



Metal Free Processes



For more than 40 years, our company has been dedicated to the manufacture of devices for the protection of crushing machinery and the elimination of metallic particles.

A range of ferrous and non-ferrous metal separators from Drago Electrónica perfectly satisfy efficiency requirements for the accurate separation of raw materials.

Our equipment range are available for diverse applications ranging from sorting scrap material to mining applications and our technical department provides solutions for different applications, from standard to custom applications.

Our machines stand out for these main features:

Efficient:

The system of metals elimination is completely automatic, without breaks in the operation of the installation.

Simple:

Its use and handling do not require any type of specialization and is practically intuitive.

Reliable:

Our machines do not require special attention, just the usual recommended maintenance.

Powerful:

It is built in solid structures; it is completely watertight (IP65 protection). Our machinery is designed for outdoor work and extreme environmental conditions.

DRAGO ELECTRONICA AROUND THE WORLD.

de
dragoelectrónica

More than 40 years providing solutions

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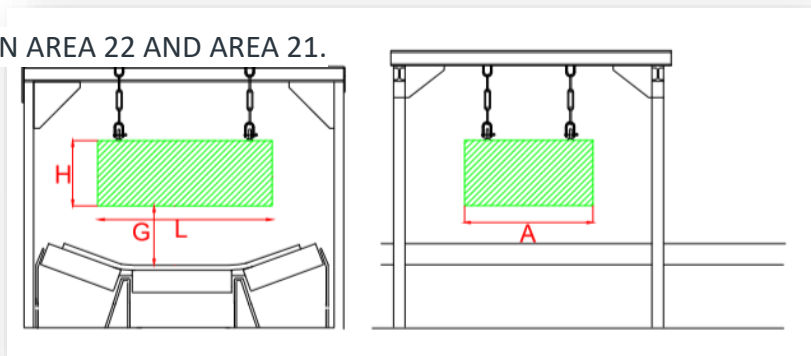
MAGNETIC SEPARATORS

PERMANENT MAGNET - TYPE PL

Its main feature is the absence of connection to the power network. Inside the machinery, permanent magnets are housed, whose magnetization is guaranteed for life. They lack maintenance, a periodic cleaning must be programmed.

They are installed suspended on the conveyor belt parallel to it and keeping a distance on it, according to their characteristics.

Disposes of the ATEX CERTIFICATION AREA 22 AND AREA 21.

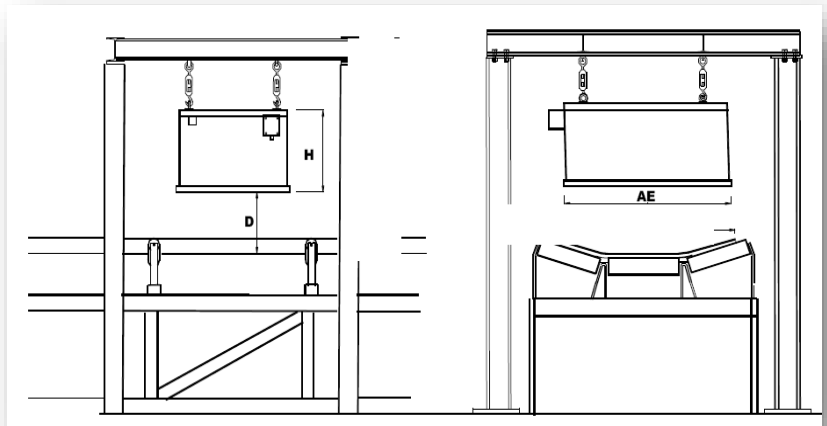


TYPE PL	Permanent magnet size			Working Gap H	Weight Kg.
	L	D	A		
PL-521	520	430	150	150	160
PL-621	620	430	150	150	170
PL-721	820	430	150	150	240
PL-1021	1020	430	150	150	320
PL-523	520	430	202	200	180
PL-623	620	430	202	200	300
PL-723	820	430	202	200	320
PL-1023	1020	430	202	200	560
PL-525	540	630	202	250	360
PL-625	640	630	202	250	380
PL-725	840	630	202	250	400
PL-1025	1040	630	202	250	560
PL-630	630	750	280	300	620
PL-730	830	750	280	300	700
PL-1030	1030	750	280	300	850
PL-1230	1230	750	280	300	1270
PL-640	630	1000	300	300	980
PL-740	840	1000	300	400	1060
PL-1040	1040	1000	300	400	1470
PL-1240	1240	1000	300	400	1780
PL-1440	1440	1000	300	400	1880
PL-1540	1540	1000	300	400	2010

We reserve the right to modify any data in order to improve the performance of the separators. For other measures consult the manufacturer.

