

**SmartScope ZIP 635** is a large area, moving-bridge system with an ergonomic loading height. ZIP 635 offers:

- Built-in Stability/Productivity –
   A granite base and extruded,
   lightweight aluminum bridge
   provide measurement stability.
   High X,Y acceleration and velocity contribute to high productivity.
- Accurate Video Metrology –
   AccuCentric® motorized zoom
   lens automatically compensates
   magnification for each zoom
   position. ZIP 635 offers optical
   configurations to suit a wide range
   of applications.
- Multisensor Versatility –
   Optional touch probes, lasers and micro-probes.

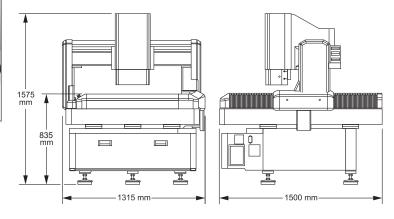
## Multisensor Measuring System for Large Parts





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

## **SmartScope ZIP® 635**



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	
Transport Velocity/Acceleration (max)	Velocity: XY Vector = 400 mm/sec, Z = 100 mm/sec; Acceleration: XY Vector = 750 mm/sec <sup>2</sup> , Z = 300 mm/sec <sup>2</sup>	
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; 2.0x lens attachment; 1.0x adapter tube	Focus Grid Projector: LED or Tungsten fiber-optic sources Laser Adapter: Allows for field retrofit of TTL Laser. Includes Laser Pointer Replacement Lenses: 1.0x Long Working Distance (LWD), 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 Factory Installed Adapter Tubes: 0.67x, 2.0x
Illumination	Substage LED profile, coaxial LED surface, SmartRing™ LED ring light (white)	Coax Light: Tungsten Fiber-Optic Ring Lights: Red, Green, or Blue SmartRing; Standard or Low Incidence VuLight; Tungsten Fiber-Optic Ring mounted below, integrated with, or in lieu of SmartRing
Metrology Camera	Monochrome digital metrology camera	
Field of View**	6.6 mm x 5.0 mm (no attachment, low zoom) to 0.7 mm x 0.5 mm (2.0x lens attachment, high zoom)	15.0 mm x 11.3 mm (0.67x tube, 1.0x lens, 0.5x attachment) to 0.13 mm x 0.10 mm (2.0x tube, 5x lens)
Working Distance	63 mm (no attachment) 24 mm (2.0x lens attachment)	Up to 98 mm (1.0x LWD, 0.5x attachment)
Sensor Options***		Tactile: TP20 or TP200 Touch Probe, SP25 Scanning Probe, Feather Probe <sup>™</sup> Non-Contact: DRS <sup>™</sup> Laser, Through-The-Lens (TTL) Laser, Rainbow Probe <sup>™</sup> , TeleStar <sup>®</sup> Probe
Software	Choice of 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 LCD monitor, 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, 700 W	
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 <sub>2</sub> = (2.5 + 5L/1000) µm	
Z Linear Accuracy	E <sub>1</sub> = (2.0 + 5L/1000) µm	E, = (1.8 + 5L/1000) µm (requires optional TTL Laser) E, = (1.3 + 5L/1000) µm (requires optional DRS Laser, Touch Probe, or TeleStar 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. Depending on load distribution, accuracy at maximum payload may be less than standard. XY accuracy applies in the standard measuring plane that is defined as a plane that is within 25 mm of the worktable surface.

"Lenses and lens attachments can be manually interchanged to change magnification and working distance. Adapter tubes can be manually changed to change magnification without impacting work distance, but unlike lens changes, adapter tube changes require optical system realignment and recompensation. "FOV sizes are 15% smaller in Measure-X. \*\*\*SP25, Feather Probe, Rainbow Probe, and TeleStar Probe only supported in ZONE3.



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