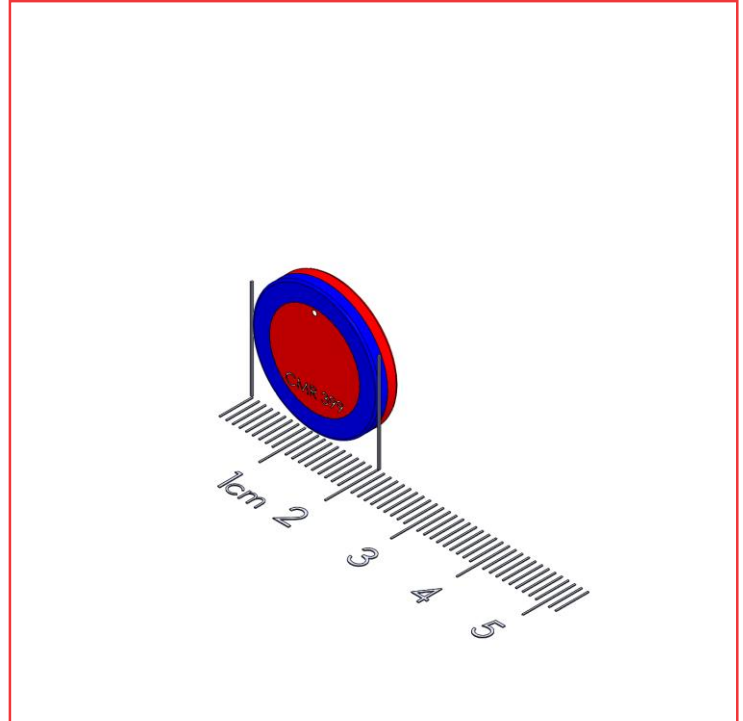


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1000399

Attach Polymagnets are designed to have maximum attachment force in both magnet-to-magnet and magnet-to-metal applications. These magnets exhibit increased attachment force when compared with their conventional counterparts. Attach Polymagnets' magnetic fields are concentrated close to the surface resulting in higher peak forces and a steeper force vs. distance curve; this allows the behavior of magnetic systems to be tightly controlled.



Features and Benefits

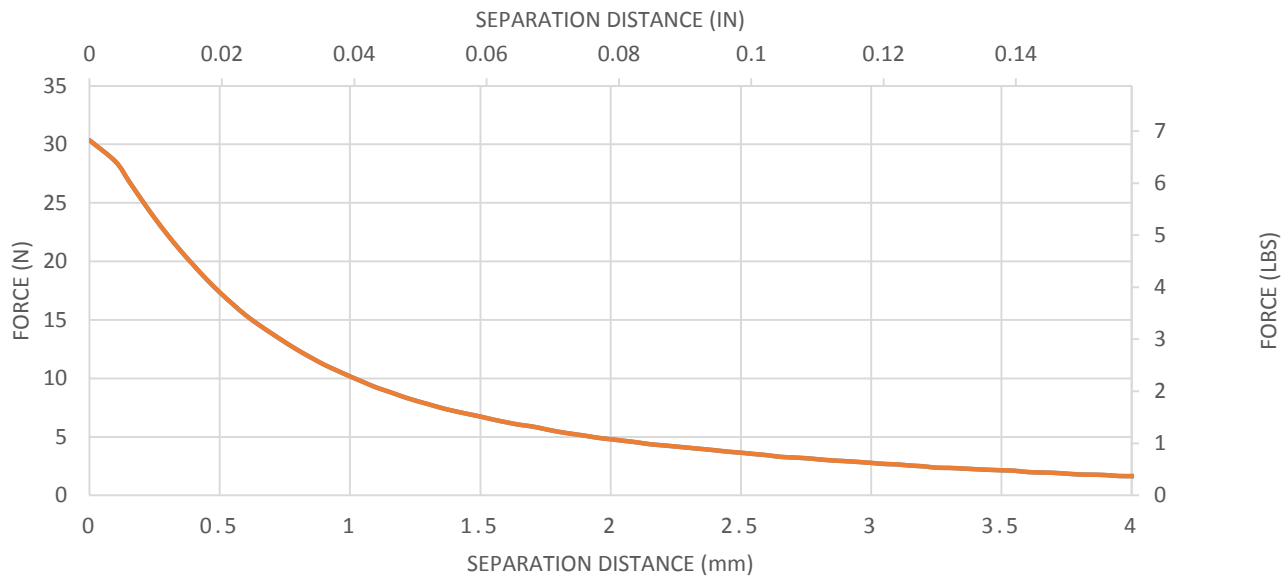
- Magnet-To-Magnet, Magnet-To-Metal, Self-Aligning
- Shear Resistance: Radial
- Pairs With: SELF

