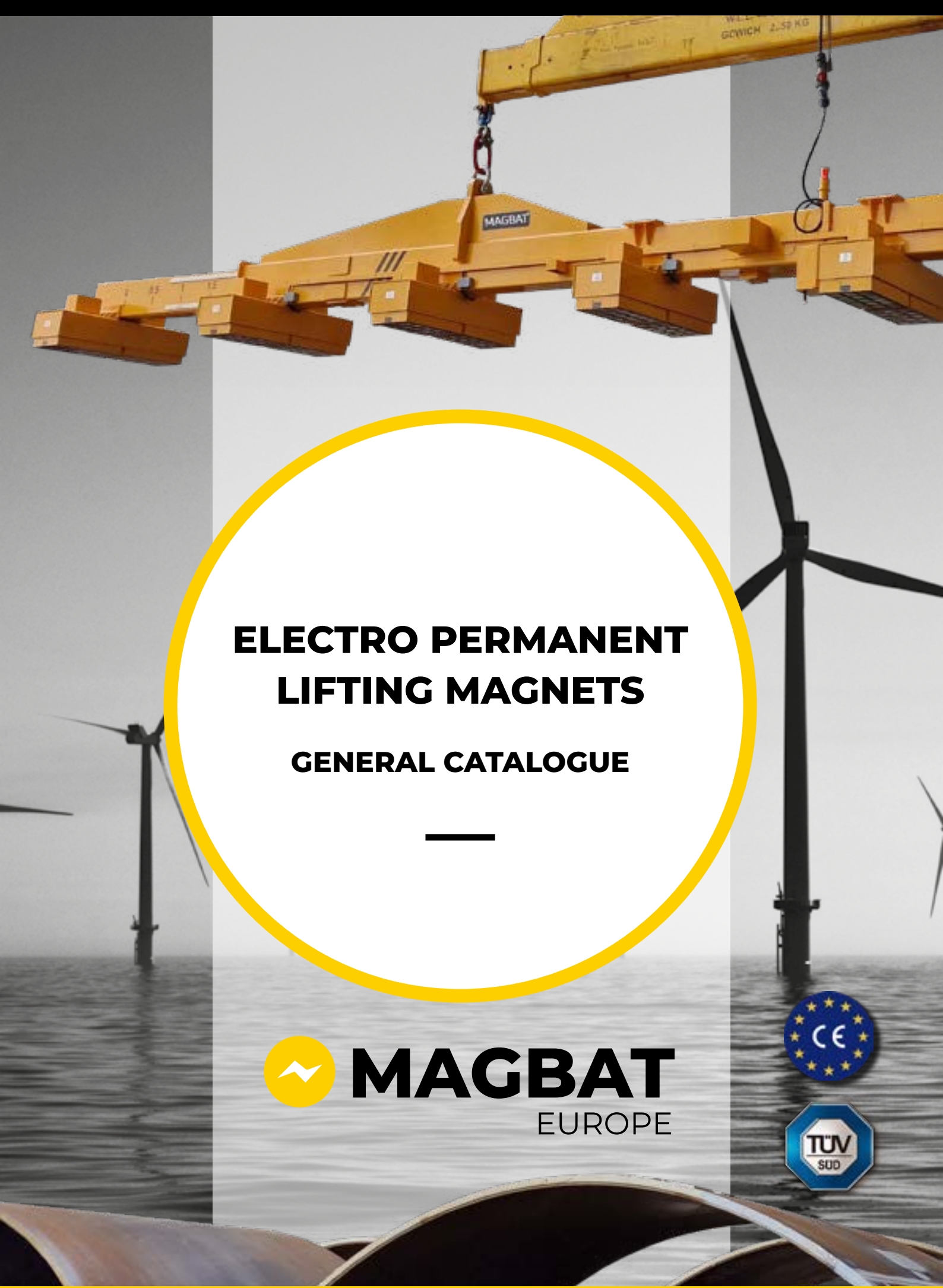


ELECTRO PERMANENT LIFTING MAGNETS

GENERAL CATALOGUE

MAGBAT
EUROPE

AC-POWER

ELECTRO PERMANENT LIFTING MAGNETS

6

SERIE: HM1—FIX BEAM
Lifting of single steel Sheets ≥ 5 mm
3—6—9—12—16 m
2.500 kg—24.000 kg

10

SERIE: HM2—TELESCOPIC BEAM
Lifting of single steel Sheets ≥ 5 mm
12m—16 m
5.000 kg—24.000 kg

14

SERIE: HM3
Lifting of THIN steel Sheets ≥ 3 mm
3—6—9—12 m
1.000 kg—4.000 kg

18

SERIE: HM4
Vertical lifting of steel Sheets
6—12—16 m
Dimensions/capacities on request

20

SERIE: HM5
Uncharging of cutting machines in one movement.
Dimensions/capacities on request

22

SERIE: HM6
Lifting of multiple steel sheets
Dimensions/capacities on request

24

SERIE: HS
Lifting HEA-HEB-IPE-IPN 80-600 Profiles
6—12—18—24 m
1.300 kg—5.200 kg

26

SERIE: HB
Lifting of Billets and Slabs
Dimensions/capacities on request

1 BRANCH
3 RANGES

27

SERIE: HC
Lifting of coils
Horizontal or vertical Eye
Dimensions/capacities on request

28

SERIE: HT
Lifting of tubes (single and rows)
Dimensions/capacities on request

29

SERIE: HR
Lifting of Rounds
Dimensions/capacities on request

DC-POWER

BATTERY POWERED ELECTRO PERMANENT LIFTING MAGNETS

30

SERIE: HBEP
Lifting of Flat and Round Steel Parts
500 kg—5.000 Kg

32

SERIE: HBEPP
Lifting of single steel Sheets ≥ 5 mm
3—6—9—12—16 m
1.000 kg—25.000 kg

42

SERIE: HBEPS
Lifting HEA-HEB-IPE-IPN 80-600 Profiles
3—6—12—18—24 m
1.300 kg—5.200 kg

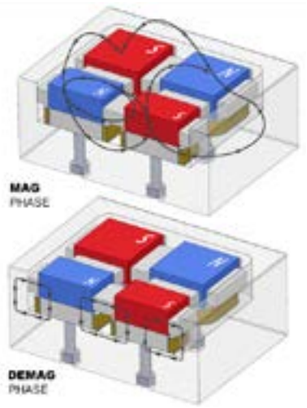
MAGNETIC MODULES FOR AUTOMATION

48

SERIE: HEBMP
Electro permanent magnetic modules for production and welding automation

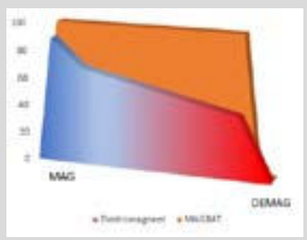
ELECTRO PERMANENT MAGNETIC TECHNOLOGY

FOR QUICK AND SAFE HANDLING OF STEEL PLATES AND -STRIPS



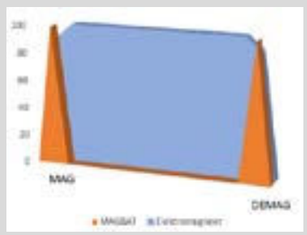
TECHNOLOGY

MAGBAT-Electro Permanent Magnets (EPM) offer 95% energy savings and superior safety compared to traditional electromagnets. They require power only during MAG and DEMAG phases, operating without power supply. The technology features an electro permanent magnetic circuit with alternating N/S poles, following the chessboard principle, in a magnetically neutral frame. Each pole includes a steel core surrounded by fixed polarity magnets (Neodymium). Beneath the steel core, a magnet with reversible polarity (AlNiCo) is surrounded by an electric coil. A short current pulse through the coil enables the magnetic field to move in and out of the system.



