

...Only from Eriez



Features & Benefits:

- No operating cost
- No electrical maintenance
- No costly shutdowns
- Simple installation
- Uninterrupted magnetic protection

ERIEZ®

Suspended Permanent Magnet

SP Series 6000

Automatically remove large amounts of ferrous from non-ferrous materials conveyed in heavy burden depths, on almost any type of conveyor or chute.





A New Generation

Eriez, the world authority in magnetic equipment and the pioneer of Permanent Magnets, brings you this new line of Suspended Permanent Magnets with operating advantages never before available.

Suspended type Magnetic Separators, over the years, have proven to be the most effective for the removal of unwanted iron from heavy burdens of material being conveyed on fast moving belts. They are ideal for separation applications on wet or dry, fine or coarse materials...large or small tonnages. Safe, sure, tramp iron removal protects costly processing machinery and assures the purity of the product. Previously, only electro magnets could deliver the highest level of performance. NOW, this performance is available to you in new compact, lighter, permanently magnetic assemblies that require no power source and operate virtually maintenance free!

The Eriez circuit has been scientifically designed for the most efficient use of magnetic materials. The circuit assures a deep-reaching field to grasp the most elusive tramp iron from fast moving belts. The Eriez circuit has other advantages than just depth of field. Field shaping principles permit these magnets to solve many specific and difficult problems. The Eriez designs used in these separators produce the most outstanding commercial magnets ever manufactured. Permanent magnets designed only a few short years ago do not begin to share the performance standards of this new line.

The uniquely designed Erium-powered magnetic circuit is long and flat, providing a greater area of magnetic coverage with a maximum depth of field and with less head room required than with an electro magnet. Operating advantages are many, possibility of accidental shutdown and shutdown due to power failure is eliminated...strength never varies. The unit operates at peak efficiency at all times...no heat is generated. Elevated temperatures in the 100° to 200°F (38° to 93°C) range have virtually no effect on these separators.

XTREME 3000 MAGNETIC CIRCUITS

MC Models (Manual Cleaning)

Available in 5 strengths. All MC models are cleaned of accumulated tramp iron manually. They are recommended for use where only occasional pieces or small amounts of iron may be in the material flow.

- Standard mounting hardware consists of adjustable suspension sling.
- MC models can be easily converted to SC styles giving great flexibility for changing conditions.

SC Models (Self Cleaning)

Available in 5 strengths. SC Models provide completely automatic iron removal and can be installed in an "in line" position (SC-1) or in a "cross belt" position (SC-2). Each of the two self-cleaning configurations is designed to suit specific conditions and requirements. Space and clearance, conveyor belt speed, burden depth, tramp iron size, etc., are factors that can dictate choice of style.



Both SC Models incorporate a short belt conveyor built around the magnet to effect automatic removal of trapped tramp iron from the magnet face.

This system features a rubber conveyor belt, bearings, rugged but simple continuous channel frame, adjustable take-ups and shaft-mounted reducer with V-belt coupling to a TEFC motor.

- Standard mounting hardware consists of turnbuckles.
- All style SC units are easily demountable from SC conveyor and can be used independently as MC units.

Options

A wide choice of options is available to assure peak performance in unique or difficult applications. Some of these are:

- Steel dust enclosures for magnet installation in dusty locations
- Hazardous duty motors
- Static-conducting belts
- Zero-speed switches
- Special belts for abrasive, hot or difficult applications
- Foundry package option—includes heavy duty belt, frame, bearings, shafts, and over-sized drive
- Drawer-Type stripper for easy-cleaning (MC units only)



Suspended Magnet Installation

Preferred installation of a suspended magnet is over the trajectory of material discharged from a belt conveyor. This is referred to as Position 1 installation.

If a trajectory well away from the belt is developed, this is the best way to utilize the full potential of the separator since the material being treated is moving directly toward the magnet face. Its momentum assists the separation of iron. At slower conveyor speeds, as the trajectory of the discharge material becomes more nearly vertical, magnet position must be shifted back more nearly over the head pulley. At slow belt speeds a stainless steel head pulley may be required.

