

Grate Magnets

...Only from Eriez

Complete Line

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.

Eriez, the pioneer in permanent magnet applications since 1942, offers its grate magnet line to give you more selections... so you can more precisely match the magnet to your application.

Here's the most complete grate magnet selection available... sizes, strengths and models to give you exactly the magnetic protection you need.

FEATURES

- Rugged construction
- Innovative designs
- **Xtreme**® Rare Earth magnet circuits for 150°F, 250°F or 400°F
- New and improved ceramic circuits, twice the holding force of our traditional magnets



Erium™ Energy source

TRUE BREAKTHROUGHS IN TECHNOLOGY

The achievements that have been made increasing the strength of ceramic and rare earth magnets and incorporating these superstrength magnets into existing and new separator designs represent true breakthroughs. As industry becomes increasingly aware of these new technologies and their advantages, both end product purity and customer satisfaction will benefit.

STANDARD GRATE MAGNETS

For many years Eriez permanent magnet grates have used ceramic or Alnico magnet materials as their energy source. When built with Eriez-designed circuits, these separators provide good magnetic fields for a nominal cost and satisfactorily remove both tramp and fine iron contaminants in most applications. They continue to be the magnets most frequently used to improve the product purity of dry bulk materials.

XTREME® RARE EARTH GRATE MAGNETS

The *Xtreme*® RE separators available from Eriez remove weakly magnetic or very fine iron contaminants. These separators are made with Erium® 3000, a high quality rare earth permanent magnetic energy source. Erium 3000 develops a magnetic field which has up to 25 times the attractive force of conventional ceramic or Alnico magnet materials.

The gap between low and high intensity magnetic separators has now been filled with these *Xtreme*® magnets. They have more strength at a greater distance than conventional permanent magnets, higher gradients and increased holding

force. This means they 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.

All models of Eriez grate magnets are available with *Xtreme*® elements. Existing units can be easily retrofitted with these more powerful magnetic assemblies.

SANITARY GRATE MAGNETS

Both standard and *Xtreme*® grate magnets are available in sanitary construction. These units are stainless steel throughout and are carefully manufactured to contain no pits, cracks or crevices in accordance with accepted standards of sanitation for food processing.

Housings for these grate magnets can also be provided in stainless steel without cracks or crevices. Sanitary grate magnets are mandatory in many food processing operations. They are also applied in the manufacture of pharmaceuticals, in the chemical industry where processing lines are alternately used for two or more incompatible products, and wherever the highest degree of purity is required.

Eriez' high standards of quality control assure that Sanitary Grate Magnets will meet the specifications of regulatory agencies.



Eriez Model P Grates for chutes and hoppers.



Eriez Rota-Grate for sticky flows of material.



Eriez new and improved Easy-to-Clean Grate In-Housing.

Why Rare Earth Magnets?

1. WHAT'S SO SPECIAL ABOUT RARE EARTH MAGNETIC SEPARATORS?

Rare earth (RE) magnets offer solutions to many very fine and/or weakly magnetic iron contamination problems. Their magnetic strengths fall in the medium intensity range—4,000 to 12,000 gauss. Previously, this strength was available only through high-intensity electromagnets, which are bulky, expensive to purchase and expensive to operate. Often, the high-cost electromagnetic level of separation isn't really needed, or its cost exceeds the "value added" to the product or process, making its use difficult to justify.

Rare earth magnets allow economically feasible solutions to those ferrous contamination problems that are too tough for low-intensity separation but for which high-intensity separation is overkill.

2. HOW CAN THESE NEW MAGNETS BENEFIT A PROCESSING OPERATION?

The improved performance of RE magnets makes them particularly suited for certain applications. These include (1) the removal of very fine iron, such as iron of abrasion, which is difficult to attract and hold because of its small mass; (2) the removal of weakly magnetic contaminants, such as iron oxide or rust, which do not respond well to conventional ferrite magnets; and (3) the removal of some stainless steel particles which have been rendered paramagnetic through work hardening.

3. WHAT EXACTLY ARE RARE EARTH MAGNETS?

Rare earth magnetic materials are otherwise known as Lanthanides. These metals range from atomic number 57 to 71 on the periodic table of elements. While rare earth materials have been

known for a long time, it's only within the last two decades that their use has been economically feasible. Using new technology, rare earth metals are being combined with other elements to produce a new breed of permanent magnets.

4. HOW ARE RARE EARTH MAGNETS DIFFERENT FROM OTHER MAGNETS?

The rare earth magnets are a major advancement, since they have much higher magnetic energy than conventional ferrite or alnico magnets yet provide similar circuit stability and long service life.

Properly designed RE magnets also have high magnetic gradients and greatly increased holding force. This means they can reach out and attract weakly magnetic or very fine iron contaminants and hold them so tightly that wash-off by product flow is virtually eliminated.

5. ARE ALL RARE EARTH MAGNETS THIS STRONG?

Definitely not. An Eriez Magnetics Technical Center evaluation of all the different compounds and magnetic circuits showed that some rare earth compositions and circuits were only slightly better than ferrite (ceramic) magnet circuits, while others were many times stronger. This research led Eriez to the use of Erium 3000, a very powerful, third generation, permanent rare earth magnet compound. Depending upon their circuit design, these rare earth magnets, as noted above, can provide up to 25 times the attractive force of conventional permanent magnets—with no increase in size.

6. HOW MUCH DO THEY COST?

Depending on the type and configuration, rare earth magnets can cost two to five times more than conventional ferrite

permanent magnets. Even so, they are much less expensive than high-intensity electromagnets. And since they are permanent, they do not require the electricity operating costs of electromagnets. In many cases, RE magnetic separation results in a purer finished product which can be sold for a higher price, which more than justifies the cost of the equipment.

Typically, RE magnets can be retrofitted into existing conventional permanent magnet installations further reducing capital equipment costs and virtually eliminating installation downtime. In addition, RE magnets can be installed as a "final stage" separator, leaving existing conventional magnets in place to perform the preliminary function of removing strongly magnetic contaminants.

7. HOW DO YOU SELECT THE RIGHT EQUIPMENT?

Since circuit design and compound composition are so critical in obtaining the optimal characteristics of the rare earth material, a user should test equipment supplied by manufacturers.

Not all rare earth separators are equal. Testing is the only way to adequately evaluate all the variables involved—not only the many rare earth combinations and various circuits possible, but also the two-stage, low and medium intensity combinations available.

