



# VENT PANELS

6-4401-6

**Continental Disc Corporation**

*Performance Under Pressure®*

Continental Disc Corporation's vent panels are designed to provide instantaneous overpressure protection for pressurized equipment like dust collectors, driers, silos, spreaders, elevators, air scrubbers, sieves, screens and various other types of dry, bulk handling and storage equipment.

Continental's vent panels are designed to allow a full and immediate opening to minimize structural or mechanical damage that may be caused by expanding gases. These gas expansions can result from the deflagration\*\* of dust, gases, or mists in equipment, rooms, buildings, or other enclosures.

Continental's vent panels provide the following benefits:

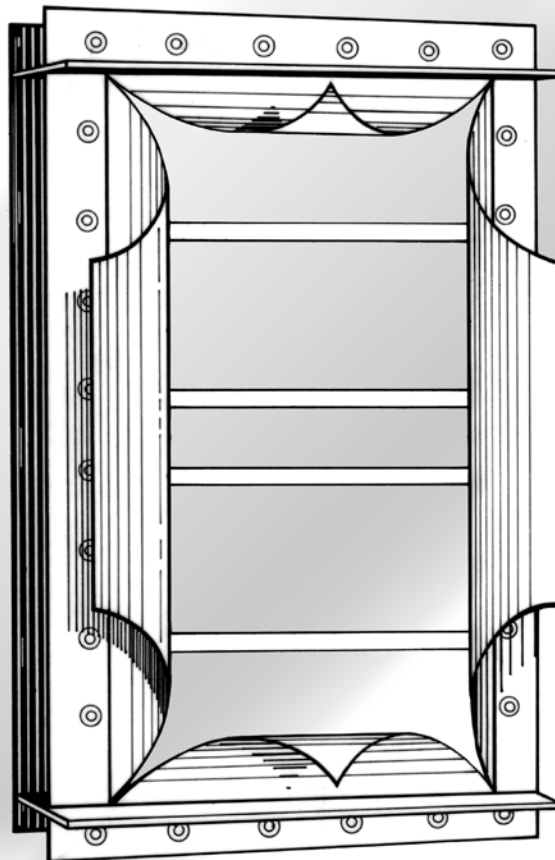
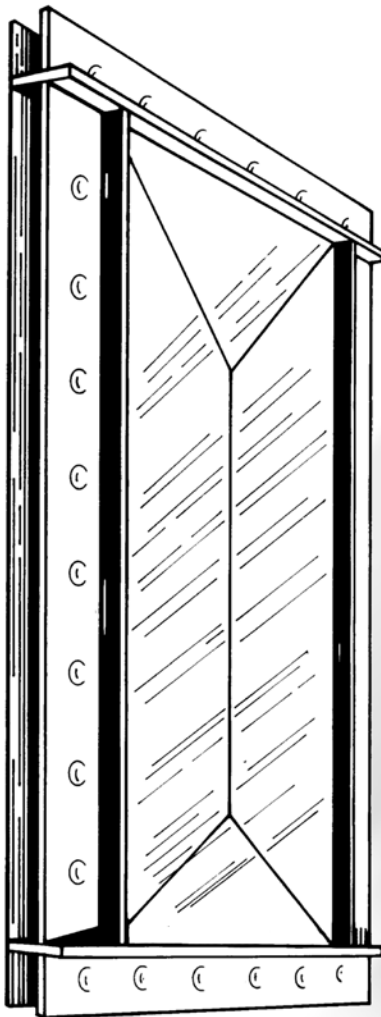
- Full, instantaneous opening
- Full opening under dynamic or static pressure conditions
- Designs interchangeable with existing panel applications
- Available with Continental's Burst Disc Indicator (B.D.I.®) Alarm Strip
- Designs available for non-fragmentation

Continental's vent panels are offered in rectangular, square, or circular configurations and in several types of construction to meet the operating parameters of various applications.

The VP series vent panel is a flat, scored, and epoxy coated aluminum panel. This panel is best suited for operating conditions of positive pressure or vacuum pulsations. It is recommended for a maximum 50% operating to burst pressure ratio, positive or negative.

The CP series vent panel is a flat composite style panel constructed of 316SS and Teflon. This panel is ideally suited for cyclic operating conditions, going from positive to negative or negative to positive pressures. A 50% maximum operating to burst pressure ratio is recommended.

