

INDUSTRIAL MAGNETIC SEPARATION SYSTEMS

Magnetic separation systems for ferrous metals

Iron is probably one of the most common materials in the industry. But the presence of iron particles in the raw materials, components or semi-finished products it is totally inconvenient and reprehensible, especially in food. In most industrial processes, great care is taken to eliminate any unwanted iron contamination. This is achieved by a magnetic process goal.

That is why SELTER has specialized in the development and manufacture of industrial separation systems to eliminate this iron pollution. The long experience, of more than 60 years, in the manufacture of magnetic applications for the industry, has given to SELTER the technical and practical knowledge for the production of a wide range of highly specialized systems.



These systems are grouped into two major areas:

1. Magnetic separation systems for industrial recycling and waste treatment.
 - 1.1 Magnetic plates
 - 1.2 Magnetic blocks
 - 1.3 Separating drums
 - 1.4 Magnetic rollers
 - 1.5 Band systems (overbands)
2. Magnetic separation systems for food and pharmaceutical industries.
 - 2.1 Magnetic plates
 - 2.2 Magnetic bars
 - 2.3 Magnetic grids
 - 2.4 Power-mag
 - 2.5 Magnetic tubes
 - 2.6 Magnetic filters

INDUSTRIAL MAGNETIC SEPARATION SYSTEMS

Separation systems for industrial recycling and waste treatment

Society produces a huge amount of waste. In particular the use of packaging materials has greatly increased in the last times. Initially this type of waste was carried directly to landfills. But the resulting large volumes accumulated in these places made clear the need to establish some limits. In this way it is concluded that within the waste mountain there are many useful materials, suitable to be recycled. Especially interesting are the metals, which for their value makes the separation very profitable. There are several methods and techniques that are being applied to separate useful materials from a flow of waste.

After arriving at the treatment plant and before incineration, the useful components are separated. The first fraction that separates is the ferrous material, by means of plates, drums or rollers. The separation of useful materials has become an economic sector of growing importance. This is so not only for the benefit of the environment, as well for the economic value of the recovered material and for the protection of the machinery. Removing metals from a flow material means avoiding damages to equipment.



Industrial magnetic separation systems for the food and pharmaceutical industries

There has been an increase in the rigor of food hygiene legislation, which has caused a significant increase in demand for separation systems metals in the food industry. Issues of responsibility civil of defective products, have conditioned the manufacturers of food and pharmaceutical products to implement measures to ensure the quality. That's why the SELTER products comply with European laws and regulations. The materials used to build all these systems are of the highest quality. It is worth mentioning that in the selection of the construction and finishing processes, the utmost care has been taken.

- The use of the highest quality stainless steel.
- The use of neodymium magnets.
- Welding of waterproof design.
- Surfaces of contact with the product subjected to a process of electrolytic polishing

Neodymium is the most powerful magnetic material available. Is formed with "rare earths" and this magnetic material is used in places where it is it needs a total separation of the iron. This material is used in all the systems listed in the sanitary version. That's why efficiency is excellent and guarantees the separation of very small particles of iron (as small as a few microns). The result is a design that achieves a complete separation in a very small space and time, thus minimizing the loss of production. As you will see below there are a wide variety of separation systems, and each of them offer specific properties for each process and / or product. Standard systems are suitable for use in temperatures up to 80°C. All can be cleaned with a sprinkler high pressure. They can be placed at different positions in the process: transportation, processing, or immediately prior to final inspection.



In order to be able to advise on the most suitable separation system, below you will find one data request sheet. We recommend that you fill it in with as much data as possible.

REQUIRED INFORMATION TO OFFER AN IRON EXTRACTION SYSTEM**CUSTOMER:**

Company name:

Contact person:

Address:

C.P. and town:

Tel .: e-mail:

PRODUCT FROM WHICH IRON PARTICLES SHOULD BE EXTRACTED:

Material:

Weight in Tm/m³:Capacity in Tm/h or m³/h:

Particle size:

Thickness of the material:

Temperature:

Additional information:

FERROUS CONTAMINATION:

Type:

Particle size:

Particle shape:

Percentage:

TRANSPORT SYSTEM:*For installations in combination with conveyor belt*

Conveyor belt:

Tape width:

Material flow width:

Tape speed:

Angle:

Material of the belt:

For installations in tube and hopper systems

System type:

Dimensions / Diameter:

Pneumatic transport: YES / NO

Pressure:

Falling speed:

Material:

Additional information:

PLACEMENT:

Electricity supply:

Compressed air: YES / NO

Pressure:

Special regulations:

Ambient temperature:

Additional information:

If possible, include drawings or plans of the installation.