BRISC PERMANENT LIFTING MAGNETS

THE ULTIMATE GENERATION

- High power to weight ratio
- Easy operation
- Light weight
- Durable
- Zero electricity

THE BEST expression of POWER.

The complete choice for industrial lifting

Soph specializes in permanent, electro-permanent and electro-magnetic technology covering the entire range of magnetic technology available on the market today. With more than 15 years experience and thousands of installations worldwide Soph will always offer the best technology for the application to meet our customer's needs.

BRISC

PERMANENT LIFTING MAGNETS

THE ULTIMATE GENERATION

The most practical, safe and economical way to handle ferrous loads.

Hundreds of thousands of units are already in use all over the world confirming the great value of magnetic lifters each and everyday in many industrial sectors such as:

- Tool and die shops
- Machinery Builders
- Steel fabrication shops
- Steel distribution centers
- Shipyards and Ports
- Foundries and Steel mills
- Construction
- Warehousing and transportation

- With safety, there is no room to play. Each lifter is tested to certify the real force is no less than 3X declared safe working load (SWL) and that the air gap curve is accurate.

EXCLUS

The best expression of power

Through a qualitative selection process of top grade high energy magnets and high dimensional tolerances between the stator and rotor we have achieved a 20% higher rated force in the same size. This allows us to offer the same size magnets with more lifting capacity.

Greater flexibility with thin gage loads

PLM series magnets have been designed to meet the demand for handling thin loads in a safe and efficient way.
The special design of the polar area together with a properly balanced magnetic field allows a lower flux depth. The properly balanced magnetic field allows for easier handle operation on thinner plates.

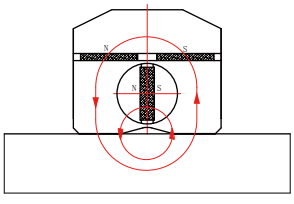
- "Safety first" with the spring loaded safety handle design which prevents accidental de-mag.
- High power Neodymium magnets and the Isolated magnetic circuit design ensure a high power to weight ratio.
- With the maintenance free design, nickel plated steel parts the PLM lifter will provide a long lasting trouble free operational life.
- Advanced machining processes with stringent testing requirements ensures each Brisc lifter has the same strength and overall quality.

Reliability

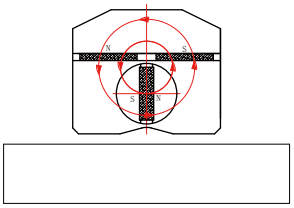
The on and off cycle is performed by simply turning a lever. The high tolerance bearing surface in the lifter is designed for years of service.

Permanently safe power

High energy permanent magnets ensure great force and with good design we achieve concentrated power indefinitely. The 3X safety factor rating allows safe working conditions even with substantial air gaps.



Mag phase



Demag phase

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 PLM the best selling close proximity lifter on the market.

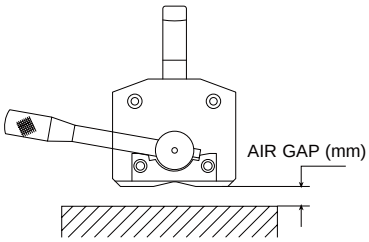
IVE technology with MOST SAFETY.

Best performances with suitable loads

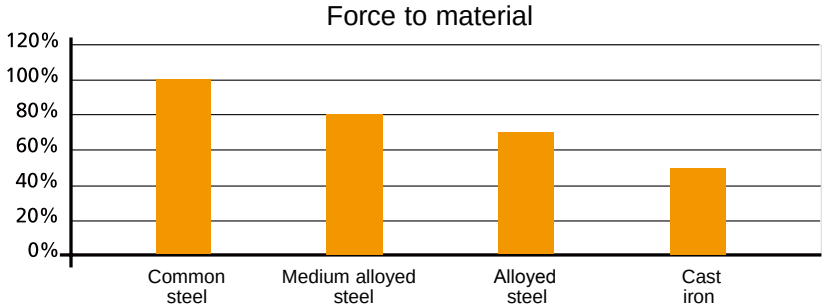
All magnetic performances are directly related to the actual size and shape of the load to be handled. In addition, air gaps, temperature, metallurgical composition and thickness of the load all play key roles in the performance of a specific magnet.

