

Eriez Metalarm Metal Detectors

NEW...Only from Eriez.

Models TR, BR, PL, PL2, VC and SS

A range of control unit models and a wide selection of search coils provide a solution to many metal detection problems.

Eriez' Metalarm Metal Detectors are in operation worldwide protecting a wide range of machinery from damage by unwanted, or "tramp" metal. The major feature of the Metalarm is its ability to be fitted easily to virtually any conveyor, whether it be a belt or vibrator type. The Metalarm can also be installed into chutes, slides, etc. High performance electronics result in trouble-free installations regardless of product type.

A range of control models and a wide selection of search coils provide a solution to virtually any metal detection problem.

All units have a high level of immunity to radiated signals such as those from frequency inverted speed controls. A series of audible and visual alarms can be offered as optional extras. Various markers can be supplied to indicate the location of metal. Coast counters and timers are also available.

SENSITIVITY

The sensitivity of Metalarm Metal Detectors is determined by the adjustment of the electronics. It is a function of the width of the search coil, the height of the product and the type and size of the metal being detected. Sensitivity estimates are supplied on request.

FEATURES

- CE certification
- Easy to install with minimum effort
- Belt does not need to be cut to install
- Signal monitoring and self-check facility
- Mechanical relays to actuate reject devices and alarms
- High level immunity to radiated signals
- High density polyethylene encased search coils
- Detects ferrous and non-ferrous metals

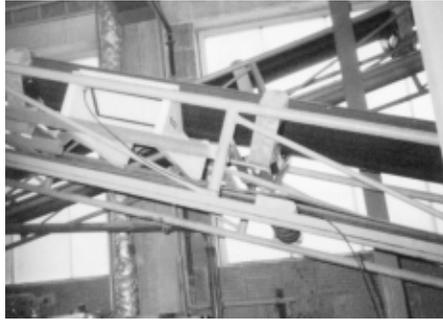
ERIEZ  METALARM



Model TR Metalarm for Troughed Conveyors



For use with angled trough conveyors, Eriez' Model TR Metalarm is ideal for detecting typical tramp metal such as bucket teeth, large nuts and bolts. The Model TR is used in a variety of different industries like wood, plastics, aggregate and mining.



The Metalarm's light weight design provides easy maneuverability and quick installation. In most cases, Eriez' Model TR Metalarm can be installed with little or no adjustment to idler spacing. Units can be supplied for belt widths from 20 inches (500 mm) up to 80 inches (2000 mm).



A specialized series of coils is available for situations where idler spacing is unusually close. The Model TR Metalarm is equipped with either a Model 3500 or a Model 3500/QM2 control.

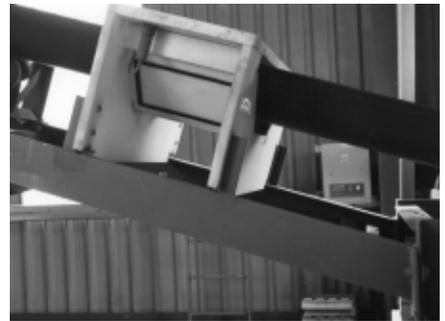
Model BR Metalarm for Troughed Conveyors



Similar to the Model TR Metalarm, the Model BR Metalarm (bridge design) is excellent for detecting tramp metal in burden depths greater than 14 inches (356 mm). The Model BR Metalarm is available in a series (standard) or transmitter/receiver mode.