ELECTROMAGNET - TYPE DEP

It is electromagnetic separators. Its main feature consists of a coil made of aluminum plate, which, fed with the electrical panel, is transformed into a magnet, trapping the ferrous metals. Once the power supply is cut off, the metals are detached from the magnetic system.



TYPE DEP	Electromagnet sizes			Electromagnet power Kw	Working gap D	Weight Kg.	Electrical control panel type
	L	A	H				
DEP-3	500	440	360	1,1	200	350	QE1500
DEP-4	600	530	380	1,5	240	540	QE2000
DEP-5	700	700	380	2	280	700	QE2500
DEP-6	700	700	542	3	320	950	QE3500
DEP-7	900	900	384	4	360	1200	QE4500
DEP-8	1100	1100	463	6	400	1600	QE6500
DEP-9	1250	1250	443	7	450	2000	QE9000
DEP-10	1450	1450	564	10	500	2950	QE11500
DEP-13	1560	1560	450	13	550	3950	QE15000
DEP-15	2150	2150	465	15	600	7500	QE17000

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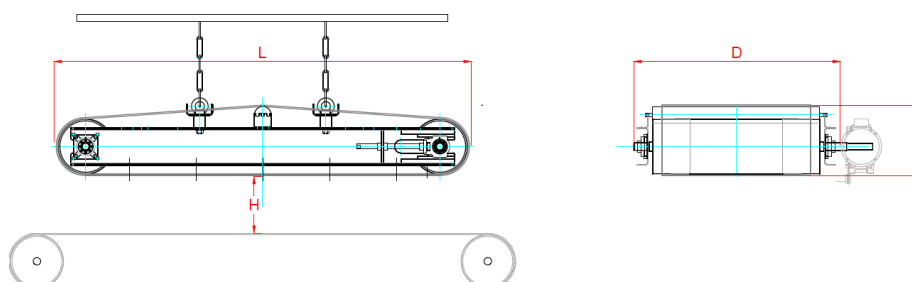
OVERBAND WITH PERMANENT MAGNET - TYPE OPL

The Overband are machines consisting of a magnetic separator of permanent magnets, whose function is to capture ferrous metals that can be mixed with the material that the client works, being captured and separated from it, and by means of the Overband conveyor belt, ejected from the installation material circuit.



Type OPL	Overband sizes			Working gap H	Power Motor in Kw	Weight Kg.
	L	D	A			
OPL-525	2400	1300	430	250	2,2	770
OPL-625	2400	1300	430	250	2,2	866
OPL-725	2400	1300	430	250	2,2	900
OPL-1025	2400	1300	430	250	2,2	1080
OPL-730	2400	1300	430	300	4	1310
OPL-1030	2400	1300	430	300	4	1450
OPL-1230	2800	1350	438	300	4	1950
OPL-1040	2850	1550	550	350	4	1950
OPL-1240	2850	1550	550	350	4	2550
OPL-1440	2850	1550	550	350	4	2820
OPL-2040	2850	1700	654	350	4	2990

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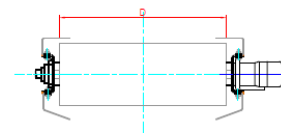
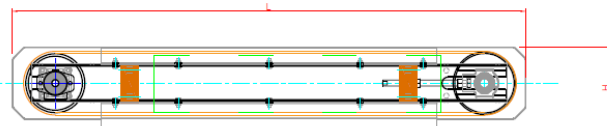
OVERBAND WITH PERMANENT MAGNET - TYPE OPL MINOR

The main feature of the Overband is that it is a permanent magnet magnetic separator (OPL MINOR) with the same function as the OPL model but compact, smaller, to work closer to the customer's conveyor belt. smaller, to work at closer distances to the customer's conveyor belt, for small particle size applications.



