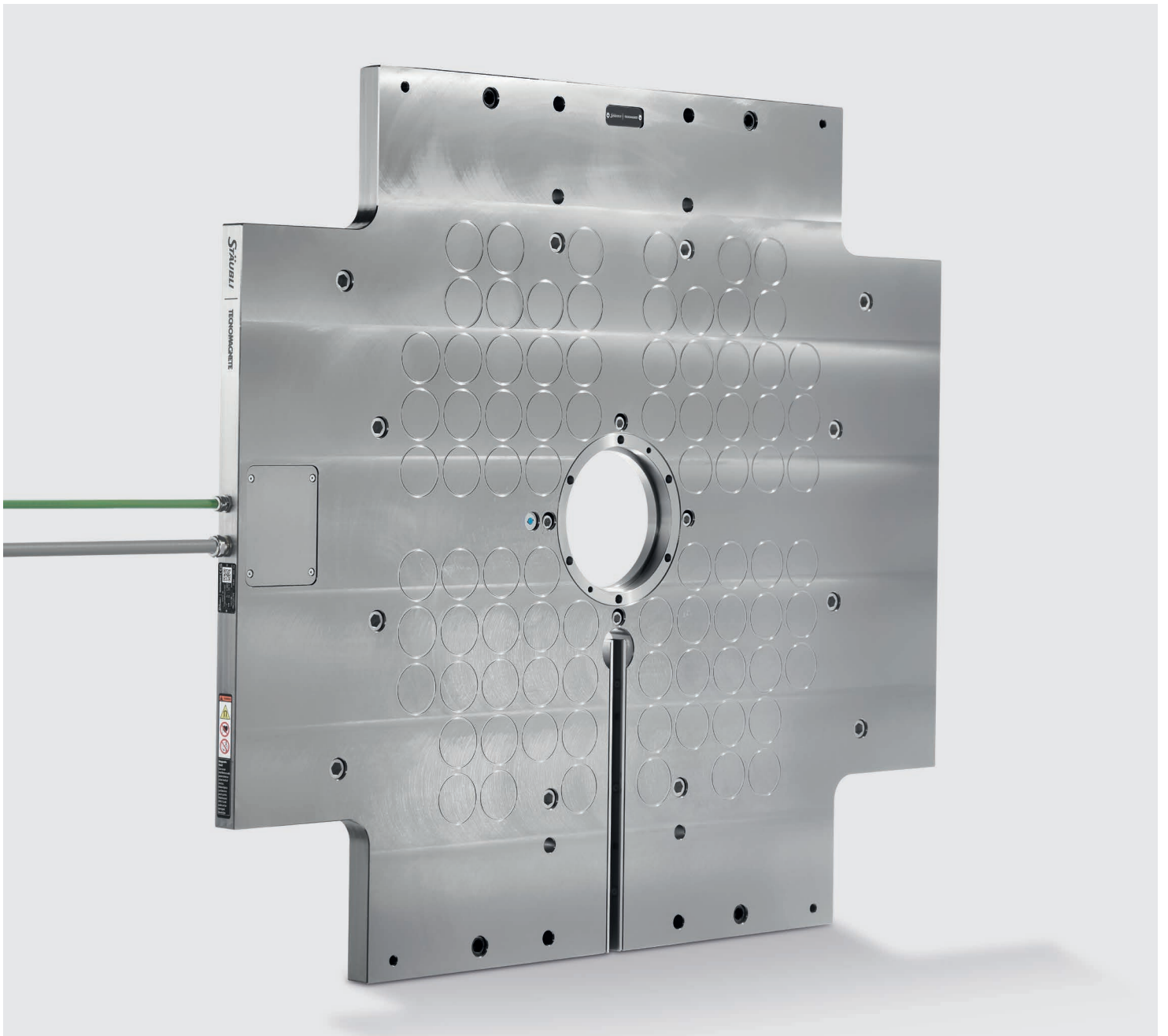
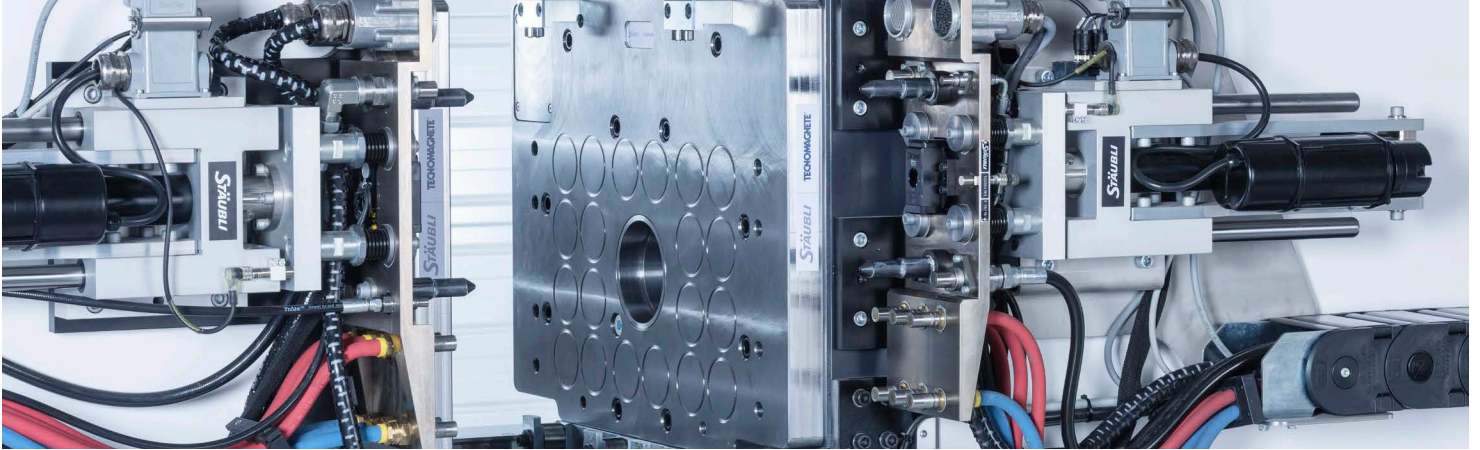


