SUSPENDED ELECTROMAGNETS

Series SE700

Automatic removal of tramp iron from material flows on belt conveyors or in chutes

Features

- Automatic removal of small or large volumes of tramp iron
- Reliable and durable construction
- Robust design to withstand harsh conditions and heavy-duty applications
- Manual or self-cleaning models available, depending on amounts of iron contamination expected
- Installation across the conveyor belt or over the discharge head pulley
- Custom-built to suit a particular belt width and/or achieve a specific separation objective
- Special designs for explosion proof applications, suitable for underground installation
- All possible sizes - Eriez holds the Guinness World Record for the largest ever built!

MC and SC Models

Manual Clean (MC) units must be periodically turned off in order to discharge iron accumulated on the face of the magnet. They are suitable for applications where only occasional tramp iron is expected. These magnets are usually suspended from a travelling trolley so that they can be swung clear of the conveyor before the iron is released.

Self-Clean (SC) Suspended Electromagnets provide continuous, automatic removal of tramp iron and feature a heavy-duty belt, a channel frame for supporting the pulleys, adjustable belt take-up and drive. They are recommended where a large amount of tramp iron is expected or where there may be limited access to the magnet for cleaning purposes.

Eriez' World Record holding magnet at the factory before despatch

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Installation

Option 1: In-line

Magnet suspended over the trajectory of material discharged from the belt conveyor.

Position MC1 or SC1 - see Figs 1a and 1b.

This is the preferred option because it is the most efficient use of the magnetic separator, ie when the burden is 'opened up' in flight and is moving directly toward the magnet face. The iron's momentum towards the magnet can assist in its separation.

When the magnet is in this position, it is essential that the conveyor head pulley is made of a non-magnetic material.

Option 2: Cross Belt

Magnet located over the moving bed of material and at right angles to the conveyor.

Position MC2 or SC2 - see Figs 2a and 2b.

This position requires a stronger magnet and is not recommended for excessive belt speeds or deep material burdens where the removal of smaller tramp iron is necessary.

Important Factors in Magnet Selection

- ✔ Material size
- ✔ Material type / density / condition
- ✔ Type and minimum size of tramp iron to be removed
- ✔ Maximum lump size
- ✔ Amount of tramp iron material
- ✔ Capacity t/hr or m^3/hr
- ✔ Conveyor belt width
- ✔ Conveyor belt speed
- ✔ Conveyor belt incline
- ✔ Head pulley diameter
- ✔ Head pulley material
- ✔ Angle of troughing idlers
- ✔ Ambient temperature
- ✔ Machinery to be protected
- ✔ Available AC power supply

Standard Models

Fig 1a

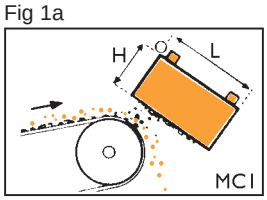
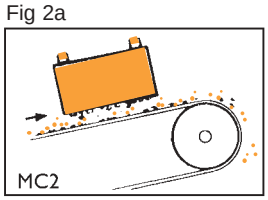


Fig 2a



Manual Clean Models

Model	Watts	Width mm	Length mm	Height mm	Weight Kg
SE710	1425	610	610	305	309
SE715	1765	610	762	330	406
SE720	2245	762	762	381	509
SE725	2756	762	914	432	673
SE730	3344	914	914	483	886
SE735	3863	914	1067	508	1155
SE740	4444	1067	1067	533	1610
SE745	5040	1067	1219	559	1845
SE750	5709	1219	1219	584	2180
SE755	6371	1219	1372	610	2545
SE760	7107	1372	1372	635	2986
SE765	7858	1372	1524	660	3164
SE770	8671	1524	1524	686	4025
SE775	9661	1524	1676	737	4761
SE780	11,000	1676	1676	838	6005
SE785	12,185	1676	1829	889	7020
SE790	13,378	1829	1829	940	8318
SE795	15,900	1981	1981	1041	10177
SE796	15,500	1981	1981	965	11,100
SE798	20,800	2286	2286	1092	15,500

Self-Clean Models

Fig 1b

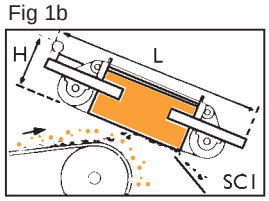
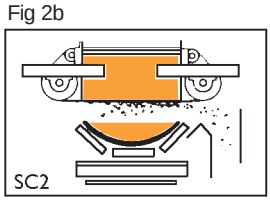


Fig 2b



Self Clean Models

Model	Watts	Width mm	Length mm	Height mm	Weight Kg	Motor SC1	KW SC2
SE710	1425	1200	2050	700	599	0.75	0.75
SE715	1765	1200	2196	700	771	0.75	0.75
SE720	2245	1344	2196	766	946	1.10	0.75
SE725	2756	1344	2350	766	1222	1.1	0.75
SE730	3344	1500	2400	908	1573	1.5	1.1
SE735	3863	1500	2534	908	2004	1.5	1.5
SE740	4444	1700	2768	908	2721	2.2	1.5
SE745	5040	1700	2920	908	3007	2.2	1.5
SE750	5709	1850	2920	908	3510	4.0	2..2
SE755	6371	1850	3072	908	3996	4.0	2.2
SE760	7107	1800	2318	940	4568	4.0	2.2
SE765	7858	1800	2471	965	4708	4.0	4.0
SE770	8671	1950	2872	991	5828	5.6	4.0
SE775	9661	1950	2969	1092	6694	5.6	4.0
SE780	11,000	2156	2969	1194	8197	5.6	4.0
SE785	12,185	2156	3119	1245	9295	5.6	4.0
SE790	13,378	2306	3119	1321	10,672	7.5	5.6
SE795	15,900	2500	3420	1400	12,640	7.5	5.6
SE796	15,500	2500	3420	1738	13,331	7.5	5.6
SE798	20,800	2800	3770	1865	17,990	11.5	7.5

Dimensions given are for guidance only

Note: Many applications dictate that a magnet is designed for a wide belt width or separation requirement. Eriez design and build Suspended Electromagnets to suit specific applications.

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