INDUSTRIAL MAGNETICS
EST·1961

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SUSPENDED ELECTROMAGNETIC OVERHEAD

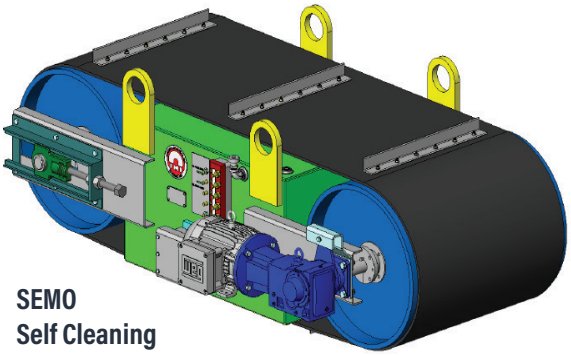
INSTALLATION AND MAINTENANCE MANUAL

P.O. #: Order #: Part #:

OPERATING PRINCIPLE

IMI SEMO magnets (Suspended ElectroMagnet Overhead) are cross-belt, or overband, electromagnet separators designed for separation of ferrous metal from a variety of over-the-belt or cross belt conveyor applications.

These electromagnets are designed to deliver peak ferrous metal separation and capture performance. Our powerful and deep-reaching magnetic field is ideal for applications that have a deep product burden or require increased magnet suspension heights.



SEMO
Self Cleaning
Two pulley design

Manual Clean SEMO's are best suited for applications with a lower volume of ferrous metal in the product flow or in applications where the system is only running intermittently. The ability to turn the magnet "OFF" makes removing the collected metal easy for the operator.

The **Self-Cleaning Suspended Electromagnet Separator** offers optimum separation capacity by removing collected metal from the magnet face instantly and discharging it out of the product flow. This continuous cleaning function allows the magnetic circuit to maintain maximum magnetic strength at all times.

SEMO
Manual Clean

CUSTOM FEATURES INCLUDE

- Self-clean models use integral gear motors by NORD
- Terminal box is painted steel, NEMA 4
- Pressure relief vent (5 psi) provided
- All bearings have grease fittings
- Tail pulley take-ups for simple belt tension and tracking
- Magnet requires a rectifier power supply

OPTIONAL FEATURES

- Zero Speed Switch
- Explosion Proof Motor
- Replaceable 3/16" Wear Plate
- Impact Package including: Cladded Belt, Lagged Pulley Drive, & Replaceable Wear Plate
- Dust Hood

SEMO
Self Cleaning
Four pulley design

HEALTH and SAFETY WARNINGS

MOTOR DRIVEN ROTATING EQUIPMENT

Rotating shafts, gears, sprockets and drum components can present hazards when running; equipment should only be serviced by trained service personnel.

Electric shock hazard - observe all local plant Lockout/Tagout procedures before removing any guards or initiating service or cleaning activity.

GENERAL

Hot surfaces: under normal operating conditions the surface of the SEMO unit can reach temperatures over 200°F

Please be advised that in and around the application of magnetic equipment, there are potential safety concerns that can arise with sensitive medical devices:

- Pacemaker behavior can be affected when they are near strong magnetic fields
- Medical implants and external fixation systems can be influenced by magnetic fields
- Hearing aid behavior may be affected when exposed to strong magnetic fields

Any individual that carries the above equipment or other sensitive medical devices should use caution when they are around or handling magnets. For more specific information the wearer should contact their physician.

Beware of pinch points from sudden attraction and unexpected movement between magnets and ferrous metal equipment components or tools.

MAGNET INSTALLATION

When determining the location for the installation of a suspended electromagnet, consider the fact that any ferrous material within the field of the magnet will become magnetic and may attract other ferrous materials.

When the magnet is located directly over a conveyor belt, conveyor sections below the magnet need to be made of non-ferrous material.

In addition, all conveyor sections directly beneath the magnet need to be made of non-ferrous materials.

