

## SANITARY TANK BLANKETING REGULATORS BKR ( Low pressure regulator )

**DESCRIPTION**

Tank blanketing valves are commonly used in tank storage systems to prevent and protect against explosions (avoiding flammable liquids being vented from vessel), to control product contamination against external air that may fill the vapour space, to reduce evaporation losses (consequently product losses), to reduce internal corrosion (caused by air and moisture) and to prevent vacuum condition.

The blanketing process consist in covering the stored medium , usually a liquid, with a gas (normally N2).

**MAIN FEATURES**

Compact design.

Completely machined from barstock material, no castings or forgings used on the standard version.

No rising stem

**STANDARD SURFACE FINISH**

Internal wetted parts: 0,5 microns Ra

External :

Body and cover– Fine machined

(mechanical or electro polished as option)

**OPTIONS:**

Leakage line connection 1/8" (captured vent).

Gauge connection on body

External pulse lines (recommended for low set pressures < 10 mbar or high flow).

Dome loaded (for higher pressure control)

Angle connection design.

Blanketing with vacuum

**USE:**

Compressed air, nitrogen and other gases compatible with the construction.

**AVAILABLE**
**MODELS:**

BKR – Low pressure regulator

**SIZES:**

DN 1" – DN25

**OUTLET SPRING**
**RANGES:**

5 to 500 mbar (4000mbar with dome load)

**CONNECTIONS:**

Clamp ends or others on request

**INSTALLATION:**

Vertical installation recommended as close to process as possible in order to prevent long pipe sections and flow restrictions.

For an economical consumption of blanketing gas the pressure must be adjusted to remain slightly above than atmospheric pressure, while filling and emptying the vessel

**ORDER**
**REQUIREMENTS:**

Type of fluid

Maximum operating temperature

Inlet pressure and required outlet pressure

Capacity (maximum and minimum).



LIMITING CONDITIONS	
Valve model	BKR
Body design conditions	PN 16
Max.upstream pressure	6 bar
Max.downstream pressure	500 mbar
Min.downstream pressure	5 mbar
Max.design temperature *	130 °C

\*Other on request.

CE MARKING (PED - European Directive 97/23/EC)	
PN 16	Category
DN 1" - 25	SEP - art. 3, paragraph3

**DIMENSIONS (mm)**

SIZE DN	A	B	C	D	WGT. Kgs
1" -25	210	47	240	265	9,5

Dimensions based on ASME BPE clamped ends  
 Different dimensions and standards on request.  
 Consult factory for certified dimensions  
 Dimensions subject to change without notice

