

SANITARY PRESSURE REDUCING VALVE In-line design P-173

DESCRIPTION

The ADCA P-173 series **direct acting, spring-loaded diaphragm sensing**, pressure reducing valves are designed for use with clean steam, compressed air, water and other gases or liquids compatible with the construction materials.

MAIN FEATURES

Compact in-line design.
Completely machined from barstock material, no castings or forgings are used on the standard version.
No rising stem.

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-Technical information.
Ultrasonic cleaning.

OPTIONS:

Leakage line connection 1/8" (captured vent).
Different soft valves for liquids and gases.
Lock system, allows clean-in-place (CIP) and sterilization-in-place (SIP) operations with valve in line.
Gauge connection on body.
With or without bottom drain connection.

USE:

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

AVAILABLE MODELS:

P-173

SIZES:

1 1/2", 2" ; DN32 – 50.

OUTLET SPRING RANGES:

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

CONNECTIONS:

Sanitary clamps or others on request.

PACKAGING:

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

INSTALLATION:

Horizontal installation.

ORDER REQUIREMENTS:

Type of fluid.
Maximum operating temperature.
Inlet pressure and required outlet pressure
Capacity (maximum and minimum).



CE MARKING (PED - European Directive)	
PN 16	Category
1 1/2"-2"; DN32 to DN50	SEP

CAPACITIES

Valve Size	BPE			DIN			ISO		
	1 1/2"	2"	2" *	40	50	50 *	32	40	50 *
Kv	5,5	5,5	8,5 *	5,5	5,5	8,5 *	5,5	5,5	NA

* Limited to a maximum 4 bar inlet pressure.

DIMENSIONS (mm) ASME BPE

SIZE	A*	B	B1	C	D	d1	d2	E	F	H	WGT. Kg
1 1/2"	170	113	76	199	130	25	15,75	90	50,5	34,8	9,1
2"	170	119	82	205	130	25	15,75	90	64	47,5	9,3

DIMENSIONS (mm) DIN

SIZE DN	A*	B	B1	C	D	d1	d2	E	F	H	WGT. Kg
40	170	113	76	199	130	25	15,75	90	50,5	38	9
50	170	119	82	205	130	25	15,75	90	64	50	9,2

Clamp ferrules DIN 32676 Series A; Tube weld DIN 11866 Series A (DIN 11850 Series 2)

DIMENSIONS (mm) ISO

SIZE DN	A*	B	B1	C	D	d1	d2	E	F	H	WGT. Kg
32	170	113	76	199	130	25	15,75	90	64	38,4	9
40	170	119	82	205	130	25	15,75	90	64	44,3	9,4

Clamp ferrules DIN 32676 Series B; Tube weld DIN 11866 Series B (ISO 1127 Series 1)

* Special versions or non-standard sanitary clamp ferrules are available on request, both for the inlet/outlet and pressure gauge connection.

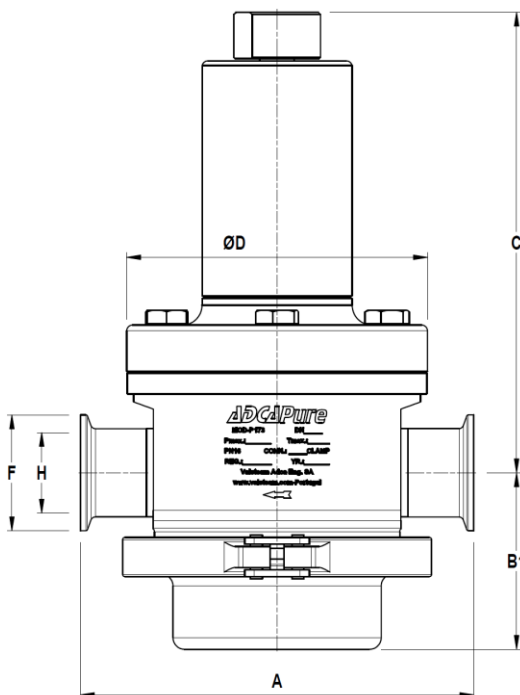
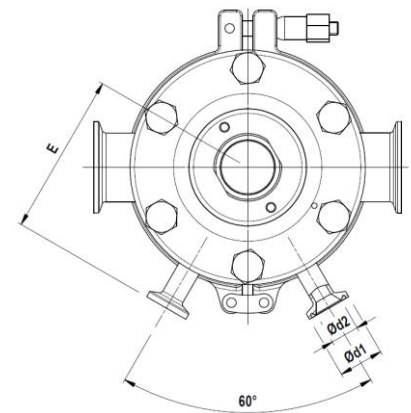
LIMITING CONDITIONS

