



NEWS RELEASE

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WITTMANN at the Fakuma 2018

This year, the WITTMANN Group is again taking the opportunity to present its most recent product developments in a great variety of different areas at the Fakuma in Friedrichshafen. The company will showcase its latest innovations in automation and peripherals from 16 to 20 October at its booth No. 1204 in hall B1.

AUTOMATION I

Extension of the WITTMANN PRIMUS robot series

At its show booth, the WITTMANN Group presents the latest models of the **PRIMUS** robot series: **PRIMUS 10** and **PRIMUS 26**.

PRIMUS 10 extends the **PRIMUS** series once more with a smaller model: The robot is specially designed for removing sprues and comes with sprue pincers as standard. The compact dimensions of the **PRIMUS 10** with a horizontal axis length of 1,000 to 1,500 mm equip it for operation inside the safety enclosure of an injection molding machine. This reduces the costs incurred for the safety enclosure – and also ensures CE-compliant operation. If there is a change in production needs, the robot can integrate a vacuum circuit in order to carry out parts removal as well as sprue picking.



WITTMANN PRIMUS 10 (left) and PRIMUS 26.

The **PRIMUS 26** robot extends the range even further. These are the first models in the **PRIMUS** series able to operate on injection molding machines with clamping forces of up to 400 t, and also the first **PRIMUS** robots with a moveable demolding axis. With its 10 kg load capacity, **PRIMUS 26** offers the possibility to control even more complex grippers, and in addition to the highest load capacity among the **PRIMUS** models, it also has the greatest variety of strokes. The horizontal axis is available with a maximum stroke length of 6,000 mm. This makes applications with

parts depositing behind the clamping unit of an injection molding machine possible. The maximum demolding stroke is 800 mm. Vertically, strokes of up to 1,400 mm can be realized, with the vertical stroke being performed via a single axis in **PRIMUS 26**, and via a telescopic axis in **PRIMUS 26T**.

AUTOMATION II

The new WX robots

The design of the **pro** series robots, presented for the first time at the K 2013, provides the backbone for the new **WX** robots. This new series also stands out by consistent use of lightweight technology for the axes – combined with the partitioned drive concept specially developed by WITTMANN for linear robots. This combination gives the models of the **WX** series maximum dynamism with minimal energy consumption. The simultaneously reduced lengths of power supply and connection cables subjected to movements also increases the appliances' service life. Moreover – as was already the case with the predecessor models – the **WX** robots are equipped with a special vacuum function, by which process cost savings can be achieved through intelligent air consumption control. A special valve prevents pressure loss inside the system, thus minimizing the activation period of the vacuum generator, which in turn reduces the air consumption.

The Y-axis of the **WX** robots shown at the Fakuma 2018 has been completely redesigned compared to the robots from the pro series. It now allows access to the gripper and vacuum circuits from the sides of the vertical profile. The gripper plugs for signal feedback are also connected there. To simplify maintenance of the appliance even further, the guide carriages of the vertical axis are now greased from a central lubrication point. An innovative option for lubricating the drive system has also been created. If desired, the axis can be fitted with a special lubrication wheel, which ensures a continuous supply of lubricant to the gear rack – that is, the drive unit. In combination with easier access to the lubrication points, this reduces the time spent on maintenance to a minimum.



**Representing the new WX series:
WITTMANN WX143 robot.**

The new highlights set by the **WX** design make the models of this series unique. The first attribute to catch the viewer's eye is their distinctive coloring. As standard, the robots are painted in two colors to underscore their design vocabulary in a special way. The cover for the valves and E/A cards now comes in one piece and merges seamlessly with the newly designed cover plate of the Y-profile.

AUTOMATION III

The new A-C-Slim servo axis

Simultaneously with the new **WX** robots, WITTMANN is launching a new rotational **A-C servo axis** specially laid out for applications with small residual mold openings. Compared to the already existing larger model with 30 kg load capacity, the new, **Slim** variant of the combination axis is about 25% shorter, and its width has been narrowed by approx. 20%.



*WITTMANN A-C standard servo axis (left)
and the new A-C-Slim servo axis.*

WITTMANN sees the main field of application for this combination of axes in the 150 to 500 t clamping force range. For efficient operation within this range, the axis can carry loads of up to 15 kg.

MATERIAL HANDLING

GRAVIMAX blenders with new functions

GRAVIMAX blenders from WITTMANN have been continuously improved over the years and now come with numerous functions to ensure easy operation and consistently high parts quality.

