

It's all here in black and orange.



I ndustry's most  
complete line  
of separation,  
vibration, metal  
detection and  
metalworking  
equipment  
and support.



# It's all here in black and orange.

**E**verything you need to solve product handling, purity and processing problems.

Our company is rather fond of the color orange. That undoubtedly goes back to 1942 when Orange Fowler Merwin founded Eriez Magnetics.

Other companies seem to be rather fond of orange, as well. More and more, companies are looking to Eriez for solutions to handling, purity and processing problems. And when they look, they find. They find a company with a solid reputation, a comprehensive product line, high-level technical expertise, industry's most complete test facility, and generous support. Everything you need is right here. It's right here in black and orange.

**A** reputation for quality.

For more than 50 years, Eriez has been dedicated to quality and service. Ask our customers and they'll tell you the same. Every day, we work hard to uphold our reputation as the "world authority" in advanced technology for magnetic, vibratory and metal detection applications.

**A** comprehensive product line.

Choose from hundreds of standard products. Or let us create a custom solution. All are proven ways to increase productivity and improve product purity in a variety of industries, including: food, chemical, metalworking, mining, recycling, power generation, pulp and paper, and pharmaceutical.

More products means more options for you. And that eliminates the hassles often encountered when dealing with multiple vendors.

**A** world of support.

A strong International Division coupled with manufacturing facilities and sales offices around the world ensures quick system delivery and a very high level of support—wherever you are. As an Eriez customer, you'll also appreciate our start-up assistance, when required, and emergency service available within 24 hours. We'll do whatever it takes to complete the job.

**E**xpert technical guidance.

At Eriez, you'll also find advanced technical capabilities, including a team of more than 50 engineers and technicians. They've worked closely with customers to solve many of the world's toughest processing problems.

**F**ully equipped test center.

The Eriez Magnetics Technical Center is the most complete magnetic and vibratory testing facility in the world. It's where hundreds of companies solve their processing and purity problems every year.

The 10,000-square-foot (930 sq m) facility houses more than 100 types of permanent magnetic, electromagnetic, vibratory, screening and electronic metal detecting equipment to thoroughly analyze your products or raw materials. It's capable of handling everything from a single-material test up to a feasibility study and complete system development.

We'll help you design the most effective and economical way to convey, screen, inspect or separate your products or materials. And when you do design your system, we'll be right there with the equipment you need.

**I**t's all just a phone call away.

Interested in a particular product area or application? Please call for individual product literature and videos.

1 - 8 8 8 - 8 0 0 - 3 7 4 3

For international inquiries, fax:

1 - 8 1 4 - 8 3 3 - 3 3 4 8



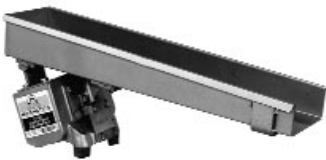
...Only from Eriez. 

# V i b r a t i o n a n d s c r e e n i n g



**F**eed, separate or classify all types of materials.

Hi-Vi Vibratory Feeders



Light- and medium-duty feeders accurately feed and control material flows at rates ranging from pounds (kg) to many tons per hour. Base-mounted units with wide selection of trays. Totally enclosed magnetic drives. Power consumption is low.

Electromagnetic Conveyors



Rugged, high capacity units for the controlled conveying of bulk materials. Simple two-mass system utilizes the latest in solid state control technology.

Electro-Permanent Magnetic Bin Vibrators



Twelve models for applications ranging from the tiniest hopper to huge bunkers. AC-operated units provide efficient, economical movement of hard-to-handle bulk materials. These vibrators use up to 80% less power than some other units.

Horizontal Motion Conveyors



E-Z Slide™ Conveyors are an excellent choice for moving fragile or coated products. Available in a wide variety of tray lengths, widths and shapes, they may be floor-mounted or suspended from above.

Heavy-Duty Vibratory Feeders



Eight models for large capacity and difficult material handling operations up to 700 tph (635 mtph). 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 grizzly decks.

High-Speed 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. AC operation.

Tuned Two-Mass Mechanical Conveyors



Low-power consumption, high capacity units for the controlled transfer of bulk materials. Compact design presents low profile, requires minimum headroom. Flow rates to 60 fpm (18 mpm) at 600 rpm. Easy access to components expedites and simplifies maintenance.

