Permanent Magnetic Drum Separators

Models: FA, FR, RR, RAS, RASP, RRS, SREX

including the New **super strength** SREX **Drum**

Permanent magnets for automatic separation of ferromagnetic and paramagnetic particles.

Applications

Recycling
Foods
Mineral Processing
Ceramics
Chemicals
Cullet
Incinerator Ash
Silica Sand

Principle of Operation

As material reaches the Drum, the magnetic field attracts and holds ferrous particles to the Drum shell. As the Drum revolves, it carries the material through the stationary magnetic field. The non magnetic material falls freely from the shell, while ferrous particles are held firmly until they are carried out of the magnetic field. (See illustration on page 2).

Benefits

- Automatic self cleaning mechanism
- High volume throughputs
- Enhanced separation compared to equipment such as Magnetic Pulleys
- Low maintenance
- Minimal spare parts required

Features

- Robust design
- Different magnet configurations available suited to individual needs
- Drum housing can be designed to suit space limitations
- Wide range of Drum diameters and widths available

ERIEZ®

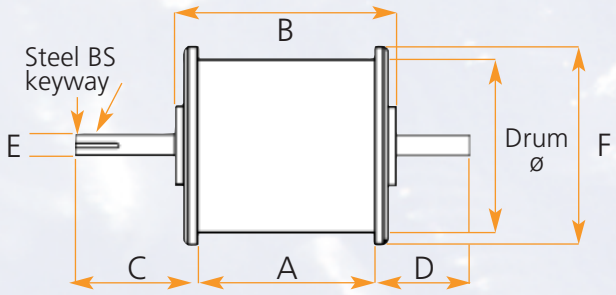
Drum only

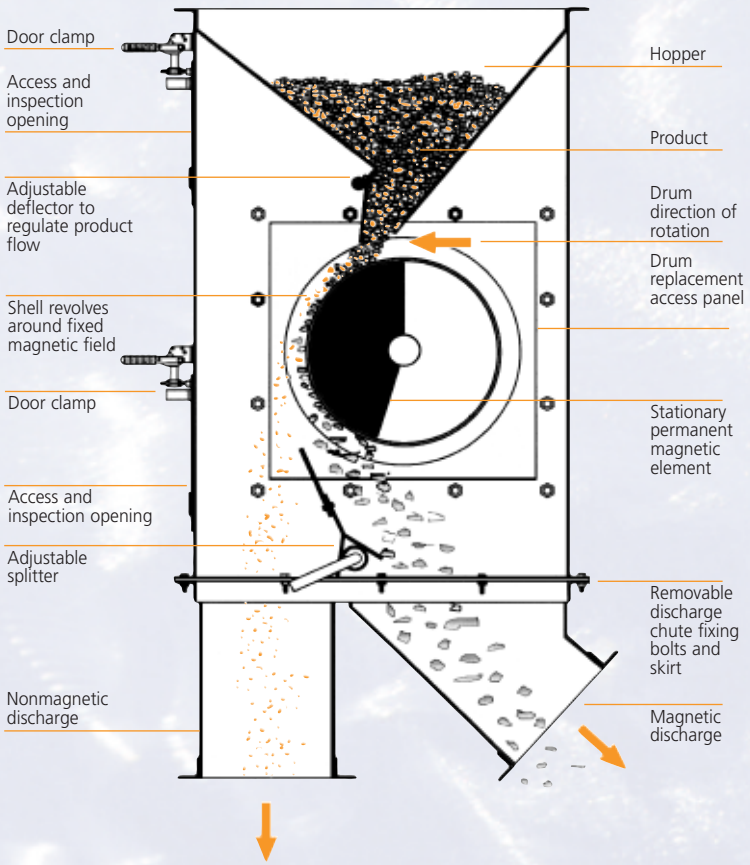
DRUM ø	NOMINAL WIDTH	A	B	C	D	E	F	APPROX. WEIGHT KG
305	300	305	400	200	137	50	356	60
	350	356	451	200	137	50	356	67
	400	406	501	200	137	50	356	73
	450	457	552	200	137	50	356	80
	500	508	603	200	137	50	356	87
	600	610	705	200	137	50	356	100
	750	762	857	200	137	50	356	120
	900	914	1009	200	137	50	356	140
	1050	1067	1162	200	137	50	356	160
380	300	305	400	229	165	60	425	75
	350	356	451	229	165	60	425	84
	400	406	501	229	165	60	425	93
	450	457	552	229	165	60	425	102
	500	508	603	229	165	60	425	111
	600	610	705	229	165	60	425	129
	750	762	857	229	165	60	425	156
	900	914	1009	229	165	60	425	183
	1050	1067	1162	229	165	60	425	210
	1200	1219	1314	229	165	60	425	237
610	450	457	597	279	229	75	711	256
	500	508	648	279	229	75	711	279
	600	610	750	279	229	75	711	326
	750	762	902	279	229	75	711	397
	900	914	1054	279	229	75	711	467
	1050	1067	1207	279	229	75	711	538
	1200	1219	1359	279	229	75	711	608
	1350	1372	1512	279	229	75	711	679
	1500	1524	1664	279	229	75	711	749

