



# Dings magnetic group

## General Overhead Magnet Quote Request

Company: \_\_\_\_\_

Quote Required Date: \_\_\_\_\_

Address: \_\_\_\_\_

Contact Person: \_\_\_\_\_

City, State, ZIP: \_\_\_\_\_

Contact Email: \_\_\_\_\_

Phone/Cell: \_\_\_\_\_

Email Completed RFQ to: [magsales@dingsco.com](mailto:magsales@dingsco.com)

Date Equipment Required by: \_\_\_\_\_

### Information for Aggregate Applications

Type of Material Being Conveyed: \_\_\_\_\_

Belt Width: \_\_\_\_\_ inches

Belt Speed: \_\_\_\_\_ fpm

Belt Capacity: \_\_\_\_\_ tph

Bulk Density: \_\_\_\_\_ lbs/ft<sup>3</sup>

Max Lump Size: \_\_\_\_\_ inches

Max. Burden Depth: \_\_\_\_\_ inches <sup>(b)</sup>

Requested Magnet Suspension Height: \_\_\_\_\_ inches <sup>(a)</sup>

Trough Depth (if known): \_\_\_\_\_ inches <sup>(b)</sup>

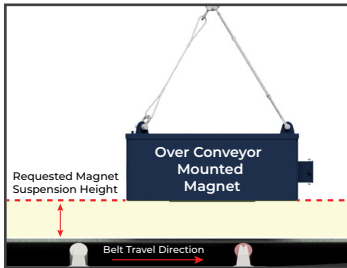
Conveyor Inclined? Yes No Inclined: \_\_\_\_\_ ° degrees

Trough Idlers: 0° degrees 20° degrees 35° degrees 45° degrees <sup>(b)</sup>

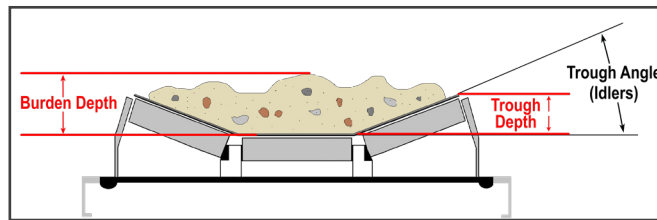
Supply Requirements: Volts: \_\_\_\_\_ Phase: \_\_\_\_\_ Cycles Per Second (Hz): \_\_\_\_\_

a) Description of magnet suspension height.

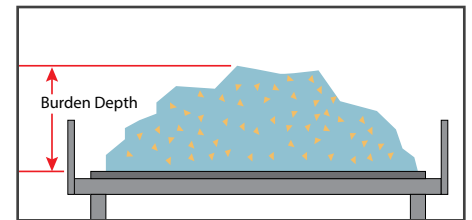
Description of Largest & Smallest Size of Metal to be Removed: \_\_\_\_\_



b) Description burden depth for troughed belt (idler angle and trough depth indicated).



b) Description of burden depth for flat belts (no idler angle/trough depth entries needed)



### Overhead Magnet Selection

Electromagnet Permanent

Self-Cleaning Stationary

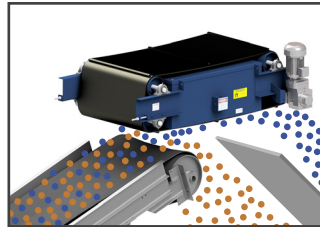
Overhead Mounting Selection:

Inline

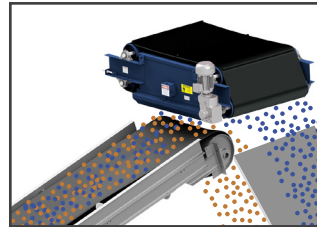
Cross-Belt Over Conveyor

Cross-Belt Over Head Pulley

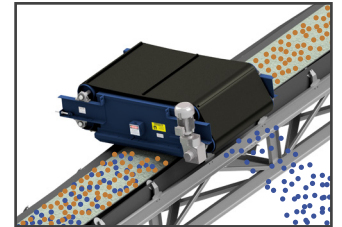
\*Inline mounted over head pulley



\*Cross-belt mounted over head pulley



\*Cross-belt mounted over the conveyor



Non-Magnetic Material Magnetic Material

### Overhead Magnet Options

1" Rubber Cleats (STD)

