



# Magnetic Separators

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# Magnetic Separators

Magnetic separators are widely used in many industrial and food processes to remove ferrous and para-magnetic contamination.

Pollutants can enter your production line in several ways: with raw materials; staples or nails from packing; rust, wear and damaged parts.

These contaminants can:

- damage your process machinery
- remain in your final product

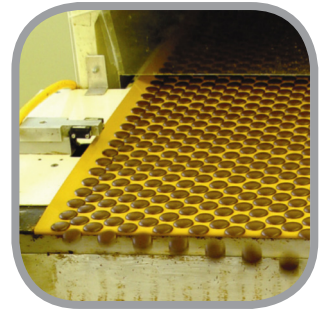
We offer a range of magnetic separators, suitable for most applications:

- 'primary' separators to eliminate larger particles
- 'secondary' separators to improve the quality of your product, removing particles down to sub-micron size
- with manual or fully automatic cleaning systems



**Magnetic separators with the ATEX symbol can be provided with ATEX certification – zones 20 interior and 21 or 22 exterior – direct from our factory.**

[www.magneticseparation.co.uk](http://www.magneticseparation.co.uk)



## Rods

High-intensity rare-earth magnetic rods are highly effective at removing ferrous contaminants from free-flowing products, sugar, grain, tea, plastic granules, chemical powders or liquids.

These bars are ideal for technicians wishing to design and build their own magnetic separators. All contact parts are polished stainless steel 316.

For more information please see data sheet 501

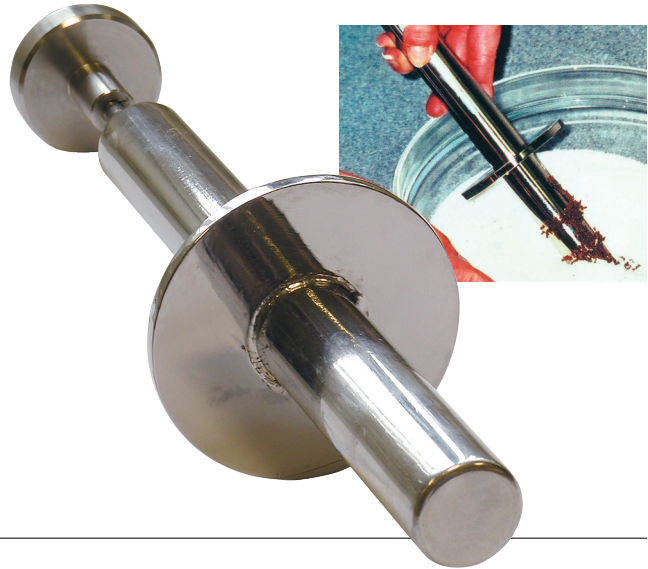


## Sampling probe

The sampling probe enables quality control personnel to quickly and easily inspect powders, pellets and liquids for contamination.

These probes are used for inspection of product on arrival at goods inwards, before final shipping and at key stages of processing. All contact parts are stainless steel 316.

For more information please see data sheet 502

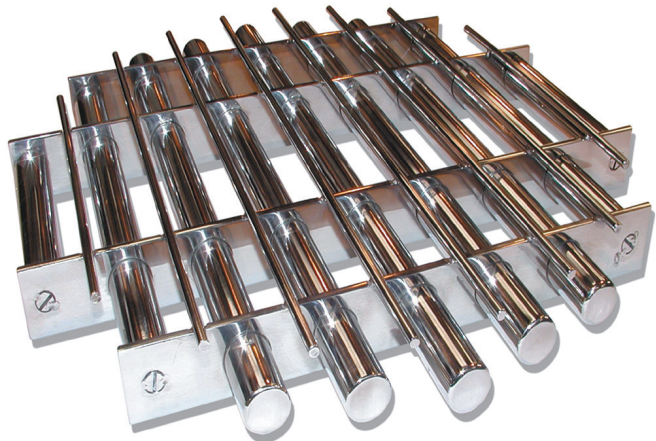


## Circular grid

Grid magnets are extremely efficient at removing ferrous contaminants from the flow of dry goods such as sugar, grain, tea, plastic pellets and chemicals powders. Circular grids are easily installed in hoppers, silo entry points and the exit point of finished product.

