1. The above listed temperatures are theoretical and may vary during actual operating conditions.

2. Max and min temperatures are for reference only. Prolonged use at these temperatures is not recommended for optimal service life.

DS896-0119

MODELS: DS 796-CS
(Threaded - Carbon Steel)

DS 796-SS
(Threaded - Stainless Steel)

DS 896-CS
( Flanged - Carbon Steel)

DS 896-SS
( Flanged - Stainless Steel)

FEATURES

◊ **DUAL-BALL DIVERTER DESIGN**

This duplex is designed with two stainless steel balls that efficiently divert the pipeline flow from one basket chamber to the other. Teflon seats ensure a positive seal and help prevent seepage into the chamber that is being serviced.

◊ **EASY TO OPERATE**

The Titan® FCI duplex strainer features a low torque, easy to operate handle that does not require a gearbox. Additionally, the handle’s position clearly indicates which basket is in service and which basket can safely be removed for cleaning.

◊ **REDUCED “IN-LINE” MAINTENANCE**

Titan’s duplex has numerous attributes that help reduce maintenance during cleaning operations. First, the dual ball design isolates each chamber and keeps the servicing chamber dry during cleaning. There are also no special tools required to access and remove the straining element from the chamber. Lastly, the duplex provides cover vents, drain plugs, and foot pads on each chamber.

◊ **ENDLESS SCREEN OPTIONS**

This strainer can be fitted with virtually any configuration of perforation or mesh lined straining elements. Straining elements can also be constructed from special materials such as alloy 20.

APPLICATIONS

General Application: The duplex strainer is a unique product within the pipeline industry. Like other basket strainers, the duplex strainer protects expensive downstream equipment by mechanically removing solids from flowing fluids via a perforated, mesh, or wedge wire straining element. However, the duplex strainer is designed with two basket chambers and a flow diverter system that allows the pipeline flow to be switched from one chamber to the other, completely isolating the flow to a single chamber. This makes the duplex strainer ideal for non-interruptible applications that cannot be shut down during routine maintenance operations.

Ball-Type Duplex Strainers are not recommended for slurry and fibrous content applications.

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.

**TECHNICAL**

**PRESSURE/TEMPERATURE RATING (1)**

**CARBON STEEL - A216 GR. WCB - CLASS 300**

WOG (Non-shock): 740 PSI @ 100 °F

**STAINLESS STEEL - A351 GR. CF8M - CLASS 300**

WOG (Non-shock): 720 PSI @ 100 °F

1. The above listed temperatures are theoretical and may vary during actual operating conditions.

2. Max and min temperatures are for reference only. Prolonged use at these temperatures is not recommended for optimal service life.

**NEW Pressure CLASS!**

**PRESSURE CLASS!**

**PRESSURE/TEMPERATURE RATING (1)**

**CARBON STEEL - A216 GR. WCB - CLASS 300**

WOG (Non-shock): 740 PSI @ 100 °F

**STAINLESS STEEL - A351 GR. CF8M - CLASS 300**

WOG (Non-shock): 720 PSI @ 100 °F
**SCREEN SELECTION GUIDELINES**

<table>
<thead>
<tr>
<th>Size</th>
<th>Liquid</th>
<th>Open Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4&quot; ~ 4&quot;</td>
<td>1/16 (.0625)</td>
<td>41%</td>
</tr>
</tbody>
</table>

**BILL OF MATERIALS**

<table>
<thead>
<tr>
<th>No.</th>
<th>Part</th>
<th>DS 796/896-CS</th>
<th>DS 796/896-SS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Main Body / Basket Housing</td>
<td>Carbon Steel</td>
<td>Stainless Steel</td>
</tr>
<tr>
<td></td>
<td>A216 Gr. WCB</td>
<td>A351 Gr. CF8M</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Straining Element (1)</td>
<td>Stainless Steel</td>
<td>Stainless Steel</td>
</tr>
<tr>
<td>3</td>
<td>Cover</td>
<td>Carbon Steel</td>
<td>Stainless Steel</td>
</tr>
<tr>
<td></td>
<td>A216 Gr. WCB</td>
<td>A351 Gr. CF8M</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Ball</td>
<td>Stainless Steel</td>
<td>Stainless Steel</td>
</tr>
<tr>
<td>5</td>
<td>O-Ring</td>
<td>Buna-N</td>
<td>Viton</td>
</tr>
<tr>
<td>6</td>
<td>Seat</td>
<td>Teflon (PTFE)</td>
<td>Teflon (PTFE)</td>
</tr>
<tr>
<td>7</td>
<td>Seal</td>
<td>Buna-N</td>
<td>Viton</td>
</tr>
<tr>
<td>8</td>
<td>O-Ring Body</td>
<td>Buna-N</td>
<td>Viton</td>
</tr>
<tr>
<td>9</td>
<td>Handle</td>
<td>Carbon Steel</td>
<td>Zinc Coated</td>
</tr>
</tbody>
</table>

1. Bill of Materials represents standard materials. Equivalent or better materials may be substituted at the manufacturer's discretion.
2. Denotes recommended spare parts.

**DIMENSIONS AND PERFORMANCE DATA**

<table>
<thead>
<tr>
<th>SIZE (3)</th>
<th>in</th>
<th>3/4</th>
<th>1</th>
<th>1 1/4</th>
<th>1 1/2</th>
<th>2</th>
<th>2 1/2</th>
<th>3</th>
<th>4 (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mm</td>
<td>20</td>
<td>25</td>
<td>32</td>
<td>40</td>
<td>50</td>
<td>65</td>
<td>80</td>
<td>100</td>
</tr>
</tbody>
</table>

- **AF DIMENSION**
  - Flanged Face to Face
  - Threaded Face to Face

- **AT DIMENSION**
  - Flanged Face to Face
  - Threaded Face to Face

- **B DIMENSION**
  - Unit Width (including plug)

- **C DIMENSION**
  - Height with Handle

- **D DIMENSION**
  - Center Line to Bottom

- **E DIMENSION**
  - Basket Removal

- **F DIMENSION**
  - Handle Length

- **APPROXIMATE WEIGHT**
  - DS 896, Flanged
  - DS 796, Threaded

**PRESSURE - TEMPERATURE RATING**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASME B16.5</td>
<td>Pipe Flanges and Flanged Fittings</td>
</tr>
<tr>
<td>ASME B16.11</td>
<td>Forged Steel Fittings, Socket-Welding, and Threaded</td>
</tr>
</tbody>
</table>

**ASME Class 300**

<table>
<thead>
<tr>
<th>Size</th>
<th>740 PSI @ 100 °F</th>
<th>720 PSI @ 100 °F</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As Titan product changes occur, there may be short-term differences between actual product specifications and the information contained within our literature. Titan FCI 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.