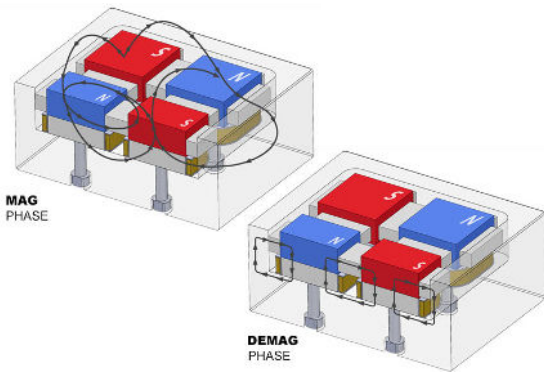


ELECTRO PERMANENT TECHNOLOGY



Electro-permanent magnets utilize electrical current for only a few seconds to molecularly invert (magnetize) the magnet. This state remains active until the next electrical pulse (demagnetize).

The effective magnetic force is generated by permanent magnets. Due to their independence from electric current, electro-permanent magnets are 100% safe, require no backup batteries, consume 95% less energy, and are maintenance-free.

9 SAFETY FEATURES

ELECTRO PERMANENT MAGNETIC TECHNOLOGY

The electric current is only used to invert the magnetic field, while the effective force is generated by permanent magnets. In the event of a power failure, the magnetic force remains permanently present = 100% safe

SAFETY FACTOR 3:1
















To lift safely, a possible air gap between the contact surface of the magnet, and the steel to be lifted, must be considered. That is why all our magnets are designed with a minimum safety factor of 3:1 measured at an air gap of 0.4 mm.

LANDING DETECTION

An inductive proximity switch detects when the magnet is suspended in the air, and prevents accidental demagnetisation.

PICK-UP CYCLE

Lifting is done in 2 phases, whereby the workpiece is first lifted at a lower preset force (PICK-UP), immediately followed by FULLMAG (100% of the total force)

			PICK-UP Very thin	Generated force 17%
			PICK-UP Medium/thin	Generated force 25%
			PICK-UP Medium/	Generated force 35%
			PICK-UP Large	Generated force 55%
			FULL - MAG Always	Generated force 100%

2 BUTTON OPERATION

To start the demagnetization cycle, 2 buttons (SAFE + DEMAG) must be pressed consecutively on the remote control.

RADIO REMOTE CONTROL

The magnet is operated from a safe distance. The operator should not come in the immediate vicinity of the load.

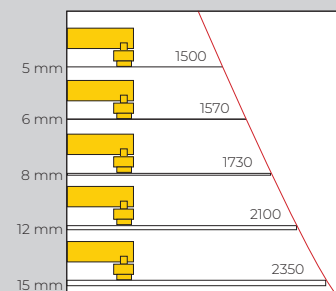
LAMP BLOCK

The status of the magnet is visually indicated by a clear LED lamp block. The load may only be moved horizontally when the green lamp lights up continuously!

 PICK-UP  FULLMAG
 DEMAG  ALARM

INSTRUCTION PANEL

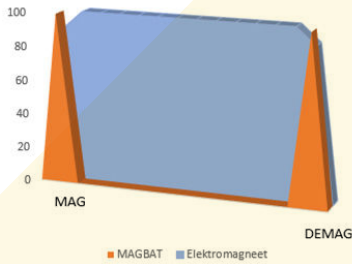
With clear safety instructions for the user regarding:
 - Maximum weight of the load in function of material thickness
 - Maximum wing in function of the deflection of the material.



SPC-SYSTEM (SYSTEM PERFORMANCE CHECK)

The electronic system continuously monitors the proper functioning of the magnet. Any abnormal situation is reported immediately and indicated by an error code on the help screen. In this way, errors can be immediately analysed and resolved.



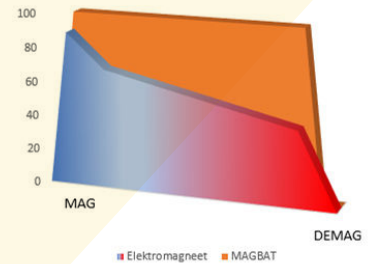


95% LESS ENERGY CONSUMPTION

MAGBAT electro permanent magnets use electrical current for only a few seconds to reverse the polarity of the magnetic poles. This contrasts with electromagnets that continuously consume electrical power during the entire lifting process.

NO HEATING OF THE MAGNET

As Electro-Permanent Magnets exclusively utilize electrical current solely during the phases of magnetization and demagnetization, the duration of current passing through the electrical coils is restricted. Consequently, electro-permanent magnets remain cool, ensuring a consistent magnetic force.



MAINTENANCE FREE

Since the coils of electro-permanent magnets are not continuously under voltage, they possess an extended lifespan and require no maintenance.

Additionally, there's no need for expensive backup batteries that need annual inspections. As a result, downtime is eliminated, ensuring your production remains uninterrupted.

NO BACKUP BATTERIES NECESSARY

Since the magnetic force in electro-permanent magnets is generated by permanent magnets, they are independent of electrical current. In case of a power outage, the magnetic force remains constant. Expensive backup batteries are therefore unnecessary.

NO RESIDUAL MAGNETISM

Everything that goes in goes out.

The magnetic field flows locally, controlled and highly concentrated, from the North Pole to the South Pole, across the workpiece. As a result, no residual magnetism remains, and there are no issues during potential welding projects afterward.



THE SAFEST LIFTING MAGNET IN THE WORLD

FOR MORE INFORMATION, PLEASE CHECK
www.magbat-europe.com

MAGBAT - GENERAL INFO
 19 augustus 2023 12:40 p.m.