

# EZ-LIFT MAGNETS / CALCULATING MAXIMUM LOADS

## INSTRUCTIONS FOR CALCULATING MAXIMUM LOAD BY MATERIAL TYPE

$$T \text{ (thickness)} \times F \text{ (finish)} \times M \text{ (material)} \times \text{Capacity} = \text{ML}$$

**Example:** (ELM-600/plate steel) 2" (T=100%) x F2(100%) x M2 (85%) x 1,320 lbs. = **1,122 lbs.**

### CALCULATING MAXIMUM LOADS

Calculate that the magnet will safely lift your material. Maximum Load (ML) is different for plate or round materials, and depends upon stock thickness, carbon content, and surface finish. Use the tables to calculate ML for your material type.

#### M Lifting Power by Material

Carbon Content	0%		50%		100%	
	M1	Low Carbon				100%
M2	Moderate Carbon				85%	
M3	High Carbon				75%	
M4	Cast Iron				70%	

#### F Effect of Surface Finish

Surface Finish	0%		50%		100%		150%	
	F1	Ground Surface						125%
F2	Rough Machined				100%			
F3	Foundry Finish				90%			
F4	~ Rough Cast				65%			

### RATED CAPACITY

Part No.	Plate Steel*
ELM-100	220 lbs.
ELM-300	660 lbs.
ELM-600	1,320 lbs.
ELM-1000	2,200 lbs.
ELM-2000	4,400 lbs.
ELM-3000	6,600 lbs.

Part No.	Round Steel*
ELM-100	132 lbs.
ELM-300	400 lbs.
ELM-600	800 lbs.
ELM-1000	1,320 lbs.
ELM-2000	2,640 lbs.
ELM-3000	3,960 lbs.

### T EQUALS PERCENT OF LIFTING POWER BY T (THICKNESS)

T	ELM-100	ELM-300	ELM-600	ELM-1000	ELM-2000	ELM-3000
2 3/8" (60mm)	100%	100%	100%	100%	100%	100%
2 1/8" (55mm)	100%	100%	100%	100%	100%	95%
2.0" (50mm)	100%	100%	100%	100%	95%	90%
1 3/4" (45mm)	100%	100%	100%	100%	90%	85%
1 1/2" (40mm)	100%	100%	100%	100%	85%	80%
1 3/8" (35mm)	100%	100%	100%	90%	75%	70%
1 1/8" (30mm)	100%	100%	100%	80%	65%	60%
1.0" (25mm)	100%	100%	90%	70%	55%	50%
3/4" (20mm)	100%	90%	75%	60%	45%	40%
1/2" (15mm)	100%	70%	60%	50%	35%	30%
3/8" (10mm)	70%	50%	45%	35%	25%	20%
1/4" (5mm)	40%	30%	25%	20%	15%	10%

\*Follow all directions in the Operating Instructions that comes with your magnet.

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