H Housing

G	H	J	APPROX. WEIGHT KG	MOTOR KW
559	410	610	147	0.25
559	461	610	156	0.25
559	511	610	164	0.25
559	562	610	173	0.25
559	613	610	182	0.25
559	715	610	199	0.25
559	867	610	225	0.25
559	1019	610	252	0.38
559	1172	610	278	0.38
635	410	762	191	0.25
635	461	762	202	0.25
635	511	762	213	0.25
635	562	762	224	0.25
635	613	762	236	0.25
635	715	762	258	0.25
635	867	762	292	0.38
635	1019	762	326	0.38
635	1172	762	360	0.56
635	1324	762	393	0.56
965	635	1219	506	0.56
965	686	1219	533	0.56
965	788	1219	589	0.56
965	940	1219	673	0.75
965	1092	1219	757	0.75
965	1245	1219	841	1.1
965	1397	1219	924	1.1
965	1550	1219	1008	1.1
965	1702	1219	1092	1.1

Dimensions given are for general guidance only and are subject to confirmation upon receipt of full application details





Important factors for sizing

To accurately determine the required width and diameter of the Magnetic Drum to suit a particular application it is necessary to have information such as:

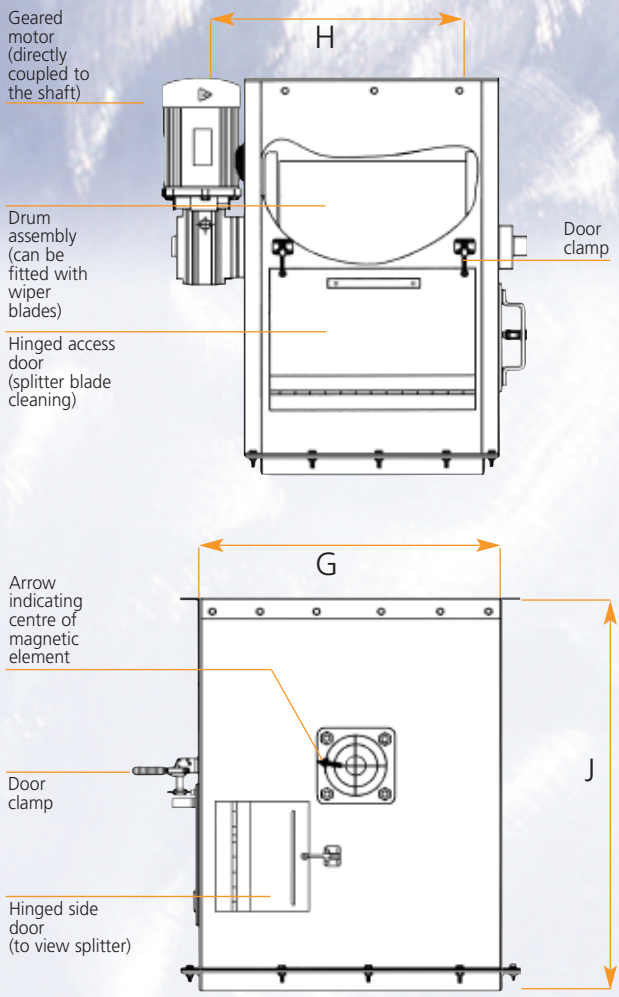
- Material bulk density
- Throughput
- Type and amount of iron to be removed
- Moisture content
- Particle size
- Amount of acceptable product loss.