The SFC solid metal, and CFC composite (metal/Teflon) vent panels are prebulged, circular designs. These panels are suitable for higher operating conditions of up to 70% of the burst rating positive pressure and negative pressure of up to 14.7 psig (1.02 barg) full vacuum.



VPR Vent Panel

\*\*Deflagration as defined under NFPA-68 is: "Burning which takes place at a flame speed below the velocity of sound in the unburned media." Vent panels are not generally suitable for protection against pressure or shock waves produced from detonation of dust, gases, mists, or explosives. Detonation as defined by NFPA-68 is: "Burning which takes place at a flame speed above the velocity of sound in the unburned media."

# VP SERIES (Aluminum Flat) Vent Panel

The VP series vent panel is a flat, scored aluminum panel with epoxy coating applied to the process and vent sides. It is available in square (VPS), rectangular (VPR) or circular (VPC) configuration. Burst pressures range from a minimum of 1.0 psig (0,07 barg) to a maximum of 5.0 psig (0,35 barg).

VP series vent panels are designed to operate under conditions of positive or vacuum pressure of up to 50% of the vent panel's minimum burst rating. These economical vent panels are designed to provide protection under low pressure static conditions and may be used for positive pressure or vacuum pulsating conditions.

VPR rectangular or VPS square vent panel designs are available in various sizes from 12" x 12" (30 cm x 30 cm) to 44" x 69" (112 cm x 175 cm). The VPC circular vent panel is available

in diameters ranging from 10" to 44" (25 cm to 112 cm). See Table I and II for corresponding size and pressure specifications.

## Burst Tolerance and Maximum Operating Pressure

All VP series vent panels have a burst tolerance of  $\pm 0.5$  psig (0,035 barg). To determine the maximum recommended operating pressure, subtract the burst tolerance from the vent panel's burst rating which establishes the minimum burst pressure, then multiply by 50%.

For example, a VP series vent panel rated 2.5 psig (0,17 barg) has a minimum burst pressure of 2.0 psig (0,14 barg) and a recommended operating limit of 1.0 psig (0,07 barg). (Burst pressure minus burst tolerance x .50)

## Vacuum Support

Vacuum support straps are available for VP series vent panels to provide:

- durability under windloads
- support to withstand vacuum

The support straps are supplied in 316 Stainless Steel with a "keylocked" gasket of black neoprene, silicone rubber or fiberglass.

Vacuum support straps are recommended for VP series vent panels rated 1.5 psig (0,10 barg) or below, when exposed to exterior windload.

Vacuum support straps are also recommended for VP series vent panels when the panel is rated 2.0 psig (0,14 barg) or below and vacuum conditions are expected.



VPR Vent Panel

Table I - VPR Rectangular or VPS Square Vent Panels

Nominal Size		Vent Area		Vent Area With Vacuum Support		Burst Pressure @ 72°F (22°C)			
inches	cm	ft <sup>2</sup>	m <sup>2</sup>	ft <sup>2</sup>	m <sup>2</sup>	Min (psig / barg)		Max (psig / barg)	
12 x 12	30 x 30	1.00	0,093	.92	0,085	1.0	0,07	5.0	0,35
12 x 18	30 x 46	1.50	0,139	1.33	0,124	1.0	0,07	5.0	0,35
12 x 24	30 x 61	2.00	0,186	1.83	0,170	1.0	0,07	5.0	0,35
18 x 18	46 x 46	2.25	0,209	2.00	0,186	1.0	0,07	5.0	0,35
18 x 24	46 x 61	3.00	0,279	2.75	0,255	1.0	0,07	5.0	0,35
18 x 30	46 x 76	3.75	0,348	3.38	0,314	1.0	0,07	5.0	0,35
18 x 35	46 x 89	4.38	0,407	3.88	0,360	1.0	0,07	5.0	0,35
24 x 24	61 x 61	4.00	0,372	3.67	0,341	1.0	0,07	5.0	0,35
24 x 30	61 x 76	5.00	0,465	4.50	0,418	1.0	0,07	5.0	0,35
24 x 36	61 x 91	6.00	0,557	5.33	0,495	1.0	0,07	5.0	0,35
24 x 44	61 x 112	7.33	0,681	6.50	0,604	1.0	0,07	5.0	0,35
30 x 30	76 x 76	6.25	0,581	5.63	0,523	1.0	0,07	5.0	0,35
30 x 36	76 x 91	7.50	0,697	6.67	0,620	1.0	0,07	5.0	0,35
30 x 44	76 x 112	9.17	0,852	8.13	0,755	1.0	0,07	5.0	0,35
36 x 36	91 x 91	9.00	0,836	8.00	0,743	1.0	0,07	5.0	0,35
36 x 44	91 x 112	11.00	1,022	9.75	0,906	1.0	0,07	5.0	0,35
44 x 44	112 x 112	13.44	1,249	11.91	1,106	1.0	0,07	5.0	0,35
44 x 69	112 x 175	21.08	1,958	18.94	1,760	1.0	0,07	5.0	0,35