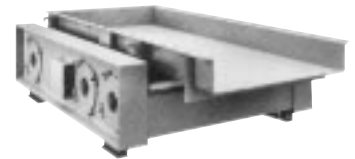
Volumatic Feeder Machines



Made up of hopper, vibrator, feeder and controls. Assure accurate flow of dry bulk materials for weigh scales, packaging and bagging

equipment, small batch operations, and additive feeding. Three models with feed rates to 15 tph (13.6 mtph). Special models available for specific requirements.

High-Volume HVF Mechanical Feeders



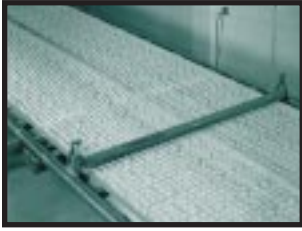
Rugged, low horsepower, high capacity units for the controlled movement of up to 2250 tph (2045 mtph) of bulk materials.

Screen Separators



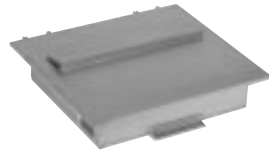
High-capacity gyratory units for high-viscosity liquid/solid separation, wet or dry separation, and wet or dry classification. Easy operation when tuning to specific feed rate, product and separation requirements. No damping under loads. Long screen life. Inline screeners are also available.

# S e p a r a t i o n



**I**mprove purity and productivity in wet or dry product flows.

## Plate Magnets



Protect against tramp metal contamination in processing lines. Three magnetic strengths. Install in chutes, ducts, feed tables, or over conveyor belts. Sizes 4-inches (102 mm) and larger. Stainless steel construction with hinge and tapered step face. Sanitary units also available. Many sizes available from stock.

## 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 pressure construction, and with Erium® Rare Earth magnetic elements.

## Round Pipe Separators



Round Pipe Separators (RPS) help remove ferrous contaminants from dry product flows by exposing the stream to a powerful plate magnet.

## Deep Reach Separators



Heavy flows of materials which may bridge or choke when processed through magnetic grates are easily handled with this open-throat design. Tramp iron is pulled from the product by two powerful, deep field permanent magnets located on opposite sides of the housing. Also available in sanitary construction.

## Drawer Grates in Housing



Protect dry free-flowing materials under gravity flow from ferrous contamination. Designed for easy installation and manual cleaning. Can be furnished with standard ceramic Erium permanent magnetic elements, Erium Rare Earth REHP, or a combination.

## Grate Magnets



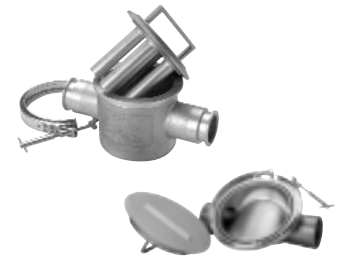
Extract small and fine iron when installed in steep-sloped, odd and irregular-shaped hoppers, vertical closed chutes and ducts. Available with Erium Rare Earth RE5HP in all models, including drawer and wing-type grates, grates in housing (both manual and self-cleaning), and Rota-grates. Also in sanitary construction.

## SuperStrength Rare Earth Permanent Magnets



Offer up to 25 times more pull than conventional permanent ferrite magnets. Recommended for removing fine and weakly magnetic contaminants. Erium Rare Earth is available in many types of magnetic separators to purify a wide range of products.

## Ferrous Traps



Purify products in liquid and slurry lines by removing small particles of scale, oxides and iron contaminants. Six different models. Sizes for pipelines 2-inches (51 mm) and larger. Erium Rare Earth elements available. Easy to inspect and clean. Available in sanitary construction.

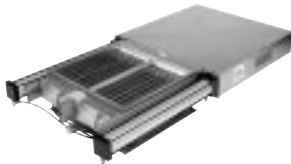
# S e p a r a t i o n

Radial Field Cartridge Magnets



Eriez' Radial Field Cartridge Magnets offer magnetic protection of powdery materials (such as starch or flour) being moved through a pneumatic conveyor.

Self-Cleaning Grate Magnet



Automatically remove fine metal contamination from free flowing or granular products. Specialty units available for sticky or difficult flowing materials.

Magnetic Pulleys



Axial interpole magnetic field removes unwanted tramp iron from nonmagnetic materials conveyed on a belt. Easy installation. Self-cleaning operation. Industry-leading magnetic field strength. Eighty combinations of diameters from 8 to 36 inches (203 to 914 mm) and belt widths from 8 inches (203 mm). Electromagnetic units available.

