



# ELECTROMAGNETS



## INDUSTRIAL ELECTROMAGNETIC SEPARATORS



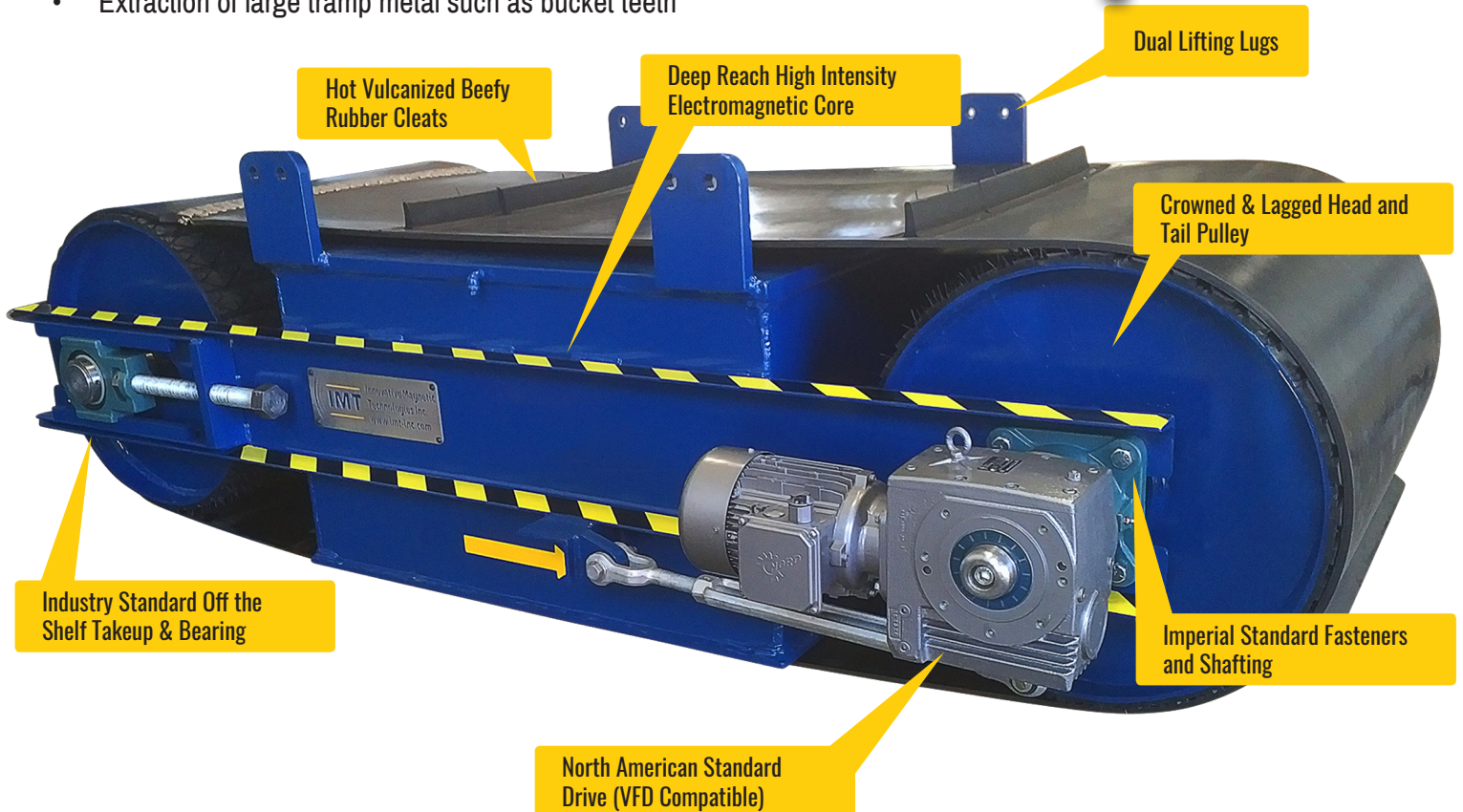
- Superior Magnetic Strength
- Low Maintenance
- Custom Sizes Available
- Flexible Installation Options
- In-stock Inventory

## ELECTROMAGNETIC SEPARATORS FOR SEVERE DUTY APPLICATIONS

Suspended Electromagnetic Separators provide powerful magnetic protection from tramp metal contamination in large operations such as Mining, Pulp Mills, Mineral Processing, Sawmills, Biomass, Recycling and Aggregate. Defend equipment such as crushers, grinders, chippers, mulchers, presses, hogs, and hammermills from hazardous tramp metal damage while providing a metal free product.

