The **Sanitary Cartridge (SC)** valve is a stainless steel check valve for use with new or existing sanitary ferrules. The SC design seals on the ID of ferrules with replaceable food grade seals (Standard is FDA EPDM). The valve fits the Alfa Laval Inc. Bevel Seat and Tri-Clamp® fittings, Cherry-Burrell Q-Line and S-Line fittings and others with ID dimensions equal to the “F” dimensions listed below (ferrules not included). The compact SC design fits inside a single fitting and requires no additional space in the line. Its size makes it extremely economical when compared to full-bodied valves.

For applications requiring a 3-A compliant valve and/or 32 RA or finer surface finishes, see our 3S series on page 23.

The SC valve can also be used as a low pressure relief valve or vacuum breaker by using the desired spring settings.

**Note:** USP Class VI o-rings can be supplied with certification.

<table>
<thead>
<tr>
<th>Line Size</th>
<th>Size Code</th>
<th>A</th>
<th>B</th>
<th>C ø</th>
<th>D ø</th>
<th>E</th>
<th>F ø</th>
<th>Orifice Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4&quot;</td>
<td>F</td>
<td>3/4</td>
<td>1/16</td>
<td>0.44</td>
<td>0.78</td>
<td>0.28</td>
<td>0.620</td>
<td>0.348</td>
</tr>
<tr>
<td>1</td>
<td>H</td>
<td>1</td>
<td>1/16</td>
<td>0.53</td>
<td>0.89</td>
<td>0.30</td>
<td>0.870</td>
<td>0.464</td>
</tr>
<tr>
<td>1-1/2&quot;</td>
<td>J</td>
<td>1-1/2</td>
<td>1/16</td>
<td>0.53</td>
<td>1.06</td>
<td>0.63</td>
<td>1.370</td>
<td>0.890</td>
</tr>
<tr>
<td>2</td>
<td>K</td>
<td>2</td>
<td>1/16</td>
<td>0.66</td>
<td>1.39</td>
<td>0.66</td>
<td>1.870</td>
<td>1.135</td>
</tr>
<tr>
<td>2-1/2&quot;</td>
<td>L</td>
<td>2-1/2</td>
<td>1/16</td>
<td>0.69</td>
<td>1.56</td>
<td>0.88</td>
<td>2.370</td>
<td>1.385</td>
</tr>
<tr>
<td>3</td>
<td>M</td>
<td>3</td>
<td>1/16</td>
<td>0.75</td>
<td>1.97</td>
<td>1.25</td>
<td>2.870</td>
<td>2.025</td>
</tr>
<tr>
<td>4</td>
<td>N</td>
<td>4</td>
<td>1/16</td>
<td>0.88</td>
<td>2.41</td>
<td>1.63</td>
<td>3.834</td>
<td>2.560</td>
</tr>
</tbody>
</table>

1. Maximum nominal dimension for valve closed.
2. Maximum nominal dimension for a fully open valve with no spring.
3. Valves are designed to function with fittings having these internal diameters. (±0.005)

<table>
<thead>
<tr>
<th>Body Material</th>
<th>Line Size</th>
<th>Non-Shock Pressure-Temp Rating @ 100°F</th>
</tr>
</thead>
<tbody>
<tr>
<td>316/316L Stainless Steel (SS)</td>
<td>3/4&quot; - 1-1/2&quot;</td>
<td>1000 PSIG</td>
</tr>
<tr>
<td></td>
<td>2&quot; - 4&quot;</td>
<td>725 PSIG</td>
</tr>
</tbody>
</table>

4. See page 56 for material grade information.
HOW TO ORDER
CHECK-ALL STYLE SC

SPRING CRACKING PRESSURES (PSI)
Must use decimal as a character unless selecting NO SPRING. Specify Exact Setting

SPRING RANGES
- .000 TO .999 = .500
- 1.00 TO 9.99 = 1.50
- 10.0 TO 85.0 = 15.0
- NO SPRING = NOSPRG

STANDARD CRACKING PRESSURES
- .125
- .500
- 1.50
- 3.50
(Based F-K Only)

SPECIAL OPTIONS
- T = FEP ENCAPSULATED SPRING
- O = Outer o-ring seals same as seat

See pages 3 & 4 for temperature rating

BODY MATERIAL
- 316/316L SS = SS
See p. 3 for temperature rating

VALVE STYLE
- SC SS

SEAT & OUTER SEALS MATERIAL
- FDA AFLAS® = FA
- FDA BUNA = FB
- FDA EPDM = FE
- FDA KALREZ® = FK
- “METAL-TO-METAL” = MT
- PTFE = TF
- USP CLASS VI AFLAS® = UA
- USP CLASS VI EPDM = UE
- USP CLASS VI SILICONE = US
- USP CLASS VI VITON® = UV

See p. 3 for temperature ratings

SPRING MATERIAL
- 316 SS = SS
- ALLOY C-276 = HC
- INCONEL® X750 OR ALLOY X750 = IX
- MONEL® 400 = MO
- 17-7PH SS = PH
- TITANIUM = Ti

See p. 4 for temperature ratings

Note: Many other cracking pressures are available. All spring tolerances +/- 15%.

Listed above are the most common material selections. Please contact the factory for additional options.

1. .500 PSI is the only standard cracking pressure for spring materials other than Stainless Steel. .125 PSI springs are not recommended for installations with flow vertical down.

2. “Metal-to-Metal” and PTFE seats are not resilient nor available for outer seals. See page 52 for allowable leakage rates.

3. -O option not available for “Metal-to-Metal” and PTFE seats, FE will be used as standard. Consult factory for other options.