



S - T - R

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INDUSTRIAL VALVES

BREATHER VALVE

MODEL: TBV



THE DECRPTION OF PRODUCT

The model TBV - Breather valve with one pressure disc and another vacuum disc, also called the pressure vacuum relief valve that is installed on top of tanks, which provides protection against positive or vacuum overpressure and prevents air intake, evaporative losses of product and helps contain odorous and potentially explosive vapors.

Type: End of line, Weight Loaded Pressure Vacuum Relief Valve is designed to protect the tank from excessive internal pressure during operation.

THE WORKING PRINCIPLE

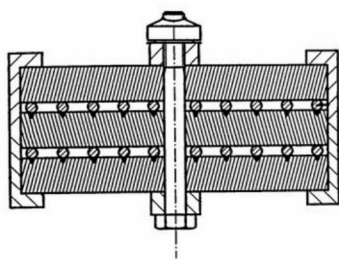
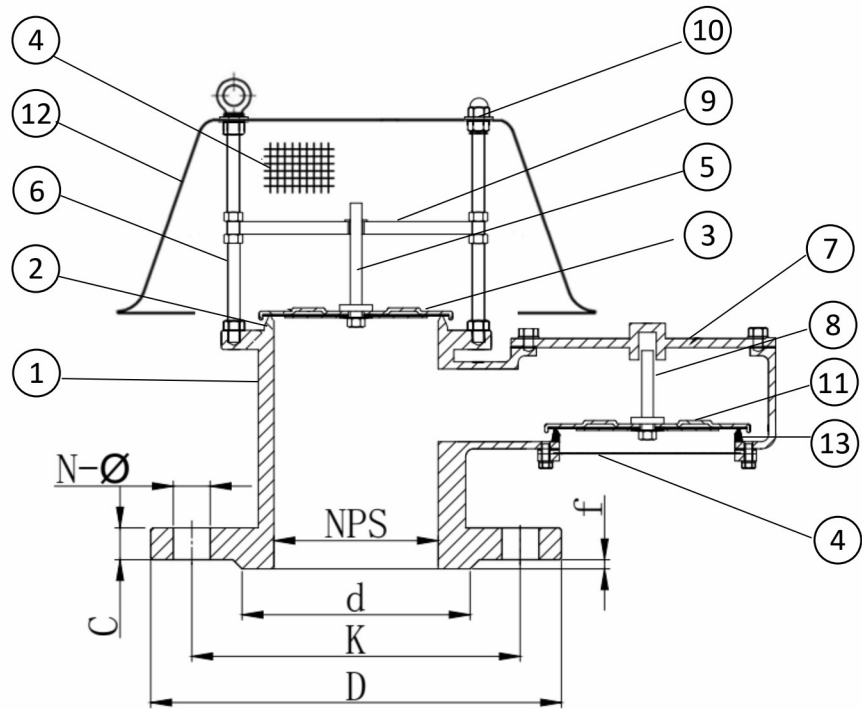
When internal pressure in the tank goes up, due to product filling or vapor development, the set pressure will be increased, accordingly, the pressure disc will be opened and discharge the gas to atmosphere. The set pressure can be arranged according to storage tank requirements and the breather valve will be reset when internal pressure returns to below set pressure. The vacuum disc is similarly maintained in the closed position.

When internal pressure in the tank reduces, due to emptying vacuum conditions occurs, the balance between the tank pressure and the external atmospheric pressure change. Accordingly, the set pressure of the unit is reached, the vacuum disc opens to vacuum air content and rebalance the internal pressure, and so the breather valve activated as close as to set pressures.

