SmartScope® Flash™ 635

SmartScope Flash 635 – Provides measurement speed and stability in addition to an ergonomic loading height. The rigid drive system contributes to long-term reliability. The 635 features a moving bridge design where the part remains stationary. A granite base and extruded lightweight aluminum bridge provide measurement stability at high speed. Flash 635 offers:

- **Precision Optics –** High quality AccuCentric® zoom lens automatically compensates magnification for each zoom position.
- **Flexible Illumination –** Standard profile light, coaxial surface light, and SmartRing™ light illuminate parts from all angles.
- **Multisensor Versatility –** Optional touch probe, scanning probe, laser, micro-probe sensors, and rotary indexers.

High Speed 3D Multisensor Dimensional Measuring System for Large Parts

Shown with optional Touch Probe.

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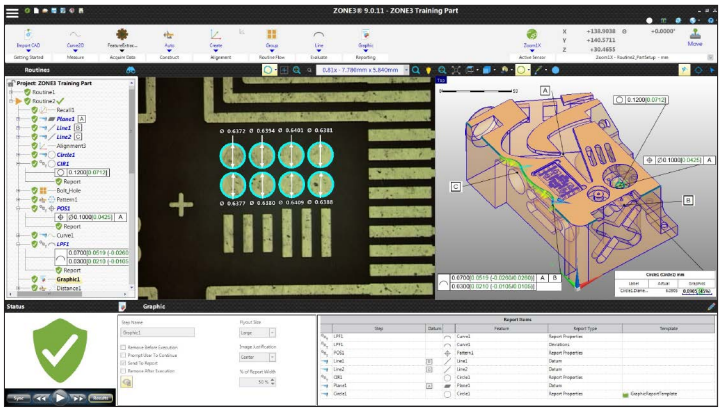
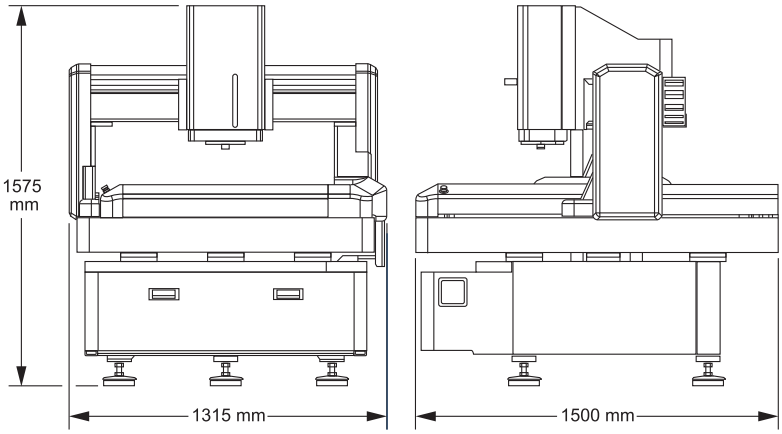


ZONE3® Metrology Software represents a totally new way of working with multisensor measurement systems, providing faster, easier, and more productive measurements.



System Weight: 1310 kg
Shipping Weight: 1680 kg

	Standard	Optional
XYZ Travel	635 x 635 x 200 mm	
XYZ Scale Resolution	0.1 µm	
Drive System	DC servo with 4-axis control (X, Y, Z zoom); with multifunction handheld controller; air-bearing off-side bridge leg for frictionless movement	
Transport Velocity / Acceleration (max)	Velocity: X,Y = 400 mm/sec, Z = 100 mm/sec; Acceleration: X,Y = 750 mm/sec^2, Z = 300 mm/sec^2	
Worktable	Nickel plated steel, with fixture holes, removable stage glass, 50 kg recommended max payload	
Rotary Axis		Miniature Servo Rotary (MSR™), MicroTheta Rotary (MTR™)
Optics*	AccuCentric® auto-compensating zoom, motorized; 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
Illumination	Substage LED profile, coaxial LED surface, SmartRing LED ring light (white)	Red, Green, or Blue SmartRing; Flexible SmartRing for 0.5x lens attachment
Metrology Camera	Color metrology camera	Monochrome metrology camera
Field of View**	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)
Sensor Options***		**Tactile:** TP20 or TP200 Touch Probe, SP25 Scanning Probe, Feather Probe™ **Non-Contact:** Through-the-Lens (TTL) Laser, DRS™ Laser, Rainbow Probe™
Software	• ZONE3 Express or Measure-X metrology software • QVI® Portal	**Metrology software:** ZONE3 Prime, ZONE3 Pro **Productivity software:** MeasureFit® Plus, SmartFit® 3D, OGP® EVOLVE® Suite (Design, EVOLVE SPC, Manufacturing, SmartProfile®) **Offline software:** ZONE3, Measure-X
System Controller	Windows® based, with up-to-date processor and onboard networking/communication ports	
Controller Options	Ergonomic sit/stand operator workstation	24" flat panel, or dual 24" flat panel LCD monitors; keyboard, 3-button mouse (or user supplied)
Power Requirements	100-120 VAC or 200-240 VAC, 50/60 Hz, 1 phase, 1000 W	
Compressed Air Requirements	Air Supply Pressure: 0.35 MPa; Minimum Flow capacity: 4 l/min; Air quality ISO 8573-1:2010 Class 4.3.4 or better	Air Dryer Kit
Safe Operating Environment	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 = (3.0 + 5L/1000) µm	
Z Linear Accuracy	E_1 = (3.0 + 5L/1000) µm	

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. **FOV sizes with optional monochrome camera are 15% smaller in Measure-X. ***SP25, Feather Probe, and Rainbow Probe only supported in ZONE3.

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