

- ◆Magnetic separation and magnetic automation equipment
- ◆Mineral and material processing equipment
- ◆Vibration conveying equipment

GENERAL PRODUCT



**EFFICIENT EXPERT IN MAGNETIC
SEPARATION SOLUTIONS**

**Based on profound design capabilities, provide you with
more reasonable magnetic separation solutions**

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COMPANY PROFILE

Tianjin North Star Technology Co., Ltd. is a professional equipment manufacturer dedicated to the magnetic separation industry. Relying on the international leading magnetic separation and vibration conveying technology, it aims at designing and manufacturing high-performance equipment to provide the industry with high-performance and high-quality designed magnetic sorting, magnetic automation and vibration conveying equipment. With rich application experience in professional and technical fields, we can solve the problems encountered in product processing, purification and quality review for enterprises.



Our mission

Provide users with efficient and practical customized products through innovative magnetic technology

Company vision

Become an authoritative supplier in the field of magnetic technology

Company strategy

Continuously develop and design new products according to customer needs and latest trends

Adopt advanced professional technology, methods and materials

Continue to innovate and create various products that are user-friendly

Concentrate financial resources and the company's core resources for key projects

The experienced R&D technical team is working together to create a better and safer world

Corporate organization structure oriented to common goals

PRODUCT CATEGORY

We provide the industry with:

- ◆Magnetic separation and magnetic automation equipment
- ◆Mineral and material processing equipment
- ◆Vibration conveying equipment

Divided by product category:

- ◆Magnetic Rod
- ◆Magnetic Plate
- ◆Magnetic Drum Separator
- ◆Suspended Magnets
- ◆Electromagnetic Filters
- ◆Non-Ferrous Metal Sorting
- ◆Feeders and Conveyors

Magnetic Rod

- ◆ Magnetic Liquid Trap
- ◆ Magnetic grate
- ◆ Magnetic Drawer Magnet
- ◆ Self-Cleaning Grate Magnet
- ◆ Rotary Grate Magnet
- ◆ Self-Cleaning Rota-Grate Magnet

Magnetic Plate

- ◆ Bullet Magnet
- ◆ Plate Magnets
- ◆ Plate House Magnet
- ◆ Self-Cleaning Plate House Magnets
- ◆ Hump Magnets
- ◆ Self-Cleaning Hump Magnet

Drum Separator

- ◆ Magnetic Head Pulley
- ◆ Permanent Magnetic Drums
- ◆ Electro Magnetic Drums
- ◆ Drum In Housing Separators
- ◆ Magnetic Rollor Separator

Suspended Magnets

- ◆ Suspended Permanent Magnets
- ◆ Suspended Electromagnetic Magnets

Electromagnetic Filters

- ◆ Dry Powder Electromagnetic Filters
- ◆ Slurry Electromagnetic Filters

Non-Ferrous Metal Sorting

- ◆ Eddy Current Separator (ECS)

Feeders and Conveyors

- ◆ Light Industry Electromagnetic Vibratory Feeders
- ◆ Heavy Duty Electromechanical Vibratory Feeders
- ◆ Heavy Duty Electromagnetic Vibratory Feeders
- ◆ Magnetic Slide Conveyors

MAGNETIC SEPARATION EQUIPMENT

Improve the purity of production lines



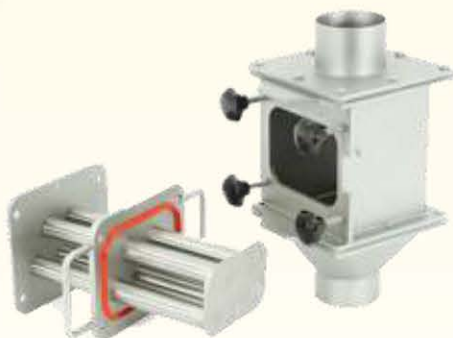
MAGNETIC LIQUID TRAP

Magnetic liquid traps, also called magnetic fluid filter or pipeline magnetic filter, which is used to remove iron impurities and other ferromagnetic particles in pipeline, keep the materials clean and protect the downstream equipment. The magnetic liquid traps can be made into an easy-to-clean structure. When slurry flows through the magnetic fluid filter, iron pollutants is adsorbed on magnetic sleeve. By separating the magnetic bars and the non-magnetic sleeve, it can achieve rapidly removal iron contaminants.



MAGNETIC GRATE

The permanent magnetic grate can be designed into various shapes, such as square, round, oval or fits the shape of the rounded hopper. It can also be made into single layer, double layer or multi-layer according to the processing accuracy requirements. The magnetic grids can be designed into an easy-to-clean magnetic frame as well. Through separating the sleeve and the magnetic system can achieve the purpose of quickly cleaning up iron impurities in powder or granular materials.



MAGNETIC DRAWER MAGNET

Magnetic drawer magnet adopts single-layer or multi-layer drawer-type magnetic rods arranged crosswise, which can effectively remove the fine iron mixed in free-falling powder or granular material. Through configuring double-layer sleeve outside the magnetic bar surface, fast iron removal can be achieved by manually separating the magnetic system and outer sleeve. But need stop production line when iron unloading.



