

## Lazer 200

**Lazer 200** – An innovative non-contact measuring system that uses laser scanning for surface topography measurements. The Digital Range Sensor (DRS™) laser delivers high quality non-contact laser scans of critical part surfaces. Lazer 200 features:

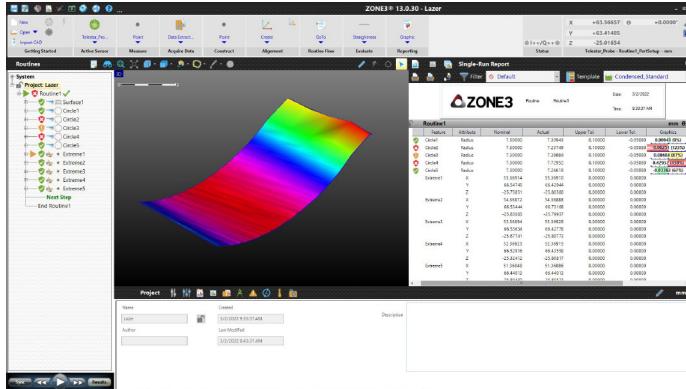
- **Innovative Elevating Bridge Design** – Provides for a large working area in a compact unit.
- **Z-axis Tracking** – Keeps the DRS laser within its capture range throughout the scan.
- **Integral On-axis Video Imaging** – Used to locate the part, set datums, and choose laser scan start and stop points.

### Compact Benchtop Non-contact Laser Metrology System

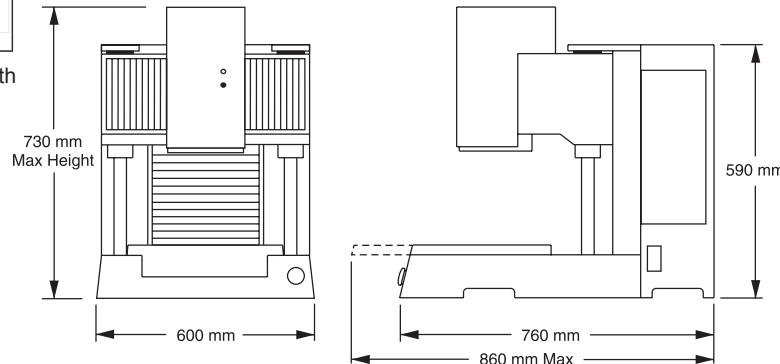


Shown with DRS-500 Laser Sensor.





ZONE3® Metrology Software represents a totally new way of working with multisensor measurement systems, providing faster, easier, and more productive measurements.



System Weight: 100 kg  
Shipping Weight: 150 kg

|                                   | Standard  | Optional  |
|-----------------------------------|---|---|
| <b>XYZ Travel</b>                 | 200 x 200 x 100 mm  |   |
| <b>XYZ Scale Resolution</b>       | 0.5 $\mu$ m   | 0.1 $\mu$ m   |
| <b>Drive System</b>               | DC servo with 3-axis control (X, Y, Z); with multifunction handheld controller  |   |
| <b>Worktable</b>                  | Hardcoat anodized, with fixture holes, removable stage glass, 16 kg recommended max payload.  |   |
| <b>Rotary Axis</b>                |   | Miniature Servo Rotary (MSR™)   |
| <b>Optics</b>                     | Fixed objective lens  |   |
| <b>Illumination</b>               | Linear white LED surface, LED substage  |   |
| <b>DRS™ Sensor</b>                | <b>DRS-500 (Red Laser)</b>  | <b>DRS-500B (Blue Laser)</b>  |
| Type Of Surface                   | Specular or diffuse reflective surfaces   | Best for translucent or white parts   |
| Working Distance <sup>1</sup>     |   | 17 mm   |
| Measuring Range <sup>2</sup>      |   | 500 $\mu$ m   |
| Spot Size <sup>3</sup> (nominal)  | 16 x 23 $\mu$ m   | 13 x 20 $\mu$ m   |
| Resolution <sup>4</sup>           |   | 0.125 $\mu$ m   |
| Triangulation Angle               |   | 70°   |
| <b>Software</b>                   | • ZONE3 Express metrology software<br>• QVI® Portal   | <b>Metrology software:</b> ZONE3 Prime, ZONE3 Pro<br><b>Productivity software:</b> SmartFit® 3D, EVOLVE® Suite (Design, EVOLVE SPC, Manufacturing, SmartProfile®)<br><b>Offline software:</b> ZONE3 |
| <b>System Controller</b>          | Windows® based, with up-to-date processor and onboard networking/communication ports  |   |
| <b>Controller Options</b>         |   | 24" flat panel LCD monitor; or dual 24" flat panel LCD monitors<br>Keyboard, 3-button mouse (or user supplied)  |
| <b>Power Requirements</b>         | 100-120 VAC or 200-240 VAC, 50/60 Hz, 1 phase, 900 W  |   |
| <b>Safe Operating Environment</b> | 15-30 °C, non-condensing  |   |
| <b>Rated Environment</b>          | Temperature 18-22 °C, stable to $\pm 1$ °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 |   |
| <b>Z Linear Accuracy, Laser</b>   | $E_1 = (1.5 + 5L/1000) \mu$ m   |   |

Accuracy is evaluated with a QVI verification procedure where "L" is measured length in millimeters. Specifications apply within the rated environment. This equipment complies with EMC directive EN IEC 61326-1, Class A.

<sup>1</sup>Distance in Z from the lowest point on the DRS laser to the middle of the measuring range.

<sup>2</sup>Measuring Range is the Z-range over which the performance of the sensor is linear and calibrated.

<sup>3</sup>With spot size at best focus.

<sup>4</sup>Using high quality specular (polished glass) surface, 1 $\sigma$ .



## Safety Considerations

This system is classified as a Class II laser device by IEC 825 (2001). **Do not stare directly into the laser source.**



Confidence. When Results Matter.™

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