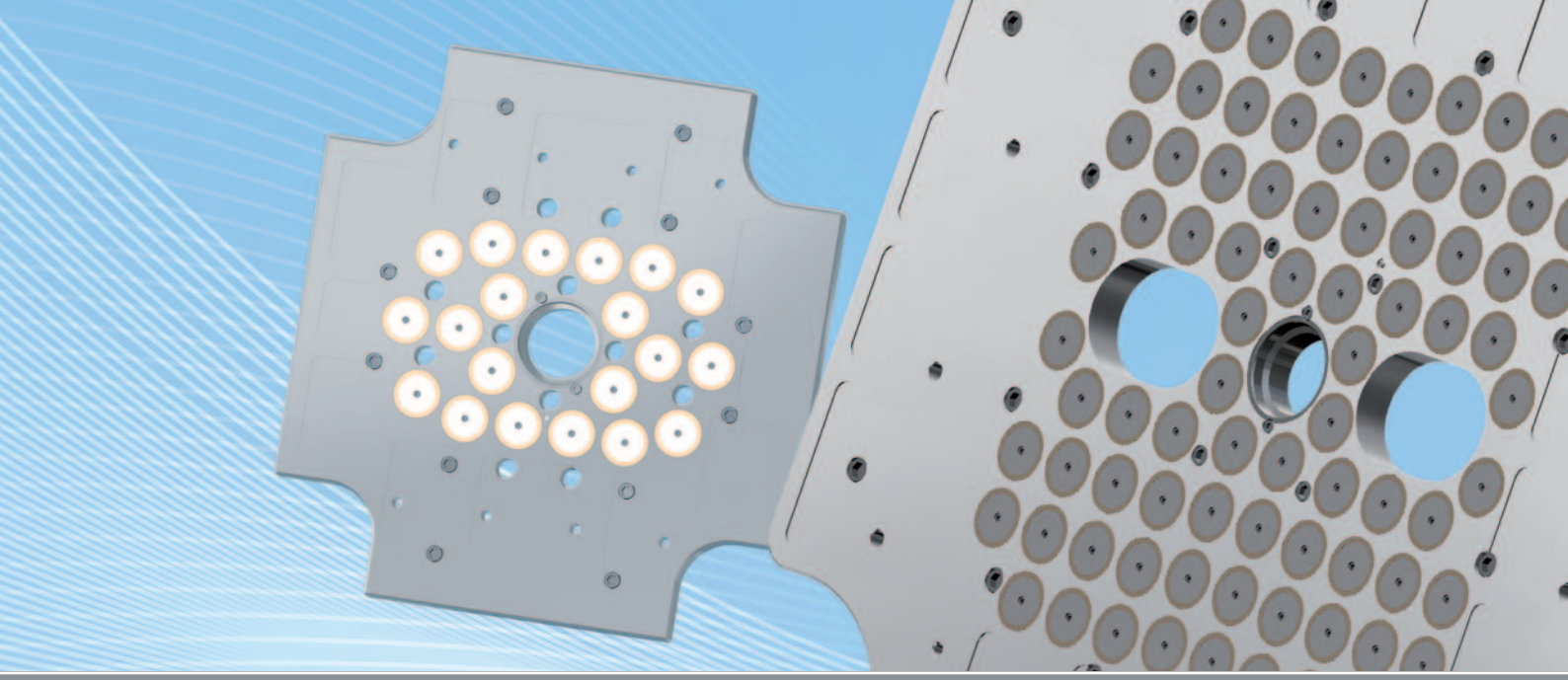
CONNECTORS

STÄUBLI

IMAG
High performance magnetic clamping QMC 122

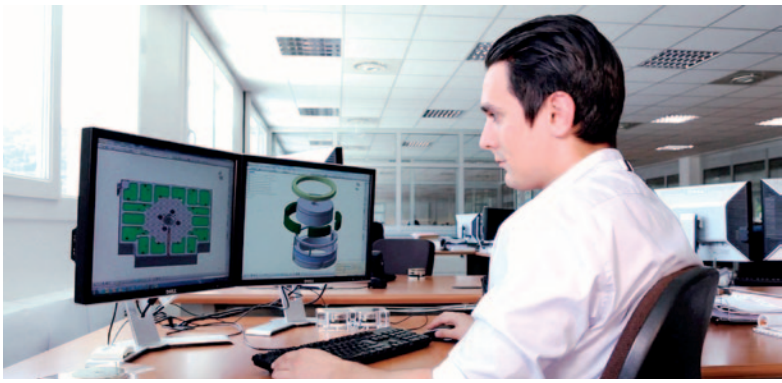


Combining safety, ease of use and efficiency...

