



TI-P269-01
CTLS Issue 1

SVL606 Food+ Stainless Steel Safety Valve

Description

The SVL606 is a stainless steel, full lift TÜV approved flanged safety valve suitable for use with steam, gas and liquids.

Food+ version of this valve is available in one type only
SVL606-CS with a packed lever, closed bonnet and a metal seat.

Applications

The SVL606 Food+ is suitable for the over pressure protection of steam boilers, pressure vessels and other general process food industry applications, particularly where a valve of a stainless steel construction is required to minimise contamination of the process media or where hygienic considerations and aesthetic qualities are prerequisite.

Standards and approvals

The SVL606 Food+ safety valve has VdTUV approval according to PED, EN ISO 4126-1, TUV SV 100 and AD 2000-Merkblatt A2.
It is designed for use with steam.

Certification

The products are also available with certification to EN 10204 3.1.
Note: All certification/inspection requirements must be stated at the time of order placement.
Food+ can be supplied with material Certification for all wetted parts at extra cost.

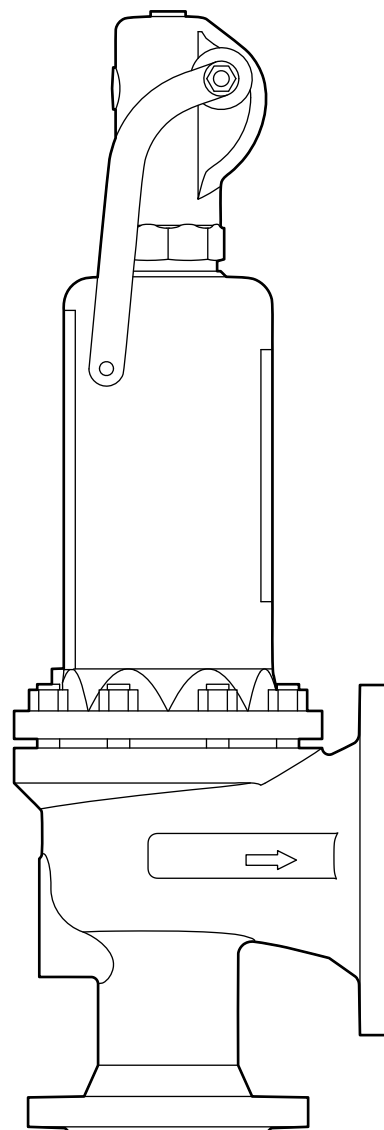
SVL606 Food+

Designed, manufactured and approved for steam and condensate applications and comply with:

- (EC)1935:2004 Materials and Articles Intended to come into Contact with Food
- (EC)2023:2006 Good Manufacturing Practice for Materials and Articles Intended to come into Contact with Food
- (EU)10/2011 Plastic Materials and Articles Intended to come into Contact with Food
- FDA Code of Federal Regulations - title 21 - Food and Drugs

This product is intended to be connected into a system that can operate a food contact compliant process.

A list of the materials that could come directly or indirectly into contact with foodstuffs can be found in the Declaration of Compliance available for this product.