Table II - VPC Circular Vent Panels

Nominal Diameter		Vent Area		Vent Area With Vacuum Support		Burst Pressure @ 72°F (22°C)			
inches	cm	ft <sup>2</sup>	m <sup>2</sup>	ft <sup>2</sup>	m <sup>2</sup>	Min (psig / barg)		Max (psig / barg)	
10	25	.55	0,051	0.42	0,039	2.5	0,17	5.0	0,35
12	30	.79	0,073	0.62	0,058	2.0	0,14	5.0	0,35
14	36	1.07	0,100	0.88	0,082	2.0	0,14	5.0	0,35
16	41	1.40	0,130	1.18	0,110	1.5	0,10	5.0	0,35
18	46	1.77	0,165	1.52	0,141	1.0	0,07	5.0	0,35
20	51	2.18	0,203	1.91	0,177	1.0	0,07	5.0	0,35
24	61	3.14	0,292	2.82	0,262	1.0	0,07	5.0	0,35
30	76	4.91	0,457	4.52	0,420	1.0	0,07	5.0	0,35
32	81	5.59	0,520	5.17	0,480	1.0	0,07	5.0	0,35
36	97	7.07	0,658	6.61	0,614	1.0	0,07	5.0	0,35
40	102	8.73	0,812	8.21	0,763	1.0	0,07	5.0	0,35
42	107	9.62	0,895	9.06	0,842	1.0	0,07	5.0	0,35
44	112	10.56	0,982	9.98	0,927	1.0	0,07	5.0	0,35

Maximum Temperature for Vent Panel Materials

Material	Temperature Limit	
	° Fahrenheit	° Celcius
Aluminum	260	127
316SS	500	260
TFE Teflon	500	260

Notes: (1) For pulsating service on vacuum applications, use the VP series vent panel with vacuum support or refer to the CP series vent panels on page 4.  
 (2) For cyclic operating conditions, going from negative to positive pressure or vice-versa, refer to CP series (page 4), SFC, or CFC series (page 6) vent panels.

# CP SERIES (Composite Flat) Vent Panels

The CP series vent panel is a flat, composite panel usually constructed of a 316SS top section, TFE Teflon® seal, and 316SS support section. The composite vent panel is available in rectangular (CPR), square (CPS), or circular (CPC) configuration. Burst pressures range from a minimum of 1.5 psig (0,10 barg) to a maximum of 10 psig (0,69 barg).

The CP series vent panel is designed to operate under conditions of positive or vacuum pressure to 50% of the vent panel's minimum burst rating. This design is excellent for applications operating under cyclic, positive to negative pressures; low burst pressures; and process conditions that require the durability of stainless steel construction.

CPR rectangular or CPS square vent panel designs are available in various sizes from 12" x 12" (30 cm x 30 cm) to

44" x 69" (112 cm x 175 cm). The CPC circular style vent panel is available in diameters ranging from 10" to 44" (25 cm to 112 cm). See Table III and IV for corresponding size and pressure specifications.

## Burst Tolerance and Maximum Operating Pressure

CP series vent panels have a burst tolerance of  $\pm 0.5$  psig (0,035 barg) for burst pressure ratings up to and including 4.0 psig (0,28 barg). A burst tolerance of  $\pm 1.0$  psig (0,07 barg) applies to burst ratings over 4 psig (0,28 barg).

To determine the recommended operating pressure, subtract the burst tolerance from the vent panel's burst rating which establishes the minimum burst pressure, then multiply by 50%.

For example, a CP series vent panel rated 2.5 psig (0,17 barg) will have a minimum burst pressure of 2.0 psig (0,14 barg) and a recommended operating limit of 1.0 psig (0,07 barg). (Burst rating minus burst tolerance x .50)

## Vacuum Support

Vacuum support straps are available for CP series vent panels to provide:

- durability under exterior windloads
- support to withstand vacuum

The support straps are supplied in 316 Stainless Steel with a "keylocked" gasket of black neoprene, silicone or fiberglass.

