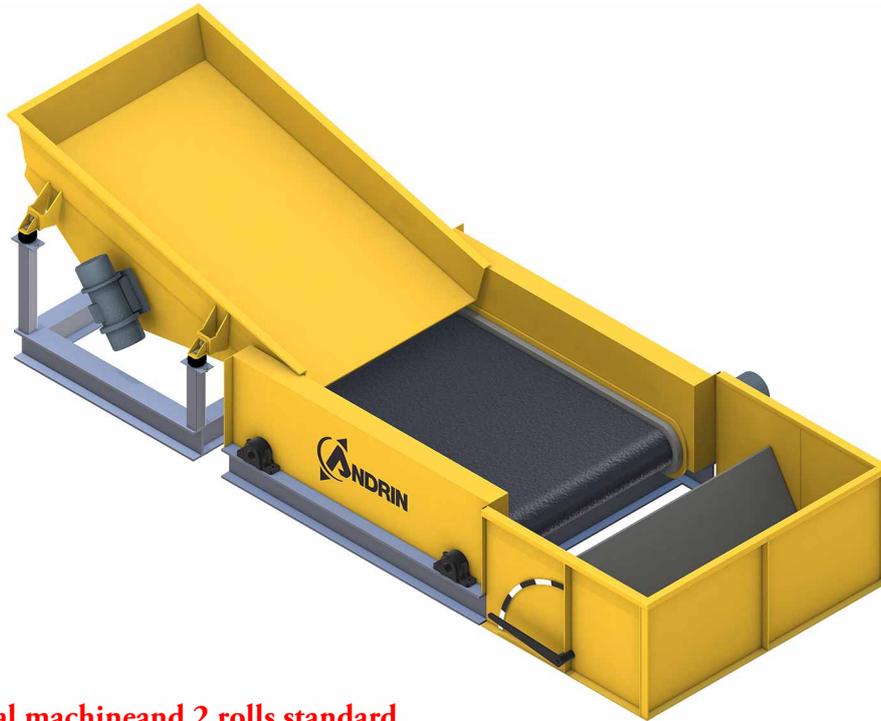


## SELECTIVE METAL SEPARATOR AND SORTER

**STS****Conventional machine and 2 rolls standard.****SCOPE**

**STS** designates a family of selective separators and sorters of non-magnetic metals (non-ferrous). Based on the principle of separation by eddy currents, the **STS** systems are intended for the automatic purification of materials versus non-ferrous metals.

Their design allows extracting the few residual ferrous metals and slightly magnetic metals. Thus, the **STS** systems are found in glass and plastic sorting plants, glass works, sorting centers and other high purity physical processes.

**OPERATION**

A vibrating feeder distributes the product to be treated into a fine and homogeneous layer on a wide and rapid conveyor belt. Once the materials are stabilized on the conveyor belt, they are subjected to a high intensity alternating magnetic field. The eddy currents resulting in the electrically conducting bodies allow repulsing non-ferrous metals such as aluminum, copper, zinc, etc. The intense magnetic field is created by a polar wheel made of **Neodymium-Iron-Boron** magnets. This wheel allows also separating after leaving the field the residual ferrous metals and slightly magnetic particles.

This design offers many advantages :

- simultaneous purification of the non-ferrous metals and residual magnetic metals,
- maximum repulsion power thanks to the choice of Neodymium-Iron-Boron magnets with a large number of poles and minimum clearances,
- treatment of fine particles starting from 2 mm,
- effectiveness on lead.

**TECHNICAL DESCRIPTION**

The **STS** systems consist of :

- a thin flat conveyor belt, equipped with double sealed edges,
- an energized, large diameter polar wheel mounted inside a sealed composite drum,
- a curved, motorized drum,
- reinforced bearings accessible from the exterior,
- easily retractable side protection panelings,
- a separation chute with flap adjustable by jack screws,
- an unbalanced vibrating feed system,
- a one-piece frame, housing all the above components.

**SPÉCIFICATIONS**

The **STS** systems are finishing machines ensuring high degrees of purity.

To do this, the materials must be prepared (screening, deferrization, water content). Performances are maximum when the single layer is ensured with stabilized products.

**Six STS types** are offered according to the conveyor belt's usable width :

**600, 800, 1000, 1200, 1400, 1600 mm.**

**INSTALLATION MODALITIES**

The **STS** systems are installed after screening and deferrization in a cab protected from bad weather.

Two side catwalks allow access to the bearings, motors and conveyor belt for adjustment and servicing. The electric distribution cabinet used as a local console is installed nearby. The endless conveyor belt is removable from the side opposite the motors.

