

## TÜV corner safety valves for liquids

DN 10-25 (1-16 bar)

**Materials:** Body: Red bronze, spring: Spring steel, seal: NBR (special type out of EPDM for cooling circuits)

**Temperature range:** -10°C to max. +130°C (liquids may not evaporate during blow-off)

**Media:** Water and neutral, non-toxic liquids, coolants containing up to 30% glycol (special type for cooling circuits up to 100% glycol)

**Note:** These valves have been type approved and can only be supplied non-adjustable.

Type standard	Type for cooling circuits up to 100% glycol	DN	Thread female	Reaction pressure	Blow-off capacity (water)
SVGW 12 10-**-	SVGW 12 10-**-GL	10	G 1/2"	1 - 16 bar	1.51 - 3.36 m³/h
SVGW 34 13-**-	SVGW 34 13-**-GL	13	G 3/4"	1 - 16 bar	2.55 - 8.22 m³/h
SVGW 10 16-**-	SVGW 10 16-**-GL	16	G 1"	1 - 16 bar	3.87 - 15.46 m³/h
SVGW 114 18-**-	---	18	G 1 1/4"	1 - 16 bar	4.89 - 17.39 m³/h
SVGW 112 22-**-	---	22	G 1 1/2"	1 - 16 bar	7.31 - 28.42 m³/h
SVGW 20 25-**-	---	25	G 2"	1 - 16 bar	9.44 - 37.75 m³/h

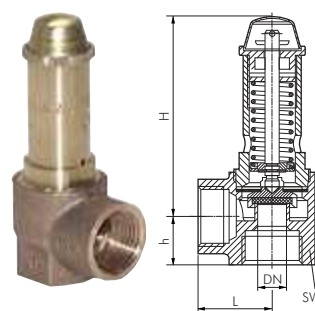
\*\* please enter the reaction pressure

Thread size	G 1/2"	G 3/4"	G 1"	G 1 1/4"	G 1 1/2"	G 2"
<b>Dimensions</b>						
h	17	18	22	25	28	34
H	70	70	80	100	140	155
SW	27	32	40	49	56	68
L	26	31	35	40	46	54

### Blow-off capacity at 10% excessive pressure in m³/h (water)

Blow-off capacity at 1 bar	1.51	2.55	3.87	4.89	7.31	9.44
Blow-off capacity at 2 bar	2.14	3.61	5.47	6.92	10.33	13.35
Blow-off capacity at 3 bar	2.62	4.42	6.69	8.47	12.66	16.34
Blow-off capacity at 4 bar	3.02	5.10	7.73	9.78	14.62	18.87
Blow-off capacity at 5 bar	3.38	5.71	8.64	10.94	16.34	21.10
Blow-off capacity at 6 bar	3.70	6.25	9.47	11.98	17.90	23.11
Blow-off capacity at 7 bar	3.99	6.75	10.23	12.94	19.33	24.97
Blow-off capacity at 8 bar	4.27	7.22	10.93	13.84	20.67	26.69
Blow-off capacity at 9 bar	4.53	7.65	11.60	14.68	21.92	28.31
Blow-off capacity at 10 bar	4.77	8.07	12.22	15.47	23.11	29.84
Blow-off capacity at 11 bar	2.78	6.82	12.82	14.42	23.56	31.30
Blow-off capacity at 12 bar	2.91	7.12	13.39	15.06	24.61	32.69
Blow-off capacity at 13 bar	3.02	7.41	13.94	15.68	25.62	34.02
Blow-off capacity at 14 bar	3.14	7.69	14.46	16.27	26.58	35.31
Blow-off capacity at 15 bar	3.25	7.96	14.97	16.84	27.52	36.55
Blow-off capacity at 16 bar	3.36	8.22	15.46	17.39	28.42	37.75

TÜV



Order example: SVGW 12 10 - \*\*

Standard type

Required reaction pressure (see table)