KEY CONSTRUCTION AND MODELS

Standard size	: Inch: 2" - 12"	DN: DN50 - DN300
Models	: TBVA (Cast aluminum)	TBVC (WCB - Cast steel) TBVS (Stainless steel)
Elements	: SS316/ SS316L	
Internal	: SS304/ SS316	
Design std	: API2000, EN12874, BS7244	
Flame cell	: Group IIA (standard) or IIB/IIC	
Set pressure	: Max pressure 700mmW.C/ max vacuum -400mmW.C for weight loaded valves	
End connecion	: Flange according to ANSI150FF/150RF, JIS - 10K, DIN,...	
Paint	: Grey epoxy on request	

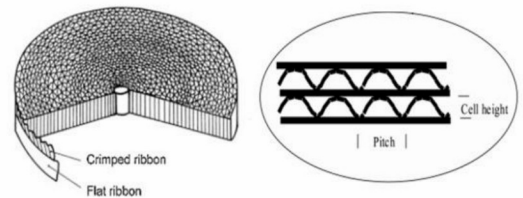
DRAWING AND PARTNAMES



Layers of elements



Elements



Structural elements

NUMNERS AND PARTNAMES

Part names	No.	Aluminum	WCB	SS304	SS316
Breather valve body	1	B26 - 319.F	A216-WCB	CF8	CF8M
Pressure seat	2	B26 - 319.F	A216-WCB	CF8	CF8M
Pressure disc/diaphragm	3	SS304/PTFE	SS304/PTFE	SS304/PTFE	SS316/PTFE
Pressure screen	4	SS304	SS304	SS304	SS316
Pressure guide stud	5	SS304	SS304	SS304	SS316
Stub bolt	6	SS304	SS304	SS304	SS316
Vacuum cover	7	B26 - 319.F	A216-WCB	SS304	SS316
Vacuum stem	8	SS304	SS304	SS304	SS316
Guide rod disc	9	SS304/PTFE	SS304/PTFE	SS304/PTFE	SS316/PTFE
Nut & washer	10	SS304	SS304	SS304	SS316
Vacuum disc/diaphragm	11	SS304/PTFE	SS304	SS304/PTFE	SS316/PTFE
Cover	12	SS304	SS304	SS304	SS316
Vacuum seat	13	B26 - 319.F	A216-WCB	CF8	CF8M

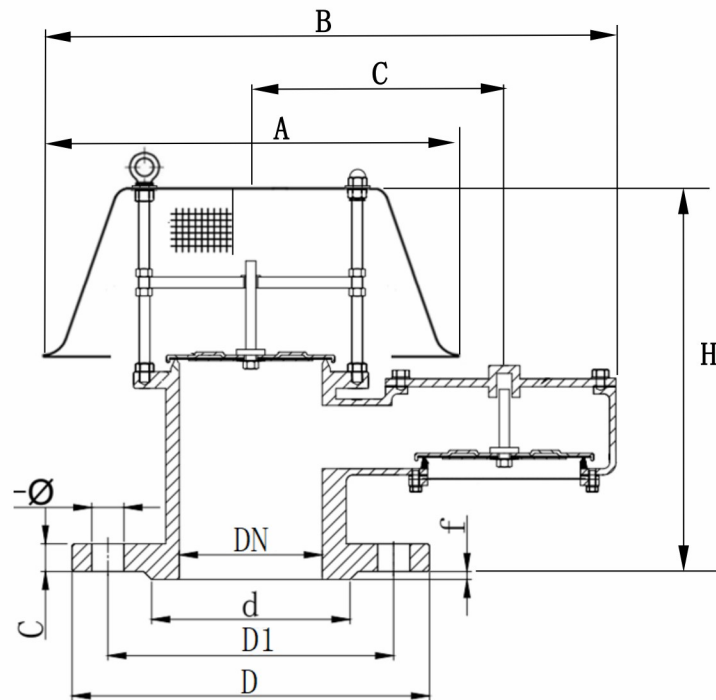


Pressure disc



Vacuum disc

DIMENSIONS



Size	2"	3"	4"	6"	8"	10"	12"
DN	50	80	100	150	200	250	300
A	250	294	324	442	476	544	622
B	358	446	485	627	742	861	978
C	164	206	232	282	347	405	464
H	270	304	328	400	448	508	556
d	92.1	127	157.2	215.9	269.9	323.8	381
D1	120.5	152.5	190.5	241.5	298.5	362	431.8
D	150	190	230	280	345	405	485
c	17.5	22.3	22.3	23.9	27	28.6	30.2
f	2	2	2	2	2	2	2

Notes: UOM: mm, Dimensions (A, B, C, H) can be the allowable tolerance