

SAFETY RELIEF VALVES SRV6

DESCRIPTION

The ADCAPure SRV6 series aseptic safety relief valves with angle type connections are designed for use with clean steam, air, water and other gases and liquids compatible with the construction materials. Main applications are overpressure protection on steam equipment, pressure vessels and pipelines, particularly within the pharmaceutical, cosmetic, fine chemical and food & beverage industries.

MAIN FEATURES

Completely machined from solid bar stock material.
FDA / USP Class VI compliant seals.
Elastomer bellows to isolate the product chamber from the spring housing.
Self drainable design.
Reduced dead leg.

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:

- Manual lifting device.
- Pneumatic lifting device (for CIP/SIP).
- Lift indicator.
- Blocking system.
- Gas tight assembly.
- Different soft sealings for liquids and gases.
- Degreased for oxygen application.

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

AVAILABLE MODELS: SRV6.

SIZES: 3/4" x 1", 1" x 11/2" and 11/2" x 2".
DN 20 x 25, DN 25 x 40, DN 32 x 40 and DN 40 x 50.

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

DESIGN: DIN EN ISO 4126-1.
PED – Pressure Equipment Directive.



CE MARKING – GROUP 2 (PED – European Directive)

PN 16	Category
All sizes	4 (CE marked)

CE Marking: This product has been designed for use on steam, air and other gases which are in Group 2 and 1 (only oxygen, others on request) of the European PED - Pressure Equipment Directive in use and it complies with its requirements. The product carries the CE mark.

LIMITING CONDITIONS *

Maximum operating pressure	16 bar
Maximum operating temperature **	180 °C
Minimum operating temperature **	-40 °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 CAPACITIES
(10% overpressure in accordance with ISO 4126-1)

SIZE	DN 20 x 25 3/4" x 1"			DN 25 x 40 1" x 1 1/2"			DN 32 x 40			DN 40 x 50 1 1/2" x 2"		
d ₀ (mm)	10			13			17			23		
Flow area (mm ²)	78,5			132,7			227			415,5		
Set Pressure	Steam (kg/h)	Air (Nm ³ /h)	Water (m ³ /h)	Steam (kg/h)	Air (Nm ³ /h)	Water (m ³ /h)	Steam (kg/h)	Air (Nm ³ /h)	Water (m ³ /h)	Steam (kg/h)	Air (Nm ³ /h)	Water (m ³ /h)
* 0,5	57,01	70,57	2,81	77,95	96,49	2,87	115,25	142,67	4,59	170,76	211,39	7,05
1	77,17	94,40	3,97	109,95	134,50	4,08	168,83	206,52	6,47	256,34	313,57	9,87
2	96,34	119,26	5,06	173,32	214,56	5,73	299,91	371,26	9,09	451,04	558,35	13,80
3	137,36	171,50	5,94	243,69	304,27	7,05	414,65	517,72	11,18	639,96	799,03	16,92
4	172,30	216,50	6,66	312,82	393,08	8,19	533,64	670,55	12,72	822,32	1033,30	19,66
5	210,34	265,70	7,38	380,01	480,04	9,19	631,97	798,31	14,35	1007,39	1272,54	22,17
6	251,79	319,40	7,87	445,63	565,30	10,00	738,53	936,85	15,67	1191,15	1511,01	24,39
7	287,18	365,63	8,46	508,27	647,13	10,96	842,33	1072,45	17,02	1358,56	1729,71	26,51
8	322,48	411,86	8,93	570,74	728,95	11,81	945,86	1208,05	18,13	1525,55	1948,41	28,45
9	357,74	458,09	9,52	633,15	810,77	12,39	1049,30	1343,65	19,20	1692,37	2167,11	30,36
10	–	504,32	9,98	–	892,59	13,21	–	1479,24	20,25	–	2385,81	31,95
11	–	550,55	10,46	–	974,41	13,85	–	1614,84	21,23	–	2604,51	33,51
12	–	596,78	10,93	–	1056,23	14,47	–	1750,44	22,18	–	2823,21	35,00
13	–	643,01	11,38	–	1138,05	15,06	–	1886,04	23,08	–	3041,91	36,43
14	–	689,24	11,81	–	1219,87	15,63	–	2021,63	23,96	–	3260,61	37,80
15	–	735,47	12,22	–	1301,69	16,18	–	2157,23	24,80	–	3479,31	39,13
16	–	781,70	12,62	–	1383,51	16,71	–	2292,83	25,61	–	3698,01	40,41

* Lower set pressures on request.

