

SANITARY PRESSURE REDUCING VALVE P130L

DESCRIPTION

The ADCAPure P130L is a series of low flow, direct acting, diaphragm sensing pressure reducing valves. These regulators, available with spring or dome-loading, are designed for use with clean air, nitrogen, carbon dioxide, oxygen, argon and other gases or liquids compatible with the construction materials and valve design. Specifically designed for the high purity gas systems found in the pharmaceutical, cosmetic, fine chemical and food & beverage processes.

MAIN FEATURES

Compact design.
Non-rising adjustment knob.
FDA / USP Class VI compliant seals.
Completely machined from 316L stainless steel bar stock, no castings or forgings are used.

STANDARD SURFACE FINISH

Internal wetted parts: $\leq 0,51$ micron Ra – SF1.
External: $\leq 0,76$ micron Ra – SF3.
Other surface conditions see IS PV20.00 E – Technical information.
Ultrasonic cleaning.

OPTIONS:

- Self relieving.
- Leakage line connection (1/8").
- Gauge connection on body.
- Different soft sealings for liquids and gases.
- Top cap (adjustment screw with cover).
- Dome-loaded version.
- Panel mounting (M45 thread).
- Wall mounting.

USE:

Clean air, nitrogen, carbon dioxide, oxygen, argon and other gases or liquids compatible with the construction.

AVAILABLE
MODELS:

P130L.

SIZES:

1/2" to 3/4"; DN 08 to DN 20.

REGULATING
RANGES:

0,2 to 1,5 bar; 0,3 to 3 bar; 2 to 8 bar.

CONNECTIONS:

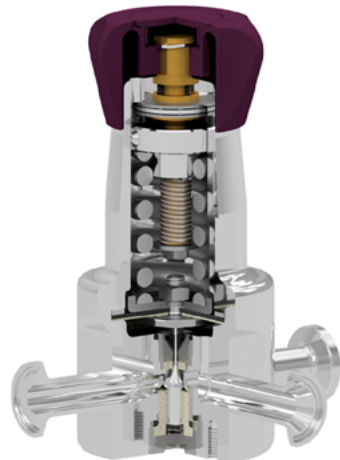
ASME BPE, DIN and ISO clamp ferrules or tube weld (ETO) ends. Others on request.

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:

Horizontal installation is recommended. See IMI – Installation and maintenance instructions.



LIMITING CONDITIONS	
Valve model	P130L
Body design conditions	PN 16
Maximum upstream pressure	16 bar
Maximum downstream pressure	8 bar
Minimum downstream pressure	0,2 bar
Maximum design temperature *	150 °C
* Others on request.	
CE MARKING – GROUP 2 (PED – European Directive)	
PN 16	Category
1/2" to 3/4" – DN 08 to 20	SEP

FLOW RATE COEFFICIENTS (m³/h)

SIZE	ASME BPE			DIN			ISO		
	1/2" to 3/4"			DN 10 to DN 20			DN 08 to DN 15		
Kvs	0,06	0,19	0,25	0,06	0,19	0,25	0,06	0,19	0,25

DIMENSIONS (mm) ASME BPE

SIZE	A	B	C	D	d1	d2	E	F	H	WEIGHT (kg) *
1/2"	115	23	120	64	25	15,75	65	25	9,4	2,13
3/4"	115	23	120	64	25	15,75	65	25	15,75	2,14

* Valves with nylon adjustment knob weigh 0,3 kg less.

DIMENSIONS (mm) DIN

SIZE	A	B	C	D	d1	d2	E	F	H	WEIGHT (kg) *
DN 10	115	23	120	64	25	15,75	65	34	10	2,11
DN 15	115	23	120	64	25	15,75	65	34	16	2,13
DN 20	115	23	120	64	25	15,75	65	34	20	2,15

* Valves with nylon adjustment knob weigh 0,3 kg less.

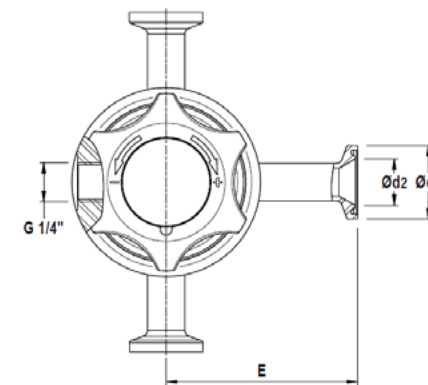
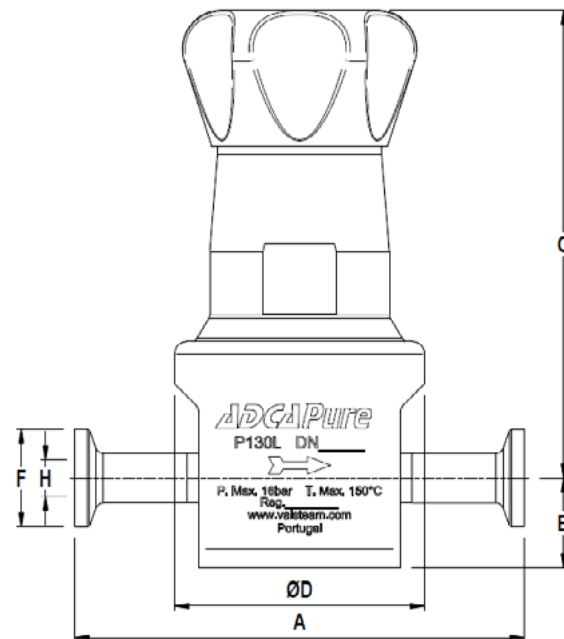
Remarks: Clamp ferrules according to DIN 32676-A; Tube weld (ETO) according to DIN 11866-A (DIN 11850-2).

DIMENSIONS (mm) ISO

SIZE	A	B	C	D	d1	d2	E	F	H	WEIGHT (kg) *
DN 08	115	23	120	64	25	15,75	65	25	10,3	2,11
DN 10	115	23	120	64	25	15,75	65	25	14	2,12
DN 15	115	23	120	64	25	15,75	65	50,5	18,1	2,13

* Valves with nylon adjustment knob weigh 0,3 kg less.

Remarks: Clamp ferrules according to DIN 32676-B; Tube weld (ETO) according to DIN 11866-B (ISO 1127).



Optional pressure gauge connection

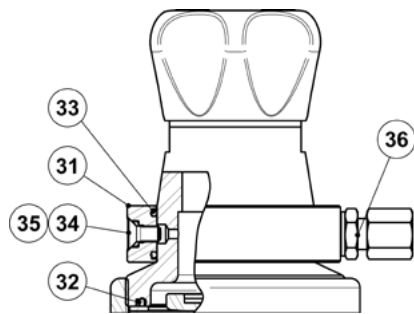
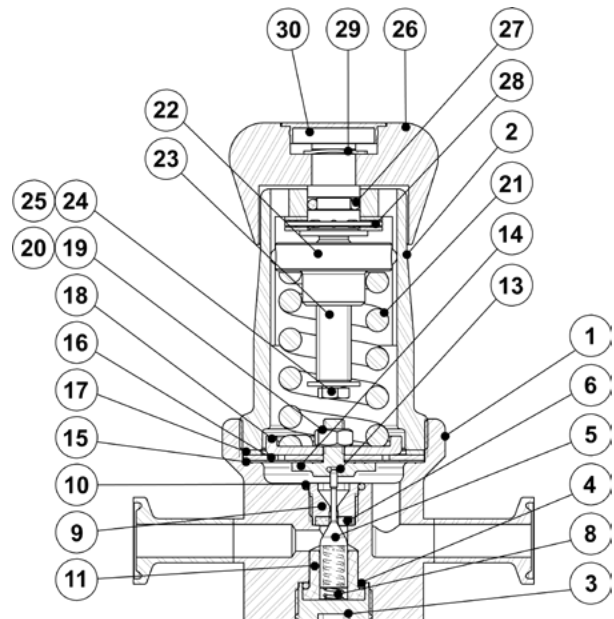
MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Valve body	AISI 316L / 1.4404
2	Cover	AISI 316L / 1.4404
3	Bottom cover	AISI 316L / 1.4404
4	* O-ring	Viton; EPDM
5	* Plug	AISI 316L / 1.4404
6	* Valve seat seal	** TFM 1600; EPDM
8	* Valve spring	AISI 316 / 1.4401 electropolished
9	* Valve seat	AISI 316L / 1.4404
10	* O-ring	EPDM
11	Guide	TFM 1600
13	* O-ring a)	EPDM
14	Pusher disk	AISI 316L / 1.4404
15	* Lower diaphragm	PTFE (Gylon)
16	* Upper diaphragm	EPDM
17	Washer	AISI 304 / 1.4301
18	Plate	AISI 316 / 1.4401
19	Nut	Stainless steel A2-70
20	* Serrated washer	AISI 304 / 1.4301
21	* Adjustment spring	AISI 302 / 1.4300
22	Spring guide	AISI 316 / 1.4401
23	Adjustment screw	Brass
24	Washer	Stainless steel A2-70
25	Bolt	Stainless steel A2-70
26	Adjustment knob	AISI 316L / 1.4404 or Nylon
27	O-ring	NBR
28	Bearing	Corrosion resistant steel
29	Shaft ring	Stainless steel
30	Cover nut	Plastic
31	Leakage line ring	AISI 316L / 1.4404
32	* O-ring	EPDM
33	O-ring	NBR
34	Bolt	AISI 304 / 1.4301
35	O-ring	Viton
36	Compression fitting	AISI 304 / 1.4301

* Available spare parts. ** Others on request.

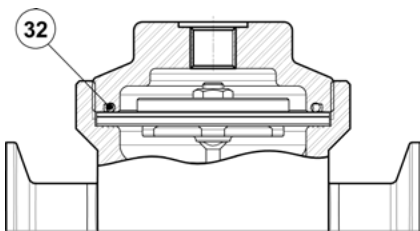
a) Only for versions with self-relieving option.

Remarks: FDA / USP Class VI seals certificate on request.

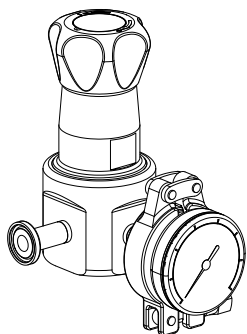
All valves have a serial number. In case of non-standard valves, this number must be supplied if spare parts are ordered.



Optional leakage line connection (1/8")



Dome-loaded top



Optional pressure gauge connection

ORDERING CODES P130L														
Valve model	P3L	1	3	T	T	X	I	X	X	X	D	08	E	
P130L – AISI 316L / 1.4404 diaphragm sensing pressure reducing valve	P3L													
Regulating range														
0,2 to 1,5 bar		1												
0,3 to 3 bar		2												
2 to 8 bar		3												
0,2 to 8 bar (dome-loaded) a)		A												
Flow rate coefficient														
Kvs 0,06		3												
Kvs 0,19		6												
Kvs 0,25		7												
Diaphragm														
PTFE (Gylon)				T										
EPDM (non-standard)				E										
Seat material														
TFM 1600					T									
EPDM					E									
Relieving and leakage line connection														
Non-relieving b)						X								
Non-relieving with leakage line connection						N								
Relieving (only for non-dangerous gases)						R								
Relieving with leakage line connection						L								
Adjustment knob and top cap														
Stainless steel adjustment knob							I							
Nylon adjustment knob							P							
Top cap (adjustment screw with cover)							T							
Dome-loaded top b)							X							
Gauge port options														
Without gauge ports								X						
Tri-clamp gauge port on the left side (rel. to the flow direction) – downstream pressure									7					
Tri-clamp gauge port on the right side (rel. to the flow direction) – downstream pressure										6				
Tri-clamp gauge port on both sides – downstream pressure											5			
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"												4		
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"													3	
Threaded gauge port on both sides – downstream pressure – ISO 7 Rp 1/4"													2	
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – 1/4" NPT													W	
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – 1/4" NPT													Y	
Threaded gauge port on both sides – downstream pressure – 1/4" NPT													Z	
Surface finish c)														
Standard surface finish											X			
Mirror mechanical polished external surfaces (SF1)												P		
Electropolished internal wetted parts (SF5)													E	
Special features														
None												X		
Degreased for oxygen													O	
Pipe connection														
Clamp ferrule ASME BPE													D	
Clamp ferrule DIN (DIN 32676-A)													F	
Clamp ferrule ISO (DIN 32676-B)													E	
Tube weld (ETO) according to ASME BPE													DI	
Tube weld (ETO) according to DIN 11866-A (DIN 11850-2)													FI	
Tube weld (ETO) according to DIN 11866-B (ISO 1127)													EI	
Size														
DN 08													08	
DN 10													10	
1/2" or DN 15													15	
3/4" or DN 20													20	
Special valves / Extras														
Full description or additional codes have to be added in case of non-standard combination														E

SANITARY PRESSURE REDUCING VALVE P130K

DESCRIPTION

The ADCAPure P130K is a series of direct acting, diaphragm sensing pressure reducing valves.

These regulators, available with spring or dome-loading, are designed for use with clean air, nitrogen, carbon dioxide, oxygen, argon and other gases or liquids compatible with the construction materials and valve design.

Specifically designed for the high purity gas systems found in the pharmaceutical, cosmetic, fine chemical and food & beverage processes.

MAIN FEATURES

Compact design.

Non-rising adjustment knob.

FDA / USP Class VI compliant seals.

Completely machined from 316L stainless steel bar stock, no castings or forgings are used.

STANDARD SURFACE FINISH

Internal wetted parts: ≤ 0,51 micron Ra – SF1.

External: ≤ 0,76 micron Ra – SF3.

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

Ultrasonic cleaning.

OPTIONS:

Self relieving.

Leakage line connection (1/8").

Gauge connection on body.

Different soft sealings for liquids and gases.

Top cap (adjustment screw with cover).

Dome-loaded version.

USE:

Clean air, nitrogen, carbon dioxide, oxygen, argon and other gases or liquids compatible with the construction.

AVAILABLE

MODELS: P130K.

SIZES:

1/2" to 3/4"; DN 08 to DN 20.

REGULATING

RANGES: 0,2 to 1,5 bar; 0,3 to 3 bar; 2 to 8 bar.

CONNECTIONS:

ASME BPE, DIN and ISO clamp ferrules or tube weld (ETO) ends. Others on request.

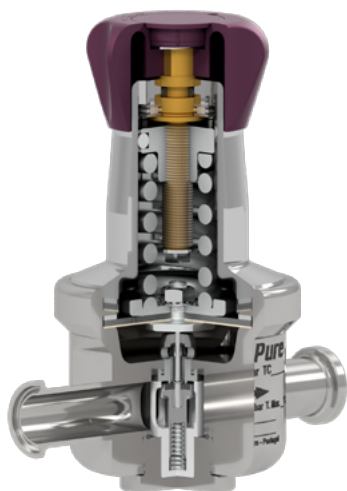
PACKAGING:

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:

Horizontal installation is recommended. See IMI – Installation and maintenance instructions.



LIMITING CONDITIONS	
Valve model	P130K
Body design conditions	PN 16
Maximum upstream pressure	16 bar
Maximum downstream pressure	8 bar
Minimum downstream pressure	0,2 bar
Maximum design temperature *	150 °C
* Others on request.	
CE MARKING – GROUP 2 (PED – European Directive)	
PN 16	Category
1/2" to 3/4" – DN 08 to 20	SEP

FLOW RATE COEFFICIENTS (m³/h)

SIZE	ASME BPE		DIN		ISO	
	1/2" to 3/4"		DN 10 to DN 20		DN 08 to DN 15	
Kvs	0,7	1,3	0,7	1,3	0,7	1,3

DIMENSIONS (mm) ASME BPE

SIZE	A	B	C	D	d1	d2	d3	E	F	H	WEIGHT (kg) *
1/2"	130	28	125	80	25	15,75	1/4"	66,5	25	9,4	2,4
3/4"	130	28	125	80	25	15,75	1/4"	66,5	25	15,75	2,4

* Valves with nylon adjustment knob weigh 0,3 kg less.

DIMENSIONS (mm) DIN

SIZE	A	B	C	D	d1	d2	d3	E	F	H	WEIGHT (kg) *
DN 10	120	28	125	80	25	15,75	1/4"	66,5	34	10	2,5
DN 15	120	28	125	80	25	15,75	1/4"	66,5	34	16	2,4
DN 20	120	28	125	80	25	15,75	1/4"	66,5	34	20	2,6

* Valves with nylon adjustment knob weigh 0,3 kg less.

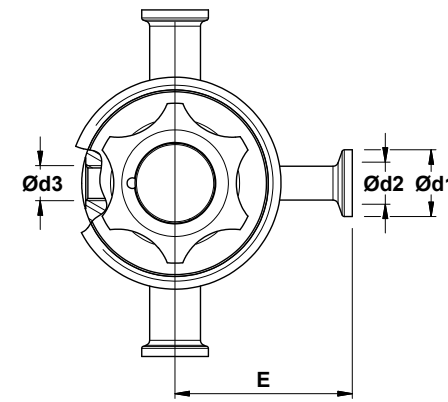
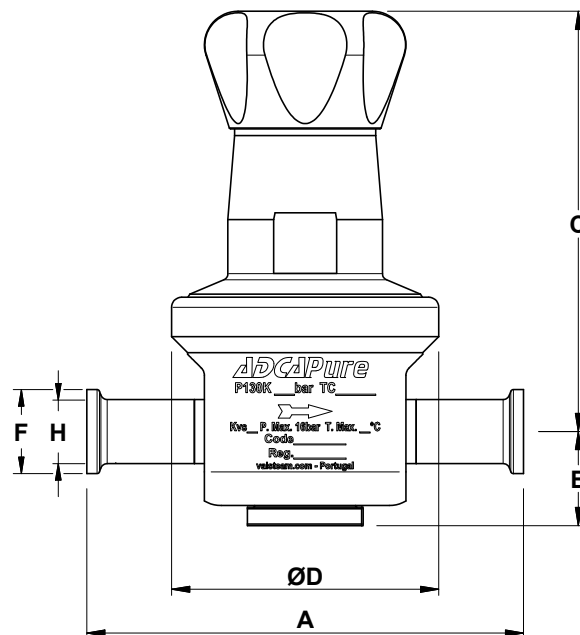
Remarks: Clamp ferrules according to DIN 32676-A; Tube weld (ETO) according to DIN 11866-A (DIN 11850-2).

DIMENSIONS (mm) ISO

SIZE	A	B	C	D	d1	d2	d3	E	F	H	WEIGHT (kg) *
DN 08	120	28	125	80	25	15,75	1/4"	66,5	25	10,3	2,5
DN 10	120	28	125	80	25	15,75	1/4"	66,5	25	14	2,5
DN 15	120	28	125	80	25	15,75	1/4"	66,5	50,5	18,1	2,3

* Valves with nylon adjustment knob weigh 0,3 kg less.

Remarks: Clamp ferrules according to DIN 32676-B; Tube weld (ETO) according to DIN 11866-B (ISO 1127).



Optional pressure gauge connection

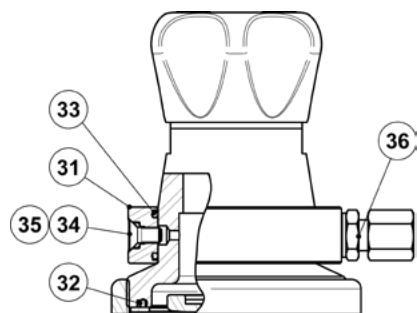
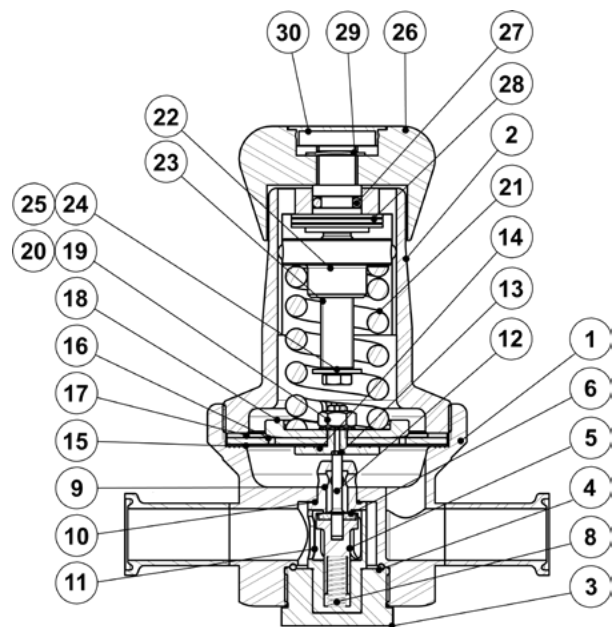
MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Valve body	AISI 316L / 1.4404
2	Cover	AISI 316L / 1.4404
3	Bottom cover	AISI 316L / 1.4404
4	* O-ring	EPDM
5	* Piston	AISI 316L / 1.4404
6	* Valve head	** EPDM; PTFE; FPM
8	* Valve spring	Spring steel
9	* Seat	AISI 316L / 1.4404
10	* O-ring	EPDM
11	* Guide	PEEK
12	* Stem	AISI 316L / 1.4404
13	* O-ring a)	EPDM
14	Pusher disk	AISI 316L / 1.4404
15	* Lower diaphragm	PTFE (Gylon)
16	* Upper diaphragm	EPDM
17	Washer	AISI 304 / 1.4301
18	Plate	AISI 316 / 1.4401
19	Nut	AISI 304 / 1.4301
20	* Serrated washer	AISI 304 / 1.4301
21	* Adjustment spring	AISI 302 / 1.4300
22	Spring guide	AISI 316 / 1.4401
23	Adjustment screw	Brass
24	Washer	Stainless steel A2-70
25	Bolt	Stainless steel A2-70
26	Adjustment knob	AISI 316L / 1.4404 or Nylon
27	O-ring	NBR
28	Bearing	Corrosion resistant steel
29	Shaft ring	Stainless steel
30	Cover nut	Plastic
31	Leakage line ring	AISI 316 / 1.4401
32	* O-ring	EPDM
33	O-ring	NBR
34	Bolt	AISI 304 / 1.4301
35	O-ring	Viton
36	Compression fitting	AISI 304 / 1.4301

* Available spare parts. ** Others on request.

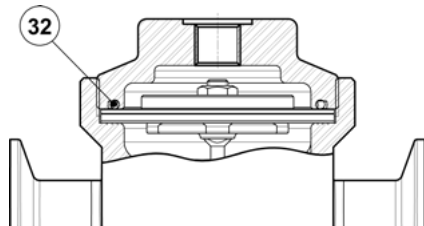
a) Only for versions with self-relieving option.

Remarks: FDA / USP Class VI seals certificate on request.

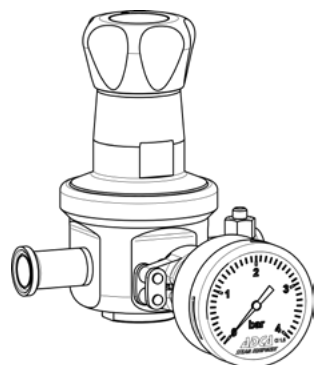
All valves have a serial number. In case of non-standard valves, this number must be supplied if spare parts are ordered.



Optional leakage line connection (1/8")



Dome-loaded top



Optional pressure gauge connection

ORDERING CODES P130K														
Valve model		P3K	1	2	T	M	X	I	X	X	X	DI	08	
P130K – AISI 316L / 1.4404 diaphragm sensing pressure reducing valve		P3K												
Regulating range														
0,2 to 1,5 bar			1											
0,3 to 3 bar			2											
2 to 8 bar			3											
0,2 to 8 bar (dome-loaded) a)			A											
Flow rate coefficient														
Kvs 0,7			3											
Kvs 1,3			5											
Diaphragm														
PTFE (Gylon)					T									
EPDM (non-standard)					E									
Seat material														
Metal to metal (non-standard)					M									
EPDM					E									
PTFE					T									
FPM / Viton (FDA approval only)					V									
Relieving and leakage line connection														
Non-relieving b)							X							
Non-relieving with leakage line connection							N							
Relieving (only for non-dangerous gases)							R							
Relieving with leakage line connection							L							
Adjustment knob and top cap														
Stainless steel adjustment knob								I						
Nylon adjustment knob								P						
Top cap (adjustment screw with cover)								T						
Dome-loaded top b)								X						
Gauge port options														
Without gauge ports								X						
Tri-clamp gauge port on the left side (rel. to the flow direction) – downstream pressure								7						
Tri-clamp gauge port on the right side (rel. to the flow direction) – downstream pressure								6						
Tri-clamp gauge port on both sides – downstream pressure								5						
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"								4						
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"								3						
Threaded gauge port on both sides – downstream pressure – ISO 7 Rp 1/4"								2						
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – 1/4" NPT								W						
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – 1/4" NPT								Y						
Threaded gauge port on both sides – downstream pressure – 1/4" NPT								Z						
Surface finish c)														
Standard surface finish								X						
Mirror mechanical polished external surfaces (SF1)								P						
Electropolished internal wetted parts (SF5)								E						
Special features														
None									X					
Degreased for oxygen									O					
Pipe connection														
Clamp ferrule ASME BPE												D		
Clamp ferrule DIN (DIN 32676-A)												F		
Clamp ferrule ISO (DIN 32676-B)												E		
Tube weld (ETO) according to ASME BPE												DI		
Tube weld (ETO) according to DIN 11866-A (DIN 11850-2)												FI		
Tube weld (ETO) according to DIN 11866-B (ISO 1127)												EI		
Size														
DN 08													08	
DN 10													10	
1/2" or DN 15													15	
3/4" or DN 20													20	
Special valves / Extras														
Full description or additional codes have to be added in case of non-standard combination														E

a) The loading control pressure can be up to a maximum of 1,2 bar above the required downstream pressure; b) These options must be chosen in case of dome-loaded version; c) Consult IS PV20.00 for further details and other surface finish options.

SANITARY PRESSURE REDUCING VALVE P130J

DESCRIPTION

The ADCAPure P130J is a series of direct acting, diaphragm sensing, balanced plug pressure reducing valves. These regulators, available with spring or dome-loading, are designed for use with clean air, nitrogen, carbon dioxide, oxygen, argon and other gases or liquids compatible with the construction materials and valve design. Specifically designed for the high purity gas systems found in the pharmaceutical, cosmetic, fine chemical and food & beverage processes.

MAIN FEATURES

Compact design.
Non-rising adjustment knob.
FDA / USP Class VI compliant seals.
Completely machined from 316L stainless steel bar stock, no castings or forgings are used.

STANDARD SURFACE FINISH

Internal wetted parts: $\leq 0,51$ micron Ra – SF1.
External: $\leq 0,76$ micron Ra – SF3.
Other surface conditions see IS PV20.00 E – Technical information.
Ultrasonic cleaning.

OPTIONS:

- Self relieving.
- Leakage line connection (1/8").
- Gauge connection on body.
- Different soft sealings for liquids and gases.
- Top cap (adjustment screw with cover).
- Dome-loaded version.

USE:

Clean air, nitrogen, carbon dioxide, oxygen, argon and other gases or liquids compatible with the construction.

AVAILABLE
MODELS:

P130J.

SIZES:

1/2" to 1"; DN 08 to DN 25.

REGULATING
RANGES:

0,2 to 1,5 bar; 0,3 to 3 bar; 2 to 8 bar.

CONNECTIONS:

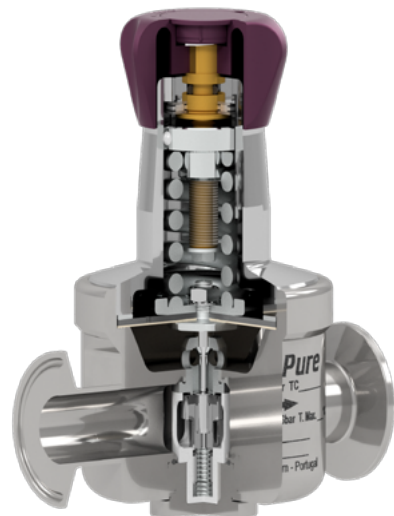
ASME BPE, DIN and ISO clamp ferrules or tube weld (ETO) ends. Others on request.

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:

Horizontal installation is recommended. See IMI – Installation and maintenance instructions.



LIMITING CONDITIONS	
Valve model	P130J
Body design conditions	PN 16
Maximum upstream pressure	16 bar
Maximum downstream pressure	8 bar
Minimum downstream pressure	0,2 bar
Maximum design temperature *	150 °C
* Others on request.	
CE MARKING – GROUP 2 (PED – European Directive)	
PN 16	Category
1/2" to 1" – DN 08 to 25	SEP

FLOW RATE COEFFICIENTS (m³/h)

SIZE	ASME BPE			DIN			ISO		
	1/2"	3/4" to 1"		DN 10	DN 15 to DN 25		DN 08	DN 10 to DN 20	
Kvs	1,7	1,7	2,4	1,7	1,7	2,4	1,7	1,7	2,4

DIMENSIONS (mm) ASME BPE

SIZE	A	B	C	D	d1	d2	d3	E	F	H	WEIGHT (kg) *
1/2"	130	32	129	90	25	15,75	1/4"	73,5	25	9,4	3,4
3/4"	130	32	129	90	25	15,75	1/4"	73,5	25	15,75	3,4
1"	130	32	129	90	25	15,75	1/4"	73,5	50,5	22,1	3,4

* Valves with nylon adjustment knob weigh 0,3 kg less.

DIMENSIONS (mm) DIN

SIZE	A	B	C	D	d1	d2	d3	E	F	H	WEIGHT (kg) *
DN 10	120	32	129	90	25	15,75	1/4"	73,5	34	10	3,4
DN 15	120	32	129	90	25	15,75	1/4"	73,5	34	16	3,3
DN 20	120	32	129	90	25	15,75	1/4"	73,5	34	20	3,3
DN 25	120	32	129	90	25	15,75	1/4"	73,5	50,5	26	3,3

* Valves with nylon adjustment knob weigh 0,3 kg less.

