



SCANDI BREW® Anti vacuum valve Dead weight type

Tank top systems

Application

To minimise risk of implosion of tanks exposed to vacuum (e.g. during emptying, cool rinsing after hot-cleaning (max. 85 °C) or caustic cleaning in a CO₂ atmosphere). To be applied on any closed tank.

Construction

The dead weight anti vacuum valve is available in two versions:

- Integrated in to a SCANDI BREW® tank top system
- Mounted on its own counterflange

The advantages of an integrated anti vacuum valve are lower initial costs, superior hygiene and smaller area required to seat valve.

The valve is available in the following sizes:

Diameter	Operation Range
80 mm	100 mm - 300 mm W.G.
100 mm	100 mm - 300 mm W.G.
150 mm	75 mm - 200 mm W.G.
200 mm	75 mm - 150 mm W.G.
250 mm	50 mm - 100 mm W.G.
300 mm	50 mm - 100 mm W.G.
400 mm	25 mm - 75 mm W.G.
450 mm	25 mm - 50 mm W.G.

The size and setting of the anti vacuum valve is based on the tank design data, cleaning procedure and process requirements.

The anti vacuum valve is produced in a sanitary and robust design.

Materials

All metallic parts: Stainless steel AISI 304
(or acc. to customer specification)
O-ring seal: NBR, 45° shore
All other parts: Non-toxic foodgrade materials

It is very important to note that if the cleaning procedure includes hot-cleaning (max. 85 °C) the valve should be dimensioned with the purpose of preventing implosion from the vacuum that appears when flushing with cold water.



Benefits

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

Other factors to be considered when sizing the valve include: tank size and dimensions as well as maximum emptying speed.

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 tank top system are heated by means of heating blocks mounted on the tank top system close to the valve.

Operation

The anti vacuum valve is delivered with counter weight set for an individual opening vacuum to suit the tank design data. When a vacuum in the tank is lower than the preset opening value, the valve opens and lets in atmospheric air.

Cleaning

The anti vacuum valve is cleaned, when closed, by the tank cleaning head, but this will not include the valve disc.

To include the valve disc in the cleaning cycle a CIP device can be mounted on the valve.

The CIP device uses the CIP pressure to open the valve and cleaning liquid flushes the valve disc and drains back in to the tank.

The CIP device is supplied with a splashguard to catch reflecting sprays.

Note: Applying the CIP device provides that cleaning takes place in a pressureless tank.

Mounting

The anti vacuum 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.

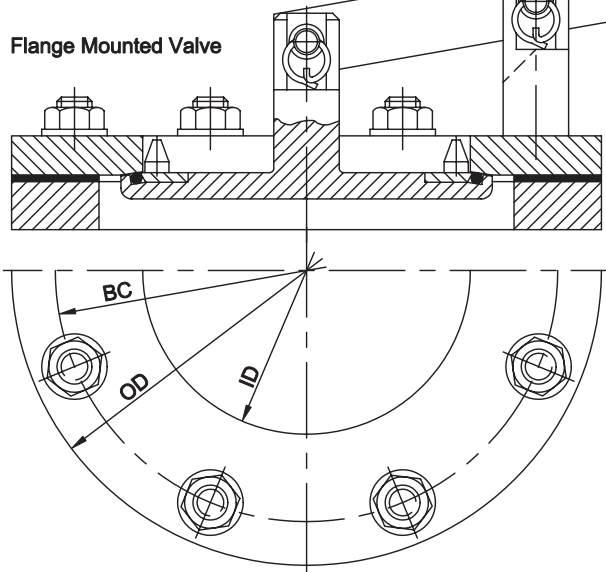
Maintenance

Requires periodic manual cleaning of the valve assembly and test of the function. O-ring replaced every 3-5 years. With heating elements the O-ring is replaced every 2-3 years.

Extra equipment

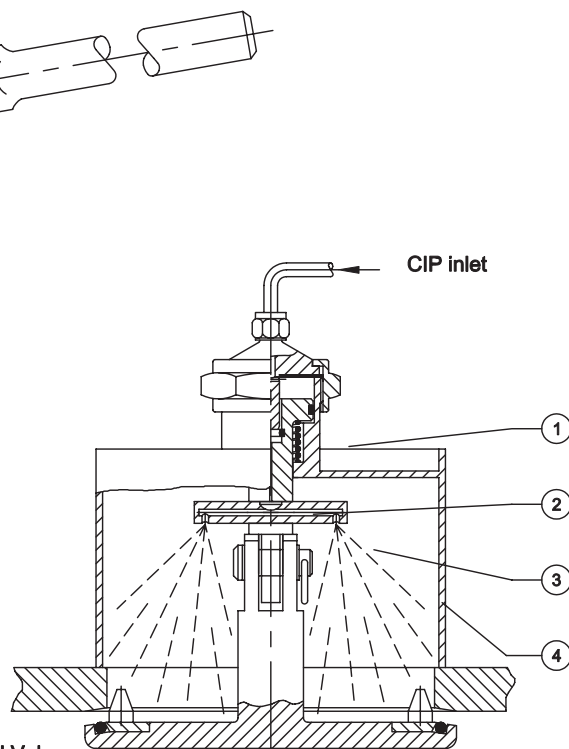
- Heating elements for valves exposed to sub-zero temperatures
- CIP force opening device with splashguard incl. stainless steel CIP feeding pipe
- Pneumatic force opener
- Proximity switch with mounting fitting for signalling if the valve has been open
- Weather cowl with spray catcher

Flange Mounted Valve



ID = Active diameter
 BC = Bolt circle
 OD = Outside diameter

Integrated Valve with CIP device



- Pos.1 : CIP Valve
 Pos.2 : Force opener
 Pos.3 : Nozzle outlet
 Pos.4 : Splashguard

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