

SmartScope ZIP 800 is designed for applications involving larger, heavier parts. Optional 300 mm Z-axis travel provides additional measuring volume. ZIP 800 also offers:

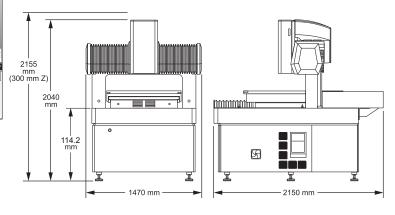
- Built-in Measurement Stability –
 A granite base, uprights and fixed bridge provide thermal and mechanical stability.
- Accurate Video Metrology –
 AccuCentric® motorized zoom
 lens automatically compensates
 magnification for each zoom position.
 ZIP 800 offers optical configurations
 to suit a wide range of applications.
- Multisensor Versatility –
 Optional touch probes, lasers and micro-probes.

Large Travel Multisensor Measuring System



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

SmartScope ZIP® 800



System Weight: 2665 kg Shipping Weight: 2960 kg

| | Standard | Optional |
|----------------------------|---|--|
| XYZ Travel | 800 x 820 x 200 mm | Extended Z axis, 300 mm |
| XYZ Scale Resolution | 0.1 μm | 0.05 μm |
| Drive System | DC servo with 4-axis control (X, Y, Z, zoom); with multifunction handheld controller | |
| Worktable | Hardcoat anodized, with fixture holes, removable stage glass, 75 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, 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 [™] Non-Contact: DRS [™] Laser, Through-The-Lens (TTL) Laser, Rainbow Probe [™] , TeleStar [®] Probe |
| Software | Choice of ZONE3 Express or Measure-X® metrology software QVI® Portal | Metrology software: ZONE3 Prime, ZONE3 Pro Productivity software: Measure-X® Analyze, 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, 1400 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 | |
| XYZ Volumetric Accuracy | E ₃ = (2.8 + 6L/1000) μm | |
| XY Area Accuracy | E ₂ = (2.0 + 5L/1000) μm | E ₂ = (1.5 + 5L/1000) μm (requires optional 0.05 μm scales) |
| Z Linear Accuracy | E ₁ = (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 and XYZ 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. The standard measuring plane is defined as a plane that is within 25 mm of the worktable surface. Volumetric accuracy performance requires ZONE3 and on-site verification is optional.

*Lenses and lens attachments can be manually interchanged to change to drange magnification and working distance. Adapter tubes can be manually changed to change magnification without impacting work distance, but unlike lens 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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