



# SCANDI BREW® Tank pressure regulator, Type 1

## Tank top systems

### Application

The tank pressure regulator is used on tanks within the brewing industry. The purpose of the regulator is to maintain and regulate top pressure on pressure tanks during filling, processing and emptying.

### Design

The pressure regulator comprises a single valve unit including pressure relief valve, pressure supply valve and connection for pressure gauge. On top is a vent port with outlet connection. The modular design is to suit different requirements. Tank connection at side branch is normally connected to the pipe leading to the tank top. Optionally, it is connected with extra support by means of bracket fixed on reverse side of valve block. It is also possible to incorporate the pressure regulator in a flow panel.

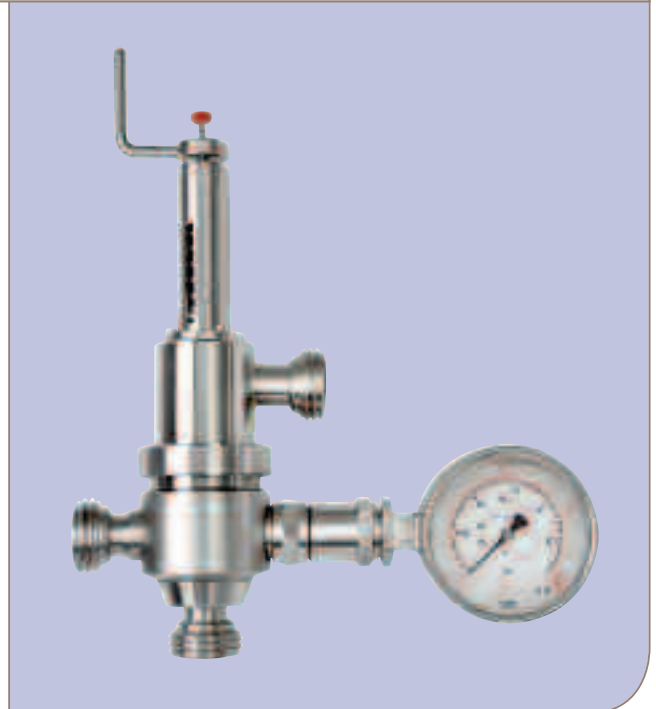
The benefits of the tank pressure regulator are:

- to maintain a constant tank top pressure during filling, processing and emptying
- to ensure a reliable setting of working pressure
- fully cleanable with CIP system

### Working principle

When the valve unit is supplied with variable setting, the relieving pressure is adjusted to the required working pressure in the tank. When tank top pressure exceeds preset pressure (e.g. during filling or fermentation), gas leaves the pressure regulator through the vent port either for atmospheric discharge or for collection. If the tank top pressure decreases (e.g. during emptying), gas is supplied through the gas supply connection at the bottom.

Cleaning of the pressure regulator is necessary before the next batch. The pressure regulator is incorporated in the tank CIP procedure by means of the CIP adaptor. Before cleaning, the CIP adaptor is mounted on the pressure regulator whereby gas supply valve and pressure relief valve are forced open and fully cleaned in bypass. During the CIP procedure, all functions are blocked. See schematic drawing of the regulator.



### Specifications

#### Materials

Valve block and vent port: Stainless steel EN 1.4307 (AISI 304L)

Valve bodies (as standard): PP and stainless steel with EPDM gaskets

All other parts: Non-toxic foodgrade materials.

The correct sizing depends on gas volume to pass during filling, fermenting, or emptying. The table below can be used as a guideline for standard fermentation.

Dimensions	Filling/emptying speed	Working capacity of fermenter*
1" / DN 25	Max. 250 hl / h	Max. 1000 hl
1½" / DN 40	Max. 500 hl / h	Max. 2000 hl

\* At max. fermentation rate 2.4 deg. Plato / 24 hrs.

Pressure regulators in size 2", 3" and 4" are available in another version (see separate product leaflet).

Standard operating pressure ranges up to 3,0 bar/ 43,5 psi/ 300 kPa.

