

Press release

JEC World 2019: Kistler and NETZSCH showcase their collaboration

A partnership that sets new standards in process monitoring for long-fiber composites

Winterthur, February 2019

Kistler, the global market leader in dynamic pressure, force, torque and acceleration measurement technology, will share a stand with the NETZSCH Group at JEC World 2019 from 12 to 14 March in Paris. Visitors to stand R20 in hall 6 can see how technologies from the two companies complement each other ideally in plastic composites processing. Both product portfolios will be showcased, and a simulation will show how the combination of information from mold filling and characteristic material values represents a major step towards intelligent part production.

Composite materials are already well established in many sectors: thanks to their special characteristics based on combinations of different materials, they broaden the scope for design and development in application areas such as aerospace and vehicle manufacturing. But in return for these advantages, manufacturers are confronted with increasing complexity in processes such as RTM (Resin Transfer Molding) and electronics overmolding. The challenge now: how to overcome these complexities reliably?

Quality assurance with an integrated complete system

ComoNeo by Kistler, the leading process monitoring system for intelligent plastics processing, includes the ComoNeoCOMPOSITES feature to allow process monitoring for cycles of up to eight hours – which can be required for complex parts with large surface areas. In addition to ComoNeoCOMPOSITES, ComoNeo also enables direct integration, visualization and analysis of external sensor signals.

Dielectric sensors from NETZSCH are at the forefront of technology when it comes to determining the characteristic values of plastics and fiber-reinforced composites during part manufacturing. Last year, NETZSCH added another highlight to its portfolio: the sensor technology for carbon composites that was premiered at JEC World 2018.

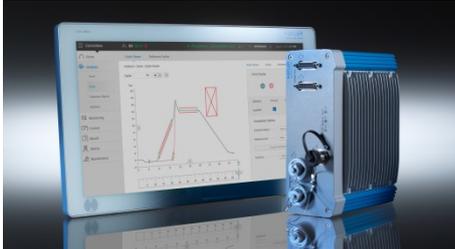
Visitors to the stand shared by NETZSCH and Kistler can see a live demonstration of how an integrated system solution can significantly enhance process reliability in composites production. To achieve this, dielectric analysis (DEA) signals supplied by NETZSCH sensors are integrated directly in ComoNeo. "Many of our customers are already using one of these two systems, or even both of them – but without a common interface," says Dr. Alexander Chaloupka, Manager of the Process Analytics Business Field at NETZSCH. "The dielectric signal provides information about the degree of cross-linking during the curing process, so it is a key indicator of quality for parts made from composite materials. The same is true of cavity pressure as measured by Kistler's equipment – so these two technologies complement one another excellently."

Enhanced process reliability, increased throughput

Mold filling and material cross-linking can now be monitored by a complete, coordinated system thanks to the combination of DEA sensor technology from NETZSCH and Kistler's cavity pressure sensor technology. "There's no doubt that this moves quality assurance up to a new level," according to Dr. Robert Vaculik, Head of Kistler's Strategic Business Field Plastics. "More extensive control of the manufacturing process means that users can increase their throughput rates and continue to make their production more cost-efficient. We're especially pleased to join forces with NETZSCH, a renowned partner for composites production with ComoNeo. Our shared stand gives us the chance to show the vast range of possibilities that are available. This is another sign that ComoNeo is increasingly becoming the universal system for intelligent plastics processing, and further collaboration partnerships in the future will continue to broaden its scope."

Customers, trade visitors and others with an interest in this field are cordially invited to stand R20 in hall 6, where they can take a closer look at the new composites expertise offered by NETZSCH and Kistler along with other solutions from the two partners. Of course, our exhibit includes a live presentation of the new complete system for process analysis and optimization in composites production.

Visuals (reproduction is free of charge provided that the Kistler Group is credited as the source of the image)



Universal plastics processing system: Kistler's ComoNeo 3.0 controls composite production and also processes external sensor signals



Demanding requirements are specified for the production of composite parts – and systems from Kistler and NETZSCH provide the best way to meet them



A high-performance system to determine material parameters in the manufacturing process for composites: the DEA288 Ionic by NETZSCH with its unique sensor concept

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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 61 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 2017, it posted sales of CHF 422 million. About 8% of this figure is reinvested in research and technology – with the aim of delivering better results for every customer.

About the NETZSCH Group

The NETZSCH Group is a family-owned enterprise that operates throughout the world from its headquarters in Selb, Bavaria (Germany). NETZSCH maintains a strong international presence with 35 companies in Europe, North and South America and Asia, as well as 54 sales and service branches and 156 agencies. Three business units – Analyzing & Testing, Grinding & Dispersing, and Pumps & Systems – operate independently with the objective of offering the best solution to each and every customer. Technological edge and market leadership are underpinned by 140 years of experience.