Magnetic Drums



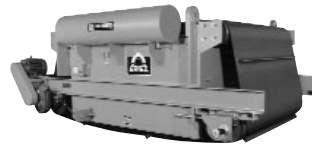
Automatically remove large and small pieces of tramp iron contaminants from material processing lines. Crisscross or agitator-type magnetic fields. Available with SuperStrength Rare Earth elements. Self-cleaning design. Provided with or without housings. Standard models in diameters from 12 to 36 inches (305 to 915 mm) and widths from 12 to 60 inches (305 to 1524 mm).

Suspended Permanent Magnetic Separators



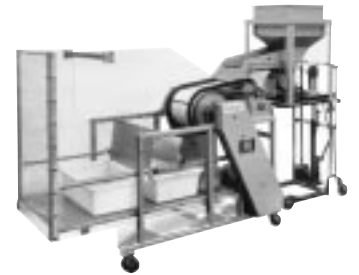
Automatically remove large amounts of ferrous from nonferrous materials conveyed in heavy burden depths on almost any type of conveyor or chute. Ideal for separation applications on wet or dry, fine or coarse materials, large or small tonnages. Manual cleaning models available with mechanical drawer-type strippers. Self-cleaning model also available.

Suspended Electromagnetic Separators



Safely and automatically remove tramp iron from heavy product flows like wood, coal, or rock being conveyed on belts, vibratory feeders or chutes. UL-Listed construction available on units for use in hazardous, dusty and gassy locations. Approved by other leading safety agencies. Air-cooled, dry-type electromagnets require no coolant fluids, and reduce power consumption by 50%.

Lab Model ECS-12



A Rare Earth magnetic element rotating at high speed inside a slowly revolving shell generates strong eddy currents which repel nonferrous metallics. Aluminum, copper and zinc are separated from nonconductors including plastic, rubber, glass, trash, ash and electronic scrap.

Rare Earth Rotor ECS System



Vibrating feeders convey automobile shredder residue, boiler bottom ash or glass cullet to a Rare Earth magnetic drum and then to an Eddy Current separator. The end product is primarily concentrated aluminum. Nonmetallic trash is rejected. The system includes chutes, walkways and controls. Available in feed widths to 60 inches (1524 mm) for capacities of up to 35 tph (31 mtph).

Eddy Current Non-Ferrous Metal Separators

Ferrite Rotor ECS



Ideal for material recovery facilities wishing to automate removal of aluminum beverage cans from commingled recyclables. Available in feed widths of 24, 36, 48 and 60 inches (610, 914, 1220 and 1524 mm).

# M a g n a m a t i o n



**M**agnetic automation for metalworking.

Magnetic (Beltless) Chip and Parts Conveyors



Automatically remove and elevate ferrous materials such as chips, turnings and small parts. No moving external parts. Conveyor mechanism is totally enclosed. Wide variety of configurations can be assembled from standard design sections.

Belt Conveyors



Space-saving system with positive holding action for vertical, inclined or horizontal materials handling. Move components, made all or partly of steel, at high speeds. System can be designed and engineered to your specific requirements.

Coolant Cleaners



Smooth-faced and extended-pole models extend life of coolant, cutting tools, grinding wheels and pumps. Radial-design magnetic circuits extract ferrous particles to help meet tolerances and improve surface finish in grinding and metal-cutting operations.

Sheet Fanners



Powerful magnetic circuit makes light or even heavy-gauge steel fan with ease. Provide new efficiency to slow, difficult sheet feeding for presses, brakes and shears. Three strengths available in four functional heights.

Magna-Rails® and Rolls



Positioned under conveyor belts, Magna-Rails® hold ferrous parts firmly to the belt even at high speeds up or down inclines as steep as 90°. Magna-Rolls and bars can be installed on new or existing conveyor lines to drive, convey and control steel products.

Electro Lifting Magnets



Efficiently lift and move steel without direct attachment by slings, hooks or cables. Complete line in both permanent and electro designs with various models, sizes and strengths to handle many different lifting jobs. Used singly or in gangs.

Rare Earth Coolant Cleaners



Superior removal of fine, ferrous contaminants from coolants extends the life of pumps, cutting tools and grinding wheels. Developed for the metalworking and specialty industrial markets.

Low Profile Chip and Parts Conveyors



Convey ferrous parts and scrap with firm magnetic control - automatically and continuously. Ideal for punch press and other tight applications.

Permanent Lifting Magnets



Lift, move or position in less time, efficiently and economically. SafeHold® Lifting Magnets make quick work of difficult, time-consuming steel handling.

# M e t a l d e t e c t i o n



Highly sensitive instruments to improve quality.

