

**EQUIPMENT
FOR THE
PLASTICS
INDUSTRY**





Eriez is the world leader in the development and manufacture of detection, separation and vibratory equipment for the plastics industry. For nearly 60 years, Eriez has maintained a reputation for quality products and a proven expertise in novel solutions for difficult material handling applications. The plastics industry faces a unique challenge during processing: how to ensure product purity while handling materials in the most efficient and economical way. Eriez offers solutions to customer problems, with superior equipment and services, application know-how, and technical problem-solving skills, covering areas of the plastics manufacturing process such as material handling and protection of machinery from tramp metal damage.

In addition to offering a variety of standard products basic to the plastics industry, Eriez Design Engineers and Applications Specialists are available to assist in the evaluation of material handling requirements — from the planning of new automated facilities to modernization of existing systems. Eriez products, either as individual units or complete systems, are custom engineered to meet specific production requirements.



METAL DETECTION

E-Z Tec® DSP Metal Detectors

Eriez' New E-Z Tec® DSP Metal Detector is an extremely sensitive instrument used to detect ferrous, non-ferrous and stainless steel metal contaminants. The advanced digital signal processing provides customers in the plastics industry with a unit designed for optimum performance and improved product purity.

A highlight of the E-Z Tec DSP Metal Detector is the easy-to-use Touch Screen (1/4 VGA) Interface. The 4-inch H x 5-inch W angled control, with a backlit screen, allows the customer to quickly make changes to the metal detector without having to scroll through different menus. Product set-up, monitoring and operating the metal detector is simple with the Touch Screen Interface. Numeric data and value entries are made through the on-screen keypad.

Another great feature of the E-Z Tec DSP Metal Detector is its ability to automatically set-up the customer's

product. With minimal passes through the aperture, the metal detector will determine the product settings.

The E-Z Tec DSP Metal Detector's electronics have been consolidated and placed in a NEMA 4X enclosure that can be an integral part of the metal detector or mounted up to 100-feet from the coils. Only four circuit boards are used for improved function and reliability.

FEATURES

- Highly sensitive
- Touch Screen Interface
- Easy-to-use
- Stainless steel construction
- Consolidated electronics
- NEMA 4X rated
- Auto-setup
- Self-checking
- Calibration verification
- Quick recovery after detection of large tramp metal
- Reject confirmation

E-Z Tec DSP



E-Z Tec DSP Metal Detector Conveyor System

Conveyors and Conveyor Systems

Conveyors are available in a wide range of designs to reliably move a variety of products.

When equipped with an E-Z Tec Metal Detector and selected reject device, this complete conveyor system will efficiently remove both ferrous and non-ferrous contaminants without disrupting production.

CMS Metal Separator

Eriez' Model CMS Metal Separator is a compact system capable of detecting ferrous, non-ferrous and stainless steel metals in free-falling or gravity fed products that are dry and nonconductive.

The standard CMS Metal Separator consists of the metal detector, control and reject device, all encased in a painted steel enclosure. The air-operated reject mechanism is also in the enclosure.

A simple but complete, lockable, external control panel prevents inadvertent changes to operating parameters.

Vertical Reject Systems

Low Profile Vertical Drop

Eriez' E-Z Tec Low Profile Vertical Reject Metal Detectors are excellent for detection and removal of ferrous, non-ferrous and stainless metal contaminants in gravity fed powder or granulated products.

These low profile units accommodate many applications with restrictive height requirements. The combination of a negligible metal-free area and a quick acting chute reject valve design provides a minimal height system.

Upon detection, the E-Z Tec Low Profile Metal Detector will activate a specially designed chute-type reject valve to remove the contaminant from the product flow. The chute valve comes with a removable side plate for easy cleaning.

Eriez Low Profile Systems are manufactured from 304 stainless steel, 316 upon request, preventing potential product contamination from painted surfaces. Each system includes an E-Z Tec Low Profile Metal Detector with a control that can be mounted up to 100 feet (30 m)

from the detection head. Also included is an anti-static non-metallic pipe (FDA approved materials are available) with a grounding strap, which prevents static build up (reducing false detections), a stainless steel support stand and a reject valve.

Vertical Form Fill & Seal

Eriez' E-Z Tec® Vertical Form, Fill and Seal (VFS) Metal Detectors are excellent for detection and removal of ferrous, non-ferrous and stainless metal contaminants.

The E-Z Tec® VFS Type Metal Detector will help improve product purity for products processed in Form, Fill and Seal equipment and other applications where vertical heights are extremely restricted.

Its control circuitry allows for instantaneous electronic recovery from phase adjustments, as well as field switchable narrow zone/wide zone detection capabilities.

Eriez VFS units can be supplied with either analog or microprocessor (MPC) based electronics. Standard sizes for 4, 6 and 8-inch (102, 152 and 203 mm) pipes are available.