CONSTANT POWER

Because no continuous current flows through the electric coils, electro permanent magnets do not heat up and the force remains constant. This contrasts with electromagnets that require continuous current and heat up, resulting in a loss of power.



95% LOWER 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.

ADVANTAGES

- 100% safe. EPM only need electricity while activating or deactivating the magnet. The effective force is developed by permanent magnets.
- Predictable and constant force.
- More than 95% electricity savings compared to conventional electromagnets.
- No backup batteries required. The magnetic force remains in the event of a power failure.
- No heating of the magnet, longer life of the electric coils.
- No residual magnetism in the material.
- No interference with electronic environmental periphery.
- No moving parts, Low maintenance costs

9 SAFETY FUNCTIONS

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

PICK-UP CYCLE
Lifting is done in 2 phases, whereby the workpiece is first lifted at a lower preset force, 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/large	Generated force 35%
PICK-UP Large	Generated force 55%
FULL - MAG Always	Generated force 100%

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.

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.

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

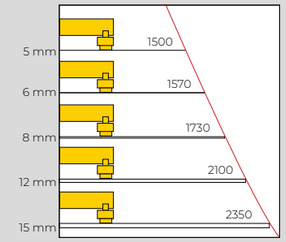
LAMP BLOCK
The status of the magnet is visually indicated by a clear LED lamp block. The load may only be moved when the green lamp lights up continuously!

PICK-UP FULLMAG
DEMAG ALARM

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

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

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.



MAGBAT

THE SAFEST LIFTING MAGNET IN THE WORLD

HM1

FIX ELECTRO PERMANENT MAGNETIC BEAM

THE ECONOMIC SOLUTION FOR LIFTING STEEL PLATES ≥ 5 MM

SAFETY FACTOR 3

Lifting long steel plates and strips is a dangerous and time-consuming activity. Using traditional plate clamps or chains will cause the load to bend and deform and makes lifting unstable and dangerous.
The HM1 electro permanent magnet beams are the economical solution to this problem. The load is clamped uniformly from above, without deformation and / or damage of the steel plate.

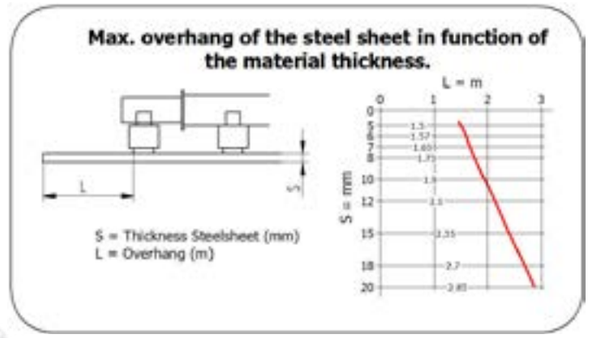
PICK-UP CYCLE
Depending on the thickness of the steel plate, the force can be adjusted, so that only 1 plate is guaranteed to be lifted.

Percentage of total force at PICK UP:
POSITION I = 15%
POSITION II = 25%
POSITION III = 35%
POSITION IV = 55%

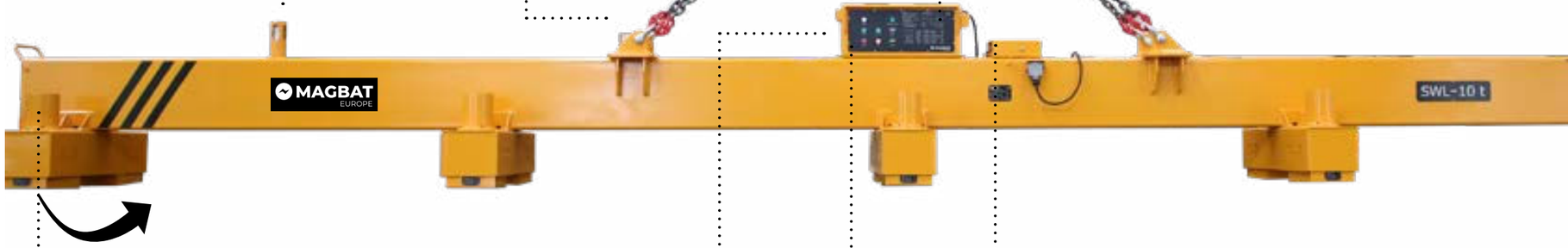
SELECTION MAGNETIC MODULES
A corresponding number of magnet modules can be selected via a 4-position switch, depending on the dimensions of the steel plate to be lifted.

Reinforced lamp block to indicate the status of the magnet

Landing detection system with inductive proximity switch against accidental demagnetizing in the air.



Maximum Load Instructions



Flexible suspension of the magnet modules for perfect adaptation to the steel plate

SPC-system for fast error analysis

Clear control panel

Radio Remote Control

HM1

FIX ELECTRO PERMANENT MAGNETIC BEAM

THE ECONOMIC SOLUTION FOR LIFTING STEEL PLATES ≥ 5 MM

SAFETY FACTOR 3

LIFTING OF STEEL PLATES

PRODUCT	WEIGHT (KG)	LENGTH (MM)		WIDTH (MM)		T (MM)	CAPACITY (KG)	EPM
		MIN.	MAX.	MIN.	MAX.	MIN.		QTY
HM1-03-025	450	500	3000	500	2000	3	2500	4
HM1-04-040	456	250	4000	500	3500	5	4000	4
HM1-06-030	900	500	6000	500	2500	5	3000	6
HM1-06-060	1000	500	6000	500	2500	5	6000	6
HM1-06-090	1100	500	6000	500	2500	5	9000	6
HM1-06-240	1600	500	6000	580	3500	8	24000	6
HM1-09-050	1200	2350	9000	500	2500	5	5000	8
HM1-09-080	1300	2350	9000	500	2500	5	8000	8
HM1-09-100	1400	2350	9000	500	2500	5	10000	8
HM1-09-120	1500	2350	9000	500	2500	5	12000	8
HM1-09-160	1600	2350	9000	500	2500	5	16000	8
HM1-12-050	1600	5000	12000	500	3200	5	5000	10
HM1-12-080	1800	5000	12000	500	3200	5	8000	10
HM1-12-100	2000	5000	12000	500	3200	5	10000	10
HM1-12-150	2200	5000	12000	500	3200	5	15000	10
HM1-12-200	2400	5000	12000	500	3200	5	20000	10
HM1-12-240	2800	5000	12000	500	3200	5	24000	12
HM1-16-100	2600	8300	16000	500	3200	5	10000	12
HM1-16-140	2700	8300	16000	500	3200	5	14000	12
HM1-16-200	2900	8300	16000	500	3200	5	20000	12
HM1-16-240	3000	8300	16000	600	3200	5	24000	12

LIFTING OF STEEL STRIPS

PRODUCT	WEIGHT (KG)	LENGTH (MM)		WIDTH (MM)		T (MM)	CAPACITY (KG)	EPM
		MIN.	MAX.	MIN.	MAX.	MIN.		QTY
HM1-06-010/S	430	400	6000	60	400	4	1000	4
HM1-06-015/S	450	400	6000	60	1000	4	1500	4
HM1-12-030/S	1200	2000	12000	120	1000	6	3000	6
HM1-16-025/S	950	2000	15000	200	800	6	2500	8
HM1-16-045/S	1600	2000	16000	120	1000	6	4500	8

Other dimensions on request

HM2

TELESCOPIC ELECTRO PERMANENT MAGNETIC BEAM

LIFTING OF STEEL PLATES ≥ 5 MM
IN VARIOUS LENGHTS

SAFETY FACTOR 3

Reinforced lamp block
to indicate the
status of the magnet

Landing detection system
with inductive proximity
switch against accidental
demagnetizing
in the air.