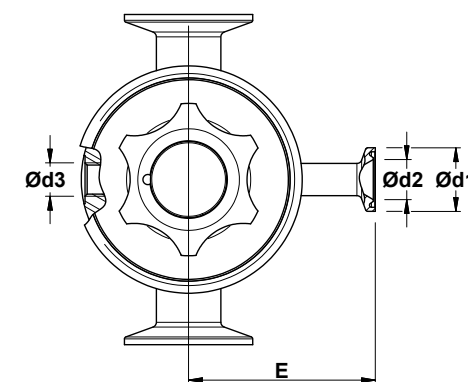
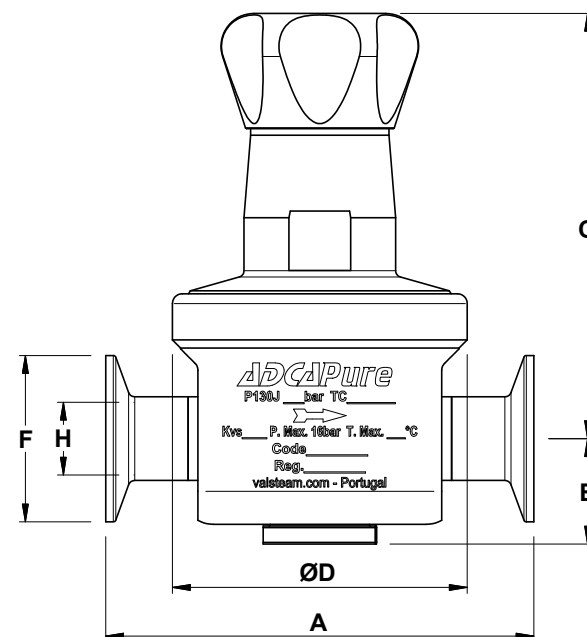
Remarks: Clamp ferrules according to DIN 32676-A; Tube weld (ETO) according to DIN 11866-A (DIN 11850-2).

DIMENSIONS (mm) ISO

SIZE	A	B	C	D	d1	d2	d3	E	F	H	WEIGHT (kg) *
DN 08	120	32	129	90	25	15,75	1/4"	73,5	25	10,3	3,4
DN 10	120	32	129	90	25	15,75	1/4"	73,5	25	14	3,4
DN 15	120	32	129	90	25	15,75	1/4"	73,5	50,5	18,1	3,4
DN 20	120	32	129	90	25	15,75	1/4"	73,5	50,5	27,7	3,3

* Valves with nylon adjustment knob weigh 0,3 kg less.

Remarks: Clamp ferrules according to DIN 32676-B; Tube weld (ETO) according to DIN 11866-B (ISO 1127).



Optional pressure gauge connection

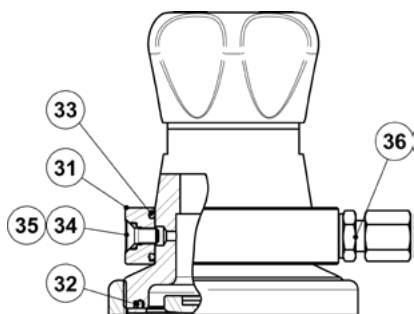
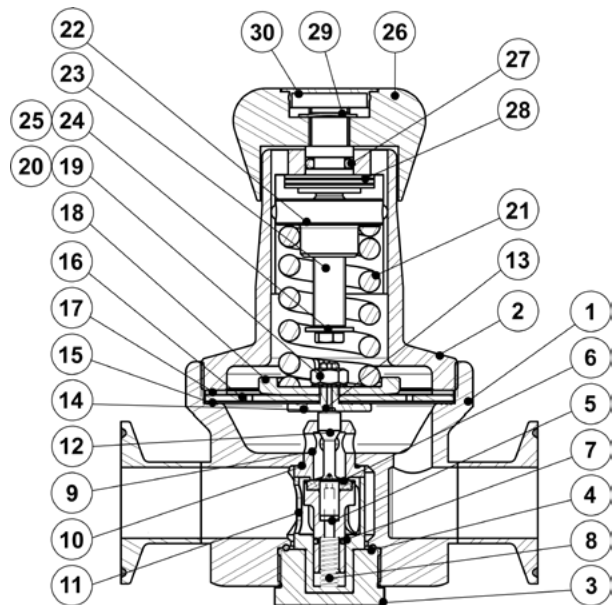
MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Valve body	AISI 316L / 1.4404
2	Cover	AISI 316L / 1.4404
3	Bottom cover	AISI 316L / 1.4404
4	* O-ring	EPDM
5	* Piston	AISI 316L / 1.4404
6	* Valve head	** EPDM; PTFE; FPM
7	* O-ring	EPDM
8	* Valve spring	Spring steel
9	* Seat	AISI 316L / 1.4404
10	* O-ring	EPDM
11	* Guide	AISI 316L / 1.4404
12	* Stem	AISI 316L / 1.4404
13	* O-ring a)	EPDM
14	Pusher disk	AISI 316L / 1.4404
15	* Lower diaphragm	PTFE (Gylon)
16	* Upper diaphragm	EPDM
17	Washer	AISI 304 / 1.4301
18	Plate	AISI 316 / 1.4401
19	Nut	AISI 304 / 1.4301
20	Serrated washer	AISI 304 / 1.4301
21	* Adjustment spring	AISI 302 / 1.4300
22	Spring guide	AISI 316 / 1.4401
23	Adjustment screw	Brass
24	Washer	Stainless steel A2-70
25	Bolt	Stainless steel A2-70
26	Adjustment knob	AISI 316L / 1.4404 or Nylon
27	O-ring	NBR
28	Bearing	Corrosion resistant steel
29	Shaft ring	Stainless steel
30	Cover nut	Plastic
31	Leakage line ring	AISI 316 / 1.4401
32	* O-ring	EPDM
33	O-ring	NBR
34	Bolt	AISI 304 / 1.4301
35	O-ring	Viton
36	Compression fitting	AISI 304 / 1.4301

* Available spare parts. ** Others on request.

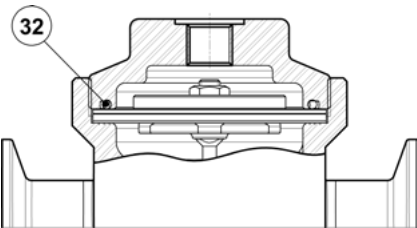
a) Only for versions with self-relieving option.

Remarks: FDA / USP Class VI seals certificate on request.

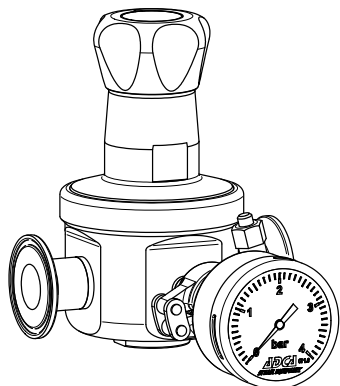
All valves have a serial number. In case of non-standard valves, this number must be supplied if spare parts are ordered.



Optional leakage line connection (1/8")



Dome-loaded top



Optional pressure gauge connection

ORDERING CODES P130J														
Valve model	P3J	1	2	T	M	X	I	X	X	X	DI	25		
P130J – AISI 316L / 1.4404 diaphragm sensing pressure reducing valve	P3J													
Regulating range														
0,2 to 1,5 bar		1												
0,3 to 3 bar		2												
2 to 8 bar		3												
0,2 to 8 bar (dome-loaded) a)		A												
Flow rate coefficient														
Kvs 1,7		3												
Kvs 2,4 (not applicable to sizes 1/2" ASME BPE, DIN DN 10 and ISO DN 08)		5												
Diaphragm														
PTFE (Gylon)				T										
EPDM (non-standard)				E										
Seat material														
Metal to metal (non-standard)					M									
EPDM					E									
PTFE					T									
FPM / Viton (FDA approval only)					V									
Relieving and leakage line connection														
Non-relieving b)						X								
Non-relieving with leakage line connection						N								
Relieving (only for non-dangerous gases)						R								
Relieving with leakage line connection						L								
Adjustment knob and top cap														
Stainless steel adjustment knob							I							
Nylon adjustment knob							P							
Top cap (adjustment screw with cover)							T							
Dome-loaded top b)							X							
Gauge port options														
Without gauge ports							X							
Tri-clamp gauge port on the left side (rel. to the flow direction) – downstream pressure							7							
Tri-clamp gauge port on the right side (rel. to the flow direction) – downstream pressure							6							
Tri-clamp gauge port on both sides – downstream pressure							5							
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"							4							
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"							3							
Threaded gauge port on both sides – downstream pressure – ISO 7 Rp 1/4"							2							
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – 1/4" NPT							W							
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – 1/4" NPT							Y							
Threaded gauge port on both sides – downstream pressure – 1/4" NPT							Z							
Surface finish c)														
Standard surface finish							X							
Mirror mechanical polished external surfaces (SF1)							P							
Electropolished internal wetted parts (SF5)							E							
Special features														
None								X						
Degreased for oxygen								O						
Pipe connection														
Clamp ferrule ASME BPE											D			
Clamp ferrule DIN (DIN 32676-A)											F			
Clamp ferrule ISO (DIN 32676-B)											E			
Tube weld (ETO) according to ASME BPE											DI			
Tube weld (ETO) according to DIN 11866-A (DIN 11850-2)											FI			
Tube weld (ETO) according to DIN 11866-B (ISO 1127)											EI			
Size														
DN 08												08		
DN 10												10		
1/2" or DN 15												15		
3/4" or DN 20												20		
1" or DN 25												25		
Special valves / Extras														
Full description or additional codes have to be added in case of non-standard combination													E	

a) The loading control pressure can be up to a maximum of 1,2 bar above the required downstream pressure; b) These options must be chosen in case of dome-loaded version; c) Consult IS PV20.00 for further details and other surface finish options.

SANITARY PRESSURE REDUCING VALVE P130H

DESCRIPTION

The ADCAPure P130H is a series of direct acting, diaphragm sensing, balanced plug pressure reducing valves.

These regulators, available with spring or dome-loading, are designed for use with clean air, nitrogen, carbon dioxide, oxygen, argon and other gases or liquids compatible with the construction materials and valve design.

Specifically designed for the high purity gas systems found in the pharmaceutical, cosmetic, fine chemical and food & beverage processes.

MAIN FEATURES

Compact design.
Non-rising adjustment knob.
FDA / USP Class VI compliant seals.
Completely machined from 316L stainless steel bar stock, no castings or forgings are used.

STANDARD SURFACE FINISH

Internal wetted parts: ≤ 0,51 micron Ra – SF1.
External: ≤ 0,76 micron Ra – SF3.
Other surface conditions see IS PV20.00 E – Technical information.
Ultrasonic cleaning.

OPTIONS:

- Leakage line connection (1/8").
- Gauge connection on body.
- Different soft sealings for liquids and gases.
- Top cap (adjustment screw with cover).
- Dome-loaded version.

USE:

Clean air, nitrogen, carbon dioxide, oxygen, argon and other gases or liquids compatible with the construction.

AVAILABLE MODELS:

P130H.

SIZES:

1"; DN 25.

REGULATING RANGES:

0,2 to 1,5 bar; 0,3 to 3 bar; 2 to 8 bar.

CONNECTIONS:

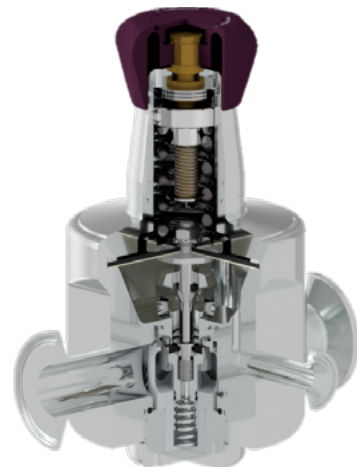
ASME BPE, DIN and ISO clamp ferrules or tube weld (ETO) ends. Others on request.

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:

Horizontal installation is recommended.
See IMI – Installation and maintenance instructions.



LIMITING CONDITIONS	
Valve model	P130H
Body design conditions	PN 16
Maximum upstream pressure	16 bar
Maximum downstream pressure	8 bar
Minimum downstream pressure	0,2 bar
Maximum design temperature *	150 °C

* Others on request.

CE MARKING – GROUP 2 (PED – European Directive)	
PN 16	Category
1" – DN 25	SEP

FLOW RATE COEFFICIENTS (m³/h)

	ASME BPE		DIN		ISO	
SIZE	1"		DN 25		DN 25	
Kvs	3,2	4,2	3,2	4,2	3,2	4,2

DIMENSIONS (mm) ASME BPE

SIZE	A	B	C	D	d1	d2	d3	E	F	H	WEIGHT (kg) *
1"	148	42	146	100	25	15,75	1/4"	78,5	50,5	22,1	5,14

* Valves with nylon adjustment knob weigh 0,3 kg less.

DIMENSIONS (mm) DIN

SIZE	A	B	C	D	d1	d2	d3	E	F	H	WEIGHT (kg) *
DN 25	135	42	146	100	25	15,75	1/4"	78,5	50,5	26	5,17

* Valves with nylon adjustment knob weigh 0,3 kg less.

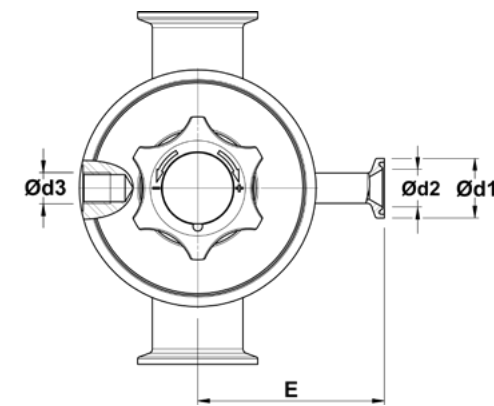
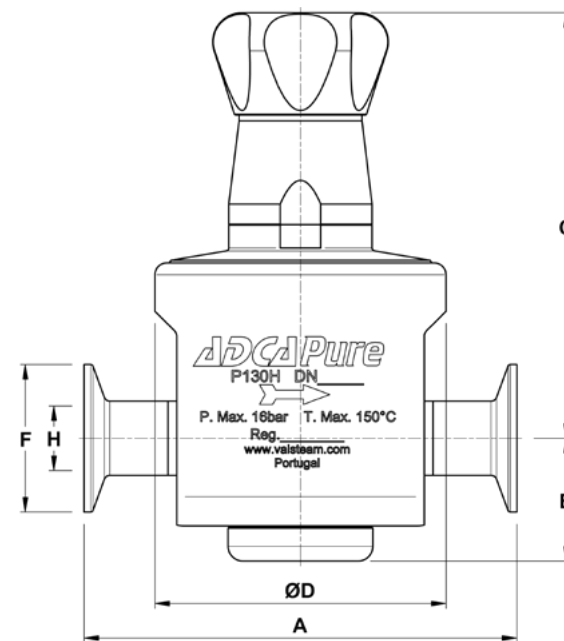
Remarks: Clamp ferrules according to DIN 32676-A; Tube weld (ETO) according to DIN 11866-A (DIN 11850-2).

DIMENSIONS (mm) ISO

SIZE	A	B	C	D	d1	d2	d3	E	F	H	WEIGHT (kg) *
DN 25	135	46	142	100	25	15,75	1/4"	78,5	50,5	29,7	5,16

* Valves with nylon adjustment knob weigh 0,3 kg less.

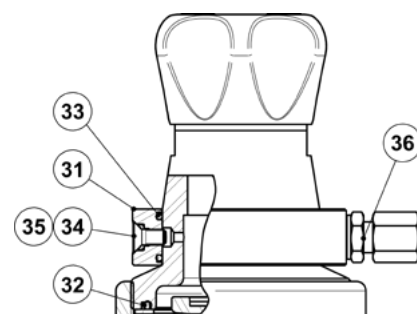
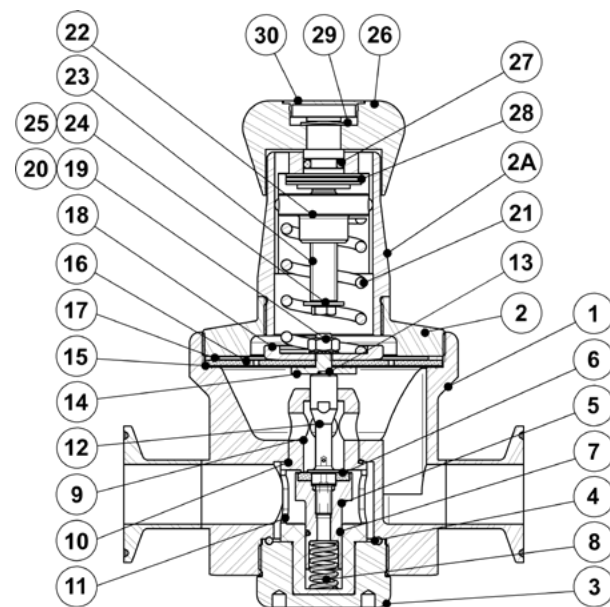
Remarks: Clamp ferrules according to DIN 32676-B; Tube weld (ETO) according to DIN 11866-B (ISO 1127).



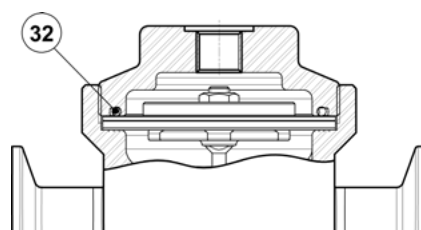
Optional pressure gauge connection

MATERIALS		
POS. Nº	DESIGNATION	MATERIAL
1	Valve body	AISI 316L / 1.4404
2	Cover	AISI 316L / 1.4404
2A	Spring cover	AISI 316L / 1.4404
3	Bottom cover	AISI 316L / 1.4404
4	* O-ring	EPDM
5	* Piston	AISI 316L / 1.4404
6	* Valve head	** EPDM; PTFE; FPM
7	* O-ring	EPDM
8	* Valve spring	AISI 316 / 1.4401 electropolished
9	* Seat	AISI 316L / 1.4404
10	* O-ring	EPDM
11	* Guide	AISI 316L / 1.4404
12	* Stem	AISI 316L / 1.4404
13	* O-ring a)	EPDM
14	Pusher disk	AISI 316L / 1.4404
15	* Lower diaphragm	PTFE (Gylon)
16	* Upper diaphragm	EPDM
17	Washer	AISI 304 / 1.4301
18	Plate	AISI 304 / 1.4301
19	Nut	Stainless steel A2-70
20	Serrated washer	AISI 304 / 1.4301
21	* Adjustment spring	AISI 302 / 1.4300
22	Spring guide	AISI 316 / 1.4401
23	Adjustment screw	Brass
24	Washer	Stainless steel A2-70
25	Bolt	Stainless steel A2-70
26	Adjustment knob	AISI 316L / 1.4404 or Nylon
27	O-ring	NBR
28	Bearing	Corrosion resistant steel
29	Shaft ring	Stainless steel
30	Cover nut	Plastic
31	Leakage line ring	AISI 316 / 1.4401
32	* O-ring	EPDM
33	O-ring	NBR
34	Bolt	AISI 304 / 1.4301
35	O-ring	Viton
36	Compression fitting	AISI 304 / 1.4301

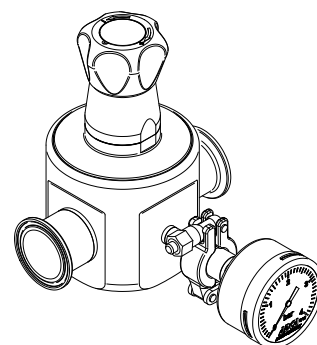
* Available spare parts. ** Others on request.
a) Only for versions with self-relieving option.
 Remarks: FDA / USP Class VI seals certificate on request.
 All valves have a serial number. In case of non-standard valves, this number must be supplied if spare parts are ordered.



Optional leakage line connection (1/8")



Dome-loaded top



Optional pressure gauge connection

ORDERING CODES P130H														
Valve model	P3H	1	2	T	M	X	I	X	X	X	X	DI	25	
P130H – AISI 316L / 1.4404 diaphragm sensing pressure reducing valve	P3H													
Regulating range														
0,2 to 1,5 bar		1												
0,3 to 3 bar		2												
2 to 8 bar		3												
0,2 to 8 bar (dome-loaded) a)		A												
Flow rate coefficient														
Kvs 3,2		1												
Kvs 4,2		2												
Diaphragm														
PTFE (Gylon)				T										
EPDM (non-standard)				E										
Seat material														
Metal to metal (non-standard)					M									
EPDM					E									
PTFE					T									
FPM / Viton (FDA approval only)					V									
Leakage line connection														
Without leakage line connection						X								
With leakage line connection						N								
Adjustment knob and top cap														
Stainless steel adjustment knob							I							
Nylon adjustment knob							P							
Top cap (adjustment screw with cover)							T							
Dome-loaded top b)							X							
Gauge port options														
Without gauge ports								X						
Tri-clamp gauge port on the left side (rel. to the flow direction) – downstream pressure									7					
Tri-clamp gauge port on the right side (rel. to the flow direction) – downstream pressure										6				
Tri-clamp gauge port on both sides – downstream pressure											5			
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"												4		
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"													3	
Threaded gauge port on both sides – downstream pressure – ISO 7 Rp 1/4"														2
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – 1/4" NPT														W
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – 1/4" NPT														Y
Threaded gauge port on both sides – downstream pressure – 1/4" NPT														Z
Surface finish c)														
Standard surface finish											X			
Mirror mechanical polished external surfaces (SF1)												P		
Electropolished internal wetted parts (SF5)												E		
Special features														
None													X	
Degreased for oxygen													O	
Pipe connection														
Clamp ferrule ASME BPE														D
Clamp ferrule DIN (DIN 32676-A)														F
Clamp ferrule ISO (DIN 32676-B)														E
Tube weld (ETO) according to ASME BPE														DI
Tube weld (ETO) according to DIN 11866-A (DIN 11850-2)														FI
Tube weld (ETO) according to DIN 11866-B (ISO 1127)														EI
Size														
1" or DN 25														25
Special valves / Extras														
Full description or additional codes have to be added in case of non-standard combination														

a) The loading control pressure can be up to a maximum of 1,2 bar above the required downstream pressure; **b)** These options must be chosen in case of dome-loaded version; **c)** Consult IS PV20.00 for further details and other surface finish options.

SANITARY PRESSURE REDUCING VALVE P130G

DESCRIPTION

The ADCAPure P130G is a series of direct acting, diaphragm sensing, balanced plug pressure reducing valves.

These regulators, available with spring or dome-loading, are designed for use with clean air, nitrogen, carbon dioxide, oxygen, argon and other gases or liquids compatible with the construction materials and valve design.

Specifically designed for the high purity gas systems found in the pharmaceutical, cosmetic, fine chemical and food & beverage processes.

MAIN FEATURES

Compact design.
Non-rising adjustment knob.
FDA / USP Class VI compliant seals.
Completely machined from 316L stainless steel bar stock, no castings or forgings are used.

STANDARD SURFACE FINISH

Internal wetted parts: $\leq 0,51$ micron Ra – SF1.
External: $\leq 0,76$ micron Ra – SF3.
Other surface conditions see IS PV20.00 E – Technical information.
Ultrasonic cleaning.

OPTIONS:

- Leakage line connection (1/8").
- Gauge connection on body.
- Different soft sealings for liquids and gases.
- Top cap (adjustment screw with cover).
- Dome-loaded version.

USE:

Clean air, nitrogen, carbon dioxide, oxygen, argon and other gases or liquids compatible with the construction.

AVAILABLE MODELS:

P130G.

SIZES:

11/2"; DN 32 to DN 40.

REGULATING RANGES:

0,2 to 1,5 bar; 0,3 to 3 bar; 2 to 8 bar.

CONNECTIONS:

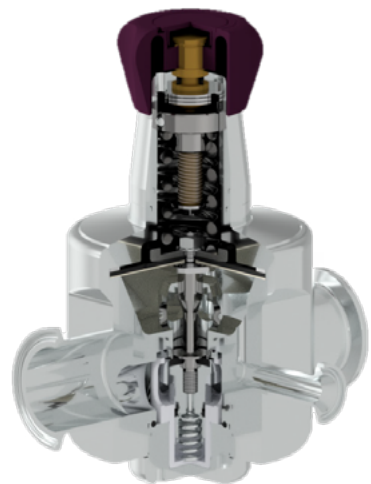
ASME BPE, DIN and ISO clamp ferrules or tube weld (ETO) ends. Others on request.

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:

Horizontal installation is recommended.
See IMI – Installation and maintenance instructions.



LIMITING CONDITIONS	
Valve model	P130G
Body design conditions	PN 16
Maximum upstream pressure	16 bar
Maximum downstream pressure	8 bar
Minimum downstream pressure	0,2 bar
Maximum design temperature *	150 °C

* Others on request.

CE MARKING – GROUP 2 (PED – European Directive)	
PN 16	Category
11/2" – DN 32 to 40	SEP

FLOW RATE COEFFICIENTS (m³/h)

SIZE	ASME BPE			DIN			ISO		
	11/2"			DN 32 and DN 40			DN 32		
Kvs	4,2	4,8	6,3	4,2	4,8	6,3	4,2	4,8	6,3

DIMENSIONS (mm) ASME BPE

SIZE	A	B	C	D	d1	d2	E	F	H	WEIGHT (kg) *
11/2"	148	48	140	100	25	15,75	78,5	50,5	34,8	4,99

* Valves with nylon adjustment knob weigh 0,3 kg less.

DIMENSIONS (mm) DIN

SIZE	A	B	C	D	d1	d2	E	F	H	WEIGHT (kg) *
DN 32	133	48	140	100	25	15,75	78,5	50,5	32	4,98
DN 40	133	48	140	100	25	15,75	78,5	50,5	38	4,94

* Valves with nylon adjustment knob weigh 0,3 kg less.

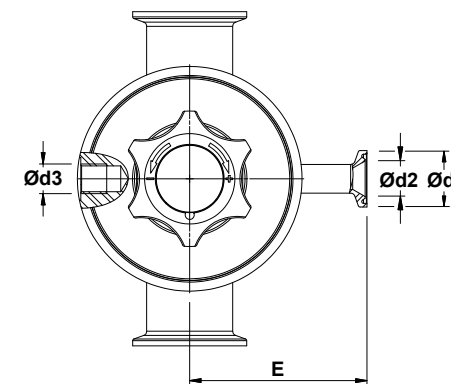
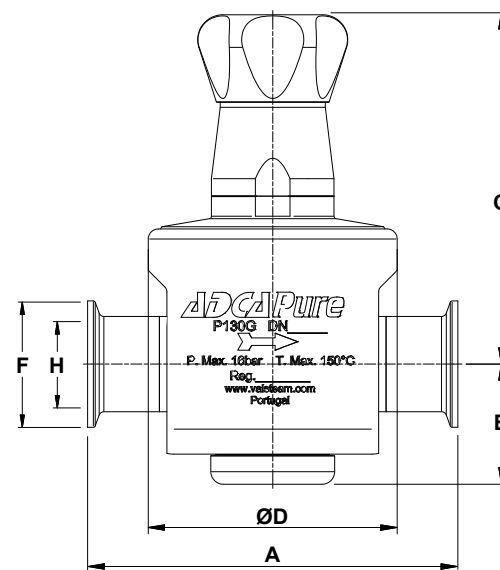
Remarks: Clamp ferrules according to DIN 32676-A; Tube weld (ETO) according to DIN 11866-A (DIN 11850-2).

DIMENSIONS (mm) ISO

SIZE	A	B	C	D	d1	d2	E	F	H	WEIGHT (kg) *
DN 32	133	48	140	100	25	15,75	78,5	64	42,4	5,1

* Valves with nylon adjustment knob weigh 0,3 kg less.

Remarks: Clamp ferrules according to DIN 32676-B; Tube weld (ETO) according to DIN 11866-B (ISO 1127).



Optional pressure gauge connection

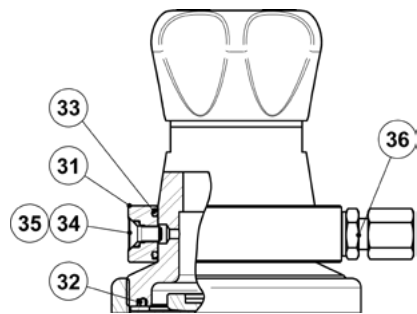
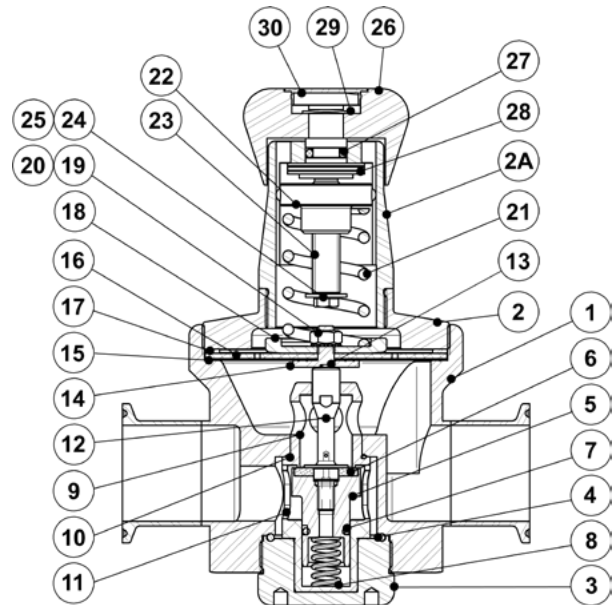
MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Valve body	AISI 316L / 1.4404
2	Cover	AISI 316L / 1.4404
2A	Spring cover	AISI 316L / 1.4404
3	Bottom cover	AISI 316L / 1.4404
4	* O-ring	EPDM
5	* Piston	AISI 316L / 1.4404
6	* Valve head	** EPDM; PTFE; FPM
7	* O-ring	EPDM
8	* Valve spring	AISI 316 / 1.4401 electropolished
9	* Seat	AISI 316L / 1.4404
10	* O-ring	EPDM
11	* Guide	AISI 316L / 1.4404
12	* Stem	AISI 316L / 1.4404
13	* O-ring a)	EPDM
14	Pusher disk	AISI 316L / 1.4404
15	* Lower diaphragm	PTFE (Gylon)
16	* Upper diaphragm	EPDM
17	Washer	AISI 304 / 1.4301
18	Plate	AISI 304 / 1.4301
19	Nut	Stainless steel A2-70
20	* Serrated washer	AISI 304 / 1.4301
21	* Adjustment spring	AISI 302 / 1.4300
22	Spring guide	AISI 316 / 1.4401
23	Adjustment screw	Brass
24	Washer	Stainless steel A2-70
25	Bolt	Stainless steel A2-70
26	Adjustment knob	AISI 316L / 1.4404 or Nylon
27	O-ring	NBR
28	Bearing	Corrosion resistant steel
29	Shaft ring	Stainless steel
30	Cover nut	Plastic
31	Leakage line ring	AISI 316 / 1.4401
32	* O-ring	EPDM
33	O-ring	NBR
34	Bolt	AISI 304 / 1.4301
35	O-ring	Viton
36	Compression fitting	AISI 304 / 1.4301

* Available spare parts. ** Others on request.

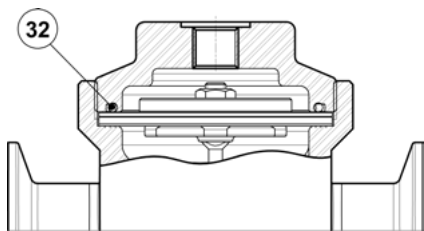
a) Only for versions with self-relieving option.

Remarks: FDA / USP Class VI seals certificate on request.