OPTIONS

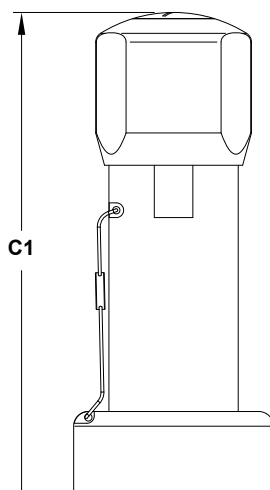
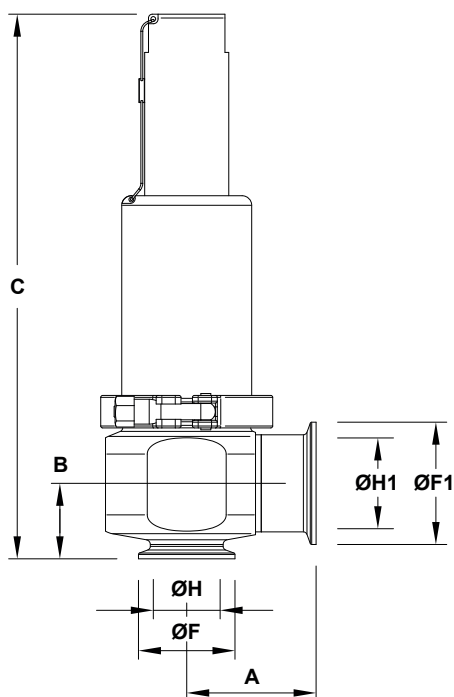
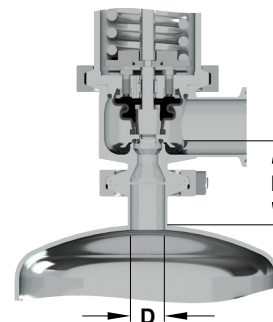
MANUAL LIFTING DEVICE	PNEUMATIC LIFTING DEVICE *	LIFT INDICATOR **	BLOCKING SYSTEM	GAS TIGHT
				

* For d₀ = 23 mm and set pressures above 7 bar, the high capacity pneumatic lifting device is required. Consult the manufacturer.

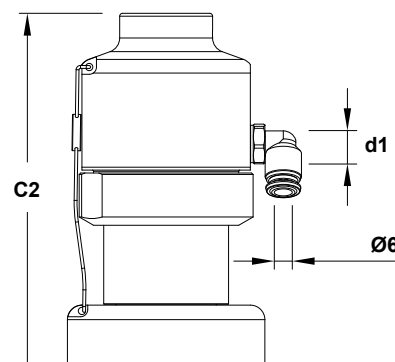
** 3 wire PNP sensor with NO contact (NC on request), M8 x 1 male connector and 10 to 30 V DC supply voltage. Others on request.

DEAD LEG

The SRV6 safety valve inlet port design offers improved cleanability, with an achievable dead leg ratio $L/D < 2$.



Optional manual lifting device



Optional pneumatic lifting device

DIMENSIONS – ASME BPE (mm)

SIZE	d ₀	A	B	C	C1	C2	d1	ØF	ØF1	ØH	ØH1	WEIGHT (kg)
3/4" x 1"	10	62,5	24,5	249	290	255	1/8"	25	50,5	15,8	22,1	3,4
1" x 1 1/2"	13	62,5	34,5	258	299	264	1/8"	50,4	50,5	22,1	34,8	3,6
1 1/2" x 2"	23	67,5	39,5	285	326	291 *	1/8"	50,4	64	34,8	47,5	4,5