Radio Remote Control

Telescopic system
Driven by an electric
motor and screw spindle

Flexible suspension
of the magnet modules
for perfect adaptation
to the steel plate

SPC-system
for fast error analysis

Clear control
panel

Stable guidance
of the telescopic arms via
adjustable steel rollers.

HM2

TELESCOPIC ELECTRO PERMANENT MAGNETIC BEAM

LIFTING OF STEEL PLATES ≥ 5 MM IN VARIOUS LENGHTS

SAFETY FACTOR 3

Large steel plates are often difficult to handle. When lifting with traditional chains and hooks, the load has the intention to bend and deform, making transport unstable and dangerous.
With the HM2 series electro permanent magnet beams, the load is lifted evenly from the top, without deformation or damage to the load.

PICK-UP CYCLE

Depending on the thickness of the steel plate, the force can be adjusted, so that only 1 plate is guaranteed to be lifted.

Percentage of total force at PICK UP:
POSITION I = 15%
POSITION II = 25%
POSITION III = 35%
POSITION IV = 55%

TELESCOPIC SYSTEM

The telescopic system is driven by a combination electric motor / screw spindle, which allows the telescopic arms to move in and out quickly and synchronously. In this way, the magnetic beam can be adjusted quickly and easily to the length of the steel plate, so the deflection and deformation of the material is minimal.

SELECTION MAGNETIC MODULES

A corresponding number of magnet modules can be selected via a 4-position switch, depending on the dimensions of the steel plate to be lifted. **The possibility to shorten or extend the centre distance between the crossbeams and to select the magnet modules individually, make the HM2 traverses exceptionally flexible in use, even in limited spaces.**

STEEL PLATES 12M

PRODUCT	WEIGHT (KG)	LENGTH (MM)		WIDTH (MM)		T (MM)	CAPACITY (KG)	EPM
		MIN.	MAX.	MIN.	MAX.	MIN.		QTY
HM2-12-050	2350	3000	12000	500	3000	5	5000	8
HM2-12-080	2500	3000	12000	500	3000	5	8000	8
HM2-12-100	2650	3000	12000	500	3000	5	10000	8
HM2-12-120	2800	3000	12000	500	3000	5	12000	8
HM2-12-150	2950	3000	12000	500	3000	5	15000	8
HM2-12-200	3350	3000	16000	500	3200	5	20000	8
HM2-12-240	3550	3000	16000	500	3200	5	24000	8

STEEL PLATES 16M

PRODUCT	WEIGHT (KG)	LENGTH (MM)		WIDTH (MM)		T (MM)	CAPACITY (KG)	EPM
		MIN.	MAX.	MIN.	MAX.	MIN.		QTY
HM2-16-090	3300	3000	16000	500	3500	5	9000	12
HM2-16-120	3400	3000	16000	500	3500	5	12000	12
HM2-16-160	3600	3000	16000	500	3500	5	16000	12
HM2-16-200	3800	3000	16000	500	3500	5	20000	12
HM2-16-240	4000	3000	16000	500	3500	5	24000	12
HM2-16-350	10000	3000	16000	500	4200	15	35000	12
HM2-16-500	11000	3000	16000	500	4200	15	50000	12

Other dimensions on request

ADVANTAGES OF ELECTRIC POWERED SYSTEM OVER HYDRAULIC

- Electric powered telescopic system is faster than hydraulic.
- An electric motor requires no maintenance, while a hydraulic pump requires regular maintenance.
- No risk of oil leaks, clean system.
- Better and more robust guidance of the hydraulic arms. Steel rollers instead of nylon blocks.
- More reliable. No hydraulic cylinder that can bend in the event of sudden impact.

HM3

FIX ELECTRO PERMANENT MAGNETIC BEAM

LIFTING OF THIN STEEL PLATES ≥ 3MM

SAFETY FACTOR 3

The HM3 electro permanent magnetic beam is the ideal solution for lifting thin steel sheets starting from a thickness of 3 mm. With a 4-position switch, the PICK-UP force is selected according to the thickness of the steel sheet, guaranteeing that only 1 steel sheet is lifted. Depending on the length of the steel sheet, a number of corresponding magnetic modules are selected. The uniform distribution of the magnetic modules prevents the steel strip from sagging and guarantees safe transport.

MODELS

PRODUCT	WEIGHT (KG)	LENGTH (MM)		WIDTH (MM)		T (MM)	CAPACITY (KG)	EPM
		MIN.	MAX.	MIN.	MAX.	MIN.		QTY
HM3-03-010	550	500	3000	1000	2500	3	1000	6
HM3-06-006	400	1000	6000	60	300	3	500	4
HM3-06-020	700	1000	6000	1000	2500	3	2000	12
HM3-09-030	1000	1000	9000	1000	2500	3	3000	18
HM3-12-040	1300	1000	12000	1000	2500	3	4000	24

Other dimensions on request

HM4

FIX ELECTRO PERMANENT MAGNETIC BEAM

LIFTING AND TILTING OF VERTICAL STEEL PLATES AND -STRIPS

SAFETY FACTOR 3

The HM4 electro permanent magnet beam is the ideal solution when space is an issue and vertical storage of steel sheets can provide a solution.
These very powerful magnetic modules have a safety factor of 3:1 calculated for shear force.
The steel plate is easily lifted in or out of the storage rack, from a distance, without risk to the operator.
Via the downward movement of the crane, the integrated tilting system ensures that the steel strip finally lands horizontally, on the ground or on the table of a cutting machine.

OPTION
With the AUTEC-SK4 remote control, the operator has his hands free to operate the overhead crane.

FEATURES:
- Belt attachment
- PICK-UP force setting
- Module selection

MODELS

PRODUCT	WEIGHT (KG)	LENGTH (MM)		WIDTH (MM)		T (MM)	CAPACITY (KG)	EPM
		MIN.	MAX.	MIN.	MAX.	MIN.		QTY
HM4-06-040	900	2000	6000	1200	3200	5	4000	4
HM4-06-080	1300	1700	6000	800	2500	5	8000	4
HM4-12-070	2200	500	12500	1200	3200	5	7000	6
HM4-12-120	2400	500	12500	1200	3200	5	12000	6
HM4-13,5-090	1800	500	13500	165	3000	5	9000	6

Other dimensions on request

HM5

FIX ELECTRO PERMANENT MAGNETIC BEAM

LOADING AND UNLOADING CUTTING MACHINES IN ONE MOVE

SAFETY FACTOR 3

HM5 - electro permanent magnetic beams are used to load the cutting machine, AND to unload the cutted parts + frame from the cutting machine in 1 movement.
Depending on the min. size of the cut pieces, these beams are produced according to the customer's requirements.

FAST RETURN ON INVESTMENT
The HM5 electro permanent magnetic beam reduces the downtime of your machine and it creates extra production capacity so that extra orders can be accepted.