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. (functional parameters)



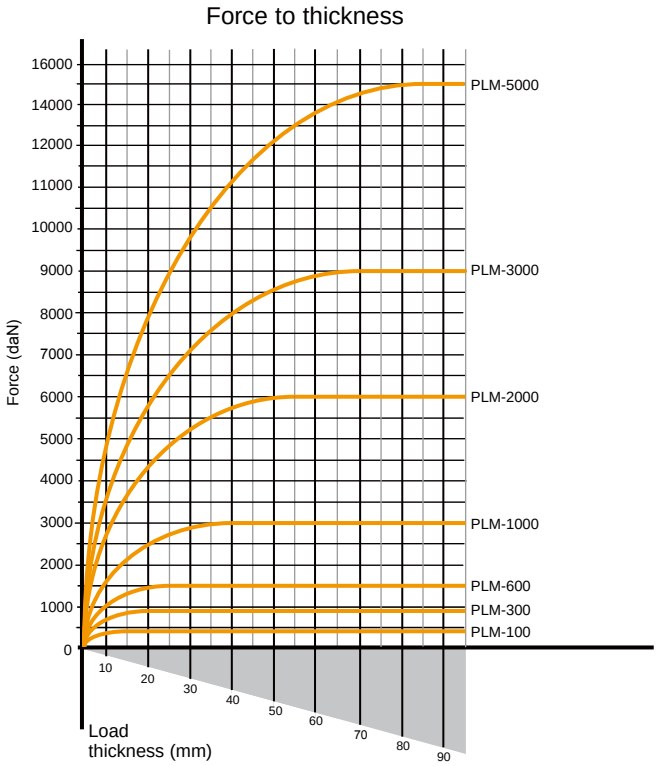
the ADVANCED manufacturing process

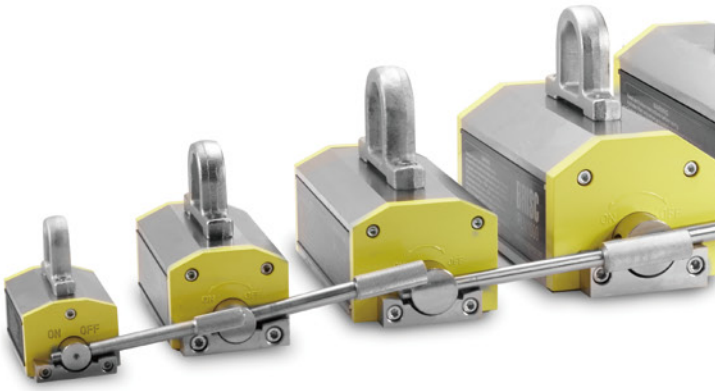
The best show of force

Due to the use of neodymium magnetic material these lift magnets have an enormous power to weight ratio. EXAMPLE: the PLM 300 has an actual break away force of 60 times it's own weight.. The lifting magnets can easily be switiched by hand in case its magnet circlit is closed when the magnet is places on the workpiece.

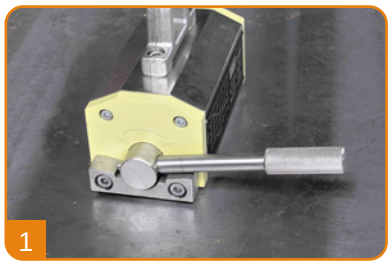
Greater flexibility, thin gage loads

PLM series magnets have been designed to meet the demand for handling thin loads in a safe and efficient way.
The special design of the polar area together with a properly balanced magnetic field allows a lower flux depth. The properly balanced magnetic field allows for easier handle operation on thinner plates.

