## ELM Series Lifting Magnets

## Operating Instructions (do not discard)

1. Calculate Maximum Load (ML) to determine that the magnet will safely lift your material. Maximum Load for plate stock is different than for round stock, and varies with thickness, carbon content, and surface finish of material. Use the formula and 3 tables (below) to calculate the Maximum Load for your material type.
2. Center the lifting magnet on your material, so the lift will be balanced. Turn the lever to the "ON" position, making sure the safety catch has engaged the lever to prevent accidents. Never attempt to turn the magnet on unless it is placed on a piece of iron or steel stock.
3. Connect your hoist and raise the material 2 inches to test lifting power.
4. Not responsible for accidents due to negligence. Observe the WARNING statements below.

## Formula for Calculating Maximum Load by Material Type

T (thickness) x F (finish) x M (material) x Capacity $=$ ML
Example ELM-300: 20 mm (90\%) x F1 (125\%) x M2 (85\%) x $300 \mathrm{~kg}=\mathbf{2 8 5} \mathbf{~ k g ~}$

## Percent of Lifting Power by T (thickness)

| Thickness | ELM-100 | ELM-300 | ELM-600 | ELM-1000 | ELM-2000 | ELM-3000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 60mm (2 $\left.3 / 8^{\prime \prime}\right)$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ |
| $55 \mathrm{~mm}\left(21 / 8^{\prime \prime}\right)$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $95 \%$ |
| $50 \mathrm{~mm}\left(2.0^{\prime \prime}\right)$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $95 \%$ | $90 \%$ |
| $45 \mathrm{~mm}\left(13 / 4^{\prime \prime}\right)$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $90 \%$ | $85 \%$ |
| $40 \mathrm{~mm}\left(112^{\prime \prime}\right)$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $85 \%$ | $80 \%$ |
| $35 \mathrm{~mm}\left(13 / 8^{\prime \prime}\right)$ | $100 \%$ | $100 \%$ | $100 \%$ | $90 \%$ | $75 \%$ | $70 \%$ |
| $30 \mathrm{~mm}\left(11 / 8^{\prime \prime}\right)$ | $100 \%$ | $100 \%$ | $100 \%$ | $80 \%$ | $65 \%$ | $60 \%$ |
| $25 \mathrm{~mm}\left(1.0^{\prime \prime}\right)$ | $100 \%$ | $100 \%$ | $90 \%$ | $70 \%$ | $55 \%$ | $50 \%$ |
| $20 \mathrm{~mm}\left(3 / 4^{\prime \prime}\right)$ | $100 \%$ | $90 \%$ | $75 \%$ | $60 \%$ | $45 \%$ | $40 \%$ |
| $15 \mathrm{~mm}\left(1 / 2^{\prime \prime}\right)$ | $100 \%$ | $70 \%$ | $60 \%$ | $50 \%$ | $35 \%$ | $30 \%$ |
| $10 \mathrm{~mm}\left(3 / 8^{\prime \prime}\right)$ | $70 \%$ | $50 \%$ | $45 \%$ | $35 \%$ | $25 \%$ | $20 \%$ |
| $5 \mathrm{~mm}\left(1 / 4^{\prime \prime}\right)$ | $40 \%$ | $30 \%$ | $25 \%$ | $20 \%$ | $15 \%$ | $10 \%$ |

F-Finish

| Finish | Rating |
| :--- | :---: |
| F1- VVFGround | $125 \%$ |
| F2- VVRough | $100 \%$ |
| F3- VFoundry | $90 \%$ |
| F4 - Cast | $65 \%$ |

M - Material

| Carbon | Rating |
| :--- | :--- |
| M1- Low | $100 \%$ |
| M2 - Moderate | $85 \%$ |
| M3 - High | $75 \%$ |
| M4 - Cast Iron | $70 \%$ |

## WARNING!

1. Do not exceed the Maximum Load (ML). Always follow the Operating Instructions to calculate Maximum Load for your material and proper lifting procedure.
2. Do not operate without reading and understanding the operation instructions.
3. Do not operate if damaged, malfunctioning, or missing parts.
4. Do not leave suspended loads unattended and stay clear of suspended loads.
5. Do not lift unbalanced loads.
6. Do not lift people.
7. Do not lift loads higher than necessary.
8. Do not operate at temperatures above $80^{\circ} \mathrm{C}\left(176^{\circ} \mathrm{F}\right.$.)
9. Do not remove or obscure warning labels.


## Assembly Instructions

1. Install the handle on the lifter as shown in diagrams $1 \& 2$.
2. Install screw as shown in diagrams $3 \& 4$.