ERGONOMIC—INCREASED SAFETY
It is no longer necessary for the operator to climb on and off the machine to unload it. This creates better working conditions and increased safety.

FLEXIBILITY
Depending on the zone to be cleared, the operator has the option of selecting a specific zone.

CALCULATION EXAMPLE ROI
Cutting capacity per per day: 10 steel plates
Cost/hour: e.g. 50 €

Time to load + unload the machine: 20 minutes
Downtime per day: 200 minutes = 3.3 hours

Time to load + unload the machine with HM5 = 3 minutes
Downtime per day: 30 minutes = 0.5 hours

Profit per day = 140 €
Additional production capacity per day = 2.8 hours
Profit per year = 140 € x 220 days = 30,800 €
Extra production capacity per year = 616 hours

OXY & PLASMA CUTTING

PRODUCT	LENGTH	WIDTH	THICKNESS (MM)		MIN.CUTTED PIECES (MM)	CAPACITY (KG)
	MAX.	MAX.	MIN.	MAX.		
HM5-03-015/P	3000	1500	5	40	250x250	1500
HM5-06-040/P	6000	2000	5	40	250x250	4000
HM5-06-060/P	6000	2500	5	40	250x250	6000
HM5-09-085/P	9000	3000	5	40	250x250	8500
HM5-12-115/P	12000	3000	5	40	250x250	11500

Other dimensions on request

LASERCUTTING

PRODUCT	LENGTH	WIDTH	THICKNESS (MM)		MIN.CUTTED PIECES (MM)	CAPACITY (KG)
	MAX.	MAX.	MIN.	MAX.		
HM5-03-015/L	3000	1500	1,5	30	80x80	1000
HM5-06-020/L	6000	1500	1,5	30	80x80	2000
HM5-06-030/L	6000	2000	1,5	30	80x80	3000
HM5-09-040/L	9000	2000	1,5	30	80x80	4000

Other dimensions on request

OXY CUTTING

PRODUCT	LENGTH	WIDTH	THICKNESS (MM)		MIN.CUTTED PIECES (MM)	CAPACITY (KG)
	MAX.	MAX.	MIN.	MAX.		
HM5-03-040/O	3000	2000	5	80	300x300	4000
HM5-06-100/O	6000	2500	5	80	300x300	10000

Other dimensions on request

HM6

FIX ELECTRO PERMANENT MAGNETIC BEAM

LIFTING OF MULTIPLE STEEL SHEETS

SAFETY FACTOR 3

HM6 magnetic beams are equipped with electro permanent magnetic modules that generate an extra deep magnetic field, making them suitable for manipulating stacks of steel sheets.

SIMPLIFIED TIPPING
Our unique technology allows to release sheet by sheet by a simple push on the button. Each time the button is pressed, exactly 1 steel plate is released.

NO BACK-UP BATTERIES REQUIRED
Because the HM5 is based on electro permanent magnet technology, where the force is generated by permanent magnets, back-up batteries are not required.

ENERGY EFFICIENT
The HM6 only uses electric current to reverse the polarity of the magnet. No electrical current is required during the working phase. This makes the HM5 electro permanent magnetic beam 95% more economical than traditional electromagnets.

TIP:
The HM5 electro permanent magnetic beam is the perfect lifting magnet for fast and safe loading and unloading of trucks with stacks of steel plates

MODELS

PRODUCT	LENGTH MAX.	WIDTH MAX.	THICKNESS (MM) MIN.	THICKNESS (MM) MAX.	PACKAGE (MM)
HM6-03-025	3000	1500	5	60	2500
HM6-06-060	6000	2000	5	60	6000
HM6-09-110	9000	2500	5	60	11000
HM6-12-170	12000	3000	5	60	17000

Other dimensions on request

HS

ELECTRO PERMANENT MAGNETIC BEAM

LIFTING OF HEA-HEB-IPE-IPN PROFILES

SAFETY FACTOR 3

Lifting profiles is a time-consuming and dangerous operation. Profiles are often stacked on top of each other, which makes them difficult to handle. When using standard profile clamps, long profiles bend, which makes transport extremely dangerous, and damage to the profile can occur. With the HS-electro permanent magnetic beams, the profile is uniformly clamped from above, and lifted and moved without deformation and/or damage to the profile.

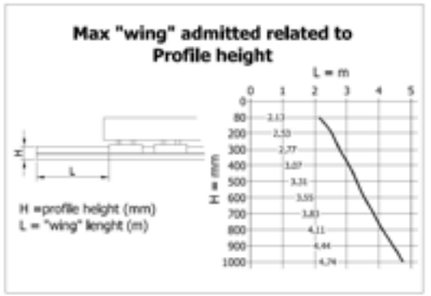
PICK-UP CYCLE

To ensure that only one profile is lifted, the PICK-UP force can be set to 4 levels.

Percentage of total power at PICK-UP:
POSITION I = 15%
POSITION II = 25%
POSITION III = 35%
POSITION IV = 55%

SELECTION MAGNETIC MODULES

Depending on the length of the profile to be lifted, a corresponding number of magnetic modules can be selected via a 4-position switch.



Landing detection system with inductive proximity switch against accidental demagnetisation in the air

Maximum load instructions related to material thickness

Reinforced lamp block to indicate the status of the magnet.

Flexible suspension of the magnetic modules for perfect adaptation to the profile

Radio remote control

Slim pole shoes that fit in a profile from 80mm width.

SPC system with indication of any system faults

Clear control panel

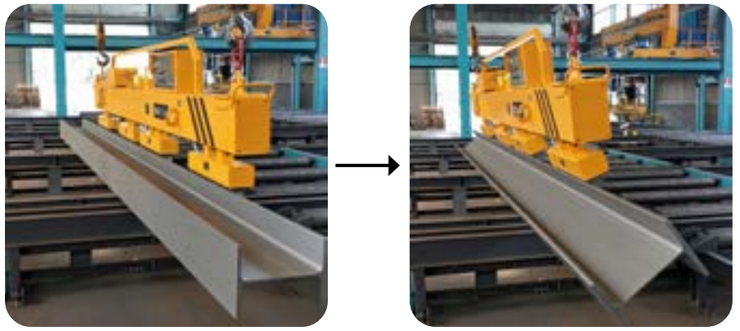
HS

ELECTRO PERMANENT MAGNETIC BEAM

LIFTING OF HEA-HEB-IPE-IPN PROFILES

SAFETY FACTOR 3

EXAMPLE OF TILTING PROFILES



MODELS

PRODUCT	WEIGHT (KG)	LENGTH (MM)		WIDTH (MM)		CAPACITY (KG)	EPM QTY
		MIN.	MAX.	MIN.	MAX.		
HS-06-013	500	3000	6000	80	600	1300	2
HS-12-026	900	3000	12000	80	600	2600	4
HS-15-026	1000	1000	15000	80	600	2000	4
HS-18-039	1400	3000	18000	80	600	3900	6
HS-24-052	2100	3000	24000	80	600	5200	6

Other dimensions on request

HB

ELECTRO PERMANENT MAGNETIC MODULES

LIFTING OF SLABS & BILLETS
SAFETY FACTOR 3

HB elektro permanent magnet modules are specially designed to deal with large air gaps. This makes them particularly well suited for lifting slabs and billets.

