

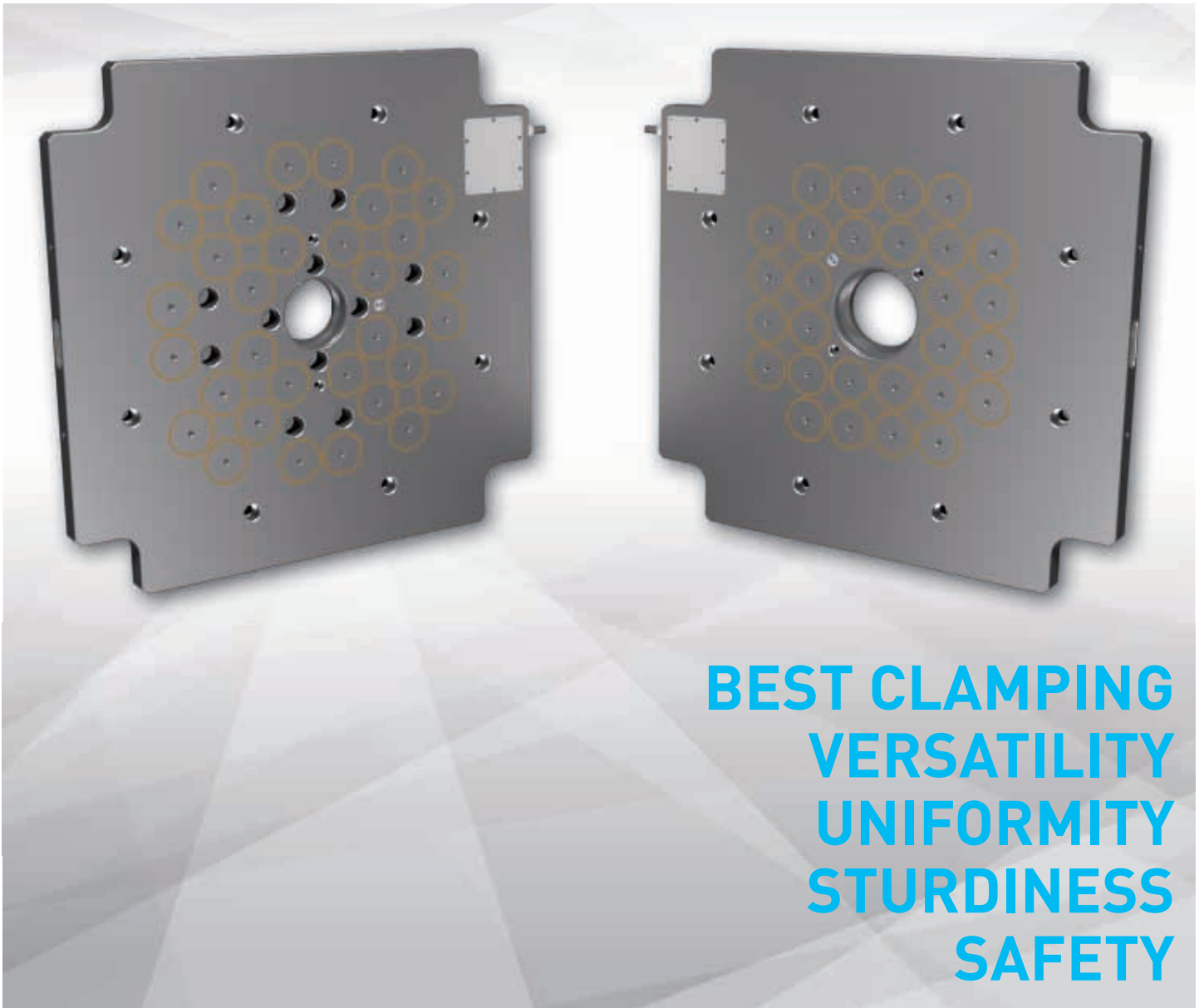
# SYMPLI-T

## FULL METAL DESIGN



EVOLVING TECHNOLOGY

**THE ELECTROPERMANENT MAGNETIC SYSTEM  
DESIGNED TO QUICKEN THE MOLD CHANGE ON INJECTION  
MOLDING MACHINES**



**BEST CLAMPING  
VERSATILITY  
UNIFORMITY  
STURDINESS  
SAFETY**

**MOLD CLAMPING IN JUST A FEW SECONDS**

The magnetic modules type **SYMPLI-T** feature a sturdy steel structure along with high-quality alnico and neodymium magnets on its inside. The magnets are arranged in a chessboard pattern by alternating north and south poles, thus generating an adhesive force upon their magnetization.

