

## Press release

### **KVC 621 SE: New compact solution for the quality inspection of mass-produced stamped parts**

Kistler presents optical quality inspection system for up to 4,000 parts per minute at the Blechexpo

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**Dependably precise inspection meets innovative testing technology in a new housing: With a width of only 600 millimeters and a fast throughput time, the KVC 621 SE quality inspection system is ideally suited for the mass production of stamped parts. The system ensures the reliable quality testing of each of the up to 4,000 pieces that get processed every minute. Thanks to its largely standardized design, customers can look forward to the service and quality they trust, as well as improved delivery times at an attractive price. The inspection system and other solutions from Kistler can be seen at this year's Blechexpo (Stuttgart, November 7–10, Hall 6 / Booth 6317).**

In many production environments, every square inch counts – and that's equally true for manufacturers of stamped parts, who also have to use the space available for their production processes as efficiently as possible. Kistler has developed the compact KVC 621 SE optical inspection system specifically for quality control in mass production.

Within its housing, which is only 600 millimeters wide and 900 millimeters deep, the easy-to-install test system performs all inspection tasks at high speed. Thanks to its fully electromechanical drive, the KVC 621 SE doesn't rely on compressed air like pneumatic solutions. An additional digital slack loop control allows users to further save valuable space and reduce the number of inspection steps. Kistler offers fast delivery and commissioning – within four to six weeks – of the KVC 621 SE, a standardized optical inspection system that features three integrated camera stations and a sensitive touchscreen.

#### **Fast and accurate inspection of stamped parts**

In the quality control system, the stamped parts undergo thorough optical inspection. Cameras capture the workpieces from various angles; the KiVision image processing software developed by Kistler analyzes the images and detects deviations in dimensions and contours as well as relevant surface defects. With KiVision 5.3, users can create their own command macros to handle complex inspection tasks more easily. Depending on the nature of the inspected parts and user requirements,

the software can also provide AI-based anomaly detection, which is particularly helpful in applications involving previously unknown or frequently changing surface defects.

During operation, the system can inspect up to 4,000 stamped parts per minute. Thanks to an integrated safety concept, the reliability of the inspection process is guaranteed even at these high cycle times: Using close PLC monitoring of the individual process steps, the test system ensures that every single workpiece is checked. Manufacturers who opt for solutions from Kistler also benefit from comprehensive industrial expertise from a single source: Service specialists from Kistler help to optimally set up new inspection processes or to further improve existing ones. This support covers everything from the initial inquiry to the selection of inspection parameters and installation, to maintenance and machine upgrades. Kistler also provides a wide range of on-site trainings and consulting services for manufacturers' employees.

### **Experience the KVC 621 SE live at the Blechexpo in Stuttgart in Hall 6 / Booth 6317**

Visitors to this year's Blechexpo (November 7–10) in Stuttgart can experience the inspection process firsthand and learn more about the customization options offered by the new test system: Kistler will demonstrate inspection processes with the KVC 621 SE in Hall 6 at Booth 6317. Additionally, the measuring experts will show how precise, reproducible quality control can be integrated directly into production lines with the aid of a measuring chain for the insertion and removal forces on stamped contacts. A piezoelectric sensor measures these forces, while a special compensating element ensures that potential lateral forces don't skew the measurements. The measured data is analyzed and evaluated by the integrated maXYmos NC process monitoring system. The maXYmos NC can also control either the drive or the electromechanical axis. Kistler also offers this measuring chain in a complete, ready-to-use inspection system: the Smart Single Station.

The booth will also highlight the new handheld mobile testers, which allow users to check their process parameters directly at the machine. The devices' touchscreen can be used to monitor and verify up to three input signals: piezoelectric charge, voltage, and IO link signal. Moreover, Kistler will present the Inspector electronic torque wrench and the caliTEST-B calibration device for torque wrenches. With the caliTEST-B, machine capability tests can be carried out in accordance with VDI/VDE 2645. The device complies with all relevant standards thanks to various sensors that cover ranges from 0.1 to 1,000 Newton meters. The user-friendly CEUS 10 software not only manages the master data, but also generates the required test certificates in compliance with applicable standards. These solutions help machine builders in the sheet metal industry ensure that each system meets the highest standards for safety and quality.

## Image material (please cite the Kistler Group as the image source)

To download the images in high resolution, please follow the link: <https://smartfile.kistler.com/link/-ibzoAOQvaY/>



The KiVision image processing software from Kistler can detect deviations from dimensions or contours as well as relevant surface defects. It also offers AI-based anomaly detection.



The KVC 621 SE automatic test system from Kistler can inspect up to 4,000 stamped parts per minute. Thanks to integrated safety concepts, absolute process reliability is guaranteed even at these high cycle times.

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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 2022, it posted sales of CHF 434 million. About 8% of this figure is reinvested in research and technology – with the aim of delivering better results for every customer.