



## **ECENTRIC EDDY CURRENT SEPARATORS**



Master Magnets have recently extended their range of Eddy Current Separators, which now includes a unit that incorporates an Eccentric rotor design.

Previously the Master Magnets range of Eddy Current Separators consisted of three different units, all of which incorporated concentric rotors designed to suit varied application requirements.

### **The Can Sorter:**

Specifically designed for the separation of aluminium beverage cans from dry recyclables.

### **The 'R' Type:**

The 'R' Type is Master Magnets mid-range ECS unit, which has been developed to handle applications that involve high throughput rates of well liberated dry recycled materials with a lump size in excess of 30mm.

### **High Intensity ECS units:**

The High Intensity ECS is the most powerful unit in the Mastermag range and is designed for processing materials containing particularly small non-ferrous particles of which require extremely high repulsive forces to ensure efficient separation.

[www.mastermagnets.com](http://www.mastermagnets.com)

## THE **ECCENTRIC** ROTOR RANGE

The new addition to the Master Magnets ECS range is the Eccentric Rotor Design which is advantageous in applications where it is difficult to extract fine or entrapped iron from the feed material with the use of conventional magnets. In these applications excessive belt wear can be experienced due to

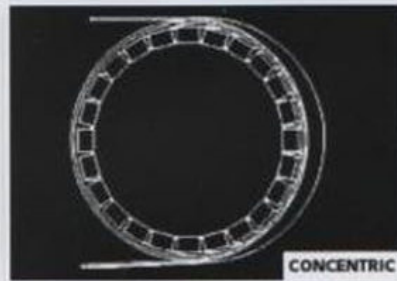


small pieces of ferrous material being attracted to the magnetic rotor and being 'excited' by the eddy current forces and becoming very hot, once in this state serious damage can be caused to the belt. This new addition to the range will enable Master Magnets to supply a wider selection of separators resulting in the most cost effective and efficient unit for the customer's specific application.

## **CONCENTRIC** AND **ECCENTRIC** ROTOR DESIGN

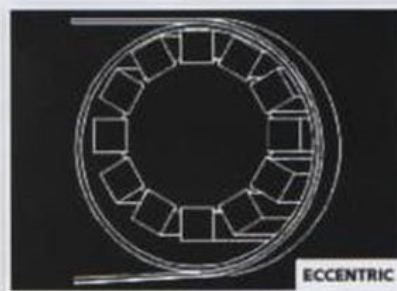
### **CONCENTRIC**

**Concentric** rotors consist of an alternating pole Rare Earth magnet system, which completely fills the space available within the separation rotor drum. The magnet system rotates at high speed within a few millimetres of the outer shell surface generating very high 'eddy currents' on the surface resulting in very high repulsive forces.



### **ECCENTRIC**

**Eccentric** rotors differ 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 where the conveyed feed material is leaving the rotor due to its natural trajectory. This design gives an efficient separation but leaves a 'dead' magnetic area at the bottom of the rotor so that any attracted ferrous falls away extending conveyor belt life.



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 high performance and reliable operations including magnetic separators for metals reclamation, tramp metal protection and high intensity mineral separation.

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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