

DESCRIPTION

Tank blanketing valves are commonly used in tank storage systems to prevent and protect against explosions (avoiding flammable liquids being vented for 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 consists in covering the stored medium, usually a liquid, with a gas (normally N₂).

MAIN FEATURES

1. Compact design
2. No rising stem, except when supplied with top cap.

STANDARD SURFACE FINISH

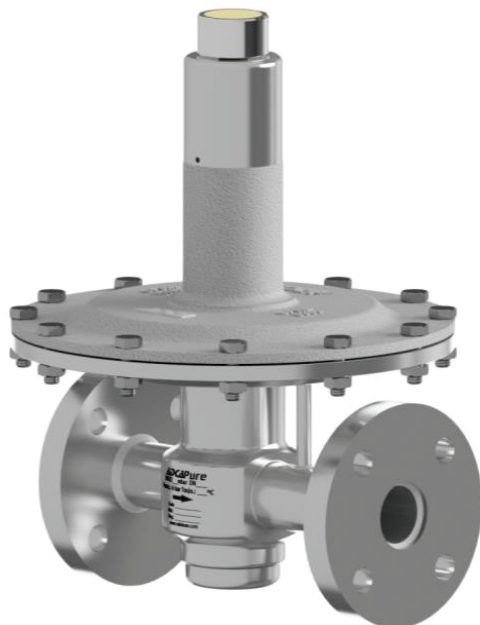
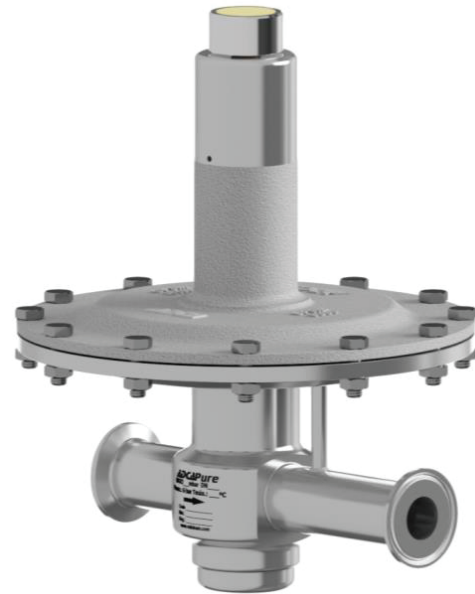
Body and internal wetted parts: $\leq 0,51$ micron Ra – SF1.

Body external: $\leq 0,76$ micron Ra – SF3.

Cover: internal machined; external as casted.

Other surface conditions see IS PV20.00 E – Technical information.

Ultrasonic cleaning.



OPTIONS: Diaphragm leakage line connection.

Gauge connection on body.

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

Dome loaded (for higher pressure control).

Blanketing with vacuum.

Top cap (adjusting screw sealing).

Hastelloy wetted parts.

ATEX  version.

USE: Compressed air, water and other gases and liquids compatible with the construction

AVAILABLE MODELS: BKR2 – Low pressure regulator

SIZES: 1" – DN 25

SPRING RANGES: 5 to 500 mbar
(4000 mbar with dome load)

CONNECTIONS: Clamp ends or others on request

PACKAGING: Assembling and packaging in a clean room certified according to ISO 14644-1.

The product is end capped and sealed with recyclable thermo-shrinkable plastic film, to avoid contamination

INSTALLATION: Vertical installation recommended (to allow draining) or horizontal 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 the 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).

CE MARKING (PED - European Directive)	
PN 16	Category
1" – DN25	SEP

CE MARKING – ATEX VERSION (ATEX – European Directive)	
PN 16	Category
DN25	Ex h IIB T6...T3 Gb

AIR CAPACITIES (Nm³/h) Max. inlet pressure 6 bar – Seat Ø 8 mm

SIZE	OUTLET PRESS.	INLET PRESSURE (barg)								
		0,1	0,5	0,8	1	2	3	4	5	6
1" – DN 25	5 to 10	4	20	32	40	63	85	102	125	140
1" – DN 25	10 to 50	4	20	32	40	63	85	102	125	140
1" – DN 25	20 to 200	–	20	32	40	63	85	102	125	140
1" – DN 25	50 to 500	–	–	–	40	63	85	102	125	140

Outlet pressure should not be more than 50% of the inlet, in order to reach the mentioned flow rates.

AIR CAPACITIES (Nm³/h) Max. inlet pressure 12 bar – Seat Ø 5 mm

SIZE	OUTLET PRESS.	INLET PRESSURE (barg)					
		2	4	6	8	12	16
1" – DN 25	5 to 10	21	35	49	62	90	118
1" – DN 25	10 to 50	21	35	49	62	90	118
1" – DN 25	20 to 200	21	35	49	62	90	118
1" – DN 25	50 to 500	21	35	49	62	90	118

Outlet pressure should not be more than 50% of the inlet, in order to reach the mentioned flow rates.

