

Алматы (7273)495-231  
Ангарск (3955)60-70-56  
Архангельск (8182)63-90-72  
Астрахань (8512)99-46-04  
Барнаул (3852)73-04-60  
Белгород (4722)40-23-64  
Благовещенск (4162)22-76-07  
Брянск (4832)59-03-52  
Владивосток (423)249-28-31  
Владикавказ (8672)28-90-48  
Владимир (4922)49-43-18  
Волгоград (844)278-03-48  
Вологда (8172)26-41-59  
Воронеж (473)204-51-73  
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06  
Ижевск (3412)26-03-58  
Иркутск (395)279-98-46  
Казань (843)206-01-48  
Калининград (4012)72-03-81  
Калуга (4842)92-23-67  
Кемерово (3842)65-04-62  
Киров (8332)68-02-04  
Коломна (4966)23-41-49  
Кострома (4942)77-07-48  
Краснодар (861)203-40-90  
Красноярск (391)204-63-61  
Курск (4712)77-13-04  
Курган (3522)50-90-47  
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13  
Москва (495)268-04-70  
Мурманск (8152)59-64-93  
Набережные Челны (8552)20-53-41  
Нижний Новгород (831)429-08-12  
Новокузнецк (3843)20-46-81  
Ноябрьск (3496)41-32-12  
Новосибирск (383)227-86-73  
Омск (3812)21-46-40  
Орел (4862)44-53-42  
Оренбург (3532)37-68-04  
Пенза (8412)22-31-16  
Петрозаводск (8142)55-98-37  
Псков (8112)59-10-37  
Пермь (342)205-81-47

Ростов-на-Дону (863)308-18-15  
Рязань (4912)46-61-64  
Самара (846)206-03-16  
Санкт-Петербург (812)309-46-40  
Саратов (845)249-38-78  
Севастополь (8692)22-31-93  
Саранск (8342)22-96-24  
Симферополь (3652)67-13-56  
Смоленск (4812)29-41-54  
Сочи (862)225-72-31  
Ставрополь (8652)20-65-13  
Сургут (3462)77-98-35  
Сыктывкар (8212)25-95-17  
Тамбов (4752)50-40-97  
Тверь (4822)63-31-35

Тольятти (8482)63-91-07  
Томск (3822)98-41-53  
Тула (4872)33-79-87  
Тюмень (3452)66-21-18  
Ульяновск (8422)24-23-59  
Улан-Удэ (3012)59-97-51  
Уфа (347)229-48-12  
Хабаровск (4212)92-98-04  
Чебоксары (8352)28-53-07  
Челябинск (351)202-03-61  
Череповец (8202)49-02-64  
Чита (3022)38-34-83  
Якутск (4112)23-90-97  
Ярославль (4852)69-52-93

Россия +7(495)268-04-70

Казахстан +7(7172)727-132

Киргизия +996(312)96-26-47

<https://adca.nt-rt.ru/> || [acd@nt-rt.ru](mailto:acd@nt-rt.ru)



## SANITARY PRESSURE SUSTAINING VALVES PS161



## SANITARY PRESSURE SUSTAINING VALVES 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-loading.
- 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:  $\leq 0,51 \mu\text{m Ra} - \text{SF1}$ .
- External:  $\leq 0,76 \mu\text{m Ra} - \text{SF3}$ .
- Other surface conditions see TIS.GIA – General information ADCAPure.
- Ultrasonic cleaning.

**OPTIONS:**

- Leakage line connection.
- Dome-loading.
- Top cap (adjustment screw with cover).
- Gauge connection on body.
- Different soft sealings for liquids and gases.
- Degreased for oxygen application.

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

**AVAILABLE MODELS:** PS161.

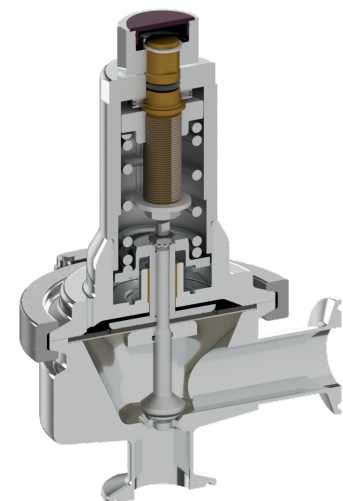
**SIZES:** 1/2" to 2"; DN 15 to DN 50.

