

## SmartScope® Flash 500

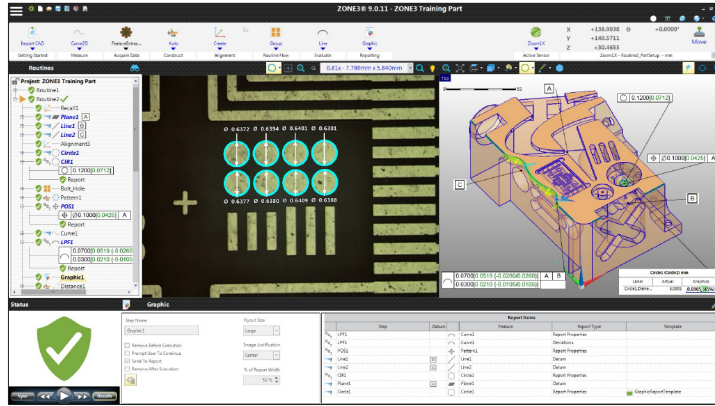
- **Measurement stability –**  
Optics mounted on a rigid bridge support structure for metrological integrity
- **Precision optics –**  
High quality AccuCentric® zoom lens automatically compensates magnification for each zoom position
- **Exclusive illumination to measure the most challenging parts –**  
Standard profile light, coaxial surface light, and SmartRing™ light illuminate parts from all angles
- **Multisensor versatility –**  
Optional touch probe, scanning probe, laser, and micro-probe sensors

### Large Capacity Multisensor Dimensional Measuring System

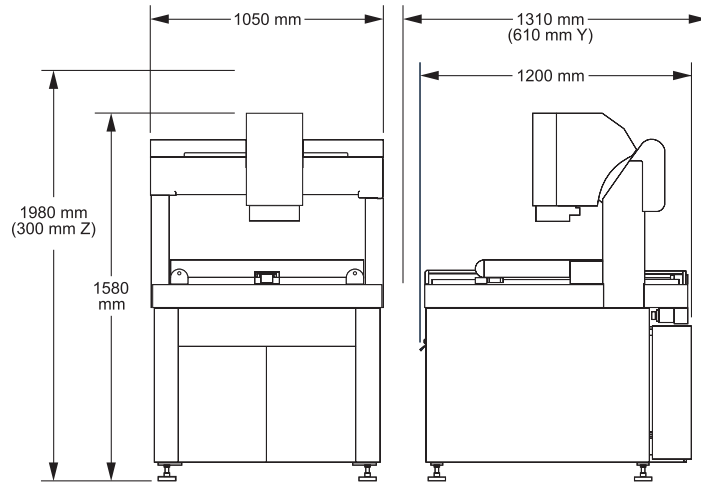


Axis	Travel (mm)
X axis	500
Y axis	450
Z axis	200
Extended Y (opt)	610
Extended Z (opt)	300

# SmartScope® Flash 500



ZONE3® Metrology Software represents a totally new way of working with multisensor measurement systems, providing faster, easier, and more productive measurements.



System Weight: 960 kg  
Shipping Weight: 1020 kg

	Standard	Optional
<b>XYZ Travel</b>	500 x 450 x 200 mm	Extended Y axis, 610 mm; extended Z axis, 300
<b>XYZ Scale Resolution</b>	0.1 $\mu$ m	
<b>Drive System</b>	DC servo with 4-axis control (X, Y, Z, zoom); with multifunction handheld controller	
<b>Worktable</b>	Nickel plated steel, with fixture holes, removable stage glass, 65 kg recommended max payload	
<b>Rotary Axis</b>		Miniature Servo Rotary (MSR™), MicroTheta Rotary (MTR™), Heavy Duty Rotary (HDR™), High Precision Rotary (HPR), Dual Rotary (requires optional 300 mm Z axis)
<b>Optics*</b>	AccuCentric® auto-compensating zoom with up to 25 calibrated positions, 1.0x lens	<b>Focus Grid Projector:</b> LED Source <b>Laser Adapter:</b> Allows for field retrofit of TTL Laser. Includes Laser Pointer <b>Replacement Lenses:</b> 2.5x, 5.0x <b>Laser Lenses:</b> 2.0x (Included with TTL Laser), 5.0x <b>Lens Attachments for 1.0x Lens:</b> 0.5x, 0.75x, 1.5x, 2.0x
<b>FOV Range</b>	8.0 mm x 6.0 mm (low zoom) to 0.90 mm x 0.68 mm (high zoom)	14.6 mm x 10.9 mm (1.0x lens, 0.5x attachment) to 0.19mm x 0.14 mm (5.0x lens)
<b>Working Distance</b>	64 mm	Up to 97 mm (1.0x lens, 0.5x attachment)
<b>Illumination</b>	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</li> <li>Red or green SmartRing light</li> </ul>
<b>Camera</b>	Color digital metrology camera	
<b>Image Processing</b>	256 level grayscale processing with 10:1 subpixel resolution	
<b>Sensor Options**</b>		<b>Tactile:</b> TP20 or TP200 Touch Probe, SP25 Scanning Probe, Feather Probe™ <b>Non-Contact:</b> Through-the-Lens (TTL) Laser, DRS™ Laser, Rainbow 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, or dual 24" flat panel LCD monitors; keyboard, 3-button mouse (or user supplied)
<b>Software</b>	<ul style="list-style-type: none"> <li>Choice of ZONE3 Express or Measure-X metrology software</li> <li>QVI® Portal</li> </ul>	<b>Metrology software:</b> ZONE3 Prime, ZONE3 Pro <b>Productivity software:</b> MeasureFit® Plus, SmartFit® 3D, SmartProfile®, OGP® EVOLVE® SPC <b>Offline software:</b> ZONE3, Measure-X
<b>Power Requirements</b>	100-120 VAC or 200-240 VAC, 50/60 Hz, 1 phase, 700 W	
<b>Operating Environment, Safe Operation</b>	15-30 °C, non-condensing	
<b>Rated Environment</b>	Temperature 18-22 °C, stable to $\pm 1$ °C, max rate of change 1 °C / hour, max vertical gradient of 1 °C / meter; 30-80% humidity; vibration <0.001g below 15 Hz	
<b>XY Area Accuracy</b>	$E_z = (2.5 + 5L/1000) \mu$ m	
<b>Z Linear Accuracy</b>	$E_z = (3.0 + 8L/1000) \mu$ m	$E_z = (2.0 + 8L/1000) \mu$ m (requires optional TTL laser, DRS Laser, or Touch Probe)

Accuracy is evaluated with a QVI verification procedure where "L" is measured length in millimeters. Specifications apply within the rated environment. Standard optical specifications apply at the maximum optical magnification of the standard configuration. XY Accuracy applies with an evenly distributed load up to 10 kg in the standard measuring plane. The standard measuring plane is defined as a plane that is within 25 mm of the worktable surface. Depending on load distribution, accuracy at maximum payload may be less than standard.

\*Lenses and lens attachments can be manually interchanged to change magnification and working distance. \*\*SP25, Feather Probe, and Rainbow Probe only supported in ZONE3.



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