**ADDED FEATURES**

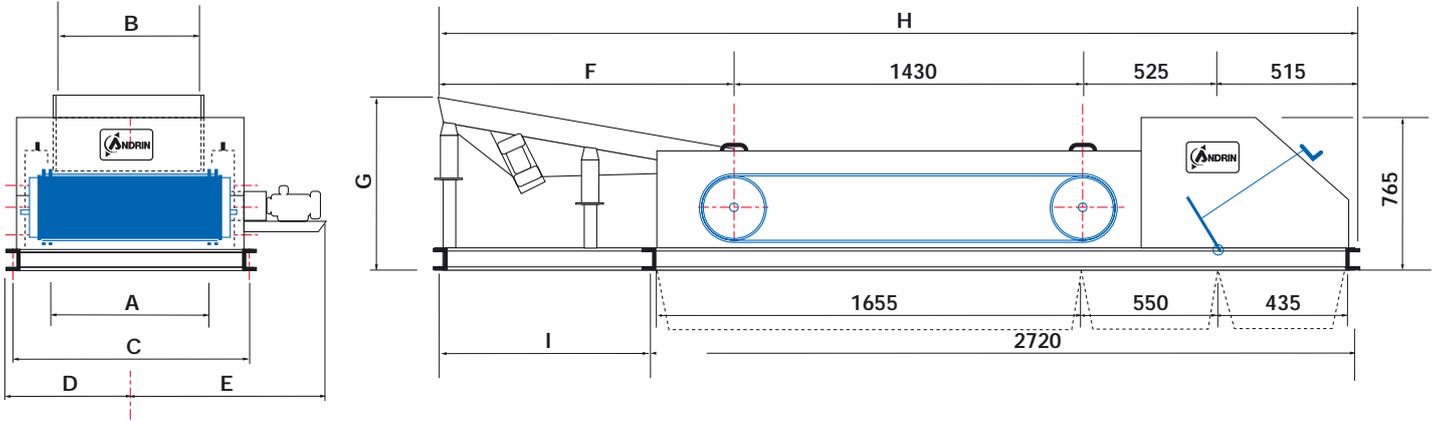
The **STS** systems are designed to ensure high levels of purity for the treated materials :

- control of the components manufacturing,
- large diameter polar wheel, with a maximum number of poles set inside a stainless steel drum,
- a completely safe rotating speed of 3000 rpm,
- a reinforced and sealed composite envelope,
- a conveyor belt with double sided edges, capable of reaching 1600 mm,

## TECHNICAL DATA

### STS

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



TYPE	Motors kw		Dimensions (mm)									Weight Kg
	Convoyor belt	Wheel	A	B	C	D	E	F	G	H	I	
60	2.2	5.5	600	528	1100	618	1118	1620	894	4090	1120	1050
80	2.2	5.5	800	728	1300	718	1218	-	-	-	-	1410
100	2.2	5.5	1000	928	1500	818	1318	-	-	-	-	1770
120	2.2	5.5	1200	1128	1700	918	1418	2087	938	4558	1570	2100
140	3.0	5.5	1400	1328	1900	1018	1518	-	-	-	-	2510
160	3.0	7.5	1600	1528	2100	1118	1618	-	-	-	-	2940

Flow rates according to granular sizes and general sorting organization. Other dimensions are available. Consult our technicians

- a long conveyor belt to stabilize the products even at high speed (2 m/s),
- mechanical and electrical safety devices,
- removable panelings,
- self-supporting frame,
- adjustable flap from the exterior, with a positioning index,
- accessible bearings and motors.

#### PERFORMANCES

Depending on the flows and the process organisation :

- **Collecting of non-ferrous metals** from 95 % to more than 99 % ;
- **Collecting of residual ferrous metals** > 99%
- **Accessible flow**

rate up to 45 t/h depending on the density

- **Conveyor belt speed** up to 2 m/s

- **Granular sizes** from 0 to 50 mm

- **Magnetic frequency** 800 Hz or 1000 Hz

- **24 hour a day duty cycles** allowable.



#### OPTIONS

- ACSTS electric cabinet
- Retractable frame
- Dust-proof booster
- Compressed air scraper
- Sound-proofing
- Righthand drive system
- Ceramic composite drum
- Double flow treatment

- Galvanized metal or stainless steel construction
- Automated settings
- Vibrating screen
- Upstream deferrization
- Frame, access and chutes
- Process installation study
- Maintenance contract
- Other sizes on request : up to 2000 mm wide

