

# Overhead Self-Cleaning Magnets:

# Overhead For Recycling Applications

Dings self-cleaning electro and permanent magnets are ideal for recovering valuable ferrous metal and improving the purity of recycled materials.

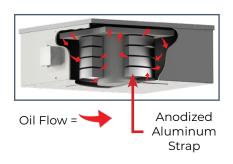


## Self-Cleaning Overhead Electromagnets

- Balanced magnetic circuit for maximum efficiency and equal distribution of length, width and depth of magnetic field.
- Stainless steel bottom and center wear plate provides extra protection in the main impact area
- ♦ IP56 AGMA Class II Motor
- ♦ Terminal connection box is NEMA 4 weather tight
- 9 different field strengths available

### **Dings Electromagnetic Coils**

- No insulation is needed with anodized aluminum straps-eliminating the major cause of coil failure (insulation breakdown)
- More magnetism and separating power generated by extra turns
- Each turn is exposed to cooling oil assuring a stronger, more efficient magnet
- Eliminates the need for external oil expansion pipes or tanks that require maintenance and can be damaged







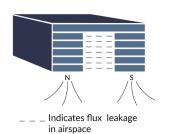
## Self-Cleaning Overhead Permanent Magnets

- Unique construction smaller, lighter magnet for a given strength than any other in the industry!
- Magnet housing filled with Ceramic VIII magnet material
- Non-magnetic stainless steel frame construction that prevents collection of ferrous metals
- ♦ IP56 AGMA Class II Motor
- ♦ 5 different field strengths available

# Dings DFC Design improves the overall performance of the magnet in 3 ways

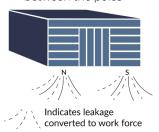
- ♦ The magnetic field is stronger
- The magnetic field extends deeper
- The magnetic field pattern is more uniform

Conventional Magnetic Circuit With "filler" between the poles



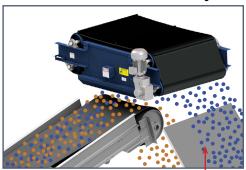
Dings Magnetic Circuit with blocking magnets between the poles

On Magnetism

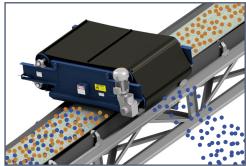


#### Inline Mounting Position

#### Crossbelt Over the Head Pulley



Crossbelt Over the Conveyor Belt



Splitter

Non-Magnetic Material

Magnetic Material

Inline orientation is a more efficient mounting position than Crossbelt over the conveyor belt. With an inline mounted magnet, ferrous metal is liberated from the material as it is discharged from the conveyor making it easier to separate. Inline orientation sometimes permits the use of a smaller more economic magnet compared to cross-belt over the conveyor belt because the suspension height is reduced.

Cross-belt over the head pulley orientation is a more efficient option than mounting over the belt. One reason for this is the conveyor belt flattens as it reaches the pulley allowing for a reduced suspension height. Another is as the material leaves the conveyor it becomes airborne liberating the tramp metal and making it easier to separate. This orientation may permit the use of a smaller more economic magnet.

In a cross-belt over the conveyor belt mounting position the magnet is installed at a right angle to the travel direction of the material on the belt. Tramp metal is collected by the magnet and discharged by the magnet's self-cleaning belt into a collection bin along side the conveyor. This orientation is commonly used when the magnet is being installed on an existing conveyor.

### More Dings Company Magnetic Separation Equipment

# MRF (Material Recovery Facility) Overhead Self-Cleaning Electromagnet

3" high cleats



#### Magnetic Head Pulley

Available in 3 different strength series



#### Severe Duty Overhead Self-Cleaning Electromagnet

Stainless steel pads and cleats to protect against damage caused by sharp metal



#### **Eddy Current Separator**

Splitter

Separate non-ferrous metal



#### Deep Draw Drum



## **Engineering Driven - Customer Service Focused**



Dings Company Magnetic Group engineering and sales staff work together from our Milwaukee, WI factory to provide outstanding customer service from experts in magnetic separation. We listen to our customers to gain an understanding of their needs and apply our experience in their trade to provide magnetic separation equipment that is sized and positioned for the best possible performance in their specific application.