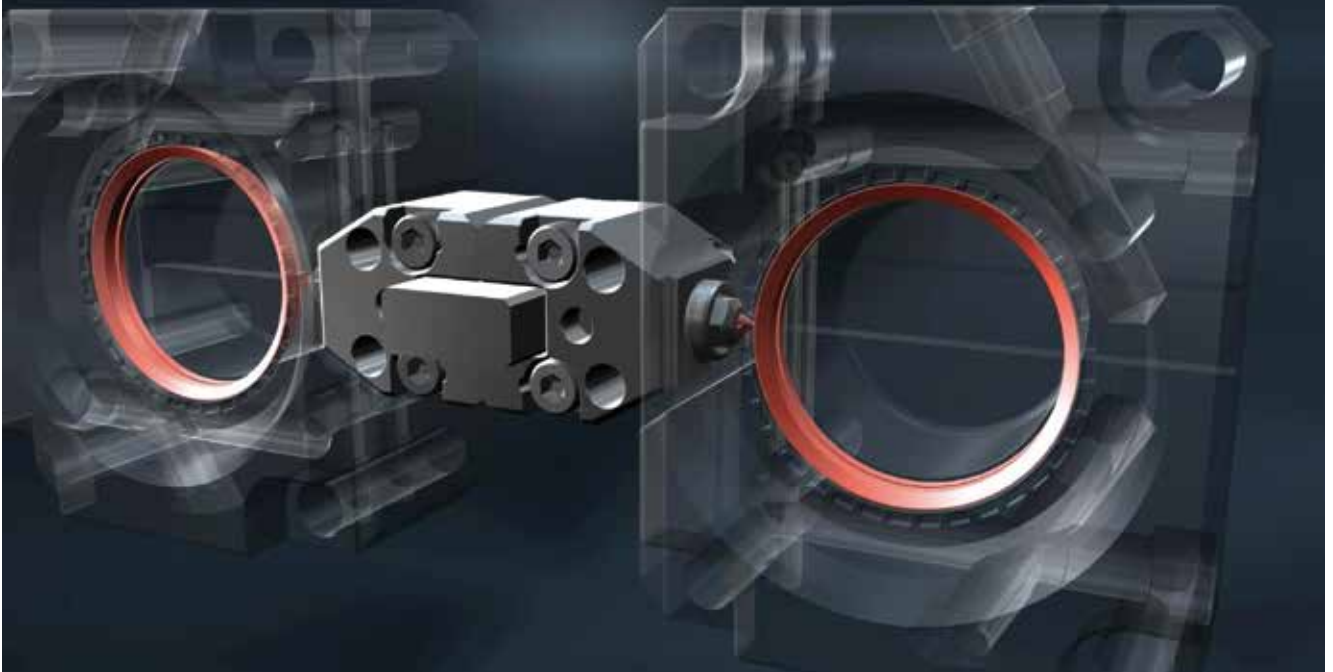


Prior to the body the TPE seal is injection molded as first component (© Foboha)



Lateral Injection in the Cube Mold

Männer Showcases New Multi-Component Production Options with Its Hot Runner System Using a Side Valve Gate Nozzle

Männer, the precision mold and hot runner specialist, demonstrates the capability of its Edgeline valve gate system for lateral injection in the production of medical screw caps using 2-component technology. The patented system could be viewed at the K 2016 in a 24+24-cavity 2-component cube mold of Foboha.

Männer and Foboha, a cube systems specialist in possession of Barnes Group like Männer since August, presented a highly productive cube mold for the production of medical 2-component screw caps at K2016. The screw cap is made of PP with an inner TPE seal. Unlike existing production methods using an index plate, Foboha developed a production solution using cube technology. Cube technology permits the

- mold filling, component 1,
- cooling,
- mold filling, component 2, and
- demolding,

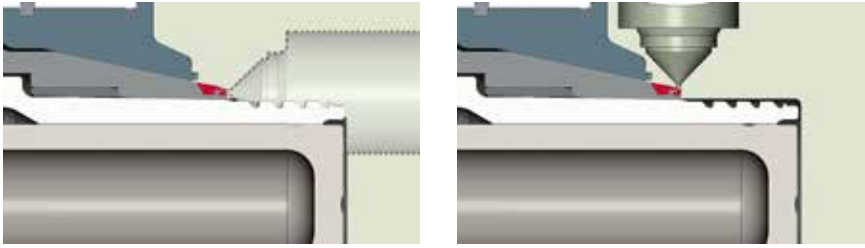
to occur simultaneously, significantly reducing the cycle time. Additional benefits of cube technology include a higher number of cavities within the same working surface and an improved energy footprint.

First the Seal, then the Cap

The screw caps are produced using a 24+24-cavity Foboha cube mold, which works with the Männer Single-Drop valve gate system and the Edgeline side valve gate system. While the lid is usually injection molded first and then the sealing



Side valve gate nozzle Edgeline with 2-component design. The layout of the nozzle enables a compact tool structure (© Männer)



The frontal injection position with a common hot runner system (left) is not practicable due to the collision with the cube-sided mold core. With the lateral injection via Edgeline nozzle (right) this problem can be circumvented (© Foboha)

ring, the use of the Edgeline system permits a different approach: in the first parting plane, the TPE seal is laterally injection molded by the Edgeline nozzle.

The nozzle body, complete with pneumatics, lies as usual in the direction

of the mold on this nozzle specially developed for side injection molding. However, the pins move at right angles to the opening and closing direction of the mold, instead of in the same direction. This enables the nozzle body to be positioned so that it does not collide with the cube-sided mold core. The actual lid injection is molded over the seal in the second parting plane only.

Advantages of the Cylindrical Valve Gates

The patented Männer Edgeline system enables the benefits of cylindrical valve gates to be used even with lateral injection – advantages include defined opening and closing of the valve pins, superior gate quality, material savings, and above all, excellent process reliability. It also enables innovative solutions, such as Fobohas cube technology, to be used. ■

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Service

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24+24-cavity cube mold of Foboha for the production of medical screw caps using 2-component technology (© Foboha)