

ERIEZ



GRATE MAGNETS

TUBE MAGNETS • GRATE MAGNETS

GRATE-IN-HOUSING MAGNETS • ROTA-GRATE MAGNETS



ERIEZ
GLOBAL LEADER IN SEPARATION TECHNOLOGIES

About Eriez

Established in 1942, Eriez stands as a pioneering force in separation technologies, embodying a truly global presence.

With 12 wholly owned subsidiaries across the globe, we proudly design, manufacture, and support our magnetic separation, flotation, metal detection, X-ray inspection, and material handling equipment on an international scale.

Our dedicated team of knowledgeable and experienced sales engineers collaborates closely with customers, understanding their unique challenges to deliver dependable, high-performance equipment, systems, and solutions.

Whether clients require our standard equipment or custom solutions tailored to their precise specifications, Eriez delivers.

Drawing from more than 80 years of experience across diverse industries, including mining and minerals processing, food processing and packaging, aggregates, metals recycling, and many other sectors, Eriez leverages its extensive experience to design and supply products that elevate productivity, efficiency, and product purity.

Eriez remains steadfast in its commitment to setting the global standard for excellence in key technologies, driving innovation and reliability across industries worldwide.

Grate Magnets for Tramp Metal Removal

Grate Magnets are among the most widely used magnetic separation solutions — installed across a broad range of industries. Designed to remove ferrous contaminants from material feeds, these magnets are typically installed in hoppers, bins, chutes, and other gravity-fed processing points. As product flows through the grate assembly, high-strength magnetic tubes capture contaminants, ensuring product purity and protecting downstream equipment from costly damage.

Tube Magnets

Tube Magnets are the core magnetic elements used within grate assemblies. Each tube contains a powerful circuit which creates an intense magnetic field along the surface of the tube. Ferrous contaminants are drawn to the magnetic surface and held securely until the magnet is cleaned.



Grate-In-Housing Magnets

Grate-In-Housing Magnets combine grate magnet assemblies with a sealed enclosure constructed for inline installation within processing systems. These units are typically closed systems where contamination control must be maintained without exposing the product stream to the surrounding environment.



Rota-Grate Magnets

Rota-Grate® Magnets are advantageous in environments that involve sticky or powdery materials that may bridge or clog traditional grate magnet assemblies. These systems incorporate rotating magnetic tubes that continuously agitate the product stream, preventing buildup while maintaining consistent magnetic separation.



Applications

- Food Processing
- Plastics
- Pharmaceuticals
- Chemicals
- Minerals
- Grain Handling
- Rail Loading
- Recycling

Magnet Strength Options

Ceramic - Provide essential protection from tramp metals that can damage downstream equipment.

Rare Earth - These high-strength separators are extensively used by food, chemical, and pharmaceutical processors requiring high levels of product purity.

Xtreme® Rare Earth - Employ the industry's strongest magnet circuit to recover more fine iron contamination and reduce product wash off.

Tube Magnets

Individual magnetic tubes can be used to remove ferrous contaminants from liquids in tanks, as a quality control check of dry bulk materials and in many other ways where a powerful, portable magnetic power source is needed. All magnetic tubes are available with 1/4-20 UNC drilled and tapped end plugs.

Available In

- Ceramic
- Rare Earth
- Xtreme Rare Earth

Features

- Continuously welded
- 316L Stainless steel
- Glass bead surface finish
- Rare Earth and Xtreme Rare Earth magnet circuits for temperatures up to 65.5° C (150° F)
- Custom lengths available



Grate Magnets

Eriez Grate Magnets are designed to protect processing equipment and finished products from fine ferrous and tramp iron contamination in gravity-fed material flows. The assembly typically consists of multiple magnetic tubes arranged in a grid pattern that maximises magnetic surface area while allowing product to flow freely.

As material moves through the grate, unwanted iron particles are attracted to and held on the magnetic tubes, preventing them from entering downstream equipment or contaminating the final product. This simple yet highly effective configuration provides reliable protection for a wide range of dry, free-flowing materials across food, chemical, plastics, and industrial processing operations.

