



# Plastics & Rubber

EQUIPMENT FOR THE PLASTICS & RUBBER INDUSTRY



# Magnetic Separators

Eriez offers a wide variety of the most powerful Rare Earth Magnetic Separators for the plastics industry... ranging from magnetic grates to powerful electromagnetic separators. Our separators effectively capture and hold fine ferrous to increase product purity and process up time. These separators include plates, grates, traps and grates-in-housing, among others... in different styles and magnetic strengths so you can choose the right product for your needs.

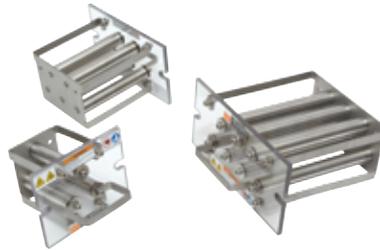


## Ferrous Iron and Steel Removal



### PM Magnetic Grates-in-Housing

- Removes fine iron from dry, pellets, powders and flakes
- The strongest high temperature magnets in the industry
- Custom inlets and outlets



### Aftermarket PM Rare Earth Drawer Magnets

- Extremely high intensity permanent magnets
- Ideal where a high level of purity is required
- Iron and/or stainless steel particles encapsulated in pellets are removed from the production stream
- Use with existing housings



### Magnetic Grates, Tubes & Grates-in-Housing

- Multiple levels of magnetic strength and temperature capability
- Protects against medium and small size contaminants
- Same day shipment on many items



### Magnetic Plates & Humps

- Plate magnets to attract and hold ferrous contaminants within heavy material flows
- Custom housings with a multi-plates arrangement direct material flows to improve metal removal



### Pneumatic RF Cartridge

- For pneumatically conveyed dry material
- Flows around interior solid stainless steel cone and over magnetic cartridge



### Suspended Magnets & Pulleys for Conveyed Products

- Designed for self-cleaning, heavy duty applications
- Ideal for wet, dry, fine or coarse material, large or small tonnages
- Removes large amount of ferrous conveyed in heavy burden depths

## Eddy Current Separators NonFerrous Separator

- Removes aluminum, brass, copper from post consumer plastic bottles and PET flake to recover extremely high purity plastic with up to 99% good product yield



### Magnetic Drum-In-Housings

- Designed to separate ferrous materials from free-flowing material where a high level of ferrous is present
- Automated self cleaning operation
- Many sizes and strengths available



### Rare Earth Roll Separators

- Magnetic rolls to remove fine ferrous contaminants
- High intensity, self cleaning
- Available in single, double and triple stage machines

# Metal Detectors & Separators

Metal contamination can plug hot runner tips, valve gates and damage equipment. Extremely sensitive metal detectors and separators prevent product metal contamination and recalls. Metal separators/detectors are positioned at different locations throughout the process from bulk or raw material unloading through final package inspection.



## Xtreme Metal Detector

- Highest level of sensitivity
- Detects metals down to 0.2mm
- Recognizes contamination and activates a reject device
- High pressure wash down design
- Touch screen settings with remote support



## FF Metal Separator

- Removes all types of metals
- Use with free falling materials
- Adjustable sensitivity
- Compact size



## Metalarm PL Metal Detector

- Detection of medium size to larger metals
- Detects all types of metal
- Mounts below conveyor belts



## Xtreme Metal Detector with Conveyor

- Mounted on a stainless steel, wash down conveyor
- Variable speed drive with food-grade belt
- Available in 4 sizes for Quick Shipment



## CFP Metal Separator

- Remove metal pieces down to .3mm
- Maximize mold and machine uptime
- Prevent product contamination
- Mounts to machine feed throat to detect all types of metal



## Metal Detector Conveyor Systems

- Protects shredders and granulators
- Ideal for plastic recyclers
- Detects all types of metal

## POLYMAG®

The PolyMag Process provides an automated means to separate manufacturing scrap and waste for multi-material processors. To do this the PolyMag Additive is incorporated into one of the polymers prior to molding, similar to colorant, making this resin susceptible to the very strong magnetic field produced in the PolyMag Rare Earth Roll Separator. The PolyMag Separator can then separate the mixed polymer regrind. The Process is ideal for co-extrusion, two shot injection, overmolding, multi-layer blow molding and thermoplastic/thermoset foam assemblies.



