Features and Benefits
- Top-ported pressure filter
- All aluminum assembly
- Available with non-bypass option with high collapse element
- Offered in pipe, SAE straight thread and ISO 228 porting
- Same day shipment model available

Model No. of filter in photograph is NF301NZ10SD5.

Flow Rating: Up to 20 gpm (75 L/min) for 150 SUS (32 cSt) fluids
Max. Operating Pressure: 3000 psi (210 bar)
Min. Yield Pressure: 10,000 psi (690 bar), per NFPA T2.6.1
Rated Fatigue Pressure: 2400 psi (165 bar), per NFPA T2.6.1
Temp. Range: -20°F to 225°F (-29°C to 107°C)
Bypass Setting: Cracking: 40 psi (2.8 bar)
               Full Flow: 85 psi (5.9 bar)
               Non-bypassing model has a blocked bypass.

Porting Head: Aluminum
Element Case: Aluminum
Weight of NF30-1N: 3.4 lbs. (1.5 kg)
Weight of NF30-1NN: 4.4 lbs. (2.0 kg)
Element Change Clearance: 4.50" (115 mm)
Top-Ported Pressure Filter

Element Performance Information

<table>
<thead>
<tr>
<th>Element</th>
<th>Filtration Ratio Per ISO 4572/NFPA T3.10.8.8</th>
<th>Filtration Ratio wrt ISO 16889</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Using automated particle counter (APC) calibrated per ISO 4402</td>
<td>Using APC calibrated per ISO 11171</td>
</tr>
<tr>
<td></td>
<td>$\beta_x \geq 75$</td>
<td>$\beta_x \geq 100$</td>
</tr>
<tr>
<td>N3/NN3</td>
<td>6.8</td>
<td>7.5</td>
</tr>
<tr>
<td>N10/NN10</td>
<td>15.5</td>
<td>16.2</td>
</tr>
<tr>
<td>NZ1/NNZ1</td>
<td>&lt;1.0</td>
<td>&lt;1.0</td>
</tr>
<tr>
<td>NZ3/NAS3/NNZ3/NNAS3</td>
<td>&lt;1.0</td>
<td>&lt;1.0</td>
</tr>
<tr>
<td>NZ5/NAS5/NNZ5/NNAS5</td>
<td>2.5</td>
<td>3.0</td>
</tr>
<tr>
<td>NZ10/NAS10/NNZ10/NNAS10</td>
<td>7.4</td>
<td>8.2</td>
</tr>
<tr>
<td>NZ25/NNZ25</td>
<td>18.0</td>
<td>20.0</td>
</tr>
<tr>
<td>NNZX3</td>
<td>&lt;1.0</td>
<td>&lt;1.0</td>
</tr>
<tr>
<td>NNZX10</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>
<th>Element</th>
<th>DHC (gm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N3</td>
<td>8</td>
<td>NN3</td>
<td>12</td>
</tr>
<tr>
<td>N10</td>
<td>7</td>
<td>NN10</td>
<td>10</td>
</tr>
<tr>
<td>NZ1</td>
<td>12</td>
<td>NNZ1</td>
<td>15</td>
</tr>
<tr>
<td>NZ3/NAS3</td>
<td>12</td>
<td>NNZ3/NNAS3</td>
<td>16</td>
</tr>
<tr>
<td>NZ5/NAS5</td>
<td>12</td>
<td>NNZ5/NNAS5</td>
<td>18</td>
</tr>
<tr>
<td>NZ10/NAS10</td>
<td>11</td>
<td>NNZ10/NNNAS10</td>
<td>15</td>
</tr>
<tr>
<td>NZ25</td>
<td>11</td>
<td>NNZ25</td>
<td>15</td>
</tr>
<tr>
<td>NNZX3</td>
<td>11</td>
<td>NNZX3</td>
<td>11*</td>
</tr>
<tr>
<td>NNZX10</td>
<td>11</td>
<td>NNZX10</td>
<td>13*</td>
</tr>
</tbody>
</table>

Element Collapse Rating: 150 psid (10 bar) for standard elements 3000 psid (210 bar) for high collapse (ZX) versions