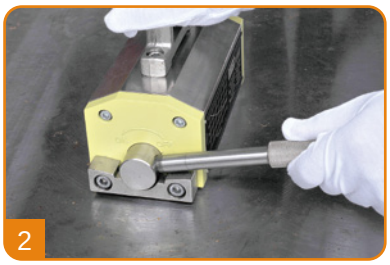




Operation sequence

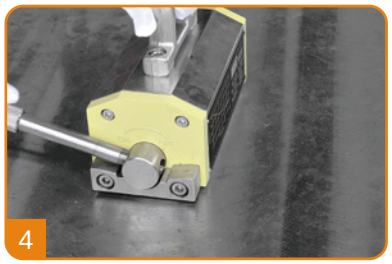


Handle locked in “OFF” position

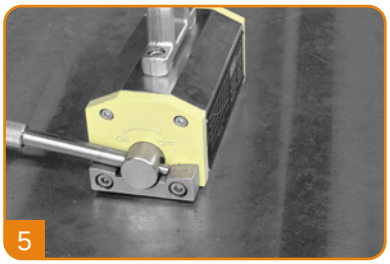


Pull out the handle

Turn the handle



Handle in “ON” position



Handle locked in “ON” position

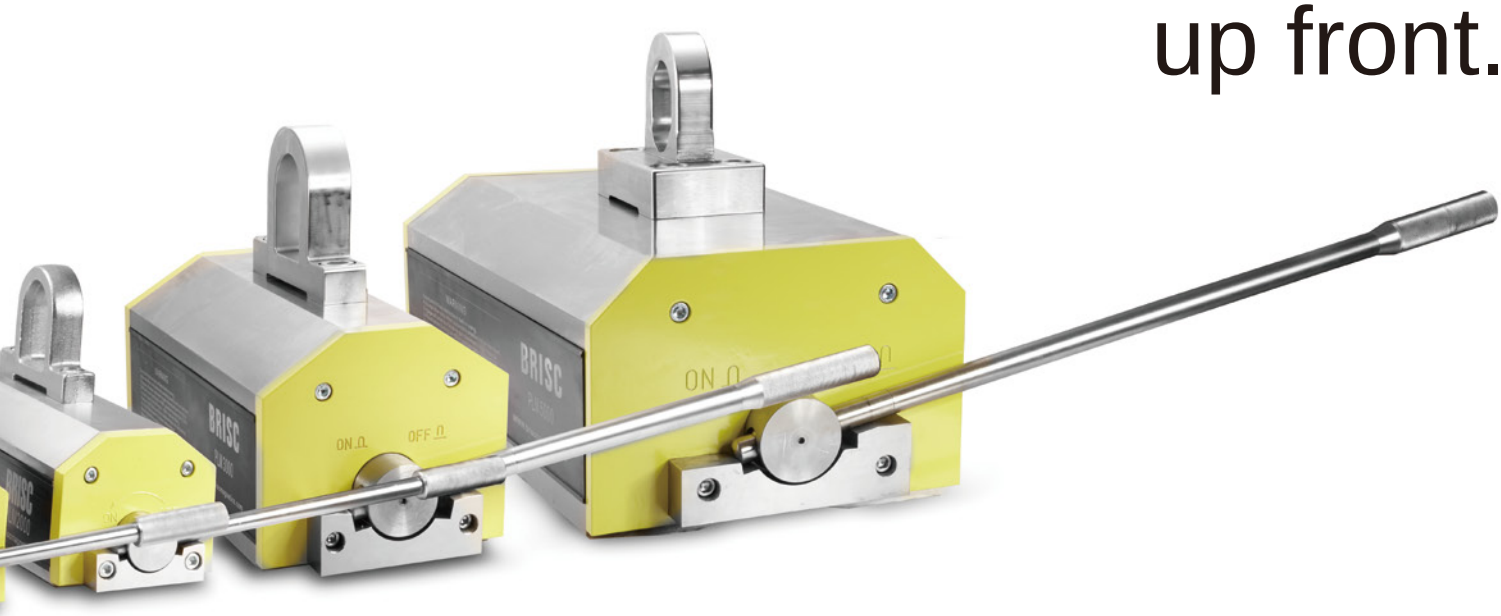
Concentrated power

The Key elements for high power is the complete isolation of the north and south poles through the stator and rotor forcing all potential magnetic lines of flux through the part only with none being diverted through the frame of the lifter before reaching the part itself. This insures the customer gets all the power they paid for, where they need it, when they need it, for years to come. This design allows for the highest power to weight ratio in the industry.