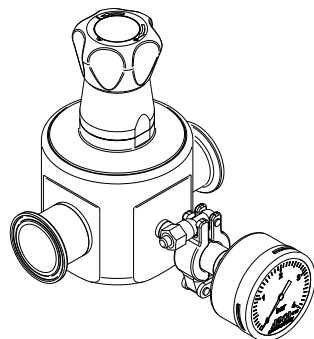
All valves have a serial number. In case of non-standard valves, this number must be supplied if spare parts are ordered.



Optional leakage line connection (1/8")



Dome-loaded top



Optional pressure gauge connection

ORDERING CODES P130G														
Valve model	P3G	1	2	T	M	X	I	X	X	X	DI	32	E	
P130G – AISI 316L / 1.4404 diaphragm sensing pressure reducing valve	P3G													
Regulating range														
0,2 to 1,5 bar		1												
0,3 to 3 bar		2												
2 to 8 bar		3												
0,2 to 8 bar (dome-loaded) a)		A												
Flow rate coefficient														
Kvs 4,2			2											
Kvs 4,8			3											
Kvs 6,3			5											
Diaphragm														
PTFE (Gylon)				T										
EPDM (non-standard)				E										
Seat material														
Metal to metal (non-standard)					M									
EPDM					E									
PTFE					T									
FPM / Viton (FDA approval only)					V									
Leakage line connection														
Without leakage line connection						X								
With leakage line connection						N								
Adjustment knob and top cap														
Stainless steel adjustment knob							I							
Nylon adjustment knob							P							
Top cap (adjustment screw with cover)							T							
Dome-loaded top b)							X							
Gauge port options														
Without gauge ports								X						
Tri-clamp gauge port on the left side (rel. to the flow direction) – downstream pressure									7					
Tri-clamp gauge port on the right side (rel. to the flow direction) – downstream pressure									6					
Tri-clamp gauge port on both sides – downstream pressure									5					
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"									4					
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"									3					
Threaded gauge port on both sides – downstream pressure – ISO 7 Rp 1/4"									2					
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – 1/4" NPT									W					
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – 1/4" NPT									Y					
Threaded gauge port on both sides – downstream pressure – 1/4" NPT									Z					
Surface finish c)														
Standard surface finish										X				
Mirror mechanical polished external surfaces (SF1)										P				
Electropolished internal wetted parts (SF5)										E				
Special features														
None											X			
Degreased for oxygen											O			
Pipe connection														
Clamp ferrule ASME BPE												D		
Clamp ferrule DIN (DIN 32676-A)												F		
Clamp ferrule ISO (DIN 32676-B)												E		
Tube weld (ETO) according to ASME BPE												DI		
Tube weld (ETO) according to DIN 11866-A (DIN 11850-2)												FI		
Tube weld (ETO) according to DIN 11866-B (ISO 1127)												EI		
Size														
DN 32												32		
11/2" or DN 40												40		
Special valves / Extras														
Full description or additional codes have to be added in case of non-standard combination													E	

a) The loading control pressure can be up to a maximum of 1,2 bar above the required downstream pressure; b) These options must be chosen in case of dome-loaded version; c) Consult IS PV20.00 for further details and other surface finish options.

SANITARY PILOT OPERATED PRESSURE REDUCING VALVE P147

DESCRIPTION

The ADCAPure P147 is a series of pilot operated, diaphragm sensing pressure reducing valves.

These regulators, available with spring or dome-loading, are designed for use with clean air, nitrogen, carbon dioxide, oxygen, argon and other gases compatible with the construction materials and valve design. Specifically designed for the high purity gas systems found in the pharmaceutical, cosmetic, fine chemical and food & beverage processes.

MAIN FEATURES

Precise control of downstream pressure from 0,2 to 8 bar.

FDA / USP Class VI compliant seals.

Guided piston and valve stem.

Non-rising adjustment knob.

Completely machined from 316L stainless steel bar stock, no castings or forgings are used.

STANDARD SURFACE FINISH

Internal wetted parts: ≤ 0,51 micron Ra – SF1.

External: ≤ 0,76 micron Ra – SF3.

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

Ultrasonic cleaning.

OPTIONS:

Leakage line connection (1/8").
Gauge connection on body.
Different soft sealings for liquids and gases.
Top cap (adjustment screw with cover).
Dome-loaded version.

USE:

Clean air, nitrogen, carbon dioxide, oxygen, argon
and other gases compatible with the construction.
Clean steam (under special request).

AVAILABLE

MODELS: P147.

SIZES:

21/2" to 3"; DN 65 to DN 80.

REGULATING

RANGES:

0,2 – 1,5 bar; 0,3 – 3 bar; 2 – 8 bar.

CONNECTIONS:

ASME BPE and DIN clamp ferrules. 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:

Horizontal installation.
See IMI – Installation and maintenance
instructions.



LIMITING CONDITIONS	
Valve model	P147
Body design conditions	PN 16
Maximum upstream pressure	16 bar
Maximum downstream pressure	8 bar
Minimum downstream pressure	0,2 bar
Maximum design temperature *	150 °C

* Others on request.

CE MARKING – GROUP 2 (PED – European Directive)	
PN 16	Category
21/2" to 3" – DN 65 to 80	1 (CE marked)

FLOW RATE COEFFICIENTS (m³/h)

SIZE	BPE		DIN	
	21/2"	3"	DN 65	DN 80
Kvs	41	46	41	46

DIMENSIONS (mm) ASME BPE

SIZE	A	B	C	D	F	H	WEIGHT (kg) *
21/2"	197	307	89	134	91	66	17,1
3"	197	307	89	134	106	81	16,8

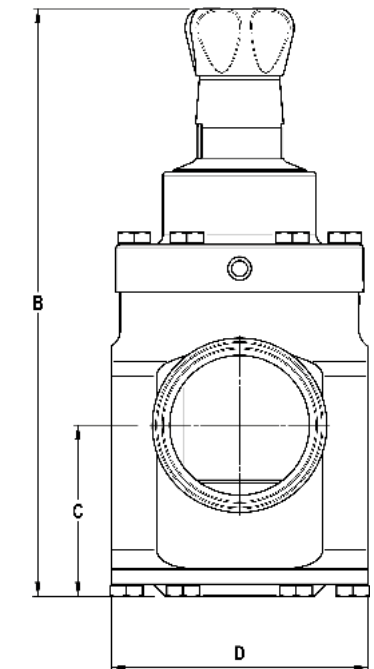
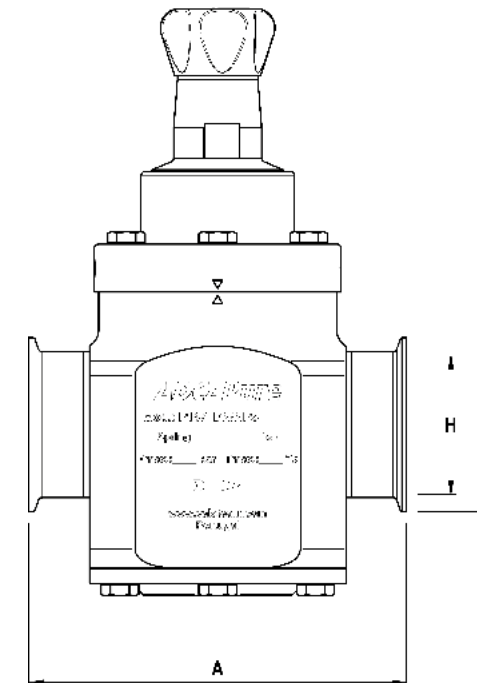
* Valves with nylon adjustment knob weigh 0,3 kg less.

DIMENSIONS (mm) DIN

SIZE	A	B	C	D	F	H	WEIGHT (kg) *
DN 65	196	307	89	134	91	66	17,1
DN 80	196	307	89	134	106	81	17,4

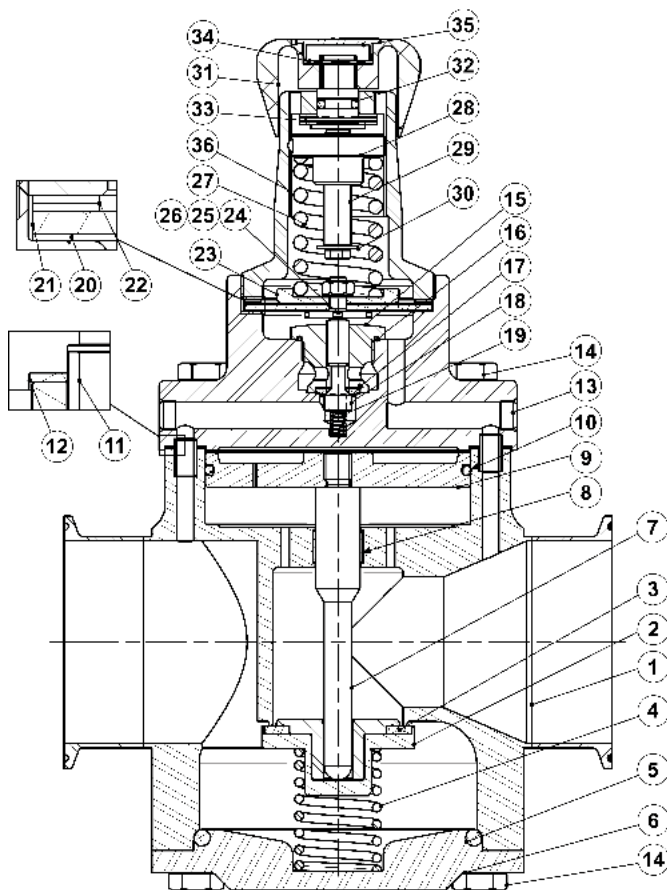
* Valves with nylon adjustment knob weigh 0,3 kg less.

Remark: Clamp ferrules according to DIN 32676-A.



MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Valve body	AISI 316L / 1.4404
2	* Plug	AISI 316L / 1.4404
3	* Plug seal	EPDM; TFM 1600 **
4	* Main valve spring	AISI 316 / 1.4401
5	* O-ring	EPDM
6	Bottom cover	AISI 316L / 1.4404
7	* Stem	AISI 316L / 1.4404
8	* Plain bearing	PTFE
9	Piston	AISI 316L / 1.4404
10	* O-ring	EPDM
11	Positioning pipe	AISI 316L / 1.4404
12	Gasket	PTFE
13	Pilot valve body	AISI 316L / 1.4404
14	Bolts	AISI 304 / 1.4301
15	Seat	AISI 316L / 1.4404
16	* O-ring	EPDM
17	* Pilot valve seat	EPDM
18	* Pilot valve plug	AISI 316L / 1.4404
19	* Valve spring	AISI 316 / 1.4401 electropolished
20	* Lower diaphragm	PTFE (Gylon)
21	* Upper diaphragm	EPDM
22	* Washer	AISI 304 / 1.4301
23	Spring plate	AISI 316 / 1.4401
24	Pusher disc	AISI 316L / 1.4404
25	Washer	AISI 304 / 1.4301
26	Nut	AISI 304 / 1.4301
27	Adjustment spring	AISI 302 / 1.4310
28	Spring plate	AISI 316 / 1.4401
29	Adjustment screw	Brass
30	Retaining washer	AISI 304 / 1.4301
31	Adjustment knob	AISI 316L / 1.4404 or Nylon
32	O-ring	NBR
33	Bearing	Corrosion resistant steel
34	Shaft ring	Stainless steel
35	Cover nut	Plastic
36	Spring cover	AISI 316L / 1.4404

* Available spare parts ; ** Others on request.
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.



ORDERING CODES P147																
Valve model		P47	1	6	E	M	I	X	X	X	DI	65	E			
P147 – AISI 316L / 1.4404 pilot operated pressure reducing valve		P47														
Regulating range																
0,2 to 8 bar (dome loaded)			A													
0,2 to 1,5 bar			1													
0,3 to 3 bar			2													
2 to 8 bar			3													
Flow rate coefficient																
Kvs 41				6												
Kvs 46				7												
Diaphragm																
PTFE (Gylon)					T											
EPDM (non-standard)					E											
Seat material																
Metal to metal (non-standard)						M										
EPDM						E										
TFM 1600						T										
Adjustment knob, top cap and leakage line connection																
Stainless steel adjustment knob							I									
Stainless steel adjustment knob w/ diaphragm cover leakage connection in case of diaphragm failure							L									
Nylon adjustment knob							P									
Nylon adjustment knob w/ diaphragm cover leakage connection in case of diaphragm failure							N									
Top cap (adjustment screw with cover)							T									
Top cap (adjustment screw with cover) w/ diaphragm cover leakage connection in case of diaphragm failure							U									
Gauge port options																
Without gauge ports								X								
Tri-clamp gauge port on the left side (rel. to the flow direction) – downstream pressure – 1 connection								7								
Tri-clamp gauge port on the right side (rel. to the flow direction) – downstream pressure – 1 connection								6								
Tri-clamp gauge port on the left side (rel. to the flow direction) – upstream and downstream press. – 2 conn. a)								9								
Tri-clamp gauge port on the right side (rel. to the flow direct.) – upstream and downstream press. – 2 conn. a)								8								
Tri-clamp gauge port on both sides – downstream pressure – 2 connections								5								
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"								4								
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"								3								
Threaded gauge port on left side (rel. to the flow direction) – upstream and downstream press. – 2 conn. – ISO 7 Rp 1/4"								1								
Threaded gauge port on right side (rel. to the flow direction) – upstream/downstream pressure – 2 conn. – ISO 7 Rp 1/4"								0								
Threaded gauge port on both sides – downstream pressure – ISO 7 Rp 1/4"								2								
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – 1/4" NPT								W								
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – 1/4" NPT								Y								
Threaded gauge port on left side (rel. to the flow direction) – upstream and downstream press. – 2 conn. – 1/4" NPT								U								
Threaded gauge port on right side (rel. to the flow direction) – upstream and downstream pressure – 2 conn. – 1/4" NPT								V								
Threaded gauge port on both sides – downstream pressure – 1/4" NPT								Z								
Surface finish b)																
Standard surface finish								X								
Mirror mechanical polished external surfaces (SF1)								P								
Electropolished internal wetted parts (SF5)								E								
Special features																
None									X							
Degreased for oxygen									O							
Bottom cover with drain connection									D							
Pipe connection																
Clamp ferrule ASME BPE										D						
Clamp ferrule DIN (DIN 32676-A)										F						
Tube weld (ETO) according to ASME BPE										DI						
Tube weld (ETO) according to DIN 11866-A (DIN 11850-2)										FI						
Size																
21/2" or DN 65												65				
3" or DN 80												80				
Special valves / Extras																
Full description or additional codes have to be added in case of non-standard combination														E		

a) Under special request and after approval of technical solution; b) Consult IS PV20.00 for further details and other surface finish options.

SANITARY PRESSURE REDUCING VALVE P160G

DESCRIPTION

The ADCAPure P160G is a series of angle design direct acting diaphragm sensing pressure reducing valves. These regulators are designed for use with clean steam, compressed air, water and other gases or liquids compatible with the construction materials and valve design.

MAIN FEATURES

FDA / USP Class VI compliant seals.
Completely machined from bar stock material, no castings or forgings are used.

STANDARD SURFACE FINISH

Internal wetted parts: ≤ 0,51 micron Ra – SF1.
External: ≤ 0,76 micron Ra – SF3.
Other surface conditions see IS PV20.00 E – Technical information.
Ultrasonic cleaning.

OPTIONS:

- Leakage line connection (1/4").
- Different soft sealings for liquids and gases.
- Lock system, allows inline clean-in-place (CIP) and sterilization-in-place (SIP) operations.
- Gauge connection on body.
- Lifting lugs to ease installation.

USE:

Clean steam, compressed air, water and other gases and liquids compatible with the construction.

AVAILABLE MODELS:

P160G.

SIZES:

21/2" and 3".

REGULATING RANGES:

1 to 1,7 bar; 1,5 to 4 bar.

CONNECTIONS:

ASME BPE clamp ferrules.
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:

Horizontal installation. Vertical inlet and horizontal outlet angle connection.
See IMI – Installation and maintenance instructions.



LIMITING CONDITIONS	
Valve model	P160G
Body design conditions	PN 16
Maximum upstream pressure	8 bar
Maximum downstream pressure	4 bar
Minimum downstream pressure *	1 bar
Maximum operating temperature **	180 °C

* For tight shut off, with adjustment spring relaxed, ensure a minimum downstream pressure of 0,2 bar.
** With PTFE diaphragm and seals. Consult the manufacturer in case of other materials.

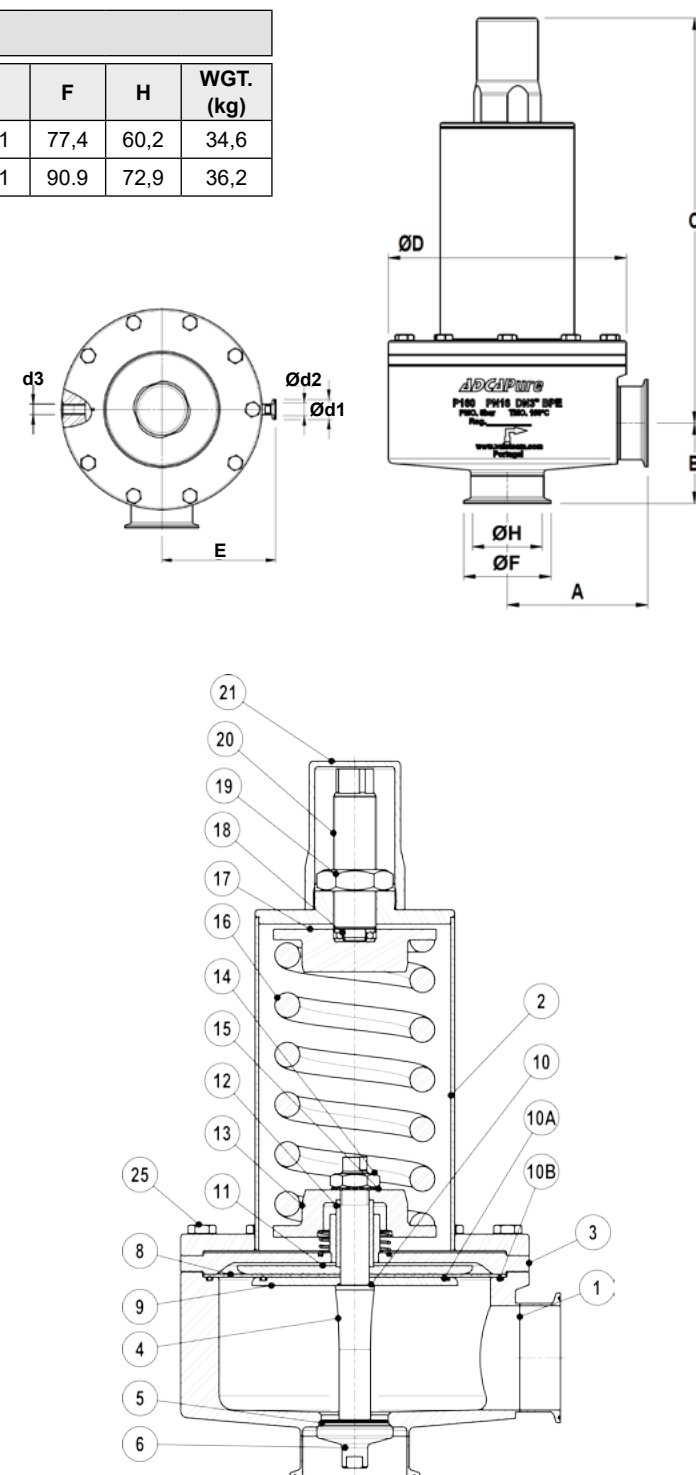
CE MARKING – GROUP 2 (PED – European Directive)	
PN 16	Category
21/2" to 3"	1 (CE Marked)

DIMENSIONS (mm) ASME BPE											
SIZE	A	B	C	D	d1	d2	d3	E	F	H	WGT. (kg)
21/2"	144	78	410	245	25	15,75	1/4"	141	77,4	60,2	34,6
3"	144	84	417	245	25	15,75	1/4"	141	90,9	72,9	36,2

FLOW RATE COEFFICIENTS (m³/h)		
SIZE	21/2"	3"
Kvs	19,8	

MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Valve body	AISI 316L / 1.4404
2	Cover	AISI 316L / 1.4404
3	Centering plate	AISI 316L / 1.4404
4	* Valve stem	AISI 316L / 1.4404
5	* Soft plug	** EPDM; PTFE; FPM
6	* Valve plug	AISI 316L / 1.4404
8	* Diaphragm	PTFE (Gylon)
9	Diaphragm plate	AISI 316L / 1.4404
10	* O-ring	EPDM
11	* O-ring	EPDM
12	* O-ring	EPDM
11	Diaphragm plate	AISI 316L / 1.4404
12	Stem guide	AISI 316 / 1.4401
13	Spring plate	AISI 316 / 1.4401
14	Nut	Stainless steel A2-70
15	Washer	AISI 316 / 1.4401
16	* Adjustment spring	Zinc plated spring steel
17	Top spring plate	AISI 316 / 1.4401
18	Bearing	Corrosion resistant steel
19	Nut	Stainless steel A2-70
20	Adjustment screw	AISI 304 / 1.4301
21	Top cap	AISI 316L / 1.4404
25	Bolts	Stainless steel A2-70

* Available spare parts ; ** Others on request.
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.



OPTIONS		
LOCK SYSTEM	PRESSURE GAUGE CONNECTION	LEAKAGE LINE CONNECTION (1/8")

ORDERING CODES P160G													
Valve model	P16G	8	9	T	M	T	X	X	X	DI	65	E	
P160G – AISI 316L / 1.4404 diaphragm sensing pressure reducing valve	P16G												
Regulating range													
1 to 1,7 bar		8											
1,5 to 4 bar		9											
Flow rate coefficient													
Kvs 19,8			9										
Diaphragm													
PTFE (Gylon)				T									
EPDM (non-standard)				E									
Valve head													
Metal to metal (non-standard)					M								
EPDM					E								
PTFE					T								
FPM / Viton (FDA approval only)					V								
Top cap and leakage line connection													
Top cap (adjustment screw with cover)						T							
Top cap (adjustment screw with cover) w/ diaphragm cover leakage connection in case of diaphragm failure						U							
Gauge port options													
Without gauge ports							X						
Tri-clamp gauge port on the left side (rel. to the flow direction) – downstream pressure							7						
Tri-clamp gauge port on the right side (rel. to the flow direction) – downstream pressure							6						
Tri-clamp gauge port on both sides – downstream pressure							5						
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"							4						
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"							3						
Threaded gauge port on both sides – downstream pressure – ISO 7 Rp 1/4"							2						
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – 1/4" NPT							W						
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – 1/4" NPT							Y						
Threaded gauge port on both sides – Downstream pressure – 1/4" NPT							Z						
Surface finish a)													
Standard surface finish							X						
Mirror mechanical polished external surfaces (SF1)							P						
Electropolished internal wetted parts (SF5)							E						
Special features													
None							X						
Degreased for oxygen							O						
CIP / SIP lock system							C						
Pipe connections													
Clamp ferrule ASME BPE										D			
Tube weld (ETO) according to ASME BPE										DI			
Size													
2 1/2"											65		
3"											80		
Special valves / Extras													
Full description or additional codes have to be added in case of a non-standard combination												E	

a) Consult IS PV20.00 – Technical information – for further details and other surface finish options.

SANITARY PRESSURE REDUCING VALVE

P161

DESCRIPTION

The ADCAPure P161 is a series of angle design direct acting diaphragm sensing pressure reducing valves. These regulators, available with spring or dome-loading, are designed for use with clean steam, compressed air, water and other gases or liquids compatible with the construction materials and valve design.

MAIN FEATURES

Spring or dome-loaded.
Non-rising adjustment knob.
Compact design with clamped body.
Available with low pressure diaphragm.
FDA / USP Class VI compliant seals.
Completely machined from bar stock material, no castings or forgings are used.

STANDARD SURFACE FINISH

Internal wetted parts: ≤ 0,51 micron Ra – SF1.
External: ≤ 0,76 micron Ra – SF3.
Other surface conditions see IS PV20.00 E – Technical information.
Ultrasonic cleaning.

OPTIONS:

Leakage line connection (1/4").
Different soft sealings for liquids and gases.
Lock system, allows inline clean-in-place (CIP) and sterilization-in-place (SIP) operations.
Gauge connection on body.
Top cap (adjustment screw with cover).
Dome-loaded version.

USE:

Clean steam, compressed air, water and other gases and liquids compatible with the construction.

AVAILABLE MODELS:

P161.

SIZES:

1/2" to 2"; DN 15 to 50.

REGULATING RANGES:

0,3 to 1,1 bar; 0,8 to 1,5 bar; 1 to 3 bar; 1,5 to 5 bar.

CONNECTIONS:

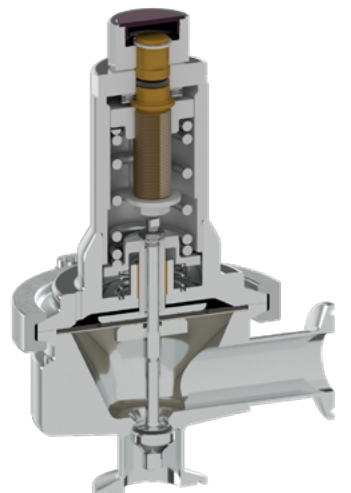
ASME BPE, DIN and ISO clamp ferrules or tube weld (ETO) ends. Others on request.

PACKAGING:

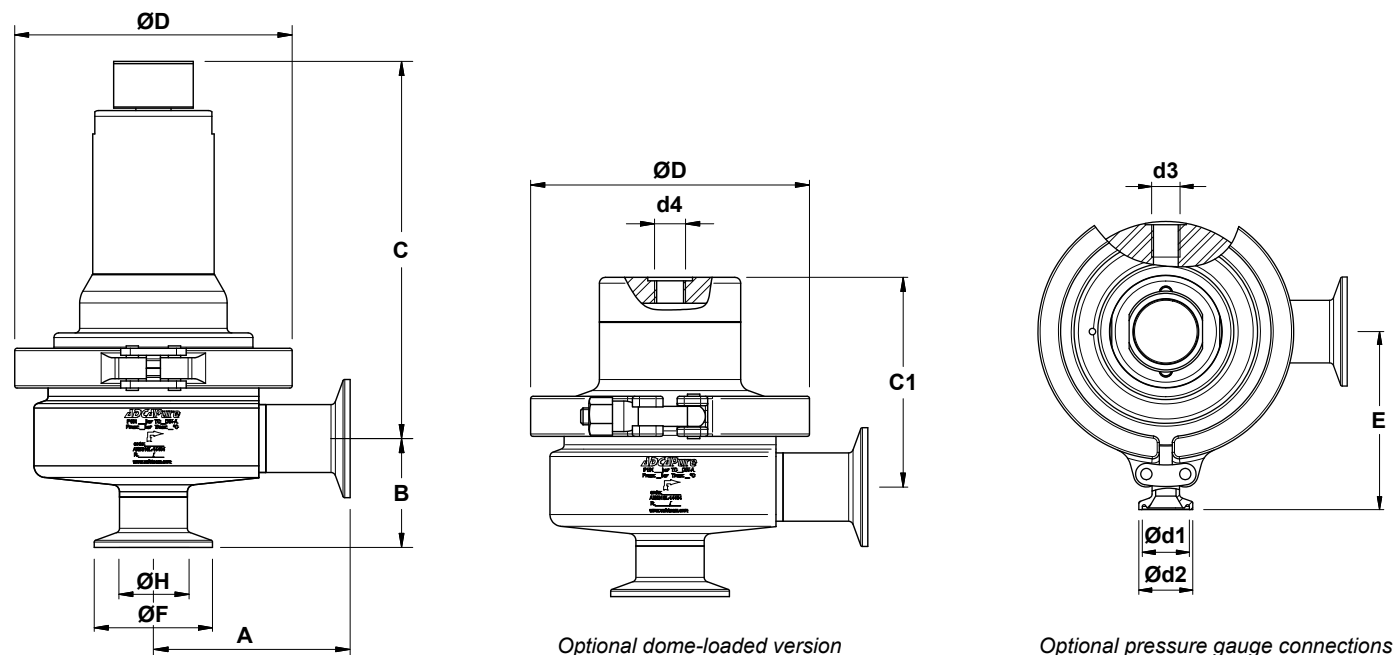
Assembling and packaging in a clean room certified according to ISO 14644-1.
The product is end capped and sealed with recyclable thermo-shrinkable plastic film, to avoid contamination.

INSTALLATION:

Horizontal installation. Vertical inlet and horizontal outlet. See IMI – Installation and maintenance instructions.



LIMITING CONDITIONS	
Valve model	P161
Body design conditions	PN 16
Maximum upstream pressure	8 bar
Maximum downstream pressure	5 bar
Minimum downstream pressure *	0,3 bar
Maximum operating temperature **	180 °C
* For tight shut off, with adjustment spring relaxed, ensure a minimum downstream pressure of 0,2 bar. ** With PTFE diaphragm and seals. Consult the manufacturer in case of other materials.	
CE MARKING – GROUP 2 (PED – European Directive)	
PN 16	Category
1/2" to 2" – DN 15 to 50	SEP



DIMENSIONS (mm) ASME BPE																
REGULATING RANGES 0,8 to 1,5 bar, 1 to 3 bar and 1,5 to 5 bar														REGULATING RANGE 0,3 to 1,1 bar		
SIZE	A	B	C	C1	D	d1	d2	d3 *	d4 *	E	F	H	WGT. (kg)	A	D	E
1/2"	77	53	156	84	119	15,75	25	1/4"	1/4"	83	25	9,4	4,1	85	134	91
3/4"	77	56	160	88	119	15,75	25	1/4"	1/4"	83	25	15,75	4,4	85	134	91
1"	77	52	163	91	119	15,75	25	1/4"	1/4"	83	50,5	22,1	4,6	85	134	91
1 1/2"	85	61	204	124	134	15,75	25	1/4"	1/4"	96	50,5	34,8	8	101	170	109
2"	85	67	207	127	134	15,75	25	1/4"	1/4"	96	64	47,5	8,6	101	170	109

DIMENSIONS (mm) DIN																
REGULATING RANGES 0,8 to 1,5 bar, 1 to 3 bar and 1,5 to 5 bar														REGULATING RANGE 0,3 to 1,1 bar		
SIZE	A	B	C	C1	D	d1	d2	d3 *	d4 *	E	F	H	WGT. (kg)	A	D	E
DN 15	77	45	160	88	119	15,75	25	1/4"	1/4"	83	34	16	4,4	85	134	91
DN 20	77	40	158	86	119	15,75	25	1/4"	1/4"	83	34	20	4,3	85	134	91
DN 25	84	47	161	89	119	15,75	25	1/4"	1/4"	83	50,5	26	4,6	92	134	91
DN 32	84	50	163	91	119	15,75	25	1/4"	1/4"	83	50,5	32	4,8	84	134	83
DN 40	93	69	202	122	134	15,75	25	1/4"	1/4"	96	50,5	38	8	109	170	109
DN 50	93	75	206	126	134	15,75	25	1/4"	1/4"	96	64	50	8,6	109	170	109

Remarks: Clamp ferrules according to DIN 32676-A; Tube weld (ETO) according to DIN 11866-A (DIN 11850-2).

