



# **MASTER MAGNETS**

## **INDUSTRY GUIDE**



**MAGNETIC SEPARATION EQUIPMENT**  
**FOR THE RECYCLING AND WASTE**  
**MANAGEMENT INDUSTRY**



The process of recycling and reclamation invariably involves end-of-life products that may be shredded, crushed or fragmented and require separation. Master Magnets supply the widest range of industrial magnetic equipment for the separation of ferrous and non-ferrous metals,

## OVERBAND MAGNETS



Overbands are designed for the continuous separation of general tramp iron from various recyclable materials. The self-cleaning Overband Magnets are available with either Permanent or Electro magnet systems depending on the specific application requirements. The Electromagnet range is often applied for more demanding applications, requiring the removal of difficult particles from larger operating gaps.

Typical applications include separation and recovery of ferrous metals from MSW, Shredded Wood, C&D waste and shredded PVC.

With models to suit all conveyor widths, the Master Magnets range of Overbands are manufactured to be of solid and robust construction in order to withstand the most arduous conditions.

## SUSPENSION MAGNETS

Suspension Magnets are used for the extraction of occasional tramp iron from deep product burdens. These magnetic separators are available with either a permanent magnet system or as an air-cooled or oil-cooled electro magnet, depending on a client's application.

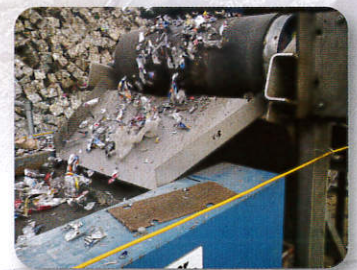
Suspension Magnets are typically installed over conveyors but can also be used to extract ferrous materials from above vibratory feeders or gravity chutes.



## PULLEY MAGNETS

The Pulley Magnet is installed as a direct replacement for the existing head drum of a belt conveyor for the continuous extraction of iron contamination. The 360° magnet system retains extracted iron, discharging it behind the centre line of the pulley, whilst the clean product follows its natural trajectory.

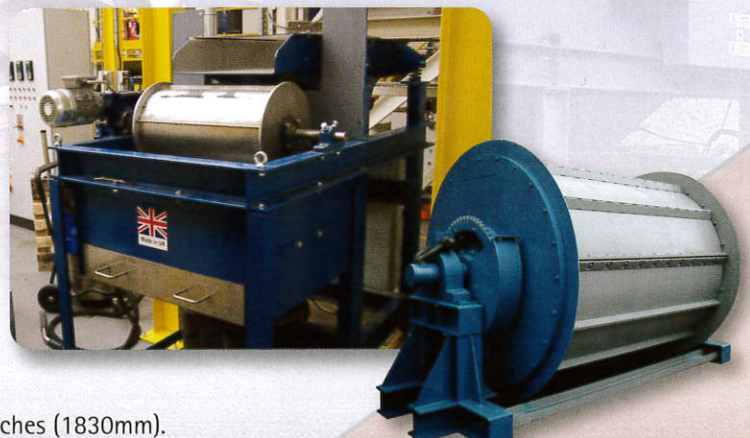
All units are available with either ferrite or rare earth magnet systems, depending on specific extraction requirements. Electro magnet systems are also available and are typically used for heavy-duty applications.



## DRUM MAGNETS

Magnetic Drum Separators are designed for the continuous extraction of iron from materials being fed uniformly to the face of the drum. Often used in applications where the extraction of very small ferrous particles is required, Drum Magnets can be used on a wide range of processes within the recycling industry. For dusty materials or where product must be kept free from external contamination, the Magnetic Drums can also be fitted into totally enclosed housings.

When applications involve larger volumes of material such as scrap metal recycling, Magnetic Drums are available with Electro magnet systems and in diameter sizes of up to 72 inches (1830mm).





from material such as aggregate, demolished construction material, plastics, rubber and shredded wood as well as end of life goods including cars, computers and any application where ferrous or non-ferrous metal is to be separated and reclaimed.

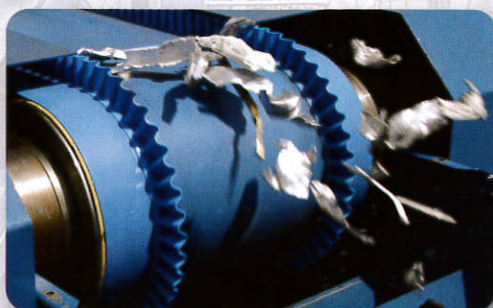
## CONCENTRIC EDDY CURRENT SEPARATORS

Used for the separation and recovery of non-ferrous metals from all types of recyclable material, Master Magnets manufactures a range of Non-ferrous separators, each designed to suit varying application requirements.

Typical applications for the High-Intensity Concentric ECS units include separation of non-ferrous metals from construction materials, glass cullet, shredded wood and end of life vehicles.



## ECCENTRIC EDDY CURRENT SEPARATORS



For applications that require separation of finer non-ferrous particles, Eccentric ECS units can be supplied. The Eccentric rotor differs in that the magnet system is of a smaller diameter and is located in an eccentric position to the outer rotor drum. The magnet system is positioned close to the surface, giving maximum repulsion where the conveyed materials discharge from the rotor.

## R TYPE ECS

The 'R Type' fits into the Master Magnets ECS range between the Can Sorter and the High Intensity units, incorporating features of both machines. Fitted with a 12 pole rotor, the 'R Type' is designed for sorting non-ferrous metals from dry recyclables.



## CAN SORTER ECS



The Can Sorter is specifically designed for the separation of non-ferrous beverage cans from dry recyclable materials. The Can Sorter is a simplistic and cost effective solution providing optimum can recovery.



## METAL DETECTORS

Metal Detection Ltd (part of the Master Magnets group of companies) has over 40 years experience in providing a range of equipment for the inspection of various recyclable materials.

Typical products to be inspected include animal bedding & wood chip, food packaging, glass cullet and aggregate.



### SITE EVALUATION SERVICE

As part of our initial assessments, Master Magnets offer a site evaluation service so that we can recommend the most efficient form of magnetic separation for a particular application.

This also enables one of our company representatives to hold a personal meeting with the client, explaining face to face how best to utilise a magnetic separator in order to achieve optimum separation.



### SAMPLE TESTING SERVICE

To arrive at the best separation criteria, Master Magnets uses a fully equipped laboratory for material testing to ensure optimum equipment selection.

Customers are invited to submit samples for testing and evaluation, to enable separation guarantees to be given.

Initial trials are normally carried out free of charge and customers are encouraged, if practicable, to participate in the testing and processing procedure.



### REPAIR AND REFURBISHMENT SERVICE

Master Magnets offer a full repair and refurbishment service for all types of magnetic equipment. The range of services offered includes:

Appraisal: Site Visit and preliminary report.

Inspect and Report: Equipment stripped down and inspected in our works facility and a detailed quotation for refurbishment or repair provided.

Repair Service: Mechanical, electrical and fabrication repairs carried out in our comprehensive workshop.



Master Magnets have over thirty years experience providing innovative magnetic solutions to industries involved in recycling, demolition and reclamation, mining and quarrying, food processing, ceramics production and powders and minerals processing. The MasterMag range of systems are known for their high performance and reliable operations.

Please visit our Website at [www.mastermagnets.com](http://www.mastermagnets.com) to view the entire range of Master Magnets Equipment where brochure and video downloads are available.



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