

SE Series 2400 Separators

...Only from Eriez.

Electromagnetic Chute and Suspended

*Automatically remove
damaging tramp iron
from the entire width
of materials conveyed
in heavy burden depths
on flat conveyors
or chutes.*

For many years Eriez has provided oil-cooled electromagnets for heavy duty tramp iron separation applications. The parabolic shape of the field produced by these magnets makes them ideal for deep penetration of heavy burden depths conveyed on troughed belts or concentrated in a narrow flow.

To meet the special needs of sugar cane processors and others who convey large volumes of material on wide, flat belts or chutes, Eriez developed the SE2400. This electromagnetic separator has an essentially flat field that spreads deeply and evenly across its width. Drop-off at the edges is considerably less than it is in standard electromagnets. Protection against damaging tramp iron can be extended right to the edge of the conveyor without the need to purchase a grossly over-sized magnet.

Double-gap three-pole construction, proved in hundreds of successful standard magnet installations throughout the world is combined with a center pole and rectangular core to give the SE2400 its unique capability. The powerful magnetic field reaches out and attracts tramp iron up to 24 inches (610 mm) away from the magnet face.



CHOOSE FROM TWO STYLES

To meet all operating conditions, the wide-field magnet is available in two styles: suspended or chute-type. The suspended types can be equipped with turnbuckle suspension gear for ease of installation and adjustment to the most efficient operating height over wide flat belts or flat feeders. Support legs are provided on the chute-type magnets for installation in the underside of chutes, and a special step on the magnet faceplate is used to maintain unrestricted material flow and prevent accumulated tramp iron from being forced off.

Both styles are available in standard magnet widths of 60, 72, 78, 84, 96 and 108 inches (1524, 1824, 1981, 2134, 2438 and 2743 mm). Magnet design and basic construction are identical for both styles in any given size.

ERIEZ DESIGN FEATURES

- Oil cooling of coils spaced for maximum coolant circulation provides increased efficiency, better heat transfer.
- Aluminum coils are 30% lighter in weight than comparable copper-coil magnets, simplifying design of supporting structure and suspension gear, plus reducing shipping costs.
- An oil expansion chamber with pressure relief valve, eliminating the problem of moisture entering the coil cavity.
- Eriez Electromagnets operate on direct current only. When DC is not available, silicon diode-type solid state rectifiers can be supplied.
- Both styles of the SE2400 separator are furnished ready for installation and electrical hook-up to a 230V DC power source.

SUSPENDED MAGNET



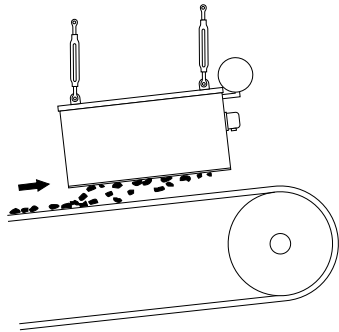
The supporting structure to hold suspended magnets over conveyor belts or feeders can be either stationary or a trolley type so the magnet can be moved away from the processing line to discharge its accumulation of tramp iron. Magnets like this one prevent costly machinery damage, shut-downs and loss of product by removing large amounts of tramp iron each season in sugar mill processing operations.

CHUTE MAGNET



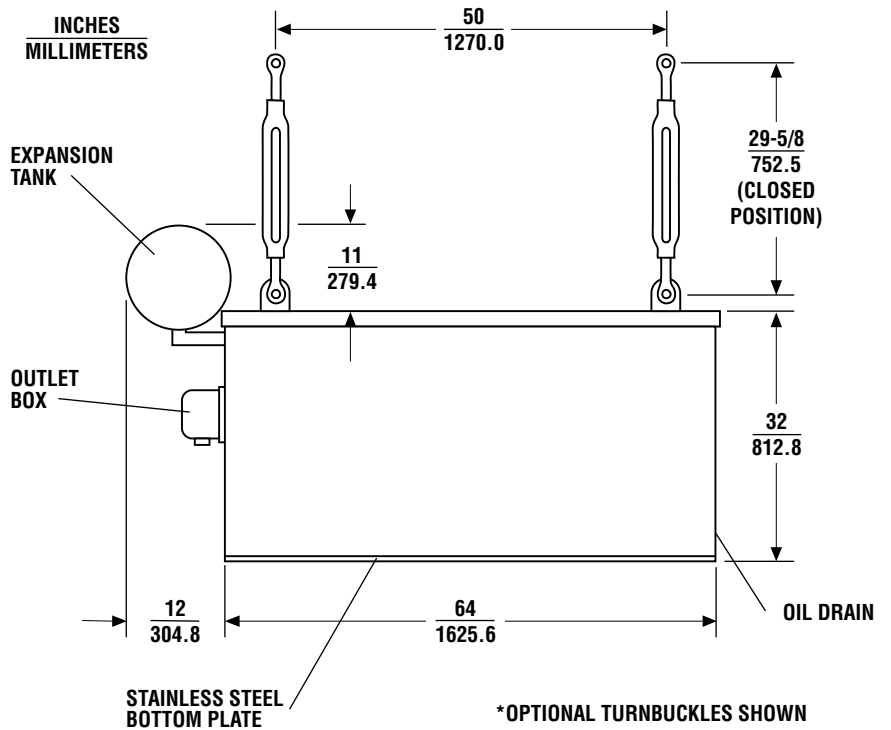
A stainless steel wearplate covers the face of the Eriez Chute-type magnet. Tramp iron collects in the recess below the step so material flow is unimpeded. Installed in chutes inclined up to 60°, these powerful magnets protect valuable machinery by trapping and holding nuts, bolts, knife blades, cutting teeth and other ferrous trash present in fast-moving, entangled sugar cane stalks.