DIMENSIONS (mm) ISO																
REGULATING RANGES 0,8 to 1,5 bar, 1 to 3 bar and 1,5 to 5 bar														REGULATING RANGE 0,3 to 1,1 bar		
SIZE	A	B	C	C1	D	d1	d2	d3 *	d4 *	E	F	H	WGT. (kg)	A	D	E
DN 15	84	43	159	87	119	15,75	25	1/4"	1/4"	83	50,5	18,1	4,4	92	134	91
DN 20	84	46	162	90	119	15,75	25	1/4"	1/4"	83	50,5	23,7	4,6	92	134	91
DN 25	84	49	164	92	119	15,75	25	1/4"	1/4"	83	50,5	29,7	4,8	92	134	91
DN 32	93	70	202	122	134	15,75	25	1/4"	1/4"	96	64	38,4	8,2	109	170	109
DN 40	93	75	206	126	134	15,75	25	1/4"	1/4"	96	64	44,3	8,8	109	170	109

Remarks: Clamp ferrules according to DIN 32676-B; Tube weld (ETO) according to DIN 11866-B (ISO 1127).

* As standard, connections d3 and d4 are female threaded ISO 7 Rp.

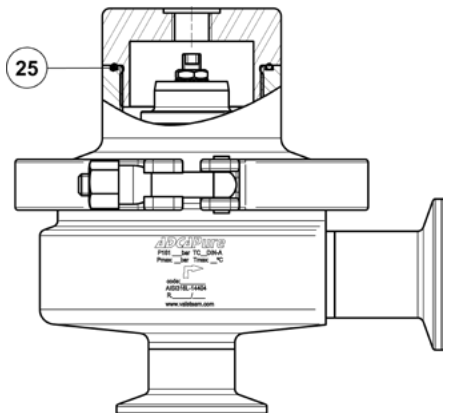
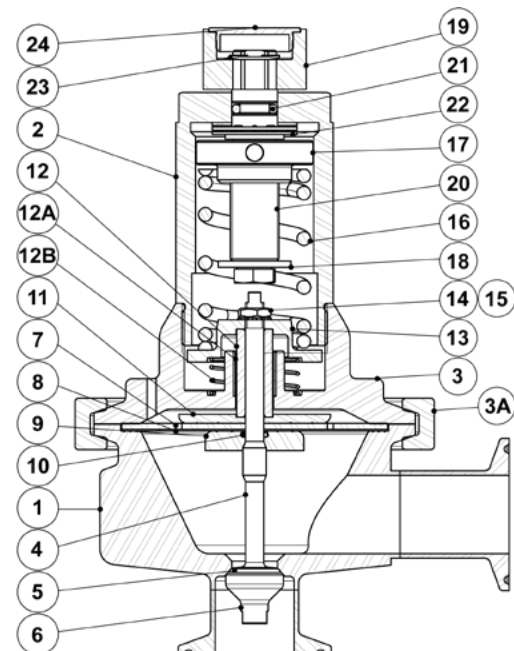
FLOW RATE COEFFICIENTS (m³/h)																
	ASME BPE						DIN						ISO			
SIZE	1/2"	3/4"	1"	1 1/2"	2"		DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 15	DN 20	DN 25	DN 32
Kvs	1,3	3	4,2	7	7	13	2,1	3	4,2	4,2	7	7	2,1	4,2	4,2	7

MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Valve body	AISI 316L / 1.4404
2	Cover	AISI 316L / 1.4404
3	Intermediate flange	AISI 316L / 1.4404
3A	Clamp	AISI 316 / 1.4401
4	* Valve stem	AISI 316L / 1.4404
5	* Soft plug	** EPDM; PTFE; FPM
6	* Valve plug	AISI 316L / 1.4404
7	* Upper diaphragm	EPDM
8	* Lower diaphragm	PTFE (Gylon)
9	Diaphragm plate	AISI 316L / 1.4404
10	* O-ring	EPDM
11	Diaphragm plate	AISI 316L / 1.4404
12	Stem guide	AISI 316L / 1.4404
12A	Plain bearing	Bronze
12B	Spring	AISI 302 / 1.4300
13	Spring plate	AISI 316L / 1.4404
14	Nut	AISI 304 / 1.4301
15	Washer	AISI 304 / 1.4301
16	* Adjustment spring	AISI 302 / 1.4300
17	Top spring plate	AISI 316L / 1.4404
18	Retaining washer	Stainless steel A2-70
19	Adjustment nut	AISI 316L / 1.4404
20	Adjustment screw	Brass
21	O-ring	NBR
22	Bearing	Corrosion resistant steel
23	Shaft ring	Stainless steel
24	Cover nut	Plastic
25	* O-ring	EPDM

* Available spare parts; ** Others on request.

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.



Optional dome-loaded version (1/4")

OPTIONS			
LOCK SYSTEM	ADJUSTMENT SCREW WITH TOP CAP	PRESSURE GAUGE CONNECTION	LEAKAGE LINE CONNECTION

ORDERING CODES P161														
Valve model	P16	1	3	1	T	M	I	X	X	X	DI	15	E	
P161 – AISI 316L / 1.4404 diaphragm sensing pressure reducing valve	P16													
Valve series														
Series 1		1												
Regulating range														
0,3 to 1,1 bar			3											
0,8 to 1,5 bar			4											
1 to 3 bar			5											
1,5 to 5 bar			6											
0,8 to 5 bar (dome-loaded) a)			A											
0,3 to 1,1 bar (dome-loaded) a)			B											
Flow rate coefficient														
Kvs 1,3 (only applicable to ASME BPE 1/2" size)			1											
Kvs 2,1 (applicable to sizes DIN DN 15 and ISO DN 15)			2											
Kvs 3 (applicable to sizes ASME BPE 3/4" and DIN DN 20)			3											
Kvs 4,2 (applicable to sizes ASME BPE 1", DIN DN 25 to DN 32 and ISO DN 20 to DN 25)			4											
Kvs 7 (applicable to sizes ASME BPE 1 1/2" to 2", DIN DN 40 to DN 50 and ISO DN 32 to DN 40)			6											
Kvs 13 (applicable to sizes ASME BPE 2" and DIN DN 50)			8											
Diaphragm														
PTFE (Gylon)					T									
EPDM (non-standard)					E									
Seat material b)														
Metal to metal (non-standard, except in ASME BPE 1/2" size)						M								
EPDM						E								
PTFE						T								
FPM / Viton (FDA approval only)						V								
Adjustment knob, top cap and leakage line connection														
Stainless steel adjustment knob							I							
Top cap (adjustment screw with cover)							T							
Stainless steel adjustment knob w/ diaphragm cover leakage connection in case of diaphragm failure							L							
Top cap (adjustment screw with cover) w/ diaphragm cover leakage connection in case of diaphragm failure							U							
Dome-loaded top c)							X							
Gauge port options														
Without gauge ports								X						
Tri-clamp gauge port on the left side (rel. to the flow direction) – downstream pressure								7						
Tri-clamp gauge port on the right side (rel. to the flow direction) – downstream pressure								6						
Tri-clamp gauge port on both sides – downstream pressure								5						
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"								4						
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"								3						
Threaded gauge port on both sides – downstream pressure – ISO 7 Rp 1/4"								2						
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – 1/4" NPT								W						
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – 1/4" NPT								Y						
Threaded gauge port on both sides – downstream pressure – 1/4" NPT								Z						
Surface finish d)														
Standard surface finish									X					
Mirror mechanical polished external surfaces (SF1)									P					
Electropolished internal wetted parts (SF5)									E					
Special features														
None										X				
Degreased for oxygen										O				
CIP / SIP lock system										C				
Pipe connections														
Clamp ferrule ASME BPE											D			
Clamp ferrule DIN (DIN 32676-A)											F			
Clamp ferrule ISO (DIN 32676-B)											E			
Tube weld (ETO) according to ASME BPE											DI			
Tube weld (ETO) according to DIN 11866-A (DIN 11850-2)											FI			
Tube weld (ETO) according to DIN 11866-B (ISO 1127)											EI			
Size														
1/2" or DN 15												15		
3/4" or DN 20												20		
1" or DN 25												25		
DN 32												32		
1 1/2" or DN 40												40		
2" or DN 50												50		
Special valves / Extras														
Full description or additional codes have to be added in case of a non-standard combination													E	

a) The loading control pressure can be up to a maximum of 0,2 bar above the required downstream pressure; **b)** ASME BPE 1/2" size is only available with metal to metal sealing; **c)** Must be chosen in case of dome-loaded version; **d)** Consult IS PV20.00 – Technical information – for further details and other surface finish options.

SANITARY PRESSURE REDUCING VALVE
P163

DESCRIPTION

The ADCAPure P163 is a series of inline direct acting, diaphragm sensing pressure reducing valves. These regulators, available with spring or dome-loading, are designed for use with clean steam, compressed air, water and other gases or liquids compatible with the construction materials and valve design.

MAIN FEATURES

Spring or dome-loaded.
Non-rising adjustment knob.
Compact inline design with clamped body.
FDA / USP Class VI compliant seals.
Completely machined from bar stock material, no castings or forgings are used.

STANDARD SURFACE FINISH

Internal wetted parts: ≤ 0,51 micron Ra – SF1.
External: ≤ 0,76 micron Ra – SF3.
Other surface conditions see IS PV20.00 E – Technical information.
Ultrasonic cleaning.

OPTIONS:

Leakage line connection (1/4").
Different soft sealings for liquids and gases.
Lock system, allows inline clean-in-place (CIP) and sterilization-in-place (SIP) operations.
Gauge connection on body.
Top cap (adjustment screw with cover).
Bottom cover with drain connection.
Dome-loaded version.

USE:

Clean steam, compressed air, water and other gases and liquids compatible with the construction.

AVAILABLE MODELS:

P163.

SIZES:

1/2" to 2"; DN 15 to 50.

REGULATING RANGES:

0,8 to 1,5 bar; 1 to 3 bar; 1,5 to 5 bar.

CONNECTIONS:

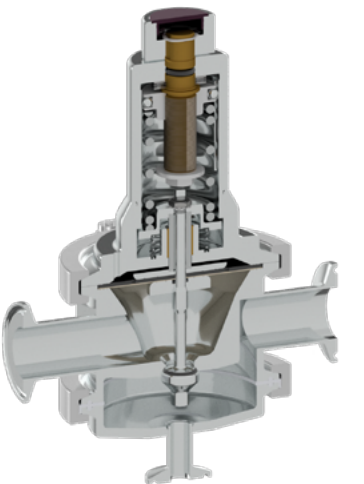
ASME BPE, DIN and ISO clamp ferrules or tube weld (ETO) ends. Others on request.

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:

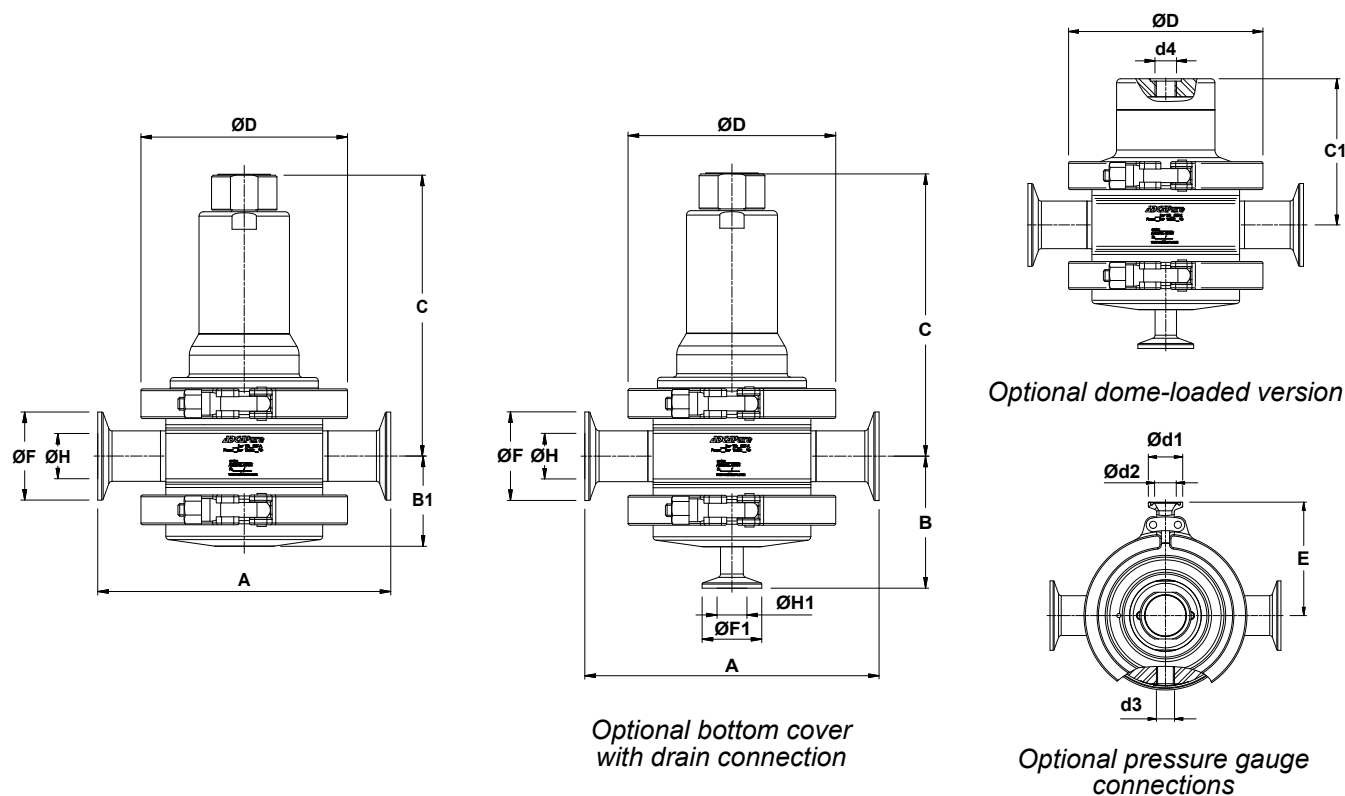
Horizontal installation. See IMI – Installation and maintenance instructions.



LIMITING CONDITIONS	
Valve model	P163
Body design conditions	PN 16
Maximum upstream pressure	8 bar
Maximum downstream pressure	5 bar
Minimum downstream pressure *	0,8 bar
Maximum operating temperature **	180 °C

* For tight shut off, with adjustment spring relaxed, ensure a minimum downstream pressure of 0,2 bar.
** With PTFE diaphragm and seals. Consult the manufacturer in case of other elastomer materials.

CE MARKING – GROUP 2 (PED – European Directive)	
PN 16	Category
1/2" to 2" – DN 15 to 50	SEP



DIMENSIONS (mm) ASME BPE																
SIZE	A	B	B1	C	C1	ØD	Ød1	Ød2	d3 *	d4 *	E	ØF	ØH	ØF1	ØH1	WGT. (kg)
1/2"	153	70	47	156	84	119	25	15,75	1/4"	1/4"	83	25	9,4	25	9,4	5
3/4"	153	74	51	160	88	119	25	15,75	1/4"	1/4"	83	25	15,75	25	9,4	5,6
1"	153	77	54	163	91	119	25	15,75	1/4"	1/4"	83	50,5	22,1	25	9,4	5,7
1 1/2"	170	95	71	204	124	134	25	15,75	1/4"	1/4"	96	50,5	34,8	25	9,4	9,8
2"	170	99	74	207	127	134	25	15,75	1/4"	1/4"	96	64	47,5	25	9,4	9,8

DIMENSIONS (mm) DIN																
SIZE	A	B	B1	C	C1	ØD	Ød1	Ød2	d3 *	d4 *	E	ØF	ØH	ØF1	ØH1	WGT. (kg)
DN 15	153	74	51	160	88	119	25	15,75	1/4"	1/4"	83	34	16	34	10	5,6
DN 20	153	72	49	158	86	119	25	15,75	1/4"	1/4"	83	34	20	34	10	5,3
DN 25	168	75	52	161	89	119	25	15,75	1/4"	1/4"	83	50,5	26	34	10	5,6
DN 32	168	77	54	163	91	119	25	15,75	1/4"	1/4"	83	50,5	32	34	10	5,8
DN 40	185	94	70	202	122	134	25	15,75	1/4"	1/4"	96	50,5	38	34	10	9,5
DN 50	185	98	74	206	126	134	25	15,75	1/4"	1/4"	96	64	50	34	10	9,8

Remarks: Clamp ferrules according to DIN 32676-A; Tube weld (ETO) according to DIN 11866-A (DIN 11850-2).

DIMENSIONS (mm) ISO																
SIZE	A	B	B1	C	C1	ØD	Ød1	Ød2	d3 *	d4 *	E	ØF	ØH	ØF1	ØH1	WGT. (kg)
DN 15	168	73	50	159	87	119	25	15,75	1/4"	1/4"	83	50,5	18,1	25	10,3	5,4
DN 20	168	76	53	162	90	119	25	15,75	1/4"	1/4"	83	50,5	23,7	25	10,3	5,6
DN 25	168	78	55	164	92	119	25	15,75	1/4"	1/4"	83	50,5	29,7	25	10,3	6
DN 32	185	93	69	202	122	134	25	15,75	1/4"	1/4"	96	64	38,4	25	10,3	9,6
DN 40	185	100	76	206	126	134	25	15,75	1/4"	1/4"	96	64	44,3	25	10,3	10

Remarks: Clamp ferrules according to DIN 32676-B; Tube weld (ETO) according to DIN 11866-B (ISO 1127).

* As standard, optional connections d3 and d4 are female threaded ISO 7 Rp.

FLOW RATE COEFFICIENTS (m³/h)																
SIZE	ASME BPE					DIN						ISO				
	1/2"	3/4"	1"	1 1/2"	2"	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 15	DN 20	DN 25	DN 32	DN 40
Kvs	1,3	3	4,2	7	13	2,1	3	4,2	4,2	7	13	2,1	4,2	4,2	7	7

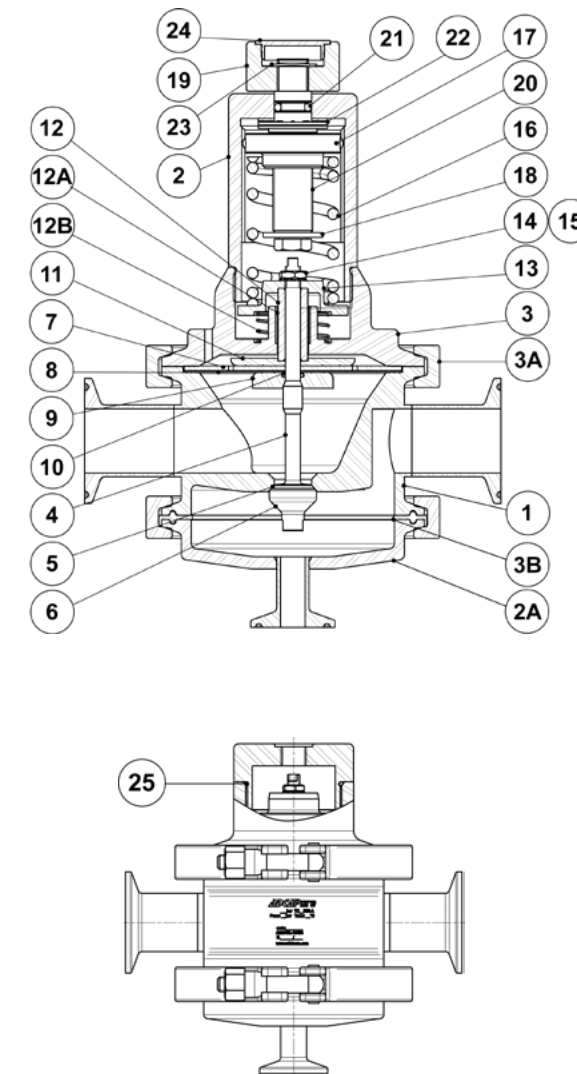
For conversion Kvs = Cv (US) x 0,865.

MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Valve body	AISI 316L / 1.4404
2	Cover	AISI 316L / 1.4404
2A	Bottom cover	AISI 316L / 1.4404
3	Intermediate flange	AISI 316L / 1.4404
3A	Clamp	AISI 316 / 1.4401
3B	Gasket	FKM / PTFE
4	* Valve stem	AISI 316L / 1.4404
5	* Soft plug	** EPDM; PTFE; FPM
6	* Valve plug	AISI 316L / 1.4404
7	* Upper diaphragm	EPDM
8	* Lower diaphragm	PTFE (Gylon)
9	Diaphragm plate	AISI 316L / 1.4404
10	* O-ring	EPDM
11	Diaphragm plate	AISI 316L / 1.4404
12	Stem guide	AISI 316L / 1.4404
12A	Plain bearing	Bronze
12B	Spring	AISI 302 / 1.4300
13	Spring plate	AISI 316L / 1.4404
14	Nut	AISI 304 / 1.4301
15	Washer	AISI 304 / 1.4301
16	* Adjustment spring	AISI 302 / 1.4300
17	Top spring plate	AISI 316L / 1.4404
18	Retaining washer	Stainless steel A2-70
19	Adjustment nut	AISI 316L / 1.4404
20	Adjustment screw	Brass
21	O-ring	NBR
22	Bearing	Corrosion resistant steel
23	Shaft ring	Stainless steel
24	Cover nut	Plastic
25	* O-ring	EPDM

* Available spare parts; ** Others on request.

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.



OPTIONS			
LOCK SYSTEM	ADJUSTMENT SCREW WITH TOP CAP	PRESSURE GAUGE CONNECTION	LEAKAGE LINE CONNECTION



ORDERING CODES P163															
Valve model	P63	1	4	1	T	M	I	X	X	X	DI	15	E		
P163 – AISI 316L / 1.4404 diaphragm sensing press. reducing valve without drain	P63														
P163 – AISI 316L / 1.4404 diaphragm sensing press. reducing valve with drain	P63D														
Valve series															
Series 1		1													
Regulating range															
0,8 to 1,5 bar		4													
1 to 3 bar		5													
1,5 to 5 bar		6													
0,8 to 5 bar (dome-loaded) a)		A													
Flow rate coefficient															
Kvs 1,3 (only applicable to ASME BPE 1/2" size)		1													
Kvs 2,1 (applicable to sizes DIN DN 15 and ISO DN 15)		2													
Kvs 3 (applicable to sizes ASME BPE 3/4" and DIN DN 20)		3													
Kvs 4,2 (applicable to sizes ASME BPE 1", DIN DN 25 to DN 32 and ISO DN 20 to DN 25)		4													
Kvs 7 (applicable to sizes ASME BPE 1 1/2", DIN DN 40 and ISO DN 32 to DN 40)		6													
Kvs 13 (applicable to sizes ASME BPE 2" and DIN DN 50)		8													
Diaphragm															
PTFE (Gylon)		T													
EPDM (non-standard)		E													
Seat material b)															
Metal to metal (non-standard, except in ASME BPE 1/2" size)		M													
EPDM		E													
PTFE		T													
FPM / Viton (FDA approval only)		V													
Adjustment knob, top cap and leakage line connection															
Stainless steel adjustment knob		I													
Top cap (adjustment screw with cover)		T													
Stainless steel adjustment knob w/ diaphragm cover leakage connection in case of diaphragm failure		L													
Top cap (adjustment screw with cover) w/ diaphragm cover leakage connection in case of diaphragm failure		U													
Dome-loaded top c)		X													
Gauge port options															
Without gauge ports		X													
Tri-clamp gauge port on the left side (rel. to the flow direction) – downstream pressure		7													
Tri-clamp gauge port on the right side (rel. to the flow direction) – downstream pressure		6													
Tri-clamp gauge port on both sides – downstream pressure		5													
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"		4													
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"		3													
Threaded gauge port on both sides – downstream pressure – ISO 7 Rp 1/4"		2													
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – 1/4" NPT		W													
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – 1/4" NPT		Y													
Threaded gauge port on both sides – downstream pressure – 1/4" NPT		Z													
Surface finish d)															
Standard surface finish		X													
Mirror mechanical polished external surfaces (SF1)		P													
Electropolished internal wetted parts (SF5)		E													
Special features															
None		X													
Degreased for oxygen		O													
CIP / SIP lock system		C													
Pipe connections															
Clamp ferrule ASME BPE		D													
Clamp ferrule DIN (DIN 32676-A)		F													
Clamp ferrule ISO (DIN 32676-B)		E													
Tube weld (ETO) according to ASME BPE		DI													
Tube weld (ETO) according to DIN 11866-A (DIN 11850-2)		FI													
Tube weld (ETO) according to DIN 11866-B (ISO 1127)		EI													
Size															
1/2" or DN 15		15													
3/4" or DN 20		20													
1" or DN 25		25													
DN 32		32													
1 1/2" or DN 40		40													
2" or DN 50		50													
Special valves / Extras															
Full description or additional codes have to be added in case of a non-standard combination		E													

a) The loading control pressure can be up to a maximum of 0,2 bar above the required downstream pressure; **b)** ASME BPE 1/2" size is only available with metal to metal sealing; **c)** Must be chosen in case of dome-loaded version; **d)** Consult IS PV20.00 – Technical information – for further details and other surface finish options.



SANITARY PRESSURE REDUCING VALVE P173

DESCRIPTION

The ADCAPure P173 is a series of inline direct acting, diaphragm sensing pressure reducing valves. These regulators, available with spring or dome-loading, are designed for use with clean steam, compressed air, water and other gases or liquids compatible with the construction materials and valve design.

MAIN FEATURES

Compact inline design.
Non-rising adjustment knob.
FDA / USP Class VI compliant seals.
Completely machined from bar stock material, no castings or forgings are used on the standard version.

STANDARD SURFACE FINISH

Internal wetted parts: ≤ 0,51 micron Ra – SF1.
External: ≤ 0,76 micron Ra – SF3.
Other surface conditions see IS PV20.00 E – Technical information.
Ultrasonic cleaning.

OPTIONS: Leakage line connection (1/8").
Different soft sealings for liquids and gases.
Lock system, allows inline clean-in-place (CIP) and sterilization-in-place (SIP) operations.
Gauge connection on body.
Top cap (adjustment screw with cover).
Bottom cover with drain connection.

USE: Clean steam, compressed air, water and other gases and liquids compatible with the construction.

AVAILABLE MODELS: P173.

SIZES: 1 1/2" to 2" ; DN 32 to DN 50.

REGULATING RANGES: 0,8 to 1,5 bar; 1 to 3 bar; 1,5 to 5 bar.

CONNECTIONS: ASME BPE, DIN and ISO clamp ferrules or tube weld (ETO) ends. 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: Horizontal installation.
See IMI – Installation and maintenance instructions.



LIMITING CONDITIONS	
Valve model	P173
Body design conditions	PN 16
Maximum upstream pressure	8 bar or 4 bar *
Maximum downstream pressure	5 bar
Minimum downstream pressure **	0,8 bar
Maximum operating temperature ***	180 °C

* See "Flow rates coefficients" table.
** For tight shut off, with the adjustment spring relaxed, ensure a minimum 0,2 bar downstream pressure.
*** With PTFE diaphragm and seals. Consult the manufacturer in case of other elastomer materials.

CE MARKING – GROUP 2 (PED – European Directive)	
PN 16	Category
1 1/2" to 2" – DN 32 to 50	SEP

FLOW RATES COEFFICIENTS (m³/h)

	BPE			DIN			ISO		
SIZE	11/2"	2"	2" *	DN 40	DN 50	DN 50 *	DN 32	DN 40	DN 50
Kvs	5,5	5,5	8,5 *	5,5	5,5	8,5 *	5,5	5,5	NA

* Limited to a maximum of 4 bar inlet pressure.

DIMENSIONS (mm) ASME BPE

SIZE	A	B	B1	C	D	d1	d2	E	F	H	NPS 1/2"		WGT. (kg)
											F1	H1	
11/2"	170	94	70	199	130	25	15,75	90	50,5	34,8	25	9,4	8,6
2"	170	99	76	205	130	25	15,75	90	64	47,5	25	9,4	8,9

DIMENSIONS (mm) DIN

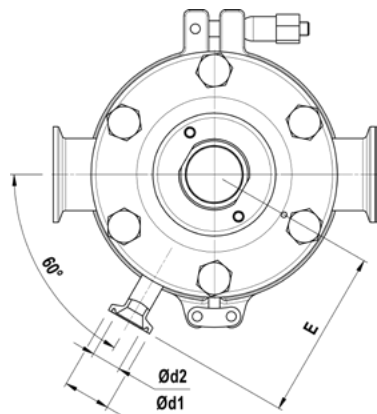
SIZE	A	B	B1	C	D	d1	d2	E	F	H	DN 10		WGT. (kg)
											F1	H1	
DN 40	170	94	70	199	130	25	15,75	90	50,5	38	34	10	8,6
DN 50	170	99	76	205	130	25	15,75	90	64	50	34	10	8,9

Remarks: Clamp ferrules according to DIN 32676-A; Tube weld (ETO) according to DIN 11866-A (DIN 11850-2).

