



PERMANENT LIFTING MAGNETS

Patented
The Ultimate Safer Lifting



CONFORMS TO **CE** STANDARDS

SAFER-02-EN

BRISC



Exclusive and Safest Technology

Concentrated Power

The Key elements for high power are the complete isolation of the north and south poles through the stator and rotor. This forces all potential magnetic lines of force through the part. This technology has no lines of force being transferred through the frame before reaching the part. This insures the customer gets all the power they paid for, where they need it, when they need for years to come. This design allows for the highest power to weight ratio in the industry.

Reliability

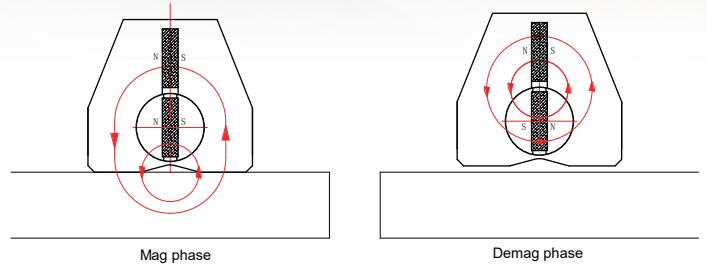
The on and off cycle is performed by simply turning a lever. The high tolerance bearing surface in the lifter is designed for years of service.

Always Safety First

Safety first with the spring loaded safety handle design which prevents accidental de-mag.

High power Neodymium magnets and the Isolated magnetic circuit design ensure a high power to weight ratio and 3.5 times breakaway force. With the maintenance free design, nickel plated steel parts the SAFER lifter will provide a long lasting trouble free operational life. Advanced machining processes with stringent testing requirements ensures each SAFER lifter has the same strength and overall quality.

Sophisticated electronic inspection and testing instruments are used to assure the highest quality of permanent magnets are used. Each lifter is tested individually using mechanical and electronic means to certify all international performance parameters are met.



In the Mag and Demag phase, the rotor is turned approximately 160 degrees causing the magnetic flux path to move into the load, or out of the load.

The load is held in place by the constant force of the permanent magnetic materials in the isolated magnetic circuit design of the lifter.



Permanently Safe Power

High energy permanent magnets ensure great force and with good design we achieve concentrated power indefinitely. The 3.5 times breakaway force allows safe working conditions even with substantial air gaps.

Durable and Compact

The incredible power to weight ratio is provided by the specific isolation design and high tolerance parts. Product innovation, material selection and state of the art manufacturing processes have created a powerful product with no maintenance requirements and convenient pricing resulting in great international success making SAFER the best selling close proximity lifter on the market.



Airgap? Thickness?
Load weight?
Material?

SAFE???

Would you like to know for sure the magnet you have chosen to handle a load will be safe BEFORE you use it? Then SAFER is for you.



You may know this lifter has breakaway force 3.5 times the rated load when the load is within the weight parameters of the lifter, is mild steel, is thick enough and flat enough, but what is the real break away force ON YOUR PART ? HOW do you use a simple tool in a SAFER manner?

Knowing you have a minimum 2 times safety factor every time you lift a load is a SAFER way to work.

BRISC



The Patented 1/2 Power Test Lift

Easy to use

A single operator can handle the load which, when SAFER 1/2 power test lift is performed, a minimum 2 times safety factor is guaranteed regardless of load characteristics. This ensures the load is lifted in a safe manner, without deformation or damage that can be caused by mechanical rigging, improving the overall productivity of the plant and equipment.

Test Lifting Procedures



1

Pull out the handle from "OFF" position



2

Turn the handle to "ON" position and make sure that the handle is in locked position



3

Pull out the pin from restore position



4

Put the pin into "1/2" position



5

Turn the handle to "1/2" position



6

Make a test load and set the load down and make sure that the load is securely rested

Full power lifting procedures



7

Turn the handle to "ON" position for lifting operation and make sure that handle is in locked position



8

Now the lifting magnet is in full power position and operator can start to lift the load



9

Set the load down and make sure that the load is securely rested



10

Pull out the pin from "1/2" position Only do this and following steps when the load is securely rested



11

Put the pin into restore position



12

Pull out the handle from "ON" position



13

Turn the handle to "OFF" position



14

Handle in locked position and should be securely fixed

All magnetic performances are directly related to the actual size and shape of the load to be handled. In addition, air gaps, temperature, metallurgical composition and thickness of the load all play key roles in the performance of a specific magnet.