Vacuum support straps are recommended for CP series vent panels rated 2.0 psig (0,14 barg) or below if the panel is required to support exterior windloads or vacuum conditions of up to 1.0 psig (0,07 barg).



CPC Vent Panel

\* Teflon is a registered trademark of E.I. du Pont de Nemours and Company used under license.

Table III - CPR Rectangular or CPS Square Vent Panels

Nominal Size		Vent Area		Vent Area With Vacuum Support		Burst Pressure @ 72°F (22°C)			
inches	cm	ft <sup>2</sup>	m <sup>2</sup>	ft <sup>2</sup>	m <sup>2</sup>	Min (psig / barg)		Max (psig / barg)	
12 x 12	30 x 30	1.00	0,093	.92	0,085	3.0	0,21	10.0	0,69
12 x 18	30 x 46	1.50	0,139	1.33	0,124	3.0	0,21	10.0	0,69
12 x 24	30 x 61	2.00	0,186	1.83	0,170	2.5	0,17	10.0	0,69
18 x 18	46 x 46	2.25	0,209	2.00	0,186	1.5	0,10	10.0	0,69
18 x 24	46 x 61	3.00	0,279	2.75	0,255	1.5	0,10	10.0	0,69
18 x 30	46 x 76	3.75	0,348	3.38	0,314	1.5	0,10	10.0	0,69
18 x 35	46 x 89	4.38	0,407	3.88	0,360	1.5	0,10	10.0	0,69
24 x 24	61 x 61	4.00	0,372	3.67	0,341	1.5	0,10	10.0	0,69
24 x 30	61 x 76	5.00	0,465	4.50	0,418	1.5	0,10	10.0	0,69
24 x 36	61 x 91	6.00	0,557	5.33	0,495	1.5	0,10	10.0	0,69
24 x 44	61 x 112	7.33	0,681	6.50	0,604	1.5	0,10	10.0	0,69
30 x 30	76 x 76	6.25	0,581	5.63	0,523	1.5	0,10	10.0	0,69
30 x 36	76 x 91	7.50	0,697	6.67	0,620	1.5	0,10	10.0	0,69
30 x 44	76 x 112	9.17	0,852	8.13	0,755	1.5	0,10	10.0	0,69
36 x 36	91 x 91	9.00	0,836	8.00	0,743	1.5	0,10	10.0	0,69
36 x 44	91 x 112	11.00	1,022	9.75	0,906	1.5	0,10	10.0	0,69
44 x 44	112 x 112	13.44	1,249	11.91	1,106	1.5	0,10	10.0	0,69
44 x 69	112 x 175	21.08	1,958	18.94	1,760	1.5	0,10	10.0	0,69

Table IV - CPC Circular Vent Panels

Nominal Diameter		Vent Area		Vent Area With Vacuum Support		Burst Pressure @ 72°F (22°C)			
inches	cm	ft <sup>2</sup>	m <sup>2</sup>	ft <sup>2</sup>	m <sup>2</sup>	Min (psig / barg)		Max (psig / barg)	
10	25	.55	0,051	0.42	0,039	4.0	0,28	10.0	0,69
12	30	.79	0,073	0.62	0,058	3.5	0,24	10.0	0,69
14	36	1.07	0,100	0.88	0,082	3.0	0,21	10.0	0,69
16	41	1.40	0,130	1.18	0,110	2.5	0,17	10.0	0,69
18	46	1.77	0,165	1.52	0,141	2.0	0,14	10.0	0,69
20	51	2.18	0,203	1.91	0,177	2.0	0,14	10.0	0,69
24	61	3.14	0,292	2.82	0,262	1.5	0,10	10.0	0,69
30	76	4.91	0,457	4.52	0,420	1.5	0,10	10.0	0,69
32	81	5.59	0,520	5.17	0,480	1.5	0,10	10.0	0,69
36	97	7.07	0,658	6.61	0,614	1.5	0,10	10.0	0,69
40	102	8.73	0,812	8.21	0,763	1.5	0,10	10.0	0,69
42	107	9.62	0,895	9.06	0,842	1.5	0,10	10.0	0,69
44	112	10.56	0,982	9.98	0,927	1.5	0,10	10.0	0,69

Maximum Temperature  
for Vent Panel Materials

Material	Temperature Limit	
	° Fahrenheit	° Celcius
Aluminum	260	127
316SS	500	260
TFE Teflon	500	260

# SFC (Prebulged Solid) and CFC (Prebulged Composite) Vent Panels

The SFC and CFC vent panels are prebulged, circular vent panels utilizing a solid metal or a metal/Teflon construction. The SFC vent panel is available in sizes 10" through 36" (25 cm through 91 cm) diameter. The CFC vent panel ranges in size from 10" through 30" (25 cm through 76 cm) diameter. Both panels are available in burst pressures ranging from 2.0 psig (0,14 barg) to 10 psig (0,69 barg), depending on the type vent panel.

