

975 Cottonwood Ave., PO Box 20, Hartland, Wisconsin 53029-0020, USA | [www.dorner.com](http://www.dorner.com) | [info@dorner.com](mailto:info@dorner.com)

### MAGNETIC CONVEYORS

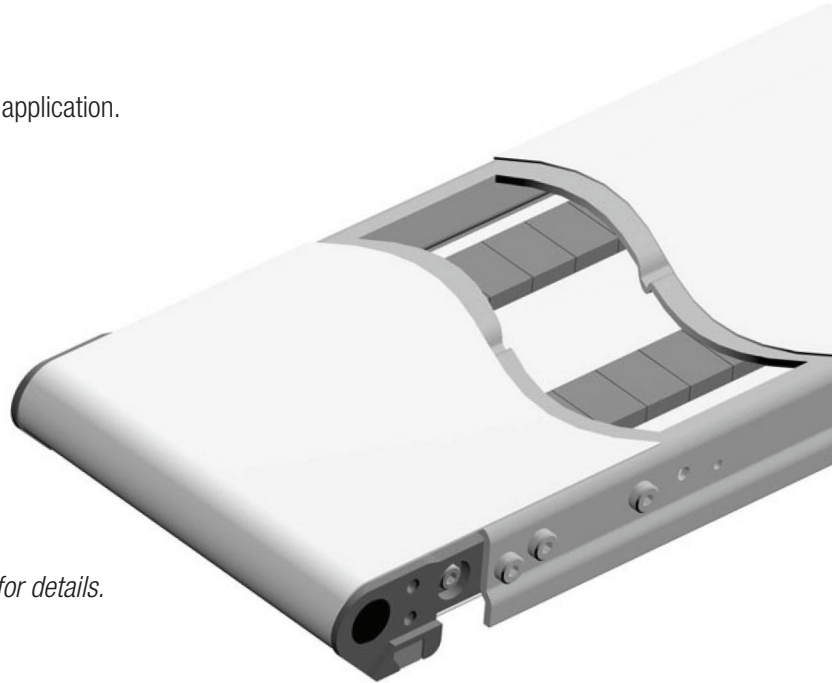
Magnetic conveyors are created by placing permanent ceramic magnets in the bed of a standard conveyor.

- Holds Ferrous parts fast to the belt.
- Ideal for elevation changes or part holding.
- Can be used in upside down applications.
- Strength and size of magnetic field is designed per application.

### 6200 Series Conveyor Specifications

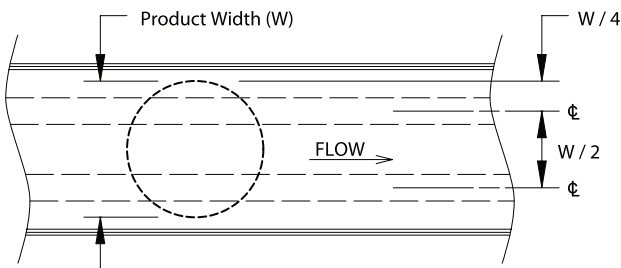
- 11 gauge Stainless Steel Frame
- Sealed Ball Bearings
- V-Guided Belting
- Rack and Pinion Belt Tensioning
- End and Center Drive Compatible
- Conveyor Widths: 3.75" to 18" wide
- Conveyor Lengths:
  - End Drive = 2' to 18' long
  - Center Drive = 2' to 24' long
- Speed Capacity: 255 ft/min

See *Product Engineering Manual* or [www.dorner.com](http://www.dorner.com) for details.



### Magnet Specifications:

- Permanent Ceramic Magnets
- Width = 1" wide
- Strengths: Standard and Strong  
(Note: Strong magnets are generally only used in centering or inverted applications)
- Rows: Generally 2 rows of magnets are used. One row oriented as north, the other as south.  
Multiple rows can be used for larger product or additional magnetic strength
- Row Spacing: Generally spaced at 1/2 of the width of the product



- Decreasing zones allow gradual decreasing of magnet strength for smooth product transfer off the magnets on end of the conveyor. They should be used for the following reasons.
  1. Belt speed is less than 25 ft/min
  2. Product length (in the direction of the flow) is less than 3"
- Decreasing zone length should be 4 times the product length.
- Sample product is recommended to test magnetic strength.

