





June 29th, 2016

New WITTMANN robots for large and small injection molding machines

WITTMANN, one of the world's leading manufacturer of parts-removal devices for the injection molding industry, has broadened its robot range for both ends of the manufacturing spectrum.

Robots for large machines: W853 pro and W863 pro

These advanced designs were developed in response to many users who also wanted to be able to rely on flexible automation in the large machine segment. These robots are best used with machines in the clamping force range of 1,300 to 2,400 metric tons – ideal for handling automotive components, white and brown goods, as well as technical parts.



WITTMANN W853 pro robot

W853 pro and **W863 pro** are based on the same mechanical concept. Both, the Z axis and the X axis of these two robots are driven by a gear rack. Carriage guidance is assured by an all-purpose high-precision recirculating linear ball bearing system. The vertical drive is transmitted via a combination of gear rack and belt, whereby strokes ranging from 2,000 to 3,000 mm are available.

The two new models are different in regard to the length of their axes and their payloads. The **W853 pro** is designed for a payload capacity of 40 kg – whereas the **W863 pro** is rated for 75 kg, which makes it particularly well suited for use in the large machine segment.





Both offer all the familiar features of the **W8 pro** series. Standard equipment includes the **ambiLED** status display and the new decentralized drive control. Above that, the new large models can use the intelligent **EcoVacuum** function. **EcoVacuum** is a shutdown function of the vacuum producer. It allows for minimizing the robot's demand for compressed air. Thus a significant saving of operation costs is possible. The new robots are also equipped with the **R8.3** robot control system as standard, which provides access to many special real-time functions, e.g. the **iVac** intelligent vacuum system with teachable switch-points, the **QuickNew** function for easy programming via a visual selection system, or the **SoftTorque** programme for a flexible removal motion based on the ejector motion of the injection molding machine.

Martin Stammhammer, WITTMANNs International Sales Manager for Robots and Automation Systems, says that "these extensions of our **W8 pro** series come from being very close to the market and from listening to our customers' requirements. During the last few years, much flexibility was offered within the machine range of up to 300 t clamping force – a fact that had led to the development of our **W822** robot. Now we have succeeded in adapting this flexibility to machines with around 1,600 t of clamping force. Our new robots are the result. These new robots also close the gap between the **W843 pro** with a payload of 35 kg and the **W873** with a payload of 125 kg, being our largest robot. Now we offer our customers many more automation possibilities for any application they may run."

WL80 robot for smallest injection molding machines

At the other end of the scale, and in order to better serve the booming compact market, the development of the new **WL80** robot was undertaken. Previously the **W808**, with a payload capacity of 3 kg and a horizontal stroke ranging

from 1,250 to 2,000 mm, was WITTMANN's smallest robot model.

The extremely compact **WL80** robot has been designed for a payload capacity of up to 2 kg. Integrating the energy chain into the horizontal arm minimizes the space requirement, which is especially advantageous when this unit is operated in protective housings and used in integrated applications.



WITTMANN W808 robot (left) compared to a new WL80 robot

The **WL80** is available with a horizontal stroke of 1,200 mm, and is therefore perfectly matched to injection molding machines with clamping forces ranging from 30 to 60 t.





The vertical stroke is 700 mm, and the unit can also be equipped with a second vertical axis. In that instance, one of the two axes is equipped with pneumatic pivot, and the other axis is equipped with a pneumatic sprue gripper. Even then (i.e. when two X axes are required – what means there are five servo axes instead of three), the dimensions of the electrical cabinet remain the same. The operator interface is the proven **R8 TeachBox** with its many functions. For example, there is the intuitive and animation assisted **QuickNew** programming function. Of course, further functions are available as a standard as well: **TextEditor**, **SmartRemoval**, and **EcoMode**.

Martin Stammhammer notes that "we are dedicated to servicing both complex and simple manufacturing situations via the robots of the **W8 pro** series. The **QuickNew** programming function, for example, makes the **WL80** a powerful and inexpensive pick-and-place application with a minimal familiarization period. We think that there will be two main application areas of the **WL80**. On the first hand, it will be used in the Asiatic region with the compact injection molding machines that are predominant there. On the other hand, we will install this device as a part of our own integrated mold-cell production solution, with minimized footprint."

The WITTMANN Group is a worldwide leader in the manufacturing of injection molding machines, robots and peripheral equipment for the plastics industry. Headquartered in Vienna/Austria, the WITTMANN Group consists of two main divisions, WITTMANN BATTENFELD and WITTMANN, which operate 9 production facilities in 6 countries, including 30 direct subsidiary offices located in all major plastics markets around the world.

WITTMANN BATTENFELD focuses on the independent market growth in the manufacturing of state-of-the-art injection molding machines and process technology, providing a modern and comprehensive range of machinery in a modular design that meets the actual and future requirements of the plastic injection molding market. WITTMANN's product range includes robots and automation systems, material handling systems, dryers, gravimetric and volumetric blenders, granulators, mold temperature controllers and chillers. With this comprehensive range of peripheral equipment, WITTMANN can provide plastics processors with solutions that cover all production requirements, ranging from autonomous work cells to integrated plantwide systems.

The syndication of the WITTMANN Group has led to connectivity between all product lines, providing the advantage plastics processors have been looking for in terms of a seamless integration of injection molding machines, automation and auxiliary equipment – all occurring at a progressive rate.





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Düsseldorf – October 19th–26th, 2016 WITTMANN at K Show: hall 10, booth A04