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Press Release

WITTMANN BATTENFELD at the Fakuma 2011

WITTMANN BATTENFELD presents its new *MacroPower 650* at the Fakuma

With the MacroPower, presented for the first time at the Competence Days of the WITTMANN group in Kottlingbrunn in April 2010, and then as a 1,000 t model at the K 2010 in Düsseldorf, WITTMANN BATTENFELD has set a new benchmark in large machines. At the Fakuma, the company will introduce its new MacroPower 650 with servo drive to trade visitors in Hall B1, booth 1204.

After more than one year since the comeback of WITTMANN BATTENFELD to large machine manufacturing with the introduction of the *MacroPower 800*, Georg Tinschert, Managing Director of WITTMANN BATTENFELD, sums up: "At WITTMANN BATTENFELD, we have a long tradition of large machine engineering. This is why we are particularly glad to have been able to set a new benchmark in large machine manufacturing with the *MacroPower*. The response of the market to the new machine generation is very positive."

The introduction of the *MacroPower 650* constitutes a downward extension of this machine series. With this new size, the *MacroPower* has now become available with clamping forces ranging from 650 to 1,000 t.

The *MacroPower* – the third series of machines in the *PowerSeries* beside the *EcoPower* and the *MicroPower* – stands out primarily by its compact design, high speed and precision, cleanness and optimal user-friendliness. The machine features an extremely short footprint, and thus has minimal space requirements in proportion to its clamping force size. This attribute of the *MacroPower* series, greatly valued by users, has been made possible by the new 2-platen clamping system, combined with the machine's compact twin-barrel injection units.

Another outstanding feature, the machine's high speed, is due to its fast movements and extremely short locking times, which are achieved by its new, innovative QuickLock locking system.

This two-platen machine is clean, primarily thanks to the linear guides of the moving platen, so that the oil pan, which would normally be installed to lubricate the sliding elements, can be dispensed with. The linear guides of the moving platen also guarantee ultimate precision, since they ensure exact platen parallelism across the entire stroke. Thanks to low dynamic friction, this machine's mold safety device is extremely sensitive, and the smooth running of the guide system also contributes to its high energy efficiency.

Mold insertion – unique in the large machine sector

The QuickLock locking system integrated in the moving platen permits a machine design with below-average length of the tie-bars. In combination with the extended opening stroke of the safety gate at the rear of the machine, which is included as standard, this allows lateral mold insertion from the rear without the need to pull back a tie-bar for lateral loading. Extremely large molds can also be inserted from the side in several parts. Because of this, low ceilings in production halls are often no longer a problem. The extremely convenient functionality of the machine during mold changes carries the additional benefit of short set-up times and extra safety through handling heavy molds at reduced heights.

If required, the machine is also available with a tie-bar retraction device as an option, which enables a tie-bar to be retracted and moved out again at the push of a button using a hydraulic system. This provides free space up to the maximum mold height.

The drive – intelligent concepts for high efficiency with low energy consumption and low sound levels

The machine is powered by a three-phase motor with electrically adjustable delivery pumps, applying a modular, three-stage concept with parallel functions. This concept makes a significant reduction in cycle times possible.

A speed-controlled servo drive is also available as an option, which enables a further reduction in energy consumption as well as the sound level, which is already low thanks to the sound-insulated pump compartment. This concept is based on a highly dynamic servo motor instead of a three-phase motor with constant speed. As hydraulic pumps, electrically adjustable axial piston pumps with a variable displacement volume are used. In this system, the delivery is regulated via the motor speed and the pivoting angle of the hydraulic pump. In this way, the optimal relationship between the pump's degree of efficiency and the motor speed is calculated for every operating point and regulated automatically by the machine's control system. This enables energy savings of up to 35% compared to conventional

drives. Additional benefits of this drive concept are a longer service life for the hydraulic oil, as it is heated less, and a lower sound level due to a lower average motor speed.

Modularity – one machine, many options

To ensure maximum customer benefit, the *MacroPower* follows a modular concept and is pre-configured. Numerous design variants are available, depending on customers' requirements. The machine system consists of a basic platform, to which comprehensive extension packages according to the customer's demand can be added, such as multi-component technology. Thanks to its modular concept, the *MacroPower* is extremely flexible in terms of mold height extension, central platen support and the configuration of injection units – an aspect greatly appreciated in the market.

UNILOG B6 – one control system for all machines

The *MacroPower* is also equipped with the well-established and proven UNILOG B6 control system. This control system, running under Windows XP[®], makes the integration of these machines in PDA systems, but above all Internet-based service support, very simple. Operation of the machine, the robots and all integrated peripheral equipment is carried out via the machine's monitor screen and is thus easy to understand and quick and easy to learn.

New at the Fakuma: *MacroPower 650* with servo drive

At the Fakuma, a technical part will be produced on a *MacroPower 650/5100* with servo drive. Parts quality is ensured by SKZ online thermography. Any deviations in parts dimensions caused by temperature or material fluctuations are corrected by way of closed-loop mold temperature adjustments.



Fig. 1: the new *MacroPower 650* – energy-optimized with servo drive

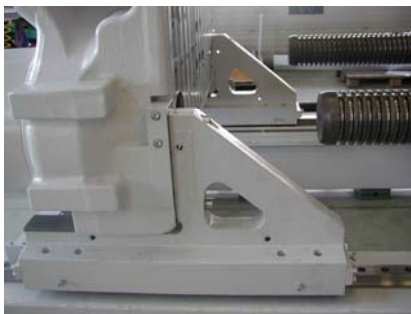


Fig. 2: the linear guides of the *MacroPower*

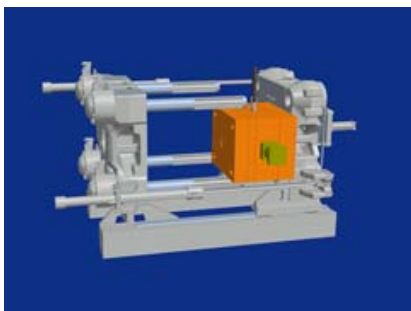


Fig. 3: mold insertion in the standard version

WITTMANN BATTENFELD

WITTMANN BATTENFELD, a company of the WITTMANN group based in Kottlingbrunn, Austria is a leading manufacturer of injection molding machines for the plastics industry. With its own sales and service companies as well as representations in about 60 countries, WITTMANN BATTENFELD provides optimal support to its customers in all matters concerning injection molding technology. Its innovative strength, highest precision and strong focus on maximum customer benefit make WITTMANN BATTENFELD a valuable partner for its customers.

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