



SCANDI BREW® Pressure relief valve Dead weight type

Tank top systems

Application

The pressure relief valve is used for minimizing the risk of damage to tanks due to overpressurising or liquid overfilling.

Design

The dead weight pressure relief valve is available in two versions:

• Integrated in a SCANDI BREW® tank top system

• Mounted on its own counterflange

The advantages of an integrated pressure relief valve are lower initial costs, superior hygiene and smaller area required for a seat valve. Approval on request PED/97/23 EEC for liquids.

The valve is available in the following sizes:

Diameter	Operation Range	
50 mm	1.0 - 3.5 bar (15 - 50 psi)	
75 mm	1.0 - 3.0 bar (15 - 40 psi)	
100 mm	0.5 - 2.0 bar (7 - 30 psi)	
125 mm	0.5 - 1.5 bar (7 - 22 psi)	
150 mm	0.5 - 1.0 bar (7 - 15 psi)	

The size and setting of the pressure relief valve is based on the tank design data and process requirements.

The preset opening pressure of the valve is normally at least 10% above maximum tank working pressure.

The pressure relief valve is produced in a sanitary and robust design.

The pressure relief valve should be seated horizontally. An inclination of max. 10° is acceptable but the lever arm must then point in to the centre of the cylindro-conical tank top.

The benefits of the pressure relief valve are:

- Valve seat design ensures operational reliability
- Sensitive set points for precise operation
- Fully cleanable with integrated CIP system
- Minimal and low-cost maintenance demand



Working principle

The pressure relief valve is delivered with counter weight set to suit customer requirements regarding opening pressure. When pressure in the tank exceeds the preset opening value, the valve relieves the excess pressure.

It is important that the valve seat is kept clean. Assuming the valve is operating normally, the valve disc is satisfactorily cleaned during tank CIP cycle. The pressure relief valve can be supplied with a pneumatic force opener. Alternatively, the valve can be supplied with a built-in CIP nozzle for separate cleaning of the valve disc. This is recommended when the tank cleaning head will not guarantee satisfactory cleaning of the disc.

Specifications

All metallic parts:	Stainless steel EN 1.4307 (AISI 304L) or
	EN 1.4404 (AISI 316L) on request
O-ring seal:	NBR
All other parts:	Non-toxic foodgrade materials.

As a guideline to offer full protection against overpressurising and liquid overfill, the active diameter of the pressure relief valve should correspond to the tank inlet size. Heating elements are available for valves exposed to sub-zero temperatures.

A heating tape is supplied for the flange mounted valves, whereas valves integrated in a top plate are heated by means of heating blocks mounted on the top plate close to the valve. Extra Equipment

- Heating elements for valves exposed to sub-zero temperatures
- Built-in CIP nozzle incl. flexible NBR CIP feeding hose
- Pneumatic force opener
- Proximity switch with mounting fitting for signalling if the valve has been in operation
- Splashguard
- Weather cowl



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Alfa Laval reserves the right to change specifications without prior notification.

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