

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





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) Type of surface Capture range ¹ Z accuracy within capture range ² Dynamic resolution Standoff distance ³ Triangulation angle Spot size (nominal)	DRS-300 Any 300 μm 1.0 μm 0.125 μm 17 mm 70° 7-12 μm	DRS-500 Any 500 μm 1.0 μm 0.125 μm 17 mm 70° 16-23 μm	DRS-500B Any ⁴ 500 μm 1.0 μm 0.125 μm 17 mm 70° 13-20 μm	DRS-2000 Diffuse only 2000 μm 10.0 μm 1.0 μm 31.5 mm 35° 32-48 μm	DRS-8000 Diffuse only 8000 μm 40.0 μm 4.0 μm 50 mm 35° 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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