

EQUIPMENT FOR THE

PLASTICS & RUBBER INDUSTRY

Eriez offers a wide range of equipment solutions for the removal and detection of metals in the plastics and rubber industries, improving production efficiency, product purity and plant profitability.

Products are custom-designed to suit all customer requirements. The Prograde® range of magnetic separators are also available in a selection of standard sizes for immediate sale.

METAL DETECTION

E-Z TEC 9100 METAL SEPARATORS

Eriez E-Z TEC 9100 Metal Separator unit incorporates balanced coil technology with a pneumatic reject system, allowing for the detection and rejection of sub-millimetre metal contamination from dry, free-falling material.

- High sensitivity
- · Removes ferrous, non-ferrous and stainless steel contamination from plastic and rubber re-grind
- Simple installation
- Compact and reliable





XTRFMF® MFTAL DETECTORS

Eriez' high quality performance Xtreme® Metal Detector detects down to 0.4mm Fe spheres for superior machinery protection and product quality monitoring.

- Multi-frequency operation achieving maximum detection sensitivity of ferrous, non-ferrous and stainless steel metal contaminants in packaged, loose and free-fall applications
- Available in a wide range of aperture widths and heights
- Stainless steel construction as standard
- High pressure wash down design IP69K
- 7" / 178mm easy-to-use touch screen interface
- Multiple pre-programmed languages
- Easy set-up and product learning
- Reporting (including log, tracks, rejects and faults)
- Four password protected levels of access
- Multiple USB and interface ports

TRI-SEP METAL SEPARATION SYSTEM

The Tri-Sep Metal Separation System incorporates a volumetric Vibratory Feeder, PM Permanent Grate Magnet and the 9100 Metal Separator on a lightweight manoeuvrable frame for consistent quality and process control.

- · Time-efficient solution for bulk sampling processing
- Minimal footprint
- · Low-cost multi-stage system
- · Custom-made production and laboratory versions available

















MA6600 METAL DETECTORS

The MA6600 is specially designed to fit small, lightweight conveyors, protecting machinery and reducing repair cost and downtime.

- Simple installation in both existing and retrofit processing lines
- Able to detect all types of metals
- Custom-made coils designed to fit specific conveyor configurations
- Compact and efficient



MAGNETIC SEPARATION

GRATE MAGNETS

Grate Magnets provide powerful, permanent magnetic protection against fine and tramp iron contamination. Designed for simple installation in steep-sloped hoppers, odd and irregular-shaped hoppers, floor openings, vertical closed chutes and ducts.

- Ideal for the removal of small, fine tramp iron from dry, free-flowing products
- · Available in multiple sizes and configurations
- Stainless steel housing
- Range of strengths available dependant on application Ferrite or Rare Earth









EQUIPMENT FOR THE

PLASTICS & RUBBER INDUSTRY

MAGNETIC FERROUS TRAPS

Permanent magnets for the removal of ferrous metal contamination from liquid lines.

- Magnetic element fits into the Grade 316 stainless steel body casting
- All sizes have B.S.P. threaded ends or plain for welding as standard







BULLET MAGNETS / RADIAL FIELD (RF) **CARTRIDGE MAGNETS**

Efficiently recovers ferrous tramp and/or fine iron contamination from dry, free-flowing materials in processing pipelines.

- Stainless steel construction
- Suitable for vertical installation
- High strength, high gradient Rare Earth (Neodymium) magnet element



PLATE MAGNETS

Eriez Permanent Plate Magnets provide powerful, dependable magnetic protection against hazardous fine iron and tramp iron contamination in processing lines. Designed for positioning in chutes, spouts, ducts, pipes, or suspended over conveyor belts to remove contamination and prevent damage to downstream equipment.

- Ideal for the removal of small, fine tramp iron from dry, free-flowing products
- Available in multiple sizes and configurations
- Stainless steel housing
- Range of strengths available dependant on application Ferrite or Rare Earth

















Magnetic Hoppagrids are used in hoppers to avoid damage or blockage of valuable equipment.

- Simple installation no fixing or bolting, simply rests against walls of hopper or slots into chutes
- Suitable for round and square-sided hoppers
- Easy to clean









ROUND PIPE MAGNETIC SEPARATORS

 Round Pipe Magnetic Separators remove fine ferrous contaminants from gravity or pneumatically conveyed dry, free-flowing products.

