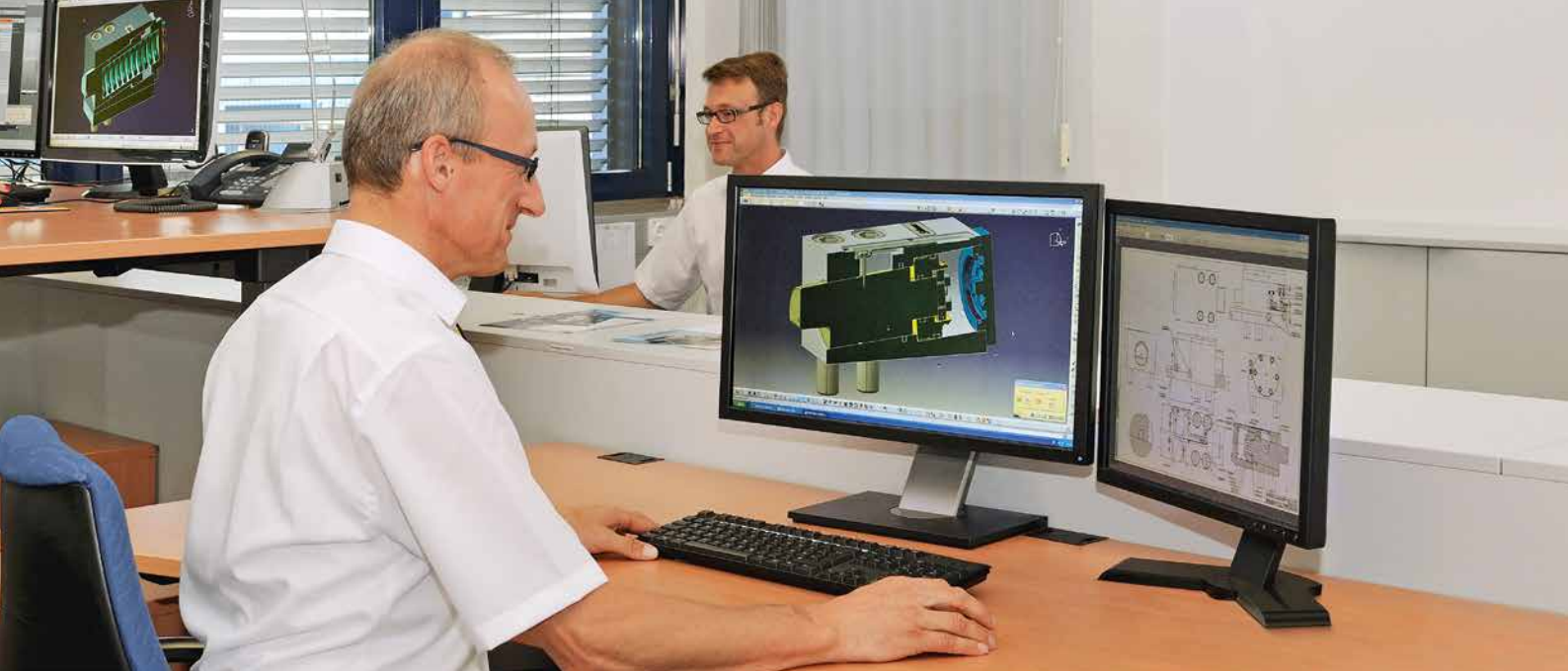


Hydraulic quick mould clamping systems  
QMC 100 and QMC 101

Plastics industry





## Flexible processes and optimal production times in the plastics industry

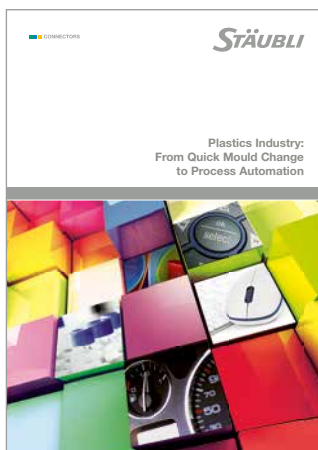
Stäubli has been your partner for system solutions in the plastics industry for more than 50 years. We manufacture fluid and energy connectors, ensure that tools can be changed quickly and develop tailor-made solutions to automate processes. Stäubli high-performance robots also ensure the highest productivity when handling parts and reworking.

Extensive research and development establishes the basis for the efficiency, capability and process reliability of our products. Our innovative solutions to minimize setup times and to automate production are recognized worldwide, and with support

centres on every continent, we can provide you with expertise at your location.

