



# Permatrol® Lifts

Safety Of A Permanent Magnet, Controlled ON/OFF Of An Electromagnet

**AUTOMATION**

AG-02A

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### **Benefits:**

- Reliability of a permanent magnet with the ON/OFF capabilities of an electromagnet
- Operates without the heat build up of an electromagnet
- Only requires electricity when cycling the magnet into the "On" or "Off" position
- No battery backup required
- Won't drop load due to power outages

### **Applications:**

- Loading / Unloading burn tables, welding cells, heavy duty press lines and hydroforming operations
- Moving bulky thick steel parts between work stations

### **FEATURES:**

The Permatrol® Lift is ideal for handling heavy, thick steel sheets, plates, castings, forms and stampings. The Permatrol® offers the security of a permanent magnet with the on/off benefit of an electromagnet and does not require a high-maintenance, battery backup system.

IMI's Permatrol® magnets require only a momentary flow of electric current to either activate or deactivate the holding power of the magnet. The unique magnet design requires only a momentary flow of electricity to hold or release parts and uses less energy than an electromagnet. The magnet will hold onto its load even if there is a power failure, ensuring safety without relying on a battery backup system.

The Permatrol® is available in either single or multiple magnet configurations. Individual Permatrols® with the MMC part number suffix do not need a power supply because they come equipped with a built-in rectifier and On/Off control switch. Multiple magnet configurations are recommended for use with an IMI power supply. IMI power supplies can be equipped with an interface to work with a customer supplied PLC in automated operations.

### **OPERATION REQUIREMENTS:**

- 15A, 120VAC Circuit for models with the MMC part number suffix; 110VDC minimum for versions requiring a power supply
- Overhead crane or lift with capacity to exceed holding value of the magnet plus the weight of magnet
- Extension cord or hard wired circuit as required by Local Codes
- Surface of part to be lifted should be flat, clean, and free of debris or slag, otherwise lifting performance may be adversely affected.

### **OPTIONS:**

- Pendant control system
- Spreader beams for multiple magnet applications
- Specially shaped poles for odd shaped parts



### **Key Markets**

Fabrication, Stamping, Hydroforming

### **Related Products**

Creative Lift®, PowerLift®, Round Electromagnet Lifts, Tube Lifters

# Permatrol® Lift Magnets

## Permatrol® Models and Specifications

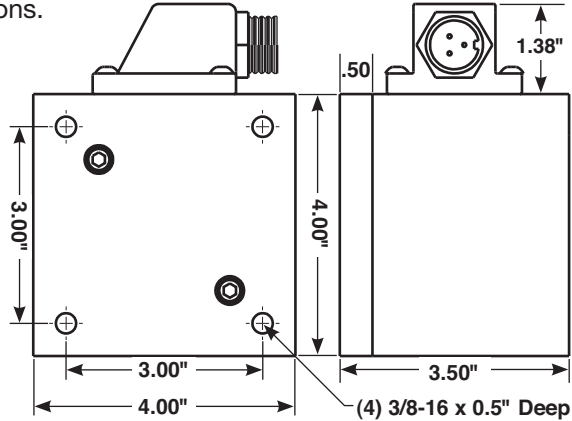
### PME0404 ON/OFF Permanent Magnetic Lift Tooling

Ideal for automated end-of-arm and under-the-hook applications.



Part No.	Volts	Amps	Watts	Wt. Lbs.
PME0404	110VDC	4.1	407	10

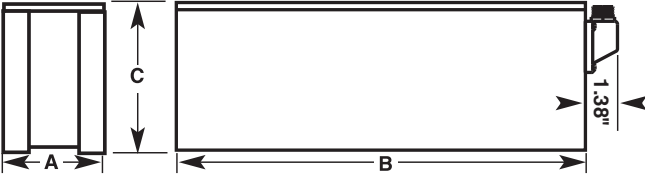
Typical Holding Value Guide	
Metal Thickness	*Holding Value
1/4"	177 lbs.
3/8"	230 lbs.
1/2"	280 lbs.
3/4"	320 lbs.
1"	333 lbs.
3"	350 lbs.



\*Holding Value - is stated at 33% of the actual value for a 3 to 1 design factor  
 Note: 110VDC Power supply with polarity reversal required for operation. Connector is a 3 Pin Male "Mini".

### Heavy Duty Permatrols® for Remote Operation Applications

Ideal for heavy lifting applications requiring custom mounting or multiple magnets on a spreader beam. Wired, remote, operation with a power supply available for both manual and automated systems.

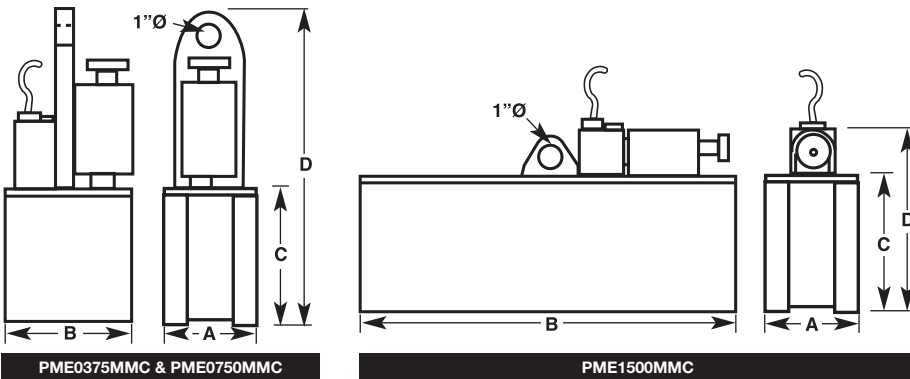


Part No.	Holding Value	Width (A)	Length (B)	Magnet Ht. (C)	Watts 110VDC	Wt. Lbs.
PME0375	250 Lbs.	5.00"	6.25"	6.38"	637	43
PME0750	500 Lbs.	5.00"	10.00"	7.38"	781	81
PME1500	1000 Lbs.	5.00"	22.00"	7.38"	1,562	181

\*Holding Value - is stated at 33% of the actual value for a 3 to 1 design factor  
 Note: 110VDC Power supply with polarity reversal required for operation. Connector is a 3 Pin Male "Mini".

### Heavy Duty Permatrols® for Manual Under-the-Hook Applications

Features magnet mounted switch (MMC) for manual control. No DC power supply or battery back-up required for 120 VAC operation. Supplied with 14/3 SJT x 12" long line cord and standard wall plug for 120 VAC operation.



Part No.	Holding Value	Width (A)	Length (B)	Magnet Ht. (C)	Overall Ht. (D)	Watts 120VAC	Wt. Lbs.
PME0375MMC	250 Lbs.	5.00"	6.25"	6.38"	14.38"	528	43
PME0750MMC	500 Lbs.	5.00"	10.00"	7.38"	16.38"	646	81
PME1500MMC	1000 Lbs.	5.00"	22.00"	7.38"	9.88"	1,292	181

\*Holding Value - is stated at 33% of the actual value for a 3 to 1 design factor