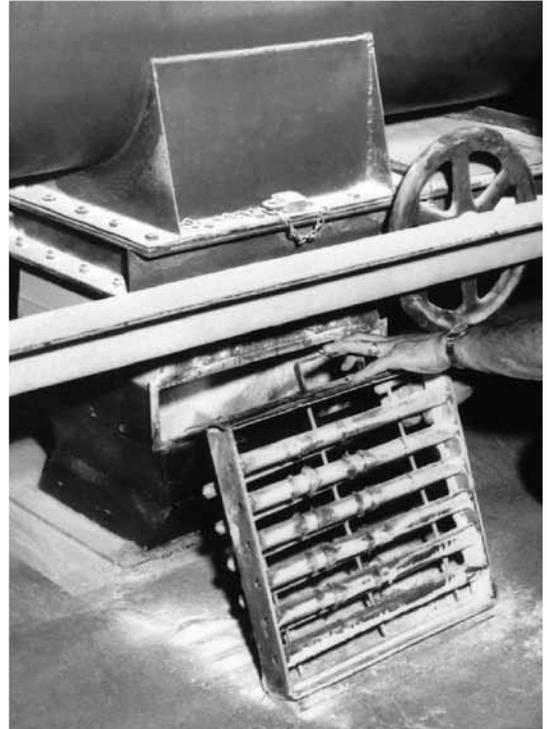
A good starting point in selecting magnetic equipment is a complete magnetic survey and appraisal of plant operations by an experienced professional. It is a good way to find out if current magnetic installations are giving optimum protection, to learn what magnets can and cannot do, and to discover the advantages of the newer technologies. Also, rare earth magnets are available on a trial basis from Eriez Magnetics.



Processing Problems Solved By Grate Magnets

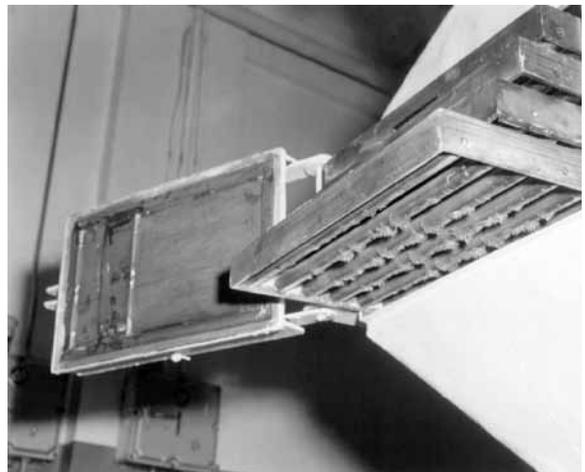
Magnets are installed everywhere! They prevent machinery damage... eliminating product contamination... upgrading some materials and guard against production shutdowns. A few typical installations are pictured below.

A. Fifteen Grate Magnets are installed beneath a conveyor line carrying sugar to storage bins prior to packaging at the Toronto Plant of Canadian and Dominion Sugar Company Ltd. The units guard against ferrous oxide from machinery getting into the finished product.

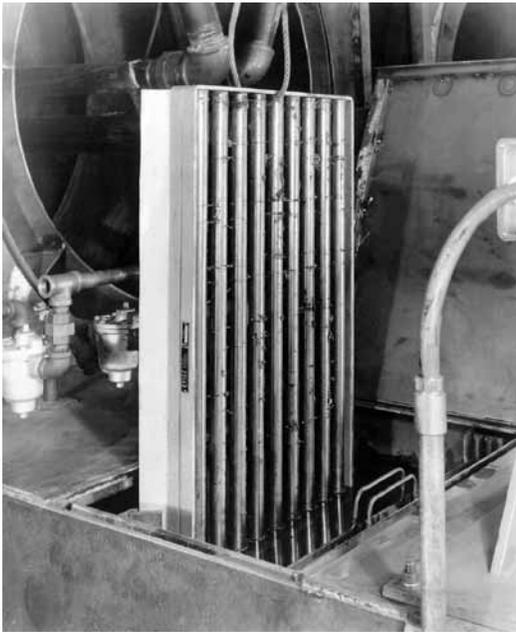


B. A nationally prominent wholesale baker relies on Eriez Grates for an added margin of safety in protecting product purity and preventing damage to processing machinery. Fine ferrous contamination is shown on the magnetic grate which is installed in the plant's micro-pulverizer which crushes sugar used to make filler for the firm's cream-filled sandwich cookies and wafers.

C. This is a multiple-bank installation (note the fine iron contamination) used to provide the ultimate in fine iron removal. Installed in a processing line it removes all ferrous particles from a granular material being processed.

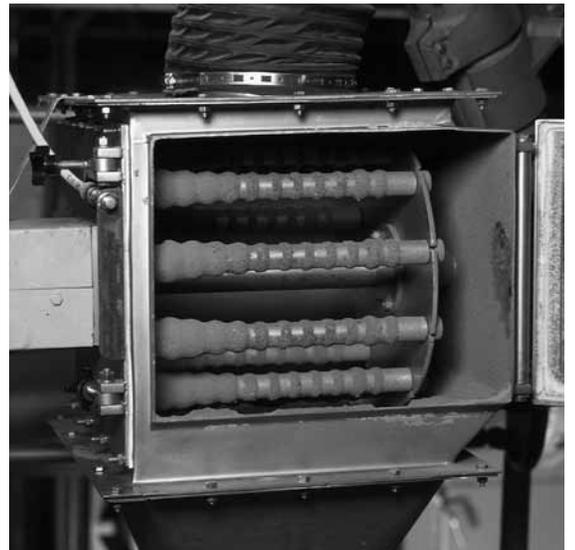


D. One hundred percent protection against ferrous contamination is the record established by magnetic grates at a large pharmaceutical products manufacturer. Powerful magnetic grates assure Warner-Chilcott Laboratories, Morris Plains, New Jersey, of ferrous-free materials used in the production of antacid tablets. The BA Grate shown acts as a final protective measure in maintaining Warner-Chilcott's high level of product purity.



E. The Process Equipment Division of Automotive Rubber Co. Inc. (ARCO) of Detroit, has helped a customer bypass weekends of dirty work by installing Eriez Magnetic Grates in a double-drum rotary washer. Grates remove ferrous fines and particles from the washer's recirculating alkaline bath and spray to prevent a build-up of metallic residue on the bottom of the washer's tanks. Recirculating wash water, containing ferrous particles, is pumped through the grates at 300 gallons per minute (1136 l/min.). Two 42 x 22" (1067 x 559 mm) grate magnets are used on each side of the washer. The grates attract and firmly hold the ferrous particles until the grates are removed for wiping.

F. Fine iron contaminant clings to each tube in this magnetic Rota-Grate®, which has just been opened for inspection and cleaning.



Model P Grates



A versatile, powerful, magnet designed specially for odd shaped, round, oval or round cornered hoppers

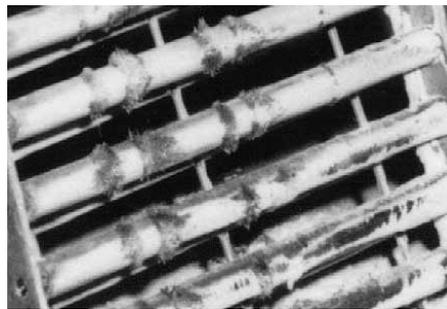
The Model P has been constructed with a flexible basic design which makes it a real piece of protective magnetic equipment for virtually any shape hopper. In operation the sturdy grid bars positioned over the magnetic element act as baffles to deflect your flow of material onto the magnetic tubes where iron contamination is trapped and held. The built-in baffles control excessive speeds of material, but a smooth steady flow is not obstructed.

