High Frequency Eddy Current Separator

Standard Controller - Designed for an entry level system where basic controls are desired. This controller only controls the Conveyor Belt speed and the Eddy Current Rotor rpm. Included in a Standard Enclosure with a System Disconnect are:

- A VFD for the Rotor Speed adjustment up to 3,600 rpm.
- A VFD for the Belt Speed adjustment up to 600 fpm.
- On/off push button start and stop of the Eddy Current.

Electronic Controller - Designed for larger systems that run 24/7 and need a fully programmable controller. Systems include either a Vibratory Feeder or infeed conveyor to meter the flow and spread out the flow, Rare-Earth Drum Separator, or a Metering Conveyor with Rare Earth head pulley to magnetically separate out all the ferrous material prior to the Eddy Current Belt. There are sensors to monitor critical aspects of the system, provide feedback, and will shut down if your predetermined limits are exceeded. Included in a fully automated system enclosure are:

- Complete system disconnect.
- HMI touch screen with PLC Controller for multiple I/O’s.
- VFD to set the Eddy Current Rotor rpm.
- Encoder for monitoring rotor rpm.
- Rotor bearing temperature sensors.
- Rotor vibration sensors.
- VFD to set the Eddy Current Conveyor Belt speed.
- Belt tracking sensors to monitor belt conditions.
- Motor Starter for Drum Separator.
- Motor Starter for Vibratory Feeder or Infeed Conveyor.

Modes of operation:

- **Automatic Mode:** pre-programmed system start-up.
- **Manual Mode:** individual component start-up and speed adjustment.
- **Status Mode:** check or adjust any operating parameters.
- **Belt Alignment Mode:** align belt after a belt change.
**Auto Recycling Specific Benefits:**
- Enables maximum recovery of “ultra-fine (<4mm) Zorba” as well as “fine (4-10mm) Zorba.”
- Excellent for recovering waste stream material from chopping lines; enables maximum recovery of Aluminum/Copper from waste stream.
- Enables maximum recovery of light fraction in ICW preparation lines.
- Zorba Purity Targets can be tailored to customer requirements.

**Plastics Recycling Specific Benefits:**
- Ideal for installing after granulators in PET applications to enable maximum rejection of metal contamination to protect the granulator from severe and extensive damage.
- Ideal for installing either before or after the shredder to enable maximum rejection of metal contamination of shredded plastic and ensure the highest quality of the final plastic product.

(Not only will the maximum quantity of material be recovered, but maximum purity of recovery targets will be achieved as well.)
**General Benefits:**
- Available in 1M, 1.5M, and 2M options.
- Optional vibratory feeder available to provide uniform flow on the Eddy Current belt for maximum separation effectiveness.
- Optional rare earth high intensity drum separator at the infeed to pull out all ferrous contamination before falling onto the Eddy Current belt.
- Thermoplastic belt with polyurethane cover resists punctures and wear, resulting in fewer belt changes. Flexwalls with over-belt guards seal off the edges.
- Adjustable splitter allows you to precisely adjust conveyor sides where the material separation division is to optimize sorting.
- Belt changes are quick and easy—our hydraulic system uses a pump and cylinders that raise the off drive side, so the belt can be slipped off the side of the conveyor to facilitate seamless, quick and simple belt changes.

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**Ultra-Fine Zorba (<4mm)**
- 90% Product Recovery

**Fine Zorba (4mm-16mm)**
- 94% Product Recovery

**PET Flake w/Aluminum (<4mm)**
- 93% Aluminum Contamination Removed

**PET Flake w/Aluminum (4mm-10mm)**
- 96% Aluminum Contamination Removed

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