



Stearns

# **SOLUTIONS FOR FERROUS MATERIAL SEPARATION**

Drums, Pulleys, Suspended Magnets, Controls and Power Supplies



**APPLICATION EXPERTISE** — Ohio Magnetics offers a complete range of Stearns brand magnetic separation equipment for ferrous metals ranging from permanent magnets, electromagnets and control systems for extreme environments. With a wealth of practical experience and manufacturing expertise, Ohio Magnetics works closely with customers to meet their unique needs and develop innovative solutions that improve magnetic system productivity. Drawing on years of application expertise, Ohio Magnetics can provide the optimum magnet system for each application.

Lumber Processing | Aggregate & Slag | Consumer Waste Recycling | Food Processing | Mining & Mineral | Pulp & Paper | Scrap Metal Recycling

**QUALITY MANUFACTURING** — For more than 100 years, Ohio Magnetics has designed and manufactured quality magnetic lifting systems and magnetic separation equipment, becoming a world leader recognized for industry excellence.

**EXPERT TECHNICAL SUPPORT** — Ohio Magnetics provides the most comprehensive technical services in the industry, from an optimum magnet design for your application to proper use and handling for peak performance and longevity and evaluate your needs and help with system deployment.

**CUSTOM MADE SOLUTIONS** — The Ohio Magnetics team, equipped with a century of technical experience, provides custom engineered solutions to meet specific application requirements. Ohio Magnetics is a worldwide leader in the development of magnet systems for the recycling industry.

**REPAIR & REBUILD** — Ohio Magnetics has a full-service magnet repair and rebuild facility with experienced engineers and technicians available for fast turnaround on all makes and models of magnet systems. Our craftsman will rebuild magnets to match or exceed its original performance specifications.

MADE IN U.S.A. — All Ohio Magnetics products are manufactured in the United States and sold both domestic and globally.

# STEARNS SUSPENDED MAGNETS

Stearns Suspended Magnets are custom engineered ferrous material separation solutions utilizing standard components that are offered in both permanent and electromagnet versions to meet specific application requirements.

#### STEARNS SUSPENDED MAGNETS

Stearns Suspended Magnets are designed to remove occasional unwanted tramp metal or ferrous impurities from process flows. These magnets are suspended over conveyor belts to effectively remove tramp metal in order to prevent damage to downstream process equipment such as crushers, pulverizers and grinders.

- · Low or minimal maintenance required
- · Permanent magnet version equipped with convenient wiper bar for material removal
- · Simple installation over any process flow

### **PERMANENT MAGNETS**

- Standard permanent magnet sizes ranging from 18" to 48" (457 to 1220 mm) to accommodate
  most belt widths
- Optimized for shallower burden depths with less dense material in mineral concentrators, shredders, consumer waste, wood, glass and tire recycling, grains, fertilizers and food industries
- · Cost effective and low maintenance separation solution
- · No power supply required
- · Multiple installation options available

### **ELECTROMAGNETS**

- Standard electromagnet sizes ranging from 25" to 110" (635 to 2795 mm) to accommodate most belt widths
- Efficiently removes ferrous material through denser process flows, greater burden depths and at higher belt speeds
- Continuous duty cycle of 100%
- · Multiple installation options available

#### **SELF-CLEANING FEATURE**

Stearns Self-Cleaning Suspended Magnets are customized solutions for automatically removing ferrous material from process flows on crushers, pulverizers, conveyor belts, screens and other processing equipment.

- · Application specific bearing and sealing arrangements for different environments
- Suspension and belt designs to accommodate multiple processes
- Optional belt guide system available
- · Direct, belted or hydraulic drive options with guarding
- · Configurations for cross belt and inline orientations
- Standard permanent magnet sizes ranging from 18" to 48" (457 to 1220 mm) to accommodate most belt widths
- Standard electromagnet sizes ranging from 25" to 110" (635 to 2795 mm) to accommodate most belt widths









# **SEPARATION DRUMS AND PULLEYS**

#### **MAGNETIC DRUMS**

Stearns Magnetic Drums are designed to improve efficiency in handling heavy volumes of large size material encountered in today's scrap and slag processing and mineral concentration applications. The drum consists of an electromagnet assembly mounted inside an outer rotating drum assembly. The magnet assembly position, although stationary during operation, may be adjusted within certain limits to meet varying feed arrangements.

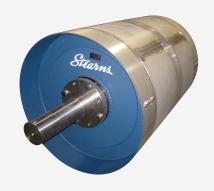
- · Heavy duty manganese steel cylinders and knock-offs provide extended service life
- Axial or radial pole design allows for more efficient ferrous material separation from burden
- Application specific bearing arrangements and knock-offs available
- · Optional field replaceable wear covers
- · Custom engineered shafts to meet all interface requirements
- Standard sizes ranging from 30" to 72" (762 to 1830 mm) in diameter and up to 110" (2795 mm) in length

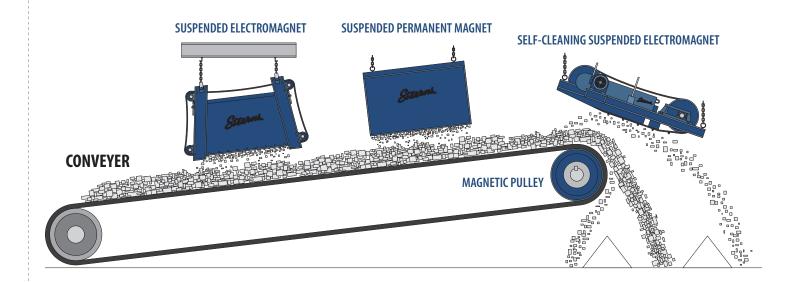


Stearns Magnetic Pulleys provide automatic separation of unwanted tramp metal from most continuous material handling conveyor belt processes in scrap, steel and mining. Magnetic pulleys are self-cleaning, worry-free solutions to keep operations flowing smoothly.

- · Optional contours including lagged, crowned or flat
- · Custom engineered shafts to meet all interface requirements
- Standard permanent magnet sizes for belt widths ranging from 6" to 48" (25 to 1219 mm)
  - Models from 12" to 48" in diameter
- Standard electromagnet sizes for belt widths ranging from 24" to 48" (610 to 1219 mm)
  - Models from 18" to 36" in diameter







# **POWER SUPPLIES**

In addition to manufacturing high-quality, heavy duty magnets, Ohio Magnetics provides full magnetic lifting systems to power, control and ensure safe magnet operation.

Our power systems are designed to properly match every magnet selection and provide energy efficient operation with precision lift release controls.

### **DC POWER SUPPLIES - RECTIFIERS**

Ohio Magnetics manufactures high quality DC power supplies with fixed voltage output (115 VDC or 230 VDC) and variable voltage output (0-230 VDC or 0-300 VDC) available for 2 KW to 100 KW magnet systems. Emergency battery back-up systems available.



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