Technical Specifications:

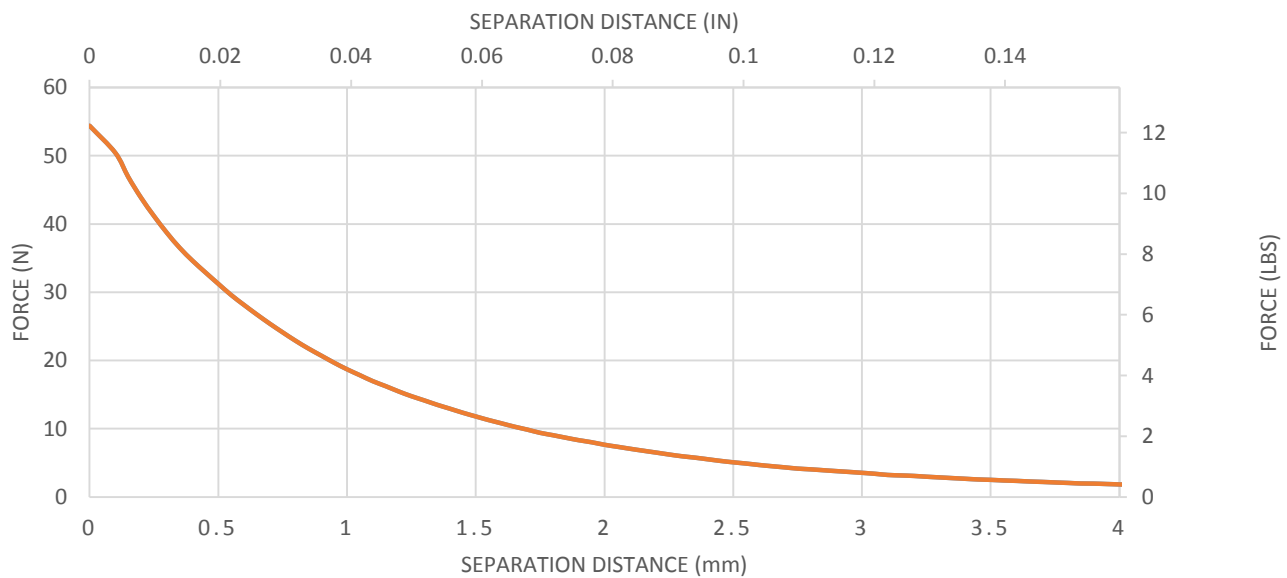
Dimensions:	0.75 OD x 0.125 in (19.05 OD x 3.175 mm)
Weight:	0.2 oz (6.8 g)
Material:	NdFeB
Magnet Grade:	N40
Coating:	Ni-Cu-Ni
Temperature Rating:	176 ° F (80 ° C)

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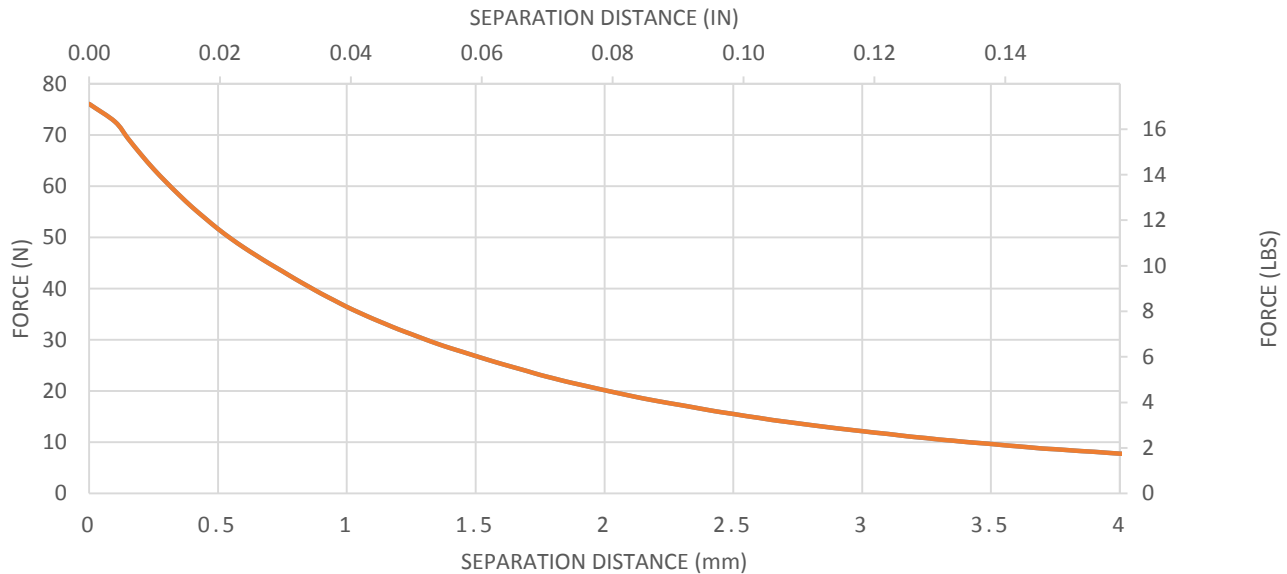
HOLDING FORCE VS SEPARATION DISTANCE MAGNET TO 0.010" (0.25mm) STEEL