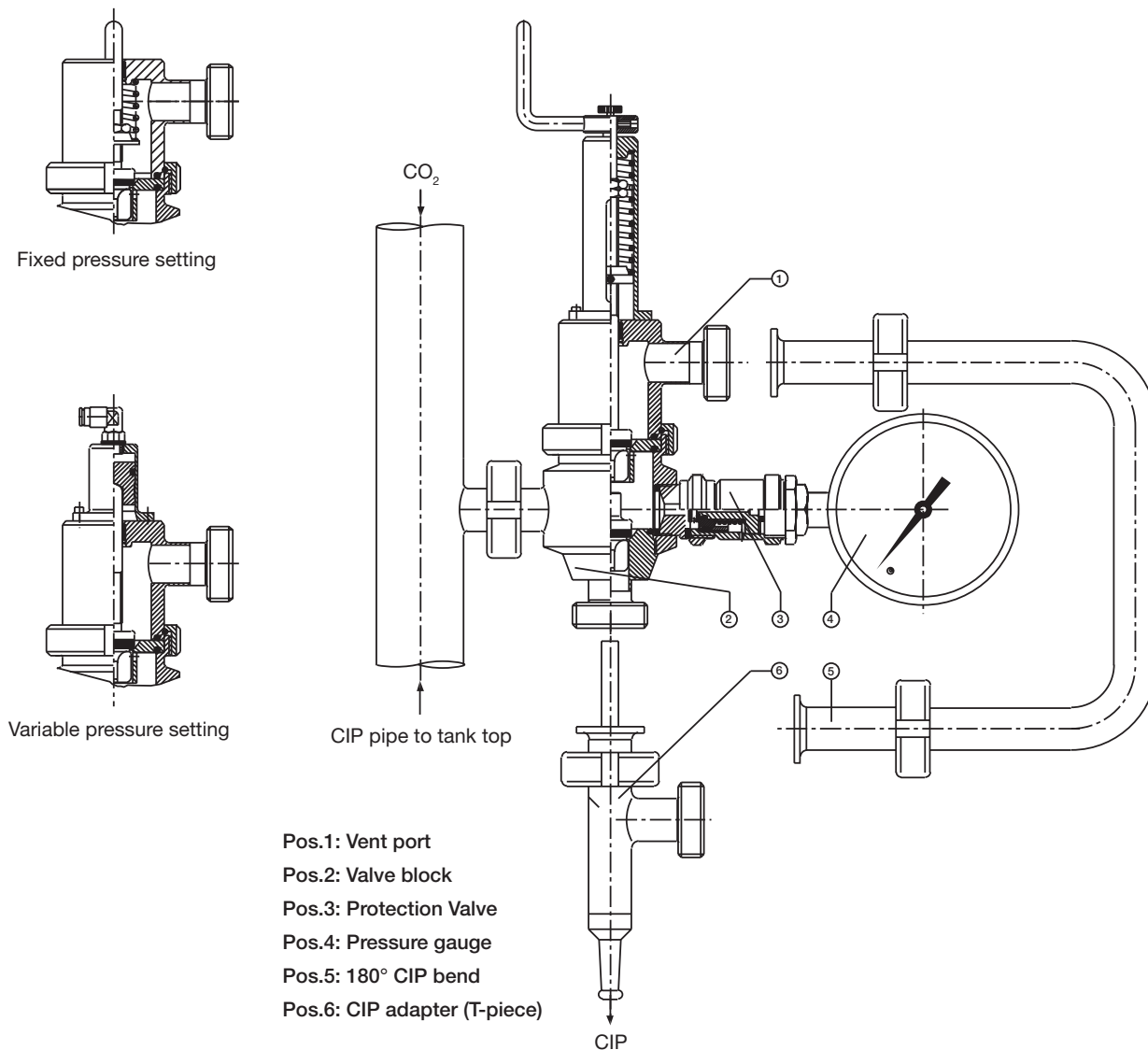
The pressure regulator is available with spring regulation in following versions:

- Fixed setting (one pressure only) see fig. 1.
- Variable setting. See fig. 2.
- Pneumatic actuator

The pressure regulator is produced with weld type ends, but can be delivered with threaded connections to suit customer specifications, i.e. BSP, NW, RJT, IDF, DS, SMS or Tri-Clamp.

#### Extra Equipment

- CIP adaptor (T-piece and 180° bend)
- Pressure gauge
- Protection valve for pressure gauge is used when CIP pressure exceeds range for pressure gauge.
- Mounting brackets
- Force opener



#### How to contact Alfa Laval

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