

Accurate surface profiles –
Cobra provides accurate surface height information as its low-power laser scans over a surface

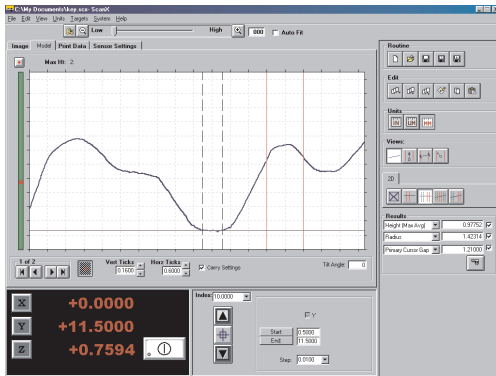
Selectable laser sensors –
Available DRS™ lasers offer a range of resolutions and standoff distances to satisfy a variety of applications

Two available models –
Cobra 2D measures surface height while scanning along its Y axis, and Cobra 3D measures surface height while scanning in its X and Y axes

Laser Profile Scanner



Cobra 3D shown with DRS laser

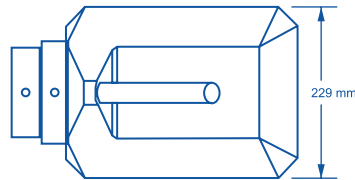
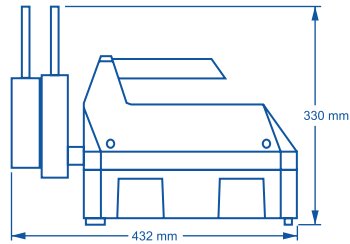


Standard Metrology Software

- Scan-X®

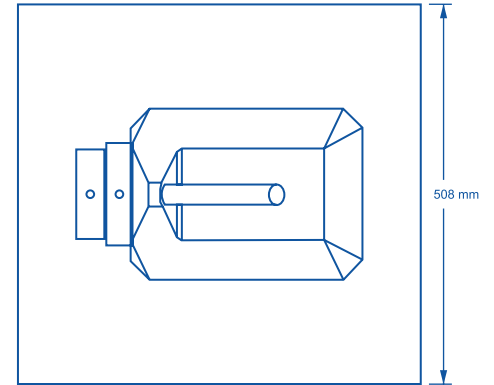
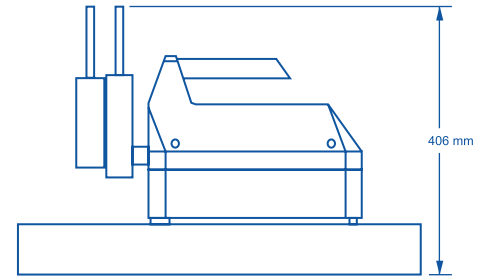
Optional Metrology Software

- SmartReport®
- MeasureFit®
- Scan-X Offline



Cobra 2D

Cobra™ 2D | 3D



Cobra 3D

Machine Weight: Cobra 2D: 10.5 kg Cobra 3D: 80 kg

| | | | | | |
|--|--|----------------|------------------|-----------------|-----------------|
| Scan length, Cobra 2D | X-axis NA, Y-axis 50 mm | | | | |
| Scan length, Cobra 3D | X-axis 100 mm, Y-axis 50 mm | | | | |
| Z-axis adjustment range, Cobra 2D/3D | 50 mm | | | | |
| Min X and/or Y step size | 1.0 µm | | | | |
| Data range | Up to 1000 points per second (user configured) | | | | |
| Max points per scan | 20,000 (user configured) | | | | |
| Straightness of travel | ± 1.0 µm within 25 mm | | | | |
| DRS sensors (one included) | DRS-300 | DRS-500 | DRS-500B | DRS-2000 | DRS-8000 |
| Type of surface | Any | Any | Any ¹ | Diffuse only | Diffuse only |
| Capture range ¹ | 300 µm | 500 µm | 500 µm | 2000 µm | 8000 µm |
| Z accuracy within capture range ² | 1.0 µm | 1.0 µm | 1.0 µm | 10.0 µm | 40.0 µm |
| Dynamic resolution | 0.125 µm | 0.125 µm | 0.125 µm | 1.0 µm | 4.0 µm |
| Standoff distance ³ | 17 mm | 17 mm | 17 mm | 31.5 mm | 50 mm |
| Triangulation angle | 70° | 70° | 70° | 35° | 35° |
| Spot size (nominal) | 7-12 µm | 16-23 µm | 13-20 µm | 32-48 µm | 60-85 µm |
| Computer option | Windows®-compatible PC | | | | |
| Standard metrology software | QVI® Scan-X® | | | | |
| Optional software | SmartReport®, MeasureFit®, Scan-X offline | | | | |
| Optional hardware | Video camera, granite surface plate (standard on 3D model), manual positioning system, steel weldment base, calibration kit | | | | |
| Rated environment | Temperature 18-22° C, stable to ±1° C; 30-80% humidity; vibration <0.002g below 15 Hz | | | | |
| Operating environment, safe operation | 15-30° C | | | | |
| Power requirements | 115/230 vac, 50/60 Hz, 1 phase, 400 W | | | | |
| Notes: | ¹ Capture range is surface dependent. ² Accuracy on horizontal specular surface within the measuring range. ³ Standoff distance is the distance in Z from the lowest point on the DRS laser to the middle of the capture range. ⁴ DRS-500B blue laser is appropriate for any surface, but works best on transparent or white parts. | | | | |



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