

# SPRINGLOADED BACKPRESSURE REGULATOR TBVS8

## THE MILLIBAR REGULATOR



### MAIN FEATURES

- ss316L body
- ptfе-diaphragm
- viton seat
- 21 mm seat
- vacuum tight
- atex Ex II 2 GD
- easy to polish
- easy maintenance
- shell design according to EN 12516

### CHARACTERISTICS

Max. pressure : 6 bar  
6 bar design pressure

Set pressure range : 5 – 500 mbar  
6 bar design pressure

Under pressure : vacuum

Seat diameter : 21 mm

Seat leakage : EN12266, rate a, p12  
ANSI Class VI

#### Materials:

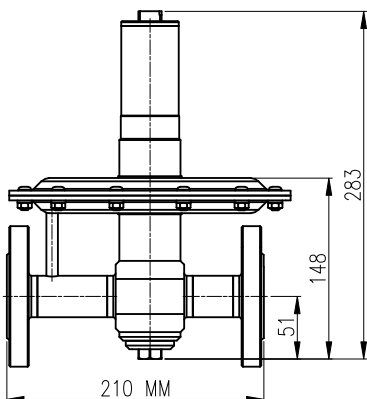
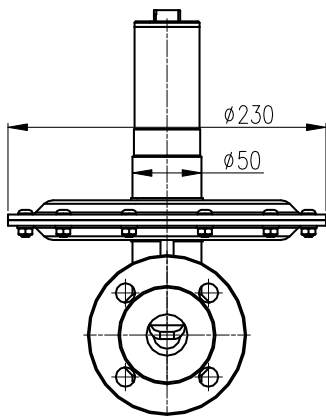
- Body & Trim : ss 316L
  - Spring housing : ss 316L
  - Stem guide : ptfе
  - Valve housing : ptfе
  - Valve seat ring : viton
  - Diaphragm : ptfе
- Connections : 1" bspp female  
1" npt female  
flanges ansi 1" 150# rf  
flanges din DN25 PN16  
tri-clamps 1" bsod

#### Weight:

- screwed models : 6,5 kg
  - flanged models : 8,5 kg
- Temperature range : -20 to +140°C \*

**Do not use teflon tape or anaerobic sealing compounds on the bspp threads.**

\* Actual range depends on choice of seat- and seal material.



Swagelok regulators are not "Safety Accessories" as defined in the Pressure Equipment Directive 97/23/EC:



Do not use the regulator as a shut off device.

## VALVE SEAT O-RING

Viton o-rings are standard.

### Options:

- EPDM (compound FS-EPDM70-USP05) to FDA 21CFR, USP24 CL VI
- Kalrez (compound 6230) to FDA 21CFR, USP24 CL VI

## CLEANING

This regulator is ultrasonically cleaned and degreased.

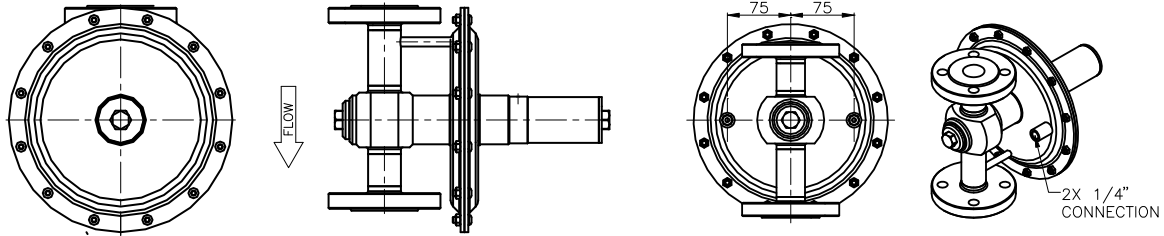
Cleaning based on

ASTM-G93 Level C / CGA 4.1 is optional.

## INSTALLATION

Preferably in a vertical mode to allow draining.

