

NEWS RELEASE

[Witt-NR-06-2021_WX153-A-C-Servo]

May 19, 2021

New automation options for the medium clamping force range

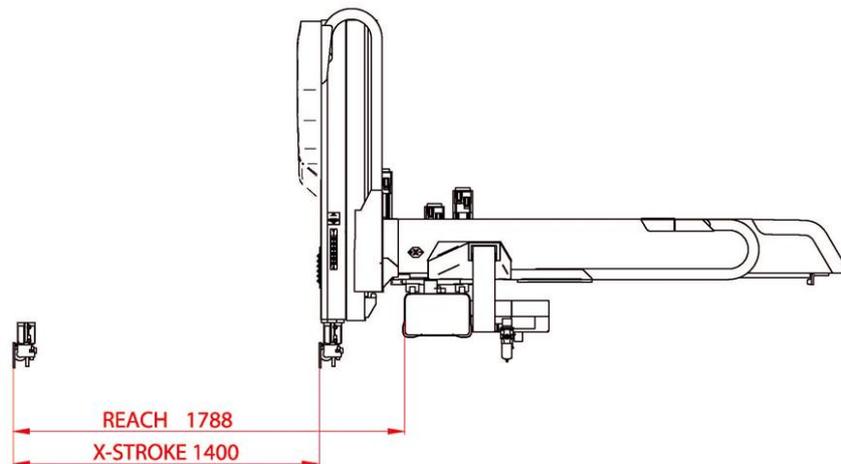
*Available from June 2021: the upgraded **WX153** robot from WITTMANN – the ideal automation solution for injection molding applications on machines with clamping forces from 500 to 1,300 tons.*



**WX153 robot with servo rotation axis
mounted on the vertical axis.**

The new automation solution for injection molding applications in the medium and higher clamping force range is based on the newly upgraded **WX153** robot from WITTMANN. The system consists of a cartesian axial structure with a mobile X-axis serving as demolding axis.

A horizontal stroke of up to 18 m and a vertical stroke of up to 2,600 mm are possible. An X-stroke of up to 1,400 mm is available for parts removal. This 1,400 mm demolding stroke provides a maximum reach of about 1,790 mm. In this context, the term “reach” designates the maximum distance between the horizontal axis and the mounting plate of the swivel axis at the lower end of the vertical axis. The reach is an essential parameter for the layout of robot systems.



This diagram very clearly illustrates the difference between the reach and the X-stroke.

Internal tubing and/or wiring in the vertical Y-tube, easily accessible lubrication points and the integrated control cabinet at the rear of the horizontal carrier are part of the **WX153** robot's standard equipment. The control cabinet has invariably its original dimensions regardless of the number of additional axes attached.

Three additional axes can be mounted to each robot at the end of its vertical axis to drive the removal gripper. Moreover, WITTMANN is able to build tandem robot solutions as well, that is, two traversing units acting together on the main carrier. Even in such cases, an add-on control cabinet can be dispensed with; so the space provided for it beside the injection molding machine can be used for any necessary auxiliaries other than automation equipment.

The **WX153** robot to be shown by WITTMANN in the first presentation by WITTMANN Interactive in Viennan on 19 May is equipped with three additional servo rotation axes (**A-**, **B-** and **C-Servo**). In this way, synchronized 6-axis movements or less axis movements can be programmed, with the **R9** robot control system from WITTMANN coordinating automatically the speeds of the individual axes that have to be synchronized, so that all rotatory and translational motions are completed simultaneously.



Schematic diagram of additional servo rotation axes.

Various optimizations still enable the **WX153** to operate with a gripper weighing more than 20 kg even when using three (!) additional axes. Compared to the previous device concept, this equals a possible increase in weight by more than 30 %.

The sales launch of this appliance with all of its options – including the new 3-servo-axes combination – is scheduled for June 2021.

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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