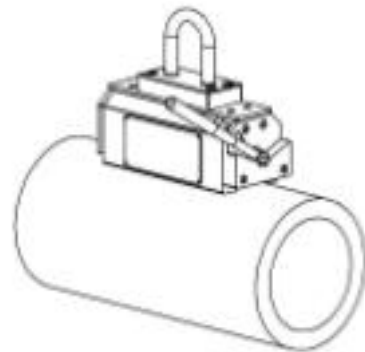
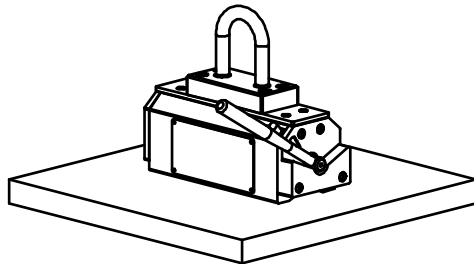


**Applications**

Lifting accessory for handling of ferrous plates or round loads with any kind of surface quality.  
 In accordance with EN 13155:2003 standard.



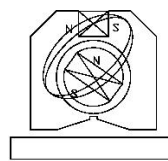
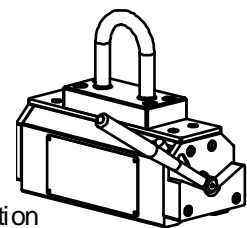
**Principle**

The magnetic flow generated by the magfor permanent magnet lifters is, regarding « activated » or « deactivated » position of the rotor, closed on a internal magnetic earth (position « magnet lifter deactivated ») or slanted towards the load (position « magnet lifter activated »), producing one attractive strength between active poles of magnet lifter and this load. This strength depends on loads dimensions (active poles contact surface and thickness of the load) and also on loads magnetic qualities (iron content).

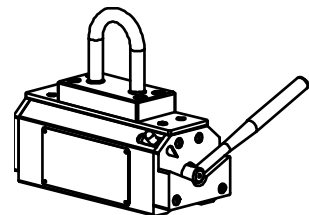
Qualitative and dimensional characteristics of the load have influence on working load limit of a permanent magnet lifter.



Activated position



Deactivated position



**Description**

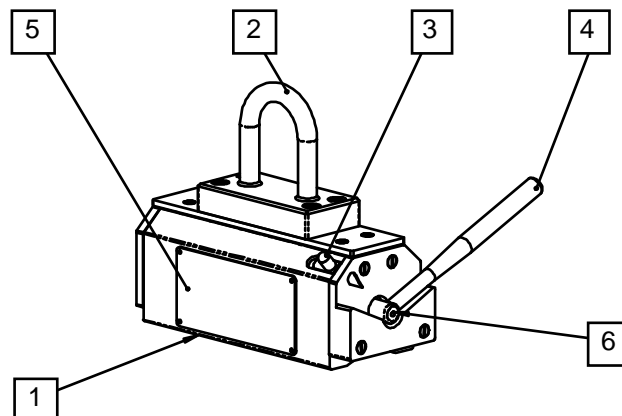
**magfor** range is manufactured with high power Neodymium Iron Bore magnets, which positioning propose a compact solution with an important and reliable force.

The rotor which permits orientation of the magnetic strength on the load is positioned with an ergonomic and robust lever.

Magnet lifters **magfor** are fitted out with a safety locking device of the lever which is automatically engaged when lever is in "activated position" in order to avoid any unintentional magnet lifter disactivation. For more safety, magnet lifter disactivation requires use of both hands : one hand to unlock the locking system (3), the other hand to manually accompany the working lever (4).

Each **magfor** is also fitted out with a reinforced upper ring which offers a big opening for an easy positioning of the lifting device hook.

