QMC 122 Features
Magnetic clamping system
What makes the QMC 122 magnetic clamping different?

- **Anticipated detection of mold movements**: each magnetic module is fitted with a very precise measurement coil. The mold is thus monitored at all points and the slightest movements are detected.
- **Display of the clamping force** and comparison with the opposing forces of the press: the clamping force is measured and displayed in real time on the IMAG screen. If it is too low, a message immediately alerts the operator.
- **The clamping/declamping operations are fully controlled** thanks to the IMAG system: the operator confirms all the safety points necessary in advance of clamping/declamping operations.
- **Mold stock referencing**: to monitor the clamping performance, the features and initial clamping force of each mold is pre-recorded. Thus, every variation is detected and signalled to the operator.
- **Temperature control**: a message and an alarm alerts the operator in the event of excessive plate temperature.

**Advantages of the QMC 122 Magnetic Clamping**

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

- Numerous safety functions
- Very low energy consumption
- Magnetisation in less than 1 second
- Uniform clamping: significant reduction of mold wear

**Recommendations**

- Contact area: mold to plate contact area is proportional to holding force. Deep drawn parts with a small footprint must be reviewed.
- Material composition: acceptable mold base materials are 1020, 420, 4130 and DME#7.
- Base plate thickness: All magnetic flux generated must be absorbed by the base plate steel. All mold bases must be a minimum of 0.79 inch thick.
- Surface quality: it is important to ensure that the magnet and base plate are free from dirt, debris and rust. These can create air gaps which reduce holding force.

**Main features of the IMAG interface**

- There are three user levels: Service mode (Stäubli technician), Chief operator mode, Operator mode.
- You have access to the history of operations carried out.
- The user interface is available in several languages.
How does the QMC 122 system work?

![Diagram showing the QMC 122 system in action](image)

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

Technical characteristics

- **Pole size**: 2.36 in
- **Plate thickness**: 2.05 in
- **Maximum working temperature**: 212°F
- **Supply voltages**: 200 to 480 V
  Others on request
- **Frequency**: 50 or 60 Hz
- **Machine clamping force**: 55 - 4409 ton
- **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
Back cover to define