

EDDY CURRENT SEPARATORS



GENERATE INCOME ... from recovered nonferrous metal
SAVE MONEY ... by reducing materials that go to landfill
IMPROVE QUALITY by removing contaminating nonferrous
SAVE ... on costs of manual sorting

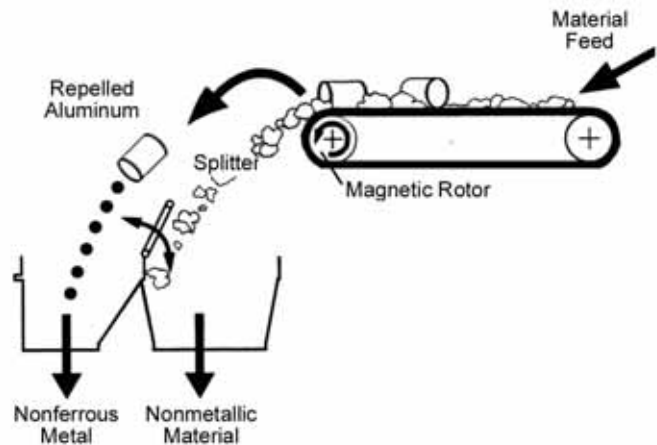
Operation

Material is fed onto the conveyor belt of the eddy current separator, which moves it across the magnetic rotor where separation occurs (Fig. 1). The two streams of material discharge into a housing. The housing has a splitter to divide the nonferrous metal from the nonmetallic material, such as paper, plastic, wood or fluff.

The key component of the eddy current separator is the magnetic rotor, which has a series of permanent rare earth magnets mounted on a support plate attached to a shaft.

The magnetic rotor is surrounded by (but not attached to) a wear shell which supports the conveyor belt. This allows the rotor to spin independently and at a much higher speed than the wear shell and belt. When a piece of nonferrous metal, such as aluminum, passes over the separator, the magnets inside the rotor rotate past the aluminum at high speed. This forms eddy currents in the aluminum which in turn create a magnetic field around the piece of aluminum. The polarity of that magnetic field is the same as the rotating magnet, causing the aluminum to be repelled away from the magnet.

This repulsion makes the trajectory of the aluminum greater than that of the nonmetallics, allowing the two material streams to be separated.



Applications

Dings eddy current separator is engineered to withstand severe outdoor environments and dirty, dusty surroundings found at many job sites. Permanent rare earth magnets used in the separator are well-suited to industrial environments.



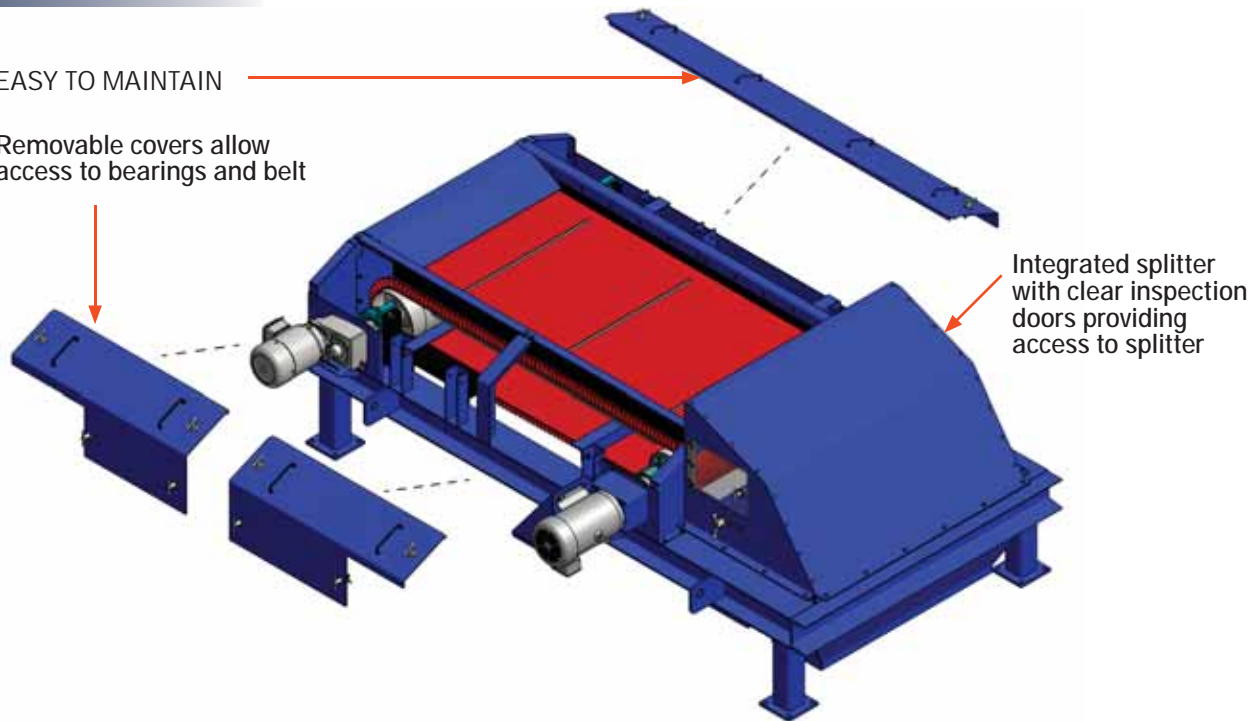
Typical applications include:

- Material Recovery Facilities (MRF)
- Aluminum Can Recycling
- Electronic Scrap Processing
- Auto Recycling / Shredding
- White Good Recycling
- Plastics
- Glass

Features

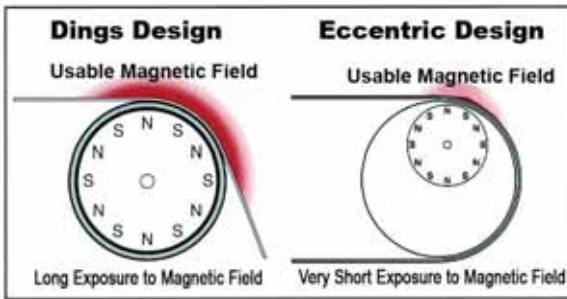
EASY TO MAINTAIN

Removable covers allow access to bearings and belt



LARGER MAGNETIC FIELD

Separators with an eccentric design have small diameter rotors with a narrow arc of exposure to the magnetic field. With the Dings full diameter rotor, the burden has a longer exposure to the magnetic field.

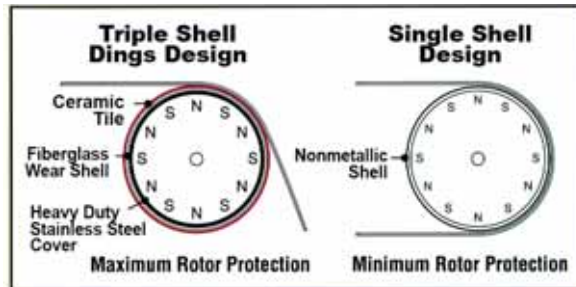


RARE EARTH MAGNETS

The permanent rare earth magnets used in the separator are well-suited to industrial environments. They offer high strength and long life; do not require power; and do not rely on sensitive electronics requiring clean, dry surroundings.

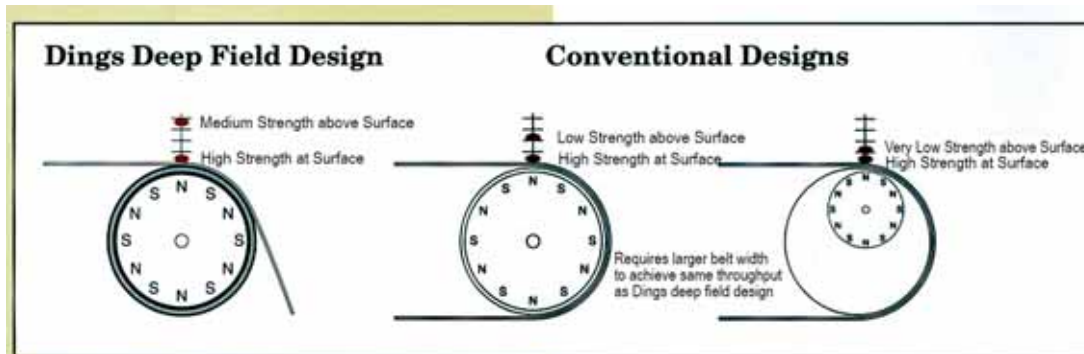
TRIPLE LAYER SHELL

Triple shell layers of ceramic tile, fiberglass shell, and heavy duty stainless steel, protect the magnetic roller assembly. This means longer life, and lower maintenance and repair costs.



DEEP MAGNETIC FIELD

High magnetic field strength at the surface and maintains enough magnetism at a distance to process deep burdens. To achieve the same throughput as Dings, other manufacturers models must be sized larger, with wider and more costly pulleys, belts, rotors and frames.



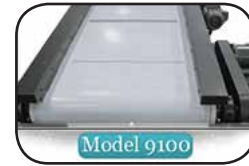
Sizes

MODEL 9100

Rotor Diameter: 7"

Belt Width: up to 48"

Applications: Material Recycling Facilities, Aluminum can recycling



MODEL 9900

Rotor Diameter: 9"

Belt Width: 36" or 60"

Applications: Electronic scrap metal processors, aluminum can recycling, small particle processing & recovery operations



MODEL 9500

Rotor Diameter: 13"

Belt Width: up to 96"

Applications: Severe duty applications such as auto shredding & high volume Material Recycling Facilities



Specifications

- High temperature filament wound shell
- Ceramic tile bonded to shell in staggered pattern
- Patented 11 gauge, 304 stainless steel outer enclosure
- Ertalyte® heads on rotor assembly provide superior dimensional stability.
- Self-aligning, oversized, heavy-duty rotor bearings
- High strength nitrile belt with thermo welded PVC "T" cleats and wide walls keeps material moving freely.
- 11 gauge, 304 stainless steel cowling with easily adjustable and replaceable neoprene side skirting prevents material from being entrapped under belt.
- Heavy duty structural steel I-beam frame and support structure.
- Belt speed fixed at 400 FPM for best separation efficiency.
- Engineered, designed and fabricated in the USA.

Options

Non-Standard Voltages

Control Panel

Splitter Assembly

Variable Speed Belt

PROVIDING SEPARATION
SOLUTIONS SINCE 1899

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