

MAGNETIC LIFTING



Up to 3.0 safety factor

High efficiency, gripping and releasing could be achieved in a few seconds

Special design according to customer' s needs

LM A series

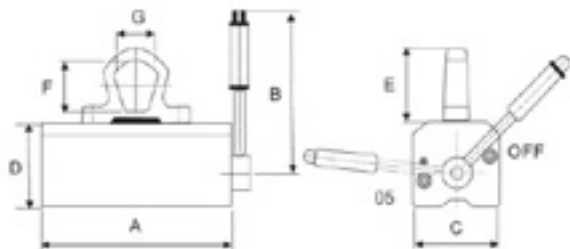
Product Pictures



Application

- 3.5 times the recommended lifting load
- Safe and convenient, with a switch handle security button, one-handed operation can be realized
- Both round and plate steel and can be lifted with a 'V' -shaped groove at the bottom
- Greater holding force, lighter weight and almost zero remanence due to the unique magnetic circuit design

The Brief Drawing



Features

- 3.5 times the recommended lifting load
- Safe and convenient, with a switch handle security button, one-handed operation can be realized
- Without electricity
- Magnetic holding force is almost timeless
- Made by high-performance magnetic materials(NdFeB)



• Magnetic status "ON"



• Magnetic status "OFF"

SPECIFICATIONS

MODEL	RATED LOAD (KG)	SAFETY FACTOR	DIMENSIONS(MM)							WORKPIECES(MM)		NET WEIGHT (KG)
			A	B	C	D	E	F	G	MIN THICKNESS	MAX LENGTH	
LM 100A	100	3.5	116	150	66	130	63	35	43	15	1000	4.5
LM 300A	300	3.5	210	168	80	143	63	35	43	20	1500	9
LM 450A	450	3.5	235	180	90	153	88	52	60	25	2000	12
LM 600A	600	3.5	280	198	107	191	88	52	60	30	3000	21
LM 1000A	1000	3.5	360	262	129	218	88	52	60	40	3000	42
LM 2000A	2000	3.5	445	370	220	292	122	64	87	45	3000	85
LM 3000A	3000	3.5	500	480	270	312	122	64	87	55	3000	170

Other size on request

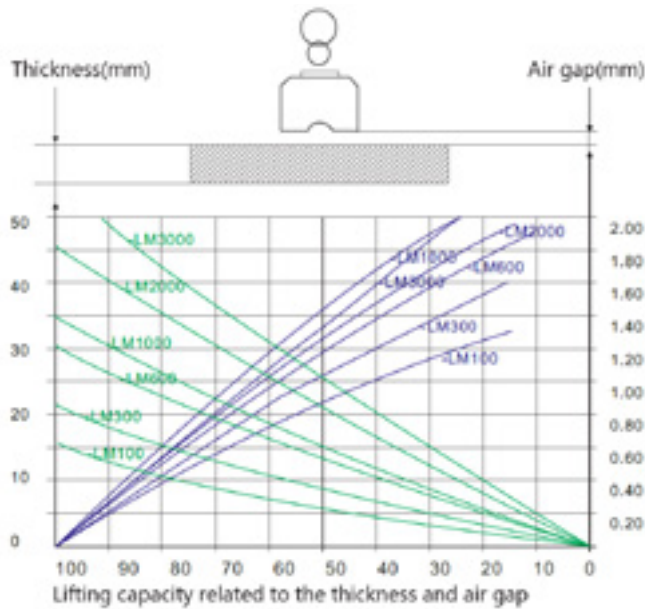
Load characteristics

TYPE OF LOAD	MODEL	RATED LOAD(KG)	MIN THICKNESS(MM)	MAX LENGTH(MM)
 Plate	LM 100A	100	15	1000
	LM 300A	300	20	1500
	LM 600A	600	30	2000
	LM 1000A	1000	40	3000
	LM 2000A	2000	45	3000
	LM 3000A	3000	55	3000
 Round	MODEL	RATED LOAD(KG)	DIA RANGE(MM)	MAX LENGTH(MM)
	LM 100A	75	30~100	1500
	LM 300A	150	40~300	1500
	LM 600A	300	70~400	2000
	LM 1000A	500	70~500	3000
	LM 2000A	1000	100~600	3000
	LM 3000A	1500	100~800	3000

The relationship between lifting capacity and material & surface condition

The relationship between lifting capacity and material	Model	Material	Magnetic Conductivity
	M1	Low carbon steel	100%
	M2	Medium carbon steel	85%
	M3	High carbon steel	75%
	M4	Cast Iron	70%

The relationship between lifting capacity and surface finish	Model	Surface condition	Magnetic Conductivity
	F1	Ground surface	125%
	F2	Rough machined surface	100%
	F3	Foundry finish	90%
	F4	Rough cast	65%



The practical lifting capacity is connected with five key factors: The Thickness(T) of workpiece, the surface finish(F), the material(M), the air gap(G), and the rated lifting capacity(R).

