



Application Story

Aerospace

Alignment of camshaft bearings using a Digital Miniature Probe fixture





Precision. Quality. Reliability





The Product

Solartron's Digital Miniature Probe is a robust miniature flexure with all the attributes of the larger flexure gauging products. Measuring just $6.25 \times 7.5 \times 25$ mm, it is particularly useful in all aspects of bore gauging and other applications in tight spaces, where high accuracy and durability are required.

Range: 0.5 or 1 mm – Accuracy: 0.2% of reading – Resolution:

0.1 μm - Repeatability: Up to 0.1 μm





The Challenge

In automotive engine plants, camshaft bearings must be precisely manufactured and aligned, so that an engine runs smoothly and production stays constant. The bearings themselves can be difficult to gauge, as passing any bore gauge through them can induce wear and tear on the gauge.

The Solution

Because they are quick, accurate, and cost effective, the Solartron Miniature Probe is frequently utilized in these types of bearing checks. It is small enough to be mounted to a bore gauge, and its double flexure design provides the ruggedness for the repeated up and down from being threaded through the mounts. Also, since the probes come pre-calibrated, they only need to be mounted and mastered before use, ensuring an easy setup on the factory floor.





The Digital Miniature Probe is built to withstand rotation and sideloads, so the bore gauge can be rotated within the bearings to ensure the camshaft is at its proper roundness. Custom tips can also be created, for easier pass-through.



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