

ECLIPSE
MAGNETICS

Permanent Magnets Catalogue



Permanent Magnets



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Permanent Magnets

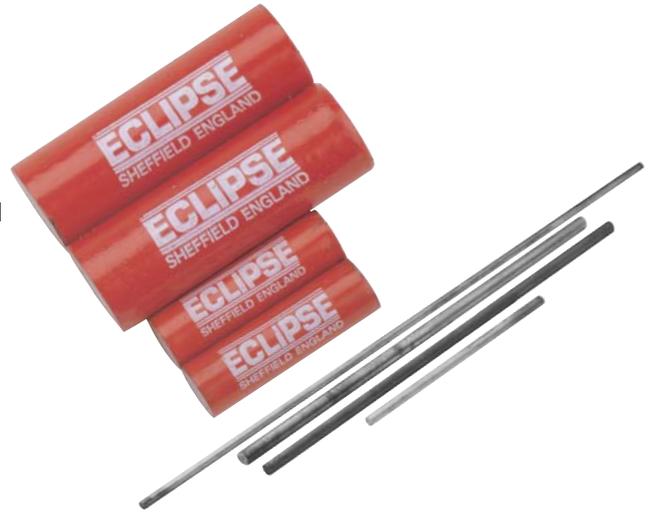
Having first started manufacturing cast metal magnets in 1914, Eclipse Magnetics remains at the forefront in supplying permanent magnets to industry. Eclipse Magnetics are able to offer a wide range of standard shapes in a variety of materials as well as producing magnets to customers own designs. This catalogue shows only our 'Popular Range' permanent magnets. Special bars, blocks, discs, cylinders and rings are covered by our Industrial Magnet literature. Further details are available on request from the address given at the end of this catalogue. Whatever your enquiry, experienced technical personnel are always available to help resolve your magnetic problems.

Cylindrical Bar Magnets

- Cylindrical bars are cast from Alcomax III material
- Each magnet has a high length to cross section ratio
- Traditional bar magnet with North & South Poles at each end
- Cylindrical Bars can be used in temperatures up to 550°C

The magnets have a variety of uses, including:

- Reed switch operation & hall effect sensors
- Magnetic sump plug in motor vehicles
- Used in coin operated machines
- Security, instrumentation, scientific applications
- Used in electrical meters and circuit boards



Product No.	Diameter (mm)	Length (mm)	Weight per pair (Kg)	No. of pairs per pack
E805	6	20	0.02	10
E806	8	25	0.04	5
E807	10	30	0.07	5

NB. Industrial Bar Magnets are available in a wide range of diameters from 3mm to 10mm and up to 200mm in length.

Rectangular Bar Magnets



- E844, E845 and E846 Bar Magnets are cast from Alcomax III. E842 and E843 are cast from Alnico material.
- Rectangular Bar Magnets have magnetic poles at both ends of the bar
- Each magnet has a high length to cross section ratio
- Traditional bar magnet with North & South Poles at each end
- The poles of the magnet are ground
- North pole is indicated by a notch
- Supplied in pairs
- Rectangular Bars can be used in temperatures up to 550°C

The magnets have a variety of uses, including:

- Components for reed switches, relays & hall effect sensors
- Damping applications
- Security, instrumentation, scientific applications
- Oil filters
- Educational use
- Laboratory use

Product No.	Width (mm)	Height (mm)	Length (mm)	Weight per pair (Kg)	No. of pairs per pack
E842	15	10	50	0.22	1
E843	15	10	75	0.33	1

Magnet material: Alnico

Product No.	Width (mm)	Height (mm)	Length (mm)	Weight per pair (Kg)	No. of pairs per pack
E844	10.0	5	20	0.03	5
E845	12.5	5	40	0.04	5
E846	15.0	5	60	0.13	5

Magnet material: Alcomax III

Permanent Magnets

Button Magnets

- Cylindrical magnet with both poles in the same plane
- Button Magnets are cast from Alnico material
- Button Magnets can be used in temperatures up to 550°C
- With fixing holes
- Two magnetic poles
- Supplied with keeper



The magnets have a variety of uses, including:

- Paint Plant Jigs
- Damping applications
- Temperature sensitive devices
- Relay switches

Product No.	Diameter (mm)	Height (mm)	Min-Max. Slot size (mm)	Hole size (mm)	Weight (Kg)	Max. pull (Kg)	Units per pack
E821	12.5	9.5	4.0 - 7.2	4.5	0.006	0.7	10
E822	19.1	12.7	5.6 - 8.7	4.8	0.020	1.9	10
E823	25.4	15.9	5.6 - 8.7	4.8	0.050	3.4	10
E824	31.8	25.4	8.0 - 12.7	7.1	0.113	4.8	5
E825	22.2	19.1	6.4 - 6.4	4.8	0.050	3.0	10