Models and sizes on request

HC

ELECTRO PERMANENT MAGNETIC MODULES

LIFTING OF COILS
SAFETY FACTOR 3

Complete range of electro-permanent magnet modules specially designed for fast and safe manipulation of coils with horizontal (HC/H) or vertical eye (HC/V). The coil material is not compressed and damaged, which is the case when using traditional coil grippers. Because the coils can be stored next to each other, space can be saved up to 30%. The electronic control unit is provided with an interface and can be integrated into an automatic process.

HC/H: LIFTING OF HORIZONTAL COILS

HC/V: LIFTING OF VERTICAL COILS

Models and sizes on request

HT

ELECTRO PERMANENT MAGNETIC MODULES

LIFTING OF TUBES
SAFETY FACTOR 3

The HT series has been specially developed for the quick and safe handling of single, rows and bundles of pipes without the risk of damaging the coating or paint layer.

Space and cost saving solution as no wooden spacers are required.

Electro permanent magnet modules with electronic control unit on board.

Operation by means of the built-in digital push buttons or by the radio remote control supplied as standard.

Models and sizes on request

HR

ELECTRO PERMANENT MAGNETIC MODULES

LIFTING OF ROUNDS
SAFETY FACTOR 3

HR-magnetic modules are only suitable for lifting cylindrical workpieces.
The integrated V-form adapts to the shape of the workpiece and facilitates centering of the workpiece.

Models and sizes on request

HBEP

ELECTRO PERMANENT LIFTING MAGNETS WITH LITHIUM BATTERY

FOR FLAT AND ROUND PARTS

SAFETY FACTOR 3

Complete range of electro permanent lifting magnets with integrated lithium battery for lifting flat and cylindrical workpieces.

HIGH AUTONOMY
Thanks to the built-in rechargeable lithium battery, the lifting magnet can perform more than 1000 cycles before it needs to be charged.

EASY OPERATION
Clear control panel with illuminated digital push buttons.

AUTO-FUNCTION
When activated, the MAG and DEMAG cycle is controlled by the proximity switch located below the lifting eye. Ideal for quickly discharging e.g. cutting machines.

The proximity switch prevents demagnetization in the air and starts the MAG and DEMAG cycle when AUTO-cycle selected.

TIP:
The AUTO function makes it possible to combine several magnets on a lifting beam.
All magnets are activated simultaneously by their proximity switch at the moment of hoisting.
This makes it easy to lift long and heavy parts.

MAXIMUM SAFETY
The magnet is activated by a short current pulse. The effective force is generated by permanent magnets. The safety factor of 3 guarantees safe operation, even with rough and dirty workpieces.

ENERGY FRIENDLY
95% less energy consumption than traditional electromagnets. A short current pulse is enough to activate / deactivate the magnet. The powerful rechargeable battery guarantees >1000 cycles before charging.

ERGONOMIC
No power cable required.
Manual operation by using the magnet's control panel.
NEW! Automatic switching between MAG and DEMAG via the proximity switch.

- Safety factor 3:1
- 6 models from 500 kg to 5000 kg
- Lithium battery technology with high autonomy
- Manual or automatic operation
- 4 Levels PICK-UP force for lifting 1 single steelsheet from a stack.
- Proximity switch against accidental demagnetization in the air.

MODELS

PRODUCT	WEIGHT (KG)	BATTERY (VDC)	MIN. THICKNESS (MM)	SWL FLAT (KG)	SWL ROUND (KG)
HBEP-005	51	60	4	500	250
HBEP-010	73	60	6	1000	500
HBEP-015	88	60	6	1500	750
HBEP-020	118	60	8	2000	1000
HBEP-030	185	60	10	3000	1500
HBEP-050*	502	72	20	5000	2500

HBEPP

FIX ELECTRO PERMANENT MAGNETIC BEAM WITH BATTERY SUPPLY

LIFTING OF STEEL SHEETS

SAFETY FACTOR 3

Steel sheets and steel strips are often difficult to handle. When lifting with traditional chains, slings and hooks, the load tends to bend and deform, making transport unstable and dangerous. With the HBEPP electro permanent magnet beams, the load is lifted evenly from the top, without deformation or damage to the load.

PICK-UP CYCLE

Depending on the thickness of the steel plate, the PICK-UP force can be adjusted to ensure that only one plate is lifted.

Percentage of total force at PICK UP:
POSITION I = 15%
POSITION II = 25%
POSITION III = 35%
POSITION IV = 55%

SELECTION OF MAGNETIC MODULES

Depending on the dimensions of the material to be lifted, a number of corresponding magnetic modules can be selected via a 4-position switch.

INNOVATIVE BATTERY TECHNOLOGY

Because only a short pulse of electric current is required for magnetisation and demagnetisation, more than 300 cycles can be performed with one fully charged battery. The status of the battery is continuously monitored and clearly displayed.

Landing detection system with inductive proximity switch against accidental demagnetisation in the air

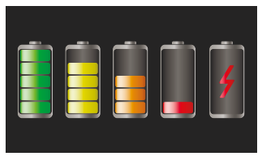
Reinforced lamp block to indicate the status of the magnet

Support for chain and lifting ring

Rechargeable battery group with integrated charger 230V/50Hz

Radio remote control

SPC System with indication of any System errors



Continuous **battery monitoring**

Clear control panel for PICK-UP, MAG, SAFE, DEMAG, selection and power control

Electro permanent magnetic modules, elastically suspended for perfect adaptation to the product to be lifted.

HBEPP

FIX ELECTRO PERMANENT MAGNETIC BEAM WITH BATTERY SUPPLY

LIFTING OF STEEL SHEETS

SAFETY FACTOR 3

MODELS

PRODUCT	WEIGHT (KG)	BATTERY (VDC)	LENGTH (MM)		WIDTH (MM)		T (MM)	CAPACITY (KG)	EPM
			MIN.	MAX.	MIN.	MAX.	MIN.		QTY
HBEPP-03-010	500	72	500	3000	500	1500	5	1000	4
HBEPP-06-030	950	72	500	6000	1200	2500	5	3000	6
HBEPP-06-060	950	72	500	6000	500	2500	5	6000	6
HBEPP-06-090	950	72	500	6000	500	2500	5	9000	6
HBEPP-06-120	1950	72	500	6000	500	2500	5	12000	6
HBEPP-09-080	1250	72	2500	9000	500	3000	5	8000	8
HBEPP-09-120	1750	72	2500	9000	500	3000	5	12000	8
HBEPP-12-050	1695	72	5000	12000	500	3000	5	5000	10
HBEPP-12-100	2010	72	5000	12000	500	3000	5	10000	10
HBEPP-12-180	2850	120	1700	12000	1000	3200	5	18000	16
HBEPP-16-200	4650	120	2000	16000	1500	3500	5	20000	16
HBEPP-16-250	4860	120	2000	16000	1500	3500	5	25000	16

Other dimensions on request

OPTION
Fork lift adaptation for handling steel plates stored outdoors.
Thanks to the integrated rechargeable battery group, an addittonal power supply is not necessary.

HBEPP/S

FIX ELECTRO PERMANENT MAGNETIC BEAM WITH BATTERY SUPPLY

LIFTING OF STEEL STRIPS

SAFETY FACTOR 3

Steel strips are often difficult to lift due to their length and flexibility.
They are often stored in racks and are therefore difficult to reach for the operator.
Lifting steel strips becomes an easy job with the battery-powered HBEPP series of electro permanent magnet beams.

SUPER SLIM EXECUTION

Can be lowered into the rack where the steel strips are stored without any problem.