Mounting height:

The magnet should be as close to the conveyed material as possible, but clearance must always be maintained between the conveyed material and the tramp metal that accumulates on the magnet.

The most efficient separation is accomplished by controlling the burden depth of the material flow. Using a burden leveler ahead of the magnet will limit any irregularities.

Check the area around the unit to be certain that it has adequate room allowed for maximum cooling and that measures have been taken to collect discharged tramp metal.

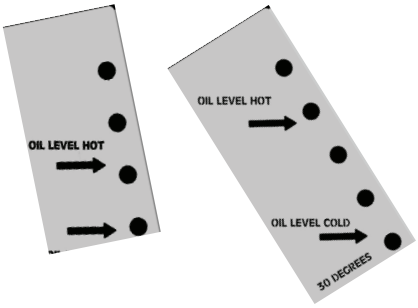
Turnbuckles are strongly recommended for mounting of the magnet. They allow for the proper adjustment of height and angle once the magnet is suspended. The magnet face and the product should be parallel. This normally eliminates the need for heavy equipment after the initial hanging of the magnet. The closer the face of the magnet is to the burden the stronger the effective magnetic force will be.

MAGNET INSTALLATION CONTINUED

ANGULAR INSTALLATION

If the magnet is to be installed at an angle to accommodate the incline of a conveyor, the oil level will not read accurately through the sight glass. ***See the section in this manual on Maintaining Oil Level.***

***CAUTION*:** Angles greater than 15 degrees may cause the oil level within the magnet case to drop enough to uncover the magnet coil, leading to coil damage. IMI provides alternate Oil Level Position Plates (OLPP) for nominal installation angles of 10, 20 and 30 degrees from horizontal. Replace the standard (level) OLPP with the appropriate indicator depending on installation angle.



It is advised to consult the factory for installations requiring angles greater than 15 degrees.

HIGH TEMPERATURE INSTALLATIONS

Magnets installed in areas with ambient temperatures that exceed 95°F (35°C) should have the oil levels checked frequently and have the oil changed annually.

IN-LINE INSTALLATION

When the conveyor belt speed is greater than 350 FPM, use the in-line installation method for the best possible results. The magnet should be positioned so that the material being conveyed has no more than 2 inches of separation from the face of the magnet belt near the center of the magnet.

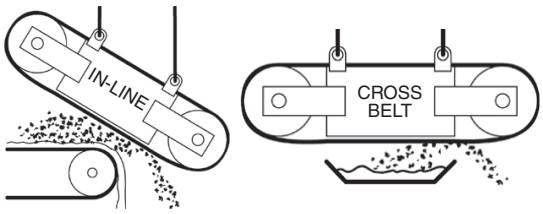
Note: The belt should sag 1 to 2 inches off the face of the magnet during proper operation. If the product conveyor belt speed is changed (affecting product burden depth and/or trajectory), the magnet location may have to be adjusted to maintain proper clearance between the material being conveyed and the belt face of the magnet. For the best magnetic performance, a non-ferrous pulley should be used under the magnet.

CROSS BELT INSTALLATION

Locate magnet as close to the conveyed material as possible. There should be no more than 2 inches of separation between the conveyed material and the magnet belt face. Ensure that there is adequate clearance for tramp metal discharge.

Note: The belt should sag 1 to 2 inches off the face of the magnet for proper operation.

MAGNET ORIENTATION



POWER SUPPLY INSTALLATION

IMI standard power supplies are designed for operation in ambient temperatures less than 104°F (40°C). De-rating or cooling measures may be necessary for operation in higher ambient temperatures or at elevations above 1,524 Meters (5,000 Feet). Consult Industrial Magnetics, Inc.'s Engineering Department if operating conditions deviate from the specified range. The power supply must be installed away from exposure to direct sun.

ENCLOSURE RATINGS:

The power supply enclosures provided by IMI are NEMA 4 , painted-steel enclosures finished in standard gray. NEMA 4 enclosures are water-tight and dust-tight with a reasonable protection against corrosive environments; consult IMI for enclosure options.

