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P SERIES
RUPTURE DISC

CONVENTIONAL PREBULGED (P) SERIES RUPTURE DISC

The Conventional Prebulged (P) Rupture Disc is a single-member disc that may utilize a Teflon® or polyurethane coating on either or both sides. A vacuum support may be used in conjunction with the Conventional Prebulged (P) Disc and can be coated on either or both sides with Teflon or polyurethane.

Vacuum supports are not normally required if the burst pressure of the disc is in excess of 1000 PSIG (69 BARG). If the disc may be subjected to back pressures in excess of 14.7 PSIG (1.013 BARG), Fike must be advised, as it may be necessary to construct a special pressure support. The CPV Rupture Disc is a three-member disc that consists of a retainer ring, a rupture disc, and a vacuum support. These components are spot welded together to make a sturdy, closely fitted unit.

The CPV-C Disc is constructed the same as the CPV Disc except that a full cover is used in place of the retainer ring, protecting the disc from downstream dirt or rust. The CPV-C Disc retains the same advantages of ruggedness and ease of installation as the CPV Disc.



Rupture disc - CONVENTIONAL PREBULGED (P) SERIES

FEATURES AND BENEFITS

- The most economical solution available, the P series of Fike rupture discs are designed for ruggedness and ease of installation. With 70% Operating Ratio.
- Gas or liquid service.
- Full vacuum rating available.

Accessories and holders	Options	Approvals
<p>Conventional Prebulged (P) and CPV Series Rupture Discs are designed for installation in conventional holders which utilize the standard 30° angular seating arrangement.</p> <p>The P and CPV series utilizes the screw-type, bolt-type, or union-type holders.</p> <p>In addition, the P/CPV series discs can be used with the viscous tee type holder, designed primarily for systems that process medias of high viscosity or that have the tendency to coat or plug system piping.</p>	<ul style="list-style-type: none"> - Vacuum support - Top Cover - Retainer Ring - Available with Teflon® liner with a maximum temperature of 450°F (232°C) - Polyurethane 250°F (121°C) and Teflon 450°F (232°C) protective coatings also available 	<ul style="list-style-type: none"> - ASME - CE Marked

	Seal	Top Ring	Bottom Ring	Vacuum Support	Cover
P Disc	•				
CP Disc	•	•			
CPC Disc	•	•	•		
PV Disc	•			•	
CPV Disc	•	•		•	
CP-C	•	•		•	
CPV-C Disc	•	•		•	•

MINIMUM/MAXIMUM BURST PRESSURE IN PSIG (BARG) @ 72°F (22°C) FOR SEAL MATERIAL

Material Size		316/316L SST		Inconel 400 @ 600		Monel®	
		Max Temp: 900°F (482°C)		Max. Temp: 1100°F (593°C)		Max Temp: 900°F (482°C)	
IN	DN	Min. BP	Max. BP	Min. BP	Max. BP	Min. BP	Max. BP
0.50	15	500 (34.47)	11000 (758.42)	450 (31.03)	11000 (758.42)	380 (26.20)	11000 (758.42)
0.75	20	400 (27.58)	11000 (758.42)	250 (17.24)	11000 (758.42)	300 (20.68)	11000 (758.42)
1	25	250 (17.24)	11000 (758.42)	215 (14.82)	11000 (758.42)	170 (11.72)	11000 (758.42)
1.5	40	190 (13.10)	3000 (206.84)	140 (9.65)	3000 (206.84)	170 (11.72)	3000 (206.84)
2	50	110 (7.58)	3000 (206.84)	100 (6.89)	3000 (206.84)	65 (4.48)	3000 (206.84)
3	80	90 (6.21)	3000 (206.84)	85 (5.86)	3000 (206.84)	50 (3.45)	3000 (206.84)
4	100	60 (4.14)	3000 (206.84)	55 (3.79)	3000 (206.84)	38 (2.62)	3000 (206.84)
6	150	50 (3.45)	2160 (148.93)	45 (3.10)	2160 (148.93)	29 (2.00)	2160 (148.93)
8	200	40 (2.76)	1440 (99.28)	32 (2.21)	1440 (99.28)	23 (1.59)	1440 (99.28)
10	250	31 (2.14)	720 (49.64)	26 (1.79)	720 (49.64)	23 (1.59)	720 (49.64)
12	300	27 (1.86)	720 (49.64)	24 (1.65)	720 (49.64)	19 (1.31)	720 (49.64)
14	350	24 (1.65)	720 (49.64)	20 (1.38)	720 (49.64)	17 (1.17)	720 (49.64)
16	400	21 (1.45)	720 (49.64)	18 (1.24)	720 (49.64)	15 (1.03)	720 (49.64)
18	450	18 (1.24)	720 (49.64)	17 (1.17)	720 (49.64)	15 (1.03)	720 (49.64)
20	500	15 (1.03)	720 (49.64)	15 (1.03)	720 (49.64)	15 (1.03)	720 (49.64)
24	600	15 (1.03)	720 (49.64)	15 (1.03)	720 (49.64)	43 (2.96)	720 (49.64)