*Note: Do not attempt to accumulate product on a magnetic conveyor.*



### Profiles:

- All 6200 Series profiles are applicable.
- *See Product Engineering Manual or [www.dorner.com](http://www.dorner.com) for details.*

### Belting:

- Do not use low coefficient of friction belting.
- Finger splice is preferred, plastic and metal clipper splices are acceptable.
- *See Product Engineering Manual or [www.dorner.com](http://www.dorner.com) for details.*

### Mounting Packages & Gearmotors:

- All 6200 Series mounting packages and gearmotors are applicable.
- *See Product Engineering Manual or [www.dorner.com](http://www.dorner.com) for details.*

### Support Stands:

- All 6200 Series support stands are applicable.
- *See Product Engineering Manual or [www.dorner.com](http://www.dorner.com) for details.*

## EXPRESS INQUIRY FORM: GENERAL INFORMATION

*Along with completing the Express Inquiry form below, please complete the specific 6200 Series Magnetic Conveyor application questions on the next page to the best of your ability.*

Contact Technical Sales at 1-800-259-1510 (Press 3) or TechnicalSales@dorner.com for Application Assistance.

### CONTACT INFORMATION

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

Name: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-Mail: \_\_\_\_\_

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

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

### PRODUCT

Description/Material: \_\_\_\_\_

Dimensions: \_\_\_\_\_

Weight: \_\_\_\_\_ Total Weight to be Placed on Conveyor: \_\_\_\_\_

Temperature: \_\_\_\_\_ Leading Edge Dimension: \_\_\_\_\_

### ENVIRONMENT

Chemicals or Fluids Present: \_\_\_\_\_

Unusual Ambient Temperature Conditions: \_\_\_\_\_

Other Concerns: \_\_\_\_\_

### CONVEYOR

Belt Width: \_\_\_\_\_ Conveyor Length: \_\_\_\_\_

Belt Speed: \_\_\_\_\_  Fixed  Variable See example on next page for calculating belt speed.

Infeed Height: \_\_\_\_\_ Discharge Height: \_\_\_\_\_

Belt Direction & Motor Position: \_\_\_\_\_

### ELECTRICAL

Voltage: \_\_\_\_\_ Phase: \_\_\_\_\_

Hz: \_\_\_\_\_ For Variable Speed:  DC  AC

Controls Required: \_\_\_\_\_

## EXPRESS INQUIRY FORM: MAGNETIC INFORMATION

Page may need to be copied to communicate multiple conveyors

### DESCRIBE EACH MAGNETIC CONVEYOR:

What do you want the magnets to do? \_\_\_\_\_

\_\_\_\_\_

How is the part being introduced onto conveyor? \_\_\_\_\_

What is the product feed rate? (parts per minute) \_\_\_\_\_

Is part orientation critical?  Yes  No Explain: \_\_\_\_\_

Are you concerned if your part picks up residual magnetism? \_\_\_\_\_

Where does the part go upon discharging from the conveyor? \_\_\_\_\_

### CONVEYOR(S)

Number of Conveyors: \_\_\_\_\_

Number of Magnetic Rows: \_\_\_\_\_

### PRODUCT SAMPLES

Samples of actual products can be critical to the successful design and application of a magnetic conveyor.

Will sample products be provided to Dorner?  Yes  No

**FAX COMPLETED FORMS TO 800.369.2440 or 262.367.5827**

## BELT SPEED CALCULATOR

How to calculate minimum conveyor belt speed:

$$\frac{(\text{Part rate in parts per minute}) \times (\text{part size in inches})}{12}$$

Example  $\frac{(30 \text{ parts per minute}) \times (6" \text{ dia. part})}{12} = \frac{180}{12} = 15 \text{ ft/min. Minimum Belt Speed}$

How to calculate conveyor belt speed incorporating a product spacing:

$$\frac{(\text{Part rate in parts per minute}) \times (\text{desired part spacing in inches} + \text{part size in inches})}{12}$$

Example  $\frac{(30 \text{ parts per minute}) \times (6" \text{ dia part} + 12" \text{ spacing between parts})}{12} = \frac{(30) \times (18)}{12} = \frac{540}{12} = 45 \text{ ft/min. Belt Speed}$