CONNECTING LINE VOLTAGE TO THE POWER SUPPLY

Consult the nameplate on the power supply and drawings to determine the required input line voltage for the supply. Ensure that the available line voltage matches the required input line voltage.

Line voltage must be within +/- 2.5% of the nameplate rating, +5% continuous being the maximum allowable. Continuous voltage greater than 5% above the nameplate rating can result in magnet and/or power supply failure.

Line voltage is to be supplied from a user provided fused disconnect. In most cases, the transformer used in IMI power supplies has a tapped primary. The taps are 440V, 460V, 480V, and 575V. The proper tap has been selected based upon customer provided information and is wired at the factory. If necessary, the taps can be changed in the field.

Connect the line voltage to the three terminal bocks provided in the fusible disconnect. Connect the electrical ground to the ground bar lug. Some versions have a disconnect or circuit breaker - wire line voltage directly to this.

IMI power supplies are unregulated, electromagnet supplies.

CONNECTING THE POWER SUPPLY TO THE ELECTROMAGNET

The SEMO is to be connected to the terminals marked (+) and (–) and (G) on the power supply terminal block. The electromagnet has a terminal box installed which contains two electrical feed-through studs for wire termination of the (+) and (–) leads:

1/4-20 thread for SEMO 241 through SEMO 722
3/8-16 thread for SEMO782 and larger.

The studs are each furnished with two jam nuts to hold the provided copper terminal lugs for termination of the power supply cables. These are installed at the factory and are not to be removed. If these lugs are missing, appropriately sized ring terminals may also be substituted.

To install,tighten the stud nuts on each side of the terminal. DO NOT OVERTIGHTEN. Ensure that the stud posts are not turned or bent. **Caution: Do not attempt to twist the terminal studs. Internal damage to the magnet will occur.**

The ground wire is to be connected to the ground stud of the terminal box. **DO NOT CONNECT EITHER MAGNET LEAD TO GROUND. DAMAGE TO THE MAGNET COULD RESULT.**

When operating properly, the magnet will become hot. This is normal. The magnet coil is completely immersed in transformer oil. This oil circulates around the coil, carrying away heat from the coils to the sides and top of the magnet case.

CONNECTING CONTROL WIRING TO THE POWER SUPPLY

The power supply may be provided with a local / remote selector switch for operating the electromagnet and belt motor line contactors.

Only momentary run functionality is provided in the "local" control scheme, allowing operators and maintenance personnel to check the functionality of the electromagnet and belt motor when needed.

Pressing 'Electromagnet Run' pushbutton and 'Belt Motor Run)'will run the electromagnet and belt motor as long as the button is held down.

Pressing the E-Stop pushbutton will stop both the electromagnet and belt motor, whether in local or remote control scheme.

Running the Electromagnet in the remote control scheme requires wiring momentary dry-contact switches to the power supply. Please reference the attached power supply schematic for wiring terminal numbers

The power supply provides operator & system feedback to indicate the running and fault status of the power supply. Please reference the attached power supply schematic for wiring terminal numbers.

- Remote Control Selected (if equipped)
- Emergency Stop Engaged
- Electromagnet Started
- Electromagnet Stopped
- Electromagnet Operation Normal
- Electromagnet Fault

OPERATOR INSTRUCTIONS FOR POWER SUPPLY

Once the power supply has been properly wired to the fusible disconnect, ensure that all motor circuit protectors, circuit breakers, and fuses are on or properly installed.

Feedback pilot lights will turn on, depending on the specific configuration.

Disengage the magnet by releasing the "magnet run" pushbutton. Press and hold the "motor run" push button and ensure that the belt motor and belt operate properly. Disengage the motor by releasing the pushbutton.

Engage the electromagnet by momentarily closing the electromagnet start contacts. The electromagnet will stay on until the control system momentarily closes the electromagnet stop contacts.

