

Equipped to double inspection productivity



Continental Chassis & Safety installs twin ALTERA multi-sensors CMMs

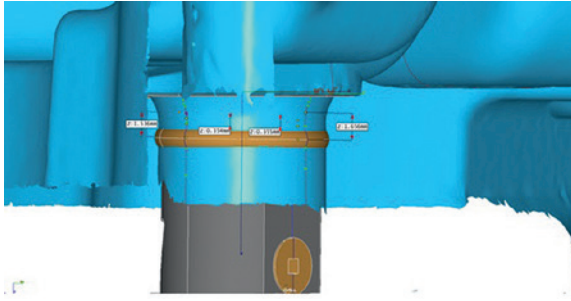
The Quality department of Continental's Chassis & Safety department recently invested in dual multi-sensor CMMs to revamp the inspection capabilities of their measurement laboratory. Continental wanted to gain a quicker, more comprehensive insight into their products, therefore began to look into multi-sensor metrology solutions. They required a high capacity system capable of high speed inspection cycles and combined fast surface scanning with highly accurate feature measurements. After outlining their criteria, several companies were consulted, prior to selecting two Nikon ALTERA CMMs, featuring the state-of-the-art LC15Dx laser scanners.

Multi-sensor metrology paves the road for faster inspection

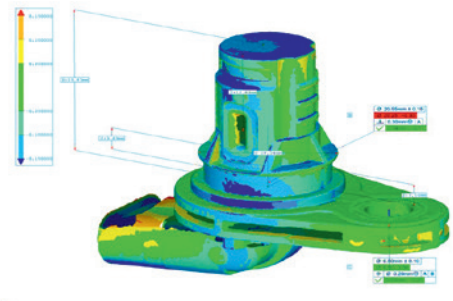
In Continental's measurement laboratory, their single tactile CMM was handling the vast majority of their inspection tasks. The Measuring Technician – Peter Somogyi explained that the main limitation of their existing CMM was its low capacity and that it was time to find a quicker solution. Tamas Brunner – Quality Engineer added that the software wasn't up to their standard either requiring automation with latest GD&T measuring standards. They both continued to explain that with so many measuring tasks to process, their single, low capacity CMM just wasn't able to keep up with their demand, let alone provide the level of insight necessary.

Vesz-Mont 2000 provide the Nikon solution

After consulting CMM vendors, Vesz-Mont 2000, a Nikon Metrology reseller located in Veszprem offered the multi-sensor ALTERA CMM, as the most comprehensive answer to their requirements. The final decision was made to install two ALTERA 8.7.6 CMMs, each providing multi-sensor technology with Nikon's most accurate digital Laser scanner – the LC15Dx complemented with CAMIO



■ Dimensional inspection of the O-ring fitting of a small speed sensor



■ The dense point clouds are compared to the nominal CAD of the sample and all deviations are visible in an easy-to-interpret colour map.



The high accuracy of the LC15Dx was the main deciding factor in choosing the Nikon solution.

Tamas Brunner, Quality Engineer

software. Both Tamas and Peter strongly emphasised that the high accuracy of the LC15Dx (1.9 μm) was the main deciding factor in choosing the Nikon solution. With such a wide range of shapes, sizes and surfaces to deal with, the LC15Dx is perfectly suited to Continental's needs. The Enhanced Sensor Performance (ESP3) eliminates the need for preparation, such as powder spraying of dark or multi-coloured plastic parts. The specifically developed Nikon Lens provides the sharpest detail to measure the shapes, edges and features. The new set-up also includes a TP200 tactile measurement probe for outlining parts or inspecting new features. The Renishaw ACR3 change rack ensures a smooth, automated exchange between tactile and non-contact probes, all controlled by Nikon's CAMIO acquisition and processing software.

Short term benefits point towards long term prosperity

The Nikon Metrology solution has immediately proven to be a resounding success. The direct benefits such as faster inspection cycles and increased productivity point to the inevitable achievement of

Continental's long term goals. Peter Somogyi explained that the multi-sensor CMM allows for almost all type of measurements to be done with one machine, whilst previously needing to use a range of inspection equipment such as tactile probe, microscope, projector and conturograph.

The Quality department have complete trust in the multi-sensor system and its insight, stating that it is also a very good tool for handling claims. As all measurement data is stored and available for reprocessing or further analysis, the new inspection system serves as a critical tool in handling potential customer claims. The quality of the new inspection process has introduced an increased insight into the parts critical dimensions, cavities and functional features. This enables faster corrective action, demonstrating the high level of productivity the Nikon solution brings.