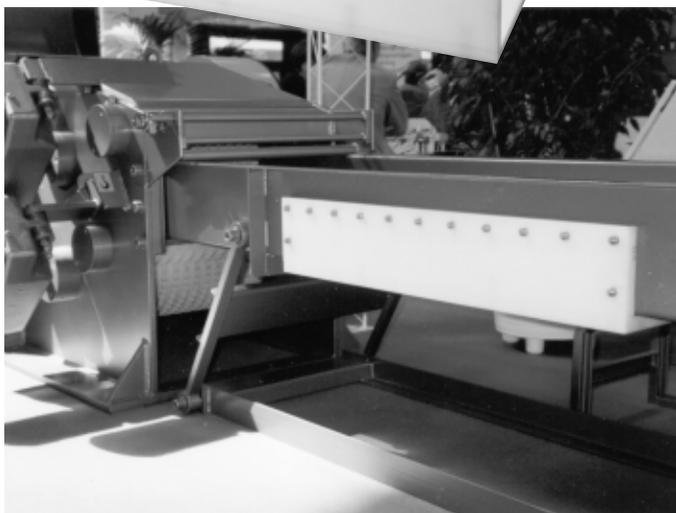


The transmitter/receiver coil combination is excellent for mineralized materials and also for use when nothing smaller than a certain size metal should be detected.



Like the Model TR Metalarm (troughed design), its light weight design makes it cost efficient to install on most trough belt conveyors. The Model BR Metalarm is equipped with either a Model 3500 or a Model 3500/QM2 control.

Model VC Metalarm for Vibratory Conveyors



Model VC Eriez Metalarm installed on a vibrator conveyor protecting a chipper

THE BENEFITS

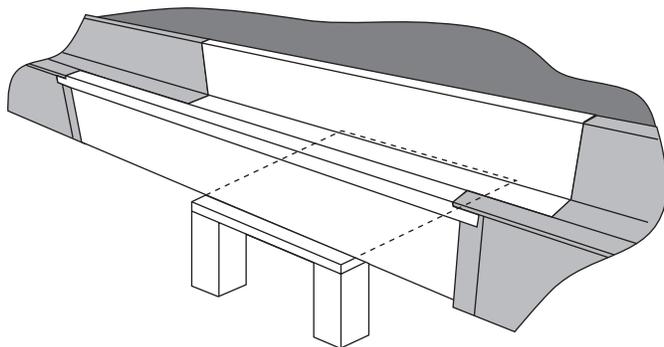
- No need to install a long metal-free section. At most, a 3.3 foot (1 meter) cut-out in the base of the conveyor is all that is needed.
- The Eriez Metalarm Model VC offers an all-in-one unit including search coil and metal-free section.
- Ease of installation – no support framework required.
- No ‘product compensation’ required – *pulse induction* electronics do not need such controls. The result is a saving in labor and material.

THE APPLICATIONS

- **PROTECTION** – To detect tramp metal in vibratory feeders and protect crushers, granulators, chippers, etc. from damage.
- **QUALITY CONTROL** – To check that products being fed by vibratory feeders prior to packing are not contaminated by metal.

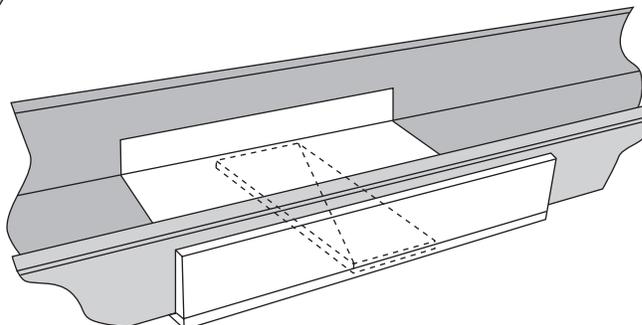
THE OPERATION

The Eriez Metalarm Model VC Metal Detector is supplied with a Model 3500 Control. It is a simple wall mounted unit requiring a 115V or 240V 50/60 Hz supply. The control is connected to the search coil that is integrated into the detector’s trough section, such that when metal is detected the conveyor is stopped to allow manual removal of the metal. Audible and visual alarms are available as optional extras.

