

- USE AND MAINTENANCE MANUAL
- OPERACIÓN Y MANTENIMIENTO
- MODE D'EMPLOI ET INSTRUCTIONS D'ENTRETIEN



FX LIFTING MAGNETS





FX Lifting Magnet

The FX basic unit is suitable for flat and round material. The FX achieves good results with large air gaps as well as with thin flat and round materials.



FXR Lifting Magnet

The FXR lifting magnet is particularly suitable for lifting round and/or hot material. The deep, flat-angled prism ensures safe positioning on the load.



FXP Lifting Magnet

The lifting magnet FXP is the suitable device for the laser cutting system and when sheet metal under 15/32 in thickness and/or tubes have to be lifted.



FXV Lifting Magnet

The lifting magnet FXV is especially suitable for profiles, beams and hot workpieces. 302°F/100%. Thanks to its long, narrow design, the FXV achieves its maximum holding force even at comparatively low material thicknesses.



FXC Lifting Magnet

FXC lifting magnets have a round, multipole clamping surface, designed for lifting rings, sleeves, bearing housings, flange plates and similar workpieces.

USE AND MAINTENANCE MANUAL

FX Permanent Lifting Magnets

Page 4-14

English

OPERACIÓN Y MANTENIMIENTO

FX permanentes imanes de elevación

Página 15-25

Español

FONCTIONNEMENT ET DE MAINTENANCE

FX levage aimants permanents

Page 26-36

Français

Use and maintenance manual for FX Lifting magnets

Take note: Please read the operating and maintenance instructions prior to first use carefully. For questions or doubts you should contact your local dealer. This manual is part of the lifting magnets and has to be available to the user at any time.

Caution:

Put the magnet on a task for which it is specifically adapted. In any doubt contact your dealer. Do not change the original configuration of the device.

Please also note the regulations of the professional associations for handling slings.

The warranty period is 36 months after delivery. Excluded are defects which arise as a consequence of

- improper use and/or not following the instructions and/or the maintenance instructions
- Normal wear
- Modifications and/or repairs that have not been carried out by a recognized manufacturer workshop

1. Scope of application

Permanent lifting magnets Type FX are made for holding and lifting ferromagnetic parts ferromagnetic (= magnetically behaving as iron), the application limits must be observed.

The lifting magnets are made compact, easy to use, safe and reliable and have strong magnetic forces. Use of lifting magnets can simplify operations and the times are reduced during loading and unloading.

Therefore, the devices are suitable for lifting in many areas such as in the manufacturing industry, in shipyards, warehouses, transport and conveyor technology. Usually lifting magnets are used on cranes, but can also be used on other machines such as forklifts and excavators.

Our guide only regulates the use of lifting magnets, danger by the hoist can not be covered in this manual.

1.2 Notes on commissioning

Assignment:

Lifting magnets may be used only by persons who are familiar with these duties and when there is a commission.

The lifting magnet may be used by persons with pacemakers only with the consent of a doctor.



1.3 Safety instructions for the operation of lifting magnets

- Read the manual before using
 - The magnet may only be used at ambient temperatures from 14 to 180°F -10 to +80°C and at a humidity of max. 80%
 - No dangerous goods may be lifted with lifting magnets (e.g. filled gas cylinders)
 - Lifting magnets must be used in a way, that no Persons are harmed (Warn Bystanders)
 - Do not lift loads while persons are in or on the Workspace
 - Put the magnet always to the load center and transport the load always horizontal; unless expressly stated otherwise
 - Do not overload your hoist and slings, also calculate the weight of the lifting magnet
 - The lift surfaces must be clean, dry and free from oil and grease and any loose coatings etc.
 - Loads that are comprised of many pieces (scrap), may not be carried
 - Lifting magnets have to be applied in a way, they do not have Overweight and that the load is secured against falling. Only use standard-compliant hoists and crane hook with safety flap
 - For your personal safety, lifting magnets may only be used with protective clothing (helmet, gloves, safety shoes).
-
- No lifting of uneven or porous workpieces
 - Do not lift more than 1 workpiece at a time (Stack)
 - Avoid Knocks, blows and drops at any time
 - Do not switch the lifting magnet until it stands on the Load to be lifted
 - In the beginning lift the load only by a few inches and check whether it is held securely
 - Avoid slipping the load when lifting it
 - Do not stand under a lifted load
 - Do not leave the lifted load alone
 - Make sure, that the load is on a secured ground before switching off the lifting magnet



Note in particular:

Especially when lifting very light workpieces, hardened and tough materials such as tool steel, it may be that the load adheres by residual magnetism or adhesion to the magnetic insole after switching off the magnet - make sure that this does not rise when you lift the magnet - loosen the load by tapping or pry the load off the magnet

2. Factors affecting the lifting force of the lifting magnets

On the underside of the lifting magnets are the two magnetic poles, which transmit the magnetic force to the load in activated state. The maximum possible forces and thus the Lifting capacity depend on the factors described in 2.1-2.5. Note this anytime and check BEFORE any application, whether the data of the lifting magnets and the load allows a safe transportation.

2.1 The contact surface

The contact area between magnet and the load to be lifted should be clean and free of irregularities in any case. If a distance (air gap) is made between the lifting magnets and the load to be lifted, this reduces the lifting capacity. Rust, paint, dirt, paper, or a roughly machined surface can thus have an air gap result. Please refer to the tables beginning on page 37.

Percentage of Stated Lifting Power by Surface Finish	Lifting capacity in %
Ground Surface	100
Rough Machined	100
Foundry Finish	85
Rough Cast	65

2.2 The Material thickness

The magnetic flux of the lifting magnets requires a minimum material thickness. If the workpiece does not accomplish a minimum material thickness, this will reduce the lifting force. Basically higher Lifting capacity requires increasing the thickness. Please refer to the tables beginning on page 37.

2.3 The workpiece dimensions / intrinsic stability

At great length and width of the workpiece it bends and forms an air gap between the workpiece and the lifting magnet (primarily at low thicknesses). This reduces the lifting force of the lifting magnet. Not intrinsically stable workpieces also vibrate more than massive workpieces and the resulting, the dynamic forces act in addition to the contact surface.

2.4 The composition of the load to be lifted

Steel with low carbon content is a good magnetic conductor e.g. C-40 or St -37. Steel with a high carbon content or with other materials alloyed steel loses its magnetic properties, so that the power of the lifting magnet is reduced. Hardness and other methods which affect the steel structure also reduce the lifting power. The harder a steel, the lower its response to magnetic fields and it tends to residual magnetism. The nominal power of our Lifting magnets applies to steel with low carbon content, such as e.g. C-40 or St-37.

