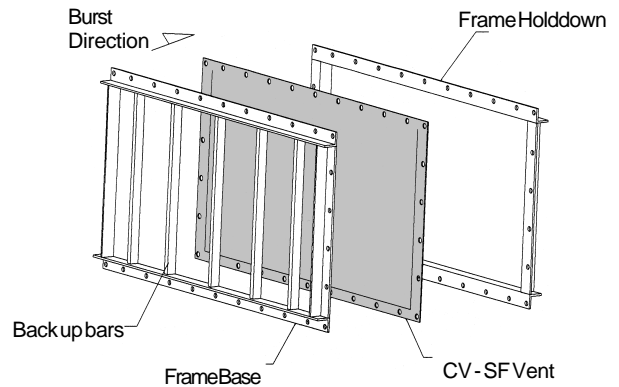
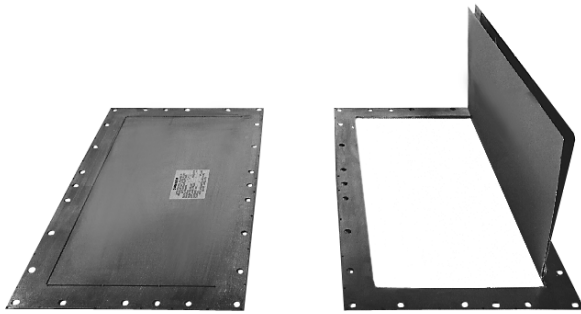




CV-SF Explosion Vent

Explosion Protection Component Sheet #C3742



DESCRIPTION

The CV-SF type vent is a composite membrane, high performance explosion vent. CV-SF vents are lightweight and specifically designed for dynamic operation during venting of explosions from industrial equipment. All applicable requirements of NFPA 68, Guide for Venting of Deflagrations, are met with this design. This explosion vent provides excellent service life for static to light pressure cycling conditions.

Venting Efficiency: CV-SF type vents have a venting efficiency of 100%.

Certified Burst Pressure: The burst pressure, P_{stat} , is determined by destructive testing as required by NFPA 68.

No Maintenance: CV-SF vents have no moving parts and are maintenance-free.

Operating Ratio: Burst pressures are set higher than maximum process operating pressures. The ratio of maximum operating pressure to minimum stamped burst pressure is defined as the operating ratio. CV-SF vents have a 60% to 75% operating ratio, depending on burst pressure.

Vacuum Rating: Explosion vents are often used on equipment that operates under vacuum conditions. CV-SF vents can continuously operate under full vacuum levels, with the addition of back-up bars in the vent frame assembly.

Opening: CV-SF vents are designed for controlled full opening in accordance with NFPA 68 requirements.

Fail Safe Design: If the CV-SF vent is damaged, it will provide a relief opening at or below its rated burst pressure.

Location: Care should be taken to locate the explosion vent away from normally occupied areas. At the time of vent opening hazards can originate from the pressure, noise, flame, and/or combustion discharge.

SPECIFICATIONS

Materials of Construction	316 Stainless Steel / Teflon / 316 Stainless Steel
Maximum Operating Pressure	75% of the minimum stamped burst pressure for min. $BP \leq 1.5$ psig 60% of the minimum stamped burst pressure for min. $BP > 1.5$ psig
Maximum Vacuum Rating	FULL VACUUM with the use of back-up bars in the frame assembly
Operating Temperature Range	-40°F to 500°F
Burst Pressure Tolerance	± 0.25 psig for burst pressures less than 1.0 psig ± 0.5 psig for burst pressures between 1.0 psig and 4.0 psig ± 1.0 psig for burst pressures greater than 4.0 psig



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SPECIFICATIONS

Vent Size		Relief Area		Minimum Burst Pressure		Maximum Burst Pressure	
in	cm	ft ²	m ²	psig	mbarg	psig	mbarg
9 X 12	23 X 30	0.46	0.043	2.0	138	10.0	690
12 X 12	30 X 30	0.66	0.061	2.0	138	8.0	550
9 X 18	23 X 46	0.74	0.069	2.0	138	10.0	690
12 X 18	30 X 46	1.07	0.10	1.5	103	8.0	550
15 X 15	38 X 38	1.13	0.10	1.5	103	8.0	550
* 12 X 24	30 X 61	1.47	0.14	1.5	103	8.0	550
18 X 18	46 X 46	1.72	0.16	1.0	69	8.0	550
20 X 20	51 X 51	2.19	0.20	1.0	69	8.0	550
18 X 24	46 X 61	2.38	0.22	1.0	69	8.0	550
18 X 30	46 X 76	3.04	0.28	1.0	69	8.0	550
24 X 24	61 X 61	3.29	0.31	1.0	69	8.0	550
* 18 X 35	46 X 89	3.58	0.33	1.0	69	8.0	550
18 X 36	46 X 91	3.69	0.34	1.0	69	8.0	550
24 X 30	61 X 76	4.19	0.39	1.0	69	8.0	550
* 24 X 36	61 X 91	5.10	0.47	0.5	35	8.0	550
30 X 30	76 X 76	5.35	0.50	0.5	35	8.0	550
24 X 44	61 X 112	6.31	0.59	0.5	35	8.0	550
30 X 36	76 X 91	6.50	0.60	0.5	35	8.0	550
36 X 36	91 X 91	7.91	0.73	0.5	35	8.0	550
30 X 44	76 X 112	8.05	0.75	0.5	35	8.0	550
* 36 X 44	91 X 112	9.79	0.91	0.5	35	8.0	550
42 X 42	107 X 107	10.97	1.02	0.5	35	8.0	550
44 X 44	112 X 112	12.10	1.12	0.5	35	8.0	550
44 X 69	142 X 175	19.35	1.80	0.5	35	8.0	550

* These sizes are stocked at the factory for the following nominal burst pressures only:

12" X 24"	1.5 psig
18" X 35"	1.0 psig
24" X 36"	0.5 psig
36" X 44"	0.5 psig