

BAS[®]



ECS EDDY CURRENT
NON - FERROUS
METAL SEPARATORS



bas-tr.com

for more information

visit our videos;



PET flake and PET fine combined production line ferrous and non-ferrous separation.

ECS EDDY CURRENT NON-FERROUS METAL SEPARATORS

2

Quality

2006/42 EC Machinery Safety Directive Annex-1 2014/35/EU Low voltage Directive
EN-ISO 12100:2010, EN ISO 13850:2015, EN ISO 14120:2015, EN6024-1:2018

BAS® Eddy Current Non-ferrous metal separators are used for separation of non-ferromagnetic metals. Eddy current separators occur eddy current on the magnetic drum as the magnetic drum rotates. At a certain time on its axis, the non-ferrous material enters this field, accelerates and is launched out of the current. By this method, non-ferrous materials and other materials are separated from each other.



PET fine separasyon



PET fine separasyon

Properties

- U 12-24-48 Pole High Qualified Magnetism (N50M)
- ⚡ 400mm - 1.400mm max effective Eddy Current length
- 🗑 Long-life eddy current drum with high precision mechanical engineering
- 📦 Composite Glass Fiber Epoxy / Stainless Steel eddy drum armour
- 🕒 3.600 rpm max drum speed
- 🔧 Adjustable triaxial material splitter
- 📶 Real time data tracking with PLC user-friendly interface; bearing temperature, rpm drum rotation, m/s belt speed etc.
- 📋 Automatic lubrication
- 🔄 Easy belt replacement mechanism
- 🌞 Non-ferrous metal separation between +1mm - 200mm particular size
- 📐 Adjustable magnetism position on the eccentric drum
PET flake separation



PET flake non-ferrous separation



PET packaging non-ferrous separation



Municipality waste recycling plant BAS ferrous and non-ferrous metal separators



ECS-EC-1000-24 production

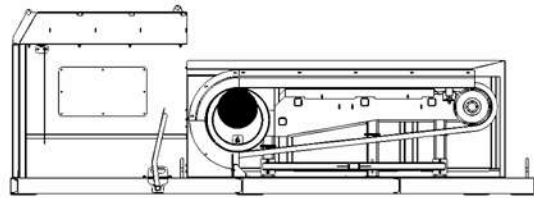
- Eddy current non-ferrous metal separators consist of eddy current drum, belt, feeder and drive groups.
- Eddy current separators are manufactured in different poles depending on the size of the particulars.
- The lower the grain size needs greater the number of poles over the drum.
- Drums rotate up to 3.600 rpm. Belt speed is controlled by a speed adjustment panel to optimize separation quality.



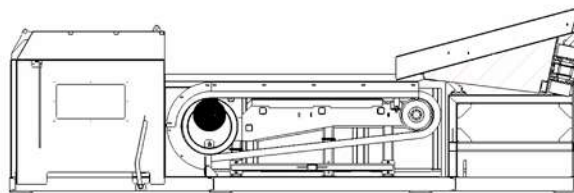
PET flake
Ferrous and non-ferrous separation

BAS® ECS separators vary depending on the size of the particulars it separate;

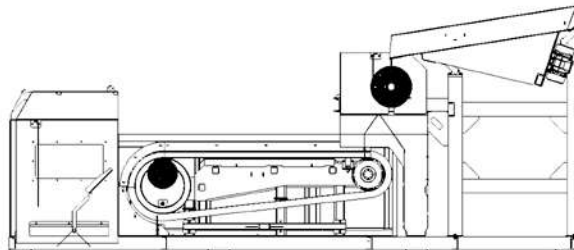
- For +50mm particular sized material 12 pole BECS-12-C & BECS-12-EC series are used
- For +20-50mm particular sized materials 24 pole BECS-24-EC series are used
- For +1-20mm particular sized materials 48 pole BECS-48-EC series are used



ECS-EC series eddy current non-ferrous metal separators have magnetic drum and conveyor that occur eccentric eddy current in basic principle. It is mostly used in high humidity materials that cannot be fed with the feeder.



ECS-EC-VF series separators have magnetic drum and feeder that occur eccentric eddy current. Feeder, conveyor belt and eddy current drum speeds can be controlled and monitored via PLC controller. Material feeding and spreading can be controlled via vibratory feeder.



