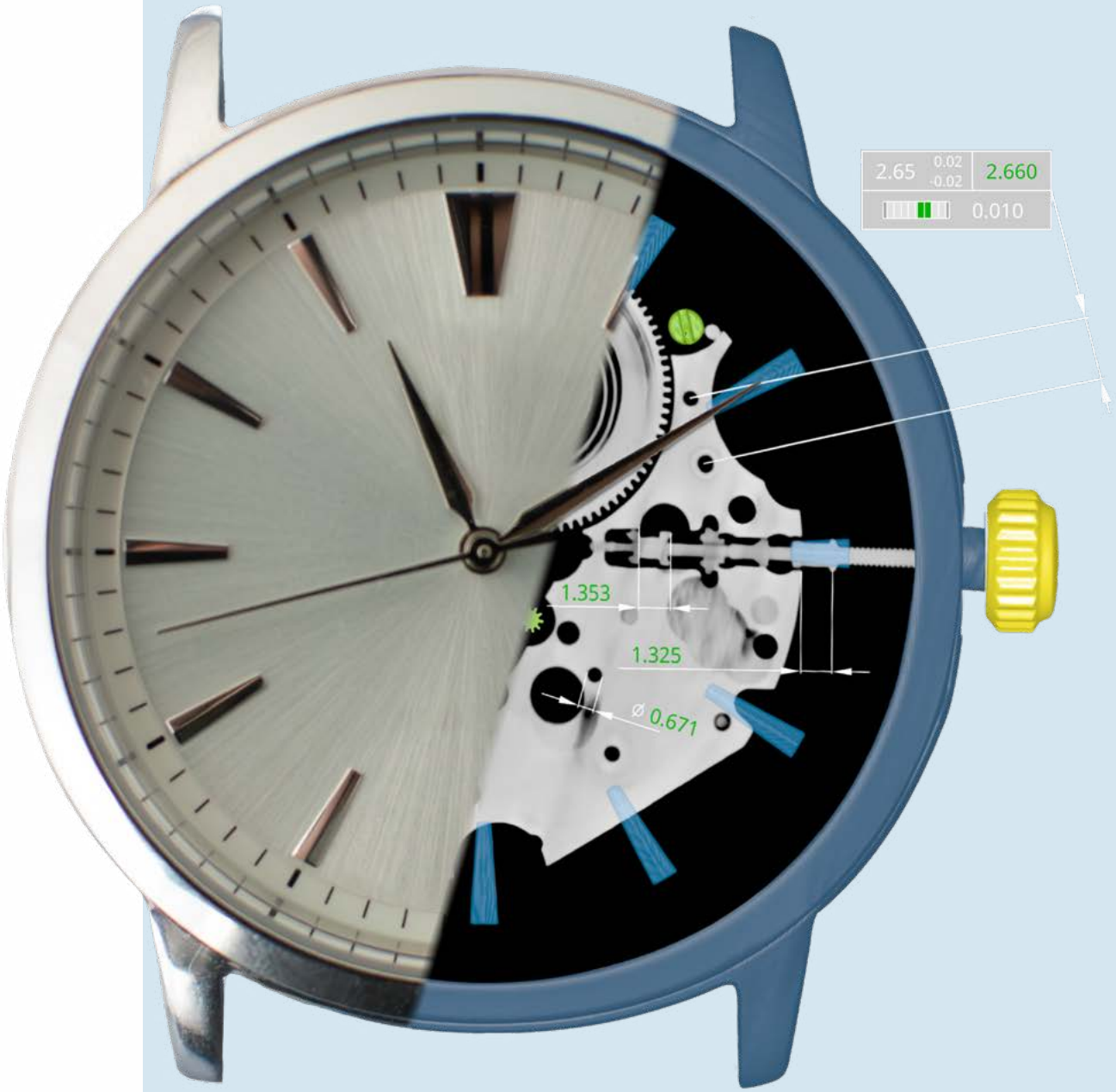
Multisensor

Innovative Metrology for your Quality Products



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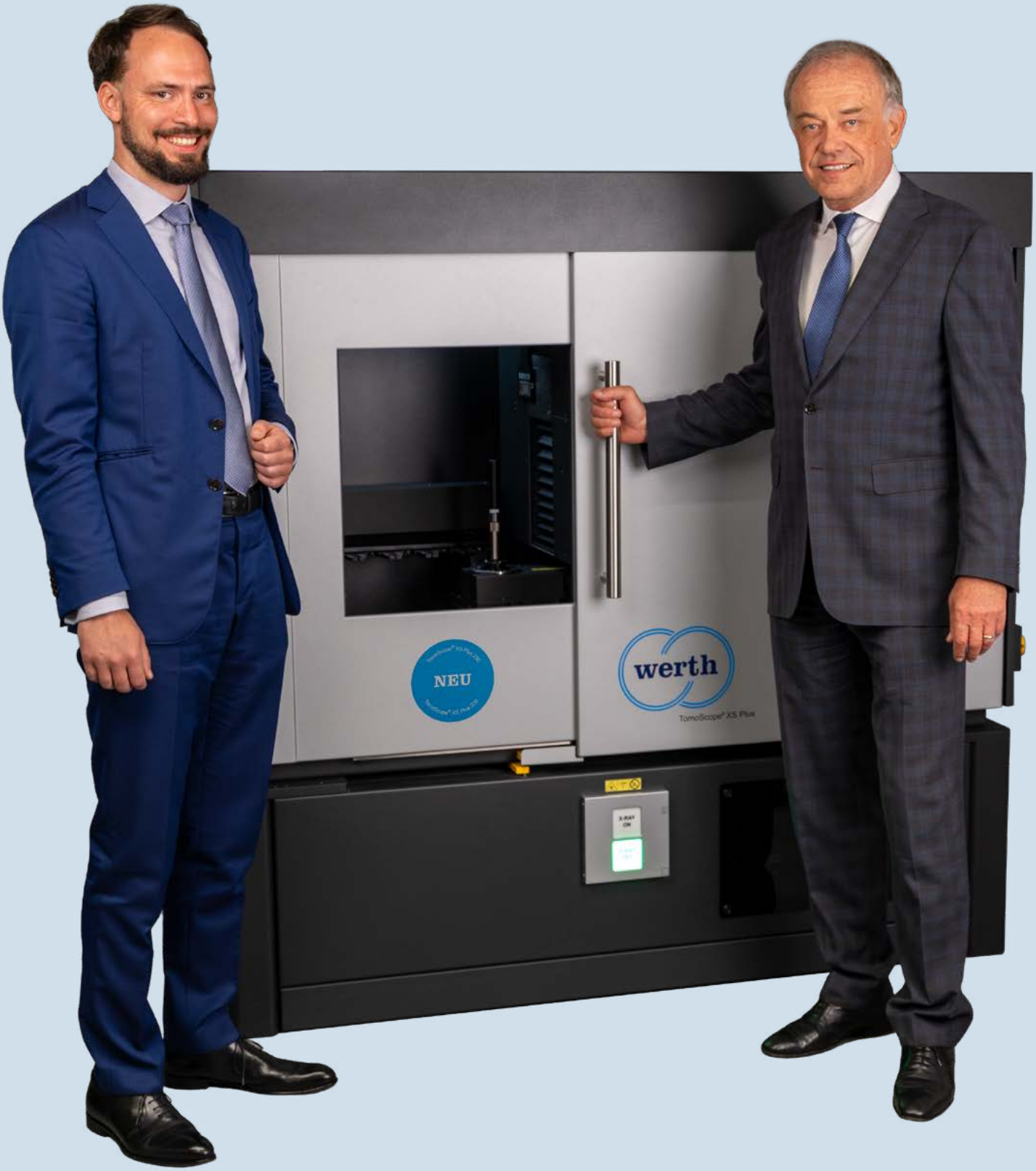
Issue 2025

Cover image: Tomography scan of a watch mechanism with a structural resolution of a few micrometers



TomoScope® XS Plus 230 – innovative X-ray technology in a compact design

20 years of computed tomography in coordinate metrology

As a pioneer in the integration of X-ray computed tomography (CT) into coordinate metrology, we introduced the TomoScope® in 2005, the first CT machine developed for this application. Today, we offer four machine series. On the occasion of the 20th anniversary, we are introducing the TomoScope® XS Plus 230, the fifth model in the successful XS machine series. 230 kV acceleration voltage enable even more demanding measurement tasks to be solved. The innovative Werth technology allows measurements to be performed five times faster than conventional CT with the same resolution and, in most cases, at a measuring speed many times higher than conventional metrology with tactile or optical sensors.

