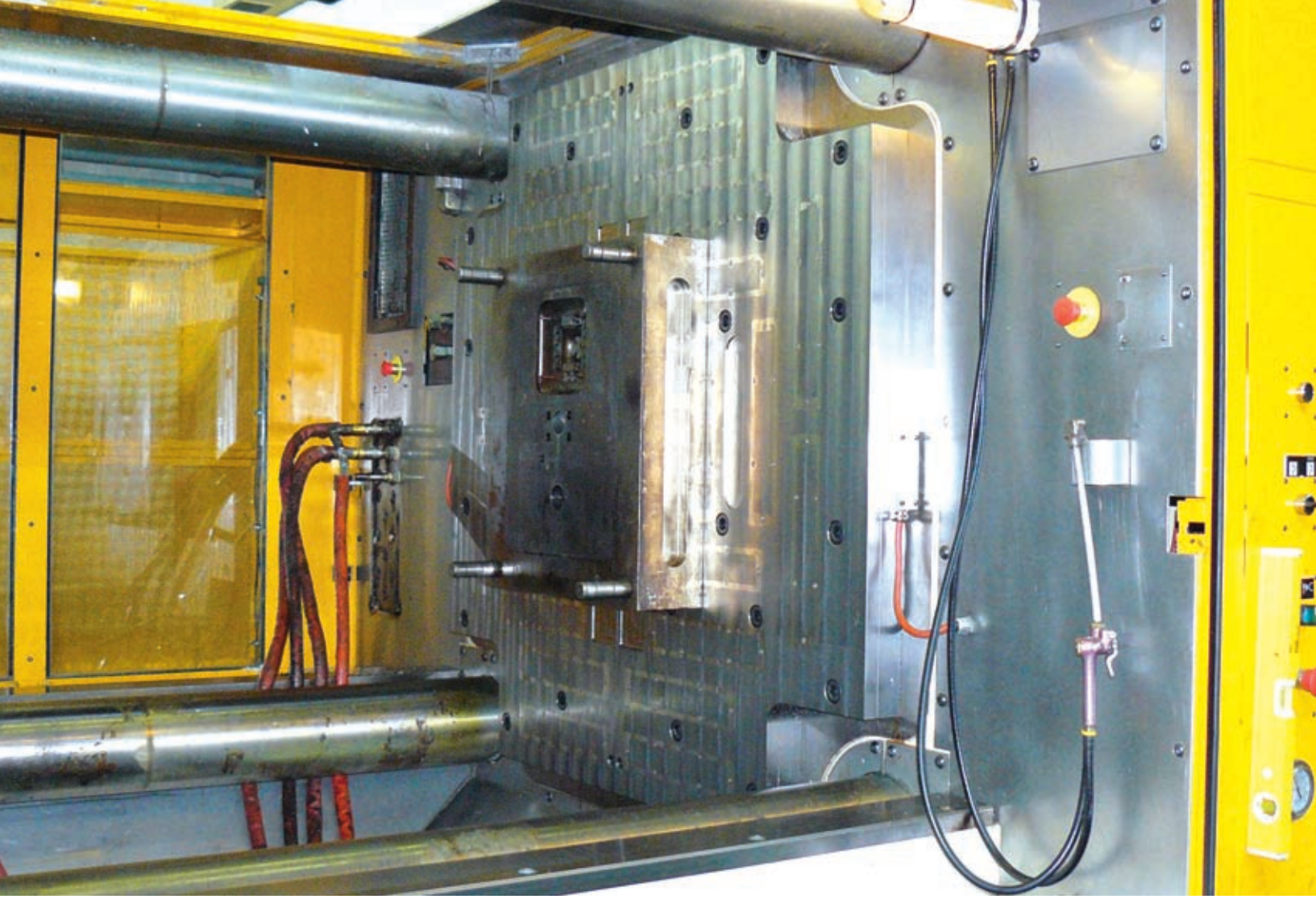


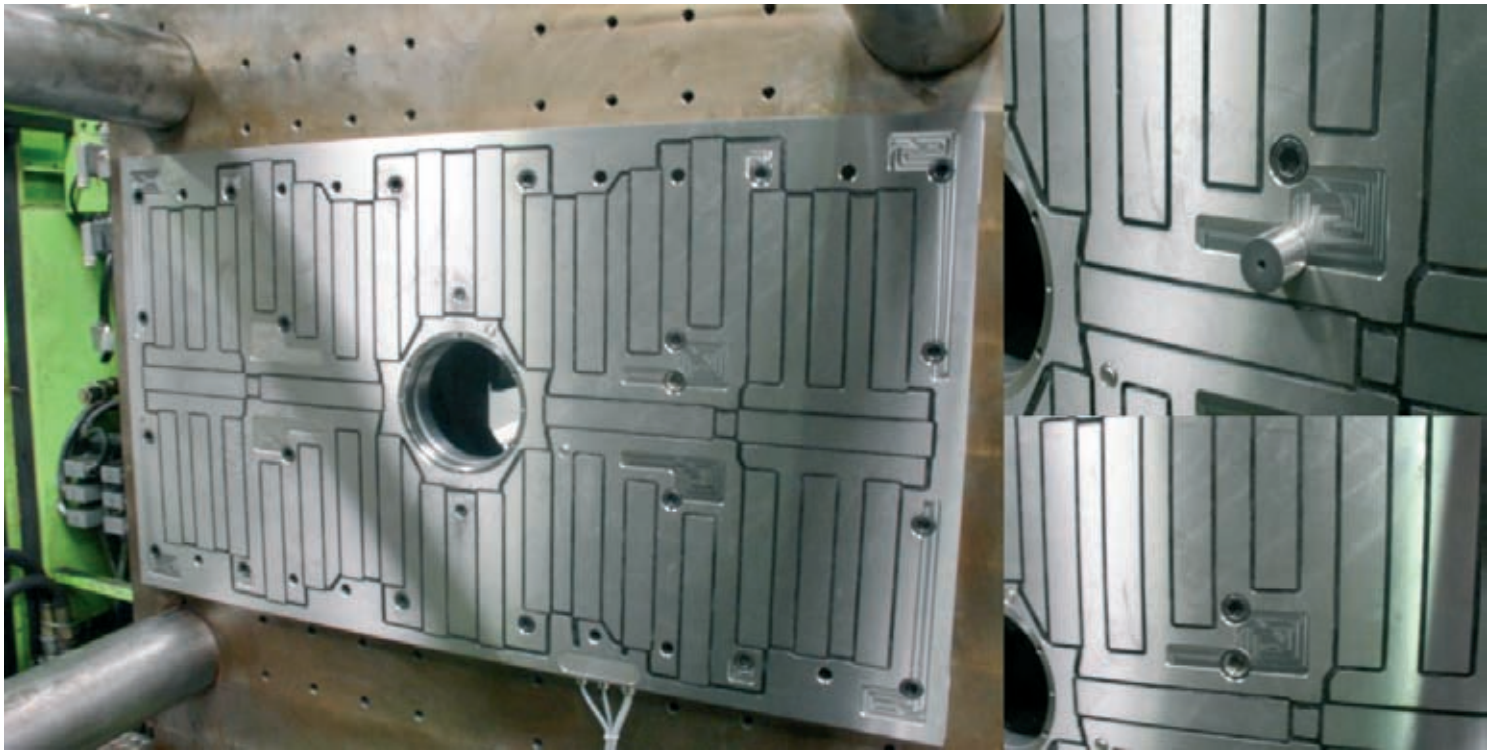
BRAILLON MAGNETICS

PMG - QMC

MAGNETIC QUICK MOLD CHANGING SYSTEMS

POWER • RELIABILITY• PERFORMANCE• LONGEVITY

ELECTRO-PERMANENT MAGNETIC TURBO FLUX TECHNOLOGY



PMG-QMC : Quick and reliable mold changing systems

Magnetic quick mold and tool clamping system, developed by Braillon Magnetics in the beginning of the 1990s, enables quick, easy and safe clamping of molds on injection molding and compression presses.

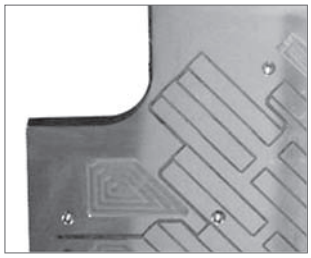
Each system is composed of two magnetic platens, one control unit and one remote control box.

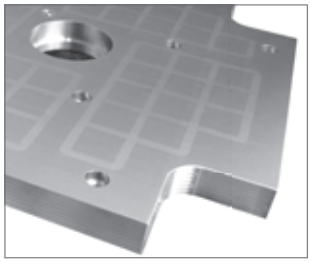
The system is based on electro-permanent technology and can operate in temperatures up to 480°F. A full demagnetization cycle at the end of the clamping cycle reduces the residual magnetism and makes mold removal very easy.