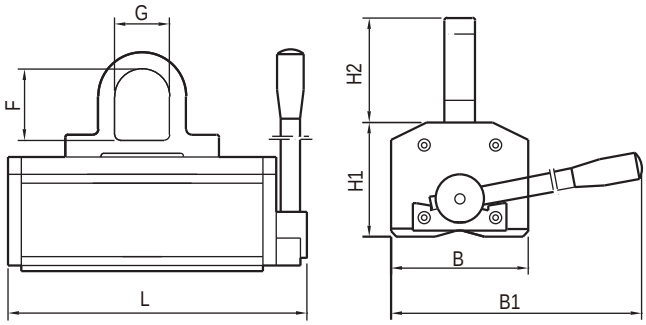
A revolutionary design

The PLM series lifting magnet is an innovative design as a result of many successful lifting systems from Soph. in the development of application specific solutions in the permanent magnet lifting field.

SAFETY and SIMPLICTY up front.



Specifications



Features:

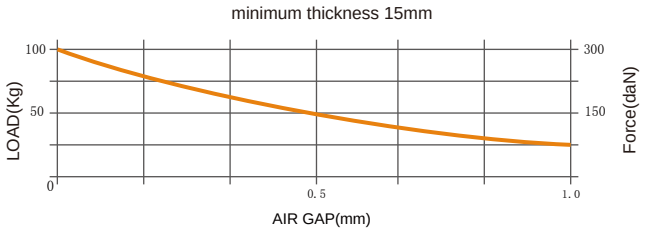
- high power to weight ratio
- compact and light
- at least 3 safety factor
- suitable for flat and round material
- maintenance free design
- safety device prevent accidental deactivation
- can be switched off by one hand only

Model	Size	Safe Working Load	Width	Length	H1	H2	B1	F	G	Net Weight
PLM	100	100 kg/220 lb	70 (2.76)	130 (5.12)	60 (2.36)	53 (2.09)	176 (6.93)	35 (1.38)	28 (1.10)	3.5 kg/8 lb
PLM	300	300 kg/660 lb	95 (3.74)	205 (8.07)	83 (3.27)	70 (2.76)	220 (8.66)	47 (1.85)	40 (1.57)	10 kg/22 lb
PLM	600	600 kg/1320 lb	125 (4.92)	272 (10.71)	104 (4.09)	95 (3.74)	296 (11.65)	64 (2.52)	50 (1.97)	23 kg/51 lb
PLM	1000	1000 kg/2200 lb	160 (6.30)	318 (12.52)	140 (5.51)	95 (3.74)	410 (16.14)	64 (2.52)	50 (1.97)	44 kg/97 lb
PLM	2000	2000 kg/4400 lb	160 (6.30)	496 (19.53)	140 (5.51)	120 (4.72)	508 (20.00)	80 (3.15)	60 (2.36)	72 kg/158 lb
PLM	3000	3000 kg/6600 lb	230 (9.06)	510 (20.08)	212 (8.35)	155 (6.10)	600 (23.62)	100 (3.94)	70 (2.76)	160 kg/352 lb
PLM	5000	5000 kg/11000 lb	360 (14.17)	725 (28.54)	261 (10.28)	180 (7.09)	980 (38.58)	100 (3.94)	70 (2.76)	450 kg/990 lb

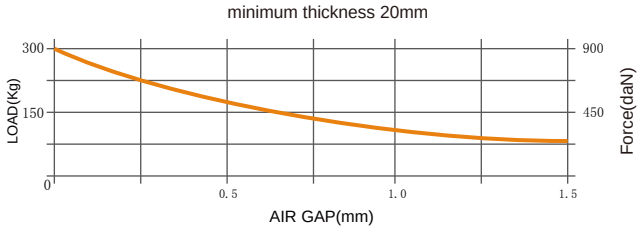
Model	Size	Load Plate Max	Plate Min Thickness	Plate Max Length	Load Round Max	Round Min Thickness	Round Max Diameter
PLM	100	100 kg/220 lb	15 (0.59)	1000 (39.37)	40 kg/88 lb	8 (0.31)	150 (5.9)
PLM	300	300 kg/660 lb	20 (0.79)	1500 (59.06)	120 kg/264 lb	12 (0.47)	180 (7.09)
PLM	600	600 kg/1320 lb	25 (0.98)	2000 (78.74)	240 kg/528 lb	20 (0.79)	250 (9.84)
PLM	1000	1000 kg/2200 lb	40 (1.57)	3000 (118.11)	400 kg/880 lb	25 (0.98)	280 (11.02)
PLM	2000	2000 kg/4400 lb	55 (2.17)	3000 (118.11)	800 kg/1760 lb	35 (1.38)	350 (13.78)
PLM	3000	3000 kg/6600 lb	70 (2.76)	3500 (137.8)	1200 kg/2640 lb	45 (1.77)	400 (15.75)
PLM	5000	5000 kg/11000 lb	85 (3.35)	4000 (157.48)	2000 kg/4400 lb	55 (2.17)	450 (17.7)

