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PRESS RELEASE

WITTMANN BATTENFELD at the Compamed in Düsseldorf

Micro parts made of LIM and thermoplastic

At the Compamed, the international trade fair for medical suppliers and product developers held in Düsseldorf / Germany from 14 to 17 November 2022, WITTMANN BATTENFELD will demonstrate its expertise in liquid silicone processing in hall 8b, booth F03, by manufacturing a membrane made of thermoplastic and liquid silicone for a high-quality micro loudspeaker.

The membrane is manufactured on a MicroPower15/10H/10H Combimould with a single-cavity mold supplied by Starlim Spritzguss GmbH, Austria. The machine is a MicroPower in multi-component version. It is equipped with a 2-step screw-and-plunger thermoplastic aggregate and a 2-step screw-and-plunger LSR aggregate as well as a rotary table integrated in the machine. The rotary table takes care of turning the part towards the second injection unit and back. The machine is also laid out for clean-room injection molding. Its rotary table is completely encapsulated. All connections for heating aggregates, temperature sensors, water tempering, core pull pneumatics and sensors, as well as the blow-through valve, are installed close to the rotary disk. The resulting short connection lines to the mold enhance the machine's user friendliness.

The choice of a single-cavity mold serves to demonstrate the high precision of the mold in combination with the machine, which is specially designed for the production of micro parts. It is often necessary to build costly multi-cavity molds already at the prototyping stage for the sole purpose of reaching the necessary minimum throughput of the machine.

The LSR metering pump supplied by EMT Dosiertechnik, Germany, is a 1-liter cartridge system developed for extremely small metering volumes. Smooth, continuous emptying of the cartridges ensures highest precision together with consistent quality. Another advantage is the blending section reduced to a minimum, with the special benefit of rapid cleaning and minimal material loss with every material changeover.



Fig. 1: MicroPower 15/10H/10H Combimould with LSR metering pump



Fig. 2b: Membrane made of thermoplastic and liquid silicone for a high-quality micro loudspeaker, manufactured on a MicroPower 15/10H/10H Combimould

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 eight production plants in five countries, and the additional sales companies at their 34 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.

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