**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.



CE MARKING – GROUP 2 (PED – European Directive)	
PN 10	Category
1/2" to 2" – DN 15 to 50	SEP

LIMITING CONDITIONS *	
Maximum allowable pressure	10 bar
Maximum upstream pressure	8 bar
Minimum upstream pressure	0,8 bar
Maximum operating temperature **	180 °C

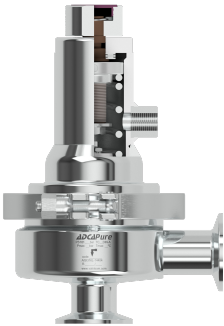
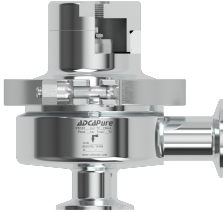


\* Other limits on request. Maximum operating conditions may be limited by the valve end connections due to normative restrictions.

\*\* See "Ordering Codes" table for restrictions.

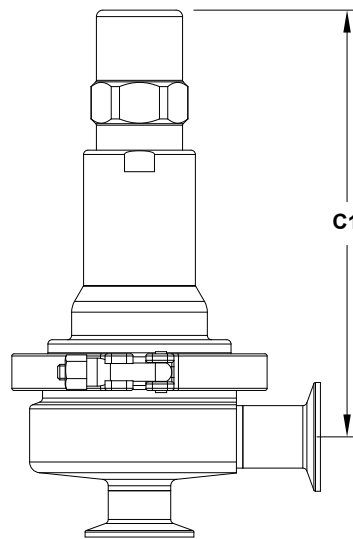
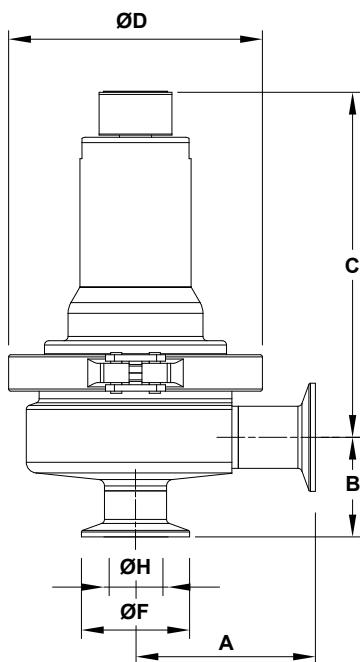
**FLOW RATE COEFFICIENTS (m<sup>3</sup>/h)**

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
<b>Kvs</b>	1,3	3	4,2	7	13	2,1	3	4,2	4,2	7	13	2,1	4,2	4,2	7	7

