



S - T - R

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INDUSTRIAL VALVES

BREATHER VALVE WITH FLAME ARRESTOR

MODEL: TVFA



THE DESCRIPTION OF PRODUCT

The model TVFA - Breather valve with flame arrestor which is the combination of breather valve cum flame arrestor, also called the pressure vacuum relief valve with flame arrestor 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

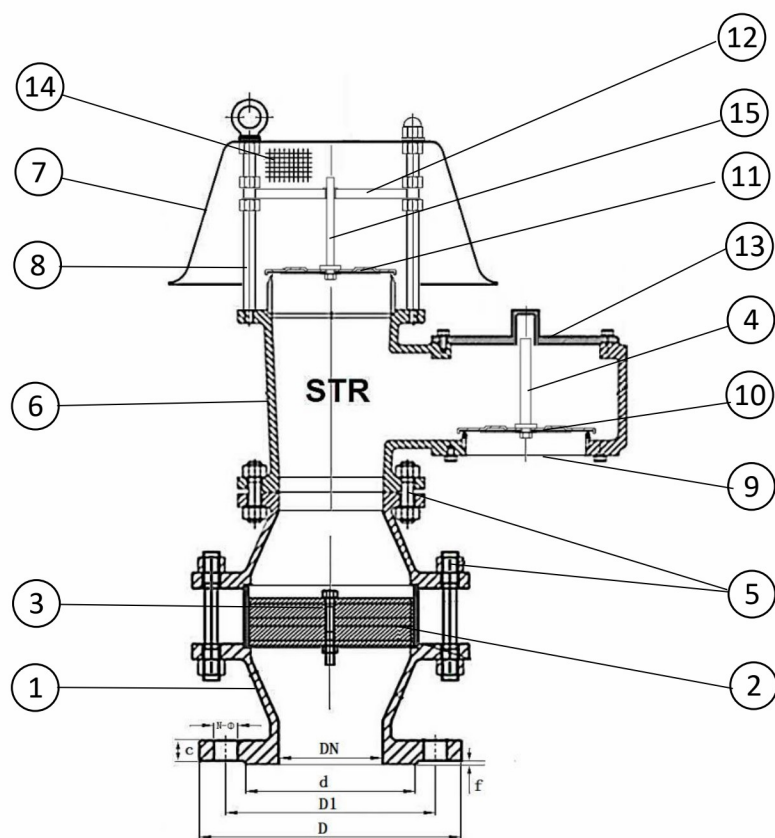
When internal pressure in the tank goes up, due to product filling or vapor development, the set pressure will be increased, accordingly, the pressure disc will be opened and discharge the gas to atmosphere. The set pressure can be arranged according to storage tank requirements and the breather valve 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	: For inch: 2" - 12" For DN: DN50 - DN300
Models	: TVFAA (Cast aluminum) TVFAC (WCB - Cast steel) TVFAS (Stainless steel)
Elements	: SS304/ 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, (on request for JIS - 10K, DIN, ...)
Paint	: Grey epoxy on request

DRAWING AND PARTNAMES



Part names	No.	Aluminum	WCB	SS304	SS316
Flame arrestor body	1	B26 - 319.F	A216-WCB	SS304	SS316
Flame element	2	SS304	SS304	SS304	SS316
Element stud	3	PTFE	PTFE	PTFE	PTFE
Vacuum guide stud	4	SS304	SS304	SS304	SS316
Bolt & nut	5	SS304	SS304	SS304	SS316
Breather valve body	6	B26 - 319.F	A216-WCB	SS304	SS316
Cover	7	SS304	SS304	SS304	SS316
Stud bolt	8	SS304	SS304	SS304	SS316
Vacuum screen	9	SS304	SS304	SS304	SS316
Vacuum disc/diaphragm	10	SS304/PTFE	SS304/PTFE	SS304/PTFE	SS316/PTFE
Pressure disc/diaphragm	11	SS304/PTFE	SS304/PTFE	SS304/PTFE	SS304/PTFE
Guide rod disc	12	SS304	SS304	SS304	SS316
Vacuum cover	13	B26 - 319.F	A216-WCB	SS304	SS316
Pressure screen	14	SS304	SS304	SS304	SS316L
Pressure guide stud	15	SS304	SS304	SS304	SS316L



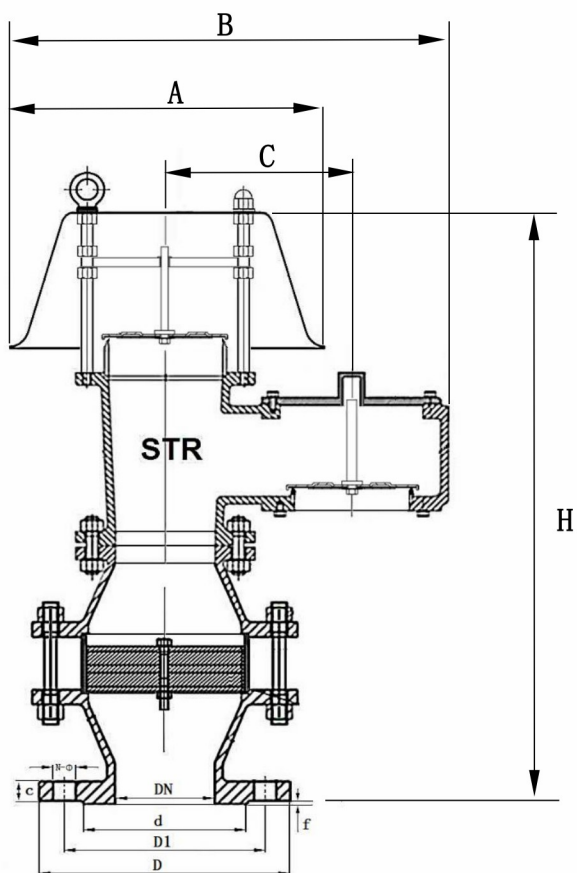
Pressure disc



Vacuum disc



DIMENSIONS



Size	2"	3"	4"	6'	8"	10"	12"
DN	50	80	100	150	200	250	300
A	225	260	280	320	340	444	522
B	320	380	400	520	620	761	878
C	140	145	160	250	300	405	464
H	467	560	580	630	690	882	990
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