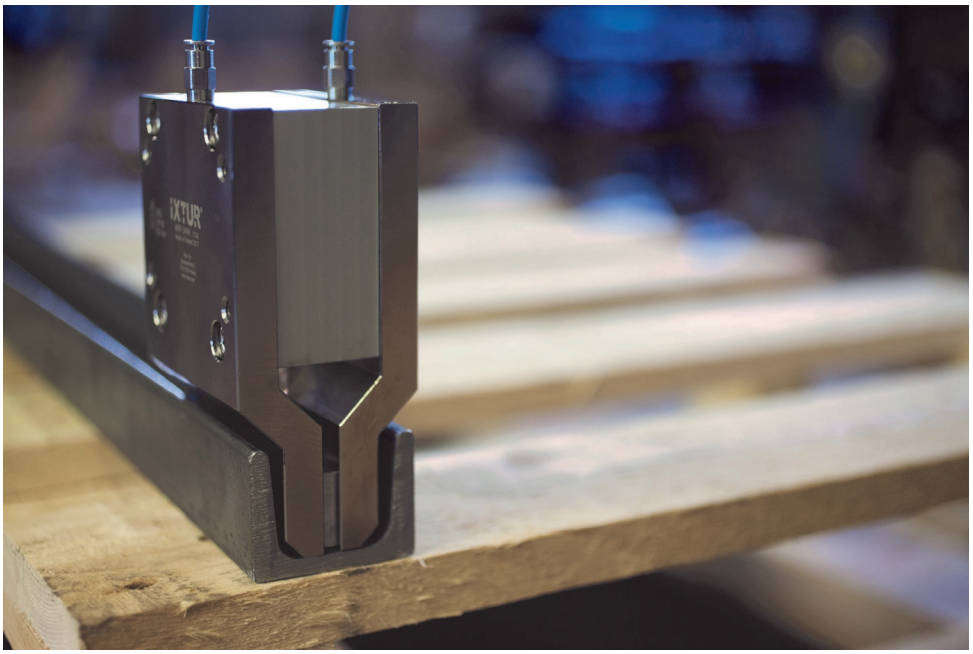
MRP-28NK

Pneumatic magnet

06/2017



Ixtur MRP-28NK is a pneumatically controlled neodymium permanent magnet that is suitable for gripping parts with different shapes and various sizes.

The narrow gripping area combined with the low residual gripping capacity provides high versatility. Ixtur magnets are maintenance-free and have a short cycle time, allowing efficient automation and high production speed.

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: 28*	84*	820*	0.3	80 x 55 x 126	2.6	0 … 50	5 … 8	2 x 4.0	< 1
Round: 12**	36**	350**	***						

* plate thickness ≥ 12 mm
** cylinder diameter 60 mm
*** see paragraph 'Residual gripping capacity'

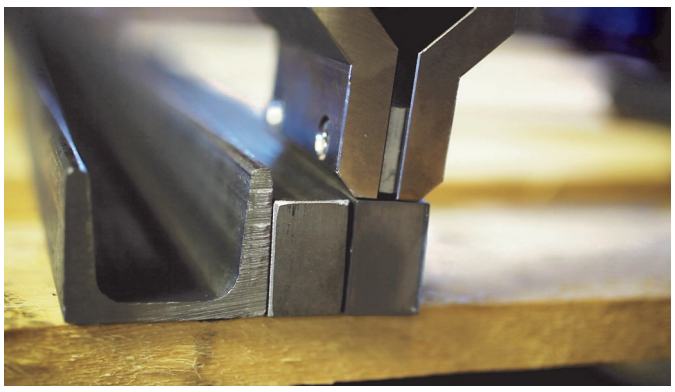
The lifting capacities (WLL) are determined with a safety factor of 3.

Requirements for compressed air: Water separation, particle filter ≤ 5 µm

Ixtur MRP-28NK magnets are suitable for flat and round parts, and for steel and cast iron. The magnets can grip 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.

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 1.0 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, pre-testing with the actual part is recommended.



The magnet does not change its magnetic state in case of loss of compressed air.

