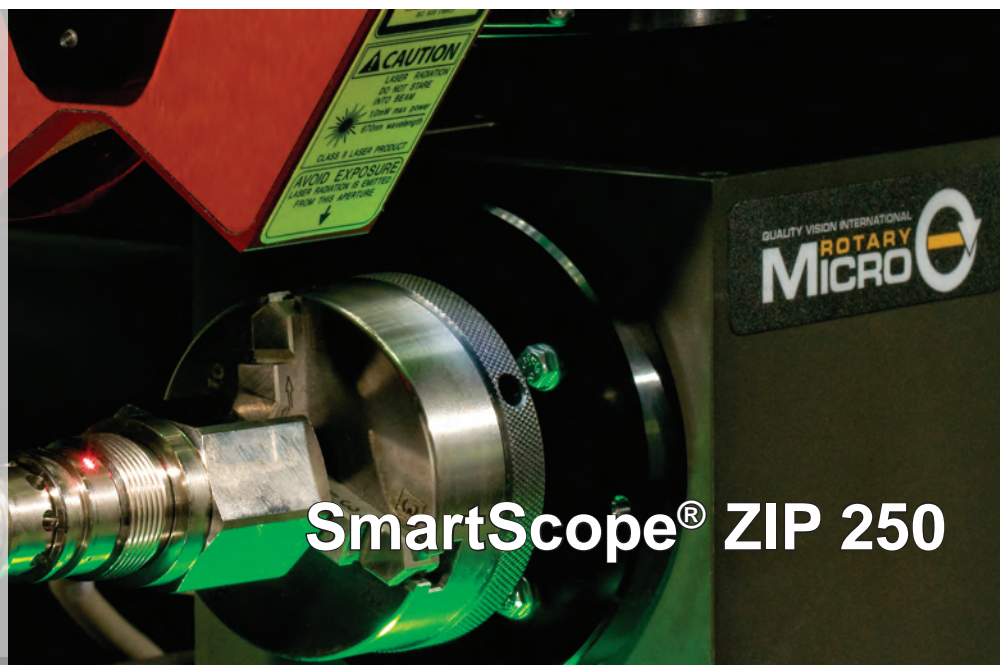




**Optical
Gaging
Products**



A Division of Quality
Vision International



SmartScope[®] ZIP 250

- *Accurate video metrology* – 5:1 AccuCentric[®] motorized zoom lens autocalibrates with every magnification change
- *Ready to work* – Heavy-duty cast base and integral compound stage with Y-axis center drive for stability
- *Multisensor versatility* – Optional touch probes, lasers, and micro-probes

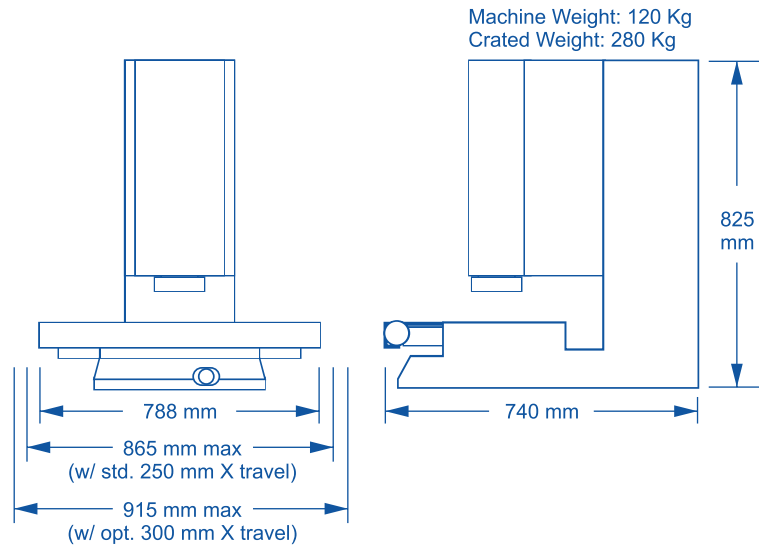
**The Industry Standard
for Benchtop Video
Metrology**



Axis	Travel (mm)
X axis	250
Y axis	150
Z axis	200
Extended X (opt)	300



SmartScope® ZIP 250



	Standard	Optional
XYZ travel	250 x 150 x 200 mm	Extended X axis, 300 mm
XYZ scale resolution	0.1 μm, with dual X scales	
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, 25 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 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, 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®, SmartFit® 3D, SmartProfile®, Scan-X®, TrueMap™, SmartScript®, SmartTree™
Power requirements	115/230 vac, 50/60 Hz, 1 phase, 700 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	
XY area accuracy¹	$E_2 = (1.8 + 6L/1000) \mu\text{m}^{2,3,4}$	
Z linear accuracy¹	$E_z = (2.5 + 5L/1000) \mu\text{m}^4$ (with 2.0x lens attachment)	$E_z = (2.0 + 5L/1000) \mu\text{m}^4$ (with optional TTL laser, or DRS-2000 laser) $E_z = (1.4 + 5L/1000) \mu\text{m}^4$ (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. All optical accuracy specifications at maximum zoom lens setting.

³With evenly distributed load up to 5 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_z , Z axis linear and E_2 , XY area accuracy standards are described in QVI Publication Number 790762.



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