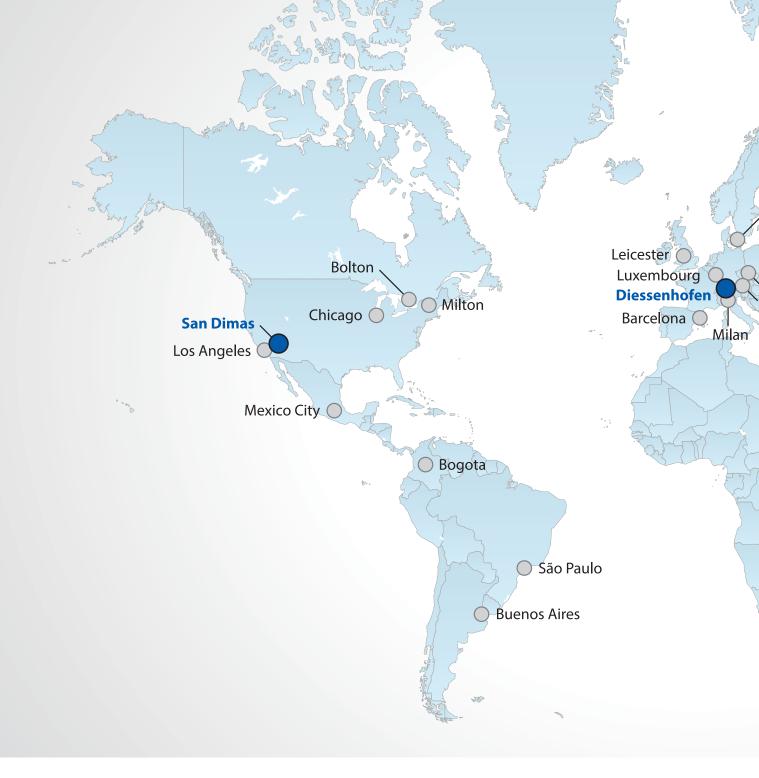
### HIGHER QUALITY. FASTER MOULDS.





Established in 1952, SCHÖTTLI has evolved from pioneer of the injection moulding industry to global player and specialist for developing and manufacturing moulds and complete solutions for medical and packaging parts. Thanks to a network of development, engineering and service facilities in Switzerland and the US, we can supply customers with high-tech solutions for the MED, CAP and PAC segments.

Since 2013, SCHÖTTLI has been part of the HUSKY group. With 10 production plants and 40 service locations HUSKY offers the world's most comprehensive organization in the injection molding market - also in your neighborhood.



#### We aim to generate benefits that help our customers stay ahead of the competition.

To this end, we apply the ideas and experience of our teams and operate a network of facilities. We want you to benefit: from optimum quality and precision, superior technologies, short delivery times and high delivery reliability, all of which translates into a high cost-efficiency.

### HIGH-PRECISION MOULDS – MAXIMUM RELIABILITY

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We develop moulds for your medical and laboratory parts such as syringes, cuvettes, dialysis components, infusion / transfusion parts, pipette tips, blood test tubes or petri dishes with maximum precision and reliability. In addition to this, we support you with our expertise and experience at all stages of your product optimization process. As part of our product portfolio, we offer you high-performance injection moulds for the production of function- and weight-optimized medical and laboratory parts. With our strict focus on quality along our global value-added chain, we can offer you solutions with leading-edge reliability, efficiency and durability.

With development, engineering and service facilities in Europe, the US and Asia we can offer you the professional expertise of a global specialist for MED moulds. Thanks to many years of experience and know-how, we can assist you with your product optimization processes and develop moulds for the following areas of application:

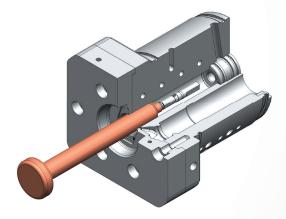
- >> injection systems
- >>> diagnostics & laboratory
- >> infusion & transfusion therapy
- > health & hospital care

### HIGH PERFORMANCE – MAXIMUM PRECISION

We develop mould concepts that set standards in terms of quality and output rate for the production of rotationally symmetric parts such as syringes or needle holders.

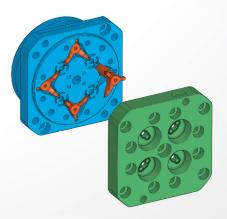
Side gating, which is based on our in-house hot runner technology, provides us with an innovative and compact mould concept. Lateral, symmetrical gating prevents core deformation, which improves the part quality concerning wall-thickness variations and warpage, reduces wear and maintenance cost and significantly increases the mould's service life.

With a well thought-out energy management concept – any energy input that is not used in the cavity has to be carried off again – our moulds combine minimum cycle times and maximum output rates with high reliability and process safety. In addition to this Schöttli MED moulds are distinguished by their impressively easy assembly, optimum accessibility and minimum maintenance requirements. Maximum reliability and maximum output rates for medical and laboratory parts improve your efficiency and quality.



#### Schöttli Quick Change System

A majority of mould components can be exchanged quickly – maintenance work can be carried out in the installed mould, which minimizes downtimes and increases the availability of your mould.



