

Media Release

ComoNeo and ComoDataCenter:

Kistler Unveils the Latest Functionalities for Automated, Reproducible Injection Molding Processes and Their Control.

Düsseldorf, 19 October 2016 – Kistler is presenting the new versions of its ComoNeo and ComoDataCenter – both with innovative options for applications in injection molding production that vastly simplify the control, reproducibility and documentation of processes in this segment of industry. First and foremost among the new features: the Restart Assistant, which allows efficient reproduction of established processes when changing machines.

With quality requirements constantly on the increase, continuous control of the entire injection molding production chain is absolutely essential. The focus here is on improving product quality and boosting cost-efficiency. Kistler has now developed the successor versions of ComoNeo and ComoDataCenter, two system components that already have excellent track records. These new versions offer the best possible basis for achieving these goals – and they are ideal for novices as well as experienced users.

Automated Process Reproduction: ComoNeo Now with Restart Assistant and OPC Interface

Kistler has now integrated a Restart Assistant into ComoNeo, making it possible for users to transfer established processes from one machine to another with no problems at all. To ensure identical quality reproduction in the new machine, this intelligent tool suggests which parameters need specific changes. For this purpose, the Assistant detects deviations in the cavity pressure and compensates for them by adapting the machine parameters. This automated analysis generates a suggestion so that users can correct the process on the basis of the cavity pressure – and no previous specialist knowledge is required. As the era of Industry 4.0 dawns, this support places users in the best possible position to conquer the challenges posed by digital networking. For example: the system now supports the OPC-UA interface, which is on the way to becoming the standard for injection molding production. By integrating OPC-UA into ComoNeo, Kistler has now made it possible to fully implement Multiflow control (automatic hot runner balancing) as a standalone solution. In other words, users no longer need a PC for control. The benefit: significantly less effort is required for the entire setup process. Another new feature in ComoNeo: online quality forecasting is now integrated directly into the system, so the complete range of cavity pressure monitoring methods is available. The EO Assistant (for automated setting of monitoring limits), online quality forecasting and the Restart Assistant: three aids that ensure novices as well as experts will be guided to the desired results.

Control with Industry 4.0 in Mind: New Features for Real-Time Control and Hot Runner Balancing

The first version of ComoNeo already set a new standard for monitoring of injection molding production processes. This was achieved with the help of the EO Assistant: for the first time, users with no specific knowledge of cavity pressure were given a simple option for monitoring. Kistler has now developed software that goes one step further in quality optimization. The new version of ComoNeo provides feedback to the operator and the machine so that the process can be optimized even further. This advance allows perfect timing for the switchover from speed control to pressure control in response to cavity pressure. ComoNeo also offers a sampling rate that cannot be matched by any comparable system. The result: yet again, real-time control has been made vastly more responsive in every respect.

Automatic switchover control can be used in two different ways. The first option is for manual setup: control behavior is only changed after the user intervenes. The second option is called SLP (Switching Level Processor): in this case, setup is fully automated and the control behavior is optimized independently from cycle to cycle. The main advantage of the manual option is that several dependencies can be set; with SLP, the key benefit is self-optimizing calculation of the switchover point. In these ways, ComoNeo 2.0 also covers a wide range of process control applications: for molds with multiple cavities, behavior during automatic changeover has been optimized for the specific purpose of compensating for different behavior patterns during the production sequence. When conditions are set manually, additional dependencies across multiple cavities are available as control criteria. On the other hand, automated changeover is mainly used for molds with small numbers of cavities. The benefit here: ease of handling. All that is needed is to activate the process – and everything else is controlled by the internal algorithm, virtually at the touch of a button. Both switchover options actively help prevent mold damage because safety functions respond if filling differences are excessive.

Multiflow control is a method used to control hot runner balancing. Its fundamental purpose is to use appropriate temperature control of the individual hot runner nozzles to ensure that all filling curves have an identical progression, so production quality is guaranteed. In the past, conventional production methods always required a manual fill study, but Multiflow control by ComoNeo now makes it possible to fill the individual cavities automatically – with increased speed and far greater precision. This advantage can be exploited during setup and also during the actual production operation. Thanks to the readjustment option that is newly integrated in ComoNeo, process fluctuations can now be compensated during the production phase as well.

ComoDataCenter: the Vital Link for Networked Injection Molding Production

The ComoDataCenter (CDC) is also enhanced with attractive new features that make it easier to network data and improve the traceability of part quality. For instance, the CDC is now available for ComoNeo as well. Thanks to this innovation, ComoNeo and CoMo Injection are linked via a common database. Another new feature: mold management is integrated into the CDC. The settings can be stored centrally, so the ComoNeo and CoMo Injection mold settings can be transferred to other plants via CDC. For existing customers, this also ensures compatibility between CoMo Injection and ComoNeo – guaranteeing that CoMo Injection users can change over gradually to ComoNeo. There is also provision for integration into higher-level systems such as SAP or other

MES systems. This means that the CDC acts as the single interface between the process and higher-level MES systems. The benefit: all data can easily be networked with other systems across the company. And, last but not least, the CDC's user interface is now standardized with the tried-and-tested ComoNeo interface – entirely in keeping with the universal operating philosophy advocated by Kistler.