SELF-CLEANING GRATE MAGNET

The self-cleaning drawer-type grate magnet, also called automatic magnetic-bar ferrous-remover. Compared with ordinary drawer magnet, it does not need to be manually clean the ferrous but automatically removes impurities by an external control device. In the iron remover process, you can decide whether stop the production line according to the magnetic-bar layers and the cleaning method.

MAGNETIC SEPARATION EQUIPMENT

Improve the purity of production lines



Rotary Grate Magnet

Rotary grate magnetic separator, also called Rota grate magnet, is designed for sluggish materials. It is mainly used to remove miscellaneous iron from materials, such as easily bonding or bridging, and prevent material from packing and plugging up the processing line. The easy-to-clean rota-grate magnet make the iron cleaning more easily by adding double-layer stainless steel sleeve on magnetic bar surface. When cleaning, manually or automatically separate the non-magnetic sleeve and magnetic element to achieve quickly iron unloading.



Self-Cleaning Rota-Grate Magnet

The self-cleaning magnetic rotary grate, also called pipeline-type automatic rotating iron remover, can continuously and automatically remove iron in product and keep sluggish product flowing freely. This kind of magnets do not need manually pull unloading, but automatically remove iron on surface of magnetic bars by external control device. As cleaning, whether to stop the production, cleaning frequency and interval time will be according to site requirements.



Bullet Magnet

Permanent bullet magnet is also called RF cartridge magnetic separator. Its cavity applies a neodymium iron boron (NdFeB) strong magnetic circuit design. When products enter the cavity of bullet magnet, they are spread out by the internal magnet core, and the iron is absorbed on magnetic core surface at the same time, moreover the purified material continues to downward flow. When the door of bullet magnet is opened, permanent bullet magnets require manual cleaning during a production stop.



Plate Magnets

Permanent plate magnets are widely used to remove miscellaneous iron from cascade free-flow products to protect the downstream equipment. They can be designed into a variety of sizes and strengths to meet specific plant environment and operational requirements, and can also be installed by different methods. When material flow over magnetic plate surface, the iron contaminants such as bolts, nuts, wire, screws and others are absorbed on magnetic surface.

MAGNETIC SEPARATION EQUIPMENT

Improve the purity of production lines



Plate House Magnet

The stainless steel housing, two plate magnets mounted on both sides and the center drawer constitute the plate house magnet. A typical deep reach magnet separator utilizes two large magnets on each side of a chute to grab large tramp metal as it passes through the stainless steel housing. The plate house magnet is designed for products that are easy to bond or bridge.



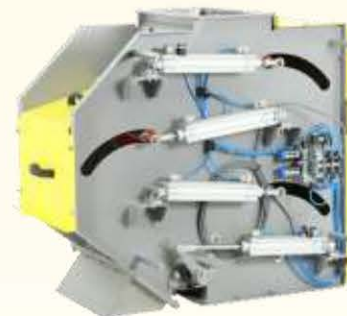
Self-Cleaning Plate House Magnets

Compared with the plate house magnet, the self-cleaning plate house magnets do not need to unload the iron manually. Only through a special design electrical circuit, make the automatic iron unloading function connected to the control cabinet through PLC modules. After setting the clean frequency and number of times according to iron content, achieve the automatic iron unloading function. No need to stop the production line during unloading.



Hump Magnets

Hump magnets, also called Pipe-magnetic plate, remove unwanted tramp metal from gravity or pneumatically conveyed products. Two plate magnets are arranged on both sides of the V-shaped chute to ensure that the material are in full contact with magnetic surface and to enhance the iron removal effect.



Self-Cleaning Hump Magnet

Self-cleaning hump magnet, also called automatic easy-to-clean magnetic plate magnets, can remove unwanted iron contamination or fine iron metal from gravity or pneumatically conveyed products. Two plate magnets are arranged on both sides of the V-shaped chute to ensure that the material is in full contact with magnetic surface and enhance the iron removal effect.

MINERAL AND MATERIAL PROCESSING EQUIPMENT

Improve the purity of production lines



Magnetic Head Pulley

The Magnetic Head Pulley is widely used in belt conveyors for continuous automatic removal of damaging tramp iron from a variety of non-magnetic materials in many industries. The pulley is mainly used to effectively sort large pieces of magnets, maximally protecting downstream equipment from damage and realizing automatically iron removal.



Permanent / Electro Magnetic Drums

The Permanent / Electro Magnetic Drum is always used in resource recovery, mineral treatment, recycling materials and other industries in conditions which need to obtain high purity material. The drum magnets are mainly used to effectively sort large pieces of magnets or fine ferromagnetic particles, and realizing automatically iron removal.



Drum In Housing Separators

Drum in housing separators are always installed below free-fall chutes or vibratory chute which deal powders, granulates, or coarser product streams (non-sticky). Continuously and automatically separate iron or steel from different materials. When material is fed by vibrating chute, the drum separator is easy to separate out the weak magnetic material, such as martensitic stainless steel, and even paramagnetic particles.



