

## Change for the better



# Magnetic clamping solutions



Time saving solutions

www.EASchangesystems.com

UK

## **Save time and money** with electro permanent magnetic clamping solutions from EAS

## The answers to the most asked questions:

Most flexible clamping option on the market

Simple and safe to operate

Remains clamped during power outage

Can be used on new and existing injection molding machines

### Why EAS change systems?

EAS has installed coutnless electro permanent magnetic clamping systems all around the world. Our extensive experience ensures a quality installation process.

EAS Pressmag systems are specifically engineered to magnetically clamp molds on injection molding machines.

To meet the industry's specific requirements, EAS's innovative Pressmag design takes into account all the application's needs.

Magnetic clamping systems (MCS) are designed to shorten changeover time, therefore increasing machine productivity. These systems are one of many solutions that will help increase productivity, reduce costs, and increase safety during a mold change (for both the operator and equipment).



### **Pressmag solutions**

The latest generation Pressmag LP magnetic clamping system is ideally suited for use on large tonnage injection molding machines. The long pole shape of the Pressmag LP is oval, which allows for higher clamping forces and easy exchange of poles during repairs. The electro-permanent Pressmag SP magnetic clamping system provides a flexible clamping solution on lower tonnage machines. The smaller, square poles, allow for a higher clamping force by flexible pole placement and reduced magnetic plate bending.

## Pressmag solutions for **maximum safety** and control according to VDMA, SPI & ISO standards

Complying to all the latest safety standards, the EAS Pressmag range offers the most advanced, safety oriented, and ease of use touch screen control panel in the market.

### **Pressmag features**

## Automatic diagnostic functions based on four checkpoints (4 in 1 sensor)

Pressmag systems are equipped with four check points: mold presence during magnetization, sufficient level of magnetization, flux production control, and demagnetization success.

These four checkpoints are processed by two proximity sensors and a temperature control sensor. The proximity sensor gives a signal if there is an air gap that becomes too big, or when no mold is detected. It is also used to stop the machine. A flux sensor can be supplied on request. It detects a change in the magnetic flux if an alloy steel mold is used that cannot be clamped. It also serves as an additional level safety when used with the proximity sensors.

#### Built in safety checks during operation

Pressmag systems measure four different criteria to make the automatic adaptation work successfully: the network voltage, the network frequency, the magnetic plate electro-magnets resistance for diagnosis, and the amperage delivered during pulses.

#### Automatic adaption of variation of power

These four measurements are done before the start of production to establish a pre-adjustment of power. When production starts, sensors automatically recalculate all previous parameters and adapt the pre-adjustment settings to the variable needed during the production. A two-phase circuit breaker is available to prevent from damages.

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### Certification

EAS controls are designed and built specifically for Pressmag solutions. They ensure safe and trouble free operation of your injection molding or die change. The Pressmag control units meet the latest ISO, VMA, and SPI standards.

The interface between the injection molding machine and our Pressmag system is defined as follows:

- E (Euromap) 70.0 when existing molding machines are retrofitted
- E (Euromap) 70.1 for new machines with controls already integrated into the machine interface
  Full integration with the IMM control software is available for most major brands of injection molding machines as well

## **Operator friendly** Pressmag solutions

The touch screen controls can be set in different languages to improve user experience and ease of operation.



MAGTCU 13 Control Unit

#### 8" touch color screen

The MAGTCU13 control panel is an easy to read 8" color touch screen, featuring a strong aluminum front face. It is also equipped with 8 soft touch buttons. The housing has a sliding plastic panel for simple access to an LAN connector and/or removeable SD card.

#### **Icon based operations**

The touch screen shows what the machine status is and what functions are available. These operations are illustrated by easy-to-understand icons with different colors depending on the situation your machine is facing.

#### Actual system status

As well as operation's icons, the MAGTCU13 screen's color changes based on the systems status: red for important issues, orange/yellow for secondary issues, green for validation, and grey for basic functions.

#### Multiple levels of access

The MAGTCU13 allows for six different levels of access. These access levels include basic operation, maintenance, and installation. These 6 levels are named from 0 to 5 in order as: Basic level, Head operator, Maintenance, EAS or formed operator, Production team and EAS intervention. A unique operator ID and password is created to ensure safety and traceability of usage. EAS provides different levels of user training with each system for operators, team leaders, and maintenance personnel.