The corresponding activation is carried out by means of an electronic device and is performed in less than one second. The magnetic module remains therefore magnetized as long as required, without any further energy supply.

Hence, the magnetic force obtained with the **SYMPLI-T** system will remain unaltered and is proportional to the number of poles covered by the mold. Thanks to the use of round magnetic poles, it is possible to optimize the adhesive force of the mold, regardless of its size.

## BEST CLAMPING

Unlike traditional clamping methods, the magnetic system **SYMPLI-T** generates a uniform clamping force all over the mold surface, thus avoiding any tension and deformation.

In this way, the mold preserves its mechanical features, guaranteeing at the same time a better quality and repeatability as far as the molded parts are concerned.

(fig. 1)

## VERSATILITY

The **SYMPLI-T** system is suitable for all kinds of injection molding machines provided with threaded holes or T-nuts, thus allowing the exploitation of the entire platen surface. No matter their shape or size, the molds can be easily clamped without having to modify the platen.

(fig. 2)

## UNIFORMITY

The versatility of the **SYMPLI-T** module results from the chessboard pattern of its magnetic structure, able to distribute the clamping force uniformly over its entire surface.

No matter the shape of the mold to be clamped, the penetration of the magnetic flux will take place without any problems, reducing to a minimum the leakage flux with a consequent enhancement in terms of clamping force.

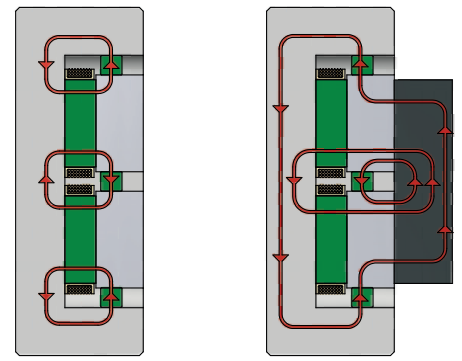
(fig. 2)

## STURDINESS

As the **SYMPLI-T** modules are obtained by machining a single steel block, they offer an extremely high mechanical resistance.

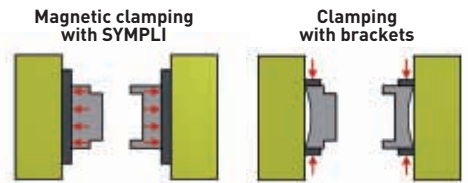
The chuck surface is made of iron and brass for an enhanced resistance to strain, wear and tear and high operating temperatures, thus requiring less maintenance.

(fig. 3)

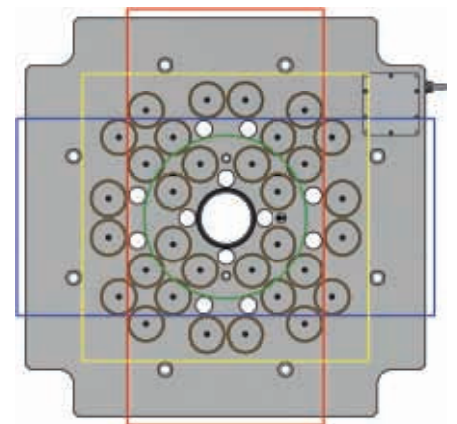


DEMAG CYCLE

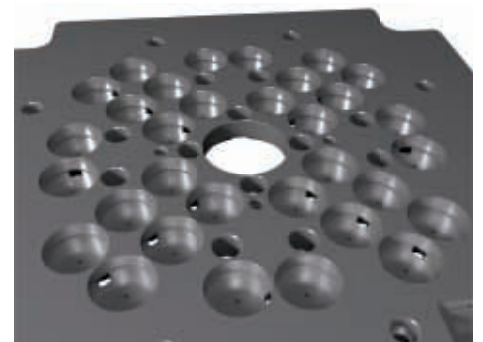
MAG CYCLE



(fig. 1)



(fig. 2)



(fig. 3)

# QUICK AND USER-FRIENDLY

## MOLD CLAMPING IN JUST A FEW SECONDS!

The **SYMPLI-T** system offers the possibility of a considerably reduced mold change time as well as simplified and therefore user-friendly clamping operations.