Grids can be quickly installed to provide effective protection against contaminants such as rust particles and stainless steel, resulting from mechanical wear of processing machinery. These particles are often too small to be detected by a metal detector but can be easily removed by Eclipse Magnetics magnetic grids. All contact parts are stainless steel 316.

For more information please see data sheet 503

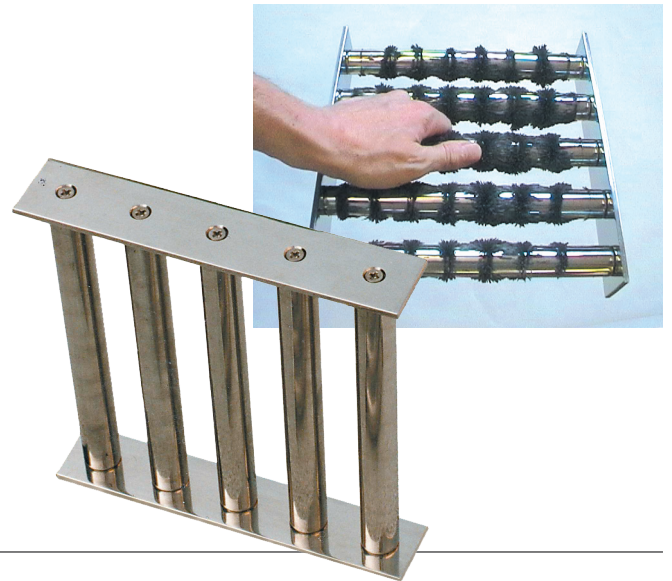


## Square grid

Grid magnets are extremely efficient at removing ferrous contaminants from the flow of dry goods such as sugar, grain, tea, plastic pellets and chemicals powders. Grids are easily installed in hoppers, silo entry points and the exit point of finished product.

Grids provide effective protection against contaminants such as rust particles and stainless steel resulting from mechanical wear of processing machinery. These particles are often too small to be detected by a metal detector but are easily removed by Eclipse Magnetix magnetic grids. All contact parts are stainless steel 316.

For more information please see data sheet 504



## Sieve magnet

Especially designed for use in vibratory sieving machines. Our sieve magnets are lightweight, reducing the stress on the seal.

The magnet is positioned below the screen for total security, the strong magnetic field is capable of attracting particles less than a micron in size.

For more information please see data sheet 505



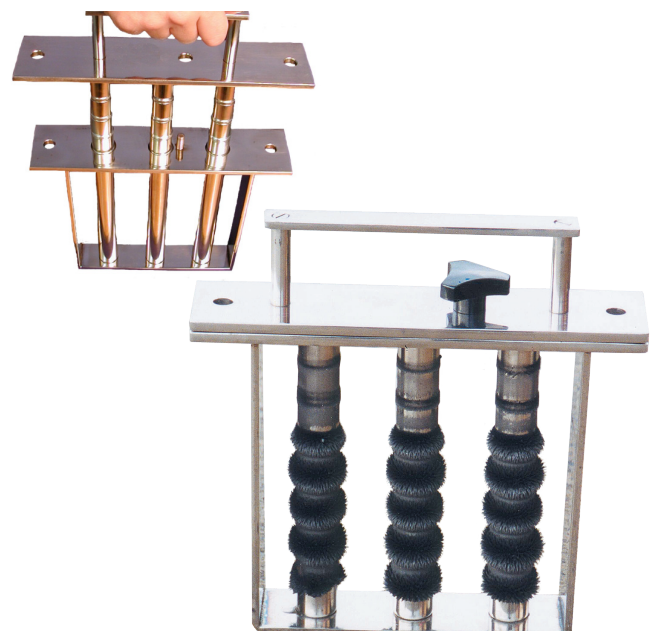
## Easy-clean grid magnets

High-intensity grid magnets that can be cleaned in seconds. Simply release the locking mechanism, remove the magnetic cores from their stainless steel housings and the contaminants fall away.

Replace the magnetic cores in their housings and the grid is again ready for use. The process takes less than 30 seconds.

Easy-clean grid magnets are extremely effective at removing ferrous contaminants. Install where stoppage time has to be kept to a minimum. All contact parts are stainless steel 316.

For more information please see data sheet 506



## Strip magnet

Strip magnets are very versatile. They can be placed above conveyors, at chute exits or at final product release points.

Rare earth magnets are fully protected by stainless steel cladding, allowing use in wet environments. A magnetic field is generated on one face and attracting contaminants as they pass through.

