

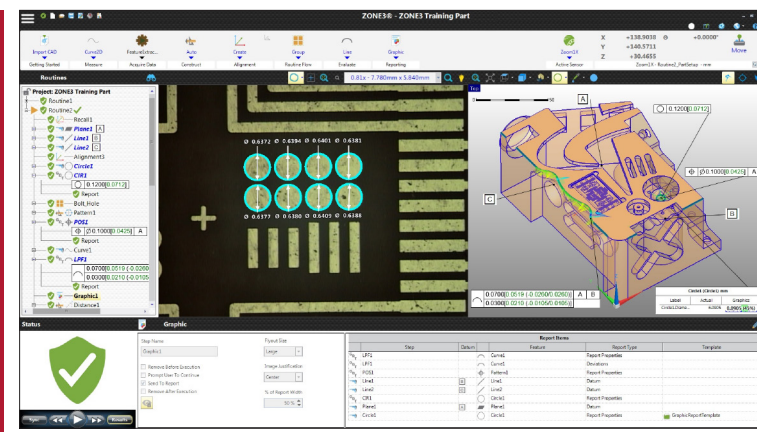


SmartScope Quest 300 – This compact machine with a unique “elevating bridge” design that yields larger XYZ measurement volume, combines state-of-the-art video and autofocus to deliver high productivity. Quest 300 offers:

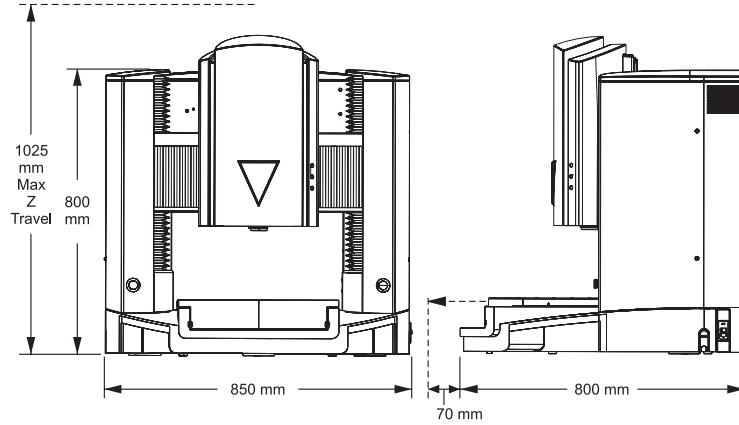
- **Accurate Video Metrology** – TeleStar® telecentric 10:1 zoom optics for the highest level of optical performance.
- **Multisensor Versatility** – Optional touch probe, SP25 continuous contact scanning probe, micro-probes, and on-axis TeleStar Plus TTL interferometric laser.
- **State-of-the-art Software** – Powerful ZONE3® metrology software, and other productivity and offline software applications, to suit your requirements.

Benchtop High-Capacity, High-Performance Fully 3D Multisensor Dimensional Metrology System





SmartScope® Quest™ 300



ZONE3® Metrology Software represents a totally new way of working with multisensor measurement systems - robust programming capabilities provide faster, easier, and more productive measurements.

System Weight: 160 kg
Shipping Weight: 220 kg

	Standard	Optional
XYZ Travel	300 x 300 x 250 mm	
XYZ Scale Resolution	0.1 µm, including dual Z-axis scales	0.05 µm
Drive System	DC servo with 4-axis control (X, Y, Z, zoom); air bearing Z axis; with multifunction handheld controller	
Worktable	Hardcoat anodized, with fixture holes, removable stage glass, 30 kg recommended max payload	
Rotary Axis		Miniature Servo Rotary (MSR™), MicroTheta Rotary (MTR™), Dual MTR/MSR
Optics*	AccuCentric® auto-compensating, fully telecentric zoom, motorized; 1x lens	Focus Grid Projector: LED source Laser Pointer: Not available with optional TTL Laser Replacement / Laser Lenses: 0.5x, 2.0x, 4.0x
Illumination	Substage LED profile, coaxial LED surface, SmartRing™ LED ring light	Flexible SmartRing light for 0.5x lens
Metrology Camera	Monochrome digital metrology camera	
Field of View	8.1 mm x 6.1 mm (low zoom) to 0.81 mm x 0.61 mm (high zoom)	13.1 mm x 9.8 mm (0.5x lens), to 0.20 mm x 0.15 mm (4.0x lens)
Working Distance	65 mm	Up to 127 mm (0.5x lens)
Sensor Options		Tactile: TP20 or TP200 Touch Probe, SP25 Scanning Probe, Feather Probe™ Non-Contact: TeleStar Plus Interferometric TTL Laser
Software	• ZONE3 metrology software • QVI® Portal	Metrology software: ZONE3 Prime, ZONE3 Pro Productivity software: EVOLVE® Suite (Design, Manufacturing, SmartProfile®, SPC) Offline software: ZONE3
System Controller	Windows® based, with up-to-date processor and on board networking/communication ports	
Controller Options	24" flat panel LCD monitor, keyboard, 3-button mouse	Dual 24" flat panel LCD monitors
Power Requirements	100-120 VAC or 200-240 VAC, 50/60 Hz, 1 phase, 900 W	
Compressed Air Requirements	Air supply pressure: 0.45 MPa; Minimum flow capacity: 32 l/min; Air quality ISO 8573-1:2010 Class 4.3.4 or better	Air dryer kit
Safe Operating Environment	15-30 °C, non-condensing	
Rated Environment	Temperature 18-22 °C, stable to ± 1 °C; max rate of change 0.5 °C / hour; max vertical gradient of 1 °C / meter; 30-80% humidity; vibration <0.001g below 15 Hz	
XYZ Volumetric Accuracy	$E_3 = (3.0 + 5L/1000) \mu\text{m}$	
XY Area Accuracy	$E_2 = (1.5 + 5L/1000) \mu\text{m}$	
Z Linear Accuracy	$E_1 = (2.5 + 5L/1000) \mu\text{m}$	$E_1 = (2.0 + 5L/1000) \mu\text{m}$ (requires optional TeleStar Plus TTL Laser, or Touch Probe)

Accuracy is evaluated with a QVI compensation and verification procedure where "L" is measured length in millimeters. Specifications apply within the rated environment. Accuracy specifications are verified with the imaging sensor unless otherwise specified. Standard optical specifications apply at the maximum optical magnification of the standard configuration. XY Accuracy applies with an evenly distributed load up to 5 kg in the standard measuring plane. The standard measuring plane is defined as a plane that is within 25 mm of the worktable surface. Depending on load distribution, accuracy at maximum payload may be less than standard. On-site verification of volumetric accuracy is optional.
*Lenses can be manually interchanged to change magnification and working distance.



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World Headquarters: Rochester, NY, USA • 585.544.0400 • www.ogpnet.com

OGP Shanghai Co, Ltd: Shanghai, China

86.21.5045.8383/8989 • www.smartscope.com.cn

OGP Messtechnik GmbH: Hofheim-Wallau, Germany

49.6122.9968.0 • www.ogpmesstechnik.de

Optical Gaging (S) Pte Ltd: Singapore • 65.6741.8880 • www.smartscope.com.sg

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