

October 2021, Kottlingbrunn/Austria

WITTMANN BATTENFELD at the Compamed in Düsseldorf

## **Liquid silicone injection molding of micro parts**

***At the Compamed, the international trade fair for the medical manufacturing supplier market and product development held in Düsseldorf from 15 to 18 November 2021, WITTMANN BATTENFELD will produce a micro support ring with a silicone membrane in hall 14, booth A 20 to demonstrate its expertise in the field of liquid silicone processing.***

Laying out injection molding machines for liquid silicone processing has a long tradition at WITTMANN BATTENFELD. This type of technology has been used for many years not only on conventional machines, but also on the *MicroPower*, a machine specially designed for micro parts injection molding.

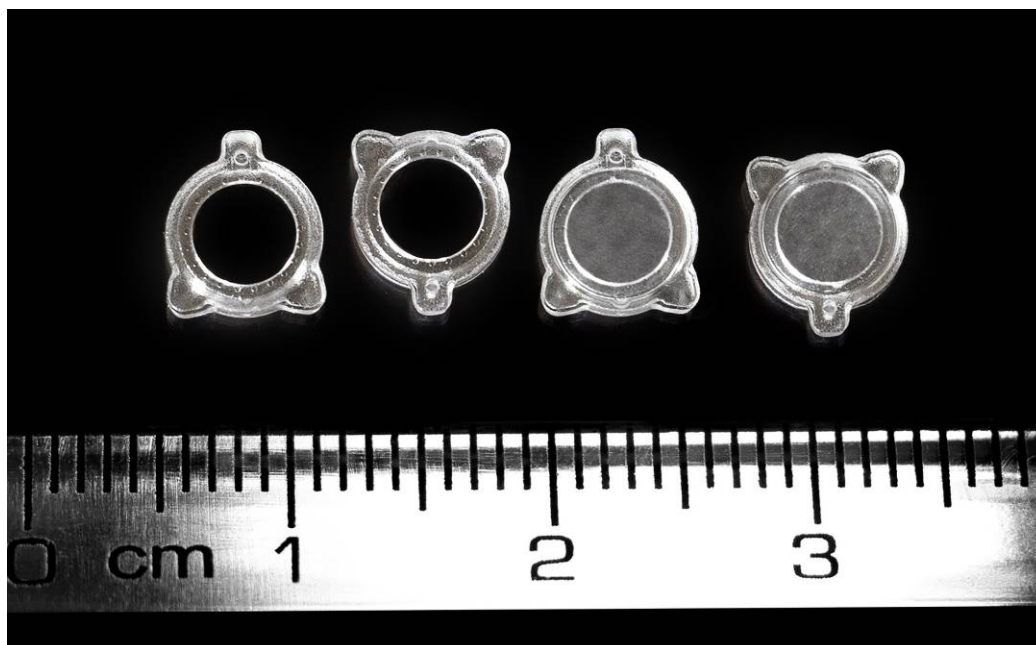
On this machine, thermally homogeneous melt is injected via a two-step screw-and-plunger injection unit, with shot volumes ranging from just a few mm<sup>3</sup> to 4 cm<sup>3</sup>. In this way, it has become possible to make top-quality parts in an absolutely stable production process and with short cycle times.

The multi-component version of the *MicroPower*, known as *MicroPower* COMBIMOULD, is equipped with two horizontally positioned injection aggregates and a rotary disk integrated in the machine. The rotary disk 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 disk 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.

At the Compamed, WITTMANN BATTENFELD will demonstrate its know-how in the field of LSR processing in micro part production by manufacturing a support ring with a silicone membrane from PC and LSR on a *MicroPower* 15/10H/10H COMBIMOULD. The materials to be used for this purpose are polycarbonate (Macrolon) from Covestro and a self-adhesive LSR (Silopren) supplied by Momentive. The mold has been constructed in co-operation with Nexus. The LSR metering device actually comes from Nexus and is equipped with a new Servomix liquid dosing unit for LSR with an OPC-UA interface (Euromap 82.3).



**Fig. 1:** MicroPower 15/10H/10H COMBIMOULD with liquid dosing unit for LSR



**Fig. 2:** Support ring with silicone membrane made of PC and LSR

## 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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