## PolyMag® Metal & X-Ray Detectable Additives

Eriez' FDA compliant, PolyMag® additives impart metal detectability, X-Ray contrast and magnetic separation into a range of polymers. We supply these masterbatch additives to molders of returnable plastic containers, pallets, scoops, scrapers, o-rings, conveyor belting, bucket elevators and more. PolyMag® additives are typically included at 10% to 30% loadings in moldings and extrusions.

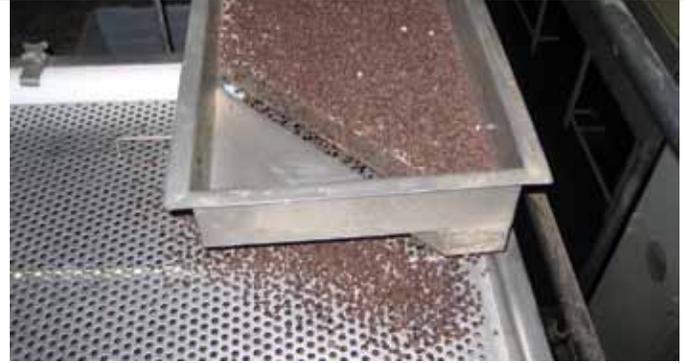


## PolyMag® Separator

- Processes 150-500 lbs/hr
- Rare Earth Roll magnet
- Built-in feed hopper
- Heavy duty construction

# Material Handling

Eriez offers a full range of vibratory feeders, conveyors and screeners used in plastics applications. Our electromagnetic drives and feeders handle high-speed packaging and high material load applications. Electromagnetic drives are extremely energy efficient, low maintenance with no rotating parts, and can be mated with a range of trays offering precise and adjustable flow rates. Eriez also offers lifting magnets for tool and die handling.



## Vibratory Feeders, Conveyors & Screeners



### Compact Vibratory Feeders

- Small to medium capacity
- Super energy efficient (electromagnetic drives)
- Many tray designs - sanitary, screens, dust control options
- Standard sizes available for quick shipment



### Vibratory Conveyors / Screeners

- Mechanical conveyors handle bulk materials in high volumes
- Electromagnetic vibratory conveyors allow "watch-like" precision of the feed
- Remove "over's" and "fines"
- Wide range of decks, screens and discharges



### Heavy Duty Mechanical Feeders

- High deflection mechanical drives
- Low cost powerful units to evenly meter high volumes of material
- Screeners and de-watering designs available



### Lifting Magnets

- Wide range of permanent and electromagnetic magnets
- Safely lifts, move and position steel molds, sheets, plates, round stock and mold inserts



### Volumatic Feeder Machines

- Consists of hopper, vibrator, feeder and controls
- Accurate control of dry bulk materials
- For weight scales, packaging, bagging and small batch operations



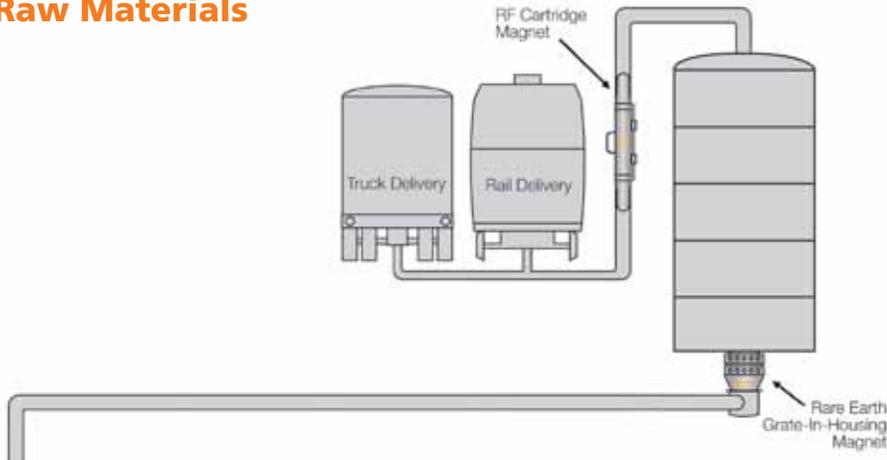
### Bin Vibrators

- Aids in moving hard material flow from hoppers
- Small hoppers to huge bunkers
- Wide variety of sizes, low power consumption and simple controls

