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## PRESS RELEASE

WITTMANN BATTENFELD at the Fakuma

### **WITTMANN BATTENFELD with new EcoPower B8X at the Fakuma 2023**

***At the Fakuma, WITTMANN BATTENFELD will present its new EcoPower B8X to trade visitors from October 17 to October 21 at its booth 1204 in hall B1. By comparison to its predecessor model, this new machine stands out by even greater energy efficiency, an extended range of injection units and higher precision with an innovative drive system.***

High performance and repeatability with simultaneous low energy consumption have always been a hallmark of the machines from WITTMANN BATTENFELD, and in this case especially of the EcoPower. At the Fakuma 2023, WITTMANN BATTENFELD will present for the first time its new EcoPower B8X, which offers several advantages in addition to a further reduction of its energy consumption compared to the previous version.

In its further development of the EcoPower, special attention has been paid to the injection unit. Firstly, a finer gradation of injection unit sizes has been introduced. This enables customers to adjust their machine more accurately to their needs with the result of a cost advantage. Some of the injection units are also available in a Plus version, which means with twice the injection speed. Secondly, the injection unit has been technologically further optimized. For instance, the injection spindle is oil-lubricated instead of grease-lubricated, thus increasing its dynamism by reducing frictional resistance. In combination with additional injection unit sizes, this has a positive effect on the energy balance. The number of different lubricants required has also been reduced.

Moreover, the injection unit of the EcoPower has been harmonized with that of the SmartPower. The injection unit is now pivotable, which significantly facilitates barrel change. For even more service friendliness, the injection unit has been equipped with a sum connector for the heating system including screw coding, to ensure the additional advantage of a faster and faultless barrel change. The sum connector

automatically calculates the screw diameter. All electric components of the barrel heating system are located in the control cabinet, to provide easier access to the components than would be possible if they were installed in prefabricated heater boxes. A separate plug-in addition to the sum connector has been installed for the nozzle heater, to facilitate the exchange of the nozzle heater band.

The toggle lever of the new EcoPower B8X has been kinematically optimized. By this move, the force required for clamping force build-up has been reduced by 15 %, which has reduced stress on the servo motors and consequently led to a further reduction of the energy consumption. It also enables a higher level of dynamism with the result of better dry cycle times. The highly dynamic toggle lever in combination with the accelerated speed of the injection units and the option for parallel movements included as standard enables minimal cycle times, thus increasing the machine's profitability. To extend the toggle lever's service life, the crosshead guides have been reinforced, and new hard bronze connectors with a special alloy have been installed, as well as larger toggle bolts for better force distribution among the bearing positions.

The B8X control system of the new EcoPower B8X comes equipped with control system components developed in-house. Particularly noteworthy here is the X4 booster for the drive units, which has been directly adapted to the servo motors installed in the machine and permits a higher internal clock frequency sampling rate, consequently shorter response times to sensor signals and thus higher repeatability, while user friendliness and familiar visualization remain unchanged.

The new EcoPower B8X will be available for the European market from the Fakuma 2023 onwards in the clamping force sizes from 550 to 1800 kN, and with volumes ranging from 10.8 cm<sup>3</sup> to 778 cm<sup>3</sup>. The sizes up to 5500 kN with volumes up to 3012 cm<sup>3</sup> are still on offer in the current version.

At the Fakuma, an EcoPower B8X 110/525 will be exhibited as an Insider cell in combination with the newly developed, servo-driven WX90 sprue picker from WITTMANN, and equipped with an integrated ejection chute, an S-Max screenless granulator as well as a WFC120 flow controller. With this production cell, a bracket for a climbing net will be produced using an 8-cavity mold supplied by Lechner, Austria. The sprue will be removed and transported directly into the granulator integrated in the machine, by the WX90, which is also integrated in the B8X control system. There it is ground and subsequently returned to the process.

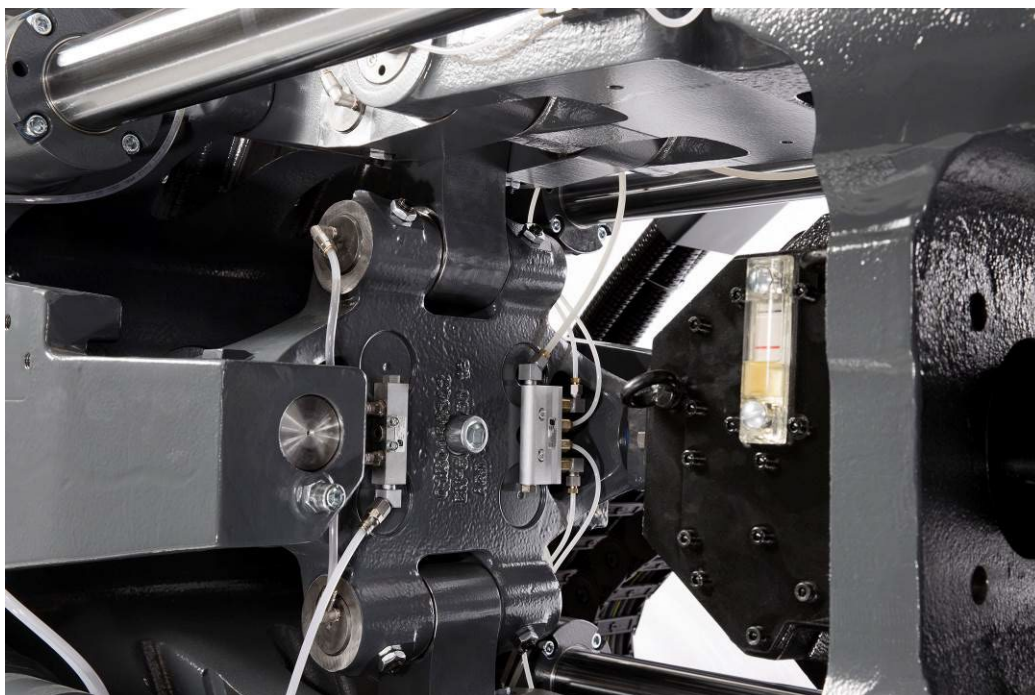
To make the machine's low energy consumption visible, energy measurement will be carried out on the machine using the IMAGOxt energy management software developed by WITTMANN Digital.



**Fig. 1:** EcoPower B8X 110/525



**Fig. 2:** Pivoting injection unit



**Fig. 3:** Toggle lever with reinforced cross head guides



**Fig. 4:** Sum connector on the injection unit for better serviceability

## 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.

### Contact:

#### **WITTMANN BATTENFELD GmbH**

Wiener Neustädter Strasse 81

2542 Kottlingbrunn

Austria

Tel.: +43 2252 404-1400

[gabriele.hopf@wittmann-group.com](mailto:gabriele.hopf@wittmann-group.com)

[www.wittmann-group.com](http://www.wittmann-group.com)