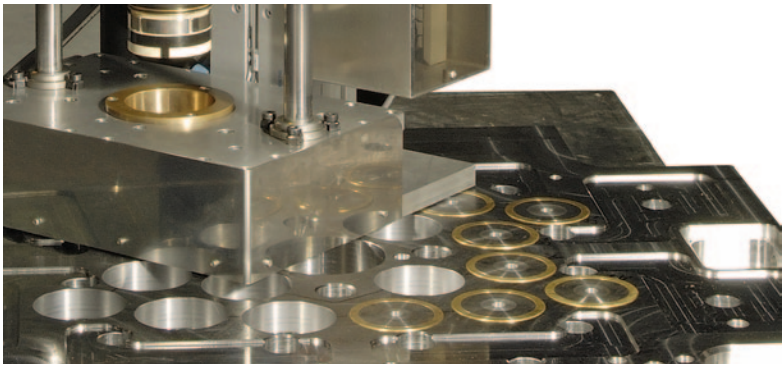
Performance, innovation and reliability have been the basis of all our developments for more than 50 years.
On the strength of this experience, Stäubli magnetic clamping systems answer the demands of the plastics industry: quick mould change, production of small batches, optimisation of organisation methods (SMED), safety requirements relating to injection moulding machines.

By complete management of the design and production of our magnetic clamping systems, from the development of the controller to the industrialisation of plates, our solutions are 100% Stäubli.

A high performance technical team and resources.

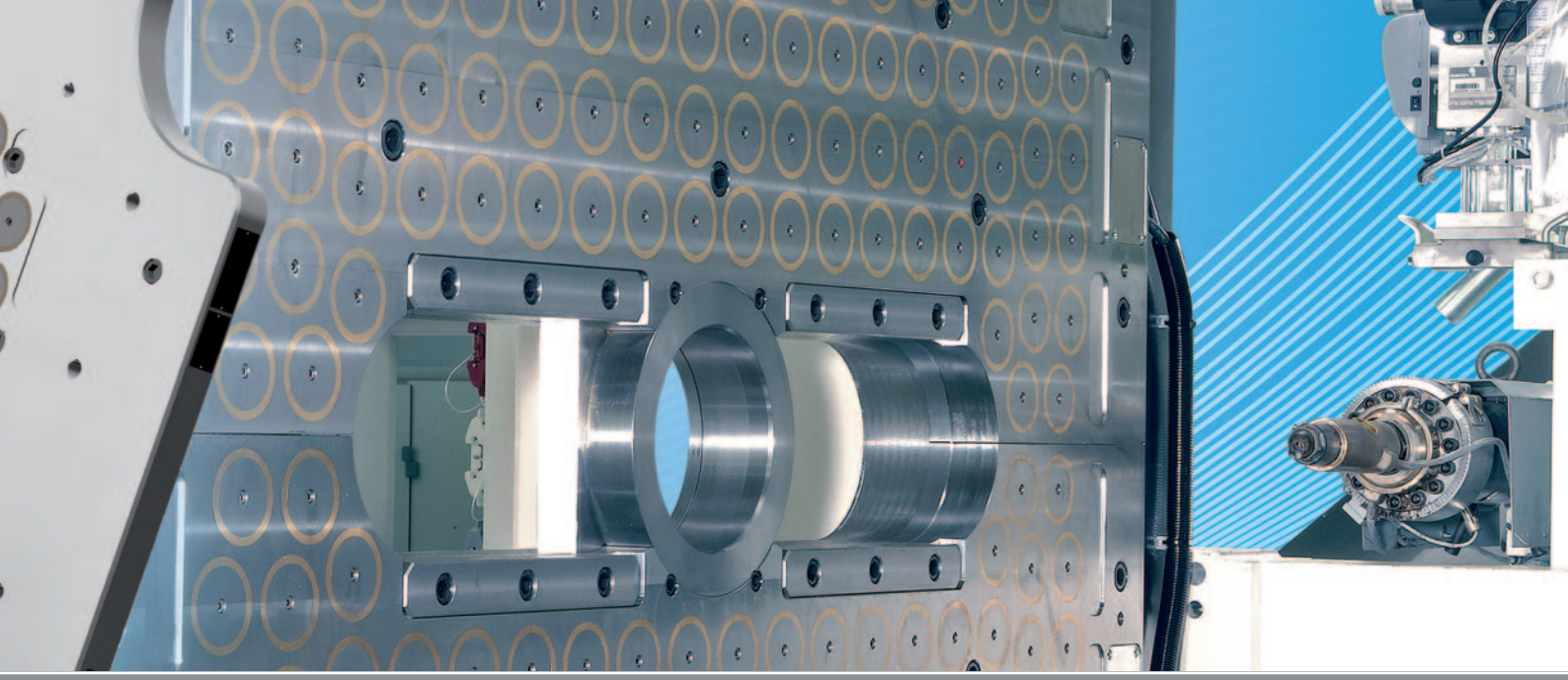


A partner of the plastics industry for the connection of energies and quick mould change, Stäubli has acquired unique expertise and skills in all fields of plastic and composite processing.