## Metal Detection Equipment



Eriez E-Z Tec® Narrow Profile liquid line Metal Detectors are highly sensitive instruments used to detect the presence of ferrous, non ferrous and stainless metal contaminants in viscous product such as, liquids, slurries, syrups, pastes and many other pumped products.

When metal is detected in the product flow the optional reject valve diverts the contaminated product. Complete systems can be provided in pipe sizes ranging from 1 inch to 6 inch diameter (25mm to 150mm).

## Hand Held Metal Detectors



Designed to help pinpoint the locations of even the tiniest ferrous and nonferrous metal particles in all types of thin materials.

## E-Z Tec® Pharmaceutical Metal Detectors



Highly sensitive to minute pieces of ferrous, nonferrous and stainless steel contaminants in various pharmaceutical products. Ensures product purity.

Features an adjustable pivoting sensing head for precise angle adjustment, as well as one of the largest and easiest to clean product chutes in the industry to optimize efficiency.

## E-Z Tec® Metal Detectors



Extremely sensitive metal detector detects small tramp metal in wet and dry products, protecting purity for food and dairy, chemical, cosmetic, pharmaceutical firms, textiles and many other industries.

## E-Z Tec Vertical Reject System



The low profile E-Z Tec Metal Detector is the heart of Eriez' Vertical Reject System. Free-falling materials such as powders, granules, flakes and pellets travel in a chute or pipe through the detector's vertical aperture to help ensure metal-free product. Includes a fast-acting reject valve.

## Slim Tec Single-Surface Models



Single-Surface E-Z Tec units are ideal for installations where aperture units are impractical. The Slim-Tec model, pictured here, fits where other detectors cannot.

## E-Z Tec with MicroProcessor Control



E-Z Tec Metal Detectors with MPC (MicroProcessor Control) allow users to computerize their metal protection systems and program up to 32 different products. Host computer compatible with RS232, RS485 and modem communication capabilities. PC interface software available.

## E-Z Tec Conveyor Systems



E-Z Tec Metal Detectors are available with complete conveyor systems, including marker devices, alarms and reject mechanisms. Stainless steel construction is standard for food, chemical, pharmaceutical and other applications requiring strict product integrity.

## 1200 Series Metal Detectors



Seven different models are available to handle a wide range of applications from detecting medium to large size ferrous, nonferrous and stainless steel particles traveling at speeds up to 1200 fpm (363 mpm), to detecting small pieces of metal in wet conductive products.

## Metalarm Metal Detectors



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

...Only from Eriez.



# Minerals and materials processing



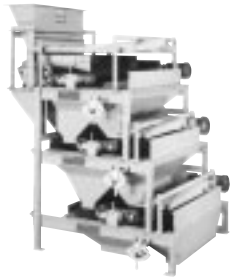
**P**roven ways to protect both product purity and processing equipment.

Cross Flow Separators



These high capacity classifiers are ideal for sizing and/or concentrating minerals in slurry form having various particle size and density distributions.

Rare Earth Roll Magnetic Separators



Concentrated, high-intensity permanent magnetic fields combine with the force of gravity and controlled feeding to concentrate feebly magnetic ores and minerals, and to remove weakly magnetic oxides from nonmagnetic feeds.

Wet Drum Separators



Recover magnetite or ferrosilicon in heavy media operations. Concentrate magnetic ores. These separators provide economies of space and operation. Basic tank styles include concurrent, counter-rotation, and counter-current.

High Intensity Magnetic Filters



Strong magnetic separators remove fine ferrous and paramagnetic contaminants from flowing liquids.

Rare Earth Drum Separators



Eriez heavy-duty 15 and 24-inch (380 and 610 mm) diameter permanent Rare Earth drums offer superior magnetic protection in ore treatment applications requiring a high degree of product purity. They are capable of removing very fine ferrous particles, locked particles, and even strongly paramagnetic particles.

Ferrous Wheel Magnetic Separators



These high-gradient permanent magnetic separators provide continuous operation in the economical concentration of magnetic ores or the cleaning of nonmagnetic ores.

Trommel Magnet



Powerful system for the automatic separation and removal of grinding balls and ferrous chips from milled ore in ball/SAG mills.

Electrostatic Separators



Designed to separate conductive from nonconductive materials. Wide range of applications from metal scrap recycling to industrial minerals processing.

8

World Authority

in Advanced

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Technology for



Magnetic,

...Only from Eriez.

Vibratory and

Metal Detection

Applications

USA



Australia



Brazil



Canada



India



Japan



Mexico



South Africa



United Kingdom



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