Thickness vs Power

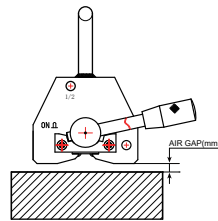
The higher the force created by the magnet, the larger the polar area and in turn the deeper the magnetic field and thus the thicker the load needs to be to absorb 100% of the flux.

Material VS Power

The higher the alloy, the less magnetic the object, the force is not generated by the magnet itself, it is generated by the ferrous materials in the flux path only.

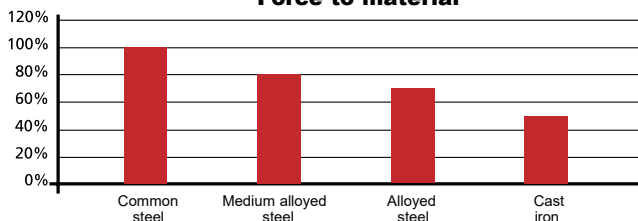
Air gap vs Power

The performance with irregular shaped loads that create a High air gap makes the Isolated magnetic circuit design shine above all other lifters with the same weight and size. With the isolated flux path design, the largest air gaps can be overcome relative to the quantity of magnetic materials in the lifter.

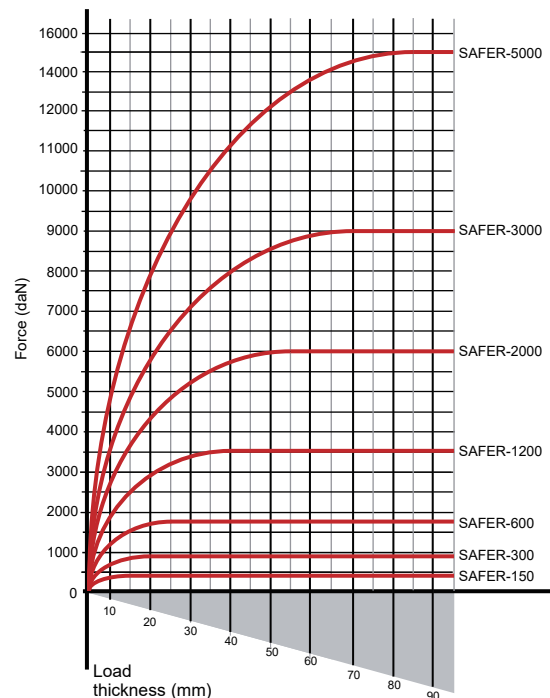


Pull / Air gap curves on common Fe 370B with steel poles completely covered

Force to material



Force to thickness



Test Lift



Now we have the solution for the safest way to lift a load with a magnet. Thanks to our innovative test lift technology you can run a test lift at 50% of the magnet's power to provide real world proof the magnet can do what you need it to. Move parts safely in your shop.



Handle locked in "1/2" position

The patented technology insures a minimum 2 times safety factor against all potential load variations. At BRISC, we take a SAFER path to success. If you CAN lift the load at 50% power, then you will know you CAN move the load in a SAFER manner at full power with a minimum 2 times safety factor.



Handle locked in "full power" position



Full Power Lift

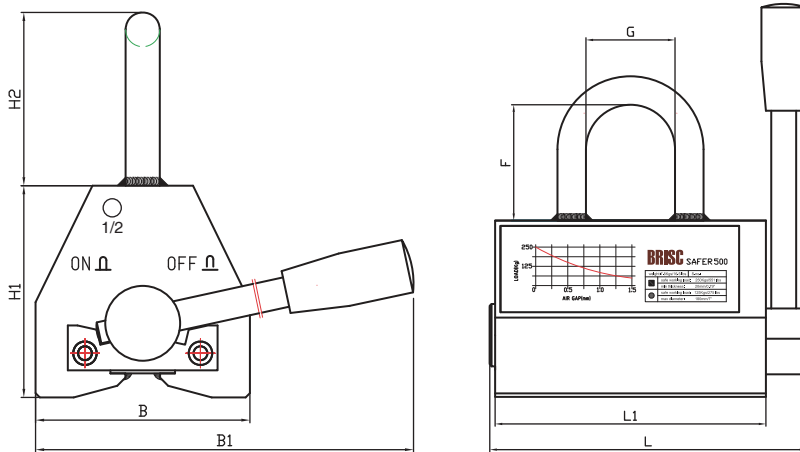
SPECIFICATIONS

PERMANENT LIFTING MAGNETS

For lifting ferromagnetic material with patented test position for safer lifting

Features

- Compact and light
- Suitable for flat and round material
- Maintenance free design
- Safety device prevent accidental deactivation
- Can be switched off by one hand only