Magnetic Rollor Separator

Rare earth permanent magnetic roller separator is a high gradient powerful NdFeB magnetic separator, which widely used to clean impurity iron particles from raw material or finished product line. Before the material passes over the separators, it is necessary to filter the ferromagnetic impurities as much as possible to achieve the best iron removal effect. To get the best effect, the material usually needs to be fed by the vibration feeder chute.

MINERAL AND MATERIAL PROCESSING EQUIPMENT

Improve the purity of production lines



Suspended Permanent Magnets

Suspended permanent magnets can couple with various of belt conveyors, vibration conveyors or chute to remove large pieces of iron from moving materials to purify materials and protect downstream equipment.



Suspended Electromagnetic Magnets

Suspended electromagnetic separators are mainly used in conveying systems to protect downstream crushers, grinders and other mechanical equipment to work safely and normally. At the same time, it can effectively prevent large and long iron objects from scratching the conveyor belt.



Dry Powder Electromagnetic Filters

Dry powder electromagnetic separator can provide high-gradient magnetic separation to fine iron powder at a high capacity product flow. They are always used to effectively remove fine ferromagnetic or paramagnetic pollutants contained in raw materials so as to obtain high-grade materials in the ppm ~ ppb level.



Slurry Electromagnetic Filters

Slurry electromagnetic separator is an electromagnetic separator specially developed for slurry. It is used to remove fine ferromagnetic or paramagnetic pollutants contained in raw materials so as to obtain high-grade materials in the ppm ~ ppb level.

MINERAL AND MATERIAL PROCESSING EQUIPMENT

Improve the purity of production lines



Eddy Current Separator (ECS)

Eddy current separators (also called copper and aluminum separators, non-ferrous metal eddy current separators) are equipment for separating non-ferrous metals, is also the most advanced magnetic separation equipment. They are widely used to separate non-ferrous metals in recycling resources and other industry. In recycling industry, Eddy current separators usually cooperate with other sorting equipment to separate high purity and high quality recycling products.

VIBRATION CONVEYING EQUIPMENT

Feeding and separation of various materials



Light Industry Electromagnetic
Vibratory Feeders

Used in application of material separation, screening, dehydration, and dust removal. There are 4 models which can be chosen. The unique electromagnetic permanent magnet drive makes it have a good screening effect on fragile materials. A variety of screens are available, including metal wire woven mesh, special-shaped wire mesh, etc. For special materials, special stepped screens can be designed. Dust-proof and waterproof sealing cover can be used for the material tray.



Heavy Duty Electromechanical
Vibratory Feeders

Heavy duty electromechanical feeders are always used to deal with the heavy-weights of bulk material and satisfy the higher capacity requirements. Heavy duty electromechanical feeders are two-mass, spring-connected and sub-resonant-tuned. The exciter unit is connected to the trough with corrosion resistant polymeric drive springs. Feeding is more stable under different working conditions.



Heavy Duty Electromagnetic
Vibratory Feeders

As an ideal choice for feeding bulk materials from storage stacks, silos, bins and silos. Our heavy-duty vibrating feeders have multiple advantages, sturdy structure and do not need frequent maintenance. It can be used in the most stringent environments, including mining, aggregates, glass, cement, chemicals and metal processing. There are two major categories of



Magnetic Slide Conveyors

Magnetic Conveyors are ideal for conveying ferrous materials, which can provide industrial automation conveying hot, cold, wet, oily or dry ferrous materials virtually anywhere trouble free conveying is required. It can be used for vertical | inclined or horizontal conveying, and can also realize continuous supply of materials at high position. Extremely quiet operating conveyors have no moving external parts, which means these conveyors are safe for employees.

PRODUCT&SERVICE

Control and Test device

In order to provide much more types of magnetic equipment, Tianjin NorthStar technology Co.,Ltd provides related service including monitoring, installation, maintenance and so on, as well as corresponding monitoring and detection equipment.

In many industry, including the food industry, magnetic equipment requires regular testing. We can provide users with door-to-door service for magnetic strength testing and provide magnetic certification reports after the magnet test, to help users deal with product quality audits inside and outside the company. We can also provide the most advanced Gauss meter to help you test in-house. The main feature of our Gauss meter is very easy to operate. It means person without professional training can easily measure.

Using NdFB magnetic bar, you can quickly test whether the product contains iron impurities. The magnetic strength on surface of magnetic bar can reach 15000GS, and it can absorb iron impurities greater than 30 μ m. However, such extremely fine iron impurities cannot be detected by metal detector. The detection magnet not only has good detection performance, but also the surface's iron impurities can be easily collected to analyze.



Product & Service

We can provide the following services:

- α) The installation and commissioning of new product
- β) Control, detection and monitoring of magnetic equipment
- χ) Commissioning of the control system
- δ) Maintenance service
- ϵ) Maintenance and replacement of magnetic equipment
- ϕ) All of the above service types can be operated on site