Separable double nipple from page 109



Threaded nozzles & hose nozzles from page 64



Compressed air and water hoses from page 208

## Relief valves

- ✓ **Advantages:**
- Compact design
  - Self-contained gas-tight design
  - Optimised with high Kv values
  - Can be adjusted externally without disassembly and without special tools
  - Larger pressure range with a valve
  - Can be used for gaseous and liquid media

**Application:** Relief valves are used in closed circuits to protect pumps from overload. When the adjustable reaction pressure is exceeded, the valve opens in proportion to the overpressure and thus slowly releases pressure. The relief valve is designed to be open for an extended time. As a matter of principle, one must assume that the pressure in the system can exceed the reaction pressure set on the relief valve. Safety valves have a completely different response characteristic. In the event that the reaction pressure is exceeded by more than 10%, they open almost instantaneously and release all pressure at once. When the pressure comes down to 10-20% below the set reaction pressure, the valve closes again. Although this function does ensure that the set pressure will not be exceeded by more than 10%, the system will be heavily stressed by the non-proportional opening behaviour.

**Version:** Using an Allen key, the relief valves can be adjusted under operating conditions, and without releasing any medium into the surroundings. You are not compensated against back pressure.

**Materials:** Body: Red bronze/brass, spring: Stainless steel, seal: FKM (12 to 20 bar: PTFE)

**Temperature range:** -20°C to max. +200°C

**Media:** Compressed air and other non-aggressive, non-flammable gases, water and other neutral, non-toxic fluids, mineral oils

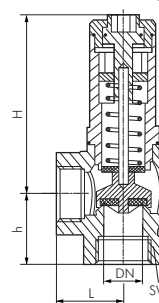
☞ **Optional:** Body made of stainless steel AISI 316 -ES

Type	Kv value* m³/h water	Type	Kv value* m³/h water	DN	Thread
<b>Reaction pressure at 0.5 - 2.5 bar</b>		<b>Reaction pressure at 2 - 8 bar</b>			
USV 38-2.5	2.7 - 3.7	USV 38-8	1.9 - 3.9	10	G 3/8"
USV 12-2.5	4.3 - 5.2	USV 12-8	2.2 - 1.0	15	G 1/2"
USV 34-2.5	6.1 - 7.3	USV 34-8	4.5 - 8.5	20	G 3/4"
USV 10-2.5	10.8 - 13.7	USV 10-8	8.5 - 11.3	25	G 1"
USV 114-2.5	16.0 - 18.9	USV 114-8	7.6 - 6.5	32	G 1 1/4"
USV 112-2.5	21.7 - 26.1	USV 112-8	10.9 - 15.1	40	G 1 1/2"
USV 20-2.5	31.6 - 43.0	USV 20-8	24.3 - 47.4	50	G 2"
<b>Reaction pressure at 2 - 12 bar</b>		<b>Reaction pressure at 12 - 20 bar</b>			
USV 38-12	1.6 - 3.7	USV 38-20	1.7 - 0.2	10	G 3/8"
USV 12-12	1.8 - 1.3	USV 12-20	0.4 - 0.6	15	G 1/2"
USV 34-12	3.7 - 9.3	USV 34-20	2.8 - 0.7	20	G 3/4"
USV 10-12	4.2 - 5.9	USV 10-20	2.2 - 0.7	25	G 1"
USV 114-12	6.2 - 5.0	USV 114-20	6.8 - 5.0	32	G 1 1/4"
USV 112-12	8.8 - 17.6	USV 112-20	10.1 - 11.5	40	G 1 1/2"
USV 20-12	17.9 - 43.9	USV 20-20	18.9 - 36.6	50	G 2"

\* at 1 bar excessive pressure

All data are considered to be unbinding reference values. We accept no liability for data selection that is not confirmed in writing. Pressure data refer, if not otherwise indicated, to liquids of Group II at +20°C.

**F** Dimensions can be found in our Online Shop



Order example: USV 38-2.5 \*\*

Standard type

Designation for the options:  
Body made of stainless steel . . -ES