



RECYCLING

EQUIPMENT FOR THE RECYCLING INDUSTRY



Eriez Products For The Recycling Industry

- **P-REX Rare Earth Scrap Drums**
- **RevX-E Eddy Current Separators**
- **ProSort II**
- **DensitySort Air Tables**
- **Eddy Current Separators**
- **Electrostatic Separators**
- **ProSort Airless Metal Sorters**
- **Drum Separators**
- **Suspended Magnetic Separators**
- **Rare Earth Drums**
- **Magnetic Pulleys**
- **Brute Force Feeders**
- **HV Feeders**
- **Metal Detectors**
- **FineSort™ Metal Recovery Systems**
- **Mechanical Conveyors**
- **EcoTowerSort Metal Recovery Systems**

New from Eriez...



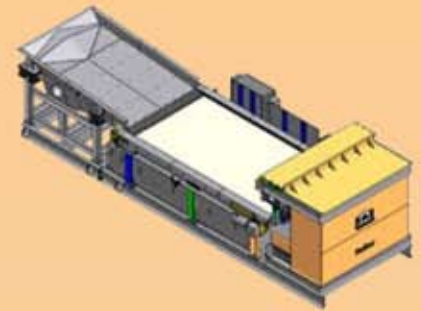
P-Rex Unleashed

P-Rex is a new and improved Permanent Rare Earth Scrap Drum from Eriez. With magnetic power edge to edge, this revolutionary drum offers unmatched meatball separation. The cost-effective P-Rex requires no transformer/power supply. It outperforms electromagnetic drums as much as 30%.



RevX-E™ Eddy Current Separators

The **new** eccentric RevX-E Eddy Current Separator is magnetically designed to provide enhanced separation of nonferrous metals. This equipment enables maximum separation. It is ideal for recovering nonferrous metals (NF) from automobile shredder residue and incineration bottom ash. It is also suited for purifying glass cullet, plastic and foundry sand. Eriez has both eccentric and concentric model Eddys available.



ProSort II - New and Improved

Eriez' new ProSort II enables superior metal recovery at a fraction of the cost to operate and maintain an air driven sorter. With a unique inverted paddle design, the new ProSort II airless metal recovery system uses high sensitivity metal sensors aligned with low energy electromagnetically driven paddles to separate valuable metals from waste material. ProSort II features twice as many sensors per paddles than the original ProSort. This means better detection of smaller pieces. Even wire!



DensitySort-Air Table for Scrap Metal Gravity Separation

This revolutionary Air Table is an ideal tool to separate heavies from lights. The DensitySort offers a very short return on investment. It is a perfect companion product for Eriez' FinesSort –or on its own.



5 Eddy Current Separators

Separate aluminum and other nonferrous metallics from nonferrous material such as municipal solid waste, bottom ash, comingled recyclables, plastic, glass, foundry sand, electronic scrap and ASR.

These powerful systems utilize permanent Rare Earth magnets to induce eddy currents into metallic particles. This produces repelling forces that separate metallics from non-metallics. Both concentric and new **eccentric** rotor styles.

Eddys available in four strengths and feed widths (12 to 84 inch [305 to 2134 mm]).



Electrostatic Separators

Cost-effective Electrostatic Separators utilize surface conductivity to recover valuable metals from electronic scrap including; chopped wire (Cu & Al), computer scrap, circuit boards, complex scrap, aluminum & PE dealer-mix cable ACSR cable, chopped rotors and automotive scrap.



7 ProSort Airless Metal Sorter

Improves metal separation, while operating at a fraction of the cost of air power metal sorters. Ideal for the scrap metals market, the patent-pending **ProSort** airless metal recovery system uses high sensitivity metal sensors aligned with low energy electromagnetically driven paddles to separate valuable metals from waste material.



2 Large Drum Separators

Excellent for removal of ferrous material from shredded automobiles, bottom ash, slag and other recyclable scrap including chips, turnings and stampings.

Available in permanent or rare earth magnetic circuits or electro-agitating or radial circuits. Housings, drives and frames are optional. Drums available in 36 to 72-inch (914 to 1830 mm) diameters and 42 to 104-inch (1068 to 2644 mm) widths.



6 Suspended Magnetic Separators

Safely and automatically remove tramp iron and other ferrous material from heavy product flows being conveyed on belts, vibratory feeders or chutes.

These powerful electromagnetic separators are self cleaning with a variety of specialized belt styles. Suspended Magnetic Separators are available in 22 strengths and also in permanent magnet designs.



4 Rare Earth Drums

Rare Earth (RE) Drum Magnets are available in various diameters (12 to 30 inch) and various strengths (Super strength to Salient Pole) to remove weakly magnetic contaminants.



3 Magnetic Pulleys

Used as head pulley in belt conveyors for continuous automatic removal of ferrous from nonferrous material. Powerful axial interpole circuit provides very high ferrous recovery.

Eighty combinations of diameters from 8 to 36 inches (203 to 914 mm) and belt widths-from 8 to 60 inches (203 to 1524 mm). Electromagnetic units are also available. Lagging is available for wet locations.



Eriez Drum in Action



Brute Force Feeders

Rugged, high-capacity mechanical feeders feed a wide range of materials at volumes up to 2250 TPH (2040 MTPH).

Vibrating rotary motors provide higher deflection to move difficult products.

A wide variety of troughs, sizes and trays are available, including grizzly decks.



