

# LIFTING MAGNET

## ELM Series

Safety Factor

**3.5 times!**



2015 New nickel-plated design, avoid paint peeling off, keep ELM new. Apply for (Design Patent), avoid illegal copy and ensure customers purchase rights.

**More power. More safety**  
**Light weight Less dimension**  
**Lower price**



Copyright! All rights reserved!

2014.03

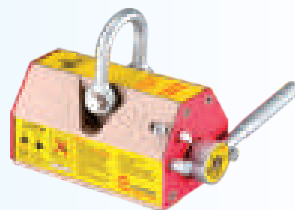


GOOD DESIGN PRODUCT

# ELM Series



ELM-1000



ELM-300



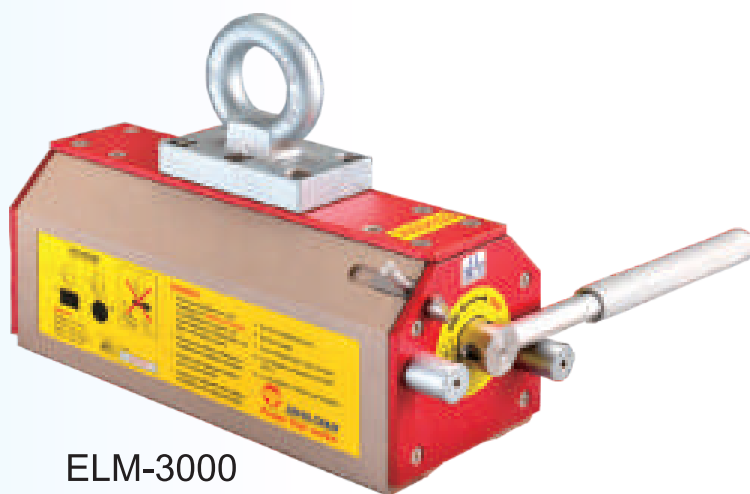
ELM-600



ELM-100



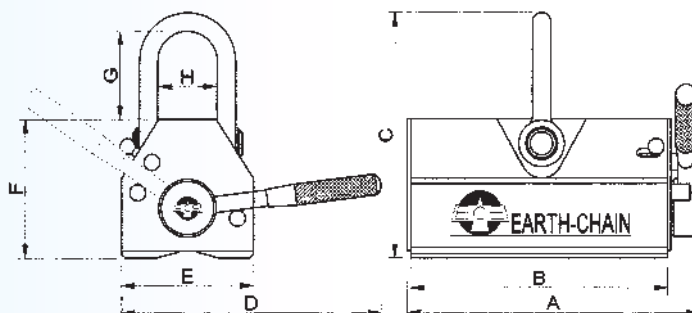
ELM-2000



ELM-3000

Safety Factor of ELM-3000  
is 3.0 times.

**6 models are available**



## DIMENSIONS

MODEL	Capacity		A		B		C		D		E		F		G		H		Weight		SAFETY FACTOR
	kg	lbs	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	kg	lbs	
ELM-100	100	220	107	4.2	84	3.3	120	4.7	125	4.9	60	2.4	71	2.8	41	1.6	30	1.2	2.5	5.5	× 3.5 times
ELM-300	300	660	180	7.1	155	6.1	156	6.1	185	7.3	90	3.6	93	3.7	51	2.0	41	1.6	8.6	18.9	
ELM-600	600	1320	255	10	224	8.8	212	8.3	260	10.2	115	4.5	120	4.7	77	3.0	52	2.0	21	46	
ELM-1000	1000	2200	280	11	245	9.6	286	11.3	371	14.6	165	6.5	169	6.7	97	3.8	87	3.4	46	101	
ELM-2000	2000	4400	422	16.6	380	15	348	13.7	512	20.2	216	8.5	215	8.5	105	4.1	121	4.8	118	259	× 3.0 times
ELM-3000	3000	6600	566	22.3	530	20.9	400	15.7	770	30.3	216	8.5	222	8.7	147	5.8	80	3.2	181	399	

# ELM Series

## ● FEATURES

1. Made by “Rare Earth” magnet with technology of improvement.
2. All new models with “light weight” “less dimension” and “lower price”.
3. Made by permanent magnet, require no power supply, thus eliminating hazards due to failure wiring system as electric type.
4. It features powerful magnetic force, with 3.5 times safety coefficient makes more safety in use.

## ● APPLICATIONS

Suitable for move plate steel, block steel and round steel, such as machine parts, press molds, plastic molds and iron material .....etc.



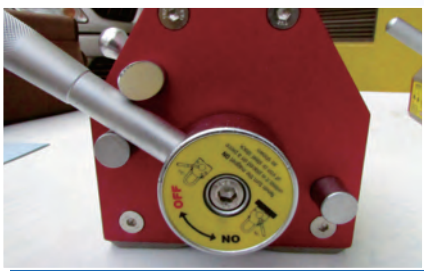
## EXAMPLE IN USE



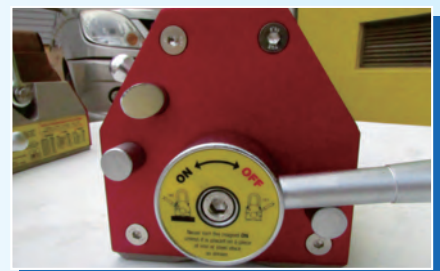
## ● OPERATIONS

With ON/OFF switch, it is very easy and convenient to operate. See as the example pictures as below.

**ON**



**OFF**



**Notice:** Never moves the handle to “ON” side, except on an iron object of holding.

# ELM Series

## LOAD OF HOLDING POWER

The load of holding power will changes depending on the thickness, attractive face roughness and quality of material and clearance between the workpiece with magnet.  
(See as the graphs as below)

Chart of difference in holding power by thickness

	Thickness		Percentage of lifting capacity					
	mm	inch	ELM-3000	ELM-2000	ELM-1000	ELM-600	ELM-300	ELM-100
T1	up 60	up 2.36"	100%	100%	100%	100%	100%	100%
T2	55	2.16"	95%					
T3	50	1.97"	90%	95%				
T4	45	1.77"	85%	90%				
T5	40	1.57"	80%	85%				
T6	35	1.38"	70%	75%	90%	90%	90%	90%
T7	30	1.18"	60%	65%	80%			
T8	25	0.98"	50%	55%	70%			
T9	20	0.79"	40%	45%	60%	75%	90%	
T10	15	0.59"	30%	35%	50%	60%	70%	
T11	10	0.39"	20%	25%	35%	45%	50%	70%
T12	5	0.20"	10%	15%	20%	25%	30%	40%

Chart of difference in holding power by attractive face roughness **For all models**

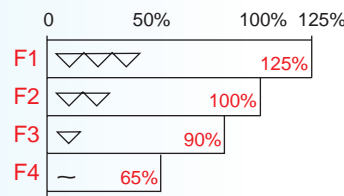
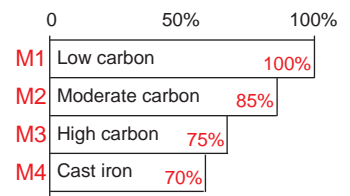


Chart of difference in holding power by material quality **For all models**



Calculating Formula for "Range of Lifting Capacity"

→ (TxFxMxCapacity of Lifter)

Example:

Terms of workpiece: T8, F1 and M2

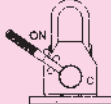
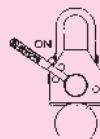
90% x 125% x 85% x 600kg (ELM-600)=**573KG**

## SAFETY FACTOR x 3.5 times (ELM-3000 x 3.0 times)

The capacity of magnet indicated as 1/3.5 of holding power, it means the real holding power is 3.5 times of capacity. For example the capacity of ELM-600 is 600kg (1320lbs) but the real holding power is 2100kg (4620lbs).

**The large safety coefficient is consideration for ensuring the use in safety.**

## MAXIMUM LIFTING RANGE

Form of material	Steel plate 				Round steel 					
	Max. lifting capacity		Min. thickness required		Max. lifting capacity		Max. diameter			
MODEL	kg	lbs	mm	inch	kg	lbs	mm	inch	mm	inch
ELM-100	100	220	15	0.59"	60	132	150	5.9"	500	20"
ELM-300	300	660	25	0.98"	180	400	250	9.8"	800	32"
ELM-600	600	1320	30	1.18"	360	800	350	13.8"	1200	48"
ELM-1000	1000	2200	40	1.57"	600	1320	450	17.8"	1500	60"
ELM-2000	2000	4400	55	2.16"	1200	2640	550	21.6"	1800	70"
ELM-3000	3000	6600	60	2.36"	1800	3960	650	25.6"	2300	90"

The above diagrams is only for reference. The operator should be test and check if it is in safe range before lift away the workpiece of steel. Other wise, it will be not responsibility by producer for any accidents.

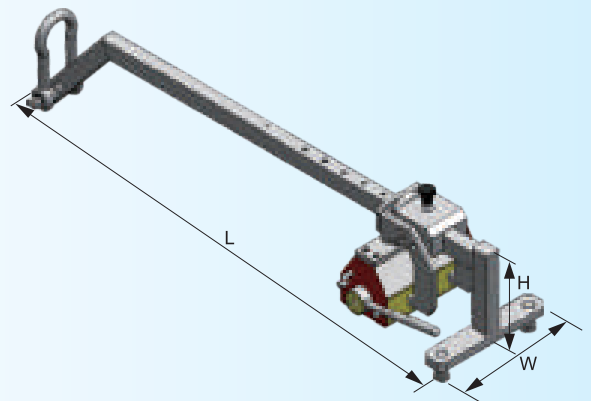


# ELM-V Series

## EZ-Lift Material Handling Accessories

### ● ELM-V Vertical Lifters

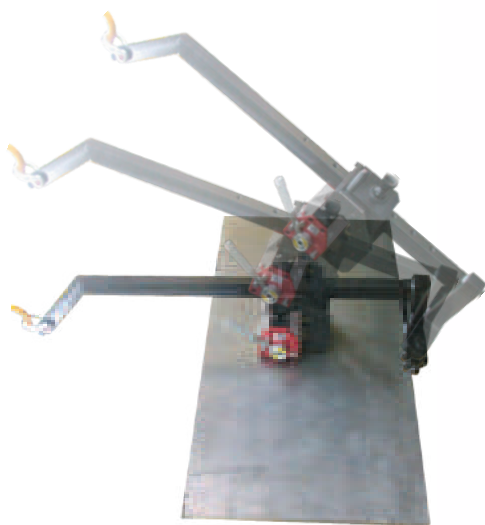
(The device included a Lifting Magnet)



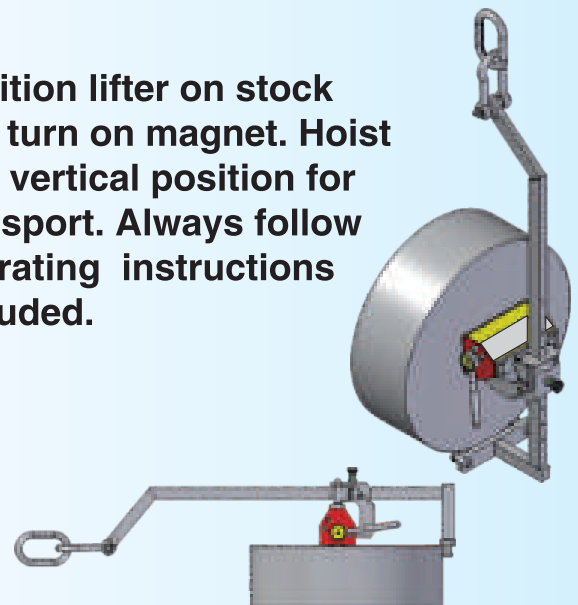
Model	Size L × W × H		Weight	
	mm	inch	kg	lbs
ELM-300V	953 × 216 × 254	37.5 × 8.5 × 10	26	57
ELM-600V	1156 × 272 × 254	45.5 × 10.7 × 10	39	86
ELM-1000V	1207 × 343 × 305	47.5 × 13.5 × 12	58	128

