



1200

# SMARTSCOPE ZIP



## Video and Multisensor Measurement for Large Parts

|          | Travel | mm   |
|----------|--------|------|
| ZIP 1200 | X axis | 800  |
|          | Y axis | 1200 |
|          | Z axis | 150  |

OGP® SmartScope® ZIP measurement systems have been a popular choice for a number of years in a variety of manufacturing facilities worldwide. These systems have a reputation for being extremely reliable and providing proven metrological performance.

The SmartScope ZIP 1200 is a moving bridge design built for high accuracy measurements of stationary parts on a fixed XY stage. It provides XYZ stage travel of 800x1200x150 and is available with contact and non-contact probes that deploy and retract under program control for fully automatic operation.

- The patented AccuCentric® 5:1 auto-calibrating motorized zoom lens provides extremely high quality images of virtually any part.
- DC servo motor drives deliver high speed performance, and the granite base ensures measurement stability and isolation.
- Fast field-of-view (FOV) processing, autofocus, and MeasureMind® 3D MultiSensor metrology software with full 3D geometric functionality and multisensor support make measurement simple.
- Optional software extends dimensional measurement capabilities, including contour fitting, custom report generation, and SPC analysis.
- SmartScope ZIP 1200 delivers outstanding video measurements with the patented SmartRing™ LED illuminator, and multisensor versatility with optional touch trigger and scanning probes, laser scanning probes, and rotary indexers.

## Field-Proven Performance For Large Part Measurement



Technical Specifications

■ Standard ■ Optional

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|--|
|  |
| <ul style="list-style-type: none"> <li>■ <b>Measuring range (XYZ), measuring unit dimensions (approx LWH), weight:</b> 800 x 1200 x 150 mm, 2754 kg</li> <li>■ <b>Workstation dimensions (approx LWH), weight:</b> 90 x 90 x 90 cm, 45 kg</li> <li>■ <b>XYZ scale resolution:</b> 0.1 μm</li> <li>■ <b>Motor drives:</b> DC servo drive (XYZ)</li> <li>■ <b>XY stage velocity:</b> 500 mm/sec nominal, higher upon request</li> <li>■ <b>Interactive stage control:</b> Joystick, 4 axis (X,Y,Z, zoom)</li> <li>■ <b>Worktable:</b> With removable stage glass, 100 kg load capacity</li> </ul>  |
| <ul style="list-style-type: none"> <li>■ <b>Zoom lens:</b> Patented<sup>†</sup> 5:1, AccuCentric<sup>®</sup> auto-calibrating, motorized</li> <li>■ <b>Optical accessories:</b> 0.5x, 0.75x, 1.5x, and 2.0x lens attachments; LED grid projector, laser pointer (not available with TTL laser)</li> <li>■ <b>Camera:</b> ½" format high resolution color CCD with 768 x 494 pixel array</li> <li>■ <b>Illumination:</b> White LED substage, coaxial TTL surface, patented<sup>††</sup> 8 sector/8 ring SmartRing<sup>™</sup> lights</li> <li>■ <b>Image processing:</b> 256 level grayscale processing with 10:1 sub-pixel resolution</li> <li>■ <b>Multisensor options:</b> Touch probe/change rack, TTL laser, off-axis DRS<sup>™</sup> laser (contact OGP for possible combinations of sensors on a system)</li> </ul>  |
| <ul style="list-style-type: none"> <li>■ <b>Power requirements:</b> 110/220 vac (manually switchable), ± 5%, 50/60 Hz, 1 φ, 700 W</li> <li>■ <b>Rated environment:</b> 18-22° C ± 2° C/hr, 30-80% humidity (non-condensing), vibration &lt;0.002g below 15 Hz</li> <li>■ <b>Operating environment, safe operation:</b> 5-40° C</li> </ul>  |
| <ul style="list-style-type: none"> <li>■ <b>Computer:</b> Minimum configuration Pentium<sup>®</sup> processor @ 2.8 GHz, 1.0 GB RAM, 40 GB hard drive, 1.44 MB floppy drive, CD-ROM drive, parallel, serial, and USB 2.0 ports, on board 10/100 LAN</li> <li>■ <b>Operating system:</b> Microsoft<sup>®</sup> Windows<sup>™</sup> XP Professional</li> <li>■ <b>Computer accessory package:</b> 20" flat panel LCD monitor (single or dual), keyboard, mouse (or user supplied)</li> <li>■ <b>Metrology software:</b> MeasureMind<sup>®</sup> 3D MultiSensor</li> <li>■ <b>Software:</b> For use with MeasureMind 3D; MeasureFit<sup>®</sup> Plus, SmartReport<sup>®</sup> Plus, MeasureMenu<sup>™</sup> QC-Calc<sup>™</sup> Scan-X<sup>®</sup>, TrueMap<sup>™</sup>, Advanced Centroid, SoftSectioner<sup>™</sup>, SmartFit<sup>®</sup> 3D, SmartFeature<sup>™</sup>, SmartScript, I++ DME</li> </ul> |
| <ul style="list-style-type: none"> <li>■ <b>XY area accuracy:</b> <math>E_2 = (1.5 + 3L/1000) \mu\text{m}^*</math></li> <li>■ <b>Z linear accuracy:</b> <math>E_1 = (3.0 + 8L/1000) \mu\text{m}^*</math> (sensor-independent)</li> </ul>   |
| <ul style="list-style-type: none"> <li>■ <b>Warranty:</b> One year, on-site</li> <li>■ <b>Accessories:</b> Fixtures and calibration artifacts, service and support contracts, rotary indexers</li> </ul>   |

<sup>†</sup>Patent Number 5,389,774    <sup>††</sup>Patent Number 5,690,417

\*Where L=measuring length in mm. Applies to thermally stable system in rated environment, maximum zoom lens setting, and evenly distributed 5 kg load in the standard measuring plane. The standard measuring plane is defined as a plane that is 25 mm above the worktable.



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