Sizes and pipe connections

PN Flanges

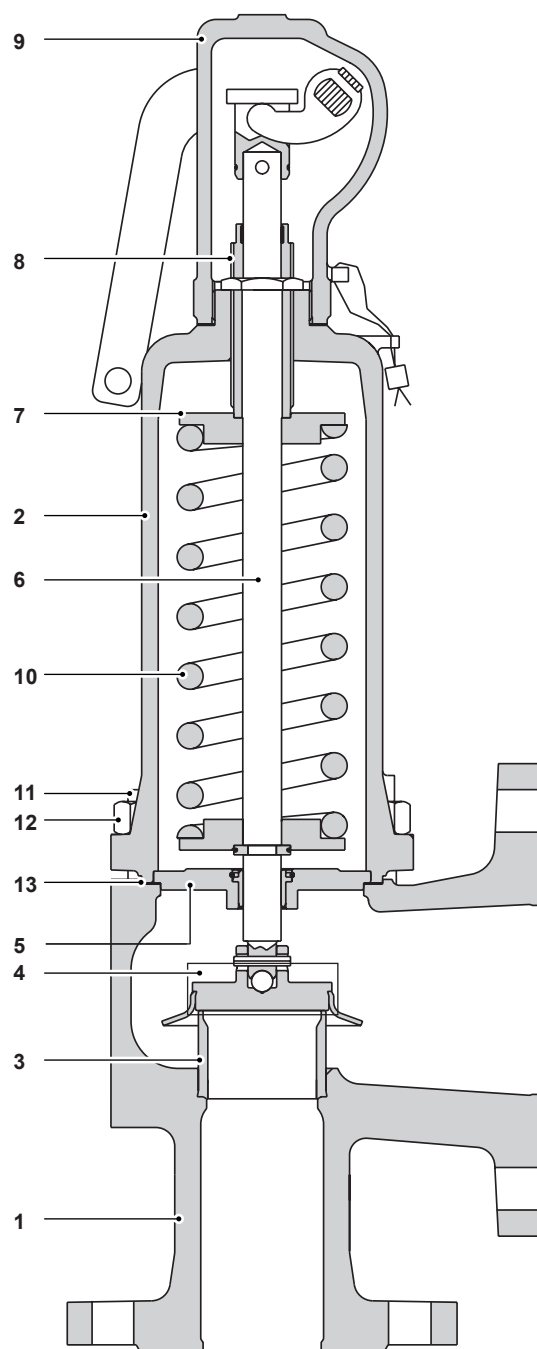
Inlet size	DN	25	32	40	50	65	80	100	125	150	Flanged EN 1092 PN40
Outlet size	DN	40	50	65	80	100	125	150	200	250	Flanged EN 1092 PN16

ASME Flanges (Inch)

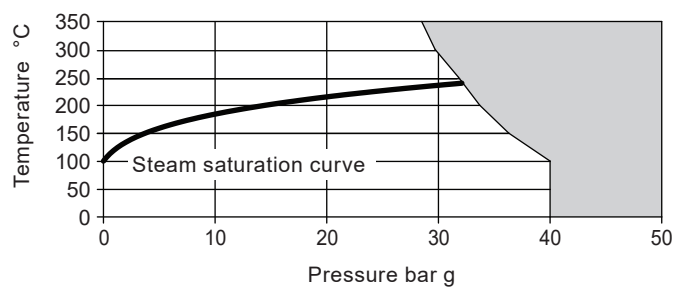
Inlet Size	1.0	1.5	2.0	3.0	4.0	Flanged ASME B16.5 Class 300
Outlet Size	2.0	2.5	3.0	4.0	6.0	Flanged ASME B16.5 Class 150

Materials

No.	Part	Material	
1	Body	Stainless steel	1.4408/SA-351 CF8M
2	Bonnet	Stainless steel	1.4408/SA-351 CF8M or 4.4404/SA-479 316L or 1.4571/SA-479 316Ti
3	Seat	Stainless steel	1.4404/316L
4	Disc	Stainless steel	1.4404/316L
5	Spindle Guide	Stainless steel	1.4404/316L
6	Spindle	Stainless steel	1.4404/316L
7	Spring plate	Stainless steel	1.4404/316L
8	Adjustment screw and bush	Stainless steel and PTFE	1.4404/316L
9	Cap	Stainless steel	1.4404/316L
10	Spring	Stainless steel	1.4310
11	Studs	Stainless steel	1.4401/B8M
12	Nuts	Stainless steel	1.4401/8M
13	Gasket	Stainless steel and Graphite Laminate	1.4401/316



Pressure/temperature limits - PN40



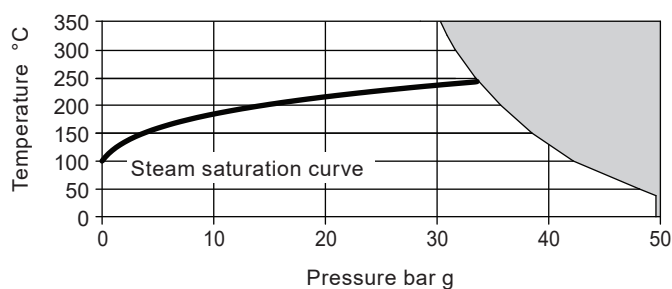
The product **must not** be used in this region.

