PRESS RELEASE

# Nikon's Scatter Correction CT addresses X-ray scatter artifacts in industrial CT scanning


Leuven, Belgium – Nikon Metrology NV (Nikon Metrology), a subsidiary of Nikon Corporation (Nikon), a supplier of traceable shop floor metrology, has welcomed the recent comprehensive update to Volume 5.1 of the automotive measurement standards issued by the German Association of the Automotive Industry (VDA). The newly updated VDA standards cover a more comprehensive array of measurement applications within the automotive sector, addressing the industry's growing demand for more diverse and sophisticated metrology solutions.

"We already offer innovative, traceable measurement solutions based on national and international standards for the automotive industry," explains Andreas Fuchs, application engineer at Nikon Metrology. "The new standard defines very precisely the procedures for evaluating the precise technology that we provide. After all, with the APDIS Laser Radar, our portfolio has featured a product for some time now that can also deliver traceable inline measurements as described in VDA Volume 5.1. Incidentally, those who use this technology no longer need a dedicated measuring room for a fixed CMM – enabling them to save a great deal of money, time and space."

The APDIS Laser Radar represents a USP that only Nikon offers. Its proven ability to measure details at a distance without needing handheld probes, targets, or surface preparation makes it ideal for automating repetitive inspection tasks with high accuracy. The system covers many manufacturing, industrial, and research applications, including those that involve hard-to-reach features and are complex, delicate, or labour-intensive.

The additional benefits of the APDIS Laser Radar include fast and accurate automated measurements with minimal set-up time for maximum productivity with flexible and portable installation. This allows for the absolute and accurate measurement of parts during production or wherever required, including directly on the production line. The APDIS Laser Radar, in particular, displays its strengths in the automotive industry. For example, the system can measure automotive features with absolute accuracy at high speed with no part preparation, whether inline or offline.

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Nikon's APDIS Laser Radar on Bronson Stand and on a Tripod.

With inline measurement, data can be collected in a much larger sample, resulting in a much more extensive data volume for process control. Therefore, it is wise to develop and use smart evaluation methods or systems and, in the process, adapt the reaction speed to the increased data volume.

"These days, inline measuring technology tends to measure 100 per cent of the parts, giving a very dense test sample with an extremely short response time and close to production," says Fuchs. "When the part goes through, a real-time statement regarding the quality of the part is delivered immediately – meaning the response time, as well as statistical and general process control, are far better than before. A measuring room, on the other hand, only provides information about ongoing quality with a delay. In addition, there are no statements about the ongoing process, and production continues."

VDA Volume 5.1 appears to consider the trend that measurements are increasingly being made using traceable inline measuring systems instead of offline in the measuring room, making the implementation of suitability certificates for inline measuring processes in accordance with VDA Volume 5 more critical. VDA Volume 5.1 introduces an eight-stage model for evaluating inline measuring systems throughout their lifecycle. This model generates suitability certificates crucial for system release, ensuring compliance with automotive manufacturing standards. These certificates are significant in procurement as tenders for measuring systems regularly reference VDA volumes, highlighting the importance of standards in guiding industry-wide quality control and measurement practices.

On September 17, 2024, at 11:00 a.m. GMT+1, Nikon Metrology will host a webinar on the topic of VDA Volume 5.1: 'APDIS Laser Radar already meets the guidelines of the new inline measurement technology standards'
The registration link can be found at here.:


Nikon's APDIS Laser Radar mounted on a robot on rails for inline applications.

**About Nikon Metrology**
Nikon offers many products, services and solutions around the world based on advanced optoelectronics and precision technologies which have been developed during the company's more than 100-year history. The Group continues to create new values that contribute to the improvement of quality of life and production in numerous forms. Nikon delivers integrated, optimised, high-precision solutions which are not only tailored and cost-effective, but also work excellently as soon as they are implemented.
A recent development under Nikon's Digital Manufacturing banner is closer cooperation between the IMBU and the corporation's Digital Solutions Business Unit (DSBU), which has launched a series of optical additive and subtractive manufacturing solutions for processing a wide variety of materials with surface finishes in the sub-micrometre range. www.industry.nikon.com

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