

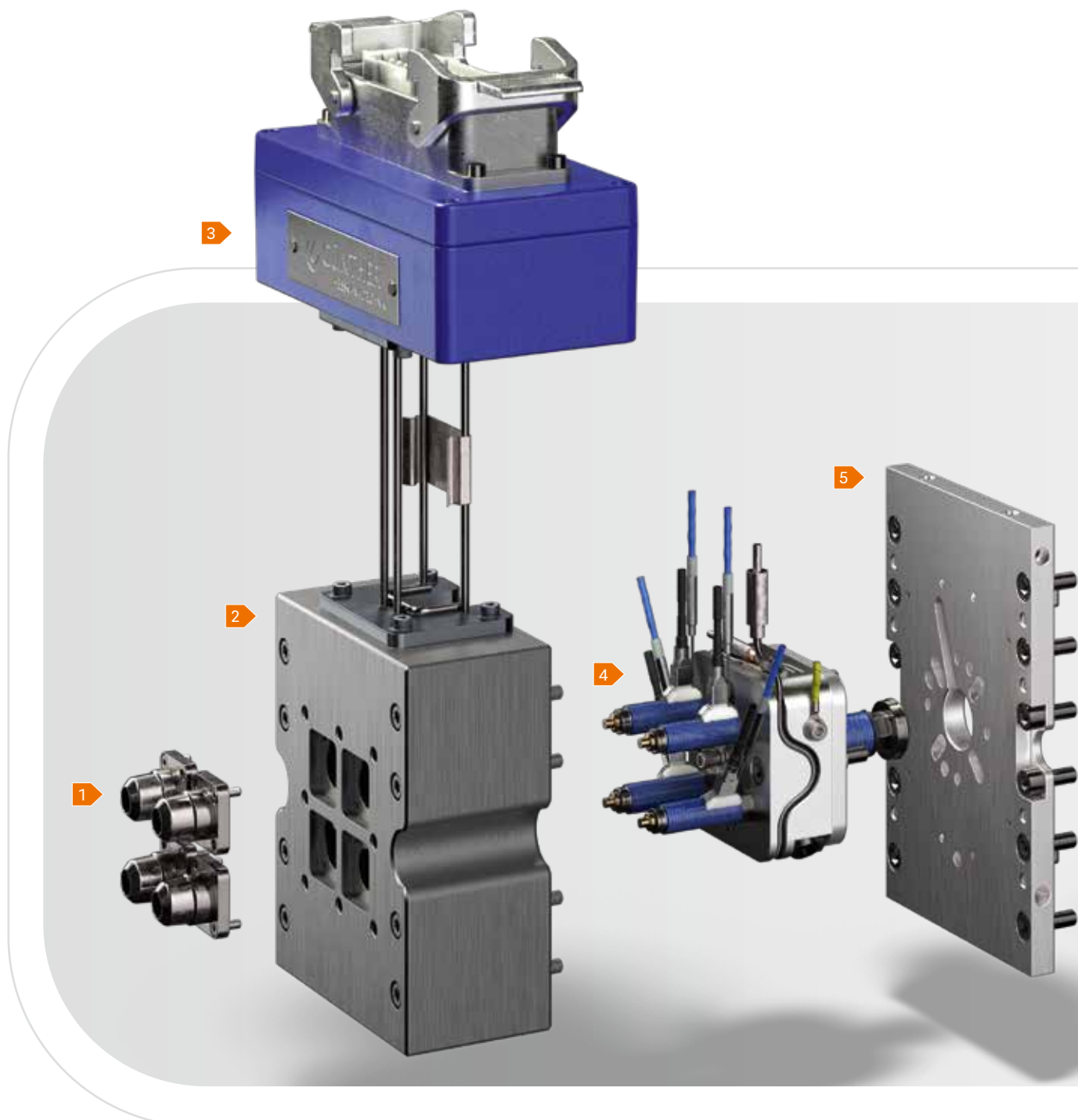


MICRO-VALVE GATE SYSTEM | MINIMAL DIMENSION.
MAXIMUM EFFICIENCY.