1. Active poles
2. Hooking ring
3. Locking device
4. Working lever
5. Signalling plate
6. Rotor axle



**Capacities\*and dimensions**

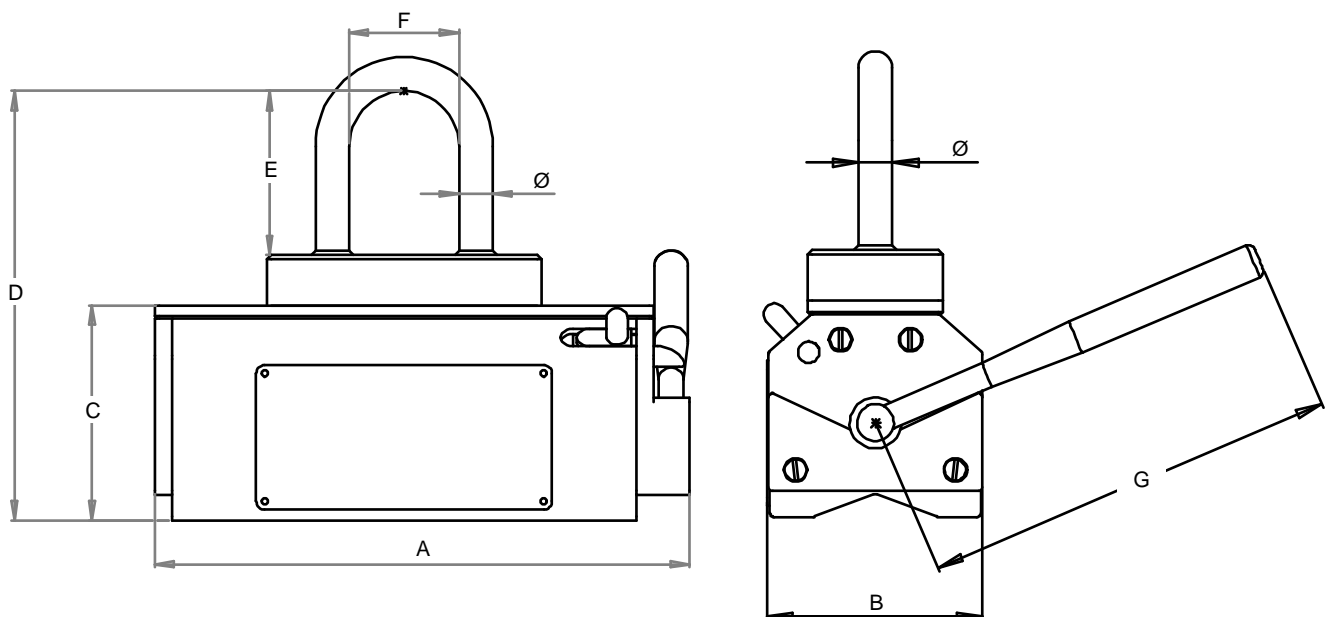
Type	WLL* on a plate (kg)	WLL* on a round (kg)	Weight (kg)	A	B	C	D	E	F	G	Ø
magfor 100	100	50	3	135	70	75	125	45	40	125	10
magfor 300	300	125	8	190	90	85	175	70	50	180	12
magfor 500	500	215	16	255	110	100	195	70	50	210	16
magfor 1000	1000	450	40	350	140	130	270	105	60	325	25
magfor 2000	2000	800	90	440	180	180	320	105	60	340	25
magfor 3000	3000	1200	190	480	220	215	415	150	80	700	40
magfor 5000	5000	2400	400	540	370	315	515	150	85	700	50

*Dimensions in mm*

\* *WLL: Working Load Limit*

*Specified capacities concern a steel with low carbon content (like S235 steel) with a surface quality which warrants a surface roughness  $\leq 0,1$  mm (smooth and clean manufactured surface) and for loads dimensions which respect characteristics given on the « practical tables for capacity reduction ».*

**IMPORTANT : the working load limit specified on magnet lifter, which corresponds to here above described conditions, must be reduced if these conditions are not respected (see following paragraphs).**



