

## Hotrunner solutions for applications in the medical industry



# Hotrunner systems for the medical industry- solutions for a growing market



The production of injection-moulded thermoplastic parts in the medical industry has to meet strict standards. Even in the most complex medical applications the use of modern hotrunner technology guarantees part quality with functionality, optical clarity and blemish free surfaces plus a production with increased output and the highest process safety.

## Requirements for applications in the medical industry:

- Multi-cavity moulds, close cavity spacing
- Small shot weights
- Thin-walled parts
- Highest part quality, no gate marks, no stringing
- High productivity, high process safety and repeatability
- Moulding under cleanroom conditions
- Side gating



## ■ Hotrunner expertise for medical applications

30 years of experience in the development and production of hotrunner systems make EWIKON a strong partner for your mould project. We offer reliable and practical hotrunner technology at the highest technical level.

**Our hotrunner solutions for the medical industry are tailored to meet the high demands of this industrial sector.**

**Included are standard systems for the economic large-scale production of medical disposables as well as compact multi-cavity valve gate systems for the moulding of high precision parts plus systems for direct side gating. All systems can be delivered as complete hot halves for fast installation and start-up.**

Our system solutions are designed in close co-operation with our customers according to their specific application requirements. On request we will support you with MoldFlow analyses and pressure drop calculations as well.

The latest manufacturing technology and a quality management system according to DIN EN ISO 9001 guarantees a consistently high product quality.

Beside supporting you during all stages of your mould project our worldwide sales and service network also guarantees a comprehensive after-sales-support with qualified application engineers.

## Services provided by EWIKON

■ **Project support** by our team for medical applications

■ **MoldFlow analyses** for optimised filling of parts considering melt flow profiles, flow lines, air entrapments and pressure requirement. Determination of gating points and calculation of system balance