CMS Metal Separator



Low Profile Vertical Drop



Vertical Form, Fill and Seal (VFS)



Metalarm Metal Detectors (Models PL, PL2 & VC)

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.

Model PL

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 sidewalls or moving metal like mobile crusher applications.

Model PL2

Eriez' Model PL2 Metalarm 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.

It 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.

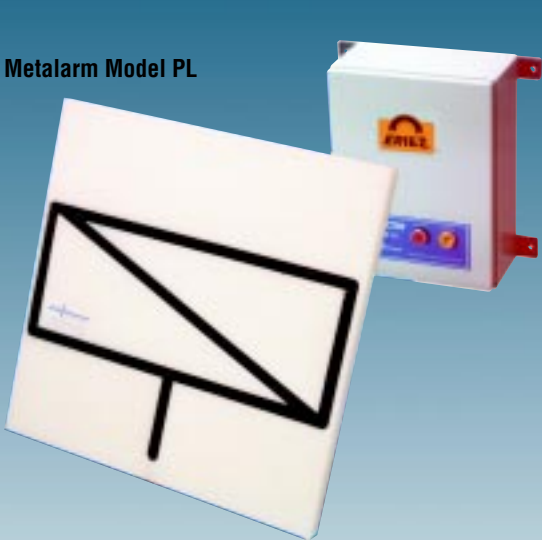
The economical Model PL2 comes with a Model 6301 control that is small, light and has self-check circuitry, as well as fail-safe features.

Model VC

The Metalarm Model VC is designed specifically for vibratory feeders. This unit is easy-to-install and has a built-in metal-free area. At most, only a 3.3 foot (1 meter) section of the conveyor needs to be cut out in order to install the metal detector.

The metal detector will be equipped with either a Model 3500 or 3500/QM2 control. When metal is detected, a relay will be activated that can be used for any number of reject devices.

Metalarm Model PL



Metalarm Model PL2



Metalarm Model VC



SEPARATION – Rare Earth and Ceramic Magnets

Plate and Grate Magnets

Eriez Permanent Magnetic Plates and Grates (in standard or sanitary construction) are the heart of any separation system for protecting purity through various stages of processing and packaging.

Permanent magnetic Plates, available in several magnetic strengths, protect against medium and small-size contaminants. They can be installed in chutes, spouts, ducts, and in suspension over nonmagnetic conveyors and screens.

Magnetic Grates remove small and fine tramp iron from dry, free-flowing products. They are designed for steep-sloped hoppers, even with odd and irregular shapes, floor openings, vertical closed chutes, and ducts. Styles include wing and drawer types, grates-in-housing, a barrel adapter type, and a basic model that fits square, round, oval, and odd shaped hoppers.

Grates In Housing

Powerful, permanent magnetic protection against fine and tramp iron contamination in dry, free-flowing products. Designed for simple installation in steep-sloped hoppers, odd and irregular shaped hoppers, floor openings, vertical closed chutes and ducts.

Grate in housing units are available in standard manual cleaning models, easy-to-clean models and fully automatic, self cleaning models.

Grates In Housing can be furnished with standard Erium® permanent magnetic elements, Erium Rare Earth or a combination of both to suit specific applications.

Magnetic Humps

Effectively remove tramp iron from material conveyed pneumatically or where large volumes of free-flowing materials fall by gravity. Two magnets in a dogleg housing increase iron removal efficiency. Hinged magnets open for easy cleaning. Also available in self-cleaning model and with Erium® 3000 Rare Earth magnetic elements.

Round Pipe Separators

The Round Pipe Separator makes the installation of Eriez' famous plate magnet separators into round chutes extremely simple and economical. Eriez' Super Power, Maxi Power or Erium 3000 Rare Plate magnet are attached to a completely welded assembly so the user need only remove a segment of chute to retro-fit the Round Pipe Separator. As material cascades down the chute it is transitioned over the face of Eriez powerful plate magnets to remove ferrous contamination, then transitioned back to the round pipe.