- Fast loading for vertical transport
- One person can load and unload
- No dangerous straps & slings

Used for vertical transport of plate stock for fabricating, machining, etc.



Position lifter on stock and turn on magnet. Hoist into vertical position for transport. Always follow operating instructions included.



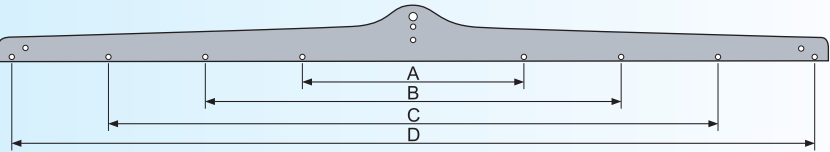
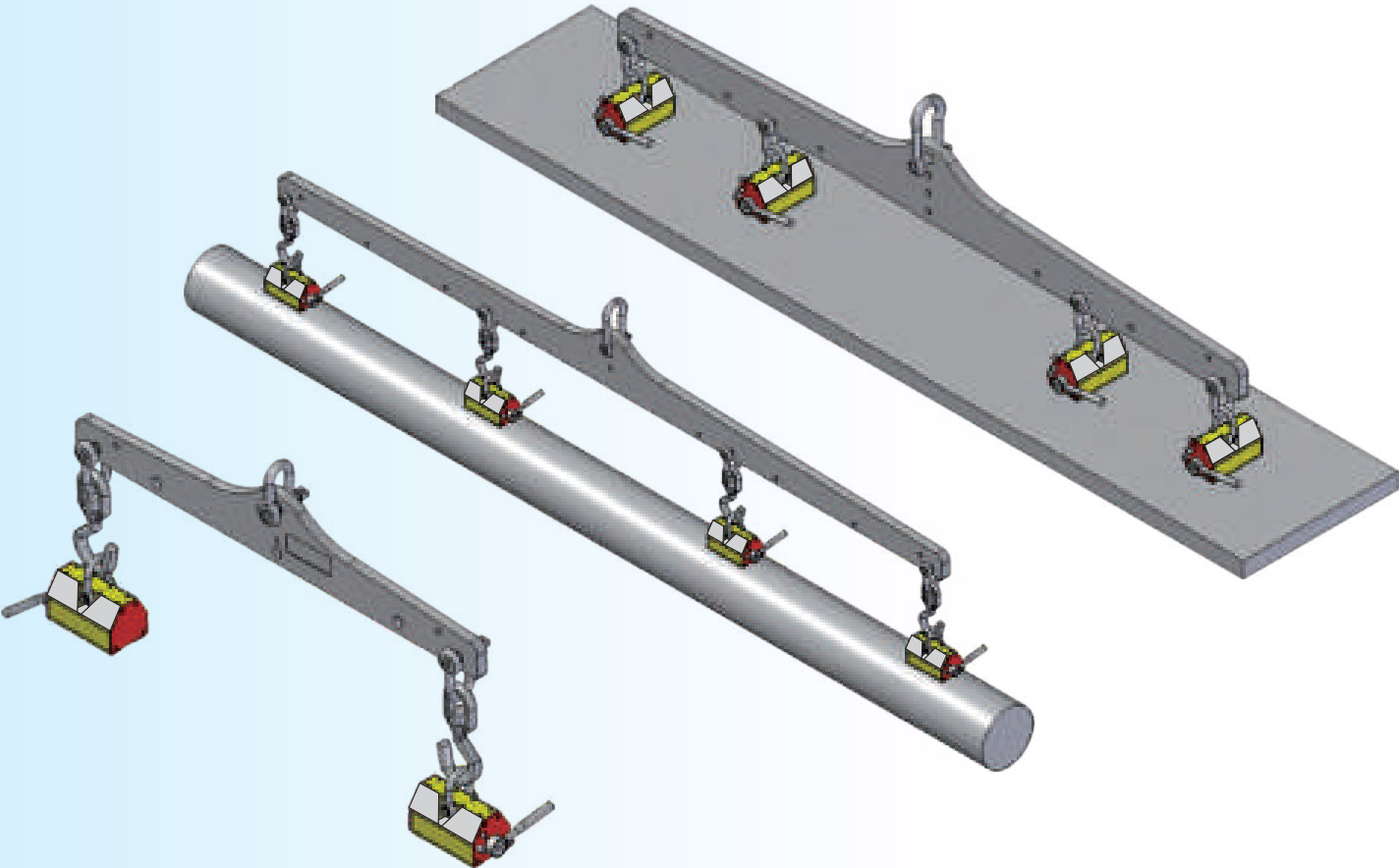
Model	Plate Size ( L × W × H min./max. )							
	Capacity		L (min./max.)		W (min./max.)		H (min./max.)	
	kg	lbs	mm	inch	mm	inch	mm	inch
ELM-300V	300	660	200 / 1500	8 / 60	300 / 800	11.8 / 31.5	6 / 150	0.25 / 5.9
ELM-600V	600	1320	300 / 1800	12 / 72	300 / 1000	11.8 / 39.4	8 / 250	0.31 / 9.8
ELM-1000V	1000	2200	300 / 2000	12.5 / 79	300 / 1000	11.8 / 39.4	10 / 300	0.39 / 11.8