Percentage of Stated Lifting Power by Material	Lifting capacity in %
Low Carbon 0.05 - 0.29%	100
Moderate Carbon 0.30 - 0.59%	85
High Carbon 0.60 - 0.99%	75

2.5 The Temperature of the Load to be lifted

The higher the temperature, the faster the molecules of the steel swing, which causes a lower magnetic conductivity. Our figures are for a workpiece temperature up to max. 180°F/80°C. In the case of FXV a maximum workpiece temperature of 302°F/150°C applies.

Caution:

The sum of the reduction factors 2.1-2.5 gives the actual payload for your individual application. This circumstance must be considered BEFORE every lifting operation!

3. Technical Data

FX lifting magnets work with a single-magnet system. The inner magnetic circuit is opened by the activation of the magnet system via lever (are attracted) or closed (no external force effect).

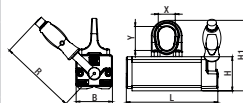
The dimensions and weights and permissible

Lifting forces Smooth surface (RA < 6.3 microns), please refer to the following tables:

FX Series Imperial System

Model	Working Load Limit (lbs)		Min. Thickness Full Capacity (in)	Dimensions (in)						Weight (lbs)
	—	●		L	B	H	H1	R	X/Y	
FX0330	330	Ø 2-8 in 165 lbs	5/16	6.3	2.5	2.3	4.9	5.3	1/1.6	8
FX0660	660	Ø 2-12 in 330 lbs	5/8	8	3.4	3	6.2	7.5	1.6/2	19
FX1320	1320	Ø 4-16 in 660 lbs	3/4	11.3	4.4	3.7	7.4	9	2/2.4	42
FX2200	2200	Ø 4-18 in 1100 lbs	1	14.2	6	4.7	9.4	10.2	2.3/3	93
FX4400	4400	Ø 6-24 in 2200 lbs	2	18.5	9	6.6	12.3	16.1	2.6/3.5	254
FX6600	6600	Ø 6-24 in 3300 lbs	2	25.5	9	6.6	12.3	21	2.6/3.5	366

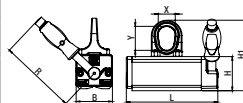
Safety factor 3.5 / test procedures according to EN 13155+ASME B30.20 BTH-1 • max. Operating temperature 180°F
note load charts and safety information beginning on page 37



FX Series Metric System

Model	Working Load Limit (kg)		Min. Thickness Full Capacity (mm)	Dimensions (mm)						Weight (kg)
	—	●		L	B	H	H1	R	X/Y	
FX0330	150	Ø 50-200mm 75 kg	8	161	64	60	124	136	30/42	3,6
FX0660	300	Ø 50-300mm 150 kg	15	205	87	78	158	190	42/53	8,4
FX1320	600	Ø 80-400mm 300 kg	20	288	112	94	189	228	51/62	19
FX2200	1000	Ø 100-450mm 500 kg	25	361	152	120	240	261	60/76	42
FX4400	2000	Ø 120-600mm 1000 kg	50	472	228	169	313	409	68/89	115
FX6600	3000	Ø 250-600mm 1500 kg	50	648	228	169	313	534	68/89	166

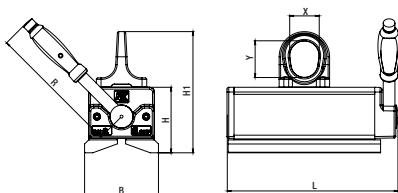
Safety factor 3.5 / test procedures according to EN 13155+ASME B30.20 BTH-1 • max. Operating temperature 80°C
note load charts and safety information beginning on page 37



FXR Series Imperial System

Model	Working Load Limit (lbs)		Min. Thickness Full Capacity (in)	Dimensions (in)						Weight (lbs)
	—	●		L	B	H	H1	R	X/Y	
FXR0220	220	Ø 1-6 in 220 lbs	5/16	6.3	2.7	2.7	5.2	5.3	1/1.6	9
FXR0500	500	Ø 2-8 in 500 lbs	3/8	8	3.8	3.5	6.7	7.5	1.6/2	21
FXR1000	1000	Ø 2-11 in 1000 lbs	3/4	11.3	4.9	4.4	8.1	9	2/2.4	49
FXR1650	1650	Ø 3-15 in 1650 lbs	3/4	14.2	6.7	5.6	10.3	10.2	2.3/3	108
FXR2650	2650	Ø 5-22 in 2650 lbs	2	18.5	9.7	7.5	13.1	16.1	2.6/3.5	280
FXR4000	4000	Ø 5-22 in 4000 lbs	2	25.5	9.7	7.5	13.1	21	2.6/3.5	402

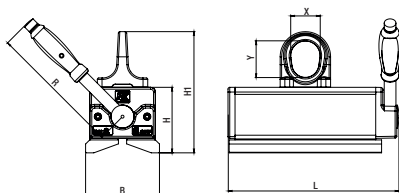
Safety factor 3.5 / test procedures according to EN 13155+ASME B30.20 BTH-1 • max. Operating temperature 180°F
note load charts and safety information beginning on page 37



FXR Series Metric System

Model	Working Load Limit (kg)		Min. Thickness Full Capacity (mm)	Dimensions (mm)						Weight (kg)
	■	●		L	B	H	H1	R	X/Y	
FXR0220	100	Ø 25-150mm 100 kg	8	161	70	68	132	136	30/42	4
FXR0500	225	Ø 50-205mm 225 kg	10	205	98	90	170	190	42/53	9,5
FXR1000	450	Ø 50-270mm 450 kg	20	288	126	112	207	228	51/62	22
FXR1650	750	Ø 70-370mm 750 kg	20	361	170	142	262	261	60/76	49
FXR2650	1200	Ø 120-560mm 1200 kg	40	472	248	190	334	409	68/89	127
FXR4000	1800	Ø 120-560mm 1800 kg	40	648	248	190	334	534	68/89	182

Safety factor 3.5 / test procedures according to EN 13155+ASME B30.20 BTH-1 • max. Operating temperature 80°C
note load charts and safety information beginning on page 37