Valve model	P-173
Body design conditions	PN 16
Max.upstream pressure	8 bar 4 bar*
Max.downstream pressure	5 bar
Min.downstream pressure**	0,8 bar
Max.design temperature ***	150 °C

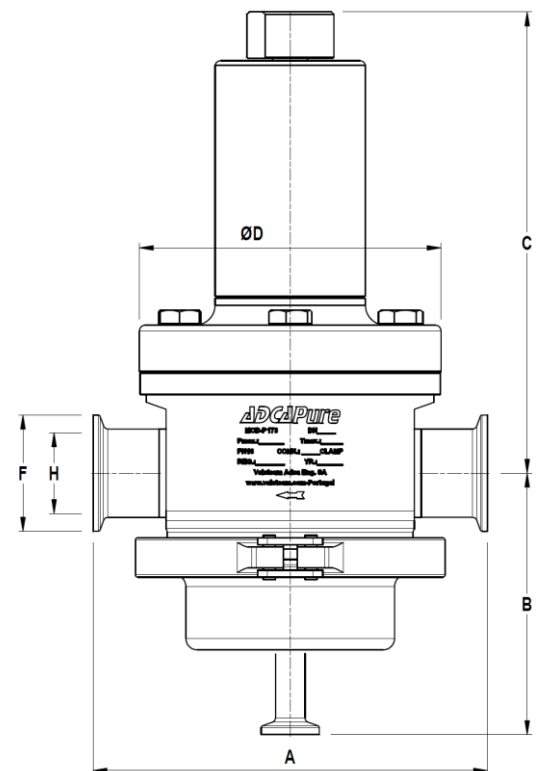
* See capacity table.

** For tight shut off, with regulating spring relaxed, ensure a minimum 0,2 bar downstream pressure.

*** Other on request.

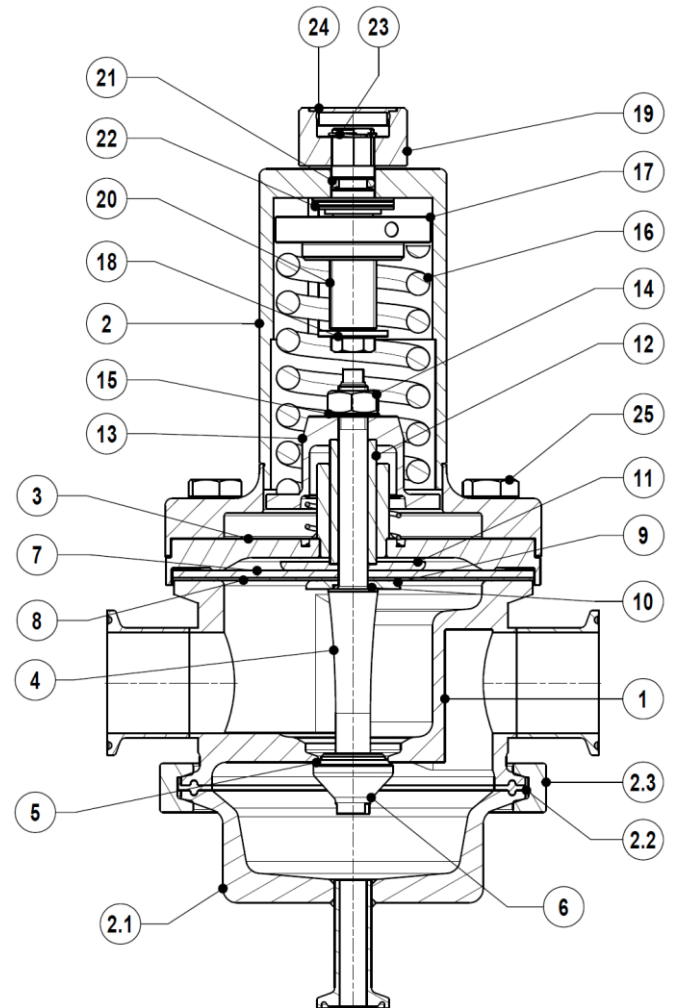


Without bottom connection.