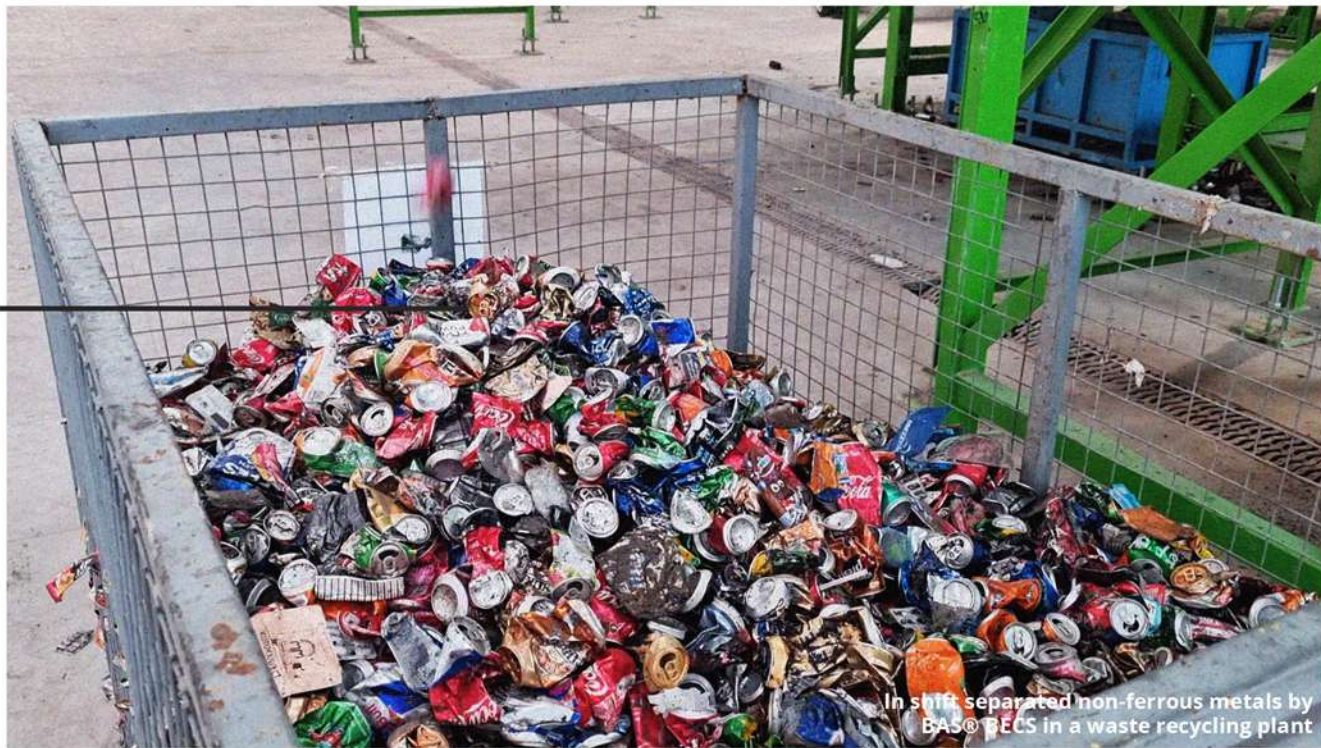
ECS-EC-WD series separators have magnetic drum for ferrous metal separation at first, secondary they have eccentric eddy current drum and vibratory feeder. Feeder, conveyor belt and eddy current drum speeds can be controlled and monitored via PLC controller.

Municipality waste recycling plant application

BAS® BECS-12 and BECS-24 Eddy Current Metal separators are used within the scope of ferrous and non-ferrous metal recovery applications in municipality waste recycling plants. 12-pole and vibratory fed eddy current non-ferrous metal separators are used for 3-dimensional coarse materials, 24-pole series are preferred for 2-dimensional small-grain materials. BAS® has many years of experience in waste municipality recycling facilities, it offers long life eddy current non-ferrous separation applications. It provides non-ferrous recovery performance of over 85%* with its standard non-split belt, 3-way movable ergonomic splitter and adjustable eddy drum angle.

**Valid in the relevant particle size fraction, capacity and humidity content declared by the BAS team.*

Check out the application videos for more information;



PET recycling application



In the international PET flake and PET fine product procurement, ferrous and non-ferrous metal impurities' ratio is high important. Sensitive BAS® BECS-48 series eddy current separators are used in micronized and flake PET recycling applications. BECS-48 series eddy current metal separators occur eddy current with high frequency and perform perfectly even in the separation of aluminums below-1mm. In BECS-48-WD series, before the non-ferrous metal separation, it has combined magnetic drum and ferrous metals are separated at first. After this step non-ferrous metal separation completes. The equipment has a PLC module as standard and every functionality about the system is controlled, monitored and recorded instantly.

Check out the application videos for more information;



Aluminum Scrap Recycle Application

Eddy current separators play a critical role in aluminum recycling facilities. Ensuring the quality of the final product aluminum's from the facility is directly related to the performance of the eddy current separator. To achieve material liberation that the process should be designed using primary and also secondary crushers too. It depends on raw material variations. Eddy current separators cannot separate materials with all particle size. Therefore, for efficient eddy current separation in aluminum recovery facilities, the material must be screened into the relevant fraction ranges before feeding. The screened material should be fed to the eddy current separator with the correct pole and frequency to achieve the best desired results.

