

## SANITARY PRESSURE SUSTAINING VALVE PS160

ADCA Pure

### DESCRIPTION

The ADCA PS160 series direct acting, spring-loaded diaphragm sensing, pressure sustaining valves are designed for use with clean steam, compressed air, water and other gases or liquids compatible with the construction materials.

### MAIN FEATURES

Compact 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 E – Technical information.  
Ultrasonic cleaning.

**OPTIONS:** Leakage line connection 1/8" (captured vent).  
Different soft valves for liquids and gases.  
Gauge connection on body.

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

**AVAILABLE MODELS:** PS160.

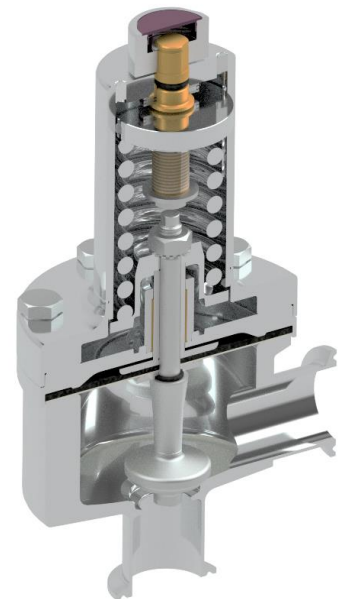
**SIZES:** 3/4", 1", 1 1/2", 2".  
**SPRING RANGES:** 0,8 – 1,5 bar; 1 – 3 bar; 1,5 – 8 bar.

**CONNECTIONS:** ASME BPE.  
Clamp ferrules 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. Inlet horizontal and vertical outlet angle connection. See IMI.

**ORDER REQUIREMENTS:** Type of fluid.  
Maximum operating temperature.  
Maximum inlet pressure and required open pressure.  
Capacity (maximum and minimum).



CE MARKING (PED – European Directive)	
PN16	Category
3/4" to 2"	SEP

LIMITING CONDITIONS	
Valve model	PS160
Body design conditions	PN16
Max. upstream pressure	8 bar
Min. downstream pressure	0,8 bar
Max. design temperature *	150 °C

\* Other on request.

Capacities				
Valve size	3/4"	1"	1 1/2"	2" *
Kvs	1,3	3,5	5,5	8,5 *

\* Limited to a maximum 4 bar inlet pressure.

DIMENSIONS (mm) ASME BPE							
SIZE	A	B	C	D	F	H	WGT. (kg)
3/4"	85	56	192	130	25	15,75	6,7
1"	85	55	192	130	50,5	22,1	6,8
1 1/2"	85	65	199	130	50,5	34,8	7,6
2"	85	69	205	130	64	47,5	7,8

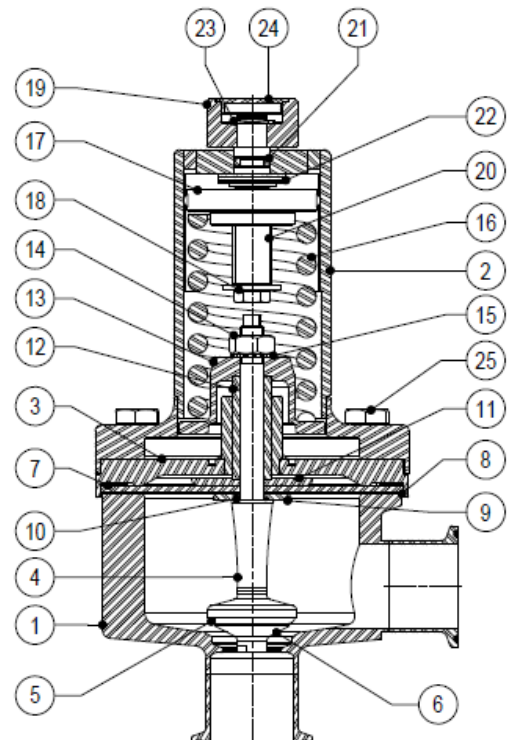
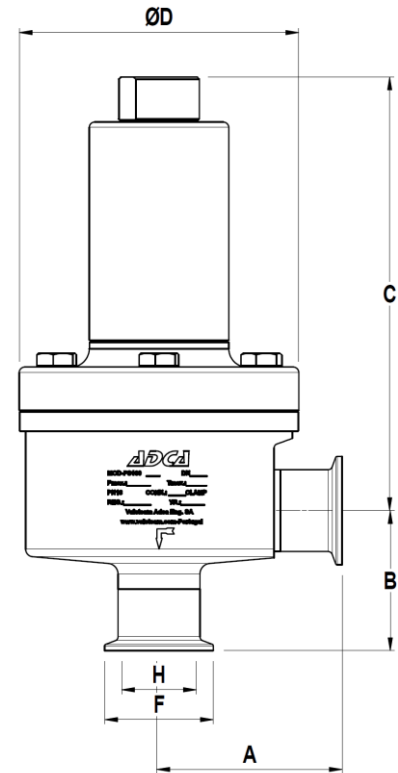
Consult factory for certified dimensions.  
 Dimensions subject to change without notice.

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 **
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	Regulating nut	AISI 316L / 1.4404
20	Adjustment screw	Brass
21	O-ring	NBR
22	Bearing	Corrosion resistant steel
23	Ext. bowed shaft ring	Stainless steel
24	Cover nut	Plastic
25	Bolts	A2

\* Available spare parts.; \*\* Others according to fluid.

FDA / USP Class VI seals certificate on request.

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



ORDERING CODES PS160													
Valve model	PS16	A	1	T	M	I	X	X	X	D	20	E	
PS160 – AISI 316L / 1.4404 Diaphragm sensing press. sustaining valve	PS16												
<b>Outlet spring range</b>													
0,8 to 6 bar (PS160 – air loaded)	A												
0,8 to 1,5 bar (PS160 3/4" to 2")	4												
1 to 3 bar (PS160 3/4" to 2")	5												
1,5 to 8 bar (PS160 3/4" to 2")	7												
1 to 4 bar (PS160 2 1/2" – 3")	9												
<b>Flow capacity</b>													
Kvs – 1,3 (3/4")	1												
Kvs– 3,5 (1")	3												
Kvs – 5,5 (1 1/2" – 2")	4												
Kvs – 8,5 (2" limited to max. 4 bar inlet pressure.)	6												
Kvs – 19,6 bar (2 1/2" – 3")	9												
<b>Diaphragm material</b>													
PTFE (Gylon)				T									
<b>Valve head</b>													
Metal to metal (non-standard)					M								
EPDM					E								
PTFE					T								
FPM / Viton					V								
<b>Regulating knob, top cap and captured vent</b>													
Stainless steel regulating knob						I							
Top cap (ajusting 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 diaphragm failure						U							
<b>Gauge port options</b>													
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								4					
Threaded gauge port on the right side (rel. to the flow direction) – upstream pressure								3					
Threaded gauge port on both sides – upstream pressure								2					
<b>Surface finish, special services and options</b>													
None (fine machined)									X				
Mechanical polishing									P				
Electropolishing									E				
<b>Special features</b>													
None										X			
Degreased for oxygen										O			
CIP / SIP lock system (not available for PS version)										C			
<b>Pipe connections</b>													
Clamp ferrule ASME BPE											D		
ETO according to ASME BPE											DI		
<b>Size</b>													
3/4"												20	
1"												25	
1 1/2"												40	
2"												50	
2 1/2"												65	
3"												80	
<b>Special valves / Extras</b>													
Full description or additional codes have to be added in case of a non-standard combination													E