Variotherm technology BFMOLD®



Discover completely new possibilities for injection molding technology with the help of BFMOLD® variothermic mold tempering and benefit from the advantages of this innovative process for extremely efficient production of flat, high-gloss parts with geometries of up to 2.5 D.

High-gloss quality with BFMOLD®

With the help of BFMOLD® technology, cooling close to the contours with simultaneous high water flow rates has become possible. Only the parts of the mold immediately next to the cavity are heated, so that both heating and cooling can take place extremely fast and with a very low energy input.

BFMOLD® can be integrated into molds for a wide range of different parts, and it can also be limited to critical areas.

The advantages of BFMOLD®

- Dynamic temperature control.
- Higher productivity through a reduction in cycle times.
- Absence of sink marks and joint lines.
- Minimal distortion.
- Reduction in cooling time through faster heat transmission.
- Improvement in surface quality.
- High mechanical stability.

Thanks to the use of specially adapted WITTMANN temperature controllers, the variothermic process is regulated with perfect accuracy. Neither joint lines nor sink marks are visible, the parts mirror precisely the polished, high-gloss surfaces of the mold's cavity.

BF stands for "ball filled"

Instead of conventional tempering channels, the entire space below the cavity is utilized. A ball filling provides mechanical support and simultaneously generates a cavity structure that favors an evenly spread tempering system immediately below the mold surface.

The entire space below the cavity can be used for heating and/or cooling, while the ball filling allows an efficient through flow of water.







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All in one

For the varothermic VARIOMOULD process and for the BFMOLD® technology, WITTMANN has developed a high-performance heating/cooling aggregate, the TEMPRO plus D Vario 180. This appliance is a pressurized water tempering device with powerful pumps, direct heating and either indirect or direct cooling for flow temperatures of up to 180 °C.

To keep the hose volume as small as possible and thus ensure fast changeover from a hot to a cold medium, the valve switching unit can be mounted close to the mold.





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