*Based on 100 psi terminal pressure

Flow Direction: Outside In

Element Nominal Dimensions:
- NN: 1.75" (45 mm) O.D. x 5.25" (135 mm) long
- NN: 1.75" (45 mm) O.D. x 8.0" (200 mm) long

SAME DAY SHIPMENT MODEL AVAILABLE!
### Type Fluid

**Oil Based Fluids**
- E Media (cellulose), Z-Media® and ASP Media (synthetic)
- All Z-Media® and ASP Media (synthetic)
- 10 and 25 µ Z-Media® (synthetic), 10 µ ASP Media (synthetic)
- 3, 5, 10 and 25 µ Z-Media® (synthetic), 3, 5, and 10 µ ASP Media (synthetic)

### Appropriate Schroeder Media

**Petroleum Based Fluids**
- E Media (cellulose), Z-Media® and ASP Media (synthetic)

**High Water Content**
- All Z-Media® and ASP Media (synthetic)

**Invert Emulsions**
- 10 and 25 µ Z-Media® (synthetic), 10 µ ASP Media (synthetic)

**Water Glycols**
- Z-Media® and ASP Media (synthetic), 3, 5, and 10 µ ASP Media (synthetic)

---

### Pressure Drop Information

#### El. \( \Delta P \) factors @ 150 SUS (32 cSt):

<table>
<thead>
<tr>
<th>Element</th>
<th>( \Delta P ) (psi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1N</td>
<td>1.10</td>
</tr>
<tr>
<td>1NN</td>
<td>.77</td>
</tr>
<tr>
<td>N3</td>
<td>.77</td>
</tr>
<tr>
<td>NN3</td>
<td>.77</td>
</tr>
<tr>
<td>N10</td>
<td>.13</td>
</tr>
<tr>
<td>NN10</td>
<td>.13</td>
</tr>
<tr>
<td>N25</td>
<td>.07</td>
</tr>
<tr>
<td>NN25</td>
<td>.07</td>
</tr>
<tr>
<td>N5</td>
<td>1.23</td>
</tr>
<tr>
<td>NN5</td>
<td>1.23</td>
</tr>
<tr>
<td>NZ1</td>
<td>.56</td>
</tr>
<tr>
<td>NNZ1</td>
<td>.56</td>
</tr>
<tr>
<td>NZ3/NS3</td>
<td>.46</td>
</tr>
<tr>
<td>NNZ3/NS3</td>
<td>.46</td>
</tr>
<tr>
<td>NZ5/NS5</td>
<td>.35</td>
</tr>
<tr>
<td>NNZ5/NS5</td>
<td>.35</td>
</tr>
<tr>
<td>NZ10/NS10</td>
<td>.20</td>
</tr>
<tr>
<td>NNZ10/NS10</td>
<td>.20</td>
</tr>
<tr>
<td>NZ25</td>
<td>.52</td>
</tr>
<tr>
<td>NNZ25</td>
<td>.52</td>
</tr>
<tr>
<td>NZX3</td>
<td>1.00</td>
</tr>
<tr>
<td>NNZX3</td>
<td>1.00</td>
</tr>
<tr>
<td>NZX10</td>
<td>.52</td>
</tr>
</tbody>
</table>

If working in units of bars & L/min, divide above factor by 54.9.

**Viscosity factor:** Divide viscosity by 150 SUS (32 cSt).

### Notes

- Sizing of elements should be based on element flow information provided in the Element Selection chart above.

---

**Notes:**

- \( \Delta P_{housing} = \Delta P_{element} \times \) element \( \Delta P \) factor x viscosity factor

- \( \Delta P_{element} = \) flow \times element \( \Delta P \) factor x viscosity factor

**Exercise:**

Determine \( \Delta P \) at 15 gpm (57 L/min) for NF301NZ25SMS5 using 200 SUS (44 cSt) fluid.