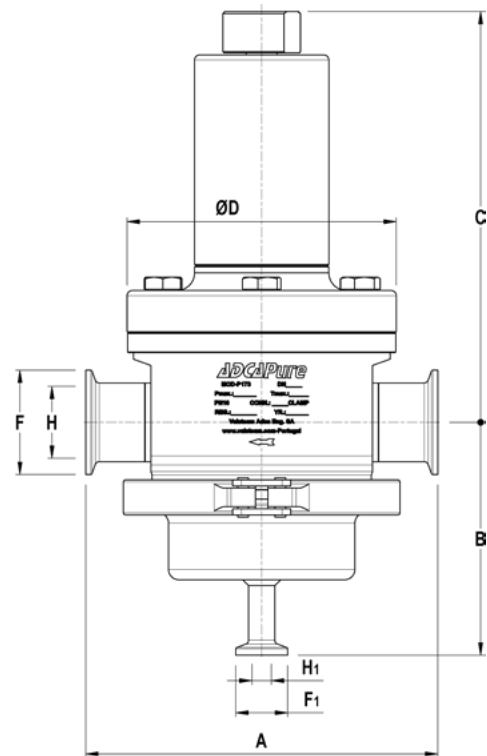
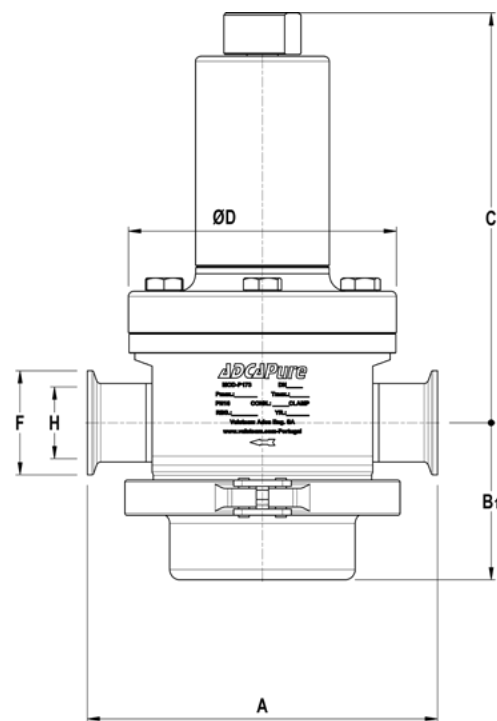
DIMENSIONS (mm) ISO

SIZE	A	B	B1	C	D	d1	d2	E	F	H	DN 08		WGT. (kg)
											F1	H1	
DN 32	170	93	70	199	130	25	15,75	90	64	38,4	25	10,3	8,6
DN 40	170	99	76	205	130	25	15,75	90	64	44,3	25	10,3	9,2

Remarks: Clamp ferrules according to DIN 32676-B; Tube weld (ETO) according to DIN 11866-B (ISO 1127).



Optional pressure gauge connections



Optional bottom cover with drain connection

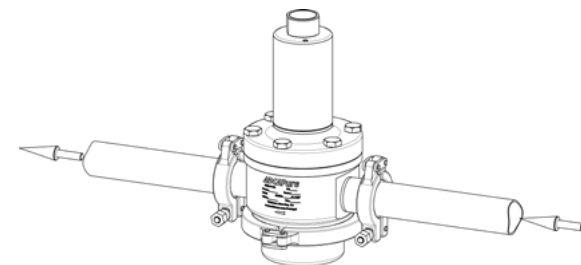
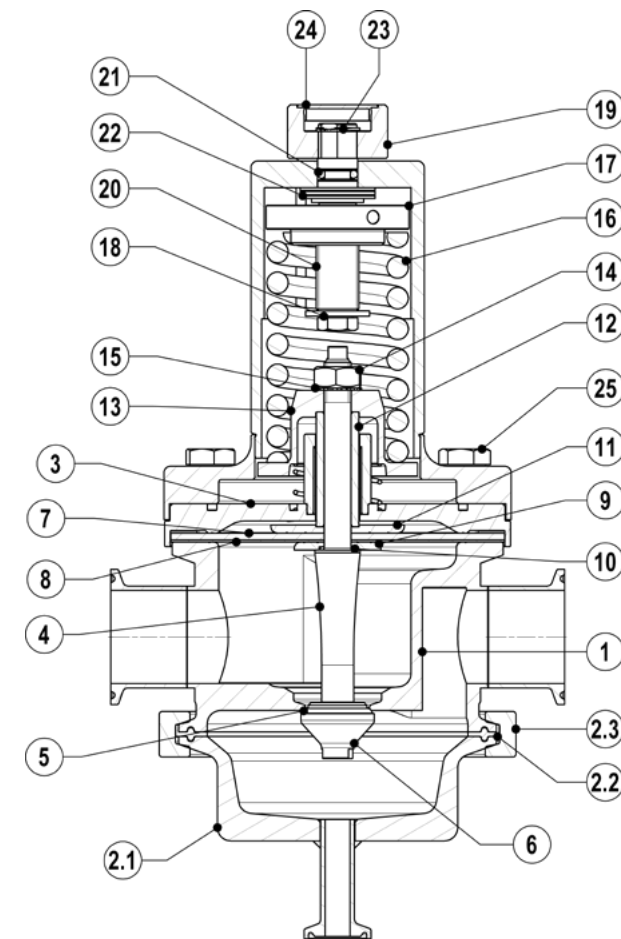
MATERIALS

POS. N°	DESIGNATION	MATERIAL
1	Body	AISI 316L / 1.4404
2	Cover	AISI 316L / 1.4404
2.1	Bottom cover	AISI 316L / 1.4404
2.2	Gasket	PTFE / TFM® envelope gasket
2.3	Safety clamp	AISI 316 / 1.4401
3	Centering plate	AISI 316L / 1.4404
4	* Valve stem	AISI 316L / 1.4404
5	* Soft plug	** EPDM; PTFE; FPM
6	* Valve plug	AISI 316L / 1.4404
7	* Upper diaphragm	EPDM
8	* Lower diaphragm	PTFE (Gylon)
9	Diaphragm plate	AISI 316L / 1.4404
10	* O-ring	EPDM
11	Diaphragm plate	AISI 316L / 1.4404
12	Stem guide	AISI 316 / 1.4401
13	Spring plate	AISI 316 / 1.4401
14	Nut	Stainless steel A2-70
15	Washer	AISI 316 / 1.4401
16	* Adjustment spring	AISI 302 / 1.4300
17	Top spring plate	AISI 316 / 1.4401
18	Retaining washer	Stainless steel A2-70
19	Adjustment nut	AISI 316L / 1.4404
20	Adjustment screw	Brass
21	O-ring	NBR
22	Bearing	Corrosion resistant steel
23	Shaft ring	Stainless steel
24	Cover nut	Plastic
25	Bolts	Stainless steel A2-70

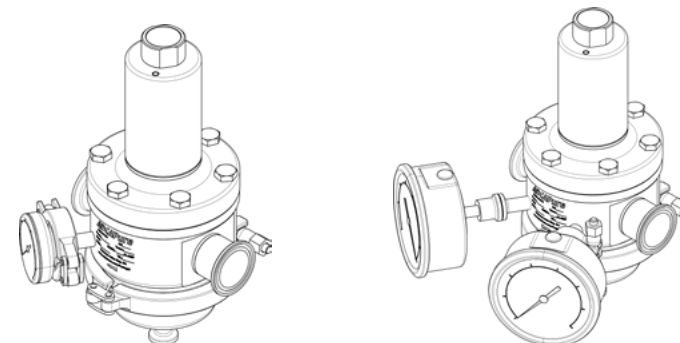
* Available spare parts; ** Others on request.

FDA / USP Class VI seals certificate on request.

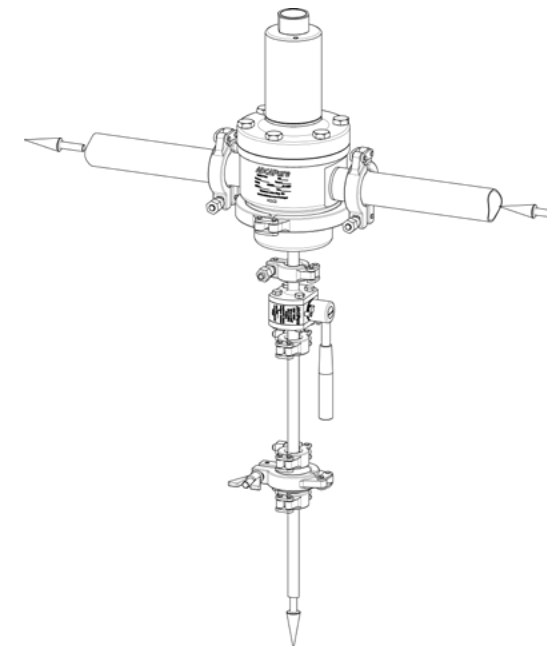
For viton diaphragm the only approval available is the FDA (pos. 7).



Valve without bottom drain connection, for clean gases



Optional pressure gauge connections



Valve with condensate drain for clean steam

ORDERING CODES P173															
Valve model	P17D	4	4	T	M	I	X	X	X	DI	32	E			
P173 – AISI 316L / 1.4404 diaphragm sensing pressure reducing valve with drain	P17D														
P173 – AISI 316L / 1.4404 diaphragm sensing pressure reducing valve without drain	P17														
Regulating range															
0,8 to 1,5 bar	4														
1 to 3 bar	5														
1,5 to 5 bar	6														
Flow rate coefficient															
Kvs 5,5	4														
Kvs 8,5 (only applicable to sizes ASME BPE 2" and DIN DN 50. Limited to a max. 4 bar inlet pressure)	6														
Diaphragm															
PTFE (Gylon)	T														
EPDM (non-standard)	E														
Seat material															
Metal to metal (non-standard)	M														
EPDM	E														
PTFE	T														
FPM / Viton (FDA approval only)	V														
Adjustment knob, top cap and leakage line connection															
Stainless steel adjustment knob	I														
Top cap (adjustment screw with cover)	T														
Stainless steel adjustment knob w/ diaphragm cover leakage connection in case of diaphragm failure	L														
Top cap (adjustment screw with cover) w/ diaphragm cover leakage connection in case of diaphragm failure	U														
Gauge port options															
Without gauge ports	X														
Tri-clamp gauge port on the left side (rel. to the flow direction) – downstream pressure – 1 connection	7														
Tri-clamp gauge port on the right side (rel. to the flow direction) – downstream pressure – 1 connection	6														
Tri-clamp gauge port on the left side (rel. to the flow direction) – upstream and downstream press. – 2 conn. a)	9														
Tri-clamp gauge port on the right side (rel. to the flow direct.) – upstream and downstream press. – 2 conn. a)	8														
Tri-clamp gauge port on both sides – downstream pressure – 2 connections	5														
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"	4														
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"	3														
Threaded gauge port on left side (rel. to the flow direction) – upstream and downstream press. – 2 conn. – ISO 7 Rp 1/4"	1														
Threaded gauge port on right side (rel. to the flow direction) – upstream/downstream pressure – 2 conn. – ISO 7 Rp 1/4"	0														
Threaded gauge port on both sides – downstream pressure – ISO 7 Rp 1/4"	2														
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – 1/4" NPT	W														
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – 1/4" NPT	Y														
Threaded gauge port on left side (rel. to the flow direction) – upstream and downstream press. – 2 conn. – 1/4" NPT	U														
Threaded gauge port on right side (rel. to the flow direction) – upstream and downstream pressure – 2 conn. – 1/4" NPT	V														
Threaded gauge port on both sides – downstream pressure – 1/4" NPT	Z														
Surface finish b)															
Standard surface finish	X														
Mirror mechanical polished external surfaces (SF1)	P														
Electropolished internal wetted parts (SF5)	E														
Special features															
None	X														
Degreased for oxygen	O														
CIP / SIP lock system	C														
Pipe connection															
Clamp ferrule ASME BPE	D														
Clamp ferrule DIN (DIN 32676-A)	F														
Clamp ferrule ISO (DIN 32676-B)	E														
Tube weld (ETO) according to ASME BPE	DI														
Tube weld (ETO) according to DIN 11866-A (DIN 11850-2)	FI														
Tube weld (ETO) according to DIN 11866-B (ISO 1127)	EI														
Size															
DN 32 (available with ISO connections only)	32														
11/2" or DN 40	40														
2" or DN 50 (not available with ISO connections)	50														
Special valves / Extras															
Full description or additional codes have to be added in case of non-standard combination															
E															

a) Under special request and after approval of technical solution; b) Consult IS PV20.00 for further details and other surface finish options.

**SANITARY PRESSURE SUSTAINING VALVE
PS130**

DESCRIPTION

The ADCAPure PS130 is a series of direct acting, diaphragm sensing pressure sustaining valves. These spring-loaded regulators are designed for use with clean air, nitrogen, carbon dioxide, oxygen, argon and other gases or liquids compatible with the construction materials and valve design. Specifically designed for the high purity gas systems found in the pharmaceutical, cosmetic, fine chemical and food & beverage processes.

MAIN FEATURES

Compact design.
Non-rising adjustment knob.
FDA / USP Class VI compliant seals.
Completely machined from 316L stainless steel bar stock, no castings or forgings are used.

STANDARD SURFACE FINISH

Internal wetted parts: ≤ 0,51 micron Ra – SF1.
External: ≤ 0,76 micron Ra – SF3.
Other surface conditions see IS PV20.00 E – Technical information.
Ultrasonic cleaning.

OPTIONS:

- Leakage line connection (1/8").
- Gauge connection on body.
- Different soft sealings for liquids and gases.
- Top cap (adjustment screw with cover).
- Panel mounting (M45 thread).
- Wall mounting.

USE:

Clean air, nitrogen, carbon dioxide, oxygen, argon and other gases or liquids compatible with the construction.

AVAILABLE MODELS:

PS130.

SIZES:

1/2" to 1"; DN 08 to DN 25.

REGULATING RANGES:

0,2 – 1,5 bar; 0,3 – 3 bar; 2 – 8 bar.

CONNECTIONS:

ASME BPE, DIN and ISO clamp ferrules or tube weld (ETO) ends. 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:

Horizontal installation is recommended.
See IMI – Installation and maintenance instructions.



LIMITING CONDITIONS	
Valve model	PS130
Body design conditions	PN 16
Maximum upstream pressure	8 bar
Minimum upstream pressure	0,2 bar
Maximum design temperature *	150 °C

* Others on request.

CE MARKING – GROUP 2 (PED – European Directive)	
PN 16	Category
1/2" to 1" – DN 08 to DN 25	SEP

FLOW RATE COEFFICIENTS (m³/h) *						
	ASME BPE		DIN		ISO	
SIZE	1/2"	3/4" to 1"	DN 10	DN 15 to DN 25	DN 08	DN 10 to DN 20
Kvs	1,7	3	1,7	3	1,7	3

* Reduced Kvs on request.

DIMENSIONS (mm) ASME BPE										
SIZE	A	B	C	D	d1	d2	E	F	H	WEIGHT (kg)
1/2"	130	30	127	80	25	15,75	65	25	9,4	2,9
3/4"	130	30	127	80	25	15,75	67,5	25	15,75	2,9
1"	130	30	127	80	25	15,75	72,5	50,5	22,1	3,4

* Valves with nylon adjustment knob weigh 0,3 kg less.

DIMENSIONS (mm) DIN										
SIZE	A	B	C	D	d1	d2	E	F	H	WEIGHT (kg)
DN 10	120	30	127	80	25	15,75	65	34	10	2,9
DN 15	120	30	127	80	25	15,75	67,5	34	16	3
DN 20	120	30	127	80	25	15,75	67,5	34	20	3,1
DN 25	120	32	125	80	25	15,75	72,5	50,5	26	3,4

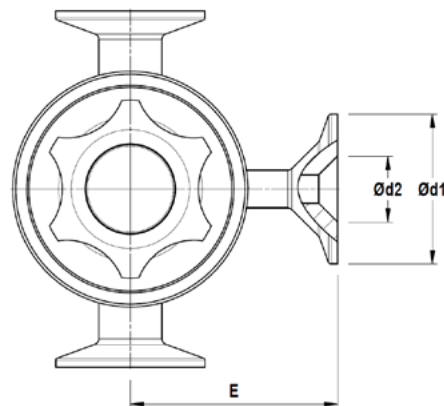
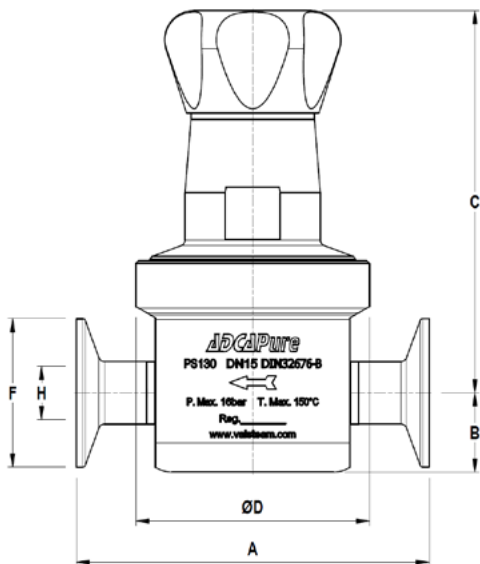
* Valves with nylon adjustment knob weigh 0,3 kg less.

Remarks: Clamp ferrules according to DIN 32676-A; Tube weld (ETO) according to DIN 11866-A (DIN 11850-2).

DIMENSIONS (mm) ISO										
SIZE	A	B	C	D	d1	d2	E	F	H	WEIGHT (kg)
DN 08	120	30	127	80	25	15,75	65	25	10,3	2,9
DN 10	120	30	127	80	25	15,75	67,5	25	14	3
DN 15	120	30	127	80	25	15,75	67,5	50,5	18,1	3,2
DN 20	120	32	125	80	25	15,75	72,5	50,5	23,7	3,4

* Valves with nylon adjustment knob weigh 0,3 kg less.

Remarks: Clamp ferrules according to DIN 32676-B; Tube weld (ETO) according to DIN 11866-B (ISO 1127).



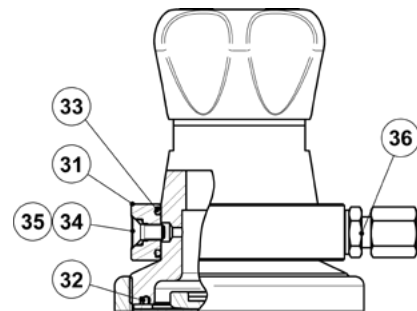
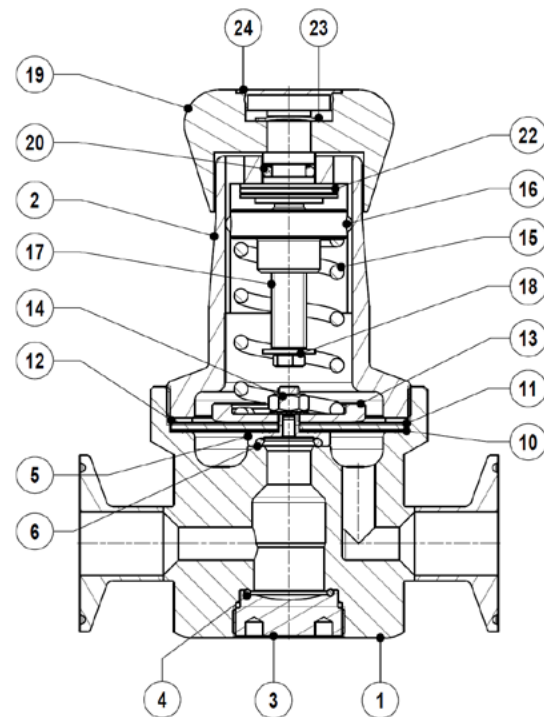
Optional pressure gauge connection

MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Valve body	AISI 316L / 1.4404
2	Cover	AISI 316L / 1.4404
3	Seat cover	AISI 316L / 1.4404
4	* O-ring	Viton; EPDM
5	* Plug	AISI 316L / 1.4404
6	* Valve head	** EPDM; PTFE; FPM
10	* Lower diaphragm	PTFE (Gylon)
11	* Upper diaphragm	EPDM
12	Washer	AISI 304 / 1.4301
13	Plate	AISI 304 / 1.4301
14	Nut	Stainless steel A2-70
15	* Adjustment spring	AISI 302 / 1.4300
16	Spring plate	AISI 316 / 1.4401
17	Adjustment screw	Brass
18	Retaining washer	Stainless steel A2-70
19	Adjustment knob	AISI 316L / 1.4404 or Nylon
20	O-ring	NBR
22	Bearing	Corrosion resistant steel
23	Shaft ring	Stainless steel
24	Cover nut	Plastic
31	Leakage line ring	AISI 316L / 1.4404
32	* O-ring	EPDM
33	O-ring	NBR
34	Bolt	AISI 304 / 1.4301
35	O-ring	Viton
36	Compression fitting	AISI 304 / 1.4301

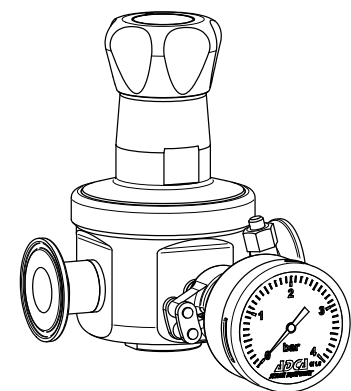
* Available spare parts ; ** Others on request.

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.



Optional leakage line connection (1/8")



Optional pressure gauge connection



ORDERING CODES PS130																	
Valve model	PS13	1	3	T	M	X	I	X	X	X	DI	15	E				
PS130 – AISI 316L / 1.4404 diaphragm sensing pressure sustaining valve	PS13																
Regulating range																	
0,2 to 1,5 bar		1															
0,3 to 3 bar		2															
2 to 8 bar		3															
Flow rate coefficient																	
Kvs 1,7		3															
Kvs 3 (not applicable to sizes 1/2" ASME BPE, DIN DN 10 and ISO DN 08)		6															
Diaphragm																	
PTFE (Gylon)				T													
EPDM (non-standard)				E													
Seat material																	
Metal to metal (non-standard)					M												
EPDM					E												
PTFE					T												
FPM / Viton (FDA approval only)					V												
Leakage line connection																	
Without leakage line connection						X											
With leakage line connection						N											
Adjustment knob and top cap																	
Stainless steel adjustment knob							I										
Nylon adjustment knob							P										
Top cap (adjustment screw with cover)							T										
Gauge port options																	
Without gauge ports								X									
Tri-clamp gauge port on the left side (rel. to the flow direction) – upstream pressure									7								
Tri-clamp gauge port on the right side (rel. to the flow direction) – upstream pressure										6							
Tri-clamp gauge port on both sides – upstream pressure											5						
Threaded gauge port on the left side (rel. to the flow direction) – upstream pressure – ISO 7 Rp 1/4"												4					
Threaded gauge port on the right side (rel. to the flow direction) – upstream pressure – ISO 7 Rp 1/4"													3				
Threaded gauge port on both sides – upstream pressure – ISO 7 Rp 1/4"														2			
Threaded gauge port on the left side (rel. to the flow direction) – upstream pressure – 1/4" NPT															W		
Threaded gauge port on the right side (rel. to the flow direction) – upstream pressure – 1/4" NPT																Y	
Threaded gauge port on both sides – upstream pressure – 1/4" NPT																	Z
Surface finish a)																	
Standard surface finish											X						
Mirror mechanical polished external surfaces (SF1)												P					
Electropolished internal wetted parts (SF5)													E				
Special features																	
None												X					
Degreased for oxygen													O				
Pipe connection																	
Clamp ferrule ASME BPE													D				
Clamp ferrule DIN (DIN 32676-A)													F				
Clamp ferrule ISO (DIN 32676-B)													E				
Tube weld (ETO) according to ASME BPE													DI				
Tube weld (ETO) according to DIN 11866-A (DIN 11850-2)													FI				
Tube weld (ETO) according to DIN 11866-B (ISO 1127)													EI				
Size																	
DN 08													08				
DN 10													10				
1/2" or DN 15													15				
3/4" or DN 20													20				
1" or DN 25													25				
Special valves / Extras																	
Full description or additional codes have to be added in case of non-standard combination													E				

a) Consult IS PV20.00 for further details and other surface finish options.



We reserve the right to change the design and material of this product without notice.

IS PS130.20 E 11.18



SANITARY PRESSURE SUSTAINING VALVE
PS161

DESCRIPTION

The ADCAPure PS161 is a series of angle design direct acting diaphragm sensing pressure sustaining valves. These regulators, available with spring or dome-loading, are designed for use with clean steam, compressed air, water and other gases or liquids compatible with the construction materials and valve design.

MAIN FEATURES

Spring or dome-loaded.
Non-rising adjustment knob.
Compact design with clamped body.
Available with low pressure diaphragm.
FDA / USP Class VI compliant seals.
Completely machined from bar stock material, no castings or forgings are used.

STANDARD SURFACE FINISH

Internal wetted parts: ≤ 0,51 micron Ra – SF1.
External: ≤ 0,76 micron Ra – SF3.
Other surface conditions see IS PV20.00 E – Technical information.
Ultrasonic cleaning.

OPTIONS: Leakage line connection (1/4").
Different soft sealings for liquids and gases.
Gauge connection on body.
Top cap (adjustment screw with cover).
Dome-loaded version.

USE: Clean steam, compressed air, water and other gases and liquids compatible with the construction.

AVAILABLE MODELS: PS161.

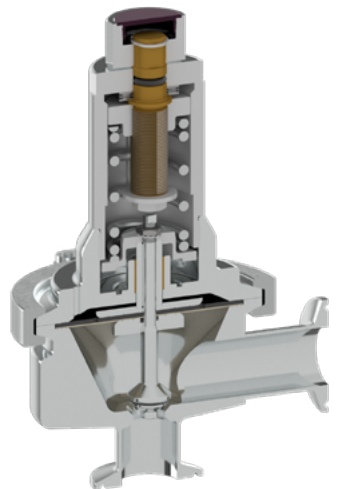
SIZES: 1/2" to 2"; DN 15 to 50.

REGULATING RANGES: 0,8 to 1,5 bar; 1 to 3 bar; 1,5 to 8 bar.

CONNECTIONS: ASME BPE, DIN and ISO clamp ferrules or tube weld (ETO) ends.
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.

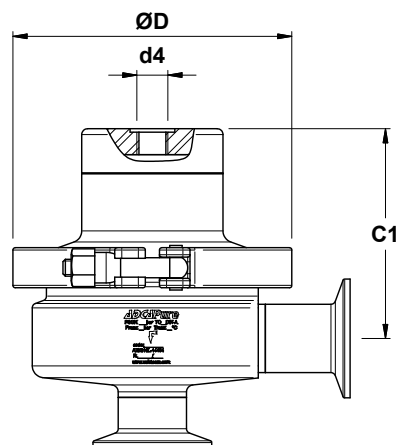
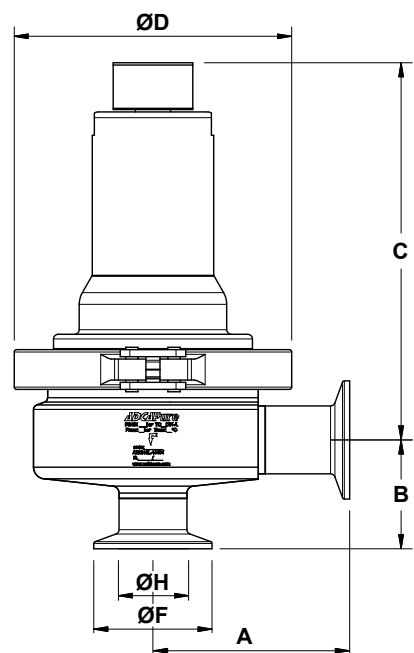
INSTALLATION: Horizontal installation. Horizontal inlet and vertical outlet. See IMI – Installation and maintenance instructions.



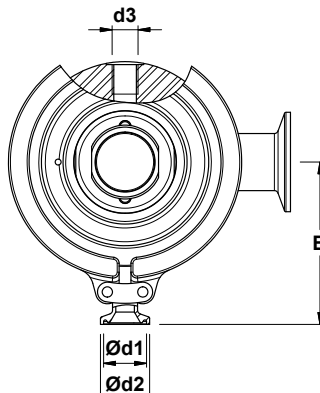
LIMITING CONDITIONS	
Valve model	PS161
Body design conditions	PN 16
Maximum upstream pressure	8 bar
Minimum upstream pressure	0,8 bar
Maximum operating temperature *	180 °C
* With PTFE diaphragm and seals. Consult the manufacturer in case of other elastomer materials.	
CE MARKING – GROUP 2 (PED – European Directive)	
PN 16	Category
1/2" to 2" – DN 15 to 50	SEP

We reserve the right to change the design and material of this product without notice.

IS PS161.015 E 05.21



Optional dome-loaded version



Optional pressure gauge connections

DIMENSIONS (mm) ASME BPE													
SIZE	A	B	C	C1	ØD	Ød1	Ød2	d3 *	d4 *	E	ØF	ØH	WGT. (kg)
1/2"	77	53	156	84	119	25	15,75	1/4"	1/4"	83	25	9,4	4,1
3/4"	77	56	160	88	119	25	15,75	1/4"	1/4"	83	25	15,75	4,4
1"	77	52	163	91	119	25	15,75	1/4"	1/4"	83	50,5	22,1	4,6
1 1/2"	85	61	204	124	134	25	15,75	1/4"	1/4"	96	50,5	34,8	8
2"	85	67	207	127	134	25	15,75	1/4"	1/4"	96	64	47,5	8,6

DIMENSIONS (mm) DIN													
SIZE	A	B	C	C1	ØD	Ød1	Ød2	d3 *	d4 *	E	ØF	ØH	WGT. (kg)
DN 15	77	45	160	88	119	25	15,75	1/4"	1/4"	83	34	16	4,4
DN 20	77	40	158	86	119	25	15,75	1/4"	1/4"	83	34	20	4,3
DN 25	84	47	161	89	119	25	15,75	1/4"	1/4"	83	50,5	26	4,6
DN 32	84	50	163	91	119	25	15,75	1/4"	1/4"	83	50,5	32	4,8
DN 40	93	69	202	122	134	25	15,75	1/4"	1/4"	96	50,5	38	8
DN 50	93	75	206	126	134	25	15,75	1/4"	1/4"	96	64	50	8,6

Remarks: Clamp ferrules according to DIN 32676-A; Tube weld (ETO) according to DIN 11866-A (DIN 11850-2).

DIMENSIONS (mm) ISO													
SIZE	A	B	C	C1	ØD	Ød1	Ød2	d3 *	d4 *	E	ØF	ØH	WGT. (kg)
DN 15	84	43	159	87	119	25	15,75	1/4"	1/4"	83	50,5	18,1	4,4
DN 20	84	46	162	90	119	25	15,75	1/4"	1/4"	83	50,5	23,7	4,6
DN 25	84	49	164	92	119	25	15,75	1/4"	1/4"	83	50,5	29,7	4,8
DN 32	93	70	202	122	134	25	15,75	1/4"	1/4"	96	64	38,4	8,2
DN 40	93	75	206	126	134	25	15,75	1/4"	1/4"	96	64	44,3	8,8

Remarks: Clamp ferrules according to DIN 32676-B; Tube weld (ETO) according to DIN 11866-B (ISO 1127).

* As standard, connections d3 and d4 are female threaded ISO 7 Rp.