The Model P unit consists of a series of parallel magnetic tubes, each consisting of non-magnetic stainless steel tubing encapsulating a magnetic circuit. The tubes are spaced and held in position by non-magnetic stainless steel strips. Parallel with the magnetic portion and centered between them are stainless steel grid angles which serve a two-fold purpose. They act as a material baffle to prevent excessive speeds and they direct all of the material onto the face of the powerful magnets.

Installation is effected by simply placing the magnetic Grate in the hopper, the ends of the magnetic tubes resting against the sides. In cases where the ends of the hopper are unusually steep, small strips may be attached to give the Grate adequate support.

Maintenance of these non-electric permanent magnetic units involves nothing more than periodically lifting the unit out of the hopper and wiping it clean of ferrous accumulations.

The Model P is available in rectangular, oval and round designs to fit any size or shape of hopper. Sturdy grid bars deflect material flow to the magnetic tubes where iron contamination is trapped and held.



Close-up view of Eriez permanent Grate Magnet showing bits of iron. Cleaning grate magnet is quick and easy.

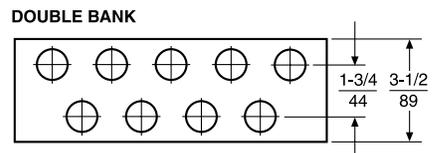
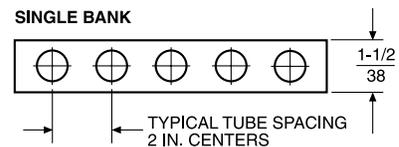
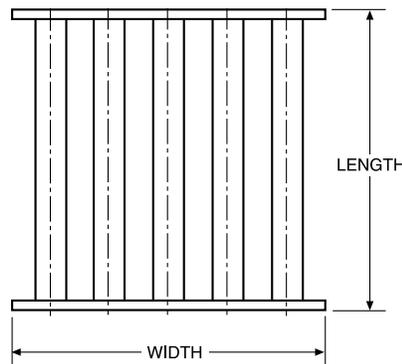
TO SELECT CORRECT MAGNET SIZE

If rectangular:

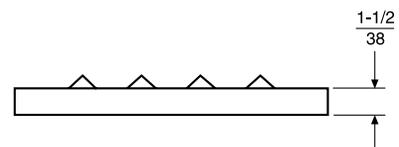
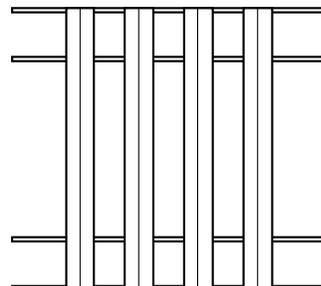
1. Measure area of hopper discharge opening.
2. Measure hopper dimensions accurately at a point high enough so area is at least twice the discharge opening area. (This is the magnet size.)
3. If possible select magnet with standard dimensions; however, units can be furnished with special dimensions if necessary.
4. If hopper has rounded corners, give radius of corners in addition to above information.

If round, oval or irregular, furnish template.

DIMENSIONS



REMOVABLE DEFLECTOR (OPTIONAL)



INCHES
MILLIMETERS

Model BA Grates



This separator provides "Final Magnetic Action" on bulk foods, chemicals, pharmaceuticals, etc. being packaged in barrels or similar type containers.

These units are the result of many requests for a portable type magnetic separator for use in a final separating action as materials are being packed in barrels or other types of large containers.

Model BA permanent magnetic Grates fit in or on standard barrels 15-1/2, 17 or 20" (394, 432 or 508mm) in diameter. Two basic types are available... Model TBA for tramp iron removal (large pieces or iron), with magnetic tubes on 2" (51mm) centers and Model FBA for best separation of fine iron contaminants, with tubes on 1-1/2" (38mm) centers. Put them to use on free-flowing materials when sizes do not exceed 3/8 to 1/2" (12mm) in diameter for the TBA model and 3/16 to 1/4" (6mm) diameter for the FBA model. They can incorporate from one to four banks of 1" diameter magnetic tubes which are rigidly welded to spacer support bars and mounted in a 15" (381mm) diameter housing. A 1/4" thick, 22" (6 x 559mm) diameter collar is provided at either the top or bottom of the housing enabling the separator to fit into or on top of the barrel. Handles mounted to the collar enable transfer of the separator from one barrel to another.

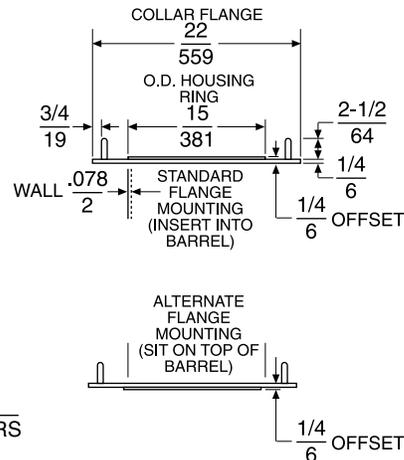
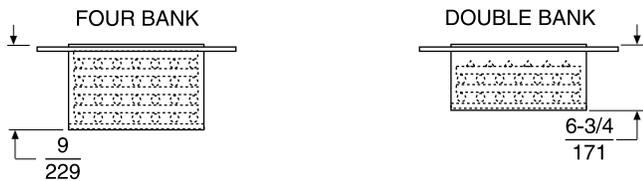
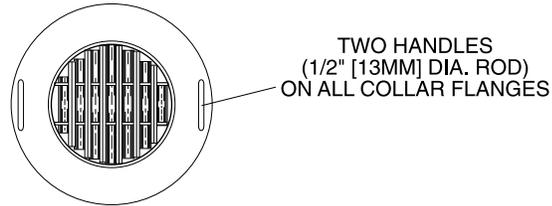
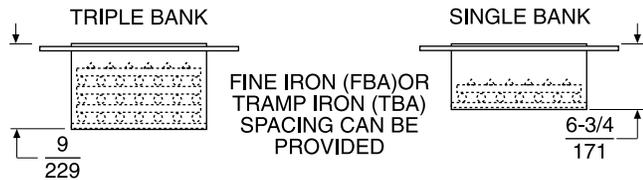
The banks of grate magnets are placed in the housing in a staggered position and lock into place with the support bars fitted into the grooves of the preceding grate.

