

IXTUR PNEUMATIC MAGNETS

Magnet	Nominal lifting capacity with safety factor 3	Required plate thickness for nominal lifting capacity	Optimized for round loads	Suitable load diameter	Nominal lifting capacity with round cylinder with safety factor 3	Required diameter for nominal lifting capacity	Max. residual gripping capacity (magnet OFF)	Size ø x H or L x W x H	Weight
MAP-6	6 kg	t > 4 mm	-	-	-	-	0.03 kg	ø 35 x 35 mm	0.19 kg
MAP-40	40 kg	t > 8 mm	-	-	-	-	0.2 kg	ø 65 x 50 mm	0.95 kg
MAP-180	180 kg	t > 25 mm	-	-	-	-	6 kg	ø 120 x 82 mm	5.80 kg
MAP-120R	120 kg	t > 25 mm	X	ø > 0 mm	70 kg	ø > 200 mm	6 kg	ø 120 x 82 mm	5.80 kg
MRP-46	46 kg	t > 12 mm	X	ø > 20 mm	30 kg	ø > 120 mm	4 kg	80 x 55 x 82.5 mm	1.80 kg
MRP-170	170 kg	t > 25 mm	X	ø > 25 mm	120 kg	ø > 120 mm	30 kg	120 x 103 x 140 mm	10.7 kg
MRP-130F	130 kg	t > 25 mm	-	-	-	-	40 kg	120 x 103 x 120 mm	9.5 kg

Gripping capacity versus material thickness and airgap

Magnet	Nominal gripping capacity	Required plate thickness for nominal gripping capacity	Gripping capacity with plate thickness of:			Gripping capacity with flat and thick plate and an airgap of:		
			2 mm	4 mm	8 mm	0.1 mm	0.2 mm	0.4 mm
MAP-6	18 kg	t > 4 mm	11 kg	18 kg	18 kg	8.1 kg	4.5 kg	2.2 kg
MAP-40	120 kg	t > 8 mm	22 kg	57 kg	120 kg	79 kg	58 kg	34 kg
MAP-180	540 kg	t > 25 mm	26 kg	80 kg	224 kg	360 kg	270 kg	167 kg
MAP-120R	360 kg	t > 25 mm	19 kg	60 kg	175 kg	310 kg	270 kg	200 kg
MRP-46	138 kg	t > 12 mm	36 kg	91 kg	122 kg	100 kg	72 kg	36 kg
MRP-170	510 kg	t > 25 mm	47 kg	147 kg	400 kg	460 kg	410 kg	300 kg
MRP-130F	390 kg*	t > 25 mm	40 kg	119 kg	300 kg	348 kg	308 kg	263 kg

* MRP-130F may require air pressure up to 6 bars, when the load is thick and it covers most of the gripping surface.

Definition of the terms

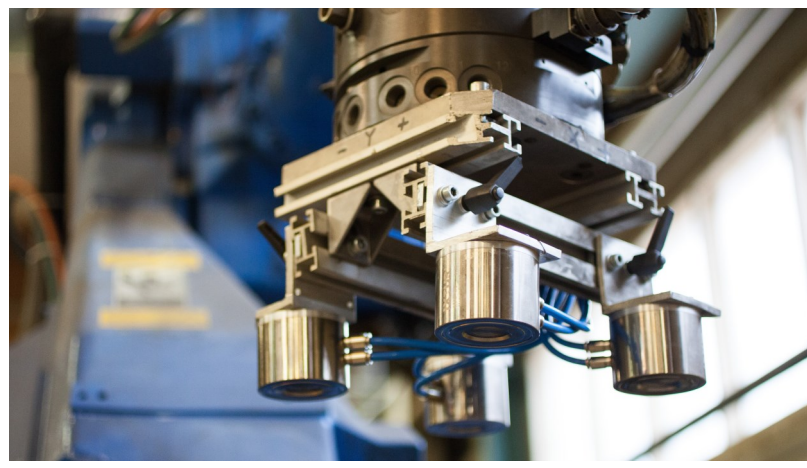
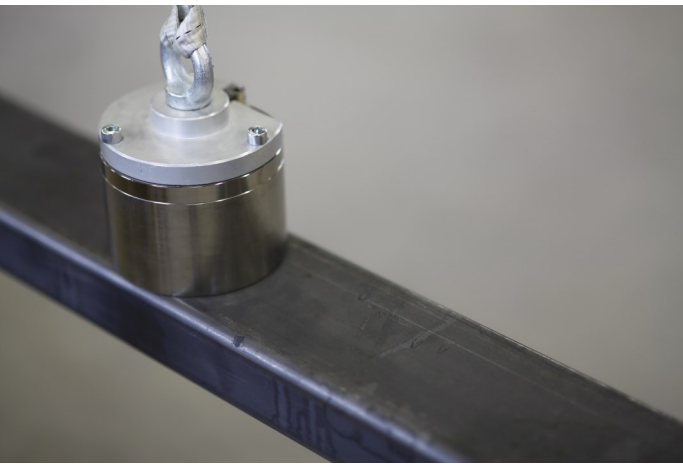
Nominal gripping capacity is the maximum mass the magnet can lift. To reach the nominal gripping capacity, the load must be thick enough, there is no airgap and the material is mild steel S355.