Body design conditions - PN Flanges

PN40

Set pressure	DN25 to DN40	Maximum	40 bar g
		Minimum	0.5 bar g
	DN50	Maximum	33 bar g
		Minimum	0.5 bar g
	DN65	Maximum	28 bar g
		Minimum	0.5 bar g
	DN80	Maximum	13.6 bar g
		Minimum	0.5 bar g
	DN100	Maximum	20 bar g
		Minimum	0.5 bar g
	DN125	Maximum	17.7 bar g
		Minimum	0.5 bar g
	DN150	Maximum	7 bar g
		Minimum	0.1 bar g
Temperature	Metal seat	Maximum	+350 °C
		Minimum	-196 °C
Performance data	Overpressure	Steam	Maximum 10%
	Blowdown limits	Steam	Maximum 10%
	Derated coefficient of discharge values	Steam	0.70
Designed for a maximum inlet cold hydraulic test pressure of:			60 bar g

Pressure/temperature limits - ASME Class 300



The product **must not** be used in this region.

Body design conditions - Class Flanges			Class 300
Set Pressure	1.0"	Maximum	42.5 bar g
		Minimum	0.5 bar g
	1.5"	Maximum	40 bar g
		Minimum	0.5 bar g
	2.0"	Maximum	32 bar g
		Minimum	0.5 bar g
	3.0"	Maximum	27 bar g
		Minimum	0.5 bar g
	4.0"	Maximum	20 bar g
		Minimum	0.5 bar g
Temperature	Metal Seat	Maximum	350 °C
		Minimum	-196 °C
Performance Data	Overpressure	Steam	Maximum 10%
	Blowdown limits	Steam	Maximum 10%
	Derated coefficient of discharge values	Steam	0.70
Designed for a maximum inlet cold hydraulic test pressure of :			75 bar g

**Table 1 -
SVL606 Food+ (PN version)
flow capacity for dry saturated steam in kilogrammes per hour (kg/h)**

Capacities for saturated steam according to AD 2000-Merkblatt A2, based on set pressure plus 10% overpressure.

Valve size DN	In / Out	25/40	32/50	40/65	50/80	65/100	80/125	100/150	125/200	150/250
Flow area	mm ²	416	661	1075	1662	2827	4301	6648	7543	12272
	in ²	0.645	1.024	1.666	2.576	4.382	6.667	10.3	11.69	19.02

Set pressure bar g	Dry saturated steam, kg/h								
0.5	224	356	579	895	1523	2316	3580	4062	6609
1	326	518	843	1302	2215	3370	5209	5910	9619
2	519	825	1343	2075	3531	5371	8302	9420	15326
3	699	1111	1808	2794	4754	7232	11178	12683	20635
4	871	1385	2254	3485	5928	9018	13938	15816	25731
5	1043	1658	2699	4172	7097	10796	16687	18934	30804
6	1214	1930	3142	4856	8262	12568	19426	22042	35861
7	1381	2196	3574	5525	9399	14297	22098	25074	40794
8	1551	2466	4014	6205	10556	16057	24818	28161	
9	1721	2736	4454	6884	11712	17815	27535	31244	
10	1891	3006	4893	7562	12866	19571	30250	34324	
12	2230	3545	5770	8919	15174	23081	35675	40480	
14	2562	4073	6629	10247	17433	26518	40987	46507	
16	2900	4610	7507	11600	19735		46400	52650	
18	3239	5149	8382	12955	22041		51820	58800	

The product **must not** be used in this region. 

