

Press release

Measurement technology for punching, joining and forming

Kistler showcases automated test systems for quality monitoring at Blechexpo

Winterthur, October 2019

Kistler, the measurement technology expert, is presenting a varied range of test systems for punched and series parts as well as joining and forming processes at the Blechexpo in Stuttgart from 5 to 8 November 2019. Visitors to stand 6418 in hall 6 can learn about the benefits of automated process monitoring: improved quality, reduced tool breakages and more efficient production. This year's Blechexpo marks a "first" for Kistler. The company's diverse test automation portfolio includes products from Vester Elektronik GmbH of Straubenhardt, a member of the Kistler Group since mid-2017.

Efficiency is the most critical factor in testing mass-produced parts – closely followed by accuracy. Kistler, the optical measurement technology specialist, offers solutions that score high on both counts – with tangible user benefits from test automation such as high sorting performance, reduced pseudoscrap, and process reliability. Backed by 25 years of advisory expertise and in-depth test automation know-how, Kistler caters to its customers' needs with a comprehensive and varied portfolio of tailor-made solutions from one single source.

High-speed testing and sorting of mass-produced parts

To take just one example: the Shape from Shading process integrated into the high-efficiency KVC 821 sorting system gives users a reliable solution for inspection and control of workpiece surfaces in the μm range. This is a precise method of determining part contours by casting shadows from different illumination angles. The benefit: relevant height deviations in the parts can be accurately differentiated from other deviations (e.g. in color) that have no relevance. With a sorting rate of up to 500 parts per minute, the KVC 821 system quickly and reliably distributes the parts into different containers; faulty parts are separated out completely. On the other hand, pseudoscrap can be reduced and costs can be cut thanks to the process that is integrated into the sorting system.

Another highlight at Kistler's stand: the KVC 621 punched part test cell to measure and inspect complex geometries and grid designs. The Laser Mark KLM 621 laser marking cell codes or marks even the smallest parts at high production speeds of over 1,000 workpieces per minute. A key advantage: all the systems are compatible with hardware from third-party providers.

Boosting quality and preventing tool breakages

The SPP 630 tool monitoring system features a modular structure, so it can be configured to match customers' needs and their existing technology. Depending on requirements, the system delivers information about pressing force and insertion depth, and it can also evaluate structure-borne sound with high precision. The system stores any desired amount of tool data, and the sensors offer exceptionally high resolution: even very small parts with dimensions of less than 0.2 millimeters are captured. Deviations are less than 0.02 millimeters. On request, all the sensors can be equipped with their own cleaning nozzle to ensure that accuracy is unimpaired even under difficult conditions.

Joining modules save energy and cut costs

Kistler offers a complete range of electromechanical joining systems. As compared to hydraulic or pneumatic systems, they offer up to 90 percent more efficiency – and thanks to electronic control, they can be regulated with far greater precision. Kistler is showcasing the NCFE module on its stand at the Blechexpo trade fair. This is an outstandingly cost-efficient solution for simple joining processes in the force range from 10 to 80 kN – so it plays an effective part in permanently reducing overall operating costs.

Image material (please name the Kistler group as picture source)



The trevista® surface inspection system detects contamination down to the μm range, and is included in the high-efficiency KVC 821 sorting system and in special customized solutions.



The KVC 621 punched part test cell measures and checks complex geometries and grid designs.



The NCFE joining module is an exceptionally cost-efficient solution for simple joining processes in the 10 to 80 kN force range.



The high-efficiency KVC 821 sorting system can sort at rates of up to 500 parts per minute.

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About the Kistler Group

Kistler is the global market leader for dynamic pressure, force, torque and acceleration measurement technology. Cutting-edge technologies provide the basis for Kistler's modular solutions. Customers in industry and scientific research benefit from Kistler's experience as a development partner, enabling them to optimize their products and processes so as to secure sustainable competitive edge. Unique sensor technology from this owner-managed Swiss corporation helps to shape future innovations not only in automotive development and industrial automation but also in many newly emerging sectors. Drawing on our extensive application expertise, and always with an absolute commitment to quality, Kistler plays a key part in the ongoing development of the latest megatrends. The focus is on issues such as electrified drive technology, autonomous driving, emission reduction and Industry 4.0. Some 2,200 employees at more than 60 facilities across the globe are dedicated to the development of new solutions, and they offer application-specific services at the local level. Ever since it was founded in 1959, the Kistler Group has grown hand-in-hand with its customers and in 2018, it posted sales of CHF 475 million. About 8% of this figure is reinvested in research and technology – with the aim of delivering better results for every customer.