



**LAZER 200**

The 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.

- 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**



	<b>X</b>	<b>Y</b>	<b>Z</b>
Travel (mm)	200	200	100
Travel (in)	8	8	4

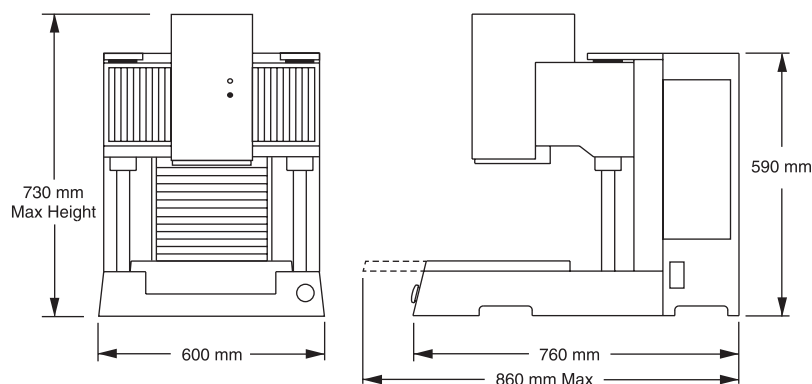
## Metrology Software

- Measure-X, MeasureMind 3D, and ZONE3® software

## Available Optional Software

- E-SPC
- MeasureFit®

# LAZER 200



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

	Standard	Optional
<b>XYZ travel (mm)</b>	200 x 200 x 100	
<b>XYZ scale resolution</b>	0.5µm	0.1µm
<b>Stage drive system</b>	DC servo with joystick control (X,Y,Z)	
<b>Max recommended load</b>	16 kg	
<b>Worktable</b>	Hard coat anodized with fixture holes and removable stage glass	
<b>Laser range finder</b> Either one standard	<b>DRS-300:</b> Capture range 300 µm, Z accuracy within capture range 1.0 µm, dynamic resolution 0.125 µm, standoff distance <sup>5</sup> 17 mm, spot size 7-12 µm <b>DRS-500:</b> 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	
<b>Lens</b>	Fixed objective	
<b>Metrology camera</b>	1/2-inch format high resolution color CCD with 768 x 494 pixel array, on-axis with laser	
<b>Supplemental illumination</b>	Linear white LED surface, LED substage	
<b>System controller</b>	Intel® processor-based Microsoft® Windows® operating system and on-board networking and communication ports	
<b>Computer accessory package</b>		24" flat panel LCD monitor; or dual 24: flat panel LCD monitors Keyboard, 3-button mouse
<b>Power requirements</b>	100 - 120 VAC or 200 - 240 VAC, 50/60 Hz, 1 phase, 500 W	
<b>Rated environment</b>	Temperature: 18 °C - 22 °C, stable to ± 1 °C   Relative Humidity: 30% - 80% (non-condensing)   Vibration below 15 Hz: <0.001g	
<b>Safe operating environment</b>	15 - 30 °C	
<b>XY area accuracy, video</b>	$E_{2'}: (6.0+6L/1000) \mu\text{m}^{1,2,3}$	
<b>Z linear accuracy, laser</b>	$E_{1'}: (1.5+5L/1000) \mu\text{m}^{1,2,4}$	
<b>Warranty</b>	One year, on-site	
<b>Accessories</b>		Fixtures and calibration artifact, granite base workstation, rotary indexers
<b>Notes</b>	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: 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	



Confidence. When Results Matter.™

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