Stäubli quick tool change systems make your production process more flexible and ensure optimum production times. Our systems can also optimize productivity on existing equipment.

See our capabilities for yourself and use our know-how for your specific applications.



Visit our website  
[www.quick-mould-change.com](http://www.quick-mould-change.com)  
and request our overview brochure detailing our solutions for the plastics industry.



## Tool clamping – a matter of seconds

Tool changing times are a major cost factor. Stäubli quick mould clamping systems enable you to improve productivity, increase flexibility and minimize response times.

Stäubli offers you a complete range from automatic hydraulic or magnetic clamping systems to mechanical quick clamping systems. In accordance with requirements, we will provide you with the optimum solution, always with Stäubli's globally acknowledged quality and safety.

### **Hydraulic quick mould clamping systems with seamless integration**

Stäubli's hydraulic quick clamping systems enable seamless integration with the machine control. Intelligent sensor technology enables you to automatically change tools within minutes.

For all operational scenarios, Stäubli also offers the implementation of tool feed and integration with the machine control.

### **Versatility**

Whether horizontal or vertical tool feed: Stäubli's quick clamping systems are suitable for all injection moulding machines as well as presses used in other industry sectors.

### **Compact, robust, flexible**

The systems are very compact and robust. Sensitive components, such as proximity switches, are easily accessible. The hydraulic power supply can be connected on either side, facilitating integration with existing systems.

### **For new and existing machines**

Irrespective of whether they are new or existing machines, Stäubli's quick clamping systems can easily be integrated: These systems use EUROMAP drill patterns of the standard machine clamping plate.

No special equipment is required, not even for tool base plates. Clamping edge tolerances of up to 0.3 mm can be accommodated. The use of spacer plates enables the clamping height to be adjusted.

### **Safe mounting**

In the course of designing the hydraulic quick mould clamping system, a self-locking system was developed that prevents the tool's accidental release. This guarantees permanent fixing of the tool.



## QMC 100

### Single acting hydraulic quick mould clamping system

#### Field of application

For vertical and horizontal injection moulding machines as well as other presses.

#### Tool feed

The vertical tool feed can be performed conventionally by crane. Machines with horizontal tool feed are available from Stäubli for any application, with a specifically designed solution every time.

During transport into the machine, the tools are carried on special rollers. Proximity switches control this process to a hundredth of a millimeter.

#### Operating principle

Stäubli's QMC 100 quick mould clamping system clamps the tools safely onto the machine clamping plate, using spring force for self locking. The integrated spring mechanism is retracted hydraulically, to remove the tools.

#### Simple assembly

Stäubli's QMC 100 quick mould clamping system elements have been adapted to European guidelines 2/3 and 11. They can be mounted on any standard machine clamping plate, using this drilling pattern. Special dimensions are available when required.

Optional connections on both sides are available for the hydraulic energy supply. Only one hydraulic connection is required for each clamping element.

#### Optimal integration

On the machine side, the system can be fully integrated with the machine control. An external hydraulic unit is available as an option.

Standardized base plates are required on the tool side. Hardened inserts, tapers or other forms of adjustment of the existing base plates are not required. Stäubli's QMC 100 quick-clamping systems also compensate for a tool base plate tolerance of up to 0.3 mm.

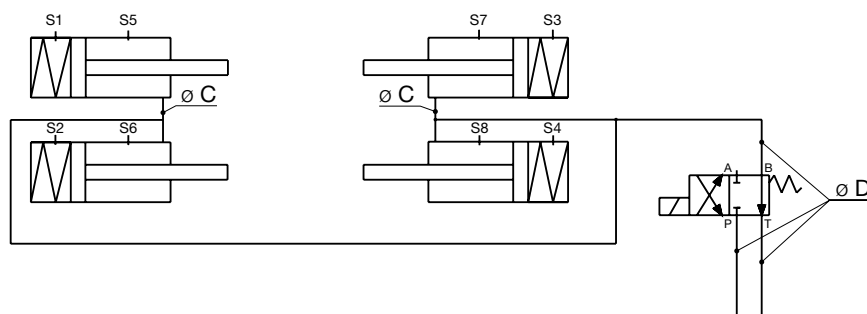


### Technical data

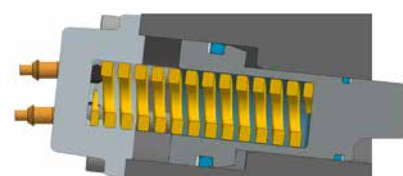
Designation	Holding force (kN)	Release pressure (bar)	Connection thread	Maximum operating temperature (°C)*	Lines with minimum nominal width in mm	
					ø C	ø D
<b>QMC 100.025</b>	25	160	G 1/8 inside	80	4	8
<b>QMC 100.050</b>	50	160	G 1/4 inside	80	6	10
<b>QMC 100.080</b>	80	160	G 1/4 inside	80	6	10
<b>QMC 100.120</b>	120	160	G 1/4 inside	80	6	10
<b>QMC 100.200</b>	200	160	G 1/4 inside	80	6	10
<b>QMC 100.300</b>	300	160	G 1/4 inside	80	6	10

