



## SUSPENDED OVERHEAD MAGNET APPLICATIONS SHEET

Customer \_\_\_\_\_ Quote No. \_\_\_\_\_ Ind. Code \_\_\_\_\_ Date \_\_\_\_\_

### 1. Product: FIELDS HIGHLIGHTED IN RED ARE REQUIRED INFORMATION

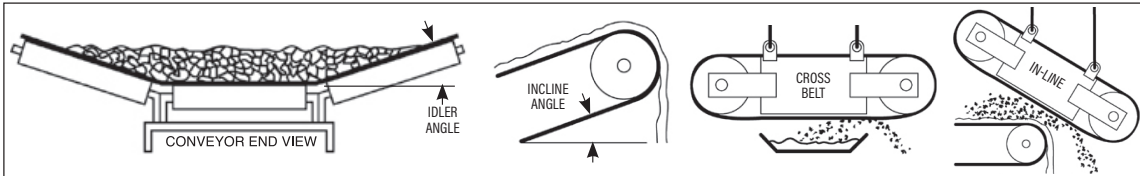
Description: \_\_\_\_\_ Size range: \_\_\_\_\_ to \_\_\_\_\_ Max Lump Size: \_\_\_\_\_  
 Moisture % \_\_\_\_\_ Temperature range: \_\_\_\_\_ to \_\_\_\_\_ °F Volume/Rate \_\_\_\_\_ Bulk Density \_\_\_\_\_  
 Product width on belt: \_\_\_\_\_ Product/burden depth range: \_\_\_\_\_ to \_\_\_\_\_  
 Tramp Metal: Size Range \_\_\_\_\_ to \_\_\_\_\_ Description of Tramp Metal: \_\_\_\_\_

### 2. Application Specifications:

CONVEYOR: Belt width (flat): \_\_\_\_\_ Belt Speed: \_\_\_\_\_ Belt Thickness: \_\_\_\_\_ Idler Angle: \_\_\_\_\_ °  
 Incline Angle: \_\_\_\_\_ ° Head Pulley Material: \_\_\_\_\_ Head Pulley Diameter: \_\_\_\_\_ Lagging Thickness: \_\_\_\_\_

How much ferrous metal is under the conveyor: \_\_\_\_\_

NOTE: To maximize the performance, the conveyor section below the magnet and 18"-24" on either side of the magnet should be non-ferrous.



MAGNET: Cleaning Method:  Self-Cleaning (Choose orientation below)  Manual Clean  
 Type:  Permanent or  Electromagnet (Input Voltage \_\_\_\_\_ Hertz \_\_\_\_\_ Phase \_\_\_\_\_ NEMA \_\_\_\_\_)

Suspension height of magnet (from lowest belt surface): \_\_\_\_\_

Orientation to Conveyor:  In-Line or  Cross Belt (Discharge from Drive Side:  Right or  Left)

NOTE: The Drive and Expansion Tank (Electro Only) standard location is on high point side of the magnet case during incline installations.

Special Motor Required: Brand/Model \_\_\_\_\_ Voltage \_\_\_\_\_ Hertz \_\_\_\_\_ Phase \_\_\_\_\_ Enclosure Type \_\_\_\_\_

Special Belting and/or Cleats Required (See options below or please specify): \_\_\_\_\_

BUDGET & TIME FRAME: Funded project:  Yes  No Budget range for magnet: \_\_\_\_\_

Time Frame for purchase and installation: \_\_\_\_\_

## OPTIONAL EQUIPMENT

### Self-Cleaning Magnets

- Motor starter - Specify voltages - motor & Control
- Explosion proof motor and junction box (NEMA 9)
- Class: \_\_\_\_\_ Division: \_\_\_\_\_ Group: \_\_\_\_\_
- Dust Hood
- T304 Stainless Steel wear plate
- Impact package: Stainless clad belt, lagged drive pulley
- Zero speed switch
- Turnbuckles
- High temperature oil (Semo)

### Belt & Cleat Options

- Option 1 (Std)  
220 2 ply Rubber Belt, R2S Flexco Lacing, Vulcanized Cleats
- Option 2  
220 2 ply Rubber Belt, R2S Flexco Lacing, T304 Stainless Steel Cleats
- Option 3  
Urethane Belt 150 PIW, R2S Flexco Lacing, Vulcanized Cleats
- Option 4  
220 2 ply Rubber Belt, R2S Flexco Lacing, T304 Stainless Steel Cleats and Belt Cladding
- Option 5  
H.D. 330 3 ply Rubber Belt, R2S Flexco Lacing, T304 Stainless Cleats