Magnetic clamping

QMC 123 range | Plastics Industry



A perfect match



Strategic partnership

Thanks to the strategic partnership between Mag-Autoblok Tecnomagnete and Stäubli, QMC123 magnetic clamping is the perfect combination of the technological know-how and expertise of the two companies



Delivering superior Quick Mold Change solutions

QMC 123 combines the technologies of Stäubli's advanced control and safety systems with the compact and robust design of magnetic plates from Mag-Autoblok Tecnomagnete - along with several new hardware and software upgrades. The result is an unmatched combination of performance, safety, ease-of-use, and reliability, ensuring QMC123 is the best choice for plastic molders around the world.

Applications

- Designed to reduce the time required for clamping molds on injection molding machines and other plastics processing equipment (50t to +4000t), while improving safety and ergonomics for machine operators



Optimized performance



Exceptional Reliability



Outstanding safety

It's all about productivity and safety



Integration

Versatile and simple implementation

- tailored to fit any kind of machine, new or existing
- does not require modifications to molds
- follows Euromap/SIP/JIS standards
- systems operate through the machine's HMI or optional hand pendant.



Operation

High performance

- Optimal and consistent force performance thanks to high-grade raw materials, and precise machining.
- No mechanical wear, with modern electronics to ensure efficient power-use and fast operation.
- Full in-house control, from the development of our controller to the industrialization of the magnetic plates, ensure our magnetic clamping systems are 100% quality assured.
- No plate deformation thanks to uniform design and Finite Element analysis ensuring constant clamping force.



Productivity

Exceptional Robustness

- The solid steel surface is integral with the full thickness of the plate (no resin, no brass insert, no cover-plate) for maximum robustness without any loss of magnetic flux performance.
- Reinforced insulation of electrical components ensure the system is reliable even under the most demanding conditions
- IP65 certified

Customized to customer needs

- sized to provide optimal clamping force
- custom machining for specific mounting points, unique platens or centering rings, and various mechanical features for quick mold loading and accurate mold alignment.

Outstanding safety

- **Industry-leading measurement and monitoring of magnetic flux.** Together with Stäubli's **advanced safety software**, this allows for:
 - accurate force measurement and display (Premium)
 - comparison of magnetic forces to machine and gravitational forces (Premium)
 - highly sensitive **mold movement anticipation** (Premium and Essential)
- Temperature monitoring and overheating prevention