An industrialisation process guaranteeing reliability and performance.

Find all the information on our dedicated website:
www.quick-mould-change.com



...IMAG takes up the challenge!

Adaptable to all injection presses and mould sizes, magnetic clamping does not require any modification of existing moulds. Answering the need for frequent production changes, it is widely acclaimed for its versatility and simple implementation. This technology optimises productivity.

Safety for production, staff and the work environment.
The QMC 122 system guarantees compliance with the most recent and demanding safety norms as standard:
EN201: 2009, directive 2014/35/UE and 2014/30/UE.

- Each magnetic module comprising the QMC 122 plate is fitted with a search coil to detect any flux changes, even if minimal.

- Through the display of the clamping force of each half-mould on the IMAG interface, the operator effectively controls the clamping/declamping process.

- The detection of any major incident immediately stops the machine via the press safety interface.

NEW

- The IMAG Editor software enables the clamping force for each mould to be calculated in advance, depending on the press on which it will be used. With this information any problems can be anticipated ahead of production.

Maximum safety

Display of clamping strength

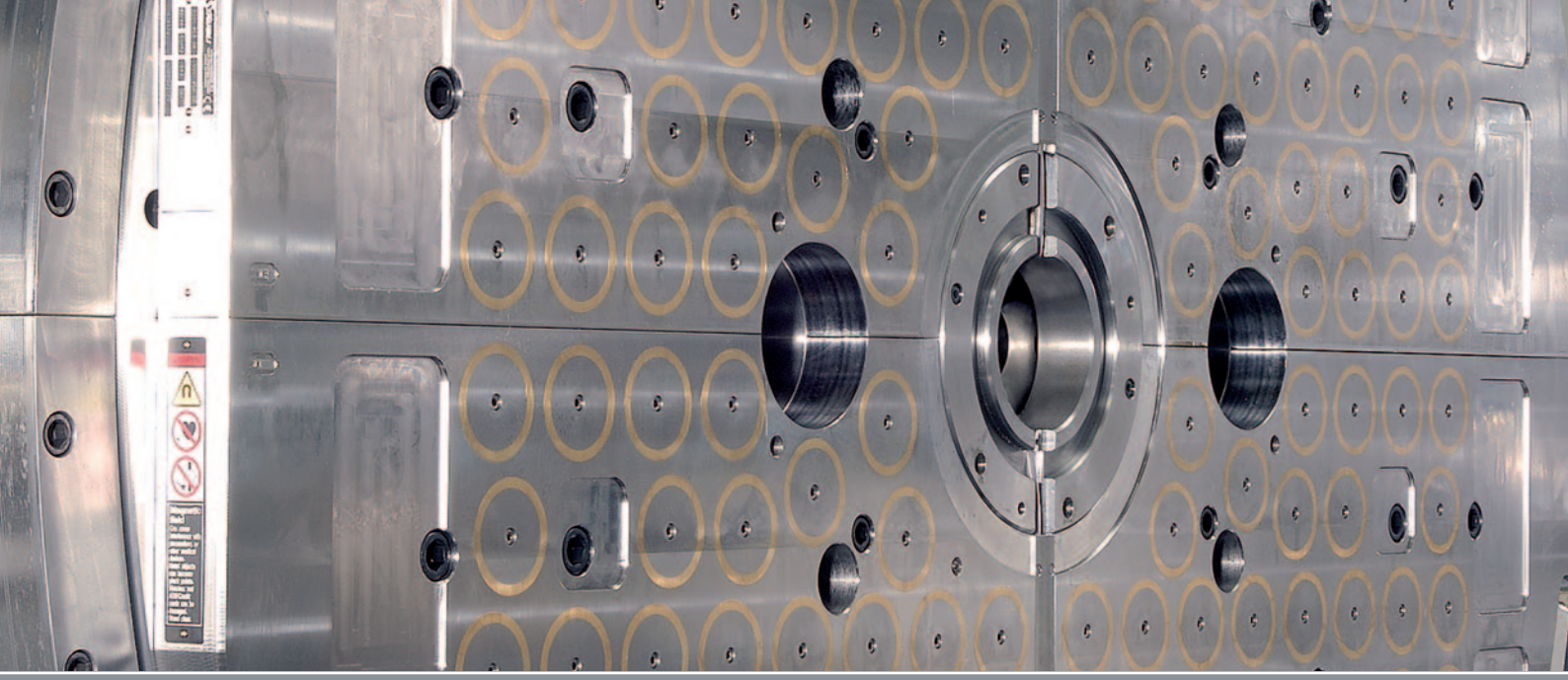
Detection of moulds movements

Magnetisation in less than 1 second*

Very low energy consumption

Uniform clampling → significant reduction of mould wear

* up to 160 modules



Safety functions.

