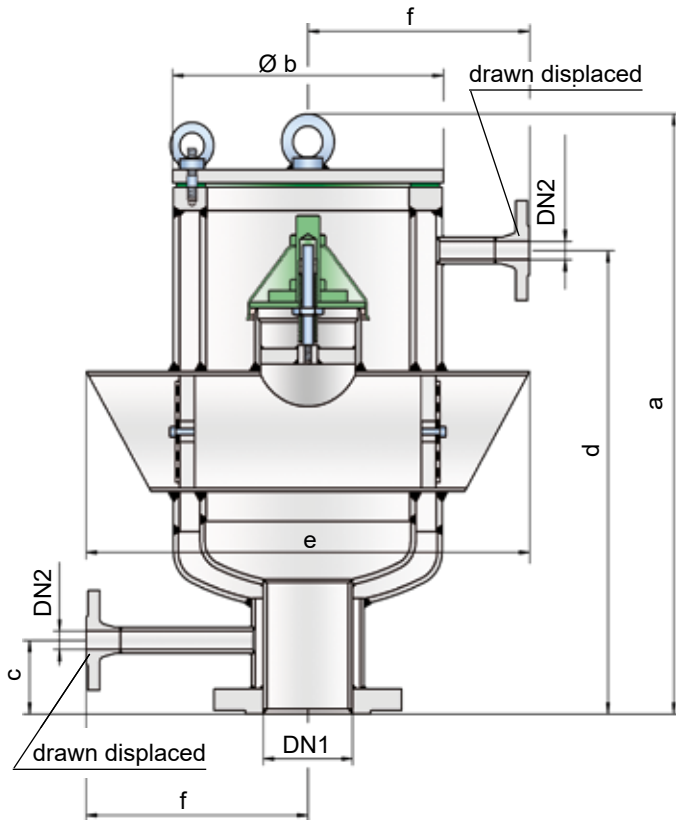


## Vacuum Relief Valve with a special heat jacketed design

**PROTEGO® SV/T-0-H**



### Vacuum settings:

-7 mbar up to -50 mbar  
-2.8 inch W.C. up to -20 inch W.C.  
Higher and lower vacuum settings upon request.

### Function and Description

The SV/T-0-H type PROTEGO® valve is a highly developed vacuum relief valve with a valve housing that is equipped with a heating jacket that can be heated up to the flange. It is primarily used as a safety device for in-breathing in tanks, containers, and process engineering equipment under difficult operating conditions. This includes extreme weather conditions or products that tend to form polymers at certain temperatures, stick together, or form deposits that negatively influence function (such as bitumen, tar, dust). The valve offers reliable protection against vacuum and prevents air intake almost up to the set vacuum.

When the set vacuum is reached, the valve starts to open and reaches full lift within a 40% vacuum increase. Up to the set vacuum, the tank vacuum is maintained with a seal that is far superior to the conventional standard due to the highly developed manufacturing technology. This feature is achieved by valve seats made of high quality stainless steel with precisely lapped valve pallets and a sturdy housing design. After the vacuum is released, the valve re-seats and again provides a tight seal.

### Special Features and Advantages

- excellent tightness resulting in lowest possible product losses and reduced environmental pollution
- high flow capacity
- valve pallet is guided inside the housing to protect against harsh weather conditions
- can be used in explosion hazardous areas
- complete heating jacket up to the flange to avoid ice build-up
- maximum allowable heating medium temperature of 320°C / 608°F (at 6 bar/87 psi)
- a special design that preheats incoming air is also available
- available in a special design with a heatable valve cover
- a valve pallet cover prevents the adjustment of the set pressure due to dust deposits or condensate
- sturdy housing design
- available in a special design with lifting device

### Design Types and Specifications

The valve pallet is weight-loaded.

Vacuum valve in basic design with heating jacket

**SV/T - 0 - H**

Additional special devices available upon request.

**Table 1: Dimensions**

Dimensions in mm / inches

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

DN1	80 / 3" *	100 / 4"	150 / 6"	200 / 8"	250 / 10"
DN2	15 / ½"	15 / ½"	15 / ½"	15 / ½"	15 / ½"
a	570 / 22.44	570 / 22.44	720 / 28.35	920 / 36.22	1050 / 41.34
b	275 / 10.83	275 / 10.83	355 / 13.98	405 / 15.94	508 / 20.00
c	70 / 2.76	70 / 2.76	60 / 2.36	70 / 2.76	70 / 2.76
d	440 / 17.32	440 / 17.32	590 / 23.23	790 / 31.10	920 / 36.22
e	450 / 17.72	450 / 17.72	650 / 25.59	750 / 29.53	950 / 37.40
f	225 / 8.86	225 / 8.86	260 / 10.24	300 / 11.91	350 / 13.78

\* Also available with special flange DN 50 / 2"