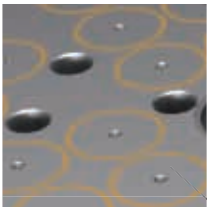
1. Mold centering on the stationary platen with injection molding machine open.
2. Closing of the mold.
3. Activation of the **SYMPLI-T** system by key-switch.
4. Magnetization by pressing simultaneously the SAFE and MAG button of both stationary and movable platen.
5. Molding machine ready for operation after just a few seconds



# ADVANCED ENGINEERING

## THROUGH-HOLES

On customer's request, the magnetic module will be provided with through-holes on the movable side for the ejector bars.



## CENTERING

Thanks to the centering system supplied as standard it is possible to position the mold very accurately and in the shortest possible time.



## ELECTRICAL JUNCTION BOX

The built-in electrical junction box ensures maximum sturdiness.

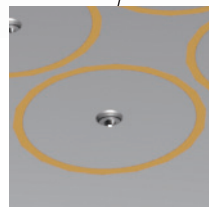


## FASTENING HOLES

The fastening holes comply with the EUROMAP /SPI/ JIS standards, thus allowing the modules to be easily fastened on the machine bed of the injection molding machine.

## ROUND MAGNETIC POLE FEATURING AN INSULATING BRASS RING

Thanks to the use of round magnetic poles the clamping force of the moulds of any shape has been optimized. The insulating brass ring ensures a better resistance to strain, wear and tear and to high operating temperatures.



## ACTIVE MONITORING

An inductive sensor as well as an active coil monitoring system are integrated into the magnetic module, meant to ensure maximum safety during its operation. A mold release of more than 0.2mm occurring in the automatic mode, for example, would immediately bring the injection molding machine to a halt. Furthermore, the same sensors allow the system activation only if the mold has been properly positioned onto the magnetic module.

# EVERYTHING UNDER CONTROL

## GENERAL FUNCTIONS

Activation of the remote control by key switch



Safety button      Temperature alarm      Voltage presence indicator

Armored metal button  
Enhanced LED backlighting



## INDEPENDENT CONTROL

MOVABLE PLATEN



STATIONARY PLATEN

Demagnetization      Magnetization      Mold release alarm      Mold adhesion alarm



Electronic control unit  
model USP dim. H400xL300xP120

The electronic control unit features different safety devices to safeguard both operator and handled material. The key switch on the remote control prevents the system to be activated by unauthorized persons. Moreover, having to press the SAFE and MAG (or DEMAG) buttons simultaneously, unintentional activations or deactivations are avoided. Another device measuring the point of saturation is meant to constantly ensure best magnetic performance. The system SIMPLY features an innovative digital technology for the magnetic flux measurement, thus allowing to detect in any condition the magnetic force of the anchored mould. An efficient and state-of-the-art numeric calculation algorithm analyses the signals captured by an array of solenoids built-in the magnetic surface, which, thanks to an intrinsic computational stability, supplies a completely noise protected force value. The **SYMPLI-T** system features furthermore a control panel comprising all the functions and indicating the different states of the system. In case of an unexpected mold release, for example, or if the magnetic module exceeds the maximum allowed contact temperature, the control panel notifies the operator immediately by means of corresponding alarms. Last but not least, it supplies the necessary interface signals to guarantee a perfect synergy with modern injection molding machines or with those requiring retrofitting. **Its main advantage, however, lies in the fact that it enables the working cycle only after having detected the correct positioning and magnetization of the mold.**

### TECHNICAL FEATURES

TYPE	SYMPLI -T
Magnetic force of each pole	700daN
Round magnetic pole diameter	75mm
Module thickness	45mm
Maximum contact temperature	150°C
Magnetic flux penetration depth	25mm
Activation field of the mould sensors	0.2mm
Available standard voltages	200/230/400/440/480 VAC, 50/60Hz
Fastening and centering holes	Euromap/SPI/JIS



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