

# PowerLift®

## Rare Earth Magnetic Lift



Lifts Flat or Round Non-Flexing Items!



**Industrial Magnetics, Inc.**

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## WORKING LOADS - MATERIAL THICKNESS - SURFACE CONDITION

Carbon Content	
0%	50%
Low Carbon 0.05 - 0.29%	100%
Moderate Carbon 0.30 - 0.59%	85%
High Carbon 0.60 - 0.99%	75%
Higher Carbon = Higher Residual!*	

Surface Finish	
0%	50%
▽▽▽ Ground Surface	100%
▽▽ Rough Machined	100%
▽ Foundry Finish	90%
~ Rough Cast	65%

Lifting Power By Material

Lifting Power By Surface Finish

NOTE: When lifting sheets over 4' x 8', use 2 or more lifts on a spreader bar to prevent sheet flexing, sagging or peel-off. Material less than the stated thicknesses on the chart below is susceptible to magnetic bleed through, resulting in two sheets being lifted at once, which could result in a sheet falling.

NOTE: Never stand under load being lifted. Always use extra caution. Only use magnetic lifts on material that does not flex or bend. The surface on the lift and the load need to be clean & free of chips, oil, slag, dirt, etc. Lifts must be centered on the load. Not recommended for painted or finish coated surfaces.

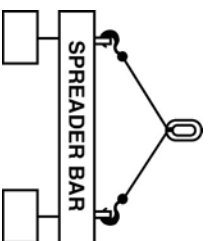
\* Round Item Holding Values are based on ideal conditions. Pipe length, wall thickness, diameter and surface condition can all affect the magnet's performance. Please consult the factory before specifying these magnets for use on round materials.

\* These maximum sheet sizes are recommended due to the weight of the specified sheet. All other maximum sheet sizes are selected due to the sag characteristics of the specified sheet.

Operating Temperature	F	C
Hot/Cold	-10F	-22C
Min-Cold	180F	82C
Max-Hot		

### Maintenance & Storage

- Clean off components
- Apply oil or grease to pole surfaces
- Place on non-conductive dry surfaces
- Cover magnet with water proof sheet
- Keep magnet in a dry environment



Proper Lift Method  
When Using 2 Or More  
Magnets

Model No.	1/4" (6')	3/8" (8')	1/2" (8')	3/4" (8')	1" (10')	2" (10')	3" (10')	Model No.
PNL220	180	220	220	220	220	220	220	PNL220
PNL660	270	500	615	660	660	660	660	PNL660
PNL1300	CF	CF	800	1300	1300	1300	1300	PNL1300
PNL2200	NA	NA	CF	CF	1490	2200	2200	PNL2200
PNL4400	NA	NA	NA	NA	CF	2625	4400	PNL4400
PNL6600	NA	NA	NA	NA	NA	4084	6600	PNL6600

### Holding Value & Maximum Sheet Length Due To Sag For Material Thickness For Single Magnet Use

Model No.	1/4" (6')	3/8" (8')	1/2" (8')	3/4" (8')	1" (10')	2" (10')	3" (10')
PNL220	180	220	220	220	220	220	220
PNL660	270	500	615	660	660	660	660
PNL1300	CF	CF	800	1300	1300	1300	1300
PNL2200	NA	NA	CF	CF	1490	2200	2200
PNL4400	NA	NA	NA	NA	CF	2625	4400
PNL6600	NA	NA	NA	NA	NA	4084	6600


\* These maximum sheet sizes are selected due to the sag characteristics of the specified sheet. All other maximum sheet sizes are recommended due to the weight of the specified sheet. The item to be lifted must cover the entire length and width of the magnetic poles to properly engage and release the part. **CF = Consult Factory** **NA = Not Applicable**

## General Instructions


Installation and start-up are very simple and safe provided that the load limits and the applicable standards of the PowerLift® are observed for handling suspended loads. **Read Entire Manual Prior To Operating.**

1. Remove lifter from packaging and set on floor. This operation is to be done with a bridge or other crane of appropriate capacity by hooking the lifter of adequate size to the bracket on top of the PowerLift®. Check magnet for missing parts or loose bolts. Tighten where necessary or contact the manufacturer.
2. With a crane and hook of appropriate size, lift the PowerLift® and position it on the load to be moved - clean area where magnet will touch. Be careful to make sure that the load to be lifted is within the prescribed range of the lift magnet's holding capabilities. Check the name plate on the lifter or the performance sheet to make sure your load is within this range.
3. Make sure the PowerLift® magnetic poles are in full contact with the load.

