

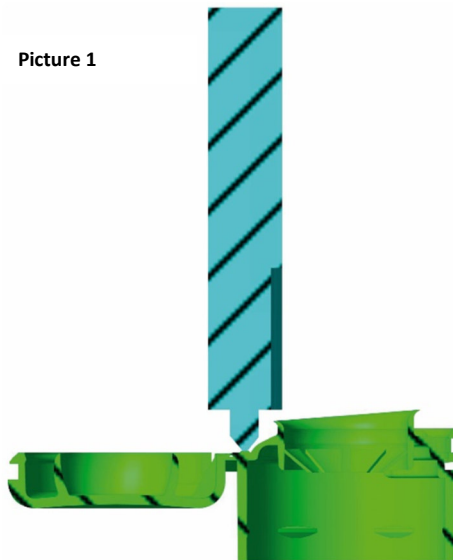
HEITEC Flat Line – Not only for narrow cavity spacing

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The flat nozzles made by HEITEC Heißkanaltechnik are typically used for very narrow cavity spacing, as the separately controlled nozzles can be used to act on each mould cavity.

In the current case, the customer was asking for a 6-drop mould for a folding cap with a tamper-proof band and spout for liquids with low viscosity.

Picture 1



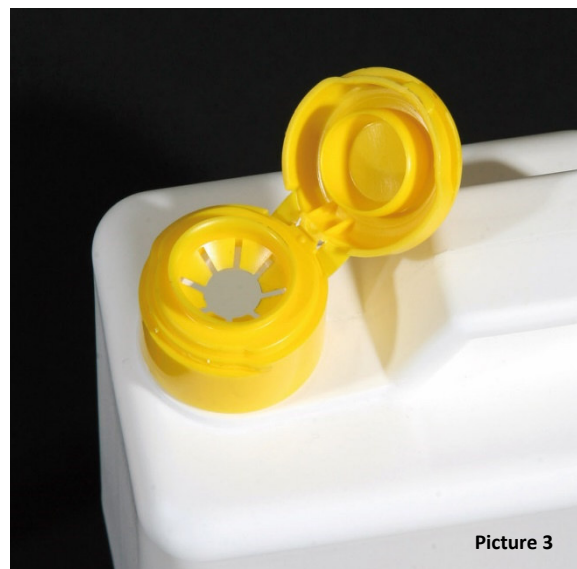
Picture 2



Erwin Großmann, the manufacturer based in Ebersdorf/Germany, wanted to be able to produce this article without any waste, by using hot runner direct injection. For the material, they chose a PP random.

Müller Formenbau, a mould maker from Ludwigsstadt-Lauenstein, was hired to create the mould design and manufacture the mould.

The top and bottom of the cap are connected with a flip-top living hinge. The automatic covering is performed right in the opened injection mould.



Picture 3

Detail view of the top and bottom of the cap connected with a flip-top living hinge. The automatic covering is performed right in the opened injection mould.

Because the two halves of the cap require individual mould cores close together, and because one slider each was

needed for the base and the lid, this left very little room for positioning a hot runner nozzle. A retraction for the undercut spout in the nozzle side made things even more difficult. The gate well area as well as the entire width of the nozzle is 6 mm, which leaves enough room for the necessary mould cores and their temperature control.

The small nozzle of the Flat Line series made it possible to place the gate at the optimal position. This made it possible to fully accommodate the rheology and create an optimal ventilation design. In addition, the extended nozzle tip was very valuable when realizing this project.

Since the nozzles need only very little energy, they hardly affect their surroundings. This made it possible not just to meet the desired cycle times, but to make them even shorter.

The extremely precise thermal profile makes it possible to achieve thread-free, very low vestige heights even when working with very difficult materials.

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Picture 4 + 5: cap in detail