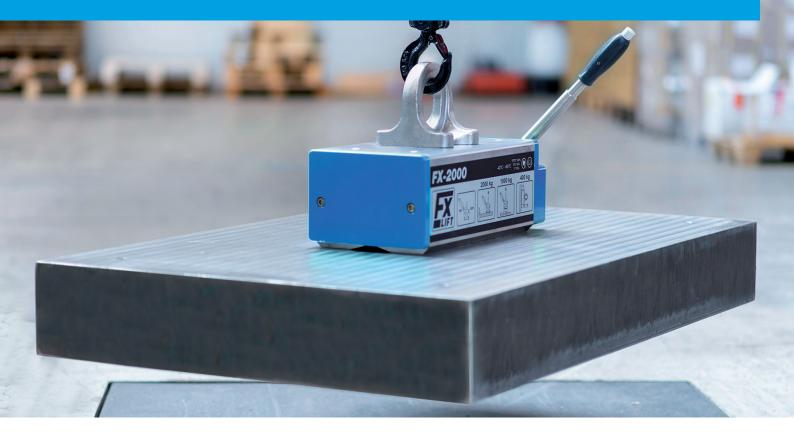
Materials Services I Materials Germany

# FX Lifting magnets Mechanically switchable





### **Function**

Our FX permanent magnetic lifting magnets are ideal tools for transporting ferromagnetic loads and materials. They are compact, easy to handle, safe and reliable and have strong magnetic forces. With their help, it is possible to pick up and transport loads quickly and safely without additional rigging. This simplifies work processes and shortens the time needed for loading and unloading. The devices are suitable as load handling devices in many areas, such as in the manufacturing industry, in shipyards, warehouses, in transport and conveyor technology. Normally, lifting magnets are used on cranes, but they can also be used on other machines such as forklifts and excavators.



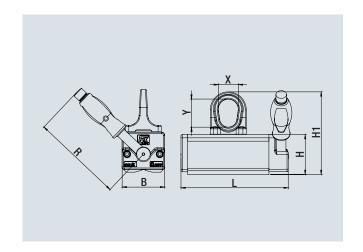
# **Benefits:**

- 100% nickel-plated
- High-energy half-shell magnets
- Operating angle of only 90°
- Large, forged crane lug (SF5)
- High performance in a compact design
- · Short pick-up and unloading
- · No mechanical impairment of the workpiece
- · Very solid control shaft
- · Recoilless one-hand operation
- · Suitable for flat and round materials
- · Increased safety due to easy operation

## Technical data

FX lifting magnets do not require an external power supply. They work with a single magnet system consisting of powerful neodymium magnets, which can be fully activated at an operating angle of just 90°, and are completely recoilless and self-braking. The inner magnetic circuit is opened (parts are attracted) or closed (no external attraction force) by activating the magnetic system via a switch lever.

The range consists of 5 models, with capacities from 150 kg to 2000 kg. Please refer to the following table for dimensions and weights as well as permitted lifting forces when used on smooth surfaces (RA < 6.3  $\mu$ m):



Model	Max. recomi	mended load capacity (kg)	Max. load	Dimensions (mm)						Weight
		•	capacity from (mm)	L	W	Н	H1	R	X/Y	(kg)
FX-150	150	Ø 50-200 mm, 75 kg	8	161	64	60	124	136	30/42	3.6
FX-300	300	Ø 50-300 mm, 150 kg	15	205	87	78	158	190	42/53	8.4
FX-600	600	Ø 80-400 mm, 300 kg	20	288	112	94	189	228	51/62	19
FX-1000	1000	Ø 100-450 mm, 500 kg	25	361	152	120	240	261	60/76	42
FX-2000	2000	Ø 120-600 mm, 1000 kg	50	472	228	169	313	409	68/89	115

Safety factor 3.5/test method according to EN 13155 • max. operating temperature 80 °C.

Please refer to the following tables for the maximum loads with different air gaps:

FX-150	Air gap < 0.1	mm		Air gap 0.1 - 0.3 mm			Air gap 0.3 - 0.5 mm		
Material thick- ness (mm)	Max. load capacity (kg)	Max. L (mm)	Max. W (mm)	Max. load capacity (kg)	Max. L (mm)	Max. W (mm)	Max. load capacity (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	-

FX-300	Air gap < 0.2	mm		Air gap 0.2 - 0.3 mm			Air gap 0.3 - 0.6 mm		
Material thick- ness (mm)	Max. load capacity (kg)	Max. L (mm)	Max. W (mm)	Max. load capacity (kg)	Max. L (mm)	Max. W (mm)	Max. load capacity (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	-

FX-600	Air gap < 0.2 mm			Air gap 0.2 - 0.3 mm			Air gap 0.3 - 0.6 mm		
Material thick- ness (mm)	Max. load capacity (kg)	Max. L (mm)	Max. W (mm)	Max. load capacity (kg)	Max. L (mm)	Max. W (mm)	Max. load capacity (kg)	Max. L (mm)	Max. W (mm)
≥ 6	150	1800	1500	120	1800	1000	100	1500	1000
≥ 10	300	2250	1500	250	2250	1250	210	2000	1250
≥ 15	500	2500	1500	440	2500	1250	350	2000	1250
≥ 20	600	3000	1500	520	3000	1250	440	2500	1250
Ø 80-400	300	4000	-	250	3500	_	200	3000	-

FX-1000	Air gap < 0.3	mm		Air gap 0.3 - 0.5 mm			Air gap 0.5 - 0.6 mm		
Material thick- ness (mm)	Max. load capacity (kg)	Max. L (mm)	Max. W (mm)	Max. load capacity (kg)	Max. L (mm)	Max. W (mm)	Max. load capacity (kg)	Max. L (mm)	Max. W (mm)
≥ 10	350	2250	1500	300	2250	1500	260	2250	1250
≥ 15	600	2500	1500	500	2500	1500	450	2500	1250
≥ 20	900	3000	1500	750	3000	1500	675	3000	1250
≥ 25	1000	3500	1500	850	3000	1500	750	3000	1250
Ø 100-450	500	4500	_	400	4000	_	330	3000	-

FX-2000	Air gap < 0.3	mm		Air gap 0.3 - 0.6 mm			Air gap 0.6 - 0.8 mm		
Material thick- ness (mm)	Max. load capacity (kg)	Max. L (mm)	Max. W (mm)	Max. load capacity (kg)	Max. L (mm)	Max. W (mm)	Max. load capacity (kg)	Max. L (mm)	Max. W (mm)
≥ 15	500	2500	2000	400	3000	2000	330	2500	1500
≥ 25	1200	3000	2000	950	3000	2000	800	3000	1500
≥ 40	1600	3500	2000	1300	3000	2000	1100	3000	1500
≥ 50	2000	4000	2000	1600	3000	2000	1300	3000	1500
Ø 120-600	1000	4500	-	800	4000	_	650	3500	_



- Other versions are also available on request.
- in addition to our standard program, we also offer custom solutions. We will be happy to advise you on this.

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