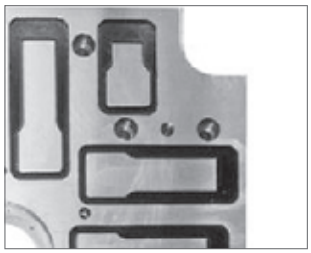
For hard jobs requiring higher holding forces, a reinforced variant of the system is available. However, the technology used in this case does not allow the integration for a full demagnetization cycle.

The magnetic mold clamping system type PMG-QMC allows you to quickly clamp the molds on your plastic, rubber, magnesium, zamak, aluminium and other material injection molding and compression machines.

Each magnetic platen is equipped with one or two proximity switches (to monitor the adherence between the platen and the mold) and in case of high temperature application, with one temperature sensor (to prevent the platen from overheating).







A magnetic solution for every Quick Tool Change application

Thanks to their exceptional know how, Braillon Magnetics is optimizing the available technologies to obtain the highest holding force.

SQUARE POLE TECHNOLOGY

installed on small machines with platen sizes up to 62″ x 62″

LONG POLE TURBO TECHNOLOGY

installed on medium to large size machines to ensure maximum flux concentration on the contact area of the mold back plate (turbo flux effect).

Braillon Magnetics masters all permanent magnet technologies and applies the appropriate magnets according to temperature range required for each individual application.

TEMPERATURE OF THE MOLD BACK PLATE

32°F **175°F** **300°F** **480°F**

PMG HP

PMG - High Power

For temperatures up to 175°F.
Designed mainly for machine sizes over 300 tons (660,000 Lbs).
Thickness of magnetic platen : 43 to 50 mm (1.69″ to 1.97″).
Option : A flux sensor to check if mold is made of magnetic or non magnetic material

PMG T

PMG – Temperature

For temperatures up to 300°F.
Thickness of magnetic platen : 55 mm (2.17″)

PMG HT

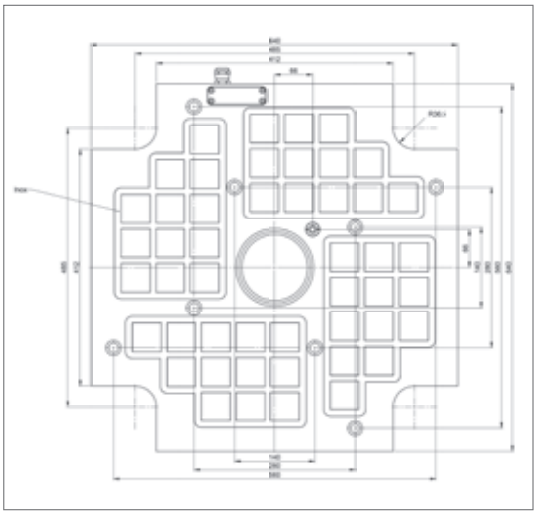
PMG - High Temperature

For temperatures up to 480°F.
Thickness of magnetic platen : 55 to 80 mm (2.17″ to 3.15″)

The magnetic system PMG-HP is built with a combination of 2 types of magnets: AlNiCo and Neodymium. Braillon Magnetics is using 2 technologies for this system :

Square Pole Technology

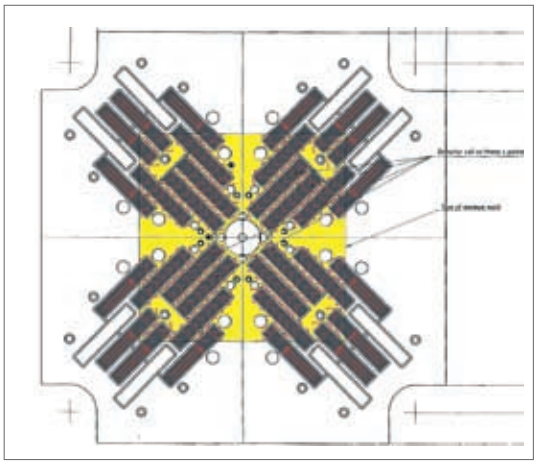
Designed mainly for small machines : Maximum size of the platens 62" x 62"



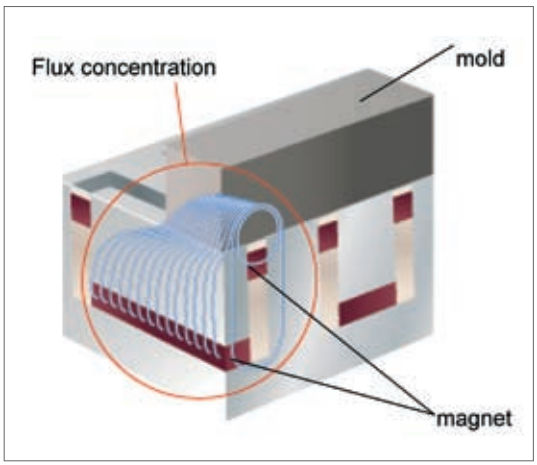
This design allows optimization of the active magnetic area while taking into consideration the distance between tie-bars, centering ring, ejector holes and fitting holes.

