

Optical Metrology for Every Budget and Every Level of Expertise

Graz, March 15, 2023 - From April 23 to 26, Stuttgart will once again be all about quality management. The Austrian measurement technology manufacturer Bruker Alicona sees its presence at Control 2024, the international trade fair for quality assurance, as a duty to communicate the clear advantages of optical 3D measurement technology. The innovations presented by Bruker Alicona have two clear focal points: ease of use and affordable technology.

New FocusX product offers optical 3D measurement technology for smaller budgets

After two years of research and development, the time has finally come: FocusX, the new addition to the Bruker Alicona measurement technology family, can be tested live for the first time at Control 2024. The system was launched in January in Graz, Austria, but the leading trade fair for quality assurance will provide FocusX with its first major international stage. The special feature of the new system is its price-performance ratio. FocusX is equipped with technologies that currently represent the measure of all things on the market but in a more compact format. For users, the Advanced Focus-Variation technology revolutionizes precision measurement. It combines the functionalities of a roughness measuring machine and a coordinate measuring machine. In other words, one device for all metrology tasks. Components with steep flanks, different reflection properties, and structured roughness can be displayed and measured in high resolution. But that's not all: in addition to the Advanced Focus variation, the "Vertical Focus Probing" technology is also available for FocusX, which increases the maximum measurable flank angle to over 90°. FocusX is therefore at the cutting edge of technology. The special feature: The Bruker Alicona developers have succeeded in positioning FocusX in a price range in which no other measuring device with similar precision features can compete. Bruker Alicona wants to dispel the myth that optical 3D metrology is more expensive than tactile methods.

Not only affordable but also easy to use

In addition to the price issue, Bruker Alicona will also focus on the user-friendliness of the systems at this year's Control. And this is where FocusX scores particularly well with a new software feature: One Click Roughness. Experience over the last few decades has shown that roughness measurement in particular is perceived by users as complicated and restrictive. And "One Click Roughness" is just as simple as it sounds. With just a single click, FocusX delivers ISO-compliant profile roughness values, with the minimum measurable roughness being 0.06 µm.

Plan on CAD and lean back: How clever people measure their round tools

Another innovation that Bruker Alicona will be presenting at Control 2024 joins the ranks of simplified operation: Round Tool Alignment. This is a software feature that takes automation in the field of round tools to a whole new level. The operator plans the interesting measuring positions for the roundness of the edge directly on the CAD of the milling cutter or drill. The next step is to clamp the tool and go for the measurement. An automated routine of the sensor recognizes the orientation of the tool and aligns it with the CAD data. "We use a unique combination of the optical sensor, the automatic nosepiece, and software intelligence to determine the cutting edge of the tool and thus the orientation," explains Reinhard Danzl, Head of Software at Bruker Alicona. The 3D measurements and the evaluation of the edge preparation are then carried out fully automatically at the positions defined on the CAD.

MetMaX as problem-solving software

Both One Click Roughness and Round Tool Alignment are components of Bruker Alicona's MetMaX software. Version 4.0 of which will be presented for the first time at Control. Particularly noteworthy is the combination of hardware and software that makes Bruker Alicona's measurement technology so easy to understand and, above all, independent of other products. Obtaining the entire quality assurance for dimension, position, shape, and roughness from a single source not only has advantages for the metrologist but also for transparency in purchasing and in the budget.

The broadest product portfolio of non-contact metrology at one stand

In addition to FocusX, Bruker Alicona will also be exhibiting the μ CMM with a pick and place, InfiniteFocus G6 and SL systems and the Edgemaster. Bruker Alicona's measurement technology can be found in Hall 10 / Stand 1203. In addition to this product range, the US-based parent company will also be represented at the same stand this time. At this year's Control, Bruker will be presenting an optical 3D profilometer that uses white light interferometry technology.

Global export leader in measurement technology - the systems from Bruker Alicona

Since 2019, the Styrian provider of industrial, optical measurement technology Alicona has been under the patronage of the American Bruker Group. Founded in 2001, the company develops, produces and sells measurement systems worldwide from its headquarters in Graz/Austria. Over 90 % are sold abroad. Based on the technology of Focus-Variation, Bruker Alicona closes a gap between classic coordinate measurement and surface metrology with its measuring systems.

Bruker Alicona at the Control:

Stuttgart Trade Fair Center
Hall 10 / Booth 1203

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