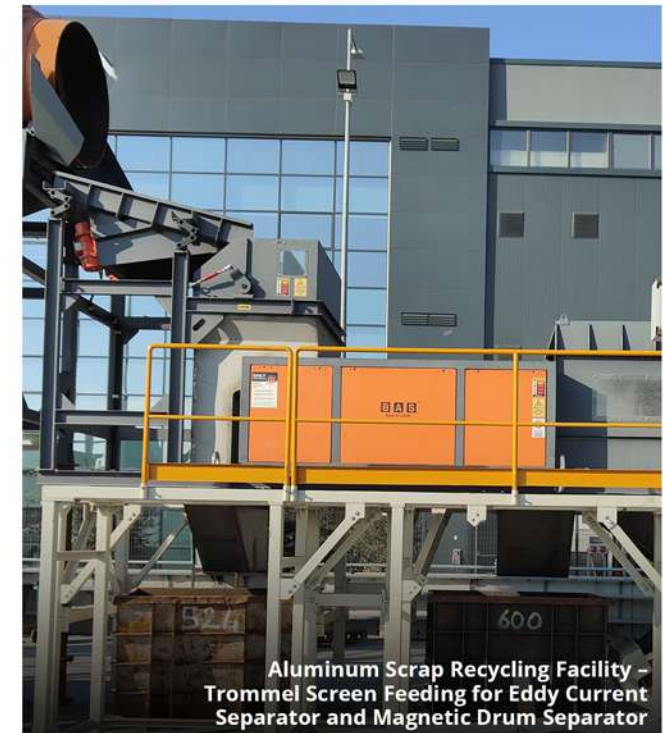
BAS eddy current separators allow combined separation. Firstly, a low-intensity or high-intensity magnetic drum separator can be separate ferrous metals. Subsequently, non-ferrous materials can be fed eddy current drum for efficient separation. For the right equipment selection, you can contact the BAS team.



Aluminum Scrap Recycling Facility -
Eddy Current Separator Material Feeding and Product Output Line



Separation of Aluminum
Particles Affected by Eddy Currents



Aluminum Scrap Recycling Facility -
Trommel Screen Feeding for Eddy Current
Separator and Magnetic Drum Separator



MODELS



MODEL	BELT WIDTH	RPM	MOTOR	POLE	GRAIN SIZE	BELT MOTOR	DRUM TYPE	VIBRATORY FEEDER	PRE SEPARATION									
BECS-500-EC-48	500 mm	3000 rpm	5,5 kW	48	1-20 mm	1,5 kW	ECCENTRIC	OPTION	OPTION D300 mm D500 mm									
BECS-800-EC-48	800 mm					2,2 kW												
BECS-1000-EC-48	1000 mm		7,0 kW															
BECS-1200-EC-48	1200 mm																	
BECS-1400-EC-48	1400 mm																	
BECS-1000-EC-24	1000 mm	2500 rpm	5,5 kW	24	20-50 mm	1,5 kW												
BECS-1200-EC-24	1200 mm		7,0 kW			2,2 kW												
BECS-1400-EC-24	1400 mm					3,0 kW												
BECS-1600-EC-24	1600 mm																	
BECS-2000-EC-24	2000 mm																	
BECS-1000-EC-12	1000 mm		5,5 kW	12	+50 mm	1,5 kW												
BECS-1200-EC-12	1200 mm		7,0 kW			2,2 kW												
BECS-1400-EC-12	1400 mm					3,0 kW												
BECS-1600-EC-12	1600 mm																	
BECS-2000-EC-12	2000 mm																	



BAS three letters that makes our mission as a beneficiation solution maker and separation technologies represent three main headings.

Beneficiation: Ore beneficiation systems

Application: Field application abilities

Separation: Separation technologies of ore or recycling raw materials

BAS caters to all possible recycling and ore beneficiation processes all around the world with 2 factories in total 40,000 m² and more than 500 employees. BAS offers ore beneficiation turnkey solutions, high-tech separation and field applications with its own engineering and laboratory. BAS is responsible for all ore mineralogy, production engineering & design from laboratory work to production. Together with the laboratory service, it works on all possibilities on the ore and optimizes the solution. In separation solutions, it performs on limited lab & pilot-scale preview of the methods to be applied and provides field applications.

As BAS that we are a fair team that works with passion and strive for excellence. And applies the right engineering solutions in the field.

HEAD OFFICE & MAIN FACTORY

BAŞKENT OSB 51.CAD NO:3 SİNCAN

ANKARA TURKEY

0090312 8154152

info@bas-tr.com

SECOND FACTORY

BAŞKENT OSB BAŞKENT BOULEVARD 2. STREET NO:5 SİNCAN

ANKARA TURKEY

0090312 3944691

POLAND OFFICE

NADBRZEZNA 2, 43-300

BIELSKO-BIALA POLAND

004853 3084009

poland@bas-tr.com

CANADA OFFICE

68 BEDLE ATTORNEY. TORONTO / ON M2H 1 K8 /CANADA

001416 6481574

canada@bas-tr.com

SOUTH KOREA AGENCY

8-1, ARAETSAEUDAE-GİL, UIWANG-SI, GYEONGGI-DO,

REPUBLIC OF KOREA

008231 4223336

korea@bas-tr.com