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

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.*

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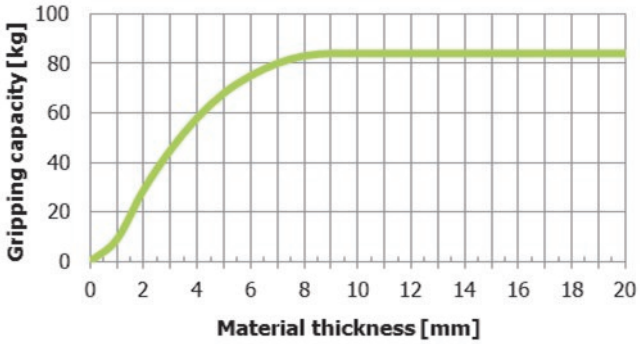
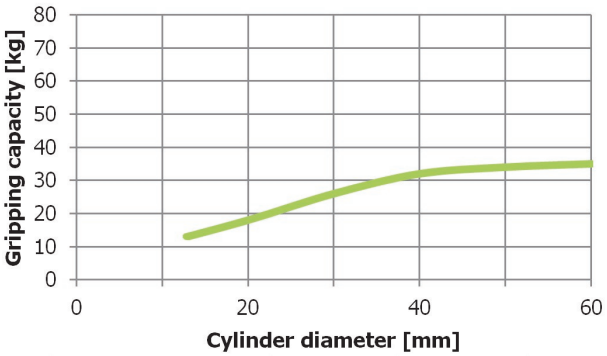
Gripping capacity vs. material thickness and airgap

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).

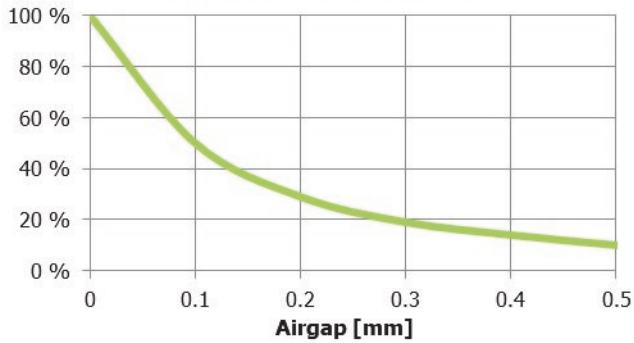
Gripping capacity vs. material thickness



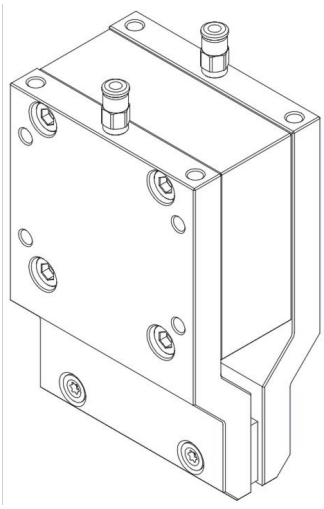
Gripping capacity vs. diameter

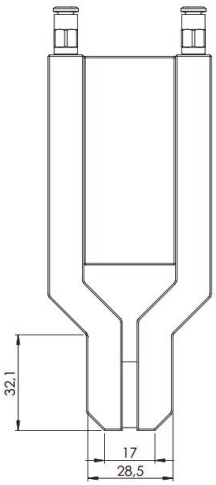


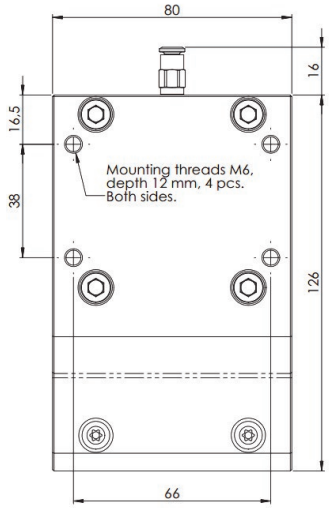
Gripping capacity vs. airgap

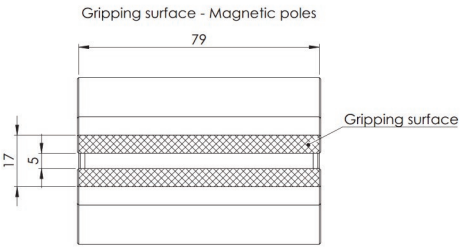


MRP-28NK technical drawings (all dimensions are in millimetres)

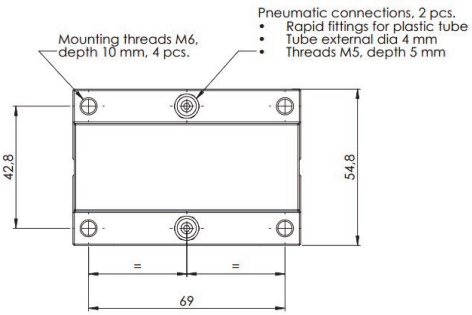








The installation parts that connect the MRP magnet's side plates together must be made of non-magnetic material, e.g. aluminium or stainless steel.



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