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PRESS RELEASE

WITTMANN BATTENFELD at Fakuma 2018

WITTMANN 4.0 with TEMI+: Tracing of Q-parameters – the right way

Jointly with its partners ICE-flex, WITTMANN BATTENFELD presented to its visitors the new TEMI+ MES package at this year's Fakuma in Friedrichshafen from 16 to 21 October.

Commercial MES solutions (Manufacturing Execution System) have established themselves successfully in the plastics industry as information and control centers for the production monitoring and planning of injection molding machines. One of the reasons for this success is the availability of the standardized interfaces as Euromap 63 and upcoming OPC-UA based protocols, which ensure a simple connection between machine and MES. Practically all MES solutions, however, stop at the machine level as the lowest communication layer and thus cover only a small fraction of the process-determining devices in a production hall. One consequence of this restriction is that it has so far not been possible to achieve complete and consistent quality recording and assurance. Especially in times of Industry 4.0, in which the call for the IIoT (Industrial Internet of Things) is growing louder and in view of the increasing demand for quality assurance, product liability and traceability of produced parts, this situation is no longer accepted, particularly by the automotive industry, demanding a more comprehensive solution.

Together with its MES partner company ICE-flex, WITTMANN is now presenting for the first time in the industry the MES package TEMI+, which can uniquely cover both injection molding machines and auxiliaries around the machine. Therefore, a full and complete data acquisition and evaluation of the quality parameters of all devices involved in the production of a part is possible for a MES standard product. So far, this would have been feasible only with the help of extensive and expensive programming efforts without taking advantage of the new communication standards available on new equipment.

The most obvious feature of this novel functionality is the extension of the main view of the TEMI+ dashboard to include the auxiliaries, which are part of a WITTMANN 4.0 work cell. It is practical that the peripherals automatically log in and out of the WITTMANN 4.0 work cell in the sense of "Plug & Produce". Thus, the MES solution TEMI+ is always informed about the composition of a work cell and can adjust the display on the screen accordingly and without user interaction.

Another benefit of WITTMANN's "Plug & Produce" for TEMI + is the ability to easily and completely identify which devices belong to a work cell. The WITTMANN 4.0 router placed in front of the work cell as a gateway, automatically groups all the devices in the work cell and represents the work cell with a single IP address to the outside. Thus, the devices within a WITTMANN 4.0 work cell including the injection molding machine are accessible for the MES program via this one access point as a fundamental condition for data consistency. After the mold change and thus the possible changing of the composition of a work cell, a correct data acquisition will again be possible from the now pooled together devices in the work cell automatically and without programming efforts. Previous MES systems could not guarantee data consistency.

The access of TEMI+ to the individual devices is implemented via standard protocols. For example, the E63 or E77 protocols are used for communication with the injection molding machines and the protocols E82 or OPC UA for connected auxiliaries.

The perfect interaction of the MES solution TEMI+ with WITTMANN 4.0 offers users completely new possibilities for seamless quality assurance with correct data records. The MES solution TEMI+ is suitable and designed for the connection of injection molding machines of all manufacturers. However, a secure and complete data collection independent of user settings and thus possible operator errors will only be possible with the connection to a WITTMANN4.0 work cell.



Fig. 1: Intuitive user interface (photo: ICE-Flex)

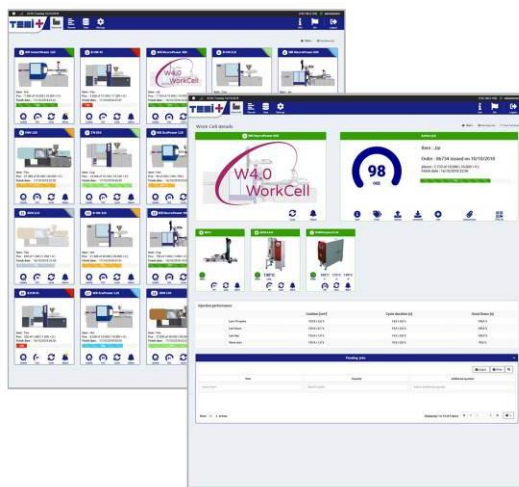


Fig. 2: Dashboard – WITTMANN 4.0 workcell

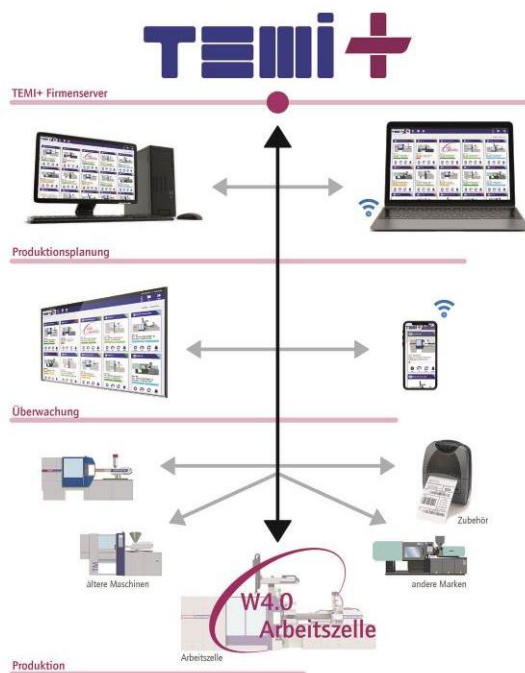


Fig. 3: Schematic representation of the workflow

The WITTMANN Group

The WITTMANN Group is a worldwide leader in the production of injection molding machines, robots and peripheral equipment for the plastics processing industry, headquartered in Vienna/Austria and consisting of two main divisions: WITTMANN BATTENFELD and WITTMANN. They jointly operate the companies of the group with eight production plants in five countries, and its additional sales and service companies are active with 34 facilities on all important plastics markets around the world.

WITTMANN BATTENFELD pursues the further expansion of its market position as an injection molding machine manufacturer and specialist for state-of-the-art process technologies. As a supplier of comprehensive, modern machine technology in modular design, the company meets both present and future market demands for plastics injection molding equipment.

The WITTMANN product portfolio includes robots and automation systems, material handling systems, dryers, gravimetric and volumetric blenders, granulators, temperature controllers and chillers. With this diversified range of peripheral appliances, WITTMANN offers plastics processors solutions to cover all production requirements, ranging from independent production cells to integrated plant-wide systems.

The syndication of the various segments under the umbrella of the WITTMANN Group has led to complete connectivity between the various product lines, for the benefit of plastics processors with an increasing demand for seamless integration of processing machinery with automation and peripherals.

Contact:

WITTMANN BATTENFELD GmbH

Wiener Neustädter Strasse 81

A-2542 Kottlingbrunn

Tel.: +43 2252 404-0

Fax: +43 2252 404-1062

info@wittmann-group.com

www.wittmann-group.com