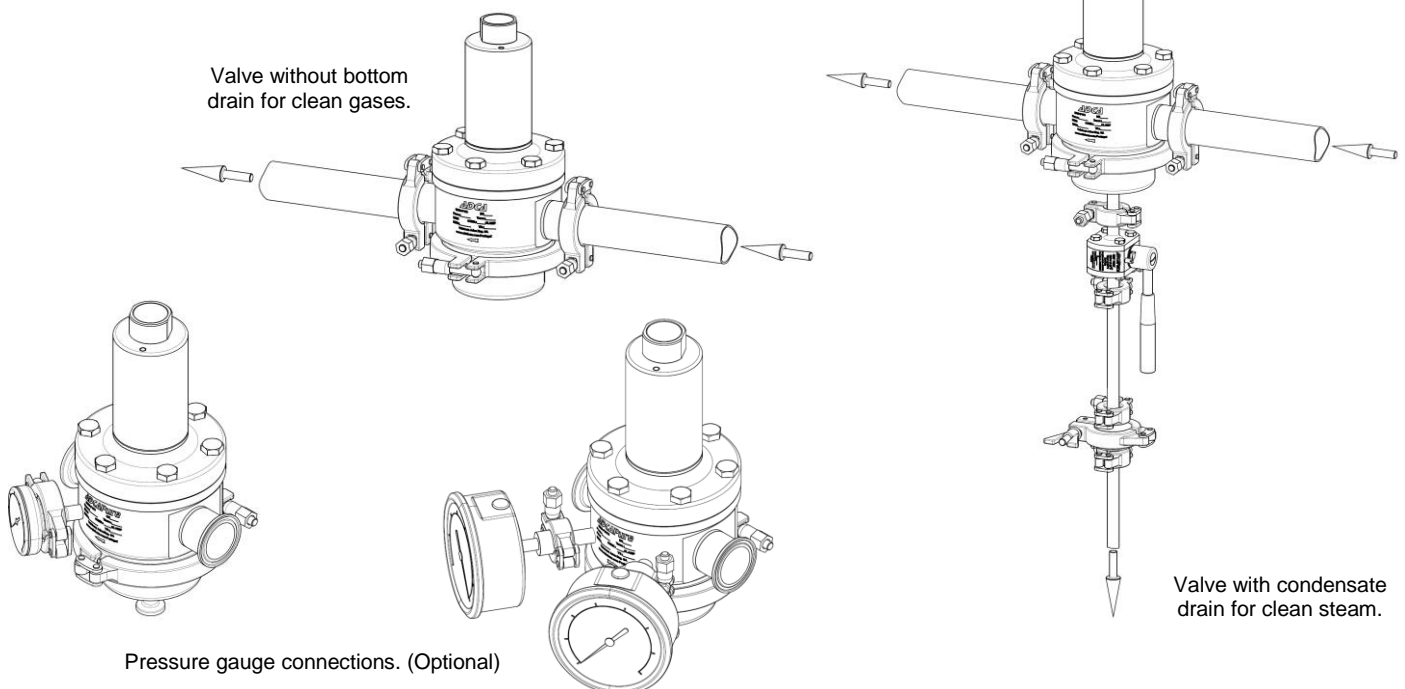


With bottom connection for condensate drainage.