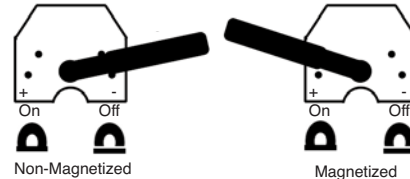
**PowerLift® needs to be on thick steel to engage the magnet to the ON position.**

4. To engage, pull handle grip upward and rotate the lever to the magnetized "+" or ON or  position, then release the grip. **Make sure the lever system is in its lever-stop position.**
5. Move the load observing all applicable standards for safely handling any suspended load.

**NO ONE SHOULD BE IN THE OPERATING AREA. NEVER STAND UNDER A LOAD BEING LIFTED OR LIFT THE LOAD OVER PEOPLE. ALWAYS USE EXTRA CAUTION. ONLY USE ON MATERIAL THAT DOES NOT FLEX OR BEND.**

6. Set the load on the floor or support before releasing it. Be careful that the load is perfectly settled on the floor or support and that the support is adequate for the load.
7. When turning OFF the magnet, be sure to hold the lever as firmly as possible to safely release the load. Once you have a firm grasp on the lever pull up on the handle grip and rotate the lever to the "-" or  or OFF position.

Note: The above operations must be performed while applying the applicable shop standards and other standards for suspended load handling.



## Warranty

All New Products are warranted to be free from defects in material and workmanship for the periods specified below for the original purchaser only. This warranty is not transferable. IMI will replace or repair any Products returned to it free-of-charge by the original purchaser which, upon examination by IMI, is found to have failed, under normal use and service by the original purchaser, due to a defect in material or workmanship. Additionally, at IMI's sole discretion, IMI may return to the original purchaser the purchase price paid for any Product in lieu of repairing or replacing such Product.

Unless otherwise specifically stated in writing, all Products will be covered by the exclusive limited warranty for 365 days from the date of shipment.

IMI must be given an opportunity to investigate and inspect any defects.

The expense of freight to and from the repair site will be the responsibility of the purchaser. The expense of travel and lodging for IMI service personnel will be the responsibility of the purchaser, if repair site is other than the IMI factory.

## Comments or Concerns?

We believe Industrial Magnetics, Inc. offers the finest line of Lift Magnets available today. Great pride has gone into the design and manufacture of these lifts. Comments or concerns should be directed to:

IMI's **MAG-MATE™** GROUP 888-582-0822

**\*Any Modifications To The Magnet, Handle or Lift Lug Voids The Warranty**

## Precautions

The lifts' magnetic pull is affective even when the surfaces of the magnet or load have dirt, paint, scale or other debri on them. However, the best efficiency of any magnetic lift is achieved when these surfaces are clean and the poles of the lift (the surfaces in contact with the load) have good, uninterrupted contact with the load.

**It is therefore recommended to:**

Avoid setting down the lift in places on the load that are dirty or have rough surface texture.

Clear any foreign material from the load before setting the PowerLift on it.

Occasionally check the mechanical condition of the magnetic poles to make sure they are flat and have not been damaged during use.

After using the PowerLift, protect the pole surfaces with oil. This will keep the steel surface from rusting. *Poles can be resurfaced up to 0.010" to 0.015" max.*

## Safety Measures

**DO NOT** attempt to engage the magnetic lift before resting it on the steel to be lifted.

**DO NOT** hoist the load before locking the handle in the ON position.

**DO NOT** hoist a load weighing more than or less than the lift's stated holding capacity.

**DO NOT** hoist a load that is thin and flexible.

Magnet peel-off may occur and the load may fall.

**DO NOT** hoist a load if it is unbalanced.

**DO NOT** hoist a load before making sure of perfect magnetic hooking. First, make a test lift of two or three inches (10cm).

**DO NOT** disengage the lift before firmly setting down the load on the floor and making sure the load is steadied perfectly.

**DO NOT** weld in close proximity to the magnet.

**DO NOT** use the magnet as a part of the ground circuit during a welding operation.

**DO NOT** place the magnet directly onto a grounded floor. Use a non-conductive spacer.

**DO NOT** lift people or loads with people on them.

**DO NOT** leave suspended loads unattended.

**DO NOT** operate lift magnet with missing parts, damaged or malfunctioning lift magnet.

**DO NOT** remove or obscure product labeling.

**DO NOT** lift loads higher than necessary.

**ALWAYS** use the entire magnetic lift pole surface.

**ALWAYS** keep contact pole areas perfectly flat and parallel on the surface of the load.