

Press release

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Innovative System Solutions from Pleidelsheim

Efficient ZOLLER Measuring Technology 4.0

Only those who manufacture sustainably and resource-efficiently will save money in the long term. The combination of efficient grinding wheel management with reliably precise measuring technology is the basis for more cost-effectiveness in production. Start with a Solution – Enter a System: ZOLLER brings its system solutions for more efficiency in production to life at GrindingHub 2024 in Stuttgart – the new international trade fair for the grinding technology industry at the modern Stuttgart Exhibition Center. ZOLLER will be represented at the trade fair in Stuttgart with 28 exhibits and will be demonstrating the complete process sequence for preparing grinding wheels for production, including documentation and logging. Typical ZOLLER: Everything from a single source.



Image 01: ZOLLER is showcasing its comprehensive product portfolio, from economical presetting and measuring machines as basic equipment to digitized and automated grinding wheel management in a Smart Factory.

Intelligent Grinding Wheel Management

In the work preparation department, the grinding wheels are recorded using the modular, expandable ZOLLER TMS Tool Management Solutions software. Grinding wheels and grinding wheel packs are stored and managed in the Smart Cabinets storage system in a clear and structured manner. To balance grinding wheels, specialists use the high-precision and safe ZOLLER balancing technology »toolBalancer«. The prepared grinding wheels are positioned on the presetting and measuring machines of the series »smile« or »venturion« to be identified and measured. After measuring, the actual data is prepared in controller format and transferred to the machine either via the network or the ZOLLER tool identification system »zidCode«.



Image 02: ZOLLER »zidCode« reduces set-up times and avoids incorrect data transfers.

Smart Processes with ZOLLER

ZOLLER »zidCode« identifies the grinding wheels uniquely with a DataMatrix code and transfers all production-relevant data automatically and securely during the manufacturing process. This drastically reduces set-up times on the grinding machines and also avoids incorrect data transmission and therefore uneconomical downtimes.



Image 03: With the high-quality, industry-standard »smartCheck« measures tool geometries on the outer contour in transmitted light automatically and with μ -precision. Manual measurements can be carried out in incident light – even automated using innovative software packages. The high-resolution cutting edge images are ideal for documentation.

Tool Inspection with High-Precision Optics

The device series »smartCheck 450/600/800« from ZOLLER offers comprehensive tool inspection: State-of-the-art technologies combined with outstanding ease of use ensure efficient process sequences in every production process. The wide variety of measuring ranges and the variable equipment make a »smartCheck« an all-rounder for a demanding range of tools. The transmitted and incident light optics support all measuring processes right through to checking in the reshaping process. The ZOLLER presetting, measuring and inspection machines are ideal for day-to-day use in any production environment and have truly earned their place right next to the CNC machine.

State-of-the-art Measuring Technology in Universal Use

The universal measuring machine »genius« from ZOLLER uses precise measurement data to provide unmistakable proof of production quality. »genius« measures over 100 parameters in 2D/3D contact-free, fully automatically and impressively reliably. ZOLLER »genius« means simple operation and a high degree of future-proofing.

Smart Automatic Production

With the unique automation solution »roboSet 2« your tools can be fed quickly, 24/7 and completely unmanned to one of the high-precision measuring devices in the »genius« series – the automated system cleans, loads labels and arranges your tools completely unmanned. With the »roboSet 2« you can measure and document fully automatically and maximize the overall efficiency of your processes.

All measurements are fully documented. After measurement, the tools are labeled with ZOLLER »roboMark« – a laser marks the shank or base of the tool within milliseconds with values and other data individually determined during the measuring process.

Swivelling Optics Carrier for Thread Measurement

Measuring technology specially developed for the requirements of threading tools enables fully automatic measurement in transmitted and incident light of all relevant parameters of taps, thread milling cutters and formers. ZOLLER »threadCheck« also measures inclined tools without contact, distortion-free and with μm accuracy, thanks to the swivelling multi-sensor optics carrier »orthoScan«. For the precise mounting of long, slim tools, ZOLLER is presenting the new »threadCheck cc«, the threading specialist with lowerable tailstock and counter point.

Cutting Edge Preparation Included

In order to achieve an optimum tool life as well as efficient and precise cutting performance of cutting tools, a defined preparation of the cutting edges is crucial. The control and optimization of the cutting edge preparation process as well as its reliable and detailed documentation are ensured with the ZOLLER machines »titan«, »muFocus« and »pomSkpGo«.