**Table 2: Material selection for housing**

Design	A	B	
Housing	Steel	Stainless Steel	Special materials upon request.
Heating jacket	Steel	Stainless Steel	
Valve seat	Stainless Steel	Stainless Steel	
Sealing	PTFE	PTFE	

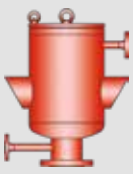
**Table 3: Material selection for vacuum valve pallet**

Design	A	B	C	
Vacuum range (mbar) (inch W.C.)	-7.0 up to -25 -2.8 up to -10	-10 up to -30 -4.0 up to -12	-30 up to -50 -12 up to -20	Special materials and other vacuum settings are available upon request.
Valve pallet	Aluminum	Stainless Steel	Stainless Steel	
Valve pallet hood	Stainless Steel	Stainless Steel	Stainless Steel	
Sealing	Metal to Metal	Metal to Metal	Metal to Metal	

**Table 4: Flange connection type**

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

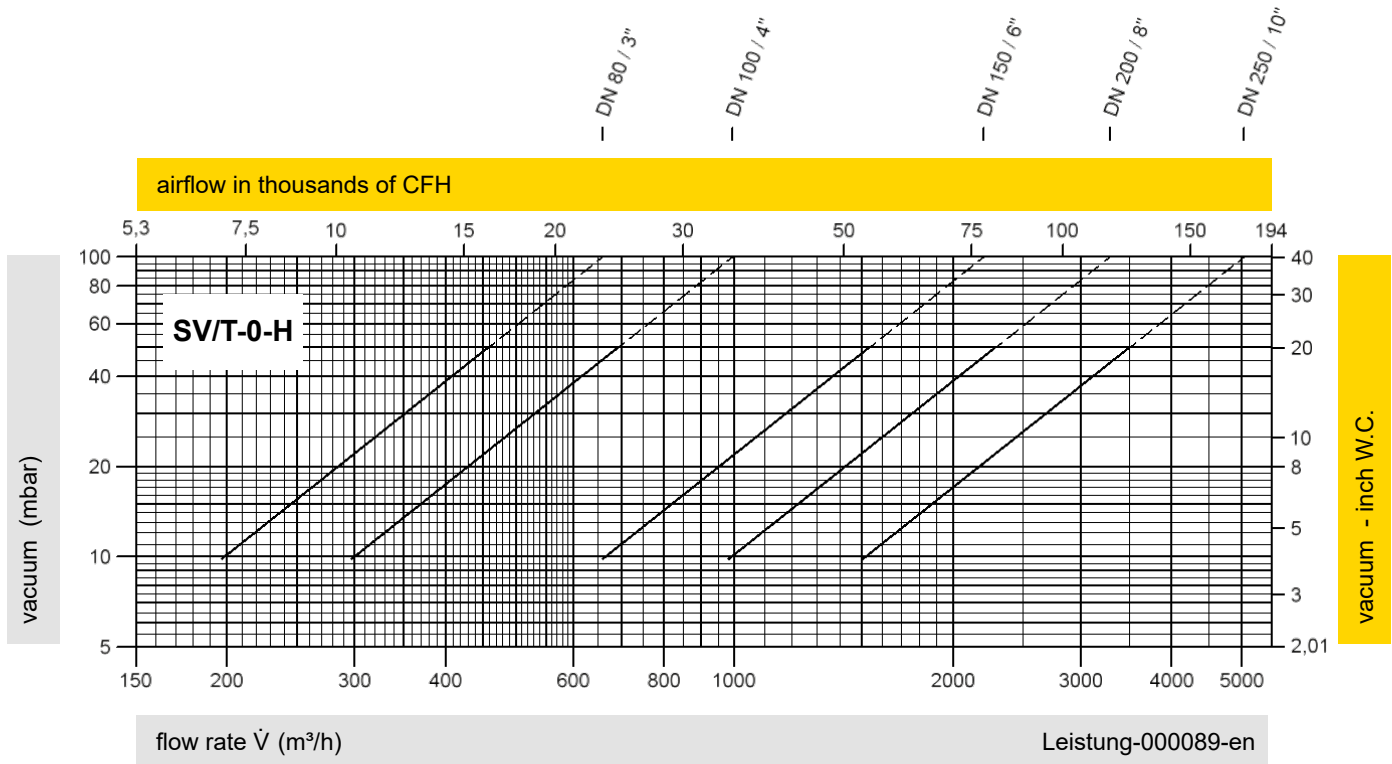




# Vacuum Relief Valve

## Flow Capacity Chart

### PROTEGO® SV/T-0-H



#### Remark

$$\text{set pressure} = \frac{\text{opening pressure resp. tank design pressure}}{1.4}$$

**Set pressure** = the valve starts to open

**Opening pressure** = set pressure plus overpressure

**Overpressure** = pressure increase over the set pressure

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."