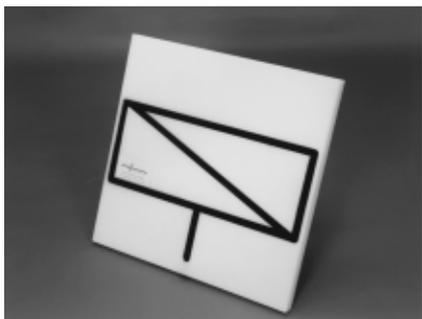


The Original Solution:
Long conveyor cutout/
separate search coil

The NEW Eriez Metalarm
Model VC Solution:
Short conveyor cutout/
integrated search coil



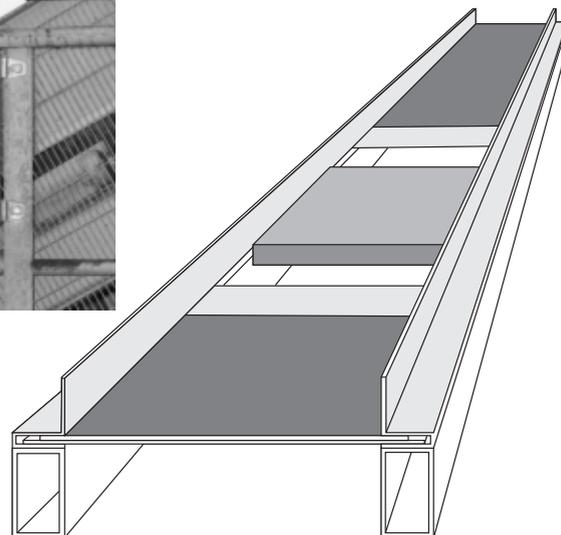
Model PL Metalarm for Flat Belt Conveyors



For flat belt conveyor applications, Eriez recommends a Model PL Metalarm. The Model PL is supplied with either a Model 3500 or 3500/QM2 Control. The unit is easy to install, simply replacing a section of the base conveyor over a length equal to the width of the conveyor.



The Model PL is especially effective for picking up metal contaminants where the search coil is surrounded by metal conveyor frames or moving metal like mobile crusher applications.



Model PL2 Metalarm for the Plastics Industry



Eriez' Model PL2 Metalarm Metal Detector has been specifically developed for direct attachment to light weight conveyors used to feed granulators with tops and tails, sprues, etc., from molding machines of all types.

The Eriez Model PL2 Metalarm will prevent the majority of small pieces of metals of all types from entering granulators, damaging blades, and contaminating the granules produced.

The sensing height of the detector is optimized for this application and covers the whole width of the belt even to the metal sides of the conveyor.

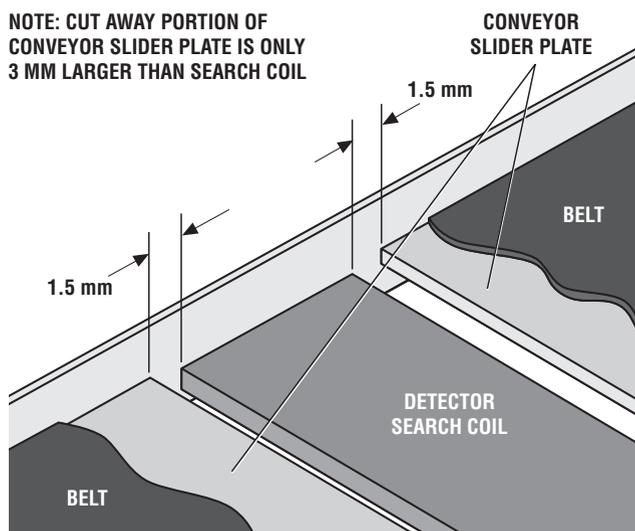
The search coils are easy to install, simply replacing a length of the base conveyor over a distance equal to the width of the conveyor.

The Model PL2 is available with S, SF and SFC coils. The "S" shaped coil is the standard design. The "SF" coil is

used where there are metal sidewalls in the conveyor. The "SFC" coil is designed for "V" belts.