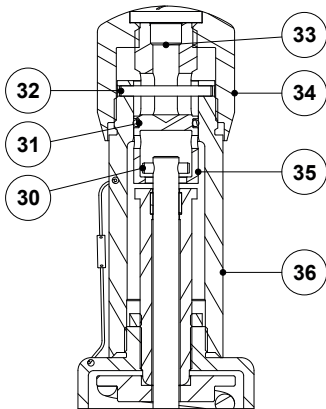
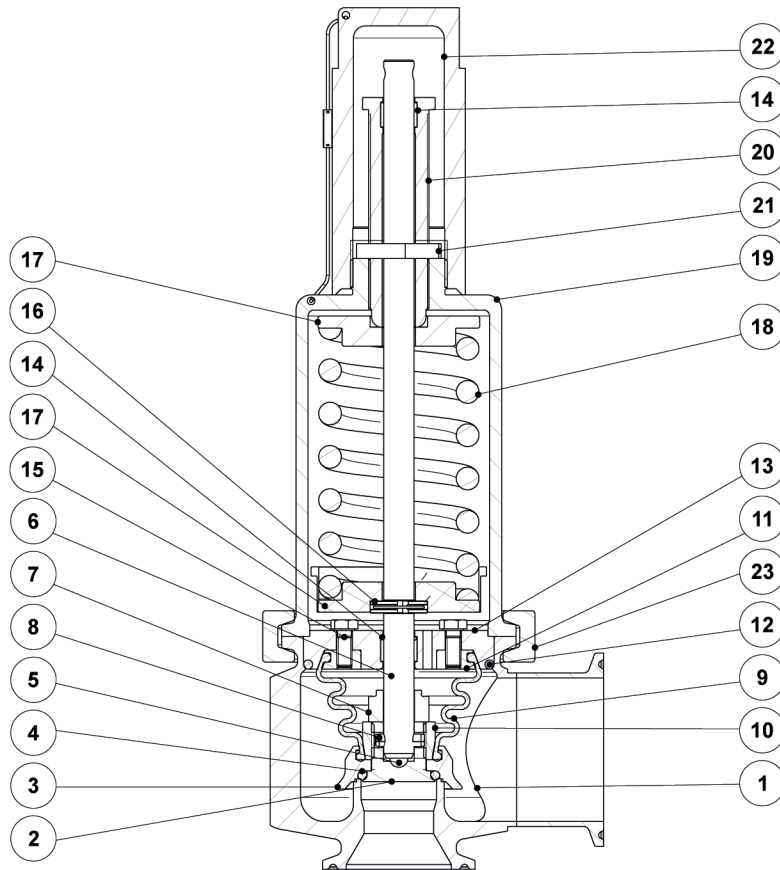
* High pressure pneumatic lifting device dimensions on request.

DIMENSIONS – DIN (mm)

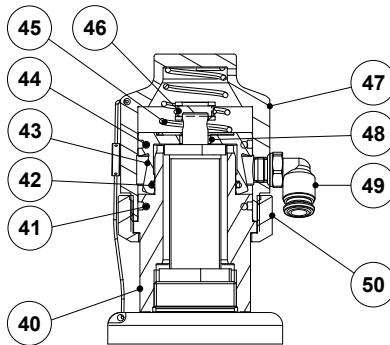
SIZE	d ₀	A	B	C	C1	C2	d1	ØF	ØF1	ØH	ØH1	WEIGHT (kg)
DN 20 x 25	10	55,5	26,5	249	290	255	1/8"	34	50,5	20	26	3,4
DN 25 x 40	13	55,5	34,5	258	299	264	1/8"	50,5	50,5	26	38	3,6
DN 32 x 40	17	55,5	34	259	300	265	1/8"	50,5	50,5	32	38	3,6
DN 40 x 50	23	59	39,5	285	236	291 *	1/8"	50,5	64	38	50	4,4

* High pressure pneumatic lifting device dimensions on request.

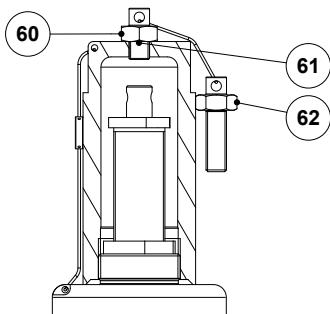
Remarks: Clamp ferrules according to DIN 32676-A; Tube weld (ETO) according to DIN 11866-A (DIN 11850-2).