**Influential factors on lifting capacity**

➤ Kind of load

Kind of steel *	%**	WLL (kg)						
		magfor 100	magfor 300	magfor 500	magfor 1000	magfor 2000	magfor 3000	magfor 5000
Low carbon content steel (E24-2, S235)	100 %	100	300	500	1000	2000	3000	5000
St 52 (A50-2)	96 %	96	288	480	960	1920	2880	4800
Stainless steel 430F	50 %	50	150	250	500	1000	1500	2500
Cast-iron	45 %	45	135	225	450	900	1350	2250
Nickel	10 %	10	30	50	100	200	300	500
Stainless steel 304	0 %	0	0	0	0	0	0	0

WLL: Working Load Limit

\* non exhaustive list

\*\* % regarding maximum working load limit of considered magnet lifter in case of a steel with low carbon content (like S235 steel) with a surface quality which warrants a surface roughness  $\leq 0,1$  mm (smooth and clean manufactured surface) and for loads dimensions which respect characteristics given on the « practical tables for capacity reduction ».

➤ Air-gap

It corresponds to the space between the magnet lifter active poles and the load due to surface roughness, the oxidation, paper or painting on the load, flashes, etc.

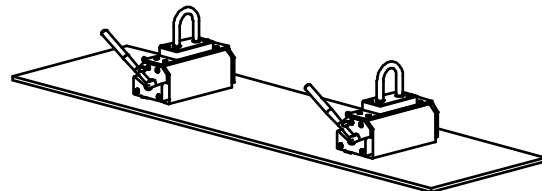
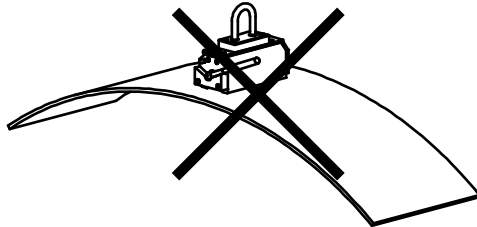
A rusted hot laminated plate presents an air-gap from 0.1 to 0.3 mm. Surface roughness of a piece in wrought iron can reach 0.5 mm.

Permanent magnet lifter capacity is reduced when the air-gap increases.

➤ Dimensions of the load

Thickness and contact surface: a load too thin or a contact which doesn't cover all the active poles surface, doesn't allow a good dosing of the magnetic circuit and limit strength of the flow on the load.

Length: bending of the load due to its important length produces an air-gap.



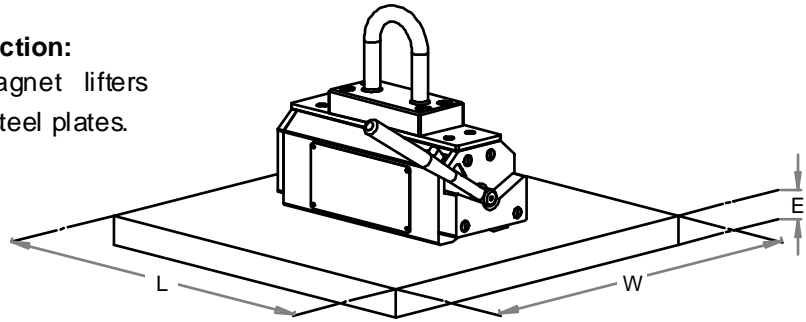
**IMPORTANT:** presence of holes with important dimensions also limits the magnet lifter capacity.

➤ Load horizontality

To achieve the maximum capacity of a magnet lifter, magnet forces must be perpendicular to the active poles surface. That is why it is necessary to find out, with a good positioning of the magnet lifter, the best horizontality of the load during lifting.



**Practical tables for capacity reduction:**  
 Determination of permanent magnet lifters  
**magfor** capacity in case of S235 steel plates.



