1. Introduction

The amaGuard DP filter cartridge offers the benefits of both depth and pleated filtration characteristics. Manufactured in a class 10,000 clean room environment using FDA all polypropylene construction. The amaGuard DP is suitable for use with a broad range of chemicals. Exhibiting a large increase of up to 5 times the surface area of a traditional depth filter, the amaGuard DP can be used in high viscosity applications. The amaGuard DP is an excellent choice where a high flow together with long life is required, but deformative particles dictate the use of a depth filter.
2. Features

- Absolute rated (99.9%) pleated polypropylene melt blown media
- High surface area for long service life
- High flow rates with low pressure drops
- Surfactant and binder free
- Excellent gel removal efficiency
- Effective filtration area for 10" cartridge is 0.2 m²
- Excellent chemical compatibility
- High dirt load capacity
- Manufactured in class 10,000 clean room

3. Sanitisation and Food safety

Sanitisation
The cartridges can be sanitised with hot water at max. 82 °C. Before use the cartridges must be cooled down to the normal operating temperatures. The cartridges can be sanitised with the standard chemical agents.

Food safety
The filter cartridges comply with the requirements of the ‘Food and Drug Administration (FDA)‘ title 21 of the “Code of Federal Regulations” 177.1520.

Bio safety
The components of the filter cartridges (excl. O-rings and gaskets) pass the USP Biological Reactivity and Chemical-Physical tests for CLASS VI plastics.

4. Product/Performance specifications

Filter medium : polypropylene
Support medium : polypropylene
Hardware : polypropylene
End cap seal : thermally bonded
Gaskets/O-rings : silicone, EPDM, Viton®

Dimensions
- External diameter : 68 mm
- Length : see ordering information
- Filtration area : 0.2 m²/10" cartridge

Maximum recommended differential pressure
Design : 4.8 bar at 25 °C / 2.1 bar at 80 °C
Operating : 2.5 bar
Maximum operating temperature : 80 °C for continous operation

5. Water flow rate for 10" cartridge

\[ x = \text{Flow rate} \]
\[ y = \text{Clean pressure drop} \]

6. Ordering code

Example

<table>
<thead>
<tr>
<th>Cartridge type</th>
<th>Micron rating</th>
<th>Nominal length [inch]</th>
<th>Hardware material</th>
<th>Cartridge style</th>
<th>O-Ring material</th>
</tr>
</thead>
<tbody>
<tr>
<td>amaGuard DP</td>
<td>5</td>
<td>102 mm</td>
<td>U=polypropylene</td>
<td>X3</td>
<td>S=Silicone</td>
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<tr>
<td></td>
<td>10</td>
<td>254 mm</td>
<td></td>
<td>X4</td>
<td>V=Viton®</td>
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<tr>
<td></td>
<td>20</td>
<td>508 mm</td>
<td></td>
<td>X7</td>
<td>E=EPDM</td>
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<td></td>
<td>30</td>
<td>762 mm</td>
<td></td>
<td>X8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>40</td>
<td>1016 mm</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

X3=SOE with external 222 O-rings, X4=DOE with flat gaskets, X7=SOE with fin end, bayonet and external 226 O-rings, X8=SOE with fin end and external 222 O-rings

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