

## Press release

### **Optical quality inspection of punching strips with Inline Vision & Weld from Kistler and Nidec SYS**

Seamless punching strips with 100% inspected OK parts and maximized OEE (Overall Equipment Efficiency)

Winterthur, June 2024

**Kistler and Nidec SYS present the new Inline Vision & Weld quality assurance system, a fully integrated solution for stamping technology. The system is the only one of its kind to combine the optical quality inspection of punching strips from Kistler with the precise servo-controlled cutting and laser welding technology from Nidec SYS. Inline Vision & Weld enables users to wind exclusively OK parts onto the punched part coil in a seamless strip. Both companies present the solution jointly at Stanztec 2024.**

Inline Vision & Weld (IVWS) finds and removes every NOK part in the production of punched parts. The new quality assurance system combines the KVC 621 optical inspection cell from Kistler with the high-precision Cutting Welding 2.0 system from Nidec SYS. The system examines the individual test parts for dimensional accuracy and relevant surface defects. If it finds such a defect, the system separates the corresponding NOK part and precisely welds the punching strip back together in the inline process in pitch. This ensures that only OK parts are on the coil, that downstream processes are guaranteed, and high-quality standards such as those of the automotive industry are met.

“At the beginning of our collaboration with Nidec SYS, we examined our customers' needs for fully automated punching processes, fast and efficient quality assurance and, above all, optimal downstream processing steps in detail, and designed our solution to meet these requirements,” explains Dr. Oliver Schnerr, Head of Sales - Integrated Solutions at Kistler. “That's why we combined optical quality inspection and laser welding technology in a fully integrated and automated system. Now, a detected bad part no longer causes idle time in the production process,” adds Werner Borth, CEO at Nidec SYS.

#### **Inline Vision & Weld minimizes interruptions in production and increases OEE**

The optical part of the quality assurance system accommodates up to four integrated camera stations in its 1100-millimeter-wide housing and uses close-meshed PLC monitoring to reliably inspect every single part, even at cycle times of up to 2000 parts per minute. The cutting and laser welding

technology is seamlessly combined with the optical quality inspection. The cutting tool works reliably thanks to its progressive die technology and cuts the punching strip within consistent parameters. Thanks to the integrated stand-alone welding technology and state-of-the-art welding techniques, the composite of the carrier strips is reproducible.

The system is also easy to install. Suitable power and pneumatic connections and an interface with the punching press are all manufacturers need for commissioning. Parameterization is also effortless. “This way, we ensure system availability and increase overall efficiency – and at the same time enable manufacturers to carry out easy, precise quality assurance,” says Schnerr.

### **Premiere at Stanztec 2024: joint presentation**

At this year's Stanztec, visitors will be able to see the IVWS for themselves on site. Both companies showcase the system jointly at their adjacent stands (Hall GS, Stand A48 / A19) and give an impression of the system's features in live tests.

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

To download the image in high resolution, please follow the link: <https://share-win.kistler.com/s/7SkqgTZQzJ6bLLH>



The new Inline Vision & Weld quality assurance system combines optical quality inspection and laser welding technology for seamless punching strips with exclusively inspected OK parts.

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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 2023, it posted sales of CHF 465 million. About 9% of this figure is reinvested in research and technology – with the aim of delivering better results for every customer.