

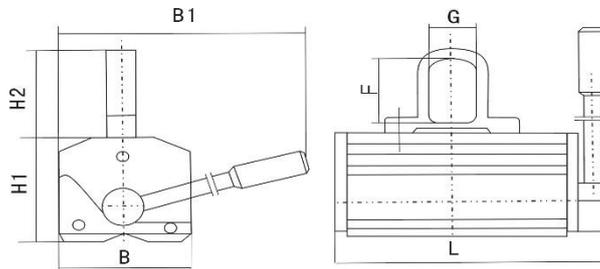
## PERMANENT LIFTING MAGNETS

### APPLICATIONS

- Lifting and handling of flat and cylindrical parts

### TECHNICAL DATA

- Compact, solid. Safety factor coefficient of 3.
- Delivered with test certificate and user manual.
- ON/OFF lever locked by security system.
- Visual checking of locking system.



REFERENCES	Weight [kg]	Dimensions [mm]							Force [kg]
		L	B	H1	H2	B1	F	G	
<b>FIX+100</b>	4,2	137	62	66	45	145	31,5	21	<b>100</b>
<b>FIX+300</b>	10,8	199	90	95	65	230	50	38	<b>300</b>
<b>FIX+600</b>	21,2	263	115	107	78	290	58	42	<b>600</b>
<b>FIX+1000</b>	42	303	150	140	88	360	64	50	<b>1000</b>

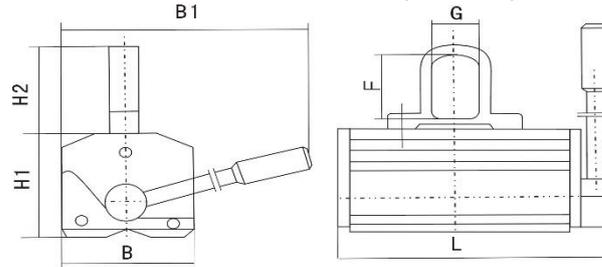
## OPERATING AND MAINTENANCE MANUAL FOR FIXES+V2 MODELS

### ATTENTION : please read this manual carefully before use

You have just purchased a EUROMAG lifting magnet and we thank you for the confidence you have placed in us. This manual contains all the information necessary for optimal and safe use. Keep this manual carefully and store it near the workstation.

Check upon delivery that the lifting magnet is complete and in good condition. If you notice that the device is damaged and/or incomplete, contact your supplier. The complete delivery includes:

- Permanent magnet carrier type FIX+V2
- The control lever.
- The user manual with the declaration of conformity including the test report



## 1. USE AND FEATURES

The permanent magnet carriers of the FIX range are mainly used to hold elements during lifting or handling operations. They can lift and move flat or cylindrical steel loads and other magnetic materials. They are easy and safe to use and have a simple and robust design.

## 2. DESIGN AND SPECIFICATION

### 2.1 Design :

The FIX+V2 range with permanent magnets has a strong magnetic field created by neodymium magnets. The start and stop of the magnetic field is controlled by a manual lever. A ring is located on the top of the magnetic carrier to allow lifting. A V-shaped profile on the base plate holds cylindrical loads.

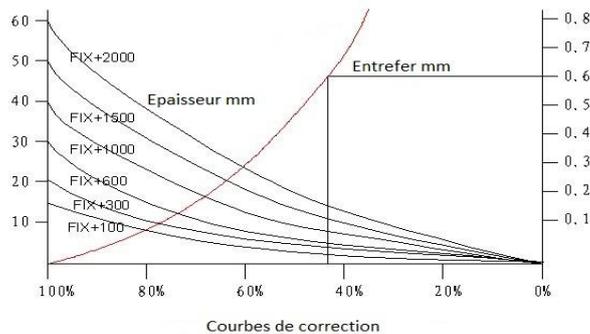
### 2.2 Specifications



### DETERMINATION OF THE LIFTING FORCE

This lifting force can be reduced by :

- 1 Air gap between the load and the magnet, caused by: surface roughness, paper, paint, damage, presence of burrs on both the load and the magnet. (see curves on the carrier).
- 2 Low load thickness, which reduces the lifting force (see curves on the carrier).  
The curves below are used to calculate the correction to be made (with a combination of the two factors if necessary).



- 3 Composition of the load to be lifted :



The values mentioned in the tables above apply to E24 (S 235 JR) steel. For other materials, the lifting force decreases according to the following percentages :

Matériaux	Force de levage maximale pour différents matériaux				
		FIX+ 100	FIX+ 300	FIX+ 600	FIX+ 1000
(%)	(kg)	(kg)	(kg)	(kg)	(kg)
Acier E24-2 (S235 JR)	100	100	300	600	1000
Acier A 50-2 (St 52)	96	96	288	576	960
Acier coulé	90	90	270	540	900
Acier inoxydable 430F	50	50	150	300	500
Fonte	45	45	135	270	450
Nickel	10	10	30	60	100
Acier inoxydable 304	0	0	0	0	0

- 4 Length and width of the load. A very long part will bulge (air gap).
- 5 A reduced contact surface between the polar faces and the load.
- 6 During the transport of the load, the magnet must be perfectly horizontal.



