

## HIGH TEMPERATURE APPLICATION TYPE CV-I / CV-S-I

### DESCRIPTION

The CV-I and CV-S-I type vents are high performance explosion vents specifically designed for the explosion protection of industrial equipment running at elevated process temperatures. They provide excellent service life for static or light pressure cycling conditions.

This type of explosion vent comes in two maximum working temperature ranges: CV-(S)-I up to maximum 450°C, and CV-(S)-I-HT for use up to maximum 600°C.

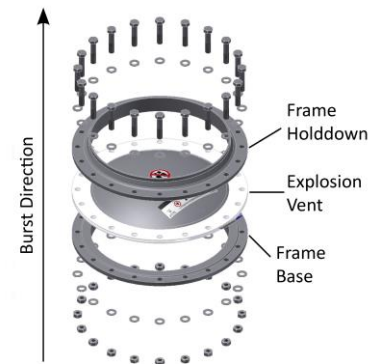
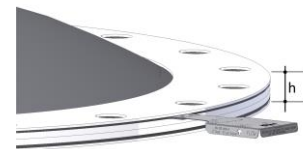
### FEATURES AND BENEFITS

- Full opening
- Certified burst pressure
- No maintenance
- High operating ratio
- Suitable for vacuum service



#### APPROVALS:

- EAC





## SPECIFICATIONS

Type	CV-I	CV-S-I
<b>Materials of Construction</b> <sup>1</sup>	1.4301 (304 SST) / PFA / Insulation / 1.4301 (304 SST) 1.4404 (316L SST) / PFA / Insulation / 1.4404 (316L SST) High temperature gaskets included	
<b>Maximum Operating Pressure</b>	70% of the minimum burst pressure for nom. BP ≤ 0.1 barg 60 % of the minimum burst pressure for nom. BP > 0.1 barg 60% of the minimum burst pressure for rectangular shapes	80% of the minimum burst pressure for nom. BP ≤ 0.1 barg 70 % of the minimum burst pressure for nom. BP > 0.1 barg 70% of the minimum burst pressure for rectangular shapes
<b>Burst Pressure Tolerance</b> <sup>2</sup>	± 15 mbarg for burst pressure ≤ 70 mbarg ± 25 mbarg for burst pressure > 70 mbarg and ≤ 250 mbarg ± 50 mbarg for burst pressure > 250 mbarg	
<b>Operating Temperature Range</b> <sup>3</sup>	-40°C to 450°C CV-(S)-I-HT: -40°C to 600°C	

(1) Other materials are available on request.

(2) For certain sizes and burst pressures, reduced tolerances may be available. Consult factory.

(3) For higher temperatures, consult factory.



**STANDARD DIMENSIONS – CIRCULAR SHAPE: DIN 2632, PN10 & 150 ANSI**

Vent Size (mm)	Relief Area (m <sup>2</sup> )		Vent Size (")	Min. Burst Pressure (mbarg)		Max. Burst Pressure (mbarg)	Vacuum Rating (mbarg)	
	CV-I	CV-S-I		CV-I	CV-S-I		CV-I	CV-S-I
150	0.008	0.008	6	220	415	1030	70% min. BP for nom. BP ≤ 0.1 barg	Full
200	0.018	0.017	8	200	300	1030		Full
250	0.032	0.031	10	140	250	760		Full
300	0.050	0.049	12	110	200	690		Full
350	0.063	0.062	14	100	180	690		Full
400	0.088	0.086	16	85	150	690		Full
450	0.116	0.115	18	85	150	690	60% min. BP for nom. BP > 0.1 barg	Full
500	0.149	0.147	20	50	125	690		Full
600	0.227	0.223	24	40	100	690		Full
700	0.321	0.316	28	35	100	690		Full
800	0.431	0.425	32	35	100	690		Full
900	0.557	0.551	36	35	70	690		Full
1000	0.700	0.692	40	35	70	690	500	



**CIRCULAR SHAPE: LIGHTWEIGHT ANGULAR FRAMES (LAF)**

Vent Size (mm)	Relief Area (m <sup>2</sup> )		Vent Size (")	Min. Burst Pressure (mbarg)		Max. Burst Pressure (mbarg)	Vacuum Rating (mbarg)	
	CV-I	CV-S-I		CV-I	CV-S-I		CV-I	CV-S-I
150	0.009	0.008	6	220	415	1030	70% min. BP for nom. BP ≤ 0.1 barg	Full
200	0.019	0.018	8	200	310	1030		Full
250	0.034	0.033	10	140	250	760		Full
300	0.052	0.051	12	110	200	690		Full
350	0.066	0.064	14	100	180	690		Full
400	0.091	0.089	16	85	150	690		Full
450	0.117	0.115	18	85	150	690		Full
500	0.153	0.149	20	50	120	690		Full
550	0.206	0.202	22	50	120	520		Full
600	0.232	0.227	24	40	110	470		Full
700	0.326	0.321	28	35	90	340	60% min. BP for nom. BP > 0.1 barg	Full
750	0.374	0.369	30	35	90	300		Full
800	0.437	0.431	32	35	80	260		Full
850	0.524	0.518	34	35	80	215		Full
900	0.563	0.557	36	35	80	200		Full
1000	0.707	0.700	40	35	70	160	500	



**RECTANGULAR SHAPE**

Vent Size (mm)	Relief Area (m <sup>2</sup> )		Min. Burst Pressure (mbarg)		Max. Burst Pressure (mbarg)	Vacuum Rating (mbarg)	
	CV-I	CV-S-I	CV-I	CV-S-I		CV-I	CV-S-I
500 x 400	0.171	0.155	100	120	500	60% of min. BP	625
500 x 500	0.218	0.200	70	120	500		500
470 x 570	0.235	0.216	90	100	500		700
500 x 600	0.265	0.245	70	120	440		420
500 x 700	0.311	0.289	50	110	380		360
625 x 625	0.350	0.327	70	100	380		300
500 x 800	0.358	0.334	50	100	320		320
500 x 900	0.405	0.379	50	100	260		280
500 x 1000	0.452	0.423	50	100	200		200
566 x 900	0.462	0.435	50	50	200		250
600 x 1000	0.548	0.518	35	50	200		200
625 x 1110	0.638	0.605	35	100	200		180
700 x 1000	0.645	0.613	35	50	200		180
800 x 1000	0.742	0.707	35	50	200		160
900 x 900	0.752	0.717	35	100	200		140
900 x 1000	0.838	0.802	35	50	200		140
1000 x 1000	0.935	0.897	35	100	200		125
1110 x 1110	1.160	1.117	35	50	200		100