From a control point of view there is little or no difference between horizontal or vertical mounting.



mounting mode (preferably)

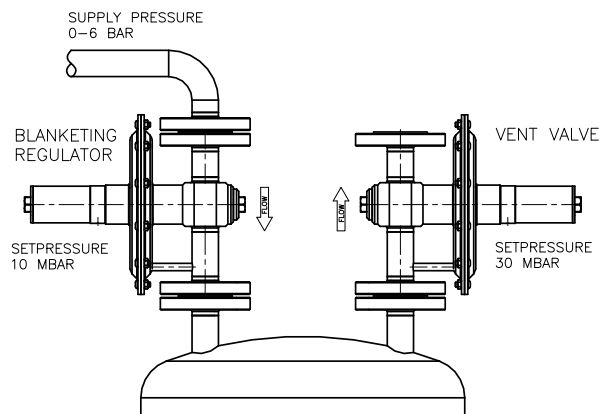
gauge connections (option)

## MAINTENANCE

- No need to remove LoBär from the system for maintenance / repair.
- No special tools required.

## RECOMMENDATIONS

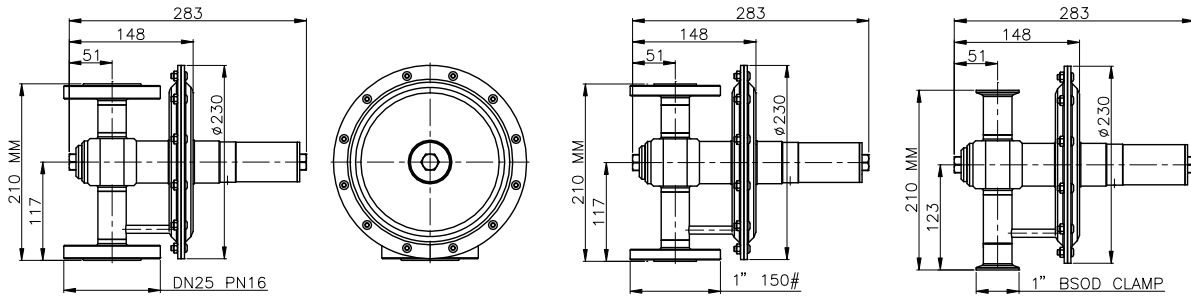
We recommend to set the ventvalve at least 20 mbar higher than the outletpressure of the supply regulator.



## GENERAL INFORMATION

- Setpoint is the point where the valve comes loose from the seat.
- Failure of the tank blanketing regulator must be taken into account when considering possible causes of over-pressure in a tank.

