

**NEWS RELEASE**

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WITTMANN Holoverse, **the virtual device operation concept**

*The WITTMANN Group takes this year's K in Düsseldorf as an opportunity to present its latest developments in a wide range of different areas. From 19 to 26 October, among other innovations, WITTMANN Technology will showcase **Holoverse**, the new virtual device operation concept at booth No. F23 in hall 12.*



With WITTMANN **Holoverse**, based on the Microsoft HoloLens, WITTMANN is making the production floor fit for a combination of physical with virtual reality.

The Microsoft HoloLens 2 mixed reality glasses, combined with innovative software from WITTMANN, already offer to visitors the transmission of precise information about individual appliances, plus innovative facilities for interaction by speech and gestures, while they are just walking through the company's booth at the K. The solution which was presented for the first time at the Fakuma 2021 has now been extended by several additional features. At the K 2022, WITTMANN is demonstrating the following functions with **Holoverse**:

- Integrated voice and gesture recognition for controlling a **SmartPower 120** and a **W918** robot.
- Voice recognition has been developed for 1,500 typical phrases and voice commands.
- Mixed reality provides additional information about the status of the machine, the robot and all auxiliary appliances.
- In addition, a stand-alone **WX142** robot is complemented by the animation of a virtual injection molding machine which, together with the physical robot, simulates a complete, functioning production cell.

To model the graphic objects and for data exchange between HoloLens and the appliances, the OPC UA standard, well-known and proven for many years, is used. The application options for this technology are extremely diversified.



Illustration of an example: the WITTMANN Holoverse application shows at a glance all key information about the appliances being used.

While WITTMANN **Holoverse** is used, the specific appliance in the user's field of vision is recognized automatically through the mixed reality glasses via a marker (QR code). The above illustration of an example shows a gravimetric blender. The display of its current operating status can be altered by gesture control via virtual keys. The filling level of the blender's scale pan and throughput over time are graphed in an attractive way. The critical data for the management of the manufactured part – such as recipe and material input – can be read at a glance even from a distance.

The voice recognition for running the injection molding machine with a **B8** control system and the robot with an **R9 TeachBox** is also presented once more. In numerous test series, some 1,500 typical phrases or voice commands (“utterances”) were identified, which a machine operator would use to test the production process for the loaded mold data in the semi-automatic mode and then to start automatic production. Here, the translation of language into voice recognition and subsequently into appliance-related activity is not based on data transmission to a cloud. All data remain inside the work cell and are processed there. Machine operators can keep their hands free and trigger the actions without having to touch the **B8** terminal or the robot's **R9 TeachBox**.

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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WITTMANN at the K: hall 12, booth F23