# ELM-L Series

## ● ELM-L Spreader Bars

(This product doesn't include permanent lifting magnet "ELM Series", lifting magnets are optional according to your applications.)

- **For better overall balance**      **Keeps large materials**
- **Use with multiple lifters**      **balanced for safer transport.**



Model	A		B		C		D		Weight	
	mm	inch	mm	inch	mm	inch	mm	inch	kg	lbs
ELM-1000L	600	23.6	900	35.4	--	--	--	--	16	35
ELM-1600L	700	27.6	1100	43.3	1500	59.1	--	--	25	55
ELM-2000L	700	27.6	1300	51.2	1900	74.8	--	--	57	125
ELM-2600L	700	27.6	1300	51.2	1900	74.8	2500	98.4	75	165
ELM-3000L	800	31.5	1500	59.1	2200	86.6	2900	114	86	189

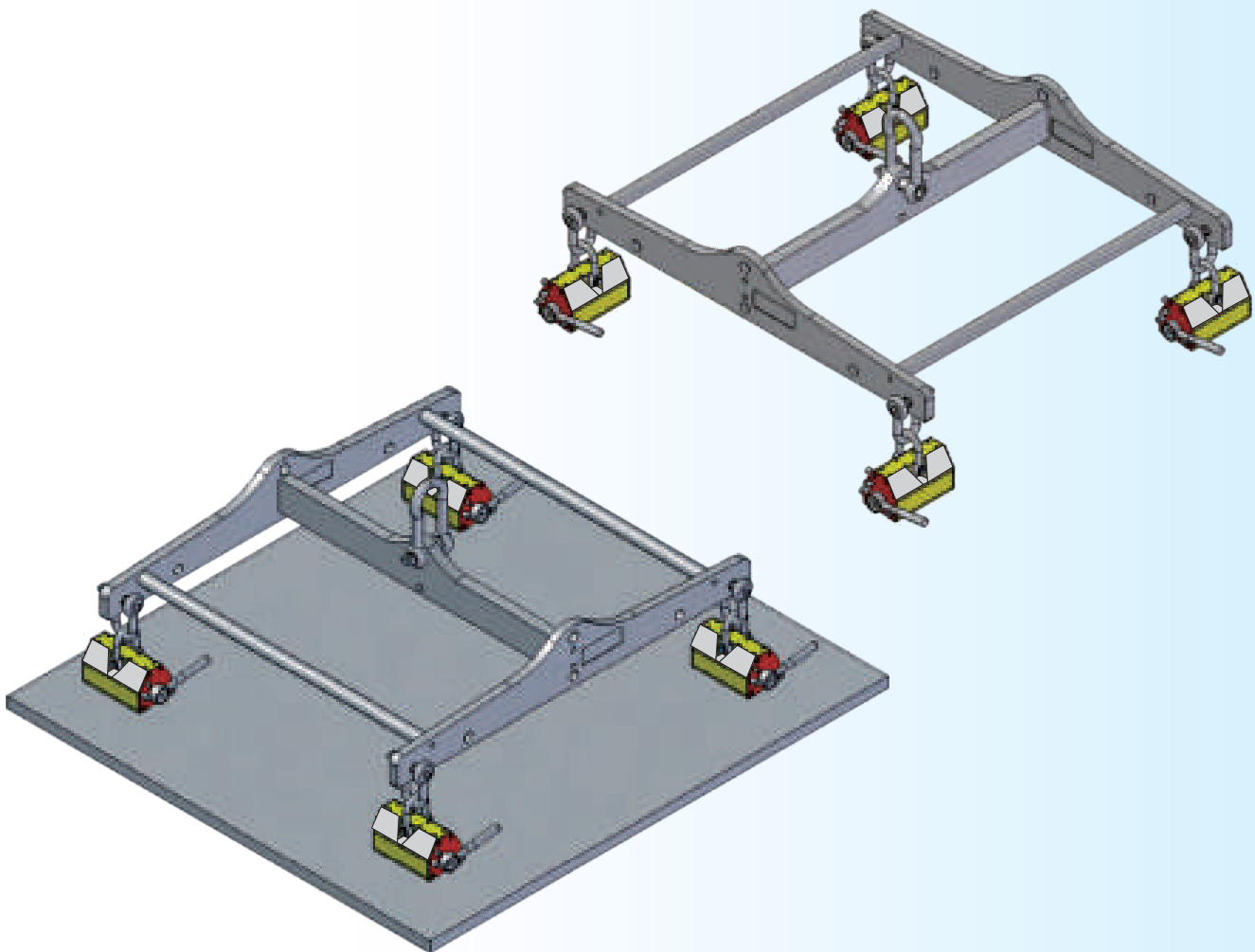
Spreader bars help keep large or irregular loads under control during transport. You can increase your lifting power by adding more magnets.

# ELM-H Series

## ● ELM-H Spreader Bars set System

(This product doesn't include permanent lifting magnet "ELM Series", lifting magnets are optional according to your applications.)

- Loading large plate on the table with a fork lift was difficult time consuming and posed a potential safety hazard.
- ELM-L Workholding to design a system for a single operator to use permanent lifting magnets and a special spreader bar to handle a balanced load.



**"We found that using the lifting magnets made the Process simpler, safer and faster for a single operator to use."**

**This product is custom-made, please specify the dimension and weight of your workpiece when place orders.**



## OUR OTHER PRODUCTS SYSTEM



[www.earth-chain.com](http://www.earth-chain.com)



**SKÄRPVERKTYG AB**

Kråketorpsgatan 10, 43153 MÖLNDAL

☎ 031-87 00 50

✉ [info@skarpverktyg.se](mailto:info@skarpverktyg.se)

☎ Fax 031-87 14 15

🌐 [www.skarpverktyg.se](http://www.skarpverktyg.se)