Engage the belt motor by momentarily closing the belt motor start contacts. The belt motor will stay on until the control system momentarily closes the belt motor stop contacts.

The control wiring terminals for the electromagnet and belt motor are noted in the power supply schematic drawing.

The power supply provides a field-loss relay to indicate proper functionality of the electromagnet wiring.

The field-loss relay turns "on" when the electromagnet draws enough current to engage the device. This is typically set at 65% of the electromagnet cold amperage rating.

The feedback terminals for the electromagnet wiring are noted in the power supply schematic drawing.

TROUBLESHOOTING (POWER SUPPLY)

IF POWER SUPPLY FAILS TO OPERATE:

1. Open fused line safety switch and check the supply secondary fuses. If fuses are blown, attempt to locate short circuit by first checking the three phase bridge rectifier module.

   Isolate the rectifier first by disconnecting the three AC input terminals and the two DC output terminals on the module. With a digital Multimeter (DMM) set to Ohms, check the output of the module by checking the resistance between the AC terminals and the (+) or (–) terminal. Check with one polarity then the other.

   A high resistance (Mega-Ohms) in one polarity and a low resistance (Kilo-Ohms) in the opposite polarity indicates a good rectifier.

   Low both ways indicates a shorted rectifier module. High both ways indicates an open module. Replace the rectifier module. Replace blown fuses.

2. Open fused line safety switch.
   Disconnect the wires to the magnet at the terminal blocks marked (+) and (–), check the resistance between the two magnetic wire leads. The resistance should not be lower than the minimum load resistance recorded on the electrical schematic.

   If resistance is lower, check the lead wires going to magnet for shorts.

   If there are no shorts in the lead wires, remove them from magnet and check resistance directly across the magnet input terminals.

If resistance across magnet input terminals is lower than recorded on the power supply schematic or the cold resistance shown on Table 1 page 8, call Industrial Magnetics, Inc. CUSTOMER SERVICE OFFICE AT 888-582-0821.

MAINTENANCE (GENERAL)

CAUTION: The external temperature of these suspended electromagnets is approximately 220°F when continuously operated in an ambient temperature of 70°F.

- Provisions should be made at installation for adequate space around the magnet to perform preventive maintenance.
- Bearings should be lubricated on a schedule consistent with the environment and other equipment being used at the plant or site. Multipurpose lithium base grease is recommended such as Lubriplate No. 930-2. For motor and drive maintenance, refer to the manufacturer's instructions.
- Before applying power to the electromagnet, ensure the belt tracks and the belt motor is running. Failure to do so could result in damage to belt, motor, and reducer due to excessive buildup of tramp metal on magnet face.
- Oil level must be checked daily. Failure to do so may lead to coil degradation. Coils not completely immersed in oil are not covered by the standard coil warranty!

BELT TRACKING & STRETCH ADJUSTMENTS

The conveyor belt on this unit has been operated and adjusted at the time of manufacture. Belt rotation is counter clockwise when looking at the motor and electrical hook up side of the unit. The belt will settle during shipment so some adjustment may be required. After installation, momentarily operate the belt drive to determine if the belt tends to wander, and if so, see directions below for belt tracking and tension adjustments. Refer to illustration on page 8.

1. Move to a position at the take up end (opposite of motor/drive end) and face the magnet.
2. To move belt to the right:
   A. Tighten left hand take up (move pulley toward the take up end / away from magnet)
   B. Adjust only 1/4 turn at a time and recheck belt track (momentarily run belt).
3. To move belt to the left:
   A. Tighten right hand take up (move pulley toward the take up end / away from magnet)
   B. Adjust only 1/4 turn at a time and recheck belt track (momentarily run belt)
4. **DO NOT** allow the belt to run until it is properly adjusted.
   A. Belt tension should clear top of the unit and be as loose as possible, but tight enough that no slippage occurs during operation. (Approximately 1" to 2" inch off the face).
   B. ***CAUTION:*** If the belt is too tight, it will be harder to track, and can cause overloading on the shaft and bearing.