“It has long been an axiom of mine that the little things are infinitely the most important.”

Sir Arthur Conan Doyle





Efficient. Precise. Flexible.

We have redefined the future of micro-injection moulding with the innovative micro-valve gate system for small compact machines. An efficient valve gate hot runner technology is now possible thanks to a completely newly developed configuration.

The fully balanced manifold with the externally pressed-in heater guarantees an optimum heat exchange on the manifold block. This results in homogeneous temperature distribution which aids energy efficiency and ensures technically highly superior plastics.

Our thick-film heater can now also be used on smaller, more efficient injection moulding machines and delivers a more effective micro-valve gate process.



System structure

- 1 Nozzle shaft
- 2 Nozzle holding plate
- 3 Cable channel with box
- 4 4-cavity valve gate system
- 5 Holding plate for the mechanism
- 6 Drive & stroke mechanism
- 7 Machine clamping plate



So small. So good. So energy-saving.

The compact 4cavity hot runner system with BlueFlow® nozzles has a system build-up height of 81 mm. The complete installation height, including the valve gate system, is only 129 mm. The nozzle-pitch in the 4-cavity system is designed to vary between 25 and 30 mm.

Our time-proven PM needle guide is used at the injection point and its standardized gate point diameter is custom-designed for your application.



The valve gate nozzle with the effective BlueFlow® heater.

Our hot runner system

- Smallest dimensions
- High level of detail
- High dimensional stability and minimal tolerances
- Cost-effective tool investment thanks to system solution
- Low operating costs
- High throughput
- Up to four articles can be injected at the same time

An impressive appearance

Excellent injection point quality. A valve gate can optimize how effective the mould is by opening and closing the gate points extremely uniformly, particularly useful when small parts such as medical articles are being produced. Highly sensitive plastics can now be machined free of burrs and with no moulding residue thanks to the newly developed valve gate technology. The shut-off needles' defined opening behaviour ensures a stable injection moulding process.

