APPLICATION:
Engineered to remove ferrous contaminants from liquid and slurry lines. Efficiently remove tramp iron before maintenance and product contamination problems occur. The benefits of this magnetic separator can be experienced in most cases with no appreciable pressure drop or reduction in flow rates. All units incorporate a sump type housing to trap non-ferrous particles. Liquid Traps may be installed horizontally, vertically, or on an angle without affecting their magnetic efficiency.

Metal trash and fines, including work-hardened stainless steel as small as 0.0001 inches are captured by powerful, rare-earth, neodymium magnets and held in-place until cleaned. Powered by proprietary, easy to clean, tube or plate circuits that operate to pressures of 750 PSI and temperatures of 500°F.

SANITARY LIQUID TRAP MAGNETS

CONSTRUCTION:
• Highest grade of magnet material with choices including Neodymium-Iron-Boron (rare-earth), Samarium-Cobalt (rare-earth), Ceramic, and Alnico.
• 100% Stainless Steel Construction
• Liquid tight with food grade O-rings
• Easy access for inspection and maintenance
• Tri-clamp, Bevel-seat (Acme thread), or weld end inlet and outlets
• Sanitary construction

OPTIONS:
• Special alloy construction
• Special inlet/outlet connectors
• Operating pressures up to 750 PSI

For more industrial applications please refer to our Industrial Liquid Trap Magnet Data Sheet.

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Data Sheet #2158 / Rev. 8/12
STANDARD SANITARY LIQUID TRAP MAGNETS

OPERATION:
As liquids or slurries are pumped through the Liquid Trap, ferrous contaminants adhere to the strategically placed magnetic tubes. The design and construction allow the tramp iron to work around the downstream side of the tubes where it is safely out of the product flow and washoff is prevented. Cleaning is achieved by removing the quick release clamp and removing the magnet assembly from the housing. The housing is designed not to house the magnetic tubes, but also to act as a sump. Unwanted non-magnetic particles tend to gravitate to the bottom of the enclosure. Additionally, the sump bottom is attached by a quick release clamp to ease cleaning of the entire unit.

SELECTING THE PROPER LIQUID TRAP:
Use Chart 1 to classify your products viscosity. Choose the correct size Liquid Trap from Chart 2 by matching the Liquid Trap’s listed capacity with your system’s maximum pumping capacity using your product’s group number. Line reducers (expanders) may be used if you choose.

APPLICATION:
These magnetic separators are typically used when processing fragile solids such as fruit preserves, cooked meats, cottage cheese, or sinewy products where they are placed in front of pumps, screens, or mills to protect equipment from damage, or in front of fillers to ensure product quality.

SPECIFIC MODEL AND SIZING:
Refer to Tables A, B, and C. Use Table “A” to select your application’s product viscosity. Use Table B to match your application’s product viscosity with pumping capacity to select model or line size. When operating at or close to a Liquid Trap’s upper flow capacity we recommend moving up to the next size.

PLATE SYLE LIQUID TRAP MAGNETS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>LINE SIZE</th>
<th>MAXIMUM PRESSURE</th>
<th>CLASS 1</th>
<th>CLASS 2</th>
<th>CLASS 3</th>
<th>CLASS 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>NL</td>
<td>1.5” - 2”</td>
<td>150 (10.3)</td>
<td>60 (230)</td>
<td>42 (190)</td>
<td>24 (96)</td>
<td>12 (45)</td>
</tr>
<tr>
<td>NL</td>
<td>2.5” - 3”</td>
<td>200 (13.8)</td>
<td>130 (870)</td>
<td>101 (680)</td>
<td>75 (485)</td>
<td>50 (191)</td>
</tr>
<tr>
<td>NL</td>
<td>4”</td>
<td>180 (12.4)</td>
<td>130 (870)</td>
<td>97 (626)</td>
<td>75 (485)</td>
<td>50 (191)</td>
</tr>
<tr>
<td>NLTP</td>
<td>1” - 2”</td>
<td>250 (13.8)</td>
<td>120 (800)</td>
<td>90 (570)</td>
<td>60 (390)</td>
<td>30 (130)</td>
</tr>
<tr>
<td>NLTP</td>
<td>2” - 3”</td>
<td>250 (13.8)</td>
<td>160 (900)</td>
<td>120 (720)</td>
<td>90 (570)</td>
<td>30 (130)</td>
</tr>
<tr>
<td>NLTP</td>
<td>3” - 4”</td>
<td>250 (13.8)</td>
<td>180 (1050)</td>
<td>130 (810)</td>
<td>90 (570)</td>
<td>30 (130)</td>
</tr>
<tr>
<td>NLTP</td>
<td>4”</td>
<td>250 (13.8)</td>
<td>180 (1050)</td>
<td>130 (810)</td>
<td>90 (570)</td>
<td>30 (130)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>EPDM(Std.)</th>
<th>BUNA-N</th>
<th>VITON</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature Range</td>
<td>-50 to 400°F</td>
<td>-20 to 225°F</td>
<td>-15 to 400°F</td>
</tr>
<tr>
<td>Acid resistance</td>
<td>Fair</td>
<td>Good</td>
<td>Excellent</td>
</tr>
<tr>
<td>Alkali resistance</td>
<td>Good</td>
<td>Fair</td>
<td>Good</td>
</tr>
<tr>
<td>Veg. Oil resistance</td>
<td>Poor</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
<tr>
<td>Steam, to 350°F</td>
<td>Good</td>
<td>Poor</td>
<td>Poor</td>
</tr>
</tbody>
</table>
STANDARD SANITARY LIQUID TRAP MAGNETS