#### Schöttli Cluster Design

The lateral, symmetrical gating allows significant material savings with increased product quality.



# COMPLEX REQUIREMENTS – SAFE SOLUTIONS

Developing moulds for complex, multi-dimensional medical parts is a challenge. Our experienced team of engineers will find the optimum solution for your application in terms of dimensional stability, material specification, surface quality and functional requirements.



We also have solutions for multi-dimensional demoulding of cubic and rotationally symmetrical components with a variety of details.

Many years of experience in the development of moulds for complex medical parts allow us to build on tried-and-tested methods and intelligence when we approach new projects. The fact that we do not have to reinvent the wheel for every new project means that we can focus on optimizing, inventing, testing and implementing new solutions instead – which allows us to test the limits of possible solutions in order to keep you ahead of the competition.

### PERFECTION AND PRECISION MADE BY SCHÖTTLI

Engineering is at the heart of our SCHÖTTLI MED mould making facility. According to our philosophy of human driven technology, our engineering team applies their experience, expertise and enthusiasm to creating unique solutions. This is where innovative specialists with a pioneering spirit and ideas are working with state-of-theart tools for rheological, thermal and mechanical analysis and process simulation. This way we can improve our moulds' precision, efficiency and service life.

In order to apply our theoretical intelligence to practical processes, each mould is subjected to an extensive validation process. The moulds are only accepted and shipped if all sample specimens achieve the specified results and the optimum injection moulding process for these parts has been found.

This is why we can guarantee the reliable operation, efficiency and long service life of your SCHÖTTLI MED mould.



### EXACTLY WHAT YOU NEED

SCHÖTTLI supplies you with what you need. Over decades of experience we have created a value-added chain with perfectly customized service modules. All SCHÖTTLI high-performance moulds are designed to meet one objective: the sustainable reduction of production costs through reliability, durability and high output rates.

The SCHÖTTLI value-added chain shows which service modules are available from the SCHÖTTLI family, and how we can assist you in detail.



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#### LIFECYCLE SERVICE, SPARE PARTS, MOULD REVISION

- Solobal one-to-one after-sales service and support
- Fast spare part delivery thanks to local production
- Exchangeable cavities, easy handling, long mould service life
- Support during start-ups, customer training, training and process optimization

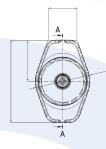


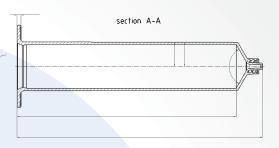
#### MOULD ACCEPTANCE AND PROCESS CAPABILITY

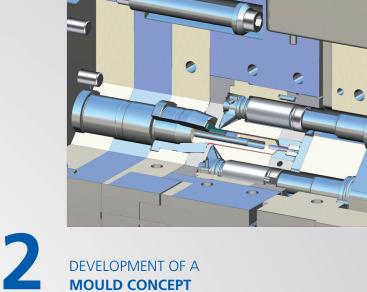
- All SCHÖTTLI moulds are subjected to acceptance tests at our own technical centre (CH, US) with 10 injection moulding machines with clamping forces ranging from 80 t to 580 t
- Sustomer injection moulding machines can be installed for joint acceptance / validation of IMM and mould
- Wide range of customer training options and mould training seminars

#### SUPPORT FOR **PRODUCT DEVELOPMENT, PRODUCT OPTIMIZATION**

- » Weight optimization, light-weight engineering
- » Prevention of material problems
- » Optimization of the gating point







#### **DEVELOPMENT OF A MOULD CONCEPT**

- » Thermal and rheological analyses
- » Simulation and optimization of the cooling concept
- » Optimum hot runner analysis and configuration



#### FAST **MOULD PROTOTYPING**

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- » Fast production of part specimens which are ready for production
- » Test and optimization of the mould concept
- » Availability of different standard moulds from the SCHÖTTLI Group, which only require the production of cavity inserts



#### STATE-OF-THE-ART **PRODUCTION MOULD ENGINEERING**

- » Maximum precision with tolerances of up to 0.005 mm
- » Deployment of state-of-the-art high-tech machining technology with a high automation level: e.g. 5-axis simultaneous hard milling, 5-axis laser treatment, profile grinding
- » Extensive documentation of individual processing steps for easy reproduction of replacement cavities, even after many years

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### STATE-OF-THE-ART MOULD ENGINEERING – GLOBAL SERVICE .

The moulds for your optimum medical and laboratory parts are manufactured at our international facilities in a highly efficient and seamlessly documented workflow. This means that all our procedures are defined by end-to-end quality management, state-of-the-art machinery and a team of experienced professionals with excellent qualifications, many years of mould engineering experience and a staunch commitment to our corporate philosophy of human driven technology.

#### In addition to our development and engineering expertise, we also offer a comprehensive, international lifetime service package – even for moulds from external suppliers.

With our international network of development, engineering and service sites in Switzerland, the US and China and numerous international distribution and service representations, we can offer you one-on-one support all over the world. For the entire lifecycle of your SCHÖTTLI MED mould, we guarantee spare parts supply, repair your mould components, equip your mould for new product variations or subject it to a complete overhaul for another lifecycle.





### SCHÖTTLI A HUSKY Company



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