**CAPACITIES in Nm<sup>3</sup>/h (air)**

Inlet pressure bar	1	2	4	6
Outlet pressure 5 to 500 mbar	40	63	102	140

**Connection examples**

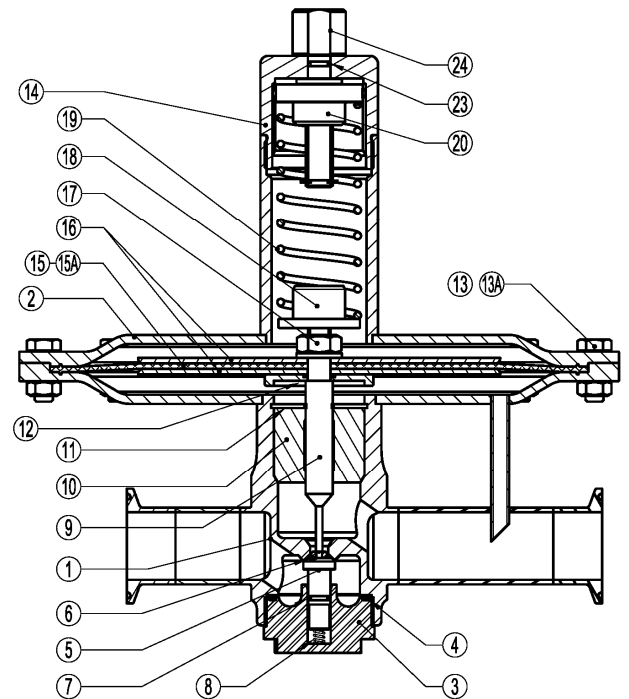
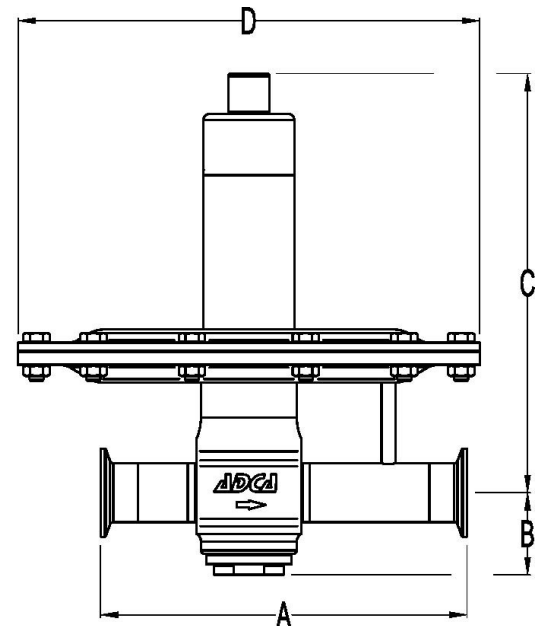
Clamp	Round thread	Flange

**MATERIALS**

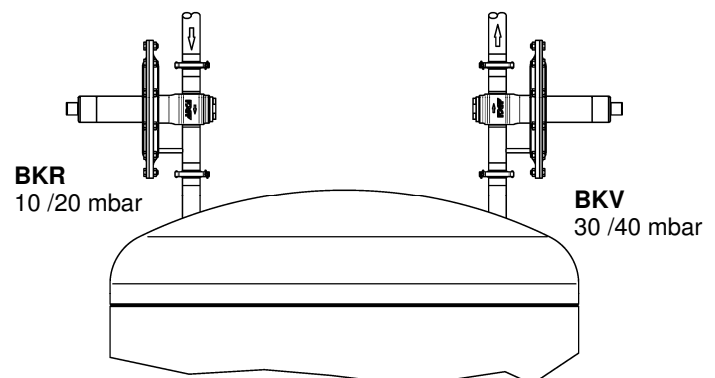
POS.	DESIGNATION	MATERIAL
1	Valve body	AISI316L / 1.4404
2	Actuator	AISI316L / 1.4404
3	Seat cover	AISI316L / 1.4404
4	* O-ring	EPDM
5	*Piston	AISI316L / 1.4404
6	* Valve head	EPDM
7	* O-ring	EPDM
8	*Valve spring	AISI302 / 1.4300 (Polished)
9	Stem	AISI316L / 1.4404
10	Stem guide	PTFE
11	Retaining ring	St.steel A2
12	* O-ring	EPDM
13	Bolts	St.steel A2-70
13A	Nuts	St.steel A2-70
14	Spring cover	AISI316L / 1.4404
15	* Lower diaphragm	PTFE
15A	* Upper diaphragm	VITON
16	Diaphragm plate	AISI316L / 1.4404
17	Nut	St.steel A2-70
18	Lower spring guide	AISI316L / 1.4404
19	* Regulating spring	AISI302 / 1.4300
20	Top spring plate	AISI316L / 1.4404
21	Spring cover	AISI316L / 1.4404
23	* O-ring	EPDM
24	Regulating nut	AISI316L / 1.4404

\* Available spare parts.

Remarks: FDA/USP Class VI seals certificate on request  
 All valves have a serial number. In case of non-standard valves this number must be supplied if spare parts are ordered.


**Typical installation**

Supply 1 – 6 bar


**Blanketing with overpressure**

Blanketing valves are not substitute of safety valves or vacuum relief valves