Nominal lifting capacity is the maximum mass the magnet can lift with a safety factor of 3. The nominal lifting capacity is one third of the nominal gripping capacity.

Airgap refers to any non-magnetic material between the magnet's gripping surface and the handled part. Airgap can be caused by e.g. paint, dirt, rust or plastic coating.

Residual gripping capacity, i.e. the gripping capacity when the magnet is OFF, varies based on the material and structure of the gripped part. The residual capacity is greatest as long as the part continuously stays in contact with the magnet after the magnet has been turned from ON to OFF. With most of the load shapes, the gripping capacity is only a fraction of the number given in the table above.

Company • Ixtur Ltd. is a Finnish magnet technology company established in 2010. Ixtur develops and manufactures permanent magnet based lifters, grippers and customer applications for machinery, welding, automation, robotics and material handling. Ixtur is focused on energy-efficient magnet components and applications.

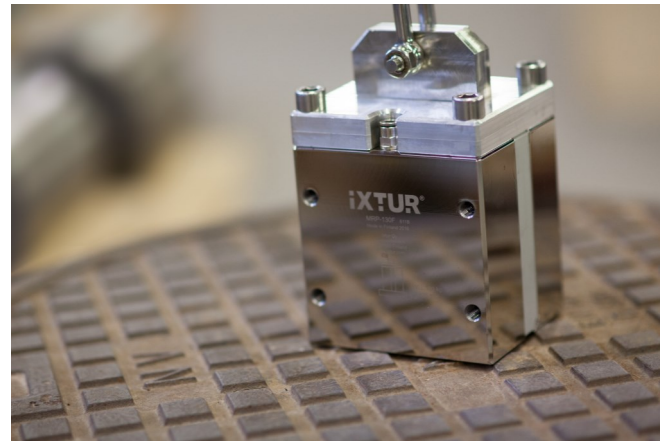


MAP-6, MAP-40 and MAP-180 magnets are especially designed for flat parts that fully cover the magnet's gripping surface. The magnets can also be used with narrow loads and perforated materials, but the gripping force is lower.

Ixtur pneumatic magnets suit for various applications: lifters, robot grippers, fixtures and production automation.



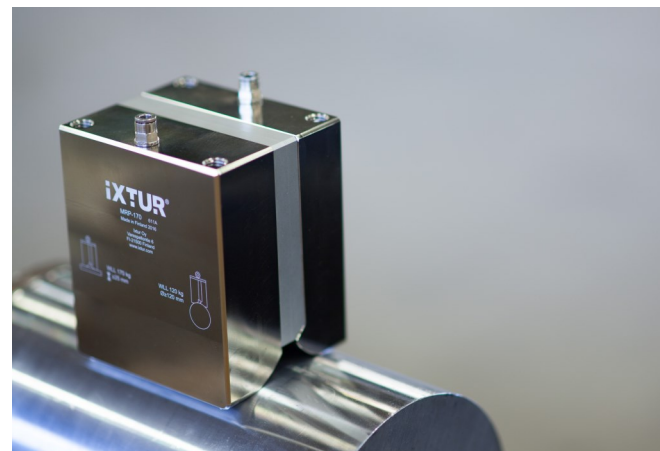
MAP-120R and MRP-130F magnets' gripping surfaces are optimized for parts that do not fully cover the whole gripping surfaces of the magnets.



MRP-46 and MRP-170 magnets are suitable for gripping round and flat parts, as well as irregularly shaped objects.

Videos of Ixtur magnets can be found from our YouTube channel. Please click the link [Ixtur Magnets](#) or scan the QR code above with your smartphone to access the channel.

More information and brochures: www.ixtur.com



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