**APPLICATIONS**

**MARKETS:**
- WATER & WASTEWATER
- PULP & PAPER
- CHEMICAL & PETROCHEMICAL
- PETROLEUM
- OIL & GAS
- TRANSPORTATION
- MARINE INDUSTRY
- FOOD INDUSTRY

**GENERAL APPLICATION:**
Simplex Basket Strainers are installed into a pipeline system to remove unwanted debris from the pipeline flow. Basket Strainers are commonly used in horizontal pipelines where debris loading is high and the collection of solids is required. Straining is accomplished via a perforated or mesh lined straining element, internal to the basket strainer. In general, the size of the perforation or mesh should be slightly smaller than the smallest debris particle to be removed. It is important to note that the correct size of a basket strainer is determined by its job function, not by the size of the pipeline.

The above data represents common market and service applications. No representation or guarantee, expressed or implied, is given due to the numerous variations of concentrations, temperatures and flow conditions that may occur during actual service.

**FEATURES**

- BETTER FLOW CHARACTERISTICS
  With its dual annulus design, the BS87 SERIES provides a straighter flow path. During flow simulation testing, the BS87F achieved a 10 percent reduction in pressure loss when compared to "over-the-top" style basket strainers.

- FINER FILTRATIONS
  The BS87 SERIES is designed with a machined, flat seat for the straining element. This allows an O-ring to be installed underneath the lip of the straining element, creating a tight seal. This feature prevents debris from slipping past the straining element lip as is often the case with 'slant-type' basket strainers that cannot utilize an O-ring.

- LARGE STRAINING CAPACITY
  With its large body and sizeable straining element, the BS 87F CS/SS has the ability to store large quantities of debris without affecting pressure loss - thus maximizing time between servicing.

- NUMEROUS STRAINING ELEMENT OPTIONS
  Straining elements are available in a variety of perforations, meshes, and materials. Special designs are also available including magnetic, wedgewire, drilled perforations, and pleated straining elements.

- HIGH QUALITY CONSTRUCTION
  The BS87 SERIES is available in carbon and stainless steel with either threaded or flanged (RF) end connections. Carbon steel performs exceptionally well in high temperatures, up to 800 °F in continuous service. It provides high resistance to shock, vibration, piping strains, and fire and freezing hazards. Stainless steel is highly corrosion resistant, extremely strong, and is commonly specified for high temperature service, up to 1000 °F in continuous service.

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**TECHNICAL**

<table>
<thead>
<tr>
<th>PRESSURE/TEMPERATURE RATING CS</th>
<th>ASTM A216 GR. WCB - CLASS 150</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOG (Non-shock): 285 PSI @ 100 °F</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRESSURE/TEMPERATURE RATING SS</th>
<th>ASTM A351 GR. CF3M - CLASS 150</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOG (Non-shock): 275 PSI @ 100 °F</td>
<td></td>
</tr>
</tbody>
</table>

- Carbon Steel not recommended for prolonged use above 800 °F.
- Stainless Steel not recommended for prolonged use above 1000 °F.

**MODELS:**

- **BS 87F-CS** (CARBON STEEL)
- **BS 87F-SS** (STAINLESS STEEL)

**All Sizes Equipped:**
- **Quick-Open Cover**
- **Ready to Ship!**
**TITAN® FLOW CONTROL, Inc.**

290 Corporate Drive  
Lumberton, NC 28358  
Tel: 910.735.0000  
E-mail: tian@titanfci.com  
Web: www.titanfci.com  
Fax: 910.738.3848

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**BILL OF MATERIALS (1)**

<table>
<thead>
<tr>
<th>No.</th>
<th>PART</th>
<th>BS87F-CS(1)</th>
<th>BS87F-SS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Body</td>
<td>Carbon Steel A216 Gr-WCB</td>
<td>Stainless Steel A351 Gr. CF8M</td>
</tr>
<tr>
<td>2</td>
<td>Cover</td>
<td>Carbon Steel A216 Gr-WCB</td>
<td>Stainless Steel A351 Gr. CF8M</td>
</tr>
<tr>
<td>3</td>
<td>Quick Open</td>
<td>Buna O-Ring</td>
<td>Viton O-Ring</td>
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<tr>
<td></td>
<td>Bolted Cover(2)(3)</td>
<td>Garlock Blue Guard 3000</td>
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</tr>
<tr>
<td>4</td>
<td>Straining(3)</td>
<td>Type 304 Stainless Steel (Other materials are available)</td>
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</tr>
<tr>
<td>5</td>
<td>Stud</td>
<td>Alloy Steel A193-B7</td>
<td>Stainless Steel A320-B8</td>
</tr>
<tr>
<td>6</td>
<td>Nut</td>
<td>Bolted A194-2H</td>
<td>Bolted A194-B</td>
</tr>
<tr>
<td></td>
<td>Quick Open: CS A105</td>
<td>Quick Open: CS A105</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Drain Plug</td>
<td>Carbon Steel</td>
<td>Stainless Steel</td>
</tr>
</tbody>
</table>

**Body Material Application Notes:**
1. Equivalent or better materials may be substituted at the manufacturer’s discretion.
2. Carbon Steel bodies are epoxy painted.
3. Denotes recommended spare parts.
4. Carbon Fiber Compressed gasket may be substituted at the manufacturer’s discretion.
5. Quick-Open Cover is standard. Bolted Cover is optional.