FXP Series Imperial System

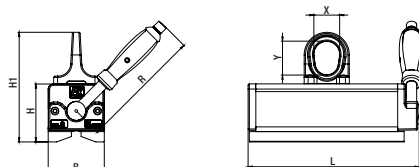
Model	Working Load Limit (lbs)		Min. Thickness Full Capacity (in)	Dimensions (in)						Weight (lbs)
	■	●		L	B	H	H1	R	X/Y	
FXP0375	375	Ø 1-4 in 330 lbs	3/8	7.7	2.5	2.7	5.3	5.3	1/1.6	12
FXP0725	725	Ø 2-6 1/2 in 660 lbs	3/8	10.4	3.4	3.5	6.7	7.5	1.6/2	28
FXP1450	1450	Ø 3-9 in 1210 lbs	3/4	13.8	4.4	4.2	8	9	2/2.4	58

Safety factor 3.5 / test procedures according to EN 13155+ASME B30.20 BTH-1 • max. Operating temperature 180°F
note load charts and safety information beginning on page 37

FXP Series Metric System

Model	Working Load Limit (kg)		Min. Thickness Full Capacity (mm)	Dimensions (mm)						Weight (kg)
	■	●		L	B	H	H1	R	X/Y	
FXP0375	170	Ø 30-105mm 150 kg	8	195	64	70	134	136	30/42	5,1
FXP0725	330	Ø 40-160mm 300 kg	10	265	87	90	170	190	42/53	12,4
FXP1450	650	Ø 60-210mm 550 kg	20	352	112	108	203	228	51/62	26

Safety factor 3.5 / test procedures according to EN 13155+ASME B30.20 BTH-1 • max. Operating temperature 80°C
note load charts and safety information beginning on page 37



FXV Series Imperial System

Model	Working Load Limit (lbs)			Min. Thickness Full Capacity (in)	Dimensions (in)						Weight (lbs)
	—	●	90°		L	B	H	H1	R	X/Y	
FXV0440	440	Ø 7/8-2 in 220 lbs	260	3/8	7.7	2.5	3	5.5	5.3	1/1.6	12
FXV0880	880	Ø 1-2 3/8 in 440 lbs	550	5/8	10.4	3.4	3.8	6.9	7.5	1.6/2	29
FXV1775	1775	Ø 1 3/8-3 660 lbs	880	3/4	13.5	4.4	4.5	8.3	9	2/2.4	62

Safety factor 3.5 / test procedures according to EN 13155+ASME B30.20 BTH-1 • max. Operating temperature 180°F • max. workpiece temperature 302°F 100%
note load charts and safety information beginning on page 37

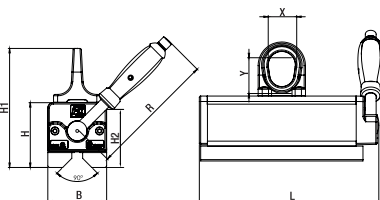
Placing and cooling times for FXV

302°F = 100%

392°F = 50% (Contact time=Cooling Time - max. 4 Minutes)

482°F = 33% (Contact time=Cooling time/2 - max. 4 Minutes)

Workpiece- Temperature	Working Load Limit		
	FXV0440	FXV0880	FXV1775
302°F	440 lbs	880 lbs	1775 lbs
392°F	350 lbs	705 lbs	1410 lbs
482°F	330 lbs	660 lbs	1320 lbs



FXV Series Metric System

Model	Working Load Limit (kg)			Min. Thickness Full Capacity (mm)	Dimensions (mm)						Weight (kg)
	—	●	90°		L	B	H	H1	R	X/Y	
FXV0440	200	Ø 20-50mm 100 kg	120	10	195	64	77	141	136	30/42	5,5
FXV0880	400	Ø 25-60mm 200 kg	250	15	265	87	96	176	190	42/53	13
FXV1775	800	Ø 35-75mm 300 kg	400	20	352	112	115	210	228	51/62	28

Safety factor 3.5 / test procedures according to EN 13155+ASME B30.20 BTH-1 • max. Operating temperature 80°C • max. workpiece temperature 150°C 100%
note load charts and safety information beginning on page 37

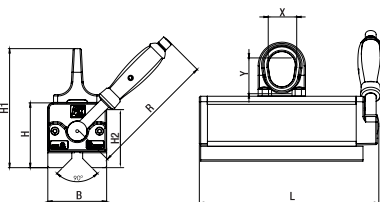
Placing and cooling times for FX-V

150°C = 100%

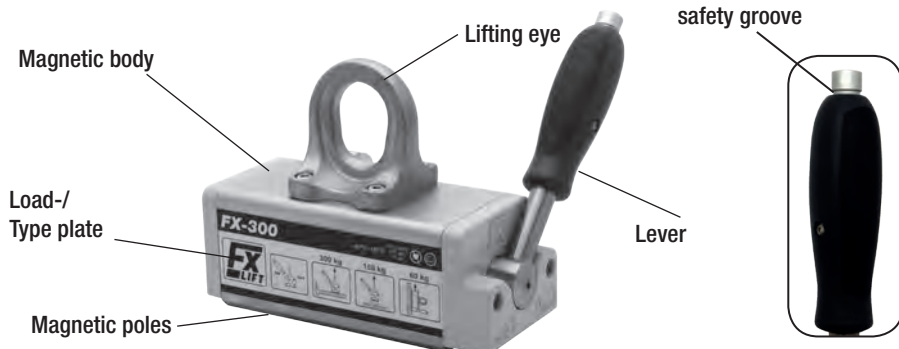
200°C = 50% (Contact time=Cooling Time - max. 4 Minutes)

250°C = 33% (Contact time=Cooling time/2 - max. 4 Minutes)

Workpiece- Temperature	Working Load Limit		
	FXV0440	FXV0880	FXV1775
150°C	200 kg	400 kg	800 kg
200°C	160 kg	320 kg	640 kg
250°C	150 kg	300 kg	600 kg



3.1 The main components of the FX lifting magnets are:



Should these designated important parts be damaged or missing, the magnet has to be inspected by an expert before further use.

3.2 Technical Data FXC Lifting Magnet

FX lifting magnets work with a double magnet system. The inner magnetic circuit is opened by the activation of the magnet system via lever (are attracted) or closed (no external force effect).