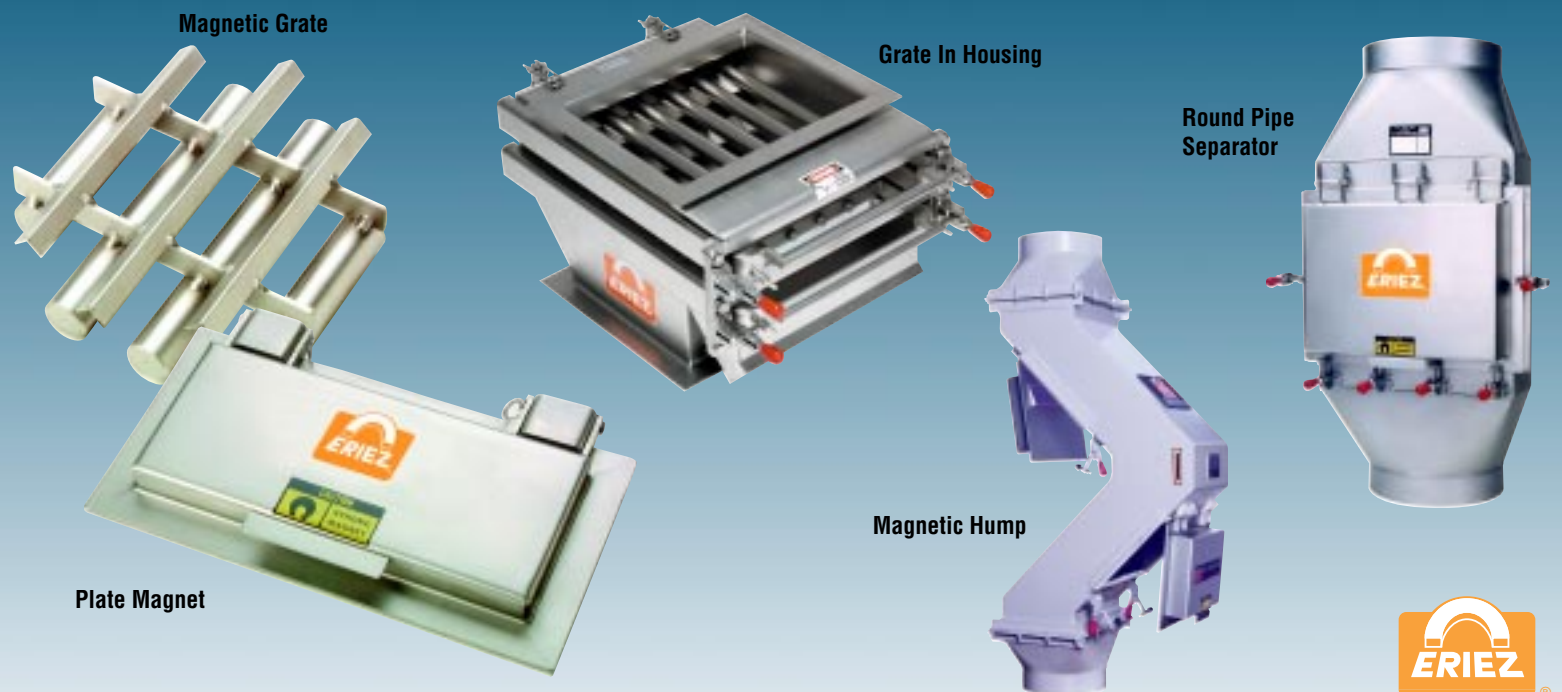
Magnetic Grate

Grate In Housing

Round Pipe Separator

Magnetic Hump

Plate Magnet



VIBRATION

RF Cartridge Magnets

The “RF” (Radial Field) Cartridge Magnet is ideal for removing tramp iron from dry, free-flowing food or chemical products conveyed in pneumatic pipelines.

Material enters the housing, is distributed by a solid stainless steel cone and passes in close proximity to the magnetic cartridge. Ferrous contamination is attracted and held by the magnet while the separated product continues past the magnet and out of the housing. The ferrous contamination remains on the magnet until the cartridge is removed and cleaned.

Drums

Eriez’ Drum Separators automatically remove both large and small iron contaminants from material processing lines. Powerful permanent magnets enable more efficient separation performance for a broader range of applications than ever before. The complete line includes standard models in diameters from 12 to 36 inches (305-915 mm), and widths from 12 to 60 inches (305-1525 mm). These units provide efficient separation

on volumes up to 25,600 cu ft (725 cu m) per hour. They provide years of trouble-free automatic removal of tramp iron from heavy flows of bulk materials, including large and highly abrasive materials.

Lifting Magnets

Magnets possess a unique property of attraction which can be harnessed to ease and speed on’s work. The payoff is an immediate improvement in efficiency and operating economy.

Magnets lift and transfer steel and iron of any weight and shape without slings, hooks or cables. And without marring the surface. They require fewer operators and helpers, and when properly installed and operated, provide greater safety than other mechanical materials handling devices.

Vibratory Feeders

Exceptionally high-speed feeding of light, bulky materials. Quick stopping characteristic assures accurate handling of materials for economy and efficiency in mixing, weighing, batching, packaging and bagging operations.

Low-energy-consuming electro-permanent magnetic drive, simple controls and AC operation increase productivity, cost economies and reliability. Coil and magnet encapsulated for trouble-free coil life. Wide variety of standard and special trays available including perforated plate or grizzly decks which size as well as convey.