Maximum Profitability

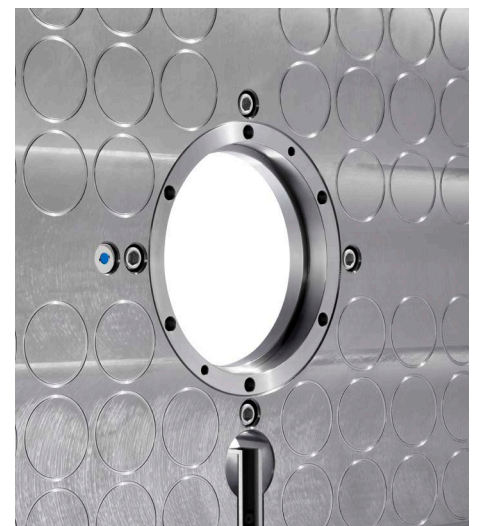
- QMC123 optimizes injection molding operations with an impressive return on investment, bringing:
 - reduced machine downtime during mold changeovers
 - increased flexibility for lean production.
 - extend mold lifetimes with uniform clamping force
 - Reduced workload for your team
 - Low energy consumption

Support at every step of the way

- our global team is close by to help: from design, with our application specialists, through to implementation, with our expert Service technicians.

Ease-of-use features

- Clamp and unclamp molds at the touch of a button: Intuitive, full capacitive **touch-screen** with guided mold change prompts, or simple **push-button** operation.



Product overview

System components

2 magnetic clamping plates



Controller



Cables & connectors








Two lines made to fit distinct needs

Essential

- a streamlined solution for injection molders with repetitive operations.
- safety level appropriate for use with molds of similar dimensions and weights. Reference modules must be covered.
- simple operation with ON/OFF push buttons.

Premium

- the highest safety level on the market, for full control and understanding of the mold clamping process.
- able to manage molds with a variety of dimensions and weights. Safety thresholds can be precisely calculated with mold surface analysis.
- ergonomic & intuitive operation with a full touchscreen hand pendant.

ESSENTIAL		PREMIUM
★★★★	 OEM integration & installation	★★★★
★★★★	 Reliability	★★★★
★★★	 Safety with standardized molds	★★★★
★	 Safety with any kind of mold	★★★★
★★	 Options available	★★★★

Essential

MOLD ACCEPTANCE CHECKS

- Precise flux measurement on reference modules. The mold needs to cover the reference modules.

MOLD MOVEMENT ANTICIPATION

- Precise flux measurement on reference modules. The mold needs to cover the reference modules.

HUMAN MACHINE INTERFACES

Control via the injection molding machine

- Interface partly integrated into machine HMI



Non-contractual visual

OR

Control via standard interface with Stäubli's HPK push-button control (optional)

- on/off button
- safety key
- led indicators for:
 - clamping state
 - temperature warning
 - proximity state
 - general alarm



HPK button control

Premium

MOLD ACCEPTANCE CHECKS

- Precise flux measurement on all modules. Flexible for all mold shapes.
- Comparison of clamping force to machine and gravitational forces using safety thresholds.
- Display of magnetic clamping force allowing machine adjustments.

MOLD MOVEMENT ANTICIPATION

- Detection thanks to precise measurement coils on all modules. Flexible for all mold shapes.

HUMAN MACHINE INTERFACES

Control via the injection molding machine

- Interface fully integrated into machine HMI



Non-contractual visual

OR

Control via standard interface with Stäubli's HPD touch screen hand pendant (optional)

- 7 inch touch screen
- safety button
- advanced alarms and detailed information displayed



HPD touch screen

Premium Line advantages

Fully controlled clamping and unclamping operations

Thanks to the IMAG Technology, the touch screen hand pendant allows the operator to easily view and confirm that all safety checks have been completed before clamping or unclamping. These safety operations are simple to follow with guided mold change prompts:

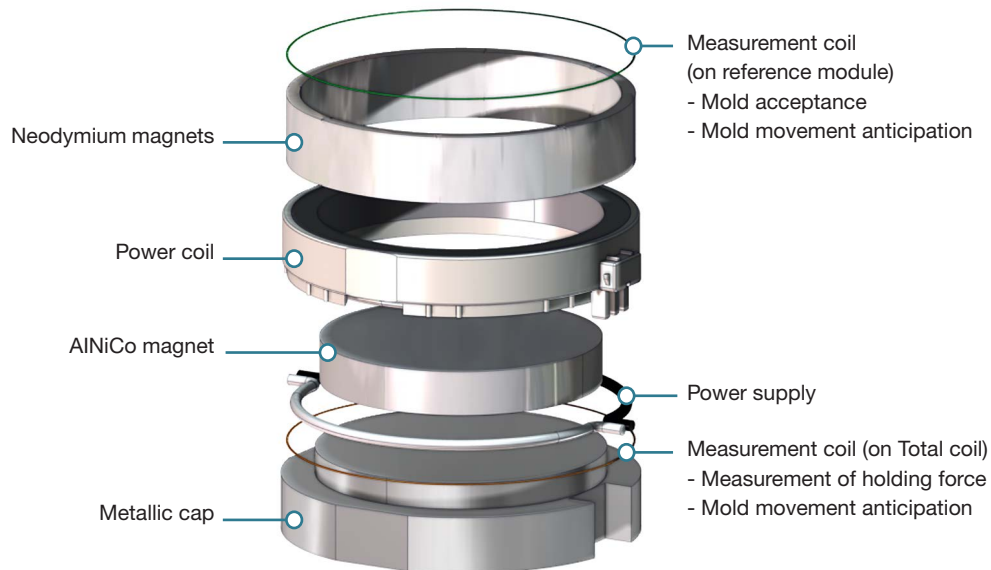
- "MCS Enable" signal is ON (press ready with machine door closed).
- "MCM" is selected (mold change mode).
- confirm mold safety straps are in place.
- confirm crane is attached

Various other functions

- 3 user levels with codes dependent on the authority level:
 - service mode (Stäubli technician): installation, setting parameters and maintenance
 - supervisor mode: access to data history and setting system parameters (date, language, PIN codes, machine forces)
 - operator mode: all the information necessary for mold changing operations
- unique PIN codes for each user
- user interface available in numerous languages

To ensure perfect coordination between the press and its clamping system, the IMAG integrates and displays signals from the machine according to Euromap and SPI AN-145 (mold change mode, MCS Enable).

Construction of a magnetic module



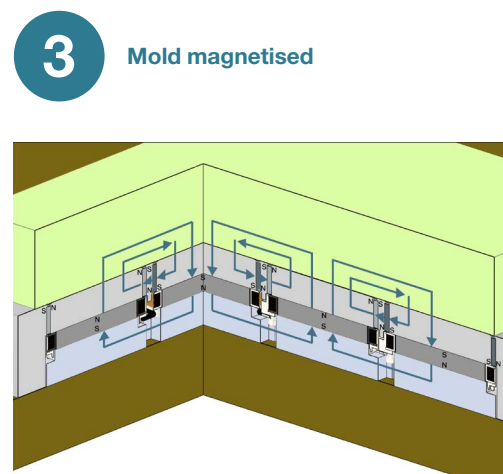
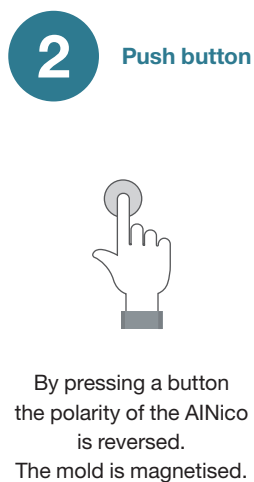
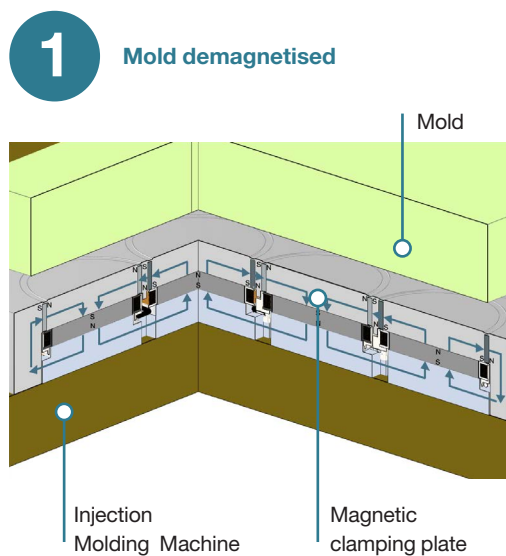
Pole size (mm)	Ø 67,8
Plate thickness (mm)	46
Maximum working temperature (°C)	120
Supply voltages (V) - others available on request	380 to 480
Frequency (Hz)	50 or 60
Machine clamping, force clamping of the machine (T)	50 to 4000
Ejection holes according to the specification	
Mounted on all of our systems, as standard	
- Temperature sensor on each plate	- Removable centering ring, on fixed side and (if necessary) on moving side
	- Fixing screws



