



SMARTSCOPE® M-SERIES

MULTISENSOR DIMENSIONAL
MEASURING SYSTEMS



SMARTSCOPE M-SERIES

The Next Evolution of the Worldwide Standard in 3D Multisensor Metrology Systems

On the cover, SmartScope® M45 with IntelliCentric-M Optical System and optional Scanning Probe.

Image to the right, SmartScope M7 with IntelliCentric-M Optical System and optional Scanning Probe and TTL Laser.



INTELLICENTRIC-M OPTICAL SYSTEMS

— Measure Faster and
— Easier than Ever
— with an
— Incredible Image.
— Here's how...

INTELLICENTRIC-M SERIES OPTICAL SYSTEMS

At the core of the SmartScope M-Series, is the patented IntelliCentric-M Optical System* featuring fixed lens optics, a built-in electronic aperture and VIRTUAL ZOOM™ technology combined with a 20-megapixel camera to provide remarkable image quality and superb image resolution.

20 MEGAPIXEL CAMERA

High-density digital metrology camera delivering an ultra-high definition image.

FIXED LENS OPTICAL SYSTEM

No moving parts allow for maximized uptime and a decreased need for calibration or repair versus a traditional mechanical zoom system.

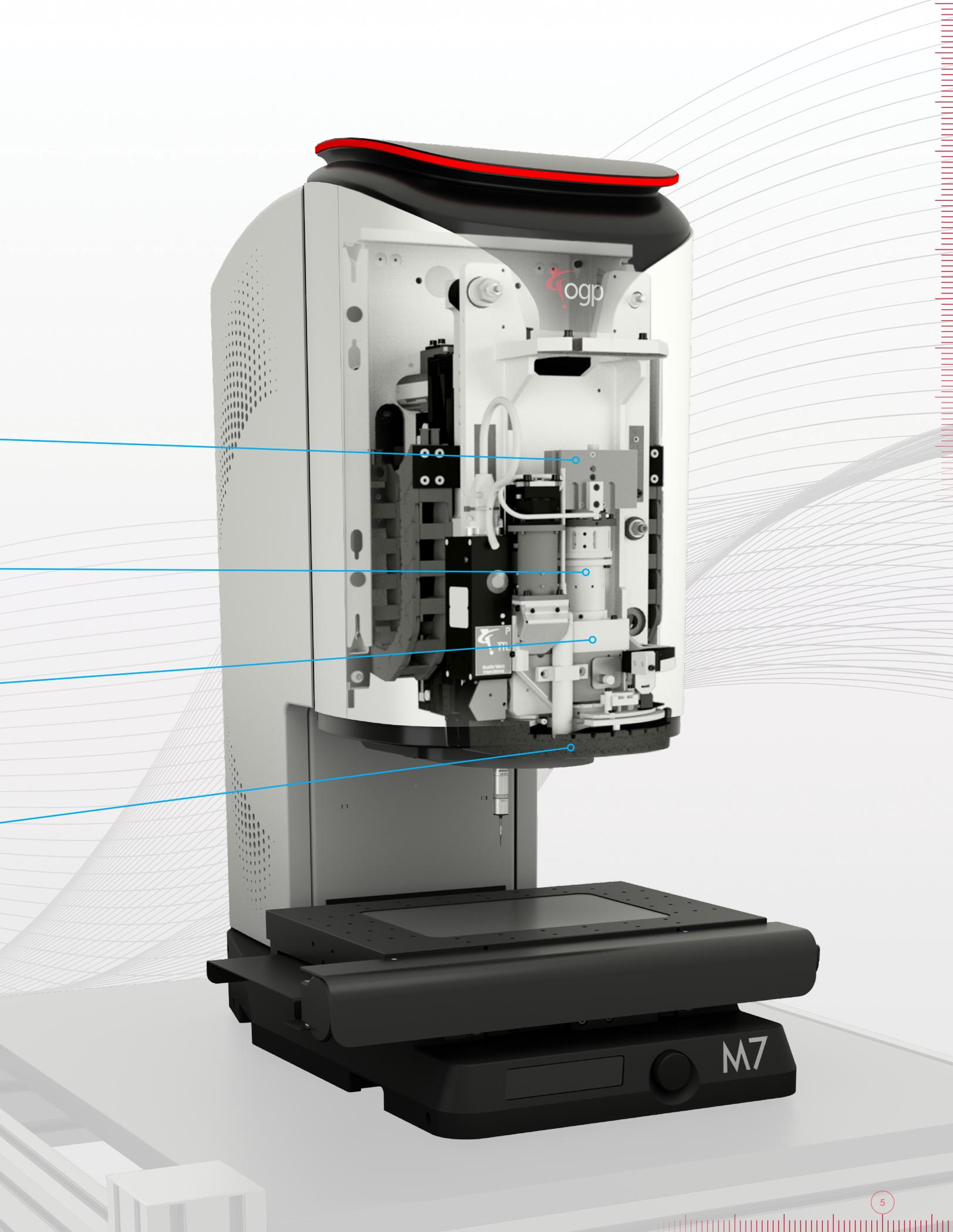
BUILT-IN ELECTRONIC APERTURE

Allows for both wide field and high accuracy measurements throughout the same zoom range as a traditional mechanical zoom system, while requiring far less downtime for maintenance.

VIRTUAL ZOOM TECHNOLOGY

Instantaneous zoom provides instant magnification changes resulting in faster runtimes. Unlike digital zoom that only allows the user to see more, VIRTUAL ZOOM provides improved measurement resolution/performance as you zoom up.

*US Patent No. 12 052 501



ogp

M7

SMARTSCOPE M-SERIES

SmartScope® M-Series systems combine innovative advancements in optical technologies delivering an incredibly high-resolution image, providing you with exceptionally accurate measurement results – affording confidence to move at top speeds from line to line and part to part – for faster setups, shorter cycle times, and increased throughput.

EASE OF USE

SmartScope M-Series systems are incredibly robust metrology systems, while also being extremely easy to use.

Built-in programming efficiencies in ZONE3® make difficult programming simple, and inexperienced operators can easily acquire measurement data with programs and walk-up measurements initiated with just the click of a mouse.