TYPICAL INSTALLATION SUSPENDED MAGNET

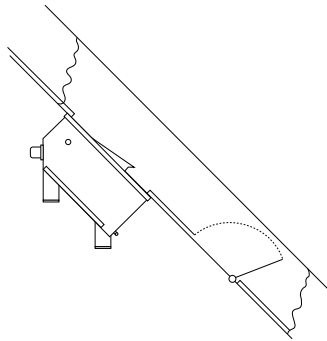


On suspended style magnets, our optional turnbuckle suspension system will provide an easy method of adjusting the magnet height above the burden to achieve maximum tramp iron recovery. For optimum results, speed of the material being conveyed in this type of installation should not exceed 350 fpm (110 mpm).

SPECIFICATIONS SUSPENDED MAGNET



CHUTE MAGNET

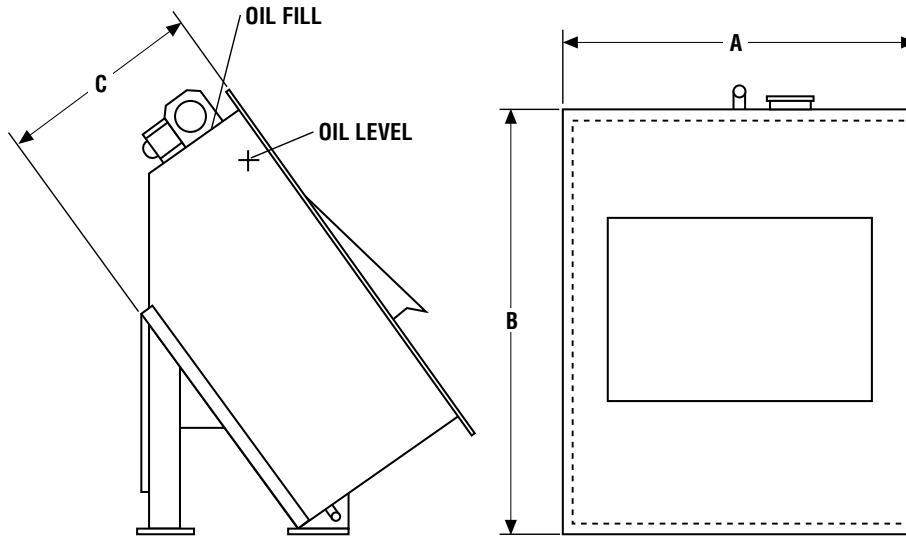


The standard chute-type separator is equipped with support legs designed for installation in a 50° chute as shown, but can be easily modified for greater or lesser slopes as required. Recommended maximum and minimum slopes are 60° and 45°. An access door built into the chutework below the magnet is necessary for the periodic removal of accumulated tramp iron. The cooling oil fill and drain connections are readily available with the magnet in position.

MAGNET WIDTH		TURNBUCKLES (BETWEEN CENTERLINES)		WATTS	WEIGHT	
in	mm	in	mm		lb	kg
60	1,524	45	1,143	9,600	12,925	5,863
72	1,829	57	1,448	11,000	15,100	6,849
78	1,981	63	1,600	11,750	16,200	7,348
84	2,134	69	1,753	12,500	17,775	8,063
96	2,348	81	2,057	13,750	20,920	9,489
108	2,743	93	2,362	15,700	23,425	10,625

SPECIFICATIONS

CHUTE MAGNET



MAGNET WIDTH		FLANGE WIDTH A		FLANGE LENGTH B		HEIGHT C		WATTS	WEIGHT	
in	mm	in	mm	in	mm	in	mm		lb	kg
14	356	19	483	29	737	18	457	1,315	650	295
18	457	22-1/4	565	38	965	17	432	1,750	925	420
24	610	28-1/4	718	50	1,270	26-1/2	673	3,850	2,600	1,179
30	762	34-1/4	870	50	1,270	26-1/2	673	4,300	4,600	2,086
36	914	41-1/4	1,048	56	1,422	26-3/4	679	5,300	5,000	2,268
42	1,067	47-1/2	1,206	56-1/2	1,435	26-3/4	679	6,150	5,500	2,495
60	1,524	64	1,626	68	1,727	32	813	8,650	11,635	5,277
72	1,829	76	1,930	68	1,727	32	813	10,600	13,555	6,148
78	1,981	82	2,083	68	1,727	32	813	11,250	14,600	6,622
84	2,134	88	2,235	68	1,727	32	813	12,000	15,875	7,201
96	2,438	100	2,540	68	1,727	32	813	13,000	18,895	8,571
108	2,743	112	2,845	68	1,727	32	813	14,650	21,025	9,537

Dimensions and specifications are subject to change without notice.



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

Headquarters: 2200 Asbury Road, Erie, PA 16506-1440 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