Minor Magnets



- The Minor Magnet is cast from Alnico material
- Ground finished magnetic poles
- Minor Magnets can be used in temperatures up to 550°C

The magnet has a variety of uses, including:

- Educational use
- Domestic/DIY application
- Attracting, holding, clamping & securing steel parts

Product No.	Height (mm)	Width (mm)	Depth (mm)	Weight (Kg)	Max. pull (Kg)	Pole gap (mm)	Units per pack
E801	11.1	22.2	7.9	0.02	0.9	6.4	10

Major Magnets

- The Major Magnet is cast using powerful Alcomax III magnetic material and mild steel
- The poles of the magnet are finished ground
- The large gap design provides the highest practical field strength

The magnet has a variety of uses, including:

- Ideal for magnetising small components like bar magnets
- Suitable for use in wave guidance applications



Product No.	Height (mm)	Width (mm)	Depth (mm)	Weight (Kg)	Pole area (mm)	Pole gap (mm)	Flux density at gap centre (wb/m ²) (Gauss)	Units (per Pack)
862	111	103.5	50	2.9	22.2 x 52.4	27.3	0.210 2000	1

Maximum Pull figures are typical values. These will be achieved with smooth, mild steel, workpieces of adequate thickness where contact faces are intimate and clean

Permanent Magnets

Pocket Magnets



- Magnet designed with both poles in the same plane
- Pocket Magnets are cast from Alnico material
- Traditional 'horseshoe' design
- Supplied with keepers
- Pocket Magnets can be used in temperatures up to 550°C

The magnets have a variety of uses, including:

- Educational use
- Domestic/DIY application
- Testing for ferrous components
ie. Steel/Aluminium can sorting
- Attracting, clamping & securing steel parts

Product No.	Length of Pole Face (mm)	Height (mm)	Width (mm)	Width of Gap (mm)	Weight (Kg)	Maximum Pull (Kg)	Units (per pack)
E802	22.2	25.4	7.9	6.4	0.03	2.4	10
E803	27.0	35.0	15.9	7.9	0.09	4.0	5

Power Magnets

- This powerful square 'horseshoe' type magnet is characterised by its ability to attract materials through wide air gaps
- It has a deep depth of field
- The magnet is supplied with fixing holes
(NB. 817 & 818 - no holes, 814 & 815 - two holes)
- Power Magnets are cast from Alcomax material
- Power Magnets can be used in temperatures up to 550°C
- The magnets are supplied with keepers



The magnets have a variety of uses, including:

- Retrieval applications
- Welding/Soldering fixtures
- Ultrasonic testing
- Crack Detection / Non Destructive Testing
- Attracting, clamping & securing steel parts

Product No.	Length (mm)	Height (mm)	Width (mm)	Width of gap (mm)	Hole size (mm)	Weight (Kg)	Maximum pull (Kg)	Units (per pack)
811	30	20	20	15	4	0.06	4.5	5
812	40	25	25	20	5	0.12	9.0	5
813	45	30	30	23	5	0.18	11.8	1
814	57	35	40.5	27.8	2 x 7.9	0.37	23.5	1
815	70	41.3	57.2	34.1	2 x 7.9	0.71	37.0	1
816	79.4	54	82.6	38.5	2 x 9.5	1.45	47.0	1
817	60.3	40	62	31.75	no holes	0.80	35.0	1
818	79.4	54	85.7	47.6	no holes	1.80	60.0	1

Maximum Pull figures are typical values. These will be achieved with smooth, mild steel, workpieces of adequate thickness where contact faces are intimate and clean

Permanent Magnets

Pot Magnets

- Cylindrical magnets in a mild steel pot with poles in the same plane
- Threaded hole for secure fixing
- Provides superior grip at contact
- Pot Magnets are constructed from Alcomax III (Magnet), Aluminium Ring (Spacer) and Mild Steel (Pot)
- Pot Magnets can be used in temperatures up to 220°C
- Pot Magnets have an insulated magnetic circuit, preventing flux leakage when fitted into jigs and fixtures
- Supplied with keeper



The magnets have a variety of uses, including:

- Gripping and lifting applications
- Positioning jigs
- Soldering fixtures
- Sinking into jigs & fixtures
- Securing and fixing

Product No.	Diameter (mm)	Height (mm)	Thread size (mm)	Weight (Kg)	Max. Pull (Kg)	Units per pack
829	9.5	15.1	M3	0.005	1.00	10
830	12.7	15.9	M4	0.015	2.00	10
831	17.5	16.0	M6	0.023	2.65	10
832	20.5	19.0	M6	0.040	4.00	5
833	27.0	25.0	M6	0.085	6.10	5
834	35.0	30.0	M6	0.184	14.75	1