MINIMUM/MAXIMUM BURST PRESSURE IN PSIG (BARG) @ 72°F (22°C) FOR SEAL MATERIAL

Material		Nickel 200/201		Aluminium 1100		Aluminium 1100 polyurethane coat one side		
		Max Temp: 800°F (427°C)		Max. Temp: 250°F (121°C)		Max. Temp: 250°F (121°C)		
Size	IN	DN	Min. BP	Max. BP	Min. BP	Max. BP	Min. BP	Max. BP
			0.50	15	275 (18.96)	3000 (206.84)	65 (4.48)	1150 (79.29)
0.75	20	175 (18.96)	3000 (206.84)	45 (3.10)	680 (46.88)	45 (3.10)	680 (46.88)	
1	25	120 (8.27)	3000 (206.84)	33 (2.28)	520 (35.85)	34 (2.34)	520 (35.85)	
1.5	40	90 (6.21)	3000 (206.84)	33 (2.28)	340 (23.44)	25 (1.72)	340 (23.44)	
2	50	60 (4.14)	3000 (206.84)	17 (1.17)	220 (15.17)	20 (1.38)	220 (15.17)	
3	80	40 (2.76)	3000 (206.84)	10 (.69)	155 (10.69)	14 (.97)	155 (10.69)	
4	100	30.5 (2.10)	3000 (206.84)	8 (.55)	115 (7.93)	11 (.76)	115 (7.93)	
6	150	25 (1.72)	2160 (148.93)	7 (.48)	85 (5.86)	8 (.55)	85 (5.86)	
8	200	18 (1.24)	1440 (99.28)	5 (.34)	65 (4.48)	5 (.34)	65 (4.48)	
10	250	18 (1.24)	720 (49.64)	4.5 (.31)	50 (3.45)	5 (.34)	50 (3.45)	
12	300	17 (1.2)	720 (49.64)	3.2 (.22)	45 (3.10)	4 (.28)	45 (3.10)	
14	350	15 (1.0)	720 (49.64)	2.8 (.19)	40 (2.76)	4 (.28)	40 (2.76)	
16	400	12 (.83)	720 (49.64)	2.5 (.17)	35 (2.41)	4 (.28)	35 (2.41)	
18	450	12 (.83)	720 (49.64)	2.3 (.16)	30 (2.07)	4 (.28)	30 (2.07)	
20	500	12 (.83)	720 (49.64)	2 (.14)	25 (1.72)	4 (.28)	25 (1.72)	
24	600	22 (1.52)	720 (49.64)	1.5 (.10)	20 (1.38)	4 (.28)	20 (1.38)	