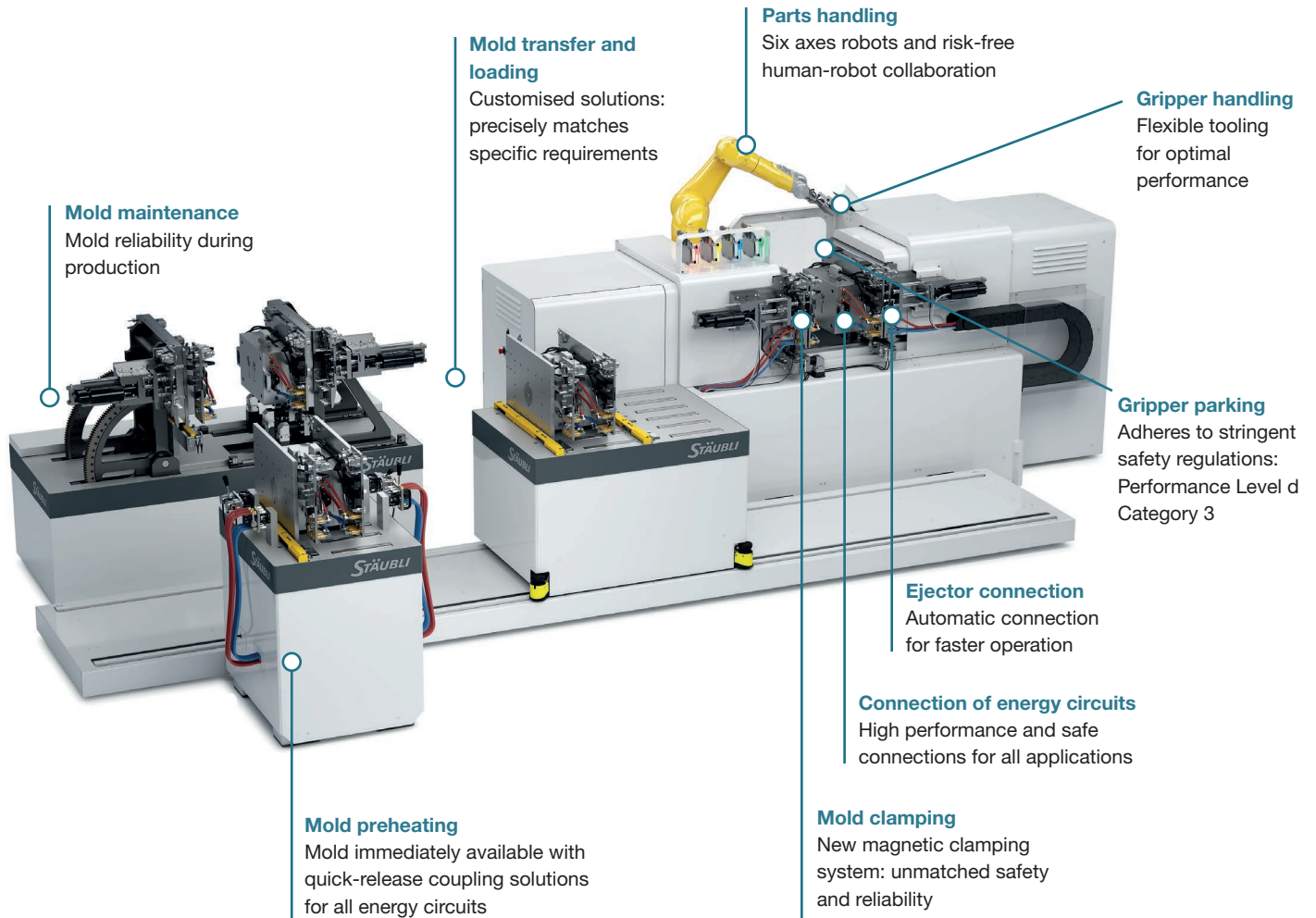
Knowledge and use of the most innovative electronic technology

Modern electrical components make the system reliable and efficient, for fast clamping and unclamping cycles, reduced power usage, and improved serviceability. Plug-and-play components are readily available.

For other operating conditions: please contact us.



Speed up your mold change process



SMED approach

Mold changing is a long process and can have an impact on your productivity. Stäubli offers a range of effective and reliable solutions to help you shorten the duration of many

operations: **energy connections, Mold clamping, Mold loading, Mold maintenance** as well as **automatic processes**. In order to maximize your profitability, the entire

Mold change process must be considered. Through our expertise and detailed analysis, Stäubli can offer you solutions to increase your efficiency and start the SMED process.



● Stäubli Units ○ Representatives/Agents

Global presence of the Stäubli Group

www.staubli.com