831,832,833,834 - available with 10 UNF or 1/4 UNC thread on a made to order basis

Shallow Pot Magnets



The magnets have a variety of uses, including:

- Gripping and lifting applications
- Positioning jigs
- Soldering fixtures
- Sinking into jigs & fixtures
- Securing and fixing
- Handling thin steel sheets
- Designed for applications where height is too restricted for conventional pot magnets
- Shallow Pot Magnets are all cylindrical Alcomax permanent magnets assembled concentrically in a mild steel pot
- Shallow Pot Magnets can be fixed using the central countersunk hole
- They can be fixed to steel surfaces without losing magnetism
- Shallow Pot Magnets are magnetic on one face only
- Shallow Pot Magnets can be used at temperatures up to 550°C (except 826 which can operate up to 100°C)
- Ideal for securing items to thin sheet metal surfaces
- Supplied with a keeper

Product No.	Diameter (mm)	Height (mm)	Hole size M3 (csn)	Screw head size	Weight (Kg)	Max pull (Kg)	Units (per pack)
826	19.1	7.50	3.7 - 6.7	M3 Csk	0.01	3	10
827	28.6	8.70	4.8 - 8.6	M4 Csk	0.03	5	10
828	38.1	10.35	4.8 - 8.6	M4 Csk	0.08	13	5

Maximum Pull figures are typical values. These will be achieved with smooth, mild steel, workpieces of adequate thickness where contact faces are intimate and clean

Neo-Hold Bi-Pole Gripping Magnets

Neo-Hold Bi-Pole Gripping Magnets

- Strong gripping force with 2 poles on the same face
- Range has threaded holes on the top face
- Greater holding power than standard Alnico Magnets
- Neo-Hold Bi-Pole Magnets are constructed from Neodymium Iron Boron Magnets and an Aluminium Pot
- Maximum operating temperature 100°C
- Supplied with keeper



The magnets have a variety of uses, including:

- For use where high clamping forces are required and space is restricted
- For use in positioning, holding and clamping devices

Product No.	Diameter (mm)	Height (mm)	Weight (Kg)	Thread Sizes	Pull (max) (Kg)	Units (per pack)
NH 025	12.7	11.6	0.010	M5	2	10
NH 065	16.0	15.6	0.018	M6	5	10
NH 130	22.0	20.0	0.040	M6	9	5
NH 240	25.0	25.0	0.070	M6	15	5

Magnetic Foot



- Rectangular block comprising 2 pot type magnets set into one mild steel housing
- The Magnetic Foot is constructed from cast Alcomax III material and a mild steel block
- Maximum operating temperature 220°C

The magnet has a variety of uses, including:

- Drilling and tapping applications
- Jigs and fixtures
- Welding Clamp

Product No.	Length (mm)	Width (mm)	Height (mm)	Weight (Kg)	Thread Sizes	Pull (max) (Kg)	Units (per pack)
920 SUOT	60	25	25	0.32	M6	12	1

Gripping Magnets

Ferrite Channel Magnets

- Ferrite Channel Magnets are shallow limpet type magnets set in a mild steel shell
- Ferrite Channel Magnets are manufactured using ceramic ferrite magnetic materials
- Ferrite Magnets can be used up to temperatures of 80°C



The magnets have a variety of uses, including:

- Industrial light fitting applications
- Bases for machine tool accessories

Product No.	Length (mm)	Width (mm)	Height (mm)	Weight Each (Kg)	Plain Fixing Holes Diameter (mm)	Pull (max) (Kg)	Units (per pack)
E898/1	115	30	13	0.20	4.2	8	5
E898/2	130	30	13	0.25	4.2	14	5
E899	190	43	13	0.50	4.2	48	2

Maximum Pull figures are typical values. These will be achieved with smooth, mild steel, workpieces of adequate thickness where contact faces are intimate and clean

Gripping Magnets

Ferrite Shallow Pot Magnets



- Ferrite Shallow Pot Magnets offer a high clamping force, even on painted surfaces
- Especially suitable for clamping onto thin sheet metal surfaces
- Supplied with a central M6 tapped hole and a removable hook
- Suitable for use at temperatures up to 80°C
- Highly resistant to de-magnetisation

The magnets have a variety of uses, including:

- For use where height is a restriction
- Industrial light fitting applications
- Bases for machine tool accessories
- Holding, securing, clamping and fixing applications
- Removeable hook

Product No.	Diameter (mm)	Height (mm)	Weight (Kg)	Pull (max) (Kg)	Units per pack
E890	46	10.7	0.09	6	5
E891	56	10.7	0.13	16	5
E892	66	10.7	0.19	25	5

Heavy Duty Ferrite Shallow Pot Magnets



- Heavy Duty Ferrite Shallow Pot Magnets are made from Ceramic Ferrite Material inside a mild steel shell
- Heavy Duty Ferrite Shallow Pot Magnets offer higher clamping force
- Supplied with a central M6 tapped hole and removable jacking screw for ease of release
- Three M6 mounting positions arranged on a PCD
- Magnetic poles are on the same face
- Suitable for use at temperatures up to 80°C
- Highly resistant to de-magnetisation

The magnets have a variety of uses, including:

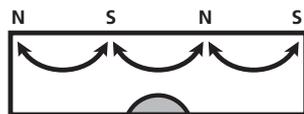
- Holding, securing, clamping & fixing applications

Product No.	Diameter (mm)	Height (mm)	Weight (Kg)	Central fixing point	Fixing Stud Centres PCD (mm)	Pull (max) (Kg)	Units per pack
E895	66	10.7	0.27	M6	46mm/3 holes	25	1
E896	76	12.5	0.30	M6	46mm/3 holes	33	1
E897	100	15.0	0.61	M6	63mm/3 holes	55	1
E896 / 2*	76	12.5	0.30	22mm	46mm/3 holes	33	1
E897 / 2*	100	15.0	0.61	22mm	63mm/3 holes	55	1

* Supplied without hooks, the 3 additional holes are clearance holes.

Ceramic and Flexible Ferrite Magnets

Magnetic Discs



Non-Magnetic face



- Ceramic Ferrite Magnetic Discs are 'magnetic drawing pins' and are magnetised multi-pole one face
- Magnetic Discs are manufactured from Ceramic Ferrite Material
- Highly resistant to de-magnetisation
- Ceramic Ferrite Magnetic Discs can be used up to temperatures of 80°C

The magnets have a variety of uses, including:

- Used in conjunction with magnetic notice boards
- Fridge Magnets
- Magnetic Toys and Games

Product No.	Diameter (mm)	Thickness (mm)	Units (per pack)
CM 700-R	14	5	10
CM 701-R	20	5	10
CM 702-R	30	5	10

Maximum Pull figures are typical values. These will be achieved with smooth, mild steel, workpieces of adequate thickness where contact faces are intimate and clean

Magnets for Planning, Labelling & Display

Marker Magnets



- Marker Magnets available in bulk supply from Industrial Sales minimum of 100 off
- Available in white, black, red, blue, yellow and green
- Available in 15, 20, 30, and 40mm diameters

The magnets have a variety of uses, including:

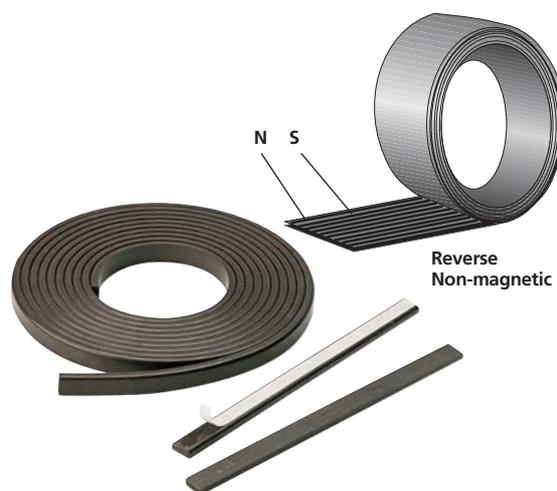
- holding notes, drawings, plans etc. on steel surfaces

Flexible Magnets

- Flexible magnetic materials are supplied in sheet, strip and adhesive backed finishes
- Flexible magnetic materials are an extrusion of Barium and Strontium Ferrite and are magnetic on one face
- Soft material with strong magnetic hold to prevent slippage
- Flexible strip and sheets available with a coloured vinyl finish
- Can be cut with scissors

The magnets have a variety of uses, including:

- Vehicle Signs
- Toys / Games
- Magnetic 'L' Plates
- Door Closures



Plain, Flexible Magnetic Strip

Product No.	Width (mm)	Thickness (mm)	Length (m)	Units (per pack)
FM 670	9.5	3.6	10	1
FM 671	11.0	4.6	10	1
FM 672	15.0	6.4	10	1
EM 880-R	9.5	3.6	2	5

Adhesive Backed Flexible Magnets

Product No.	Width (mm)	Thickness (mm)	Length (m)	Units (per pack)
FM 660	7.5	0.75	10	1
FM 661	12.5	0.75	10	1
FM 662	20.0	0.75	10	1
EM 884-R	13.0	0.5	1	1
EM 888-R (pairs)	9.5	3.6	150 mm	1 pair
FM 650	150 mm sq.	0.75	150 mm sq.	5

NB. All measurements in this catalogue are nominal

Call for more information...



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