

vent valves TYPE VB01 / VB02



description:

Vent valves are used for protection against and prevention of vacuum in containers or closed systems.

product features:

- suitable for neutral gaseous media like air, gases & technical fumes
- protection of vacuum in tanks, pipeline systems, heat exchanger and containers

connection:
1/2", 3/4", 1", 2"

temperature:
-60°C to +225°C

pressure:
-6 mbar to -800mbar
-depending on design-

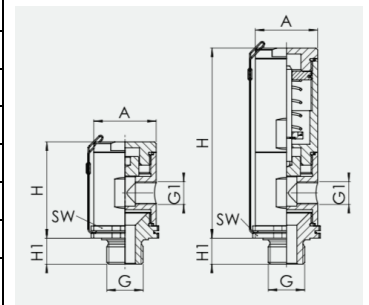
material:

| component | material | DIN EN | ASME |
|----------------|-----------------|--------|------|
| entrance body | stainless steel | 1.4404 | 316L |
| leakage body | stainless steel | 1.4404 | 316L |
| interior parts | stainless steel | 1.4404 | 316L |
| seal | PTFE | PTFE | PTFE |
| secondary seal | PTFE | PTFE | PTFE |

dimensions:

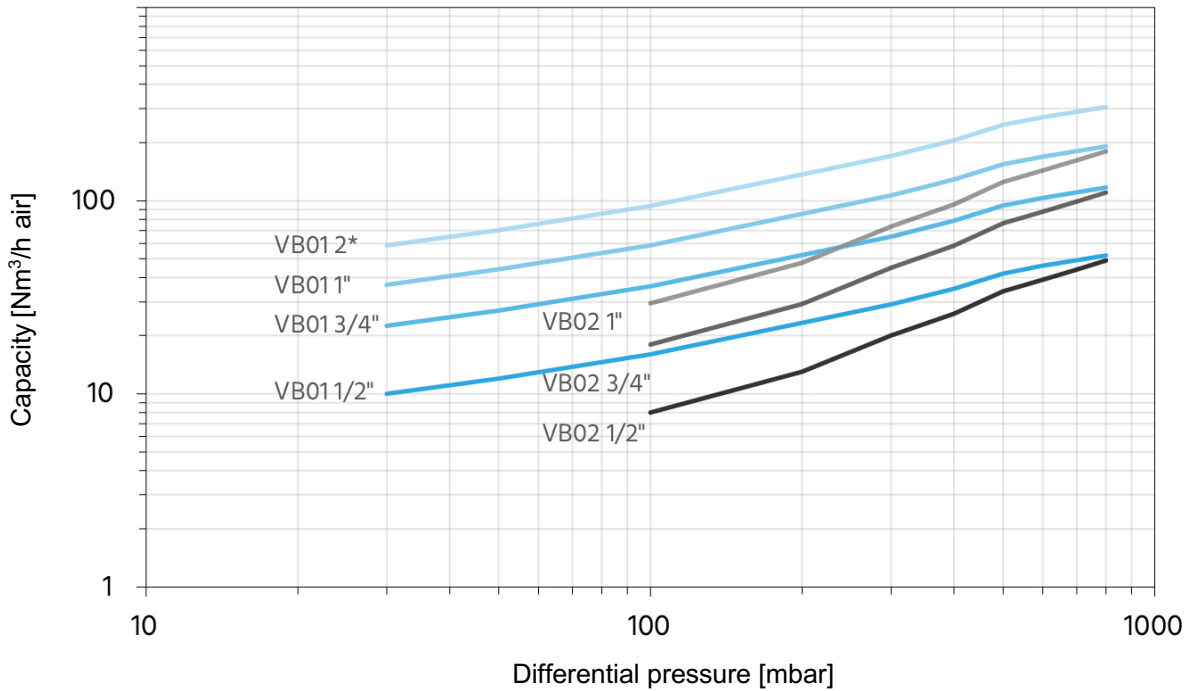
| diameter DN | VB01 | | | | VB02 | | |
|-----------------------|------|------|------|--------|--------------|--------------|--------------|
| | 15 | 20 | 25 | 50 | 15 | 20 | 25 |
| PN | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| Entrance G* | 1/2" | 3/4" | 1" | 2" | 1/2" | 3/4" | 1" |
| Entrance G1* | 1/4" | 1/2" | 3/4" | 1 1/2" | 1/4" | 1/2" | 3/4" |
| H | 55,4 | 63,4 | 69 | 122,5 | 109,4 | 117 | 123 |
| H1 | 15 | 17 | 19 | 22 | 15 | 17 | 19 |
| A | 36 | 52 | 64 | 94 | 36 | 52 | 64 |
| SW | 36 | 52 | 64 | 88 | 36 | 52 | 64 |
| weight | 0,37 | 0,80 | 1,26 | 4,1 | 0,65 | 1,31 | 2 |
| adjustment range mbar | -6 | -6 | -6 | -6 | -100 to -800 | -100 to -800 | -100 to -800 |

