**PARTS ASSEMBLY DRAWING**

**Flow Arrow**

- **Compression Knob** 375-09010
- 1 3/4" O/D Washer 375-09023
- FRP Cover
- **Strainer Flange**
- 3/8" Dia. X 3 3/4" Long "J" Bolt 369-21221
- 1/4" Dia. Pin Molded in Place 369-01133

**FRP Caps & Spacer Kit**

- 575-01450 S.S. Thrd. Rod & Hardware
- 575-01429 Rubber Edge Kit
- 575-01437 Perforated Sheet (Bent)
- 575-01459 FRP Caps & Spacer Kit 575-01459

**PVC Drain Plug** 375-08200

**PVC Vent and Drain Plug** 375-08200

**O-Ring Gasket**

**FRP Cover**

**5/16" x 1/2" EPDM Gasket**

**575-53022 Acrylic View Window**

**NS5-12-BSKT-FRP**

**CERTIFICATIONS**

All National NSS-Series Strainers are listed by the NSF International to ANSI/NSF Standard 50-1996 for pool and spa applications.

Products Manufactured and marketed by United States Filter Corporation (USFilter) and its affiliates are protected by patents issued or pending in the United States and other countries. USFilter reserves the right to change the specification referred to in the literature at any time without prior notice. National Line™ is a trademark of USFilter.

**NATIONAL LINE™ 12” 30PSI CORROSIVE RESISTANT FRP FLUID STRAINER SYSTEMS**

USFilter National NSS-Series strainers are available in nine basic influent/effluent designs ranging from 2" to 14" with reducing configurations also available. The strainers are constructed of food grade corrosion resistant FRP, PVC and Stainless Steel materials with working pressures up to 30 psi and vacuum service up to 20" of mercury. A proprietary interlocking design between the strainer body and lid provides manual opening as well as hand tightened sealing up to 45 psi. The strainer body comes complete with FRP and PVC vanstone influent/effluent flange connections, clear viewing window, hinged lid fastening hardware and drain/vent plugs.

Through the use of a proprietary vertically pleated corrosion resistant non-welded strainer basket, the strainer produces 0 psi head loss when operating at designed flow rates. The strainer basket consist of food grade FRP end caps, 16-gauge stainless steel strainering elements with 1/8" perforated holes and stainless steel connecting rods. All strainers have a minimum of 4 to 1 open area ratio of the strainer basket to influent flanged connection, which results in longer strainer operation without excessive cleaning. Removal of the strainer basket is simplified through a proprietary design allowing for drainage of water, while maintaining strained debris retention, during lifting of the basket. All strainer baskets are self aligning during installation and come with a molded flow-indicating arrow to insure proper flow direction.

NSF International certifies all National NSS-Series strainers to ANSI/NSF Standard 50-1996 for both pool and spa applications.
The FRP top cap shall have inspection ports located on the straining side of the basket as well as a molded flow-indicating arrow. The FRP bottom cap shall have an integrally molded reservoir located on the straining side of the basket for debris retention during removal.

Strainer Area

The strainer system shall have 468 NSF International to ANSI/NSF Standard 50 1996 for pool and spa applications. The strainer system shall be Model No. NSS-16-030 as manufactured by USFilter Stranco Products.

Strainer Basket

The PVC flanges and viewing window shall be chemically bonded to the FRP body and lid utilizing a compatible structural adhesive system that creates a joint that exceeds the mechanical properties of the PVC and viewing window respectively.

The strainer body and lid shall be manufactured utilizing food grade Isophthalic resin and E glass. The strainer shall vary in thickness to provide durability at the points of maximum stress and shall be suitable for a maximum working pressure of 30 PSI with a hydrostatic test pressure of 45 PSI. The body and lid shall have 3/8" slotted PVC plugs complete with EPDM O-rings for sealing of the strainer to the body. A high quality professional finish shall be achieved through the application of an exterior UV inhibited surface gelcoat.

The strainer basket shall consist of FRP top and bottom caps and a 16-gauge stainless steel basket. The fastening of the basket to the top and bottom cap shall be through the use of stainless steel bolts. The vertical edges of the basket shall be sealed to the strainer body through the use of rubber channel edging.

Strainer System

The hair and lint strainer shall be fabricated of Fiberglass Reinforced Plastic (FRP) with PVC flange connections. The strainer shall be designed for a maximum operating pressure of 30 PSI and a normal vacuum service of 20" of mercury. Each strainer shall come with a molded FRP cover plate, clear viewing window, gasket seal, hinged sealing hardware, stainless steel/FRP strainer basket, drain and vent plugs.

The FRP strainer body shall be 15" in diameter with a body flange and strainer lid diameter of 23.5". The FRP strainer body and lid shall be manufactured utilizing a patented one step process that provides a minimum laminate flexural modulus of 1.82E+06 psi and flexural strength of 36.4 ksi.

The body flange and lid shall have twelve (12)-molded slots for attachment of drop-away lid fastening hardware. The J-bolts are attached to the strainer body through the use of integrally molded 1/2" stainless steel pins. The body flange and lid shall have an integrally molded step that forms half of the interlocking groove for the gasket seal. The strainer lid shall be sealed to the body through the use of a 5/16" x 1/2" food grade EPDM square ring. The unique interlocking seal shall provide for manual opening as well as hand tightened sealing of the lid to the body at 45 PSI.

The FRP strainer body shall come complete with 12-inch influent and 1-inch effluent PVC vanstone flange connections. The strainer lid shall have a clear viewing window for internal debris loading inspection.

