



Magnetic Superlifters Instruction Manual



IMPORTANT

**Please, read this instruction manual before using these products.
This manual contains important information regarding safety, operation,
installation & maintenance.**

Introduction

Thank you for the purchase of your new SUPERLIFTER. This magnetic lifter uses the latest in technology to ensure you of a higher quality, robust design with a high level of operator safety which is easy and safe to use whilst ensuring a long service life.

It is important that this instruction manual is kept in a safe place where any operator of the SUPLERLIFTER can refer to it to understand the operating principles of this device. All users should read this manual in full and understand the safe operating principles of this device.

Features

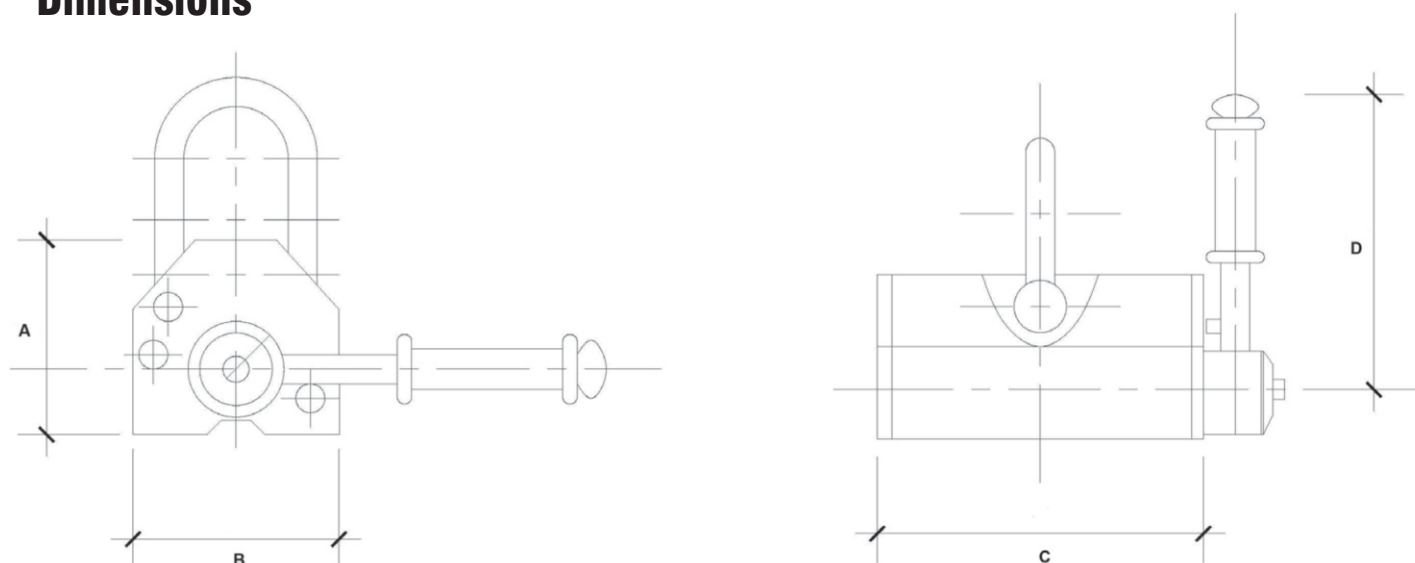
- The Superlifter features a break-away force 3 times greater than the rated capacity
- Weight capacities are available from 100kg to 6 tonne.
- No electricity is needed which increases product safety.
- The simple switch and safety button design allows for one-handed operation
- Use of a plate with high-carbon content will reduce the absorbability to less than 50% of rated capacity. Use of plate with high carbon content is not recommended.



Introduction

Model	SL100	SL300	SL600	SL1000	SL2000	SL3000	SL6000
Rated Capacity	100 kg's	300 kg's	600 kg's	1,000 kg's	2,000 kg's	3,000 kg's	6,000 kg's
Cylindrical Carrying Capacity	50 kg's	150 kg's	300 kg's	500 kg's	1,000 kg's	1,500 kg's	3,000 kg's
Maximum Break Away Force	300 kg's	900 kg's	1,800 kg's	3,000 kg's	6,000 kg's	9,000 kg's	18,000 kg's
Net Weight	3 kg's	10 kg's	24 kg's	50 kg's	125 kg's	220 kg's	420 kg's

