

# IMRO MagnetSort



**IMRO Eddy Current Separator**

**Recycle Craft<sup>®</sup> by IMRO**

# We look after your small parts - IMRO increases your recycling output

IMRO Maschinenbau specialises 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 of IMRO separation technology, used where high recovery quotas and high purity levels are required.

## Aluminium Recycling



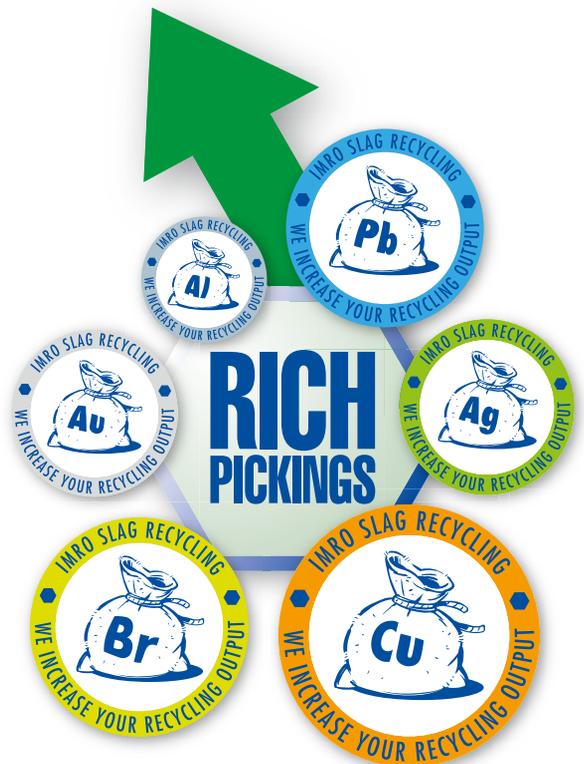
## E-Waste Recycling



## Shredder Scrap Recycling



## Slag Recycling



## IMRO Non-ferrous Separator: NE 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).



**Infinitely variable pole system 0 - 20° (Patent)**



**Removable shell ring for easy replacement of GFK drum shell (Patent)**



**Infinitely variable divider**



**Lighting in the discharge chute**



**Several types of conveyor belt cleaning systems**

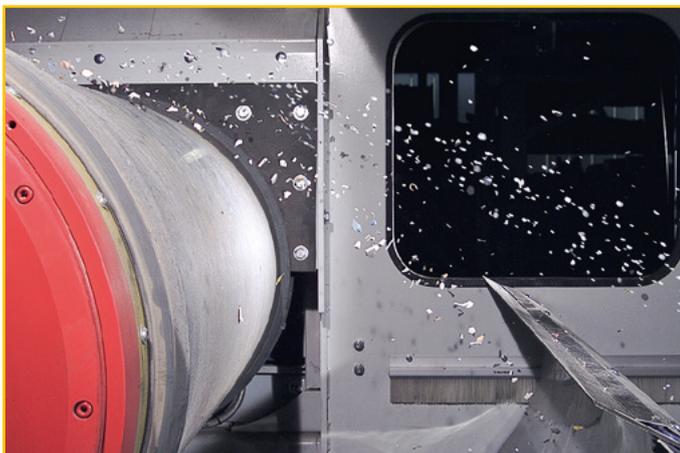


**Special separator version for slag recycling prevents frictional corrosion**

- Split bearings
- Lubricated divider with protective bellows
- Electric drive with TorqLOC® mounting system



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



**Separation technology**

## The truth about Eddy Current Systems made by IMRO

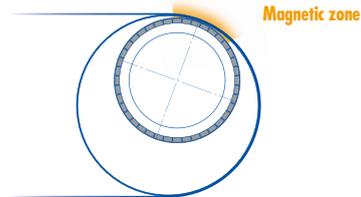
IMRO uses Eddy Current systems to combine all key variables, ensuring reliable and efficient separation technology of non-ferrous particles.