Model	Size	Safe Working Load	B	B1	L	L1	H1	H2	F	G	Net Weight
SAFER	150	150 kg/330 lb	60 (2.36)	162 (6.38)	114 (4.49)	93 (3.66)	69 (2.72)	50 (1.97)	40 (1.57)	30 (1.18)	4 kg/8.8 lb
SAFER	300	300 kg/660 lb	100 (3.94)	230 (9.06)	178 (7)	152 (5.98)	99 (3.9)	81 (3.19)	65 (2.56)	50 (1.97)	8 kg/17.6 lb
SAFER	600	600 kg/1320 lb	120 (4.72)	230 (9.06)	273 (10.75)	256 (10.08)	99 (3.9)	81 (3.19)	65 (2.56)	50 (1.97)	19 kg/41.8 lb
SAFER	1200	1200 kg/2640 lb	146 (5.75)	315 (12.4)	334 (13.15)	316 (12.44)	125 (4.92)	112 (4.41)	92 (3.62)	64 (2.52)	40 kg/88 lb
SAFER	2000	2000 kg/4400 lb	165 (6.5)	510 (20.08)	516 (20.31)	484 (19.06)	165 (6.5)	112 (4.41)	92 (3.62)	64 (2.52)	85 kg/187 lb
SAFER	3000	3000 kg/6600 lb	200 (7.87)	610 (24.02)	596 (23.46)	550 (21.65)	217 (8.54)	125 (4.92)	100 (3.94)	70 (2.76)	150 kg/330 lb
SAFER	5000	5000 kg/11000 lb	310 (12.20)	930 (36.61)	748 (29.45)	706 (27.80)	284 (11.18)	160 (6.3)	130 (5.12)	100 (3.94)	430 kg/946 lb

Model	Size	Load Plate Max	Plate Min Thickness	Plate Max Length	Load Round Max	Round Min Thickness	Round Max Diameter
SAFER	150	150 kg/330 lb	15 (0.59)	1000 (39.37)	60 kg/132 lb	10 (0.39)	150 (5.9)
SAFER	300	300 kg/660 lb	20 (0.79)	1500 (59.06)	120 kg/264 lb	10 (0.39)	180 (7.09)
SAFER	600	600 kg/1320 lb	25 (0.98)	2000 (78.74)	240 kg/528 lb	15 (0.59)	250 (9.84)
SAFER	1200	1200 kg/2640 lb	40 (1.57)	3000 (118.11)	480 kg/1056 lb	25 (0.98)	280 (11.02)
SAFER	2000	2000 kg/4400 lb	55 (2.17)	3000 (118.11)	800 kg/1760 lb	35 (1.38)	350 (13.78)
SAFER	3000	3000 kg/6600 lb	70 (2.76)	3500 (137.8)	1200 kg/2640 lb	45 (1.77)	400 (15.75)
SAFER	5000	5000 kg/11000 lb	85 (3.35)	4000 (157.48)	2000 kg/4400 lb	55 (2.17)	450 (17.7)

Unit: mm(in)

SAFER-T

SAFER THIN SYSTEM

For safe handling of thin plates.
Safely De-stack thin plates one at a time.
Now with SAFER-T, you can handle thin plate easily and safely.