Electromagnets are ideal for conveyor systems with:

- Deep Burden Depths
- Heavy Bulk Densities
- High belt speed
- Entrapped tramp metal within conveyed product
- Extraction of large tramp metal such as bucket teeth



### FEATURES

- Manual or Self Cleaning configuration
- Cross Belt or Inline Suspension
- Standard size range 36", 42", 48", and 54" widths
- Custom sizes available



## SELF CLEANING OR MANUAL CLEANING

In order to clean the magnet face of a **manual cleaning magnet**, the magnet must be shut off which releases the captured tramp metal and subsequently falls from the magnet face. Typically, a trolley system is installed to move the magnet away from the conveyor so the reject ferrous material can fall directly into a bin or on the ground.

**Self-cleaning** electromagnetic separators feature a continuously rotating cleated belt around the unit. When ferrous tramp material is captured to the belt, the cleats swiftly move the tramp across the magnet face where it is discharged once it leaves the magnetic field. Self-cleaning electromagnets are by far the most desirable configuration in operations where frequent amounts of tramp metal as it does not interrupt the process.

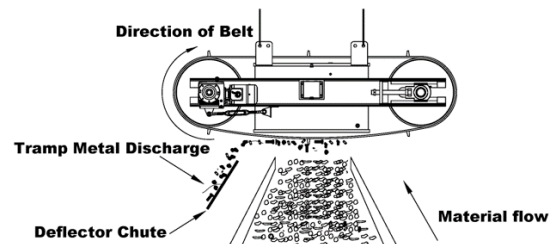


SELF CLEANING ELECTROMAGNETIC SEPARATOR  
DISCHARGING TRAMP METAL TO A CHUTE

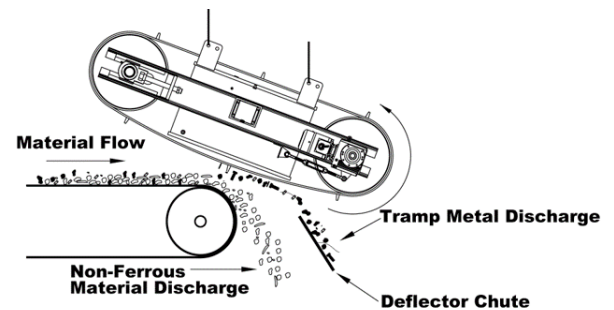
## CROSSBELT VS INLINE SUSPENSION

Installing a self-cleaning electromagnet in a **cross belt configuration** means the magnet is suspended perpendicular to the belt conveyor. Ferrous material is attracted by the strong magnetic field, pulled through the burden, and captured to the magnet face where it is discharged to a reject bin or chute off the side. Positioning the magnetic separator over the head pulley provides optimal recovery as the conveyed material is in free fall and tramp metal is freed from the burden in a kinetic state.

**Inline positioning** of a belt magnet means the unit is installed parallel to the conveyor and suspended over the head pulley. Ferrous material is extracted from the conveyed material as it passes over the head pulley, held to the rotating belt around the electromagnet and then discharged to a chute beyond the conveyor. Typically, a splitter plate is installed to segregate the desired product flow from the reject flow.



CROSSBELT SUSPENSION



INLINE SUSPENSION

# APPLICATION WORKSHEET

Company: \_\_\_\_\_  
Contact: \_\_\_\_\_ Address: \_\_\_\_\_  
Phone: \_\_\_\_\_ City: \_\_\_\_\_ State/Prov: \_\_\_\_\_  
Email: \_\_\_\_\_ Postal: \_\_\_\_\_ Country: \_\_\_\_\_

|   |   |                                       |
|---|---|---------------------------------------|
| <input type="checkbox"/> Suspended Plate Magnet | <input type="checkbox"/> Electromagnet            | <input type="checkbox"/> VIBRA-SEP    |
| <input type="checkbox"/> Cross Belt Separator   | <input type="checkbox"/> Magnetic Plate Separator | <input type="checkbox"/> Grate Magnet |
| <input type="checkbox"/> Magnetic Head Pulley   | <input type="checkbox"/> Drum Separator           | <input type="checkbox"/> Unknown      |

## APPLICATION INFORMATION

Type of Material: \_\_\_\_\_ Bulk Density: \_\_\_\_\_  
Particle Size Range: \_\_\_\_\_ Product Temp: \_\_\_\_\_  
Max Lump Size: \_\_\_\_\_ % Moisture: \_\_\_\_\_  
Ferrous Size Range: \_\_\_\_\_ Burden Depth: \_\_\_\_\_

## CONVEYOR INFORMATION

Flat Belt  Troughed Belt  Conveyor Incline: \_\_\_\_\_ Ambient Temp: \_\_\_\_\_  
Chute  Vibratory  Belt Width: \_\_\_\_\_ Head Pulley Dia: \_\_\_\_\_  
Other (Please Specify): \_\_\_\_\_ Belt Thickness: \_\_\_\_\_ % Moisture: \_\_\_\_\_  
Belt Speed: \_\_\_\_\_ Plant Voltage: \_\_\_\_\_

NOTES: