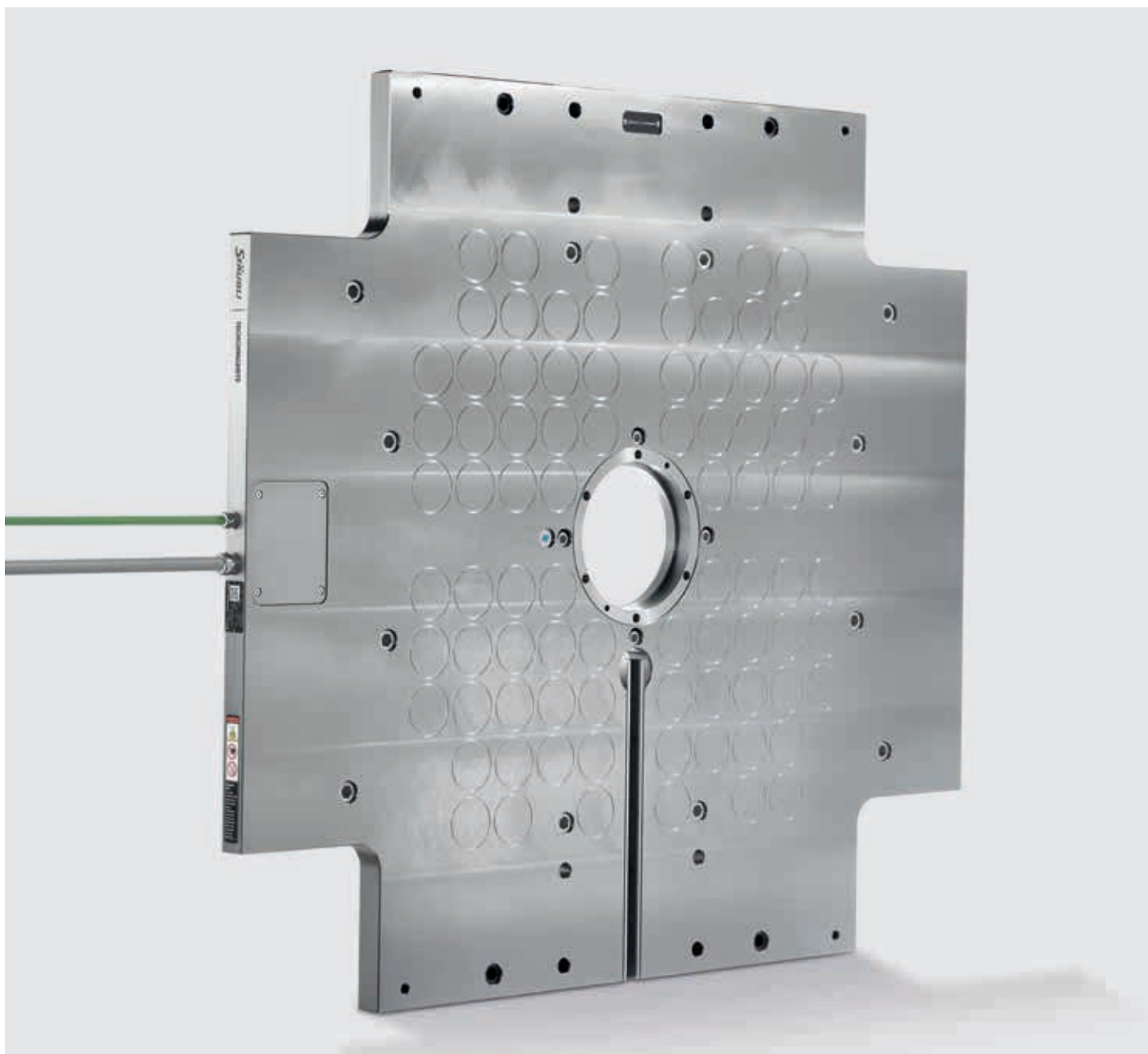
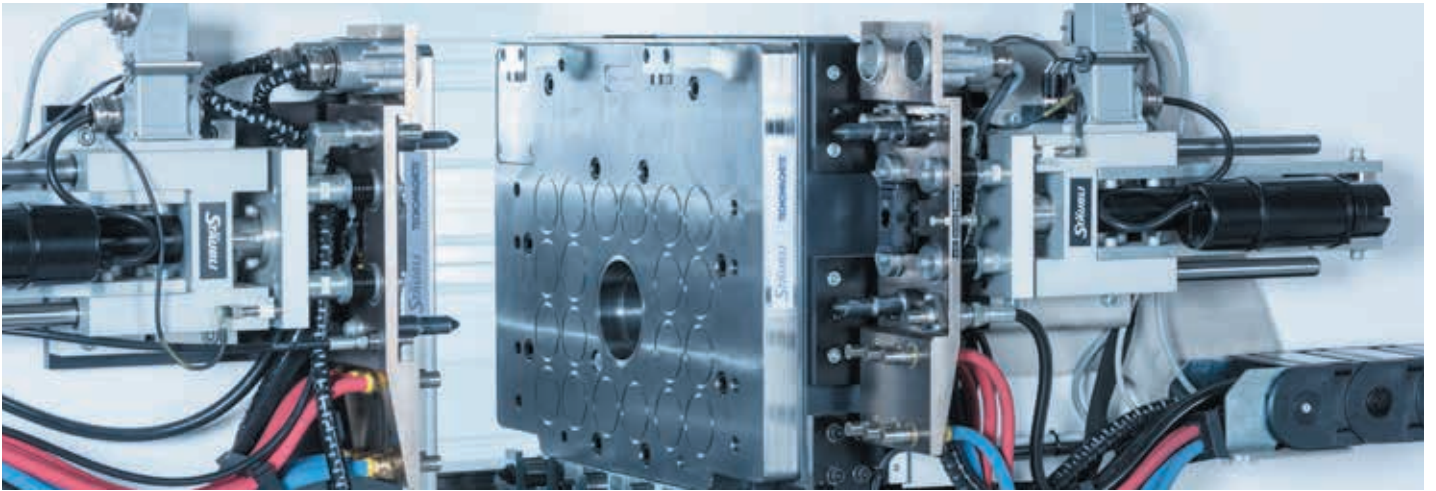


Magnetic clamping

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.

STÄUBLI

TECNOMAGNETE

Delivering superior Quick Mould Change Technology

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 moulders around the world.

Applications

Designed to reduce the time required for clamping moulds on injection moulding 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 moulds
- Follows Euromap/SIP/JIS standards
- Systems operate through the machine's HMI or optional hand pendant.

Customized to customer needs

- Custom machining for specific mounting points, unique platens or centering rings, and various mechanical features for quick mould loading and accurate mould alignment.

Support at every step of the way

- With strong expertise in quick mould change solutions, we will support you at every step: from the design of your project through its implementation.



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 of 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.

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 **mould movement anticipation** (Premium and Essential)
- Temperature monitoring and overheating prevention.

Ease-of-use features

- Clamp and unclamp moulds at the touch of a button: Intuitive, fully capacitive touchscreen with guided mould change prompts, or simple push-button operation.



Productivity

Exceptional robustness

- The solid steel surface is integral to 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.

Maximum profitability

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



Product overview

System components

2 magnetic clamping plates



Controller



Cables & connectors








Two lines made to fit distinct needs

Essential

- A streamlined solution for injection moulders with repetitive operations
- Safety level appropriate for use with moulds 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 mould clamping process
- Able to manage moulds with a variety of dimensions and weights. Safety thresholds can be precisely calculated with mould surface analysis
- Ergonomic & intuitive operation with a full touchscreen hand pendant.

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

Essential

MOULD ACCEPTANCE CHECKS

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

MOULD MOVEMENT ANTICIPATION

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

HUMAN MACHINE INTERFACES

Control via the injection moulding 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

MOULD ACCEPTANCE CHECKS

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

MOULD MOVEMENT ANTICIPATION

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

HUMAN MACHINE INTERFACES

Control via the injection moulding 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 touchscreen hand pendant allows the operator to easily view and confirm that all safety points/checks have been completed before clamping/unclamping.

These safety operations are simple to follow with guided mould change prompts:

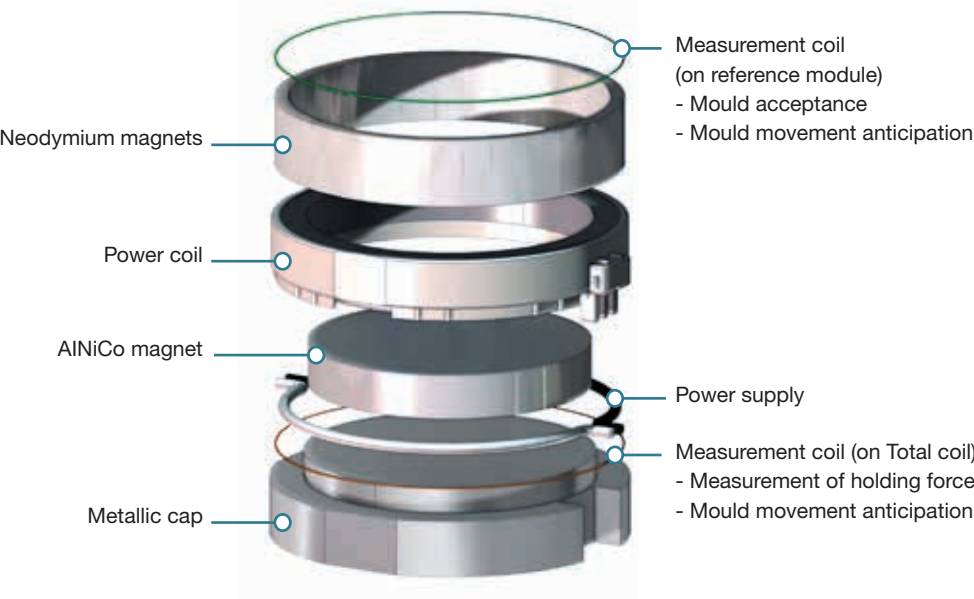
- "MCS Enable" signal is ON (press-ready with machine door closed)
- "MCM" is selected (mould change mode)
- confirm mould safety straps are in place
- confirm that the crane is attached.