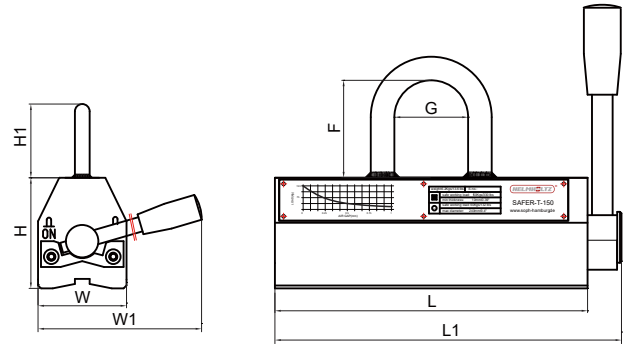
Features

- Special design allows controlled depth of flux
- High power with shallow flux depth, Specifically designed for de-stacking thin plates
- Still good on the thick plates
- "SAFER" test lift function



Applications

To lift and transit the thin plates while doing same good on thick plates.



Dimensions

mm(inch)

Model	Size	Width(W)	Length(L)	Height(H)	H1	W1	L1	G	F	Net Weight
SAFER-T	150	60 (2.36)	205 (8.07)	75 (2.95)	50 (1.97)	162 (6.38)	223 (8.78)	30 (1.18)	40 (1.57)	6.2 kg / 24 lb
SAFER-T	250	100 (3.94)	230 (9.06)	108 (4.25)	81 (3.19)	230 (9.06)	258 (10.16)	50 (1.97)	65 (2.56)	13 kg / 62 lb

Model	Size	Flat load Max	Min Thickness	Max Length	Load Round Max	Round Min Diameter	Round Max Diam
SAFER-T	150	150 kg/330 lb	10 (0.39)	1200 (47.24)	60 kg/132 lb	60 (2.36)	180 (7.09)
SAFER-T	250	250 kg/550 lb	12 (0.47)	1500 (59.06)	100 kg/220 lb	60 (2.36)	180 (7.09)

Unit: mm(in)

SAFER-R

SAFER ROUND SYSTEM

When you use normal manual lifter to handle the rounds, it is not really suitable and the V shape is very small and when the surface condition is not good, material is not good, having impact or twist during transit, the clamping force will drop drastically and the lifting will become unsafe. Now with SAFER-R, you can handle the rounds easily and safely.

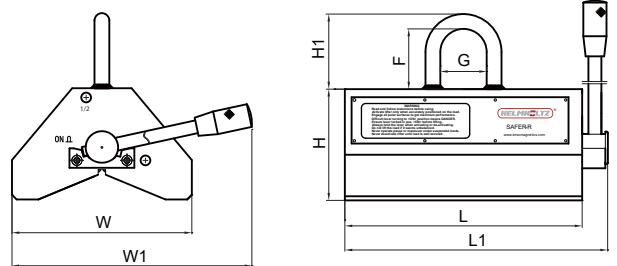
Features

- Bigger V shape pole shoes than standard SAFER to ensure safer conditions
- Higher performance on rounds than standard SAFER
- Better more stable on rounds
- Still handle flat and rounds
- "SAFER" 1/2 Power test lift feature with one lifter



Applications

Round or flat, the "safest" way to handle a load.



Dimensions

mm(inch)

Model	Size	Width(W)	Length(L)	Height(H)	H1	W1	L1	G	F	Net Weight
SAFER-R	250	123 (4.84)	152 (5.98)	108 (4.25)	81 (3.19)	230 (9.06)	178 (7.01)	50 (1.97)	65 (2.56)	11 kg / 24 lb
SAFER-R	500	194 (7.64)	256 (10.08)	120 (4.72)	81 (3.19)	230 (9.06)	284 (11.18)	50 (1.97)	65 (2.56)	28 kg / 62 lb
SAFER-R	1000	280 (11.02)	316 (12.44)	185 (7.28)	112 (4.41)	315 (12.40)	344 (13.54)	64 (2.52)	92 (3.62)	90 kg / 198 lb
SAFER-R	2000	370 (14.57)	484 (19.06)	240 (9.45)	112 (4.41)	510 (20.08)	521 (20.51)	64 (2.52)	92 (3.62)	200 kg / 440 lb
SAFER-R	3000	440 (17.32)	550 (21.65)	285 (11.22)	125 (4.92)	610 (24.02)	596 (23.46)	70 (2.76)	100 (3.94)	350 kg / 770 lb

