

Press release

Combined competencies at Fastener Fair Global 2023

Kistler presents new modular quality control solutions

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A solution for every need: At this year's Fastener Fair Global (March 21-23, 2023, in Stuttgart, Germany) at booth 804, <u>Kistler</u> will be presenting individually combinable applications for quality control in the fastener industry. The new modular options for coefficient of friction test stands enable electrical resistance measurement and length measurement via ultrasound, among others. Customers can put together a solution that fits their individual needs exactly. Kistler's booth will also feature optical testing solutions for quality assurance in mass production.

Quality control in the fastener industry is as diverse as fasteners themselves: In order to meet numerous official and industry-specific standards, manufacturers must continuously collect reliable data on the properties of their products. Depending on the type of fastener, however, the data required can vary greatly. In addition, it's frequently not just one quality feature that needs to be checked, but a combination of different properties.

At this year's Fastener Fair Global, Kistler is presenting the expanded portfolio of its ANALYSE system: The universally applicable test stand for determining friction coefficients can be combined with additional modules for resistance and length measurement as well as for fracture testing. Thanks to its modular design, fasteners of various sizes can be tested quickly and precisely, thus allowing for reliable statements on product quality on the basis of various measured variables. "With the numerous possible applications of the ANALYSE system, we are far surpassing compliance with norms such as ISO 16047. Customers can draw on our combined expertise and will receive an individual configuration entirely in line with their requirements. Accurate measurement data ensures that they meet all their quality demands," explains Kay Dierecks, Product Manager Fastening Technology at Kistler.

Testing solutions for the electrical, construction and automotive industries

The modules of the testing system are geared to the requirements of various industries: For example, the electrical transition resistance between fastening partners is an important parameter in the electric vehicle industry and the assembly of batteries in particular. "One of the new modules for our ANALYSE system allows users to check this resistance in advance," says Dierecks. The portfolio





now also includes length measurement via tactile measuring device or ultrasound, allowing for precise statements about the bolting quality based on the elongation of the bolt.

With the ANALYSE system, bolted connections can also be hydraulically relieved after testing. This is useful for all bolted joints where the drive shears off during tightening, such as those used in large steel structures. "Classic testing methods don't work here, as the bolt can no longer be removed from the sensor without the drive. After the hydraulic relieve, even these screws can be loosened," explains Dierecks. Kistler will also be presenting a solution for testing wooden screws: With the aid of an appropriate fixture, users can clamp screws and test them for fracture resistance quickly and reliably. "All the data collected is evaluated using the testXpert® software, which offers users straightforward guidance through the measurement procedure and ensures standard-compliant testing," says Dierecks.

Optical inspection enables full quality control even in mass production

Fastener Fair Global will also mark the first time that Kistler presents an inspection solution for bolts using optical quality control: The KVC 821 test stand includes cameras that record bolts, nuts or other fasteners and collect precise data on the dimensions, geometric properties and drive characteristics of the test parts with the help of the KiVision image processing software. If required, an eddy current test can also be integrated into the test stand. If the system detects a defect, the part in question will automatically be sorted out.

This quality inspection is not limited to individual parts: Kistler's optical test stands analyze up to 800 parts per minute, thus maintaining quality requirements even in case of large quantities. The data collected is stored by each test stand in its own database, enabling manufacturers to identify long-term trends in production and analyze them using software solutions by Kistler.

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

To download the images in a high resolution, please follow the link: https://smartfile.kistler.com/link/2fDEedy5mi4/



Thanks to its modular design, the ANALYSE system by Kistler not only enables friction coefficient testing but also resistance and length measurement, as well as fracture testing.





The KVC 821 test stand captures test parts using industrial camera technology and provides precise data on the dimensions, geometric properties and characteristics of the drive.

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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 2,000 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 2021, it posted sales of mCHF 411. About 7% of this figure is reinvested in research and technology – with the aim of delivering better results for every customer.