Dimensions



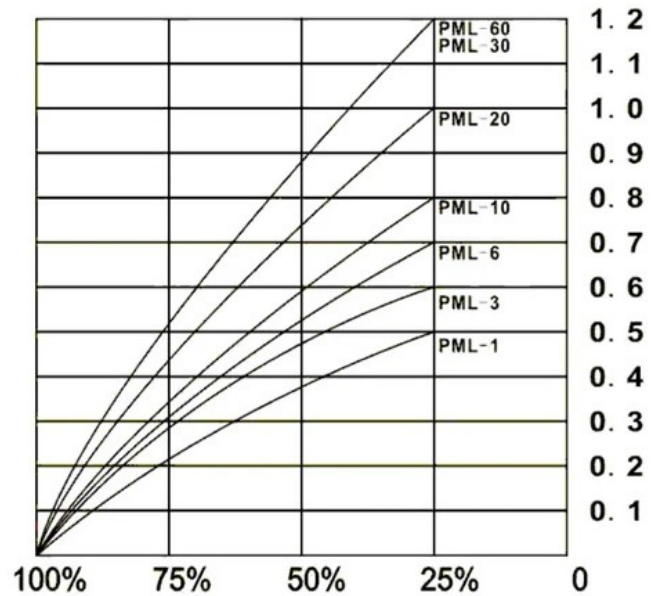
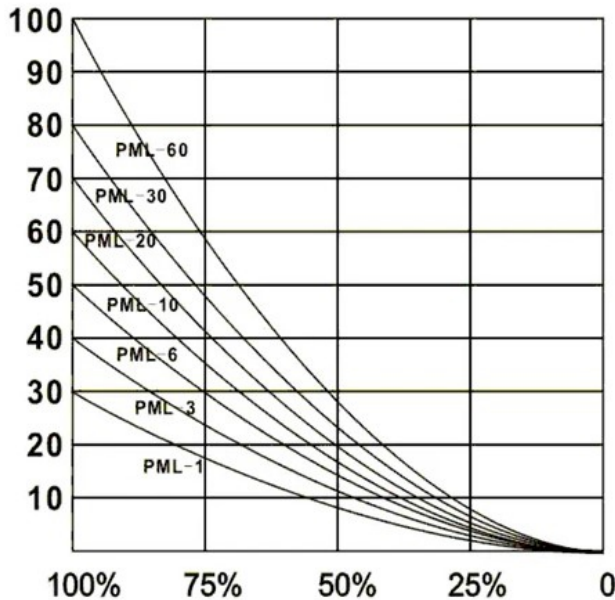
Model	SL100	SL300	SL600	SL1000	SL2000	SL3000	SL6000
A	67mm	91mm	117mm	163mm	212mm	261mm	355mm
B	64mm	92mm	122mm	177mm	215mm	255mm	432mm
C	90mm	157mm	229mm	270mm	380mm	458mm	623mm
D	125mm	200mm	278mm	330mm	450mm	525mm	695mm

Minimum Plate Thickness

Rate of Reduction

STEEL THICKNESS
(MM)

AIRGAP
(MM)



Model	SL100	SL300	SL600	SL1000	SL2000	SL3000	SL6000
Rated Capacity	100 kg's	300 kg's	600 kg's	1,000 kg's	2,000 kg's	3,000 kg's	6,000 kg's
Suitable Thickness Of Plate (mm)	> 25	> 35	> 40	> 50	> 60	> 80	> 120
Plate Materials	≤45# steel	≤45# steel	≤45# steel	≤45# steel	≤45# steel	≤45# steel	≤45# steel
Carbon Content	Low	Low	Low	Low	Low	Low	Low

How to determine the correct magnetic lifter for your application?

The rated capacity of the Superlifter Lifter is determined by the thickness and surface quality of the to-be-lifted object. The Magnetic Lifter performs best on thick ferrous material; at a thickness less than 80 mm, the capacity of the magnet is reduced.

The Magnetic Lifter works better on a smooth surface. If roughness causes air gaps of greater than 6.3um, the capacity of the Magnetic Lifter will be reduced.

If the surface roughness (Ra) is above or greater than 6.3um, the lifter gap should be estimated.

To calculate the percentage of maximum lift capacity for the Magnetic Lifter review the graphs above.

The rated capacity is also influenced by the composition of the steel component. As a reference:

- Low carbon steel object = 100%
- Medium carbon steel object = 95%
- High carbon steel object = 90%
- Low alloy steel object = 75%
- Cast iron object = 50%

Safety Instructions

DO NOT intentionally overload the Magnetic Lifter beyond its stated lifting capacity.

DO NOT shock load Magnetic Lifter.

DO NOT use if vibration occurs during operation.

DO NOT use the Magnetic Lifter to lift people.

NEVER allow the Magnetic lifter operator or other personnel to pass underneath a suspended load.

DO NOT operate a Magnetic Lifter that has been deemed unsafe after inspection/service.

DO NOT swing on a suspended load or leave the suspended load unattended.

DO NOT switch on when the Lifter is not in contact with ferromagnetic material.

DO NOT use when the environment temperature is outside the range of +80°C to -40°C.



Operating Instructions

- Do not exceed the rated lifting capacity of your Magnetic Lifter.
- The Magnetic Lifter is able to create a strong magnetic attraction through its unique construction from high quality Neodymium Magnets. The magnetic path is controlled by turning the handle manually from the “off” to “on” and “on” to “off”.
- Clean the surface of object being lifted to remove rust or burr to ensure a clean mounting surface.
- Mount the Magnetic Lifter to lifting device (Electric Hoist, Chain Block etc) by means of shackle.
- Position the Magnetic Lifter in the centre of the lifted object and place on objects surface.
- Disengage the safety key by pushing down handle button; hold and turn the handle from “OFF” to “ON”. Release handle button.
- Make sure that the safety key on the handle is automatically locked.
- Proceed to lift object.

Lifting Cylindrical Objects

- Follow the above procedure, use the “V” slot situated underneath the Magnetic Lifter to position the cylindrical object using the 2 lines.

NOTE: Lifting Cylindrical Objects with the Magnetic Lifter will reduce its lifting capacity by 50%.

To release lifted objects, lower lifted material onto ground then disengage the safety key by pushing down handle button; hold and turn the Handle from “ON” to “OFF”. **Never disengage the lifter while still holding a load.**

Maintenance Instructions

- The robust and simple design of the Magnetic Lifter will provide a long service life with minimal maintenance or repair required.

To ensure maximum performance, follow the safety warnings.

- Before operation visibly check the Magnetic Lifter for any damage.
- After use, wipe the Magnetic Lifter surface lightly with oil.
- Store carefully when not in use. Inspect regularly and remove any damaged Superlifters from service immediately and send back to Magnets New Zealand for examination.

Inspection & Service Log

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