A unit of standard construction has stainless steel tubes with mild steel frame, flange and handles. On stainless steel units the frame, flange and handles are also of stainless steel.



BA Grates installed in a drum.

DIMENSIONS



INCHES
MILLIMETERS

Wing and Drawer Type Grates



Single-bank units are ideal for the majority of average tramp iron removal problems.

Double-bank units are designed to give double protection in installations where the problem of iron contamination is particularly acute. These models have a second row of magnetic tubes aligned directly below the open spaces between tubes in the top row.

Wing-type units can be quickly put to work in hoppers and floor openings. Adjustable wings add to ease of installation... no bolting necessary... units can be lifted out for easy cleaning.

Drawer-type Grates have been specifically designed for use in closed chutes and ducts. They come complete with handle and latches. These models are easily inspected and cleaned by sliding the "magnetic drawer" from an opening made in side of housing.

Rugged grid protects the magnets, slows and directs material stream onto all of the powerful magnetic tubes...fast and easily cleaned...all sizes can be furnished entirely of stainless steel...installation is fast and simple...no wiring...no operating maintenance. Each type is available in 163 standard sizes from 2-1/2" x 4" to 36-1/2" x 36" (64 x 102 to 927 x 914mm). Dimensions are flexible so special sizes can be furnished. All models perform well on free-flowing materials whose maximum size does not exceed 3/8" x 1/2" (10 x 13mm) in diameter.

SINGLE AND DOUBLE BANK WING TYPE (S-1 AND S-2)

1" (25mm) diameter stainless steel tubes are spaced at 2" (51mm) centers allowing 1" (25mm) between tubes... these dimensions are flexible so special sizes can be furnished on request. Stainless steel wings, outside the 1/4" (6mm) steel frame, are attached to the side where the even dimensions occur... the wings can be bent to fit openings which vary from our standard sizes.

Double-bank (S-2) models have the same construction as S-1 except a second row of magnetic tubes is aligned directly below the open space between tubes.

SINGLE AND DOUBLE BANK DRAWER TYPE (D-1 AND D-2)

The D-1 and D-2 have the same basic construction as the wing-types except units come complete with drawer front, handle and latch.

Sizes

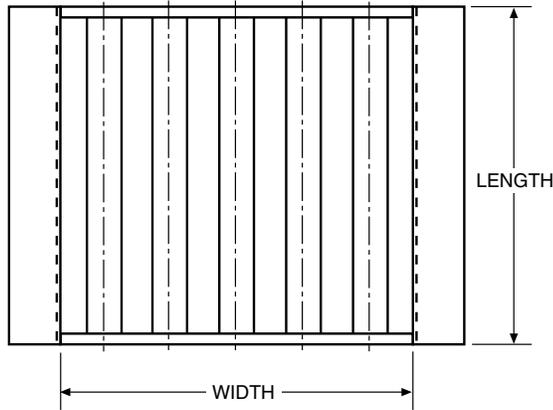
All models are built in any width 2-1/2" (64mm) through 36-1/2" (927mm) in 2" (51mm) increments in combination with any length 4" (102mm) through 36" (914mm) in 4" (102mm) increments. D-1: Net Weight 25 lb/sq ft (122kg/.2 sq m). D-2 : Net Weight 35 lb/sq ft (171kg/.2 sq m). Special sizes and all-stainless-steel construction available.



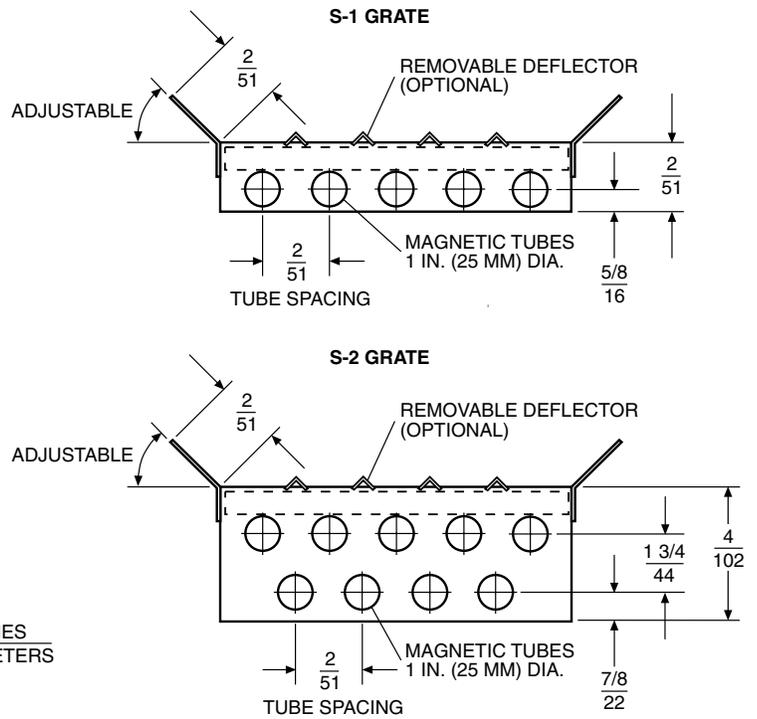
This Drawer-type Grate Magnet is installed in the feed duct and hood of a micro-atomizer.