### Manual Clean Magnets

- EZ-Clean stripper pan
- EZ-Clean swiper bar
- Turnbuckles

### Power Supplies (Semo)

Volt Meter AC  DC   
 Amp Meter AC  DC   
 Line Fuse AC  DC

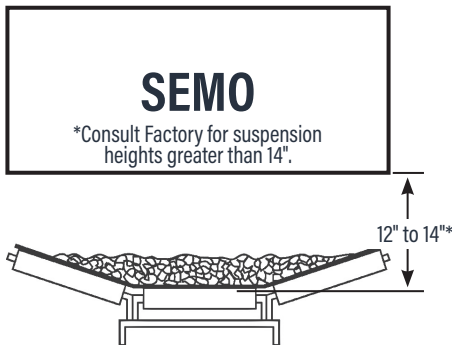
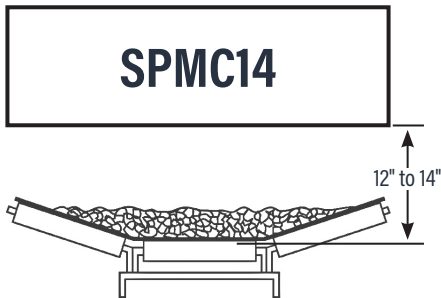
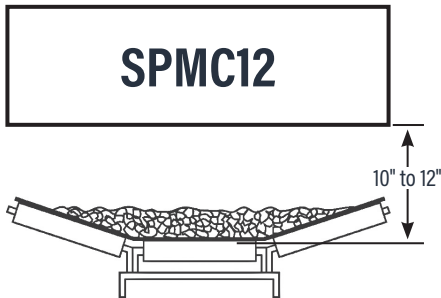
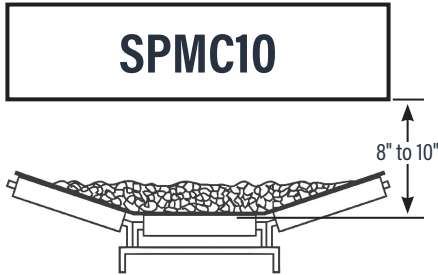
TOLL FREE 1.888.582.0821 imi@magnetics.com



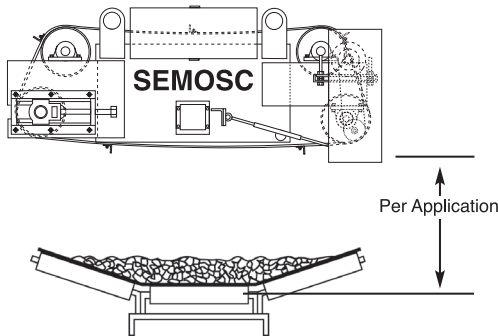
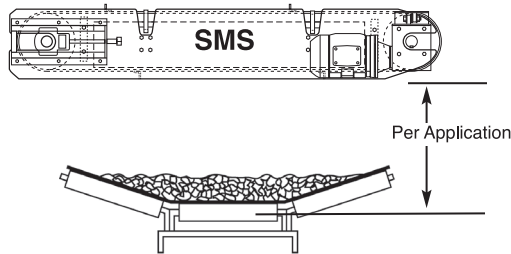


## Suspension Height Above The Conveyor Belt Guide

**MANUAL CLEAN**



**SELF-CLEAN**



**Notes**

- » Suspension height is based on product depth
- » Lower suspension heights may increase the amount of metal captured
- » Ferrous metal embedded or trapped under other products may not be captured
- » Recommended ferrous metal free zone 18"-24" either side of the magnet and directly underneath
- » Electromagnets are used to pick up large tramp metal and always used for large bucket teeth 20lbs. plus
- » For self cleaning magnets, the suspension height needs to include the normal belt sag of 1"-2"

CALCULATIONS		
Feed Capacity:	$\frac{\text{Tons Per Hour}}{\text{Specific Weight}}$	x 2000 - cubic feet per hour
Burden width in feet:	$(\text{Belt width} - 6")/12"$	
Burden depth in inches:	$\frac{\text{Feed capacity (cu. ft./hr.)} \times 1.5}{\text{Belt speed (fpm)} \times \text{burden width (ft.)} \times 5}$	