Available In

- Ceramic
- Rare Earth
- Xtreme Rare Earth
- Round or rectangular configurations

Features

- All stainless steel construction
- 25 mm (1") diameter tubes on 51 mm (2") centers
- Glass bead surface finish
- Rare Earth and Xtreme Rare Earth magnet circuits for temperatures up to 65.5° C (150° F)
- Sanitary construction, custom sizes and designs available



Wing Grates

This separator provides a final checkpoint of magnetic action on bulk foods, chemicals, or pharmaceutical applications before being packaged in boxes or production containers.

Available In

- Ceramic
- Rare Earth
- Xtreme Rare Earth

Features

- 25 mm (1") diameter stainless steel tubes spaced at 51 mm (2") centers
- Wings can be bent to fit openings which vary from our standard sizes
- Double-bank gives added protection in installations where iron contamination is particularly acute
- Dimensions are flexible so special sizes can be furnished



Drawer Grates

Drawer Grates have been specifically tailored for use in closed chutes and ducts, with handles attached. These models are easily inspected and cleaned by sliding the assembly from an opening made inside of the housing.

Available In

- Ceramic
- Rare Earth
- Xtreme Rare Earth

Features

- 25 mm (1") diameter stainless steel tubes spaced at 51 mm (2") centers
- Double-bank gives added protection in installations where iron contamination is particularly acute
- Dimensions are flexible so special sizes can be furnished



Grate-In-Housing

Grate-In-Housing magnets are engineered for tramp and fine iron removal in enclosed flow lines or at screen discharges. Multiple tube units are built into convenient housings with a slide-bolt door front for readily accessible for cleaning.

Available In

- Ceramic
- Rare Earth
- Xtreme Rare Earth

Features

- Two rows of staggered magnets
- Removable door with plastic knobs
- 65.5° C (150° F) maximum temperature (Rare Earth)
- Stainless steel housing (Rare Earth and Xtreme units)
- Mild steel housing with stainless steel option (Ceramic)
- Sanitary construction is optional



Standard Grate-In-Housing

Multiple rows of powerful magnetic tubes are contained in this straightforward and durable design, making it well-suited for routine separation duties across a wide range of bulk processing applications.

Easy-to-Clean Grate-In-Housing TGH-2

The TGH-2 features high-strength rare earth magnetic tubes and a simple push-pull cleaning model that allows accumulated tramp metal to be removed in seconds.

Easy-to-Clean Grate-In-Housing DSC

The DSC design incorporates stripping bushings that remove collected tramp iron from the magnetic tubes for a dust-tight, sanitary, and convertible process. Tramp metal is discharged through a small front chute following push-pull operation.

Self-Cleaning Grate-In-Housing DSC

The DSC's push-button operation provides powered cleaning that cycles magnetic tubes through stripping bushings, automatically discharging collected tramp metal with minimal operator involvement. Specially intended for use in difficult-to-access locations, A conversion kit is available in addition to remote control options.

Self-Cleaning Grate-In-Housing

This completely automated device allows magnetic tubes to be cleaned based on an adjustable timer. Each row cycles independently for cleaning, providing for an uninterrupted product flow.

Rota-Grate

Eriez Rota-Grates are designed to remove large pieces of unwanted iron as well as minute ferrous particles from material flows that tend to clog and bridge when passed through small openings. This rugged dual action unit rotates magnetic tubes through the material. Manufactured for installation at the discharge of either open or enclosed chutes or ducts, with extensions for flange type or pillow block type bearings as well as for the drive pulley.

Available In

- Ceramic
- Rare Earth
- Xtreme Rare Earth

Features

- Provide magnetic protection without restricting and clogging material flow
- Magnetic elements completely encased in stainless steel and fastened to stainless steel end plates
- Bronze hubs and steel shaft, for added durability



Self-Cleaning Rota-Grate

The rotating tube assembly periodically cycles through a special tube cleaning wall that removes ferrous material from the tube magnets outside the product flow. This innovation eliminates the need to clean individual tubes manually and greatly reduces the amount of time associated with cleaning.

Cleaning cycles are dependent on the amount of ferrous contamination in the system. The timer is adjustable for optimum separation performance.

Available In

- Ceramic
- Rare Earth
- Xtreme Rare Earth

Features

- Automatic air-operated unit retracts tube cage from product area during cleaning cycle
- Control includes programmable timer for optimum cleaning cycles
- All stainless steel housing
- 16 RPM gear motor



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