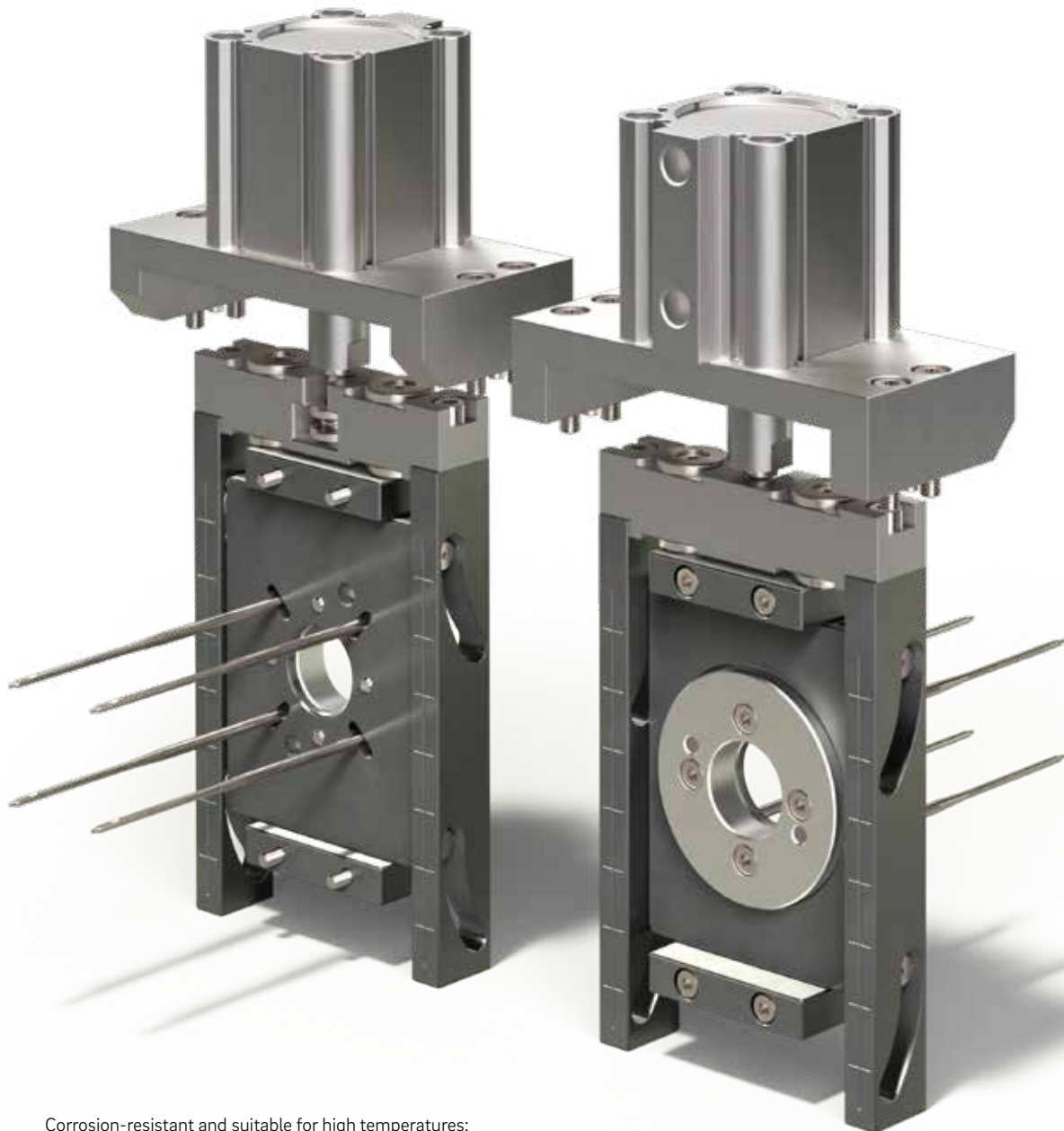




Innovative stroke mechanism technology

The valve gate system's innovative stroke mechanism technology makes this new GÜNTHER hot runner system perfect. Integrated into the clamping plate of an injection moulding machine, the stroke mechanism is moved by a drive unit. The curved groove embedded in the motion unit is designed to transmit the force effectively. This means maximum force can then be used when the needle dive into the cavity.

Made of corrosion-resistant steel, the compact stroke mechanism unit is also suitable for high tool temperatures.

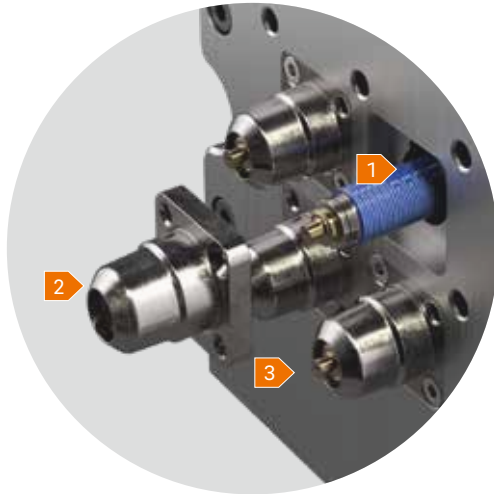


Corrosion-resistant and suitable for high temperatures:
The innovative stroke mechanism.



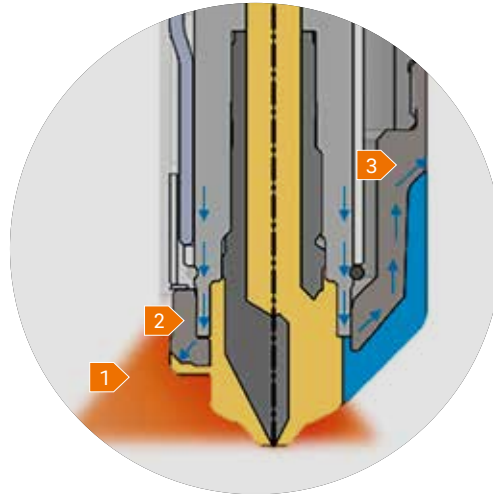
Increase your energy efficiency

You can achieve excellent insulation in the front nozzle section with the version featuring an optional titanium alloy nozzle shaft. This reduces heat loss between the nozzle and the cavity significantly. This achieves high cost efficiency and optimizes the process-reliable, energy-efficient injection moulding process.



