

QVI® Lazer 200

The QVI Lazer 200 is an innovative non-contact measuring system that uses laser scanning with video support for surface topography measurements.

The Digital Range Sensor (DRS™) laser delivers high quality non-contact laser scans of critical part surfaces.

- QVI Lazer features a mechanically innovative “elevating bridge” design that creates the most compact system of any machine with comparable travel
- Chassis axial straightness and perpendicularity are machined in
- Z-axis travel keeps the DRS laser within its capture range throughout its scan
- Integral on-axis video imaging is used to locate the part, set datums, and choose laser scan start and end points

Non-contact, self-contained laser metrology system



	X	Y	Z
Travel (mm)	200	200	100
Travel (in)	8	8	4

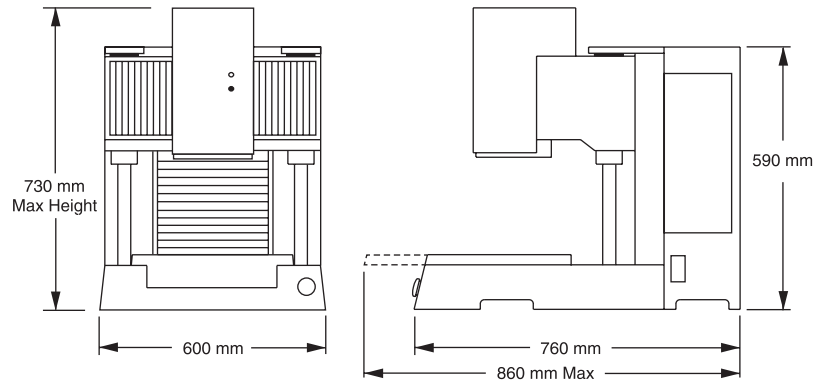
Metrology Software:

- Measure-X® metrology software

Available Optional Software:

- MeasureMind® 3D multisensor metrology software
- TrueMap™
- SmartProfile® GD&T evaluation software
- SmartFit® 3D
- MeasureFit® Plus
- SmartReport® Plus

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System weight: 100 kg (uncrated), 150 kg (crated)

	Standard	Optional
XYZ travel (mm)	200 x 200 x 100	
XYZ scale resolution	0.5µm	0.1µm
Stage drive system	DC servo with joystick control (X,Y,Z)	
Max recommended load	16 kg	
Worktable	Hardcoat anodized with fixture holes and removable stage glass	
Laser range finder Either one standard	DRS-300: Capture range 300 µm, Z accuracy within capture range 1.0 µm, dynamic resolution 0.125 µm, standoff distance ⁵ 17 mm, spot size 7-12 µm DRS-500: Capture range 500 µm, Z accuracy within capture range 1.0 µm, dynamic resolution 0.125 µm, standoff distance 17 mm, spot size 16-23 µm	
Lens	Fixed objective	
Metrology camera	1/2 inch format high resolution color CCD with 768 x 494 pixel array, on-axis with laser	
Supplemental illumination	Linear white LED surface, LED substage	
System controller	Intel® processor based Microsoft® Windows® operating system and on-board networking and communication ports	
Computer accessory package		22" or 24" flat panel LCD monitor; or dual 22: flat panel LCD monitors Keyboard, 3-button mouse
Power requirements	100 - 120 VAC or 200 - 240 VAC, 50/60 Hz, 1 phase, 500 W	
Rated environment	Temperature: 18 °C - 22 °C, stable to ± 1 °C Relative Humidity: 30% - 80% (non-condensing) Vibration below 15 Hz: <0.001g	
Safe operating environment	15 - 30 °C	
XY area accuracy, video	$E_z: (6.0+6L/1000) \mu\text{m}^{1,2,3}$	
Z linear accuracy, laser	$E_z: (1.5+5L/1000) \mu\text{m}^{1,2,4}$	
Warranty	One year, on-site	
Accessories		Fixtures and calibration artifacts, service and support contracts, granite base workstation, color video printer, rotary indexers
Notes	1. Where L = measuring length in mm. Applies to a thermally stable system in rated environment. Maximum rate of temperature change 1 °C/hour. Maximum temperature gradient 1 °C/meter. All specifications are applicable when the artifact is at 20 °C 2. With evenly distributed load of 5 kg. Depending on load distribution, accuracy at higher loads 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. Z axis artifact: QVI step gage or master gage blocks 5. Standoff distance is the distance in Z from the lowest point on the DRS laser to the middle of the capture range	



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