



# MAGNETIC HUMPS AND ROUND PIPE SEPARATORS

## PERMANENT MAGNETIC SEPARATOR

*Powerful magnetic separator removes tramp iron from free flowing gravity or pneumatically conveyed materials.*



### FEATURES & BENEFITS

- De-Sta-Co clamps for easy operation and maintenance
- Minimized overall height for difficult retrofit installations
- All welded construction
- Mild or stainless steel construction
- Available for gravity, horizontal or vertical pneumatic installations

ONLY FROM ERIEZ

Eriez' Magnetic Hump and Round Pipe Separators provide a simple and effective way to remove tramp iron contamination from gravity or pneumatically conveyed dry, free flowing products such as feed, grain, wood chips, food stuffs, sand or plastic.

Material enters the magnetic Hump and is forced abruptly to change direction against the face of a powerful Series SD plate magnet. As the material tumbles in the housing, it again

changes direction and is forced against the face of a second powerful plate magnet. The Hump takes advantage of the ferrous material density because the heavier metallics are more likely to work their way to the face of the magnet, increasing the probability of capture.

The ferrous contamination remains on the face of the magnets until an operator swings the magnet out of the product flow and physically removes the metal.



# FEATURES AND ADVANTAGES

## PNEUMATIC HUMPS

The elimination of tramp iron from materials traveling in pneumatic lines is handled effectively by the magnetic Hump. The assembly consists of two powerful permanent non-electric plate type magnets in an enclosed rectangular sheet metal housing. Magnets are hinged to the housing and swing open for cleaning. Standard pneumatic Humps are constructed for installation on the suction side of a blower. Eriez should be consulted on applications where material is to be blown through a Hump, as special construction may be required to tolerate the expected air pressure. Adaptors can be ordered with the Hump. These convert any shaped piping or outlet to the rectangular opening of the Hump. Choking is eliminated by increasing the relative area of the Hump in correct proportion to the diameter of the pipe.

## GRAVITY FLOW HUMPS

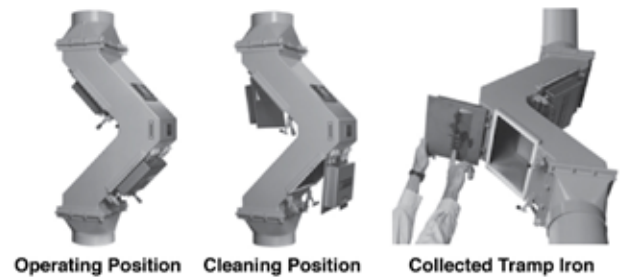
The gravity flow magnetic Hump is used for tramp iron removal where heavy, loose flowing materials are conveyed in vertical gravity flow chutes.

Installed vertically the unit is highly efficient, since falling material strikes directly against the first magnet, and the subsequent change of direction permits the second magnet to remove any tramp iron not caught by the first.

Various strength magnets—Rare Earth, Xtreme Rare Earth, Superpower or Maxipower—can be selected to suit specific application requirements. Magnets are typically hinged to the housing, although on larger units the magnets can be permanently attached with cleanout panels opposite the magnet face for tramp iron removal. Adaptors are optional.

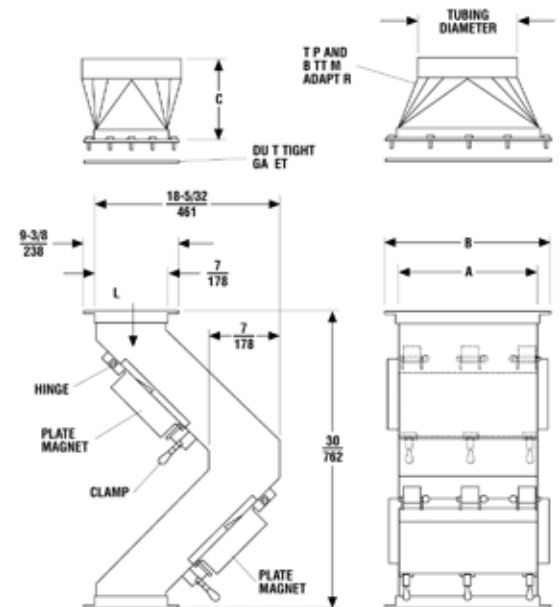
Eriez Magnetic Humps are tested and approved...they have passed rigid standards and field tests.