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 mould 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 (mould 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

For other operating conditions: please contact us.



Knowledge and use of the most innovative electronic technology

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

1

Mould demagnetised

Mould

Injection Moulding Machine

Magnetic clamping plate

2

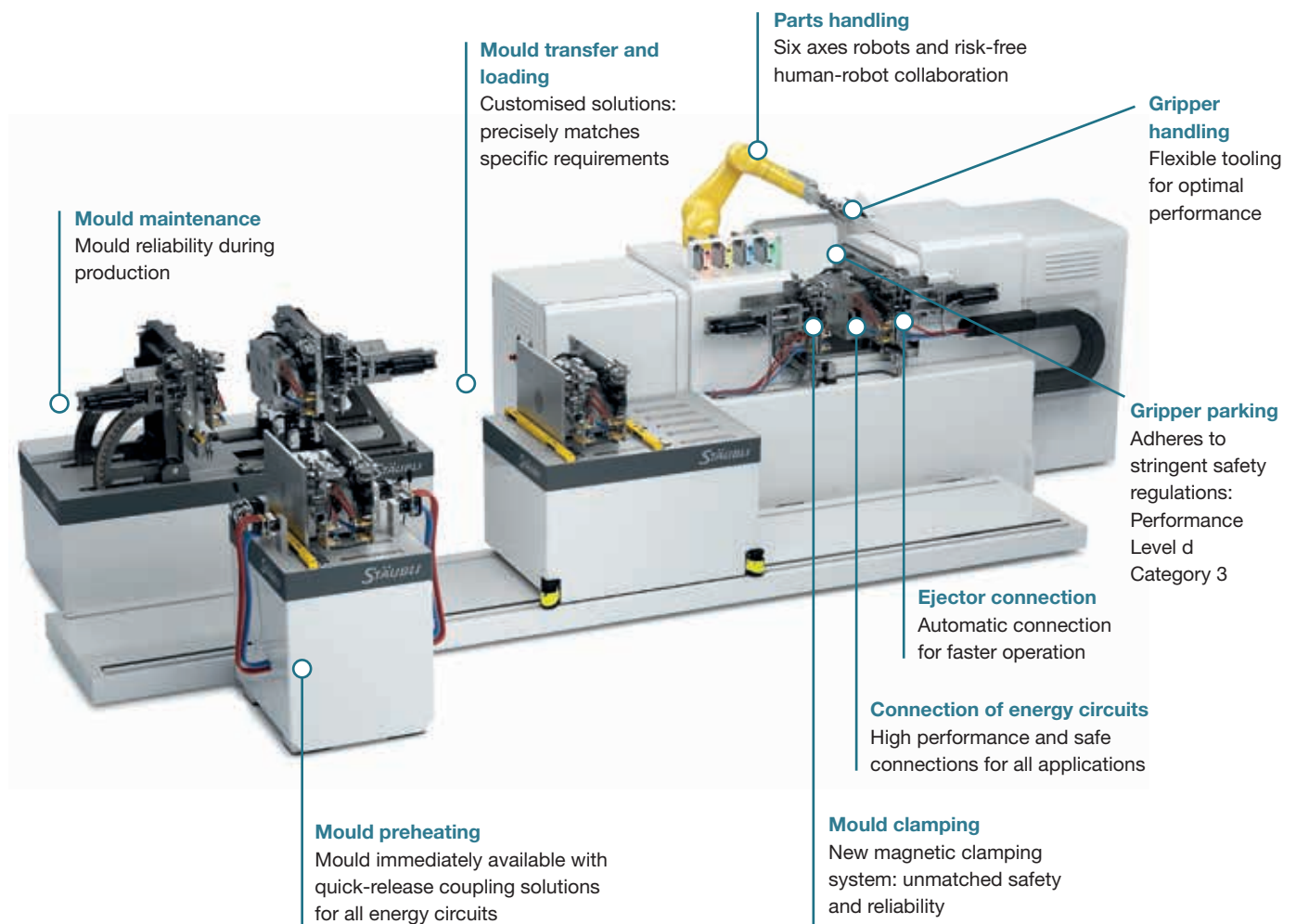
Push button

By pressing a button the polarity of the AlNiCo is reversed. The mould is magnetised.

3

Mould magnetised

Speed up your mould change process



SMED approach

Mould 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, Mould clamping, Mould loading, Mould maintenance as well as automatic processes. In order to maximize your profitability, the entire Mould 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