BELT REPLACEMENT INSTRUCTIONS

The following steps are to be used when replacing the belt:

1. Verify that the new belt width and length are correct.
2. Loosen take-ups and remove belt hinge pin.
3. Lay out new belt with cleats down.
4. Center magnet assembly equidistant on the belt.
5. Fold belt over the pulleys and line up the edge of the belt and the belt fastener splice.
6. Slide a 1/4" rod through the belt fastener mesh leaving a 2" opening on one end to start hinge pin. Pull 1/4" rod out while feeding hinge pin through the splice.
7. Crimp keepers on hinge pin.
8. Tighten belt using the take ups on the tail pulley.
9. Belt tension should clear top of the unit and be as loose as possible, but tight enough that no slippage occurs during operation. (Approximately 1" to 2" inch off the face).
10. See belt-tracking instructions for additional tracking adjustments.

CAUTION: If the belt is too tight, it will be harder to track, and can cause overloading on the shaft and bearing.

TROUBLESHOOTING (GENERAL)

MAGNET WILL NOT ATTRACT METAL

POSSIBLE CAUSE	SOLUTION
A. Burden depth is too deep.	A. Check depth of burden and use leveling bar to reduce if possible.
B. Magnet is too far from burden.	B. Check distance of magnet from burden; determine that it is within the recommended height.
C. Tramp Metal is non-ferrous	C. Check with permanent magnet to determine whether Tramp Metal is magnetic.
D. Magnet surface temperature is higher than 230 degrees F.	D. Check proper voltage at magnet terminals. Check for proper current. Current should not be more than value listed in the specification table (Table 1) or on the schematic. Check oil level.
E. Zero or low voltage at magnet.	E. Check DC voltage at magnet terminals. Refer to electrical schematic for V.D.C. rating.
F. Magnet Coil(s) failing/failed.	F1. Check current draw of magnet. Place a DC ammeter in series with the magnet coil or use a clamp-on style DC ammeter on just one of the magnet leads. Read the DC current and compare it to the entry for the appropriate magnet model listed in the table. A current reading higher than that shown in the table indicates a short circuited coil(s). A current reading of zero indicates an open coil(s). In either case, consult IMI for coil replacement information.
	F2. Determine coil resistance by first removing power from the magnet. Disconnect one or both of the leads from the magnet feed-through terminals in the magnet terminal box. Connect the leads of an ohmmeter to the feed-through terminals. Compare the meter reading to the coil resistance entries for the appropriate magnet model listed in the table. A resistance reading substantially higher than the "hot" reading shown in the table (Table 1) indicates an open coil(s). A resistance reading of 10% or more below the "cold" reading indicates a short circuited coil(s). In either case, consult IMI for coil replacement information.

OIL LEAKAGE

POSSIBLE CAUSE	SOLUTION
A. Wearplate has worn through or been punctured.	A. Call Industrial Magnetics, Inc. customer service at 888-582-0821. **Damage may have occurred to the coils in the unit due to loss of oil in the unit.** If it has been determined that no coil damage has occurred and the hole is small, the hole in the wearplate may be patched by customer. The patch should be made of manganese or stainless steel. The patch should be ground smooth once it is on the unit.

CAUTION: All oil should be drained from unit prior to repair work. Oil may be very hot, use caution when draining the oil. All vent plugs should be opened to prevent hazardous vapor buildup in the unit during welding. Allow the patch to cool before refilling unit with oil.

TRAMP METAL REENTERING THE PRODUCT FLOW

POSSIBLE CAUSE	SOLUTION
A. Clearance not sufficient for discharge of tramp metal from the magnet.	A. Check clearance between bottom of magnet belt and edge of conveyor and adjust as necessary.
B. Magnet position	B. Centerline of magnet should be located over the centerline of the belt conveying product. Slight offset position toward the discharge area may help with tramp metal discharge. Too much offset could jeopardize magnet performance.

