

PATENTED EDDY CURRENT SEPARATOR

SMAR®



THE PATENT

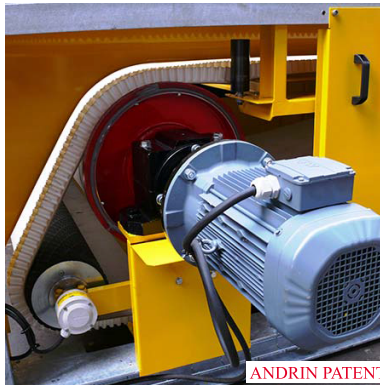
SMAR® is a family of patented separators of Non-magnetic (non-ferrous) Metals with reinforced protection. The patent consists of introducing a third roller in the eddy current separator in order to set the winding angle of the belt around the magnet wheel. This design has many advantages :

- low retention time of ferrous metals in the zone of induction to eliminate the risk of burning the belt,
- large reduction of radial forces on the magnet wheel enabling the use of thick belts and thin composite shell. The longevity of the bearings is also increased,
- Ideal operation of the belt scraper, placed in front of the third roller.

APPLICATION

Developed for automobile shredder, the **SMAR®** are intended for the automatic sorting of different non-ferrous metals in difficult environments (outside, dust, humidity, chemical aggressiveness).

The **SMAR®** are thereby classified in incineration units, foundries, floatation, fluff installations, processing of slag, etc.



TECHNICAL DESCRIPTION

The **SMAR®** consists of :

- a thick and flat belt conveyor equipped with double edges for tightness,
- a motorised magnet wheel of large diameter assembled inside an impermeable composite shell,
- a convex and rubber coated motorised roller,
- a third cylindrical roller,
- reinforced element bearings,
- lateral protective covers that are easily removed,
- a separation chute with adjustable flap by lifting screws,
- a mechanical vibrating feeder,
- a single frame housing all of the above parts.

SPECIFICATIONS

The performance is maximum when the single layer is provided by stabilised products. It varies according to :

- the humidity and granulometry of the materials,
- the type and shape of the non-ferrous metals to separate,
- previous iron extraction,
- the flow to process.

4 types of **SMAR®** are proposed according to the active width of the belt :

600, 1000, 1500, 2000 mm.

INSTALLATION

The **SMAR®** are installed after ferrous separation and screening of the materials.

Two lateral galleries are used to reach the bearings, motors and belts for adjustment and maintenance. The electrical cabinet used as a local desk is installed nearby.

The endless belt is disassembled from the side opposite the motors.

