

Advanced Grinding Solutions to Showcase Cutting-Edge Grinding Machines at the Mach Show

Advanced Grinding Solutions (AGS), a leading provider of high precision grinding machines and innovative grinding solutions, is excited to announce its participation in the upcoming Mach Show. The company, joined by its Principals from Rollomatic, Comat, Krebs & Riedel and Tschudin will exhibit its extensive range of cutting-edge grinding machines, super filtration systems and grinding wheels, on Stand 18-328, showcasing its commitment to advancing the industry with state-of-the-art grinding and finishing technology.

Exhibits will include the very latest grinding solutions from Rollomatic; a world-leader in multi-axis grinding technology for the cutting tool, and medical industry. Also present will be Comat who are exhibiting, for the first time in the UK, their latest C-240 Super Filtration system that after the Mach show will be used to support two Rollomatic grinding machines recently supplied by AGS. Krebs & Riedel will be showing their wide range of grinding wheels.

Visitors to Stand 18-328 can expect to experience live demonstrations of Advanced Grinding Solutions flagship grinding machines, which are known for their precision, efficiency, and reliability. The company's Principals will be on hand to discuss the unique features and capabilities of each machine, as well as answering any questions attendees may have about optimizing their grinding processes.

Key highlights of Advanced Grinding Solutions' exhibition at the Mach Show include:

Innovative Grinding Technology: Explore the latest advancements in grinding technology with live demonstrations of cutting-edge machines that redefine precision and efficiency.

Customised Solutions: Discover how Advanced Grinding Solutions collaborates with clients to tailor grinding solutions to specific manufacturing requirements, ensuring optimal performance and cost-effectiveness.

Industry Expertise: Meet the team of experts from Advanced Grinding Solutions and their principals Tschudin, Rollomatic, Comat and Krebs & Riedel, who bring a wealth of knowledge and experience in the field of precision grinding and filtration. Learn about industry trends, best practices, and how the latest technologies can enhance manufacturing processes.

Rollomatic's are the grinding machine of choice for many cutting tool manufacturers and indeed more rotary cutting tools are produced in the UK and in Ireland on

Rollomatics than on all other CNC tool grinding machines put together. In fact, over 35 million rotary cutting tools are produced on Rollomatics in the UK and in Eire every year. Rollomatic GrindSmart® machines excel at producing cutting tools from 0.025mm up to 32mm in diameter, and the superior Swiss manufactured quality of every Rollomatic machine is demonstrated with their industry leading 3-year unlimited hours parts and labour warranty that comes as standard on all new Rollomatic grinding machines. Rollomatic machines are supplied with all standard software free of charge with free updates for life. GrindSmart® machines are also available with a 6th CNC axis to ensure perfect tool geometry because the contact point of the grinding wheel remains constant over the entire grinding path during production. The latest linear motor technology provides more benefits such as enhanced surface finishes and reduced maintenance costs.

Rollomatic ShapeSmart® machines with up to 5-CNC Axis are high precision pinch/peel grinding machines with an integrated robot loader and are ideal for the cylindrical grinding of cutting tool blanks and for the manufacture of punches and special mould tools. Special tools that have very complex geometry and high length to diameter ratios are no problem for these highly accurate machines.

Rollomatic also supply a range of special LaserSmart machines for producing CBN and similar tools including their 810XL machine that has 6 CNC Axis and is ideal for machining PCD tools up to 300mm in diameter. One of these advanced machines was recently supplied to a large UK based PCD tool manufacturer and is the perfect solution for machining ultra-hard tools used in the automotive, aerospace and woodworking industries.

Leading the way in automating entire production lines, Rollomatics Smart Factory links its grinding machines to others such as washing, deburring, laser checking and packaging machinery with autonomous robots. The SmartMoma® autonomous robot on a fully mobile platform has a 6-axis robotic arm for complex handling tasks between production machinery of all kinds. NEXTAGE is a new type of industrial robot that can perform tasks in locations that are difficult for traditional robots.

