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## PRESS RELEASE

WITTMANN BATTENFELD at the K 2022

### **New SmartPlus with high-tech automation and digitization**

*At this year's K fair, WITTMANN BATTENFELD demonstrates its expertise in the areas of automation and digitization in a particularly spectacular way with the production of a spirit level on a machine from the new SmartPlus series with the new B8X control system in hall 15, booth C06. Special features of the servo-hydraulic SmartPlus are high levels of cost and energy efficiency and repeatability. By using proven technologies combined with carefully selected options, it has become possible to offer an excellent price/performance ratio for these machines.*

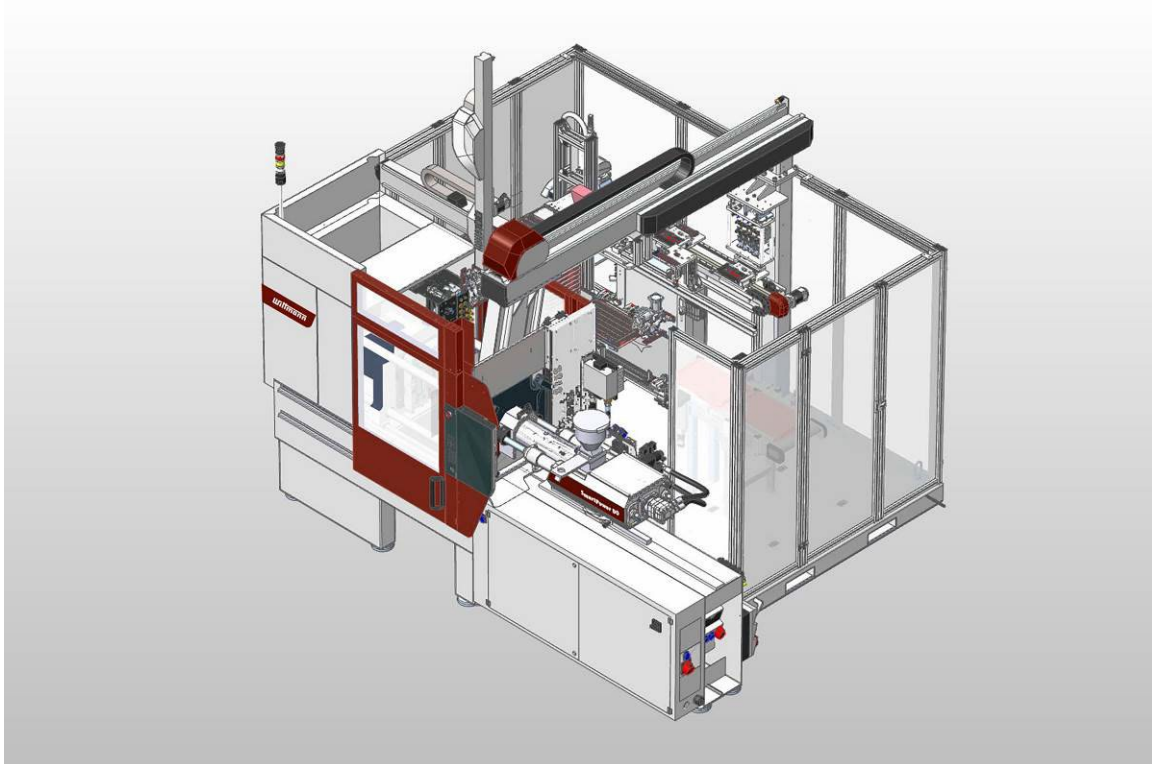
On a SmartPlus 90/350 equipped with an automation cell designed and manufactured by WITTMANN BATTENFELD Germany, a spirit level made of ABS is produced with a 1+1-cavity mold supplied by SOLA, Austria. As a first production step, the top and bottom parts of the spirit level housing are injection molded. The two molded parts are subsequently removed and passed on to separate automation stations by a WX138 robot from WITTMANN. The top part is then deposited and printed at a laser station. Simultaneously, the bottom part placed on a separate tray is fitted with vials from SOLA. Next, the top part is pressed onto the bottom part by a pre-set force. The finished parts are then transported to a testing station, where the positioning of the vials is checked by a vision system. After quality inspection, the finished spirit levels are removed and deposited on a conveyor belt.

In terms of process technology, it is relatively easy to keep the color value of a package constant wherever virgin plastic granulate is used, since masterbatch producers are quite well-versed in the color homogenization process. Here, technically mature blenders mix the masterbatch with the basic granulate in an empirically calculated, optimal ratio. Thus, the minimal color deviations from one part to the next are no longer perceivable with the naked eye, and the dE value (a technical term used by experts for the difference between two color values in the L\*a\*b\* color range) remains below 1.

The machine presented at the K fair is equipped with a color measurement system, which checks the color blend and consequently the color accuracy and readjusts the

blend in the case of deviations, even if they are too small to be perceived with the naked eye. This system has been developed jointly with the partner companies Gabriel Chemie and Sensor Instruments. It comes with a color measurement sensor which inspects the finished product. In the case of any shade deviation, the blend is readjusted automatically via a WITTMANN blender, so that color accuracy is restored within just a few shots.

A special laser masterbatch (laser marking) from Gabriel Chemie improves the print quality of the company logos laser-printed on the product at a laser station. The result is an improved shade of white.



**Fig. 1:** SmartPlus 90 with automation



**Fig. 2:** Spirit level

## **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.

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