The dimensions and weights and permissible

Lifting forces Smooth surface (RA < 6.3 microns), please refer to the following tables:

FXC Series Imperial System

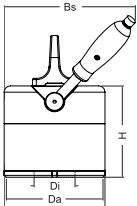
Model	Min. Thickness Full Capacity (in)	Working Load Limit (lbs)	Dimensions (in)				Max. Load capacity per in ² ring surface (lbs)	Dia min (in)	Weight (lbs)
			D	Da-Di*	H	Bs			
FXC0385	3/8	385	4.7	4.5-1.6	5.1	7.3	49	2.4	16.5
FXC0550	1/2	550	6.3	6-2.5	5.7	8.3	49	3.3	33
FXC0990	5/8	990	9.8	9.4-3.9	6.1	10.8	49	4.7	77

*Da= diameter outside, Di= diameter inside • Safety factor 3.5 / test procedures according to EN 13155+ASME B30.20 BTH-1
max. Operating temperature 180°F
note load charts and safety information beginning on page 37

FXC Series Metric System

Model	Min. Thickness Full Capacity (mm)	Working Load Limit (kg)	Dimensions (mm)				Max. Load capacity per cm ² ring surface (kg)	Dia min (mm)	Weight (kg)
			D	Da-Di*	H	Bs			
FXC0385	10	175	120	114-40	130	185	3,5	60	7,5
FXC0550	12	250	160	152-65	145	210	3,5	85	15
FXC0990	15	450	250	240-100	155	275	3,5	120	35

*Da= diameter outside, Di= diameter inside • Safety factor 3.5 / test procedures according to EN 13155+ASME B30.20 BTH-1
max. Operating temperature 80°C
note load charts and safety information beginning on page 37



When transporting workpieces with different dimensions or properties, it must be ensured that a safety factor of 3 is achieved.

Rings must have a minimum ring support width of 3/8 in, 49 lbs load per in² support surface must be assumed, whereby the maximum load must never be exceeded.

The specified load capacity is reduced as a function of material thickness, surface quality, inherent stability of the Load, material properties, temperature of the load.

3.3 The main components of the FXC lifting magnets are:



Gear knob with safety groove



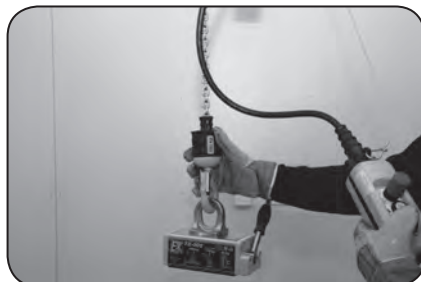
Should these designated important parts be damaged or missing, the magnet has to be inspected by an expert before further use.

4. Intended Use

When you observe the preceding points, and the material to be lifted is clearly defined, you can start with the lifting operation. Proceed as follows:



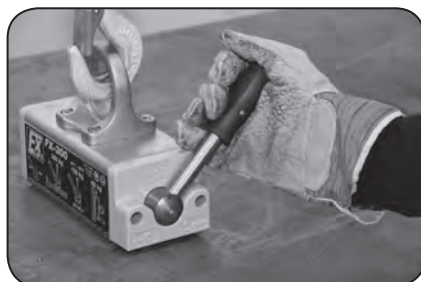
1. Attach the lifting magnet to a suitable hoist so that it hangs horizontally



2. Slowly move the lifting magnet with the crane to the workpiece



3. Put the lifting magnet on the (clean, flat) workpiece as shown (Also note Fig.1)



4. Turn on the lifting magnet at the workpiece (from right to left)



5. Make sure that the Lifting magnet is completely switched+locked. As an indicator of this is true, the Safety groove on the gear lever, has to be completely visible

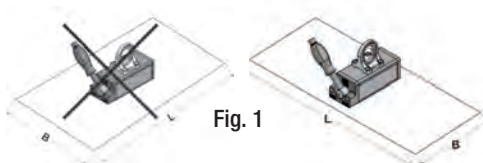


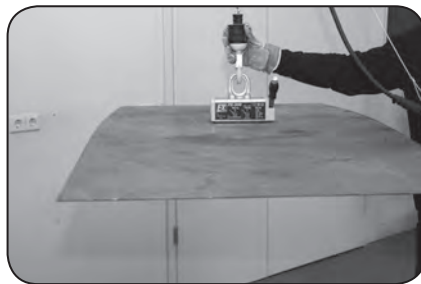
Fig. 1

- ?
- Contact surface clean?
 - Material thickness respected?
 - Dimensions of the workpiece known?
- ?
- Composition and Temperature of the Load respected?





6. Raise the load some inches and check whether the load is held safe by the lifting magnet



7. Run the lifting operation. Note that the lever of the lifting magnet must not be used as Hand guide



8. Put the load on a stable surface



9. Turn off the lifting magnet by lifting the grip and turning the lever (from left to right)



10. When you turn off, Ensure that the lifting magnet is completely switched off (indicator is also the Safety groove which must be completely visible again)



11. Remove the lifting magnet off the load, and store it in a suitable place

5. Tests, Maintenance and Repair

Tests:

Visual inspection

New Lifting Magnets are delivered by us with a manufacturer's declaration of conformity, which confirms compliance with the standards MD 2006/42 EEC and EN 13155, USA Standard ASME B30.20 BTH-1 Design Category B Service Class 3

As controlled in the EN 13155 testing of lifting magnets, delivery must be accompanied by no separate audit log.

We recommend to note the date of initial operation in the Test Certificate on page 45.

Annual inspection

The first inspection must be carried out 12 months after delivery and then repeated annually.

Exceptional inspection

The exceptional inspection by DGUV/BGR 500/Section 2.8 or other national rule has to be done by repair or extraordinary incidents (crash, collision).

A regular check shall be conducted by DGUV/BGR 500/Section 2.8 at least every 12 months. Depending on the conditions of the lifting magnet checks at shorter intervals may be necessary.

We will gladly check your lifting magnets, either directly at your location or at our factory.

Our mobile testing service for lifting magnets checks all brands locally.

The mobile Breakaway Testing device can be brought directly to the workplace of the user so that the test can be performed without much time and paperwork.

Spare parts for almost all of the outstanding lifting magnets are with our inspector, so that the device is available again after a short time, even with defects. In long-term planning, this service is available with very low travel expenses.

Use/Maintenance:



Before each use:

The lifting magnet has to be checked for defects and mechanical function before each use. The pole pieces must not be deformed or knocked out. The locking mechanism must be intact.

Weekly:

Check the entire magnet, including lifting eye, for deformation, cracks or other defects. If the lifting eye is bent or visibly worn, it must be replaced immediately. Check whether all nameplates are in place and legible. Check the Pole pieces. If these are damaged or worn (holes, notches, etc.) then these must be sharpened or replaced. Any changes have to be documented by a new certificate.

