



FULL-LIFT SAFETY VALVE

MODEL SV459/462

Features

Full-lift safety valve with closed lifting device. Available in ductile cast iron or stainless steel; to blow off steam, gases or fluids.

1. Approved according to TRD 421, AD-A2 and ASME Sect. VIII Div.1.
2. High blow-off capacity.
3. Stable operation, even under adverse piping conditions.
4. Spring-loaded, direct-action design.
5. Model 459 with extremely wear resistant valve seat and disc, model 462 with O-ring disc.
6. Precision disc alignment and guide.
7. Contains no asbestos or copper-alloys.
8. Options:
 - Stainless steel bellows
 - Elastomer-bellows
 - Gas tight cap H2
 - Open bonnet lifting device H3



Specifications

Model	SV4593	SV4623	SV4594	SV4624
Inlet Body/Outlet Body Material	Stainless Steel / Ductile Cast Iron		Stainless Steel / Stainless Steel	
Material Number (ASTM)**	1.4104 (AISI430F) / 0.7043 (A395)		1.4404 (AISI316L) / 1.4404 (AISI316L)	
Connection	Flange DIN 2501 or Screwed DIN 2999*			
Nominal Pressure Rating Inlet/Outlet	PN 40*** / PN 40			
Size/DN Inlet/Outlet	Screwed: 3/4"/1" (Valve size 15), 1"/1 1/2" (Valve Size 20) Flange: DN 25/DN 25 (Valve size 15), DN 25/DN 40 (Valve Size 20)			
Temperature Range (°C)	- 10 to + 300	- 45 to + 180	- 200 to + 400	- 45 to + 180
Maximum Operating Pressure (barg)	PMO	40		
Maximum Operating Temperature	TMO	400		

* Other standards available ** Equivalent *** Higher pressures for inlet body available

1 bar = 0.1 MPa

PRESSURE SHELL DESIGN CONDITIONS (**NOT** OPERATING CONDITIONS):

Maximum Allowable Pressure (barg) PMA: 40

Maximum Allowable Temperature (°C) TMA: 400

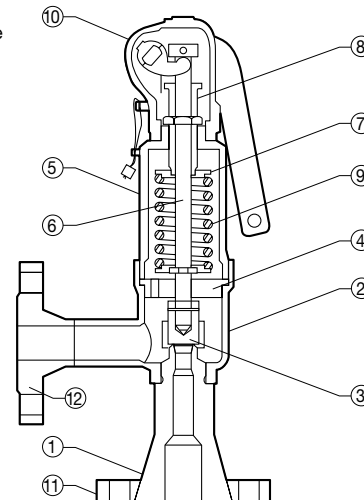


To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

Nr.	Description	Material	DIN EN	ASTM/AISI*
①	Inlet Body	See above	—	—
②	Outlet Body	See above	—	—
③	Disc	Stainless Steel	1.4122	AISI440
④	Guide	Stainless Steel	1.4104	AISI430F
⑤	Bonnet	Ductile Cast Iron	0.7043	A395
⑥	Spindle	Stainless Steel	1.4021	AISI420
⑦	Spring Plate	Carbon Steel	1.0718	AISI12L13
⑧	O-Ring-Disc (SV462)	Steel/Rubber	1.0718/EPDM	AISI12L13/EPDM
⑧	Adjusting Screw with Bushing	Stainless Steel	1.4104	AISI430F
		Fluorine Resin	PTFE	PTFE
⑨	Spring t < 200 °C Spring t > 200 °C	Alloy Steel	1.1200	—
		Alloy Steel	1.8159	AISI6145
⑩	Lifting Device H4**	Ductile Cast Iron or Stainless Steel	0.7040	A536 Gr. 65-45-12
		Stainless Steel	1.4408	A351 Gr. CF8
⑪	Inlet Flange	Stainless Steel	1.4404	AISI316L
⑫	Outlet Flange	Stainless Steel	1.4404	AISI316L

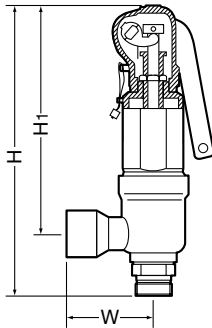
* Equivalent, Parts 3 - 8 and 11, 12 of models SV4594 and SV4624 made of stainless steel 1.4404 (AISI316L), part 9 made of 1.4310 (AISI301)

** Lifting device H3 for SV4623 and SV4593 available on request



Dimensions, Weights

- **SV4593**
- **SV4594**
- **SV4623**
- **SV4624**
- **Screwed**

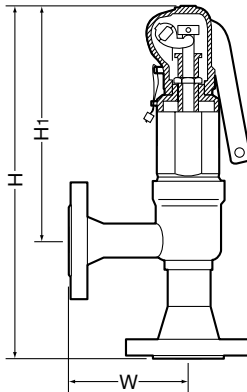


SV4593•SV4594•SV4623•SV4624 Screwed* (mm)

Valve Size	G ₁ /G ₂	d ₀	H	H ₁	W	Weight (kg)
15	3/4"/1"	9	296	230	75	2.6
15	3/4"/1"	13				
20	1"/1 1/2"	17.5	302	227		3

* BSP DIN 2999, other standards available

- **SV4593**
- **SV4594**
- **SV4623**
- **SV4624**
- **Flanged**



SV4593•SV4594•SV4623•SV4624 Flanged* (mm)

Valve Size	G ₁ /G ₂	d ₀	H	H ₁	W	Weight (kg)
15	25/25	9	330	230	100	6.3
15	25/25	13				
20	25/40	17.5	337	227		6.7

* DIN 2501 PN 25/40, other standards available

Blow-Off Capacity

Model	SV459			SV462		
	Valve Size/DN			Valve Size/DN		
Valve Size/DN	15	20		15	20	
Flow Diameter d ₀ (mm)	9	13	17.5	9	13	17.5
Operating Pressure p (barg)	Saturated Steam (kg/h) (Consult TLV for blow-off capacities of air or water)					
0.2		51.7	82.6			
0.5		79.5	130	38.5	93.5	130
1		114	192	55.3	122	192
2	88.3	181	316	88.3	184	316
3	120	245	433	120	245	433
4	150	306	540	150	306	540
5	180	366	647			
6	209	426	753			
8	268	546	965			
10	327	666	1170			
15	474	964	1700			
20	621	1260	2230			
25	769	1560	2760			
30	918	1860	3300			
40	1210	2480	4390			

TLV EURO ENGINEERING U.K.

Priory Lodge London Road
 Cheltenham, Glos, GL52 6HQ
 Tel: 01242-221180 Fax: 01242-221055

Manufacturer:
 LESER GmbH & Co. KG