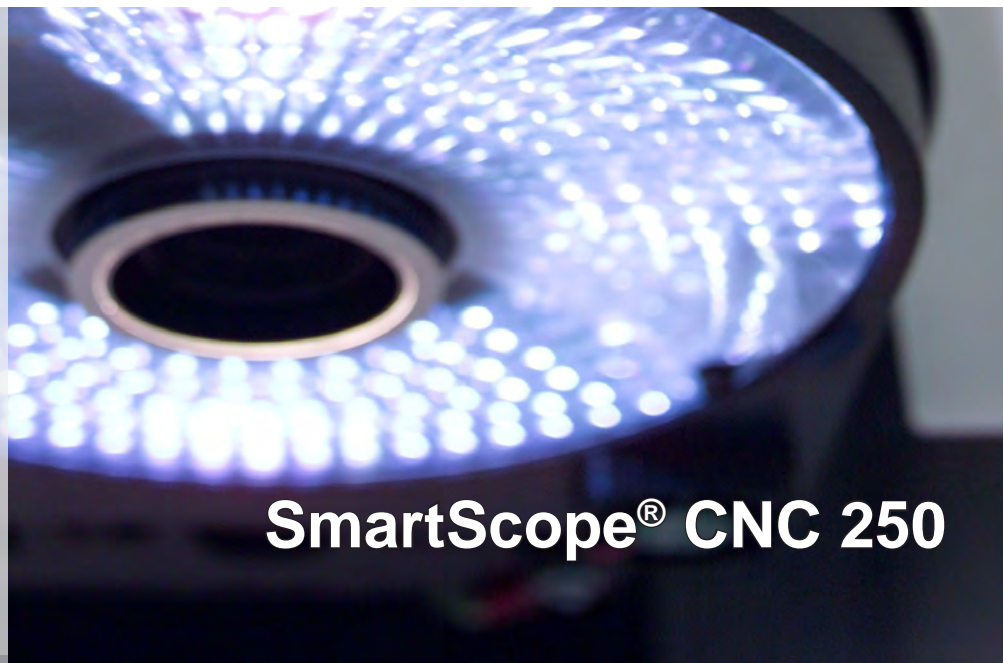




**Optical
Gaging
Products**



A Division of Quality
Vision International



SmartScope[®] CNC 250

- *Production ready* – Rugged compound stage benchtop machine with a small footprint, can be used almost anywhere
- *Precision optics* – High quality Zoom 12 AccuCentric[®] zoom lens autocalibrates with every magnification change
- *Superb illumination for the best video measurements* – Substage, TTL, and SmartRing[™] light illuminate parts from all angles
- *Multisensor versatility* – Optional touch probe, laser, and micro-probe sensors

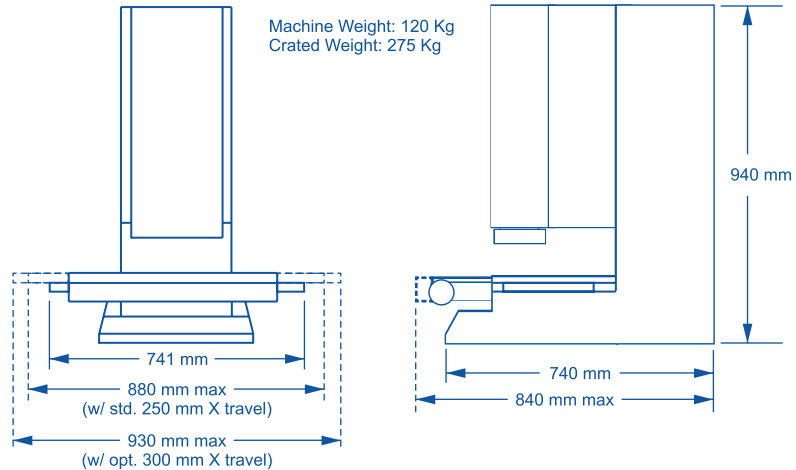
**Great Value in a
Benchtop Video
Measurement System**



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



SmartScope® CNC 250



	Standard	Optional
XYZ travel	250 x 150 x 200 mm	Extended X axis, 300 mm
XYZ scale resolution	0.5 µm	0.1 µm
Drive system	DC servo with 4-axis control (X,Y,Z,zoom); with joystick (for Measure-X®) or multifunction handheld controller (for MeasureMind® 3D)	
Worktable	Hardcoat anodized, with fixture holes, removable stage glass, 25 kg recommended max payload	
Optics	Zoom 12 AccuCentric® auto-calibrating zoom with up to 25 calibrated positions	0.5x, 0.75x, 1.5x, and 2.0x lens attachments; 2.5x and 5.0x laser lenses (for use with or without optional TTL laser), LED grid projector; TTL laser adapter (includes laser pointer)
FOV size (std optical configuration)	Measured diagonally, 10.1 mm (low mag) to 1.1 mm (high mag)	
Illumination	LED substage (green), LED coaxial TTL surface, patented ¹ 8 sector/8 ring SmartRing™ LED (white)	
Camera	High resolution, color	
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, on-axis TTL laser, off-axis DRS™ laser, Feather Probe™, Rainbow Probe™ scanning white light sensor
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	Measure-X®	MeasureMind 3D MultiSensor®, Measure-X 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, 600 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	$E_2 = (2.5 + 5L/1000) \mu\text{m}^{2,3,4}$	
Z linear accuracy¹	$E_1 = (3.0 + 5L/1000) \mu\text{m}^4$	$E_1 = (2.0 + 5L/1000) \mu\text{m}^4$ (with optional 2.0x replacement lens and grid projector, TTL laser, DRS 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.

⁵E_z Z axis linear and E_{xy} XY area accuracy standards are described in QVI Publication Number 790762.



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