MINIMUM/MAXIMUM BURST PRESSURE IN PSIG (BARG) @ 72°F (22°C) FOR SEAL MATERIAL

Material Size		Aluminium 1100 polyurethane coat both side		Aluminum 1100, Teflon® coat one side		Aluminum 1100, Teflon® coat both sides		Silver	
		Max. Temp: 250°F (121°C)		Max. Temp: 250°F (121°C)		Max. Temp: 250°F (121°C)		Max. Temp: 250°F (121°C)	
IN	DN	Min. BP	Max. BP	Min. BP	Max. BP	Min. BP	Max. BP	Min. BP	Max. BP
0.50	15	75 (5.17)	1150 (79.29)	90 (6.21)	1150 (79.29)	130 (8.96)	1150 (79.29)	245 (16.89)	3000 (206.84)
0.75	20	50 (3.45)	680 (46.88)	60 (4.14)	680 (46.88)	90 (6.21)	680 (46.88)	175 (12.07)	3000 (206.84)
1	25	34 (2.34)	520 (35.85)	50 (3.45)	520 (35.85)	75 (5.17)	520 (35.85)	125 (8.62)	3000 (206.84)
1.5	40	27 (1.86)	340 (23.44)	50 (3.45)	340 (23.44)	50 (3.45)	340 (23.44)	85 (5.86)	3000 (206.84)
2	50	24 (1.65)	220 (15.17)	50 (3.45)	220 (15.17)	40 (2.76)	220 (15.17)	55 (3.79)	2500 (172.37)
3	80	17 (1.17)	155 (10.69)	25 (1.72)	155 (10.69)	30 (2.07)	155 (10.69)	35 (2.41)	2000 (137.90)
4	100	13 (.90)	115 (7.93)	15 (1.03)	115 (7.93)	20 (1.38)	115 (7.93)	35 (2.41)	1500 (103.42)
6	150	10 (.69)	85 (5.86)	10 (.69)	85 (5.86)	15 (1.0)	85 (5.86)	20 (1.4)	1000 (68.95)
8	200	6 (.41)	65 (4.48)	8 (.55)	65 (4.48)	10 (.69)	65 (4.48)	17 (1.17)	500 (34.47)
10	250	6 (.41)	50 (3.45)	8 (.55)	50 (3.45)	10 (.69)	50 (3.45)		
12	300	5 (.34)	45 (3.10)	7 (.48)	45 (3.10)	9 (.62)	45 (3.10)		
14	350	5 (.34)	40 (2.76)	6 (.41)	40 (2.76)	8 (.55)	40 (2.76)		
16	400	5 (.34)	35 (2.41)	6 (.41)	35 (2.41)	8 (.55)	35 (2.41)		
18	450	5 (.34)	30 (2.07)	6 (.41)	30 (2.07)	8 (.55)	30 (2.07)		
20	500	5 (.34)	25 (1.72)	6 (.41)	25 (1.72)	8 (.55)	25 (1.72)		
24	600	5 (.34)	20 (1.38)	6 (.41)	20 (1.38)	8 (.55)	20 (1.38)		

Notes:

- Consult factory for discs larger than 24" in diameter (DN600).
- All or any one of the members of the three-component disc may be coated with polyurethane 250°F (121°C); or Teflon 450°F (232°C). All Nickel, Monel®, Inconel® and stainless steel discs, when coated with Teflon or polyurethane, will have slightly higher minimum burst pressures than those listed above. Maximum temperature application of a disc with a coating depends upon the maximum temperature application of either the metal or the coating, whichever is lower. The maximum temperatures of the metal discs are tabulated above.
- Lower minimum burst pressures may be possible. Consult factory for availability and performance limitations.

AVAILABLE MANUFACTURING RANGES

Specified Rupture Pressure		Manufacturing Range % @ 72°F (22°C)
PSIG @ 72°F	BARG @ 22°C	
< 4	< .3	zero
4 to 8	.3 to .6	+40 to -40
9 to 12	.7 to .8	+30 to -30
13 to 20	.9 to 1.4	+20 to -10
21 to 45	1.5 to 3.1	+16 to -8
46 to 90	3.2 to 6.2	+12 to -6
91 to 270	6.3 to 18.6	+10 to -5
271+	18.7+	+6 to -3

BURST/PERFORMANCE TOLERANCE

Marked Burst Pressure		Tolerance	
PSIG	BARG	PSIG	BARG
< 5	< .35	±1	.07
5 - 14.99	35 - 1.03	±1.5	.10
15 - 40	1.04 - 2.76	±2	.14
> 40	> 2.76	±5%	±5%

Note:

Other burst/performance tolerances are available. Please consult factoryance limitations.

HOW TO SPECIFY

Performance Attributes			Process Media		Rupture Disc Holders	
Operating Ratio	Vacuum Resistant	Pulsating /cyclic	Liquid	Vapor / Gas	Bolted Type	Union Type
80%	Yes	Yes	Yes	Yes	Yes	Yes

HOW TO SPECIFY

Previous Lot Number:	
	OR
Size	
Burst Pressure	@ (Temperature)
Top Section Material	
Seal Material	
Bottom Section Material:	
Vacuum	Yes/No
Certifications	ASME / CE