QVI Fusion™ 400

Telecentric large field optics – Dual optical paths — low mag with 100 mm viewing area and high mag for small feature measurement and autofocus, fully telecentric for image accuracy

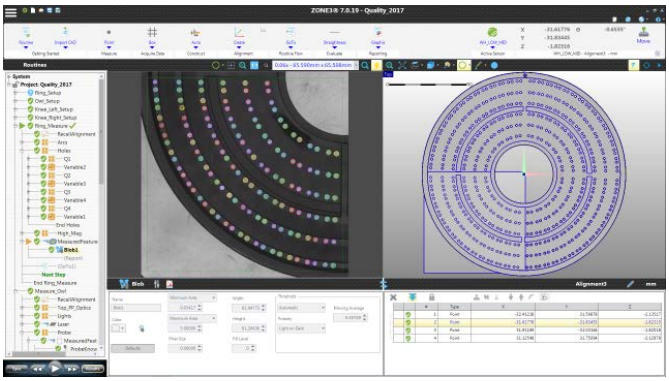
Multisensor versatility – Optional touch probe, TeleStar® TTL laser, micro-probe, continuous contact scanning probe, and 4th and 5th axis rotary indexers

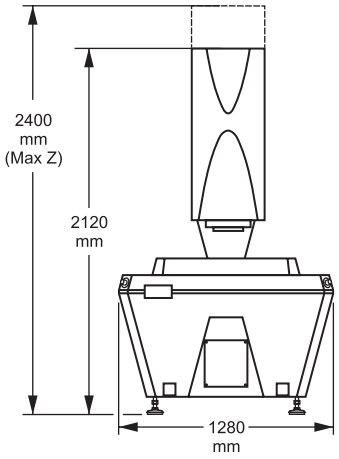
ZONE3® productivity – CAD-based metrology software, with integral AutoID and AutoMeasure functions, ideal for large field of view (LFOV) optics

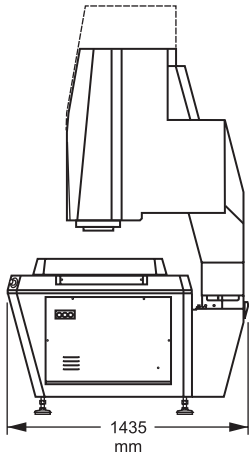
Axis	Travel (mm)	Measuring Range (mm)
X axis	350	400
Y axis	250	300
Z axis	250	250

Innovative
Large Field-of-View (LFOV)
Multisensor Measuring System

QVI Fusion™ 400







Machine Weight: 2100 kg

Standard Metrology Software

- ZONE3® Express 3D Metrology Software

Optional Metrology Software

- ZONE3 Prime
- ZONE3 Pro
- ZONE3 Offline
- SmartProfile
- E-SPC

Optics	Low Mag	High Mag
Camera	4-megapixel, digital monochrome	5-megapixel, digital monochrome
Field of view	100 mm, diagonal	20 mm, diagonal
Depth of field	75 mm	2 mm
Working distance	185 mm	185 mm
Accessories		LED Grid Illuminator for focus contrast (optional, for high mag only)

Transport	Standard	Optional
XYZ travel range	350 x 250 x 250 mm	
XYZ measuring range (maximum)	Low Magnification: 400 x 300 x 250 mm High Magnification: 350 x 250 x 250 mm	
XYZ scale resolution	0.1 µm	0.05 µm zero expansion
Drive system	XY: High helix ball-screw DC servo; Z: DC servo with pneumatic counterbalance	
Worktable	Electroless nickel-plated steel, with fixture holes, removable stage glass	
Max recommended payload	30 kg	
Max XY velocity	400 mm/sec	
Max XY acceleration	1000 mm/sec^2	

Illumination	Standard	
Profile	Collimated, full field, LED	
Surface	Square-on internal	
Oblique surface	Oblique ring light with 8 programmable segments	

Sensors	Standard	Optional
Deployment mechanism	On-axis, air-actuated rotational deployment mechanism (RDM)	
Optical		Deployable RP-1500 Rainbow Probe™ Deployable TeleStar Probe laser
Tactile	Touch probe adapter package	Touch probe, TP20, TP200 Scanning probe, SP25 Feather Probe™
Laser	Laser Range Finder system for optimal Z-focus positioning	TeleStar® interferometric TTL laser

Controller	Windows® based, with up-to-date processor and networking/communication ports	
Controller accessory package	24" flat panel LCD monitor, keyboard, 3-button mouse, ergonomic sit/stand operator workstation	Dual 24" flat panel LCD monitors
Software	**QVI Portal, including:** • ZONE3® Express Metrology Software • Portal Navigator • Independent Calibration Engine (ICE) • Multimedia Content Viewer • SmartLink™	**Metrology software:** ZONE3 Prime, Pro, or Offline **Productivity software:** MeasureFit® Plus, SmartFit® 3D, SmartProfile®
Power requirements	100-120 or 200-240 VAC, 50/60 Hz, 1 phase, 1000 W	
Compressed air requirements	Air supply rate: minimum 7.5 liters/min @ 0.55 Mpa (0.27 ft^3/min @ 80 psi)	
Rated environment	Temperature 18-22° C, stable to ±1° C; 30-80% humidity; vibration <0.001g below 15 Hz	
Operating environment, safe operation	15-30° C	
XY area accuracy[1]	E_2 = (1.8 + 4L/1000) µm[2,3,4]	
Z linear accuracy[1]		E_1 = (2.0 + 5L/1000) µm[4] (with optional touch probe or TeleStar TTL laser)

[1]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 magnification. [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]E_1 Z axis linear, and E_2 XY area accuracy standards are described in QVI Publication Number 790762.

QVI ogp **Confidence.** When Results Matter.™

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