

VACUUM BREAKERS VB17

DESCRIPTION

The VB17 is a series of vacuum breakers designed to automatically relieve or “break” an unwanted vacuum condition. Applications include venting and vacuum limiting in pipelines, vessels, heat exchangers, autoclaves, steam boilers and other machines. These valves should not be used as vacuum control valves.

The device is kept close by means of a spring-loaded valve and the pressure which acts on the underside of the plug. When pressure drops below the adjusted set pressure, unbalancing of forces causes the valve to open, allowing atmospheric air to enter the system. With raise in differential pressure results an increase in valve stroke and air flow.

The units are available with an optional lift indicator to signal in case of opening, for monitoring or contamination detection purposes.

MAIN FEATURES

Metallic wetted parts machined from 316L stainless steel bar stock.

Regulating ranges from -0,05 to -0,95 bar.

Compact design with easy access for cleaning and inspection.

OPTIONS:

- Lift indicator.
- Different soft sealings for vapours and gases.
- Degreasing.
- Other construction materials.

USE: Steam and other vapours and gases compatible with the construction.

AVAILABLE MODELS: VB17

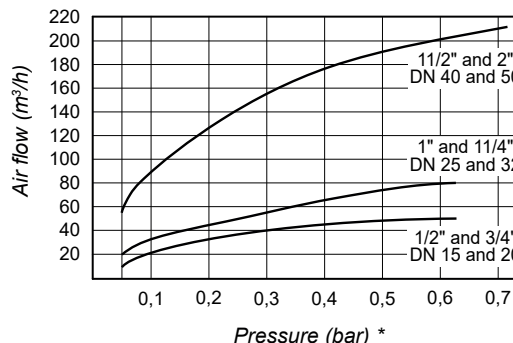
SIZES: 1/2" to 2" – DN 15 to DN 50.

CONNECTIONS: Male threaded ISO 228 G or NPT.
Flanged EN 1092-1 PN 16 (threaded flange).
Flanged ASME B16.5 Class 150 (threaded flange).

INSTALLATION: Vertical installation.
See IMI – Installation and maintenance instructions.



CAPACITY CHART



* Values shown refer to the differential pressure between atmospheric pressure and the actual pressure inside the system.

CE MARKING – GROUP 2 (PED – European Directive)

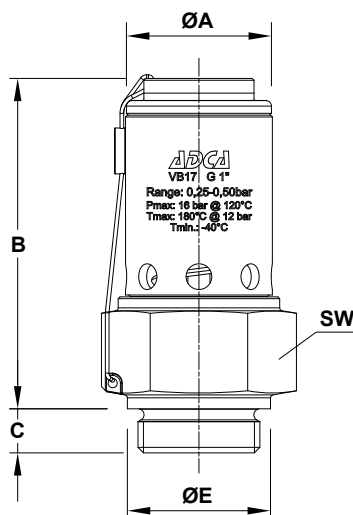
PN 16	Category
1/2" to 2" – DN 15 to 50	SEP

LIMITING CONDITIONS *

Maximum operating pressure	16 bar @ 120 °C
Max. operating pressure (steam)	9 bar
Maximum operating temperature **	200 °C @ 12 bar
Minimum operating temperature	-60 °C

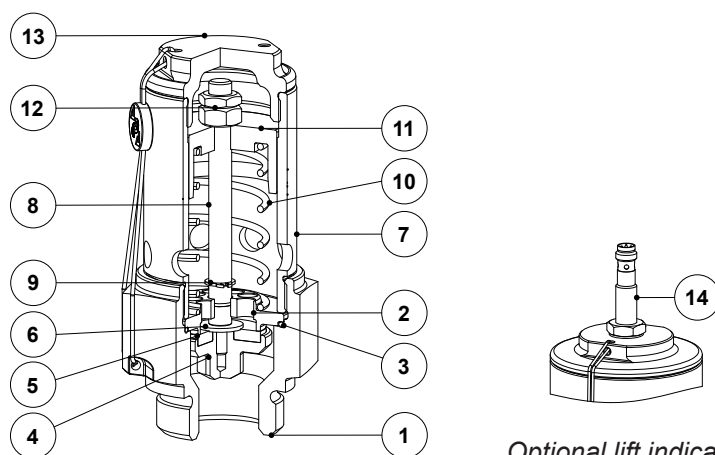
* Other limits on request.

