

NEOLIFTER 'P', 'PR', 'PF' SERIES PM

MANUAL PERMANENT MAGNET LIFTER RANGE

GENERAL INFORMATION

The manual permanent magnet Neolifter series is suitable for general purpose loads of both flat and round material. There are 3 models in the series and each are particularly adapted for different load characteristics.

FEATURES

- Safety Factor > 3x Rated Lifting Capacity for ideal conditions.
- State-of-the-art design, compact dimensions with low weight.
- Made with high energy rare earth NdFeB (Neo) magnets.
- Easily transportable, Single hand operating lever with positive spring lock for quick lock and release.

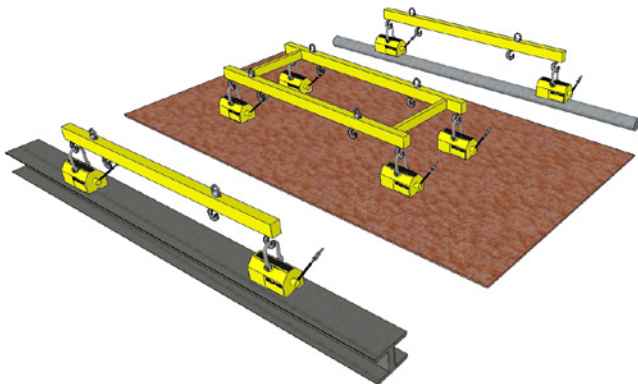
APPLICATIONS

- For handling of steel plates, blocks, rounds, press moulds and loading/unloading in machines.
- Commonly used in machine tools and oxygen cutting operations.
- Can handle finished components without leaving any scratch marks, unlike binding and slinging.
- Can be used with spreader beam hanging multiple magnets for handling long plates/pipes/bars.
- Application temperatures of upto 80 Deg C Max.

THICKNESS	RATED CAPACITY (Safe Lifting or SWL)								
	(mm)	5000Kg	3000Kg	2000Kg	1000Kg	500Kg	300Kg	200Kg	100Kg
T1	70	100%							
T2	60	90%	100%						
T3	50	85%	90%	100%	100%				
T4	45	80%	85%	90%		100%			
T5	40	70%	80%	85%	90%				
T6	35	60%	70%	75%	85%	90%			
T7	30	50%	60%	65%	80%		100%		
T8	25	40%	50%	55%	70%	80%			
T9	20	30%	40%	45%	60%	75%	90%	100%	100%
T10	15	20%	30%	35%	50%	60%	70%	90%	90%
T11	10	10%	20%	25%	35%	45%	50%	70%	70%
T12	5	5%	10%	15%	20%	25%	30%	40%	40%

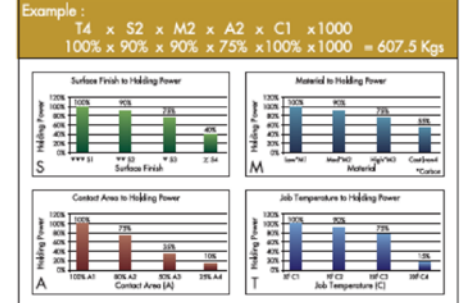
- Testing plate thickness 55mm
- Lifting capacity depends with - Thickness of load - Roughness of job surface - Hardness of material - Contact area of magnet - Temperature of the load

Tip : Select a suitable model from the Neolifter family depending on the type of your load and consider whether your application suits the manual operation required of these models.



Note : Thin and long ferrous material are not suitable to be lifted by single units of similar capacities of permanent magnetic lifters. In other words, a 2 Ton plate of 9 Meters length cannot be lifted by a single 2 Ton capacity lifter.

Calculation of Lifting Capacity of a Lifting Magnet = T x S x M x A x C x SWL



For hot-handling applications of upto 300 Deg C, ask for our High temperature version of the P, PR or PF Series.



TAKE NOTE

When working with the permanent magnet range a few points must be noted.

