

## STEARNS RECTIFIERS

Stearns' DC Power supplies for electro separation magnets are available in both fixed voltage outputs (usually 230 VDC or 115 VDC) and available variable voltage output (usually 0-115 or 0-230 VDC). Fixed voltage output type DC power supplies are used in most general magnet applications. Variable voltage supplies are used in applications of flux reduction or constant flux regulation. Voltage outputs are set via potentiometers for voltage limit-current regulation. Because the cold current of a magnet is 25% to 30% greater than the operating current, the power supply must be sized for the cold rating of the magnet at 25°C.



### MAGNET DC POWER SUPPLY SPECIFICATIONS

- Full Load Efficiency: 90-96%
- Power Factor: 92-95%
- Voltage Regulation: 6% or less
- Full Wave Output Ripple: 4.6%
- Power Ratings:
  - 100% continuous @ 60°C Ambient
  - 125% for 2 hrs.

DC POWER SUPPLY DATA FOR FIXED AND VARIABLE DC POWER SUPPLIES				
KW <sup>1</sup>	AMPS@230V	AMPS@115V	ENCLOSURE SIZE HxWxD (in/mm)	WEIGHT/MASS (lbs./kg)
4	17.2	33.3	30 x 20 x 10 760 x 510 x 250	220/100
6.5	28.0	54.2	30 x 20 x 10 760 x 510 x 250	265/120
10	43.1	83.3	36 x 30 x 12 915 x 760 x 305	355/160
15	64.7	125.0	48 x 36 x 16 1220 x 915 x 405	545/250
20	86.2	166.6	48 x 36 x 16 1220 x 915 x 405	595/270
25	109.0	208.0	48 x 36 x 16 1220 x 915 x 405	640/290
35	151.0	N/A	60 x 36 x 20 1525 x 915 x 510	800/360

### Standard Features

- IP65 (NEMA) 12 Enclosure Convection Cooled (vented)
- 480 or 230V; 3 Phase, 60Hz Input (other voltage options upon request)
- 230 VDC or 115 VDC Output Voltage
- Manual Line Starter with 3 Phase Overload Protection (may be eliminated if controlled externally)
- Adjustable Taps ( $\pm 10\%$  on transformer to match input line variations)
- DC Output Fuses for Short Circuit Protection
- DC Power on Indicator (neon light)
- Wall Mounted Enclosure Up to 10kw (floor mounting kit optional)
- Input and Output Power Terminal Blocks
- Modular Diodes for Easy Replacement
- Convection Cooled Diode Bridge

### Optional Features

- Local or Remote Volt and Amp Meters
- Local/Remote Start/Stop
- Under-Current Alarm
- Circuit Breaker
- NEMA 3R, 4 and 4X Enclosures

### For Pricing Information, Please Supply

- Input Voltage and Frequency
- DC Output Voltage
- Magnet Cold Current Rating @ 25°C
- Additional Options

## MAGNET REPAIR, REBUILDING AND REPLACEMENT

For all your Stearns products...Ohio Magnetics, Inc. is the expert source. Our engineering and sales staff can assist you in any and all phases of magnet repair, refurbishment and replacement. Magnets are given a general inspection and a cost analysis is done to determine the cost-efficiency of either repair or replacement. If repair-worthy, the magnetic equipment is disassembled and all parts are checked for potential reuse. If necessary, design changes are made to enhance refurbished magnet performance. Our replacement parts are among the best in the business.

When it comes to maintaining your magnets, Ohio Magnetics, Inc. has the cost-efficient answer.

**OHIO MAGNETICS' REPAIR PROGRAM WILL REBUILD ANY MANUFACTURER'S ELECTRO-LIFTING EQUIPMENT, SUPPLYING YOU WITH THE EQUIVALENT OF A NEW UNIT.**



## ALWAYS ATTRACTIVE...Ohio Magnetics, Inc.

Our products deliver top performance and maximum efficiency from job start-up to finish. Ohio Magnetics, Inc. products, like the Stearns' brand of magnetic separators and detection equipment, are in use and trusted by customers around the world to provide them with reliable, long-term service at maximum efficiency. Ohio Magnetics' products are used with confidence by thousands of customers in steel production, foundry operations, scrap processing, utilities, rail yards, textiles, mining, waste processing, industrial plants, pulp/paper processing and more. **When you need magnetic equipment...rely on the experts, Ohio Magnetics, Inc.**



Repair, Rebuild, Replacement

# Stearns Magnet Production Overview

**STEARNS™ Magnetic Separation Equipment** has been manufactured by **Ohio Magnetics, Inc.** for over 100 years. Our products are used with confidence by thousands of customers worldwide.