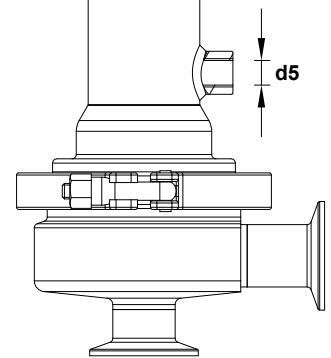
**OPTIONS**

LEAKAGE LINE CONNECTION	DOME-LOADING	TOP CAP	GAUGE CONNECTION
			

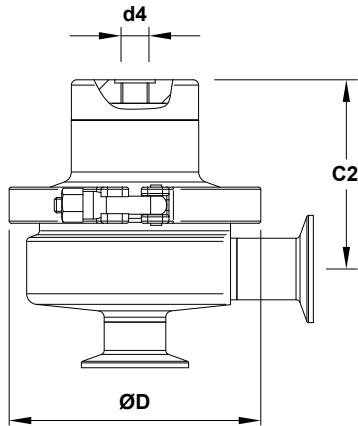
**DIMENSIONS**



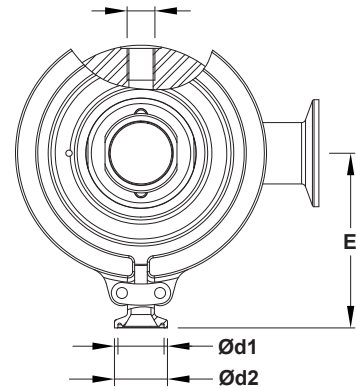
*Optional top cap*



*Optional leakage line connection*



Optional dome-loading



Optional gauge connection

**DIMENSIONS – ASME BPE (mm)**

SIZE	A	B	C	C1	C2	ØD	Ød1	Ød2	d3	d4	d5	E	ØF	ØH	WGT. (kg)
1/2"	77	53	156	193	84	119	25	15,75	1/4"	1/4"	1/4"	83	25	9,4	4,1
3/4"	77	56	160	197	88	119	25	15,75	1/4"	1/4"	1/4"	83	25	15,8	4,4
1"	77	52	163	200	91	119	25	15,75	1/4"	1/4"	1/4"	83	50,4	22,1	4,6
1 1/2"	85	61	204	247	124	134	25	15,75	1/4"	1/4"	1/4"	96	50,4	34,8	8
2"	85	67	207	244	127	134	25	15,75	1/4"	1/4"	1/4"	96	63,9	47,5	8,6

**DIMENSIONS – DIN (mm)**

SIZE	A	B	C	C1	C2	ØD	Ød1	Ød2	d3	d4	d5	E	ØF	ØH	WGT. (kg)
DN 15	77	45	160	197	88	119	25	15,75	1/4"	1/4"	1/4"	83	34	16	4,4
DN 20	77	40	158	195	86	119	25	15,75	1/4"	1/4"	1/4"	83	34	20	4,3
DN 25	84	47	161	198	89	119	25	15,75	1/4"	1/4"	1/4"	83	50,5	26	4,6
DN 32	84	50	163	200	91	119	25	15,75	1/4"	1/4"	1/4"	83	50,5	32	4,8
DN 40	93	69	202	239	122	134	25	15,75	1/4"	1/4"	1/4"	96	50,5	38	8
DN 50	93	75	206	243	126	134	25	15,75	1/4"	1/4"	1/4"	96	64	50	8,6

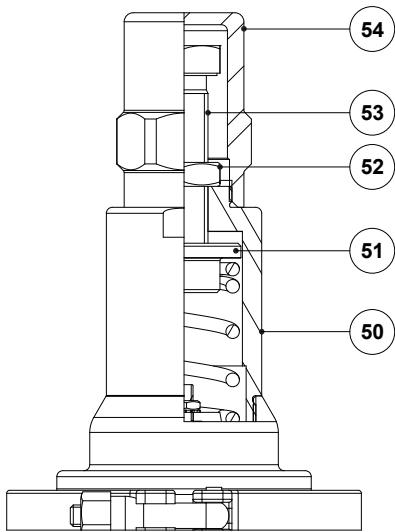
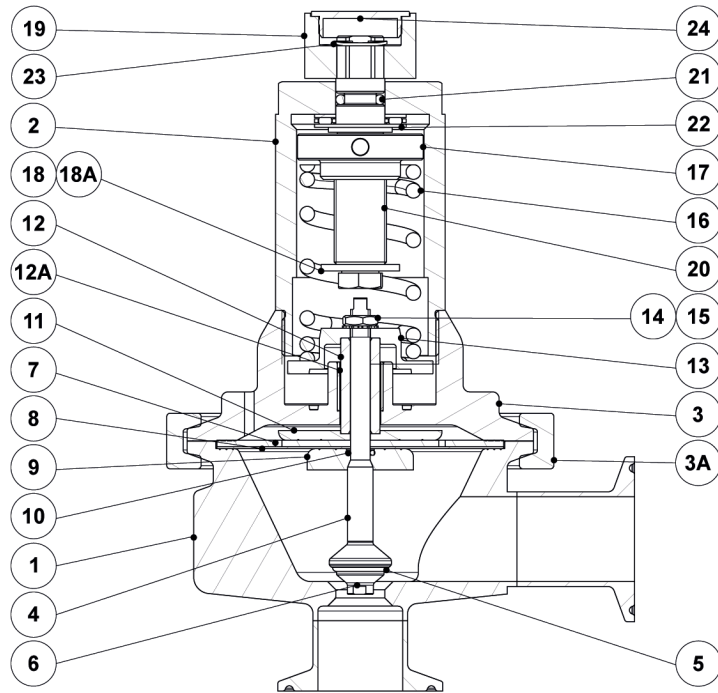
Remarks: Clamp ferrules according to DIN 32676-A. Tube weld (ETO) according to DIN 11866-A (DIN 11850-2).