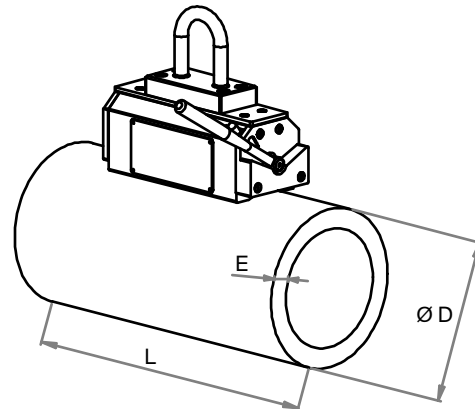
	E	L x W min	Air-gab < 0,1 mm		Air-gab 0,1 to 0,3 mm		Air-gab 0,3 to 0,5 mm	
			WLL* kg	L x W max	WLL* kg	L x W max	WLL* kg	L x W max
<b>magfor 100</b>	≥ 15	200X200	<b>100</b>	L maxi 1250	<b>60</b>		<b>50</b>	
	10		<b>80</b>	1250 x 600	<b>45</b>	800 x 600	<b>45</b>	650 x 600
	6		<b>40</b>	1800 x 600	<b>30</b>	1000 x 600	<b>40</b>	800 x 600
	4		<b>28</b>	1800 x 600	<b>20</b>	1600 x 600	<b>25</b>	1300 x 600
	2		<b>12</b>	1000 x 600	<b>10</b>	1000 x 600	<b>8</b>	800 x 600
<b>magfor 300</b>	≥ 25	300X300	<b>300</b>	L maxi 2000	<b>210</b>		<b>110</b>	
	15		<b>240</b>	1800 x 1000	<b>180</b>	1300 x 1000	<b>95</b>	1000 x 800
	10		<b>160</b>	2000 x 1000	<b>130</b>	1700 x 1000	<b>85</b>	1100 x 1000
	6		<b>95</b>	2000 x 1000	<b>80</b>	1700 x 1000	<b>60</b>	1300 x 1000
	4		<b>60</b>	1600 x 1000	<b>50</b>	1400 x 1000	<b>40</b>	1150 x 1000
<b>magfor 500</b>	≥ 30	400X400	<b>500</b>	L maxi 2000	<b>380</b>		<b>255</b>	
	20		<b>425</b>	1800 x 1500	<b>320</b>	1800 x 1500	<b>220</b>	1400 x 1000
	15		<b>400</b>	2000 x 1500	<b>300</b>	2250 x 1500	<b>205</b>	1600 x 1000
	10		<b>265</b>	2000 x 1500	<b>220</b>	2000 x 1500	<b>165</b>	2000 x 1000
	8		<b>200</b>	2000 x 1500	<b>160</b>	2000 x 1500	<b>140</b>	2000 x 1000
	6		<b>130</b>	2000 x 1500	<b>100</b>	2000 x 1500	<b>90</b>	2000 x 1000
<b>magfor 1000</b>	≥ 40	500X500	<b>1000</b>	L maxi 3000	<b>845</b>		<b>650</b>	
	30		<b>860</b>	2450 x 1500	<b>730</b>	2000 x 1500	<b>565</b>	1900 x 1250
	25		<b>830</b>	2850 x 1500	<b>705</b>	2400 x 1500	<b>550</b>	2250 x 1250
	20		<b>700</b>	3000 x 1500	<b>640</b>	2750 x 1500	<b>510</b>	2600 x 1250
	15		<b>500</b>	3000 x 1500	<b>445</b>	2900 x 1500	<b>380</b>	2800 x 1250
	10		<b>265</b>	2750 x 1500	<b>240</b>	2550 x 1500	<b>200</b>	2650 x 1250
<b>magfor 2000</b>	≥ 60	800X600	<b>2000</b>	L maxi 3500	<b>1600</b>		<b>1200</b>	
	40		<b>1750</b>	3000 x 1500	<b>1410</b>	2500 x 1500	<b>1140</b>	2000 x 1500
	30		<b>1500</b>	3000 x 1500	<b>1210</b>	3000 x 1500	<b>1010</b>	2000 x 1500
	25		<b>1230</b>	3200 x 1500	<b>1055</b>	3000 x 1500	<b>890</b>	2000 x 1500
	20		<b>1000</b>	3300 x 1500	<b>800</b>	3000 x 1500	<b>680</b>	2000 x 1500
	15		<b>690</b>	3000 x 1500	<b>520</b>	3000 x 1500	<b>470</b>	2000 x 1500
<b>magfor 3000</b>	≥ 80	900X600	<b>3000</b>	L maxi 3500	<b>2550</b>		<b>1900</b>	
	60		<b>2550</b>	2700 x 2000	<b>2150</b>	2300 x 2000	<b>1600</b>	2200 x 1500
	40		<b>2200</b>	3500 x 2000	<b>1850</b>	2900 x 2000	<b>1400</b>	2900 x 1500
	30		<b>1650</b>	3500 x 2000	<b>1400</b>	3000 x 2000	<b>1020</b>	2900 x 1500
	20		<b>900</b>	2900 x 2200	<b>765</b>	2400 x 2000	<b>550</b>	2300 x 1500
<b>magfor 5000</b>	≥ 100	1000X600	<b>5000</b>	L maxi 3500	<b>4250</b>		<b>3250</b>	
	80		<b>4250</b>	3400 x 2000	<b>3600</b>	2900 x 2000	<b>2700</b>	2800 x 1500
	60		<b>3250</b>	3500 x 2000	<b>2750</b>	2900 x 2000	<b>2100</b>	3000 x 1500
	40		<b>2180</b>	3500 x 2000	<b>1850</b>	2950 x 2000	<b>1400</b>	3000 x 1500
	30		<b>1500</b>	3500 x 2000	<b>1270</b>	2700 x 2000	<b>975</b>	2700 x 1500

