

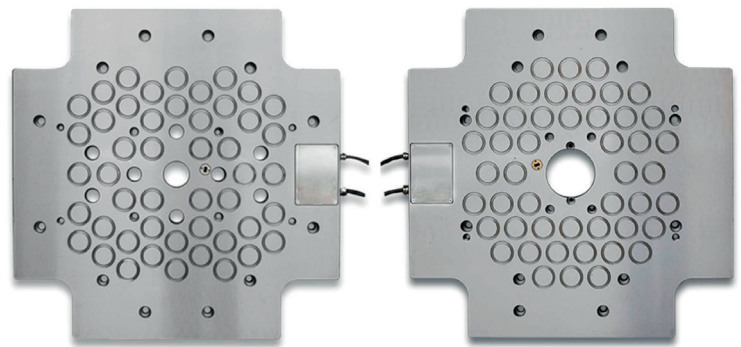
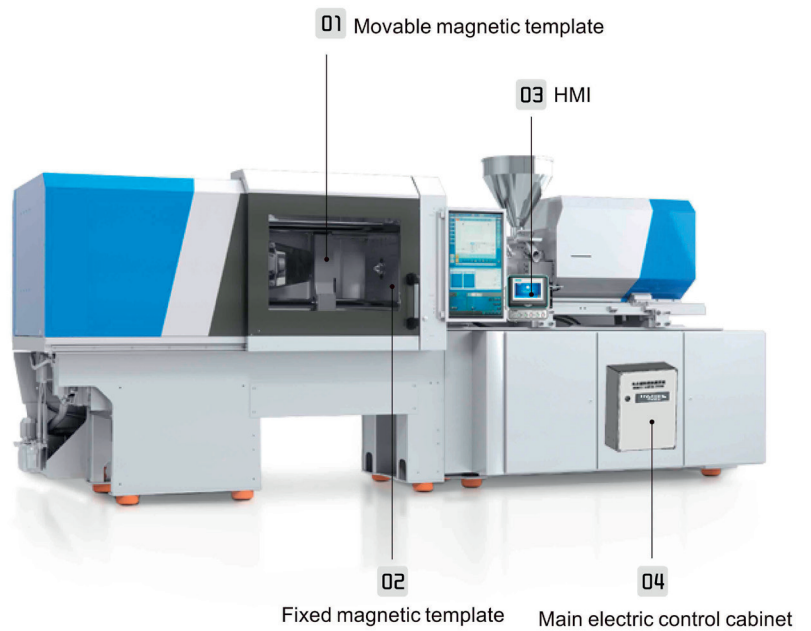
Electropermanent Magnetic Quick Mold Clamping System



- Magnetic force remain permanently after magnetization.
- No spare parts required for template.
- More than 90% time is saved.
- Over 95% power saving.
- Magnetic force guarantee and ideal clamping on mold.
- IP 67 waterproof.

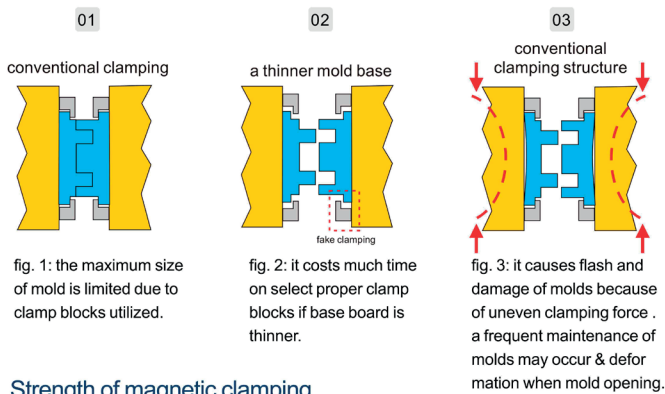


- MAGNA IM is perfect for 50-4000 Tons injection molding machines. The latest magnetic structure and outstanding design of magnetic circuit achieves over 20% more magnetic force than conventional magnetic template designs.
- MAGNA IM provides greater improvement on mold change efficiency. It requires less than 3 minutes for a normal mold change in a general injection machine, and shortens the mold change time from 2 hours to 20 minutes or less for over sized molds.
- It requires just a single operator for mold change and without need for extra tools. This reduces labour costs and labour intensity greatly.