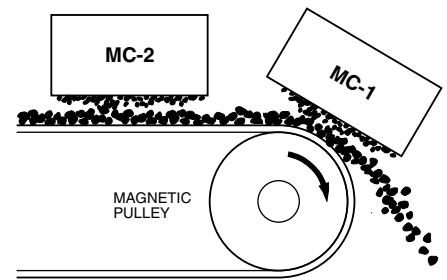
Installation with the separator over the moving bed of material before the discharge point of the conveyor is referred to as Position 2 mounting.

Position 2 mounting is not recommended where belt speeds are excessive.



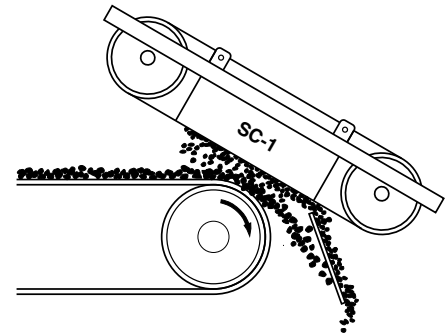
Positions 1 and 2 (Manual-Cleaning/MC-1 and MC-2)

This style unit consists of the magnet only. With manual cleaning magnets, it is necessary to periodically remove the accumulated tramp iron by hand picking or the optional mechanical stripper.



Position 1

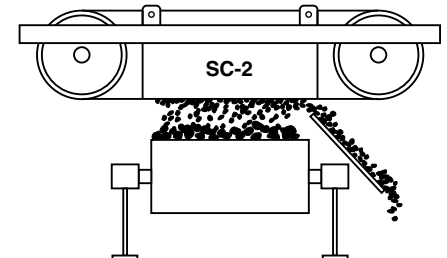
(Self-Cleaning/SC-1) This unit consists of a short belt conveyor built around a magnet to provide self-cleaning. This unit is designed to be mounted in Position 1, as illustrated, at the head end of a conveyor either over the trajectory of the discharged material or over the head pulley. It provides automatic removal of tramp iron in the direction of the main conveyor travel.



Position 2

(Self-Cleaning/SC-2)

This style unit consists of Position 1 Self-Cleaning unit except the self-cleaning belt travels across the magnet face at right angles to the main conveyor, providing automatic tramp iron discharge at right angles to the direction of the moving material burden. It is designed for mounting in Position 2, as illustrated, over a conveyor belt, picking table, vibrating screen etc.





Electro Magnetic Units

Our Suspended Magnet Line is broad enough to cover every application need. In addition to the Permanent Models a complete line of Electro Magnetic Units is also available. We recommend Electro Magnets for deep burdens and very difficult applications.



Powerful Protection

This Suspended Permanent Magnet provides automatic, positive removal of unwanted tramp metal from a continuous stream of coal headed to a crusher. Ferrous removal protects downstream machinery from damage caused by broken digger teeth, roof bolts, plates, and other tramp metal.

Labor-saving permanent magnetic suspended crossbelt separator automatically removes four to five tons of ferrous material per 16-hour day from hot foundry sand being reclaimed in the molding operation at Auburn Foundry in Auburn, Indiana. The separator removes gates, sprues and iron spills from approximately 400 tons (363 metric tonnes) of 300-degree Fahrenheit (150 Degrees C) molding sand per day.



This installation provides positive magnetic protection against tramp iron damage to expensive papermaking equipment and prevents costly downtime at Georgia-Pacific Corporation's Tissue Products Division in Plattsburg, New York. The powerful magnet snaps up a variety of tramp iron from the fast-moving, 8 inch deep (200 mm), hardwood chip burden at the discharge end of conveyor belt which feeds digesters.

Magnetic protection for crushers is assured by this powerful magnet installed at the discharge of two Eriez vibratory feeders feeding an aggregate from stockpiles to a conveyor en route to a crusher.



World Authority in Advanced Technology for Magnetic, Vibratory and Inspection Applications

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