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PRESS RELEASE

WITTMANN BATTENFELD at the Plastpol in Kielce

WITTMANN BATTENFELD with sustainable high-tech products at the Plastpol

At the Plastpol taking place from 24 to 27 May, WITTMANN BATTENFELD Polska will present to interested trade visitors ultra-modern injection molding systems as well as state-of-the-art robots and auxiliary appliances at booth No. F11 in hall F.

For many years, the WITTMANN Group has been active in Poland, an important market for the company. Since the beginning of 2016, it has been operating its own sales and service subsidiary there as well. Together with its subsidiary WITTMANN BATTENFELD Polska, the WITTMANN Group will demonstrate its latest developments to visitors of the Plastpol.

At this year's Plastpol, the main focus in the area of machinery lies on showing fully integrated injection molding cells. For example, the exhibits will include a machine from the all-electric *EcoPower* series with WITTMANN 4.0 integration, as well as a servo-hydraulic machine from the *SmartPower* series in Ingrinder version. One outstanding feature of both these machines is their extremely high energy efficiency achieved by latest servo drive technology.

Complete integration with *EcoPower* 55 production cell

WITTMANN BATTENFELD will demonstrate its digitization expertise with the production of a medical part with an *EcoPower* 55/350, equipped with the software packages HiQ Flow for compensating viscosity fluctuations, HiQ Melt for material quality monitoring and HiQ Metering for active closing of the check valve.

Equipment integrated in the machine's UNILOG B8 control system via WITTMANN 4.0 will include a WITTMANN W918 robot, a gravimetric dosing unit GRAVIMAX 14, an ATON plus 70 segmented wheel dryer and three temperature controllers from the

TEMPRO plus D series, as well as the TEMI+ MES system. The web browser included in the UNILOG B8 control system also provides access to the TEMI+ MES system. The production cell interlinked by WITTMANN 4.0 supports electronic mold data sheets, and is thus able to check whether the auxiliary appliances connected to it are sufficient for the selected product data set, or whether additional equipment is needed.

The automation system is implemented via an Easy Cell developed and manufactured by WITTMANN BATTENFELD Deutschland in Nuremberg. The Easy Cell requires no safety gate and thus takes up only a minimal amount of space beside the injection molding machine. In spite of its compact design, customers receive the complete range of CE-compliant safety features.

Ingrinder

The Ingrinder is an injection molding system with integrated sprue picker, granulator and vacuum conveyor. The granulator and the sprue picker can be operated via the machine's UNILOG B8 control system. The Ingrinder solution is designed for smaller injection molding machine models from the *EcoPower* and *SmartPower* series, since these machines are used in particular together with molds incorporating cold runner technology, thus producing sprue which must either be scrapped or passed on to a recycling system following injection molding.

At the Plastpol a can with a lid is produced from PS on a *SmartPower* 60/210 with a 2-2-cavity mold. A WP50 sprue picker from WITTMANN with swivel drive removes the sprue and passes it to the G-Max granulator integrated in the system. The material recycled by the granulator is then transported to the machine's material hopper by a FEEDMAX S 3-net vacuum conveyor. The WITTMANN vacuum conveyors equipped with an optional material separator enable alternating conveyance of virgin material and regrind, so that a thorough blend is created by this process, together with discharge of the material into the hopper.

To equalize viscosity fluctuations caused by the recycled material, the WITTMANN BATTENFELD HiQ Flow software package is used on the machine. With HiQ Flow, viscosity fluctuations detected during the injection phase are actively corrected directly within the same shot.

Automation and auxiliaries

In addition to the robots and auxiliary appliances connected to the machines on display, numerous robots and auxiliaries from WITTMANN will also be shown as stand-alone solutions at the Plastpol in Kielce.

In the area of automation, WITTMANN BATTENFELD Polska will show the linear robot models WX138 with an A-C Servo axis and WX142 with an A-B-C Servo axis. The additional rotation axes just mentioned stand out in particular by their extremely compact design. This reduces their space requirements inside the mold to a minimum, together with a significant increase in the robots' flexibility. The robots of the WX series are equipped with the high-performance CNC9 robot control system, to which a large number of new functionalities have been added, including the digital twin. This function enables anticipatory and interactive testing of the robot's movements and functions to almost completely eliminate the negative consequences of programming errors.

