USER REPORT

PLASTTECHNIK HOHLEBORN GmbH

WITTMANN BATTENFELD delivers 2 machines from the MacroPower series to PLASTTECHNIK HOHLEBORN

In May this year, WITTMANN BATTENFELD shipped two machines from the MacroPower series to PLASTTECHNIK HOHLEBORN based in Floh-Seligenthal, Thuringia / Germany. In this way, PLASTTECHNIK HOHLEBORN demonstrated its confidence in WITTMANN BATTENFELD also in the area of latest technologies.

PLASTTECHNIK HOHLEBORN – an experienced manufacturer and processor of technically complex thermoplastic components

PLASTTECHNIK HOHLEBORN was established in Hohleborn by Gerald Ullrich in 1990 and transformed into a limited liability company (GmbH) in 1995. The company has been domiciled in Floh-Seligenthal since 1997. It is jointly managed by Gerald Ullrich as Chief Technical Officer and his wife Annette as Chief Financial Officer. Effective August of this year, their son Michael, about to complete a degree in plastics technology at the technical college “Berufsakademie Eisenach”, has joined the company’s management team as Technical Manager and will be primarily responsible for the injection molding machines. The company holds a DIN EN ISO 9001 certificate and has made a name for itself in manufacturing and processing thermoplastic components during its more than 20 years of existence.

PLASTTECHNIK HOHLEBORN’s main business is in the automotive industry, particularly in the sector of lighting accessories, focusing on headlight housings. The product range can be roughly categorized into design parts with surface finish on the one hand and technical functional parts on the other hand. Via a partnership stake in SINNTEC Pulverspritzguß GmbH, which is located nest to the corporate premises, MIM technology (metal injection molding) is also a part of the range. In addition to injection molding, the company is increasingly active in the production of complete assemblies for its customers.

The company's main customer is Automotive Lighting, which has come to appreciate the geographic closeness of PLASTTECHNIK HOHLEBORN and consequently the
short transport distances in addition to the high quality standard of parts from PLASTTECHNIK HOHLEBORN.

PLASTTECHNIK HOHLEBORN currently employs 40 associates and is expecting to reach about 5 million Euros in sales for 2012.

Since its foundation, the company has seen continuous growth. In 2008, it decided to implement a major expansion of its production capacity. So a new production hall was built and completed in 2012, the old warehouse was demolished and replaced by a new, two-storey building and several additional injection molding machines from WITTMANN BATTENFELD were purchased as well, among them 2 large machines from the MacroPower series. Today, PLASTTECHNIK HOHLEBORN has just under 1,700 m² in production floor space and a 970 m² high-rack warehouse with space for 2,100 lattice boxes and additional storage space for about 600 t of raw materials.

The company mostly trains its highly qualified skilled workers itself, but is increasingly suffering from the general skilled labor shortage in the plastics industry.

PLASTTECHNIK HOHLEBORN relies on WITTMANN BATTENFELD in the production of its plastic parts

PLASTTECHNIK HOHLEBORN has 13 injection molding machines installed at its plant in Floh-Seligenthal with clamping forces ranging from 35 to 1,000 t, of which 12 are from WITTMANN BATTENFELD. The first machines were already delivered in 1991. Two large machines from the PowerSeries were delivered in May of this year, a MacroPower 650 and a MacroPower 1000, thus demonstrating PLASTTECHNIK HOHLEBORN’s continued reliance on WITTMANN BATTENFELD for latest technologies.

The company’s equipment includes machines from 35 t to 1,000 t clamping force, with Gerald Ullrich seeing an opportunity with the large machines to set himself apart from competitors in the market with his products. Therefore a crane with a lifting capacity of up to 20 t was also installed in his new production hall.

From 270 t clamping force upwards, PLASTTECHNIK HOHLEBORN uses exclusively machines with extended tie-bars. The company needs small screw diameters for its products, but simultaneously extended mold heights. Gerald Ullrich: “The modern, narrow headlights are steeply slanted parts and require molds with a large height. Our task is to inject small quantities of material into large molds.” So, due to these special requirements, the most recently ordered hydraulic machine
models from the HM series, an HM 400 and an HM 500, are equipped with double tie-bar extensions. Even the most recently installed machines from the *MacroPower* series were provided with additional tie-bar extensions, although their design in the standard version is already unique on the market in terms of generous mold space compared to their small footprint.

