Eddy Current Separators

Models: *RevX RevX-E* and LC

A comprehensive and diverse range of non-ferrous metal separators providing unique separation solutions for the dynamically changing recycling industry.

Features

- Concentric and Eccentric magnetic rotors available to suit specific separation objectives
- Designed for ease of installation into new and existing recycling plants
- Simple to operate
- Flexible design and easily adjusted to maximise separation performance
- Low energy consumption
- Wide range of sizes (300mm up to 2000mm feed widths)
- Robust

Applications

- Recovery of aluminium, copper, zinc, etc from car frag
- Installed after a heavy media system to further improve metal recovery
- Extract aluminium beverage cans from either pre-sorted or mixed refuse
- Purify small granulated plastic by ejecting aluminium contamination
- Remove aluminium rings and bottle tops from crushed glass cullet
- Separate non-ferrous metals from incinerator ash
- Expel aluminium from foundry sand
- Salvage aluminium from crushed dross
- Many others

ERIEZ

Models

The requirements of the recycling sector for excellent separation but at a level of investment that keeps the whole project viable have resulted in Eriez developing a wide range of Non-Ferrous Metal Separators. Each model is designed with a specific separation objective in mind.

Concentric RevX and Eccentric RevX-E NM Models

Magnetically designed to provide enhanced separation of non-ferrous metals.

Versions available:

NM-ST For the separation
NM-ST2 of small particles, especially below 10mm

NM-LT For the separation of
NM-LT2 large particles.

Each version has a different magnetic configuration to achieve maximum separation. Ideally suited for purifying cullet and plastics, and recovering valuable metal from secondary metals and incineration ash.

LC Model ECS

This robust model is designed for the separation of larger non-ferrous metals, especially beverage can recovery. The specifically configured magnetic rotor is ideal for arduous environments with minimum maintenance. Commonly installed in Material Reclamation Facilities (MRFs) to recover aluminium beverage cans and in car recycling plants to separate larger aluminium directly after the shredder.

ECS Module at a steel producing plant

Separation of very small (sub 5mm) aluminium chips from plastics

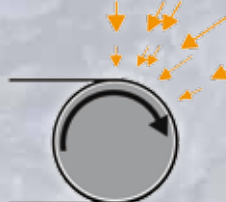Recovery of non-ferrous metals from incineration ash

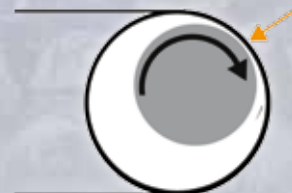Aluminium dynamically ejected from non metallics

RevX *RevX-E*

and LC

Concentric Rotor
Multiple points of separation

Eccentric Rotor
One point of separation

Eddy Current Separator Systems

When there is a requirement to separate non-ferrous metals, there is usually a reciprocal need for ferrous metal separation.

Eriez has designed a range of modular systems where customers can purchase one complete unit to separate ferrous and non-ferrous metals.

Typical Modules:

1. Drum and ECS *RevX*

One or two Magnetic Drums with either standard strength ferrite or high strength Rare Earth elements to remove ferrous metals and stainless steel prior to the ECS/RevX. A feeder is used to control and evenly distribute the material onto the drum surface.

2. CP Magnet and ECS *RevX* Module

Commonly installed in Materials Reclamation Facilities. A CP Permanent Suspended Magnet is suspended over a large vibrating feeder to remove steel cans before the material then passes into the ECS/RevX.

FINES-SORT

3. Metal Recovery System

The FinesSort is the ultimate in fine particle metal separation. It consists of two Permanent Magnetic Drums to remove small ferrous particles followed by a RevX NM-ST or RevX-E NM-ST to separate the small non-ferrous particles.