The economical Model PL2 comes with a Model 6301 control that is small, light and has self-check circuitry, as well as fail-safe features.

NOTE: CUT AWAY PORTION OF CONVEYOR SLIDER PLATE IS ONLY 3 MM LARGER THAN SEARCH COIL



Method of Installing Search Coil

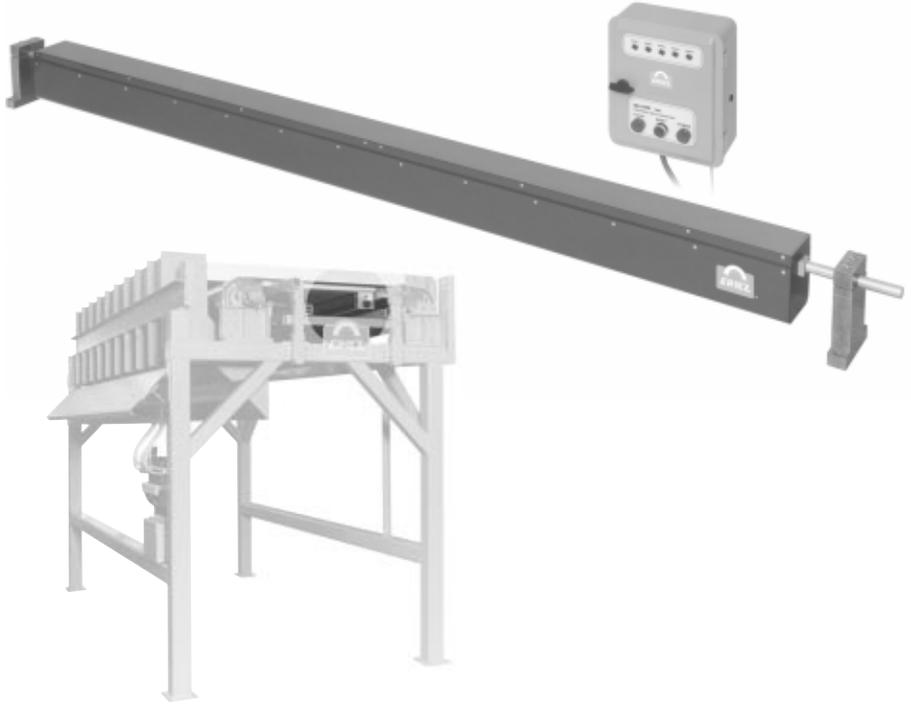
Model SS Metalarm for Sheet Formed Products

Eriez' Model SS Metalarm Single Sider Metal Detector has been specifically developed for the detection of metal fragments in any type of fabric in sheet form.

The detector can also be used in wood, textile, paper, board, plastic and rubber floor tile manufacturing, including a wide range of industries where sheet formed product needs to be checked.

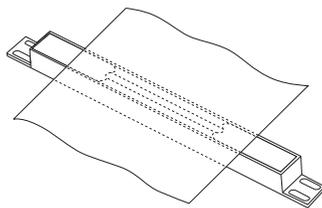
The Model SS Metalarm is also effective with free flowing or loose product. The standard zone width is 20 inches (500 mm). A 10-inch (250 mm) zone width is available. Multiple zone detection, coupled with individual reject devices permits the isolated elimination of the contaminants with minimal product loss.

The Model SS comes with a Model 7000 Control.

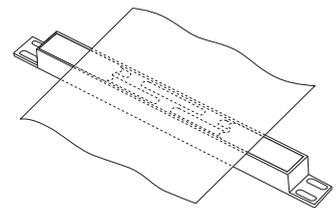


FEATURES

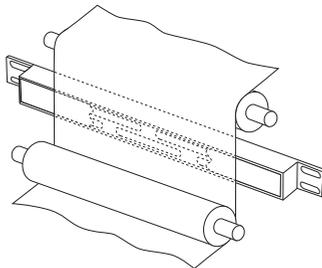
- Minimum metal-free area requirement
- High sensitivity to ferrous, nonferrous and stainless steel metals
- Sensitive widths up to 19 feet (6 meters)
- Easy installation
- Anti-static surface on face of search coil
- Aluminum painted head
- Unique RF immunity circuitry
- Mechanical relays to activate reject and alarm devices