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**DIMENSIONS AND PERFORMANCE DATA (1)**

<table>
<thead>
<tr>
<th>Size</th>
<th>1</th>
<th>1 1/2</th>
<th>2</th>
<th>2 1/2</th>
<th>3</th>
<th>4</th>
<th>6</th>
<th>8</th>
<th>10</th>
<th>12</th>
<th>14</th>
<th>16</th>
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<tbody>
<tr>
<td>in</td>
<td>25</td>
<td>40</td>
<td>50</td>
<td>65</td>
<td>80</td>
<td>100</td>
<td>150</td>
<td>200</td>
<td>250</td>
<td>300</td>
<td>350</td>
<td>400</td>
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<tr>
<td>mm</td>
<td>63.5</td>
<td>101.6</td>
<td>127</td>
<td>165</td>
<td>203</td>
<td>254</td>
<td>381</td>
<td>508</td>
<td>609</td>
<td>762</td>
<td>800</td>
<td>1016</td>
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</tbody>
</table>

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**PRESSURE - TEMPERATURE RATING**

- Carbon Steel: A216 Gr-WCB ASME Class 150  
- Stainless Steel: A351 Gr. CF8M ASME Class 150

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**SIMPLEX BASKET STRAINER**

- **BS 87F-CS** - (Carbon Steel)  
- **BS 87F-SS** - (Stainless Steel)

**Flanged Ends • Raised Face • Carbon & Stainless Steel**

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**REFERENCES & CODES**

- **ASME B16.5**  
  Pipe Flanges and Fitting Standards
- **ASME B16.34**  
  Valves - Flanged, Threaded, and Welding End.
- **MSS SP-55**  
  Quality Standard - Visual Inspection

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**PRESSURE - TEMPERATURE RATING**

- **ASME CLASS 150**  
  A216 Gr. WCB  
  A351 Gr. CF8M

**SCREEN SELECTION GUIDELINES**

1. For 10" and above, consult factory on screen selections for steam.

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**NPT FITTING SCHEDULE:**

<table>
<thead>
<tr>
<th>Size</th>
<th>Gauge Bottom</th>
<th>Side Drain</th>
<th>Cover Vent</th>
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</thead>
<tbody>
<tr>
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<td>1/8&quot; 1/2&quot;</td>
<td>NA 1/8&quot;</td>
<td></td>
</tr>
<tr>
<td>1 1/2&quot;</td>
<td>1/8&quot; 1/2&quot;</td>
<td>NA 1/8&quot;</td>
<td></td>
</tr>
<tr>
<td>2&quot;</td>
<td>1/8&quot; 1/2&quot;</td>
<td>1/8&quot; 1/2&quot;</td>
<td></td>
</tr>
<tr>
<td>2 1/2&quot;</td>
<td>1/8&quot; 1/2&quot;</td>
<td>1/8&quot; 1/2&quot;</td>
<td></td>
</tr>
<tr>
<td>3&quot;</td>
<td>1/8&quot; 1/2&quot;</td>
<td>1/8&quot; 1/2&quot;</td>
<td></td>
</tr>
<tr>
<td>4&quot;</td>
<td>1/8&quot; 1/2&quot;</td>
<td>1/8&quot; 1/2&quot;</td>
<td></td>
</tr>
<tr>
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<td>1/8&quot; 1/2&quot;</td>
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</tr>
<tr>
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<tr>
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<tr>
<td>16&quot;</td>
<td>1/8&quot; 1/2&quot;</td>
<td>1/8&quot; 1/2&quot;</td>
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**TITAN® Flow Control Incorporated reserves the right to make design and specification changes to improve our products without prior notification. When required, request certified drawings. TITAN® is a registered trademark of Titan Flow Control Incorporated.**

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**ASME CLASS 150**

<table>
<thead>
<tr>
<th>Size</th>
<th>Liquid</th>
<th>Open Area</th>
<th>Steam</th>
<th>Open Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>2&quot;</td>
<td>4&quot;</td>
<td>1/16 (0.625)</td>
<td>41%</td>
<td>3/64 (0.45)</td>
</tr>
<tr>
<td>5&quot;</td>
<td>12&quot;</td>
<td>1/8 (0.125)</td>
<td>40%</td>
<td>30 Mesh Ln. (1)</td>
</tr>
</tbody>
</table>

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1. 10" and larger models have two side drains.