Calculation example:

Model: LM-600A

Rated lifting capacity: 600kg.

The formula for calculating range of lifting capacity is : $T \times F \times M \times G \times R$

Suppose the thickness is 25mm($T=25\text{mm}$), the surface finish is foundry($F=F3=90\%$), the material is S45C hardened steel($M=M3=75\%$), the air gap is 0.5mm($G=0.5\text{mm}$);

Then the practical lifting capacity is : $85\% \times 90\% \times 75\% \times 80\% \times 600 = 155\text{kg}$



LM B series

Product Pictures



- Lifting capacity tester

SPECIFICATIONS

MODEL	RATED LOAD (KG)	SAFETY FACTOR	DIMENSIONS(MM)			WORKPIECES(MM)	NET WEIGHT (KG)
			LENGTH	WIDTH	HEIGHT	MIN THICKNESS	
LM 100B	100	3.5	155	70	120	20	4
LM 300B	300	3.5	195	80	155	25	8.5
LM 600B	600	3.5	230	100	210	30	19
LM 1000B	1000	3.5	350	135	287	45	39
LM 2000B	2000	3.5	425	186	350	55	80
LM 3000B	3000	3.5	500	270	312	70	170

Other size on request

REALPOWER could provides OEM service for special design and request of customer.



B-EPML

Product Pictures



Description

- Using standard high-energy batteries, no external power supply and installation required. Batteries only work in the moment of "MAG" and "DEMAG". During the lifting and handling, the B-EPML magnets will no longer consume the energy. So the B-EPML magnet is obvious saving energy.

Application

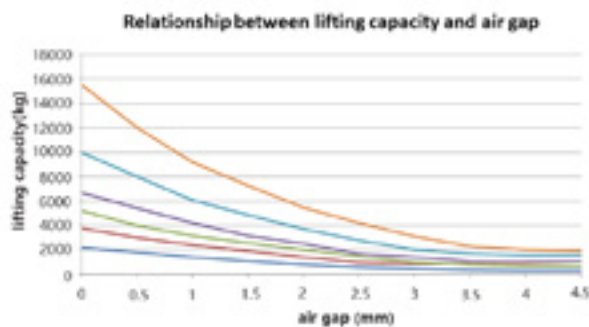
- Loading and unloading of steel sheets and profiles in shipyards;
- Material handling for flats, plates, rounds steel in warehouse;
- Transportation of heavy dies, molds, and machine tools;
- Suitable for indoor and outdoor use.

Features

- Compact construction;
- The pull-off force is 3 times the rated lifting force;
- No need of power during work state;
- Over 95% energy saving comparing to traditional electric magnetic lifters.
- With battery fully charged can switch ON/OFF approximately 300 times.

Options

- Remote control;
- V shaped pole shoes for flat and round materials;
- Landing sensor.



— BEPML-500
— BEPML-1000
— BEPML-1500
— BEPML-2000
— BEPML-3000
— BEPML-5000



SPECIFICATIONS

MODEL	RATED LIFTING CAPACITY(KG)	SAFETY FACTOR	WORKING VOLTAGE(V)	CHARGING TIME(H)	DIMENSIONS(MM)			WEIGHT(KG)
					LENGTH	WIDTH	HEIGHT	
BEPML-500	500	3	DC 24	5~7	275	254	425	50
BEPML-1000	1000	3	DC 24	5~7	365	254	425	75
BEPML-1500	1500	3	DC 24	6~8	515	270	445	120
BEPML-2000	2000	3	DC 24	6~8	515	340	445	145
BEPML-3000	3000	3	DC 48	7~9	720	350	460	195
BEPML-5000	5000	3	DC 48	7~9	770	460	660	350
BEPML-6000	6000	3	DC 48	7~9	920	460	660	430

Other size on request

EPML-Q

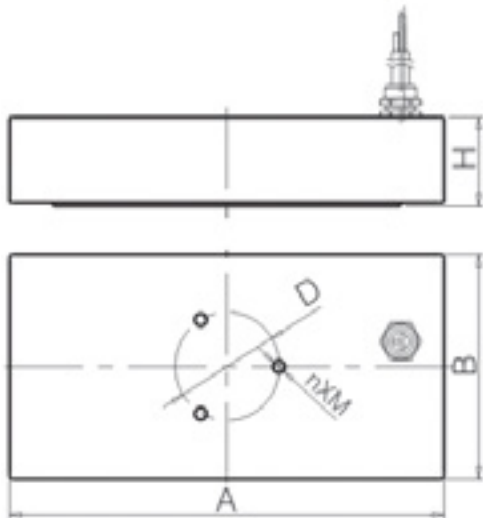
Product Pictures



Application

- EPML-Q series is suitable for lifting small steel billets, moulds, steel sheet and etc.
- Several pcs of EPML-Q could be united with a beam to lifting long steel..

