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PRESS RELEASE

WITTMANN BATTENFELD at the Fakuma 2015

SmartPower 350 – the largest model of the servo hydraulic machine series from WITTMANN BATTENFELD

WITTMANN BATTENFELD's highlight at this year's Fakuma in Friedrichshafen is the SmartPower 350. With this machine, on show from 13 to 17 October in hall B1, stand 1204, WITTMANN BATTENFELD has completed its PowerSeries product range.

The *SmartPower* machine series was presented for the first time at the Fakuma 2014 with clamping forces of up to 120 t. Now this series has been completed with the larger sizes from 160 to 350 t.

The *SmartPower* is equipped as standard with an extremely energy-efficient, innovative servo hydraulic drive, which stands out by its high dynamism and low noise level. Moreover, the drive technology of the SmartPower makes it possible to use the KERS (Kinetic Energy Recovery System) developed for the *EcoPower*. KERS transforms the kinetic energy released by deceleration into electrical energy. The electrical energy recovered in this way is partly stored, used by other drive systems for parallel movements, transferred to barrel heating or used to generate the voltage for the control system. This means that the entire deceleration energy is used within the machine.

The clamping system of the *SmartPower* comes with a centrally operating cylinder piston. The hydraulic blocks are integrated directly on the clamping side to ensure extremely high control accuracy and dynamic movement sequences. Two symmetrically positioned traveling cylinders provide force transmission with mold protection and fast movements.

In this machine series, injection control is effected via the highly dynamic servo drive. The open design of this machine simplifies its operation and coordination with material feeding and drying equipment.



With the *SmartPower*, the clamping force range of the hydraulic machine series has been extended from 300 t for the previous model HM to 350 t. The diagonal distance between tie-bars has also been increased. The *SmartPower* 350 offers generous mold fixing dimensions of 800 x 720 mm distance between tie-bars, combined with an extremely compact footprint of the machine.

The open design of the *SmartPower* frame includes an open ejection area in three directions. The installation of conveyor belts for parts removal presents no problems.

Another special feature of the *SmartPower* is the easily pivoting injection unit, available up to size 3400. This pivoting injection unit significantly facilitates access to the nozzle and the screw, and consequently servicing of the screw.

At the Fakuma, a "natural fiber organic sheet" component will be produced with a single-cavity mold from Georg Kaufmann, CH, on a *SmartPower* 350/2250. The mold is equipped with a hot runner with needle shut-off, an edge folding slider for in-mold forming of the organic sheet and a punching die to punch out an aperture in it. The automation system developed by WITTMANN Robot Systeme in Nuremberg is custom-made for this application and comes with a station to feed the organic sheets cut to size, a heating station to heat the organic sheets with heating elements supplied by Krelus, CH, and a multi-functional gripper with a needle gripper to pick up the heated organic sheet, and a suction unit for finished parts removal.



Fig. 1: Our highlight - the new SmartPower 350





Fig. 2: Highly dynamic servo motor of the SmartPower



Fig. 3: Central hydraulic clamping unit of the SmartPower



Fig. 4: At the Fakuma, an organic sheet component will be produced on the SmartPower 350



The WITTMANN Group

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 10 production facilities in 7 countries, including 30 direct subsidiary offices located in all major plastics markets around the world.

WITTMANN BATTENFELD focuses on 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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