MAINTENANCE (CHECKING OIL LEVELS) / IMI WARRANTY

IMI SEMO units carry a 10 year limited coil warranty, pending documented maintanance described in this section.

The **manganese wearplate** must be checked periodically for wear. Failure of the wearplate will allow the transformer oil to leak and possibly cause the electrical coils to burn out.

Oil level must be checked frequently. Failure to do so may lead to coil degradation. Coils not completely immersed in oil are not covered by the standard coil warranty!

IMI overhead electromagnets are designed with an internal expansion space. The oil level is maintained to ensure that the coils are submerged. As the oil increases in temperature, it expands.

IMPORTANT: Oil level is checked and filled only near the oil level sight gauge. **The sight gauge is provided with "Cold" and "Hot" level indication marks.**

For **level installations**, the oil level can be easily monitored by observing the **sight glass** installed on the side of the magnet.

For **angular installations**, IMI provides alternate Oil Level Position Plates for nominal installation angles of 10, 20 and 30 degrees from horizontal. *See installation detail on page 3.* IMI Engineering can also simulate and inform correct oil levels when given specific information for the installation orientation.

Transformer Oil – The oil level should be checked daily.

When possible, draw a sample of the oil and inspect the color and odor. Dark Color and/or a burned odor are indicative of coil failure.

Magnet and power supply installed in areas with ambient temperatures that exceed 110°F (43°C) require that a chiller or similar device approved in advance by Industrial Magnetics, Inc. be used in order to maintain the integrity of the transformer oil and the IMI Warranty on the product. For installations at elevations in excess of 5,000 feet above sea level, consult Industrial Magnetics, Inc. Engineering Department for application-specific product and IMI Warranty options.

Transformer oil must be changed annually in order to maintain the IMI Warranty. An Oil Capacity chart is shown below in Table 1, on the SEMO Tech Sheet and on the IMI Website. In the event of a warranty claim due to product failure, documentation detailing the maintenance on product must be made available to Industrial Magnetics, Inc.

TO ADD OIL: Remove pressure relief valve located near the oil level site gauge; add oil as required.

DO NOT *open relief valve or remove plugs while magnet is HOT! Hot oil could be expelled causing severe burns.*

MAINTENANCE (TO CHANGE OIL)

DRAIN

1. Place magnet case at an angle so that the side opposite the drain plug is higher than the side with the drain plug.
2. Remove vent plug near the sight glass assembly and the fill plugs in the top of the magnet case.
3. Remove drain plug and drain until empty according to EPA and local DEQ regulations.

FILL (See table for type and quantity of oil for the magnet)

1. Ensure drain plug(s) have been replaced and tightened properly. Replace the two fill plugs on the magnet case.
2. With the magnet case level, fill the magnet case with transformer oil until the "Cold" level is reached on the sight glass.
3. Replace remaining fill plugs on magnet case.
4. Replace vent plug.
5. Return magnet to proper operating position.

COLD - Magnet has been de-energized for 24 hours or more
HOT - Magnet has been energized continuously for 18 to 24 hours or more

TABLE 1

Magnet	Case LxWxH (Inches)	Power (Watts)	Voltage (V.D.C.)	Current (A) Cold	Resistance (Ohms) Cold	Resistance (Ohms) Hot	Oil Capacity (Gallons)*
241	24x24x16	1652	115	14.4	8	12	30
301	30x30x18	2700	115	23.5	4.9	7.33	50
361	36x36x22	3800	115	33	3.48	4.87	75
422	42x42x23	5000	230	21.7	10.6	14.6	125
482	48x48x25	6600	230	28.7	8	11.3	205
542	54x54x26	8000	230	34.8	6.6	10	297
602	60x60x32	10000	230	43.5	5.3	7.5	385
662	66x66x33	12250	230	53.3	4.32	6	420
722	72x72x38	14500	230	63	3.66	5.2	660
782	78x72x41	16700	230	72.8	3.16	4.27	740
842	84x84x42	19000	230	82.7	2.78	3.75	841
962	96x96x45	23500	230	102.4	2.25	3.04	1220
1082	108x108x49	28000	230	122	1.89	2.55	1672
1202	120x120x51	32500	230	141.2	1.63	2.20	2066