By enhancing ComoNeo and the ComoDataCenter with these new features, Kistler is paving the way for yet more future improvements to product quality and cost-efficiency in injection molding production.

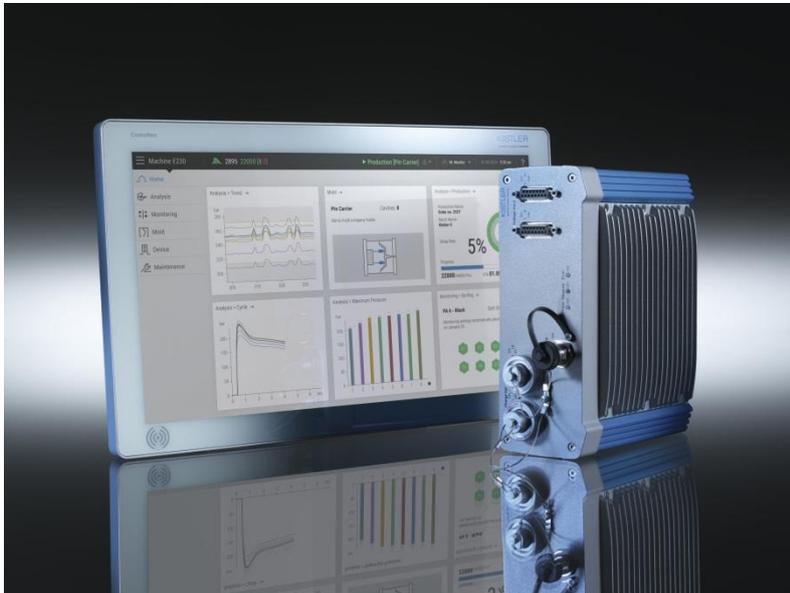


Figure 1

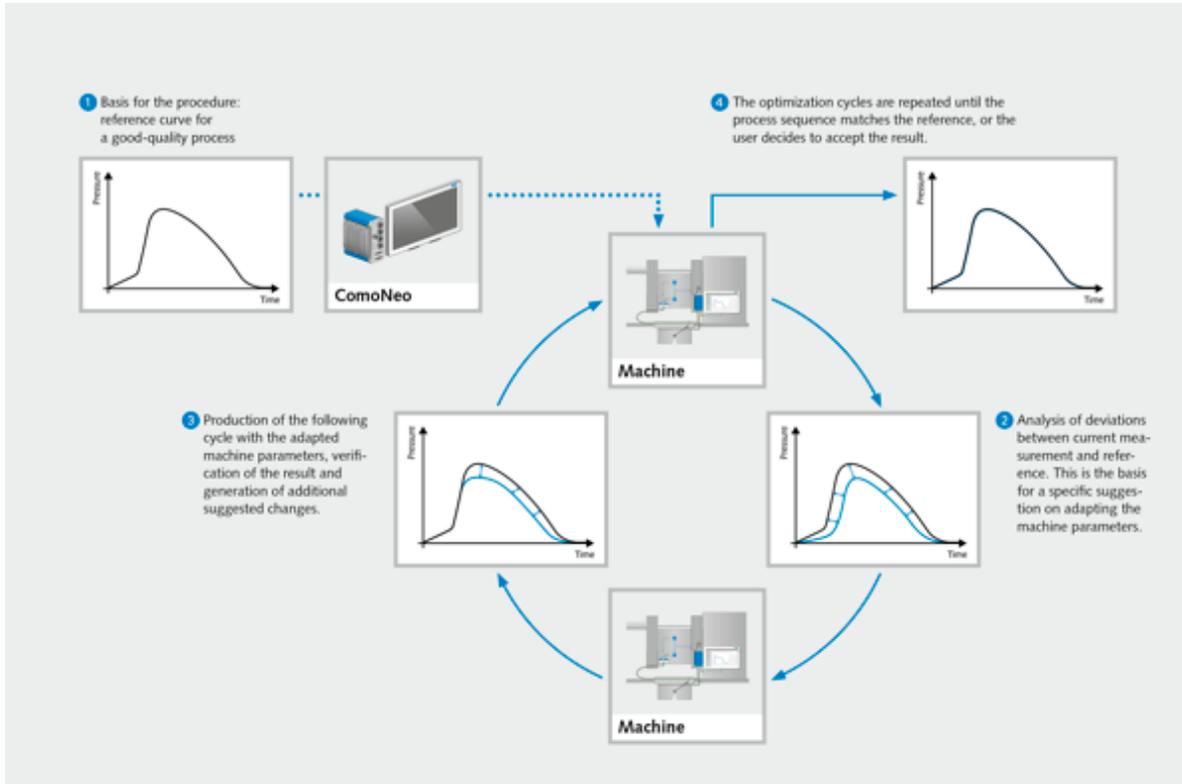


Figure 2

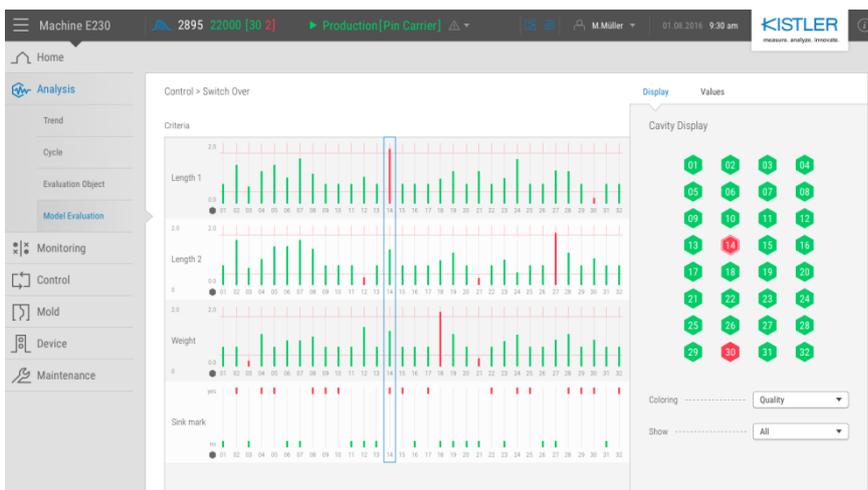


Figure 3

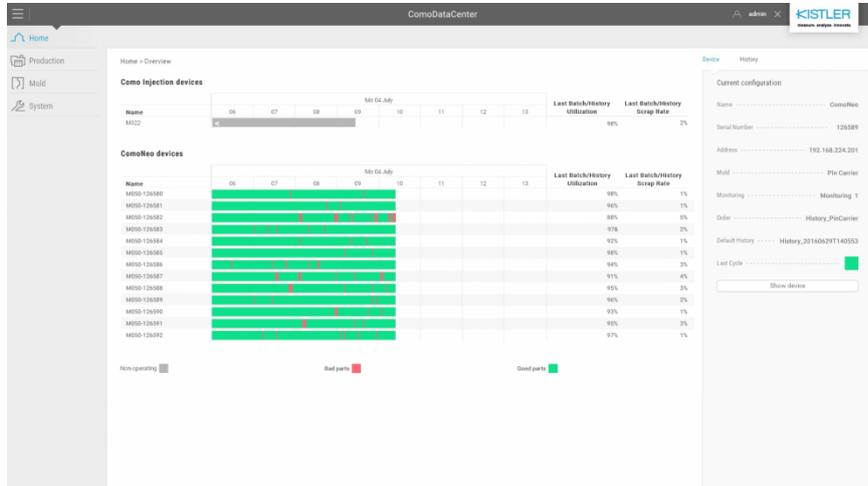


Figure 4

Captions

Figure 1: **ComoNeo** is the process monitoring and control system to maximize efficiency in injection molding.

Figure 2: **Restart Assistant**: step-by-step reproduction of established processes when changing machines.

Figure 3: **Online Quality Prediction**: high-end process monitoring – ComoNeo directly predicts part characteristics and evaluates quality on the basis of specified tolerances.

Figure 4: **ComoDataCenter**: ComoDataCenter networks all machines, collates their quality data and shows the last shift's production sequence in crystal-clear form.

About the Kistler Group

Kistler, the originator of piezoelectric measuring technology, is the global leader in dynamic pressure, force, torque and acceleration measurement. Cutting-edge technologies provide the basis for Kistler's modular systems and services.

Customers in industry, research and development benefit from Kistler's experience as a development partner, enabling them to optimize their products and processes so as to secure sustainable competitive edge. This owner-managed Swiss corporation plays a key part in the evolution of automobile production and industrial automation, and its innovative sensor technology also helps foster the development of many newly emerging sectors. Drawing on its extensive application expertise, and always with an absolute commitment to quality, Kistler drives innovations ahead in lightweight construction, vehicle safety, emission reduction and Industry 4.0.

Some 1,500 employees at 56 facilities across the globe are dedicated to the development of new measurement solutions, and they offer individual application-specific support at the local level. Ever since it was founded in 1959, the Kistler Group has grown hand-in-hand with its customers and in 2015, it posted sales of CHF 329 million. About 10% of this figure is reinvested in innovation and research – with the aim of delivering better results for every customer.