Long Pole Turbo Technology

Designed for medium and large size machines.



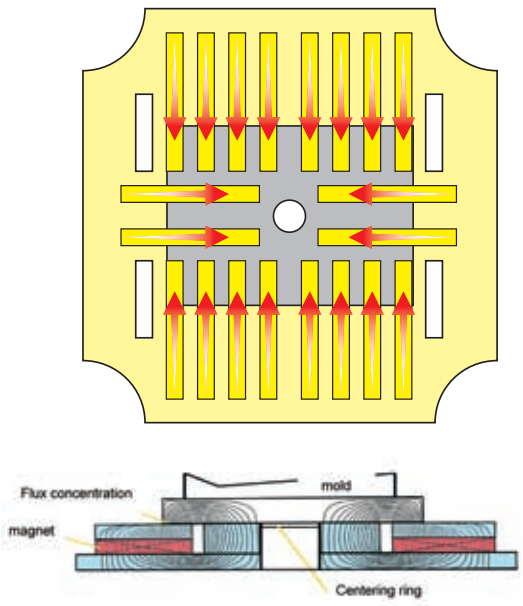
The use of long poles allows higher forces to be reached thanks to the combined effect of the 2 magnet system and the flux concentration. That means we can reach the holding force required to ensure safe clamping of smaller molds, unlike our competitor's systems.



The PMG T and PMG HT designed with Long-shaped poles are built with AlNiCo magnets only.

PMG T
up to 300°F

Flux turbo effect represented by the red arrows. Only 4 small magnetic poles (marked in white) do not contribute to increase the holding force for this relatively small mold. All other poles (yellow ones) allow the transmition of the magnetic flux from the outside area of the mold.

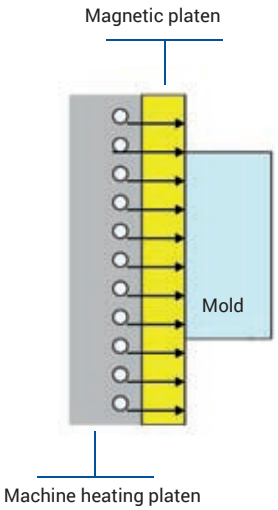


PMG HT
up to 480°F

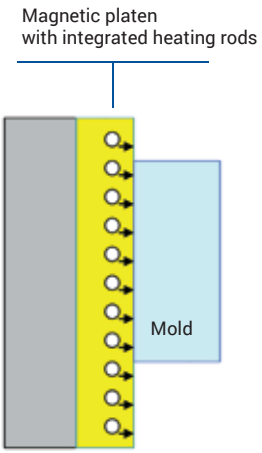
There are 2 options regarding the heating systems that can be combined with magnetic clamping systems.

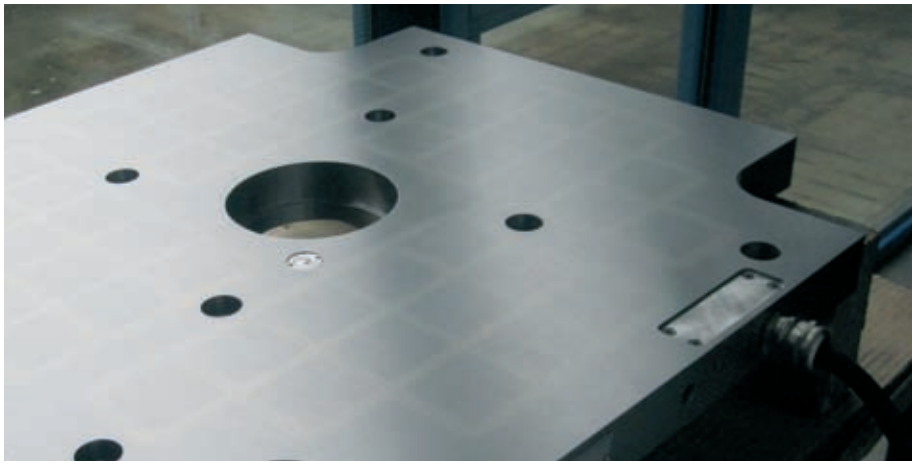
Either the heating system is integrated into the magnetic platen, or the machine heating platen is used. In this last instance, the heat is being transmitted to the mold through the magnetic platen, some loss of temperature will be compensated by higher temperatures delivered by the heating platen of the machine. Braillon Magnetics design ensures in this case, a homogeneous heat distribution over the magnetic platen surface.