1 HV Feeders

High Volume (HV) Feeders utilize a low profile two mass system to spread and uniformly feed difficult products like automobile shredder residue (ASR), glass cullet, escrap, comingled recyclables and other materials. They are powered by off the shelf motors and come in various widths and lengths.



Metal Detectors

Highly sensitive instruments used to detect ferrous and nonferrous metals in a variety of bulk materials. Installed as a final purity check for materials such as glass cullet and recycled PET.

Available in a wide variety of configurations to suit any product requirement. Systems with controls, conveyors, reject devices or marker and alarm devices form an integral detection system.

The ERIEZ Edge

Our Customers Tell Our Story

Liberty Iron & Metal Co. Inc., based in Erie, Pennsylvania, a full-service yard that handles ferrous, non-ferrous, nickel alloys and stainless steel scrap, was recently in the market for a metal sorter.

"I did not like the metal sorter air requirements; the expense, maintenance and freeze-ups in the winter," said Joe Plumadore, Operations Manager at Liberty. Management at the successful yard soon learned about the Eriez **ProSort** Airless Metal Sorter. "We knew that Eriez had the expertise and depth to make it work," Plumadore said. Soon after, Eriez installed a ProSort airless metal sorter prototype for field-testing at Liberty. It didn't take long for Liberty to conclude that ProSort was the solution they needed.

"We finally had an airless metal sorter that could offer clean non-ferrous recovered metals," Plumadore said. "We happily ordered an 84-inch unit, and continued to utilize the prototype unit while we awaited its arrival."

Liberty is impressed with the Eriez ProSort, Plumadore said. "We have put in a side conveyor to run potential customer truck load samples across the machine."

The owner of Liberty shares Plumadore's contentment with ProSort. "This product has a great future," Marc Olgin said. "It costs less to buy, less to install, less to operate and has less maintenance. ProSort's operational costs are only about 25 percent of a similar sized air sorter."



8 FinesSort™ Metal Recovery Systems

The ultimate in fine particle metal reclamation. **FinesSort's** series of powerful magnetic components recover valuable ferrous and non-ferrous metals from the fines waste stream in scrap yards. Reduces the amount of waste destined for landfill AND reclaims thousands of pounds of metals per day.

Eriez' FinesSort MRS receives the discarded "fines" material that has passed through the initial screening process and separates the waste, ferrous and non-ferrous from the fines waste.

Recover metals less than 1-inch diameter. Payback in as little as 6-months.



Mechanical Conveyors

Low-horsepower, 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 simplifies maintenance.



TotalSort™

TotalSort™ sorts aluminum, stainless steel, copper cables, heavy fractions and even recovers stainless steel and plastic coated wires using a number of different modular sorting technologies. Common configurations may include rare earth drum separators, eddy current separators, inductive sensor sorter or near infrared sensors (NIR).

Vertical-stack design saves money by eliminating numerous conveyor and feeder systems. TotalSort™ is easy to integrate it into an existing plant. More decks can be added as needed.





Eriez History

In 1941, Orange Fowler Merwin, or "O.F." as he was known, sold equipment to grain millers. Among the most common complaints heard from his customers were about "tramp iron" - stray pieces of metal, such as bits of wire, nails and bolts, even horseshoes and hammers, that somehow found their way into the grain the farmers brought to the mills for grinding.

Merwin investigated a new magnetic alloy called "alnico" (a combination of aluminum, nickel, cobalt and iron), which possessed exceptional magnetic qualities, including peak magnetic strength up to 30 times that of cobalt steel. He devised a permanent magnetic separator in 1942 and sold it to a grain miller. His company was on its way.

State-of-the-Art Engineering

Eriez' Engineering department employs the latest computer aided engineering tools, including more than 30 CAD seats at the Headquarters office. Design software includes AutoCAD and Ansys.

Equipment "outline" drawings are available to customers in AutoCAD Release 2009 DWG format.

The Eriez Technical Center

Eriez maintains industry's largest magnetic, vibratory and inspection system test laboratory at its Technical Center, adjacent to the headquarters plant in Erie, Pennsylvania, U.S.A. More than 100 pieces of specialized test equipment are on hand. 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. Feasibility and definitive studies are also conducted.

Global Presence

Through innovation, organization and diversification, Eriez Magnetics has evolved into a technologically advanced, financially sound, international company with manufacturing facilities in Australia, Brazil, Canada, China, Europe, India, Japan, Mexico and South Africa, as well as its Erie, Pennsylvania, U.S.A. headquarters. Eriez has sales offices across the United States and some 80 international markets on six continents.

Customers are assured of consistent product quality and fast response from which ever plant is closest to them. Eriez sales engineers and service teams throughout the world reflect the same customer-oriented philosophy.

ProGrade-All the Power... Without the Price!

Eriez' series of **ProGrade**® Magnetic Assemblies offer a solution for every process application. Whether you need a low cost plate magnet for equipment protection or a high power sanitary grate magnet to ensure process purity, ProGrade gives you the best for less. ProGrade is available at three series levels: ProGrade Ceramic series, ProGrade Rare Earth series and ProGrade **Xtreme**™ series. These options enable users to select the power level that is right for their particular application.



Note: Some safety warning labels or guarding may have been removed before photographing this equipment

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Web Site: <http://www.eriez.com>

e-mail: eriez@eriez.com

Telephone 814/835-6000 • 800/345-4946 • Fax 814/838-4960 • International Fax 814/833-3348

HEADQUARTERS: 2200 Asbury Road, P.O. Box 10608, Erie, PA 16514-0608 U.S.A.

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