**Ergon HyVolt II, Mobil Univolt N61B, Petro Canada-Luminol Bi or TR/TRi, and Shell Diala S2 ZX-A oils are the only IMI-approved replacement options. Envirotemp FR3 oil by Cargill may also be used. However, existing transformer oil must be properly drained from the magnet else the flashpoint properties of the Envirotemp oil could be compromised. Using non-approved oil will void warranty.*

ILLUSTRATIONS & PARTS (TWO PULLEY DESIGN)

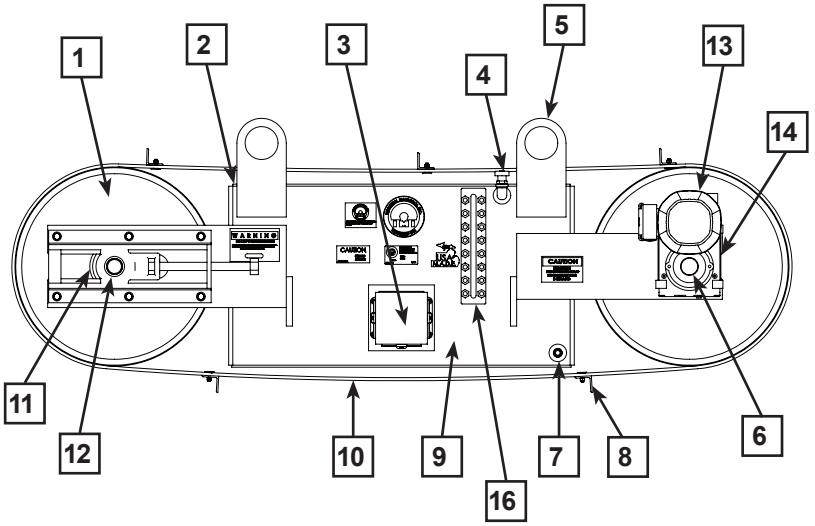
MAGNET ASSEMBLY PARTS LIST

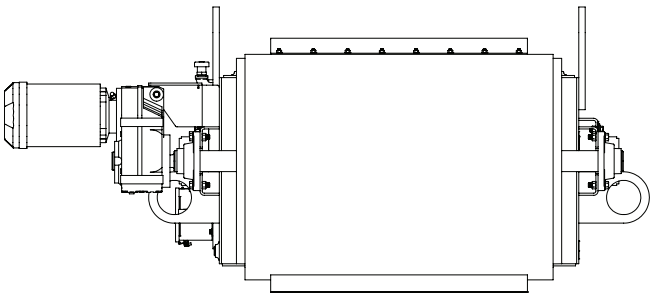
Note that *italicised items* are not applicable to manual clean units.

Ref. No.	Description	Qty.
1.	*Tail Pulley*	*1*
2.	**Fill Plug**	**4**
3.	**Junction Box**	**1**
4.	**Vent Plug**	**1**
5.	**Magnet Hanger**	**4**
6.	*Drive Shaft*	*1*
7.	**Drain Plug**	**1**
8.	*Cleat*	*
9.	**Magnet Box, including coils**	**1**
10.	*Belt*	*1*
11.	*Take Up Bearing*	*2*
12.	*Tail Shaft*	*1*
13.	*Motor*	*1*
14.	*Reducer*	*1*
15.	**Rectifier Panel (Not Shown)****	**1**
16.	**Oil Level Sight Gauge**	**1**

