

March 2023, Kottlingbrunn/Austria

WITTMANN BATTENFELD do Brasil Ltda. at the Plástico Brasil in São Paulo

## **WITTMANN BATTENFELD with sustainable technologies at the Plástico Brasil 2023**

***At the Plástico Brasil in São Paulo, from 27 to 31 March 2023, WITTMANN BATTENFELD will present to interested trade visitors latest injection molding machines, automation and auxiliaries at its booth No. F080. The main focus in showing these technologies and applications will be on the issue of sustainability.***

With the positive development of the Brazilian economy over the last two years, the Brazilian market has gained even more significance for the WITTMANN Group and now become one of the company's most important markets. So, the Plástico Brasil constitutes an ideal platform for the WITTMANN Group to present to this market its latest technologies in this area.

At this year's Plástico Brasil, the WITTMANN subsidiary WITTMANN BATTENFELD do Brasil will show to trade visitors applications and technologies in the area of injection molding equipment which contribute substantially to protecting the environment.

On a high-speed EcoPower Xpress 300/2100++, equipped with a Sonic 143 robot from WITTMANN specially developed for high-speed applications, a cake plate will be produced from a biodegradable material supplied by the German company Biofibre, using a 4-cavity mold from RK ferramentaria, Brazil. The biomaterial is completely free of any harmful or toxic chemical substances, thus fulfilling the safety requirements according to the EU EN71 standard. The raw materials of which this material is made have been sourced as far as possible from local production and do not compete directly with foodstuffs and animal feed.

The EcoPower Xpress is an all-electric high-speed machine whose highly dynamic drive shafts for injection, closing and opening are laid out for fast movements and extremely high control accuracy. The EcoPower Xpress is able to reach injection speeds of up to 600 mm/s and injection pressures of up to 2500 bar.

Resource conservation in the form of material savings will be demonstrated on a servo-hydraulic machine from the SmartPower series. This machine stands out by its great stability and energy efficiency. On a SmartPower 120/525 fitted with a Primus 16 robot from WITTMANN, a coat-hanger will be manufactured with a single-cavity mold using Airmould, the WITTMANN BATTENFELD internal gas pressure technology. The weight reduction achieved by this method is 25% compared with a similar part injection-molded by a conventional process. Airmould technology is a process developed by WITTMANN BATTENFELD, in which nitrogen is injected into the cavity of the mold partly or completely filled with melt, thus creating an internal structure of hollow spaces. The compressor and nitrogen generator unit used for this purpose has been developed and manufactured by WITTMANN BATTENFELD.

In terms of energy efficiency, the all-electric EcoPower from WITTMANN BATTENFELD ranks at the top among the machines of the PowerSeries. The EcoPower comes with a highly efficient direct drive. The deceleration energy from the drive units, normally returned to the power network by an elaborate process, is used by the EcoPower within the machine to provide the necessary voltage for the control system, and for the heater bands. On an EcoPower 180/750 equipped with a W818 robot from WITTMANN, a drinking cup from Tritan, supplied by Eastman, USA, will be produced with a 12-cavity mold from Btomec. The material is free of BPA and BPS and therefore ideally suited for multiple use applications.

### **Automation and auxiliaries**

Apart from the robots and auxiliary appliances connected to the machines on display, several stand-alone solutions from the range of robots and auxiliaries will be showcased at the Plástico Brasil as well.

The WITTMANN Group's expertise in the field of linear robots will be demonstrated by staging a chess match with a WX143 robot. This robot comes with an A/C-Servo-combination axis and an L-shaped gripper equipped with two separate magnetic gripping units to handle the chess pieces. The second of these grippers is used whenever a chess piece is captured, that is, must be replaced by another on a certain field. The chess pieces themselves are produced on a 3D printer and have a metal core, so that they can be handled by a magnetic gripper. The robot, gripper system and chess software are all controlled by the latest WITTMANN R9 robot control system.

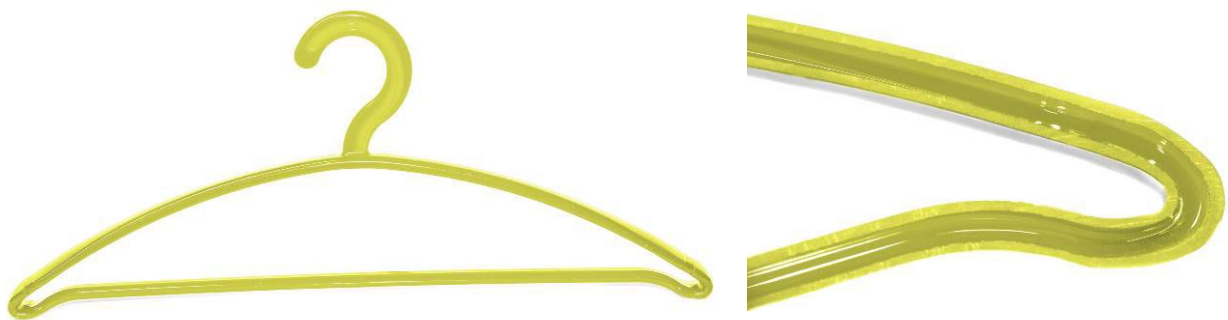
From the range of auxiliaries, the temperature controller models Tempro plus and Tempro basic will be exhibited at the Plástico Brasil. Tempro plus D appliances are easy to operate via a self-explanatory touch display. Numerous options make it

possible to configure these appliances for virtually all applications found in the plastics processing industry.

Also on display will be a Drymax 300 dry air dryer which excels by a high level of energy efficiency, as well as one Silmax 600 and two Silmax 800 appliances, all equipped with the M8 control system, and a Gravimax G14 gravimetric blender. Blenders of the GRAVIMAX series come with 2 weighing cells, and with the unique RTLS real-time weighing system. The result of combining both these features is lower material consumption plus better parts quality.



**Fig. 1:** EcoPower in the new WITTMANN design



**Fig. 2:** coat hanger produced with Airmould internal gas pressure technology



Fig. 3: WX143 robot



Fig. 4: Tempro plus D temperature controller



Fig. 5: Gravimax G14

## 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 ten production plants in six countries, and the additional sales companies at their 36 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 Brazil, the WITTMANN Group is represented by its own sales subsidiary WITTMANN BATTENFELD do Brasil Ltda., with Cássio Saltori as Managing Director.

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