Bruker Alicona unveils groundbreaking measurement automations for precision dies and edge preparation on round tools

At EMO 2023, Bruker Alicona, a leading provider of advanced metrology solutions, shows its latest developments for measurement automations for precision dies and edge preparation on round tools. These solutions set new standards in terms of speed, accuracy, repeatability, and traceability. Experience them live for the first time at EMO in Hannover.

Edge preparation, a fundamental process in precision engineering, holds immense significance in enhancing the quality of round tools. By carefully shaping and refining the cutting edge of tools like drills, drills with shaft, end mills, and reamers, edge preparation eliminates imperfections, reduces tool failure, and optimizes performance. The process not only extends tool lifespan but also improves machining accuracy, surface finish, and productivity. Embracing edge preparation empowers manufacturers to unleash the full potential of their round tools, achieving unparalleled precision and competitiveness in today's demanding manufacturing landscape.

Bruker Alicona's automated edge preparation measurement system revolutionizes the process with just three simple steps. The round tool is securely clamped in the rotation unit, followed by automatic alignment to the CAD model using MetMaX, their proprietary software. Operators can effortlessly select the desired edges for automatic measurement and evaluation, streamlining the entire process.

"We firmly believe that the future of edge prep measurement lies in optical technology, and MetMaX is the go-to software for this purpose," says Urban Muraus, General Manager at Bruker Alicona. "With MetMaX, manufacturers can focus on what to measure rather than how to measure, making the solution ready for production without requiring specific metrology expertise."

Bruker Alicona's commitment to technological advancement extends to the precision die industry as well. By introducing automated measurement solutions for stamping dies, punching, and bending tools, the company enables manufacturers to achieve unprecedented levels of accuracy, efficiency, and reliability in their production processes.

Bruker Alicona's turnkey automated optical measurement solution evaluates the complete surface of the form-giving shape for manufacturing tolerances as low as 0.010mm, while tactile-based technologies reach limits such as long measuring times, limited 2D profile evaluations or compromises in accuracy and resolution.

The in-house software MetMaX ensures superior usability during the teach-in process, further enhancing its appeal to industry partners. Industry collaborators, including TE Connectivity, Stepper, Kleiner, and Hailtec, have praised the future-proof nature of Bruker Alicona's solution, which incorporates full compatibility with PMI.

“With Bruker Alicona we are already able to automatically start and execute the measuring process in our production process. We are currently working on enabling networking with other machines so that machine parameters are automatically and continuously adjusted based on the measurement results,” Christian Hamann, Business Unit Manager Tool Technology at Kleiner.

For more information about Bruker Alicona's automated measurement systems and its benefits for tool manufacturers, please visit [www.alicona.com] or contact [claudia.ullrich@bruker.com, PR Bruker Alicona].

Bruker Alicona @EMO 2023: Booth C09, Hall 6

About Bruker Alicona:
Bruker Alicona is a leading provider of advanced production metrology solutions, specializing in optical 3D surface metrology and microscopy. The company's cutting-edge technology enables manufacturers to optimize their production processes, improve product quality, and gain a competitive edge. With a global presence, 150 employees worldwide, and a strong commitment to innovation, Bruker Alicona is dedicated to helping its customers succeed.

Alicona has been part of Bruker since 2018 and now operates globally under the Bruker Alicona brand. Headquartered in Austria (Graz), measuring systems are developed, produced, and distributed worldwide. An international sales, service, and support team as well as selected distributors ensure regional customer proximity.