The PVC flanges and viewing window shall be chemically bonded to the FRP body and lid utilizing a compatible structural adhesive system that creates a joint that exceeds the mechanical properties of the PVC and viewing window respectively.

The strainer body and lid shall be manufactured utilizing food grade Isophthalic resin and E glass. The strainer shall vary in thickness to provide durability at the points of maximum stress and shall be suitable for a maximum working pressure of 30 PSI with a hydrostatic test pressure of 45 PSI. The body and lid shall have 3/8" slotted PVC plugs complete with EPDM O-rings for sealing of the strainer to the body. A high quality professional finish shall be achieved through the application of an exterior UV inhibited surface gelcoat.

Strainer Basket

The strainer basket shall consist of FRP top and bottom caps and a 16-gauge stainless steel basket. The fastening of the basket to the top and bottom cap shall be free of welded connections through the use of a threaded stainless steel connecting rod. The strainer body and strainer basket shall have an integrally molded location block and recess for self-alignment during installation.

The strainer basket shall be pleated with 1/8" perforated holes on staggered centers to maximize open area. The strainer basket shall be supported with FRP gussets attached to the stainless steel connecting rod. The vertical edges of the basket shall be sealed to the strainer body through the use of rubber channel edging.

Strainer Cut Away With Strainer Basket

Selection Chart

<table>
<thead>
<tr>
<th>Model</th>
<th>Influent Size (in)</th>
<th>Effluent Size (in)</th>
<th>Maximum Operating Pressure</th>
<th>Flow Rate (US Gpm)</th>
<th>Basket Open Area (in²)</th>
<th>Surface Area % of Open Area</th>
<th>Open Area Ratio (Gpm/Area)</th>
<th>Shipping Weight (Lbs)</th>
<th>Shipping Dimensions (LxWxH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSS-16-030-1208</td>
<td>12</td>
<td>8</td>
<td>30 psi</td>
<td>1600</td>
<td>468</td>
<td>31.625x37.40</td>
<td>0.14 to 1</td>
<td>143</td>
<td>32&quot;x23.5&quot;x36.2&quot;</td>
</tr>
<tr>
<td>NSS-16-030-1210</td>
<td>12</td>
<td>10</td>
<td>30 psi</td>
<td>1700</td>
<td>468</td>
<td>31.625x37.40</td>
<td>0.14 to 1</td>
<td>143</td>
<td>32&quot;x23.5&quot;x36.2&quot;</td>
</tr>
<tr>
<td>NSS-16-030-1212</td>
<td>12</td>
<td>12</td>
<td>30 psi</td>
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</tr>
</tbody>
</table>

*Note: Design Head Loss at or below the stated flow rate for each model of strainer will be 0 psi with a clean strainer basket.

National strainer dimensions should NOT be used for construction or installation unless confirmed by USFilter Engineering Staff.
The FRP top cap shall have inspection ports located on the straining side of the basket as well as a molded flow-indicating arrow. The FRP bottom cap shall have a clear viewing window for internal debris loading inspection.

Strainer System

The FRP strainer system shall have 468 square inches of open area with 4.14 to 1 ratio to the influent flanged connection. The strainer shall provide 0-psi head loss when operating at a flow rate of _______ US GPM with a clean strainer basket.

The strainer system shall be certified by NSF International to ANSI/ NSF Standard 50 1996 for pool and spa applications. The strainer system shall be Model No. NSS-16-030-______ as manufactured by USFilter Stranco Products.

Strainer Body and Lid

The FRP strainer body shall be 15” in diameter with a body flange and strainer lid diameter of 23.5”. The FRP strainer body and lid shall be manufactured utilizing a patented one step process that provides a minimum laminate flexural modulus of 1.82E+06 psi and flexural strength of 36.4 ksi.

The body flange and lid shall have twelve (12)-molded slots for attachment of drop-away lid fastening hardware. The J-bolts are attached to the strainer body through the use of integrally molded ⅜” stainless steel pins. The body flange and lid shall have an integrally molded step that forms half of the interlocking groove for the gasket seal. The strainer lid shall be sealed to the body through the use of a 5/16” x ⅛” food grade EPDM square ring. The unique interlocking seal shall provide for manual opening as well as hand tightened sealing of the lid to the body at 45 PSIG.

The FRP strainer system shall come complete with 12-inch influent and 16-inch effluent PVC vanstone flange connections. The strainer lid shall have a clear viewing window for internal debris loading inspection.

The PVC flanges and viewing window shall be chemically bonded to the FRP body and lid utilizing a compatible structural adhesive system that creates a joint that exceeds the mechanical properties of the PVC and viewing window respectively.

The strainer body and lid shall be manufactured utilizing food grade Isophthalic resin and E glass. The strainer shall vary in thickness to provide durability at the points of maximum stress and shall be suitable for a maximum working pressure of 45 PSIG. The body and lid shall have ⅜” slored PVC plugs complete with Y-ring seals for draining and venting of the strainer. A high quality professional finish shall be achieved through the application of an exterior UV inhibited surface gelcoat.

Strainer Basket

The FRP strainer body shall come complete with 12-inch influent and 16-inch effluent PVC vanstone flange connections. The strainer lid shall have a clear viewing window for internal debris loading inspection.

The FRP top cap shall have inspection ports located on the straining side of the basket as well as a molded flow-indicating arrow. The FRP bottom cap shall have a clear viewing window for internal debris retention during removal.

Strainer Area

The strainer system shall have 468 square inches of open area with open area ratio of 4.14 to 1 to the influent flanged connection. The strainer shall provide 0-psi head loss when operating at a flow rate of _______ US GPM with a clean strainer basket.

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Strainer Cut Away With Strainer Basket
DATA SHEET

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