Refurbished:

Repair work on lifting magnets may be carried out by persons who have the necessary knowledge and skills (experts).

6. Storage and disposal

Lifting magnets have to be stored in a way they do not tilt, fall or slide. Lifting magnets should be stored protected from the weather and corrosive substances. For longer storage, it is advisable to lubricate the device. At the end of the use of lifting magnets or at end of life, the device must be disposed of properly and environmentally friendly! Take note of the relevant provisions of the relevant authorities.

7. Spare parts for FX lifting magnets

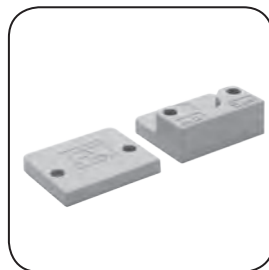
FX lifting magnets consist of various components. These are also available as spare parts. The following spare parts are available for all FX lifting magnet models.



1. Lever



2. Type plate Set



3. Front and Rear Panel



4. Lifting Eye

Screws DIN 912 8.8 galvanized
Observe the tightening torque

Force / load / airgap table • Alimentación / carga / Tabla espacio de aire • Alimentation / charge / entrefer Tableau (Imperial System)

FX0330	Airgap < .004 in			Airgap .004 - .012 in			Airgap .012 - .019 in		
Steel thickness (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)
>= .105	44	31	31	26	31	31	22	31	31
>= .150	132	59	39	88	59	39	66	47	39
>= 1/4	180	59	39	132	59	39	110	47	39
>= 5/16	330	59	39	265	59	39	176	47	39
Ø 2-8	165	59	-	110	79	-	88	59	-

FX0660	Airgap < .008 in			Airgap .008 - .012 in			Airgap .012 - .024 in		
Steel thickness (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)
>= .150	132	63	39	110	59	39	88	49	39
>= 5/16	430	79	49	353	79	49	265	59	39
>= 3/8	507	89	49	419	79	49	330	59	39
>= 5/8	660	98	49	551	79	49	440	59	39
Ø 2-12	330	118	-	276	98	-	220	79	-

FX1320	Airgap < .008 in			Airgap .008 - .012 in			Airgap .012 - .024 in		
Steel thickness (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)
>= 1/4	331	71	59	265	71	49	220	59	49
>= 3/8	660	89	59	550	89	49	460	79	49
>= 5/8	1102	98	59	970	98	49	770	79	49
>= 3/4	1320	118	59	1145	118	49	970	98	49
Ø 4-16	660	157	-	550	138	-	440	118	-

FX2200	Airgap < .012 in			Airgap .012 - .020 in			Airgap .020 - .024 in		
Steel thickness (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)
>= 3/8	772	89	59	660	89	59	570	89	49
>= 5/8	1320	98	59	1100	98	59	990	98	49
>= 3/4	1984	118	59	1650	118	59	1485	118	49
>= 1	2200	138	59	1870	118	59	1650	118	49
Ø 4-18	1100	177	-	880	157	-	725	118	-

FX4400	Airgap < .012 in			Airgap .012 - .024 in			Airgap .024 - .031 in		
Steel thickness (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)
>= 5/8	1100	98	79	880	118	79	725	98	59
>= 1	2646	118	79	2090	118	79	1760	118	59
>= 1 1/2	3525	138	79	2865	118	79	2425	118	59
>= 2	4400	157	79	3525	118	79	2865	118	59
Ø 6-24	2200	157	-	1760	157	-	1430	138	-

FX6600	Airgap < .012 in			Airgap .012 - .024 in			Airgap .024 - .031 in		
Steel thickness (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)
>= 5/8	1650	98	98	1320	118	98	1100	98	79
>= 1	3968	118	98	3085	118	98	2645	118	79
>= 1 1/2	5290	138	98	4405	118	98	3525	118	79
>= 2	6600	157	98	5290	118	98	4405	118	79
Ø 6-24	3300	197	-	2645	197	-	2200	157	-

Force / load / airgap table • Alimentación / carga / Tabla espacio de aire • Alimentation / charge / entrefer Tableau (Imperial System)

FXR0220	Airgap < .004 in			Airgap .004 - .012 in			Airgap .012 - .019 in		
Steel thickness (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)
>= .105	55	31	31	25	31	31	20	31	31
>= .150	110	59	39	85	59	39	65	47	39
>= 1/4	154	59	39	130	59	39	95	47	39
>= 5/16	220	59	39	165	59	39	130	47	39
Ø 1-6	220	79	-	165	79	-	130	59	-

FXR0500	Airgap < .008 in			Airgap .008 - .012 in			Airgap .012 - .024 in		
Steel thickness (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)
>= .150	175	63	39	130	59	39	85	49	39
>= 5/16	397	79	49	330	79	49	265	59	49
>= 3/8	500	89	49	440	79	49	330	59	49
Ø 2-8	500	118	-	440	98	-	330	79	-

FXR1000	Airgap < .008 in			Airgap .008 - .012 in			Airgap .012 - .024 in		
Steel thickness (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)
>= 1/4	331	71	59	265	71	39	220	59	49
>= 3/8	661	89	59	550	89	49	460	79	49
>= 5/8	882	98	59	770	98	49	660	79	49
>= 3/4	1000	118	59	880	118	49	770	98	49
Ø 2-11	1000	157	-	825	138	-	615	118	-

FXR1650	Airgap < .012 in			Airgap .012 - .020 in			Airgap .020 - .024		
Steel thickness (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)
>= 5/16	660	89	59	615	89	59	550	89	49
>= 3/8	882	98	59	835	98	59	660	98	49
>= 5/8	1540	118	59	1495	118	59	1210	118	49
>= 3/4	1650	138	59	1585	118	59	1320	118	49
Ø 3-15	1650	177	-	1320	157	-	990	118	-

Force / load / airgap table • Alimentación / carga / Tabla espacio de aire • Alimentation / charge / entrefer Tableau (Imperial System)

FXR2650				Airgap .012 - .024 in			Airgap .024 - .031 in		
Steel thickness (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)
>= 5/8	1320	98	79	1100	118	79	970	98	59
>= 3/4	1760	118	79	1430	118	79	1210	118	59
>= 1	2205	138	79	1760	118	79	1540	118	59
>= 1 5/8	2650	157	79	2205	118	79	1980	118	59
Ø 5-22	2650	177	-	1980	157	-	1540	138	-

