Pressure Relief Valve
in heat jacketed design

PROTEGO® SD/BS-H

Due to our highly developed manufacturing technology, the tank pressure is maintained up to set pressure with a tightness that is far superior to the conventional standard. This feature is achieved by valve seats made of high-grade stainless steel with precisely lapped valve pallets and a sturdy housing design. After the excess pressure is released, the valve re-seats and provides a tight seal again.

Special Features and Advantages

• 10% technology for minimum pressure increase up to full lift
• extreme tightness, resulting in lowest possible product losses and reduced environmental pollution
• set pressure close to opening pressure for optimum pressure maintenance in the system
• high flow capacity
• valve pallet is guided inside the housing to protect against harsh weather conditions
• can be used in areas subject to an explosion hazard

Function and Description

The SD/BS-H type PROTEGO® valve is a highly developed pressure relief valve with a heating jacket down to the flange. It is primarily used as pressure relief device for vessels and process engineering equipment under difficult operating conditions. This includes extreme weather conditions or products that tend to form polymers at certain temperatures, stick together, or form deposits that negatively influence function (such as bitumen, tar, dust). The valve offers reliable protection against overpressure and prevents excessive loss of product vapors close to the set pressure.

The device will start to open as soon as the set pressure is reached and only requires 10% overpressure to full lift. Continuous investments in and a commitment to research and development have allowed PROTEGO® to develop a low pressure valve which has the same opening characteristic as a high pressure safety relief valve. With this “full lift type” technology, the valve can be set at just 10% below the maximum allowable working pressure of the tank and still safely vent the required mass flow.

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Design Types and Specifications

The valve pallet is weight-loaded. Starting at a set pressure of 30 mbar, a wing guide is also used.

Pressure valve in basic design with heating jacket

SD/BS-H

Additional special devices available upon request.

Table 1: Dimensions

<table>
<thead>
<tr>
<th>DN1</th>
<th>DN2</th>
<th>a</th>
<th>≤ 30 mbar</th>
<th>&gt; 30 mbar</th>
<th>b</th>
<th>c</th>
<th>≤ 30 mbar</th>
<th>&gt; 30 mbar</th>
<th>d</th>
<th>≤ 30 mbar</th>
<th>&gt; 30 mbar</th>
<th>e</th>
</tr>
</thead>
<tbody>
<tr>
<td>80</td>
<td>3&quot;</td>
<td>15 / ½&quot;</td>
<td>325 / 12.80</td>
<td>400 / 15.75</td>
<td>515 / 20.28</td>
<td>70 / 2.76</td>
<td>250 / 9.84</td>
<td>390 / 15.35</td>
<td>250 / 9.84</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>4&quot;</td>
<td>15 / ½&quot;</td>
<td>325 / 12.80</td>
<td>400 / 15.75</td>
<td>505 / 19.88</td>
<td>60 / 2.36</td>
<td>250 / 9.84</td>
<td>380 / 14.96</td>
<td>250 / 9.84</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>150</td>
<td>6&quot;</td>
<td>15 / ½&quot;</td>
<td>405 / 15.94</td>
<td>460 / 18.11</td>
<td>595 / 23.43</td>
<td>60 / 2.36</td>
<td>315 / 12.40</td>
<td>470 / 18.50</td>
<td>290 / 11.42</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200</td>
<td>8&quot;</td>
<td>15 / ½&quot;</td>
<td>510 / 20.08</td>
<td>470 / 18.50</td>
<td>575 / 22.64</td>
<td>65 / 2.56</td>
<td>305 / 12.01</td>
<td>445 / 17.52</td>
<td>340 / 13.39</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* also available with special flange DN 50 / 2"
The flow capacity charts have been determined with a calibrated and TÜV certified flow capacity test rig.
Volume flow $V$ in $(\text{m}^3/\text{h})$ and CFH refer to the standard reference conditions of air in ISO 6358 (20°C, 1bar).
For conversion to other densities and temperatures, refer to Sec. 1: “Technical Fundamentals.”