Wing and Drawer Type Grates

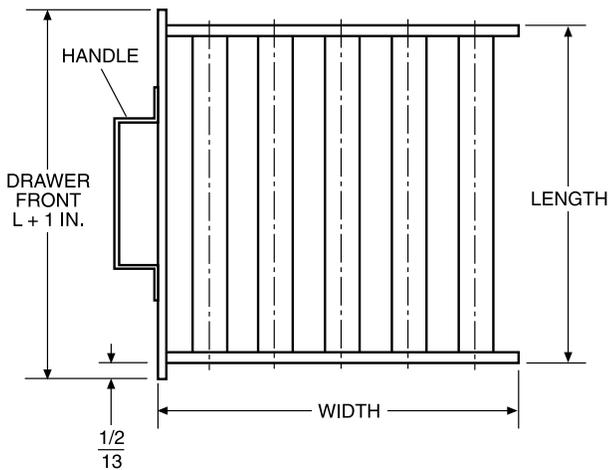
DIMENSIONS - WING TYPE



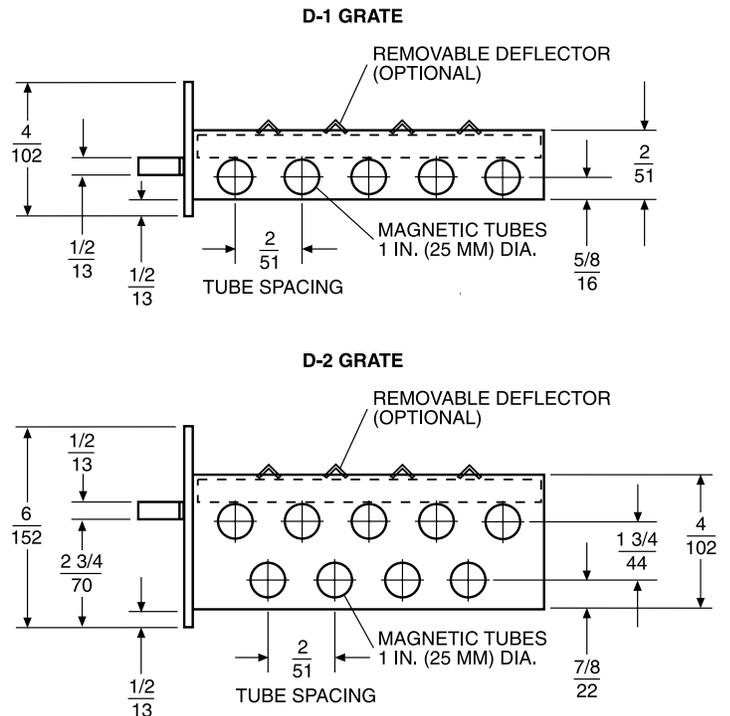
INCHES
MILLIMETERS



DIMENSIONS - DRAWER TYPE



INCHES
MILLIMETERS



Rota-Grate®



These revolving models provide speedy automatic removal of unwanted iron from bulk materials that tend to stick, clog and bridge.

Eriez Rota-Grates have been specially designed to remove both 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 dual action unit rotates a number of powerful magnetic tubes through the material. The magnetic action attracts and holds the unwanted iron, and the rotary action prevents the material flow from packing and plugging the processing line.

This action further combs and breaks apart materials that tend to cling together forcing all particles to pass close to moving magnetic tubes.

FEATURES

- Provide magnetic protection without restricting and clogging material flow
- Rugged physical structure
- Magnetic elements completely encased in stainless steel and fastened to stainless steel end plates
- Bronze hubs and steel shaft, assures long hard usage

AVAILABLE IN 24 SIZES

12" (305mm) diameter, 4" (102mm) wide thru* 36" (914mm), 16" (406mm) diameter, 8" (203mm) wide thru 36" (914mm), 22" (559mm) diameter, 12" (305mm) wide thru 36" (914mm).
* Widths in 4" (102mm) increments.

Rota-Grates provide excellent separating efficiency on many finely ground cohesive materials such as: gypsum, barium carbonate, fuller's earth, lime, cohesive chemicals, confectionery sugar, cornstarch, cocoa, flour, wood flour and fibrous materials like chopped hay, alfalfa, flax, etc.

Operating speed should be no greater than 30 rpm, preferably less, depending upon the condition of the material being processed. Average speed for best results is 16.5 rpm. Baffles should be installed

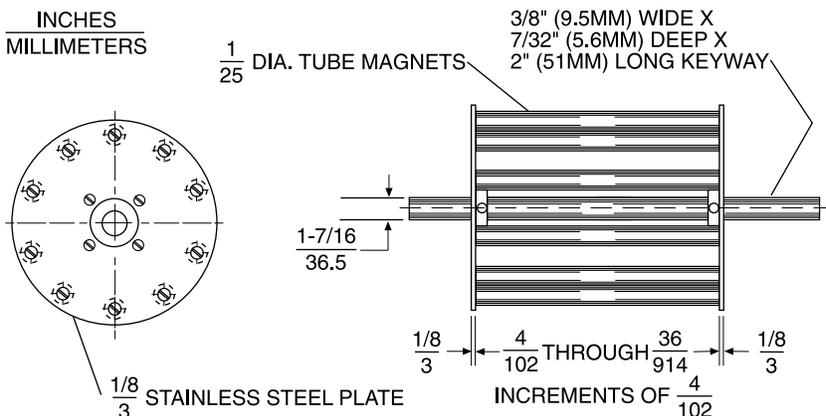
ahead of the Rota-Grate so that all material is directed through the magnetic area.

When enclosing a Rota-Grate within a housing, provision should be made for a clean-out door. Cleaning is accomplished by simple hand removal of the ferrous materials accumulated. Frequent cleaning will maintain the unit at its full separating efficiency.

SUGGESTED INSTALLATIONS

Rota-Grates may be installed at the discharge of either open or enclosed chutes, or may be enclosed within housings in open or closed duct systems. They are built complete with a shaft with ample extensions for a flange type or pillow block type bearings as well as for the drive pulley.

DIMENSIONS



Weights

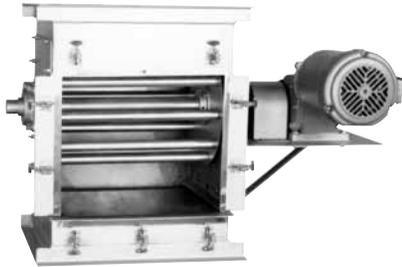
4" (102mm) wide x 12" (305mm) diameter – 25 lb (11kg);
add 9 lb (4kg) for each additional 4" (102mm) of width.

8" (203mm) wide x 12" (406mm) diameter – 40 lb (18kg);
add 12 lb (5kg) for each additional 4" (102mm) of width.

12" (305mm) wide x 12" (559mm) diameter – 70 lb (32kg);
add 16 lb (7kg) for each additional 4" (102mm) of width.



Rota-Grate® In-Housing



- Also available with **Xtreme®** Rare Earth magnetic circuit for the removal of fine or weakly magnetic metals
- Specialty designs available with removable tube assemblies for easy cleaning

Frequency of cleaning is determined by the amount of ferrous contamination in the product. The cleaning cycle should prevent the excessive accumulation of ferrous material on the tube magnets

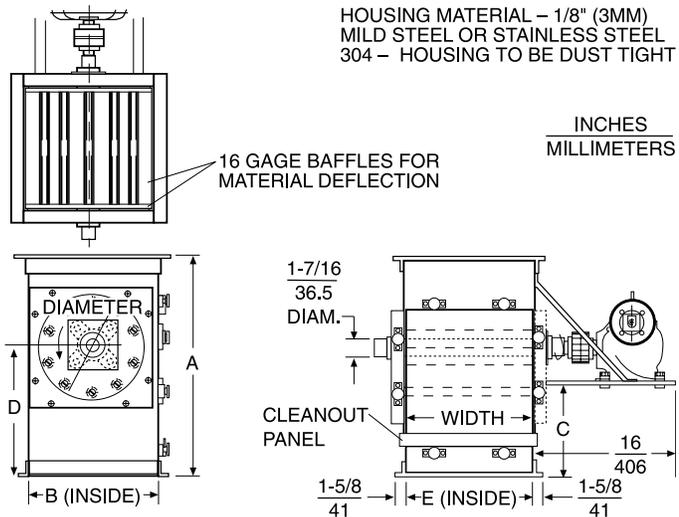
Rota-Grates In-Housings are ideal for dusty installations where an enclosed system is necessary

The slowly rotating tube circuit will catch unwanted or damaging tramp iron and prevent bridging of sticky or powdery materials like flour or corn starch.