Dimensional metrology plays an important role in industry, not only for the reliable functioning of products and the elimination of scrap, but also for efficient manufacturing processes. The demand for turnkey measurement solutions integrated into the manufacturing process is growing. A continuing trend in coordinate metrology is therefore the increase in measuring speed for measurements close to production with high point density. Examples include computed tomography with the complete measurement of 100 plastic gears in three minutes or the use of high-precision optical metrology in the semiconductor industry. With the patented Werth Raster Scanning HD, one million micro-holes can be measured in high-resolution 20,000-megapixel images in just a few minutes.

The new EasyScope® series offers Werth multi-sensor technology with an optimal price-performance ratio. The entry-level class combines optical and tactile sensors in a compact design and, like all 3D CNC coordinate measuring machines from Werth, features complete correction of the machine geometry. Unlike many competing systems, this enables a complete, practical 3D specification of the maximum permissible length measurement and probing errors of the machines for all sensors. The new version 10.47/11.47 of our WinWerth® software offers numerous innovations for computed tomography and multi-sensor systems under Windows 10 and 11.

Fully automated measuring cells enable the monitoring and control of the manufacturing process. Werth offers sophisticated solutions for this purpose using both multi-sensor systems and computed tomography. When implementing such projects, a Werth team of highly competent engineers accompanies the user from the planning stage to the turnkey handover of the complete system.

On the occasion of their 25th and 15th anniversaries, we would like to thank our partners in Taiwan, Korea, and Thailand and the teams at our subsidiaries in China and Hungary for the extremely pleasant and successful cooperation.

This year, we are once again looking forward to many interesting discussions with users of our technology at Control and other tradeshows, and we also kindly invite you to attend our Werth Technology Days in your home region.

Dr. Ralf Christoph

Dr. Raoul Christoph

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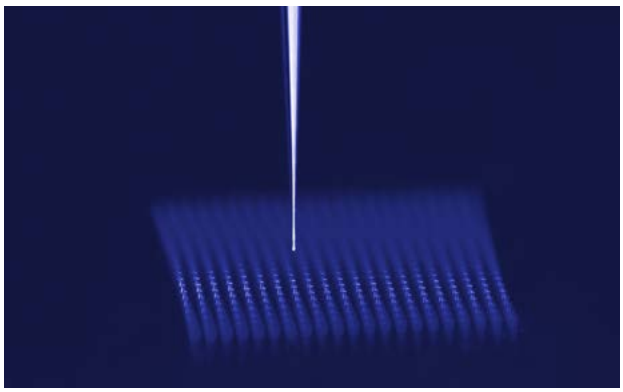

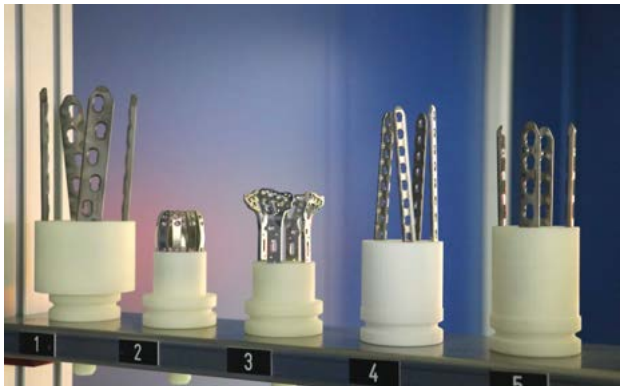

News about WinWerth®

News about X-ray Computed Tomography

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Coordinate Measuring Machines with Optics, Computed Tomography and Multisensor Systems

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