

SmartScope® Flash 500

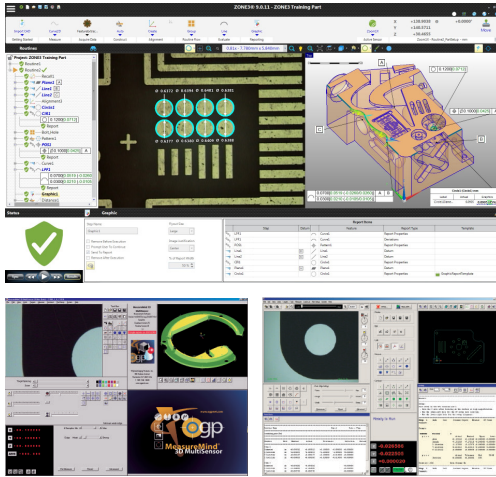
- **Measurement stability –**
Optics mounted on a rigid bridge support structure for metrological integrity
- **Precision optics –**
High quality AccuCentric® zoom lens automatically compensates magnification for each zoom position
- **Exclusive illumination to measure the most challenging parts –**
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

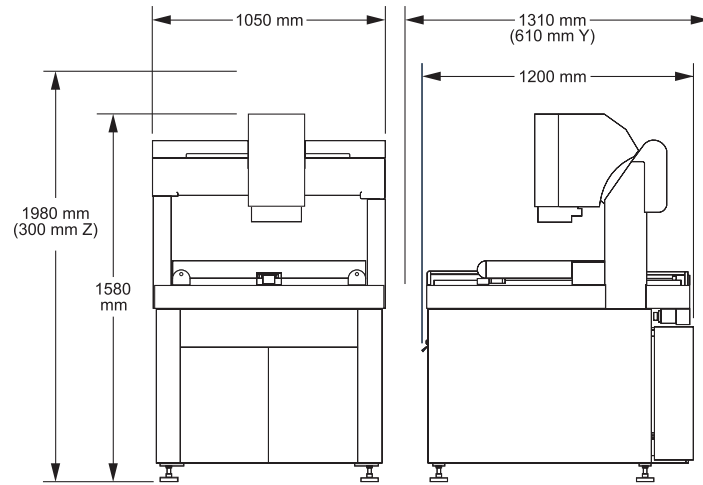


Axis	Travel (mm)
X axis	500
Y axis	450
Z axis	200
Extended Y (opt)	610
Extended Z (opt)	300

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Choose the metrology software best suited to your manufacturing setting — ZONE3®, MeasureMind® 3D or Measure-X®.



System Weight: 960 kg
Shipping Weight: 1020 kg

	Standard	Optional
XYZ Travel	500 x 450 x 200 mm	Extended Y axis, 610 mm; extended Z axis, 300
XYZ Scale Resolution	0.1 µm	
Drive System	DC servo with 4-axis control (X, Y, Z, zoom); with multifunction handheld controller	
Worktable	Nickel plated steel, with fixture holes, removable stage glass, 65 kg recommended max payload	
Rotary Axis		Miniature Servo Rotary (MSR™), MicroTheta Rotary (MTR™), Heavy Duty Rotary (HDR™), High Precision Rotary (HPR), Dual Rotary (requires optional 300 mm Z axis)
Optics*	AccuCentric® auto-compensating zoom with up to 25 calibrated positions, 1.0x lens	Focus Grid Projector: LED Source Laser Adapter: Allows for field retrofit of TTL Laser. Includes Laser Pointer Replacement Lenses: 2.5x, 5.0x Laser Lenses: 2.0x (Included with TTL Laser), 5.0x Lens Attachments for 1.0x Lens: 0.5x, 0.75x, 1.5x, 2.0x
FOV Range	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)
Working Distance	64 mm	Up to 97 mm (1.0x lens, 0.5x attachment)
Illumination	LED numerical aperture matching substage, LED coaxial TTL surface, 8 sector/8 ring SmartRing™ LED (white)	• Flexible SmartRing light for long working distance optical configurations • Red or green SmartRing light
Camera	Color digital metrology camera	
Image Processing	256 level grayscale processing with 10:1 subpixel resolution	
Sensor Options**		Tactile: TP20 or TP200 Touch Probe, SP25 Scanning Probe, Feather Probe™ Non-Contact: Through-the-Lens (TTL) Laser, DRS™ Laser, Rainbow Probe™
Controller	Windows® based, with up-to-date processor and on board networking/communication ports	
Controller Accessory Package		24" flat panel, or dual 24" flat panel LCD monitors; keyboard, 3-button mouse (or user supplied)
Software	• Choice of ZONE3 Express or Measure-X or MeasureMind 3D metrology software • QVI® Portal	Metrology software: ZONE3 Prime, ZONE3 Pro Productivity software: MeasureFit® Plus, SmartFit® 3D, SmartProfile®, OGP® EVOLVE® SPC Offline software: ZONE3, MeasureMind 3D, Measure-X
Power Requirements	100-120 VAC or 200-240 VAC, 50/60 Hz, 1 phase, 700 W	
Operating Environment, Safe Operation	15-30 °C, non-condensing	
Rated Environment	Temperature 18-22 °C, stable to ± 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	
XY Area Accuracy	$E_2 = (2.5 + 5L/1000) \mu m$	
Z Linear Accuracy	$E_1 = (3.0 + 8L/1000) \mu m$	$E_1 = (2.0 + 8L/1000) \mu m$ (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 only supported in ZONE3. Feather Probe and Rainbow Probe only supported in ZONE3 and MeasureMind 3D.



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