FEATURES

- Choice of mild steel or stainless steel housing
- Available with or without 16 RPM gear motor drive
- Flanged housing for easy installation
- Large access panel doubles as clean-out shelf to prevent ferrous material from reentering the system

DIMENSIONS



DIAMETER		A		B		C		D	
in	mm	in	mm	in	mm	in	mm	in	mm
12	305	24	610	14	356	10-1/8	257	14	356
16	406	28	711	18	457	12-1/8	308	16	406
22	559	32	813	24	610	15-1/8	384	19	483

SPECIFICATIONS

WIDTH		12" DIAMETER (305mm)				16" DIAMETER (406mm)				22" DIAMETER (559mm)				E	
		WEIGHT		VOLUME TO:		WEIGHT		VOLUME TO:		WEIGHT		VOLUME TO:			
in	mm	lb	kg	cu ft/hr	cu m/hr	lb	kg	cu ft/hr	cu m/hr	lb	kg	cu ft/hr	cu m/hr	in	mm
4	102	78	35	200	6	–	–	–	–	–	–	–	–	4-7/8	124
8	203	102	46	400	11	112	51	550	16	–	–	–	–	8-7/8	225
12	305	118	54	600	17	131	59	825	23	165	75	1200	34	12-7/8	327
16	406	128	58	800	23	149	68	1100	31	187	85	1600	45	16-7/8	428
20	508	149	68	1000	28	169	77	1375	39	209	95	2000	57	20-7/8	530
24	610	165	75	1200	34	186	84	1650	47	231	105	2400	68	24-7/8	632
28	711	182	83	1400	40	208	94	1925	55	253	115	2800	79	28-7/8	733
32	813	197	89	1600	45	225	102	2200	62	275	125	3200	91	32-7/8	835



Self-Cleaning Rota-Grate®



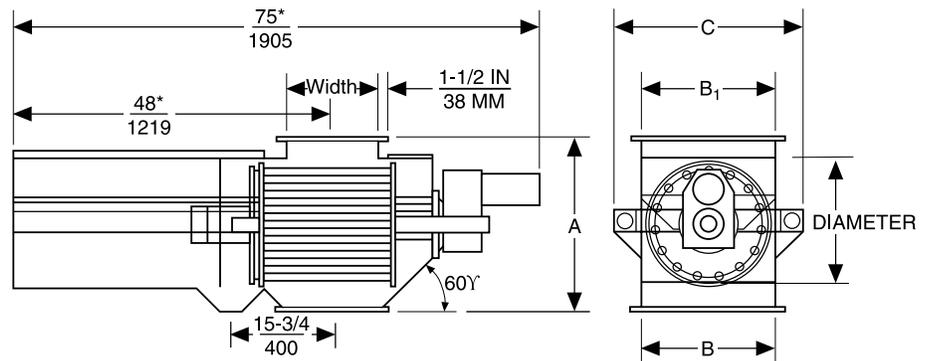
- **Xtreme®** Rare Earth magnet circuit for optimum ferrous removal
- 16 RPM gear motor included

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

Patent Pending Self-Cleaning Rota-Grates are ideal for remote installations or applications where routine cleaning is problematic.

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

DIMENSIONS



* at 12 in. width

DIAMETER		A		B		C	
in	mm	in	mm	in	mm	in	mm
12	305	23-1/4	590	14	356	18-3/4	476
16	406	27-1/4	692	18	457	22-3/4	578
22	559	33-1/4	844	24	610	28-3/4	730

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

SPECIFICATIONS

WIDTH		12" DIAMETER (305mm)				16" DIAMETER (406mm)				22" DIAMETER (559mm)			
		WEIGHT		VOLUME TO:		WEIGHT		VOLUME TO:		WEIGHT		VOLUME TO:	
in	mm	lb	kg	cu ft/hr	cu m/hr	lb	kg	cu ft/hr	cu m/hr	lb	kg	cu ft/hr	cu m/hr
4	102	427	194	200	6	—	—	—	—	—	—	—	—
8	203	446	202	400	11	481	218	550	16	—	—	—	—
12	305	462	209	600	17	500	227	825	23	559	253	1200	34
16	406	472	214	800	23	518	235	1100	31	581	263	1600	45
20	508	493	224	1000	28	538	244	1375	39	603	273	2000	57
24	610	509	230	1200	34	555	252	1650	47	625	283	2400	68
28	711	526	239	1400	40	577	262	1925	55	647	293	2800	79
32	813	541	245	1600	45	594	269	2200	62	669	303	3200	91



Grates In-Housing



Fine iron and tramp iron removal in enclosed flow lines is simplified by Eriez multiple-bank units built into convenient housings.

These models have door front which encloses the Magnetic Grates within the housing, and makes them readily accessible for cleaning.

Eriez Model TGH grate magnets have a frameless design for easy cleaning and a low profile for close-quarters installation.

TGH-2 TRAMP IRON GRATES IN-HOUSING

These units are primarily for installation in round pipe lines and are sized and listed accordingly. Adapters are (optional) available for adapting these units to specific round pipe lines. The units can, however, be used in rectangular duct systems of equivalent cross-sectional area comparable to the area of the round pipe sizes shown. The extremely small sizes listed are not generally recommended for pipe feed, but are ideal for applications of very low volume. In general, the grate size selection should be such that the open area of the grate is about 10% greater than the cross-sectional area of the feed pipe or duct. Housing and grate framework are furnished in stainless steel construction.

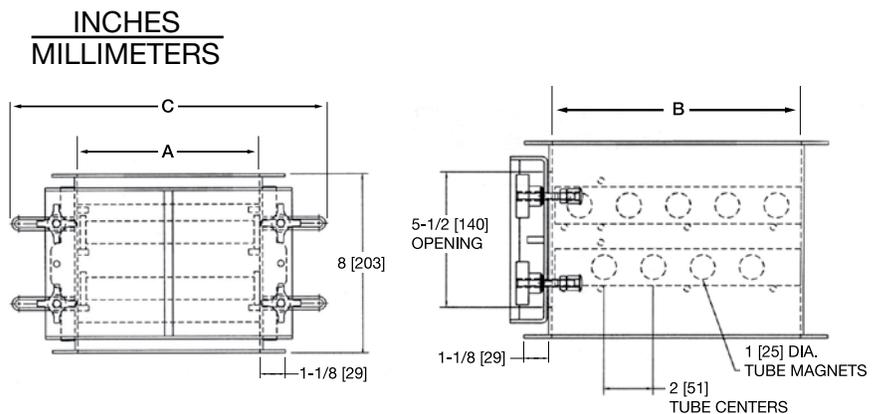
VIBRATORY GRATES IN-HOUSING

The Model TGH-2 Grate In-Housing is available in Vibratory types for use in those applications involving semi-free flowing, powdery and bridging materials that may adhere to or build up on the magnetic tubes and thus partially or completely fill the open areas between the magnetic tubes and cause a blockage of the material flow. The vibratory action transmitted to the magnetic tubes shakes loose the non-ferrous adhering

particles thus preventing a build-up of material and positively promoting a continuous flow of material through the unit.