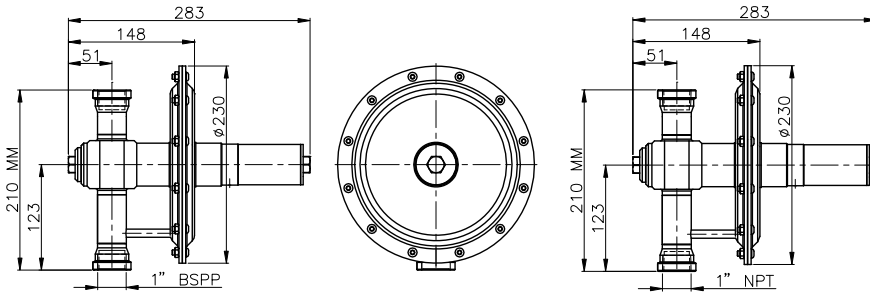
## DIMENSIONS



DN25 PN16 – EN 1092-1/ Type 11 / B1

1" 150# - ANSI B16.5

1" BSOD CLAMP



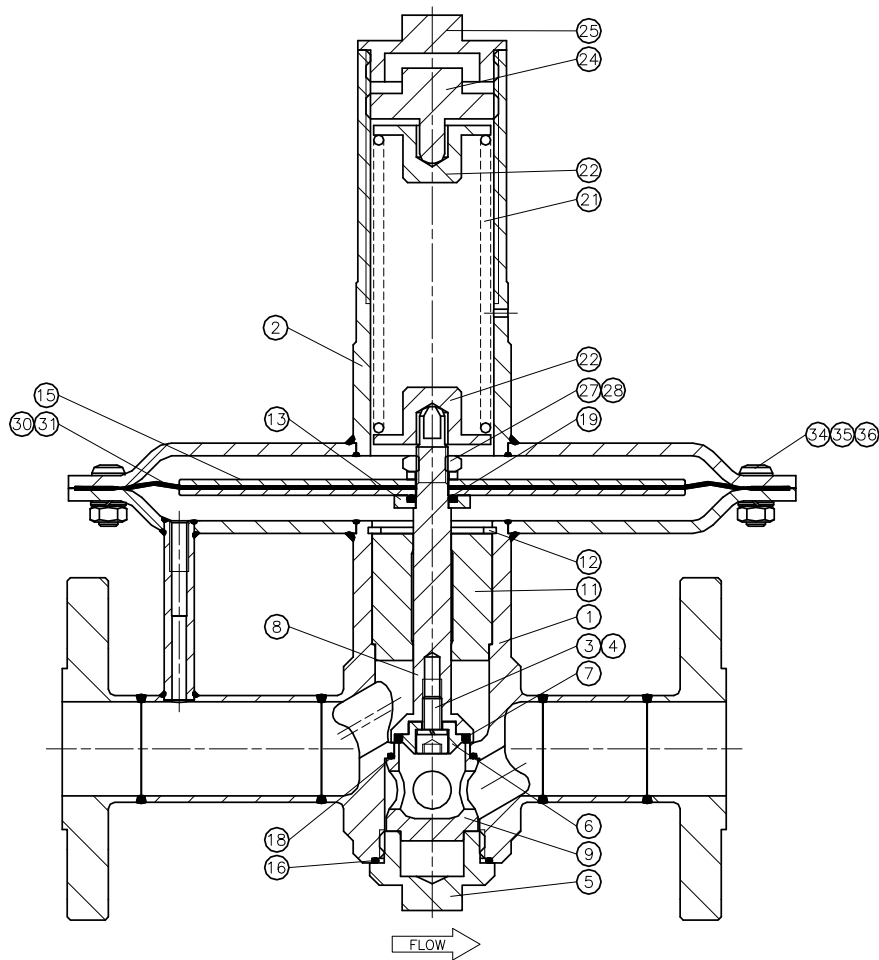
1" BSPP – ISO 228-1

1" NPT – ANSI B1.20.1

All dimensions are in millimeters.

## FLOWTABLE

Setpressure	Flow (Nm <sup>3</sup> /hr.)					
	10 mbar	20 mbar	40 mbar	100 mbar	200 mbar	500 mbar
25 % overpressure	5,5	12	19	33	54	110
50 % overpressure	7,5	15	27	42	68	130
75% overpressure	8,5	17,5	31,4	50	84	140
100% overpressure	11	19	37	54	93	150



**ORDERING INFORMATION**

example: TBVSFA8A1-02-2-VTV-P4

TBVS	FA8A	1	- 02	- 2	- V	T	V	- P4
series / inlet	connection	flange facing*	material	set pressure range	o-rings	diaphragm	seat	options
TBVS = 6 bar	B8 = 1" bspp N8 = 1" npt FA8A = 1" Class 150 FD8M = DN25 PN16 TC8 = 1" bsod tri-clamps	*if flanges are ordered 1 = raised face smooth	02 = ss316L	1 = 5 – 10 mbar 2 = 10 – 50 mbar 3 = 20 – 200 mbar 4 = 50 – 500 mbar	V = viton E = epdm F = ffkm	T = ptfe	V = viton Options: E = epdm F = ffkm	FS = factoryset & locked P4 = wetted parts polished 0, 4 µm P8 = wetted parts polished 0, 8 µm

Red text identifies an example ordering number.

**Safe Product Selection**

When selecting a product, the total system design must be considered to ensure safe, trouble-free performance. Function, material compatibility, adequate ratings, proper installation, operation, and maintenance are the responsibilities of the system designer and user.

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