Leading the Way as a 3D Pioneer

3D digitization is becoming increasingly important. This makes ZOLLER »3dCheck« the perfect new universal measuring machine for fast and process-oriented 3D measurement of precision tools. The inspection machine based on the »titan« digitizes with the help of the 3D sensor »Z3dCam« tool geometries fully automatically and without contact.

Process-oriented Compact Solutions

For fast and reliable tool inspection directly next to the grinding machine, ZOLLER offers the »pomBasic« series with the variants »pomBasic« and »pomBasicMicro« for the smallest tools from 0.2 mm. The ZOLLER compact solution for micro tools from 0.2 mm »pomBasicMicro« offers 500x magnification with fast and reliable tool inspection. In addition, the ZOLLER »muFocus« provides highly precise and flexible 100% inspection and measurement of the cutting edge preparation – the optional sensor »zep-R« enables reliable measurements of surface roughness in a compact form, directly next to the machine.

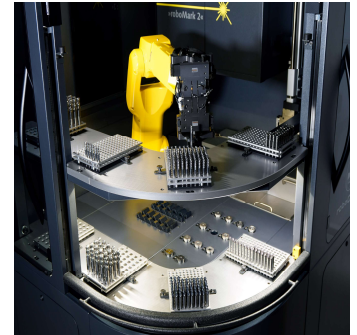


Image 04: With ZOLLER »roboSet 2« high quantities can be processed and documented fully automatically thanks to the multi-pallet system (eight pallets as standard, even nine as an option).

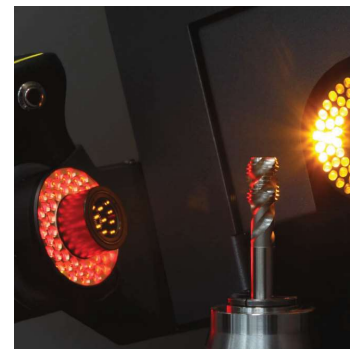


Image 05: With a swivel range from -30° to 30° »orthoScan« eliminates pitch-related distortions when measuring threading tools.

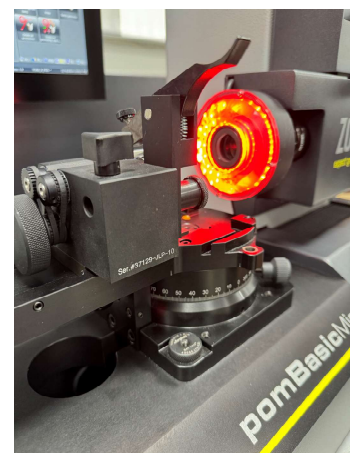


Image 06: The process-oriented ZOLLER »pomBasicMicro«, which is designed for micro tools from 0.2 mm, offers 500x magnification with fast and safety tool inspection.

Online always up to date

ZOLLER is also constantly developing its MYZOLLER customer portal to fully digitalize all tool-related processes. The portal simplifies and streamlines business processes and offers a fast online service. MYZOLLER enables customers to manage their ZOLLER products online as well as consumables or individual parts, maintenance contracts and licenses. All machine documents are now also managed via the customer portal.

The webshop offers a simple, clear and quick selection of the requested products, provides the digital twin at the touch of a button and guarantees price transparency in a demanding procurement market. ZOLLER also uses its customer portal to provide information on training courses for staff, new products and technology presentations in-house, at partner events and at trade fairs. Customers can get in direct contact with ZOLLER experts via the 1:1 expert meeting and receive individual advice for their needs.

**Visit ZOLLER at the GRINDING HUB trade fair in Stuttgart:
Hall 10, Booth 10A50**

About E. ZOLLER GmbH & Co. KG

E. ZOLLER GmbH & Co. KG., headquartered in Pleidelsheim near Stuttgart, has a passion for presetting and measuring technology, and has been developing innovative solutions for more economical production processes for more than 79 years. At present, the company has installed over 43,000 presetting and measuring machines worldwide with unparalleled software solutions.

Today, ZOLLER offers everything users need for efficient and reliable tool handling in cutting processes. ZOLLER solutions are used to physically and digitally record, measure, manage, store, and inspect tools throughout the entire tool life cycle. An international network of branch offices and representatives guarantees the highest possible quality of service through personal customer support.

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