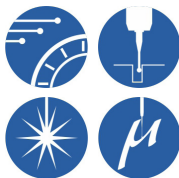


# SmartScope<sup>®</sup> Flash 200

- *Designed-in accuracy* – Patented<sup>†</sup> “elevating bridge” design eliminates errors common to other designs
- *Precision optics* – High quality Zoom 12 AccuCentric<sup>®</sup> zoom lens autocalibrates with every magnification change
- *Superb illumination for the best video measurements* – Substage, TTL, and SmartRing<sup>™</sup> light illuminate parts from all angles
- *Multisensor versatility* – Optional touch probe, laser, and micro-probe sensors

## Multisensor Dimensional Measuring System that Fits on a Benchtop



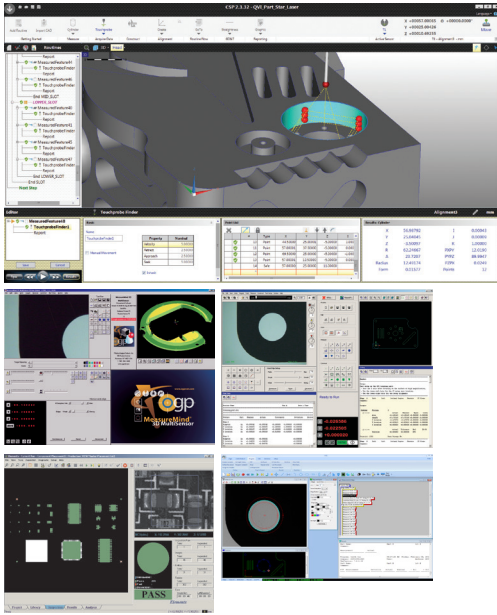
Axis	Travel (mm)
X axis	200
Y axis	200
Z axis	150



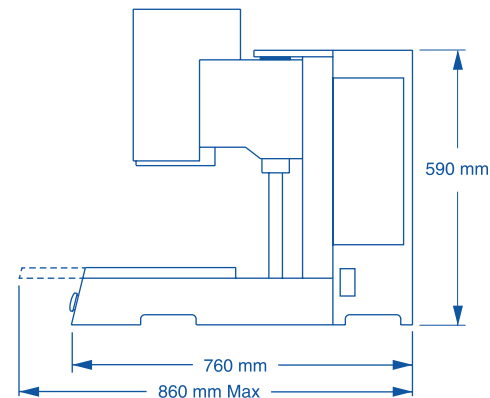
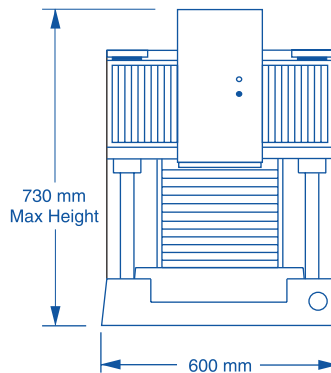
Shown with optional touch probe



# SmartScope® Flash 200



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



Machine Weight: 100 Kg  
Crated Weight: 149 Kg

	Standard	Optional
<b>XYZ travel</b>	200 x 200 x 150 mm	
<b>XYZ scale resolution</b>	0.5 µm, with dual Z-axis scales standard	0.1 µm
<b>Drive system</b>	DC servo with 4-axis control (X,Y,Z,zoom); with multifunction handheld controller	
<b>Worktable</b>	Hardcoat anodized, with fixture holes, removable stage glass, 16 kg recommended max payload	
<b>Optics</b>	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 pointer (not available with TTL laser sensor)
<b>FOV size (std optical configuration)</b>	Measured diagonally, 10.1 mm (low mag) to 1.1 mm (high mag)	
<b>Illumination</b>	Patented** LED numerical aperture matching substage, LED coaxial TTL surface, 8 sector/8 ring SmartRing™ LED (white)	<ul style="list-style-type: none"> <li>• Flexible SmartRing light for long working distance optical configurations (in lieu of standard SmartRing light)</li> <li>• 8 sector/6 ring Vu-Light™ LED ring light, standard working distance (70 mm), or low incidence working distance (36 mm) (in lieu of standard SmartRing light)</li> <li>• Red or green SmartRing light (in lieu of standard white SmartRing light)</li> </ul>
<b>Camera</b>	High resolution color metrology camera	
<b>Image processing</b>	256 level grayscale processing with 10:1 subpixel resolution	
<b>Sensor options (contact OGP for possible combinations of sensors)</b>		Touch probe and change rack (touch probe not available with optional Vu-Light), on-axis TTL laser, Feather Probe™
<b>Controller</b>	Windows® based, with up-to-date processor and on board networking/communication ports	
<b>Controller accessory package</b>		24" flat panel LCD monitor, or dual 24" flat panel LCD monitors; keyboard, 3-button mouse (or user supplied)
<b>Software</b>	<b>QVI Portal, including:</b> <ul style="list-style-type: none"> <li>• Portal Navigator</li> <li>• Independent Calibration Engine (ICE)</li> <li>• Multimedia Content Viewer</li> <li>• SmartLink™</li> </ul>	<b>Metrology software:</b> ZONE3® or ZONE3 Pro, MeasureMind® 3D MultiSensor, Measure-X®, VMS™, Elements® <b>Productivity software:</b> MeasureFit® Plus, SmartFit® 3D, SmartProfile® <b>Offline software:</b> ZONE3, MeasureMind 3D MultiSensor, Measure-X, VMS
<b>Power requirements</b>	115/230 vac, 50/60 Hz, 1 phase, 600 W	
<b>Rated environment</b>	Temperature 18-22° C, stable to ±1° C; 30-80% humidity; vibration <0.001g below 15 Hz	
<b>Operating environment, safe operation</b>	15-30° C	
<b>XY area accuracy<sup>1</sup></b>	$E_2 = (2.0 + 6L/1000) \mu\text{m}^{2,3,4}$	
<b>Z linear accuracy<sup>1</sup></b>	$E_1 = (3.5 + 6L/1000) \mu\text{m}^4$	$E_1 = (2.5 + 6L/1000) \mu\text{m}^4$ (with optional 2.0x replacement lens and grid projector, TTL laser, or TP20 or TP200 touch probe)

<sup>1</sup>Patent Number 6,518,996    <sup>2</sup>Patent Number 6,161,940

<sup>3</sup>Where L = measuring length in mm. Applies to thermally stable system in rated environment. All optical accuracy specifications at maximum zoom lens setting.

<sup>4</sup>With evenly distributed load up to 5 kg. Depending on load distribution, accuracy at maximum rated load may be less than standard accuracy.

<sup>5</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>6</sup>E<sub>1</sub>, Z axis linear and E<sub>2</sub>, XY area accuracy standards are described in QVI Publication Number 790762.



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