

Model PL PERMANENT MAGNETIC LIFMA*



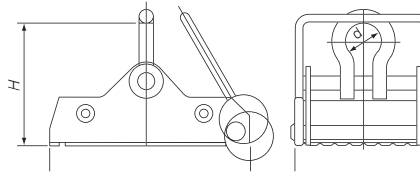
PL-40B

[Application]

These Lifmas are suitable for transporting such raw materials as black iron plates and flat iron products and lifting and transporting semi-finished products having flat surfaces such as machine parts, press dies and plastic forming molds.

[Features]

- The use of a permanent magnet eliminates the need of electric power, thus eliminating troubles due to power interruption and failure of the power supply line. The strong magnetic force can be used semi-permanently.
- The employment of cam system facilitates attaching and detaching of workpieces.



[mm (in.)]

Model	Holding Power	Dimensions			Shackle (lifting ring ID)	Mass
		B	L	H		
PL-20B	200kg/440lb	122 (4.80)	255	150 (5.90)	BC14 (0.55) (φ 40 (1.57))	8.5kg/18lb
PL-40B	400kg/881lb	212 (8.34)	10.0	181 (7.12)	BB20 (0.78) (φ 58 (2.28))	14.0kg/31lb

※ The lifting capacity is indicated by a quarter of the maximum holding power.
 ※ Dimension "H" up to the top end of the inner diameter of the shackle lifting ring.

Steel plate lifting standard (Mill scale soft steel plate)

[mm (in.)]

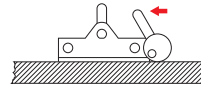
Model	板厚	PL-20B		PL-40B	
5~7	□450 (17.7)	350 (13.7) × 550 (21.6)	□950 (37.4)	650 (25.5) × 1300 (51.1)	
8~12	□500 (19.6)	350 (13.7) × 700 (27.5)	□1100 (43.3)	750 (29.5) × 1500 (59.1)	
13~16			□1000 (39.3)	700 (27.5) × 1400 (55.1)	
17~25	□550 (21.6)	400 (15.7) × 700 (27.5)	□950 (37.4)	650 (25.5) × 1300 (51.1)	
26~40	□450 (17.7)	350 (13.7) × 550 (21.6)	□750 (29.5)	550 (21.6) × 1000 (39.3)	
41~65	□350 (13.7)	250 (9.84) × 500 (19.6)	□600 (23.6)	450 (17.7) × 700 (27.5)	
66~100	□250 (9.84)	200 (7.87) × 300 (11.8)	□500 (19.6)	350 (13.7) × 700 (27.5)	



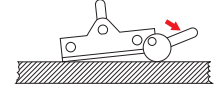
Caution to use

The operation of the cam for attaching and detaching will apply friction to the lifted surface which may mark or scratch polished surfaces.

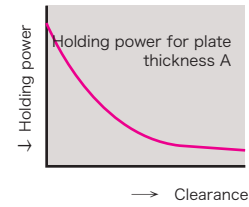
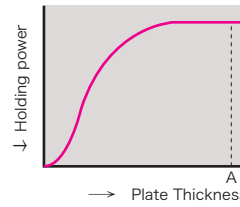
Attraction
Place Lifma on the transporting material and pull the lever up in vertical



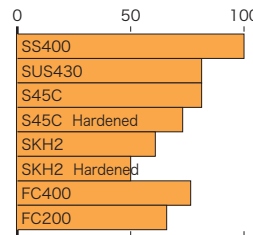
Release
Put the lever in horizontal position to release Lifma from the transporting material.



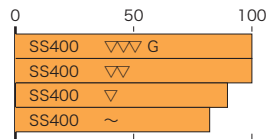
Change in Holding Power by Plate Thickness and Clearance



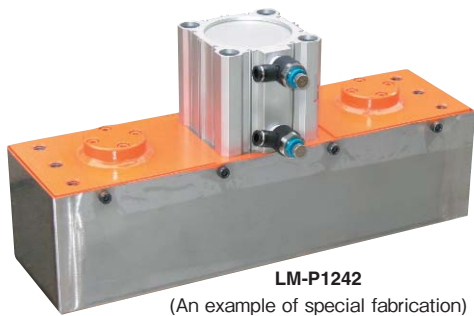
Difference in Holding Power by Material Quality



Difference in Holding Power by Attractive Face Roughness



Model LM-P UP-DOWN TYPE PERMANENT MAGNETIC LIFMA



LM-P1242

(An example of special fabrication)

[Application]

Suitable for lifting and moving floor plates, pressed workpieces having concave or convex sections, iron doors of buildings, deck plates, guard rails cans, and so on.

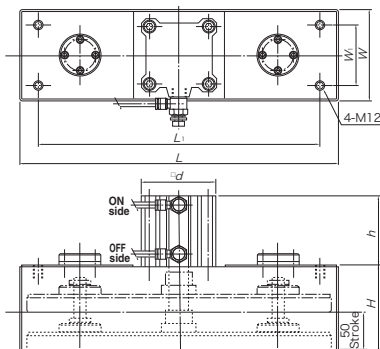
An example of usage



[Features]

- The attraction is turned on and off by moving up and down an air cylinder, which facilitates remote operation and automated operation.
- Compared with the electromagnetic type, this model has a larger holding power for thin plates (less than 5 mm thick) and its capacity drops less when gaps are present. Accordingly, this model is most suitable for pressed workpieces having concave or convex sections.
- Energy saving type as no electric power source is required.
- The ON state is maintained when the air source is shut down and therefore held workpieces do not fall, enhancing safety.

[mm (in.)]



Model	Dimensions								Air pressure	Mass
	W	L	H	h	W _i	L _i	d	M		
LM-P1242	120 (4.72)	420	114.5 (4.50)	91.5 (3.60)	80 (3.15)	370 (14.5)	98 (3.85)	M12 depth 14	0.49MPa	Approx. 1.7kg/37.4 lb
LM-P2442	240 (9.44)	16.5	120.5 (4.74)	131 (5.15)	150 (5.90)	300 (11.8)	142 (5.59)	M20 depth 30	or more	Approx. 38kg/83.7 lb

※ An air source, select valve and other air control equipment must be provided by the user.
 ※ This model is not suitable for thick workpieces and workpieces stacked closely. The specifications vary according to work-pieces to lift. Please contact us to select the best design.



Kindly take note carefully that the capacity of the Lifma changes depending on the thickness of material, clearance between the material and magnet and the quality of the material.