

Optimag E Lifting Magnet (ESPM)

At A Glance

- ✓ Electronically switched permanent magnet
- ✓ Lifts up to 600kg (1,300lb) WLL
- ✓ Can lift materials from 10mm thickness
- ✓ Failsafe operation - units retain hold if power is lost

Magnetic gripper supplied as a modular system in circular and custom rectangular profiles. Can be connected in parallel for larger clamping operations. An ESPM controller can turn units on and off within 0.2 seconds.

Used for clamping or lifting of materials with a flat smooth surface and a minimum thickness of 10mm. For maximum performance, full magnetic saturation of the material should be realised, which means using the correct size of Optimag for the material. Please contact us for more detailed sizing information.

Optimag E provides a greater clamping force on thicker materials than the Optimag P (pneumatically switched).

Custom rectangular version available upon request.

Alternative Products:

- Optimag P (PSPM)
- Ultralift E
- Ultralift TP
- Ultralift Plus

Benefits

- Fail-safe operation - stays in hold when power is lost and ESPM is on
- Power only required for on/off switching operation
- On/off switching takes less than 0.2 seconds
- Can be controlled by push button or signal from a PLC
- No moving parts and low maintenance
- Multiple units operated by ESPM controller (parallel connection for standard units)

Performance

Lifting performance	Up to 400kg (882 lb) WLL
Cable connection	Gland
Cable details	0.75mm ² three core double insulated pvc, 5 metre length
Temperature Range	Maximum + 80°C (176°F)

Suitability

Suitable Products	Ferrous materials (e.g. mild steel)
Suitable Location	Example - factory shopfloor / production line and robotics



Materials

Outer shell	Steel
Finish	Red powder coated
Magnetic material	Rare earth Neodymium Iron Boron & Alnico

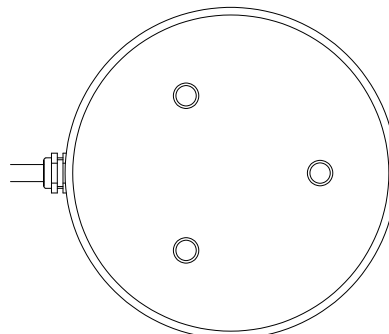
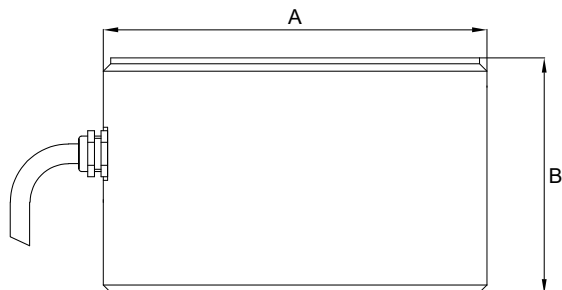
Maintenance

- As part of LOLER, PUWER, ASME B30.20 and H&S advice, you need to regularly inspect Lifters to ensure they are not damaged and are suitable for lifting the parts
- Annual inspection is a minimum requirement
- We can carry out on site lifter testing
- We can inspect and service / repair our Lifters for you

Controllers

Enclosure	Lockable, steel enclosure powder painted
Operation	Illuminated push buttons that indicate the state of the magnet
Safety interlock	Current sensing circuits sense and measure the input voltage to the magnets
Controllers	Four types available in two sizes depending on application

Optimag E Lifting Magnet (ESPM)



Product Number	Dimensions (mm)				Self Weight (kg)	Flat Plate/ Section WLL* (Kg)	Rating (A)
	A	B	C	D			
Circular							
ESPM80C	80	55	N/A	N/A	1.5	85	1.30
ESPM100C	105	55	N/A	N/A	3	150	1.90
ESPM125C	130	80	N/A	N/A	5.7	250	4.1
ESPM150C	155	80	N/A	N/A	8	400	5

Control Unit	Operating Voltage (V)	Rating (A)	Dimensions (mm)			Detail
			W	H	D	
M24388/SC	110, 220-240	50	300	300	155	Single channel chip controller (1x50A)
M24388	110, 220-240	100	300	300	155	Double channel chip controller(2x50A)
6001CONT1M	110, 240, 415	90	400	300	155	Single channel chip controller (1x90A)
6001CONT2M	110, 240, 415	180	400	300	155	Double channel chip controller (2x90A)
M24388/HP	N/A	N/A	112	65	55	Hand pendant for M24388 versions
6000MH	N/A	N/A	112	65	55	Hand pendant for 6001CONT versions

*Please note that the Working Load Limit (WLL) is now used instead of Safe Working Load (SWL). The Lifting force values shown include the 3:1 safety factor and have been based on using the stated thin plate thickness's of high magnetic permeability steel with no air gaps. Air gaps, thinner materials and materials with lower magnetic permeability can all reduce the pull force a lifter can actually achieve. Please note that the achievable pull force is reduced when lifting thinner mild steel plate. You must follow LOLER, PUWER, ASME B30.20 and H&S advice. You should always check for a downrate, factor in any downrate to then perform a safety lift, then perform a full lift only after a successful safety lift.

Can be manufactured to lift flat or round (additional pole feet extensions may be required).

Other products available



Ultralift Plus



Ultralift TP



Optimag P



Ultralift E