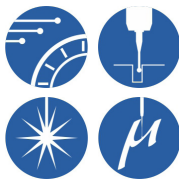




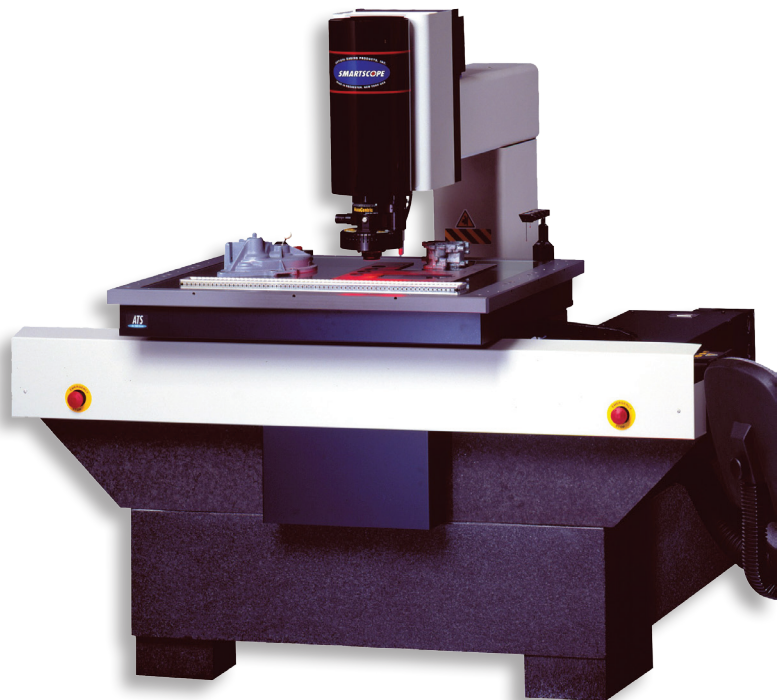
SmartScope® ATS

- *Reliable zoom optics –* AccuCentric® auto-calibration keeps the lens calibrated throughout its 7:1 nominal zoom range
- *Measurement stability and speed –* Precision lapped granite and air bearing transport for stability, speed and accuracy
- *High load capacity –* Measure parts weighing up to 200 kg
- *Multisensor versatility –* Optional non-contact sensors, touch probes and micro-probes

## High-Precision Air Bearing Transport Metrology System

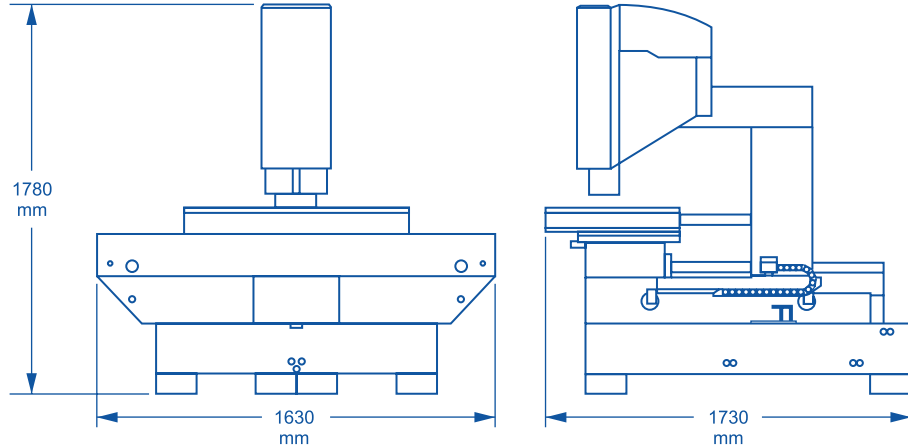
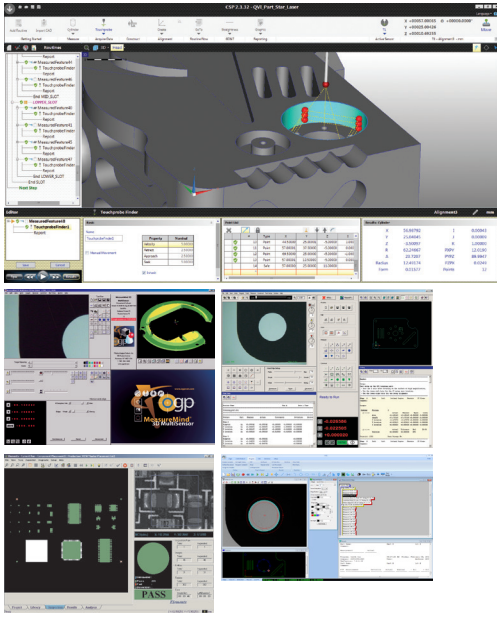