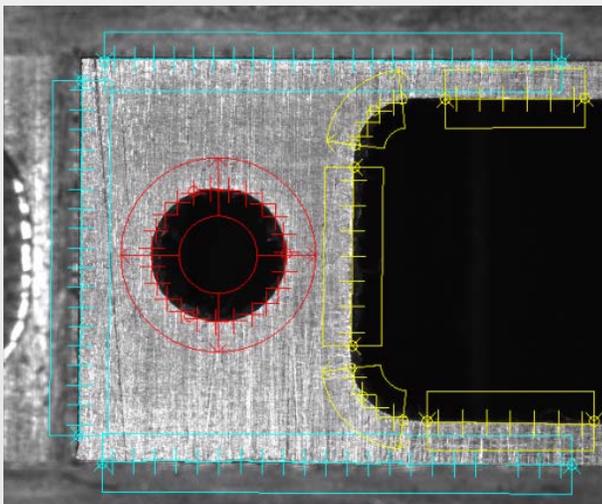
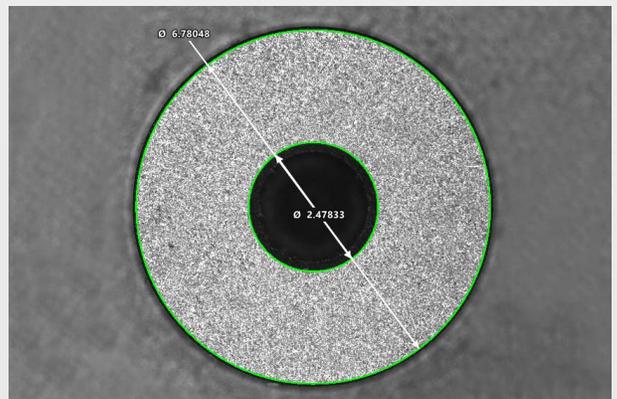
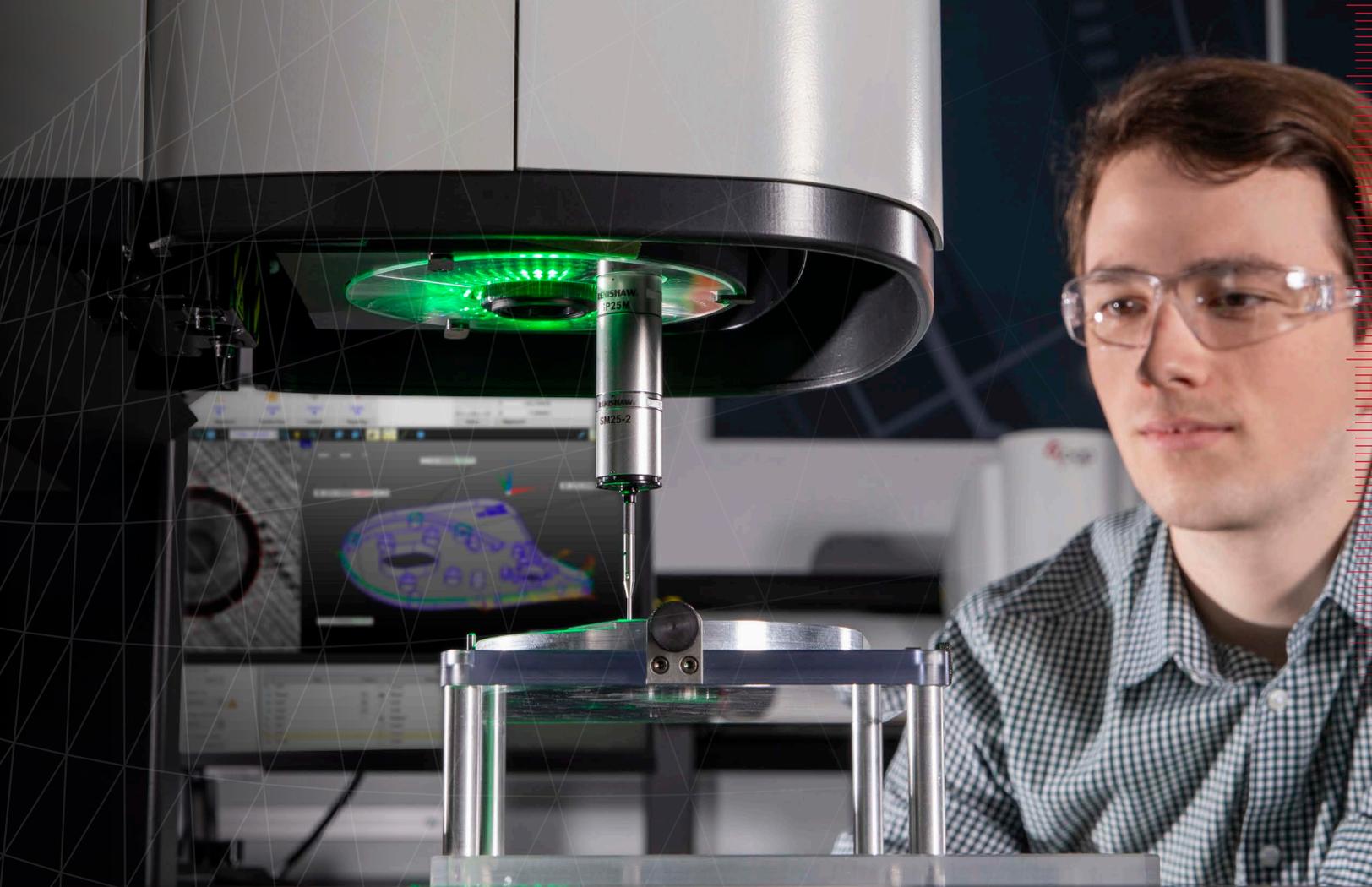


IMAGE ACCURACY

M-Series systems feature an all-new 20 MP camera – offering remarkable image quality and improved resolution.

At lower magnifications, users require less of a need to change magnification to measure smaller features which can be measured at the same time as much larger ones – allowing for higher resolution measurements in less time.



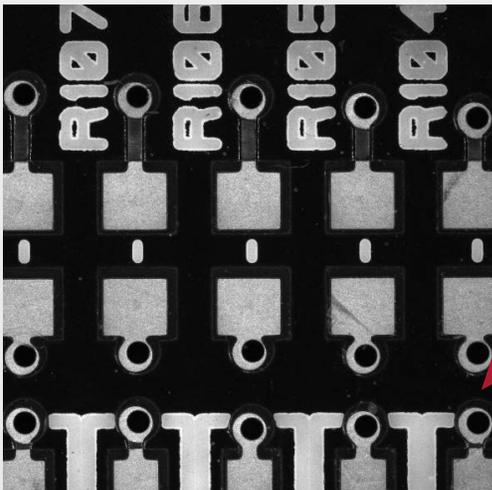


ADVANCED OPTICS

M-Series systems feature fixed lens, fully telecentric optics – allowing multiple features at different heights within the depth of field to be accurately measured at the same time.