In the Vibratory types Eriez Hi-Vi Unit Vibrator is mounted on one side of the housing. A Vibrator Control, for separate remote mounting, is also furnished so that the amplitude of vibration may be adjusted to ensure continuous product flow.

DIMENSIONS

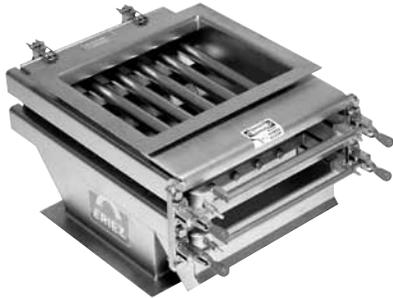


TUBE SIZE	GRATE SIZE	A		B		C		Weight	
		in	mm	in	mm	in	mm	lb	kg
3	4 1/8 x 6 1/8	4 1/8	105	6 1/8	156	10	254	20	9
4	6 1/8 x 8 1/8	6 1/8	156	8 1/8	206	12	305	25	11
6	8 1/8 x 10 1/8	8 1/8	206	10 1/8	257	14	356	30	14
8	10 1/8 x 12 1/8	10 1/8	257	12 1/8	306	16	406	50	23
10	12 1/8 x 14 1/8	12 1/8	308	14 1/8	359	18	457	61	28
12	14 1/8 x 16 1/8	14 1/8	359	16 1/8	410	20	508	80	36
14	16 1/8 x 18 1/8	16 1/8	410	18 1/8	460	22	559	100	45

ADAPTERS ARE AVAILABLE WITH THE HOUSINGS AS OPTIONAL EQUIPMENT



Easy-to-Clean Grate In-Housing



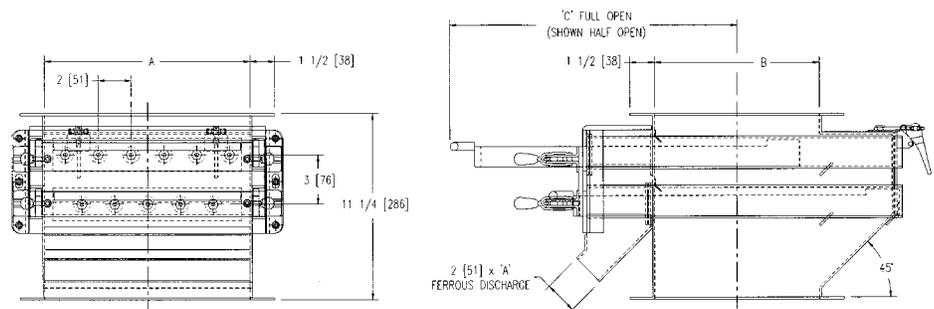
Eriez new and improved Easy-to-Clean Model TGH-2 Drawer Grate In-Housing uses a powerful Rare Earth magnet circuit to provide superior separation performance on fine tramp metal contamination. Designed for easy push-pull operation, the Easy-to-Clean is ideal for applications where the process is stopped for grate magnet cleaning.

Eriez Easy-to-Clean Grate In-Housing combines the superior strength of Rare Earth magnet tubes with the simplicity of operation associated with opening a drawer. Eriez, the pioneer in permanent magnetic applications since 1942, developed a Grate In-Housing which enables the operator to clean all the tubes in each bank without having to hand-wipe them individually. Easier, more frequent, cleaning prevents excessive buildup on the magnets and assures maximum separating efficiency. Eriez single skin tubes are housed in a dust-tight all stainless steel housing which is easily installed in square, rectangular or round piping. Unique stripping bushings remove the accumulated ferrous particles as the banks are cycled from the housing. As it is stripped off each tube, the iron contamination falls down the ferrous discharge chute, located outside of the product flow area. These units are very effective in removing fine particle ferrous contamination (up to 1/2" [13 mm]) from many dry free-flowing products under gravity flow.

FEATURES

- Unique tube scraper design ensures removal of accumulated tramp iron
- Stainless steel housing
- Ferrous contamination discharge chute
- 1" (25mm) diameter single skin magnet tubes on 2" (51mm) centers
- Available with Rare Earth, ceramic or combination of ceramic and Rare Earth magnetic tubes
- Available with one or multiple grate rows
- Push-pull removal of accumulated tramp metal
- Rear inspection panel with Destaco clamps
- Center divider on wide units facilitate easy discharge of accumulated tramp metal
- Optional inlet and outlet adapters available

DIMENSIONS



STANDARD UNIT SIZE	A		B		C		Weight	
	in	mm	in	mm	in	mm	lb	kg
6-1/2 X 4	6-1/2	165	4	101	20	508	55	25
8-1/2 X 6	8-1/2	216	6	152	23	584	70	32
10-1/2 X 8	10-1/2	267	8	203	26	660	85	38
12-1/2 X 10	12-1/2	318	10	254	29	737	100	45
14-1/2 X 12	14-1/2	368	12	305	32	813	115	52
*16-1/2 X 14	16-1/2	419	14	356	35	889	130	59
*18-1/2 X 16	18-1/2	470	16	406	38	965	145	66
*20-1/2 X 18	20-1/2	521	18	457	41	1041	160	73
*22-1/2 X 20	22-1/2	572	20	508	44	1118	175	80
*24-1/2 X 22	24-1/2	622	22	559	47	1194	190	86
*26-1/2 X 24	26-1/2	673	24	610	50	1270	205	93
*28-1/2 X 26	28-1/2	724	26	660	53	1346	220	100

* With center divider



Automatic Easy-to-Clean Grate In-Housing



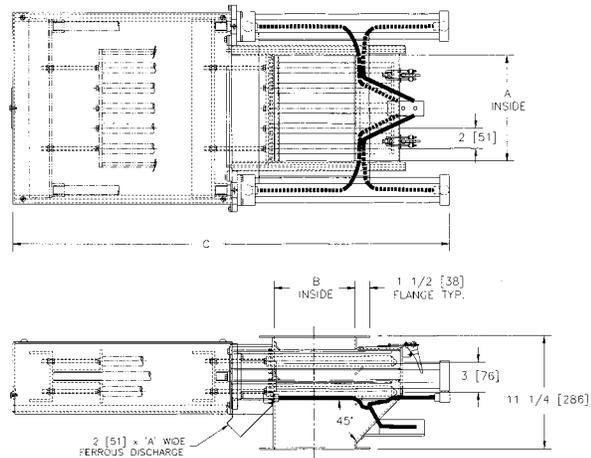
Eriez Automatic Easy-to-Clean Model TGH-2 Drawer Grate In-Housing uses a powerful Rare Earth magnet circuit to provide superior separation performance on fine tramp metal contamination. Designed for push button operation, the Automatic Easy-to-Clean is ideal for applications where the process is stopped for grate magnet cleaning.

