



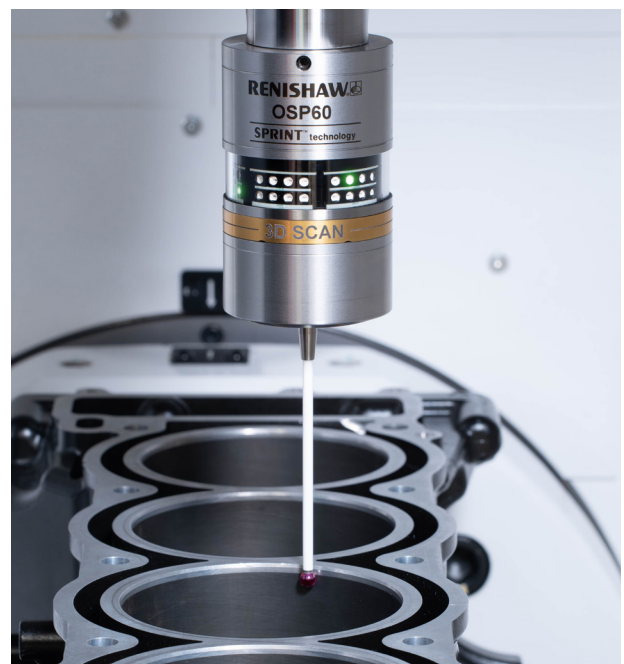
How SPRINT™ machine tool scanning technology can boost confidence in automotive bore and boss measurement

On-machine scanning

Automotive components frequently contain critical bore and boss features. These can be datum features, elements that are geometrically crucial for subsequent operations, or for end use.

These features are often inspected using manual gauges. However, this can be time consuming and subject to human error. It also requires components to be removed to an offline facility. Out-of-tolerance features may be identified too late in the manufacturing process to allow correction through rework.

Automated touch-trigger probing offers manufacturers a viable on-machine alternative which is faster, highly repeatable, and less prone to human error. However, for applications such as bore/boss form determination which require large quantities of data it can still be time consuming. Scanning probe technology takes on-machine data capture to the next level.



How can investment in on-machine scanning technology help you?

SPRINT™ technology can quickly and easily scan features to calculate form, size and position.

Automated, high-speed, and highly accurate, it can collect significantly more data than a touch-trigger process in a shorter cycle time; critical for establishing true feature form.

On-machine verification can help reduce the reliance on dedicated offline inspection equipment. However, as final inspection for QA and traceability is often a requirement for this industry, offline measurement cannot be eliminated. On-machine verification can reduce the number of parts being sent to CMMs and can help prevent a backlog of out-of-tolerance parts waiting for offline checking.

In an automotive application for diameter control of machined drivetrain components, SPRINT technology has reduced probing cycle time by over 60%. This reduction provides an hour of additional productive, profitable machining time per machine each day.



Information in this document is based on an existing installation of a Renishaw OSP60 probe with SPRINT technology.



The Renishaw OSP60 probe with SPRINT™ technology provides:

- An on-machine solution for reduced reliance on offline inspection processes
- High-speed, data-dense metrology information
- Highly accurate results, reducing scrap and rework
- Increased machine capacity and profitability
- Application flexibility beyond part set-up and feature verification

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