### 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

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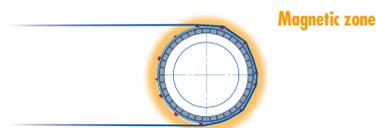
Ferrous parts are not attracted outside the magnetic zone

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.

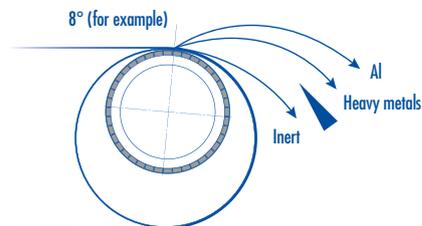
Others



Ferrous parts are attracted in any position because there is no magnetic free zone, causing high wear and tear on belt and drum shell.

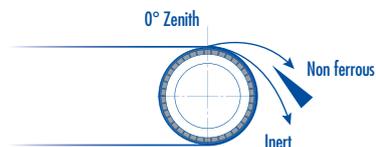
With the IMRO eccentric rotor system, the position of the trajectory peak can be changed by adjusting the angle of attack of the inductor drum from 0 to 20 degrees. This is a crucial advantage compared to concentric systems with a fixed angle of attack. With an infinitely variable pole drum position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

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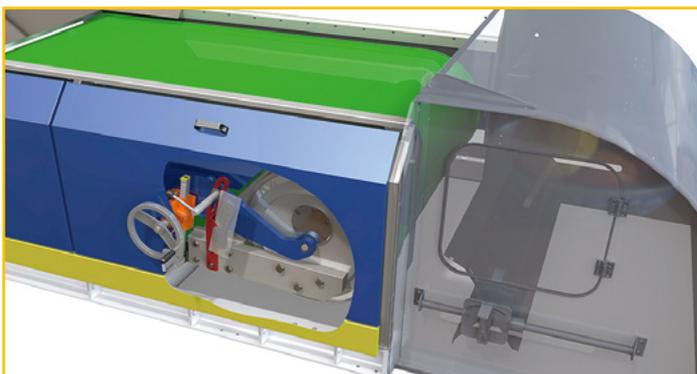


In a concentric rotor, non-ferrous particles are influenced by the magnetic field far too early in the process which prevents optimal separation.

Others



Adjustment is not possible with the concentric system and therefore the trajectory of the non-ferrous particles can not be changed. This impacts especially copper wires and heavy metals.



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

IMRO's electronically operated, infinitely variable magnet systems and infinitely variable dividers are available add-ons.

## 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 finer 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

#### NEW

#### RCSX JUNIOR

Coarse particle size separator for sorting and separating non-ferrous materials with integrated control panel.

The cost efficient alternative

Max. speed/frequency 2600 rpm / 0.30 kHz



#### RCSX B/RCSX C

Medium particle size separator for sorting and separating numerous non-ferrous materials

Max. speed/frequency 2600 rpm / 0.52 kHz

#### RCSX D

Fine particle size separator for non-ferrous materials

Max. speed/frequency 3500 rpm / 1.17 kHz

#### NEW

#### 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
- Material feed with vibrating chute
- Ferrous pre-separation
- Feeding and discharge conveyor

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

The machines are equipped with electrical control systems. Belt and rotor speed can be changed with frequency converters in order to control material feed and separation efficiency.





newmanunipartner.net

# IMRO TEST CENTRE

## Over 25 Years' Experience in Recycling

Technology should always fulfil demand. Would you like to analyze your material and to know about the contained valuables and impurities? Then bring your material along and have it analysed in our IMRO Test Centre. Our 25 years of experience in the recycling industry guarantee the optimisation of your recycling systems.

Leading edge technology will increase your productivity and profitability. Our Test Centre demonstrates the efficiency of the IMRO separation machinery and equipment.

Your benefit: Quick results, competent solutions, efficient machinery and equipment for the recovery of valuable materials and immediate profitability.

**IMRO increases your recycling output - IMRO the Interface Specialist**



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RecycleCraft® by IMRO

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 MASCHINENBAU GMBH

Maximum recovery of recyclable materials - IMRO - Europe's conveying and sorting experts