With its human-like kinematics, NEXTAGE can easily take the place of people and utilize its two arms to take over that tedious job without the need for users to redesign the production line and without specialized robot tools. Users can control and teach NEXTAGE what to do with a graphical user interface that can conveniently be handled by people without programming skills. The four video cameras (two on the head and one on each arm) offer an advantage to conduct various tasks that are challenging for traditional industrial robots. Accuracy is 0.5 mm by utilising the cameras, while position

repeatability is 0.03 mm. Hundreds of NEXTAGE are currently working in factories; many 24h/7days a week.

Receiving its UK debut, and being exhibiting here for the first time ever, is Comat with their C-240 EVO filtration system. This has an oil capacity of 2,000l and has been specified to supply coolant to two Rollomatic grinding machines. Comat Superfiltration systems are engineered to filter neat cutting oil to 2-3 microns (with a classification NAS 1638 – ISO 4406 better than new oil), whilst constantly maintaining a stable temperature (+/- 0.2 degrees), without compromising filtration or flow rates so to ensure maximum consistency over time. Comat Superfiltration systems minimize the running costs to obtain the lowest cost per liter of oil filtered. The C240 EVO filter unit is the latest generation of compact Superfiltration systems designed to manage multiple machine tools and is able to filter any type of contaminant (carbide, high speed steel, medical steel, ceramic, brass) and to guarantee intelligent performance including energy saving and process optimization by remote monitoring from Comat's headquarters near Milan to ensure systems are always delivering peak performance. Comat are using the Mach show to highlight the growing use of their systems not only for grinding machines but for turning applications as well.

Specialists from Krebs & Riedel will be present on the AGS stand to discuss all grinding applications and best use of their range of internal and external grinding wheels. Krebs & Riedel manufacture high quality conventional, diamond and CBN abrasives and are constantly introducing new types of wheels with improved grain structures and novel bonding systems that enhance grinding wheel quality and optimise performance. Companies involved in grinding are invited to meet the Krebs & Riedel specialists and to discuss their grinding issues and aims to improve their grinding processes. Apart from offering high stock removal rates to improve cycle times, combined with more consistent part quality by avoiding micro-cracks in the surface of sensitive parts, another large benefit of using Krebs wheels lies in large cost savings made possible by reducing wheel dressing requirements. This has the three major advantages of lower wheel waste due to less dressing, faster cycle times as wheels can be kept grinding longer in between dressing them, and a reduced spend on expensive diamond rollers. Krebs and Riedel are developing new wheels all the time and those are added to the existing collection of over 60,000 different wheel types that are available from them.

Tschudin are also present on the AGS stand to discuss the many advantages that their range of CNC Centerless grinding machines bring. These are used to grind parts from 0.1mm to 250mm in diameter and for the plunge grinding of parts that are up to 500mm long. Uniquely for centerless grinding machines; all Tschudin machines benefit from a special design feature with the workrest blade mounted onto its own CNC axis. This patented feature allows for the blade, complete with components, to be transferred

outside of the grinding zone for safe and easy loading and unloading of the parts. This overcomes the dangers involved in trying to load parts in between the grinding and control wheels, which is the case for all other centerless grinding machines. Proline versions also benefit from another patented feature which is the automatic control of the height adjustment of the control wheel. This means that operators no longer must battle with making constant adjustments for wheel wear to ensure that the grinding point always remains the same. This necessary adjustment is done fully automatically on the Tschudin Proline machines. All Tschudin machines benefit from having the machines bed and blocks made entirely from solid natural granite. This guarantees the maximum amount of thermo-stability with high density ensuring maximum stability and strength.

The range of grinding and finishing machinery receiving its UK debut can all be seen on the AGS stand 18-328 at Mach. For further information please see www.advancedgrindingsolutions.co.uk or contact AGS on +44 (0) 2476 22 66 11