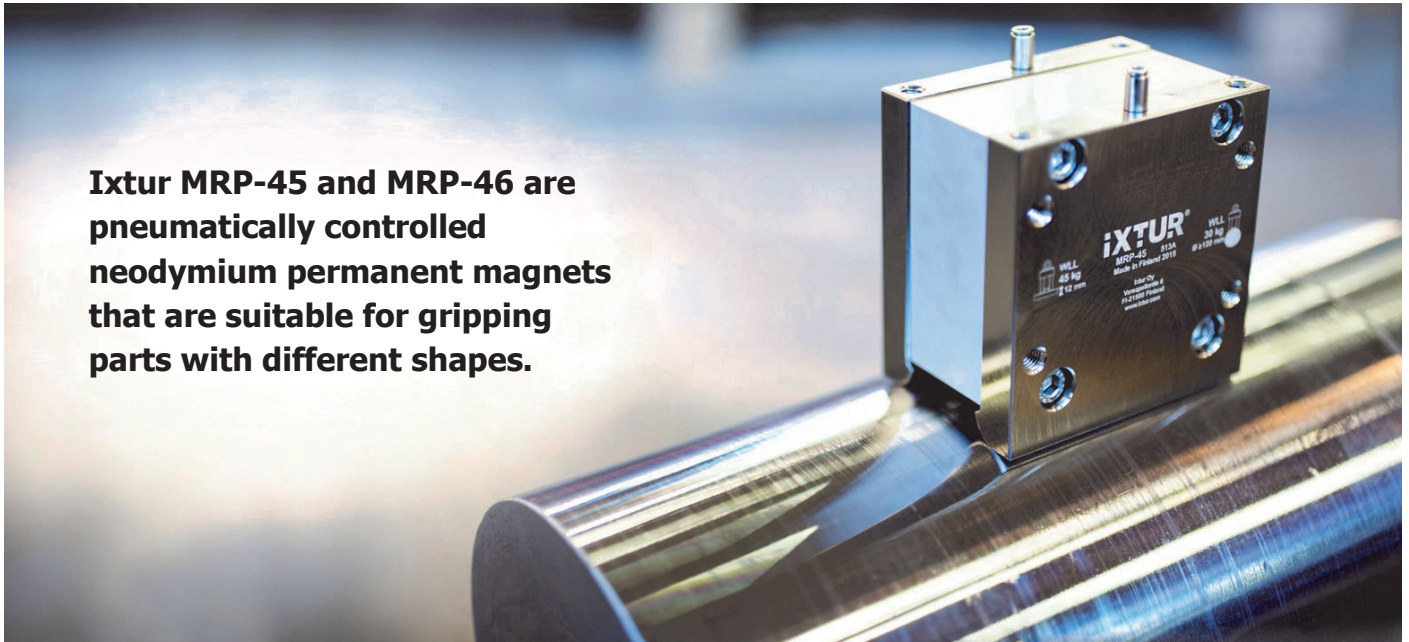


MRP-45 & MRP-46

Pneumatic magnets

03/2016

Ixtur MRP-45 and MRP-46 are pneumatically controlled neodymium permanent magnets that are suitable for gripping parts with different shapes.



TECHNICAL SPECIFICATIONS

Lifting capacity WLL [kg]	Gripping capacity [kg] [N]		Residual capacity, max. [kg]	Dimensions L x W x H [mm]	Weight [kg]	Operating temperature [°C]	Air pressure: functional range [bar]	Pneumatic hose outer diameter [mm]	Minimum cycle time [s]
Flat: 45*	135*	1324*	1.20	80 x 55 x 80/82,5	1.80	0 ... 50	5 ... 8	2 x 4.0	< 1
Round: 30**	90**	883**	***						

* plate thickness ≥ 12 mm

** cylinder diameter ≥ 120 mm

*** see 'Residual gripping capacity' on the next page

The lifting capacities (WLL) are determined with a safety factor of 3.

Requirements for compressed air: Water separation, particle filter ≤ 5 μ m, air lubrication.

The magnets do not change their magnetic state in case of loss of compressed air.

The compact size combined with the strong gripping force provides high versatility. Ixtur MRP magnets are maintenance-free and have a short cycle time, allowing high production speed and efficient automation.

MRP magnets are suitable for flat and round parts, and for steel and cast iron. Ixtur magnets can handle solid and perforated material and they can be used in any orientation needed, so it's possible to handle objects with various shapes and angles.



Gripping force can be increased by installing multiple MRP magnets together.

The magnet can be used in various applications: lifters, robot grippers, fixtures, production automation, etc.

The minimum load diameter is 50 mm for MRP-45 and 20 mm for MRP-46.