FXR4000				Airgap .012 - .024 in			Airgap .024 - .031 in		
Steel thickness (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)
>= 5/8	1980	98	79	1650	118	79	1455	98	59
>= 3/4	2645	118	79	2205	118	79	1815	118	59
>= 1	3307	138	79	2645	118	79	2315	118	59
>= 1 5/8	4000	157	79	3300	118	79	2645	118	59
Ø 5-22	4000	197	-	3300	157	-	2480	138	-

Force / load / airgap table • Alimentación / carga / Tabla espacio de aire • Alimentation / charge / entrefer Tableau (Imperial System)

FXP0375				Airgap .004 - .012 in			Airgap .012 - .019 in		
Steel thickness (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)
>= .105	65	31	31	40	31	31	30	31	31
>= .150	176	59	49	130	59	49	110	47	49
>= 1/4	265	59	49	195	59	49	165	47	49
>= 5/16	375	59	49	285	59	49	220	47	49
Ø 1-4	330	79	-	250	79	-	130	59	-

FXP0725				Airgap .008 - .012 in			Airgap .012 - .024 in		
Steel thickness (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)
>= .150	220	79	49	175	59	49	130	49	49
>= 1/4	353	98	59	285	79	59	220	59	59
>= 5/16	660	98	59	525	79	59	395	59	59
>= 3/8	725	98	59	595	79	59	440	59	59
Ø 2-6 1/2	660	138	-	550	118	-	395	98	-

FXP1450				Airgap .008 - .012 in			Airgap .012 - .024 in		
Steel thickness (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)
>= .150	353	89	59	285	79	59	240	79	59
>= 1/4	441	98	59	385	89	59	305	89	59
>= 5/16	990	118	59	880	118	59	705	98	59
>= 3/8	1150	98	59	1100	118	59	880	98	59
>= 3/4	1450	118	59	1250	118	59	990	98	59
Ø 3-9	1210	157	-	1055	138	-	880	118	-

Force / load / airgap table • Alimentación / carga / Tabla espacio de aire • Alimentation / charge / entrefer Tableau (Imperial System)

FXV0440	Airgap < .004 in			Airgap .004 - .012 in			Airgap .012 - .019 in		
Steel thickness (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)
>= .150	150	59	49	110	59	49	75	39	49
>= 1/4	243	79	49	165	59	49	130	49	49
>= 5/16	386	98	49	265	79	49	195	79	49
>= 3/8	440	98	49	305	79	49	240	79	49
Ø 7/8-2	220	79	-	150	79	-	130	59	-
90°	260	79	-	195	79	-	130	59	-

FXV0880	Airgap < .008 in			Airgap .008 - .012 in			Airgap .012 - .024 in		
Steel thickness (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)
>= 1/4	330	79	39	240	59	39	165	49	39
>= 5/16	748	98	49	460	89	49	330	79	49
>= 3/8	772	98	49	570	89	49	395	79	49
>= 5/8	880	98	49	635	89	49	485	79	49
Ø 1-2 3/8	440	138	-	350	89	-	265	98	-
90°	550	138	-	415	118	-	285	98	-

FXV1775	Airgap < .008 in			Airgap .008 - .012 in			Airgap .012 - .024 in		
Steel thickness (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)
>= .150	285	79	59	220	79	59	195	79	59
>= 1/4	400	98	59	350	89	59	285	89	59
>= 5/16	880	118	59	705	118	59	595	98	59
>= 5/8	1430	118	59	1145	118	59	925	98	59
>= 3/4	1775	118	59	1430	118	59	1210	98	59
Ø 1 3/8-3	660	157	-	525	138	-	440	118	-
90°	880	157	-	705	138	-	660	118	-

Force / load / airgap table • Alimentación / carga / Tabla espacio de aire • Alimentation / charge / entrefer Tableau (Imperial System)

FXC0385	Airgap < .004 in			Airgap .004 - .012 in			Airgap .012 - .019 in		
Steel thickness (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)
>= 3/8	385	31	31	305	31	31	295	31	31

FXC0550	Airgap < .004 in			Airgap .004 - .012 in			Airgap .012 - .019 in		
Steel thickness (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)
>= 1/2	550	47	47	385	47	47	340	47	47

FXC0990	Airgap < .004 in			Airgap .004 - .012 in			Airgap .012 - .019 in		
Steel thickness (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)	Working Load Limit (lbs)	Max. L (in)	Max. W (in)
>= 3/4	990	59	59	835	59	59	705	59	59

Force / load / airgap table • Alimentación / carga / Tabla espacio de aire • Alimentation / charge / entrefer Tableau (Metric System)

FX0330	Airgap < 0,1mm			Airgap 0,1 - 0,3 mm			Airgap 0,3 - 0,5 mm		
Steel thickness (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)
>= 2	20	800	800	12	800	800	10	800	800
>= 4	60	1500	1000	40	1500	1000	30	1200	1000
>= 6	80	1500	1000	60	1500	1000	50	1200	1000
>= 8	150	1500	1000	120	1500	1000	80	1200	1000
Ø 50 - 200	75	1500	-	50	2000	-	40	1500	-

FX0660	Airgap < 0,2mm			Airgap 0,2 - 0,3 mm			Airgap 0,3 - 0,6 mm		
Steel thickness (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)
>= 4	60	1600	1000	50	1500	1000	40	1250	1000
>= 8	200	2000	1250	160	2000	1250	120	1500	1000
>= 10	230	2250	1250	190	2000	1250	150	1500	1000
>= 15	300	2500	1250	250	2000	1250	200	1500	1000
Ø 50 - 300	150	3000	-	125	2500	-	100	2000	-

FX1320	Airgap < 0,2mm			Airgap 0,2 - 0,3 mm			Airgap 0,3 - 0,6 mm		
Steel thickness (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)
>= 6 mm	150	1800	1500	120	1800	1000	100	1500	1000
>= 10 mm	300	2250	1500	250	2250	1250	210	2000	1250
>= 15 mm	500	2500	1500	440	2500	1250	350	2000	1250
>= 20 mm	600	3000	1500	520	3000	1250	440	2500	1250
Ø 80-400 mm	300	4000	-	250	3500	-	200	3000	-

FX2200	Airgap < 0,3mm			Airgap 0,3 - 0,5 mm			Airgap 0,5 - 0,6 mm		
Steel thickness (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)
>= 10 mm	350	2250	1500	300	2250	1500	260	2250	1250
>= 15 mm	600	2500	1500	500	2500	1500	450	2500	1250
>= 20 mm	900	3000	1500	750	3000	1500	675	3000	1250
>= 25 mm	1000	3500	1500	850	3000	1500	750	3000	1250
Ø 100-450 mm	500	4500	-	400	4000	-	330	3000	-

