

PRESS RELEASE

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Grinding Conference 2023 in Fellbach

Climate Change, Resource Bottlenecks, Shortage of Skilled Workers: How Does Grinding Technology Maintain its Competitiveness?

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Climate change, resource bottlenecks, shortage of skilled workers: politics, society and industry must meet these challenges together. The Grinding Conference on January 25 and 26, 2023, will provide suggestions and impulses on how grinding technology can remain competitive in this area of tension and open up new applications. Efficiency and sustainability will again be in focus at the 20th edition of the Grinding Conference.

How can the use of resources in grinding be reduced and the CO₂ footprint of ground components be improved over the entire product life cycle? How can grinding technology know-how be harnessed, e.g. in simulation models, in order to be able to react quickly to disrupted supply chains? How can digital assistance systems best support machine operators and process managers in their decisions? The community from research and industry will discuss these key questions during the two-day event in Stuttgart-Fellbach.

The Laboratory for Machine Tools and Production Engineering WZL of RWTH Aachen University, together with the established advisory board, has once again put together an exciting conference program comprising four thematic blocks: innovative grinding tools, modern machine technology, efficient process design and resource-saving cooling lubricant supply. In the lectures from industry and science, current findings from research and development will be made comprehensible and usable for users.

About current findings on grinding machining to trends and developments in the safety industry. Participants can look forward to a diverse and exciting program: Martin Gerlitzky (Diamantgesellschaft Tesch GmbH) will present current findings on the grinding processing of carbide-coated brake discs, which make a major contribution to reducing particulate emissions. Prof. Franz Haas (Graz University of Technology) will provide an outlook on the digital grinding process 2030 in the Smart Factory. Dr. Oliver Gossel (Röders GmbH) will talk about the challenges and potentials of combined grinding and milling in a machine tool. Resource-efficient grinding with coarse-grained CBN is the working title of the contribution by Prof. Berend Denkena (Institute of Manufacturing Engineering and Machine Tools IFW of Leibniz Universität Hannover). Roman Stabauer (Grindaix GmbH) explains how the energy and resource requirements can be reduced by adapted nozzle technology, adaptive control of the cooling lubricant feed and environmentally compatible oils. Dr. Sebastian Jäger (University of Wuppertal) will present an approach for up-cycling grinding sludge for the recovery of grain and workpiece material. Dr. Stefan Schmaltz (Schaeffler AG) will demonstrate the added value of machining simulations for robust process design in industrial practice. Prof. Eckart Uhlmann (Institute for Machine Tools and Factory Management IWF, TU Berlin) will present innovative tool developments for dressing

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technology. Findings on function-optimized grinding of seal mating surfaces for electromobility will be presented by Prof. Thomas Bergs (Laboratory for Machine Tools and Production Engineering WZL of RWTH Aachen University). Adrian Schoch (Motorex AG) will present a concept for customized fluid automation in grinding. Prof. Petra Wiederkehr (TU Dortmund University) will show potentials of modeling and simulation of force- and displacement-controlled grinding processes to predict machining results even before the first tool intervention. In an excursion lecture, Prof. Michael Lauster (Fraunhofer Institute for Scientific Trend Analysis INT) will provide information on current trends and developments in the safety industry. Further contributions as well as a key note lecture are still in coordination.

Thirteen companies have already confirmed their participation as exhibitors at the large trade exhibition, including manufacturers of cooling lubricants, grinding wheels and grinding machines, as well as experts from the field of coolant supply and treatment, who will present new product developments and current services. Young scientists will present their latest research results in short talks, which can be discussed and explored in greater depth in the poster sessions. Coffee breaks with theme forums and a joint evening program offer the opportunity for personal exchange in a familiar atmosphere. It is not without reason that the grinding conference is regarded as the central interface between research and industry in grinding technology.

Further info at www.schleiftagung.de



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Laboratory for Machine Tools and Production Engineering (WZL)

The Laboratory for Machine Tools and Production Engineering (WZL) of RWTH Aachen University enhances the innovative strength and competitiveness of the industry with trend-setting basic research, applied research and the associated consulting and implementation projects in the field of production technology. In the research fields of manufacturing technology, machine tools, production engineering, gear technology as well as production metrology and quality management, practical solutions for rationalizing production are developed with industrial partners from a broad range of branches.