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USER REPORT

Werkzeugbau Winkelmühle GmbH, Germany

Werkzeugbau Winkelmühle invests in seminal technology

Werkzeugbau Winkelmühle, domiciled in Klingenberg / Saxony, Germany plans to position itself more broadly on the market and has therefore acquired 2-component technology from WITTMANN BATTENFELD to extend its service portfolio.

Werkzeugbau Winkelmühle, which emerged in1992 from its predecessor company "Elektronische Bauelemente Dorfhain", is a family-owned and owner-managed enterprise in the second generation. The company's founders, Karl-Heinz Berthold and Hartmut Baumgart, are still supporting its present Managing Director Tom Berthold in an advisory capacity. With a workforce of more than 70 employees, Werkzeugbau Winkelmühle manufactures at its location in Klingenberg high-precision punching and injection molding tools, as well as parts in the area of punching and plastics technology for use in electronic systems. The latter are mostly metal-plastic combinations and micro parts. The products are used primarily in interiors and engine compartments of motor vehicles. But components are also being produced for the watchmaking, solar and furniture industries, as well as for the energy sector and optical transmission systems. The majority of the company's customers are based in the Saxony region.

Werkzeugbau Winkelmühle scores among its customers above all with the highquality standard of its products, its flexibility and reliability as well as the know-how from its many years of experience. The majority of its injection molded products are highly complex, sophisticated parts, which are required to meet high standards of precision and load capacity. Especially in the automotive sector, the components are often exposed to extreme environmental conditions.

In its injection molding department, Werkzeugbau Winkelmühle is currently operating 24 machines, more than half of which have come from WITTMANN BATTENFELD, including two micro injection molding machines and four vertical machines.

The most recently acquired machine is a vertical model in a multi-component version from the new VPower series. This machine, a VPower 120/130H/210V, is the first 2-



component VPower installed in Saxony. This VPower sets itself apart from previous models mainly by its innovative 2-tie-bar rotary table design which, by dispensing with the central tie-bar, provides optimal accessibility. Thanks to the center of rotation being designed without a tie-bar, there is sufficient space available below the rotary table for cooling water supply, hydraulics, compressed air and electrical equipment. The generously dimensioned rotary tables are combined with a 2-tie-bar portal clamping unit equipped with two external traveling cylinders for fast opening and closing. The rotary tables come with servo-electric drives for short rotation times and high-precision positioning. The "Uniforce" compensation plate system between the crossbars of the clamping unit and the mold platen area ensures even, gentle force transmission to the mold. Due to its open design, this machine is particularly well suited for the integration of automation systems with insert feeding and finished parts removal.

Since this company makes primarily smaller series and consequently a great diversity of products on the one machine, Eric Mende, Production Manager at Winkelmühle, seeks first and foremost a high level of flexibility in the system whenever purchasing new machines. Moreover, every machine must be easy to operate, with short cycle times and, above all, ensure a high level of repeatability. In view of the increased energy costs and the company's environmental standards, the energy efficiency of injection molding machines is another very important issue for Werkzeugbau Winkelmühle. Possibilities for integrating auxiliaries are also becoming more and more significant. Eric Mende comments: "The machines from WITTMANN BATTENFELD fulfil the criteria we require in every respect. What is more, they come with a compact design and are extremely energy-efficient."





Fig. 1: VPower 120/130H/210V in the new production hall of Werkzeugbau Winkelmühle GmbH



Fig. 2, from the left: Dirk Koch (Sales WITTMANN BATTENFELD); Werkzeugbau Winkelmühle GmbH: Hartmut Baumgart (Company Founder and Senior Advisor), Eric Mende (Production Manager), Tom Berthold (Managing Director), Annett Berthold (Head of Quality Management Department), Karl-Heinz Berthold (Company Founder and Senior Advisor), Karina Baumgart-Läderach (Marketing Manager)





Fig. 3, from the left: Eric Mende (Production Manager Werkzeugbau Winkelmühle), Dirk Koch (Sales WITTMANN BATTENFELD), Tom Berthold (Managing Director Werkzeugbau Winkelmühle)



Fig. 4: Variety of injection-molded parts from Werkzeugbau Winkelmühle (photo: Werkzeugbau Winkelmühle GmbH)





Fig. 5: 2-component assembly with inserts (photo: Werkzeugbau Winkelmühle GmbH)

The WITTMANN Group

The WITTMANN Group is a globally leading manufacturer of injection molding machines, robots and auxiliary equipment for processing a great variety of plasticizable materials – both plastic and non-plastic. The group of companies has its headquarters in Vienna, Austria and consists of two main divisions: WITTMANN BATTENFELD and WITTMANN. Following the principles of environmental protection, conservation of resources and circular economy, the WITTMANN Group engages in state-of-the-art process technology for maximum energy efficiency in injection molding, and in processing standard materials and materials with a high content of recyclates and renewable raw materials. The products of the WITTMANN Group are designed for horizontal and vertical integration into a Smart Factory and can be interlinked to form an intelligent production cell.

The companies of the group jointly operate ten production plants in six countries, and the additional sales companies at their 36 different locations are present in all major industrial markets around the world.



WITTMANN BATTENFELD pursues the continued strengthening of its market position as a manufacturer of injection molding machines and supplier of comprehensive modern machine technology in modular design. The product range of WITTMANN includes robots and automation systems, material handling systems, dryers, gravimetric and volumetric blenders, granulators, temperature controllers and chillers. The combination of the individual areas under the umbrella of the WITTMANN Group enables perfect integration – to the advantage of injection molding processors with an increasing demand for seamless interlocking of processing machines, automation and auxiliaries.

Contact:

WITTMANN BATTENFELD Deutschland GmbH

Werner-Battenfeld-Strasse 1 58540 Meinerzhagen, Germany

Tel.: +49 2354 72-0

empfang@wittmann-group.com www.wittmann-group.com

Werkzeugbau Winkelmühle GmbH

Gewerbegebiet Klingenberg Salzstrasse 1a 01774 Klingenberg, Germany Tel.: +49 35202 5890-0

info@werkzeugbau-winkelmuehle.de

www.werkzeugbau-winkelmühle.de