SFC and CFC vent panels are designed to operate under conditions of positive pressure up to 70% of the vent panel's minimum burst rating and under vacuum conditions of up to 14.7 psig (1,01 barg). These prebulged designs are excellent for applications operating under cyclic, positive to negative pressures and full vacuum conditions.

The SFC solid metal vent panel features an aluminum preformed circular panel with a 316SS outlet ring and 316SS handling support to provide rigidity to the panel. The SFC vent panel is available in burst pressures from 2.5 psig (0,17 barg) to 10 psig (0,69 barg). See Table V for size and pressure specifications.

The CFC composite vent panel features a preformed circular panel usually constructed of 316SS top section, Teflon seal, and 316SS handling support to provide rigidity to the panel. The CFC vent panel is available in burst pressures from 2.0 psig (0,14 barg) to 10 psig (0,69 barg). See Table VI for size and pressure specifications.

## Burst Tolerance and Maximum Operating Pressure

SFC type vent panels have a burst tolerance of  $\pm 1.0$  psig (0,07 barg) for sizes 10" to 16" (25 cm to 41 cm) and  $\pm 0.5$  psig (0,035 barg) for 18" to 36" (46 cm to 91 cm).

CFC type vent panels have a burst tolerance of  $\pm 1.0$  psig (0,07 barg) for sizes 10" to 16" (25 cm to 41 cm) and  $\pm 0.5$  psig (0,035 barg) for sizes 18" to 30" (46 cm to 76 cm).

To determine the recommended operating pressure, subtract the burst tolerance from the vent panel's burst rating which establishes the minimum burst pressure, then multiply by 70%.

For example, a 14" (36 cm) SFC or CFC vent panel rated 3.0 psig (0,21 barg) will have a minimum burst pressure of 2.0 psig (0,14 barg) and a recommended operating limit of 1.4 psig (0,09 barg). (Burst rating minus burst tolerance x .70).

## Vacuum Support

A vacuum support is available for either the SFC or CFC type vent panel to provide:

- durability under exterior windloads
- support under full vacuum 14.7 psig (1,01 barg)

The vacuum support is supplied in 316SS with a gasket of black neoprene, silicone rubber or fiberglass. Refer to Table V and VI for SFC-V and CFC-V minimum burst pressure specifications.

Burst pressures below the minimum stated for a CFC-V may be available when system vacuum conditions are less than 14.7 psig (0,10 barg). Consult the factory for lower burst ratings.



CFC Vent Panel



SFC Vent Panel

Table V - SFC and SFC-V (Solid Metal) Formed Circular Vent Panels

Nominal Diameter		Vent Area		Burst Pressure @ 72°F (22°C)			
inches	cm	ft <sup>2</sup>	m <sup>2</sup>	Min (psig / barg)		Max (psig / barg)	
10	25	.55	0,051	5.0	0,35	10.0	0,69
12	30	.79	0,073	4.0	0,28	10.0	0,69
14	36	1.07	0,100	3.5	0,24	10.0	0,69
16	41	1.40	0,130	3.0	0,21	10.0	0,69
18	46	1.77	0,165	3.0	0,21	10.0	0,69
20	51	2.18	0,203	3.0	0,21	10.0	0,69
24	61	3.14	0,292	3.0	0,21	10.0	0,69
30	76	4.91	0,457	2.5	0,17	10.0	0,69