Factors to Watch Out For : Surface Condition of Workpiece, Temperature, Material property, Contact area and thickness

There is a slight reduction in the lifting capacity due to the quality of surface finish or air gap of the ferrous material due to rust, painting or coating as the pole face does not contact the ferrous material surface due to the quality of surface finish. Similarly, there is a reduction in magnetic force or lifting capacity if the material is at a high temperature in excess of 80 Deg C as the neo magnets are susceptible to high temperatures. Further, there is a reduction in lifting capacity depending on the grade and type of ferrous material; mild steel being the best for magnetic attraction. Equally importantly, full contact of the magnetic pole face area to the workpiece surface is imperative for safe magnetic lifting just as thickness of the ferrous material.

SAFETY FACTOR

To compensate for potential deration of lifting capacity due to the factors above, Lifton Magnets generally adheres to a safety factor of at least 3:1 for all lifting magnets.

PROPERTIES AND DIRECTIONS OF USE :

While the surface condition i.e. the area of contact is very important, in general; a smooth flat surface is good enough. The magnet should always be hung from the centre of the job i.e. used in equilibrium as far as possible. Should two (2) or more magnets be used to lift longer and larger loads (see sketch, right) these in-turn must be suspended from spreader beams. Depending on the nature of the load, lifting magnets may be distributed appropriately to prevent bending of the load as in case of a thin plate. Bear in mind however, that each magnet must be turned ON & OFF before and after every operation rendering this method impractical sometimes.



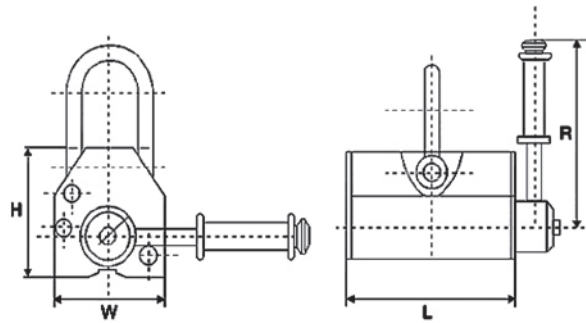
PM

NEOLIFTER 'P' SERIES

MANUAL PERMANENT MAGNET LIFTER

FEATURES

- Safety Factor > 3x Rated Lifting Capacity for ideal conditions.
- State-of-the-art design, compact dimensions with low weight, made with high energy rare earth NdFeB (Neo) magnets.
- Easily transportable, Single hand operating lever with positive spring lock for quick lock and release.
- Easily removed Shackle hook for multi-purpose clamping application.
- Ideal for general purpose lifting of both flat & round material.



Tip : Select the 'P' model if the material you handle is both flat & round in even proportions. Flat material must be at least of 10mm thickness.

Product Code : NML-P

All dimensions are in mm

Model No. (P Series)	Rated		Self Weight (Kg)	Tested Flat Load (Kg)	Dimensions (mm)				Job Size Range (mm)			
	Flat	Dia			L	W	H	R	Flat		Dia	Thk
	(Kg)	(Kg)							(Kg)	(Kg)	L	W
NML-P-100	100	50	3	>300	92	64	67	123	1200	800	40 - 100	10
NML-P-300	300	150	7.5	>900	162	92	91	155	2000	1200	40 - 160	15
NML-P-600	600	300	23	>1800	233	122	118	196	2500	1500	40 - 200	20
NML-P-1000	1000	500	56	>3000	268	179	164	255	3000	2000	60 - 350	25
NML-P-2000	2000	1000	125	>6000	378	234	212	426	3500	2000	80 - 400	30
NML-P-3000	3000	1500	220	>9000	497	310	252	505	4000	2500	80 - 400	50
NML-P-6000	6000	NA	420	>18000	621	422	355	548	6000	2500	NA	70

PM

NEOLIFTER 'PR' SERIES

MANUAL PERMANENT MAGNET LIFTER

FEATURES

- Safety Factor > 3x Rated Lifting Capacity for ideal conditions.
- State-of-the-art design, compact dimensions with low weight, made with high energy rare earth NdFeB (Neo) magnets.
- Easily transportable, Single hand operating lever with positive spring lock for quick lock and release.
- Easily removed Shackle hook for multi-purpose clamping application.
- Ideal for better performance in handling round material and some flat material with more emphasis on round.