Heavy Duty Vibratory Feeders

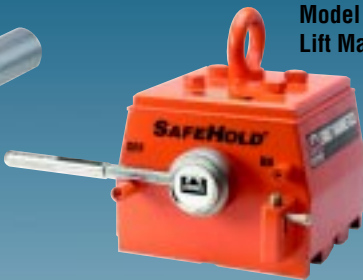
Heavy-duty Vibratory Feeders are available in eight models for large capacity and difficult material handling operations up to 700 tph (635 mtp). Low energy consuming electro-permanent magnetic drive, simple controls and AC operation increase productivity and reliability.

High-Volume Mechanical Feeders handle bulk materials in volumes up to 2250 tph (2040 mtp). Low profile requires minimum installation headroom. Designed for fast, easy maintenance.

RF Cartridge Magnet



Model EPL SafeHold® Lift Magnet



Model 115 Vibratory Feeder



Model C Vibratory Feeder



Model HS Vibratory Feeder



High Speed Vibratory Feeders

Eriez HS Model Feeders are ideally suited for high speed packaging, filling and conveying applications, involving light products. Their unique elastomeric torsion spring, with high damping properties, allows the unit to be operated at .090 inch (2.3 mm) amplitude without danger of spring failure. This elastomeric spring also has extremely rapid motion decay properties that give Eriez the quickest stopping feeder in the industry.

Conveyors

Eriez Model TM mechanical conveyors are powerful vibrating machines designed for moving bulk materials over long distances. These units will convey large volumes of material with simple, dependable efficiency.

The model TM conveyor is a spring coupled, two-mass vibrating system using a motor-driven eccentric weighted shaft to provide the exciting force. Fiberglass springs transmit force to the trough. Trough motion can be "fine-tuned" for specific applications.

Electromagnetic Conveyors

Eriez' VMC Series Electromagnetic Conveyor is a simple two mass conveyor combining Eriez years of experience as a world leader in magnetics with the latest in solid state control technology. VMC Series electromagnetic conveyors come standard with a variable rate control. They can also be provided with 4-20mA signal following or closed loop design for precise and efficient conveying of bulk materials.

Screen Separators

High capacity gyratory screeners for high-viscosity liquid/solid separation, wet or dry separation, and wet or dry classification. Easy operation when tuning to specific feed rates, product and separation requirements. No damping under loads. Long screen life. Linear screeners are also available.

Volumatic Feeder Machines

These one-piece, compact, rugged assemblies are ideal for use in conjunction with weigh scales, packaging and bagging equipment, small batch operations, and where additive feeding is being performed either continuously or intermittently.

Bin Vibrators

Twelve models for applications ranging from small hoppers to large bunkers. AC operated units provide efficient, economical movement of hard to handle bulk materials.

VMC Series
Electromagnetic
Conveyor



Volumatic Feeder



Syncro-Sieve®
Screen Separator



Bin Vibrators



INNOVATION

State-of-the-Art Engineering

Computerized systems help improve Eriez efficiency and services throughout the Company. The corporate engineering department's CAD system, with compatible systems in Eriez offices around the world, enables instant access to engineering drawings and information requests from any location. The same designs, drawings, and high quality standards are followed at all plant operations, so that no matter which Eriez manufacturing facility produces the equipment, Eriez customers are assured of quality on a worldwide basis. This is especially important to multinational users of Eriez equipment, who wish to standardize production lines through one supplier.

The Eriez Technical Center

Eriez maintains industry's largest magnetic, vibratory, and metal detection test laboratory at its Technical Center,

adjacent to the headquarters plant, in Erie, Pennsylvania, USA. Here customer products and raw materials are analyzed confidentially, and ways to separate or move, screen or detect them more efficiently and economically are then suggested. Both feasibility and definitive studies are conducted. Over 100 pieces of specialized test equipment are on hand. Customers are encouraged to participate in the testing. Basic materials separation and material movement test equipment are also available at Eriez affiliates worldwide.

World Class Manufacturing

Eriez maintains a global perspective through manufacturing facilities at its USA headquarters, as well as in Australia, Brazil, Canada, China, India, Japan, Mexico, South Africa and the United Kingdom. To maintain its world class position, Eriez reinvests its profits

in modern manufacturing equipment, applied research and development, highly qualified engineering and design staff, and up-to-date testing facilities. Computerized order entry assures consistent quality and timely response on a worldwide basis. Eriez personnel teams reflect the same customer-oriented philosophy of "Right On Time" no matter where they are located.

EriezXpress — when you need it now!

In the United States, select from the more than 40 most popular Eriez products including plate magnets, ferrous traps, high speed feeders, small coolant cleaners, lifting magnets and grate magnets — every one ready for next-day shipment.



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World Authority in Advanced Technology for Magnetic, Vibratory and Metal Detection Applications

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