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As liquids or slurries are pumped through the Liquid Trap, ferrous contaminants adhere to the strategically placed magnetic tubes. The design and construction allow the tramp iron to work around the downstream side of the tubes where it is safely out of the product flow and washoff is prevented. Cleaning is achieved by removing the quick release clamp and removing the magnet assembly from the housing. The housing is designed not to house the magnetic tubes, but also to act as a sump. Unwanted non-magnetic particles tend to gravitate to the bottom of the enclosure. Additionally, the sump bottom is attached by a quick release clamp to ease cleaning of the entire unit.

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PLATE SYLE LIQUID TRAP MAGNETS

Specific Model and Sizing
Refer to Tables A, B, and C. Use Table “A” to select your application’s product viscosity. Use Table B to match your application’s product viscosity with pumping capacity to select model or line size. When operating at or close to a Liquid Trap’s upper flow capacity we recommend moving up to the next size.

Table A. Product Viscosity

<table>
<thead>
<tr>
<th>Class 1</th>
<th>Class 2</th>
<th>Class 3</th>
<th>Class 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluids and Strained Products</td>
<td>Pulped Products</td>
<td>Viscous Products</td>
<td>Very Viscous Products</td>
</tr>
<tr>
<td>thin salad dressings, thin soups, warm jellies, clear broths, beverages, juices, light sauces</td>
<td>applesauce, pulped fruits and vegetables, curd, syrups, cranberries, hot preserves, baby foods</td>
<td>pumpkin filling, chopped foods, creamed cheese, frozen slush, heavy sauces, batter, heavy purees</td>
<td>nut butters, slow flowing products, cooled products, minced meat, thick batters, pet foods</td>
</tr>
</tbody>
</table>

Table B. Maximum Pressures in Pounds per Square Inch (Bar)

<table>
<thead>
<tr>
<th>Model</th>
<th>Line Size</th>
<th>Maximum Pressure</th>
<th>Maximum Flow Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTR</td>
<td>1 ½’-2’</td>
<td>150 (10.3)</td>
<td>60 (230)</td>
</tr>
<tr>
<td></td>
<td>2 ½’-3’</td>
<td>75 (5.1)</td>
<td>60 (230)</td>
</tr>
<tr>
<td></td>
<td>4’</td>
<td>75 (5.1)</td>
<td>60 (230)</td>
</tr>
</tbody>
</table>

Table C. Food Grade L-Ring Gaskets

<table>
<thead>
<tr>
<th>Property</th>
<th>EPDM (Std.)</th>
<th>BUNA-N</th>
<th>VITON</th>
</tr>
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<tbody>
<tr>
<td>Temperature Range</td>
<td>-50 to 400°F</td>
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INDUSTRIAL LIQUID TRAP MAGNETS

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OPTION: Plate Style Liquid Trap Magnets See page 3

SANITARY LIQUID TRAP MAGNETS

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Note: Due to ongoing product development, certain specifications are subject to change without notice.