Modelo OPL MINOR	Medidas overband			Altura trabajo H	Potencia Motor en Kw	Peso Kg.
	L	D	A			
OPL-521	1800	950	300	150	0,75	290
OPL-621	1800	950	300	150	0,75	370
OPL-721	1800	950	300	150	0,75	460
OPL-523	1800	950	300	200	0,75	325
OPL-623	1800	950	300	200	0,75	360
OPL-723	1800	950	300	200	0,75	450
OPL-1023	1800	950	300	200	0,75	640

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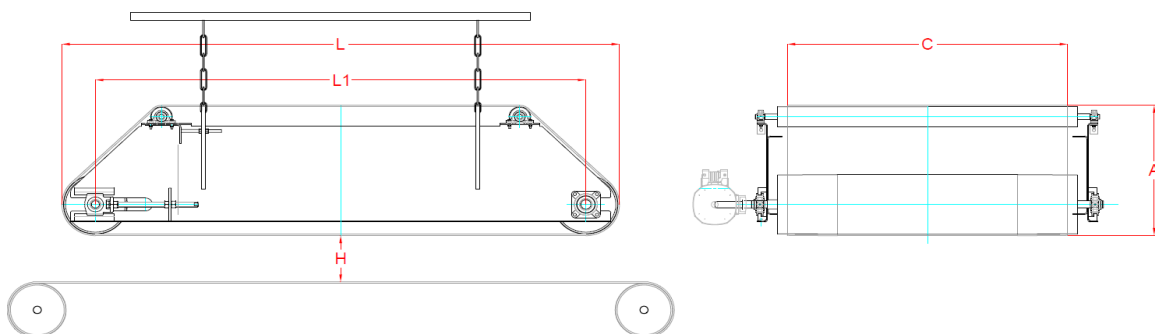


OVERBAND WITH ELECTROMAGNET - TYPE ODEP

The Overband are machines consisting of a magnetic separator of electromagnet, whose function is to capture ferrous metals that can be mixed with the material that the client works, being captured and separated from it, and by means of the Overband conveyor belt, ejected from the installation material circuit.



Type ODEP	Overband sizes			Power electromagnet KW	Working Gap H	Motor gear power kW	Weight Kg.
	L	D	A				
ODEP-3	2130	764	454	1,1	200	2,2	850
ODEP-4	2130	914	454	1,5	250	2,2	1200
ODEP-5	2130	954	454	2	280	2,2	1480
ODEP-6	2130	1042	674	3	320	2,2	1550
ODEP-7	2540	1270	678	4	350	4	1750
ODEP-8	2850	1470	762	6	400	4	2850
ODEP-9	2850	1470	762	7	450	4	3200
ODEP-10	2850	1720	762	10	500	4	4150
ODEP-13	2850	1720	762	13	550	4	4400
ODEP-17	2850	2300	762	15	600	4	6100



MAGNETIC DRUM, TYPE TER

These types of magnetic drums are mostly used in protecting machines, mills, grinders, etc. Drago Electrónica magnetic drums are perfect for separating ferrous particles in a great variety of processes. The Drum is made up of two sections, a magnetic one and a non-magnetic one, so the product material containing ferrous objects falls directly on the magnetic section. The ferrous particles are captured by the magnetism and stay on the drum until they fall off when they leave the magnetic section.