FX4400	Airgap < 0,3mm			Airgap 0,3 - 0,6 mm			Airgap 0,6 - 0,8 mm		
Steel thickness (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)
>= 15 mm	500	2500	2000	400	3000	2000	330	2500	1500
>= 25 mm	1200	3000	2000	950	3000	2000	800	3000	1500
>= 40 mm	1600	3500	2000	1300	3000	2000	1100	3000	1500
>= 50 mm	2000	4000	2000	1600	3000	2000	1300	3000	1500
Ø 120-600 mm	1000	4500	-	800	4000	-	650	3500	-

FX6600	Airgap < 0,3mm			Airgap 0,3 - 0,6 mm			Airgap 0,6 - 0,8 mm		
Steel thickness (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)
>= 15 mm	750	2500	2500	600	3000	2500	500	2500	2000
>= 25 mm	1800	3000	2500	1400	3000	2500	1200	3000	2000
>= 40 mm	2400	3500	2500	2000	3000	2500	1600	3000	2000
>= 50 mm	3000	4000	2500	2400	3000	2500	2000	3000	2000
Ø 120 - 600 mm	1500	5000	-	1200	5000	-	1000	4000	-

Force / load / airgap table • Alimentación / carga / Tabla espacio de aire • Alimentation / charge / entrefer Tableau (Metric System)

FXR0220	Airgap < 0,1mm			Airgap 0,1 - 0,3 mm			Airgap 0,3 - 0,5 mm		
Steel thickness (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)
>= 2	25	800	800	12	800	800	10	800	800
>= 4	50	1500	1500	40	1500	1250	30	1200	800
>= 6	70	1500	1500	60	1500	1250	45	1200	800
>= 8	100	1500	1500	75	1500	1250	60	1200	800
Ø 25 - 150	100	2000	-	75	2000	-	60	1500	-

FXR0500	Airgap < 0,2mm			Airgap 0,2 - 0,3 mm			Airgap 0,3 - 0,6 mm		
Steel thickness (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)
>= 4	80	1600	1000	60	1500	1000	40	1250	1000
>= 8	180	2000	1250	150	2000	1250	120	1500	1250
>= 10	225	2250	1250	200	2000	1250	150	1500	1250
Ø 50 - 205	225	3000	-	200	2500	-	150	2000	-

FXR1000	Airgap < 0,2mm			Airgap 0,2 - 0,3 mm			Airgap 0,3 - 0,6 mm		
Steel thickness (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)
>= 6	150	1800	1500	120	1800	1000	100	1500	1250
>= 10	300	2250	1500	250	2250	1250	210	2000	1250
>= 15	400	2500	1500	350	2500	1250	300	2000	1250
>= 20	450	3000	1500	400	3000	1250	350	2500	1250
Ø 50 - 270	450	4000	-	375	3500	-	280	3000	-

FXR1650	Airgap < 0,3mm			Airgap 0,3 - 0,5 mm			Airgap 0,5 - 0,6 mm		
Steel thickness (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)
>= 8	300	2250	1500	280	2250	1500	250	2250	1250
>= 10	400	2500	1500	380	2500	1500	300	2500	1250
>= 15	700	3000	1500	680	3000	1500	550	3000	1250
>= 20	750	3500	1500	720	3000	1500	600	3000	1250
Ø 70 - 370	750	4500	-	600	4000	-	450	3000	-

Force / load / airgap table • Alimentación / carga / Tabla espacio de aire • Alimentation / charge / entrefer Tableau (Metric System)

FXR2650	Airgap < 0,3mm			Airgap 0,3 - 0,6 mm			Airgap 0,6 - 0,8 mm		
Steel thickness (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)
>= 15	600	2500	2000	500	3000	2000	440	2500	1500
>= 20	800	3000	2000	650	3000	2000	550	3000	1500
>= 25	1000	3500	2000	800	3000	2000	700	3000	1500
>= 40	1200	4000	2000	1000	3000	2000	900	3000	1500
Ø 120 - 560	1200	4500	-	900	4000	-	700	3500	-

FXR4000	Airgap < 0,3mm			Airgap 0,3 - 0,6 mm			Airgap 0,6 - 0,8 mm		
Steel thickness (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)
>= 15	900	2500	2000	750	3000	2000	660	2500	1500
>= 20	1200	3000	2000	1000	3000	2000	825	3000	1500
>= 25	1500	3500	2000	1200	3000	2000	1050	3000	1500
>= 40	1800	4000	2000	1500	3000	2000	1200	3000	1500
Ø 120 - 560	1800	5000	-	1500	5000	-	1125	4000	-

Force / load / airgap table • Alimentación / carga / Tabla espacio de aire • Alimentation / charge / entrefer Tableau (Metric System)

FXP0375	Airgap < 0,1mm			Airgap 0,1 - 0,3 mm			Airgap 0,3 - 0,5 mm		
Steel thickness (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)
>= 2	30	800	800	20	800	800	15	800	800
>= 4	80	1500	1250	60	1500	1250	50	1200	800
>= 6	120	1500	1250	90	1500	1250	75	1200	800
>= 8	170	1500	1250	130	1500	1250	100	1200	800
Ø30-105	150	2000	-	115	2000	-	60	1500	-

FXP0725	Airgap < 0,2mm			Airgap 0,2 - 0,3 mm			Airgap 0,3 - 0,6 mm		
Steel thickness (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)
>= 4	100	2000	1250	80	1500	1000	60	1250	1000
>= 6	160	2500	1250	130	2000	1250	100	1500	1000
>= 8	300	2500	1250	240	2000	1250	180	1500	1000
>= 10	330	2500	1250	270	2000	1250	200	1500	1000
Ø 40 - 160	300	3500	-	250	3000	-	180	2000	-

FXP1450	Airgap < 0,2mm			Airgap 0,2 - 0,3 mm			Airgap 0,3 - 0,6 mm		
Steel thickness (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)
>= 4	160	2250	1500	130	2000	1500	110	2000	1500
>= 6	200	2500	1500	175	2250	1500	140	2250	1500
>= 8	450	3000	1500	400	3000	1500	320	2500	1500
>= 10	550	2500	1500	500	3000	1500	400	2500	1500
>= 20	650	3000	1500	570	3000	1500	450	2500	1500
Ø 80 - 400	550	4000	-	480	3500	-	400	3000	-