Complete laboratory facilities are available and enable materials to be tested to prove separation capabilities. Performance guarantees can be provided.

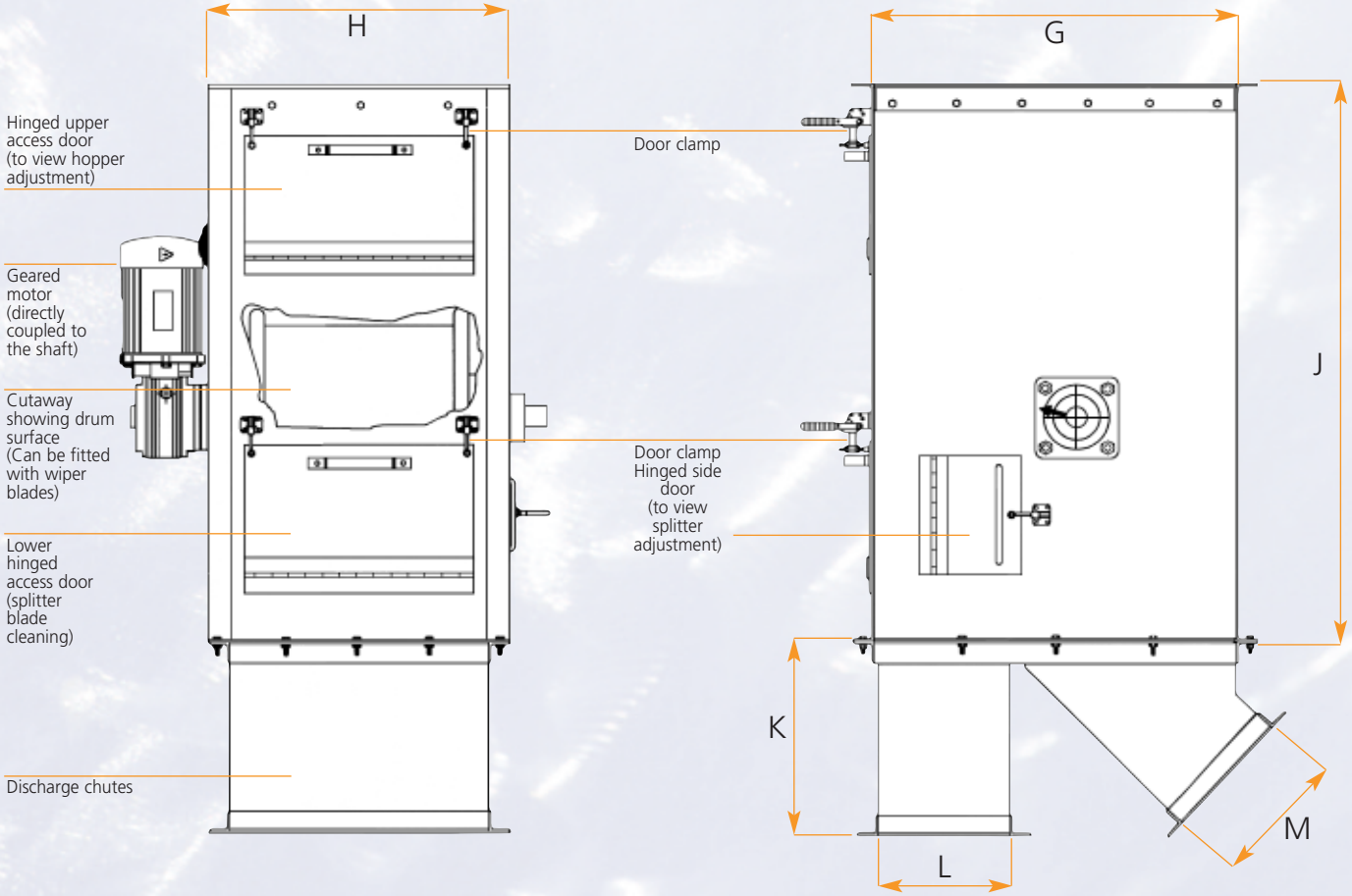
HFP Housing

G	H	J	K	L	M	APPROX. WEIGHT KG	MOTOR KW
559	410	845	298	203	202	150	0.25
559	461	845	298	203	202	159	0.25
559	511	845	298	203	202	168	0.25
559	562	845	298	203	202	177	0.25
559	613	845	298	203	202	186	0.25
559	715	845	298	203	202	203	0.25
559	867	845	298	203	202	230	0.25
559	1019	845	298	203	202	257	0.38
559	1172	845	298	203	202	284	0.38
635	410	1029	365	203	259	195	0.25
635	461	1029	365	203	259	206	0.25
635	511	1029	365	203	259	218	0.25
635	562	1029	365	203	259	229	0.25
635	613	1029	365	203	259	241	0.25
635	715	1029	365	203	259	264	0.25
635	867	1029	365	203	259	298	0.38
635	1019	1029	365	203	259	333	0.38
635	1172	1029	365	203	259	367	0.56
635	1324	1029	365	203	259	402	0.56
965	635	1500	483	248	305	516	0.56
965	686	1500	483	248	305	544	0.56
965	788	1500	483	248	305	601	0.56
965	940	1500	483	248	305	687	0.75
965	1092	1500	483	248	305	772	0.75
965	1245	1500	483	248	305	858	1.1
965	1397	1500	483	248	305	943	1.1
965	1550	1500	483	248	305	1029	1.1
965	1702	1500	483	248	305	1114	1.1

Type H Drum-in-Housing



Type HFP Drum-in-Housing



Standard Drum Separators

Designed with Ferrite magnets to provide a good separation of tramp and fine iron from dry bulk materials.

Rare Earth Drum Separators