More information: www.ixtur.com

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.

ixTUR®

MRP-45 & MRP-46

Pneumatic magnets

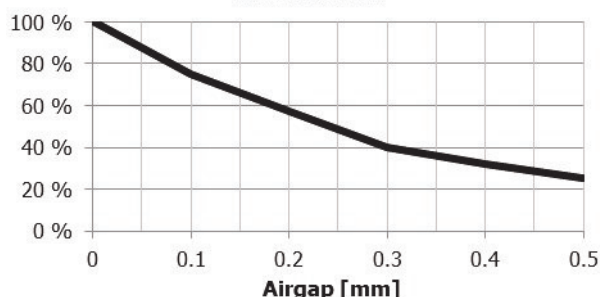
Gripping capacity vs. material thickness and airgap

The nominal gripping capacities can be obtained with the material thicknesses stated in the technical specifications table. The magnets can be used also with thinner materials, but the gripping capacity will be lower, as shown in the graphs on this page. The given gripping capacities are valid for mild steel (S355).

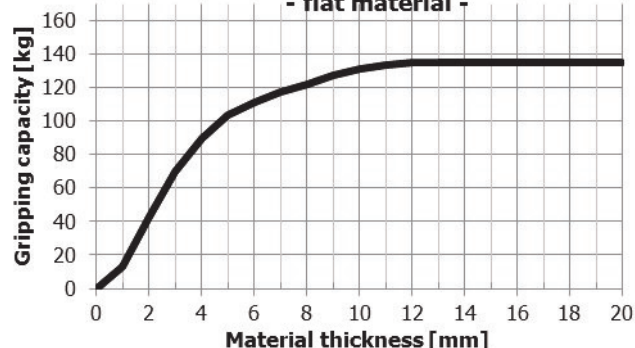
Residual gripping capacity

The residual gripping capacity, i.e. the gripping capacity when the magnet is OFF, varies based on the material and structure of the gripped part. In extreme cases, parts up to 4 kg may stay attached. 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. If the amount of residual capacity is critical to the application, pretesting with the actual part is recommended.

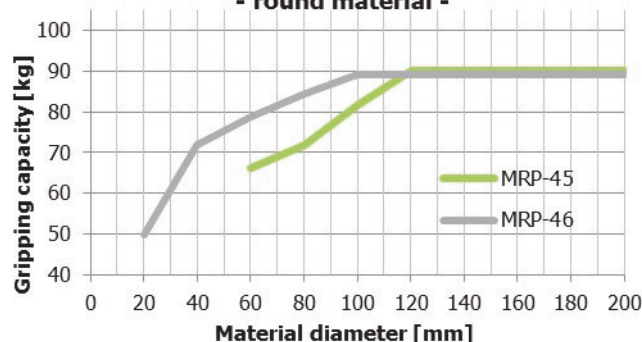
Gripping capacity vs. airgap
- flat material -



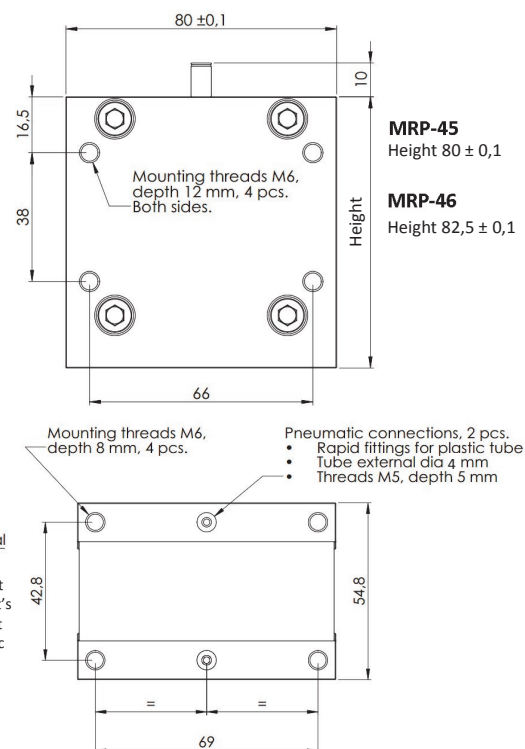
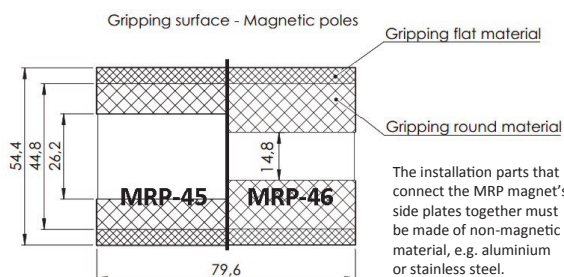
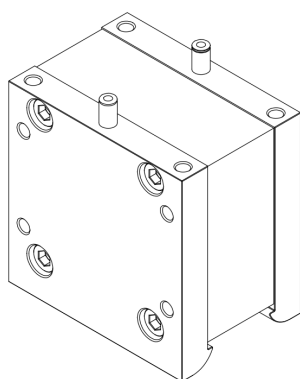
Gripping capacity vs. material thickness
- flat material -



Gripping capacity vs. material diameter
- round material -



MRP-45 & MRP-46 technical drawings (all dimensions are in millimetres)



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