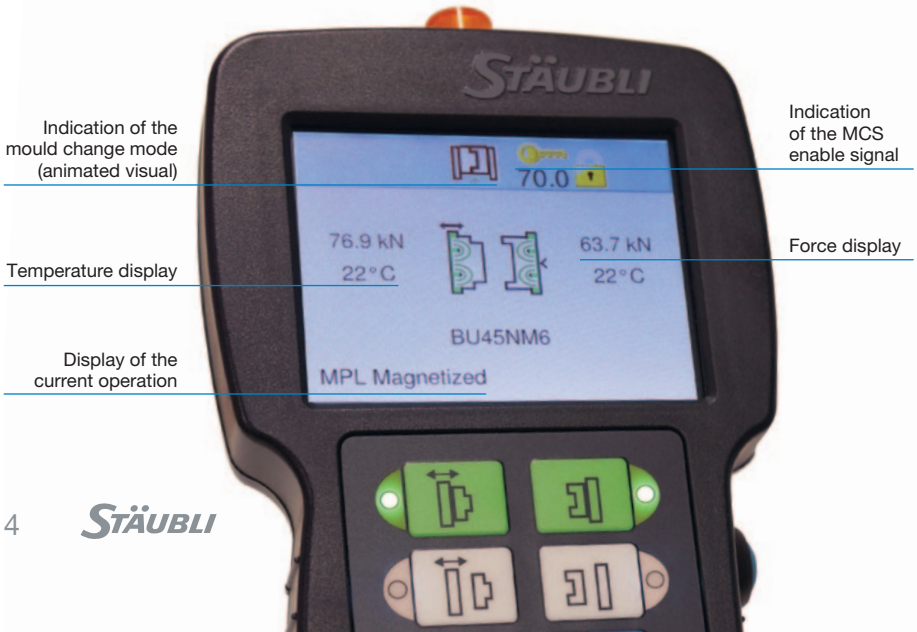
Colour screen, precise messages, validation of procedures... constant improvements made to the IMAG interface have strengthened the reliability of clamping and interaction with the operator.

- **Display of the clamping force** and comparison with the opposing forces of the press: the clamping force of each half-mould is measured and displayed in real time on the IMAG screen. If it is too low, a message immediately alerts the operator.