The low distortion optics maximize the usable area of the stage by allowing features to be accurately measured anywhere in the field of view.

Low Magnification



Instant
Magnification
Changes

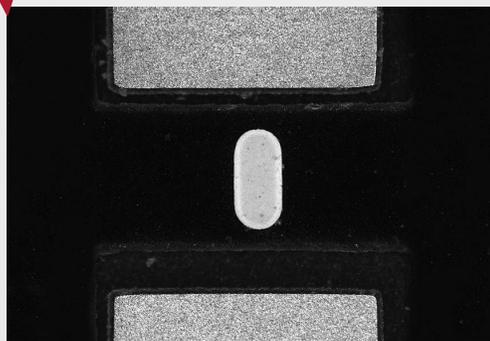
THROUGHPUT

Throughput advantages are found both on the hardware and software sides of M-Series systems.

Instantaneous zoom provides instant magnification changes, resulting in faster runtimes. Unlike typical digital zoom, VIRTUAL ZOOM provides improved measurement resolution and performance as you move through the zoom range.

ZONE3 packs advanced features like unified sensor programming, Routine Optimization and Apply to Similar to make programming a breeze.

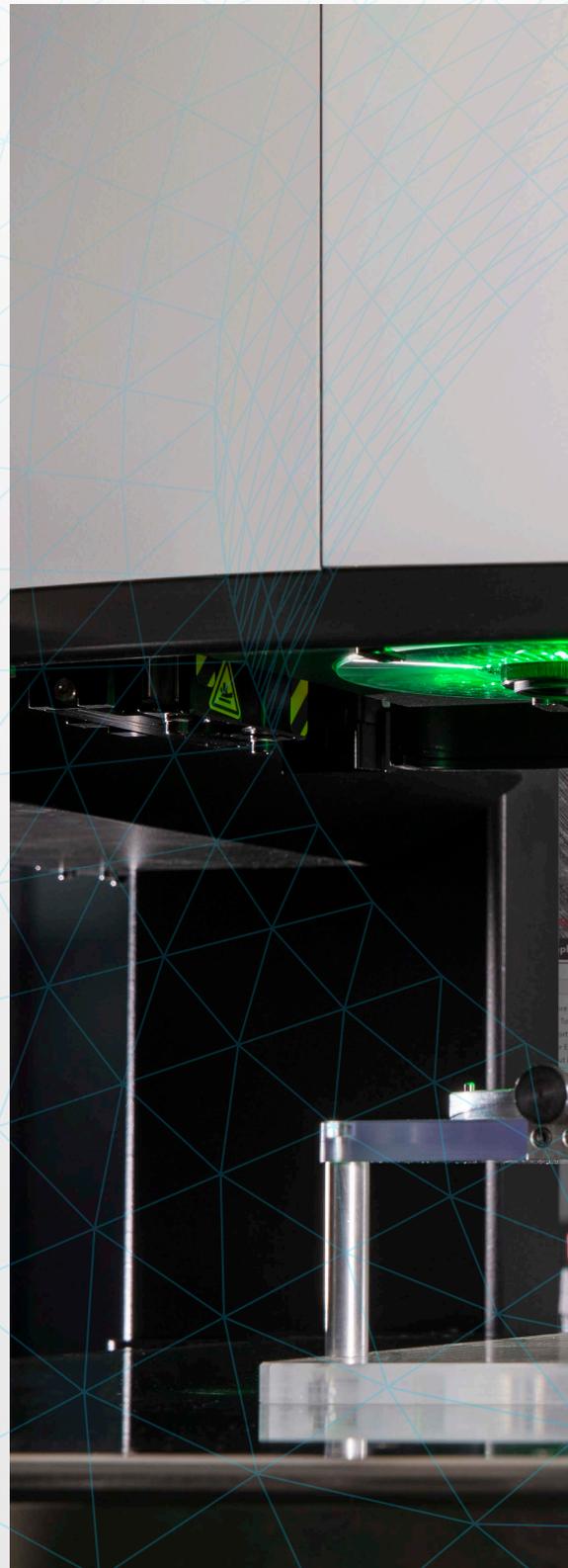
High Magnification

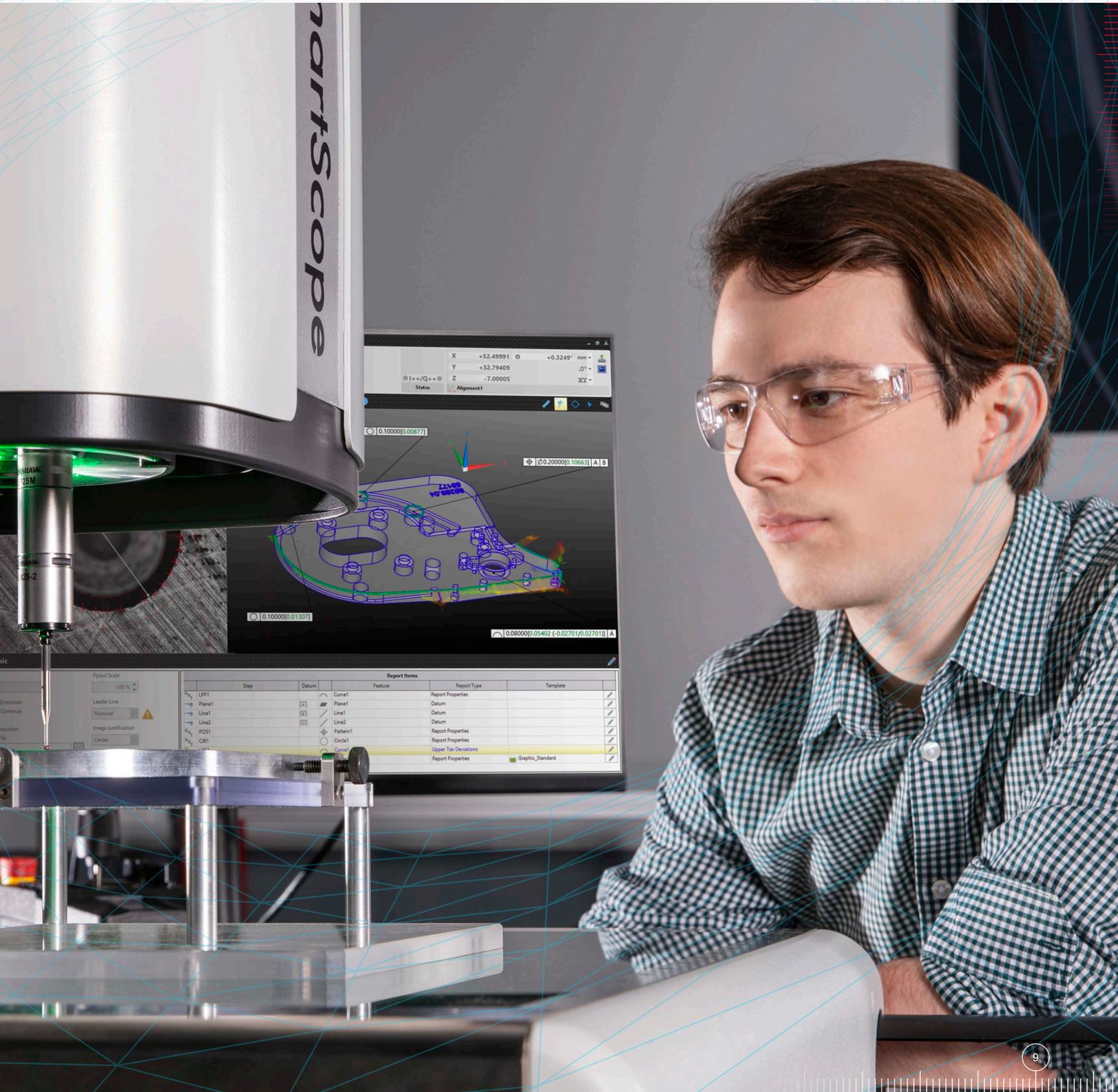


ZONE3 Metrology Software Makes Advanced Metrology So Easy

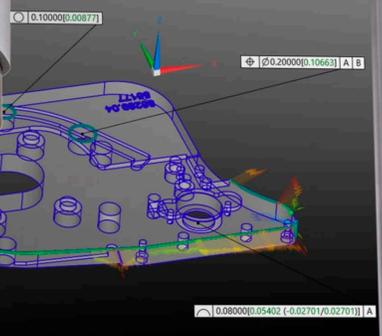
SMARTSCOPE M-SERIES SYSTEMS ARE POWERED BY ZONE3 METROLOGY SOFTWARE – THE WORLD’S MOST COMPREHENSIVE METROLOGY SOFTWARE.