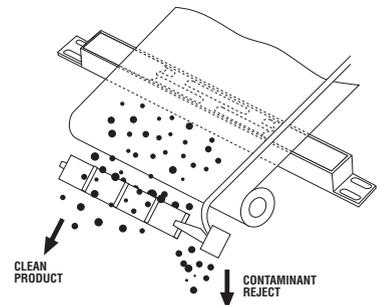
Single Zone



Multi Zone



Multi Zone Vertical Mounting



Multi Zone with Reject

Both single and multi zones are available for vertical mounting common to the textile, paper and non-woven industry. Multi zones are available in 10-inch (250 mm) and 20-inch (500 mm) widths up to a total span of 19 feet (6 meters). Single zones are available up to 19 feet (6 meters)

Control Units

All Metalarm Control Units employ proven 'pulse induction' technology circuitry, and are mounted on a single printed circuit board to give high reliability and easy access for servicing. All controls, other than the front door reset switch and 'on' lamp, are mounted on printed circuit boards for the same reason. All optional functions are switchable for ease of set up. Plug-in connectors are used for ease of installation and servicing.

Eriez manufactures a wide range of search coils for use with a Model 3500, 3500/QM2, and 6301 control.

All Metalarm search coils are fully screened reducing unwanted emissions. The coil has a plug-in connection and is linked to the control unit by means of coaxial cable. The maximum cable length is 50 ft (17 m). The standard length (recommended) is 15 ft (5 m).

The Metalarm 3500 control is the standard unit for installation where no metal belt splice exists. The Metalarm 3500/QM2 control is similarly designed for use in harsh environments, and can be used with conveyor belts that are joined by metal belt clips. The 3500/QM2 is designed to detect larger pieces of metal when the metal is on top of the clips, and the sensitivity level has been reduced.

SPECIFICATIONS - Models 3500 & 3500/QM2

MECHANICAL

Housing

NEMA 4 carbon steel - Beige paint finish (Model 3500)

NEMA 4X stainless steel. (Quarrymaster 2)

Dimensions

15.75 x 13.75 x 6.0 in (400 x 350 x 150 mm)

Weight

17.6 lbs (8 kg)

Mounting

Four Corner - Wall Mounting

ELECTRONICS

115/230V, 50/60Hz

Four Form C relay contact outputs rated at 5A/250VAC

"Detect" and "Power On" lamps as well as a 10 segment LED signal display supplied as standard.

SPECIFICATIONS - Model 6301

MECHANICAL

Housing

NEMA 4

Dimensions

10.24 x 5.5 x 3.27 in (260 x 140 x 83 mm)

Weight

3.9 lbs (1.79 kg)

ELECTRONICS

115/230V, 50/60Hz operation - field switchable

Two Form C relay contact outputs rated at 5A/250VAC

Visual alarm - metal detected

Reset switch

SPECIFICATIONS - Model 7000

MECHANICAL

Control Housing

NEMA 4 Steel - Beige paint finish

Dimensions

12.60 x 9.06 x 4.84 in (320 x 230 x 123 mm)

Weight

7.6 lbs (3.49 kg)

Search Coil Housing

Aluminum - Blue paint finish

ELECTRONICS

115/230V, 50/60Hz

Two Form C relay contact outputs rated at 5A/250VAC

INTERCONNECTION CABLES

Cable Type

Coaxial type RG 58

Standard Length

15 feet (5 m)

Other lengths available upon request to a maximum of 50 feet (17 m)

Auxiliary Equipment

Exterior alarms

Sack dropper

Multiple alarm register

Single delay circuit

Dimensions and specifications are subject to change without notice.