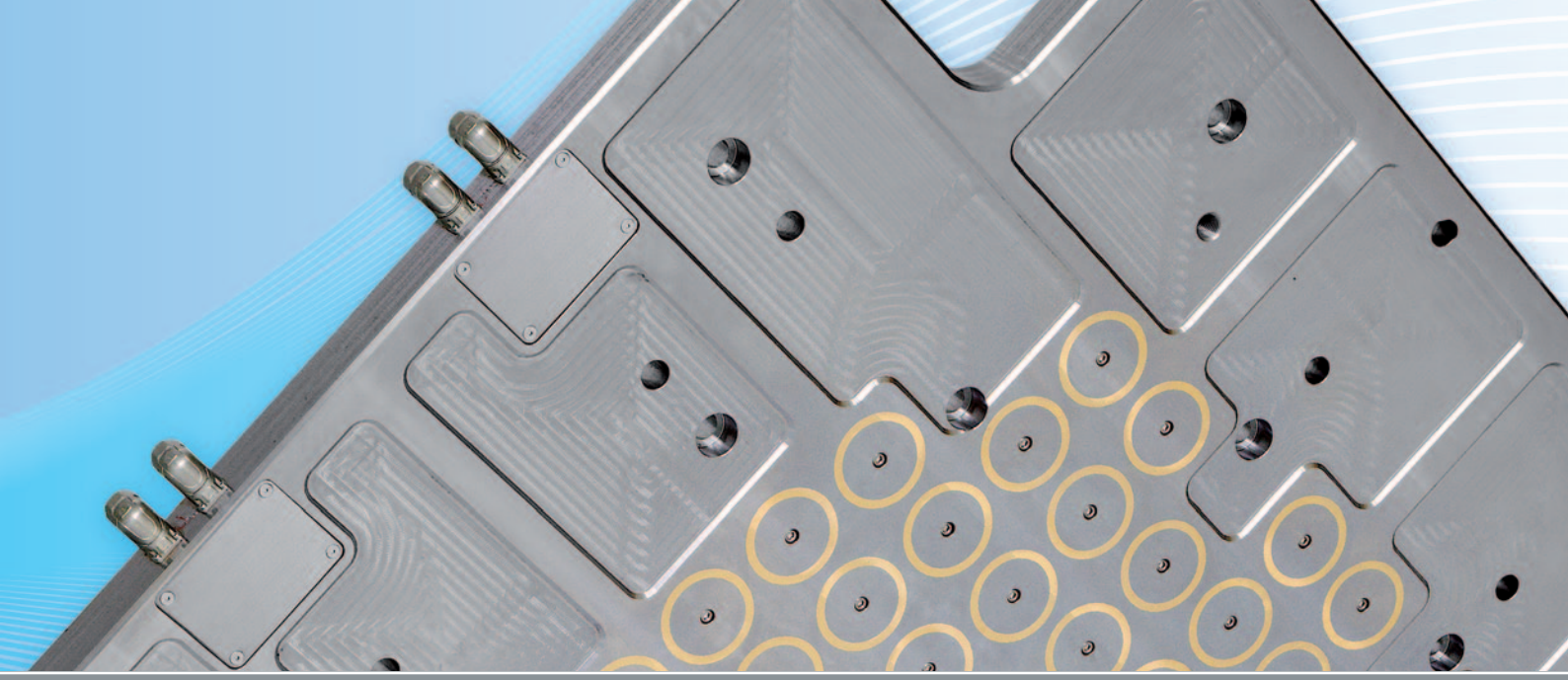
- **Detection of mould movements:** the honeycomb design provides optimal rigidity and maximizes the quantity of magnetic poles acting on the mould. Each individual “pot” is fitted with a very precise search coil. The mould is thus monitored in all points and the slightest movements are detected.

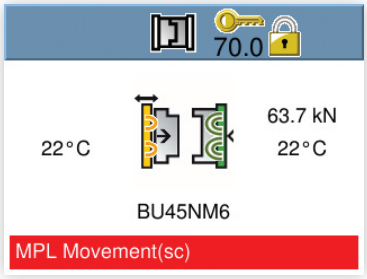
- **Mould stock referencing:** each mould is identified and its initial clamping force recorded, thus allowing the monitoring of clamping performance. During subsequent use, any variation is detected and signalled by the system to the operator who can carry out preventive maintenance.
Another major innovation: automatic control of tipping or sliding of the mould (referencing of moulds allows the system to record their weight and dimensions and compare them with the clamping force).

- **Temperature control and permanent display:** a message and an alarm alert the operator in the event of excessive plate temperature.

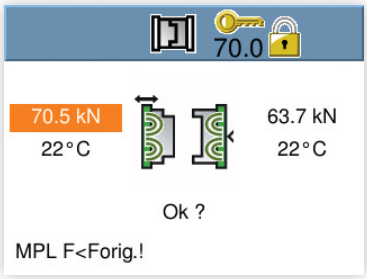


To ensure perfect coordination between the press and its clamping system, the IMAG integrates and displays signals from the machine according to Euromap and SPI AN-145 (mould change mode, MCS available).

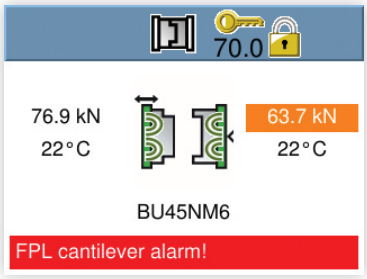




Screen with message
« alert mould movement »



Screen with message « clamping
force lower than the initial force »

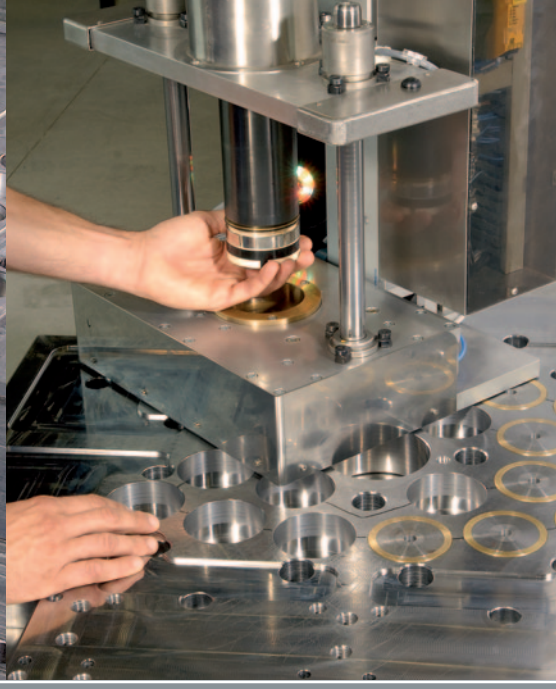


Screen with message
« alert risk of tipping »