Eriez new Automatic Easy-to-Clean Grate In-Housing combines the superior strength of Rare Earth magnet tubes with the simplicity of operation associated with opening a drawer. Eriez, the pioneer in permanent magnetic applications since 1942, developed a Grate In-Housing which enables the operator to clean all the tubes in each bank without having to hand-wipe them individually. Easier, more frequent, cleaning prevents excessive buildup on the magnets and assures maximum separating efficiency. Eriez single skin tubes are housed in a dust-tight all stainless steel housing which is easily installed in square, rectangular or round piping. Unique stripping bushings remove the accumulated ferrous particles as the banks are cycled from the housing. As it is stripped off each tube, the iron contamination falls down the ferrous discharge chute, located outside of the product flow area. These units are very effective in removing fine particle ferrous contamination (up to 1/2" [13 mm]) from many dry free-flowing products under gravity flow.

FEATURES

- Unique tube scraper design ensures removal of accumulated tramp iron
- Stainless steel housing with safety guard for moving parts
- Ferrous contamination discharge chute
- 1" (25mm) diameter single skin magnet tubes on 2" (51mm) centers
- Available with Rare Earth, ceramic or combination of ceramic and Rare Earth magnetic tubes
- Available with one or multiple grate rows
- Automatic tramp metal removal at the push of a button
- Remote mounting panel with filter regulator, solenoid valve and NEMA 12 push button control
- Rear inspection panel with Destaco clamps
- Optional inlet and outlet adapters available

DIMENSIONS

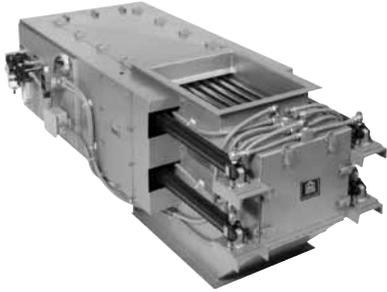


STANDARD UNIT SIZE	A		B		C		Weight	
	in	mm	in	mm	in	mm	lb	kg
6-1/2 X 4	6-1/2	165	4	101	35-1/2	902	106	48
8-1/2 X 6	8-1/2	216	6	152	39-1/2	1003	129	59
10-1/2 X 8	10-1/2	267	8	203	43-1/2	1105	152	69
12-1/2 X 10	12-1/2	318	10	254	47-1/2	1207	175	79
14-1/2 X 12	14-1/2	368	12	305	51-1/2	1308	198	90
*16-1/2 X 14	16-1/2	419	14	356	55-1/2	1410	221	100
*18-1/2 X 16	18-1/2	470	16	406	60-1/4	1530	244	111
*20-1/2 X 18	20-1/2	521	18	457	64-1/4	1632	267	121
*22-1/2 X 20	22-1/2	572	20	508	68-1/4	1733	290	132
*24-1/2 X 22	24-1/2	622	22	559	72-1/4	1835	313	142
*26-1/2 X 24	26-1/2	673	24	610	76-1/4	1936	336	152
*28-1/2 X 26	28-1/2	724	26	660	80-1/4	2038	359	163

* With center divider



Self-Cleaning Grate In-Housing



Eriez Self-Cleaning Model GH-12 Drawer Grate In-Housing uses a powerful Rare Earth magnet circuit to provide superior separation performance on fine tramp metal contamination. Designed for completely automated operation, the GH-12 is ideal for applications where the process is continuous and grate cleaning occurs during operation.

Eriez Self-Cleaning Model GH-12 Grate In-Housing combines the superior strength of Rare Earth magnets into a completely automated self-cleaning system to automatically remove fine tramp iron contamination. Eriez, the pioneer in permanent magnetic applications since 1942, developed a Grate In-Housing that will work in applications where you cannot afford to shut the system down for cleaning and must ensure tramp metal protection at all times. The GN-12 cycles each grate row independently so at least one row always remains in the product flow. Easier, more frequent, cleaning prevents excessive buildup on the magnets and assures maximum separating efficiency. Eriez single skin

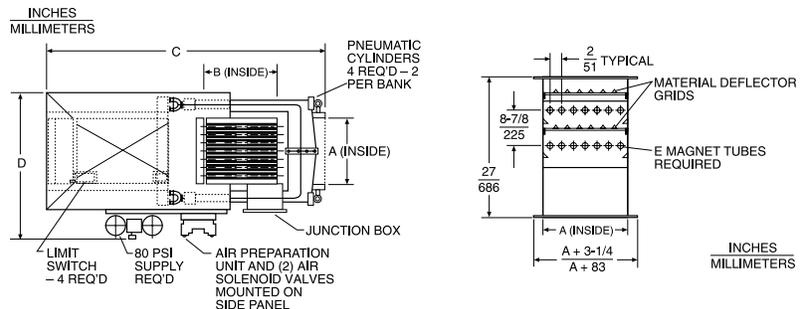
tubes are housed in a dust-tight all stainless steel housing which is easily installed in square, rectangular or round piping. Unique stripping bushings remove the accumulated ferrous particles as the banks are cycled from the housing. As it is stripped off each tube, the iron contamination falls down the ferrous discharge chute, located outside of the product flow area. These units are very effective in removing fine particle ferrous contamination (up to 1/4" [6 mm]) from many dry free-flowing products under gravity flow.

FEATURES

- Unique tube scraper design ensures removal of accumulated tramp iron
- Stainless steel housing with safety guard for moving parts

- 1" (25mm) diameter single skin magnet tubes on 2" (51mm) centers
- Available with Rare Earth, ceramic or combination of ceramic and Rare Earth magnetic tubes
- Available with one or multiple grate rows
- Automatic tramp metal removal of individual magnet rows
- Solid state NEMA 12 control with timer to adjust automatic cleaning frequency
- Independent cleaning for each magnet row
- Optional inlet and outlet adapters available

DIMENSIONS



NORMAL SIZE		A		B		C		D		E	SHIPPING WEIGHT	
in	mm	in	mm	in	mm	in	mm	in	mm	#	lb	kg
14 x 12	358 x 305	14	358	12	305	56	1524	32	813	14	736	334
16 x 20	408 x 508	16	408	20	508	72	1981	34	883	16	899	408
20 x 20	508 x 508	20	508	20	508	72	1981	38	985	20	985	447

Special sizes and designs are available upon request.

Note: Some safety warning labels or guarding may have been removed before photographing this equipment. Dimensions and specifications subject to change without notice.



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

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