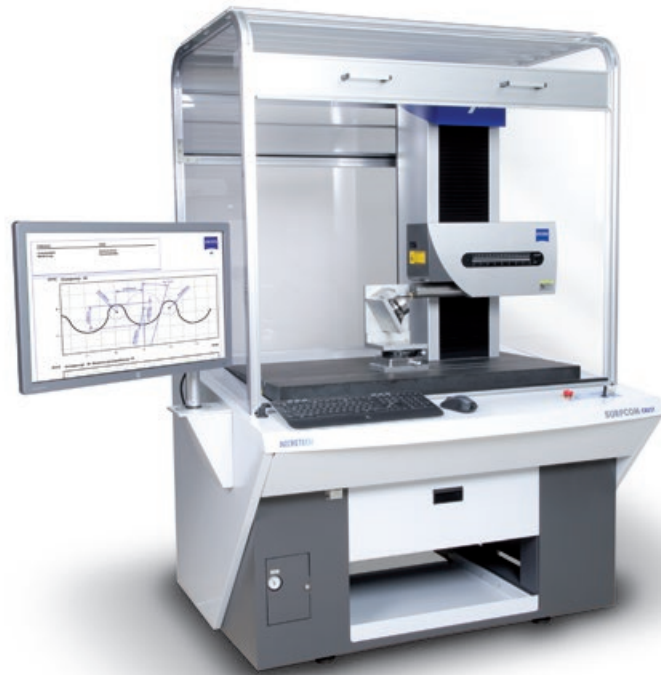


SURFCOM CREST

CNC measuring station for combined contour and surface measurement



SURFCOM CREST

Precise, universal and dynamic – the SURFCOM CREST is the flagship for contour and surface measuring technology from ZEISS and is the benchmark for accuracy and speed. The SURFCOM CREST measures surface parameters and contours in one step, considerably increasing measuring productivity compared to conventional systems.

The SURFCOM CREST flexes its muscles where precision and throughput are vital: in the automotive, mechanical engineering and medical technology industries. For example, it is ideal for lenses, precise bearings, drive spindles, as well as accurate milled, ground, honed and lapped parts.

Advantages

- Extremely stable and highly accurate measuring results ensured by a resolution of 0.31 nanometers. The resolution of the SURFCOM CREST is higher than conventional systems by a factor of five
- Laser interferometer as a measuring system for maximum accuracy. Measuring error in the X direction: $\pm (0.2 + L/1,000) \mu\text{m}$
- Extremely good ratio of measuring range to resolution period. The slightest surface roughness and contours over a very large measuring range can be measured in one run.
- More throughput thanks to extensive automation possibilities
- Higher flexibility for slanted features through CNC swivel tracing driver, $\pm 45^\circ$ swivel range and 200 mm tracing driver
- Long penetration depth for measurement of deep features
- Easy automatic measurement thanks to cylindrical stylus-and-arm system
- Easy diameter or wall thickness measurement with T stylus
- More accurate and universal thanks to the outstanding ratio of the measuring range to resolution: 42 million to 1

Technical data summary

| | |
|--------------------------------------|--|
| Resolution | 0.31 nm (50 mm stylus) |
| X axis straightness error | 0.11 μm with 200 mm measuring path |
| X axis measuring error | $\pm 0.4 \mu\text{m}$ with 200 mm measuring path |
| Traversing length/resolution: | 200 mm/0.54 nm |
| Stylus-and-arm deflection: | 13 mm (50 mm stylus) 26 mm (100 mm stylus) |
| Measuring speed | 0.03 mm/s – 20 mm/s |
| Positioning speed | up to 200 mm/s |



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