Another vital point for Gerald and Annette Ullrich especially in view of the future is the machines’ energy consumption. “Energy is becoming more and more of a critical factor in keeping German enterprises competitive. Therefore we have had our two *MacroPower* machines equipped with the ServoPower option”, says Gerald Ullrich.

According to this concept, a highly dynamic servo motor is used instead of a 3-phase motor with constant speed. Electrically adjustable axial piston pumps with variable displacement are used as hydraulic pumps. Thanks to this system, the machines’ already low energy consumption can be reduced even further.

The *MacroPower* machines installed at PLASTTECHNIK HOHLEBORN are used to produce large technical parts. On the *MacroPower 1000* with 1.000 t clamping force, headlight housings are manufactured with molds weighing up to > 13 t. The production of these parts is extremely demanding. The 650 t machine produces primarily design components such as cover frames.

Michael Ullrich is also quite pleased with the *MacroPower*. Besides its compact footprint, its ample technical features and high energy efficiency, he appreciates the machine’s low noise level. Michael Ullrich is also very satisfied with the automation equipment from WITTMANN, especially with the appliances’ logical control system.

Annette Ullrich emphasizes that WITTMANN BATTENFELD had not only technical but also financial arguments on its side when the decision was made to invest in the most recently purchased machines.

According to Gerald Ullrich, one of the most important criteria for investment in machinery is the after-sales service. “The best machine is of no use to me if the service does not function properly.” What the Ullrichs appreciate about WITTMANN BATTENFELD is its round-the-clock service, which is available by telephone as well as online. The process data collection system offered by WITTMANN BATTENFELD is seen as another great benefit. Gerald Ullrich also highlights the excellent counseling and support from WITTMANN BATTENFELD’s field service. The company’s merger with the WITTMANN group has brought the customer the additional advantage of having just one competent contact partner for the entire range of machinery, automation and peripheral equipment.
The MacroPower from WITTMANN BATTENFELD

The MacroPower, the large machine series from WITTMANN BATTENFELD stands out by its minimal footprint, high speed, modularity, absolute precision and cleanness. Its modular concept makes this new large machine suitable for a great variety of applications. The linear guides supporting the moving platen ensure a clean mold space as well as maximal, high-precision mold protection. The MacroPower reaches its velocity with high movement speeds and extremely short locking and pressure build-up times, which are achieved with the QUICKLOCK locking system developed by WITTMANN BATTENFELD.

A special highlight of this new machine generation is the ease with which molds are inserted from the rear of the machine. An extended safety gate stroke at the rear, combined with tie-bars kept at below-average length, thanks to the locking system that has been integrated in the moving platen, allows insertion of bulky molds in most cases without a tie-bar pulling device.

Fig. 1: f.l.t.r.: Gerald Ullrich, Annette Ullrich, Managing Directors of PLASTTECHNIK HOHLEBORN, and Tobias Theuerkauf, sales representative of WITTMANN BATTENFELD, in front of the MacroPower 1000
Fig. 2: f.l.t.r.: Michael Ullrich, Technical Manager and Gerald Ullrich, Chief Technical Officer at PLASTTECHNIK HOHLEBORN, with a headlight housing component for the Opel Astra coupé, the largest part currently manufactured on the MacroPower 1000.

Fig. 3: The mold for the Opel Astra coupé headlight housing requires a machine with an extra-wide mold space.

Fig. 4: Headlight housing component produced on the MacroPower 650.
Fig. 5: The housing part for the headlight of the VW CC is manufactured as an assembly consisting of 5 components.

Fig. 6: Michael Ullrich with finished headlight housings

WITTMANN BATTENFELD

WITTMANN BATTENFELD, a company of the WITTMANN group based in Kottingbrunn, 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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