**DIMENSIONS – ISO (mm)**

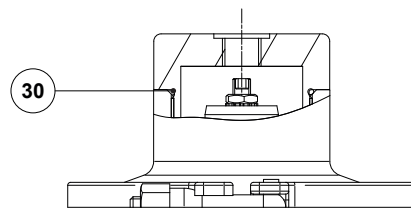
SIZE	A	B	C	C1	C2	ØD	Ød1	Ød2	d3	d4	d5	E	ØF	ØH	WGT. (kg)
DN 15	84	43	159	196	87	119	25	15,75	1/4"	1/4"	1/4"	83	50,5	18,1	4,4
DN 20	84	46	162	199	90	119	25	15,75	1/4"	1/4"	1/4"	83	50,5	23,7	4,6
DN 25	84	49	164	201	92	119	25	15,75	1/4"	1/4"	1/4"	83	50,5	29,7	4,8
DN 32	93	70	202	239	122	134	25	15,75	1/4"	1/4"	1/4"	96	64	38,4	8,2
DN 40	93	75	206	243	126	134	25	15,75	1/4"	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).

# MATERIALS



*Optional top cap*



*Optional dome-loading*

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	* Valve seal	** EPDM; PTFE; FPM
6	* Valve plug	AISI 316L / 1.4404
7	* Upper diaphragm	EPDM
8	* Lower diaphragm	PTFE (Gylon)
9	Lower diaphragm plate	AISI 316L / 1.4404
10	* O-ring	** EPDM; PTFE; FPM
11	Upper 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	Stainless steel A2-70
15	* Washer	Stainless steel A2
16	* Adjustment spring	AISI 302 / 1.4300
17	Top spring plate	AISI 316L / 1.4404
18	Washer	Stainless steel A2
18A	Bolt	Stainless steel A2-70
19	Adjustment knob	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
30	* O-ring	EPDM
50	Cover	AISI 316L / 1.4404
51	Spring guide	Brass
52	Lock nut	Stainless steel A2-70
53	Adjustment screw	Stainless steel A2-70
54	Top cap	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 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													
<b>Valve series</b>															
Series 1		1													
<b>Regulating range</b>															
0,8 to 1,5 bar		4													
1 to 3 bar		5													
1,5 to 8 bar		6													
0,8 to 8 bar (dome-loading) a)		A													
<b>Flow rate coefficient</b>															
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													
<b>Diaphragm</b>															
PTFE (Gylon)					T										
EPDM (non-standard) – Tmax 150 °C					E										
<b>Valve sealing b)</b>															
Metal to metal (non-standard, except in ASME BPE 1/2" size)						M									
EPDM – Tmax 150 °C (180 °C with steam and hot water)						E									
PTFE						T									
FPM / Viton (USP Class VI on request)						V									
<b>Adjustment knob, top cap and leakage line connection</b>															
Stainless steel adjustment knob							I								
Top cap (adjustment screw with cover)							T								
Stainless steel adjustment knob w/ ISO 228 G 1/4" leakage line connection							L								
Stainless steel adjustment knob w/ 1/4" NPT leakage line connection							M								
Top cap (adjustment screw with cover) w/ ISO 228 G 1/4" leakage line connection							U								
Top cap (adjustment screw with cover) w/ 1/4" NPT leakage line connection							V								
Dome-loading – ISO 228 G 1/4" c)							X								
Dome-loading – 1/4" NPT c)							C								
<b>Gauge connections</b>															
Without gauge connections								X							
Tri-clamp gauge connection on the left side (relative to flow direction) – downstream pressure								7							
Tri-clamp gauge connection on the right side (relative to flow direction) – downstream pressure								6							
Tri-clamp gauge connections on both sides – downstream pressure								5							
Threaded gauge connection on the left side (relative to flow direction) – downstream pressure – ISO 228 G 1/4"								4							
Threaded gauge connection on the right side (relative to flow direction) – downstream pressure – ISO 228 G 1/4"								3							
Threaded gauge connections on both sides – downstream pressure – ISO 228 G 1/4"								2							
Threaded gauge connection on the left side (relative to flow direction) – downstream pressure – 1/4" NPT								W							
Threaded gauge connection on the right side (relative to flow direction) – downstream pressure – 1/4" NPT								Y							
Threaded gauge connections on both sides – downstream pressure – 1/4" NPT								Z							
<b>Surface finish d)</b>															
Standard surface finish									X						
Mirror mechanical polished external surfaces (SF1)									P						
Electropolished internal wetted parts (SF5)									E						
<b>Special features</b>															
None										X					
Degreased for oxygen											O				
<b>Pipe connection</b>															
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			
<b>Size</b>															
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			
<b>Special construction / Additional options</b>															
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) Mandatory in case of dome-loading. d) Consult TIS.GIA – General information ADCAPure – for further details and other surface finish options.