MODELO TYPE	A (mm)
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TER-200	200
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TER-300	300
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TER-400	400
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TER-500	500
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TER-600	600
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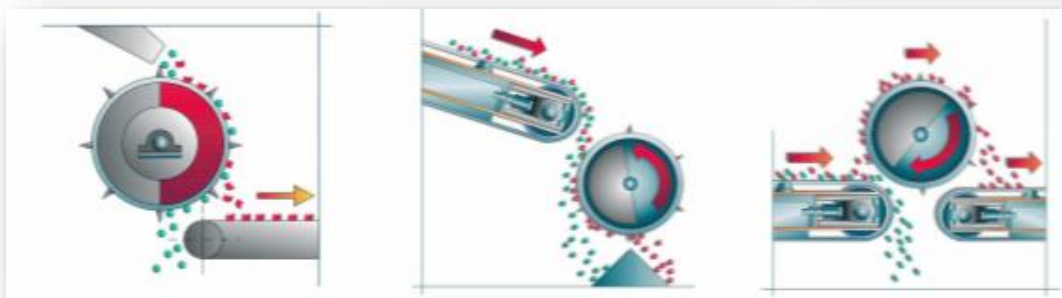
TER-800	800
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TER-1000	1000
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TER-1200	1200
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TER-1400	1400
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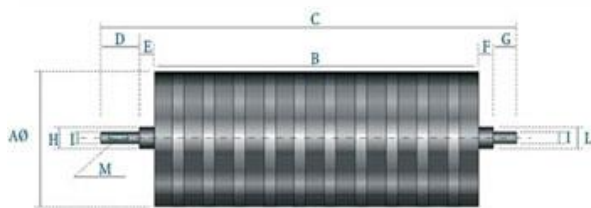
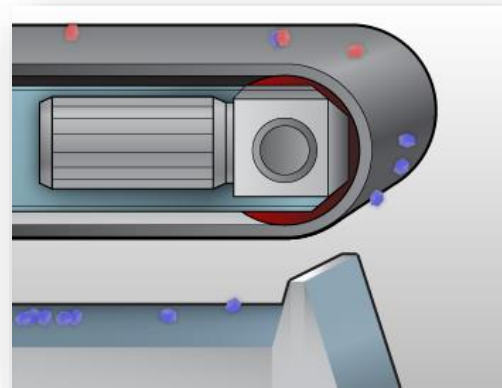
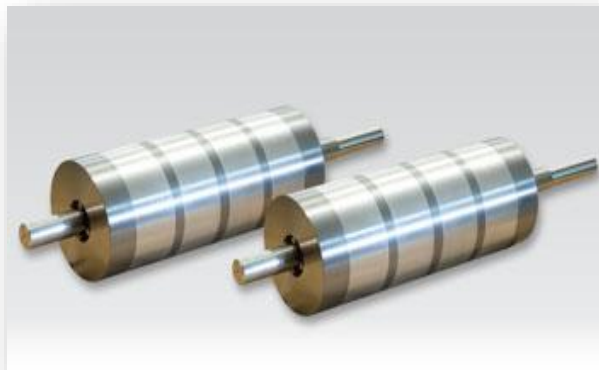
On request, they can be supplied in any other dimension.



We reserve the right to modify any data in order to improve the performance of the separators. For other measures consult the manufacturer

MAGNETIC HEAD ROLLER TYPE TM

These types of magnetic head rollers substitute the rollers placed at the head of the conveyor belt. This system extracts ferrous particles from the product that is passing along the conveyor belt, takes them under the roller, where they fall off and are collected in a container.



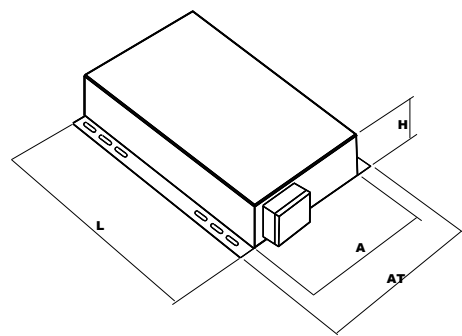
TYPE	ØA mm	B mm	BELT WIDTH mm	CAPACITY M3/H.	WEIGHT KG
TM15.10	150	500	450	2.5	35
TM15.60	150	600	550	3	42
TM15.100	150	1000	950	6	80
TM20.40	200	400	350	6	65
TM20.45	200	450	400	8	70
TM25.65	250	650	600	20	140
TM32.45	320	450	400	18	160
TM32.90	320	900	850	41	320
TM32.11	320	1100	1000	53	400
TM40.80	400	800	750	70	400
TM40.110	400	1100	1000	100	550
TM50.90	500	900	850	107	600
TM50.110	500	1100	1000	136	750

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METAL DETECTORS

TYPE ER

This detector is the flagship product of our range for its simple operation and high performance. Composed of a single detector plate. It is installed under the conveyor belt, ideal to protect secondary or tertiary mills with a granulometry not exceeding 150 mm and a material layer height of approximately 200 mm



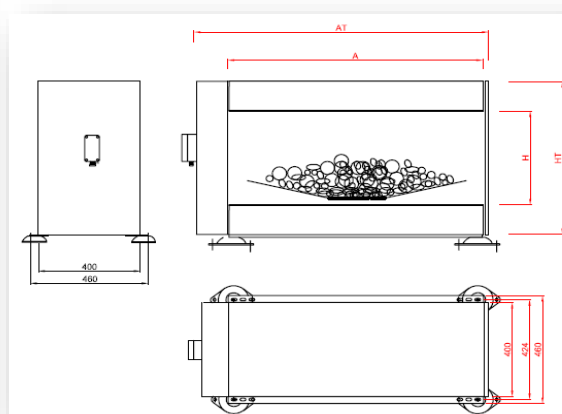
TYPE	L	A	AT	H	WEIGHT
ER-500	500	400	460	80	11
ER-600	600	400	460	80	12
ER-800	800	400	460	120	18
ER-1000	1000	400	460	120	21
ER-1200	1200	400	460	120	34
ER-1400	1400	400	460	120	39

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TYPE GR

It consists of two coils, one transmitter and another signal receiver. The coils are installed in the belt forming a tunnel through which the material passes to be analysed.

