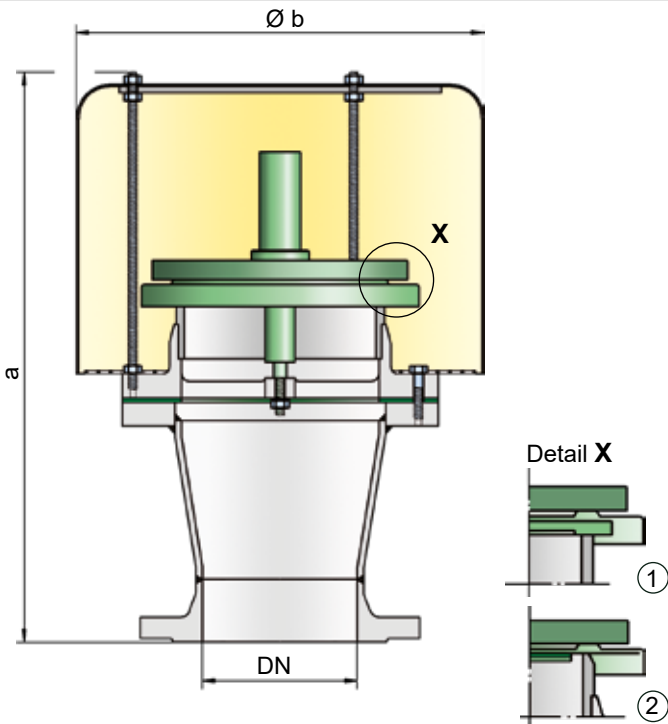


Pressure Relief Valve



PROTEGO® D/SVL



With this “full lift type” technology, the valve can be set at just 10% below the maximum allowable working pressure of the tank and still safely vent the required mass flow.

Due to the highly developed manufacturing technology, the tank pressure is maintained up to the set pressure with a tightness that is far superior to the conventional standard. This feature is achieved by valve seats made of high quality stainless steel and with precisely lapped valve pallets (1), or with an air cushion seal (2) in conjunction with high quality FEP diaphragm. The valve pallets are also available with a PTFE seal to prevent the valve pallet from sticking when sticky products are used, and they enable the use of corrosive substances. After the overpressure is released, the valve re-seats and provides a tight seal again. The optimized fluid dynamic design of the valve body and valve pallet is a result of many years of research, resulting in a stable operation of the valve pallet, optimized performance, and reduced product losses.

Special Features and Advantages

- 10% technology for minimum pressure increase up to full lift
- extreme tightness, resulting in lowest possible product losses and reduced environmental pollution
- set pressure close to opening pressure for optimum pressure maintenance in the system
- particularly high flow capacity
- valve pallet is guided inside the housing to protect against harsh weather conditions
- can be used in explosion hazardous areas
- best technology for API tanks

Design Types and Specifications

The valve pallet is weight-loaded. Higher pressures with a special spring-loaded design are available upon request.

Pressure valve in basic design **D/SVL -**

Additional special devices available upon request.

Pressure settings:

+2.0 mbar up to +60 mbar
 +0.8 inch W.C. up to +24 inch W.C.
 Higher pressure settings upon request.

Function and Description

The D/SVL type PROTEGO® valve is a high performance pressure relief valve. It is primarily used as a safety device for relieving pressure in tanks, containers, and process engineering equipment. The valve offers reliable protection against overpressure and prevents excessive loss of product vapors close to the set pressure.

The device will start to open as soon as the set pressure is reached and only requires 10% overpressure to full lift. Continuous investments in and a commitment to research and development have allowed PROTEGO® to develop a low pressure valve which has the same opening characteristic as a high pressure safety relief valve.

Table 1: Dimensions

Dimensions in mm / inches

To select the nominal size (DN), use the flow capacity chart on the following page.

DN	50 / 2"	80 / 3"	100 / 4"	150 / 6"	200 / 8"	250 / 10"	300 / 12"
a	336 / 13.23	412 / 16.22	444 / 17.48	564 / 22.20	664 / 26.20	687 / 27.05	687 / 27.05
b	200 / 7.87	295 / 11.61	295 / 11.61	465 / 18.31	550 / 21.65	650 / 25.59	650 / 25.59



Vents - 10% Technology
(Flyer pdf)



Leak Rate/10% Technology
(Flyer pdf)



The optimized valve pallet
(Flyer pdf)

Table 2: Material selection for housing

Design	A	B	Special materials upon request.
Housing	Steel	Stainless Steel	
Valve seat	Stainless Steel	Stainless Steel	
Sealing	PTFE	PTFE	
Weather hood	Stainless Steel	Stainless Steel	

