### Introduction
The Alfa Laval SB Pressure Relief Valve is a hygienic safety valve that removes excess liquid that creates overpressure in a process tank or vessel due to overfilling. When pressure in the tank exceeds a pre-set value, the pressure relief valve opens to vent fluid in the event of liquid overfilling and closes when the tank or vessel pressure has returned below the set point. This prevents damage to the tank or vessel and helps ensure safe operations.

### Application
This safety valve is designed to safeguard pressurized tanks and vessels used in hygienic process lines in the brewery, dairy, food, beverage, and many other industries. The valve can be integrated with a SCANDI BREW® tank top system.

### Benefits
- Cost-effective, hygienic design
- Protection against tank overfilling and pressurization
- Superior hygiene
- Customized to meet process requirements
- Easy to clean

### Standard design
The SB Pressure Relief Valve is a deadweight safety valve. It is compliant with PED 2014/68/EU, EN 4126-1 and EN 764-7 and available in two versions: integrated with a SCANDI BREW® tank top system or mounted on its own counter flange.

### Working principle
The Alfa Laval SB Pressure Relief Valve is delivered with counterweight and is set and locked at the pre-set pressure, specified by the customer as the opening pressure. When pressure in the tank or vessel exceeds the pre-set opening value, the valve relieves the excess pressure.

The opening pressure must be set at a value that is above the tank working pressure: 0.1 bar above for working pressures < 1 bar, and 10% above for working pressures ≥ 1 bar. The valve should be seated horizontally. A maximum inclination of 10° is acceptable, but the lever arm must then point inward toward the centre of the cylindroconical tank top.
TECHNICAL DATA

Nominal size | Set Pressure Range
--- | ---
75mm | 0.2 - 3.5 bar
100mm | 0.2 - 2.5 bar
150mm | 0.4 - 1.5 bar

PHYSICAL DATA

Materials

<table>
<thead>
<tr>
<th>Product wetted steel parts:</th>
<th>EN 1.4404 (AISI 316L) with 3.1 cert.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product wetted steel surfaces:</td>
<td>Surface roughness Ra&lt; 0.8 μm</td>
</tr>
<tr>
<td>Product wetted seals:</td>
<td>EPDM</td>
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</tbody>
</table>

Cleaning In Place (CIP)

The Pressure Relief Valve is cleaned in closed position by the tank cleaning head, but this will not include the valve seating. To include the valve seating in the cleaning cycle, there is the option to equip the valve with a pneumatic force opener and a splash guard.

Options

Options:

Pos. 1: Force opener: force opening during cleaning cycle
Pos. 2: Splash guard: containing CIP liquid during valve seat cleaning
Pos. 3: Proximity sensor: for operation detection
Pos. 4: Welding flange: for installation
**Figure 1. Integrated Valve**

ID = Active diameter

BC = Bolt circle

OD = Outside diameter

**Figure 2. Flange Mounted Valve**

ID = Active diameter

BC = Bolt circle

OD = Outside diameter

**Interface requirements (mm)**

<table>
<thead>
<tr>
<th>Nominal Size</th>
<th>ID</th>
<th>BC</th>
<th>OD</th>
<th>Bolts</th>
<th>H1</th>
<th>H2</th>
<th>W</th>
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<tbody>
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<td>75</td>
<td>75</td>
<td>165</td>
<td>200</td>
<td>4xM16</td>
<td>375</td>
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<td>4xM16</td>
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<td>8xM16</td>
<td>430</td>
<td>30</td>
<td>1050</td>
</tr>
</tbody>
</table>
In accordance with EN 4126-1

Capacity measured at:

- ΔP=10% Set pressure ≥ 1 bar
- ΔP=0.1 Set pressure < 1 bar

Medium: water (20°C)