**Table 2 -
SVL606 (ASME version) flow capacity for dry saturated steam in kilogrammes per hour (kg/h)**

Capacities for saturated steam according to AD 2000-Merkblatt A2, based on set pressure plus 10% overpressure.

Valve size in/out (Inch)		1.0/2.0	1.5/2.5	2.0/3.0	3.0/4.0	4.0/6.0
Flow area	mm ²	416	1075	1662	2827	6648
	in ²	0.645	1.666	2.576	4.382	10.3

Set pressure (bar g)	Dry saturated steam, kg/h				
0.5	224	579	895	1523	3580
1	326	843	1302	2215	5209
2	519	1343	2075	3531	8302
3	699	1808	2794	4754	11178
4	871	2254	3485	5928	13938
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6	1214	2142	4856	8262	19426
7	1381	3574	5525	9399	22098
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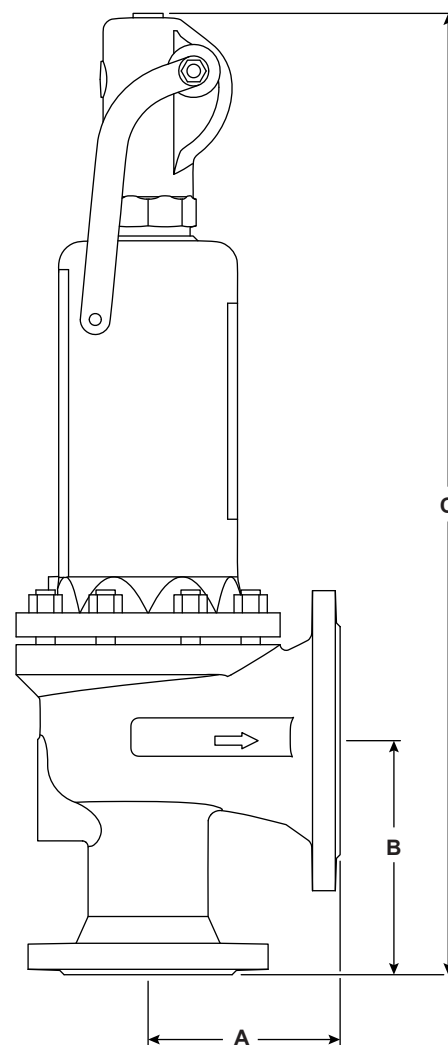
Dimensions/weights (approximate) in mm and kg

PN Flange versions (PN40 inlet flanges only)

Valve size		A	B	C	
Inlet	Outlet	Centreline of inlet to outlet flange face	Centreline of outlet to inlet flange face	Overall height, packed lever design	Weight
DN25	DN40	100	105	339	9
DN32	DN50	110	115	446	12
DN40	DN65	115	140	512	16
DN50	DN80	120	150	569	22
DN65	DN100	140	170	699	32
DN80	DN125	160	195	801	56
DN100	DN150	180	220	883	75
DN125	DN200	200	250	913	85
DN150	DN250	225	285	1083	131

ASME Class 300 versions

Valve size		A	B	C	
Inlet (Inch)	Outlet (Inch)	Centreline of inlet to outlet flange face	Centreline of outlet to inlet flange face	Overall height	Weight
1.0	2.0	114	105	339	10
1.5	2.5	121	124	496	16
2.0	3.0	124	136	556	22
3.0	4.0	165	156	685	33
4.0	6.0	229	181	844	75



Installation

For full details see the Installation and Maintenance Instructions supplied with the product.

SVL606 safety valve selection guide

Model type	SVL60					SVL60
Body material	6 = Stainless steel					6
Configuration	C = Closed bonnet/packed easing lever					C
Seal material	S = Stainless steel					S
Inlet connection	PN40 = Flanged					PN40
SVL606	-	C	-	S	-	PN40

How to order

Example: 1 off Spirax Sarco DN25 x 40 SVL606-C-S-PN40 safety valve with a set pressure of 15.5 bar g.