Magnetic Separation Products Catalog
Aggregate and Mining Products – Suspended Electromagnets

IPES suspended electromagnets are used throughout the mining, aggregate, and cement industries in the facilities of very large companies. Our electromagnets are ruggedly constructed using heavy duty steel side walls and lift lugs and a thick stainless steel face plate to minimize the chances of damaging the magnet. All of our magnets are rigidly tested for air leaks and performance prior to leaving our facility.

IPES electromagnets are available in manually cleaning and self-cleaning models. To clean a manually cleaning magnet, simply put a drop cloth or tarp under the magnet and switch the magnet off. Automatically cleaning magnets are designed with a hydraulic or electric motor driven heavy duty rubber belt that constantly rotates to discharge any tramp metal attracted to the magnet face. Steel clad belting and guards are available.

IPES power supplies are designed and built at the same time as the magnet using heavy duty, solid state rectifiers and components and are available in NEMA 1, 4, or 12 enclosures.
Aggregate and Mining Products – Suspended Permanent Magnets

IPES suspended permanent magnets are used in many of the same applications as the suspended electromagnets. Except in the instances of very fast belts or deep burden, a permanent magnet can successfully remove tramp metal from a conveyor belt product stream. Usually, the removal of the tramp metal can be obtained for a lower cost than an electromagnet.

IPES suspended magnets are ruggedly built for demanding, rough service applications. Permanent magnets are available as manual cleaning or automatically cleaning magnets. Manual cleaning is generally done by an arm that is manually rotated across the face of the magnet, but many other options are available. The automatically cleaning version is built with a heavy duty rubber belt to continuously remove tramp metal from the face of the magnet. Permanent magnets are available in standard ceramic, hi-power ceramic or rare earth.

Contact IPES to let us help you determine the correct product and size for your application.
Aggregate and Mining Products – Magnetic Pulleys

IPES magnetic pulleys are often used to replace standard pulleys in conveyor applications. Addition of the magnetic circuit to the pulley adds protection against tramp metal at a minimal cost. Magnetic pulleys are a very effective means of separation as all of the product passes over the pulley at the end of the conveyor and they continuously clean as the return side of the belt leaves the pulley.

IPES magnetic pulleys are well constructed with a stainless steel face and heavy duty compression hubs and bushings. Welded configurations are available.

The pulley magnetic circuit may be specially designed for each application. It is possible to maximize the flux at a distance or at the surface and are available in standard ceramic, hi-power ceramic, and rare earth.

Any number of shaft sizes and configurations are available.

Contact IPES to let us help you determine the correct product and size for your application.
Bulk Product Processing – Drum Separators

IPES is the industry leader in drum separators! We offer exceptional craftsmanship and quality at a lower price.

IPES’s drum separators work on the principle of a stationary magnet under a rotating drum and are fully adjustable for the magnet start and stop position. Drum separation is an excellent solution to high volume separation where vertical space is available. Any number of feed options can be implemented to allow for feed adjustment.

Housings are available in mild steel or stainless steel and the magnetic circuit can be designed to manipulate the tramp metal in any number of ways.

Typical applications include removing tramp metal from grains and foods, removing side wall wires from shredded tires, separating ferrous powder from non ferrous, and the list goes on and on.

Contact IPES to let us help you determine the correct product and size for your application.

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Bulk Product Processing – Drawer In Housing

IPES drawer-in-housings are used primarily in vertical chutes for removal of free flowing bulk materials. The drawer in housing designs are offered in simple, inexpensive manually cleaning designs, easy clean, or air or electrically actuated automatically cleaning designs. Food grade finish is available as is any number of tube configurations to optimize the design for your product. The standard tube configuration is staggered so the material must flow around the tubes and tramp metal removal is maximized.

To clean manually clean drawer in housings, simply unlatch and remove the drawer and wipe the tubes with a rag or gloved hand. Easy clean models are cleaned manually, simply by unlatching and pulling a handle. The easy clean model is a good compromise between manually cleaning and automatically cleaning. Auto clean drawer in housings can be cleaned by the push of a button or cycled via a timer that is controlled by the system controller or separate timer relay.

Common uses for drawer in housings are for sugar, plastic pellets, carbon black, shot, and many other free flowing products. Location should be considered when deciding on a cleaning method.
Bulk Product Processing – Chute Separator

IPES chute separators are also used in vertical chutes for removal of free flowing bulk materials. The chute separator allows a higher volume of flow as product flow is not impeded by the tubes and it works well in coarser products that may bridge the tubes in a drawer in housing.

