



Operating Manual

Permanent Lifting Magnet

Typ Elift / SK-I HOT

Art. No. 57894, 59574, 55112



Type	Load (kg)	max Ø (mm)	Weight (kg)	Article number
Elift / SK-I 300 HOT	300	160	9	57894
Elift / SK-I 500 HOT	500	220	18	59574
Elift / SK-I 1000 HOT	1000	350	42	55112



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1. Product information

1.1 References

These operating instructions are supposed to inform you about the appropriate use, safety instructions, safely operating the magnet and other important issues. Please take enough time to thoroughly read this manual before unpacking the magnet.

Also consider applicable laws and regulations regarding accident prevention.

1.2 Labeling / Information for your inquiry

The most important data can be found on the type-label on the side of the magnet housing:

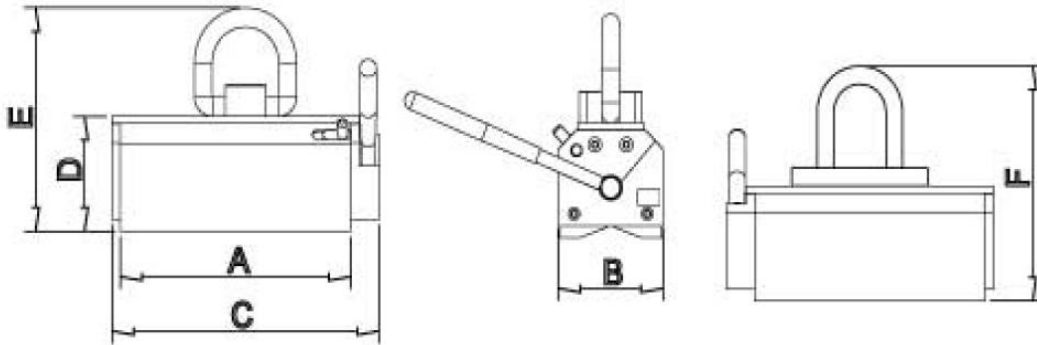
- Magnet type

State furthermore:

- a detailed description of the occurred malfunction

1.3 Technical data

Type	Dimensions (mm)						Load (kg)	Thickness mind. (mm)	Load (kg)	max Ø (mm)	max. length (mm)	Weight (kg)	Article-number
	A	B	C	D	E	F							
Elift / SK-I 300 HOT	160	90	193	87	167	-	300	25	125	160	2000x1000	9	34858
Elift / SK-I 500 HOT	220	100	255	101	181	-	500	30	215	220	2000x1500	18	34859
Elift / SK-I 1000 HOT	310	122	355	126	243	-	1000	50	450	350	3000x1500	42	34860



1.4 Standart accessory

1x Shift lever with thread



1.5 Product liability / Warranty

- After receiving the magnet, immediately check the packaging for damages.
- Immediately inform your forwarder in case of damages.
- Pay attention for accessory parts during unpacking
- Declare warranty claims in writing.
- Operating temperatures of the magnet range from -10°C to 250° (Peak up to 300 ° C and max. 2,5 min. contact time possible) and the room humidity should not be over 80%.
- The manufacturer reserves the right to technical changes and improvements as well as the Copyright according to DIN ISO 16016. Within the scope of warranty, only the manufacturer or persons authorized by him are allowed to perform any repairs or alterations on the device/machine.
- The manufacturer is not liable for damages and accidents which are the result of improper use.

2. General safety

2.1 Safety instructions

In the construction of these lifting magnets all safety precautions have been considered.

In the operation of this magnet a health hazard cannot be excluded. Please consider these regulations.

Furthermore consider the general manufacturing specifications and regulations to prevent accidents.

To reduce any residual risks for accidents it is necessary to work carefully and cautiously!

Rules to reduce risks:

- Don't lift loads if there are persons in the working area.
- Don't lift porous or uneven loads.
- Don't walk, stand or work under lifted loads. Do not swing the load while transporting.
- Don't switch -ON- the magnet if it isn't placed on a work-piece.
- Don't lift loads if... the shift lever isn't engaged in the safety lock /...if the permitted capacity or measurements are exceeded /... if the load is distributed uneven.
- Contact surfaces have to be free of liquids, oil and grease
- Move the load not until lifting it for approx. 5cm and checking if the adhesion force is enough.
- Demagnetize (switch -OFF-) the magnet only, if the complete load is put down and checked if it rests safely.
- Always use two hands to switch the magnet ON/OFF so the lever won't snap (use a smaller lifting magnet if the lever snaps)



2.2 Minimum load

The minimum load should always be at least 10% of the maximum holding force

Example: You should transport only workpieces with at least 50 kg with an Elift / SK-I 500 HOT. This is important in order to avoid a possibly occurring residual magnetism in the workpiece.

2.3 Maintenance and Inspection

- The lifting magnets are maintenance free, but the functionality has to be checked regularly (type label still readable, pole surface clean and in order, magnet housing / switch lever / interlock system and crane eye in order / full adhesion force available or affected by excessive force, heat or bad contact.
- Lifting magnets have to be protected from aggressive agents as well as weather influences. These can have a negative effect on the safety properties as well as the performance of the magnet.
- We perform annual UVV- tests per your request.

3. Magnetic adhesion force / Magnetic adhesion force reduction in relation to...

3.1 Material thickness

	Material thickness			
		Elift / SK-I 1000 HOT	Elift / SK-I 500 HOT	Elift / SK-I 300 HOT
T1	70 mm	-	-	-
T2	60 mm	-	-	-
T3	50 mm	-	-	-
T4	45 mm	-	-	-
T5	40 mm	100 %	-	-
T6	35 mm	90 %	-	-
T7	30 mm	80 %	100 %	-
T8	25 mm	70 %	90 %	100 %
T9	20 mm	60 %	75 %	90 %
T10	15 mm	50 %	60 %	70 %
T11	10 mm	35 %	45 %	50 %
T12	5 mm	20 %	25 %	30 %



3.2 Surface Texture

	Rz in μm	Symbol	adhesion force
F1	4	▼▼▼	125 %
F2	16	▼▼	100 %
F3	63	▼	90 %
F4	-	~	65 %

3.3 Carbon Content

	Carbon content	adhesion force
M 1	Low C-Content	100 %
M 2	Moderate C-Content	85 %
M 3	High C-Content	75 %
M 4	Cast Iron	70 %

The recommended adhesion force is calculated from: $= T * F * M$

For example: T8 x F1 x M2 for Elift / SK-I 500 HOT corresponds: $0,9 \times 1,25 \times 0,85 \times 500 \text{ kg} = 478,13 \text{ kg}^*$
 $*1\text{kg} = 10\text{N}$

4. Application

The lifting magnet is activated by tilting the shift lever in the left direction -ON-.

Please note, that the shift lever must first be fully inserted into the lock before lifting the load!

By simultaneously pushing the interlocking system back and tilting the shift lever to the right - in the OFF direction- you release the load.



5. Spare Parts

Magnet	Article	Article number
Elift / SK-I 300 HOT	Shift-lever	54889
	Lock	54899
	Front cover (lever side)	60024
	Back cover	60023
	Spring for lock	60010
Elift / SK-I 500 HOT	Shift-lever	54890
	Lock	54900
	Front cover (lever side)	60025
	Back cover	60026
	Spring for lock	60010
Elift / SK-I 1000 HOT	Shift-lever	54891
	Lock	54901
	Front cover (lever side)	55369
	Back cover	56370
	Spring for lock	60011

6. Disassembly and Storage / Disposal

Protect the environment by disposing of all metals and other substances according to legal regulations.



EU - Declaration of Conformity

Hereby Company

Assfalg GmbH
Buchstraße 149
D - 73525 Schwäbisch Gmünd,

declares that the hereafter described magnet,

Lifting magnet Elift / SK-I 300 HOT, Elift / SK-I 500 HOT, Elift / SK-I 1000 HOT

passed the safety and health requirements according to the following European-Community guidelines:

Directive 2006/42/EC (Machinery Directive)

Applied harmonized standards:

EN ISO 12100:2010 machinery safety and - general principals of design - risk assessment and risk mitigation.

DIN EN 13155:2014 crane - safety - loose load carrying device

Name and address of the person authorized to compile technical documents:

Ronald Assfalg
Buchstraße 149
D - 73525 Schwäbisch Gmünd

Signature

A handwritten signature in black ink, appearing to read "R. Assfalg", written over a light blue horizontal line.

Dipl. Ing. Ronald Assfalg

UVV Safety inspection for lifting magnets

Jährliche Inspektionsintervalle empfohlen!

Typ	Preis in € / Stück
CM 1	59,00
CM 3	77,00
CM 400	59,00
CM 800	77,00
CMP 80	52,00
CMP 250	52,00
CMP 500	59,00
NMP 250	52,00
NMP 500	59,00
NMP 1000	59,00
NMP 2000	77,00
BM 80	146,00
BM 110	146,00
NMHV 160	52,00
NMHV 400	59,00
EPH 1	59,00
EPH 4	59,00
EPH 6	59,00
MT 20 M	52,00
MT 50 M	59,00
MT 100 M	59,00
MT 200 M	77,00
BAT-Grip 150	146,00
BAT-Grip 300	146,00
MK 120	27,00
MK 170	27,00
MK 300	31,00
MK 250 KS	31,00
MK 500 KS	52,00
Ultralift 125+	27,00
Ultralift 250+	31,00
Ultralift 500+	52,00
Ultralift 1000+	59,00
Ultralift 2000+	77,00
Ultralift TP 150	31,00
Ultralift TP 300	52,00
Neo 125	27,00
Neo 250	31,00
Neo 500	52,00
Neo 1000	59,00
Neo 2000	77,00

Typ	Preis in € / Stück
DBM 27	146,00
DBM 34	146,00
DBM 68	146,00
MaxX 250	31,00
MaxX 500	52,00
MaxX 1000	59,00
MaxX 1500	77,00
MaxX 2000	77,00
Elift (SK-I) 100	27,00
Elift (SK-I) 300	31,00
Elift (SK-I) 500	52,00
Elift (SK-I) 1000	59,00
Elift (SK-I) 2000	77,00
Elift (SK-I) 3000	146,00
Elift (SK-I) 5000	189,00
SB200	52,00
SB500	59,00
SB 950	77,00
SB 1000	77,00
EPM Bat 75	59,00
EPM Bat 150	77,00
EPM Bat 300	146,00
EPM Bat 500	220,00
EPM M-1000	77,00
EPM Bat 3000	146,00
EPM Bat 5000	220,00
SP 4	52,00
SP 8	59,00
SP 10	77,00
SM 025	52,00
SM 1	52,00
SH 12	27,00
SH 15	27,00
SH 25	31,00
SH 35 K	31,00
SH 60	52,00
ELM 100	27,00
ELM 300	31,00
ELM 600	52,00
ELM 1000	59,00
ELM 2000	77,00

Scope of testing: Visual inspection and tear of test

- The price includes a full inspection with inspection plate and certificate
- Necessary repairs will be billed at cost or according to an estimate