**Алматы** (7273)495-231  
**Ангарск** (3955)60-70-56  
**Архангельск** (8182)63-90-72  
**Астрахань** (8512)99-46-04  
**Барнаул** (3852)73-04-60  
**Белгород** (4722)40-23-64  
**Благовещенск** (4162)22-76-07  
**Брянск** (4832)59-03-52  
**Владивосток** (423)249-28-31  
**Владикавказ** (8672)28-90-48  
**Владимир** (4922)49-43-18  
**Волгоград** (844)278-03-48  
**Вологда** (8172)26-41-59  
**Воронеж** (473)204-51-73  
**Екатеринбург** (343)384-55-89

**Иваново** (4932)77-34-06  
**Ижевск** (3412)26-03-58  
**Иркутск** (395)279-98-46  
**Казань** (843)206-01-48  
**Калининград** (4012)72-03-81  
**Калуга** (4842)92-23-67  
**Кемерово** (3842)65-04-62  
**Киров** (8332)68-02-04  
**Коломна** (4966)23-41-49  
**Кострома** (4942)77-07-48  
**Краснодар** (861)203-40-90  
**Красноярск** (391)204-63-61  
**Курск** (4712)77-13-04  
**Курган** (3522)50-90-47  
**Липецк** (4742)52-20-81

**Магнитогорск** (3519)55-03-13  
**Москва** (495)268-04-70  
**Мурманск** (8152)59-64-93  
**Набережные Челны** (8552)20-53-41  
**Нижний Новгород** (831)429-08-12  
**Новокузнецк** (3843)20-46-81  
**Ноябрьск** (3496)41-32-12  
**Новосибирск** (383)227-86-73  
**Омск** (3812)21-46-40  
**Орел** (4862)44-53-42  
**Оренбург** (3532)37-68-04  
**Пенза** (8412)22-31-16  
**Петрозаводск** (8142)55-98-37  
**Псков** (8112)59-10-37  
**Пермь** (342)205-81-47

**Ростов-на-Дону** (863)308-18-15  
**Рязань** (4912)46-61-64  
**Самара** (846)206-03-16  
**Санкт-Петербург** (812)309-46-40  
**Саратов** (845)249-38-78  
**Севастополь** (8692)22-31-93  
**Саранск** (8342)22-96-24  
**Симферополь** (3652)67-13-56  
**Смоленск** (4812)29-41-54  
**Сочи** (862)225-72-31  
**Ставрополь** (8652)20-65-13  
**Сургут** (3462)77-98-35  
**Сыктывкар** (8212)25-95-17  
**Тамбов** (4752)50-40-97  
**Тверь** (4822)63-31-35

**Тольятти** (8482)63-91-07  
**Томск** (3822)98-41-53  
**Тула** (4872)33-79-87  
**Тюмень** (3452)66-21-18  
**Ульяновск** (8422)24-23-59  
**Улан-Удэ** (3012)59-97-51  
**Уфа** (347)229-48-12  
**Хабаровск** (4212)92-98-04  
**Чебоксары** (8352)28-53-07  
**Челябинск** (351)202-03-61  
**Череповец** (8202)49-02-64  
**Чита** (3022)38-34-83  
**Якутск** (4112)23-90-97  
**Ярославль** (4852)69-52-93

**Россия** +7(495)268-04-70

**Казахстан** +7(7172)727-132

**Киргизия** +996(312)96-26-47