Functional parameters

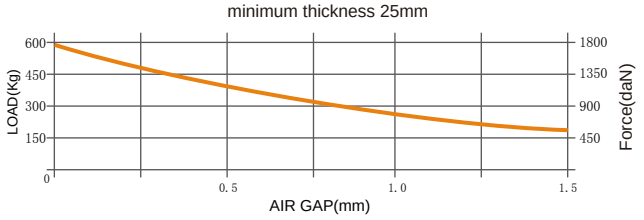
PLM100



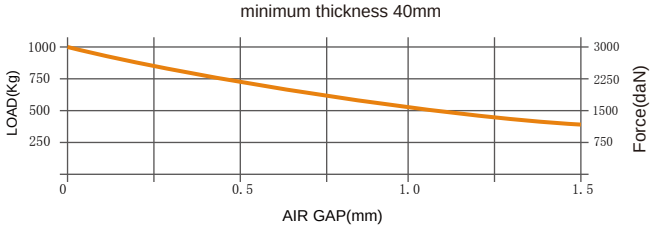
PLM300



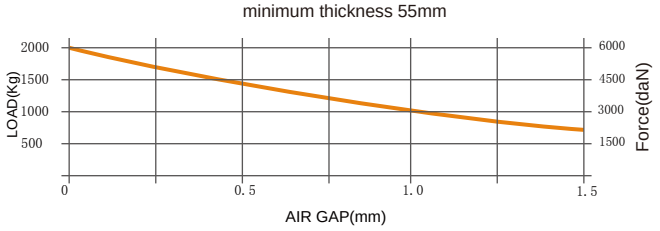
PLM600



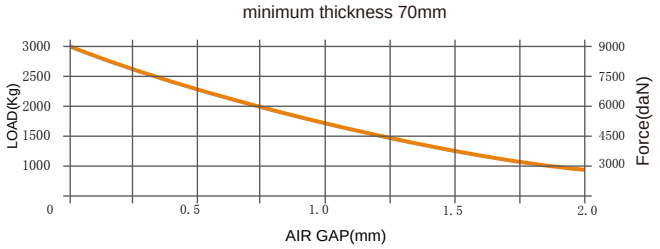
PLM1000



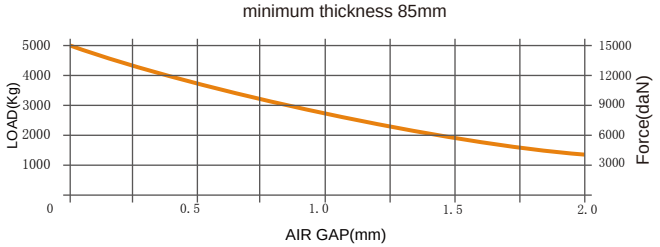
PLM2000



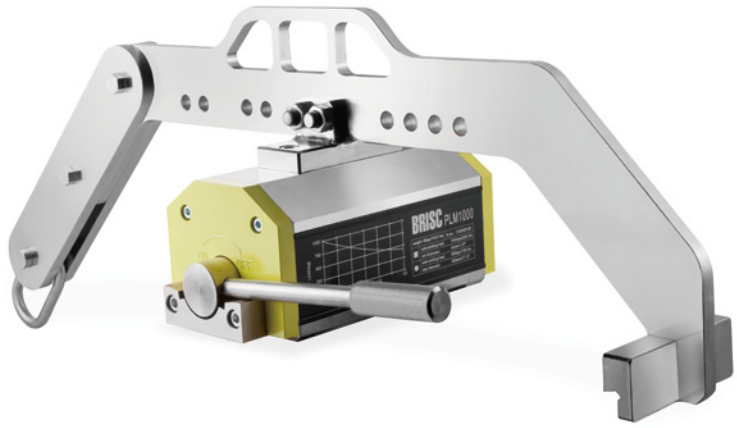
PLM3000



PLM5000

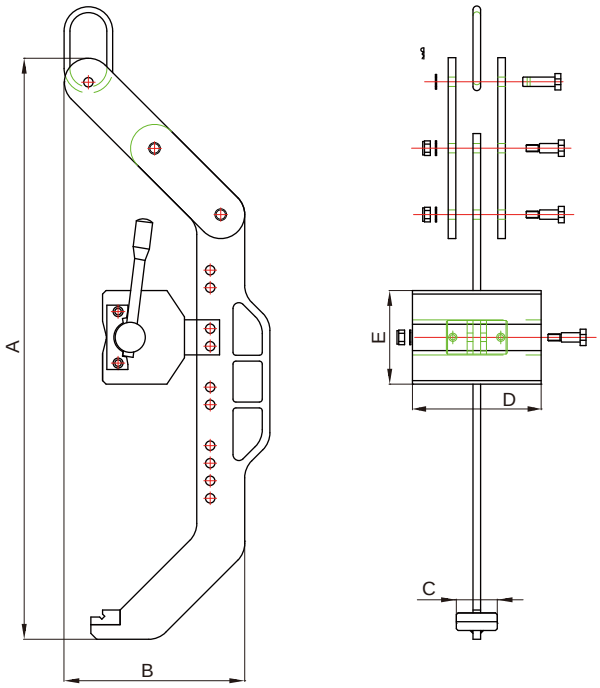


PLM Vertical System



MVS
PLM Vertical System

MVS system is designed to rotate flat plates from horizontal to vertical and back. This allows for easy loading of horizontal spindle machines.
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.
MVS is easily adaptable to workpieces of different sizes, changing the position of locking pins.
MVS is available for PLM 300/600/1000.



Dimensions and Weights

Model	MVS 300	MVS 600	MVS 1000
A (mm)	695	892	995
B (mm)	250	320	352
C (mm)	110	140	140
D (mm)	100	160	252
Weight (kg)	20	41	63

Technical Characteristics

Model	MVS 300	MVS 600	MVS 1000
Load Max (kg)	210	420	700
Max length plate (mm)	800	1000	1000
