The nO-Ring® seal is an innovative adapter for sealing cartridge filters into 222- and 226-style filter housings. The patented nO-Ring® design provides the security of a double O-ring seal, without the use of elastomeric O-rings. This seal is ideal for use in critical pharmaceutical, semiconductor and chemical applications, which would otherwise require the use of expensive fluoropolymeric or perfluoroelastomeric O-rings. Typical applications include filtration of high purity chemicals such as DI water, acids, bases, solvents, photochemicals, developers, etchants and rinses.

The patented nO-Ring® design eliminates the need to select and use expensive chemically resistant O-rings for aggressive chemical or solvent applications. This reduces material costs for each batch or process line. By eliminating the extra O-ring materials, total filter extractables are reduced. Filter installation and removal concerns associated with O-ring durometer and/or deterioration in service are also eliminated.

**Design Features**

- All-polypropylene construction provides wide chemical compatibility, while reducing extractables
- Unique adapter design easily distinguishes nO-Ring™ cartridges from other cartridges, which may have identically colored and textured O-rings, but differing chemical compatibilities
Specifications

Materials of Construction
Upstream & Downstream
Support: Polypropylene
Outer Cage: Polypropylene
Core: Polypropylene
End Caps: Polypropylene
Sealing Method: Thermal bonding

Filtration Media:
Hydrophilic Membranes
SteriLUX® PVDF
STyLUX® Polyethersulfone
EverLUX® Polyethersulfone

Hydrophobic Membranes
Steridyne® PVDF
Chemdyne® Polypropylene
Ultradyne® PTFE

Microfiber
ALpHA® Polypropylene
Vangard® Polypropylene
Protec® RF Borosilicate glass
Protec® RM Borosilicate glass
+ PVDF membrane
DeltaMax® Polypropylene depth

Filtration Ratings:
0.04 μm - 99 μm

Cartridge Length (Nominal)
10", 20", 30" or 40" (25 cm, 50 cm, 75 cm or 100 cm)

Maximum Operating Temperatures & Pressures
Δp 80 psi @ 100 °F
(Δp 5.5 bar @ 38 °C)

Δp 60 psi @ 150 °F
(Δp 4.1 bar @ 66 °C)

Δp 30 psi @ 180 °F
(Δp 2.1 bar @ 82 °C)

Ordering Information

<table>
<thead>
<tr>
<th>Filter Media</th>
<th>Removal Rating (μm)</th>
<th>Cartridge Length</th>
<th>End Cap Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>MF</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VMH</td>
<td>0.1, 0.2, 0.4, 0.6</td>
<td>1 = 10&quot;</td>
<td>C1 = SOE; -222 nO-Ring®, button cap end</td>
</tr>
<tr>
<td>SM</td>
<td>0.04, 0.1, 0.2, 0.4, 0.6</td>
<td>2 = 20&quot;</td>
<td>F1 = SOE; -222 nO-Ring®, fin end</td>
</tr>
<tr>
<td>SMH</td>
<td>0.2, 0.4, 0.6</td>
<td>3 = 30&quot;</td>
<td>C5 = SOE; -226 nO-Ring®, button cap end</td>
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<tr>
<td>VMV</td>
<td>Steridyne® 0.2</td>
<td>4 = 40&quot;</td>
<td>F5 = SOE; -226 nO-Ring®, fin end</td>
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<tr>
<td>PM</td>
<td>Chemdyne® 0.04, 0.1, 0.2</td>
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<tr>
<td>TM</td>
<td>Ultradyne® 0.05, 0.1, 0.2, 0.4, 1.0, 5</td>
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<tr>
<td>MF</td>
<td>ALpHA® 0.45, 0.6, 0.8, 1.2, 2.4, 5, 7, 10, 20, 30, 40, 70</td>
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<tr>
<td>MN</td>
<td>Vangard® 0.1, 0.2, 0.4, 1, 3, 5, 10, 30, 60, 99 (nominal)</td>
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<tr>
<td>RF</td>
<td>Protec® 0.5</td>
<td></td>
<td></td>
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<tr>
<td>RM</td>
<td>Protec® + 0.2, 0.3, 0.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DMG</td>
<td>DeltaMax® 0.5, 1, 3, 5, 10, 20, 40, 70</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>