



SMARTSCOPE ZIP



Fast, Accurate Video and Multisensor Measurement

	Travel	mm
ZIP 300	X axis	300
	Y axis	300
	Z axis	200
Extended Z (option)	Z axis	300

Offering Quality,
Speed, and Accuracy.
Who Could Ask
for More?

SmartScope ZIP® 300 from OGP® is a proven performer, and continues to be the preferred video measurement system of manufacturers. Its video imaging is enhanced by all-LED illumination. As a multisensor machine, SmartScope ZIP 300 is available with contact and non-contact probes, including the unique switchable TTL (through-the-lens) laser.

- The innovative ergonomic handheld controller combines joystick stage control and other important operational controls.
- DC servo motor drives deliver high speed performance, and the granite support structure ensures measurement stability and isolation.
- MeasureMind® 3D MultiSensor metrology software is designed to take full advantage of a 3D measurement environment and combines a user-friendly interface with full geometric functionality.
- Video measurement is effortless with fast field-of-view image processing and advanced edge detection algorithms designed for repeatability in real-world applications.
- SmartScope ZIP 300 supplies the benefits of multisensor metrology with an assortment of available touch probes, lasers, and micro-probes to fully characterize parts automatically in a single setup.



Technical Specifications

■ Standard ■ Optional

<ul style="list-style-type: none"> ■ Stage travel (XYZ): 300 x 300 x 200 mm ■ Extended Z axis: 300 mm ■ Measuring unit dimensions (approx LWH): 106 x 100 x 180 cm, 750 kg ■ XYZ scale resolution: 0.1 μm ■ Motor drives: DC servo ■ Interactive stage control: 4 axis (X,Y,Z,zoom) with ergonomic, multi-function handheld controller ■ Stage velocity: X&Y axes: 200 mm/sec max; Z axis: 100 mm/sec max ■ Worktable: Hardened worktable with fixture holes, removable stage glass, and 30 kg load capacity
<ul style="list-style-type: none"> ■ Zoom lens: Patented[†] AccuCentric[®] auto-calibrating, 7:1 motorized zoom lens system ■ Lens attachments: 0.5x, 0.75x, 1.5x, 2.0x ■ Front replacement lenses: 1.0x 2.0x, 2.5x, 5.0x, 10.0x ■ Adapter tubes: 1.0x 0.67x, 2.0x ■ Illumination: Substage LED profile light (green), TTL LED surface light (white), and patented^{††} SmartRing[™] LED ring light (white) Vu-Light[™] oblique illuminator, small fiber optic ring light, fiber optic surface light, large fiber optic ring light ■ Optional accessories: Autofocus grid projector (LED) ■ Camera: High resolution color metrology camera High resolution black and white metrology camera (in lieu of color) ■ Image processing: 256 gray level processing with 10:1 sub-pixel resolution ■ Multisensor options: Touch probe and change rack, DRS[™] laser, TTL laser, Rainbow Probe[™] scanning white light sensor, Feather Probe[™], SP25 Scanning Probe, laser pointer (not available with TTL laser) (contact OGP for possible combinations of sensors)
<ul style="list-style-type: none"> ■ Power requirements: 115/230 vac (± 5%), 50/60 Hz, 1 φ, 700 W ■ Rated environment: Temperature between 18 and 22° C, stable to ± 1° C; 30-80% humidity; vibration <0.001g below 15 Hz ■ Operating environment, safe operation: 15-30° C
<ul style="list-style-type: none"> ■ Computer: Minimum configuration Quad Core processor @ 2.5 GHz, 4.0 GB RAM, 160 GB hard drive, DVD-RW drive, parallel, serial, and USB 2.0 ports, on board 10/100/1000 LAN ■ Operating system: Microsoft[®] Windows[™] ■ Computer accessory package: 24" flat panel LCD monitor, or dual 24" flat panel LCD monitors, keyboard, three-button mouse (or user supplied) ■ Metrology software: MeasureMind[®] 3D MultiSensor Measure-X[®] (in lieu of MeasureMind 3D), MeasureMind 3D offline ■ Software: For use with Measure-X or MeasureMind 3D; MeasureFit[®] Plus, SmartReport[®] powered by QC-Calc[™], Scan-X[®], SmartFit[®] 3D, SmartProfile[®] ■ Software: For use with MeasureMind 3D only; SmartScript[®], SmartTree[™]
<p>Where L=measuring length in mm. Applies to thermally stable system in rated environment. All optical accuracy specifications at maximum zoom lens setting.</p> <ul style="list-style-type: none"> ■ XY area accuracy: $E_z = (1.5 + 5L/1000) \mu\text{m}^{1.2}$ ■ Z linear accuracy: $E_1 = (3.0 + 5L/1000) \mu\text{m}^3$ ■ Z linear accuracy: $E_1 = (2.5 + 5L/1000) \mu\text{m}^3$ (with optional 2.0x replacement lens/grid projector) ■ Z linear accuracy: $E_1 = (2.0 + 5L/1000) \mu\text{m}^3$ (with optional TTL laser, or DRS-2000 laser) ■ Z linear accuracy: $E_1 = (1.4 + 5L/1000) \mu\text{m}^3$ (with optional DRS-300 or -500 laser, or TP-20 or -200 touch probe)
<ul style="list-style-type: none"> ■ Warranty: One year ■ Accessories: Calibration artifacts, rotary indexers

[†]Patent Number 5,389,774 ^{††}Patent Number 5,690,417

1) With evenly distributed load up to 5 kg. Depending on load distribution, accuracy at maximum rated load may be less than standard accuracy.

2) XY axis artifact: QVI 25 intersection grid reticle in the standard measuring plane. The standard measuring plane is defined as a plane that is within 25 mm of the worktable surface.

3) Z axis artifact: QVI step gage, master gage blocks, or laser interferometer.



Multisensor Measurements for Manufacturing Professionals

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