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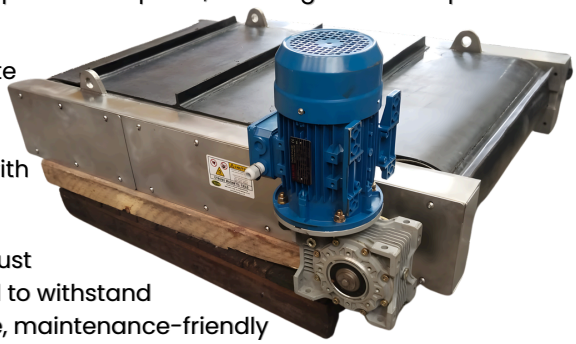
TP MAGNETIC SOLUTIONS

SELF-CLEANING PLATE MAGNETS

Description

Self-cleaning plate magnets are advanced magnetic separation systems designed for the continuous removal of ferrous contaminants from bulk material streams without the need for manual cleaning. Installed above conveyor belts, chutes, or product flow systems, these magnets generate a powerful magnetic field that attracts and captures tramp iron, ensuring consistent product purity and protection of downstream equipment.



Engineered for high-efficiency and uninterrupted operation, these systems incorporate an automatic cleaning mechanism—typically using a moving belt, stripper plate, or pneumatic system—that continuously removes captured ferrous materials and discharges them away from the product flow. This eliminates downtime associated with manual cleaning and significantly improves operational productivity

Built for demanding industrial environments, self-cleaning plate magnets feature robust construction with high-strength permanent magnets and durable housings designed to withstand abrasive and high-volume material handling conditions. Their design ensures reliable, maintenance-friendly performance while maintaining strong and consistent magnetic separation over time.

These systems are ideal for applications requiring continuous operation and are widely used in:

- Mining and quarrying operations
- Recycling and scrap processing facilities
- Aggregate and bulk material handling systems
- Cement and construction material plants
- Food processing and agricultural industries
- Conveyor belt systems handling dry bulk materials
- Industrial manufacturing and processing lines

Key features:

- Automatic self-cleaning system for continuous operation without downtime
- High-strength permanent magnetic field for effective ferrous removal
- Continuous discharge of collected tramp metal via belt or scraper system
- Eliminates manual cleaning and reduces labour requirements
- Protects crushers, mills, and downstream equipment
- Suitable for high-volume and high-speed conveyor systems
- Durable construction for harsh industrial environments
- Low maintenance and long service life
- Can be installed over conveyor belts or chutes
- Custom sizes and configurations available

Specifications

Magnet Type	Permanent self-cleaning plate magnet system
Magnetic Strength	Up to 10,000+ Gauss (depending on configuration)
Construction	Heavy-duty steel or stainless steel housing with internal magnetic assembly
Design	Self-cleaning plate with automated discharge system (belt or stripper mechanism)
Installation	Mounted above conveyor belt or chute (inline or cross-belt positioning)
Material Flow	Suitable for continuous conveyor and chute applications
Cleaning System	Automatic cleaning via moving belt, scraper, or pneumatic system
Operating Temperature	Up to 80°C standard (higher temperatures available on request)
Power Supply	No power required for permanent magnets (motor required for cleaning system if applicable)
Application	Continuous removal of ferrous contaminants from bulk materials
Customisation	Available in various sizes, suspension heights, and magnetic strengths to suit applications

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