1. Introduction

The amaFlow M series cartridge filter will replace or retrofit most bag filter housings to obtain a higher contaminant loading capacity. These pleated filter cartridges will fit most #1 Size and #2 Size bag filter housings. Cartridges are FDA approved for contact with food in Title 21 of the U.S. Code of Federal Regulations.

Features

- High flow and high contaminant holding capacity
- Proprietary filter media delivers highly consistent performance
- 2 cartridge types available:
  - Proprietary Melt Blown Pleated Polypropylene
  - High Efficiency Pleated Depth Polypropylene
- Fixed pore construction resists contaminant unloading at maximum differential pressure
- Inside-out flow traps dirt inside the cartridge, eliminating downstream contamination
- Available to fit most #1 Size and #2 Size bag housings with no hardware changes
- Innovative sealing device adjusts to fit most bag filter housings
- Constructed of Polypropylene which is inert to many process fluids, ensuring a wide chemical compatibility
- Short length option to accommodate shorter baskets
- Manufactured in a Class 1,000 clean room
- Manufactured under ISO 9001 quality specifications
2. Product Specifications

Materials of Construction:
- Filter Media: M-TP = Proprietary Melt Blown Pleated Polypropylene
- M-DP = High Efficiency Pleated Depth Polypropylene
- Hardware: Polypropylene
- Sealing: Thermal Bond
- Support Material: Polypropylene
- Seal: EPDM, Viton

Dimensions (nominal):
- Outside Diameter: 6 inches O.D.
- Available Lengths: #1 Size: 10.827 inches, standard #2 Size: 25.197 inches, standard

3. Performance Specifications

Retention Ratings:
- M-TP: 1, 3, 5, 10, 20, 40, 70, 100 micron
- M-DP: 1, 3, 5, 10, 20, 40, micron absolute

Maximum Operating Differential Pressure:
- 75 psid at 68 °F
- 35 psid at 165 °F

Recommended Change Out Differential Pressure:
- 35 psid, up to 130 °F

All polypropylene components meet the specifications for biological safety as per the USP for Class VI (at 250 °F) for plastics (gaskets and o-rings excluded).

Cartridges do not use surfacants, binders or adhesives.

4. Flow Rate vs. Initial Clean Pressure Drop

<table>
<thead>
<tr>
<th>Micron Rating</th>
<th>#1 Size Initial Pressure Drop (psid/gpm)/(mbar/lpm)</th>
<th>#2 Size Initial Pressure Drop (psid/gpm)/(mbar/lpm)</th>
<th>#1 Size Initial Pressure Drop (psid/gpm)/(mbar/lpm)</th>
<th>#2 Size Initial Pressure Drop (psid/gpm)/(mbar/lpm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>0.044/0.801</td>
<td>0.022/0.401</td>
<td>0.051/0.928</td>
<td>0.022/0.401</td>
</tr>
<tr>
<td>3</td>
<td>0.018/0.328</td>
<td>0.009/0.164</td>
<td>0.020/0.364</td>
<td>0.009/0.164</td>
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<tr>
<td>5</td>
<td>0.008/0.146</td>
<td>0.004/0.073</td>
<td>0.012/0.218</td>
<td>0.005/0.091</td>
</tr>
<tr>
<td>10</td>
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<td>0.002/0.036</td>
<td>0.008/0.146</td>
<td>0.003/0.055</td>
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<td>0.001/0.0182</td>
<td>0.005/0.091</td>
<td>0.002/0.036</td>
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<tr>
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<td>0.001/0.0182</td>
<td>0.004/0.073</td>
<td>0.002/0.036</td>
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<td>0.001/0.0182</td>
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<td>0.001/0.0182</td>
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</table>

5. Typical Model Number

<table>
<thead>
<tr>
<th>M</th>
<th>TP</th>
<th>5</th>
<th>P1</th>
<th>P</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Product Series</td>
<td>Material</td>
<td>Micron Rating</td>
<td>Cartridge Size</td>
<td>Flange</td>
</tr>
<tr>
<td>amaFlow M</td>
<td>TP = PP Pleated DP = Depth PP</td>
<td>1, 3, 5, 10, 20, 40, 70°, 100°</td>
<td>P1 = 01 P2 = 02 P2S = size 2 short</td>
<td>P = Standard Flange (PP)</td>
<td>E = EPDM V = Viton</td>
</tr>
</tbody>
</table>

* M-TP Only