**STEARNS™ Magnetic Separation Equipment** includes a diverse number of well known products such as electric drum magnets for auto/mega shredders, electric or permanent over-the-belt magnets, magnetic pulleys, specialized wet/dry magnetic separators; however **Ohio Magnetics** can design and manufacture any type of specialized magnetic separation product or products that you may require. Our customers know they can rely on our wealth of practical experience and manufacturing expertise to assist them develop new ways to improve magnetic system productivity. Customers that have built long-term business relationships with **Ohio Magnetics** know and our newest ones quickly discover that we are a company highly attuned to their needs regarding price, product quality, and delivery and aftermarket services.

If you need assistance with your next magnet separation equipment needs, we would like to help you. To help us determine the most effective and efficient type of product that will tackle your application requirements, please review the next page of this brochure.

By completing and submitting the information on this Product Inquiry Form (Page 31) by fax or e-mail to us, it will be reviewed by our marketing and engineering personnel and quickly turn around (usually within 24 hours of receipt of this form) to provide you with a comprehensive cost and manufacturing production estimate.

When you do business with Ohio Magnetics, you get the magnetic equipment you want and one which will provide peak performance and maximum efficiency from job start-up to finish. For value added magnets/magnetic equipment that offer long-term service, exceptional performance and low maintenance costs... choose **STEARNS™** and **Ohio Magnetics, Inc.**





### BELT MAGNETS APPLICATION FORM

(Formulario para aplicaciones magnéticas en correas transportadoras)

Company: (Compañía)	_____	Country: (País)	_____
Address: (Dirección)	_____	Date: (Fecha)	____ / ____ / ____
City: (Ciudad)	_____	State: (Estado)	_____
Attn of: (Atención de)	_____	Zip Code	_____
E-Mail:	_____	Phone: (Teléfono)	_____
Project: (Proyecto)	_____	Fax:	_____

### CONVEYOR INFORMATION

(Información del transportador)

Product/Material on conveyor  
(Material en el transportador) \_\_\_\_\_

Largest Material Lump Size (in.)  
(Tamaño máximo del material transportado) \_\_\_\_\_

Conveyor Belt Width (in.)  
(Ancho de la correa) \_\_\_\_\_

Troughing Idler (degrees)  
(Angulo de los rodillos) \_\_\_\_\_

Conveyor Incline (degrees)  
(Angulo del transportador) \_\_\_\_\_

Magnet Placement  
(Lugar de instalación)

- Across the belt  
(A través de la correa)
- Overhead Pulley  
(Sobre la polea de cabeza)

Pulley Head Diameter (in.)  
(Diámetro Polea de Cabeza) \_\_\_\_\_

Rectifier Enclosure Required

- Standard NEMA 12
- NEMA 3R
- NEMA 4
- NEMA 4X
- NEMA 9

Typical Size of Tramp Metal to be removed  
(Tamaño típico del metal a ser removido) \_\_\_\_\_

Other comments; \_\_\_\_\_

Conveyor Belt Speed  
(Velocidad de la correa) \_\_\_\_\_

Conveyor Capacity (tph)  
(Capacidad de la correa) \_\_\_\_\_

Max. Tramp Metal Length (in.)  
(Tamaño máximo de metal a detectar) \_\_\_\_\_

Max. Conveyor Burden Depth  
(Altura máxima del material transportado) \_\_\_\_\_

Magnet Type Preference  
(Tipo de Magneto de preferencia)

- Manual Cleaning  
(Limpieza Manual)
- Self Cleaning  
(Auto limpiante)

Style of Magnetic  
(Estilo de magnético)

- Electromagnet  
(Electromagneto)
- Permanent Magnet  
(Magneto Permanente)





*Stearns*



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