# Plastics Processing

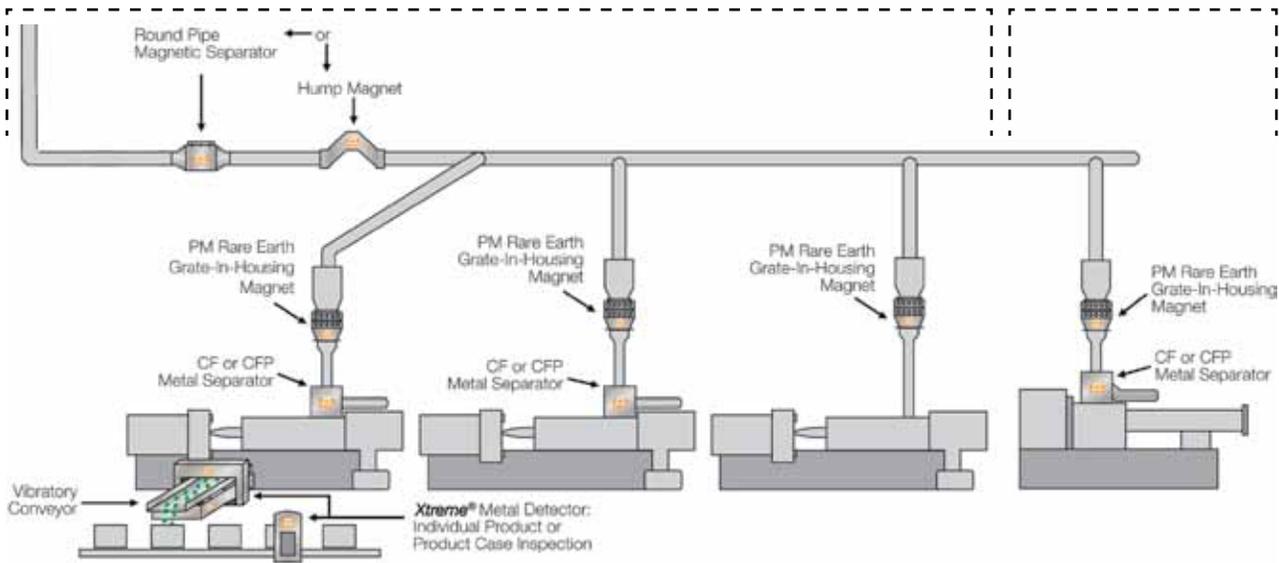
Metal contamination can occur in just about every area of the typical plastic processing plant... from unloading resin to final packaging. Eriez offers the widest range of magnetic separators, metal separators and metal detectors to remove all types of metal from the process. The diagram below highlights the typical locations in the process to place a separator.

## Raw Materials

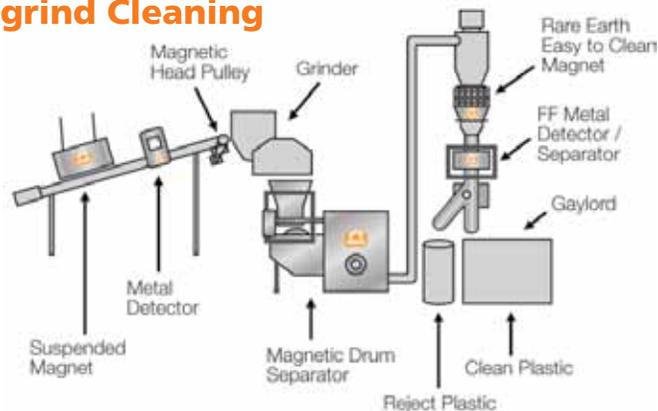


## Injection Molding Process

## Extrusion Process



## Granulating & Regrind Cleaning





## *Eriez' worldwide system of manufacturing, sales and service*

### 5-Star Service Center

Eriez' 5-Star Service Center, located in Erie, PA, is staffed with an experienced team of professionals available through our 24/7 hotline, 1-888-300-ERIEZ. We use original OEM parts and offer on-site field testing, equipment re-manufacturing and full "as new" warranties.

### EriezXpress™

EriezXpress products are typically in stock and ready for next-day shipment from Eriez USA. Eriez has identified those products most often ordered with fast shipment requirements. The EriezXpress program streamlines the order-to-ship process by simplifying product ordering, modifying inventory control and designating a dedicated team to make it all happen.

Upon credit approval, orders received at Eriez-USA by 4:00PM will be processed and shipped the next business day.



### The Eriez Technical Center

Eriez maintains the industry's largest magnetic, vibratory and inspection system test laboratory at its Technical Center 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.



### World Authority in Separation Technologies

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