DIMENSIONS (mm) CLAMP FERRULES ASME BPE

SIZE	A	B	C	D	F	H	d1	d2 *	WGT. (kg)
1"	210	49	244	230	50,5	22,1	25	15,75	8,5

DIMENSIONS (mm) CLAMP FERRULES DIN

SIZE	A	B	C	D	F	H	d1	d2 *	WGT. (kg)
DN 25	210	49	244	230	50,5	26	25	15,75	8,5

Clamp ferrules DIN 32676 Series A;

Tube weld DIN 11866 Series A (DIN 11850 Series 2).

DIMENSIONS (mm) CLAMP FERRULES ISO

SIZE	A	B	C	D	F	H	d1	d2 *	WGT. (kg)
DN 25	210	49	244	230	50,5	29,7	25	15,75	8,5

Clamp ferrules DIN 32676 Series B;

Tube weld DIN 11866 Series B (ISO 1127 Series 1).

DIMENSIONS (mm) FLANGES DIN EN PN16

SIZE	A	B	C	D	d1	d2 *	WGT. (kg)
DN 25	210	49	244	230	25	15,75	10,6

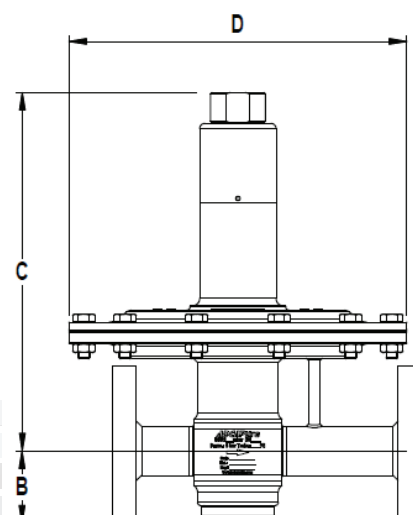
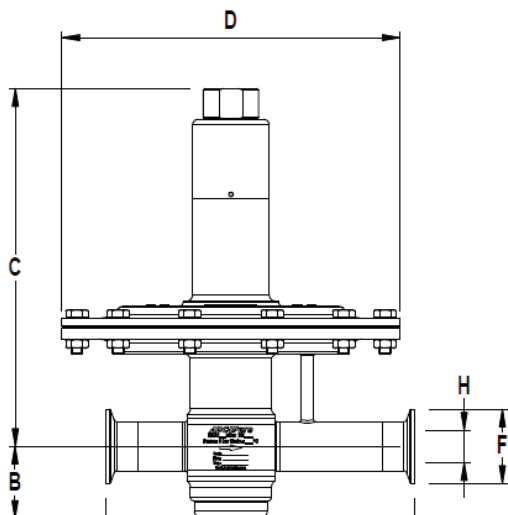
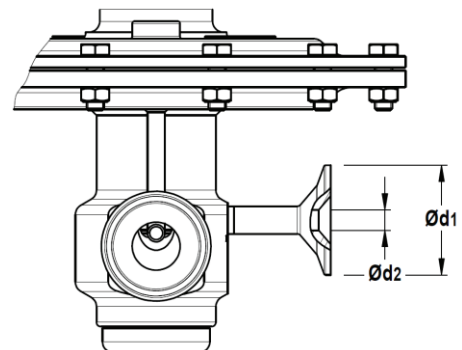
* Special versions or non standard sanitary clamp ferrules are available on request. Size 1/4" also available for the flanged version.