Fully controlled clamping/declamping operations.
The IMAG allows the operator to confirm very easily and without any possible omission all the safety points necessary in advance of clamping/declamping operations.
- «press ready» signal when the door is closed
- mould changing mode
- mould locked
- hoist attached

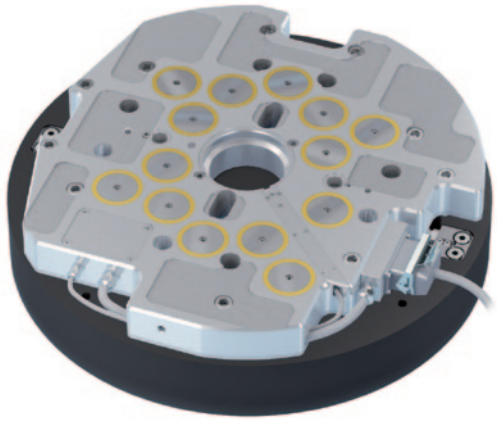
Several other functions.
- 3 user levels, codes dependent on the authority level.
  - Service mode (Stäubli technician): installation, setting parameters and maintenance.
  - Chief operator mode: access to the history, date, language, PIN code, machine forces, setting parameters.
  - Operator mode: all the information necessary for mould changing.
- Access to the history of operations carried out
- User interface available in several languages

Choice of language



Innovative design and industrialisation process

Each plate meets the customer's specifications.
The modular design adapts to the press, the mould stock and all other specificities.



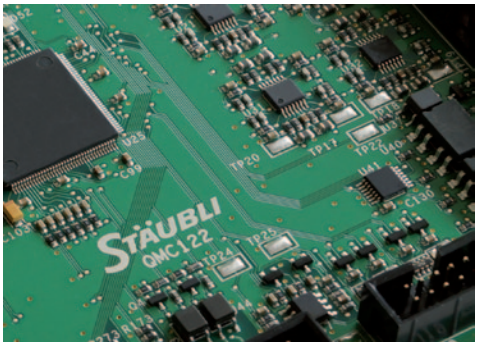
Fixing points, shape of the plate, centering ring: any specific machining is possible.

