

**PRESS RELEASE***August 18<sup>th</sup>, 2009***Auxiliaries from WITTMANN – the key to success!**

The main themes of the last shows – energy efficiency, productivity and flexibility – maintain their high profile again during the 20<sup>th</sup> anniversary year of the FAKUMA show. More than ever, are intelligent, flexible and efficient devices required for molding success. The **WITTMANN** Group demonstrates innovative new products for optimizing the process of plastics molding.

Numerous product presentations demonstrate the innovative power of our combined companies of **WITTMANN** and **BATTENFELD**. From October 13<sup>th</sup> to 17<sup>th</sup>, 2009 the **WITTMANN** Group introduces in Hall B1 Booth 1204 a brand new worldwide introduction, the new electric molding machine. From the **AUXILIARIES** product range, the following product news will be presented to the visitors of FAKUMA 2009:

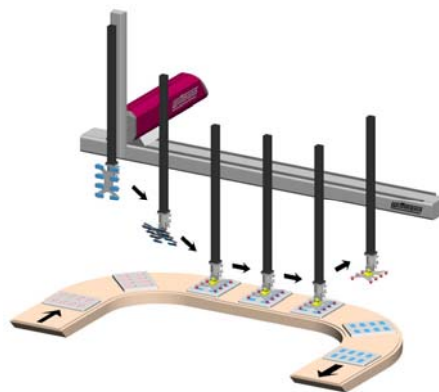
## 1. Robot model W811 with B/C-Servo - Rotations



The market need for additional servo driven degrees of freedom even on smaller robot models is addressed now by WITTMANN with the introduction of the B/C servo axes for small robot models W811, as well as W821 and W831. The Servo-B-axis allows for an incremental rotation of end-of-arm tooling and C-wrist flip between 0°-270°, while the Servo-C-axis rotates the end-of-arm tooling between 0° and 180°. All intermediate positions of the respective axis of rotation can be programmed with an accuracy of 0,01°.

Servo robots with Servo-B/C combination provide as a standard 5 degrees of freedom and thus allow the implementation of complex curved path motions. The payload available for end-of-arm tooling and part ranges depending on the robot model from 3kg to 8kg. These additional servo axes rotations are now available starting from the small robot model W811 up to the largest robot W873. The optimum 5 or 6 axis servo control shown is linear axis for injection molding part removal on the main axis and then to add these curvilinear motions control in wrist rotations for special part removal requirements or value added work cell demands in pre- or post molding operations. Along the main axis motions the payload is not compromised within the work envelop.

## 2. Robot control R8 with conveyor belt synchronisation



The R8 robot control from WITTMANN combines ideally an easy-to-use and intuitive operation with unmatched performance.

Within up to 16,000 lines per program practically unlimited robot sequences can be realized. The multitasking ability of the control allows the arbitrary sequential or parallel execution of work cell programs. Furthermore, up to 12 numerical axes can be moved synchronized or separate from each other. Besides the standard functionality of *TruePath* for the precise curvilinear following of 3D motions, the completely revised *PartTrack* function on the R8-control allows the synchronous following of objects on a moving conveyor belt.

The exact position of the object on the conveyor belt is recognized by a sensor and tracked precisely by means of an incremental encoder. Thereby objects can be picked up from a moving conveyor or parts can be placed inside a box placed on such conveyors. Practical for the setup is, to not require the conveyor belt to be in any specific angle to the robot axes, as any arbitrary orientation and surface angle can be assumed and followed.

### 3. Gravimetric Blender Gravimax 14V with Batch-to-Batch precision



The completely redeveloped gravimetric blender **GRAVIMAX 14V** represents a further evolution of its successful forerunner - **GRAVIMAX 14R**. The **GRAVIMAX 14V** presents itself in a totally revised design, whereas the online batch metering valves RTLS (“Real time live scale” for each batch weighing, compared with competitive models which average batch weights) have been maintained from the previous model. The new design incorporates highly precise wear-resistant stainless steel valves and knife gates instead of the previously used rubber pinch valves. The **GRAVIMAX 14V** model achieves a material throughput of up to 80 kg/h, and is now equipped as a standard with two weigh cells for higher metering precision and an innovative laser pointer, positioned outside the material flow and thus, is protected from abrasion and contamination. The new corner windows of each hopper provide a full view for material inspection and each detach quickly for simpler and easier cleaning access.