Table 3: Material selection for pressure valve pallet

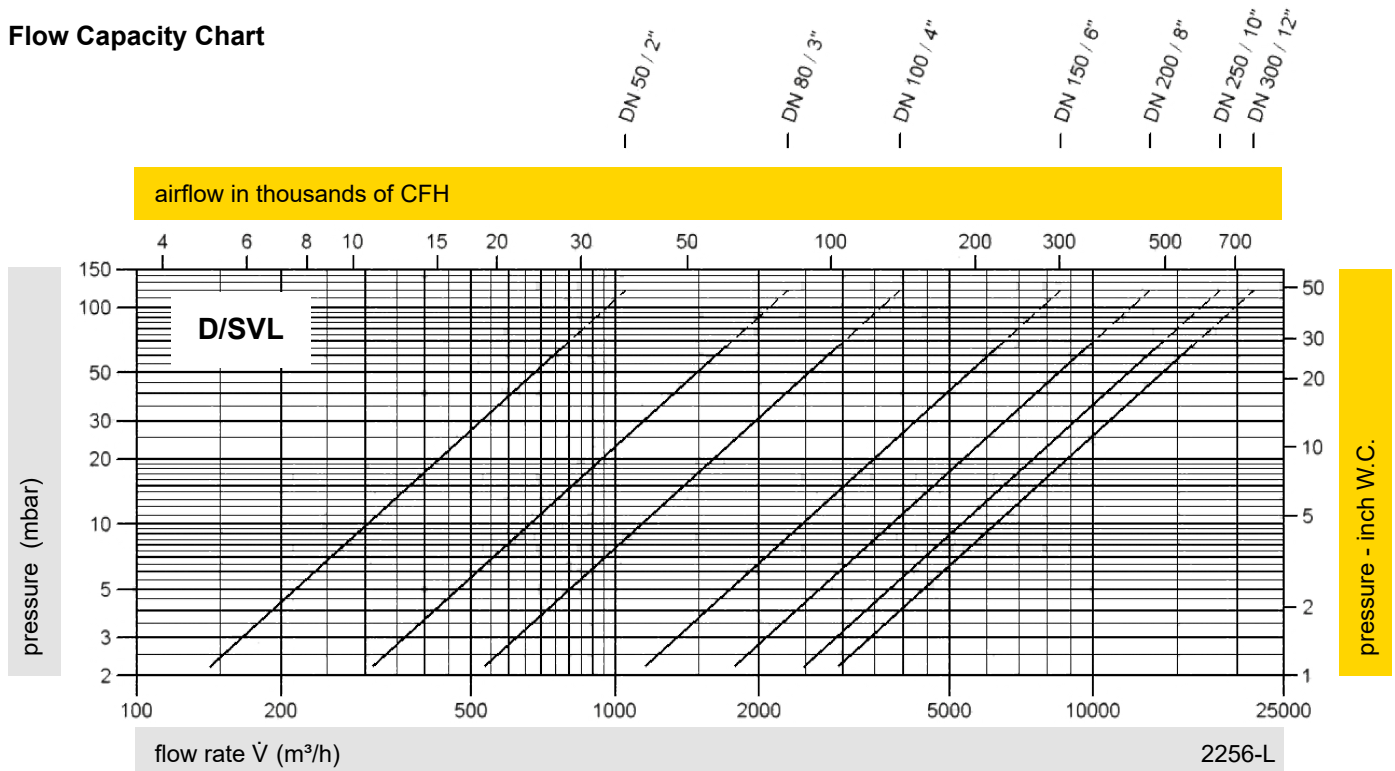
Design	A	B	C	D	E	F
Pressure (mbar)	+2.0 up to +3.5	>+3.5 up to +14	>+14 up to +35	>+35 up to +60	>+14 up to +35	>+35 up to +60
range (inch W.C.)	+0.8 up to +1.4	>+1.4 up to +5.6	>+5.6 up to +14	>+14 up to +24	>+5.6 up to +14	>+14 up to +24
Valve	Aluminum	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Sealing	FEP	FEP	Metal to Metal	Metal to Metal	PTFE	PTFE

Special materials and higher pressure settings upon request.

Table 4: Flange connection type

EN 1092-1; Form B1	Other types upon request.
ASME B16.5 CL 150 R.F.	

Flow Capacity Chart



The flow capacity charts have been determined with a calibrated and TÜV certified flow capacity test rig. Volume flow \dot{V} in (m³/h) and CFH refer to the standard reference conditions of air in ISO 6358 (20°C, 1bar). For conversion to other densities and temperatures, refer to Sec. 1: "Technical Fundamentals."