LIMITING CONDITIONS

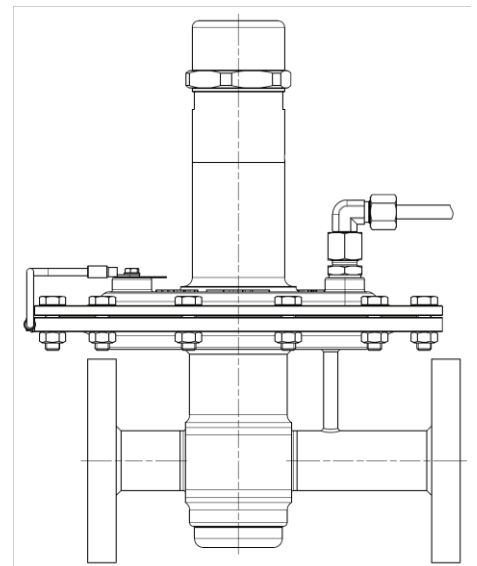
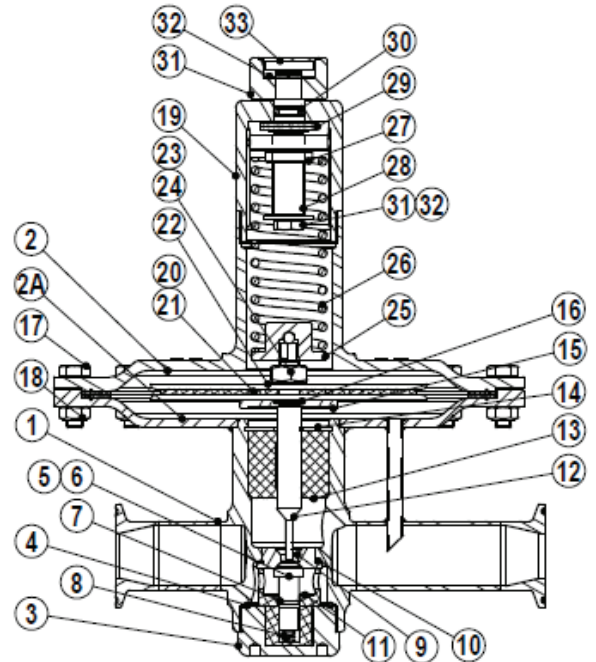
Valve model	BKR2	
Body design conditions	PN16	
Max. upstream pressure	Seat Ø 5 mm	12 bar
	Seat Ø 8 mm	6 bar
Max. downstream pressure	500 mbar	
Min. downstream pressure	5 mbar	
Max. design temperature *	130 °C	

* Other on request.

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



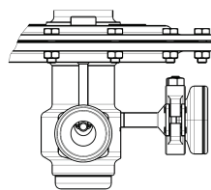
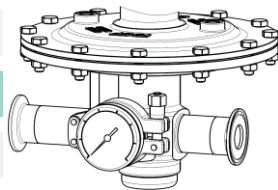
MATERIALS		
POS. Nº	DESIGNATION	MATERIAL
1	Valve body	AISI 316L / 1.4404
		Hastelloy C22 / 2.4602
2	Diaphragm top cover	CF3M / 1.4409
2A	Diaphragm lower cover	AISI 316L / 1.4404
		Hastelloy C22 / 2.4602
3	Seat cover	AISI 316L / 1.4404
		Hastelloy C22 / 2.4602
4	* O-ring	EPDM
5	* Piston	AISI 316L / 1.4404
		Hastelloy C22 / 2.4602
6	* Valve head	AISI 316L / 1.4404
		Hastelloy C22 / 2.4602
7	* O-ring	EPDM
8	* Valve spring	AISI 302 / 1.4300 (Polished)
		Hastelloy C22 / 2.4602
9	Seat	AISI 316L / 1.4404
		Hastelloy C22 / 2.4602
10	* O-ring	EPDM
11	Piston guide	PTFE
12	Stem	AISI 316L / 1.4404
		Hastelloy C22 / 2.4602
13	Stem guide	PTFE
14	Retaining ring	Stainless steel A2
		Hastelloy C22 / 2.4602
15	Diaphragm plate	AISI 316L / 1.4404
		Hastelloy C22 / 2.4602
16	* O-ring	EPDM
17	Bolts	Stainless steel A2-70
18	Nuts	Stainless steel A2-70
19	Spring cover	AISI 316L / 1.4404
20	* Lower diaphragm	PTFE (Gylon)
21	* Upper diaphragm	EPDM
22	Diaphragm plate	AISI 316L / 1.4404
23	Nut	Stainless steel A2-70
24	Washer	AISI 316 / 1.4401
25	Lower spring guide	AISI 316L / 1.4404
26	* Regulating spring	AISI 302 / 1.4300
27	Top spring plate	AISI 316L / 1.4404
28	Adjustment screw	Brass
29	Bearing	Corrosion resistant steel
30	* O-ring	NBR
31	Regulating nut	AISI 316L / 1.4404
32	Ext. bowed shaft ring	Stainless steel
33	Cover nut	Plastic



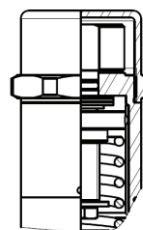
* Available spare parts

FDA / USP Class VI seals certificate on request.

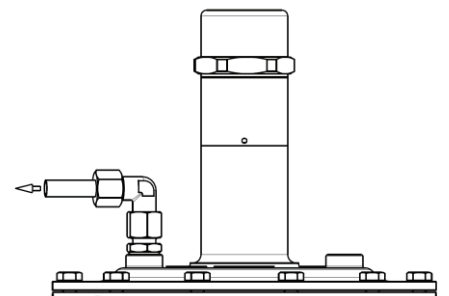
All valves have a serial number. In case of non standard valves, this number must be supplied if spare parts are ordered.



Optional pressure gauge connection.



Optional top cap adjusting screw sealing.



Optional 1/4" diaphragm leakage connection.

Sealing Systems

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