## OPERATION



HUMP SIZE		TUBING DIAMETER		A		B		C	
in	mm	in	mm	in	mm	in	mm	in	mm
8	203	6	152	8	203	10-3/8	264	6	152
10	254	8	203	10	254	12-3/8	314	6	152
12	305	9	229	12	305	14-3/8	365	7	178
14	356	10	254	14	356	16-3/8	416	8	203
20	508	12	305	20	508	22-3/8	568	12	305
24	610	14	356	24	601	26-3/8	670	13	330
30	762	16	406	30	762	32-3/8	822	17	432
36	914	18	457	36	914	38-3/8	975	20	508
44	1118	20	508	44	1118	46-3/8	1178	24	610

## DIMENSIONS



### ROUND PIPE SEPARATORS

The Round Pipe Separator makes the installation of plate magnets in round gravity flow chutes extremely simple and economical. By building the magnet into a housing designed for efficient and effective tramp iron removal, it eliminates installation expense and assures satisfactory results.

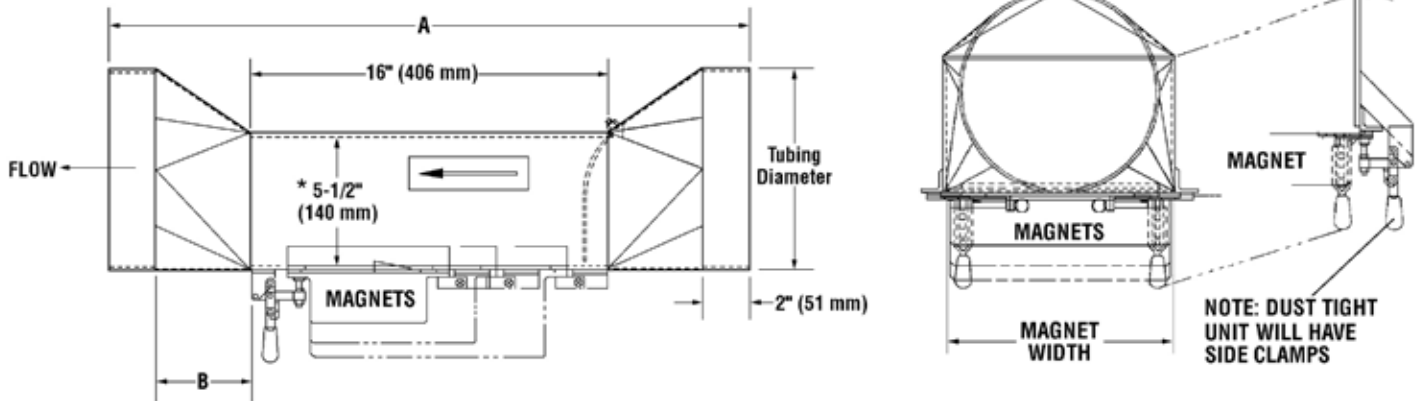
The assembly is installed by merely cutting out a section of the chute where magnetic protection is required, and slipping the separator into position. A Neoprene baffle directs the flow directly over the magnet face, which assists in tramp iron removal.

The magnet required will be determined by the application. The assembly is built to accommodate Superpower, Maxipower, Xtreme Rare Earth or Rare Earth magnets.

Like other Eriez Separators, the Round Pipe Separator features Erium® powered magnetic elements, rugged construction and no operating cost.



### DIMENSIONS



\* Smaller housing heights available on smaller diameter units.

MAGNET WIDTH*		TUBING DIAMETER		A		B	
in	mm	in	mm	in	mm	in	mm
6	152	4	102	26	660	3	76
8	203	6	152	26	660	3	76
10	254	8	203	28	711	4	102
12	305	9	229	30	762	5	127
14	356	10	254	32	813	6	152
20	508	12	305	36	914	8	203
28	711	14	356	40	1016	10	254
36	914	16	406	44	1118	12	305
46	1168	18	457	48	1219	14	356

Dimension and specifications are subject to change without notice

## MAGNETIC HUMPS AT WORK



This pallet grinding application utilizes an Eriez Hump to separate steel nails from wood chips.



This magnetic hump separator is one of the most reliable safety devices in a distillery. The separator is so efficient not even a wayward thumbtack gets by.



Rota-Grate® for gravity flows.

*Note: Some safety warning labels or guarding may have been removed before photographing this equipment.*

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