Dust Cover

Hazardous Location

3" Rubber Cleats

Pulley Guard

CSA Approved Model

High Temp. Belt

Zero Speed Switch

4-Point Suspension System

Armor-Clad Durabelt

\*Stationary Model Only

Special Requirements: \_\_\_\_\_

### Rectifier Options

\*Note: Electromagnets Require a Rectifier for Operation:

Rectifier:

Yes: No:

ETL Listed Model

Hazardous Location

Call us for Expert Support of Dings Co. Equipment - Regardless of its Age

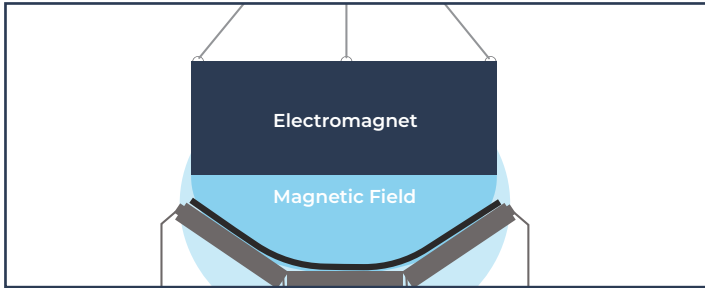


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## Factors in Selecting an Overhead Magnetic Separator

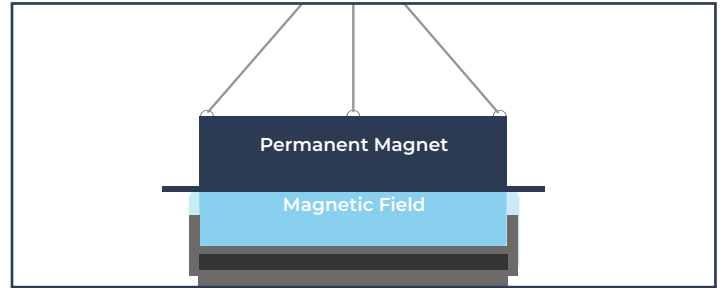
### Type of Magnetic Separator

#### Electromagnets



The magnet suspension height required to accommodate the burden depth and lump size of material conveyed in troughed belts makes the electromagnet with its deep magnetic field the magnet of choice. Tramp metal is dropped from a stationary electromagnet by cutting its power.

#### Permanent Magnets



Permanent magnets are space efficient when used in tight space portable plants. They can also be an economical alternative to an electromagnet if it provides the metal separation performance required which is often the case with material being conveyed on a flat belt. Ferrous metal collected must be manually scraped from the surface of a permanent stationary magnet,

### Self-Cleaning vs. Stationary

#### Self-Cleaning Models



Dings Self-Cleaning Models are ideal when tramp metal is common and the time and manpower needed to clear a stationary model is problematic.

The Self-cleaning belt continuously travels across the face of the magnet to automatically discharge tramp iron into a collection bin or other receptacle.

#### Self-Cleaning Belt Options

- ◇ Standard multi-ply rubber belt with hot vulcanized 1" cleats for superior adhesion.
- ◇ Multi-ply rubber belt with hot vulcanized 3" cleats to sweep away large diameter cans. Ideal for material recovery facilities.
- ◇ Dings 'Durabelt'– stainless steel pads and cleats protect the entire impact area and are easy to replace in the field. Built for tough applications like concrete recycling.

#### Stationary Models



Stationary magnets are used when tramp metal is rare in your process but must be removed.

Stationary magnets, without the belt assembly and drive motor of a self-cleaning model, can be positioned closer to the material being conveyed. The lower suspension height makes the use of a smaller more economical magnet a possibility.


Another benefit of Dings stationary magnets having no moving parts is that they are virtually maintenance-free. Just check the cooling oil on electromagnet models.