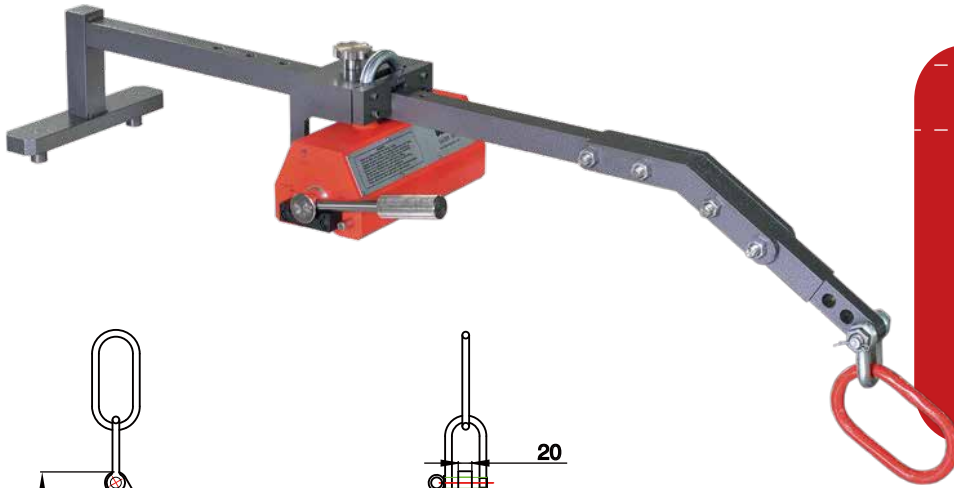
Load Capabilities

mm(inch)

Model	Size	Flat load Max	Min Thickness	Max Length	Load Round Max	Round Min Diameter	Round Max Diam
SAFER-R	250	250 kg/550 lb	20 (0.79)	1500 (59.06)	150 kg/330 lb	60 (2.36)	200 (7.87)
SAFER-R	500	500 kg/1100 lb	25 (0.98)	2000 (78.74)	300 kg/660 lb	60 (2.36)	300 (11.81)
SAFER-R	1000	1000 kg/2200 lb	40 (1.57)	3000 (118.11)	500 kg/1100 lb	80 (3.15)	360 (14.17)
SAFER-R	2000	2000 kg/4400 lb	55 (2.17)	3000 (118.11)	1000 kg/2200 lb	80 (3.15)	460 (18.11)
SAFER-R	3000	3000 kg/6600 lb	70 (2.76)	3500 (137.8)	1500 kg/3300 lb	100 (3.94)	560 (22.05)

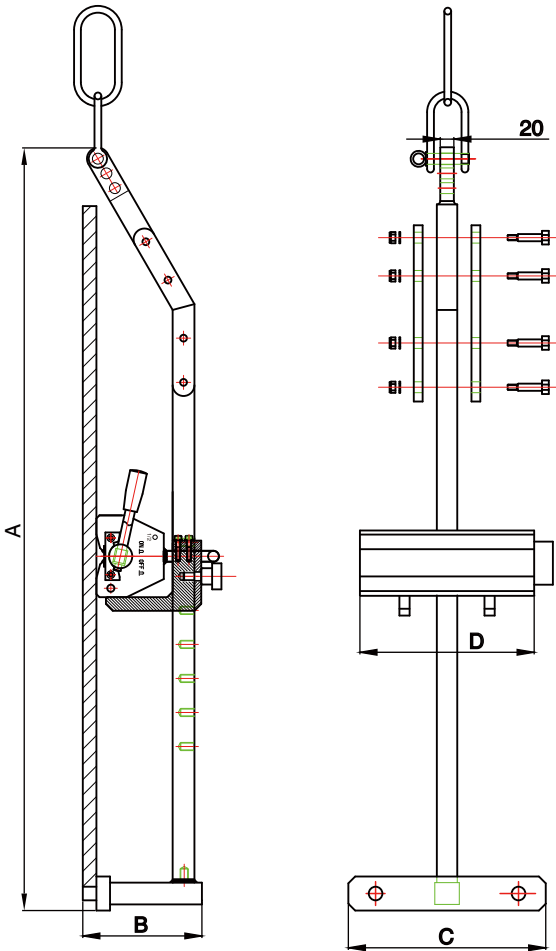
PAR

SAFER VERTICAL SYSTEM



PAR SAFER Vertical System

PAR system is designed for the vertical handling of steel blocks.
The typical application is loading / unloading a workpiece on a horizontal spindle milling machine. Can be used to flip parts over as needed in a safe manner using simple stalls is possible to fix the workpiece to the magnetic chuck from one side to other one, so as to work both faces.
PAR is easily adaptable to workpieces of different sizes, changing the position of locking pins.
PAR is available for SAFER 300/600.