- ZONE3 allows for 3D and CAD-based measurement using all sensors. Parallel Processing allows for all features of a part within the field of view to be measured simultaneously.
- Class-leading image processing algorithms result in lightning-fast, super accurate video metrology measurements.
- Walk-up measurements are achieved with just the click of a mouse.
- Daily operators can quickly launch pre-programmed routines.
- Advanced users can easily write detailed programs both at the machine or offline, while being assisted with features like Routine Optimization, Apply-to-Similar, and Auto Path Generation.
- All sensor types are programmed in the same way, making complex routine programming fast and easy – on the machine or offline.





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Z -7.00005 XY +



| Step | Datum | Feature | Report Type | Template |
|---------|-------|---------|-----------------------|------------------|
| LPF1 | | Curve1 | Report Properties | |
| Plane1 | A | Plane1 | Datum | |
| Line1 | B | Line1 | Datum | |
| Line2 | C | Line2 | Datum | |
| PCS1 | | Plane1 | Report Properties | |
| Circle1 | | Circle1 | Report Properties | |
| Curve1 | | Curve1 | Upper Tier Deviations | |
| | | | Report Properties | Graphic_Standard |

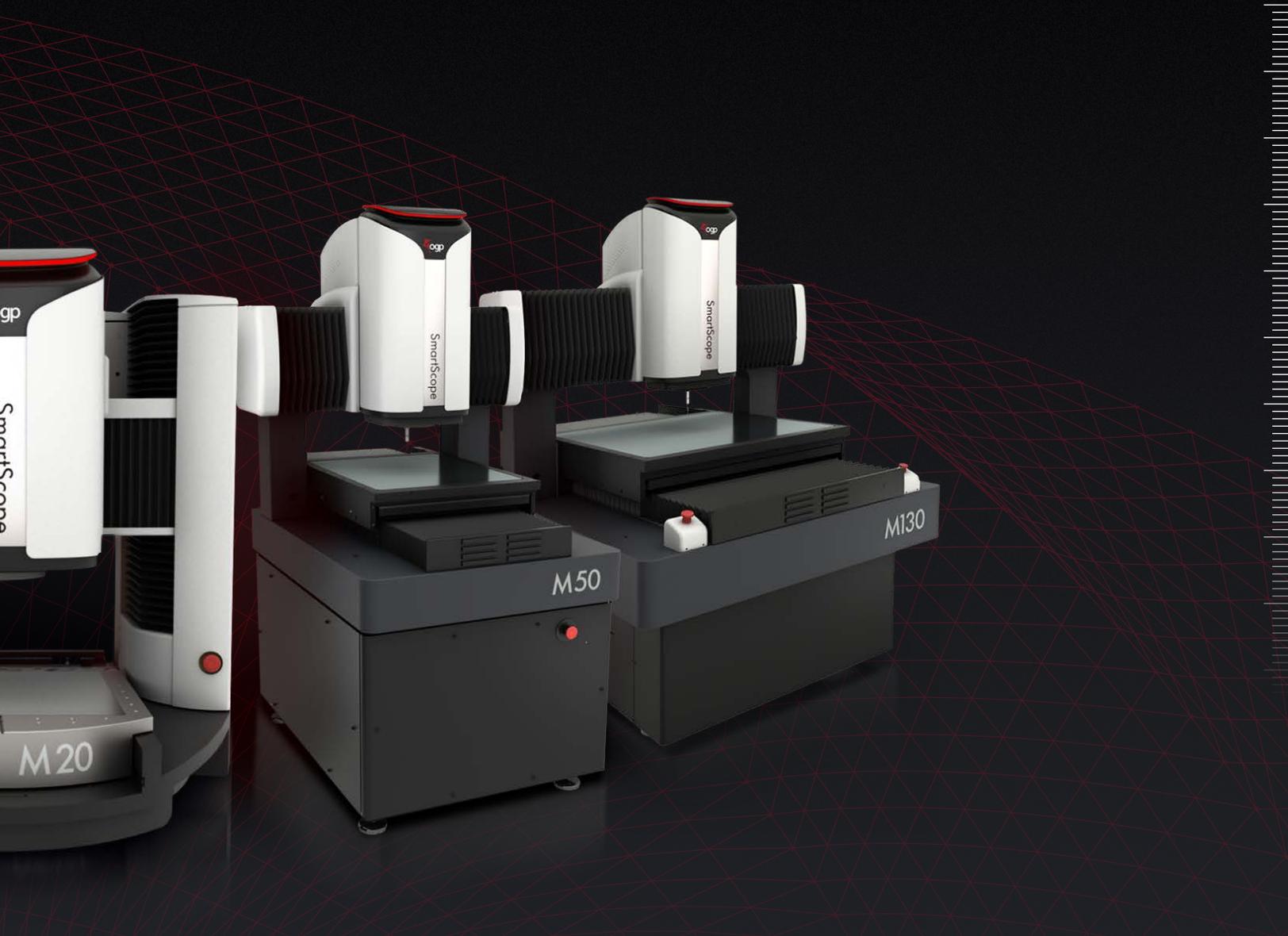
SMARTSCOPE M-SERIES



SYSTEM CONFIGURATIONS

XYZ TRAVEL

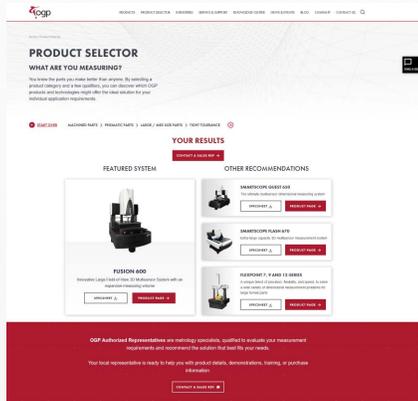
| | STANDARD | OPTIONAL |
|-------------|--------------------|--|
| M7 | 250 x 150 x 200 mm | Extended X axis: 300 mm |
| M20 | 300 x 300 x 250 mm | – |
| M45 | 500 x 450 x 200 mm | Extended Y axis: 610 mm Extended Z axis: 300 mm |
| M50 | 450 x 600 x 200 mm | Extended Z axis: 300 or 400 mm |
| M130 | 790 x 815 x 200 mm | Extended Z axis: 300 or 400 mm |