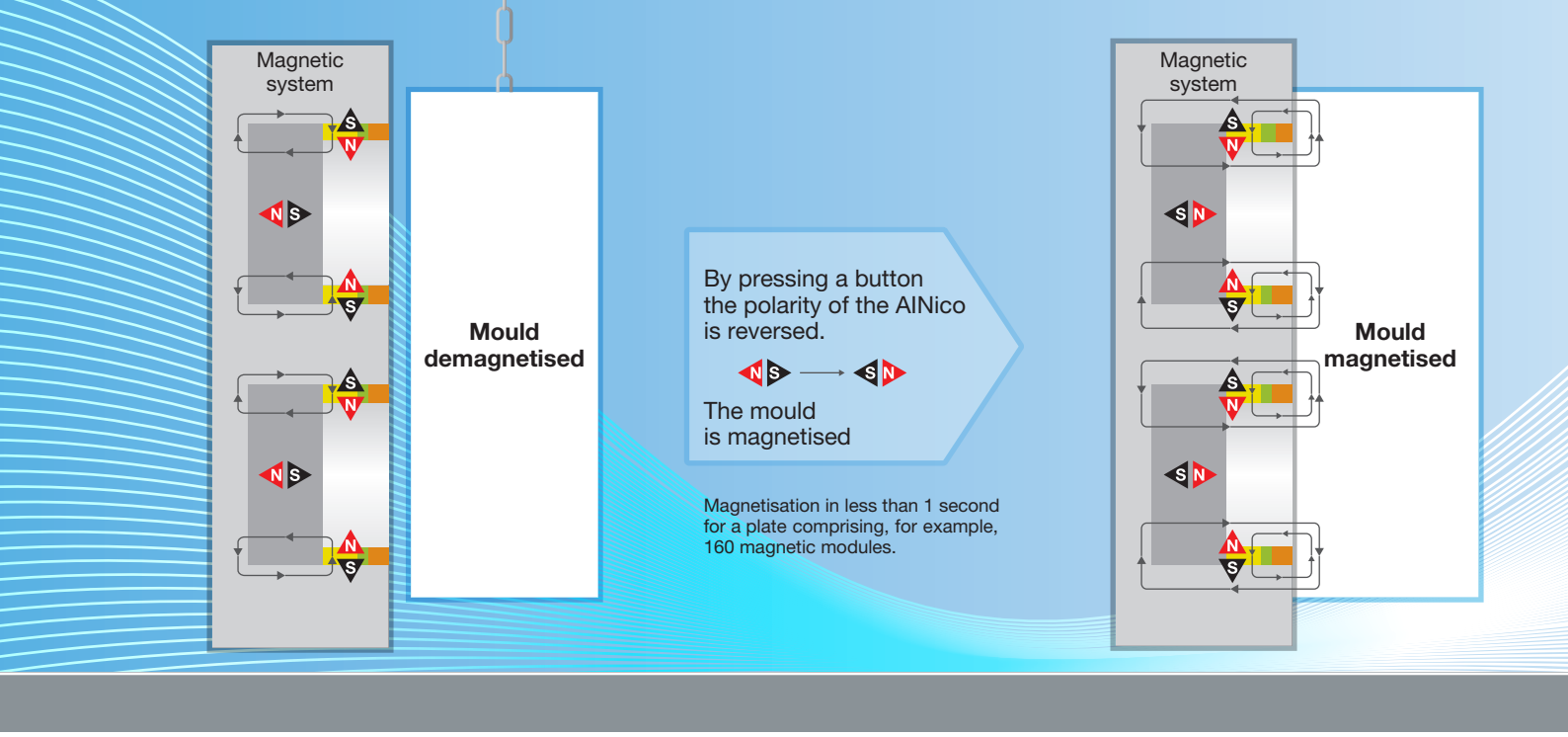
QMC 122 technology is suitable for press sizes from 80 to in excess of 4000 tonne.

Stability and strength: the rigidity of the plate due to an entirely metal «well» construction ensures constant clamping strength during production.

The industrial manufacturing process offers very precise measurement (impossible to achieve in manual assembly of components of the magnetic plate) and eliminates risks of error in assembly mode.
Stäubli magnetic plates are **resin-free** and guarantee excellent strength and eliminate problematic cracks.
Furthermore, this unique design allows magnetic 'pots' to be changed at the customer site.

Knowledge and use of the most modern electronic technology.





US PATENTS 6.489.871 / 6.636.153 / 7.782.164 and other countries

2 year guarantee

The choice of the magnetic technology, the choice of a reactive technology.

The magnetic technology is fast, simple and requires no work on the moulds. It is especially suitable for frequent mould changes and moulds with non-standard dimensions. Magnetisation and demagnetisation operations are done by simply pressing a button.

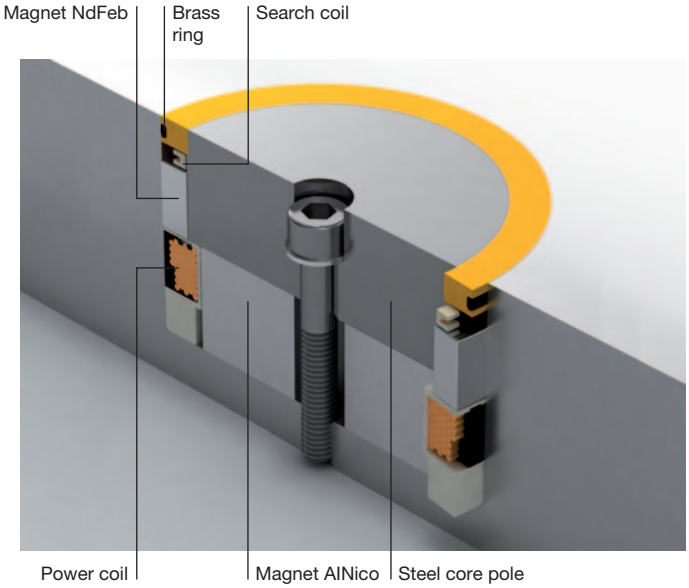
- Independent circular magnetic modules.

- Possibility of clamping moulds with thin back plates (min. 20 mm) without interference with the moving parts of the mould and / or with the sensors (limited magnetic flux penetration).

- Concentration of the magnetic modules in the centre of the plate:
  - compatibility with a wide range of moulds by integrating the injector hole positions,
  - prevention of mould distortion on opening.

- Optimised press opening space thanks to reduced plate thickness (52 mm).