#### 4. Temperature controller Tempro plusC 180 – water temperature control up to 180°C



Water has better heat transfer characteristics over oil. And oil is expensive, messy and problematic for handling and disposal. Based upon the demand of the TEMPRO plusC 160 (320F) water temperature controllers using magnetically coupled pumps and these water vs oil benefits, WITTMANN decided to expand its high temperature water line to 180°C (356F). Shorter heat-up times, more precise control, higher flow rates and a uniform temperature distribution within the cavities are the main advantages of water as the heat transfer medium versus thermal oils. And the ecological advantage continues, as water is unproblematic in its handling and disposal.

WITTMANN's new water temperature controller **TEMPRO** plusC 180 will be displayed. The high performing control system is based on the proven **TEMPRO** plus C series. The process tank and all pressure connections were adjusted to the higher pressure conditions of up to 13bar at 180°C. A high safety level is achieved through the default system pressure control.

#### 5. Temperature controller Tempro directC 120 for highest cooling capacity

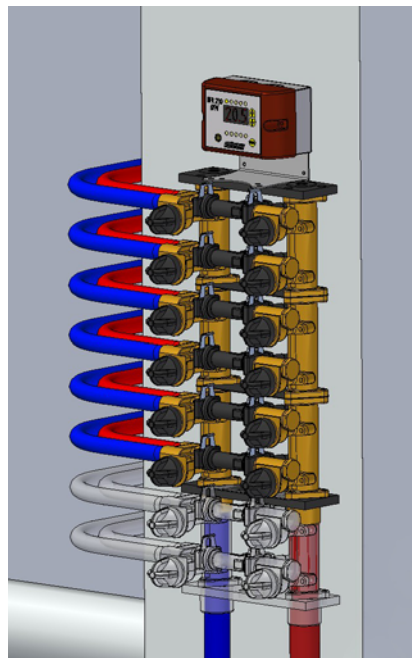


Especially for the temperature control of larger molds and molding machines, temperature controller model **TEMPRO** direct C 120 has been released. The new centrifugal pump provides in the performance range from 0,75kW to 4kW and depending on the pressure

situation a flow rate of 200 to 250 l/min and thereby guarantee the optimized temperature control of large mold and cooling requirements.

The maximum process temperature is 120°C (250F). Through the direct cooling, and thus very high cooling capacity, the main application ranges in temperatures between 10°C (50F) and 60°C (140F). Contrary to competitive directly cooled temperature controllers, model **TEMPRO directC 120** of **WITTMANN** is manufactured of non-corrosive material.

## 6. WFC – Trouble-free flow monitoring of medium temperatures up to 90°C



The **WITTMANN WFC** controlled water flow regulator offers optimized Multi-Channel Flow Monitoring, used in parallel connection between the temperature controller and the mold or other mold cell consumers. The flow rate acquisition and monitoring offers increased process safety and thereby a further increase in part quality.

Additionally to the existing water flow regulators, a touchless flow measurement has been integrated and combined with a display. The processor has now the option to adjust the desired flow rate, via the proven valves from the **WITTMANN** flow regulator series. After connection to the molding machine this rate can be monitored to stay within an adjustable window size. During development of the **WITTMANN WFC**, focus was put on the compactness of the unit as well as the possibility for mounting on the tie bars of smaller injection molding machines.

## 7. Vacuum loader Feedmax B208-CT with sight glass



Immediately after the introduction of the **FEEDMAX B** Series vacuum loaders for central material handling systems, **WITTMANN** received a favourable market response in many new orders. This enormous acceptance by processors is based on several superior features, not only facilitating the daily operation with loaders, but also guaranteeing highest availability. Easiest cleaning possibilities allow for a long-term and efficient usage of the units. The pneumatically operated discharge bell guarantees a uniform loading capacity over the entire life-time and the execution from stainless steel makes it ideal also for abrasive applications.

In the new optional models **FEEDMAX B-CT** (Clear Tube) the lower cylinder section is made of high-quality Pyrex glass and permits the simple visual control of the material level. The vacuum loader with the Clear-Tube option is available in sizes 8l, 11l and 25l and ideally complements the standard models with material volume ranging from 3l to 25l.

#### **8. Dry air Dryer Drymax D60-50/50/50 with energy saving function**

The **WITTMANN** compact dryers of series **DRYMAX D** allow further flexibility by connecting it either to 1-, 2- or 3-drying hoppers. **DRYMAX** resin dryers of series D are as a default equipped with two desiccant beds and provide the energy saving functions **SmartReg** and **SmartFlow**, counter air flow regeneration, as well as an intelligent material protection function. **DRYMAX** dryers can be usually operated without the need for return air coolers with process temperatures up to 130°C. The up to 3 stainless steel drying hoppers control individually the drying temperature and dry air volume for optimized resin drying. An optimized air distributor and hopper geometry guarantee efficient plastic resin drying.

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