Table VI - CFC and CFC-V (Composite) Formed Circular Vent Panels

Nominal Diameter		Vent Area		Burst Pressure @ 72°F (22°C)					
inches	cm	ft <sup>2</sup>	m <sup>2</sup>	CFC		CFC-V* (CFC With Vacuum Support)		CFC and CFC-V	
				Min (psig / barg)		Min (psig / barg)		Max. (psig / barg)	
10	25	.55	0,051	3.5	0,24	5.0	0,35	10.0	0,69
12	30	.79	0,073	2.5	0,17	4.0	0,28	10.0	0,69
14	36	1.07	0,100	2.5	0,17	4.0	0,28	10.0	0,69
16	41	1.40	0,130	2.5	0,17	4.0	0,28	10.0	0,69
18	46	1.77	0,165	2.0	0,14	4.0	0,28	10.0	0,69
20	51	2.18	0,203	2.0	0,14	4.0	0,28	10.0	0,69
24	61	3.14	0,292	2.0	0,14	4.0	0,28	10.0	0,69
30	76	4.91	0,457	2.0	0,14	4.0	0,28	10.0	0,69
32	81	5.59	0,520	2.0	0,14	4.0	0,28	10.0	0,69
36	91	7.07	0,658	2.0	0,14	4.0	0,28	10.0	0,69

\* Using a vacuum support with a CFC vent panel increases the minimum achievable burst rating. Refer to the CFC-V column for the minimum rating applicable.

### Maximum Temperature for Vent Panel Materials

Material	Temperature Limit	
	° Fahrenheit	° Celcius
Aluminum	260	127
316SS	500	260
TFE Teflon	500	260

- Notes: (1) For vacuum applications use SFC-V or CFC-V. CFC or SFC designs (without vacuum support) are for positive pressure applications.  
 (2) For pulsating or cyclic pressure/vacuum applications the SFC-V or CFC-V, including vacuum support, is recommended.  
 (3) For CFC-V applications, the burst pressure rating may be lowered for systems with vacuum conditions less than 14.7 psig (1,01 barg). Please contact the factory for lower burst ratings.

# OPTIONS

## Gaskets

Gaskets are available for all vent panel configurations. Materials include Black Neoprene, Silicone Rubber, and Fiberglass rope. Gaskets are “key locked” together at the corners to assure a leak-tight seal (except on fiberglass). See table below for temperature limitations.

Gasket Material	Maximum Temp.
Neoprene Black	250°F / 121°C
Silicone Rubber	450°F / 232°C
Fiberglass Rope	450°F / 232°C

## Environmental Protector

An environmental protector, called a dent protector, is available on circular vent panel designs like the VPC, CPC, SFC, and CFC. This protector guards against panel damage that might occur due to hail, twigs, or other flying environmental debris.



## Coating

As a standard, an epoxy coating is applied to both sides of the aluminum VP Series vent panels. To order a VP or VPC style vent panel without this coating, please specify “No Epoxy Coating” at the time of order.

## Burst Disc Indicator (B.D.I.®) Alarm System

All Continental vent panels are optionally available with the Burst Disc Indicator (B.D.I.) Alarm System to provide an immediate warning system for indicating when a vent panel has burst. The heart of this system is the B.D.I. Alarm Strip which installs on the outlet side of the vent panel, mounting between the vent panel and frame.

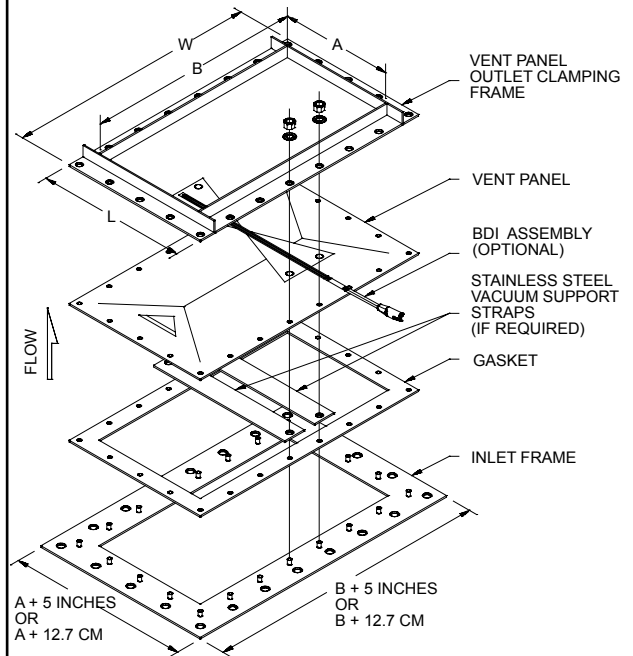
Upon rupture, this B.D.I. Strip is severed, creating an open circuit. Connected to the appropriate monitoring device, this signal can initiate alarms for audio and/or visual warning and trigger relay switches for actuating blowers or other control equipment connected to the system.

