LIQUID TRAP MAGNETS

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.

SELECTING THE PROPER LIQUID TRAP:
Use Chart 1 to classify your product's 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.

CHART 1
Select a group that best matches your particular product, realizing temperature and liquid percentages vastly affect viscosity.

GROUP 1: Fluid and Strained Products:
Beverages, thin soups, juices, jellies, light sauces, custards, thin salad dressings.

GROUP 2: Pulped Products:
Apple sauce, creamed corn, pumpkin, cranberries, medium sauces, syrups, thick salad dressings.

GROUP 3: Viscous or Heavy Products:
Thick puddings, hot processed or creamed cheese, baby foods, frozen slush, heavy sauces, thin batters, heavy purees.

GROUP 4: Very Viscous Products:
Meat emulsions, minced meat, thick batters, meat spreads, similar very viscous products.

CHART 2
Maximum Effective Capacity In Gallons Per Minute (Liters Per Minute) and Maximum Recommended Line Working Pressures in PSI (Bar)

<table>
<thead>
<tr>
<th>LINE SIZE</th>
<th>MAXIMUM PRESSURE</th>
<th>GROUP 1</th>
<th>GROUP 2</th>
<th>GROUP 3</th>
<th>GROUP 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5&quot; - 2&quot; (40, 50)</td>
<td>200 (13.8)</td>
<td>120 (455)</td>
<td>84 (320)</td>
<td>42 (160)</td>
<td>18 (70)</td>
</tr>
<tr>
<td>2.5&quot; - 3&quot; (65, 75)</td>
<td>200 (13.8)</td>
<td>200 (760)</td>
<td>140 (530)</td>
<td>70 (265)</td>
<td>30 (115)</td>
</tr>
<tr>
<td>4&quot; (100)</td>
<td>200 (13.8)</td>
<td>270 (1020)</td>
<td>189 (715)</td>
<td>95 (360)</td>
<td>41 (155)</td>
</tr>
</tbody>
</table>

CHART 3
LIQUID TRAP: Dimensions and Weights (metric)

<table>
<thead>
<tr>
<th>LINE SIZE</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>NET WT. LB.</th>
<th>SHIP WT. LB.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5&quot;, 2&quot; (40, 50)</td>
<td>10 (254)</td>
<td>7 (178)</td>
<td>4.3 (108)</td>
<td>8.3 (210)</td>
<td>4.3 (109)</td>
<td>4.8 (122)</td>
<td>8.5 (216)</td>
<td>5 (127)</td>
<td>23.4 (10.6)</td>
<td>28 (13)</td>
</tr>
<tr>
<td>2.5&quot;, 3&quot; (65, 75)</td>
<td>12 (305)</td>
<td>8.9 (225)</td>
<td>5.1 (130)</td>
<td>10.3 (260)</td>
<td>5.1 (130)</td>
<td>5.5 (146)</td>
<td>10 (254)</td>
<td>6 (152)</td>
<td>38.5 (17.5)</td>
<td>48 (22)</td>
</tr>
<tr>
<td>4&quot; (100)</td>
<td>12 (304)</td>
<td>8.9 (225)</td>
<td>5.9 (150)</td>
<td>12.8 (324)</td>
<td>5.9 (150)</td>
<td>6.3 (160)</td>
<td>10 (254)</td>
<td>6 (152)</td>
<td>49.7 (22.6)</td>
<td>59 (27)</td>
</tr>
</tbody>
</table>

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

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 line connectors
- Operating pressures up to 750 PSI

Maximum Energy Product
in Million Gauss-Oersted (MGO)

<table>
<thead>
<tr>
<th>Magnet Materials</th>
<th>Ceramic</th>
<th>Alnico</th>
<th>Neodymium-Iron-Boron</th>
<th>Samarium-Cobalt</th>
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</thead>
<tbody>
<tr>
<td>Value</td>
<td>50</td>
<td>40</td>
<td>35</td>
<td>30</td>
</tr>
<tr>
<td>Value</td>
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<td>40</td>
<td>35</td>
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</tr>
<tr>
<td>Value</td>
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<td>40</td>
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