

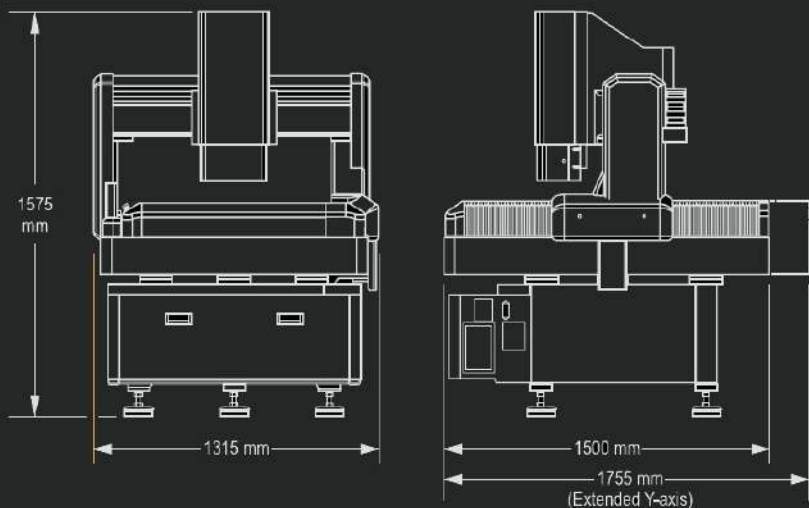
- **Accurate video metrology** – AccuCentric® motorized zoom lens automatically compensates magnification for each zoom position
- **Built-in measurement stability** – A granite base and extruded aluminum bridge provide a rigid, orthogonal structure for measurement stability
- **High speed enhances productivity** – High acceleration and velocity in all three measurement axes
- **High reliability transport** – Rigid drive system contributes to long-term reliability
- **Multisensor versatility** – Optional non-contact sensors and touch probes



Through-the-Lens Laser  
for SmartScope® ZIP and  
ZIP Advance Measuring Systems

Axis	Travel (mm)
X axis	635
Y axis	635
Z axis	200
Extend. Y(Opt)	850

Crated Weight: 1310 Kg





## Technical data SmartScope Zip 635

Standard		Optional
XYZ travel	635 x 635 x 200 mm	635 x 850 x 200 mm
XYZ scale resolution	0.1 $\mu$ m	Dual scales, Y-axis
Drive system	DC servo with 4-axis control (X,Y,Z,zoom); with multifunction handheld controller	
Transport velocity/acceleration (max)	Velocity: X,Y = 500 mm/sec, Z = 100 mm/sec; Acceleration: X,Y = 1000 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 <sup>®</sup> auto-compensating zoom, motorized; 1.0x front replacement lens; 1.0x adapter tube; 2.0x lens attachment	0.5x, 0.75x, 1.5x lens attachments; 1.0x LWD (not for use with SmartRing <sup>™</sup> light), 2.5x, 5.0x, 10.0x front replacement lenses; autofocus LED grid projector; laser adapter (includes laser pointer)
FOV size (std optical configuration)	Measured diagonally, 5.0 mm (low mag) to 0.9 mm (high mag)	
Illumination	Substage LED profile (monochromatic), coaxial LED surface (white), SmartRing LED ring light (white)	VuLight <sup>™</sup> oblique illuminator, small fiber optic ring light, fiber optic surface light, large fiber optic ring light, LED coaxial surface light
Camera	High resolution color digital metrology camera	High resolution black & white digital metrology camera
Image processing	256 level grayscale processing with 10:1 subpixel resolution	
Sensor options (contact OGP for possible combinations of sensors)	Touch probe and change rack, on-axis TTL laser, off-axis DRS <sup>™</sup> laser, Rainbow Probe <sup>™</sup> scanning white light sensor; Feather Probe <sup>™</sup>	
Controller	Windows <sup>®</sup> based, with up-to-date processor and on board networking/communication ports	
Controller accessory package	24" flat panel LCD monitor, or dual 24" flat panel LCD monitors, keyboard, 3-button mouse (or user supplied)	
Software	<b>QVI Portal, including:</b> <ul style="list-style-type: none"> <li>• Portal Navigator</li> <li>• Independent Calibration Engine (ICE)</li> <li>• Multimedia Content Viewer</li> <li>• SmartLink<sup>™</sup></li> </ul>	<b>Metrology software:</b> ZONE3 <sup>®</sup> Express, Prime or Pro; MeasureMind <sup>®</sup> 3D, Measure-X <sup>®</sup> <b>Productivity software:</b> MeasureFit <sup>®</sup> Plus, SmartFit <sup>®</sup> 3D, SmartProfile <sup>®</sup> <b>Offline software:</b> ZONE3, MeasureMind 3D, Measure-X
Power requirements	100-120 VAC or 200-240 VAC, 50/60 Hz, 1 phase, 1000 W	
Rated environment	Temperature 18-22 °C, stable to $\pm 1$ °C; 30-80% humidity; vibration <0.001g below 15 Hz	
Operating environment, safe operation	15-30 °C	
XY area accuracy	$E_2 = (2.5 + 5L/1000) \mu\text{m}_{1,2,3,4}$	
Z linear accuracy	$E_1 = (2.0 + 5L/1000) \mu\text{m}_{1,4}$ (with 2.0x lens attachment)	$E_1 = (1.8 + 5L/1000) \mu\text{m}_{1,4}$ (with optional TTL laser, or DRS-2000 laser) $E_1 = (1.3 + 5L/1000) \mu\text{m}_{1,4}$ (with optional DRS-300 or -500 laser, or TP20 or TP200 touch probe)

### Footnotes and Definitions

1 Specifications are nominal for TTL lasers installed on OGP systems when used in the specified operating environment. Where L = measuring length in mm. Applies to thermally stable system in rated environment. Maximum rate of temperature change: 1 °C/hour. Maximum vertical temperature gradient: 1 °C/meter. All optical accuracy specifications at maximum zoom lens setting.

2 With evenly distributed load up to 10 kg. Depending on load distribution, accuracy at maximum rated load may be less than standard accuracy.

3 Measured in the standard measuring plane. The standard measuring plane is defined as a plane that is within 25 mm of the worktable surface.

4 E1 Z axis linear and E2 XY area accuracy standards are described in QVI Publication Number 790762.