To optimize performance, magnets above conveyors must be placed as close as possible to the belt. Depth of field is 80 mm. All contact parts are stainless steel 316.

For more information please see data sheet 507



## Hinged strip magnet

Designed to be installed above conveyor belts to remove ferrous contaminants from a wide range of products.

High intensity rare earth magnet material is enclosed in stainless steel. A hinged cleaning plate covers the face of the magnet.

The face emits a powerful magnetic field that attracts ferrous contaminants.

All contact parts are stainless steel 316 with the exception of the plastic handles.

For more information please see data sheet 508



## Underflow magnet

'Primary' magnet which is positioned at the angle of chutes. Designed to remove large contaminants such as nuts, bolts, washers etc., which could enter the process line and damage machinery, resulting in significant repair costs.

The magnet is provided with a hinge and locking clasps with hook for easy installation. All contact parts are stainless steel 316.

For more information please see data sheet 509



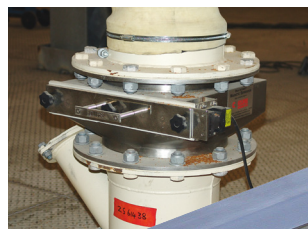
## Easy-clean single row grid magnet

Ideal for removing ferrous and para-magnetic contaminants in a variety of free-flowing products such as sugar, grain, tea, plastic granules and chemical powders.

The housing is available with a rectangular or circular flange, to customer specifications, for easy installation. Cleaning is exactly the same as for the Easy-clean grid.

For even more effective contamination removal, or for processes with a high level of contamination, a double row unit is available (data sheet 507). All contact parts are stainless steel 316.

For more information please see data sheet 510



## Easy-clean double row grid magnet

All the same benefits as the single row Easy-clean grid magnet but holds more contamination and can therefore go longer between cleans. Ideal for removing ferrous and para-magnetic contaminants in a variety of free-flowing products such as sugar, grain, tea, plastic granules and chemical powders.

The housing is available with a rectangular or circular flange, to customer specifications, for easy installation. Cleaning is exactly the same as for the Easy-clean grid. All contact parts are stainless steel 316.

For more information please see data sheet 511



## Auto-shuttle: self-cleaning grid

Developed to work continuously without manual intervention. The cleaning of the magnetic rods is done automatically without stopping the flow of product.

PLC controlled. Ideal for ATEX environments. Application, performance and benefits are identical to the Easy-clean grid. Available in single row, double row and multiple row versions, as required by your application.

For more information please see data sheet 512



# Pneumag

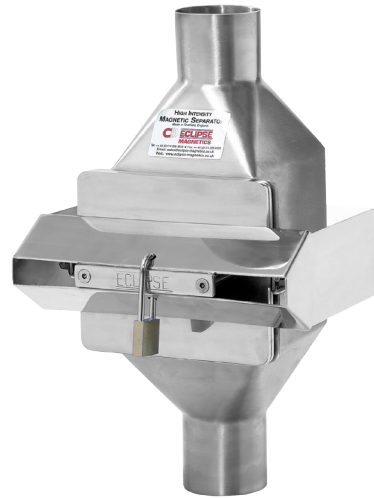
High intensity magnetic separator for use in pneumatic conveying lines.

The Pneumag removes ferrous and para-magnetic contaminants from free-flowing powders conveyed at speeds of up to 25m/s.

It purifies the transported product and reduces the risk of spark or piercing of filter sleeves. It is designed not to affect product flow.

It incorporates an Easy-clean magnetic grid and quick-release closures so it can be cleaned very quickly. The housing is stainless steel 316.

For more information please see data sheet 513



## Rota-grid

Primarily designed to extract contaminants from high humidity products, such as starch, which are liable to 'cake' or 'bridge'. The rods are arranged in a circle which rotates, gently agitating the product and maintaining flow.

The magnetic surfaces of the rods come into contact with more product than those of a fixed grid, meaning the Rota-grid can be used where extremely efficient contamination removal is required.

The housing is available with rectangular or circular flanges. Cleaning works on the same principle as the Easy-clean. All contact parts are stainless steel 316.