FLOW RATE COEFFICIENTS (m³/h)																
	ASME BPE					DIN						ISO				
SIZE	1/2"	3/4"	1"	1 1/2"	2"	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 15	DN 20	DN 25	DN 32	DN 40
Kvs	1,3	3	4,2	7	13	2,1	3	4,2	4,2	7	13	2,1	4,2	4,2	7	7

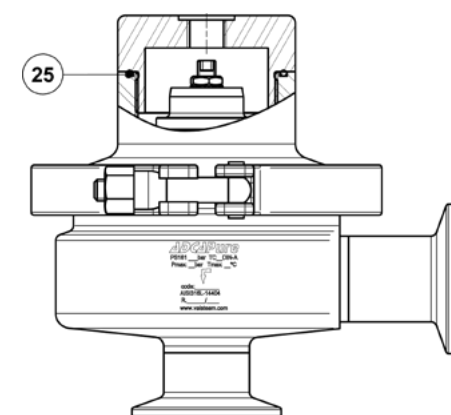
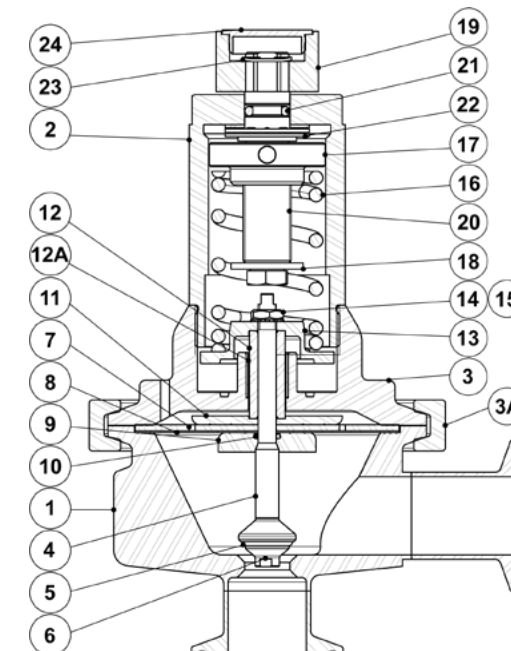
For conversion Kvs = Cv (US) x 0,865.

MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Valve body	AISI 316L / 1.4404
2	Cover	AISI 316L / 1.4404
3	Intermediate flange	AISI 316L / 1.4404
3A	Clamp	AISI 316 / 1.4401
4	* Valve stem	AISI 316L / 1.4404
5	* Soft plug	** EPDM; PTFE; FPM
6	* Valve plug	AISI 316L / 1.4404
7	* Upper diaphragm	EPDM
8	* Lower diaphragm	PTFE (Gylon)
9	Diaphragm plate	AISI 316L / 1.4404
10	* O-ring	EPDM
11	Diaphragm plate	AISI 316L / 1.4404
12	Stem guide	AISI 316L / 1.4404
12A	Plain bearing	Bronze
13	Spring plate	AISI 316L / 1.4404
14	Nut	AISI 304 / 1.4301
15	Washer	AISI 304 / 1.4301
16	* Adjustment spring	AISI 302 / 1.4300
17	Top spring plate	AISI 316L / 1.4404
18	Retaining washer	Stainless steel A2-70
19	Adjustment nut	AISI 316L / 1.4404
20	Adjustment screw	Brass
21	O-ring	NBR
22	Bearing	Corrosion resistant steel
23	Shaft ring	Stainless steel
24	Cover nut	Plastic
25	* O-ring	NBR

* Available spare parts; ** Others on request.

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.



Optional dome-loaded version (1/4")

OPTIONS		
ADJUSTMENT SCREW WITH TOP CAP	PRESSURE GAUGE CONNECTION	LEAKAGE LINE CONNECTION



ORDERING CODES PS161														
Valve model	PS16	1	4	1	T	M	I	X	X	X	DI	15	E	
PS161 – AISI 316L / 1.4404 diaphragm sensing pressure sustaining valve	PS16													
Valve series														
Series 1		1												
Regulating range														
0,8 to 1,5 bar			4											
1 to 3 bar			5											
1,5 to 8 bar			6											
0,8 to 8 bar (dome-loaded) a)			A											
Flow rate coefficient														
Kvs 1,3 (only applicable to ASME BPE 1/2" size)			1											
Kvs 2,1 (applicable to sizes DIN DN 15 and ISO DN 15)			2											
Kvs 3 (applicable to sizes ASME BPE 3/4" and DIN DN 20)			3											
Kvs 4,2 (applicable to sizes ASME BPE 1", DIN DN 25 to DN 32 and ISO DN 20 to DN 25)			4											
Kvs 7 (applicable to sizes ASME BPE 1 1/2", DIN DN 40 and ISO DN 32 to DN 40)			6											
Kvs 13 (applicable to sizes ASME BPE 2" and DIN DN 50)			8											
Diaphragm														
PTFE (Gylon)					T									
EPDM (non-standard)					E									
Seat material b)														
Metal to metal (non-standard, except in ASME BPE 1/2" size)						M								
EPDM						E								
PTFE						T								
FPM / Viton (FDA approval only)						V								
Adjustment knob, top cap and leakage line connection														
Stainless steel adjustment knob							I							
Top cap (adjustment screw with cover)							T							
Stainless steel adjustment knob w/ diaphragm cover leakage connection in case of diaphragm failure							L							
Top cap (adjustment screw with cover) w/ diaphragm cover leakage connection in case of diaphragm failure							U							
Dome-loaded top c)							X							
Gauge port options														
Without gauge ports								X						
Tri-clamp gauge port on the left side (rel. to the flow direction) – upstream pressure								7						
Tri-clamp gauge port on the right side (rel. to the flow direction) – upstream pressure								6						
Tri-clamp gauge port on both sides – upstream pressure								5						
Threaded gauge port on the left side (rel. to the flow direction) – upstream pressure – ISO 7 Rp 1/4"								4						
Threaded gauge port on the right side (rel. to the flow direction) – upstream pressure – ISO 7 Rp 1/4"								3						
Threaded gauge port on both sides – upstream pressure – ISO 7 Rp 1/4"								2						
Threaded gauge port on the left side (rel. to the flow direction) – upstream pressure – 1/4" NPT								W						
Threaded gauge port on the right side (rel. to the flow direction) – upstream pressure – 1/4" NPT								Y						
Threaded gauge port on both sides – upstream pressure – 1/4" NPT								Z						
Surface finish d)														
Standard surface finish									X					
Mirror mechanical polished external surfaces (SF1)									P					
Electropolished internal wetted parts (SF5)									E					
Special features														
None										X				
Degreased for oxygen										O				
Pipe connections														
Clamp ferrule ASME BPE											D			
Clamp ferrule DIN (DIN 32676-A)											F			
Clamp ferrule ISO (DIN 32676-B)											E			
Tube weld (ETO) according to ASME BPE											DI			
Tube weld (ETO) according to DIN 11866-A (DIN 11850-2)											FI			
Tube weld (ETO) according to DIN 11866-B (ISO 1127)											EI			
Size														
1/2" or DN 15												15		
3/4" or DN 20												20		
1" or DN 25												25		
DN 32												32		
1 1/2" or DN 40												40		
2" or DN 50												50		
Special valves / Extras														
Full description or additional codes have to be added in case of a non-standard combination													E	

a) The loading control pressure can be up to a maximum of 0,2 bar above the required upstream pressure; b) ASME BPE 1/2" size is only available with metal to metal sealing; c) Must be chosen in case of dome-loaded version; d) Consult IS PV20.00 – Technical information – for further details and other surface finish options.



SANITARY PRESSURE SUSTAINING VALVE
PS163

DESCRIPTION

The ADCAPure PS163 is a series of inline direct acting diaphragm sensing pressure sustaining valves. These regulators, available with spring or dome-loading, are designed for use with clean steam, compressed air, water and other gases or liquids compatible with the construction materials and valve design.

MAIN FEATURES

Spring or dome-loaded.
Non-rising adjustment knob.
Compact inline design with clamped body.
FDA / USP Class VI compliant seals.
Completely machined from bar stock material, no castings or forgings are used.

STANDARD SURFACE FINISH

Internal wetted parts: ≤ 0,51 micron Ra – SF1.
External: ≤ 0,76 micron Ra – SF3.
Other surface conditions see IS PV20.00 E – Technical information.
Ultrasonic cleaning.

OPTIONS: Leakage line connection (1/4").
Different soft sealings for liquids and gases.
Gauge connection on body.
Top cap (adjustment screw with cover).
Dome-loaded version.

USE: Clean steam, compressed air, water and other gases and liquids compatible with the construction.

AVAILABLE MODELS: PS163.

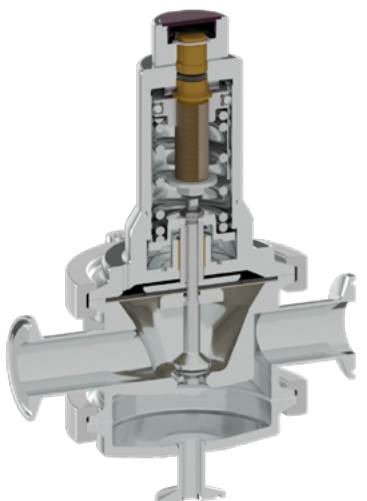
SIZES: 1/2" to 2"; DN 15 to 50.

REGULATING RANGES: 0,8 to 1,5 bar; 1 to 3 bar; 1,5 to 8 bar.

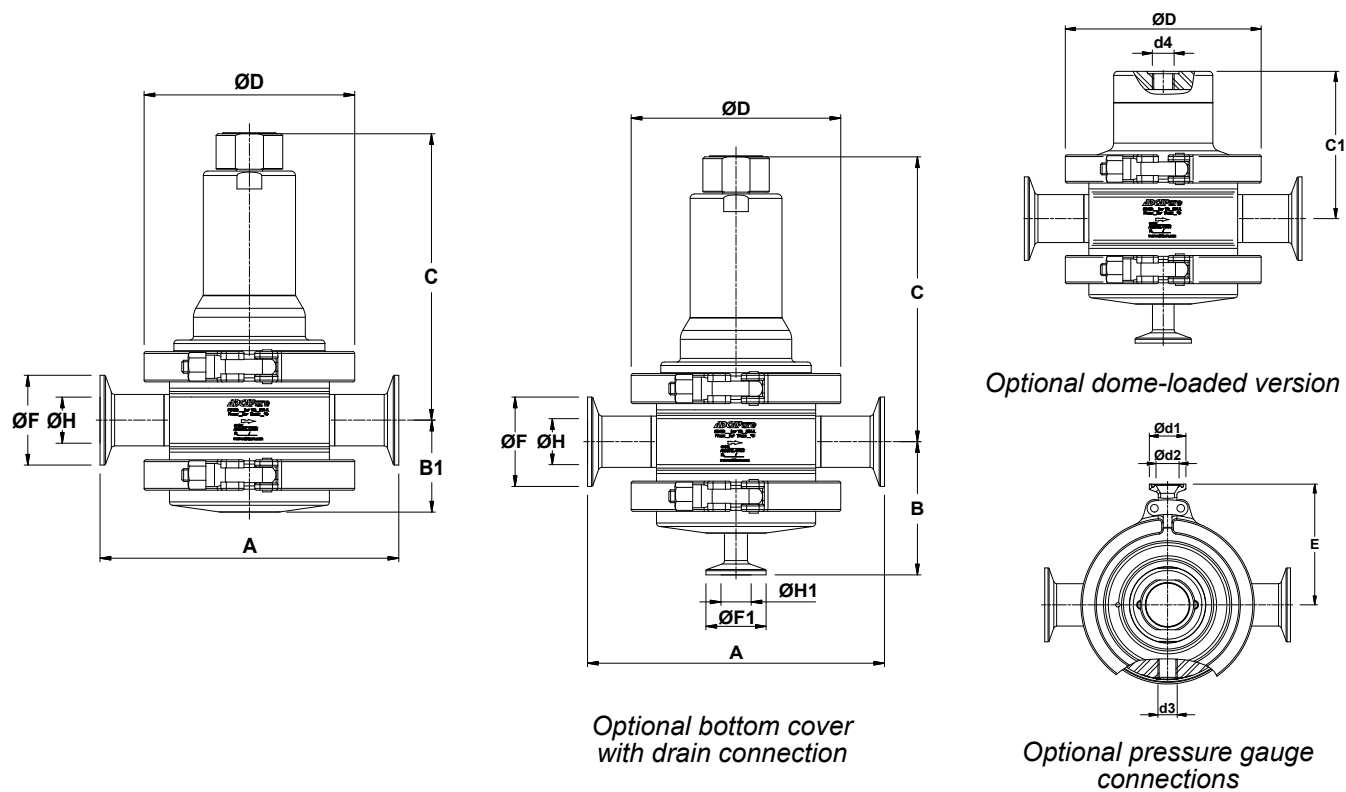
CONNECTIONS: ASME BPE, DIN and ISO clamp ferrules or tube weld (ETO) ends.
Others on request.

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: Horizontal installation. See IMI – Installation and maintenance instructions.



LIMITING CONDITIONS	
Valve model	PS163
Body design conditions	PN 16
Maximum upstream pressure	8 bar
Minimum upstream pressure	0,8 bar
Maximum operating temperature *	180 °C
* With PTFE diaphragm and seals. Consult the manufacturer in case of other elastomer materials.	
CE MARKING – GROUP 2 (PED – European Directive)	
PN 16	Category
1/2" to 2" – DN 15 to 50	SEP



DIMENSIONS (mm) ASME BPE																
SIZE	A	B	B1	C	C1	ØD	Ød1	Ød2	d3 *	d4 *	E	ØF	ØH	ØF1	ØH1	WGT. (kg)
1/2"	153	70	47	156	84	119	25	15,75	1/4"	1/4"	83	25	9,4	25	9,4	5
3/4"	153	74	51	160	88	119	25	15,75	1/4"	1/4"	83	25	15,75	25	9,4	5,6
1"	153	77	54	163	91	119	25	15,75	1/4"	1/4"	83	50,5	22,1	25	9,4	5,7
1 1/2"	170	95	71	204	124	134	25	15,75	1/4"	1/4"	96	50,5	34,8	25	9,4	9,8
2"	170	99	74	207	127	134	25	15,75	1/4"	1/4"	96	64	47,5	25	9,4	9,8

DIMENSIONS (mm) DIN																
SIZE	A	B	B1	C	C1	ØD	Ød1	Ød2	d3 *	d4 *	E	ØF	ØH	ØF1	ØH1	WGT. (kg)
DN 15	153	74	51	160	88	119	25	15,75	1/4"	1/4"	83	34	16	34	10	5,6
DN 20	153	72	49	158	86	119	25	15,75	1/4"	1/4"	83	34	20	34	10	5,3
DN 25	168	75	52	161	89	119	25	15,75	1/4"	1/4"	83	50,5	26	34	10	5,6
DN 32	168	77	54	163	91	119	25	15,75	1/4"	1/4"	83	50,5	32	34	10	5,8
DN 40	185	94	70	202	122	134	25	15,75	1/4"	1/4"	96	50,5	38	34	10	9,5
DN 50	185	98	74	206	126	134	25	15,75	1/4"	1/4"	96	64	50	34	10	9,8

Remarks: Clamp ferrules according to DIN 32676-A; Tube weld (ETO) according to DIN 11866-A (DIN 11850-2).

DIMENSIONS (mm) ISO																
SIZE	A	B	B1	C	C1	ØD	Ød1	Ød2	d3 *	d4 *	E	ØF	ØH	ØF1	ØH1	WGT. (kg)
DN 15	168	73	50	159	87	119	25	15,75	1/4"	1/4"	83	50,5	18,1	25	10,3	5,4
DN 20	168	76	53	162	90	119	25	15,75	1/4"	1/4"	83	50,5	23,7	25	10,3	5,6
DN 25	168	78	55	164	92	119	25	15,75	1/4"	1/4"	83	50,5	29,7	25	10,3	6
DN 32	185	93	69	202	122	134	25	15,75	1/4"	1/4"	96	64	38,4	25	10,3	9,6
DN 40	185	100	76	206	126	134	25	15,75	1/4"	1/4"	96	64	44,3	25	10,3	10

Remarks: Clamp ferrules according to DIN 32676-B; Tube weld (ETO) according to DIN 11866-B (ISO 1127).

* As standard, optional connections d3 and d4 are female threaded ISO 7 Rp.

FLOW RATE COEFFICIENTS (m³/h)																
	ASME BPE					DIN						ISO				
SIZE	1/2"	3/4"	1"	1 1/2"	2"	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 15	DN 20	DN 25	DN 32	DN 40
Kvs	1,3	3	4,2	7	13	2,1	3	4,2	4,2	7	13	2,1	4,2	4,2	7	7

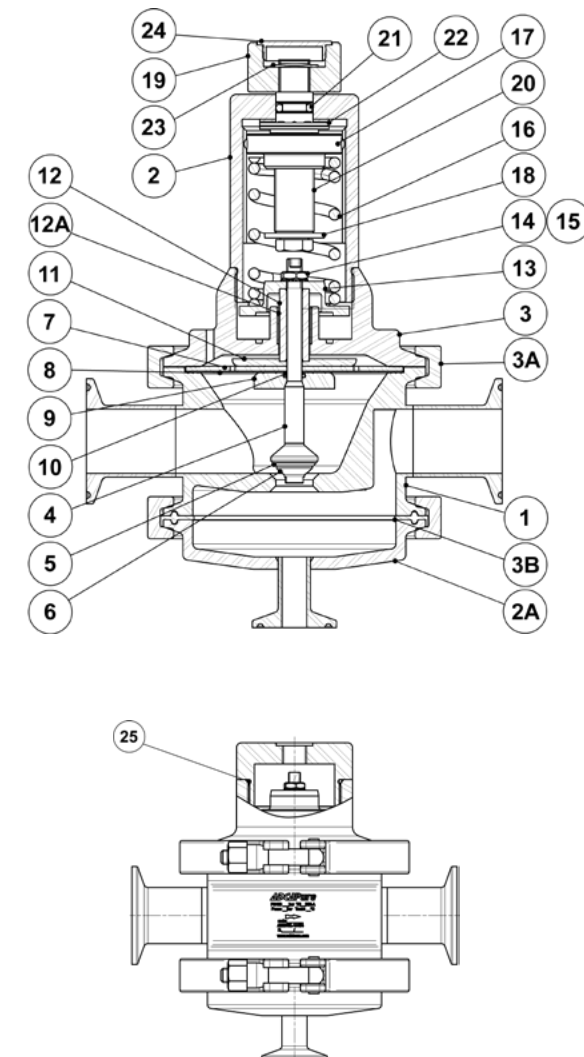
For conversion Kvs = Cv (US) x 0,865.

MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Valve body	AISI 316L / 1.4404
2	Cover	AISI 316L / 1.4404
3	Intermediate flange	AISI 316L / 1.4404
3A	Clamp	AISI 316 / 1.4401
4	* Valve stem	AISI 316L / 1.4404
5	* Soft plug	** EPDM; PTFE; FPM
6	* Valve plug	AISI 316L / 1.4404
7	* Upper diaphragm	EPDM
8	* Lower diaphragm	PTFE (Gylon)
9	Diaphragm plate	AISI 316L / 1.4404
10	* O-ring	EPDM
11	Diaphragm plate	AISI 316L / 1.4404
12	Stem guide	AISI 316L / 1.4404
12A	Plain bearing	Bronze
13	Spring plate	AISI 316L / 1.4404
14	Nut	AISI 304 / 1.4301
15	Washer	AISI 304 / 1.4301
16	* Adjustment spring	AISI 302 / 1.4300
17	Top spring plate	AISI 316L / 1.4404
18	Retaining washer	Stainless steel A2-70
19	Adjustment nut	AISI 316L / 1.4404
20	Adjustment screw	Brass
21	O-ring	NBR
22	Bearing	Corrosion resistant steel
23	Shaft ring	Stainless steel
24	Cover nut	Plastic
25	* O-ring	NBR

* Available spare parts; ** Others on request.

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.



OPTIONS		
ADJUSTMENT SCREW WITH TOP CAP	PRESSURE GAUGE CONNECTION	LEAKAGE LINE CONNECTION

ORDERING CODES PS163														
Valve model	PS63	1	4	1	T	M	I	X	X	X	DI	15	E	
PS163 – AISI 316L / 1.4404 diaphragm sensing press. sustaining valve without drain	PS63													
PS163 – AISI 316L / 1.4404 diaphragm sensing press. sustaining valve with drain	PS6D													
Valve series														
Series 1		1												
Regulating range														
0,8 to 1,5 bar			4											
1 to 3 bar			5											
1,5 to 8 bar			6											
0,8 to 8 bar (dome-loaded) a)			A											
Flow rate coefficient														
Kvs 1,3 (only applicable to ASME BPE 1/2" size)			1											
Kvs 2,1 (applicable to sizes DIN DN 15 and ISO DN 15)			2											
Kvs 3 (applicable to sizes ASME BPE 3/4" and DIN DN 20)			3											
Kvs 4,2 (applicable to sizes ASME BPE 1", DIN DN 25 to DN 32 and ISO DN 20 to DN 25)			4											
Kvs 7 (applicable to sizes ASME BPE 1 1/2", DIN DN 40 and ISO DN 32 to DN 40)			6											
Kvs 13 (applicable to sizes ASME BPE 2" and DIN DN 50)			8											
Diaphragm														
PTFE (Gylon)					T									
EPDM (non-standard)					E									
Seat material b)														
Metal to metal (non-standard, except in ASME BPE 1/2" size)						M								
EPDM						E								
PTFE						T								
FPM / Viton (FDA approval only)						V								
Adjustment knob, top cap and leakage line connection														
Stainless steel adjustment knob							I							
Top cap (adjustment screw with cover)							T							
Stainless steel adjustment knob w/ diaphragm cover leakage connection in case of diaphragm failure							L							
Top cap (adjustment screw with cover) w/ diaphragm cover leakage connection in case of diaphragm failure							U							
Dome-loaded top c)							X							
Gauge port options														
Without gauge ports								X						
Tri-clamp gauge port on the left side (rel. to the flow direction) – downstream pressure								7						
Tri-clamp gauge port on the right side (rel. to the flow direction) – downstream pressure								6						
Tri-clamp gauge port on both sides – downstream pressure								5						
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"								4						
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"								3						
Threaded gauge port on both sides – downstream pressure – ISO 7 Rp 1/4"								2						
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – 1/4" NPT								W						
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – 1/4" NPT								Y						
Threaded gauge port on both sides – downstream pressure – 1/4" NPT								Z						
Surface finish d)														
Standard surface finish									X					
Mirror mechanical polished external surfaces (SF1)									P					
Electropolished internal wetted parts (SF5)									E					
Special features														
None										X				
Degreased for oxygen										O				
Pipe connections														
Clamp ferrule ASME BPE											D			
Clamp ferrule DIN (DIN 32676-A)											F			
Clamp ferrule ISO (DIN 32676-B)											E			
Tube weld (ETO) according to ASME BPE											DI			
Tube weld (ETO) according to DIN 11866-A (DIN 11850-2)											FI			
Tube weld (ETO) according to DIN 11866-B (ISO 1127)											EI			
Size														
1/2" or DN 15												15		
3/4" or DN 20												20		
1" or DN 25												25		
DN 32												32		
1 1/2" or DN 40												40		
2" or DN 50												50		
Special valves / Extras														
Full description or additional codes have to be added in case of a non-standard combination													E	

a) The loading control pressure can be up to a maximum of 0,2 bar above the required upstream pressure; b) ASME BPE 1/2" size is only available with metal to metal sealing; c) Must be chosen in case of dome-loaded version; d) Consult IS PV20.00 – Technical information – for further details and other surface finish options.

SANITARY PRESSURE SUSTAINING VALVE
PS173

DESCRIPTION

The ADCAPure PS173 is a series of inline direct acting, diaphragm sensing pressure sustaining valves. These regulators, available with spring or dome-loading, are designed for use with clean steam, compressed air, water and other gases or liquids compatible with the construction materials and valve design.

MAIN FEATURES

Compact inline design.
Non-rising adjustment knob.
FDA / USP Class VI compliant seals.
Completely machined from bar stock material, no castings or forgings are used on the standard version.

STANDARD SURFACE FINISH

Internal wetted parts: ≤ 0,51 micron Ra – SF1.
External: ≤ 0,76 micron Ra – SF3.
Other surface conditions see IS PV20.00 E – Technical information.
Ultrasonic cleaning.

OPTIONS: Leakage line connection (1/8").
 Different soft sealings for liquids and gases.
 Gauge connection on body.
 Top cap (adjustment screw with cover).
 Bottom cover with drain connection.

USE: Clean steam, compressed air, water and
 other gases and liquids compatible with the
 construction.

AVAILABLE
MODELS: PS173 – inline design.

SIZES: 1 1/2" to 2" ; DN 32 to DN 50.

REGULATING
RANGES: 0,8 – 1,5 bar; 1 – 3 bar; 1,5 – 8 bar.

CONNECTIONS: ASME BPE, DIN and ISO clamp ferrules or tube
 weld (ETO) ends. 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: Horizontal installation.
 See IMI – Installation and maintenance
 instructions.



LIMITING CONDITIONS	
Valve model	PS173
Body design conditions	PN 16
Maximum upstream pressure	8 bar
Minimum upstream pressure	0,8 bar
Maximum operating temperature *	180 °C

* With PTFE diaphragm and seals. Consult the manufacturer in case of other elastomer materials.

CE MARKING – GROUP 2 (PED – European Directive)	
PN 16	Category
1 1/2" to 2" – DN 32 to DN 50	SEP

FLOW RATES COEFFICIENTS (m³/h)						
	ASME BPE		DIN		ISO	
SIZE	11/2"	2"	DN 40	DN 50	DN 32	DN 40
Kvs	5,5	8,5	5,5	8,5	5,5	8,5

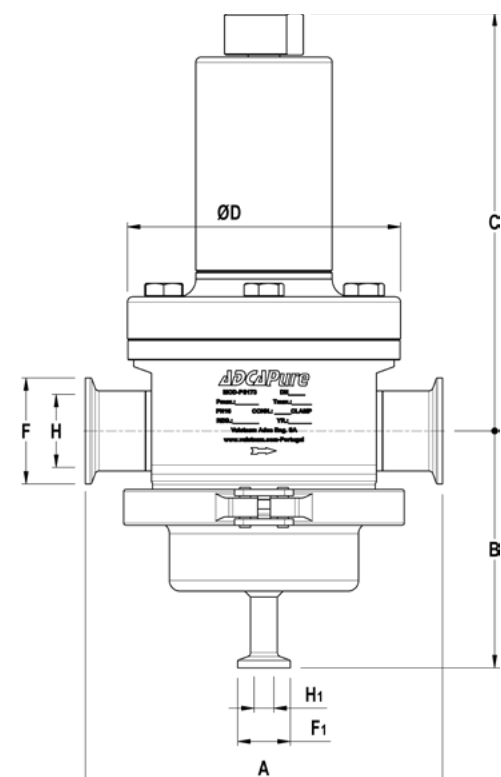
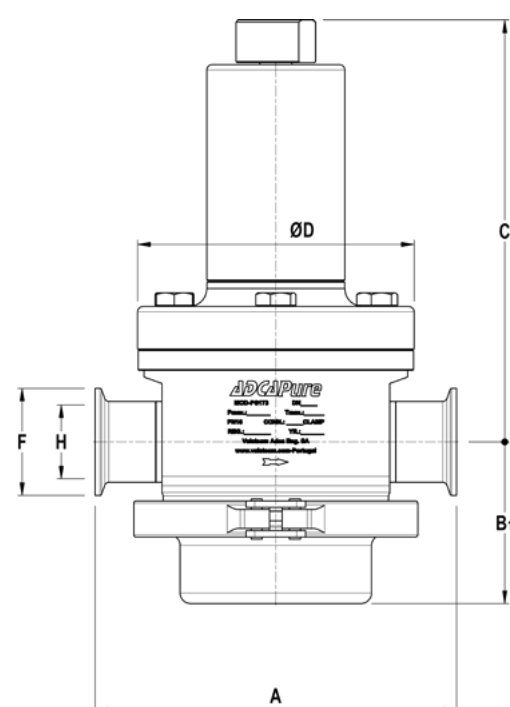
DIMENSIONS (mm) ASME BPE													
SIZE	A	B	B1	C	D	d1	d2	E	F	H	NPS 1/2"		WGT. (kg)
											F1	H1	
11/2"	170	94	70	199	130	25	15,75	90	50,5	34,8	25	9,4	8,6
2"	170	99	76	205	130	25	15,75	90	64	47,5	25	9,4	8,9

DIMENSIONS (mm) DIN													
SIZE	A	B	B1	C	D	d1	d2	E	F	H	DN 15		WGT. (kg)
											F1	H1	
DN 40	170	94	70	199	130	25	15,75	90	50,5	38	34	10	8,6
DN 50	170	99	76	205	130	25	15,75	90	64	50	34	10	8,9

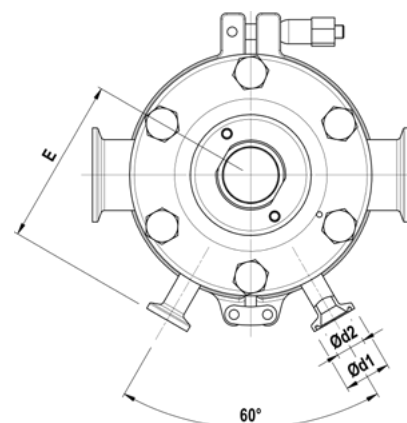
Remarks: Clamp ferrules according to DIN 32676-A; Tube weld (ETO) according to DIN 11866-A (DIN 11850-2).

DIMENSIONS (mm) ISO													
SIZE	A	B	B1	C	D	d1	d2	E	F	H	DN 15		WGT. (kg)
											F1	H1	
DN 32	170	93	70	199	130	25	15,75	90	64	38,4	25	10,3	8,6
DN 40	170	99	76	205	130	25	15,75	90	64	44,3	25	10,3	9,2

Remarks: Clamp ferrules according to DIN 32676-B; Tube weld (ETO) according to DIN 11866-B (ISO 1127).



