Application Story

Bearings

Bearing measurement using Flexures and Block Gauges

Precision. Quality. Reliability
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The Product

Block Gauges make precision measurements of bores and cavities a simple and reliable process. A range of springs are available to ensure that tip forces can be maintained with the Block Gauge mounted in any attitude.

Range: 2, 5 or 10 mm – Accuracy: Up to 0.15% of readings – IP Rating: IP65 – Repeatability: Up to 0.25 μm

Flexures are ideal for very high volume and high precision applications such as bearing component gauging. They are often the best solution for measuring moving material, such as roundness testing, with Orbit® set to very high resolution and fast data transmission.

Range: 1 or 2 mm – Accuracy: Up to 0.1% of reading – Resolution: Up to 0.1 μm – Repeatability: Up to 0.1 μm

The Challenge

Post process gauging or the grading of bearing components are among the most demanding of all post process gauging applications. Whether it is surface finish or dimensional accuracy, bearings metrology is often extremely demanding. The right choice of sensor can improve the manufacturing efficiency, accuracy, reliability, speed of operation, service intervals and the costs of operating machinery.

The Solution

Solartron Metrology has a long history of supplying gauging transducers to the bearing industry that maintain high levels of precision for millions of cycles.

Pneumatic operation of the Block Gauge enables fast and reliable loading and unloading of the component for on-line gauging applications. The ability of Digital Flexure to take up to 3906 readings per second at 0.1 μm resolution, enable dynamic measurements to be taken online. Deep groove gauging applications are not a problem for Solartron’s universal gauges.

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