Its installation is very simple because one of the sides of the detector cabinet is separated for its insertion in the tape, the band has not been cut.



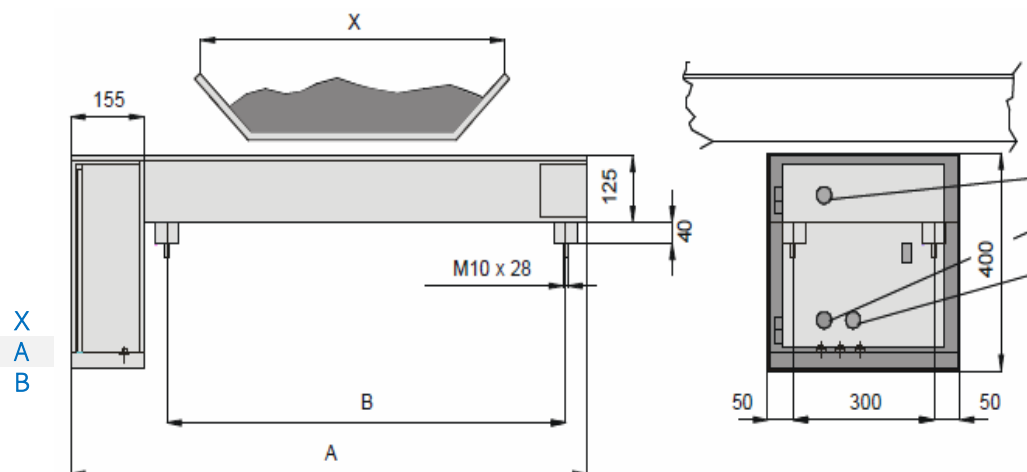
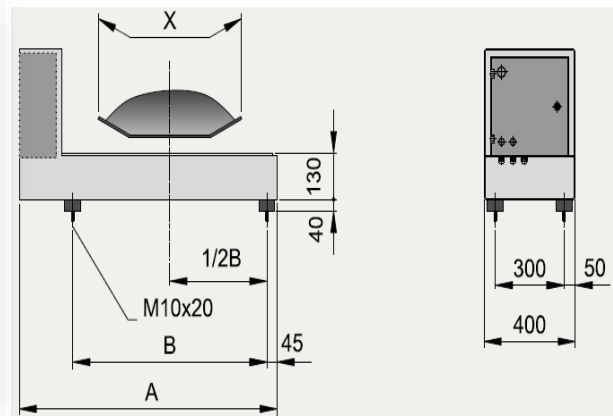
TYPE	A	AT	H	L	LT	WEIGHT
GR-400	500	620	De 100 a 500	400	460	50
GR-500	600	720	De 100 a 500	400	460	55
GR-600	800	920	De 100 a 500	400	460	60
GR-800	1000	1120	De 100 a 500	400	460	80
GR-1000	1200	1320	De 100 a 500	400	460	95
GR-1200	1400	1520	De 100 a 500	400	460	100
GR-1400	1400	1520	De 100 a 500	400	460	120

Other measures can be made on request.

TYPE ERS

Metal detector composed of a coil that is installed under the conveyor belt. Governed by microprocessor, its sensitivity is higher than that of the ER model, its detection height is maximum 200 mm.

Disposes of the ATEX CERTIFICATION AREA 22.

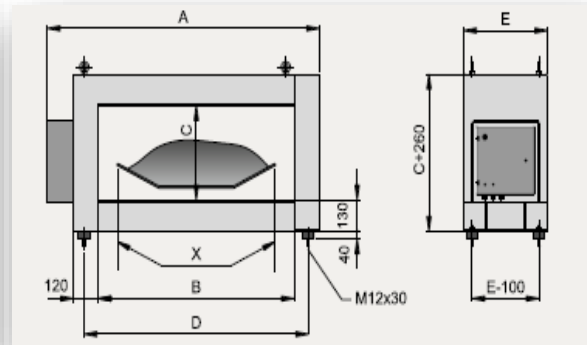


X	300	400	500	650	800	1000
A	750	850	950	,1100	1250	1450
B	500	600	700	850	1000	1200

TYPE GRS

Metal detector composed of two detector coils, being a removable system for insertion in the conveyor belt. Governed by microprocessor, its sensitivity and stability are very high.

