

MAP-6, MAP-30 & MAP-40

Pneumatic magnets

03/2016



Ixtur MAP magnets are pneumatically controlled neodymium permanent magnets, which have excellent size to gripping capacity ratio and extremely low residual gripping force.

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

The compact size combined with high gripping force provides high versatility. MAP series magnets are maintenance-free and have short cycle time, allowing high production speed and efficient automation.

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

TECHNICAL SPECIFICATIONS

Model	Lifting capacity WLL [kg]	Gripping capacity [kg] [N]		Residual capacity, max. [kg]	Weight [kg]	Dimensions Ø x H [mm]	Pneumatic hose outer dia. [mm]	Operating temperature [°C]	Air pressure: functional range [bar]	Minimum cycle time [s]
MAP-6	6*	18*	177*	0.03	0.19	35 x 35	2 x 4.0	0 ... 50	5 ... 8	< 1
MAP-30	30**	90**	883**	0.15	0.87	65 x 50	2 x 6.0			
MAP-40	40**	120**	1177**	0.20	0.95					

* plate thickness ≥ 4 mm

** plate thickness ≥ 8 mm

Lifting capacity is determined with a safety factor of 3.

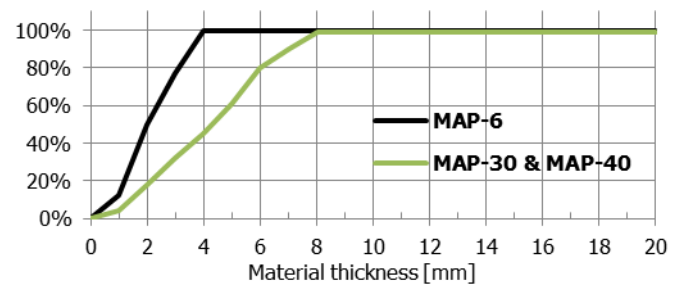
Ixtur magnets can handle perforated material and they can be used in any orientation needed, so it's possible to handle objects with various shapes and angles.

The nominal gripping capacities can be obtained with the material thicknesses stated above. The magnets can be used with thinner materials, please see the graphs on the right for gripping capacities for different material thicknesses. The given gripping capacities are valid for mild steel (S355). MAP-40 is optimized for applications with airgap or rough surfaces, e.g. cast iron.

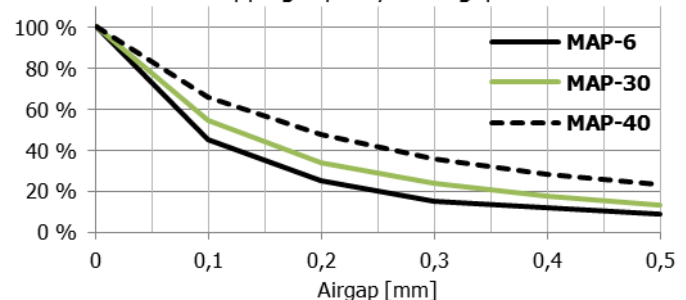
Requirements for compressed air: Water separation, particle filter $\leq 5 \mu\text{m}$, air lubrication.