**Solution:**

\[
\begin{align*}
\Delta P_{housing} & = 7.0 \text{ psi} \times 0.50 \\
\Delta P_{element} & = 15 \times 0.36 \times (200+150) = 7.2 \text{ psi} \\
\Delta P_{total} & = 7.0 + 7.2 = 14.2 \text{ psi} \\
\end{align*}
\]
### How to Build a Valid Model Number for a Schroeder NF30

#### BOX 1
- **Filter Series**: NF30
- **Number & Size of Elements**: 1 N

#### BOX 2
- **Media Type**:
  - Omit = E Media (Cellulose)
  - Z = Excellement® Z-Media® (synthetic)
  - AS = Anti-Stat Media (synthetic)
  - ZX = Excellement® Z-Media® (high collapse center tube)
  - M = Media (reusable metal mesh) N size only

#### BOX 3
- **Micron Rating**: 1 = 1 Micron (Z, ZW, ZX media)
- **Media Type**:
  - Omit = Buna N
  - V = Viton®
  - W = Buna N

#### BOX 4
- **Seal Material**: B = ISO228 G-¾“
- **Micron Rating**: 3 = 3 Micron (AS, E, Z, ZW, ZX media)
- **Micron Rating**: 5 = 5 Micron (AS, Z, ZW, ZX media)
- **Micron Rating**: 10 = 10 Micron (AS, E, M, Z, ZW, ZX media)
- **Micron Rating**: 25 = 25 Micron (E, Z, ZW, ZX media) only N
- **Micron Rating**: 60 = 60 Micron (M media)

#### BOX 5
- **Seal Material**: V = Viton®
- **Seal Material**: W = Buna N
- **Options**: Omit = None

#### BOX 6
- **Options**: X = Blocked bypass (NA with NFN30)
- **Options**: B = ISO228 G-¾“
- **Options**: P = ¼” NPTF
- **Options**: S = SAE-12

#### BOX 7
- **Options**: Omit = None
- **Options**: D = Pointer (D available with NF30 only)
- **Options**: D5 = Visual pop-up
- **Options**: D8 = Visual w/ thermal lockout

#### BOX 8
- **Options**: M5 = Electrical w/ 12 in. 18 gauge 4-conductor cable
- **Options**: M5LC = Low current M55
- **Options**: M510 = Electrical w/ DIN connector (male end only)
- **Options**: M510LC = Low current M510
- **Options**: M511 = Electrical w/ 12 ft. 4-conductor wire
- **Options**: M512 = Electrical w/ 5 pin Brad Harrison connector (male end only)
- **Options**: M512LC = Low current M512
- **Options**: M516 = Electrical w/ weather-packed sealed connector
- **Options**: M516LC = Low current M516
- **Options**: M517 = Electrical w/ 4 pin Brad Harrison male connector
- **Options**: M55T = MS5 (see above) w/ thermal lockout
- **Options**: M55LC = Low current MS5
- **Options**: M510T = MS10 (see above) w/ thermal lockout
- **Options**: M510LC = Low current MS10T
- **Options**: M512T = MS12 (see above) w/ thermal lockout
- **Options**: M512LC = Low current MS12T
- **Options**: M516T = MS16 (see above) w/ thermal lockout
- **Options**: M516LC = Low current MS16T
- **Options**: M517LCT = Low current MS17T
- **Options**: M513 = Supplied w/ threaded connector & light
- **Options**: M514 = Supplied w/ 5 pin Brad Harrison connector & light (male end)
- **Options**: M513DCT = MS13 (see above), direct current, w/ thermal lockout
- **Options**: M513DCLCT = Low current M513DCT
- **Options**: M514DCT = MS14 (see above), direct current, w/ thermal lockout
- **Options**: M514DCLCT = Low current M514DCT

### Notes:
- **Box 2**: Replacement element part numbers are identical to contents of Boxes 2, 3, 4 and 5.
- **Box 5**: E media (cellulose) elements are only available with Buna N seals. For options V and W, all aluminum parts are anodized. Viton® is a registered trademark of DuPont Dow Elastomers.
- **Box 6**: B porting option supplied with metric mounting holes.
- **Box 8**: Standard indicator setting for non-bypassing model is 50 psi unless otherwise specified.

**SAME DAY SHIPMENT MODEL AVAILABLE!**