The Brief Drawing



Features

- Lifting force: $12\text{kg}/\text{cm}^2$;
- 3.0 times the safety factor;
- Different pole shoes could be choose according to shap and dimensions of workpiece.
- Electrical power is only required when cycling from Magnetization to Demagnetization.
- Cycle time is 1~3 seconds depending on the size of the system.
- No heat is generated since the power is not constantly applied.
- Variable magnetic power for the handling of thin sheets of steel.



- V-shaped pole shoes for round steel



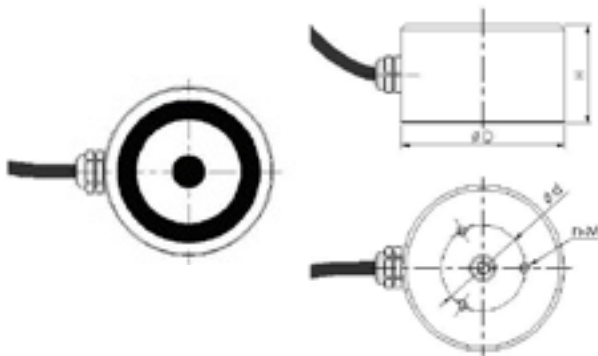
- Half V-shaped pole shoes for feedstock

EPML-R

Product Pictures



The Brief Drawing



Application

- EPML-R series is modular single unit for lifting thin steel sheet.
- Multiple EPML-R could be designed to suit complex lifting situation.

Features

- Remote switching facility-the controller can be interfaced to a PLC or operated by remote switches .
- Different pole shoes could be choose according to shap and dimensions of workpiece.
- Electrical power is only required when cycling from Magnetization to Demagnetization.
- Cycle time is 1~3 seconds depending on the size of the system.
- No heat is generated since the power is not constantly applied.
- Variable magnetic power for the handling of thin sheets of steel.



SPECIFICATIONS

MODEL	HOLDING FORCE(KG)	DIMENSIONS(MM)					WEIGHT (KG)	MAGNETIC DEPTH(MM)
		D	D	H	M	N		
EPMLR-75	90	78	40	46	6	3	1.5	12
EPMLR-100	150	100	40	55	6	3	3.5	14
EPMLR-125	250	125	80	65	8	3	6.0	20
EPMLR-150	320	158	80	70	10	3	9.5	20
EPMLR-210	900	218	150	80	12	3	20.5	35
EPMLR-270	1400	272	180	100	16	3	38.5	45
EPMLR-320	2000	324	250	125	20	3	69.5	55

Other size on request

EPML-TSH

Electro permanent magnetic lifter for thin steel handling



EPML-MSH

Electro permanent magnetic lifter for middle thickness steel handling



EPML-TSH

Electro permanent magnetic lifter for block steel handling



EPML-VSH

Electro permanent magnetic lifter for block steel handling



EPML-CH

Electro permanent magnetic lifter for coil handling



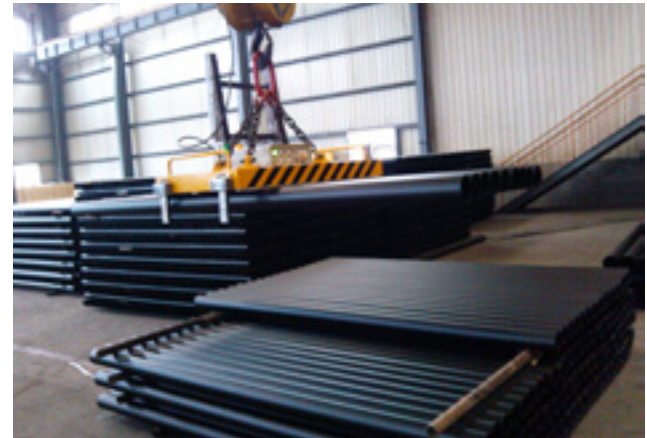
Application

- For milling and grinding processes
- Best suited for workpieces at least 250x250mm and 10mm thick, also with limited thickness and normal operating air gaps



EPML-BH

Electro permanent magnetic lifter for bundles handling



EPML-RSH

Electro permanent magnetic lifter for round steel handling



EPML-RH

Electro permanent magnetic lifter for ring handling



EPML-TB

Electro permanent magnetic lifter with Telescopic beams



Other solutions of EPML for lifting & gripping



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