High-Pressure Servo Sandwich Filter

**NOF50-760**

**15 gpm**

**57 L/min**

**5000 psi**

**345 bar**

**Features and Benefits**

- Localized protection at the servo helps to eliminate downtime and protect critical applications from contamination-related servo valve failures
- Sandwich style 4-bolt design – no additional lines to connect
- Designed to protect these commonly installed servo valves: Moog 760 & 62, Vickers SM4-20 and Parker BD15
- High collapse elements, rated to 3000 psi (210 bar)
- SchroederCheck™ sampling point available for testing purposes
- Easily applied to new and existing systems
- All steel construction

Model No. of filter in photograph is NOF501SVZX3760.

**Applications**

- INDUSTRIAL
- AUTOMOTIVE
- MANUFACTURING
- MACHINE
- TOOL
- STEEL
- MAKING
- MOBILE
- VEHICLES
- PULP & PAPER
- WASTE WATER TREATMENT

**Specifications**

- **Flow Rating**: Up to 15 gpm (57 L/min) for 150 SUS (32 cSt) fluids
- **Max. Operating Pressure**: 5000 psi (345 bar)
- **Min. Yield Pressure**: 15,000 psi (1034 bar), per NFPA T2.6.1
- **Rated Fatigue Pressure**: 4000 psi (276 bar) per NFPA T2-6.1 R2-2005
- **Temp. Range**: -20°F to 225°F (-29°C to 107°C)
- **Non-Bypass Model**: Standard with high collapse elements
- **Porting Head**: Steel
- **Element Case**: Steel
- **Weight of NOF50-1SV**: 17 lb. (7.7 kg)
- **Element Change Clearance**: 4.50" (115 mm)
# High-Pressure Servo Sandwich Filter

**Element Performance Information**

<table>
<thead>
<tr>
<th>Element</th>
<th>Filtration Ratio Per ISO 4572/NFPA T3.10.8.8 Using automated particle counter (APC) calibrated per ISO 4402</th>
<th>Filtration Ratio wrt ISO 16889 Using APC calibrated per ISO 11171</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta_5 \geq 75$</td>
<td>$\beta_{10} \geq 100$</td>
</tr>
<tr>
<td>SVZX3</td>
<td>&lt;1.0</td>
<td>&lt;1.0</td>
</tr>
<tr>
<td>SVZX10</td>
<td>7.4</td>
<td>8.2</td>
</tr>
</tbody>
</table>

**Dirt Holding Capacity**

<table>
<thead>
<tr>
<th>Element</th>
<th>DHC (gm)</th>
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<tbody>
<tr>
<td>SVZX3</td>
<td>11*</td>
</tr>
<tr>
<td>SVZX10</td>
<td>13*</td>
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</tbody>
</table>

Metric dimensions in ( ).

- **Element Collapse Rating:** 3000 psid (210 bar) for high collapse (ZX) versions
- **Flow Direction:** Outside In
- **Element Nominal Dimensions:** 1.75” (45 mm) O.D. x 8.0” (200 mm) long

*Based on 100 psi terminal pressure*
**High-Pressure Servo Sandwich Filter**

Type Fluid | Appropriate Schroeder Media
---|---
Petroleum Based Fluids | All Z-Media® (synthetic)
High Water Content | 3, 10 and 25 µ Z-Media® (synthetic)
Invert Emulsions | 10 and 25 µ Z-Media® (synthetic)
Water Glycols | 3, 10 and 25 µ Z-Media® (synthetic)

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### Exercise:

Determine ΔP at 8 gpm (30 L/min) for NOF501SVZX1076090D5 using 150 SUS (32 cSt) fluid.

**Solution:**

\[
\Delta P_{\text{total}} = \Delta P_{\text{housing}} + \Delta P_{\text{element}}
\]

\[
\Delta P_{\text{housing}} = 30.0 \text{ psi} \quad [2.1 \text{ bar}]
\]

\[
\Delta P_{\text{element}} = 8 \times 0.52 \times (150/150) = 4.2 \text{ psi}
\]

or

\[
\Delta P_{\text{element}} = [30 \times (0.52 + 54.9) \times (32+32)] = 0.3 \text{ bar}
\]

\[
\Delta P_{\text{total}} = 30.0 + 4.2 = 34.2 \text{ psi}
\]

or

\[
\Delta P_{\text{total}} = [2.1 + 0.3] = 2.4 \text{ bar}
\]
# How to Build a Valid Model Number for a Schroeder NOF50:

<table>
<thead>
<tr>
<th>BOX 1</th>
<th>BOX 2</th>
<th>BOX 3</th>
<th>BOX 4</th>
<th>BOX 5</th>
<th>BOX 6</th>
<th>BOX 7</th>
<th>BOX 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOF50</td>
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</tr>
<tr>
<td>Filter Series</td>
<td>Number of Elements</td>
<td>Element Part Number</td>
<td>Seal Material</td>
<td>Porting</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>NOF50</td>
<td>1</td>
<td>SVZX3</td>
<td>Omit = Buna N</td>
<td>760 = Moog servo configuration</td>
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<tr>
<td></td>
<td></td>
<td>SVZX10</td>
<td>V = Viton®</td>
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<td>SVZX25</td>
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</table>

**NOTES:**

Box 3. Replacement element part numbers are identical to contents of Boxes 3 and 4.

Box 4. Viton® is a registered trademark of DuPont Dow Elastomers.

Box 6. Please note indicator flow limitations on pressure drop graph, previous page.

**Electrical**

- MSS = Electrical w/ 12 in. 18 gauge 4-conductor cable
- MSSLC = Low current MS
- MS10 = Electrical w/ DIN connector (male end only)
- MS10LC = Low current MS10
- MS11 = Electrical w/ 12 ft. 4-conductor wire
- MS12 = Electrical w/ 5 pin Brad Harrison connector (male end only)
- MS12LC = Low current MS12
- MS16 = Electrical w/ weather-packed sealed connector
- MS16LC = Low current MS16
- MS17LC = Electrical w/ 4 pin Brad Harrison male connector

**Electrical with Thermal Lockout**

- MSST = MSS (see above) w/ thermal lockout
- MSSLCT = Low current MSST
- MS10T = MS10 (see above) w/ thermal lockout
- MS10LCT = Low current MS10T
- MS12T = MS12 (see above) w/ thermal lockout
- MS12LCT = Low current MS12T
- MS16T = MS16 (see above) w/ thermal lockout
- MS16LCT = Low current MS16T
- MS17LCT = Low current MS17T

**Electrical Visual**

- MS13 = Supplied w/ threaded connector & light
- MS14 = Supplied w/ 5 pin Brad Harrison connector & light (male end)

**Electrical with Visual Thermal Lockout**

- MS13DCT = MS13 (see above), direct current, w/ thermal lockout
- MS13DCLCT = Low current MS13DCT
- MS14DCT = MS14 (see above), direct current, w/ thermal lockout
- MS14DCLCT = Low current MS14DCLCT

**Visual**

- D5 = Visual pop-up (60 psid indicator setting)

**Visual with Thermal Lockout**

- DB = Visual w/ thermal lockout

**Dirt Alarm® Options**

- Omit = None
- D5 = Visual pop-up (60 psid indicator setting)

**Example:**

NOTE: One option per box.

NOF501SVZX3760D5