

...Only from Eriez



Features & Benefits: Series SD/SD Xtreme®

- All stainless-steel construction
- Welded Construction
- 1/2" high milled 400 series tapered step
- Hinge and latch
- Rare Earth and Xtreme Rare Earth units (sanitary design is standard)

Brutepower/SuperBrute

- All stainless-steel construction
- All welded, water-tight can construction
- Smooth face for suspension mounting
- Four (4) 1-inch diameter Lifting lugs

ERIEZ®

Permanent Plate Magnets

Series SD, SD Xtreme®, Brutepower and SuperBrute

Eriez Permanent Plate Magnets, the workhorses of magnetic separation, provide dependable and economical solutions to problems associated with tramp iron contamination in processing lines. Plate Magnets installed in chutes, spouts, ducts, pipes, or suspended over conveyors remove tramp iron to help prevent costly shutdowns associated with machinery damage, prevent spark-caused fires and explosions, prevent product contamination and improve product purity.





The compact design of these powerful magnetic separators makes them simple and easy to install. Standard installations involve hinged models for swing-open cleaning.

Plates are also available without hinges for stationary or suspended installations.

The magnetic field penetrates the product flow and grabs tramp iron as it passes by or over the Plate. The concentrated field holds tramp iron tightly to the magnet surface until removed during the cleaning process.

Separation applications involving fine or weakly magnetic iron employ Rare Earth Plate Magnet. This super-strength magnet attracts and holds the most difficult tramp iron. Rare Earth is standard for food and pharmaceutical applications where product purity is paramount.

Introduction/Overview Magnets Built To Last

Standard Design and Construction

All Stainless Steel

For best resistance to wear from corrosive materials and atmospheres. Suitable for many food processing applications where the strictest sanitary requirements do not apply.

Milled Stainless Steel Step (SD Models)

One upstream 400 series stainless steel tapered step provides a magnetic and physical barrier to provide superior removal and retention of fine ferrous contamination.

Welded Construction

Each Eriez Plate Magnet is welded for the most demanding environments. This rugged design will last for years of continuous service.

Mounting Hardware

Standard hinged units include a heavy duty stainless steel hinge, zinc plated latch and latch mounting hardware for simple installation and easy maintenance.

Optional Features

Sanitary Construction

These units are identical to the standard magnets but carefully manufactured to contain no pits, cracks or crevices, in accordance with accepted sanitary requirements.

Fixed or Suspended Applications

We will provide the unit without a hinge and incorporate a flange bolt hole pattern or liflug for easy installation.

Stripper Plates

Non-magnetic stainless steel covers hinge on and off the magnet face to provide a quick and positive discharge of collected tramp metal.

Customized Magnets

For over 70 years, Eriez Magnetism has been customizing magnets for special applications. For additional information, please contact your local representative or call Eriez factory direct.

Rare Earth and Xtreme Rare Earth Magnets

The Rare Earth and Xtreme Rare Earth Plate Magnets are continuously welded and carefully manufactured to contain no pits, cracks or crevices in accordance with accepted sanitary practices. These units are suitable for food and pharmaceutical applications directly from Eriez stock.

Rare Earth and Xtreme Rare Earth Plate Magnets remove weakly magnetic or very fine iron contaminants from a wide variety of dry bulk or liquid products. These separators are made from Rare Earth, a high quality (neodymium-boron-iron) permanent magnet power source. Rare Earth develops a magnetic field which has up to twenty-five times the magnetic pull of conventional ceramic (barium ferrite) or Alnico (aluminum-nickel-cobalt) magnet materials. This means Rare Earth and Xtreme Rare Earth plates can reach out and attract weakly magnetic or very fine iron contaminants, and hold them so tightly that wipe off by-product flow is virtually eliminated.

The superior strength-to-size ratio of RE plates means they are easy to install and swing out for cleaning.

A typical application would involve the installation of a conventional ferrite plate magnet like the Super or Maxi to scalp large tramp iron with the Rare Earth or Xtreme Rare Earth plate following to remove fine magnetic contaminants.

Standard units suitable for temperatures up to 150°F (66°C). Special units are available for higher temperatures.



Six Different Magnet Models

Standard Series SD Units

Superpower

Designed to remove tramp metal from a variety of heavy duty applications. This model, while only 2" (51 mm) thick, creates a powerful magnetic field that will project 2–3" (50–75 mm) into a burden to remove large tramp iron from product flows. The unique tapered step helps hold tramp iron out of the product flow to minimize wash off.

Maxipower

For extra heavy duty applications, this unit incorporates 75% more magnet material in not only a thicker but longer plate so feed material is exposed to the magnetic field 40% longer than our next closest size. This model creates a deep magnetic field that will project 3–4" (75–100 mm) into a burden to remove both small and large tramp iron. The addition of the tapered step helps hold tramp iron out of the product flow while acting to increase the holding force of the plate for fine tramp metal.

Rare Earth

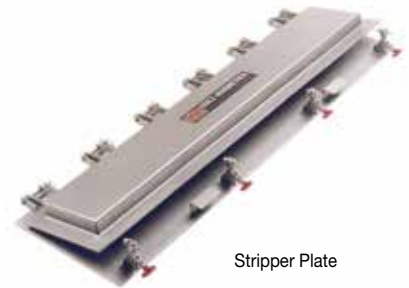
Our most popular unit. For the toughest applications, this unit is smaller than our conventional magnets. The holding force is beyond comparison. These magnets utilize Rare Earth magnet material to create a field so powerful that wash off is virtually eliminated. These separators have become the standard for food and pharmaceutical applications where tiny, feebly magnetic particles contaminate products. The intense field near the plate surface makes these units ideal for shallow burdens where product purity is the number one priority.