Disposes of the ATEX CERTIFICATION AREA 22 AND AREA 21.



X	300	400	500	650	800	1000	1200	1400	1600	1800	2000
A	900	1000	1100	1250	1400	1600	1800	2000	2200	2400	2600
B	500	600	700	850	1000	1200	1400	1600	1800	2000	2200
C	from 200 to 1000										
D	640	740	840	990	1140	1340	1540	1740	1940	2140	2340
E	400	400	400	400	500	500	500	600	600	700	700



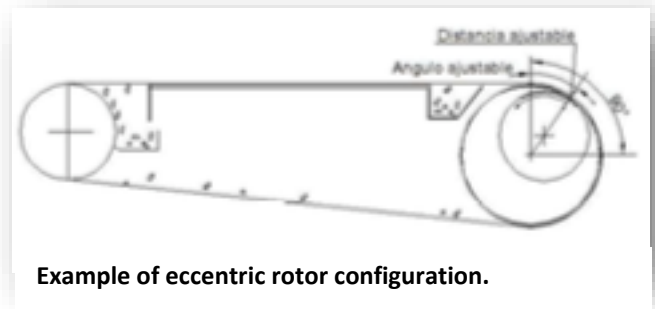
EDDY CURRENT SEPARATORS

EDDY CURRENT SEPARATORS

This separator is the result of years of research, development and improvement in the area of recovery of non-ferrous metals from the fragmenters, where it has many applications.

The eccentric rotor metal separators have been developed to solve the problem of the problem of the particles that infiltrate between the conveyor belt and the fibre tube, which in the concentric rotor separators remain adhered in the fibre tube, this is due to the strong magnetic field and preventing the cleaning of them.

Another of the great advantages of the eccentric rotor separator is the adjustment of the distance of the rotor in relation to the tube, which minimizes the losses of the magnetic field in relation to the surface of the conveyor belt.



EDDY CURRENT TYPE FC-FCF/FC-FCE

BELT WIDTH	500	600	700	800	900	1000	1100	1200	1500	2000
MOTOR WIDTH	1190	1290	1390	1490	1590	1690	1790	1890	2190	3380
HEIGHT	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050
HEIGHT/EXIT CONDUIT	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
LENGTH	3540	3540	3540	3540	3540	3540	3540	3540	3540	3540
HEIGHT MAG DRUM	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
HEIGHT MAG DRUM/TRAY	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
LENGTH MAG.DRUM	3800	3800	3800	3800	3800	3800	3800	3800	3800	3800
LENGTH MAG.DRUM/TRAY	4900	4900	4900	4900	4900	4900	4900	4900	4900	4900

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STAINLESS STEEL DRUM SEPARATOR

STAINLESS STEEL DRUM SEPARATOR

There are metallic alloys with a slight ferric content such as stainless steel that can be separated by a high gradient magnetic drum made with high quality magnets: Neodymium N52.

This is a belt whose driving drum is configured inside with Neodymium magnets creating an intense magnetic field capable of separating stainless steel that contains some ferric metal in its alloy.

It consists of a sturdy metal structure to support two drums and a conveyor belt. This belt slides on an antimagnetic stainless-steel table, thus guaranteeing perfect horizontality.

We manufacture up to a width of 2500 mm. and different magnetic configurations of the rotor, depending on the application.

ROTOR: High gradient magnetic drum

Number of poles according to model.

Both shafts are removable (50 mm. diameter).

Neodymium magnets mechanically locked by means of a pin.

Neodymium magnets quality N52.

Standard bearing brackets (for easy replacement).

CHASSIS:

Stainless steel belt guards and drums.

Formed steel plate structure, with or without legs, depending on the application.

MOTOR:

Geared motor for belt drive, by means of worm and hollow shaft.

CONVEYOR BELT:

Polyurethane, anti-static and anti-abrasion.

Variable speed (optional).

PAINTING:

60 micron primer.

60 micron finish with epoxy paint RAL 6010 series.