



**NEWS RELEASE**

[Witt-NR-14-2011\_TEMPRO-plus-D-Oscilloscope]

September 12<sup>th</sup>, 2011

## TEMPRO plus D temperature controllers with oscilloscope function

WITTMANN is presenting at the FAKUMA show 2011 (hall B1, booth 1204) the innovative temperature controllers of the new TEMPRO plus D series with oscilloscope function for recording the course of the process as temperature curves, pressure and flow rate curves.



*TEMPRO plus D temperature controller,  
available as single zone and dual zone units*

The new TEMPRO plus D series of WITTMANN temperature controllers are ideally meeting the needs of demanding plastics processors that are expecting the highest stability in process temperature, optimized process management and clearly arranged and comprehensive visual control of the entire course. The visual display now is done by a generously designed 5.7" LCD color touch screen. The "push buttons" on the screen can be easily configured so that all relevant data needed for a special application can be easily accessed.



*TEMPRO plus D touch display*

The TEMPRO plus D is available in different designs: as a non-pressurized system at a maximum process temperature of 90 °C, and as a pressurized controller up to a temperature of 180 °C being equipped with non-sealed pumps with magnetic coupling. Water is used as a heat transfer medium, providing numerous advantages over oil. Water allows for a shorter heating-up period and offers better regulation, higher flow rates, and a more consistent temperature distribution within the cavity. And to ensure comprehensive process control, the TEMPRO plus D now features a novel oscilloscope function, making it possible to record the respective run of the temperature curve and the history of pressure and flow rate.

## The TEMPRO plus D oscilloscope function

To be able to relate to any manufacturing errors – thus to ensure constant part quality – it is absolutely necessary to record the course of the process. At this, temperature, pressure and flow rate are playing equal roles. If the temperature is changing unintentionally during the production, this is directly affecting the quality of the parts. In turn, such a change could have been caused by the pressure conditions or flow conditions. When it comes to unnoticed changes of the mold temperature (for example in the course of a night shift), the exact starting point of this irregularity can be found out afterwards – with the help of the temperature curves, pressure curves and flow curves that the oscilloscope function of the TEMPRO unit is providing.



*Recorded temperature pattern (left); pressure and flow rate curves*

In any case, the records are facilitating to find out the cause of an error. A tempering channel that is narrowed because of deposit, can be discovered through increasing pump pressure and decreasing flow rate; on the other hand, decreasing pump pressure and flow rate could be a sign of pump damage. And the reasons for functional disorders that are not directly related to the temperature controller also can be localized: for example when overheating the mold due to a hot runner malfunction – this could be a sign of the temperature controller not having access to cooling water, and therefore not being able to cool down the mold adequately. On the basis of such analysis it is finally possible to install the necessary measures of quality management that are helping to avoid the respective error in the future. Also, the oscilloscope function acts as a monitoring tool for the entire production of parts. If parts have been produced during a period when the equipment didn't meet the predefined production standards, all these parts can be identified and completely sorted out.

WITTMANN worldwide is one of the leading manufacturers of robots and peripheral equipment for the plastics industry. The WITTMANN group with Headquarters in Vienna/Austria is a worldwide operating company with 7 production facilities and 20 branch offices in all major plastics markets in the world. WITTMANN's product range includes robots and automation systems, automatic material handling with dryers and plastic recycling, temperature controllers and chillers for machine tools and volumetric and gravimetric blenders.

With this comprehensive range of peripheral equipment, WITTMANN can provide processors of plastics with total solutions which cover all their requirements, ranging from autonomous work cells with single zone temperature controllers, screenless granulators, sprue pickers, integrated vacuum loading systems and integrated cross-linked control systems with integrated material loading and dryers to automated robotic systems for flexible finishing of semi-finished injection molded parts.

On April 1, 2008 WITTMANN has taken over the BATTENFELD Kunststoffmaschinen GmbH at Kottlingbrunn (Lower Austria). The market for auxiliary equipment on one hand and for injection molding machines by BATTENFELD on the other will continue to grow independently. However, the syndication will of course lead to the completion of both product lines, providing the advantage plastics processors have been looking for in terms of a seamless combination of processing machines, automation and auxiliary equipment – all occurring at a progressive rate.

**Contact:**

WITTMANN Robot Systeme GmbH  
Am Gewerbepark 1-3  
64823 Gross-Umstadt  
GERMANY  
Tel.: +49-6078 93 39-0  
Fax: +49-6078 93 39-40  
[info.de@wittmann-group.com](mailto:info.de@wittmann-group.com)  
[www.wittmann-group.com](http://www.wittmann-group.com)



**Friedrichshafen – October 18–22, 2011**  
**WITTMANN at the FAKUMA: hall B1, booth 1204**