Specifications
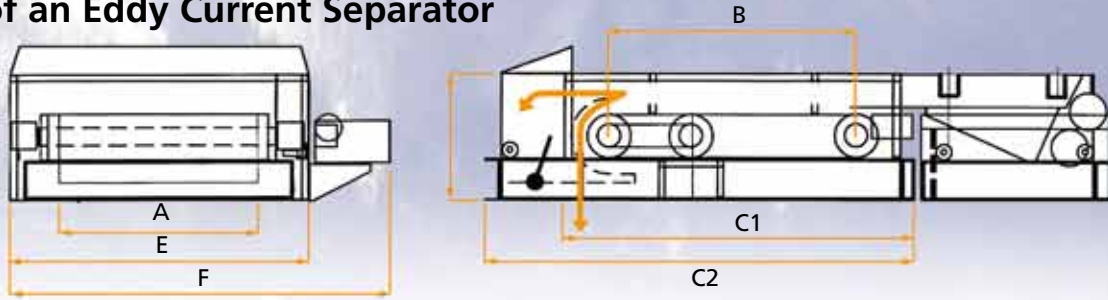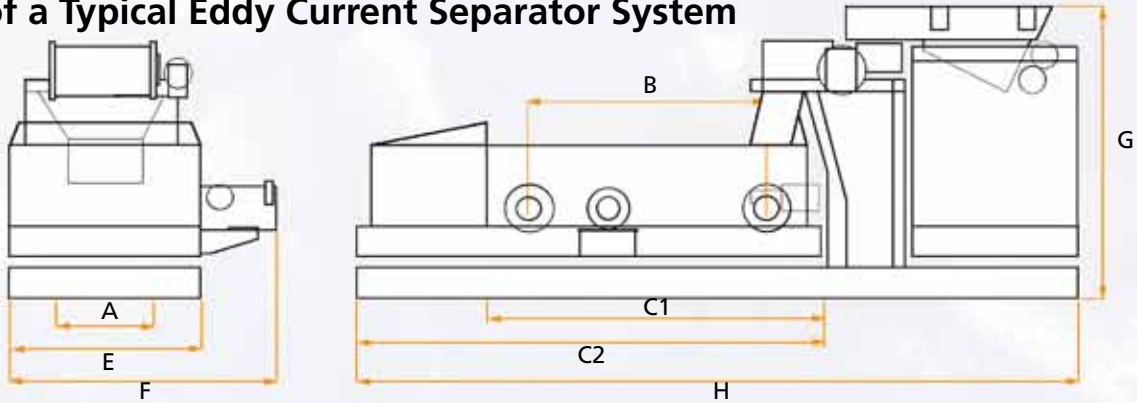## Diagram of an Eddy Current Separator

Diagram of a Typical Eddy Current Separator System

ECS Model	Weight (kg)			Total Power kW belt with rotor drives		Feed Width	Distance between Pulleys		Length without hopper	with hopper	Height All Models	Width	Width with motor	System height	System length
	Rev-X NM	Rev-XE NM	LC	NM	LC	A	Concentric B	Eccentric B	C1	C1	D	E	F	G	H
12	550	-	450	6.25	6.25	305	1500	1345	2170	3215	1115	1000	1485	2540	5100
20	850	-	950	6.25	6.25	500	1500	1345	2170	3215	1115	1125	1810	2540	5100
28	1450	1650	1450	6.25	6.25	600	1500	1345	2170	3215	1115	1325	1810	2540	5100
40	1700	2000	2200	6.25	6.25	900	1500	1345	2170	3215	1115	1630	2115	2540	5100
48	2200	2500	2600	7	9.00	1100	2000	1845	2670	3715	1115	1890	2345	2540	5800
60	2500	2700	3000	7	12.50	1400	2000	1845	2670	3715	1115	2200	2620	2540	5800
80	2900	2800	-	9	-	1900	2500	2345	3170	4215	1115	2650	3130	2540	6300

Notes: 1   All dimensions are in mm, approximate and subject to confirmation at time of order.
2   ECS System typically includes a drum, a vibratory feeder and an ECS unit.

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Capacity per 1000mm Feed width (Tonnes/hour)

PET Flake	-15mm	2-3
Glass Cullet	-40mm	20.0
Car frag	-12mm	5.2
Car frag	12-30mm	12.5
Car frag	30-70mm	20.0
Shredded refuse	-50mm	18.0
Shredded refuse	50-150mm	20.0
Plastic Al	-10mm	10
Copper Pb	-8mm	7
Copper PVC	-6mm	2.25
Ash NF	-100mm	21.5
Sand NF	-100mm	20.0

For advice on individual applications, contact Eriez engineers at address left.