More information: www.ixtur.com

Gripping capacity vs. material thickness



Gripping capacity vs. airgap



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

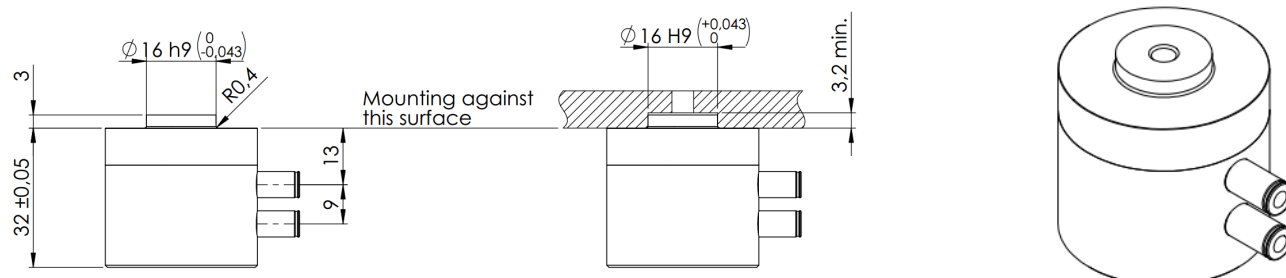
ixTUR®

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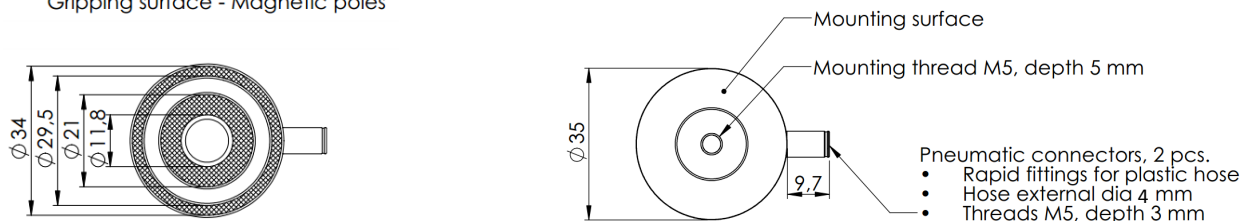
Pneumatic magnets

MAP-6 technical drawings (all dimensions are in millimetres)

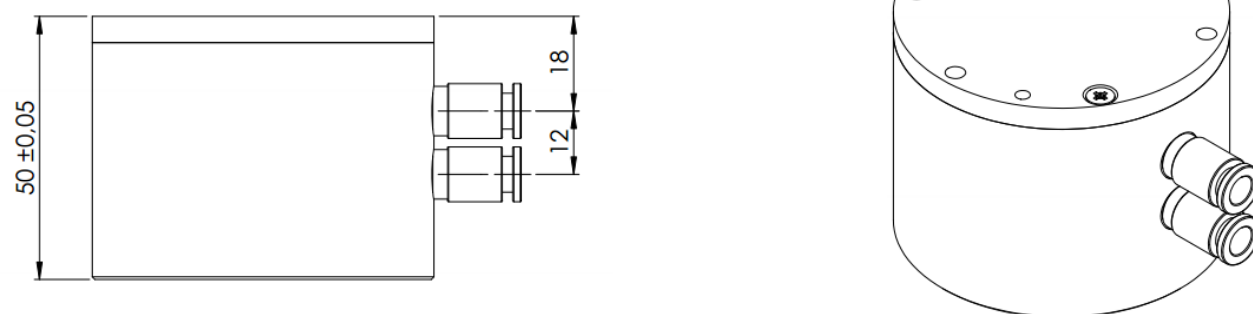
Recommended mounting dimensions for adapter



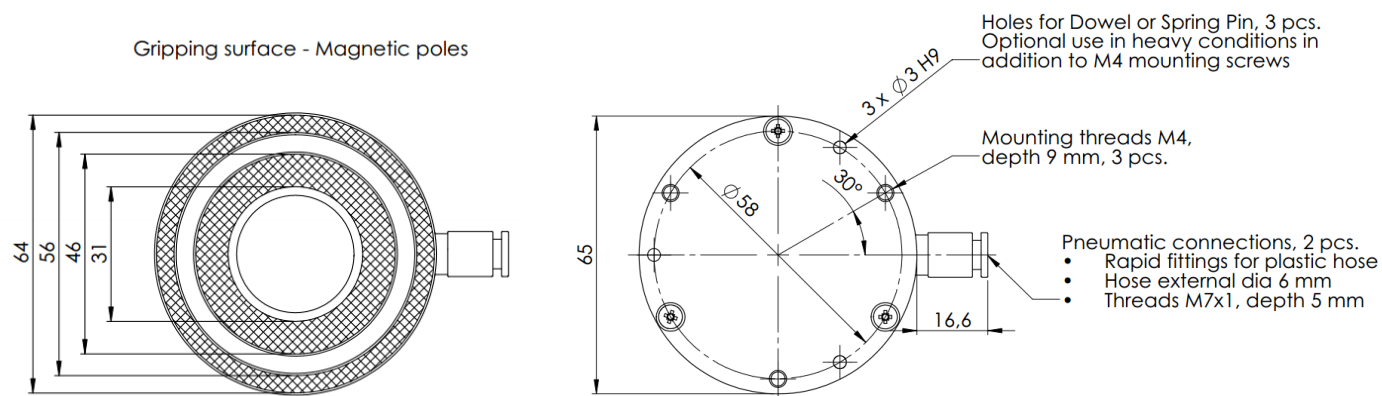
Gripping surface - Magnetic poles



MAP-30 & MAP-40 technical drawings (all dimensions are in millimetres)



Gripping surface - Magnetic poles



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