| OPTICAL SENSORS/ACCESSORIES | | TACTILE PROBES | | LASER SENSORS | |
|-----------------------------|---|----------------|---|------------------------------|---|
| Video Sensors |  | Feather Probe™ |  | TeleStar® Probe |  |
| Grid Projector |  | Scanning Probe |  | Rainbow Probe™ |  |
| Rotary Indexers |  | Touch Probe |  | Through-the-Lens (TTL) Laser |  |
| | | | | DRS™ Laser |  |

ADDITIONAL INFORMATION ABOUT OGP SYSTEMS

Explore a range of knowledge assets to help guide your research.



PRODUCT SELECTOR

This self-guided selector assists customers in identifying OGP products as a solution to their unique measurement needs.

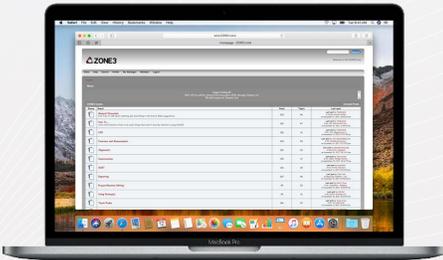
Customers select what kind of parts they manufacture, what size the parts are, and the tolerances they need to meet – the Product Selector suggests a featured system and other recommendations based on the customer's input.



KNOWLEDGE CENTER

Find numerous white papers, case studies, tech reports and other educational material about dimensional metrology and OGP product solutions.

You can also quickly learn about OGP technology and solutions by watching product explainer videos.



ZONE3.ZONE

ZONE3.zone is the online community for ZONE3 users. Connect with fellow ZONE3 users and OGP Application Engineers to share metrology tips and get answers to your questions about ZONE3 features.



FIND A SALES REP

OGP Authorized Representatives are metrology specialists, qualified to evaluate your measurement requirements and recommend the solution that best fits your needs.

Your local representative is ready to help you with product details, demonstrations, training, or purchase information.



Learn more about OGP Measurement Systems at ogpnet.com



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