

## CV-I Explosion Vent

### DESCRIPTION:

Fike Corporation designs simple, reliable explosion protection solutions to meet your safety requirements. The Fike CV-I vent is a composite membrane, high performance explosion vent and provides service life for static to light pressure cycling conditions. The CV-I vent is constructed with insulation to accommodate higher temperature processes, up to 800°F / 425°C. Typical applications include separation, drying, storage, conveyance, and processing operations.

### FIKE SERVICES

Fike expertise creates the right explosion protection solution for your specific application:

- Engineers and application specialists familiar with your application and applicable codes
- Product testing and hazard analysis
- Vent relief area sizing software online at [www.Fike.com](http://www.Fike.com) (NFPA/European standards)



### STANDARD FEATURES

- Instantaneous Full Opening
- Fail-Safe Design
- Dynamically Tested - Fike exclusive!
- 100% Venting Efficiency
- High Mechanical Integrity
- Easy Installation by Plant Personnel
- Non-Fragmenting Design
- Maintenance Free

### BENEFITS

- Reduced risk for accidental contamination, elimination of undetected openings
- Certified burst pressure provides full, predictable opening at or below its rated burst pressure even if the vent is damaged
- Tested under full-scale explosion conditions not just computer modeling
- Optimal relief area
- Longer service life
- Reduced downtime and maintenance costs
- Reduced risk to personnel and equipment
- Reduced cost of ownership

### SPECIFICATIONS

- Compliance:
- Materials of Construction:
- Maximum Operating Pressure/Vacuum Rating:
- Standard Burst Pressure Tolerance:
- Operating Temperature Range:
- Optional Equipment:

- NFPA 68
- 316 SST / Teflon® / Fiberfrax insulation / 316 SST
- 75% of the minimum stamped burst pressure for BP ≤ 1.5 psig
- 60% of the minimum stamped burst pressure for BP > 1.5 psig
- ± 0.25 psig for burst pressures < 1.0 psig
- ± 0.5 psig for burst pressures 1.0 - 4.0 psig
- ± 1.0 psig for burst pressures > 4.0 psig
- 40° C up to 425° C / -40°F up to 800°F
- Burst Indicators / Monitoring System
- Atmospheric Insulation
- Weather Covers
- Flameless Venting
- Alternative materials, temperature ranges, and tighter tolerances are available

Vent Size		Relief Area		Minimum Burst Pressure		Maximum Burst Pressure	
in.	cm	ft <sup>2</sup>	m <sup>2</sup>	psig	mbarg	psig	mbarg
9 x 12	23 x 30	0.61	.057	2.0	138	10.0	690
12 x 12	30 x 30	0.84	.078	2.0	138	8.0	550
12 x 18	30 x 46	1.30	.12	1.5	103	8.0	550
12 x 24	30 x 61	1.76	.16	1.5	103	8.0	550
18 x 18	46 x 46	2.01	.19	1.0	69	8.0	550
18 x 24	46 x 61	2.72	.25	1.0	69	8.0	550
18 x 30	46 x 76	3.42	.31	1.0	69	8.0	550
24 x 24	61 x 61	3.67	.34	1.0	69	8.0	550
20 x 30	51 x 76	3.83	.36	1.0	69	8.0	550
18 x 35	46 x 89	4.01	.37	1.0	69	8.0	550
18 x 36	46 x 91	4.13	.38	1.0	69	8.0	550
24 x 30	61 x 76	4.63	.43	1.0	69	8.0	550
24 x 36	61 x 91	5.59	.52	.5	35	8.0	550
30 x 30	76 x 76	5.84	.54	.5	35	8.0	550
24 x 44	61 x 112	6.87	.64	.5	35	8.0	550
30 x 36	76 x 91	7.05	.66	.5	35	8.0	550
24 x 48	61 x 91	7.51	.70	.5	35	8.0	550
36 x 36	91 x 91	8.51	.79	.5	35	8.0	550
30 x 44	76 x 112	8.66	.81	.5	35	8.0	550
36 x 44	91 x 112	10.45	.97	.5	35	8.0	550
44 x 44	112 x 112	12.84	1.19	.5	35	8.0	550
44 x 69	142 x 175	20.31	1.89	.5	35	8.0	550
6 Dia.	15 Dia.	.14	.013	3.0	207	15.0	1030
8 Dia.	20 Dia.	.28	.026	2.5	172	15.0	1030
10 Dia.	25 Dia.	.45	.042	2.0	138	11.0	760
12 Dia.	30 Dia.	.68	.063	2.0	138	10.0	690
14 Dia.	36 Dia.	.95	.088	1.5	103	10.0	690
16 Dia.	41 Dia.	1.27	.12	1.25	86	10.0	690
18 Dia.	46 Dia.	1.62	.15	1.0	69	10.0	690
20 Dia.	51 Dia.	2.02	.19	1.0	69	10.0	690
22 Dia.	56 Dia.	2.46	.23	1.0	69	10.0	690
24 Dia.	61 Dia.	2.95	.27	1.0	69	10.0	690
26 Dia.	66 Dia.	3.48	.32	.5	69	10.0	690
30 Dia.	76 Dia.	4.67	.43	.5	35	10.0	690
36 Dia.	91 Dia.	6.78	.63	.5	35	10.0	690
40 Dia.	102 Dia.	8.40	.78	.5	35	10.0	690
44 Dia.	112 Dia.	10.20	.95	.5	35	10.0	690

- Custom sizes are available
- All dimensions are nominal

#### INSTALLATION

CV-I rectangular and circular vents can be mounted in several lightweight angle frame configurations. CV circular explosion vents can also be installed between standard weld neck flanges in accordance with DIN 3632 PN10 or ANSI B16.5 150. Fike offers frames of multiple configurations and materials. If you prefer to make your own frames, drawings can be purchased for a nominal fee.