Rare Earth Drum Separators are made with a high quality rare earth permanent magnetic power source. The rare earth magnets produce magnetic fields up to 25 times stronger than conventional Ferrite, with no increase in size. The additional strength helps in removing weakly magnetic or very fine iron contaminants from a wide variety of powdery, dry bulk materials as well as slurries.

Metal Separation Modules

Magnetic Drums are commonly supplied in a modular system to accompany an Eriez Non Ferrous Magnetic Separator (ECS).

The Drum removes the ferrous particles prior to the secondary separation of non ferrous metals from the non metallic materials. Both Ferrite and Rare Earth models are used.

Drum Model	Magnet Type	Capabilities	Typical Applications
FA	Ferrite	General tramp iron removal Minerals, Recycling	Food, Plastics, Glass, Chemicals,
FR	Ferrite	High levels of coarse iron and some spherical iron removal	Food, Plastics, Glass, Chemicals, Minerals, Recycling
RR	Rare Earth	Separation of weakly magnetic materials such as fragmented stainless steel, magnetics of a spherical nature, material with iron inclusions	Recycling, Minerals, Ceramics
RAS	Rare Earth	Fine iron and stainless steel	Ceramics, Minerals
RASP	Rare Earth	Fine iron and fine stainless steel, hematite, ilmenite, chromite	Ceramics, Minerals, Recycling
RRS	Rare Earth	Enhanced fine iron or paramagnetic material Foundry	Mineral Processing, Ceramics,
New SREX	Rare Earth Xtreme	Ultimate strength to separate weakly magnetic materials and recover fragmented stainless steel.	Stainless Steel, Minerals, Ceramics

For advice on individual applications, contact Eriez engineers at:

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