In addition to the robots from the WX series, the high-speed robot models SONIC 108 and SONIC 131 will be presented. The robots of the SONIC series have been optimized for maximum-speed parts removal in packaging and pick-and-place applications. They are designed for cycle times below 4 seconds.

Moreover, a CODEMAX RFID-coded coupling station including its M8 network control system will be shown. The latter prevents the supply of wrong materials to a processing machine caused by an operating error.

WITTMANN BATTENFELD Polska will also present a wide range of auxiliary equipment. The dryers to be shown include an ATON primus 120-300 segmented wheel dryer, a compact DRYMAX primus 30-70 dryer and a CARD 10S compressed air dryer. The ATON segmented wheel dryer consists of numerous chambers loosely filled with desiccant balls, which ensure in combination with the innovative 3-Save process efficient utilization of energy as well as a continuous drying process with a constant dew point. The DRYMAX dryers are dry air dryers equipped with two desiccant cartridges, which deliver a continuous flow of process air with consistent drying air quality for perfect drying of plastic granulate.

The compressed air dryers from the CARD G series are small and efficient. They are ideally suited for drying applications with low throughput rates.

As representative examples of temperature control technology, WITTMANN BATTENFELD Polska will show its appliance models TEMPRO primus C90, TEMPRO basic C120 and TEMPRO plus D140. The outstanding features of TEMPRO temperature controllers are reliability and easy operation. A smaller heat exchanger requires less circulating water, with the result of much shorter heating and cooling times.

In addition, the volumetric blenders DOSIMAX MC Balance and DOSIMAX Basic will be showcased at the Plastpol. The specific design of these blenders provides even, extremely accurate dosing of colorants. Pulsation in dosing and in the raw material is

completely eliminated, which enables maximum process control and makes for a perfect end product.

Materials handling is represented by a FEEDMAX S 3-net standalone material loader. The FEEDMAX S 3-net offers the benefits of maintenance friendliness, high process reliability and easy operation.

The range of exhibits is rounded off with granulators from the G-Max and S-Max series. The G-Max series consists of beside-the-press granulators specially designed for in-line recycling of sprue from injection molding machines with clamping forces of up to 4,000 kN. G-Max granulators are energy-efficient and come with a small footprint as well as a sound-insulated cutting chamber, which significantly reduces sound emissions. The S-Max screenless granulators feature toothed rollers with low motor speeds (27 rev/min at 50 Hz) for efficient, low-cost granulating of engineering plastics as well as styrene, acrylic and fiberglass-reinforced materials.



Fig. 1: EcoPower 55 with WITTMANN 4.0 integration



Fig. 2: SmartPower 60/120 Ingrinder



Fig. 3: WITTMANN robot WX142



Fig. 4: Segmented wheel dryer ATON primus 120-300



Fig. 5: FEEDMAX S 3-net



Fig. 6: Granulator G-Max 13

The WITTMANN Group

The WITTMANN Group is a globally leading manufacturer of injection molding machines, robots and auxiliary equipment for processing a great variety of plasticizable materials – both plastic and non-plastic. The group of companies has its headquarters in Vienna, Austria and consists of two main divisions: WITTMANN BATTENFELD and WITTMANN. Following the principles of environmental protection, conservation of resources and circular economy, the WITTMANN Group engages in state-of-the-art process technology for maximum energy efficiency in injection molding, and in processing standard materials and materials with a high content of recyclates and renewable raw materials. The products of the WITTMANN Group are designed for horizontal and vertical integration into a Smart Factory and can be interlinked to form an intelligent production cell.

The companies of the group jointly operate eight production plants in five countries, and the additional sales companies at their 34 different locations are present in all major industrial markets around the world.

WITTMANN BATTENFELD pursues the continued strengthening of its market position as a manufacturer of injection molding machines and supplier of comprehensive modern machine technology in modular design. The product range of WITTMANN includes robots and automation systems, material handling systems, dryers, gravimetric and volumetric blenders, granulators, temperature controllers and chillers. The combination of the individual areas under the umbrella of the WITTMANN Group enables perfect integration – to the advantage of injection molding processors with an increasing demand for seamless interlocking of processing machines, automation and auxiliaries.

In Poland, the WITTMANN Group is represented successfully by its own subsidiary WITTMANN BATTENFELD Polska, with Bogdan Zabrzewski as CEO.

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