IMRO Eddy Current Separator (ECS)

Non-ferrous metal separation
IMRO Non-ferrous Separator
NFE Metals Recovery or Materials Purification

High-performance IMRO machines are primarily used for the recovery of municipal solid waste (MSW), automotive shredder residues (ASR), shredded material, shredded household appliances, wood, plastics, glass, metal slag, incinerator bottom ash (IBA), shredded electronic waste (WEEE) and residue derived fuels (RDF).

We look after your fines and super-fines
IMRO increases your recycling output

IMRO specializes in separation technology, conveyor technology and recycling plants. Recover valuable materials successfully with high tech dry sorting, separating and conveying systems. The IMRO Non-ferrous Separator is the flagship product of IMRO separation technology, used where high recovery rates and high purity levels are required.

IBA Incinerator bottom ash recycling

The divider is horizontally and vertically infinitely variable. A rotary splitter can be delivered instead of a divider.

... and much more non-ferrous recycling applications!
The truth about Eddy Current Separators made by IMRO

IMRO uses Eddy Current systems to combine all key variables, ensuring reliable and efficient technology for non-ferrous separation.

This is how it is achieved:

- **IMRO RCSX D eccentric rotor high tech advantages:**
  - 40 poles comprising the strongest magnet material
  - Ultra large diameter on inductor pole drum
  - Highest magnetic strength
  - Frequency 1.4 kHz

- **Other manufacturers use:**
  - 38 or fewer poles
  - Small rotors
  - To prevent burn-through of ferrous particles, other manufacturers’ concentric rotors include ceramic-lined drum shells which exponentially reduce magnetic strength and separation power, increasing the gap between material and magnets.

With the IMRO eccentric rotor system, the position of the trajectory peak can be changed by adjusting the angle of attack of the inductor drum from 0 to 20 degrees. This is a crucial advantage compared to concentric systems with a fixed angle of attack. With an infinitely variable pole drum position between 0 to 20 degrees, the point of separation is optimized.

In a concentric rotor, non-ferrous particles are influenced by the magnetic field far too early in the process which prevents optimal separation.

The IMRO RCSX Series

**Sound Technology for more Efficiency**

We produce Eddy Current Separators with different types of rotors. Stronger magnets and lower pole changing frequencies are used for coarser particles than for those used to recycle material comprising fine particles. Optimal machine applications can be engineered with any combination of number and arrangement of neodymium magnets and pole system rotational speed.

- **IMRO Eddy Current Separator RCSX**
  - **RCSX JUNIOR**
    - Coarse particle size separator for sorting and separating non-ferrous materials with integrated control panel.
    - The cost efficient alternative
    - Max. speed/frequency 2500 rpm / 0.30 kHz
  - **RCSX C**
    - Medium particle size separator for sorting and separating numerous non-ferrous materials
    - Max. speed/frequency 3000 rpm / 0.52 kHz
  - **RCSX D**
    - Fine particle size separator for non-ferrous materials
    - Max. speed/frequency 3500 rpm / 1.17 kHz
  - **RCSX D NEO**
    - Very fine particle size separator for non-ferrous materials
    - Max. speed/frequency 3800 rpm / 1.27 kHz

- **IMRO Eddy Current Separator with optional IMRO add-ons:**
  - Conveyor technology
  - Ferrous pre-separation
  - Material feed with vibrating chute
  - Feeding and discharge conveyor

The pole drum system is infinitely variable from 0 to 20 degrees (IMRO Patent).

IMRO Eddy Current Separators comprise a thin modern fiber-reinforced drum shell, to minimize the gap between magnet system and material, optimizing the interaction with the magnetic field.

IMRO uses Eddy Current systems to combine all key variables, ensuring reliable and efficient technology for non-ferrous separation.
Technology and equipment
IMRO RCSX series - perfectly coordinated

IMRO RCSX C, RCSX D, RCSX D NEO and RCSX JUNIOR - the IMRO product portfolio of eddy current separators as well as their numerous features, offer the best technology for the most advanced separation projects. IMRO products are rock solid, thoroughly engineered and constructed with maximum functionality.

maximum recovery of recyclable materials - IMRO - Europe’s separation and conveying experts

The strengths of the RCSX Eddy Current Separators:

1. Infinitely variable pole system 0 - 20° electrically or manually
2. Removable shell ring for easy maintenance
3. Infinitely variable divider
4. Lighting in the discharge chute
5. Telescope beam for belt change
6. Sliding plate in the discharge region
7. Central lubrication
8. Cleaning brush
9. Brush cleaning device
10. Guided labyrinth seal between cornering and conveyor belt
11. Large inspection windows, both sides
12. Exchangeable divider edge
13. Feeding and discharge chute with non-stick coating (Advantage for IBA and slag recycling)
14. Electric drives with TorqLOC® mounting system (Advantage for IBA and slag recycling)
15. Split bearings for anti-corrosion (Advantage for IBA and slag recycling)
16. Monitoring Temperature/vibrations
IMRO Non-ferrous Cascading Separation
Two Separators for better Performance

Every improvement of your plant configuration results in more profitability and generates a competitive advantage. With the new IMRO cascading system, we ensure increased performance and recovery of your recycling processes.

Available for up-front ferrous separation: acceleration belt with NEODYMIUM magnetic pulley.

Two-sided non-ferrous output
Over 30 Years’ Experience in Recycling

Technology should always fulfill the requirements. Would you like to know which valuable materials and impurities are contained in your material flow? Then bring it along and have it analysed in our IMRO Test Centre. Our 30 years’ expertise and experience in the recycling industry guarantees we will optimise your recycling processes.

Equipped with leading edge technology, IMRO Test Centre staff guarantee you are taking the first step in achieving maximum economical and value recovery. Let us demonstrate the performance and the coordinated interaction between all the IMRO separation machinery.

Your advantage: Fast results, efficient plants and equipment, plus added value and immediate profitability in all recycling processes.

We increase your recycling output - IMRO - The Interface Specialist