\* higher temperatures on request

### Hydraulic circuit diagram



### Sectional view





## QMC 101

### Double-acting hydraulic quick mould clamping system

#### Field of application

For vertical and horizontal injection moulding machines as well as other presses.

#### Tool feed

Vertical mould tool feed can be performed conventionally by overhead crane. Horizontally fed moulding machine solutions are available from Stäubli with systems specifically designed for each application.

Special rollers carry the mould tools into the machine, proximity switches control the process to a hundredth of a millimeter.

#### Operating principle

Stäubli's QMC 101 double-acting quick mould clamping system clamps mould tools safely onto the machine clamping plate. The double action design provides hydraulic clamping and unclamping, initially the clamping pistons are extended towards the tool baseplate.

A hardened steel component, integrated with the clamping unit, transfers the clamping force vertically onto the tool baseplate. This prevents the tool baseplate from moving during the clamping operation.

#### Simple assembly

Stäubli's QMC 101 double-acting quick mould clamping system conforms precisely to European guidelines 2/3 and 11. The design permits mounting on any standard machine clamping plate, using this drilling pattern. Special dimensions are available when required.

Hydraulic connections are available as an option on both sides of the unit.

#### Optimal integration

On the tool side, standardized baseplates are required; no hardened inserts, tapers or other forms of adjustment of the existing baseplates are needed.

Stäubli's QMC 101 double-acting quick clamping systems can operate with a tool baseplate tolerance of up to  $\pm 0.1$  mm.

The system can be fully integrated on the machine side with the machine's control system. An external hydraulic unit is available as an option.

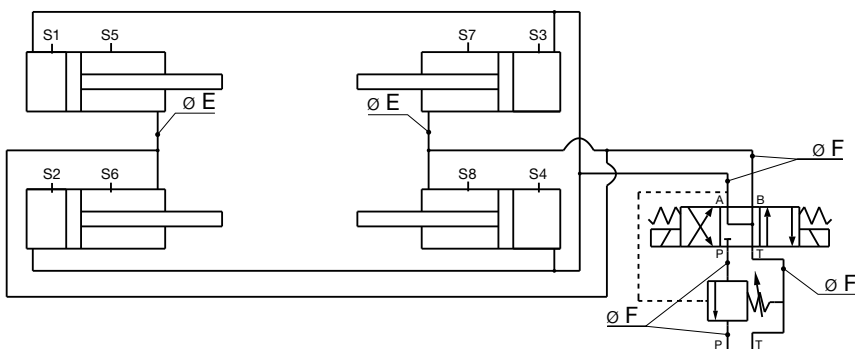


### Technical data

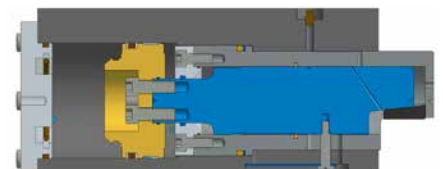
Designation	Holding force (kN)	Tension pressure <sup>1</sup> (bar)	Release pressure (bar)	Connection thread	Maximum operating temperature <sup>2</sup> (°C)	Lines with minimum nominal width in mm	
						ø E	ø F
<b>QMC 101.025</b>	25	80	160	G 1/8	80	4	6
<b>QMC 101.050</b>	50	80	160	G 1/8	80	4	6
<b>QMC 101.080</b>	80	80	160	G 1/8	80	4	6
<b>QMC 101.120</b>	120	80	160	G 1/4	80	6	9
<b>QMC 101.200</b>	200	80	160	G 1/4	80	6	9
<b>QMC 101.350</b>	350	80	160	G 3/8	80	6	9
<b>QMC 101.450</b>	450	80	160	G 3/8	80	6	9

<sup>1</sup> Without permanent pending pressure, <sup>2</sup> higher temperatures on request

### Hydraulic circuit diagram



### Sectional view



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