



How SPRINT™ machine tool scanning technology can enhance EV drivetrain production

On-machine scanning

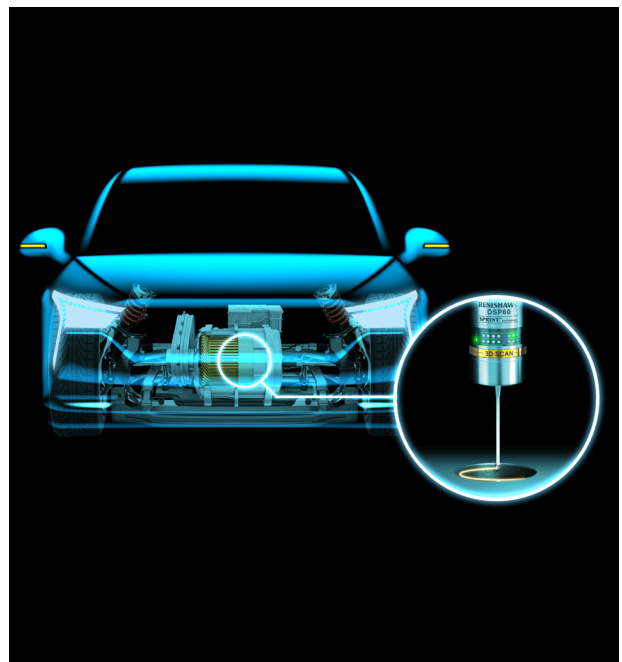
Global production of electric vehicles (EVs) is growing rapidly. In 2022 EV production exceeded ten million units for the first time¹, accounting for 12% of all global automotive production. By 2030 60% of new vehicles are predicted to be battery or full EV².

While EV drivetrains have far fewer moving components than a petrol or diesel vehicle, they present unique challenges. Tighter tolerances, low friction operation, and reduced noise levels, are key.

Component inspection remains critical, as does the ability to adapt that inspection to meet the changing demands of drivetrain design development.

¹ Source: Elements by Visual Capitalist (April 2023).

² Source: IEA (September 2022).



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

The Renishaw OSP60 probe with SPRINT™ technology provides manufacturers of EV drivetrain components with a fast, accurate and flexible on-machine solution for part set-up, in-process inspection, and feature verification.

Capable of replacing time-consuming and error-prone manual methods, on-machine scanning delivers robust and repeatable measurement technology across all stages of part manufacture.

Up to ten times faster than an equivalent touch-trigger probe routine, scanning can significantly reduce probe cycle times, resulting in more profitable, productive manufacturing time on each CNC machine tool.

Working with a leading global supplier of electric drivetrain solutions, Renishaw has introduced SPRINT technology into the production of EV axles. Checking cylindricity and concentricity of parallel and taper bores, SPRINT technology has provided significant improvements in the speed and accuracy of feature verification.



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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