The B.D.I. Alarm System is ideal when warning of vent panel overpressure relief is essential for plant safety or for indicating a process malfunction, monitoring a remote installation, or protecting from product loss or contamination. The B.D.I. Alarm System is computer compatible and is available with FM approved, intrinsically safe alarm monitors. The B.D.I. Alarm Strip is resistant to most corrosives and can operate at temperatures ranging from -40° to 400°F (-40° to 206°C). For more information refer to Continental’s B.D.I. Alarm System bulletin no. 5-7701-5.

## Square and Rectangular Framing

Vent panel framing for square and rectangular configurations is available in carbon steel, Stainless Steel, aluminum, or other specified materials. The outlet frame is typically constructed of 1-1/2" x 1-1/2" x 1/4" carbon steel angle iron, Stainless Steel angle or aluminum angle. The inlet frame is constructed of flat bar with the vent panel mounting studs permanently attached to the frame. Bolting or welding is used to mount the frame to the structure.

Refer to Table VII for vent panel frame dimensions.



Rectangular and Square Vent Panel / Frame

Table VII - Rectangular or Square Vent Panel Frames

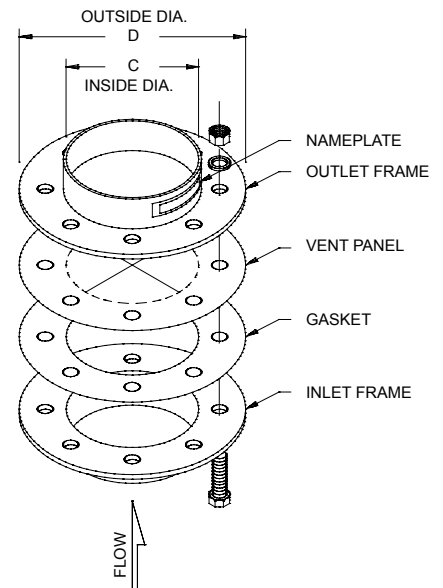
Nominal Size		Frame Dimensions							
		Vent Opening Size				Frame Outside Dimensions			
		A		B		L		W	
inches	cm	inches	cm	inches	cm	inches	cm	inches	cm
12 x 12	30 x 30	12	30,5	12	30,5	15	38,1	15	38,1
12 x 18	30 x 46	12	30,5	18	45,7	15	38,1	21	53,3
12 x 24	30 x 61	12	30,5	24	61,0	15	38,1	27	68,6
18 x 18	46 x 46	18	45,7	18	45,7	21	53,3	21	53,3
18 x 24	46 x 61	18	45,7	24	61,0	21	53,3	27	68,6
18 x 30	46 x 76	18	45,7	30	76,2	21	53,3	33	83,8
24 x 24	61 x 61	24	61,0	24	61,0	27	68,6	27	68,6
18 x 35	46 x 89	18	45,7	35	88,9	21	53,3	38	96,5
24 x 30	61 x 76	24	61,0	30	76,2	27	68,6	33	83,8
24 x 36	61 x 91	24	61,0	36	91,4	27	68,6	39	99,1
30 x 30	76 x 76	30	76,2	30	76,7	33	83,8	33	83,8
24 x 44	61 x 112	24	61,0	44	111,8	27	68,6	47	119,4
30 x 36	76 x 91	30	76,2	36	91,4	33	83,8	39	99,1
36 x 36	91 x 91	36	91,4	36	91,4	39	99,1	39	99,1
30 x 44	76 x 112	30	76,2	44	111,8	33	83,8	47	119,4
36 x 44	91 x 112	36	91,4	44	111,8	39	99,1	47	119,4
44 x 44	112 x 112	44	111,8	44	111,8	47	119,4	47	119,4
44 x 69	112 x 175	44	111,8	69	175,3	47	119,4	72	182,9

Circular Framing

The circular vent panel frame is available in carbon steel, Stainless Steel or other specified materials. Both the outlet and inlet frame are typically constructed of 1-1/2" x 1-1/2" x 1/4" carbon steel rolled angle iron or Stainless Steel rolled angle. Welding is used to mount the inlet frame to the structure.

A vent panel frame gasket of black neoprene, silicone rubber or fiberglass rope installed between the inlet frame and vent panel is recommended.

Refer to Table VII and VIII for vent panel frame dimensions.