Nozzle shaft

- 1 BlueFlow® thick-film heater
- 2 Nozzle shaft
- 3 Needle guide



Thermal separation

- 1 Heat conduction
- 2 Titanium ring
- 3 Titanium cap

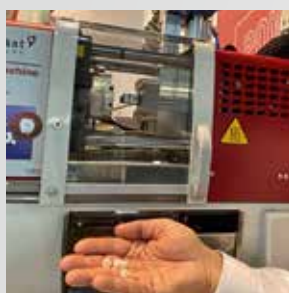
Our expertise. Your advantages.

- A wide variety of drive options, such as pneumatic and hydraulic systems
- Fast and safe needle movement
- Perfectly steady opening/closing of the needles due to sophisticated lifting mechanism.
- All materials are suitable for use at high temperatures
- Ease of maintenance – heavily used components are easily changed
- Minimal friction on moving components
- Optimum design of displacement/needle force transmission ratio
- Energy efficiency



“GÜNTHER has fulfilled one of my deepest wishes with the micro-valve gate system with its compact installation height.”

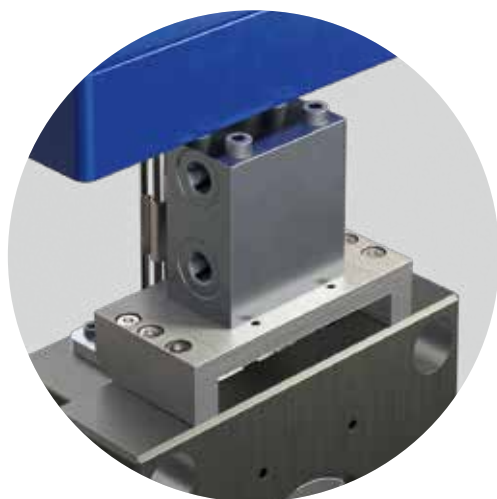
Marc Tesche, Managing Director, CHRISTMANN Kunststofftechnik



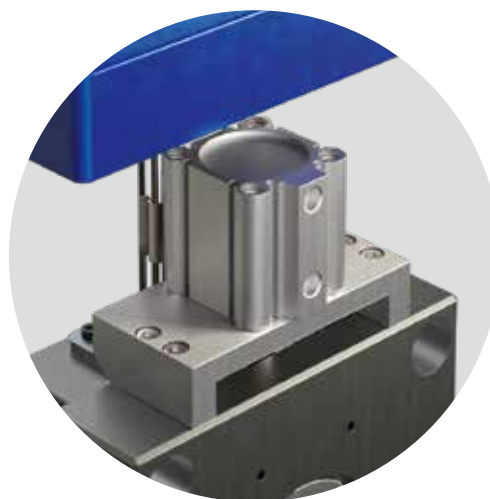
Tried and tested

The micro-valve gate system has already successfully proven its worth under real conditions. To produce a spindle turner (0.35 gr. article weight) made of high-performance thermoplastic, the 4cavity hot runner system with an optimized stroke mechanism was integrated into the machine clamping plate on a babyplast micro injection moulding machine.

Free choice of drive unit



Hydraulic shut-off
needle operation



Pneumatic shut-off
needle operation

Our service for you:

- Comprehensive consultation during design
- Support during project planning
- Custom-made system for your individual requirements
- Variable pitch design
- Standardized layout
- Shortest delivery time
- Energy-efficient



Benefit from the technical advantages of the micro-valve gate system:

T +49 6451 5008-0
info@guenther-heisskanal.de

GÜNTHER Heisskanaltechnik GmbH

Industriepark Nord | Sachsenberger Strasse 1 | 35066 Frankenberg (Eder), Germany

Tel. +49 6451 5008-0 | Fax. +49 6451 5008-50

info@guenther-heisskanal.de | www.guenther-hotrunner.com

 **GÜNTHER**[®]
HOT RUNNER TECHNOLOGY