HOLDING FORCE VS SEPARATION DISTANCE MAGNET TO 0.031" (0.79mm) STEEL



HOLDING FORCE VS SEPARATION DISTANCE MAGNET TO MAGNET



Steel Thickness	Contact	0.02in (0.5mm)	0.04in (1.0mm)	0.06in (1.5mm)	0.08in (2.0mm)	0.10in (2.5mm)	0.12in (3.0mm)
0.010in (0.254mm)	30.4N (6.8LBF)	17.4N (3.9LBF)	10.2N (2.3LBF)	6.7N (1.5LBF)	4.8N (1.1LBF)	3.7N (0.8LBF)	2.8N (0.6LBF)
0.031in (0.7874mm)	54.4N (12.2LBF)	31.2N (7.0LBF)	18.7N (4.2LBF)	11.8N (2.7LBF)	7.7N (1.7LBF)	5.1N (1.1LBF)	3.5N (0.8LBF)
Magnet to Magnet	76.1N (17.1LBF)	51.7N (11.6LBF)	36.5N (8.2LBF)	26.9N (6.0LBF)	20.2N (4.5LBF)	15.5N (3.5LBF)	12.2N (2.7LBF)

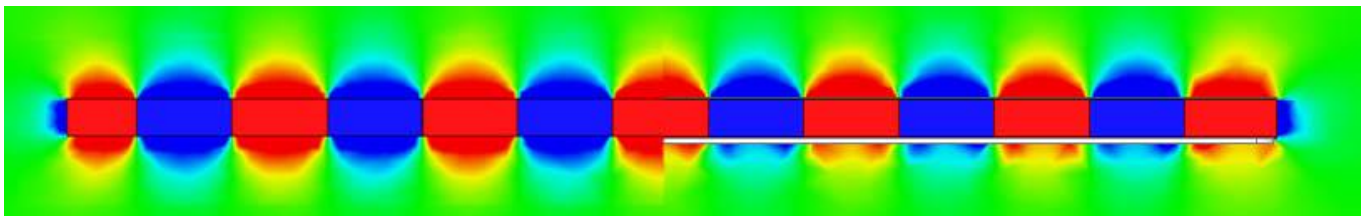
This Polymagnet provides very strong attachment force to steel or its mating Polymagnet over the magnet's effective range compared to conventional magnets. The magnet is suitable for use with a metal target or another 1000399. The holding strength for these Polymagnets can be enhanced in many applications by using a thin steel shunt directly against the back of the Polymagnet, and this shunt will also help limit stray fields from the shunt side of the magnet.

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* The image below shows the magnetic field differences between a Polymagnet without a shunt and a Polymagnet with a shunt. This image refers to Polymagnet 1000325.

Polymagnet with no shunt

Polymagnet with shunt



Notes on Performance Data

The performance information provided in this data sheet is derived from test or simulation results of directly comparable magnets of the same size and grade under consistent conditions. The magnets are tested under controlled environmental conditions. Unconstrained application testing may give lower forces due to the magnet tilting or shifting away from target during engagement and disengagement. Magnetic performance may vary by up to 7%, the values presented here are based on nominal magnetic properties

Patent Information

Pat. www.cmrpatents.com