GRAVIMAX blenders are available for a wide range of throughput rates and come with touch screen control terminals. All parameters can be set and retrieved via the display. The luminous **ambiLED** signal mounted on the front of the **GRAVIMAX** visualizes the appliance's current status. The control system allows the operator to save the formulations of compounds together with the appropriate blending processes. These formulations can be passed on to other appliances either by USB stick or by special **GraviLog** software. Moreover, a **GRAVIMAX** operating in the **SmartRegrind** mode will automatically adjust the formulation – depending on the available quantity of granulate to be blended.



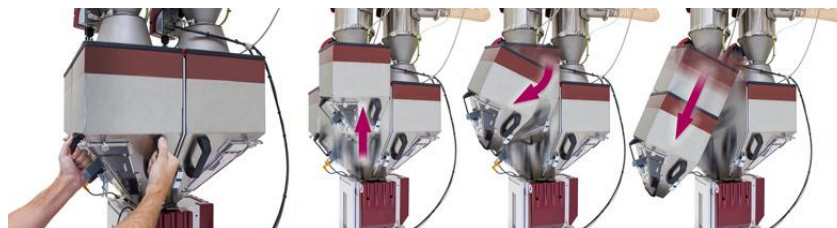
Clearly laid out 32 bit processor control with touch-screen and USB interface.

RTLS (Real Time Live Scale) weighing enables a consistently reliable blending result. This is a metering process carried out in two steps, progressively becoming more and more accurate until the target weight has been reached. Following a rapid metering phase just before reaching the target weight, the residual quantity of material is subsequently added by several short metering impulses. In this way, any overdosing of ingredients is reliably prevented.



*Throughputs ranging from 60 to 200 kg/h:
WITTMANN GRAVIMAX G14 and GRAVIMAX G34 in the new design.*

The **GRAVIMAX** material hoppers have been designed so that the material can flow freely inside them. These hoppers can be equipped with fold-back lids to allow for material loaders mounted on top to be tilted back, which facilitates cleaning of both the material loader and the hopper. The designation **SL Design** stands for “Stationary Lid”. This structure allows the **GRAVIMAX** material hopper to be removed without having to detach the material loader. Whenever the material hopper – designed a little higher for this purpose – is removed, the material loaders mounted on top of the stationary lid mounted can remain in place.



**SL, „Stationary Lid“ – simple and easy removal of the material hoppers:
No tilting, no risk of injury, simple and easy to clean.**

Every **GRAVIMAX** is equipped for easy connection to a central computer, a laptop or PDA device with an Ethernet interface. In this way, data transmission can also be effected by OPC UA via a licence acquired later. If no reporting system is already in place, WITTMANN offers its **GraviLog** software as a solution for data recording. This software package enables the acquisition and administration of all data from every **GRAVIMAX** blender present in a production facility (such as compound formula management, material consumption, visualization of fluctuations).

Every new **GRAVIMAX** model is also prepared for **WITTMANN 4.0**, i.e. the standardized communication system for all appliances in an injection molding production cell. In this way, the **GRAVIMAX** can be connected with the processing machine and operated from there as well, with operation being effected via the familiar **GRAVIMAX** control panel, which is transmitted to the machine's control system.

TEMPERATURE CONTROL I **The new TEMPRO plus D300 oil device**

Following the successful market launch of the **TEMPRO plus D250** oil temperature controller, which was already equipped to meet all requirements for **WITTMANN 4.0** integration, WITTMANN has now gone even a step further in raising the upper temperature limit by presenting the new **TEMPRO plus D300**, the thermal oil temperature controller for highest demands up to 300 °C, at the Fakuma 2018.



WITTMANN TEMPRO plus D300 oil temperature controller.

The new **TEMPRO plus D300** offers 16 kW heat output. The 1 kW pump generates a maximum pressure of 6 bar and a flow quantity of 55 l/min.

At this year's Fakuma, WITTMANN is also presenting for the first time a flow measuring device for oil temperature controllers, for both the older **TEMPRO plus D250** model and for the new **TEMPRO plus D300**.

Moreover, WITTMANN will also launch a frequency-controlled, high-performance **SpeedDrive** pump for oil appliances to provide even greater process reliability and a further improvement in energy efficiency. **SpeedDrive** offers the possibility to set one of four process variables (motor speed, pump pressure, differential temperature or flow quantity) as an additional control parameter, which enables energy-optimized operation without jeopardizing the process.

TEMPERATURE CONTROL II

The new TEMPRO plus D120/1-L ("L" = "Large")

The latest development is the **TEMPRO plus D120/1-L**, a generously dimensioned single zone temperature controller with water as a tempering medium. It is designed for a temperature range of up to 120 °C.