* thread / connection acc. to DIN EN ISO 228



type VB01 type VB02

performance chart:



* Size 2" inch only available for type VB01

VB01:

| Differential pressure | Capacity | | | | | | | |
|-----------------------|----------|------|-------|------|-------|------|-------|------|
| | 1/2" | | 3/4" | | 1" | | 2" | |
| mbar | Nm³/h | NI/s | Nm³/h | NI/s | Nm³/h | NI/s | Nm³/h | NI/s |
| 30 | 10,0 | 2,8 | 22,5 | 6,3 | 36,7 | 10,2 | 58,7 | 16,3 |
| 50 | 12,0 | 3,3 | 27,0 | 7,5 | 44,1 | 12,3 | 70,4 | 19,6 |
| 100 | 16,0 | 4,4 | 36,0 | 10,0 | 58,8 | 16,3 | 93,9 | 26,1 |
| 300 | 29,0 | 8,1 | 65,2 | 18,1 | 106,5 | 29,6 | 170,2 | 47,3 |
| 400 | 35,0 | 9,7 | 78,7 | 21,9 | 128,6 | 35,7 | 205,4 | 57,1 |
| 500 | 42,0 | 11,7 | 94,5 | 26,3 | 154,3 | 42,9 | 246,5 | 68,5 |
| 600 | 46,0 | 12,8 | 103,5 | 28,8 | 169,0 | 46,9 | 269,9 | 75,0 |
| 800 | 52,0 | 14,4 | 117,0 | 32,5 | 191,0 | 53,1 | 305,1 | 84,8 |

VB02:

| Differential pressure | Capacity | | | | | |
|-----------------------|----------|------|-------|------|-------|------|
| | 1/2" | | 3/4" | | 1" | |
| mbar | Nm³/h | NI/s | Nm³/h | NI/s | Nm³/h | NI/s |
| 100 | 8,0 | 2,2 | 18,0 | 5,0 | 29,4 | 8,2 |
| 200 | 13,0 | 3,6 | 29,2 | 8,1 | 47,8 | 13,3 |
| 300 | 20,0 | 5,6 | 45,0 | 12,5 | 73,5 | 20,4 |
| 400 | 26,0 | 7,2 | 58,5 | 16,3 | 95,5 | 26,5 |
| 500 | 34,0 | 9,4 | 76,5 | 21,3 | 124,9 | 34,7 |
| 600 | 39,0 | 10,8 | 87,7 | 24,4 | 143,3 | 39,8 |
| 700 | 44,0 | 12,2 | 99,0 | 27,5 | 161,6 | 44,9 |
| 800 | 49,0 | 13,6 | 110,2 | 30,6 | 180,0 | 50,0 |

conversion:

$$\text{Nm}^3/\text{h} \times \frac{1000}{3600} = \text{NI/s}$$

type VB01 opening at -6 mbar (=0,994 bar abs.)

The capacity increases with increasing differential pressure.

Example connection 1":

The capacity on differential pressure of 60 mbar is 50 Nm³/h air which equates to 13,9 NI/s

The capacity on differential pressure of 200 mbar is 82 Nm³/h air which equates to 22,8 NI/s

type VB02 adjustable from -100 up to -800 mbar (=0,9 up to 0,2 bar abs.)

The capacity is independent of set pressure and increases with increasing differential pressure.

Example connection 1/2":

The capacity on differential pressure of 100 mbar is 8 Nm³/h air which equates to 2,2 NI/s

The capacity on differential pressure of 400 mbar is 26 Nm³/h air which equates to 7,2 NI/s

Installation and assembly:

Installation must only be performed by qualified staff, and when the pipeline system is unpressurised. Pipes are to be flushed to remove residues before valve installation. Such residues may cause damage to the valve interior and result in functional disorder including valve failure.

The valve is operated in a vertical installation position. The system connection must point downward.

article number:

| Type | Connection | Seal | Size |
|---------------------------------------|-------------------------|------------------|------------------|
| VB01 – pressure: -6mbar | 00 – male thread | 00 – PTFE | 03 – 1/2" |
| VB02 – pressure: -100 up to -800mbar* | | | 04 – 3/4" |
| | | | 05 – 1" |
| | | | 08 – 2" |

Example no. VB01000004:

| | | | |
|-------------|-----------|-----------|-----------|
| VB01 | 00 | 00 | 04 |
|-------------|-----------|-----------|-----------|

Vent valve made of stainless steel

Opening pressure: -6 mbar

Seal: PTFE

Size: 3/4"

* Please note: adjustable

** Size 2" inch only available for type VB01

Image similar, subject change without notice.