Circular Vent Panel / Frame

Table VIII - Circular Vent Panel Frames

Nominal Size, Dia.		Frame Dimension			
		C		D	
inches	cm	inches	cm	inches	cm
10	25	10.13	25,7	12.63	32,1
12	30	12.19	31,0	15.19	38,6
14	36	14.19	36,0	17.19	43,7
16	41	16.25	41,3	20.25	51,4
18	46	18.25	46,4	22.25	56,5
20	51	20.25	51,4	24.25	61,6
24	61	24.25	61,6	28.25	71,8
30	76	30.25	76,8	34.25	87,0
32	81	32.25	81,9	36.25	92,1
36	91	36.25	92,1	40.25	102,2
40	102	40.25	102,2	44.25	112,4
42	107	42.25	107,3	46.25	117,5
44	112	44.25	112,4	48.28	122,6

# VENT PANEL SELECTION

Proper vent panel selection is a function of several requirements including, vent area, burst pressure, operating pressure and operating vacuum (if expected), operating pressure cycles, and atmospheric and media exposure.

National Fire Protection Associate. standard NFPA-68, "Explosion Venting,"

is a source of the vital information for determining vent area requirements, vent location, and critical factors for designing a structure or piece of equipment that will withstand a gas, dust, or mist deflagration. Vent area calculations depend upon such characteristics as rate of pressure rise, maximum pressure developed, and the strength of the

enclosure. Each of these factors are detailed in the NFPA guide.

Selecting the proper vent panel design is accomplished by matching your system operating specifications with capabilities of the vent panel designs, as described in the preceding pages.

Typical Applications or Operating Conditions	VP Series - Aluminum Flat Vent Panel	CP Series - Composite Flat Vent Panel	SFC Formed Aluminum or CFC Formed Composite Vent Panel
Silo - Atmospheric or low static pressure dry storage equipment operating at 50% of the required burst pressure.	VP Series ideal for protecting low pressure, atmospheric storage type vessels.		
Conveyors - Low to medium pressure application operating at 50% or less of the required burst pressure.		CP Series ideal for low to medium pressure systems that require the durability of stainless steel construction.	
Bag House - Low to medium pressure application with pressure or vacuum pulsations operating at 50% or less of the required burst pressure.		CP and CPV style protect equipment under pulsating or cyclical pressure conditions.	
Cyclone Separator - Low to medium pressure application operating up to 70% of the required burst pressure under static, pulsating, or cyclic pressure conditions.			SFC or CFC vent panel ideal for higher operating pressures and non-static pressure conditions.
Special Type Dust Collectors - Low to medium pressure collectors operating under static, pulsating, or cyclic pressure conditions and operating up to 70% of the required burst pressure.			CFC type vent panel provides reliable protection for specialized equipment with higher operating pressures and stainless steel construction requirements.
Exterior Windloads	VP series vent panel with vacuum support straps.	CP series vent panel with vacuum support straps.	SFC or CFC vent panel with handling support or vacuum support.
Partial Vacuum	VP series vent panel with vacuum support straps.	CP series vent panel with vacuum support straps.	SFC or CFC vent panel with vacuum support.
Full Vacuum			SFC or CFC vent panel with vacuum support.

Call, write or fax your nearest Continental Disc Corporation direct sales office listed on the back to discuss your application requirements or for information on contacting a CDC representative in your area.

In addition to the full range of standard vent panels designs, Continental Disc, through our Special Products Development Group, can develop overpressure relief products for practically any pressure application.

If you have a specialized application, contact our Corporate Headquarters and let our engineers propose a solution specifically designed to meet the requirements of your application.

To facilitate proper product selection, please provide the following specification information:

- 1. Manufacturing Number: \_\_\_\_\_ (Please specify if ordering vent panels for replacement of a previous CDC vent panel installation.)
- 2. Quantity: \_\_\_\_\_
- 3. Size: \_\_\_\_\_
- 4. Configuration: Rect./Square \_\_\_\_\_ Circular \_\_\_\_\_
- 5. Style:
  - VPS/VPR/VPC (Aluminum Flat Vent Panel)
  - CPS/CPR/CPC (Composite Flat Vent Panel)
  - SFC (Formed Circular Aluminum Vent Panel)
  - CFC (Formed Circular Composite Vent Panel)
- 6. Rated Burst Pressure: \_\_\_\_\_ (psig or barg) @ Service Temperature \_\_\_\_\_ (°F or °C)
- 7. Vacuum Condition: \_\_\_\_\_
- 8. Mounting Hole Information: \_\_\_\_\_



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Continental Disc Corporation has representatives located throughout the world.  
Contact the Continental Disc Corporation office nearest you for the authorized representative in your area.

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