** See “Ordering Codes” table for restrictions.



DIMENSIONS (mm)

SIZE	ØA	ØE	ISO 228				NPT			
			B	C	SW	WGT. (kg)	B	C	SW	WGT. (kg)
1/2" – DN 15	32,5	26	91,5	12	32	0,4	90,5	14	32	0,4
3/4" – DN 20	32,5	32	87,5	12	36	0,5	87,5	16	32	0,4
1" – DN 25	39,5	39	90	12	46	0,7	90,5	19	46	0,7
1 1/4" – DN 32	39,5	49	90	14	50	0,8	88,5	21	46	0,8
1 1/2" – DN 40	58	55	131,3	14	60	1,3	128,3	21	60	1,4
2" – DN 50	58	68	131,3	14	70	1,7	127,3	22	70	1,7



Optional lift indicator

MATERIALS

POS. N°	DESIGNATION	MATERIAL	POS. N°	DESIGNATION	MATERIAL
1	Body	AISI 316L / 1.4404	8	Stem	AISI 316L / 1.4404
2	* Seat	AISI 316L / 1.4404	9	* Circlip	Stainless steel A2
3	* O-ring	** EPDM; FPM; PTFE	10	* Spring	AISI 302 / 1.4300
4	Plug	AISI 316L / 1.4404	11	Spring guide	AISI 316L / 1.4404
5	* Plug seal	** EPDM; FPM; PTFE	12	Nut	Stainless steel A2-70
6	Plug disc	AISI 316L / 1.4404	13	Top cap	AISI 316L / 1.4404
7	Spring cover	AISI 316L / 1.4404	14	* Proximity sensor	AISI 303 / 1.4305

* Available spare parts; ** Others on request.

ORDERING CODES VB17

Valve model	VB17	X	1	E	X	XX	B	15	E
VB17 – Vacuum breakers	VB17								
Material									
AISI 316L / 1.4404		X							
Regulating range									
-0,05 to -0,25 bar (available in sizes 1/2" and 3/4")			1						
-0,05 to -0,15 bar (available in sizes 1" to 2")			2						
-0,15 to -0,35 bar (available in sizes 1" and 11/4")			3						
-0,15 to -0,25 bar (available in sizes 11/2" to 2")			4						
-0,25 to -0,6 bar (available in sizes 1/2", 3/4", 11/2" and 2")			6						
-0,35 to -0,6 bar (available in sizes 1" and 11/4")			5						
-0,6 to -0,95 bar (available in all sizes)			8						
Valve seals									
EPDM – Tmin -40 °C / Tmax 150 °C				E					
PTFE – Tmin -60 °C / Tmax 180 °C				T					
FPM / Viton – Tmin -10 °C / Tmax 200 °C				V					
Special features									
None					X				
Degreased					O				
Options									
None						XX			
Lift indicator a)						LX			
Pipe connections									
Male threaded ISO 228							B		
Male threaded NPT ASME B1.20.1							C		
Flanged EN 1092-1 PN40 (threaded flange)							N		
Flanged ASME B16.5 Class 150 (threaded flange)							U		
Size									
1/2" or DN 15								15	
3/4" or DN 20								20	
1" or DN 25								25	
11/4" or DN 32								32	
11/2" or DN 40								40	
2" or DN 50								50	
Special construction / Additional options									
Full description or additional codes have to be added in case of non-standard combination									E

a) 3 wire PNP sensor with NO contact (NC on request), M8 x 1 male connector and 10 to 30 V DC supply voltage. Others on request.