Axis	Travel (mm)
X axis	610
Y axis	610
Z axis	200
Extended X (opt)	760
Extended Z (opt)	300
Extended Z (opt)	400



Shown with optional touch probe & change rack





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

Machine Weight: 2955 Kg  
Crated Weight: 3410 Kg

	Standard	Optional
XYZ travel	610 x 610 x 200 mm	Extended X axis, 760 mm; extended Z axis, 300 or 400 mm
XYZ scale resolution	0.5 µm	0.1 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, 200 kg recommended max payload	
Optics	7:1 AccuCentric <sup>®</sup> 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 <sup>™</sup> 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 LED profile (monochromatic), coaxial LED surface (white), SmartRing LED ring light (white)	VuLight <sup>™</sup> 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 <sup>™</sup> laser, on-axis TTL laser, Rainbow Probe <sup>™</sup> scanning white light sensor, Feather Probe <sup>™</sup>
Controller	Windows <sup>®</sup> 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	<b>QVI Portal, including:</b> <ul style="list-style-type: none"> <li>• Portal Navigation Panel</li> <li>• Independent Calibration Engine (ICE)</li> <li>• Multimedia Content Viewer</li> <li>• SmartLink<sup>™</sup></li> </ul>	<b>Metrology software:</b> ZONE3 <sup>®</sup> or ZONE3 Pro, MeasureMind <sup>®</sup> 3D MultiSensor, Measure-X <sup>®</sup> , VMS <sup>™</sup> , Elements <sup>®</sup> <b>Productivity software:</b> MeasureFit <sup>®</sup> Plus, SmartFit <sup>®</sup> 3D, SmartProfile <sup>®</sup> <b>Offline software:</b> ZONE3, MeasureMind 3D MultiSensor, Measure-X, VMS
Power requirements	115/230 vac, 50/60 Hz, 1 phase, 900 W	
Air supply requirements	80 psig dry air input, 65 CFM consumption	
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 <sup>1</sup>	$E_3 = (2.0 + 5L/1000) \mu\text{m}^{2,4,5}$	
XY area accuracy <sup>1</sup>	$E_2 = (1.5 + 5L/1000) \mu\text{m}^{2,3,4}$	
Z linear accuracy <sup>1</sup>	$E_z = (2.8 + 5L/1000) \mu\text{m}^4$ (with 2.0x lens attachment)	$E_z = (2.3 + 5L/1000) \mu\text{m}^4$ (with optional TTL laser, or DRS-2000 laser) $E_z = (1.7 + 5L/1000) \mu\text{m}^4$ (with optional DRS-300 or -500 laser, or TP20 or TP200 touch probe)

<sup>1</sup>Where 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.

<sup>2</sup>With evenly distributed load up to 10 kg. Accuracy at maximum rated load may be less than standard accuracy.

<sup>3</sup>Measured in the standard measuring plane. The standard measuring plane is defined as a plane that is within 25 mm of the worktable surface.

<sup>4</sup>E<sub>z</sub>, Z axis linear, E<sub>2</sub>, XY area, and E<sub>3</sub>, XYZ volumetric accuracy standards are described in QVI Publication Number 790762. <sup>5</sup>On-site verification optional.



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