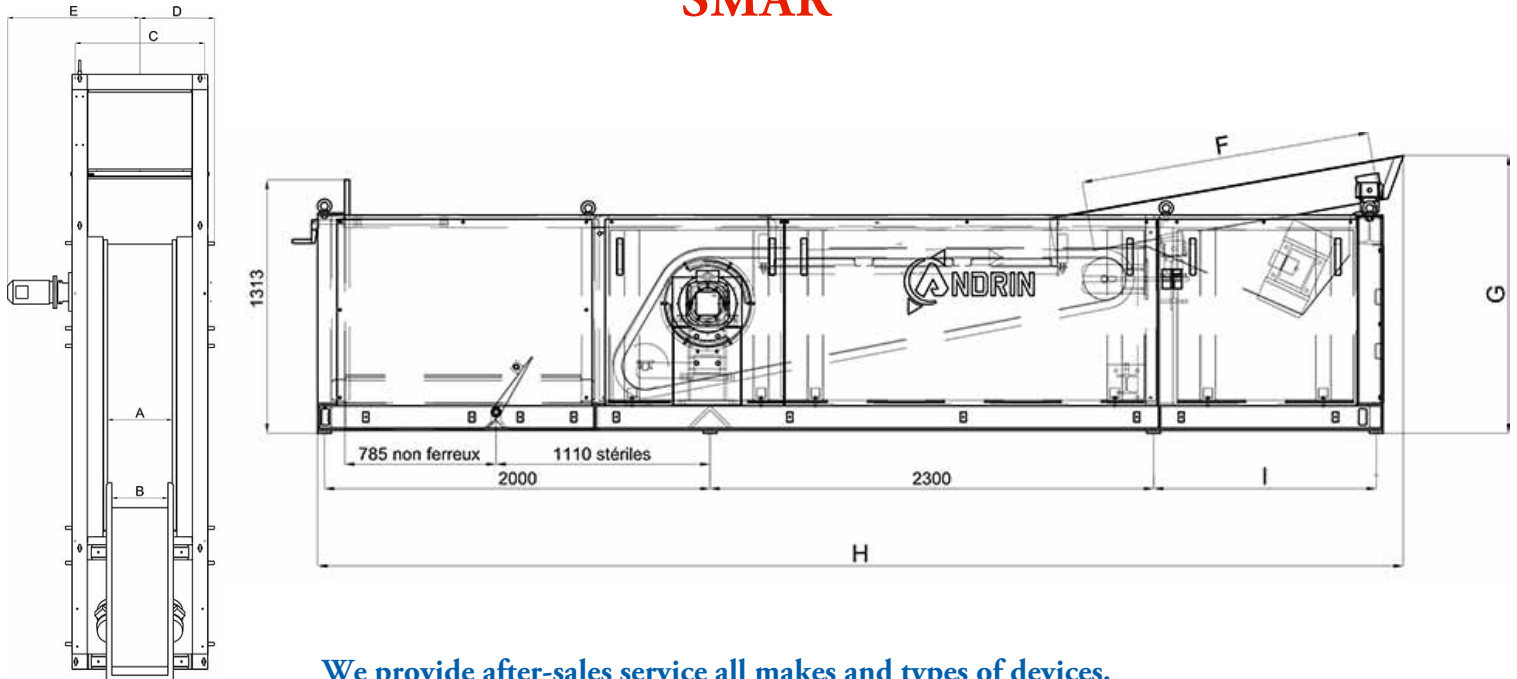
THE EXTRAS

The **SMAR®** are designed for high performance with a large flow in difficult environments :

- patented Andrin system,
- magnet wheel of large diameter with a maximum of rare earth poles fixed inside a stainless steel hoop,
- 3000 r.p.m. with full safety shell,

TECHNICAL CHARACTERISTICS

SMAR®



We provide after-sales service all makes and types of devices.

TYPE	Motors kW		Dimensions (mm)										Weight Kg
	Belt	Wheel	A	B	C	D	E	F	G	H	I		
		32P	40P										
60	3	5,5	5,5	600	580	1200	690	1226	1500	1440	5630	1155	2400
100	3	5,5	5,5	1000	920	1600	890	1426	1500	1440	5630	1155	3200
150	3	5,5	7,5	1500	1420	2140	1160	1676	2000	1540	6130	1630	4200
200	3	7,5	7,5	2000	1920	2640	1410	1926	2000	1540	6130	1630	5000

The flow is in function of the granularity and general organisation of the sorting. Other sizes are available. Consult our technicians.

- impervious and reinforced composite shell,
- thick belt with double lateral edges that may reach 2000 mm,
- long conveyor to stabilise the products even at high speed (2,5 m/s),
- mechanical and electrical safety,
- removable protective covers,
- self-carrying frame,
- adjustable outside flap with position index,
- accessible bearings and motors.

PERFORMANCES

According to the flow and organisation of the process :

- **Recovery of non-ferrous metals.**
90 % to 98 %
- **Purity of the non-ferrous metals.**
85 to 95 %
- **Accessible flow**
of up to 60 t/h, according to the density.
- **Speed of the band**
up to 2,5 m/s
- **Granularity**
of 5 to 250 mm.
- **Magnetic frequency**
800 to 1000 Hz



- Can operate
24 hours a day.

OPTIONS

- ACSMA electrical cabinet.
- Removable frame.
- Electric actuator flap setting
- Belt scraper.
- Motorisation on the right.
- Ceramic shell.

- Double flow processing.
- Galvanisation or stainless steel.
- Automatic settings.
- Vibrating screen.
- Previous ferrous extraction.
- Frame, access and chutes.
- Study of the installation of the process.
- "Special slag" kit.
- Maintenance contract.
- **Fines special machine (top speed: 4000 r / min)**

