

Cobot MagBase 10 | P/N: 81001289

Summary

Intended for use with collaborative robotic arms, the Cobot Magnet Base firmly fixtures 10 kg payload collaborative robots on ferrous materials with a twist of the wrist. Magswitch pivoting arrays can be anchored to flat and cylindrical surfaces and feature a wide footprint to reduce the risk of peel when the end effector is at its greatest radius. The array pivot points contain electrically isolating bushings and washers to ensure welding and static transient voltages on the part/substrate are decoupled from the robot ground. Refer to the dimensional drawing below for the default mounting pattern. Custom patterns can be incorporated upon request.



Specifications

Nominal Maximum Breakaway Force ^{1,2,4}	4960 lb	2250 kg
Nominal Maximum Shear ^{1,2,4}	1088 lb	494 kg
Full Saturation Thickness	0.5 in	12.7 mm
Net Weight	66 lb	30 kg
Individual Magnetic Pole Footprint	2.8"x11.7"	71mmx296mm
Overall Magnetic Pole Footprint	15.0"x11.7"	381mmx296mm

WARNING!
Do Not Operate Unless In
Contact With Ferrous Target

Custom bolt and dowel patterns can be incorporated into the mounting surface upon request. 1 month lead time applies. Contact Magswitch for more information.

The following is maximum magnetic force "breakaway" data for ONE swiveling magnet array. There are TWO installed on each Cobot Magnet Base. Consult operation manual 1101424 for more information.

Material Thickness - mm (in)	1.5 (0.059)	1.9 (0.075)	2.7 (0.106)	3 (0.118)	3.5 (0.138)	4.76 (0.187)	6.35 (0.250)	9.53 (0.375)	12.7 (0.500)	19.05 (0.750)
Maximum Force ^{1,2,4} - kg (lbs)	161.6 (356)	215.9 (476)	357.1 (787)	371.9 (820)	413.7 (912)	570 (1257)	879.4 (1939)	1044 (2302)	1092 (2407)	1125 (2480)

¹ Determined in laboratory environment on 2" thick SAE1018 Steel with surface roughness 63 micro inches with optimized pole shoes. Many factors contribute to the actual breakaway force and safe working load in each application. Consult a Magswitch Applications Engineer and test the Magswitch in each application before deployment.

² All data applies to unit with flat pole shoes installed.

³ Values may vary by +/- 5%.

⁴ Maximum forces listed above are not safe lifting forces. Designer must take into account safety factor when specifying tool. Magswitch recommends SWL = 5:1 for most applications.

EU Declaration of Conformity

We, Magswitch Technology

Magswitch Technology World Wide Pty. Ltd.

Registered Office: C/- Shop 2B, 14 Short Street, Port Macquarie NSW 2444 Australia

Declare with sole responsibility that the machinery

UR3, UR3e, UR5, UR5e, UR10, UR10e Isolated Robot Magnet Bases or other tool designations containing the "Isolated Robot Magnet Base" description and any accessories for these designations covered by these directives

Fulfils the relevant provisions of the following Union harmonisation legislation/directives:

- 2006/42/EC Machinery Directive
- 2011/65/EU Restriction of Hazardous Substances Directive

Conformity is shown by compliance with the applicable requirements of the following documents:

Ref:	Title	Date
ISO 12100	Safety of machinery - General principles for design - Risk assessment and risk reduction	2010

The Technical Construction File is maintained at:

Magswitch Technology, Inc.
1355 Horizon Ave, Lafayette CO 80026
ph. 303.468.0662 fax 303.951.9918

The authorised representative located within the Community is:

Cengiz Kizilkan
President Automation Sales
Magswitch Technology Europe
Marie-Curie-Str. 2
D-85055 Ingolstadt, Germany

Date of issue: 10/8/2019**Place of issue:** Lafayette, Colorado, United States of America

David C. Long, Magswitch Engineering