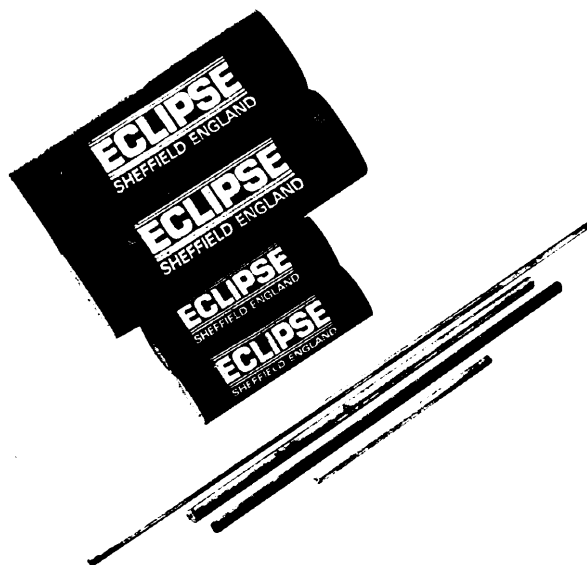


# Permanent Magnets

Eclipse Magnetics manufacture and supply a comprehensive range of Permanent Magnets, Magnetic Workholding and Magnetic Tools, that are used in a wide range of industrial applications. This catalogue illustrates the products available from our Popular Range of Permanent Magnets.

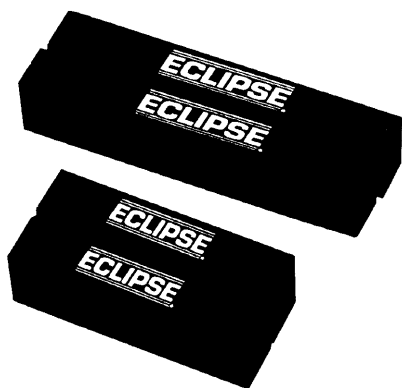
## Cylindrical Bars

- Utilises powerful Alcomax III magnetic materials
- Each magnet has a high length to cross section ratio
- Bar magnets have magnetic poles at each end
- Suitable for uses at high temperatures
- Excellent for components using Reed switches
- Ideal for use as damping magnets, sump plugs and machine guards
- Excellent in electrical meters and circuit boards
- Suitable for use in sewing and coin operated machines
- Ideal for use in security systems



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

## Rectangular Bar Magnets



- Utilises both Alcomax III and Alnico materials
- Rectangular Bar Magnets have magnetic poles at both ends of the bar
- Each magnet has a high length to cross section ratio
- The poles of the magnet are ground
- North pole is indicated by a notch
- Supplied in pairs
- Suitable for components using Reed switches and relays
- Ideal for use as damping magnets
- Ideal for use in weighing scales

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

**Magnet material: Alcomax III**

| Product No. | Width (mm) | Height (mm) | Length (mm) | Weight per pair (Kg) |
|-------------|------------|-------------|-------------|----------------------|
| E842        | 15         | 10          | 50          | 0.22                 |
| E843        | 15         | 10          | 75          | 0.33                 |

**Magnet material: Alnico**

# Permanent Magnets

## Button Magnets

- Cylindrical magnet with both poles in the same plane
- Utilises powerful Alnico magnetic materials
- Can be used in temperatures up to 550°C
- Excellent for use in attracting applications
- Suitable for magnetic sump plug driver units
- Ideal in dipping jigs for painting
- Excellent for temperature sensitive devices
- Ideal for use as damping magnets
- Suitable for use in relay switches



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

## Minor Magnet

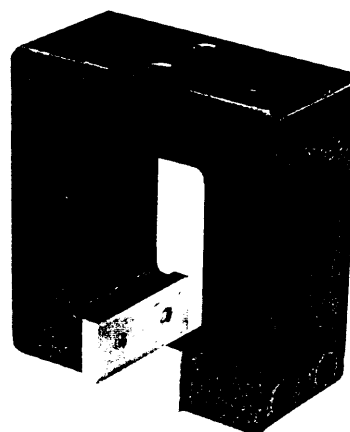


- Powerful Alcomax 3 magnetic material cast in mild steel
- Ground finished magnetic poles
- Large gap design for highest practical field strength
- Ideal for picking up objects
- Excellent for holding, clamping and positioning components
- Suitable for use in heat treatment applications up to 550°C
- Can be used in jigs and fixtures

| Product No. | Width<br>(mm) | Height<br>(mm) | Length<br>(mm) | Weight Each<br>(Kg) |
|-------------|---------------|----------------|----------------|---------------------|
| E801        | 7.9           | 11.1           | 22.2           | 0.02                |