Magnetic platen transmitting the heat of the machine platen to the mold



Magnetic platen heating directly the mold





PAYBACK AND BENEFITS FROM PMG-QMC

Safe and reliable

Clean and efficient

Retrofitted to any machine

Easily incorporated into QMC (Quick Mold Change) process

Greater flexibility in your production scheduling

Quicker responses to customer

More products produced

Low inventory thanks to short runs

Reduction in warehouse costs

Improved machine utilization

Return on investment (ROI) is less than 1 year

Whole platen area can be used to clamp the mold, can even accomodate the molds larger than the platen area

Uniform clamping force. Less mold and platen deformation

Enhanced machine stiffness

No clamps

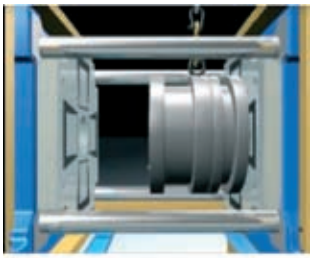
No bolt breakage

No moving parts

Zero clamping time

Mold clamping procedure

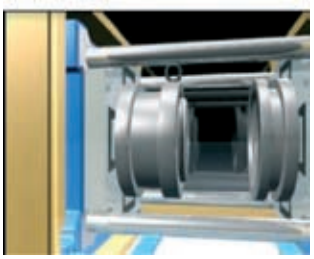
1- The operator centers the mold on the fixed platen.



2- The moving platen is closed onto the mold.

3-The fixed and moving magnetic platens are activated when the operator turns the safety key and energizes the magnetization button.

4- The machine and mold will be ready for production.



The time required for mold change on the machine equipped with quick water and energy connectors can be reduced with Braillon Magnetics PMG-QMC to a couple of minutes.

FIELDS OF APPLICATIONS

PLASTIC INJECTION MOLDING

Example :
Magnetic platens for plastic injection molding

RUBBER COMPRESSION

Example :
Magnetic platens of 400x400 mm and 900x900 mm for rubber compression

ALUMINIUM

Example :
Magnetic platens of 1000x1000 mm equipped with insulated plates for aluminium injection

COMPOSITE

Example :
Magnetic platens of 3200x2000 mm for rubber integrating the heating fluid system for manufacturing of composite elements

RUBBER INJECTION

Example :
Magnetic platens of 650x650 mm for rubber injection molding with ball mold lifters for lifting and moving molds

Customer : .....

Site : .....

Date : .....

MACHINE

Manufacturer : .....

Type : .....

☐ In site working machine ☐ New machine to deliver

Closing force :.....Tons

Ejector force : .....Tons

☐ Horiz. ☐ Vert.

Nozzle mould hold-on opened press : ☐ YES ☐ NO

SPECIFICATIONS

Machine platen (mm) H..... x V.....

Distance between tie bars (mm) : H..... x V.....

Centring ring diameter (mm).....

Tie bar diameter (mm) : .....

Ejection : ☐ Central ☐ Ejector holes Number :.....

Moulds sizes list enclosed : ☐ NO ☐ YES Réf :.....

Smaller mould : H..... x V.....

Greater mould : H..... x V.....

More used mould size : H..... x V.....

Minimum thickness of backplate : .....(mm)

Using temperature (Rear face of the mould) :

☐ <150°C ☐ 150<T°<180°C ☐ >180°C

Operating instructions Qty :.....

REQUIREMENTS

Colour : ☐ Blue (RAL 5015) ☐ Other : .....

Taped holes for amagnetic moulds :

☐ NO ☐ YES Number : .....

Mould detector : ☐ 1/platen ☐ 2/platen

Wiring : ☐ Series ☐ //

*** Please, attached with the inquiry the drawings of the machine platens with readable data.**

CONTROL UNITS

Type :.....

Interface : ☐ YES ☐ NO

Cables lengths : Voltage :.....V

Frequency : .....Hz

Fixed platen to control unit :.....(m)

Power :..... W

Moving platen to control unit :.....(m)

Remote control to control unit :.....(m)

CONTROL UNIT OPTIONS

Colour : ☐ Beige (RAL 7032) ☐ Other :.....

DELIVERIES

☐ To the manufacturer

☐ To the customer

Comments : .....

.....

.....

BRAILLON MAGNETICS

BRAILLON QUALITY SINCE 1921

« Everyone remembers their first Braillon »

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