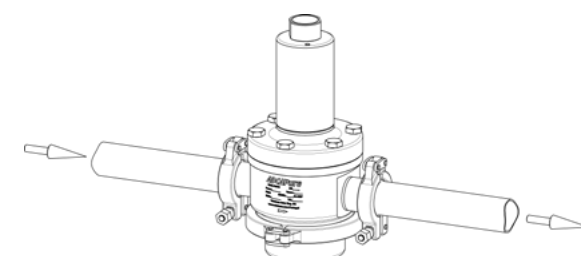
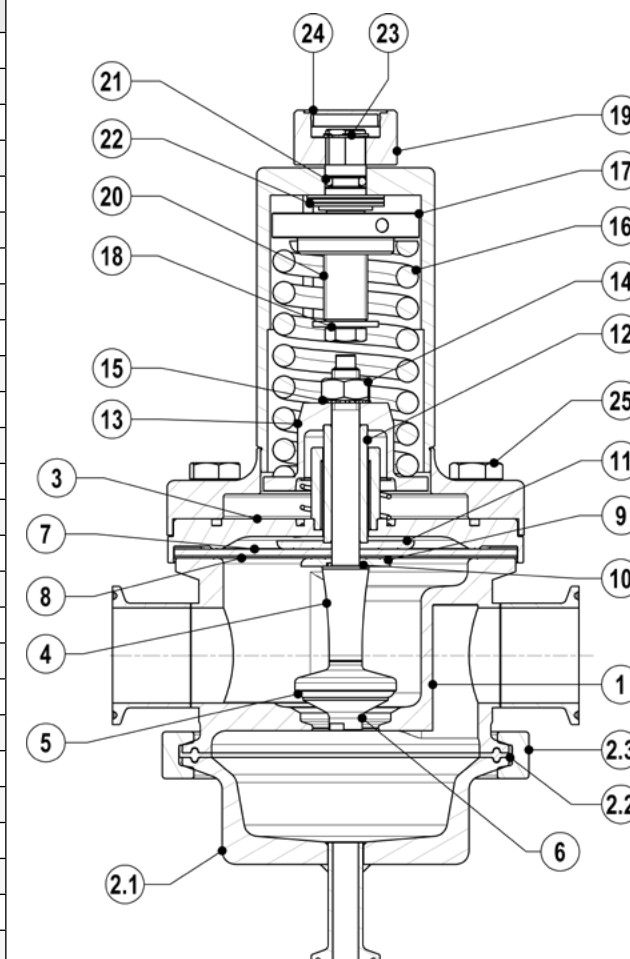
Optional bottom cover with drain connection



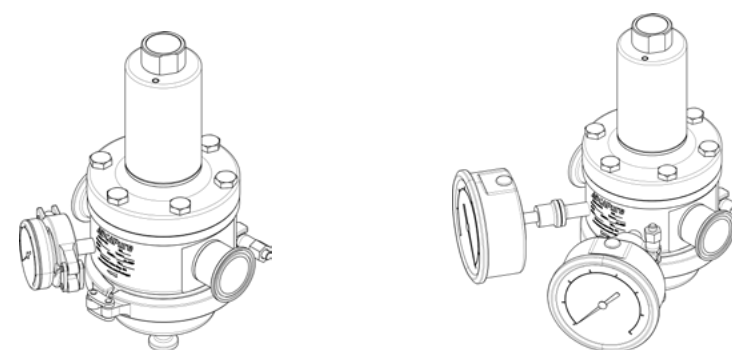
Optional pressure gauge connections

MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Valve body	AISI 316L / 1.4404
2	Cover	AISI 316L / 1.4404
2.1	Bottom cover	AISI 316L / 1.4404
2.2	Gasket	PTFE / TFM® Envelope gasket
2.3	Safety clamp	AISI 316 / 1.4401
3	Centering plate	AISI 316L / 1.4404
4	* Valve stem	AISI 316L / 1.4404
5	* Soft plug	** EPDM; PTFE; FPM
6	* Valve plug	AISI 316L / 1.4404
7	* Upper diaphragm	EPDM
8	* Lower diaphragm	PTFE (Gylon)
9	Diaphragm plate	AISI 316L / 1.4404
10	* O-ring	EPDM
11	Diaphragm plate	AISI 316L / 1.4404
12	Stem guide	AISI 316 / 1.4401
13	Spring plate	AISI 316 / 1.4401
14	Nut	Stainless steel A2-70
15	Washer	AISI 316 / 1.4401
16	* Adjustment spring	AISI 302 / 1.4300
17	Top spring plate	AISI 316 / 1.4401
18	Retaining washer	Stainless steel A2-70
19	Adjustment nut	AISI 316L / 1.4404
20	Adjustment screw	Brass
21	O-ring	NBR
22	Bearing	Corrosion resistant steel
23	Shaft ring	Stainless steel
24	Cover nut	Plastic
25	Bolts	Stainless steel A2-70

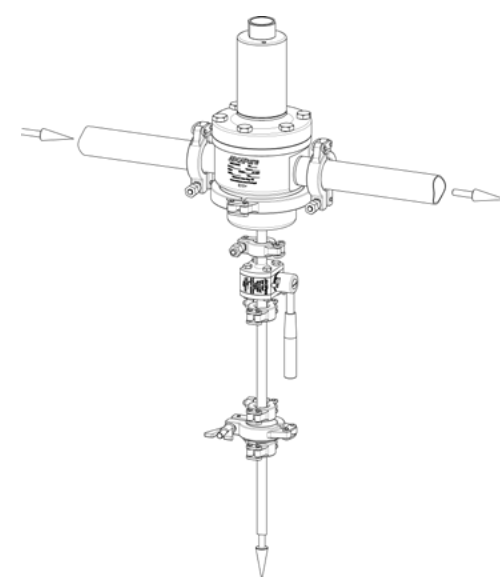
* Available spare parts; ** Others on request.
FDA / USP Class VI seals certificate on request.
For viton diaphragm the only approval available is the FDA (pos. 7).



Valve without bottom drain connection, for clean gases



Optional pressure gauge connections



Valve with condensate drain for clean steam



ORDERING CODES PS173															
Valve model	PS17D	4	4	T	M	I	X	X	X	DI	32				
PS173 – AISI 316L / 1.4404 diaphragm sensing pressure sustaining valve with drain	PS17D														
PS173 – AISI 316L / 1.4404 diaphragm sensing pressure sustaining valve without drain	PS17														
Regulating range															
0,8 to 1,5 bar		4													
1 to 3 bar		5													
1,5 to 8 bar		7													
Flow rate coefficient															
Kvs 5,5			4												
Kvs 8,5			6												
Diaphragm															
PTFE (Gylon)			T												
EPDM (non-standard)			E												
Seat material															
Metal to metal (non-standard)			M												
EPDM			E												
PTFE			T												
FPM / Viton (FDA approval only)			V												
Adjustment knob, top cap and leakage line connection															
Stainless steel adjustment knob			I												
Top cap (adjustment screw with cover)			T												
Stainless steel adjustment knob w/ diaphragm cover leakage connection in case of diaphragm failure			L												
Top cap (adjustment screw with cover) w/ diaphragm cover leakage connection in case of diaphragm failure			U												
Gauge port options															
Without gauge ports			X												
Tri-clamp gauge port on the left side (rel. to the flow direction) – upstream pressure – 1 connection			7												
Tri-clamp gauge port on the right side (rel. to the flow direction) – upstream pressure – 1 connection			6												
Tri-clamp gauge port on the left side (rel. to the flow direction) – upstream and downstream press. – 2 conn. a)			9												
Tri-clamp gauge port on the right side (rel. to the flow direct.) – upstream and downstream press. – 2 conn. a)			8												
Tri-clamp gauge port on both sides – upstream pressure – 2 connections			5												
Threaded gauge port on the left side (rel. to the flow direction) – upstream pressure – ISO 7 Rp 1/4"			4												
Threaded gauge port on the right side (rel. to the flow direction) – upstream pressure – ISO 7 Rp 1/4"			3												
Threaded gauge port on left side (rel. to the flow direction) – upstream and downstream press. – 2 conn. – ISO 7 Rp 1/4"			1												
Threaded gauge port on right side (rel. to the flow direction) – upstream/downstream pressure – 2 conn. – ISO 7 Rp 1/4"			0												
Threaded gauge port on both sides – upstream pressure – ISO 7 Rp 1/4"			2												
Threaded gauge port on the left side (rel. to the flow direction) – upstream pressure – 1/4" NPT			W												
Threaded gauge port on the right side (rel. to the flow direction) – upstream pressure – 1/4" NPT			Y												
Threaded gauge port on left side (rel. to the flow direction) – upstream and downstream press. – 2 conn. – 1/4" NPT			U												
Threaded gauge port on right side (rel. to the flow direction) – upstream and downstream pressure – 2 conn. – 1/4" NPT			V												
Threaded gauge port on both sides – upstream pressure – 1/4" NPT			Z												
Surface finish b)															
Standard surface finish			X												
Mirror mechanical polished external surfaces (SF1)			P												
Electropolished internal wetted parts (SF5)		E													
Special features															
None			X												
Degreased for oxygen		O													
Pipe connection															
Clamp ferrule ASME BPE			D												
Clamp ferrule DIN (DIN 32676-A)			F												
Clamp ferrule ISO (DIN 32676-B)			E												
Tube weld (ETO) according to ASME BPE			DI												
Tube weld (ETO) according to DIN 11866-A (DIN 11850-2)			FI												
Tube weld (ETO) according to DIN 11866-B (ISO 1127)		EI													
Size															
DN 32 (available with ISO connections only)			32												
11/2" or DN 40			40												
2" or DN 50 (not available with ISO connections)		50													
Special valves / Extras															
Full description or additional codes have to be added in case of non-standard combination															
		E													

a) Under special request and after approval of technical solution; b) Consult IS PV20.00 for further details and other surface finish options.



We reserve the right to change the design and material of this product without notice.

IS PS173.20 E 11.16



SANITARY TANK BLANKETING REGULATORS BKR2

DESCRIPTION

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

Compact design.
Non-rising adjustment knob.
FDA / USP Class VI compliant seals.

STANDARD SURFACE FINISH

Body and internal wetted parts: ≤ 0,51 micron Ra – SF1.
Body external: ≤ 0,76 micron Ra – SF3.
Cover: internal machined; external as casted.
Other surface conditions see IS PV20.00 E – Technical information.
Ultrasonic cleaning.

OPTIONS:

- Leakage line connection 1/4".
- Gauge connection on body.
- External pulse line (recommended for low set pressures < 10 mbar or high flow).
- Dome-loaded version.
- Blanketing with vacuum.
- Top cap (adjustment screw with cover).
- Hastelloy wetted parts.
- ATEX ⚡ version.

USE:

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

AVAILABLE MODELS:

BKR2 – low pressure regulator.

SIZES:

1"; DN 25.

RANGES:

5 to 10 mbar; 10 to 50 mbar; 20 to 200 mbar; 50 to 500 mbar; 5 to 4000 mbar (dome-loaded).

CONNECTIONS:

ASME BPE, DIN and ISO clamp ferrules.
Flanged EN 1092-1 PN 16. 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.

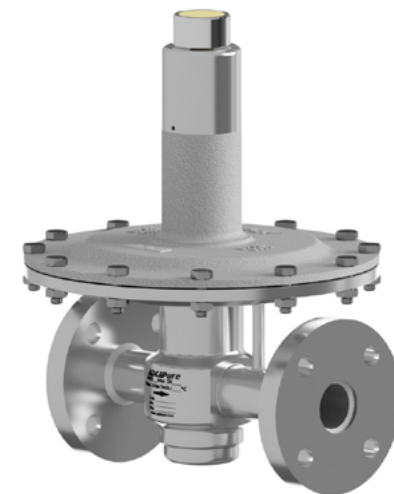
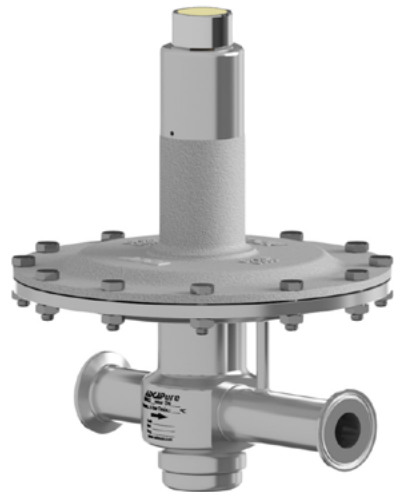
INSTALLATION:

Vertical installation recommended, to allow drainage, or horizontal as close to the process as possible in order to prevent long pipe sections and flow restrictions. See IMI – Installation and maintenance instructions.



We reserve the right to change the design and material of this product without notice.

IS BKR2.20 E 09.17



CE MARKING – GROUP 2 (PED – European Directive)	
PN 16	Category
1" – DN 25	SEP

CE MARKING – ATEX VERSION (ATEX – European Directive)	
PN 16	Category
1" – DN 25	Ex h IIB T6...T3 Gb

AIR CAPACITIES (Nm³/h) Maximum inlet pressure 6 bar – Seat Ø 8 mm										
SIZE	OUTLET PRESS. (mbar)	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
	10 to 50	4	20	32	40	63	85	102	125	140
	20 to 200	–	20	32	40	63	85	102	125	140
	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.

DIMENSIONS (mm) ASME BPE									
SIZE	A	B	C	D	F	H	d1	d2	WEIGHT (kg)
1"	210	49	244	230	50,5	22,1	25	15,75	8,5

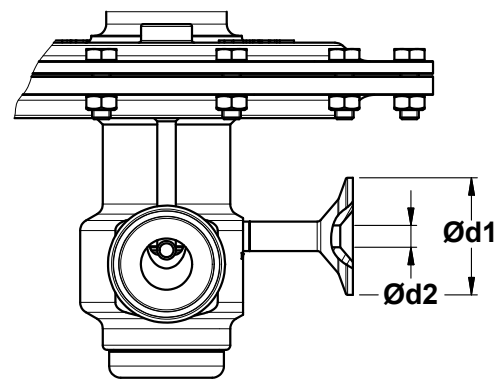
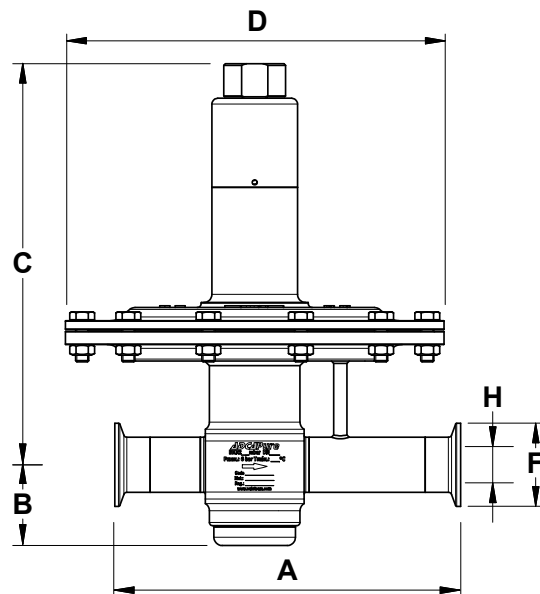
DIMENSIONS (mm) DIN									
SIZE	A	B	C	D	F	H	d1	d2	WEIGHT (kg)
DN 25	210	49	244	230	50,5	26	25	15,75	8,5

Remark: Clamp ferrules according to DIN 32676-A.

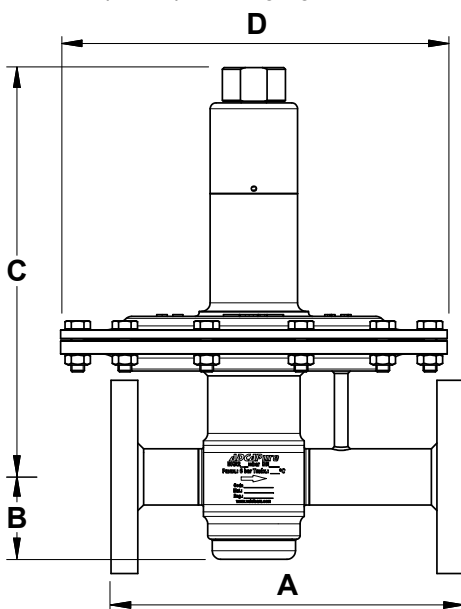
DIMENSIONS (mm) ISO									
SIZE	A	B	C	D	F	H	d1	d2	WEIGHT (kg)
DN 25	210	49	244	230	50,5	29,7	25	15,75	8,5

Remark: Clamp ferrules according to DIN 32676-B.

DIMENSIONS (mm) FLANGED								
SIZE	A	B	C	D	d1	d2	WEIGHT (kg)	
DN 25	210	49	244	230	25	15,75	10,6	



Optional pressure gauge connections



AIR CAPACITIES (Nm³/h) Maximum inlet pressure 12 bar – Seat Ø 5 mm										
SIZE	OUTLET PRESS. (mbar)	INLET PRESSURE (barg)								
		2	4	6	8	12				
1" – DN 25	5 to 10	21	35	49	62	90				
	10 to 50	21	35	49	62	90				
	20 to 200	21	35	49	62	90				
	50 to 500	21	35	49	62	90				

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

LIMITING CONDITIONS	
Valve model	BKR2
Body design conditions	PN 16
Max. upstream pressure	Seat Ø 5 mm 12 bar
	Seat Ø 8 mm 6 bar
Maximum downstream pressure *	500 mbar
Minimum downstream pressure	5 mbar
Maximum design temperature **	130 °C

* 4000 mbar with dome load;

** Others on request.

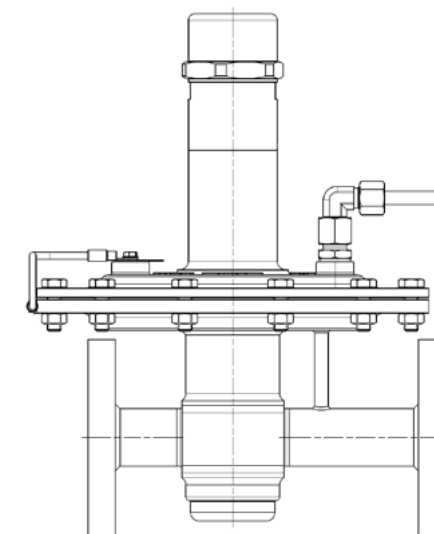
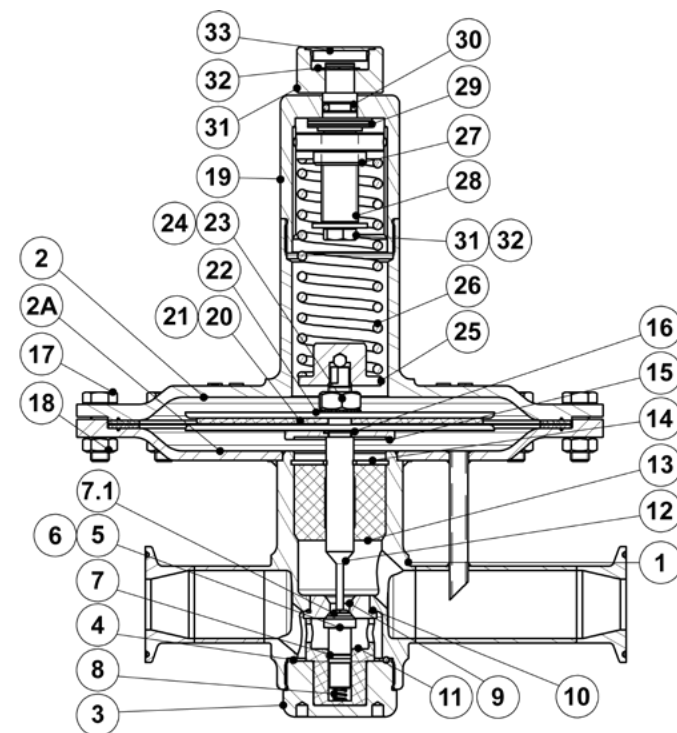
Warning: Blanketing valves are not substitute for safety valves or vacuum relief valves.

MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Valve body	AISI 316L / 1.4404
		Hastelloy C22 / 2.4602
2	Diaphragm top cover	A351 CF3M / 1.4409
2A	Diaphragm bottom 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; FPM
7.1	* O-ring	EPDM; FPM
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	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	* Adjustment 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	Adjustment nut	AISI 316L / 1.4404
32	Shaft ring	Stainless steel
33	Cover nut	Plastic

* Available spare parts;

FDA / USP Class VI seals certificate on request.

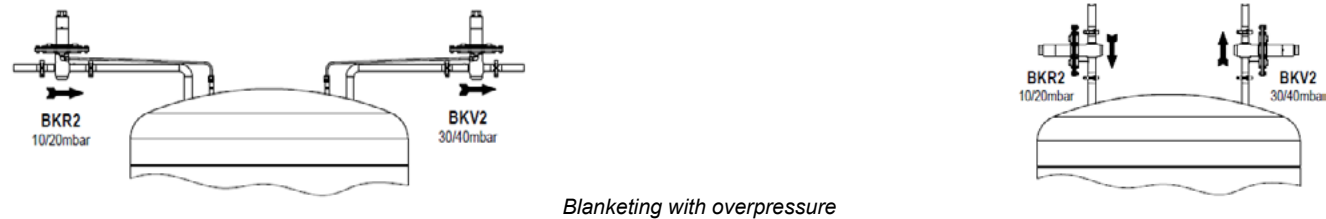
All valves have a serial number. In case of non standard valves, this number must be supplied if spare parts are ordered.



ATEX compliant version

OPTIONS		
PRESSURE GAUGE CONNECTION	ADJUSTMENT SCREW WITH COVER	LEAKAGE LINE CONNECTION (1/4")

TYPICAL INSTALLATION



Blanketing with overpressure

ORDERING CODES BKR2																								
Valve model		BR	A	5	T	E	I	X	X	X	0	D	25	E										
BKR2 – AISI 316L / 1.4404 blanketing low pressure regulator		BR																						
BKR2 – Hastelloy C22 / 2.4602 blanketing low pressure regulator		BRH																						
Regulating range																								
5 to 10 mbar		0																						
10 to 50 mbar		1																						
20 to 200 mbar		2																						
50 to 500 mbar		3																						
5 to 4000 mbar (dome-loaded)		A																						
Valve seat orifice																								
Seat diameter 5 mm		5																						
Seat diameter 8 mm		8																						
Diaphragm																								
PTFE (Gylon)						T																		
EPDM (non-standard)						E																		
Valve head																								
EPDM							E																	
FPM / Viton (FDA approval only)							V																	
Adjustment knob, top cap and leakage line connection																								
Stainless steel adjustment knob							I																	
Top cap (adjustment screw with cover)							T																	
Stainless steel adjustment knob w/ diaphragm cover leakage connection in case of diaphragm failure							L																	
Top cap (adjustment screw with cover) w/ diaphragm cover leakage connection in case of diaphragm failure a)							U																	
Dome-loaded top b)							X																	
Gauge port options																								
Without gauge ports							X																	
Tri-clamp gauge port on the left side (rel. to the flow direction) – downstream pressure							7																	
Tri-clamp gauge port on the right side (rel. to the flow direction) – downstream pressure							6																	
Tri-clamp gauge port on both sides – downstream pressure							5																	
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"							4																	
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"							3																	
Threaded gauge port on both sides – downstream pressure – ISO 7 Rp 1/4"							2																	
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – 1/4" NPT							W																	
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – 1/4" NPT							Y																	
Threaded gauge port on both sides – downstream pressure – 1/4" NPT							Z																	
Surface finish c)																								
Standard surface finish							X																	
Mirror mechanical polished external surfaces (SF1)							P																	
Electropolished internal wetted parts (SF5)							E																	
Special features																								
None							X																	
External pulse line																								
Internal pulse orifice (standard)												0												
External pulse line connection 1/4"												1												
Pipe connection																								
Clamp ferrule ASME BPE													D											
Clamp ferrule DIN (DIN 32676-A)													F											
Clamp ferrule ISO (DIN 32676-B)													E											
Flanged EN 1092-1 PN 16													L											
Size																								
1" or DN 25													25											
Special valves / Extras																								
ATEX compliant version														EX										
Full description or additional codes have to be added in case of non-standard combination														E										

a) This option must be chosen in case of ATEX compliant version; b) This option must be chosen in case of dome-loaded version; c) Consult IS PV20.00 for further details and other surface finish options.

TANK BLANKETING REGULATORS
BKR12

DESCRIPTION

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

Compact design.
Non-rising adjustment knob.
FDA / USP Class VI compliant seals.

STANDARD SURFACE FINISH

Internal movable parts and machined surfaces:
≤ 0,76 micron Ra – SF3.
Other surfaces: as casted.
Ultrasonic cleaning.

OPTIONS:

- Leakage line connection 1/4".
- Gauge connection on body.
- External pulse line (recommended for low set pressures < 10 mbar or high flow).
- Dome-loaded version.
- Blanketing with vacuum.
- Top cap (adjustment screw with cover).
- ATEX ⚡ version.

USE:

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

AVAILABLE MODELS:

BKR12 – low pressure regulator.

SIZES:

DN 15 and DN 25.

REGULATING RANGES:

5 to 10 mbar; 10 to 50 mbar; 20 to 200 mbar; 50 to 500 mbar; 5 to 4000 mbar (dome-loaded).

CONNECTIONS:

Flanged EN 1092-1 PN 16.

INSTALLATION:

Vertical installation recommended, to allow drainage, or horizontal as close to the process as possible in order to prevent long pipe sections and flow restrictions.
See IMI – Installation and maintenance instructions.



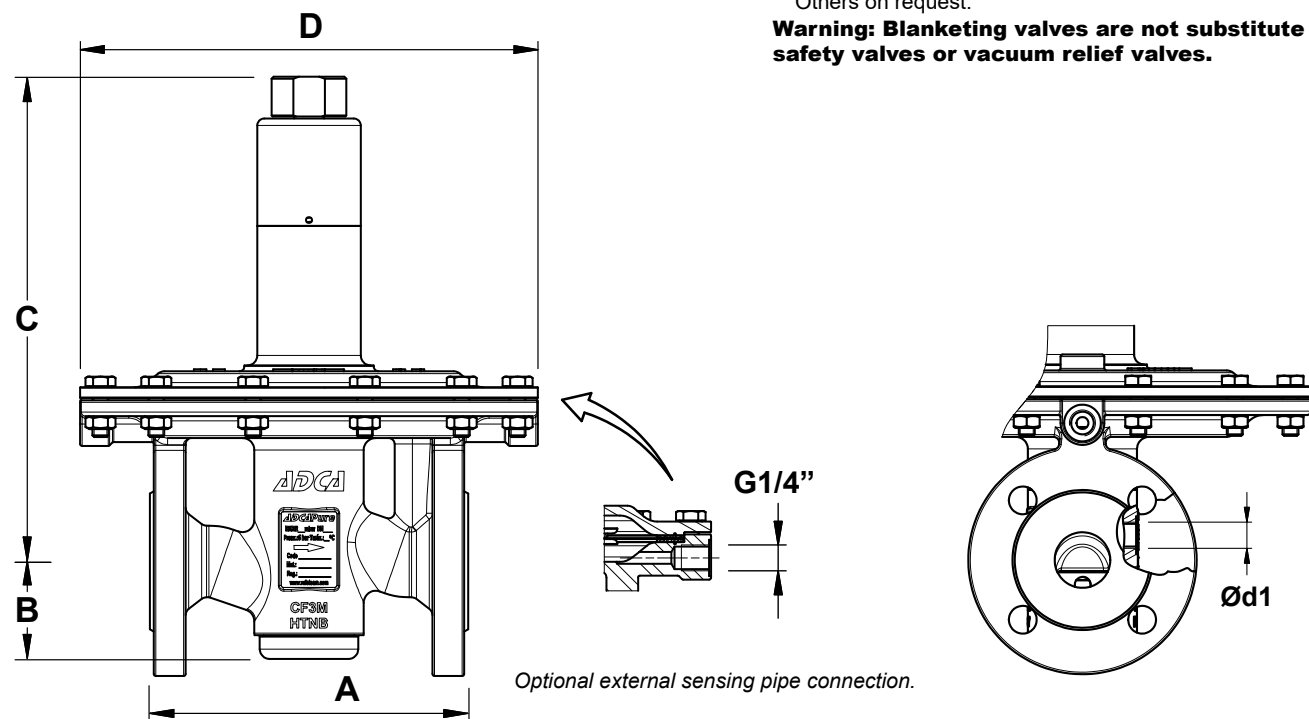
CE MARKING – GROUP 2 (PED – European Directive)	
PN 16	Category
DN 15 to 25	SEP

CE MARKING – ATEX VERSION (ATEX – European Directive)	
PN 16	Category
DN 15 to 25	Ex h IIB T6...T3 Gb

AIR CAPACITIES (Nm³/h) Maximum inlet pressure 6 bar – Seat Ø 8 mm										
SIZE	OUTLET PRESS. (mbar)	INLET PRESSURE (barg)								
		0,1	0,5	0,8	1	2	3	4	5	6
DN 15	5 to 10	3,5	18	28	37	56	77	92	111	128
	10 to 50	3,5	18	28	37	56	77	92	111	128
	20 to 200	–	18	28	37	56	77	92	111	128
	50 to 500	–	–	–	37	56	77	92	111	128
DN 25	5 to 10	4	20	32	40	63	85	102	125	140
	10 to 50	4	20	32	40	63	85	102	125	140
	20 to 200	–	20	32	40	63	85	102	125	140
	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.

DIMENSIONS (mm)						
SIZE	A	B	C	D	d1	WEIGHT (kg)
DN 15	130	47,5	243,5	230	1/4"	9,7
DN 25	160	57,5	243,5	230	1/4"	10,8



Optional external sensing pipe connection.

AIR CAPACITIES (Nm³/h) Maximum inlet pressure 12 bar – Seat Ø 5 mm							
SIZE	OUTLET PRESS. (mbar)	INLET PRESSURE (barg)					
		2	4	6	8	12	
DN 15	5 to 10	18	32	43	54	81	
	10 to 50	18	32	43	54	81	
	20 to 200	18	32	43	54	81	
	50 to 500	18	32	43	54	81	
DN 25	5 to 10	21	35	49	62	90	
	10 to 50	21	35	49	62	90	
	20 to 200	21	35	49	62	90	
	50 to 500	21	35	49	62	90	

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

LIMITING CONDITIONS	
Valve model	BKRI2
Body design conditions	PN 16
Max. upstream pressure	Seat Ø 5 mm 12 bar Seat Ø 8 mm 6 bar
Maximum downstream pressure *	500 mbar
Minimum downstream pressure	5 mbar
Maximum design temperature **	130 °C

* 4000 mbar with dome load;

** Others on request.

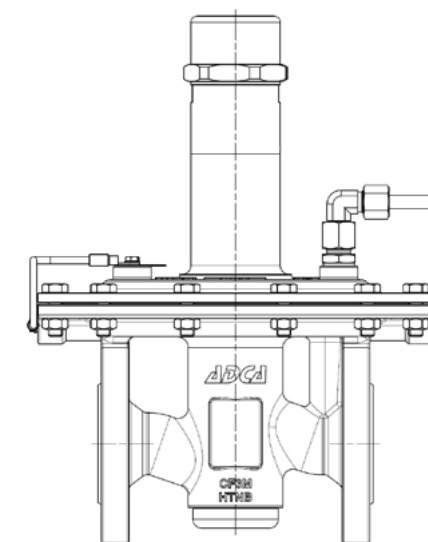
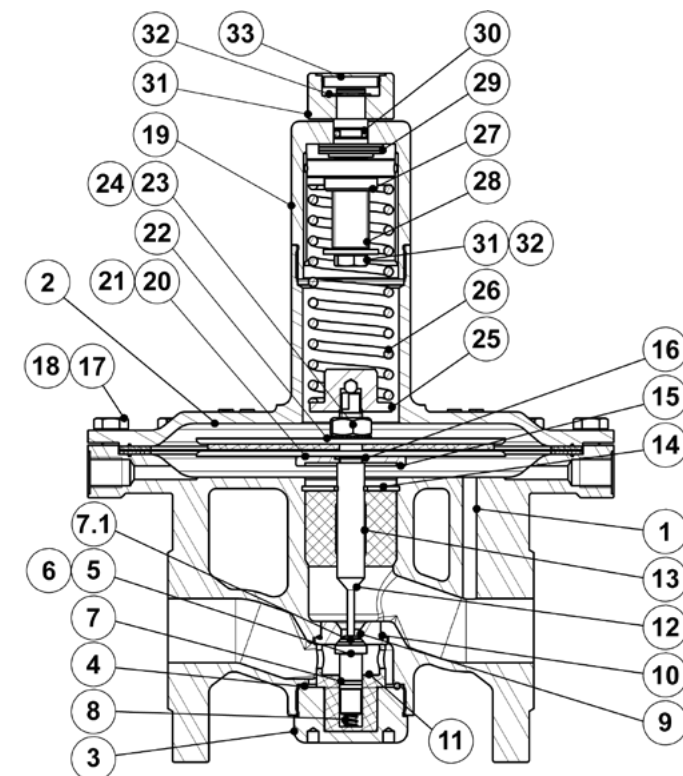
Warning: Blanketing valves are not substitute for safety valves or vacuum relief valves.

MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Valve body	A351 CF3M / 1.4409
2	Diaphragm top cover	A351 CF3M / 1.4409
3	Seat cover	AISI 316L / 1.4404
4	* O-ring	EPDM
5	* Piston	AISI 316L / 1.4404
6	* Valve head	AISI 316L / 1.4404
7	* O-ring	EPDM; FPM
7.1	* O-ring	EPDM; FPM
8	* Valve Spring	AISI 302 / 1.4300 (polished)
9	Seat	AISI 316L / 1.4404
10	* O-ring	EPDM
11	Guide	PTFE
12	Stem	AISI 316L / 1.4404
13	Stem guide	PTFE
14	Retaining ring	Stainless steel A2
15	Diaphragm plate	AISI 316L / 1.4404
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	* Adjustment 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	Adjustment nut	AISI 316L / 1.4404
32	Ext. bowed shaft ring	Stainless steel
33	Cover nut	Plastic

* Available spare parts;

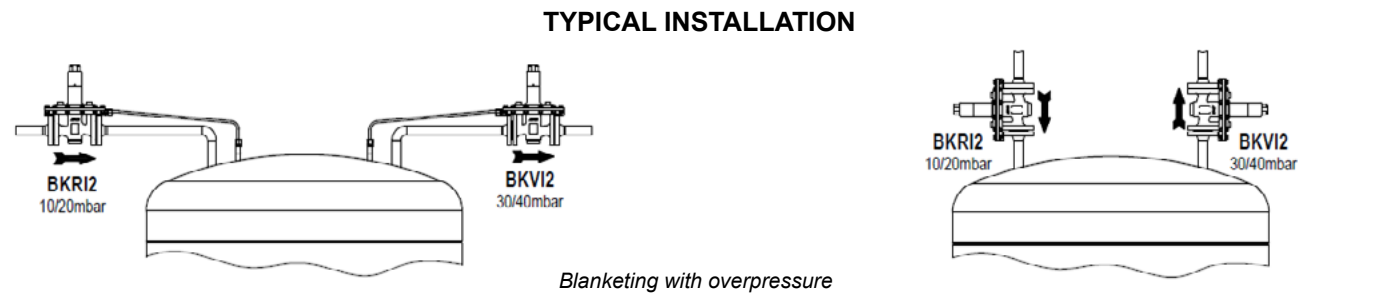
FDA / USP Class VI seals certificate on request.

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



ATEX compliant version

OPTIONS		
PRESSURE GAUGE CONNECTION	ADJUSTMENT SCREW WITH COVER	LEAKAGE LINE CONNECTION (1/4")



ORDERING CODES BKRI2																			
Valve model	BRI	A	5	T	E	I	X	X	X	0	L	15	E						
BKRI2 – A351 CF3M / 1.4409 blanketing low pressure regulator	BRI																		
Regulating range																			
5 to 10 mbar		0																	
10 to 50 mbar		1																	
20 to 200 mbar		2																	
50 to 500 mbar		3																	
5 to 4000 mbar (dome-loaded)		A																	
Valve seat orifice																			
Seat diameter 5 mm		5																	
Seat diameter 8 mm		8																	
Diaphragm																			
PTFE (Gylon)				T															
EPDM (non-standard)				E															
Valve head																			
EPDM				E															
FPM / Viton (FDA approval only)				V															
Adjustment knob, top cap and leakage line connection																			
Stainless steel adjustment knob				I															
Top cap (adjustment screw with cover)				T															
Stainless steel adjustment knob w/ diaphragm cover leakage connection in case of diaphragm failure				L															
Top cap (adjustment screw with cover) w/ diaphragm cover leakage connection in case of diaphragm failure	a)			U															
Dome-loaded top	b)			X															
Gauge port options																			
Without gauge ports				X															
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"				4															
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"				3															
Threaded gauge port on both sides – downstream pressure – ISO 7 Rp 1/4"				2															
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – 1/4" NPT				W															
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – 1/4" NPT				Y															
Threaded gauge port on both sides – downstream pressure – 1/4" NPT				Z															
Surface finish c)																			
Standard surface finish				X															
Mirror mechanical polished external surfaces (SF1)				P															
Electropolished internal wetted parts (SF5)				E															
Special features																			
None				X															
External pulse line																			
Internal pulse orifice (standard)												0							
External pulse line connection 1/4"												1							
Pipe connection																			
Flanged EN 1092-1 PN 16													L						
Size																			
DN 15																		15	
DN 25																			25
Special valves / Extras																			
ATEX compliant version																			EX
Full description or additional codes have to be added in case of non-standard combination																			E

a) This option must be chosen in case of ATEX compliant version; b) This option must be chosen in case of dome-loaded version; c) Consult IS PV20.00 for further details and other surface finish options.

SANITARY
TANK BLANKETING REGULATORS
BKV2

DESCRIPTION

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

Compact design.
Non-rising adjustment knob.
FDA / USP Class VI compliant seals.

STANDARD SURFACE FINISH

Body and internal wetted parts: ≤ 0,51 micron Ra – SF1.
Body external: ≤ 0,76 micron Ra – SF3.
Cover: internal machined; external as casted.
Other surface conditions see IS PV20.00 E – Technical information.
Ultrasonic cleaning.

OPTIONS:

Leakage line connection 1/4".
Gauge connection on body.
External pulse line.
Dome-loaded version.
Blanketing with vacuum.
Top cap (adjustment screw with cover).
Hastelloy wetted parts.
ATEX ⚡ version.

USE:

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

AVAILABLE MODELS:

BKV2 – low pressure venting valve.

SIZES:

1"; DN 25.

REGULATING RANGES:

5 to 10 mbar; 10 to 50 mbar; 20 to 200 mbar; 50 to 500 mbar; 5 to 4000 mbar (dome-loaded).

CONNECTIONS:

ASME BPE, DIN and ISO clamp ferrules.
Flanged EN 1092-1 PN 16. 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 drainage, or horizontal as close to the process as possible in order to prevent long pipe sections and flow restrictions. See IMI – Installation and maintenance instructions.



CE MARKING – GROUP 2 (PED – European Directive)	
PN 16	Category
1" – DN 25	SEP

CE MARKING – ATEX VERSION (ATEX – European Directive)	
PN 16	Category
1" – DN 25	Ex h IIB T6...T3 Gb

AIR CAPACITIES (Nm ³ /h) Seat Ø 21 mm							
SIZE	SET PRESSURE	INLET PRESSURE (mbar)					
		10	20	40	100	200	500
1" – DN 25	25% Overpressure	5,3	11,8	18	31	52	105
	50% Overpressure	7,2	14,5	26	40	66	125
	75% Overpressure	8,3	17	30	47	82	136
	100% Overpressure	9,8	18	36	52	91	148

DIMENSIONS (mm) ASME BPE									
SIZE	A	B	C	D	F	H	d1	d2	WEIGHT (kg)
1"	210	49	244	230	50,5	22,1	25	15,75	8,5

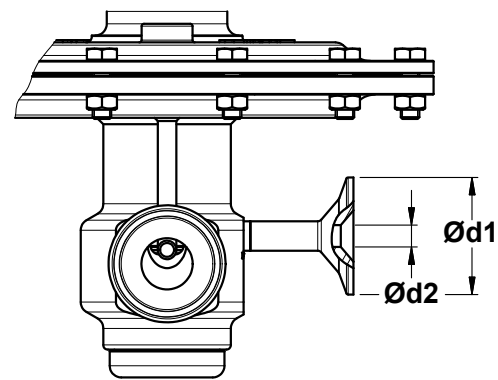
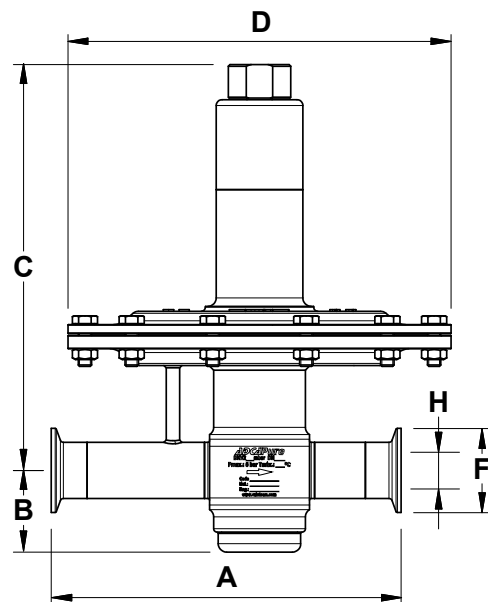
DIMENSIONS (mm) DIN									
SIZE	A	B	C	D	F	H	d1	d2	WEIGHT (kg)
DN 25	210	49	244	230	50,5	26	25	15,75	8,5

Remark: Clamp ferrules according to DIN 32676-A.

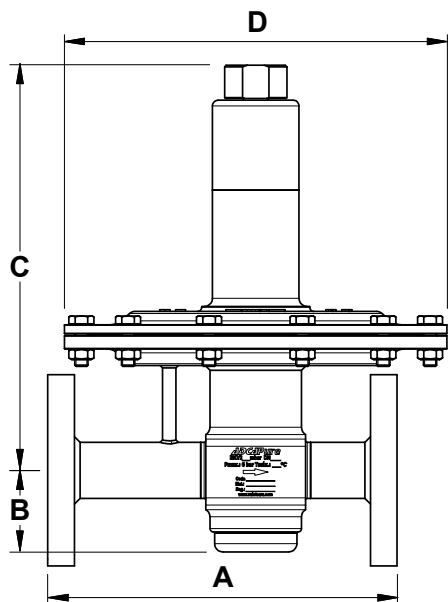
DIMENSIONS (mm) ISO									
SIZE	A	B	C	D	F	H	d1	d2	WEIGHT (kg)
DN 25	210	49	244	230	50,5	29,7	25	15,75	8,5

Remark: Clamp ferrules according to DIN 32676-B.

DIMENSIONS (mm) FLANGED								
SIZE	A	B	C	D	d1	d2	WEIGHT (kg)	
DN 25	210	49	244	230	25	15,75	10,6	



Optional pressure gauge connections

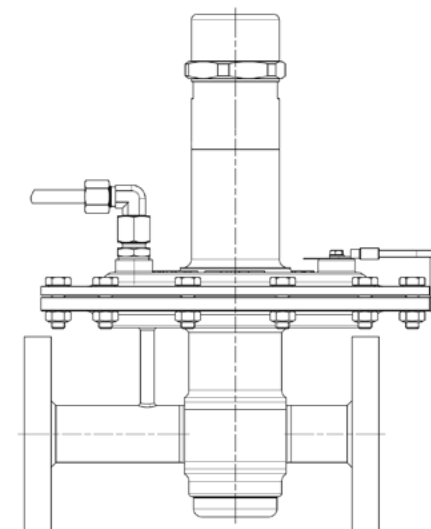
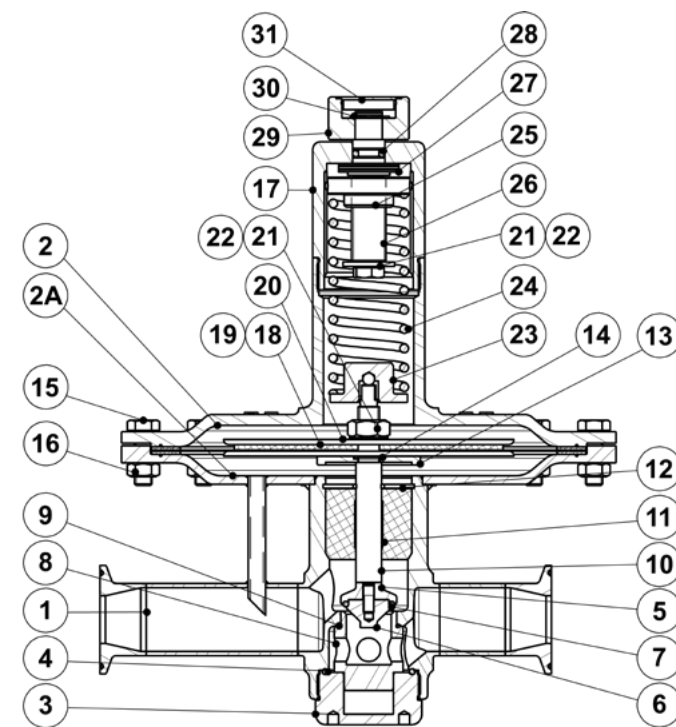


MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Valve body	AISI 316L / 1.4404 Hastelloy C22 / 2.4602
2	Diaphragm top cover	A351 CF3M / 1.4409
2A	Diaphragm bottom cover	AISI 316L / 1.4404 Hastelloy C22 / 2.4602
3	Seat cover	AISI 316L / 1.4404 Hastelloy C22 / 2.4602
4	* O-ring	EPDM
5	Plug disc	AISI 316L / 1.4404 Hastelloy C22 / 2.4602
6	* Valve head	AISI 316L / 1.4404 Hastelloy C22 / 2.4602
7	* O-ring	EPDM; FPM
8	Seat	AISI 316L / 1.4404 Hastelloy C22 / 2.4602
9	* O-ring	EPDM
10	Stem	AISI 316L / 1.4404 Hastelloy C22 / 2.4602
11	Stem guide	PTFE
12	Retaining ring	Stainless steel A2-70 Hastelloy C22 / 2.4602
13	Diaphragm plate	AISI 316L / 1.4404 Hastelloy C22 / 2.4602
14	* O-ring	EPDM
15	Bolts	Stainless steel A2-70
16	Nuts	Stainless steel A2-70
17	Spring cover	AISI 316L / 1.4404
18	* Lower diaphragm	PTFE (Gylon)
19	* Upper diaphragm	EPDM
20	Diaphragm plate	AISI 316L / 1.4404
21	Nut	Stainless steel A2-70
22	Washer	AISI 316 / 1.4401
23	Lower spring guide	AISI 316L / 1.4404
24	* Adjustment spring	AISI 302 / 1.4300
25	Top spring plate	AISI 316L / 1.4404
26	Adjustment screw	Brass
27	Bearing	Corrosion resistant steel
28	* O-ring	NBR
29	Adjustment nut	AISI 316L / 1.4404
30	Ext. bowed shaft ring	Stainless steel
31	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.

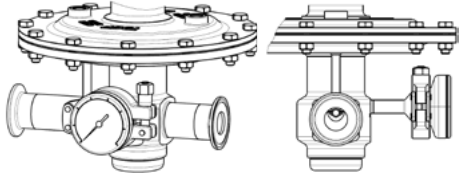
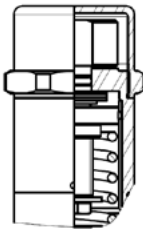
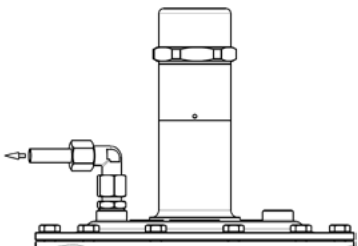


ATEX compliant version

OPTIONS		
PRESSURE GAUGE CONNECTION	ADJUSTMENT SCREW WITH COVER	LEAKAGE LINE CONNECTION (1/4")

MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Valve body	AISI 316L / 1.4404 Hastelloy C22 / 2.4602
2	Diaphragm top cover	A351 CF3M / 1.4409
2A	Diaphragm bottom 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	Plug disc	AISI 316L / 1.4404 Hastelloy C22 / 2.4602
6	* Valve head	AISI 316L / 1.4404 Hastelloy C22 / 2.4602
7	* O-ring	EPDM; FPM
8	Seat	AISI 316L / 1.4404 Hastelloy C22 / 2.4602
9	* O-ring	EPDM
10	Stem	AISI 316L / 1.4404 Hastelloy C22 / 2.4602
11	Stem guide	PTFE
12	Retaining ring	Stainless steel A2-70 Hastelloy C22 / 2.4602
13	Diaphragm plate	AISI 316L / 1.4404 Hastelloy C22 / 2.4602
14	* O-ring	EPDM
15	Bolts	Stainless steel A2-70
16	Nuts	Stainless steel A2-70
17	Spring cover	AISI 316L / 1.4404
18	* Lower diaphragm	PTFE (Gylon)
19	* Upper diaphragm	EPDM
20	Diaphragm plate	AISI 316L / 1.4404
21	Nut	Stainless steel A2-70
22	Washer	AISI 316 / 1.4401
23	Lower spring guide	AISI 316L / 1.4404
24	* Adjustment spring	AISI 302 / 1.4300
25	Top spring plate	AISI 316L / 1.4404
26	Adjustment screw	Brass
27	Bearing	Corrosion resistant steel
28	* O-ring	NBR
29	Adjustment nut	AISI 316L / 1.4404
30	Ext. bowed shaft ring	Stainless steel
31	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.

OPTIONS		
PRESSURE GAUGE CONNECTION	ADJUSTMENT SCREW WITH COVER	LEAKAGE LINE CONNECTION (1/4")
		

TANK BLANKETING REGULATORS

BKVI2

DESCRIPTION

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

Compact design.
 Non-rising adjustment knob.
 FDA / USP Class VI compliant seals.

STANDARD SURFACE FINISH

Internal movable parts and machined surfaces:
 ≤ 0,76 micron Ra – SF3.
 Other surfaces: as casted.
 Ultrasonic cleaning.

OPTIONS:

Leakage line connection 1/4".
 Gauge connection on body.
 External pulse line.
 Dome-loaded version.
 Blanketing with vacuum.
 Top cap (adjustment screw with cover).
 ATEX ⚡ version.

USE:

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

AVAILABLE MODELS:

BKVI2 – low pressure venting valve.

SIZES:

DN 15 and DN 25.

REGULATING RANGES:

5 to 10 mbar; 10 to 50 mbar; 20 to 200 mbar; 50 to 500 mbar; 5 to 4000 mbar (dome-loaded).

CONNECTIONS:

Flanged EN 1092-1 PN 16.

INSTALLATION:

Vertical installation recommended, to allow drainage, or horizontal as close to the process as possible in order to prevent long pipe sections and flow restrictions.
 See IMI – Installation and maintenance instruciones.

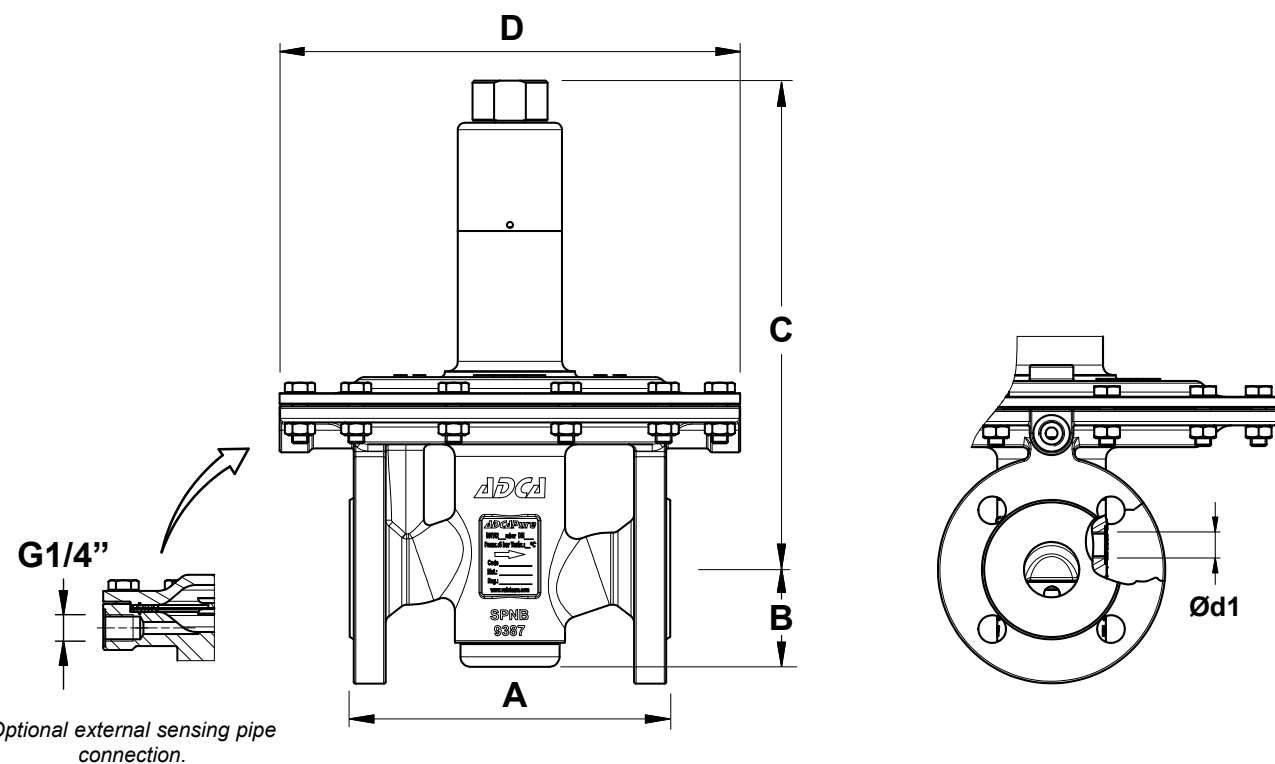


CE MARKING – GROUP 2 (PED – European Directive)	
PN 16	Category
DN 15 to 25	SEP

CE MARKING – ATEX VERSION (ATEX – European Directive)	
PN 16	Category
DN 15 to 25	Ex h IIB T6...T3 Gb

AIR CAPACITIES (Nm³/h) Seat Ø 21 mm							
SIZE	SET PRESSURE	INLET PRESSURE (mbar)					
		10	20	40	100	200	500
DN 15	25% Overpressure	4,5	10,5	16	27	45	95
	50% Overpressure	4,5	10,5	16	27	45	95
	75% Overpressure	4,5	10,5	16	27	45	95
	100% Overpressure	4,5	10,5	16	27	45	95
DN 25	25% Overpressure	5,3	11,8	18	31	52	105
	50% Overpressure	7,2	14,5	26	40	66	125
	75% Overpressure	8,3	17	30	47	82	136
	100% Overpressure	9,8	18	36	52	91	148

DIMENSIONS (mm)						
SIZE	A	B	C	D	d1	WEIGHT (kg)
DN 15	130	47,5	243,5	230	1/4"	9,7
DN 25	160	57,5	243,5	230	1/4"	10,8



LIMITING CONDITIONS	
Valve model	BKVI2
Body design conditions	PN 16
Maximum operating pressure	6 bar
Maximum upstream pressure *	500 mbar
Minimum upstream pressure	5 mbar
Maximum design temperature **	130 °C

* 4000 mbar with dome load;

** Others on request.

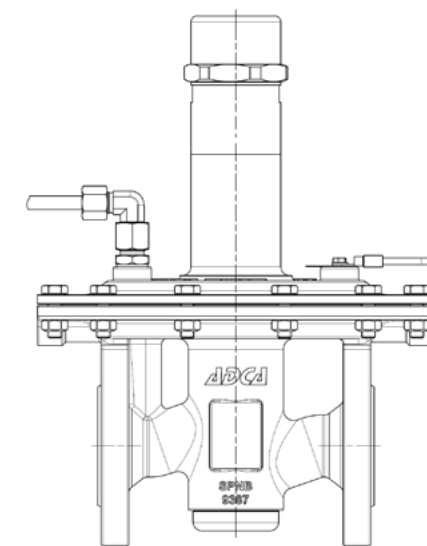
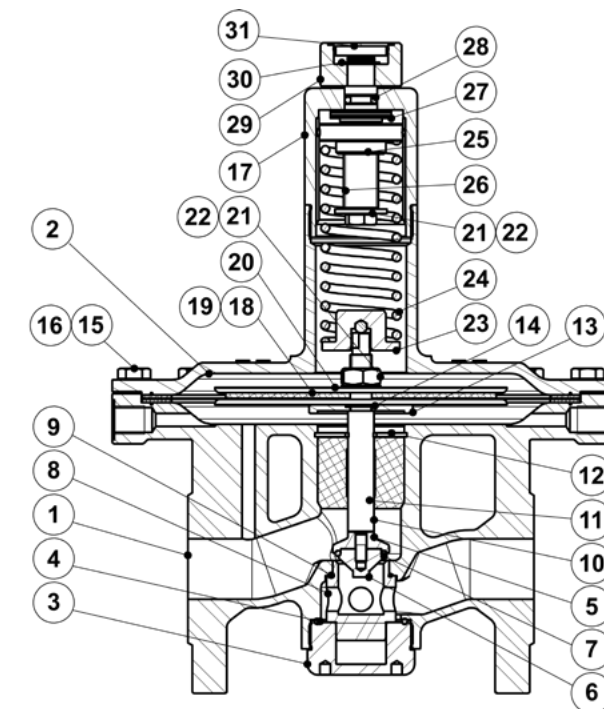
Warning: Blanketing valves are not substitute for safety valves or vacuum relief valves.

MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Valve body	A351 CF3M / 1.4409
2	Diaphragm top cover	A351 CF3M / 1.4409
3	Seat cover	AISI 316L / 1.4404
4	* O-ring	EPDM
5	Plug disc	AISI 316L / 1.4404
6	* Valve head	AISI 316L / 1.4404
7	* O-ring	EPDM; FPM
8	Seat	AISI 316L / 1.4404
9	* O-ring	EPDM
10	Stem	AISI 316L / 1.4404
11	Stem guide	PTFE
12	Retaining ring	Stainless steel A2-70
13	Diaphragm plate	AISI 316L / 1.4404
14	* O-ring	EPDM
15	Bolts	Stainless steel A2-70
16	Nuts	Stainless steel A2-70
17	Spring cover	AISI 316L / 1.4404
18	* Lower diaphragm	PTFE (Gylon)
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24	* Adjustment spring	AISI 302 / 1.4300
25	Top spring plate	AISI 316L / 1.4404
26	Adjustment screw	Brass
27	Bearing	Corrosion resistant steel
28	* O-ring	NBR
29	Adjustment nut	AISI 316L / 1.4404
30	Ext. bowed shaft ring	Stainless steel
31	Cover nut	Plastic

* Available spare parts;

FDA / USP Class VI seals certificate on request.

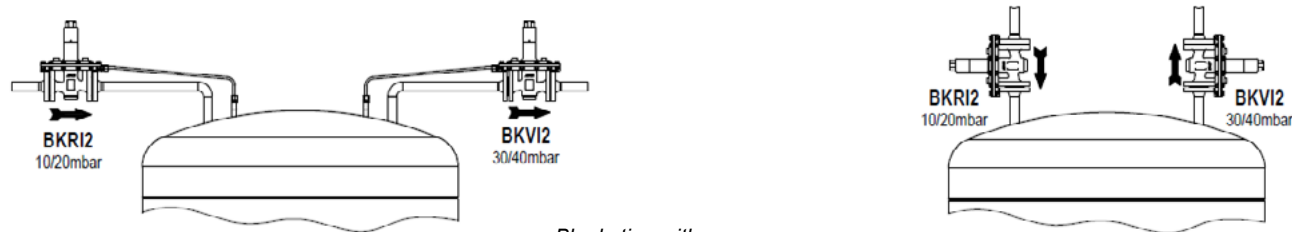
All valves have a serial number. In case of non standard valves, this number must be supplied if spare parts are ordered.



ATEX compliant version

OPTIONS		
PRESSURE GAUGE CONNECTION	ADJUSTMENT SCREW WITH COVER	LEAKAGE LINE CONNECTION (1/4")

TYPICAL INSTALLATION



Blanketing with overpressure

ORDERING CODES BKVI2																
Valve model	BVI	A	2	T	E	I	X	X	X	0	L	15	E			
BKVI2 – A351 CF3M / 1.4409 blanketing low pressure vent valve	BVI															
Regulating range																
5 to 10 mbar		0														
10 to 50 mbar		1														
20 to 200 mbar		2														
50 to 500 mbar		3														
5 to 4000 mbar (dome-loaded)		A														
Valve seat orifice																
Seat diameter 21 mm		2														
Diaphragm																
PTFE (Gylon)				T												
EPDM (non-standard)				E												
Valve head																
EPDM					E											
FPM / Viton (FDA approval only)					V											
Adjustment knob, top cap and leakage line connection																
Stainless steel adjustment knob						I										
Top cap (adjustment screw with cover)						T										
Stainless steel adjustment knob w/ diaphragm cover leakage connection in case of diaphragm failure						L										
Top cap (adjustment screw with cover) w/ diaphragm cover leakage connection in case of diaphragm failure		a)				U										
Dome-loaded top		b)				X										
Gauge port options																
Without gauge ports						X										
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"						4										
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – ISO 7 Rp 1/4"						3										
Threaded gauge port on both sides – downstream pressure – ISO 7 Rp 1/4"						2										
Threaded gauge port on the left side (rel. to the flow direction) – downstream pressure – 1/4" NPT						W										
Threaded gauge port on the right side (rel. to the flow direction) – downstream pressure – 1/4" NPT						Y										
Threaded gauge port on both sides – downstream pressure – 1/4" NPT						Z										
Surface finish c)																
Standard surface finish							X									
Mirror mechanical polished external surfaces (SF1)							P									
Electropolished internal wetted parts (SF5)							E									
Special features																
None								X								
External pulse line																
Internal pulse orifice (standard)										0						
External pulse line connection 1/4"										1						
Pipe connection																
Flanged EN 1092-1 PN 16											L					
Size																
DN 15												15				
DN 25												25				
Special valves / Extras																
ATEX compliant version													EX			
Full description or additional codes have to be added in case of non-standard combination													E			

a) This option must be chosen in case of ATEX compliant version; b) This option must be chosen in case of dome-loaded version; c) Consult IS PV20.00 for further details and other surface finish options.