Dimensions and Weights

With PAR	SAFER 300	SAFER 600
A (mm)	1121	1121
B (mm)	175	175
C (mm)	290	290
D (mm)	152	256
Weight (kg)	31	42

Technical Characteristics

With PAR	SAFER 300	SAFER 600
Load Max (kg)	250	500
Max length plate (mm)	800	1000
Min length plate (mm)	300	300
Min thickness plate (mm)	4	6
Max width plate (mm)	550	700



SOPH provides a line of accessories for SAFER lifters to increase overall flexibility during use of horizontal and vertical material handling applications. The durable design makes them reliable over time with no required maintenance.

BLM

SAFER FIXED BEAM

BLM SAFER Fixed Beam

The BLM spreader beam allows for the mounting of 2 SAFER lifters increasing the load handling characteristics without complicating the overall simplicity of the process.

BLM-1 handles loads up to **800 kgs and 3000mm** while BLM-2 handles loads up to **1600kg and 3000mm** in length.



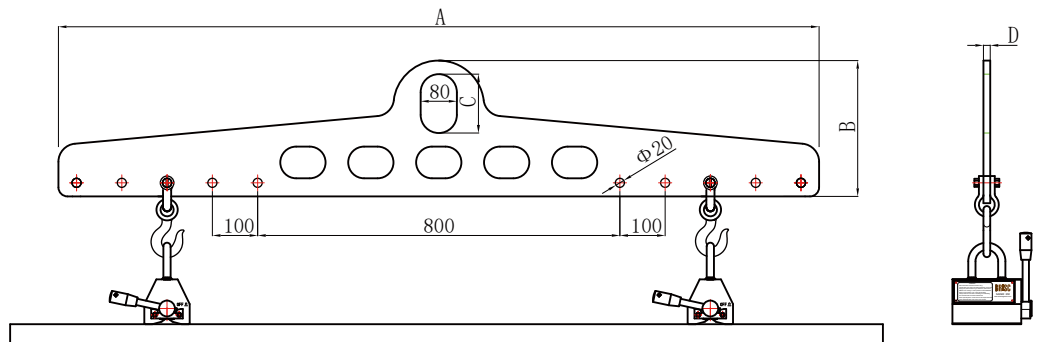
Dimensions and Weights

BLM-1

A (mm)	1680
B (mm)	300
C (mm)	130
D (mm)	15
Weight (kg)	37

BLM-2

A (mm)	1900
B (mm)	415
C (mm)	160
D (mm)	20
Weight (kg)	75



Technical Characteristics / load capacity

BLM-1

in combination with:	Plates			Rounds	
	Load (kg)	Max Length (mm)	Max Width (mm)	Load (kg)	Max Length (mm)
2 x SAFER-300	480	3000	1500	240	3000
2 x SAFER-600	960	3000	1500	480	3000

BLM-2

in combination with:	Plates			Rounds	
	Load (kg)	Max Length (mm)	Max Width (mm)	Load (kg)	Max Length (mm)
2 x SAFER-600	960	3000	1500	480	3000
2 x SAFER-1200	1920	3000	1500	960	3000



© 1998 - 2022, SOPH GmbH, Hamburg, Germany

Copyright

All text, drawings, photos and product illustrations are subject to copyright and are the property of SOPH GmbH

Technical Changes

The data and illustrations in this catalogue are not binding and only provide an approximate description. We reserve the right to make changes to the product delivered compared with the data and illustrations in this catalogue, e.g. in respect of technical data, design, fittings, material and external appearance.

SOPH GmbH

Hermann-Buck-Weg 8, 22309 Hamburg

Tel: +49-40-609463670 Fax: +49-40-609463679 info@soph-gmbh.com

SOPH Inc

195 South Alloy Dr. Fenton MI 48430

Tel: +1-810-750-1120 Fax: +1-810-750-1141 info@soph-inc.com

SOPH Ltd

Building 3, No.6 Xin Zhong Rd, Haining 314400

Tel: 86-0573-89262865 Fax: 86-0573-89262863 info@soph-ltd.com www.soph-magnet.com