#### **Remote access**

The remote access feature uses a VNC Client protocol. This allows for off-site troubleshooting by EAS Certified technicians.

Through RAD IXON (which establishes a secure VPN tunnel), it is possible to replicate the touch screen of MAGTCU13 on the screen of a remote computer.

Even if the touch screen is broken, all functions will still be available on the remote screen. This allows an EAS technician to troubleshoot or reset the system remotely before having to arrange an onsite repair or exchange of the display.

The reset, magnetization, and demagnetization buttons are only accessible on the physical control unit. The operator present in front of the machine can validate these operations. These buttons remain operational even with a defective touch screen display. This means that the operation is completely safe.

## Get Personalized **Services** for your Pressmag

Time is money and EAS is fully focused on providing an optimal user experience with as little down time as possible in case of any issues while using our systems. EAS offers several services to get your system installed and to keep it in optimal working condition.



#### Installation

On new machines the machine manufacturer, a certified partner company, or an EAS technician will install and connect the Pressmag system. For installation on existing machines, the professional installation team of EAS will gladly install and control the system on the premises, thus ensuring a complete and proper installation.

#### On site and Remote training

When all of your systems are installed and set up, EAS certified technicians will conduct an on-site training session. EAS can also remotely train new staff on your equipment by using our VNC technology. This allows live viewing of the MAGTCU13 screen and what the proper operating sequence is and how to do basic trouble shooting.

#### **Remote updates**

Thanks to the EAS Control unit and VNC technology, software updates can be installed at any time. In case of necessary software updates, EAS can remotely access your software and update it quickly and conveniently without the extra cost of an on site intervention.

#### **Remote service**

Remote trouble shooting of the MCS system is made easy via the VNC protocol or by sending the data files stored on the SD card of the control unit. This allows for quick off-site service. This feature can be used for preventative maintenance as well.

#### **Pole replacement**

The long pole shape of the Pressmag LP is a preassembled, plug-in oval pole, that facilitates easy exchange of poles.

EAS provides you with the possibility to replace a (single) defect pole on site. This reduces the down time of the system.

## **Technical** characteristics

## Other **solutions**

	Pressmag SP			Pressmag LP
	EAS-Y-MAG	SP 100	SP 150	
Machine clamping force kN (t)	500-2000 (50-200)	500-4000 (50-400)	500-4000 (50-400)	2000-45000 (200-4500)
Magnetic force per pole kN (t)	2,2 (0,22)	2,2 (0,22)	2,2 (0,22)	21 (2,1)
Plate thickness	38 mm (1,5")	38 mm (1,5")	38 mm (1,5")	55 mm (2,16")
Max working temperature *1	100°C (212°F)	100°C (212°F)	150°C (302°F)	100°C (212°F)
Magnetic flux depth	20 mm (.78")	20 mm (.78")	20 mm (.78")	25 mm (.98")
Proximity sensor range	0,2 mm (.0078")	0,2 mm (.0078")	0,2 mm (.0078")	0,2 mm (.0078")
Standard voltages	380/415VAC,50/60Hz	380/415VAC,50/60Hz	380/415VAC,50/60Hz	380/480VAC,50/60Hz
Ejector holes	standard	standard	standard	standard
Centering rings	no	>2000kN (200t)	>2000kN (200t)	standard
Control unit	IL1 or standard SCU	IL1, standard SCU or MAGTCU13	IL1, standard SCU or MAGTCU13	Touch screen MAGTCU13
Temperature sensor	no	standard	on request	standard
Proximity sensor	1 per plate	1 per plate ≤2000kN (200t) 2 per plate >2000kN (200t)	1 per plate ≤2000kN (200t) 2 per plate >2000kN (200t)	2 per plate
Magnetic flux sensor	no	no	no	standard
Force measurement	no	no	no	optional
Pole sealing	resin	resin or metal	metal	metal

\*1. Pressmag HP on request available to 120°C(248°F) \*3. T mounting screws on request



### **Rotating tables**

Magnetic clamping solutions are also available for multi-color rotating platen presses, and tiebarless molding machines. EAS offers other specialized applications for die-casting machines, rubber, and ceramic presses.

### Horizontal mold change on injection molding machines

EAS also offers Pressmag clamping solutions for horizontal mold change operations. Horizontal clamping systems can be accompanied with time-saving rollers (driven and non-driven), mold-change tables, and transportation vehicles. Additional time saving options include multi-couplers and mold locking devices for standardized mold back plates.







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