LANDING DETECTION SYSTEM

In-tube landing detection system to detect whether or not the steel strip may be safely released.

TIP

The magnetic poles can be executed with an integrated V-shape, which makes it possible to lift cylindrical workpieces as well.

MODELS

PRODUCT	WEIGHT (KG)	BATTERY (VDC)	LENGTH (MM)		WIDTH (MM)		T (MM)	CAPACITY (KG)	EPM
			MIN.	MAX.	MIN.	MAX.	MIN.		QTY
HBEPP-06-006/S	435	72	400	6000	60	400	5	600	4
HBEPP-06-010/S	950	72	400	6000	60	400	5	1000	4
HBEPP-06-015/S	470	72	400	6000	150	1000	5	1500	4
HBEPP-12-030/S	1300	72	2300	12000	150	1000	6	3000	6
HBEPP-15-025/S	1090	72	2000	15000	200	800	5	2500	8
HBEPP-16-045/S	1750	72	2300	16000	150	1000	6	3000	8

Other dimensions on request

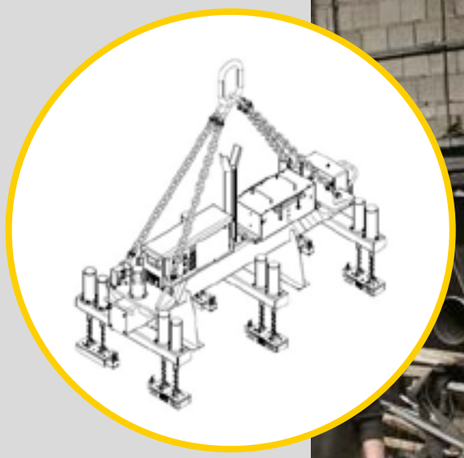
HBEPP/L

FIX ELECTRO PERMANENT MAGNETIC BEAM WITH BATTERY SUPPLY

LIFTING OF THIN STEEL SHEETS

SAFETY FACTOR 3

Lifting thin steel plates is a time consuming and dangerous process.
Because of the dimensions and flexibility, the steel plate will sag, which increases the risk of accidents. This series of electro permanent magnet beams ensures that the steel plate is clamped evenly, and lifted and moved almost without deformation, quickly and safely.



MODELS

PRODUCT	WEIGHT (KG)	BATTERY (VDC)	LENGTH (MM)		WIDTH (MM)		T (MM)	CAPACITY (KG)	EPM
			MIN.	MAX.	MIN.	MAX.	MIN.		QTY
HBEPP-03-008/L	465	72	500	3000	900	1500	2	750	6
HBEPP-06-005/L	500	72	400	6000	60	300	3	500	4
HBEPP-06-030/L	1440	72	2000	6000	1200	2500	3	3000	8

Other dimensions on request

HBEPP/T

MANUAL TELESCOPIC ELECTRO PERMANENT MAGNETIC BEAM WITH BATTERY SUPPLY

LIFTING OF STEEL PLATES

SAFETY FACTOR 3

This electro permanent magnet traverse is equipped with a telescopic system.
Both arms are simply retracted or extended synchronously via a manual lever.
This makes this magnetic beams particularly suitable for lifting steel plates in different lengths. When the telescopic system is retracted, the magnetic force is concentrated in a limited area, allowing heavy, short parts to be lifted.

LANDING DETECTION SYSTEM

The landing detection system consists of a cam mounted on the anchor shackle and a proximity switch, and prevents demagnetizing in the air.

SYNCHRONE TELESCOPIC SYSTEM

The telescopic system, which consists of an L&R screw spindle, can be moved in and out smoothly via a manual lever.

MODELS

PRODUCT	WEIGHT (KG)	BATTERY (VDC)	LENGTH (MM)		WIDTH (MM)		T (MM)	CAPACITY (KG)	EPM
			MIN.	MAX.	MIN.	MAX.	MIN.		QTY
HBEPP-06-020/T	780	72	1000	6000	500	3000	5	2000	4
HBEPP-06-060/T	1030	72	1000	6000	500	3000	5	6000	4

Other dimensions on request

HBEPS

ELECTRO PERMANENT LIFTING MAGNETS WITH LITHIUM BATTERY

FOR I, H AND L PROFILES

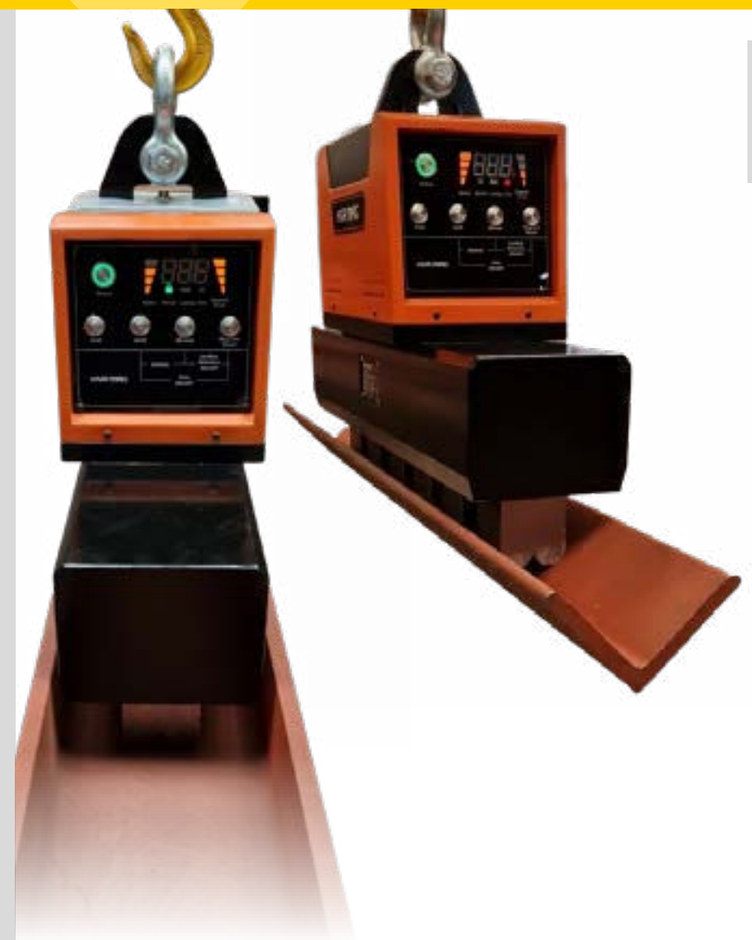
SAFETY FACTOR 3

Complete range of electro permanent lifting magnets with integrated lithium battery for lifting I, H and L profiles

HIGH AUTONOMY
Thanks to the built-in rechargeable lithium battery, the lifting magnet can perform more than 1000 cycles before it needs to be charged.

EASY OPERATION
Clear control panel with illuminated digital push buttons.

AUTO-FUNCTION
When activated, the MAG and DEMAG cycle is controlled by the proximity switch located below the lifting eye. Ideal for quickly discharging e.g. sawing machines.



The proximity switch prevents demagnetization in the air and starts the MAG and DEMAG cycle when AUTO-cycle selected.

TIP:
The AUTO function makes it possible to combine several magnets on a lifting beam.
All magnets are activated simultaneously by their proximity switch at the moment of hoisting.
This makes it easy to lift long and heavy parts.