QMC 122 systems consume little energy. Electricity supply is only necessary for magnetisation and clamping is guaranteed even in the case of Power failure.



Technical characteristics

> Pole size	Ø 60 mm
> Plate thickness	52 mm
> Maximum working temperature	100 °C
> Supply voltages	200 to 480 V others on request
> Frequency	50 or 60 Hz
> Machine clamping Force clamping of the machine	50 - 4000T

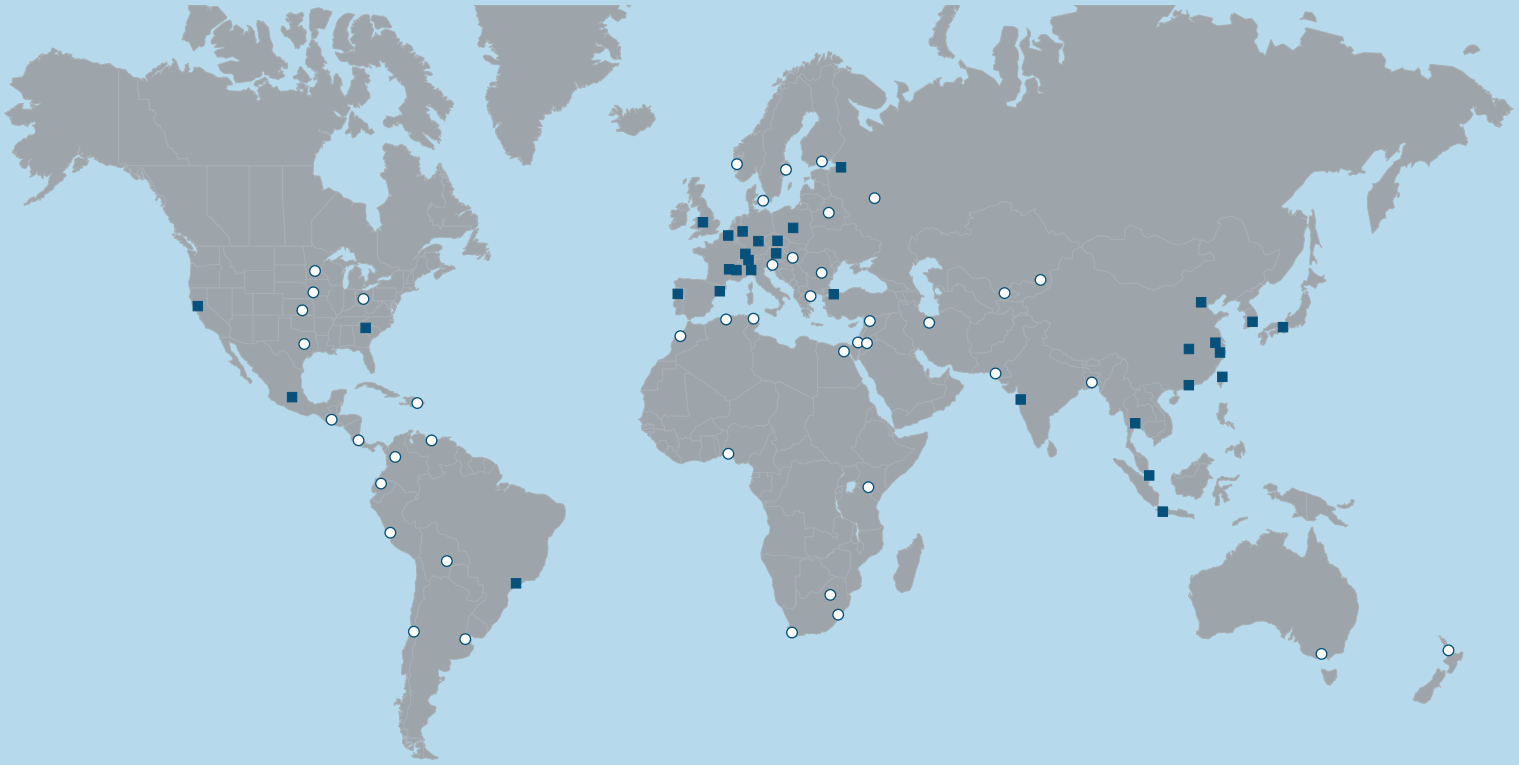
> Ejection holes according to the specifications

Mounted on all of our systems, in standard

- Temperature sensor on each plate
- Force measurement → Flow sensor on each pole
- Removable centering ring, fixed side and - if necessary - moving side
- Fixing screw

For other operating conditions: please contact us

For contact details: **www.staubli.com/connectors/contacts**



Global presence of the Stäubli Group
■ Stäubli units
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