\* WLL: Working Load Limit

This value will be reduced if load characteristics (steel with low carbon content) and use instructions of magnet (load horizontality, active poles condition, etc.) are not respected – see page 3.

Dimensions in mm

**Practical tables for capacity reduction:**  
 Determination of permanent magnet lifters  
**magfor** capacity in case of S235 steel round  
 surface.



	Ø D min	Ø D max	E min	Air-gab < 0,1 mm		Air-gab 0,1 à 0,3 mm		Air-gab 0,3 à 0,5 mm	
				CMU* kg	L max	CMU* kg	L max	CMU* kg	L max
<b>magfor 100</b>	40	100	10	<b>50</b>	2500	<b>40</b>	1700	<b>30</b>	1500
<b>magfor 300</b>	40	160	20	<b>125</b>	3500	<b>100</b>	3000	<b>80</b>	2500
<b>magfor 500</b>	40	220	25	<b>215</b>	4000	<b>180</b>	3500	<b>140</b>	3000
<b>magfor 1000</b>	60	350	40	<b>450</b>	4500	<b>380</b>	4000	<b>300</b>	3500
<b>magfor 2000</b>	80	400	40	<b>800</b>	5000	<b>650</b>	4500	<b>550</b>	4000
<b>magfor 3000</b>	160	400	60	<b>1200</b>	5000	<b>1000</b>	4500	<b>750</b>	4000
<b>magfor 5000</b>	160	400	60	<b>2400</b>	5000	<b>2000</b>	4500	<b>1500</b>	4000

*Dimensions in mm*

\* *WLL: Working Load Limit*

*This value will be reduced if load characteristics (steel with low carbon content) and use instructions of magnet (load horizontality, active poles condition, etc.) are not respected – see page 3.*

**Important instructions**

- Never use for personnel lifting.
- Strictly forbidden to either be under or walk under the load.
- Never activate the magnet lifter when thickness of the load doesn't respect the minimum values specified on the « practical tables for capacity reduction » or on the signalling plate.
- Never lift more than one plate at a time. Take a particular care in case of thin plates lifting.
- Temperature of the load or/ and atmosphere must be between -20 and +80°C.
- Never lift dangerous, explosive or radioactive loads.
- Never lift loads on which non-interdependent elements lay down.
- Never exceed weights or min/ max dimensions specified on paragraphs « technical specifications ».
- Never use a magnet lifter in case of aggressive, chemical, acid or saline atmosphere.
- Never lift a load installing the magnet lifter on the smallest side.
- Always install the magnet lifter with its longitudinal side on transversal direction of the load.