MAXIMUM SAFETY
The magnet is activated by a short current pulse. The effective force is generated by permanent magnets. The safety factor of 3 guarantees safe operation, even with rough and dirty workpieces.

ENERGY FRIENDLY
95% less energy consumption than traditional electromagnets. A short current pulse is enough to activate / deactivate the magnet. The powerful rechargeable battery guarantees >1000 cycles before charging.

ERGONOMIC
No power cable required.
Manual operation by using the magnet's control panel.
NEW! Automatic switching between MAG and DEMAG via the proximity switch.

- Safety factor 3:1
- Capacity 650 kg
- Lithium battery technology with high autonomy
- Manual or automatic operation
- 4 Levels PICK-UP force for lifting 1 single profile
- Proximity switch against accidental demagnetization in the air

MODELS

PRODUCT	WEIGHT (KG)	BATTERY (VDC)	I, H AND L PROFILES MAX. LENGTH (MM)	CAPACITY (KG)
HBEPS-650A	140	60	3000	500

HBEPS

ELECTRO PERMANENT MAGNETIC BEAM WITH BATTERY SUPPLY

LIFTING OF HEA-HEB-IPE-IPN PROFILES

SAFETY FACTOR 3

Lifting profiles is a time-consuming process, often involving risks for the operator and the environment. In addition, modern sawing lines are equipped with light curtains that make it difficult for operators to move around in the production environment. The HBEP electro permanent magnet traverse on battery power makes it possible to load and unload saw lines in a fast and quick way.

PICK-UP CYCLE

Depending on the thickness of the steel plate, the PICK-UP force can be adjusted to ensure that only one plate is lifted.

Percentage of total force at PICK UP:
POSITION I = 15%
POSITION II = 25%
POSITION III = 35%
POSITION IV = 55%

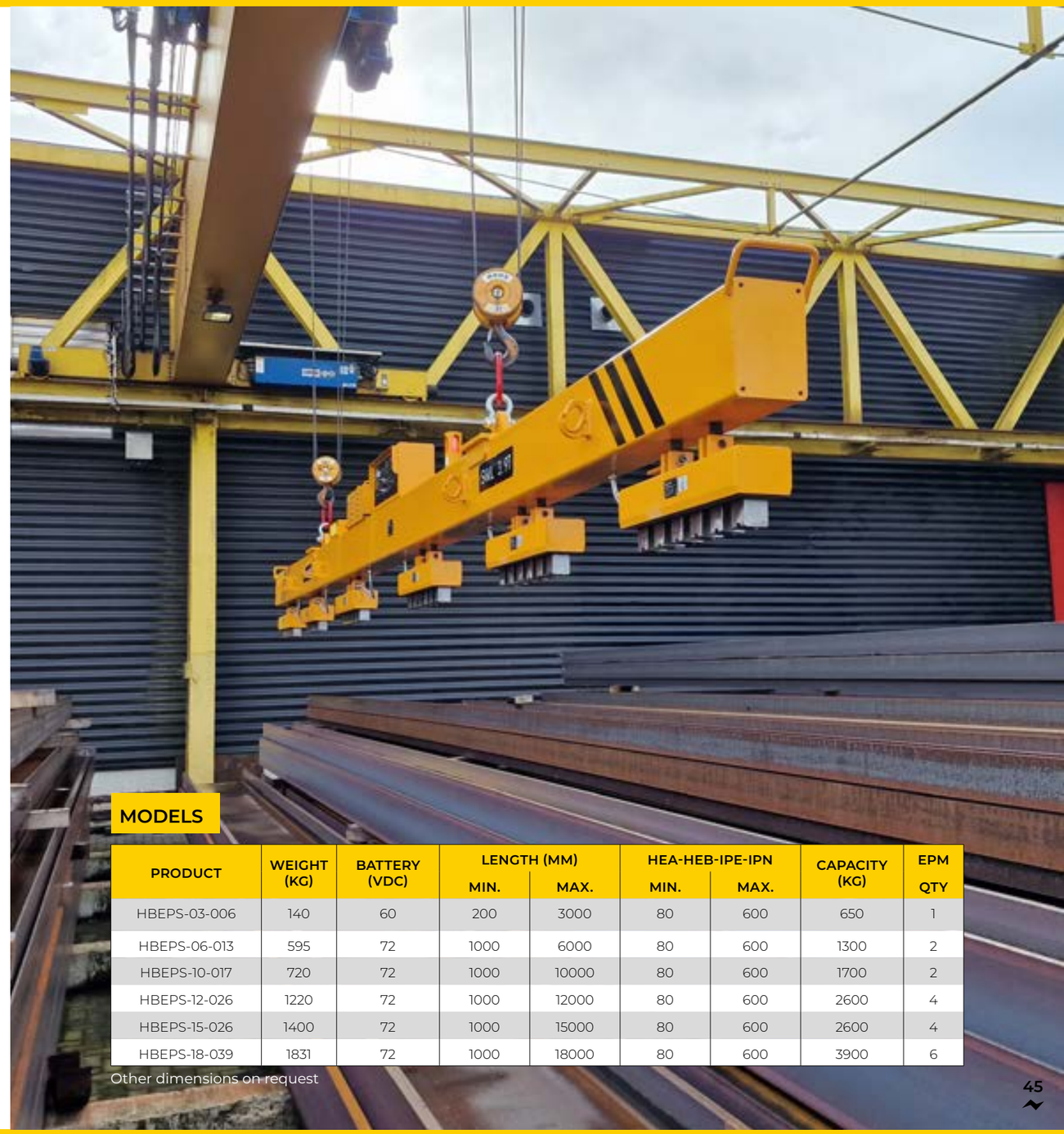
SELECTION OF MAGNETIC MODULES

Depending on the length of the profile to be lifted, a number of corresponding magnetic modules can be selected via a 4-position switch.

INNOVATIVE BATTERY TECHNOLOGY

Because only a short pulse of electric current is required for magnetisation and demagnetisation, more than 300 cycles can be performed with one fully charged battery. The status of the battery is continuously monitored and clearly displayed.

EXAMPLE OF TILTING PROFILES



MODELS

PRODUCT	WEIGHT (KG)	BATTERY (VDC)	LENGTH (MM)		HEA-HEB-IPE-IPN		CAPACITY (KG)	EPM QTY
			MIN.	MAX.	MIN.	MAX.		
HBEPS-03-006	140	60	200	3000	80	600	650	1
HBEPS-06-013	595	72	1000	6000	80	600	1300	2
HBEPS-10-017	720	72	1000	10000	80	600	1700	2
HBEPS-12-026	1220	72	1000	12000	80	600	2600	4
HBEPS-15-026	1400	72	1000	15000	80	600	2600	4
HBEPS-18-039	1831	72	1000	18000	80	600	3900	6