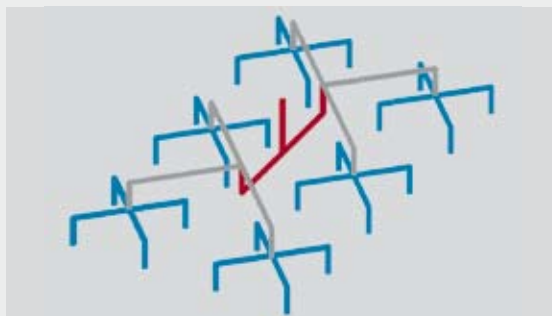
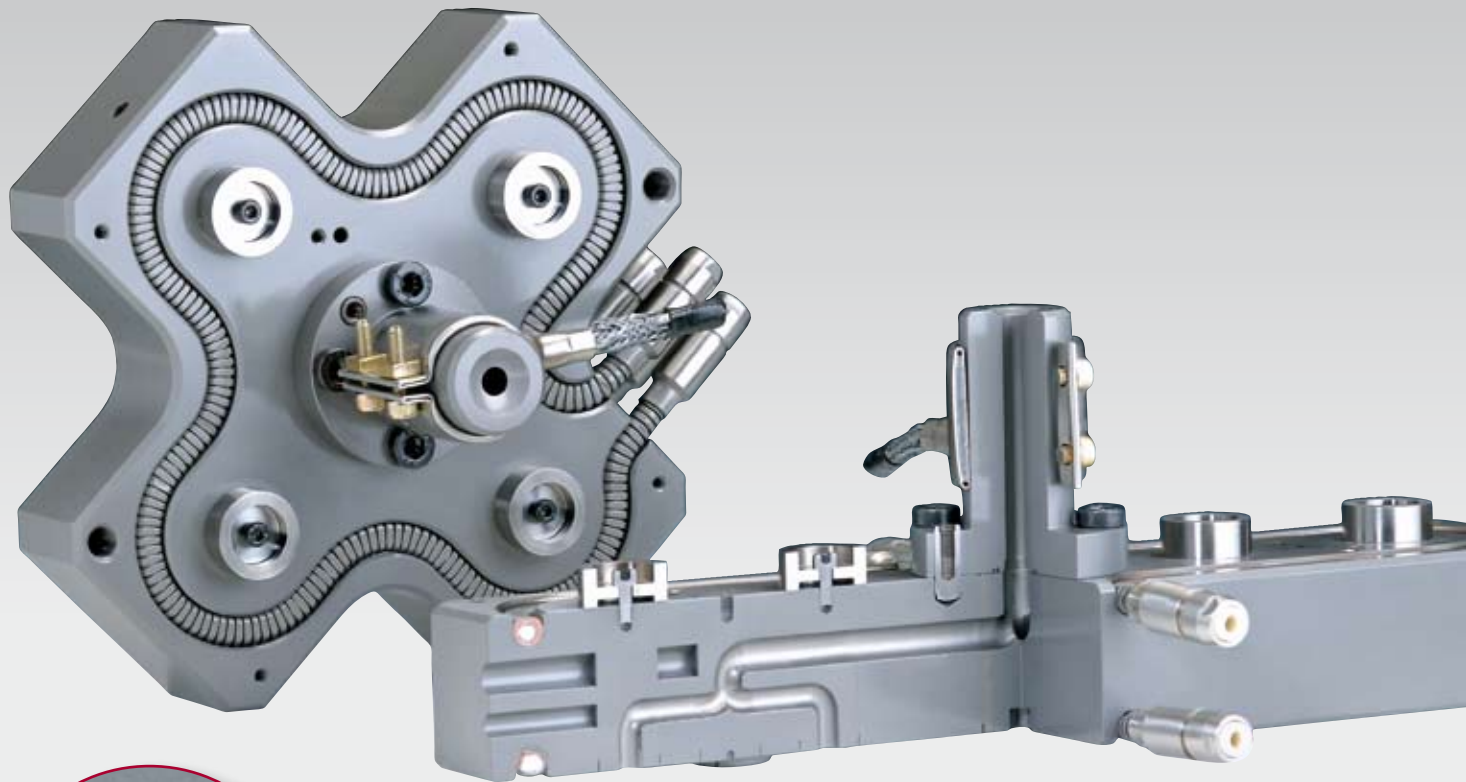
■ **Pressure drop calculations** For rheological design of EWIKON hotrunner systems

■ **2D/3D database available on CD-ROM and on the internet** with direct interfaces to most CAD Systems. Easy selection and configuration of components and complete assemblies





## Our product range for the medical industry



### Fully balanced manifold technology

- Full natural balancing even with the most demanding multi-cavity applications, compact manifold layout with flow channels on different levels
- Streamlined flow channels, minimized shear rate, no sharp corners
- Smooth melt flow for sensitive materials, ideally suitable for the processing of polycarbonate
- No dead spots within the manifold, short residence time for the melt, very quick colour changes

## Valve gate technology



- Highest gating point quality with zero gate marks, no warping, reduced cycle times, no stringing
- Different drive versions. One drive per valve pin or joint actuation with all valve pins fixed in one actuator plate for close cavity spacing, simultaneous opening of all gates, high repeatability, even filling of all cavities when moulding parts with small shot weights.
- Electrical drive unit with step motor technology, no potential contamination from lubricated compressed air, unlimited suitability for cleanroom applications



## Nozzles for close cavity spacing and multi-gating



- Close distances between cavities in compact multi-cavity moulds
- Internal gating or gating in hard-to-reach areas
- Multi-gating of small parts



## Side gating solutions



- Ideally suitable for gating of long, slim or tube-shaped parts like syringes, pipettes or sample bulbs or for side gating on visible surfaces
- Direct gating with tip or open gating
- Use in standard mould inserts
- Direct gating version with particularly easy maintenance, tip inserts are exchangeable from the parting line without the need to dismantle the mould
- Angled tips allow for unique gating point positions



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