SBV Pulsation Dampers

Silicone SBV3 Series, up to 40 bar
Product Description

The SBV3 pulsation damper is specially designed for installation on low pressure fuel systems, typically in Marine and Power Generation applications, to attenuate pressure pulses.

The patented technology removes all risks and maintenance associated with pressurised gas and no precharge is required as Silicone particles are used instead. This third generation of damper integrates the brand new S2 rubber mix which offers improved longevity and efficiency and the new stem adapter which provides greater reliability.

Benefits

The new generation of SBV offers enhanced longevity, delivering stable performance levels 35% longer than the SBV2. The new stem adapter reduces the risk of leakage; 2 to 3 times lower than the SBV2 and an improved strainer prevents silicone parts from entering the fuel system.

Easy to install and use
The SBV3 is installed on the diesel engine inlet outlet or outlet fuel lines. The bottom side is connected to the fuel system and the external connection on the top side, to a spill detection system. No additional fluids or gas precharge are required and its lightweight construction makes it easier to handle and transport.

Improved safety
The new stem adapter with 2 sealing zones significantly reduces the risk of hot fluid contact during inspection and maintenance. Its high pressure safety factor and enhanced leak prevention also provide improved safety features.

Efficiency and Reliability
Offering a product lifetime of 35% longer than its former model the SBV3 offers better value for money and peace of mind. A robust shell design and improved stem adapter optimize this product for high stress and fatigue.

Extending System Life – Cost Saving!
The reduction of pressure peaks in the fuel system will prevent damage to pumps/instrumentation and reduce the costs associated with system maintenance and repair.

Approvals
CE or PED 2014/68/EU Artical 4.3
BV Marine

Typical Installation Example

<table>
<thead>
<tr>
<th>1. Silicone Port</th>
<th>Can be connected to drain pan through spill detection system or valve</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Shell</td>
<td>Material: Carbon Steel; Maximum working pressure: 40 bar; Nominal Capacities: 0.5, 1 or 2.5 Litres</td>
</tr>
<tr>
<td>3. Bladder</td>
<td>Mix compound S2 type HBBR; specially developed to be compatible with fuel types HFO &amp; MDO and high temperature environments</td>
</tr>
<tr>
<td>4. Fluid port</td>
<td>With reinforced strainer, G2&quot; compatible with a large range of adaptors and manifolds</td>
</tr>
</tbody>
</table>
SMB3 Series: How to select the right SBV3

Two pieces of information are required to select the most suitable SBV3 model for your system:

- F(Hz): Fundamental frequency of pulsations
- Pm (bar): Mean pressure in the circuit

To select:
1. Using the adjacent diagram, find the fundamental frequency and the mean pressure.
2. Select the right model in the shaded area.

SMB3 Series: How to order

<table>
<thead>
<tr>
<th>Product Type</th>
<th>SBV3 : Silicon low pressure bladder</th>
</tr>
</thead>
</table>
| Volume in L (up to 4 Characters) | 0.5 - for 0.5 Liter  
|                       | 1.0 - for 1.0 Liters  
|                       | 2.5 - for 2.5 Liters  |
| Maximum Working Pressure According to CE* | 40 - for 40 bar max working pressure  |
| Approvals* | 00 - According to the PED2014/68/EU, article 4.3  
|           | 11 - According CE & BV Marine  
|           | 13 - According PED article 4.3 & BV Marine  |
| Material (Shell and Fluid Port) | A - All parts in carbon steel with Epoxy paint for shell only (11)  
| Fluid Port Configuration | K - G2" according to ISO228  
| Silicone Port Configuration | L - No gas valve - pipe connection Ø10mm  
|                       | M - No gas valve - pipe connection Ø8mm  
| Fluid Type | 1 - Fluid Type 1 CE Fluid Group 1  
| Special | 00 - No Special features or configuration  
|           | ZZ - Special configuration or several options  |
Technical Specifications

Pressure
Maximum working pressure: PS = 40 bar
Operating pressure OP: 3 to 15 bar.

Pre-charge pressure
No precharge pressure requested.
Bladder filled with silicone particles.

Material of construction
Shell in forged carbon steel with epoxy paint Bladder mix S2 HNBR.

Temperature range
Standard construction: -10 to +150°C.

System fluids
Suitable for diesel oil and heavy oil (MDO&HFO)
Product approved for fluid group 1 according to PED

Approvals
Compliance PED : article 4.3* or CE
BV Marine

Installation
Vertical (fluid port on bottom side), preferable to horizontal.
User manual is delivered with the damper.

<table>
<thead>
<tr>
<th>Type</th>
<th>Part Number</th>
<th>Volume Litres</th>
<th>Weight Kg</th>
<th>Dimensions (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBV3 0.5-40/00-AS2KM-100</td>
<td>092686011S2</td>
<td>0.5</td>
<td>3</td>
<td>261 46 40 90 28 17 8 68 24</td>
</tr>
<tr>
<td>SBV3 1.0-40/13-AS2KM-100</td>
<td>092390011S2</td>
<td>1</td>
<td>6</td>
<td>289 47 40 116 34 22 10 68 19</td>
</tr>
<tr>
<td>SBV3 2.5-40/11-AS2KL-100</td>
<td>092391011S2</td>
<td>2.5</td>
<td>10</td>
<td>463 47 40 116 34 22 10 68 19</td>
</tr>
</tbody>
</table>

The dimensions given in the table above are in mm and the manufacturing tolerances are not taken into account.

*From 07/2016 PED97/23/EC Article 3.3 becomes PED2014/68/EU Article 4.3
Accessories

Manifold :
- DIN
- JIS
- ANSI
and substitute existing solution in SAE 3000 psi

Clamps :
Temperature 150°C
Construction in Zinc plated – Silicon rubber
SBV3-E95
SBV3-A114

Other Accessories :
- Pipe Kit’s for monitoring the Bladder up to 150°C
- Ball valve – Connector – clamps
  - in Carbone Steel coating CF
- Pipe :
  - Carbone steel coating CF
  - Stainless steel 1.4571
  - Copper (pipe)

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