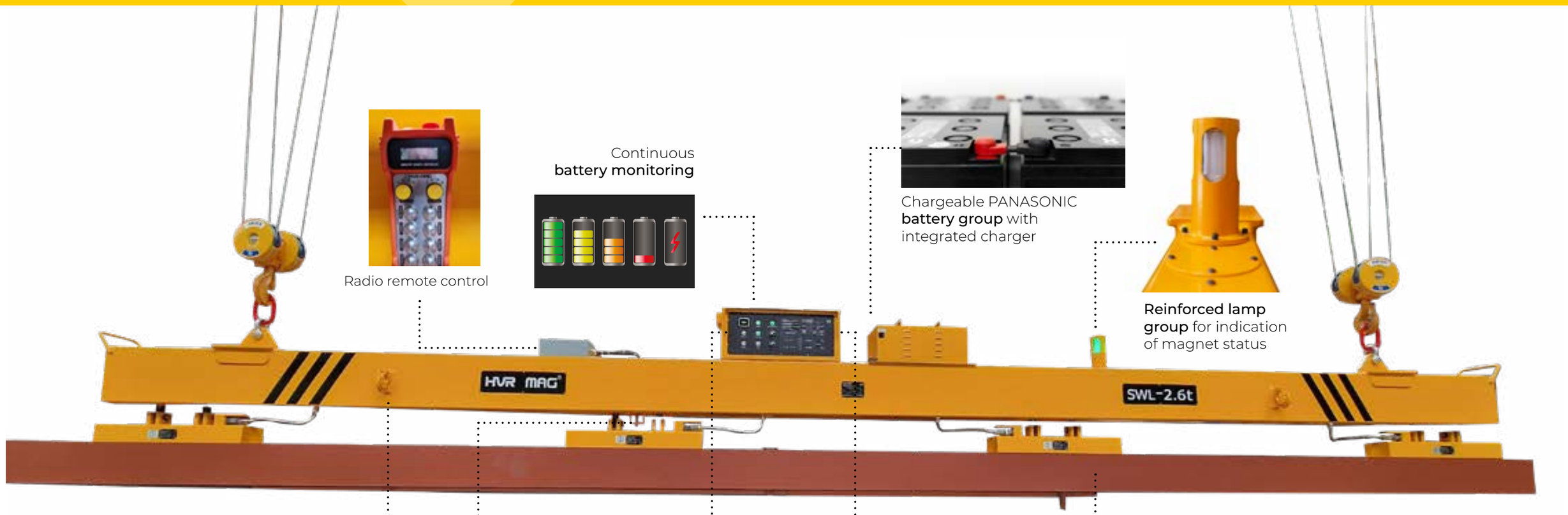
Other dimensions on request

HBEPS

ELECTRO PERMANENT MAGNETIC BEAM WITH BATTERY SUPPLY

LIFTING OF HEA-HEB-IPE-IPN PROFILES

SAFETY FACTOR 3



Radio remote control

Continuous **battery monitoring**

Chargeable PANASONIC **battery group** with integrated charger

Reinforced lamp group for indication of magnet status

Safety hooks (OPTION)
For lifting bundles of profiles

Landing detection System
prevents accidental demagnetisation in the air

SPC System with indication of any System errors

Control Panel
with digital LED illuminated push buttons

Slim magnetic poles,
which fit within profiles from 80mm width.

HEPMP

ELECTRO PERMANENT MAGNETIC MODULES FOR PRODUCTION AND WELDING AUTOMATION

MAXIMUM SAFETY
The magnet is activated by a short curent pulse.
The effective force is generated by permanent magnets.

ENERGY FRIENDLY
95% less energy consumption than traditional electro-magnets. A short current pulse is enough to activate / deactivate the magnet.

NO MAGNETIC INTERFERENCES
The magnetic field is local, controlled and does not spread through the material. It doesn't effect welding operations.

Model	Rated lifting force (Material Thickness ≥ 16mm)	Min. material thickness	Max. breakaway force	L (mm)	W (mm)	H (mm)	Weight (kg)
HEPMP-1510P50	160kg	≥ 6mm	650kg	150mm	100mm	72mm	8kg
HEPMP-320P50	320kg	≥ 6mm	1300kg	180mm	180mm	72mm	17kg
HEPMP-500P50	500kg	≥ 6mm	1950kg	250mm	180mm	72mm	23kg
HEPMP-720P50	720kg	≥ 6mm	2925kg	250mm	250mm	72mm	32kg
HEPMP-2012P70	320kg	≥ 8mm	1100kg	190mm	110mm	72mm	12kg
HEPMP-2020P70	640kg	≥ 8mm	2200kg	200mm	200mm	72mm	22kg

Model	Rated lifting force (Material Thickness ≥ 16mm)	Min. material thickness	Max. breakaway force	L (mm)	W (mm)	H (mm)	Weight (kg)
HEPMP-30P30B	30kg	2-12mm	120kg	100mm	54mm	58mm	2.2kg
HEPMP-60P30B	60kg	2-12mm	200kg	100mm	100mm	58mm	4.6kg
HEPMP-100P30B	100kg	2-12mm	400kg	140mm	100mm	58mm	5.5kg
HEPMP-200P30B	200kg	2-12mm	800kg	260mm	100mm	58mm	10kg
HEPMP-60P30	60kg	3-12mm	220kg	110mm	60mm	58mm	3.7kg
HEPMP-1406P30	90kg	3-12mm	320kg	140mm	60mm	58mm	4.0kg
HEPMP-1906P30	120kg	2-12mm	440kg	190mm	60mm	58mm	4.8kg

Model	Rated lifting force (Material Thickness ≥ 16mm)	Min. material thickness	Max. breakaway force	L (mm)	W (mm)	H (mm)	Weight (kg)
HEPMSP-60P45×24	60kg	≥ 3mm	240kg	145mm	90mm	81mm	8kg
HEPMSP-100P45×24	100kg	≥ 3mm	360kg	200mm	120mm	81mm	12kg
HEPMSP-200P45×24	200kg	≥ 3mm	600kg	370mm	105mm	81mm	17kg
HEPMSP-300P45×24	300kg	≥ 3mm	900kg	435mm	105mm	81mm	23.5kg

Customized round magnet	Rated lifting force	Plate thickness	Max. breakaway force	D (mm)	H (mm)	Weight (kg)
HEPM1-25	3kg	≥ 2mm	15kg	25mm	35mm	120g
HEPM1-40-A	20kg	≥ 4mm	80kg	40mm	48mm	420g
HEPM1-40-B	20kg	≥ 4mm	80kg	40mm	40mm	350g
HEPM1-50	30kg	≥ 6mm	100kg	49mm	45mm	650g
HEPM1-60-A	50kg	≥ 8mm	200kg	59mm	50mm	1kg
HEPM1-60-B	50kg	≥ 8mm	200kg	59mm	50mm	1kg
HEPM1-75	90kg	≥ 12mm	400kg	78mm	48mm	1.5kg
HEPM1-100	150kg	≥ 16mm	650kg	100mm	65mm	3.5kg
HEPM1-125	250kg	≥ 20mm	1200kg	125mm	65mm	6kg
HEPM1-150	320kg	≥ 25mm	1500kg	158mm	70mm	9.5kg

MAGBAT-Europe is specialised in electro permanent magnet technology and focusing on the distribution of magnetic quick change systems for moulds and dies, magnetic clamping plates for metalworking machines, industrial lifting magnets and customer-oriented magnetic solutions.

As exclusive partner of HVR-Magnetics, MAGBAT-Europe is taking care of the commercialisation and service after sales in the Europe. In close collaboration with HVR Magnetics, we develop equipment adapted to the requirements of the European market.

With continuous focus on R&D, our philosophy is to pursue a fair win / win policy with our customers, create added value for employees, increase benefits for our customers, and make safe operation as a priority.

The unique advantages of the MAGBAT products are safety, energy saving, high efficiency, and environmental friendliness. Our products are used in various sectors such as: steel construction, machine construction, shipbuilding, steel trade, railway and rolling material, injection moulding companies and various other industries.

We strictly adhere to the requirements of the quality certification standard ISO 9001: 2015.