*TEMPRO plus D120/1-L temperature controller
is for example used with large molds.*

The "L" in the product name stands for "large" – in reference to this model's large heating and pump capacities. The pump is rated for 4 kW with a maximum pressure of 5.9 bar and a flow rate of 280 l/min. The heating capacity is 36 kW. This unit can be used wherever large machine tools are operated, i.e. especially where production runs initially require high heat output followed by high cooling.

The options that are available for the **TEMPRO plus D120/1-L** are in principle the same as for the other models of the **D** range of temperature controllers. The new model is also equipped with a 5,7" user-friendly touch-display. Via this display, the unit can be controlled, and all the different parameters can be read out. It is possible to equip the device with a frequency controlled 5,3 kW **SpeedDrive** pump, and also with an optional proportional cooling valve.

Many differing interfaces can be realized. This temperature controller can also be integrated into the control of the processing machine, following the **WITTMANN 4.0** concept.

FLOW CONTROL **New FLOWCON plus options**

FLOWCON plus is the state-of-the-art flow controller which automatically regulates the flow to maintain the set values.



***FLOWCON plus stand-alone
flow control solution from WITTMANN.***

The **FLOWCON plus** stand-alone flow controller version now offers various new options which WITTMANN has developed in response to wishes expressed by users. In addition to the extensive range of standard features, the following extras are now available:

- pneumatic main shut-off valves at the flow and return ends
- blow-out function – mold emptying with compressed air
- preheating with a WITTMANN temperature controller
- an individual shut-off valve for each circuit at the flow end

RECYCLING **The new S-Max screenless granulators series**

Most processors need a constant quantity of dust-free and high-quality regrind at a constant size. This is the main priority. But there are of course some more important issues: dust sealing, modular design, easy and safe cleaning, efficient and effective power drive design, low noise and compact footprint. Operational safety is also very important. WITTMANN has therefore developed several industry “firsts” to meet these criteria; WITTMANN granulators produce less noise, save more energy, have a more compact footprint, need less maintenance, are equipped with hardened cutting

tools, provide for easy cleaning and maintenance, and also have excellent safety features.

As of now, the new **S-Max** granulator models from the WITTMANN Group are available for delivery: **S-Max 2**, **S-Max 2 Plus**, and **S-Max 3**. These are low speed granulators for the inline-recycling of sprues made of hard and brittle engineering resins.



*Langsam laufende Zahnwalzenmühle S-Max 2,
eines der drei neuen Modelle der S-Max Mühlenserie.*

The **S-Max** series models are specifically designed for the closed-loop recycling of sprues/runners from injection molding machines with up to 300 tons of clamping force.

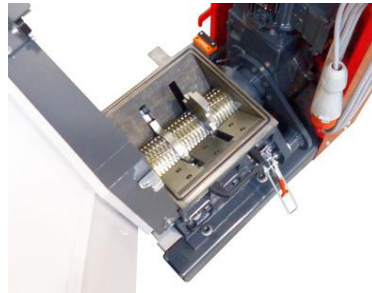
The **S-Max** is a portable piece of equipment which allows for great versatility and can be moved easily from one molding machine to another.

An interface also enables full communication with the injection molding machine. As an option, a special shutdown-function is available: When the injection molding machine is "off", the granulator stops automatically, helping saving energy.

Many more interesting and advantageous features of the new **S-Max** series come as a standard. A high level sensor gives visual and audible alarm if necessary, and is located underneath the cutting chamber, thus avoiding the overflowing of the bin, and also keeping the cutting chamber free from regrind. This position of the sensor brings about some additional advantages: direct wiring to the electrical cabinet, the sensor's head not being amidst the material, and full inlet capacity of the bin.

The swivel outlet pipe can take different positions, making it easier to connect the flexible hose to the hopper loader. This typically allows for a more efficient use of the floor space next to the machine.

The slanted, front cut outlet pipe with adjustable airflow evacuates the regrind more efficiently and also avoids the blocking of the flexible hose.



S-Max 2, opened: view of the cutting chamber.

A good access to the cutting chamber is given from above via the 90° tilting hopper to allow an easy perfect cleaning.

Overview: S-Max granulators series

	S-Max 2	S-Max 2 Plus	S-Max 3
Cutting chamber	240 × 249 mm	240 × 346 mm	240 × 467 mm
Number of knives	2	2	3
Motor output	1.1 kW	1.5 kW	2.2 kW
Rotation speed	27 rpm @ 50 Hz	27 rpm @ 50 Hz	27 rpm @ 50 Hz
Throughput	12 kg/h*	20 kg/h*	30 kg/h*
Regrind size	4 – 5 mm	4 – 5 – 7 mm	4 – 5 – 7 – 10 mm

(* Depending on material, shape, density of sprues/parts to be processed, and regrind size.)

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 8 production facilities in 5 countries, including 34 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 plant-wide 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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