For more information please see data sheet 514

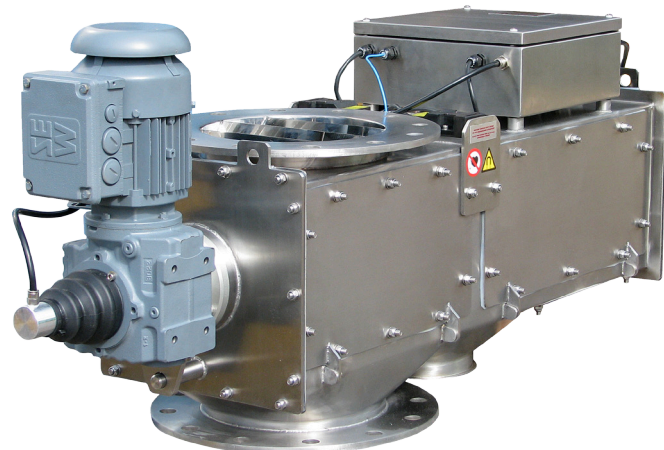


## Auto-rota shuttle: self-cleaning Rota-grid

Combines the advantages of the 'Rota-grid with the continuous operation of the Auto-shuttle.

It is also well suited to ATEX environments.

For more information please see data sheet 515





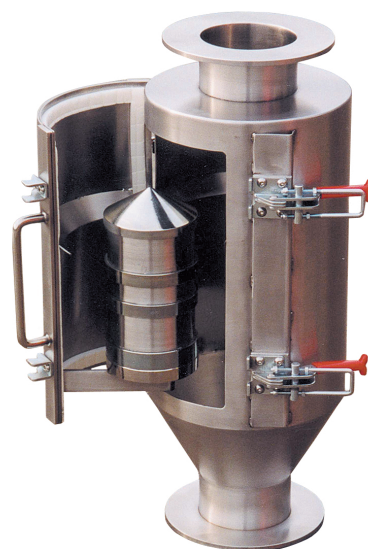
## Bullet magnet

Housed bullet magnets remove ferrous elements, especially nuts, bolts, washers, staples, etc., from pneumatic feed and conventional supply lines. Usually installed where ingredients enter the line as well as at the first processing stage.

The unit is designed to prevent ferrous items damaging expensive equipment such as grinders, mixers and screw conveyors.

A 'bullet' magnet is mounted in the center of a casing of stainless steel. The magnetic element is designed to not affect product flow. All contact parts are stainless steel 316.

For more information please see data sheet 516



## Chute magnet

'Primary' separator usually installed in gravity pipes and chutes to remove larger items such as nuts, bolts and washers, preventing damage to process machinery.

With this unit there is virtually no reduction in product flow rate. All contact parts are stainless steel 316.

For more information please see data sheet 517



## Liquid filter

Designed to remove contaminants from liquids and syrups.

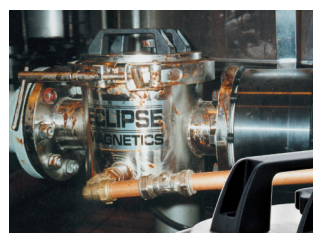
The high intensity neodymium magnet rods are contained in an Easy-clean assembly.

The rod configuration guarantees maximum exposure of contaminants to the magnetic field without impeding flow.

Filters are available in two versions: single wall or insulated. Insulated filters are used for applications where high line temperature is essential to maintain the viscosity of the product e.g. chocolate, syrups, jams, sauces.

Both versions are tested and certified with a maximum pressure of 6 bar standard. A 20 bar maximum pressure version is available on request. All contact parts are stainless steel 316.

For more information please see data sheet 518



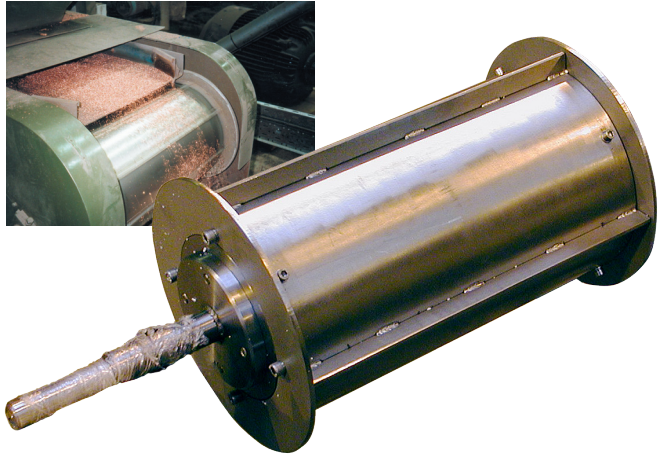
## Magnetic drum

Magnetic drums remove ferrous contaminants and tramp iron from bulk materials used in processing food, chemicals, minerals and other products.

