

# INSTALLATION MANUAL

EXTRACTOR OR SPLIT-FLOW

# GROUP

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#### **Installation Guidelines**

IMI's Extractor or Split-Flow Magnet assemblies come ready to install with top and bottom flanges that allow the unit to be welded or bolted into the product flow. If the unit is to be bolted into place, either mild steel or stainless steel bolts can be used. If the flanges have not been predrilled by IMI for bolt in installation, any drill bit suitable for T304 stainless steel will do a quality job. (A minimum 3/8" diameter bolt is recommended.)

To avoid magnetizing adjacent chutes, it is recommended that 300 series stainless steel be used for the chute construction 12 to 24 inches above and below the magnet

depending upon the magnets strength and size.

**Note:** Extractor or Split-Flow Magnets must be installed to allow sufficient space for preventative maintenance and tramp removal.

#### **SELF-CLEANING VERSIONS ONLY**

Requires 80 to 100 psi of shop air to operate. The details of plumbing the shop air to the "Filter Regulator" are included on Page 2. The filter regulator is on the back of the housing. Allowance must be made for the air cylinder movement during the self-cleaning cycle.

# **Operating Principle**

The Extractor and Split-Flow magnets are designed with powerful magnetic plates that are parallel to each other. The Split Flow has a magnet in the middle of the assembly as well as on either sides of the assembly. The Extractor only has magnetic plates on the sides of the assembly. The powerful magnets, in both the Split Flow and the Extractor,

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capture and remove ferrous metals as the product passes through the housing. The captured metal is held against the stripper drawer (similar to a dresser drawer without a bottom) by the powerful magnetic fields. The captured metal is discharged from the drawer once it is removed from the housing.

#### **Cleaning Guidelines**

The recommended cleaning interval is at least twice in an eight hour shift. However, cleaning is dependent on the amount of tramp metal being separated from your particular product. If you see heavy concentrations of tramp metal additional cleaning is necessary.

Prior to cleaning the magnet, make sure that all possible obstacles are free from the area where the stripper drawer travels during cleaning and that product flow is stopped. As the drawer slides out, the back wall of the stripper drawer

brings the collected tramp metal outside of the housing and away from the magnetic fields. Once the collected metal is out of the magnetic field's influence the metal will drop off. After the metal is cleaned and the stripper drawer is back in place, the product processing can resume.

If the drawer is not opening on Self-Clean models: Make sure incoming air pressure is 80 to 100 psi. Check Plumbing: which includes the valve, regulator, cylinders and solenoid. Check drawer for obstructions.

#### **Cleaning Procedures**

#### **EZ-CLEAN CLEANING INSTRUCTIONS:**

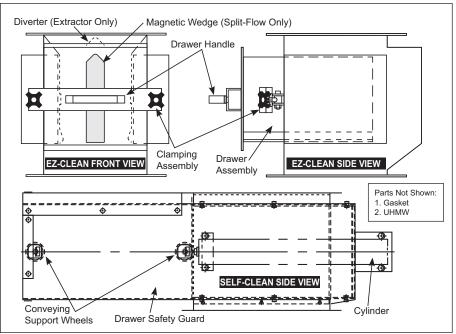
- Shut off product flow and clear area so drawer can open unobstructed
- 2. Loosen the door clamps, swing them out of the way and pull open drawer
- 4. Once the drawer is outside of the housing tramp metal will fall off
- 5. After metal falls off push drawer shut & tighten the clamps
- 6. Restart product flow

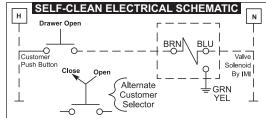
#### **SELF-CLEAN CLEANING INSTRUCTIONS:**

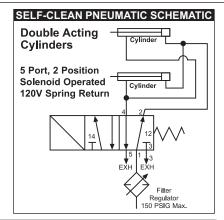
- Shut off product flow and clear area so drawer can open unobstructed
- 2. Activate air cylinders
- 3. Once the drawer is outside of the housing tramp metal will fall off
- 4. After metal falls off activate air cylinders again and make sure the drawer is closed
- Restart product flow

Note: Air pressure is required to open drawer for cleaning and to hold the drawer closed during product flow.

#### **Illustrations, Parts and Schematics**







#### **Comments or Concerns?**

We believe Industrial Magnetics, Inc. offers the finest Extractor and Split-Flow Magnet 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. We appreciate the opportunity of serving you!

### INDUSTRIAL MAGNETICS, INC.

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MAG-MATE™

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TRAMP METAL

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