Chute separators are constructed of a housing with plate magnets on both sides that hinge or slide out. If the chute dimensions are too large for the tramp metal to be removed by just the outside plates, a wedge with plate magnets under it is added at the center of the chute to force all of the product to pass through the magnetic field.

To manually clean chute separators, simply unlatch and swing open or slide out the plate magnets to wipe them off. Chute separators are also available with stripper plates to facilitate easier cleaning.

Contact IPES to let us help you determine the correct product and size for your application.
Bulk Product Processing – Plate Magnets

IPES offers a variety of plate magnets in any number of housing configurations to work in specific applications.

Plate magnets can be in standard flush pole or raised pole and can be on hinges or in housings.

Rare earth or standard ceramic magnetic circuits can be utilized.

Contact IPES to let us help you determine the correct product and size for your application.
Bulk Product Processing – Grates

IPES offers many varieties of grates and tube magnets to fit in nearly every application.

Grates are available with and without frames to fit in existing chutes.

Our grates are available with ceramic magnets or multiple grades of rare earth and can be ordered in industrial or food grade.

Contact IPES to let us help you determine the correct product and size for your application.
Metal Removal from Fluid - T-Traps, Pneumatic and Swarf Separators

IPES offers many types of products for use with fluid or pneumatic conveyors.

Filter Types:
- Rocket and Bullet Magnets
- T-Traps
- Swarf Separators

These magnetic separators can be specifically designed for your application and can remove ferrous material down to 5 microns in size.

Innovations in this product area are happening every day.

Contact IPES to let us help you determine the correct product and size for your application.
Scrap Handling – Magnetic Sweepers and Parts Retrieval

IPES offers a variety of magnetic sweepers and parts retrieval units for scrap handling.

Magnetic Sweepers are available in any number of configurations, including tow behind, automatic cleaning, with integral trailers, and even electromagnetic that supplies its own power.

Parts retrieval magnets are available in many standard sizes and IPES can design custom magnets for nearly every application.

Contact IPES to let us help you determine the correct product and size for your application.
Material Handling and Automation – Lift and Work holding Magnets

Lifting and fixturing magnets are another facet of IPES’s product line. Whether it be for safe material movement without adding eyes or hooks or simply holding a piece of material in place for a manufacturing operation, we have a product.

Many shapes of work holding electromagnets and lifting magnets are in stock or can be manufactured with minimal lead time.

Contact IPES to let us help you determine the correct product and size for your application.
Scrap Handling – Scrap Magnets

IPES scrap handling magnets are available in many sizes and configurations to suit your specific application.

Our scrap magnets are ruggedly constructed of heavy duty steel to stand up to the harsh environments seen in scrap handling applications.

Multiple types of generators are available for off road use. Diesel, gas, hydraulic, and belt driven generators that are powered from the customer’s equipment are all readily available.

Special power supplies in NEMA 4 enclosures can be designed to work with nearly every power source.

Contact IPES to let us help you determine the correct product and size for your application.
Material Handling and Automation – Sheet Handling

IPES has a standard line of products for manipulation of ferrous sheets.

Sheet fanners are quickly manufactured to your specification and are available with permanent magnet circuits or electromagnets that allow adjustment.

Stacking conveyors assist in automation of sheet processes to reduce the labor cost of the customer.

Contact IPES to let us help you determine the correct product and size for your application.
New Products and Custom Designs for Special Applications

IPES’s Engineering group thrives on solving problems for special applications.

Some of our recent new products have allowed us to apply our magnet “know how” and creative manufacturing processes to areas such as nano-particle separation, ultra fine ferrous particle filtration, magnetic levitation for manufacturing processes and bearings, and many others.

Challenge us with your manufacturing problems that may have a magnetic solution!

Contact IPES to let us help you determine the correct product and size for your application.
IPES International, Inc.
“Magnetic Engineering and Manufacturing Specialists”

IPES International, Inc. was founded in 1997 in Pittsburgh, PA and has over two decades of design and manufacturing experience.

Our manufacturing team is proud of the craftsmanship and quality of each product that is shipped. We offer some unique manufacturing process improvements that keep our costs low so that we can pass those savings on to our customers.

Our applications engineers are second to none in the ability to solve the issues of our customers and recommend the lowest cost magnetic product that will fulfill the requirements of the application. Our goal is to provide the customers with the best value available for the dollar and to provide a product that will be robust for years of service.

We embrace lean manufacturing as an operating principle in every facet of our business, which results in lower costs and shorter lead times for our customers.

We look forward to you becoming a satisfied customer! Please contact us for your magnetic equipment needs.