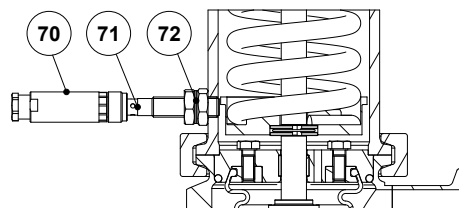
Optional manual lifting device



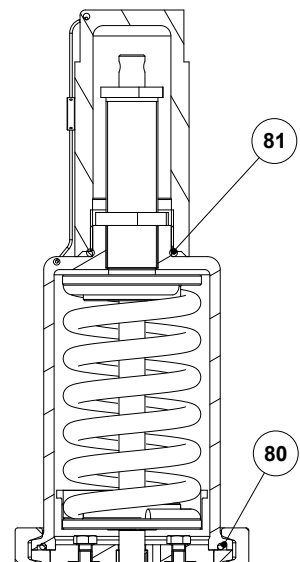
Optional pneumatic lifting device



Optional blocking system



Optional lift indicator



Gas tight

MATERIALS

POS. N°	DESIGNATION	MATERIAL
1	Valve body	AISI 316L / 1.4404
2	* Seat disc	AISI 316L / 1.4404
3	Lifting bell	AISI 316L / 1.4404
4	* Valve seal	** EPDM; FPM
5	Ball	AISI 316 / 1.4401
6	Stem	AISI 316L / 1.4404
7	Lift stopper	AISI 316L / 1.4404
8	* Pin	AISI 301 / 1.4310
9	* Bellows	EPDM; FPM
10	Fixing nut	AISI 316L / 1.4404
11	Bellows fixing ring	AISI 316L / 1.4404
12	* Body seal	EPDM; FPM
13	Guide bushing	AISI 316L / 1.4404
14	Bushing	PTFE
15	Bolt	Stainless Steel A2-70
16	Split ring	AISI 316L / 1.4404
17	Spring plate	AISI 316L / 1.4404
18	* Spring	Stainless steel
19	Bonnet	AISI 316L / 1.4404
20	Adjustment screw	AISI 316L / 1.4404
21	Lock nut	AISI 316L / 1.4404
22	Cap	AISI 316L / 1.4404
23	Clamp	AISI 316 / 1.4401
30	Pin	AISI 303 / 1.4305
31	* O-ring	EPDM
32	Pin	AISI 303 / 1.4305
33	Locking screw	AISI 316 / 1.4401
34	Lifting cover	AISI 316 / 1.4401
35	Piston	AISI 316 / 1.4401
36	Lifting device body	AISI 316L / 1.4404
40	Connector	AISI 316L / 1.4404
41	* O-ring	EPDM
42	* O-ring	EPDM
43	Piston	AISI 316L / 1.4404
44	* O-ring	EPDM
45	Spring	AISI 302 / 1.4300
46	Pin	AISI 301 / 4.4310
47	Cover	AISI 316L / 1.4404
48	Retainer	AISI 316L / 1.4404
49	Pneumatic fitting	AISI 316L / 1.4404
50	Lock nut	AISI 316L / 1.4404
60	Gag lock nut	AISI 316 / 1.4401
61	Gasket	FPM
62	Test gag screw	AISI 316 / 1.4401
70	Connector	Plastic
71	Proximity sensor	AISI 303 / 1.4305
72	Lock nut	Stainless Steel A2-70
80	* O-ring	EPDM
81	* 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.

ORDERING CODES SRV6													
Valve model	SV6	L	E	E	1	X	XX	005	DI	20	E		
SRV6 - AISI 316L / 1.4404 safety relief valve	SV6												
Application													
Liquids		L											
Gases		G											
Steam		S											
Oxygen (degreased)		O											
Bellows and body sealing													
EPDM – Tmin -40 °C / Tmax 150 °C			E										
FPM / Viton – Tmin -10 °C / Tmax 180 °C (USP Class VI on request)			V										
Valve sealing													
Metal to metal (non-standard)			M										
EPDM – Tmin -40 °C / Tmax 150 °C			E										
FPM / Viton – Tmin -10 °C / Tmax 180 °C (USP Class VI on request)			V										
Top cap, gas tight, pneumatic and manual lifting devices													
Top cap					1								
Pneumatic lifting device					2								
High capacity pneumatic lifting device (for d ₀ = 23 mm and set pressures above 7 bar)					3								
Top cap and gas tight assembly					4								
Pneumatic lifting device and gas tight assembly					5								
High capacity pneumatic lifting device and gas tight assembly (for d ₀ = 23 mm and set pressures above 7 bar)					6								
Manual lifting device					7								
Manual lifting device and gas tight assembly					8								
Surface finish b)													
Standard surface finish						X							
Mirror mechanical polished external surfaces (SF1)						P							
Electropolished internal wetted parts (SF5)						E							
Lift indicator and blocking system													
None							XX						
Lift indicator							LX						
Blocking system a)							XB						
Lift indicator and blocking system a)							LB						
Set pressure													
0,5 bar								005					
...													
1 bar								010					
...													
7,6 bar								076					
...													
16 bar								160					
Pipe connections													
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				
Hygienic male threads DIN (DIN 11851)									G1				
Aseptic male threads DIN (DIN 11864-1 Form A)									G2				
Size													
3/4" x 1" or DN 20 x 25										20			
1" x 1 1/2" or DN 25 x 40										25			
DN 32 x DN 40										32			
1 1/2" x 2" or DN 40 x 50										40			
Special valves / Extras													
Full description or additional codes have to be added in case of non-standard combination												E	

a) Not available in valves with manual or pneumatic lifting device. b) Consult TIS.GIA – General information ADCAPure – for further details and other surface finish options.