

Press release

Kistler Group to present at Medical Expo MD&M West 2020

Intelligent solutions to improve quality and save costs in medical manufacturing

Winterthur, February 2020

During the Medical Expo MD&M West 2020, Kistler will present smart measurement solutions that enhance medical manufacturing to comply with the medical devices quality standards and to save costs. At the same time, Kistler is a strong partner in driving digitalization. As a special highlight, the company will showcase a test station for medical devices featuring the world's smallest 6-axis robot.

Kistler experts will demonstrate how medical device manufacturing can maximize resource efficiency, process reliability and transparency of its assembly and production processes – and, last but not least, the quality of products.

100% process control is a common goal of medical device manufacturers. Automated process monitoring for precise control during every phase in the entire production chain is key. With more than 60 years of expertise in measurement technology, Kistler offers manufacturers of medical devices a tailored product portfolio to reach this goal.

From micro-molding/injection molding, to assembly and joining systems all the way through testing including quality assurance – customers are enabled to gain added value by combining intelligent, modular process monitoring systems, miniature pressure and force sensors and digital tools for enhanced connectivity.

Reduce scrap during production: ComoNeo and maXYmos

The ComoNeo process monitoring system from Kistler is based on the measurement of the cavity pressure inside injection molds. Cavity pressure is a direct criterion to determine part quality. Thanks to the ComoNeoPREDICT, which is the online quality prediction system involving artificial intelligence (AI), users obtain reliable data about each manufactured component in advance, based on the current cavity pressure profile. With this information, they can improve machine settings in order to maximize quality, production time and process stability.

The maXYmos system, known for automated monitoring and analysis of processes, helps the production quality of medical devices during manufacturing or in testing procedures resulting in curve evaluation. The curve depends on the measurement of the physical quantities that play a key

role in these processes: pressure, force and torque. By integrating the maXYmos process monitoring system into assembly processes, 100 percent transparency in process monitoring can be achieved. This ensures, in brief, automated monitoring of process stability, segregation of scrap parts, transparent process control and production monitoring during qualification (OQ and PQ), as well as transparent documentation for quality assurance.

Product assembly and testing with high precision: NCFT joining module and maXYmos NC

Designed for assembly and joining processes with low force, the NCFT from Kistler features a mini joining module. Excellent for production in the medical device industry, the NCFT is ideally qualified when combined with the maXYmos NC series.

FDA compliance: test station with world's smallest 6-axis robot and maXYmos TL ML

Visitors to the Kistler booth at MD&M West can witness an automated test station with the world's smallest six-axis robot designed for medical device manufacturing applications. It is used to test the functionality of an inhaler: Combined with the maXYmos TL ML process monitoring system, a miniature sensor from Kistler continuously tracks the force that the robot exerts on the manufactured product. The maXYmos TL ML is ideal for small measurement ranges and user management compliant with FDA regulations. All changes are recorded with time and user indices, which is indispensable for keeping in line with the audit trail.

A new cable which has been specifically designed for highly dynamic applications in machine environments, connects the control and the force sensor fixed on the robot's arm. The extraordinarily robust, low-noise high-insulation coaxial cable is extremely resistant to abrasion and can withstand at least 10 million bending cycles.

Digital connectivity and full control over production data in real time: OPC UA and dICA

The maXYmos TL series (force-displacement monitoring, etc.) and the maXYmos NC series (joining systems) come up with OPC UA capability. This makes it easier to connect them to machine controls and facilitates communication with higher-level control and management systems.

The digital Charge Amplifier 5074A from Kistler represents another milestone within the digitalization of the whole measuring chain. It is compatible to the common ethernet based protocols, features a wide measuring range from 20 to 1,000,000 pC and a data transmission rate of 50kSps per channel. Thus, customers retain full control of their production data in real time. Furthermore, protection class IP67 ensures application in harsh environments as well.

Visit us at Medical Expo MD&M West 2020 in Anaheim, booth 1169 to experience cutting edge technology from Kistler designed for enhancing medical device manufacturing in terms of product and production quality, cost-effectiveness and digitalization. We are looking forward to meeting you.

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



Precise control is a critical factor in medical devices manufacturing processes. Sensors and systems from Kistler give you full control over optimum quality for your injection molded plastic parts.



Ideally qualified for production and product testing in medical devices manufacturing environment: the NC joining module NCFT 2157B.



Medical devices manufacturing and industry 4.0: maXYmos TL process monitoring systems now offer OPC UA for the sake of extended connectivity and networking throughout the medical devices production environment.



dICA (5074A) from Kistler is the world's first digital charge amplifier to offer real-time capability for measurements with piezoelectric sensors and data transfer via Industrial Ethernet (IE).



The new connecting cable (1900A23A) from Kistler is designed for extremely dynamic applications in machine environments. It can withstand highly dynamic, free-ranging movements for over 10 million bending cycles and is compatible with drag chains.

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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.