MAGNETIC HUMPS

Suitable for the extraction of tramp iron from material being conveyed pneumatically or where there are large volumes of gravity fall free-flowing materials.

- Constructed with two plate magnets in dogleg housing for efficient iron removal
- Hinged magnets for accessible cleaning
- Various magnetic strengths and sizes available
- · Auto-cleaning arrangement available as an option for continuous material flows





RARE EARTH ROLL SEPARATORS

Eriez high-intensity, high-gradient permanent Magnetic Roll Separators remove fine and weakly magnetic particles from plastic raw materials, contaminated resin, regrind and multi-material moulding scrap containing Eriez Polymag® additives.

- Technically advanced with proven success in these industries
- Magnetic rolls constructed from Rare Earth (Neodymium) magnet material, providing reliable and consistent separation over a long period of time
- Units available with range of feed widths and with multiple separation stages
- Minimal maintenance, reducing production downtime

EQUIPMENT FOR THE

PLASTICS & RUBBER INDUSTRY

MAGNETIC HEAD PULLEY SEPARATORS

Powerful permanent Magnetic Head Pulleys are installed on conveyors, in place of a standard drive pulley, to remove unwanted and potentially damaging tramp iron contamination from transported materials.

- Available for various belt speeds and widths and depths of material flow
- Easily installed or retrofitted into existing systems
- Available with or without rubber lagging





EDDY CURRENT SEPARATORS

Eriez RevX-E ST22 ECS is best-in-class for fines separation, offering a greater throw for aluminium pieces.

- Ideal for PET flake applications
- Reliable and widely used throughout the recycling industry
- Adjustable belt speed and splitter
- Variety of unit sizes custom made

VIBRATORY FEEDERS

Eriez electromagnetic Vibratory Feeders offer accurate feeding of all types of materials, including light and traditionally difficult to feed materials.

- Quick start / stop operation ensures economical and precise handling of materials in mixing, batching, packaging and bagging operations
- Used to convey and accurately dispense fillers, additives, regrind and fibreglass without degradation
- A selection of drives available for immediate sale



















The Polymag® process was developed as part of Eriez' commitment to reducing waste in the processing industry. The Polymag® process provides an effective and automated method of recovering manufacturing scrap and waste for multi-material processors.

The Polymag® additive is added into one of the polymers prior to moulding. This enables the resin to be attracted to the strong magnetic field produced in the Resin Separator. Scrap parts are run through a traditional granulator, allowing the Polymag® separator to separate the mixed polymer regrind into distinct materials.

Metal Detectability, X-Ray Contrast and Magnetic Susceptibility



DETECTABLE POLYMAG® ADDITIVES

A non-dusting pellet which allows plastic moulders and extruders to produce metal detectable and x-ray visible plastic parts.



POLYMAG® RESIN SEPARATOR

Part of Eriez' range of rare earth roll separators it is fitted with a permanent rare earth magnet and a built-in feeder to enable the automated separation and recovery of the mixed resins.

FREE PROCESS REVIEW

Eriez offers a process review for the inspection of existing separation and detection equipment, providing in-depth evaluation and recommendations for optimum removal of metal

contamination. It enables customers to ensure compliance with regulatory quality requirements.

Each piece of equipment is thoroughly checked at critical points:

- To identify whether they are of the correct design and strength
- To ensure they are correctly positioned and installed
- To provide an inspection record and check for magnetic strength degradation

PULL TEST KIT

Available with either a digital or mechanical scale, these kits provide all the necessary components to track the strength of your magnets and ensure optimal separation.

ERIEZ' WORLDWIDE NETWORK OF MANUFACTURING, SALES & SERVICE



Manufacturing Affiliates in: Australia, Brazil, Canada, China, India, Japan, Mexico, South Africa, United Kingdom, USA



ERIEZ MAGNETICS EUROPE LIMITED

 $\hbox{European Manufacturing, Design and Test Laboratory Headquarters}$

Greenway, Bedwas House Industrial Estate, Bedwas, Caerphilly, CF83 8YG, UK