**Quantity depends upon unit size*

*** Not located on magnet. To be installed On-site and away from magnet.*





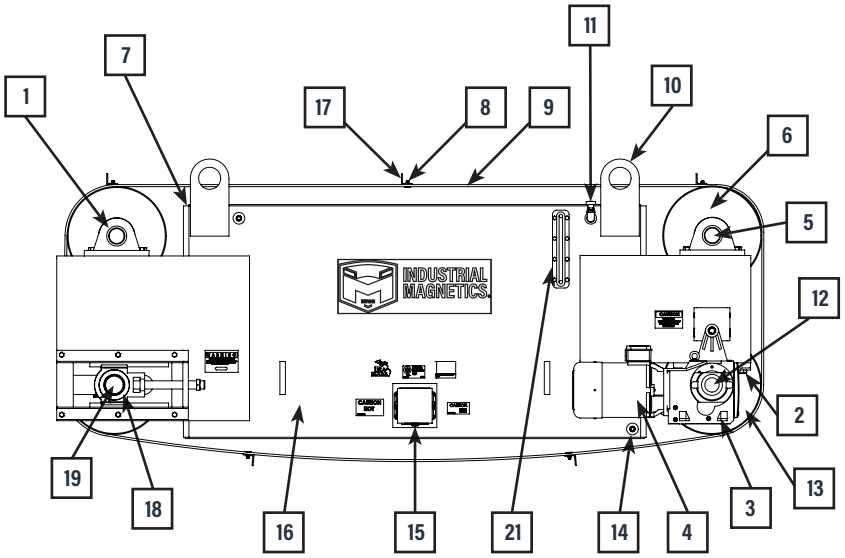
For spare parts:

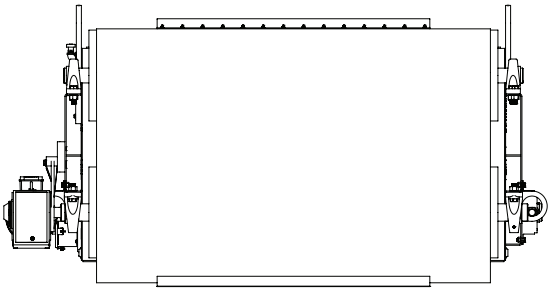
Please conact IMI for specific component replacement part numbers and pricing based on the diagram above.

ILLUSTRATIONS & PARTS (FOUR PULLEY DESIGN)

MAGNET ASSEMBLY PARTS LIST

Ref. No.	Description	Qty.
1.	Pillow Block Idler	4
2.	Pillow Block Main	4
3.	Reducer	1
4.	Motor	1
5.	Shaft Idler	2
6.	Idler Pulley	3
7.	Fill Plug	3
8.	Elevator Bolt	*
9.	Belt	1
10.	Magnet Hanger	4
11.	Vent Plug	1
12.	Drive Shaft	1
13.	Drive Pulley	1
14.	Drain Plug	1
15.	Junction Box	1
16.	Magnet Box, including coils	1
17.	Cleat	*
18.	Take Up Bearing	2
19.	Tail Shaft	1
20.	Rectifier Panel (Not Shown)**	1
21.	Oil Sight Gauge	1





Quantity depends upon unit size
***** Not located on magnet. To be installed On-site and away from magnet.***

For spare parts:
Please conact IMI for specific component replacement part numbers and pricing based on the diagram above.

COMMENTS OR CONCERNS?

We believe Industrial Magnetics, Inc. offers the finest Suspended Overhead Magnets available today. Great pride has gone into the design and manufacture of this unit. Any comments or concerns should be directed to our Customer Service Department at 1-888-582-0821.

When contacting IMI regarding your suspended electromagnet, please have the following information available:

- Model number or the measurements of the magnet case.
- Serial number – found inside cover of terminal box, near nameplate or inside power supply enclosure door.
- Available mains voltage to power supply and/or belt motor.
- Magnet coil resistance. Specify whether it is a cold or hot measurement.

We appreciate the opportunity of serving you!