The drums is mounted at the outlet of the carrier or directly above a vibratory feed.

High intensity rare earth magnets are mounted in a wear-resistant stainless steel drum. The shell of the drum is supported by high-quality sealed bearings that provide reliable and smooth rotation around the magnetic element.

For more information please see data sheet 601



## Housed drum

Magnetic drum protected by a robust stainless steel casing, flanged to customer specification. Designed for the continuous removal of tramp iron and fine iron particles in dry bulk materials used in food, chemical, mineral and other processes.

The shell of the drum is supported by high-quality sealed bearings that provide reliable and smooth rotation around the magnetic element. The drum is powered by a high quality geared motor block with single or three phase power.

For more information download the data sheet 602



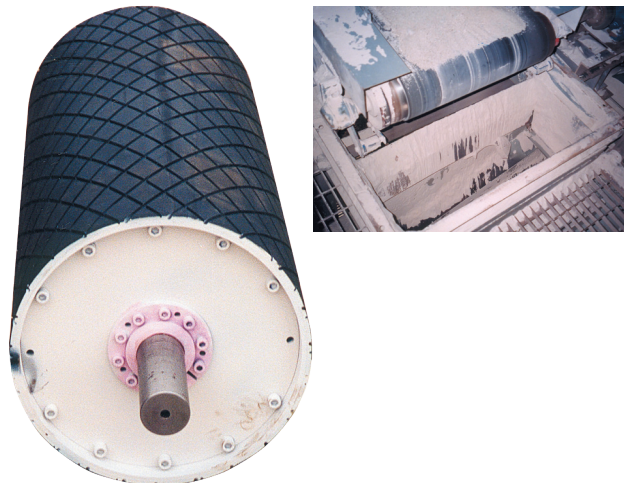
## Conveyor head roller

Installed at the outlet of the conveyor, the head roller removes tramp iron and small steel parts that cannot be extracted with overband or strip magnets placed above the product. It should be used in conjunction with these units for the fullest protection.

Available in two strengths: standard, for removing large pieces of steel and high power, for removing large and small parts.

The shaft of the roller can be machined for easy installation on existing bearings.

For more information please see data sheet 603



## Plate magnet

Positioned above conveyors to prevent foreign bodies being introduced to grinders, screws and other valuable tools. These magnets generate a strong magnetic field that penetrates deep into transported product to extract metal contaminants.

Can be used in harsh environments, humidities and temperatures. The magnet has five stainless steel sides and a painted steel plate with attachment points for attaching suspension chains .

For more information please see data sheet 604



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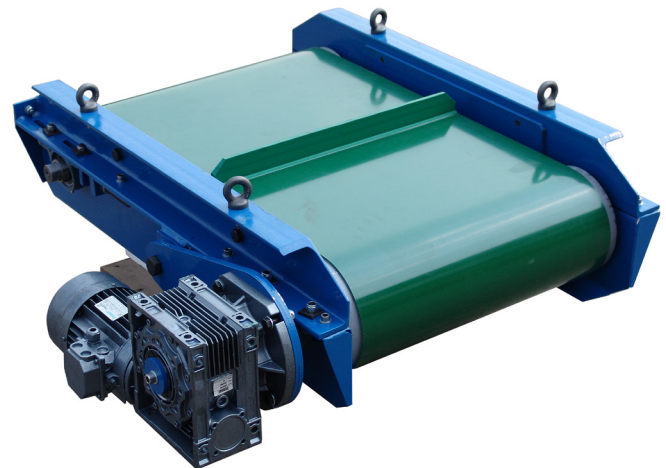
## Overband

Widely used in the recycling, quarrying and heavy industries where it is placed over a conveyor plate to continuously extract metal contaminants from bulk products.

The large permanent magnet generates a strong magnetic field that pulls ferrous contaminants from the conveyor. A rubber belt is drawn continuously between two rollers and around the magnet pack. The contaminant is attracted to the magnet then carried on the belt to be released into a hopper.

Can be supplied with electric or hydraulic drive for mobile machines.

For more information please see data sheet 605



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