Series SD



Mounting Flange Design



Stripper Plate

Xtreme® Rare Earth

For extreme applications where deeper product depths and higher suspension heights are required, Xtreme Rare Earth magnets should be used when maximum separation efficiency is required.

Brutepower and SuperBrute plate magnets are the most powerful plate magnets available today.

Brutepower and SuperBrute

Brutepower

The Brutepower permanent plate magnet circuit is designed to create a deep magnetic field that will project 4–5" (102–127 mm) into a material burden to remove large damaging tramp iron contamination. Wood chips processing, sugar cane and other extremely difficult tramp iron separation applications are effectively handled by the Brutepower plate magnet.

SuperBrute

The SuperBrute permanent plate magnet is typically used in suspended applications. It is specifically designed to be an economical, space-saving solution for the removal of large tramp iron from deep product flows in restricted areas. When the larger suspended permanent or suspended electromagnets cannot be installed due to space limitations, the powerful SuperBrute magnet can be an effective solution in most instances. Typical suspension height is less than 6" (152 mm) for large tramp metal contamination.



Suspended Magnet Design

APPLICATION GUIDE

| | FINE FERROUS CONTAMINATION | SMALL TRAMP IRON | MEDIUM AND LARGE TRAMP IRON |
|------------|---|---|--|
| TO REMOVE | | | |
| CHOOSE OUR | RARE EARTH OR XTREME® RARE EARTH MODEL | MAXI POWER MODEL OR SUPERBRUTE FOR SUSPENDED APPLICATIONS | SUPER POWER MODEL OR BRUTEPOWER FOR SUSPENDED APPLICATIONS |

Typical plate magnet installations involve free flowing products cascading down a sloped chute. Use the selection guideline above for thin burdens (up to 5-inches (127 mm)) and slow product flows. Typical installations locate the magnet near the chute entrance to take advantage of the products reduced velocity. For optimum performance, magnets require cleaning at regular intervals. Install them in a readily accessible location.

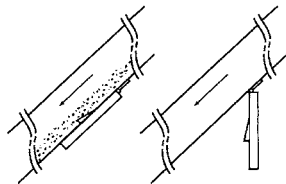


Eriez Equipment In Action

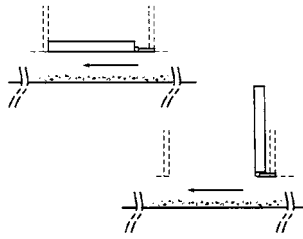


Specifications

Typical Installation



Sloped Chute



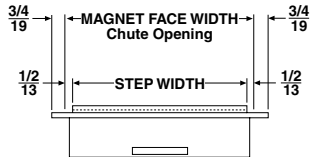
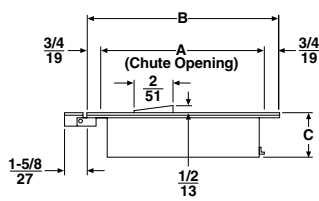
Suspended

Optional Features

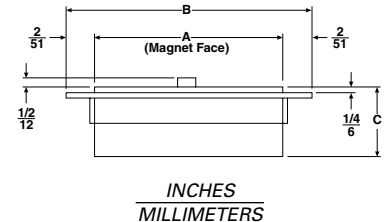
- High sanitary construction for food, pharmaceutical or dairy applications
- Stripper plates
- Barrier strips
- Two tapered steps

Dimensions

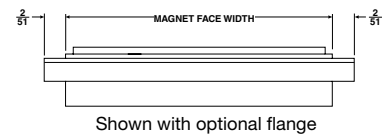
Series SD/SD Xtreme®



Brutepower/SuperBrute



| Model | A | | B | | C | | Approx. Weight Per Inch | |
|-------------|--------|-----|--------|-----|---------|-----|-------------------------|-----|
| | in. | mm | in. | mm | in. | mm | lbs. | Kg. |
| Rare Earth | 5-1/2 | 140 | 7 | 178 | 1-3/16 | 30 | 1.7 | .77 |
| Xtreme RE | 5-1/2 | 140 | 7 | 178 | 2-1/16 | 52 | 2.4 | 1.1 |
| Super Power | 7-5/8 | 178 | 9-1/8 | 232 | 2-1/16 | 52 | 2.8 | 1.3 |
| Maxi Power | 10-5/8 | 254 | 12-1/8 | 308 | 2-11/16 | 68 | 4.7 | 2.1 |
| Brutepower | 13-1/4 | 336 | 17-1/4 | 438 | 4-7/8 | 124 | 14 | 6.3 |
| Super Brute | 13-1/4 | 336 | 17-1/4 | 438 | 6-3/8 | 162 | 17.25 | 7.8 |



Shown with optional flange

Most units are available in even inch magnet face width increments, (e.g., 8, 10, 12 inch). Eriez stocks many standard plate magnet sizes. Please contact our factory representative or headquarters to discuss standard magnet sizes.



World Authority in Separation Technologies

Headquarters: 2200 Asbury Road, Erie, PA 16506-1402 U.S.A.

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

Web Site: <http://www.eriez.com> • e-mail: eriez@eriez.com

Manufacturing Facilities: AUSTRALIA • BRAZIL • CANADA • CHINA • INDIA • JAPAN • MEXICO • SOUTH AFRICA • UNITED KINGDOM • UNITED STATES

Eriez, Xtreme and Eriez Magnetics are registered trademarks of Eriez Manufacturing Co, Erie, PA ©2014 ERIEZ MAGNETICS ALL RIGHTS RESERVED
 Note: Some safety warning labels or guarding may have been removed before photographing this equipment.