Force / load / airgap table • Alimentación / carga / Tabla espacio de aire • Alimentation / charge / entrefer Tableau (Metric System)

FXV0440	Airgap < 0,1mm			Airgap 0,1 - 0,3 mm			Airgap 0,3 - 0,5 mm		
Steel thickness (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)
>= 4	70	1500	1250	50	1500	1250	35	1000	1250
>= 6	110	2000	1250	75	1500	1250	60	1250	1250
>= 8	175	2500	1250	120	2000	1250	90	2000	1250
>= 10	200	2500	1250	140	2000	1250	110	2000	1250
Ø 20-50	100	2000	-	70	2000	-	60	1500	-
90°	120	2000	-	90	2000	-	60	1500	-

FXV0880	Airgap < 0,2mm			Airgap 0,2 - 0,3 mm			Airgap 0,3 - 0,6 mm		
Steel thickness (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)
>= 6	150	2000	1000	110	1500	1000	75	1250	1000
>= 8	280	2500	1250	210	2250	1250	150	2000	1250
>= 10	350	2500	1250	260	2250	1250	180	2000	1250
>= 15	400	2500	1250	290	2250	1250	220	2000	1250
Ø 20-60	200	3500	-	160	2250	-	120	2500	-
90°	250	3500	-	190	3000	-	130	2500	-

FXV1775	Airgap < 0,2mm			Airgap 0,2 - 0,3 mm			Airgap 0,3 - 0,6 mm		
Steel thickness (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)
>= 4	130	2000	1500	100	2000	1500	90	2000	1500
>= 6	200	2500	1500	160	2250	1500	130	2250	1500
>= 8	400	3000	1500	320	3000	1500	270	2500	1500
>= 15	650	3000	1500	520	3000	1500	420	2500	1500
>= 20	800	3000	1500	650	3000	1500	550	2500	1500
Ø 35-75	300	4000	-	240	3500	-	200	3000	-
90°	400	4000	-	320	3500	-	300	3000	-

Force / load / airgap table • Alimentación / carga / Tabla espacio de aire • Alimentation / charge / entrefer Tableau (Metric System)

FXC0385	Airgap < 0,1mm			Airgap 0,1 - 0,3 mm			Airgap 0,3 - 0,5 mm		
Steel thickness (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)
>= 10	175	800	800	140	800	800	135	800	800

FXC0550	Airgap < 0,1mm			Airgap 0,1 - 0,3 mm			Airgap 0,3 - 0,5 mm		
Steel thickness (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)
>= 12	250	1200	1200	175	1200	1200	155	1200	1200

FXC0990	Airgap < 0,1mm			Airgap 0,1 - 0,3 mm			Airgap 0,3 - 0,5 mm		
Steel thickness (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)	Working Load Limit (kg)	Max. L (mm)	Max. W (mm)
>= 20	450	1500	1500	380	1500	1500	320	1500	1500

Test Certificate for FX Lifting Magnets

Model and Serial Number

Initial start-up

Regular inspection every 12 months

Model	S-Nr.	Date	Reason	OK?	Person/ Sig	Notes

Notes • Notas • Notes

Notes • Notas • Notes

Notes • Notas • Notes

Declaration of Conformity

2006/42 EG

Flaig Magnetsysteme GmbH & Co. KG
St.Georgener Straße 73
78739 Hardt
Germany

We declare on our own Responsibility the Machine below

Manual Magnetic Lifter

Model: FX0330 • FX0660 • FX1320 • FX2200 • FX4400 • FX6600
FXR0220 • FXR0500 • FXR1000 • FXR1650 • FXR2650 • FXR4000
FXP0375 • FXP0725 • FXP1450
FXV0440 • FXV0880 • FXV1775
FXC0385 • FXC0500 • FXC0990

TO WHICH THIS DECLARATION REFERS; CONFORMS WITH THE
REQUIREMENTS OF THE FOLLOWING DIRECTIVES:

EN 13155
IN COMPLIANCE WITH DIRECTIVE:
2006/42 EG



Hardt/Germany 01.07.2019

Horst Flaig (Director)

DECLARACIÓN CE DE CONFORMIDAD

2006/42 EG

NOSOTROS

Flaig Magnetsysteme GmbH & Co. KG
St.Georgener Straße 73
78739 Hardt
Germany

DECLARA BAJO SU RESPONSABILIDAD QUE LA MAQUINA:

ELEVADOR MAGNETICO DE MANDO MANUAL

Model: FX0330 • FX0660 • FX1320 • FX2200 • FX4400 • FX6600
FXR0220 • FXR0500 • FXR1000 • FXR1650 • FXR2650 • FXR4000
FXP0375 • FXP0725 • FXP1450
FXV0440 • FXV0880 • FXV1775
FXC0385 • FXC0500 • FXC0990

A LA QUE DICHA DECLARACIÓN SE REFIERE; CUMPLE CON LAS
NORMAS A CONTUNIACION O CON OTRAS NORMAS

EN 13155
EN BASE LA DIRECTIVA
2006/42 CE



Hardt/Germany 01.07.2019

Horst Flaig (Director)

DECLARATION DE CONFORMITE CE

2006/42 EG

NOUS

Flaig Magnetsysteme GmbH & Co. KG
St.Georgener Straße 73
78739 Hardt
Germany

DECLARONS SOUS NOTRE EXCLUSIVE RESPONSABILITE QUE LE
PRODUIT:

PORTEUT A COMMANDE MANUELLE

Model: FX0330 • FX0660 • FX1320 • FX2200 • FX4400 • FX6600
FXR0220 • FXR0500 • FXR1000 • FXR1650 • FXR2650 • FXR4000
FXP0375 • FXP0725 • FXP1450
FXV0440 • FXV0880 • FXV1775
FXC0385 • FXC0500 • FXC0990

EST EN TOUT CONFORME AUX NORME ET REGLEMENTATIONS
SUIVANTES

EN 13155
SUIVANTE SE QUI EST PRESCRIT DANS LA DIRECTIVE
2006/42 EG



Hardt/Germany 01.07.2019

Horst Flaig (Director)





INDUSTRIAL MAGNETICS, INC.
1385 S M 75 BOYNE CITY, MI 49712

Distributed by Tri-State Equipment Company Inc.
sales@tsoverheadcrane.com
www.tsoverheadcrane.com
Tel: (314) 869-7200

