



MASTER MAGNETS INDUSTRY GUIDE



MAGNETIC SEPARATION EQUIPMENT FOR RECYCLING & RECLAMATION INDUSTRY



The process of recycling and reclamation invariably involves end-of-life products shredded, crushed or fragmented and needing separation. Master Magnets supply the widest industry range of magnetic products for the separation of ferrous and non ferrous metals from aggregate,

SUSPENSION MAGNETS

For the extraction of occasional tramp iron from deep product burdens. Available with air or oil cooled electro magnet system or permanent magnet system.



Can be installed over conveyor, vibratory feeder or gravity chute for separation of fine or coarse materials.

Available with complete range of ancillary equipment to aid cleaning operation and to suit application criteria.

OVERBAND MAGNETS

Permanent or electro magnetic self cleaning units for installation on mobile crushers or in recycling plant.

Overbands allow the continuous separation of general tramp iron from products such as aggregate, demolition material and other recyclable materials.



Overbands are available with armour-clad belting, alternative frame design to assist belt change and as heavy duty electro magnets.

PULLEY MAGNETS

Installed as head pulley in belt conveyors for the continuous extraction of iron contamination.

360° magnet system retains extracted iron, discharging it behind the centre line of the pulley. Clean product follows its natural trajectory.

All units are available with either a permanent or electro magnet system. Shafts are keywayed to suit drive requirements.



DRUM MAGNETS

The MasterMag range of drum separators are available as ceramic or rare earth permanent magnet systems or electro magnetic systems.

Drums are suitable for the large scale, continuous processing of materials and are used as the backbone of separation plants.

Drums for fine materials processing are available in totally enclosed housings where product must be kept free from external contamination or to contain dust.



HEAVY DUTY FRAGMENTISER DRUMS

Heavy Duty Electro Drums for arduous operating conditions such as car fragmentiser plants and municipal refuse stations.



Alternating or radial pole designs are available to suit application. Alternating poles encourage entrapped metals to gambol giving a cleaner product.

Fitted with replaceable manganese wear covers, up to 72 inches (1830mm) diameter.

ECS EDDY CURRENT SEPARATOR

Used for the separation and recovery of non-ferrous metals from inert shredded material. Recycling applications include separation of beverage cans, construction material, end of life vehicles.



Available in range of multi-pole ceramic or rare earth magnetic rotors.

Available as modular units, from the stand alone ECS system to complete separation plants.

lumber, demolished construction material, plastics, rubber, beverage cans, fabrics 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.

MASTEROLL RARE EARTH ROLLS

Powerful Neodymium Iron Boron (Rare Earth) magnetic rolls suitable for the recycling of dry or granular materials.

Masterrolls are available in single, double or triple roll configurations with auto belt tracking, enclosed guarding and variable speed belts and rolls.

Recycling applications include the recovery of rubber crumb from granulated tyres and separation of fine materials.



WET DRUM SEPARATORS

Used for the recovery of magnetite/ferrosilicon where dense media plants are used for metal separation purposes.



Available in single and multi-stage units with concurrent, counterflow and counter current tank designs

Demagnetising coils for demagnetising of magnetite following recovery are available.

LIFTING MAGNETS

For the lifting and transfer of iron and steel of all shapes and sizes, Master Magnets manufacture a wide range of heavy duty circular and rectangular lifting magnets.

Magnets are supplied with a full range of ancillary equipment including control panels, generators and cable reeling drums.



ELECTROSTATIC SEPARATOR

An excellent compliment to magnetic separation equipment, the electrostatic separator is used for the charging and de-charging of particles for the selective separation of conductive and non-conductive materials.

Typical applications of electro static separators include demetallisation of cable scrap, recycling of circuit boards, separation of aluminium from plastics and recycling of vehicle shredder residue.



SWARF SEPARATOR

A complete unit consisting of a permanent magnetic drum fed by a variable speed vibratory feeder.



The separator is widely used for the removal of ferrous swarf from non ferrous metals and inert materials.

The separator is also used in cable granulation systems for the removal of armouring from plastics, copper and aluminium.

VIBRATORY FEEDERS & SCREENS

Master Magnets supply a range of elevators, screens, feeders, conveyors and screening conveyors for bulk handling purposes.

Standard or custom built equipment is available, and, as shown overleaf, complete plants can be supplied incorporating both magnetic or vibratory components as self contained separation systems.



LABORATORY 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 evaluating 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.



COMPLETE SEPARATION PLANTS

With the complete range of magnetic separation equipment for recycling industry, Master Magnets can offer complete separation systems for the plant owner.

Whether integration into an existing plant or a bespoke new design, a plant incorporating magnetic separators and vibratory equipment can be built to exacting requirements.

Plant shown here is ECS eddy current separation plant comprising vibratory feeder, rare earth drum and rare earth rotor ECS system.



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 of refurbishment or repair.

Repairs service: Mechanical, electrical and fabrication repairs carried out in our comprehensive workshops.

Coil Rewinding: Electro magnet coil rewinding available at our own in house coil winding and coil refurbishment facility.



Master Magnets have over twenty five 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 high performance and reliable operations including magnetic separators for metals reclamation, tramp metal protection and high intensity mineral separation.

Visit our website at www.mastermagnets.co.uk for the entire range of Master Magnets equipment



MASTER MAGNETS LIMITED

Incorporating Integrated Recycling Systems Ltd

Burnt Meadow Road, North Moons Moat,
Redditch, Worcestershire B98 9PA England
Tel: + 44 (0) 1527 65858 Fax: + 44 (0) 1527 65868
info@mastermagnets.co.uk www.mastermagnets.co.uk