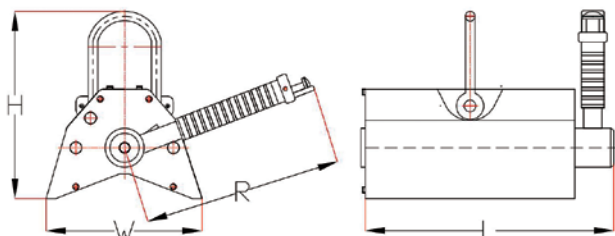


Tip : If you are handling mostly round material, select the 'PR' model with its enhanced V-face and better capacity for handling curved faces.

Product Code : NML-PR

All dimensions are in mm

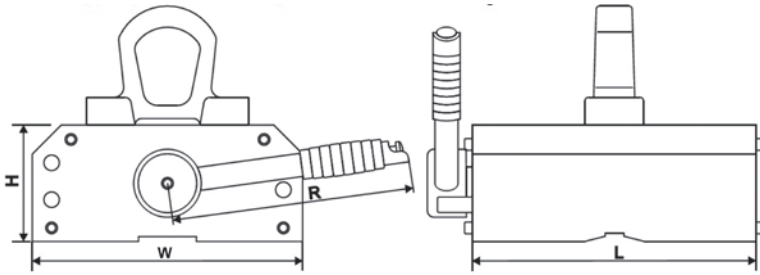
Model No. (PR Series)	Rated		Self Weight (Kg)	Tested Flat Load (Kg)	Dimensions (mm)				Job Size Range (mm)			
	Flat	Dia			L	W	H	R	Flat		Dia	Thk
	(Kg)	(Kg)							(Kg)	(Kg)	L	W
NML-PR-100	100	70	3	>300	125	85	127	145	1200	800	40 - 100	10
NML-PR-300	300	210	12.5	>900	200	123	179	195	2000	1200	40 - 160	15
NML-PR-600	600	420	32.5	>1800	278	194	246	220	2500	1500	40 - 200	20
NML-PR-1000	1000	700	80	>3000	330	279	333	315	3000	2000	60 - 350	25
NML-PR-2000	2000	1400	200	>6000	450	371	444	460	3500	2000	80 - 400	30
NML-PR-3000	3000	2100	350	>9000	525	444	531	735	4000	2500	80 - 400	50



NEOLIFTER 'PF' SERIES

PM

MANUAL PERMANENT MAGNET LIFTER



FEATURES

- Safety Factor > 3x Rated Lifting Capacity for ideal conditions.
- State-of-the-art design, compact dimensions with low weight, made with high energy rare earth NdFeB (Neo) magnets.
- Easily transportable, Single hand operating lever with positive spring lock for quick lock and release.
- Easily removed Shackle hook for multi-purpose clamping application.
- Ideal for better performance in handling thin and flat material and some flat material with more emphasis on round.

Tip : If you are handling mostly thin & flat material, select the 'PF' model with its flat bottom, double circuit face with better capacity for handling thinner plates.

Product Code : NML-PF

All dimensions are in mm

Model No. (PF Series)	Rated		Self Weight (Kg)	Tested Flat Load (Kg)	Dimensions (mm)				Job Size Range (mm)			
	Flat	Dia			L	W	H	R	Flat		Dia	Thk (Min)
	(Kg)	(Kg)							L	W	Ø	
NML-PF-300	300	100	9.5	>900	163	133	60	180	1200	800	40 - 100	8
NML-PF-600	600	200	21	>1800	234	162	74	220	2000	1200	40 - 160	10
NML-PF-1000	1000	300	37.5	>3000	302	190	87	265	2500	1500	40 - 200	15
NML-PF-2000	2000	600	77	>6000	341	231	107	380	3000	2000	60 - 350	20
NML-PF-3000	3000	X	165	>9000	416	417	146	450	3500	2000	80 - 400	40
NML-PF-6000	6000	X	410	>18000	584	422	206	820	4000	2500	80 - 400	50



Thin sheet handling is better with the PF model

LIFTING

