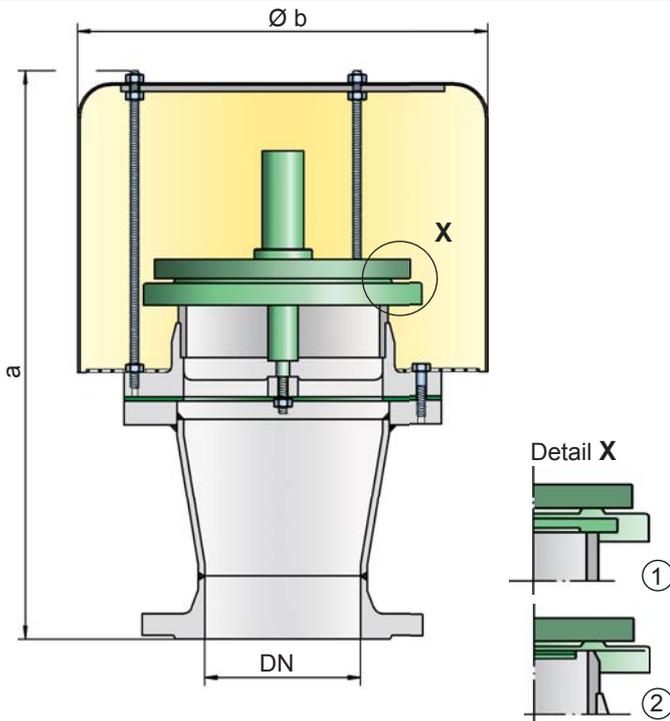


Pressure Relief Valve

PROTEGO® D/SVL



the same opening characteristic as a high pressure safety relief valve. This “full lift type” technology allows the valve to be set 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 media. After the excess pressure is discharged, the valve reseats 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 work, which allow a stable operation of the valve pallet and optimized performance resulting in reduction of product losses.

Special Features and Advantages

- “full lift type” technology valve utilizes only 10% overpressure to reach full lift
- extreme tightness and hence least possible product losses and reduced environmental pollution
- the set pressure is close to the opening pressure which results in best possible pressure management of the system
- extremely high flow capacity
- the valve pallet is guided within the housing to protect against harsh weather conditions
- can be used in areas subject to an explosion hazard

Design Types and Specifications

The valve pallet is weight-loaded. Higher pressures can be achieved upon request with a special spring-loaded design.

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 the unacceptable 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 into research and development have allowed PROTEGO® to develop a low pressure valve which has

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

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

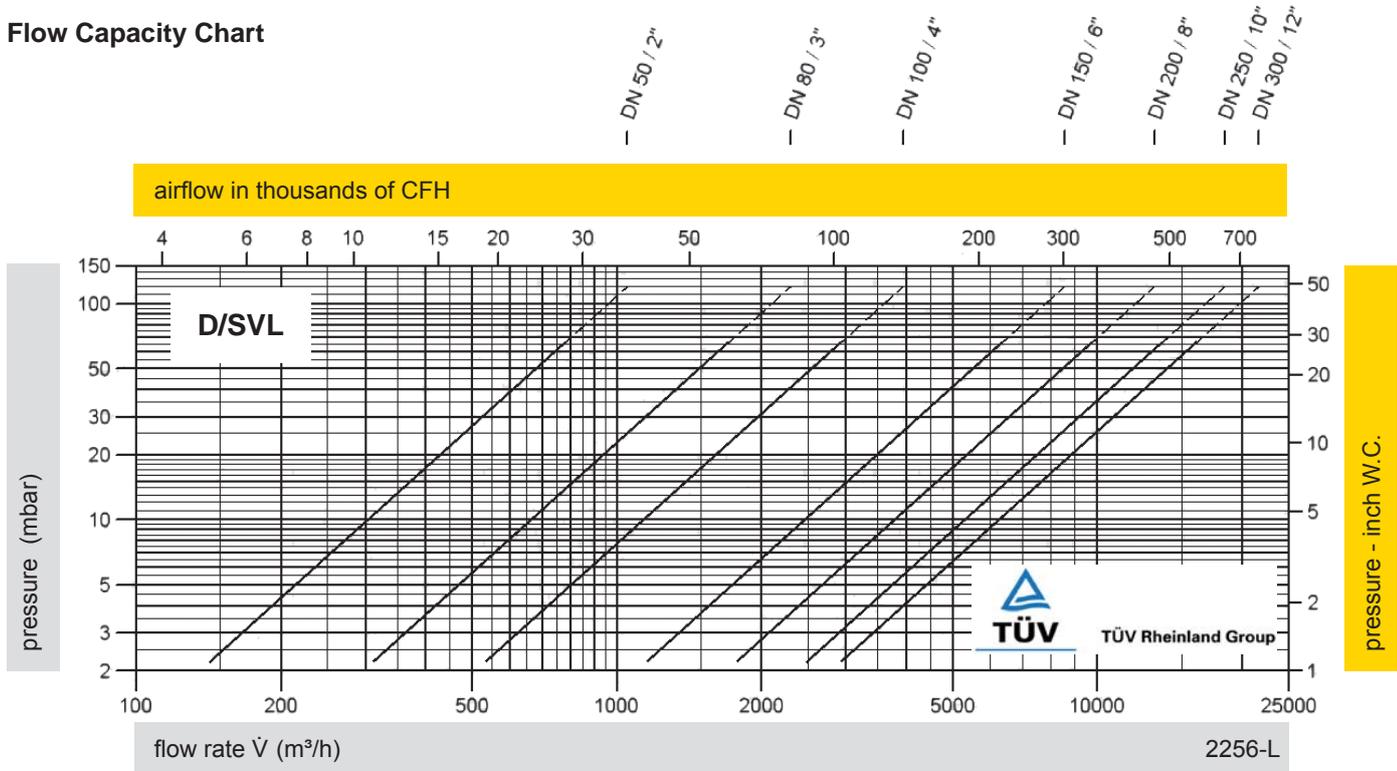
Design	A	B	C	D	E	F
Pressure (mbar)	+2.0 up to +3.5	>+3.5 up to +14	>+14 up to +35	>+35 up to +60	>+14 up to +35	>+35 up to +60
range (inch W.C.)	+0.8 up to +1.4	>+1.4 up to +5.6	>+5.6 up to +14	>+14 up to +24	>+5.6 up to +14	>+14 up to +24
Valve	Aluminium	Stainless steel	Stainless steel	Stainless steel	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; 150 lbs RF5F	

Flow Capacity Chart



The flow capacity chart has 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 ISO 6358 (20°C, 1bar). Conversion to other densities and temperatures refer to Vol. 1: "Technical Fundamentals".