Max height plate (mm)	550	700	800

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

PLM Fixed Beam

MFB
PLM Fixed Beam

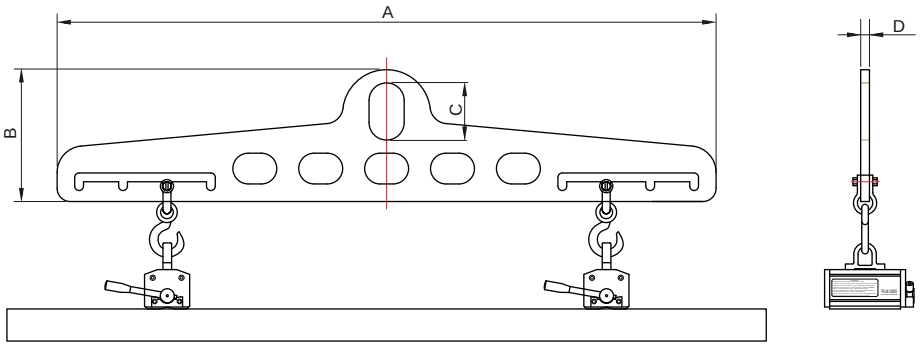
The MFB spreader beam allows for the mounting of 2 PLM lifters increasing the load handling characteristics without complicating the overall simplicity of the process.

MFB 500 handles loads up to 500 kgs and 3000mm while MFB 2000 handles loads up to 2000kg and 5000mm in length.

Dimensions and Weights (mm)

MFB 500	
A (mm)	1500
B (mm)	300
C (mm)	130
D (mm)	15
Weight (kg)	34

MFB 2000	
A (mm)	1900
B (mm)	415
C (mm)	160
D (mm)	20
Weight (kg)	75



Technical Characteristics / load capacity

MFB 500

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

MFB 2000

	Plates			Rounds	
in combination with:	Load	Max Length	Max Width	Load	Max Length
	(kg)	(mm)	(mm)	(kg)	(mm)
2 x PLM-600	960	3000	1500	480	3000
2 x PLM-1000	1600	3000	1500	750	3000

BRISC

ZIBTR d.o.o.

Tel.: 01 896 22 80
Fax: 01 896 22 82
Splet: www.zibtr.com
E-pošta: zibtr@siol.net