Never exceed the maximum weight and/or dimensions corresponding to the material thicknesses mentioned in the tables.

Never place the magnet on a large hole or bore in the part.

A load must cover as much as possible all 2 poles (or equally).



### HAZARDOUS APPLICATIONS

- Never lift several loads at once.
- Never lift a load by the narrowest side.
- Never put the lifting magnet with its longitudinal side in the longitudinal direction of the load.

### 3. SAFETY INSTRUCTIONS

Never use this lifting magnet until you have read and understood this manual.

- 1 Persons wearing a pacemaker or other medical device may only use the magnet after consulting a specialist (stay at least 2 metres away for safety reasons).

	Max. force on flat load	Max. force on round load	Min. thickness on flat load	Min-Max round load diameters	Max. load length	Max. operating temperature
	(daN)	(daN)	(mm)	(mm)	(mm)	°C
FIX 100	100	50	15	25-60	1500	<80
FIX 300	300	150	20	50-100	1500	<80
FIX 600	600	300	30	100-180	2000	<80
FIX 1000	1000	500	40	150-350	2500	<80

- 2 Never remove the warning and/or instruction signs from the device.
- 3 Always use safety glasses, gloves, shoes and safety helmet.
- 4 Never put yourself under the load.
- 5 Never transport the load above or near other people.
- 6 Never use this magnet as a means of anchoring, lifting, supporting or transporting people.
- 7 Warn those present when lifting a load begins.
- 8 Always use a hook with a safety tab.
- 9 Ensure that the weight and dimensions of the load to be lifted do not exceed the CMU.
- 10 Never use a damaged or malfunctioning magnet.
- 11 Do not activate the magnet until it is placed on the load.
- 12 Do not deactivate the magnet until the load is placed on a stable surface.
- 13 Never lift more than one load at a time.
- 14 Never leave a suspended load unattended.
- 15 The temperature of the charge or environment must not exceed 80°C.



- 16 Do not lift hazardous materials (explosive, radioactive, etc.)
- 17 Do not lift parts on which moving loads are placed.
- 18 Do not use in explosive atmospheres.

## USE

Before using the lifting magnet, first read the safety instructions.

- 1 Before each use, check the condition of the magnet. Carefully wipe the magnet poles and the contact surface of the load. Remove any burrs/irregularities that may be present.
- 2 Place the magnet on the load and position it so that the load remains horizontal during lifting (determine the centre of gravity of the load as best you can).
- 3 Grasp the handle and arm the magnet by rotating the lever by about 135° until the safety device locks it in the magnetization phase, thus preventing it from being deactivated. Once this has been checked, you can release the lever.
- 4 Lift the load a few centimetres and then hit it hard to ensure a good grip. Never put yourself under the load!
- 5 Guide the load by holding it by the corners. Avoid knocks, swings and shocks. Never put yourself under the load and keep the load in a horizontal position!
- 6 Carefully place the load on a stable support. Grasp the lever and unlock the safety device. Deactivate the magnet by returning the lever to its initial position, at the stop. You can now release the lever.



Never arm or disarm the magnet while it is on a non-magnetic part or in the air.

Attention ! After neutralizing the magnet, a light load can remain stuck to the magnet.



Never release the lever until it is in the final position.



## MAINTENANCE AND CONTROL OF THE LIFTING MAGNET

### • Before each use :

Visually check the magnet assembly. Thoroughly clean the polar faces of the magnet and remove any alterations or barbs, if necessary with a file. Do not use the magnet when you notice defects. Check the operation of the lever and locking system.

### • Every week :

Check the assembly for deformation, cracks or other defects. If the lifting eye is deformed or worn by more than 10%, it must be replaced. Check the nameplate for presence and legibility.

Check the condition of the poles. If they are defective, they must be machined by your supplier, and then check the lifting force.

### • Every year :

Have the lifting force of your magnet checked at least once a year by your supplier or an authorised agent.

## Never use a damaged or incomplete lifting magnet.

The warranty on FIX+V2 models is 12 months. This warranty does not cover defects caused by:

- 1- non-observance of the operating and maintenance instructions or abnormal use
- 2- abnormal wear and tear
- 3- modification or repairs not carried out by EuroMag or an authorised agent

When matching your lifting magnet, always indicate the date on the nameplate.