MATERIALS		
POS.	DESIGNATION	MATERIAL
1	Valve body	AISI316L / 1.4404
2	Cover	AISI316L / 1.4404
2.1	Bottom cover	AISI316L / 1.4404
2.2	Gasket	PTFE/TFM® Envelope gasket
2.3	Safety clamp	AISI316 / 1.4401
3	Centering plate	AISI316L / 1.4404
4	* Valve stem	AISI316L/1.4404
5	* Soft plug	EPDM; PTFE **
6	* Valve plug	AISI316L / 1.4404
7	* Upper diaphragm	EPDM
8	* Lower diaphragm	PTFE (Gylon)
9	Diaphragm plate	AISI316L / 1.4404
10	* O-ring	EPDM
11	Diaphragm plate	AISI316L / 1.4404
12	Stem guide	AISI316 / 1.4401
13	Spring plate	AISI316 / 1.4401
14	Nut	St.Steel A2 - 70
15	Washer	AISI316 / 1.4401
16	* Adjustment spring	AISI 302 / 1.4300
17	Top spring plate	AISI316 / 1.4401
18	Retaining washer	St.Steel A2 - 70
19	Regulating nut	AISI316L / 1.4404
20	Adjustment screw	Brass
21	O-ring	NBR
22	Bearing	Corrosion res. Steel
23	Ext. bowed shaft ring	Stainless steel
24	Cover nut	Plastic
25	Bolts	A2



* Available spare parts; **Others according to the fluid
 FDA/USP Class VI seals certificate on request
 Viton diaphragm only with FDA approval (Pos.7)



ORDERING CODES P173

Valve Model	P17D	4	4	T	M	I	X	X	X	D	32	E
P-173 - AISI 316L / 1.4404 Diaphragm pressure reducing valve w ith drain	P17D											
P-173 - AISI 316L / 1.4404 Diaphragm pressure red. valve w ithout drain	P17											
Outlet spring range												
0,8 to 1,5 bar		4										
1 to 3 bar		5										
1,5 to 5 bar		6										
Flow capacity												
Kv - 5,5		4										
Kv - 8,5 (Only available w ith BPE 2" and DIN DN 50.Limited to max. 4 bar inlet pressure).		6										
Diaphragm material												
PTFE (Gylon)				T								
Valve head												
Metal to metal (non-standard)					M							
EPDM						E						
PTFE							T					
FPM/ Viton								V				
Regulating knob, top cap and captured vent												
Stainless steel regulating knob						I						
Top cap (adjusting screw sealing)							T					
Stainless steel regulating knob w /diaphragm cover leakage connection in case of diaphragm failure								L				
Top cap (adjusting screw sealing) w /diaphragm cover leakage connection in case of diaph. failure									U			
Gauge port options												
Without gauge ports									X			
Tri-clamp gauge port on the left side (Rel. to the flow direction) - Dow nstream pressure-1conn.										7		
Tri-clamp gauge port on the right side (Rel. to the flow direction) - Dow nstream pressure-1conn.											6	
Tri-clamp gauge port on the left side - Upstream and dow stream pressure-2conn.												9
Tri-clamp gauge port on the right side - Upstream and dow nstream pressure-2conn.												8
Tri-clamp gauge port on both sides (only dow nstream pressure)-2conn.												5
Threaded gauge port on the left side (Rel. to the flow direction) - Dow nstream pressure-1conn.												4
Threaded gauge port on the right side (Rel. to the flow direction) - Dow nstream pressure-1conn.												3
Threaded gauge port on the left side (Rel. to the flow direction)-Upstream/dow nstream pressure-2conn												1
Threaded gauge port on the right side (Rel. to the flow direction)-Upstream/dow nstream pressure-2conn												0
Threaded gauge port on both sides (only dow nstream pressure)-2conn.												2
Surface finish, special services and options												
None (fine machined)												X
Mechanical polishing												P
Electropolishing												E
Special features												
None												X
Degreased for oxigen												O
CIP/ SIP lock system												C
Pipe connections												
Clamp ferrule ASME BPE												D
Clamp ferrule DIN (DIN32676-A)												F
Clamp ferrule ISO (DIN32676-B)												E
ETO according to ASME BPE												DI
ETO according to DIN1966-A (DIN1850-2)												FI
ETO according to ISO 1127-1												EI
Size												
DN 32 (Availablke w ith ISO connections only)												32
1 1/2" or DN 40												40
2" or DN 50 (Not available w ith ISO connections)												50
Special valves / Extras												
Full description or adicional codes have to be added in case of non-standard combination.												E