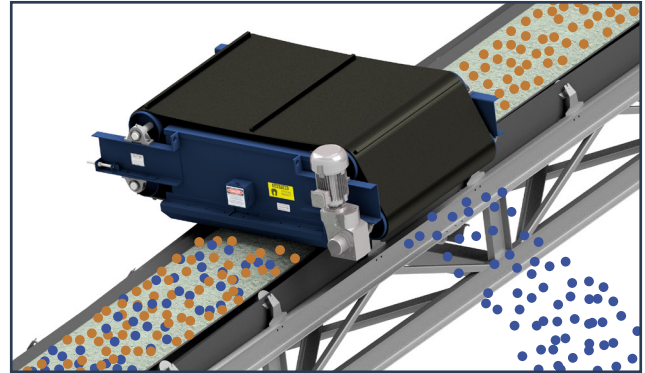
### Mounting Position's Effect on Performance

#### Crossbelt Over the Belt Option Benefits

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 in an easily accessible area on an existing conveyor.

Magnetic Material: 

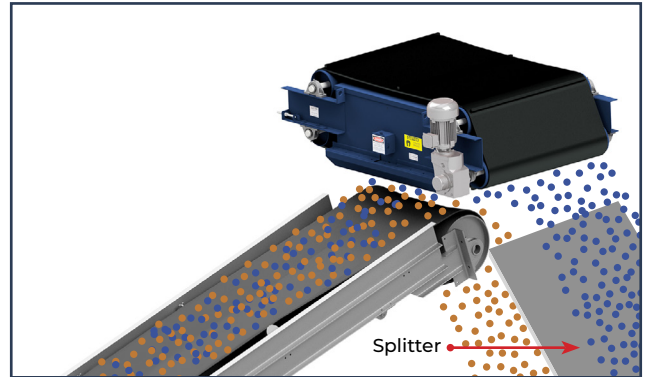
Non-Magnetic Material: 



Mounted crossbelt over the belt

#### Crossbelt Over the Head Pulley Option Benefits

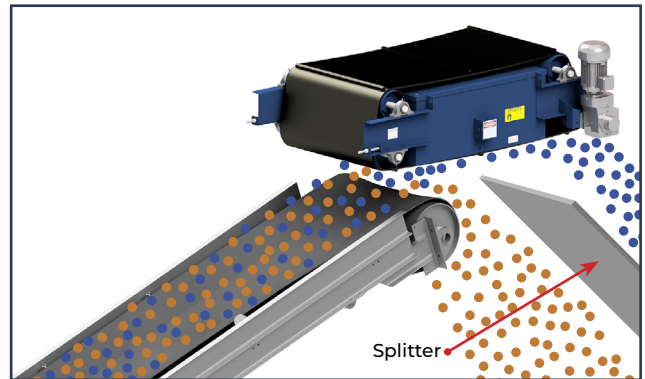
Cross-belt over the head pulley orientation is a more efficient option than mounting over the belt. One reason for this is the conveyor belt flattens as it reaches the pulley allowing for a reduced suspension height. Another is as the material is discharged from the conveyor it becomes airborne, liberating the tramp metal and making it easier to separate since it doesn't need to be pulled through the material burden. Due to these factors this orientation sometimes permits the use of a smaller magnet in comparison to cross-belt over the conveyor orientation. Cross-belt over the head pulley magnets are often used in conjunction with a splitter to ensure proper separation.



Mounted crossbelt over the head pulley

#### Inline Mounting Option Benefits

Inline orientation is a more efficient mounting position than Crossbelt over the conveyor. With an inline mounted magnet, as the material is discharged from the conveyor it becomes airborne. This liberates the tramp metal making it easier to separate since it doesn't need to be pulled through the material burden. This along with its lower required suspension height sometimes permits the use of a smaller more economic magnet as compared to cross-belt over the conveyor orientation. Inline Magnets are used in conjunction with a splitter to ensure proper separation between burden material and tramp metal.



Mounted inline

## Engineering Driven - Customer Service Focused