## Major Magnet

- The Major Magnet is cast using powerful Alcomax 3 magnetic material and mild steel
- The poles of the magnet are ground finished
- The large gap design provides the highest practical field strength
- Ideal for magnetising small components like bar magnets
- Suitable for use in wave guidance applications



| Product No. | Height<br>(mm) | Width<br>(mm) | Thickness<br>(mm) | Weight<br>(Kg) | Flux density at gap centre<br>(wb/m <sup>2</sup> ) |
|-------------|----------------|---------------|-------------------|----------------|----------------------------------------------------|
| 862         | 111            | 103.5         | 50                | 2.9            | 0.210                                              |

# Permanent Magnets

## Pocket Magnets

- Magnet designed with both poles in the same plane
- Utilises powerful Alnico magnetic materials

# Permanent Magnets

## Pot Magnets

- Cylindrical magnets in a mild steel pot with poles in the same plane
- Pot is an essential part of the magnetic circuit
- Threaded hole for secure fixing
- Provides superior grip at contact
- Can be machined to achieve profile or fit requirements
- Operates in temperatures up to 220°C
- Can be fitted to steel without adverse effects
- Suitable for gripping and lifting applications
- Ideal for use in positioning jigs and soldering fixtures
- Can be used in securing items
- Excellent for use in water leakage devices
- Suitable for use in injection moulding industry



| Product No. | Diameter (mm) | Length (mm) | Hole size (mm) | Unit of pack | Weight (Kg) | Maximum (Pull Kg) |
|-------------|---------------|-------------|----------------|--------------|-------------|-------------------|
| 829         | 9.5           | 15.1        | M3             | 10           | 0.005       | 1.00              |
| 830         | 12.7          | 15.9        | M4             | 10           | 0.015       | 2.00              |
| 831         | 17.5          | 16.0        | M6             | 10           | 0.023       | 2.65              |
| 832         | 20.5          | 19.0        | M6             | 10           | 0.040       | 4.00              |
| 833         | 27.0          | 25.0        | M6             | 5            | 0.085       | 6.10              |
| 834         | 35.0          | 30.0        | M6             | 5            | 0.184       | 14.75             |

## Shallow Pot Magnets



- Shallow Pot Magnets are all cylindrical permanent magnets assembled concentrically in a mild steel pot
- The pot is an essential part of the magnetic circuit as it provides a return path for the flux
- Shallow Pot magnets are cast using powerful Alcomax 4 magnetic materials
- Highly resistant to demagnetising effects
- Supplied with keeper
- Maximum operating temperature 220°C (826 is 100°C)
- Ideal for where a strong grip is required and height is restricted
- Suitable for securing items
- Excellent for holding items

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

# Gripping Magnets

## NeoHold Bipole Gripping Magnets

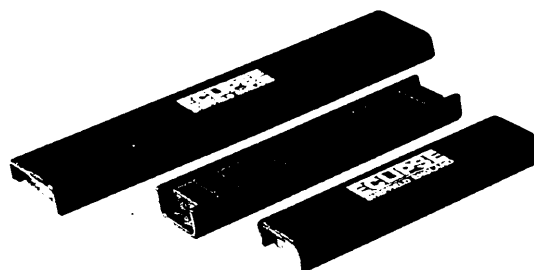
- Strong gripping force with 2 poles on the same face
- Range has threaded holes on the top face
- Equal or greater holding power than standard Alnico



# Gripping Magnets

## Ferrite Channel Magnets

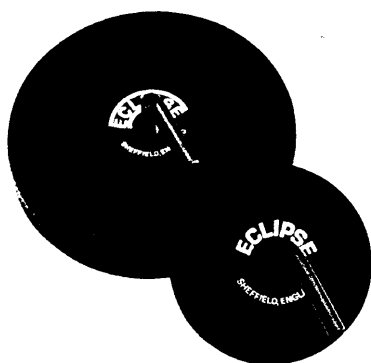
- Ferrite Channel Magnets are shallow limpet type magnets set in a mild steel shell
- Ferrite Channel Magnets are manufactured using ceramic ferrite magnetic materials
- Maximum operating temperature 80°C
- Ideal for use as bases for machine tool accessories



- Can be used in light fittings where temperatures do not exceed 80°C

| Product No.   | Length (mm) | Width (mm) | Height (mm) | Weight Each (Kg) | Pull (max) (Kg) |
|---------------|-------------|------------|-------------|------------------|-----------------|
| <b>E898/1</b> | 115         | 30         | 13          | 0.20             | 8               |
| <b>E898/2</b> | 130         | 30         | 13          | 0.25             | 14              |
| <b>E899</b>   | 190         | 43         | 13          | 0.50             | 48              |

## Ferrite Shallow Holdfasts

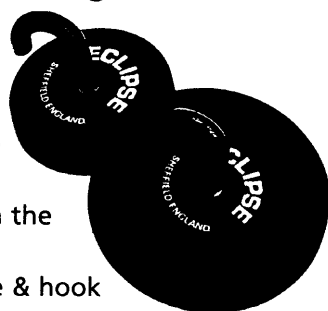


- Cylindrical magnets assembled in a mild steel pot
- Utilises ceramic ferrite magnet materials
- Magnetic poles are on the same face
- Supplied with M6 threaded hole & screw down bolt for accurate positioning and easy disengagement
- Maximum operating temperature 80°C
- Ideal for use as bases for machine tool accessories
- Suitable for securing and fixturing applications
- Can be used in industrial light fitting applications
- Excellent for holding and clamping requirements

| Product No. | Width (mm) | Height (mm) | Weight (Kg) | Pull (max) (Kg) |
|-------------|------------|-------------|-------------|-----------------|
| <b>E895</b> | 66         | 10.7        | 0.27        | 25              |
| <b>E896</b> | 76         | 12.5        | 0.30        | 33              |
| <b>E897</b> | 100        | 15.0        | 0.61        | 55              |

## Ferrite Shallow Pot Magnets

- Cylindrical magnets assembled in a mild steel pot
- Utilises ceramic ferrite magnet materials
- Magnetic poles are on the same face
- Supplied with M6 hole & hook for easy removal
- Highly resistant to demagnetising effects
- Maximum operating temperature 80°C

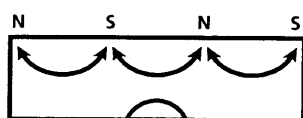


- Ideal for applications with height restrictions
- Can be used as a hook
- Ideal for use as bases for machine tool accessories
- Excellent for securing and fixturing requirements
- Can be used in industrial light fittings
- Suitable for use in microwave applications

| Product No. | Width (mm) | Height (mm) | Weight (Kg) | Pull (max) (Kg) |
|-------------|------------|-------------|-------------|-----------------|
| <b>E890</b> | 46         | 10.7        | 0.09        | 6               |
| <b>E891</b> | 56         | 10.7        | 0.13        | 16              |
| <b>E892</b> | 66         | 10.7        | 0.19        | 25              |

# Ceramic and Flexible Ferrite Magnets

## Magnetic Discs



Non-Magnetic face

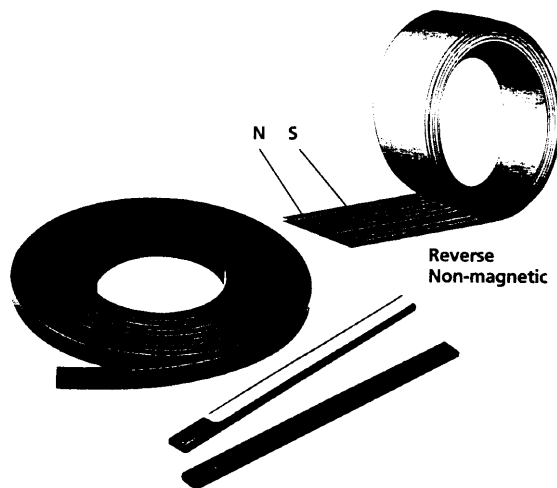


- Magnetic discs are 'magnetic drawing pins' and are permanently magnetic on one face
- Magnetic discs contain ceramic magnetic material
- Highly resistant to de-magnetisation
- Can be supplied with coloured plastic caps
- Maximum temperature 100°C
- Can be used as marker magnets
- Ideal for holding notes, signs and heavy visual aids
- Ideal for fridge magnets
- Suitable for use in magnetic toys and games

| Product No. | Diameter (mm) | Thickness (mm) | Magnets (per pack) | Packs (per box) |
|-------------|---------------|----------------|--------------------|-----------------|
| CM 700      | 14            | 5              | 10                 | 10              |
| CM 701      | 20            | 5              | 10                 | 10              |
| CM 702      | 30            | 5              | 10                 | 10              |

## Flexible Magnets

- Flexible magnetic materials are supplied in sheet, strip and adhesive backed finishes
- Flexible magnetic materials are on an extrusion of Barium Ferrite and have a permanent magnetic surface on one face
- Soft material with strong magnetic hold to prevent slippage
- Flexible strip and sheets available with a coloured vinyl finish
- Surfaces on both strips and sheets will accept flexible paint
- Magnetic sheets can be used for vehicle signs, toys and games, magnetic filters, magnetic 'L' plates and point of sale displays
- Magnetic strips can be used for door closures, double glazing, magnetic signs, Reed switch operations and magnetic toys



| Product No. | Width (mm) | Thickness (mm) | Length (m) |
|-------------|------------|----------------|------------|
| FM 670      | 9.5        | 3.6            | 10         |

# Magnets for Planning, Labelling & Display

## Planner Magnets

■ Flexible tiles and tapes laminated with coloured vinyls