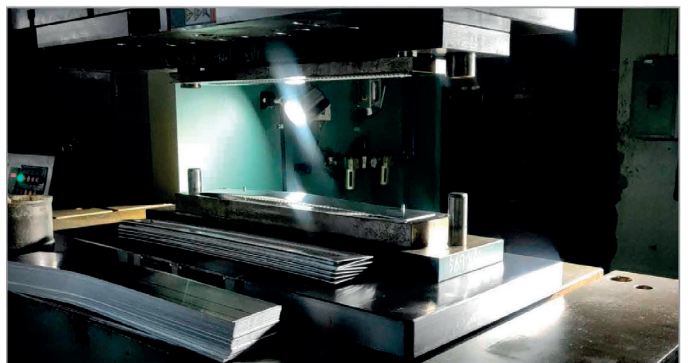
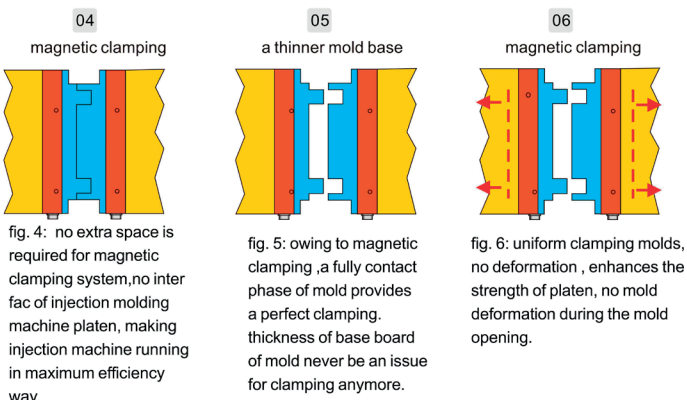


Strength of magnetic clamping

Disadvantages of conventional clamping



Strength of magnetic clamping



## Electropermanent Magnetic Quick Mold Clamping System

### Specifications

MAGNA IM Technical Characteristics		
Machine Clamping Force KN(t)	≤ 200 Ton	≥ 200 Ton
Pole Dimension (mm)	φ 44	φ 66
Magnetic Force per Pole (kg)	350	900
Plate Thickness (Single Side)	35 mm	46 mm
Maximum Working Temperature	120 / 150 / 180 °C	120 / 150 / 180 °C
Magnetic Flux Depth	20 mm	20 mm
Proximity Sensor Range	0.2 mm	0.2 mm
Standard Voltages	AC 220V/380V/415V/440V, 50/60 Hz	AC 220V/380V/415V/440V, 50/60 Hz
Ejector Holes	Standard	Standard
Centering Rings	Standard	Standard
Control Unit	Magna IM	Magna IM
Temperature Sensor	Standard	Standard
Proximity Sensor	Each Side One Unit	Each Side One Unit
Magnetic Flux Sensor	Standard	Standard
Die Dislocation Detection	Standard	Standard
Magnetic Current Detection	Standard	Standard
Pole Sealing	Metal	Metal
Machine Integration	EUROMAP 70.0/70.1	EUROMAP 70.0/70.1

### Magnetic Clamping vs Conventional Clamping

Contents	Traditional clamping		Magnetic Clamping Systems
	Mechanical Systems	Hydraulic Systems	
Safety	Unable to stop the press if fault occurs.	Unable to stop the press if fault occurs. When power is down, hydraulic presser will be decreased and cause accident.	Multiple sensors monitor the system for faults. No energy consumption during working phase.
Reliability	Serious potential safety hazard Causing by mechanical clamping.	Oil leaks, pipe blockage, part replacement. High cost and time consuming. No feedback signal.	No Movable part and no electrical power needed once energized. Real time feedback signal during working process. Multiple sensors monitor the system for faults.
Efficiency	Efficiency Long mold change cycle, low efficiency.	Limitation of thickness of mold base board, it causes much less efficient mold change time.	Reduces mold changeover times (up to 90%). A single operator easily and safely performs the operation
Clamping Force	Clamping force only available in mold peripheral location with very limited No clamping force on mold center area. Mold is easy to deform.	Clamping force around the peripheral edge of the mold. No clamping force on mold center.	Uniform clamping over the entire surface, especially the center of the mold back. Ensure the working process of mold clamping rigidity.
Quality	Due to deformation of clamping pressure and no clamping force in the center of mold back. The consistency of product is not good	Due to deformation of clamping pressure and no clamping force in the center of mold back. The consistency of product is not good	Clamping the mold with uniformity allows obtaining good quality parts even with the first molds. The two mold halves are perfectly aligned: friction is minimized, preserving wear of molds and the machine.
Flexibility	Low suitability.	All the mold should require fixed size and shape	The entire magnetic working area allows any mold size and shape. No modification required
Economic	Pressing plate and bolt always needs replace, huge labor cost.	Need regular maintenance, replace sealing components.	No moving part, No wearing part. No maintenance need