

CONVENTIONAL PREBULGED (P) SERIES

DESCRIPTION

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.



P-Type Rupture Disc



CPV Rupture Disc

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

FEATURES AND BENEFITS

The most economical solution available, the P series of Fike rupture discs are designed for ruggedness and ease of installation.

- 70% Operating Ratio
- Gas or liquid service
- Full vacuum rating available

OPTIONS

- 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

Form No. R.1.24.01-3

ACCESSORIES AND HOLDERS

Conventional Prebulged (P) and CPV Series Rupture Discs are designed for installation in conventional holders which utilize the standard 30° angular seating arrangement.

The P and CPV series utilizes the screw-type, bolt-type, or union-type holders.

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.

MINIMUM/MAXIMUM BURST PRESSURES¹ IN PSIG (BARG) @ 72°F (22°C)

In.	DN	316 SST/316L SST		Inconel®		Monel® 400		Nickel 200/201		Aluminum 1100		Aluminum 1100, polyurethane coat one side		Aluminum 1100, polyurethane coat both sides		Aluminum 1100, Teflon® coat one side		Aluminum 1100, Teflon® coat both sides		Silver	
		Min BP	Max BP	Min BP	Max BP	Min BP	Max BP	Min BP	Max BP	Min BP	Max BP	Min BP	Max BP	Min BP	Max BP	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)	275 (18.96)	3000 (206.84)	65 (4.48)	1150 (79.29)	65 (4.48)	1150 (79.29)	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	400 (27.58)	10000 (689.48)	250 (17.24)	10000 (689.48)	300 (20.68)	10000 (689.48)	175 (12.07)	3000 (206.84)	45 (3.10)	680 (46.88)	45 (3.10)	680 (46.88)	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	250 (17.24)	6000 (413.69)	215 (14.82)	6000 (413.69)	170 (11.72)	6000 (413.69)	120 (8.27)	3000 (206.84)	33 (2.28)	520 (35.85)	34 (2.34)	520 (35.85)	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	190 (13.10)	3000 (206.84)	140 (9.65)	3000 (206.84)	115 (7.93)	3000 (206.84)	90 (6.21)	3000 (206.84)	25 (1.72)	340 (23.44)	25 (1.72)	340 (23.44)	27 (1.86)	340 (23.44)	35 (2.41)	340 (23.44)	50 (3.45)	340 (23.44)	85 (5.86)	3000 (206.84)
2	50	110 (7.58)	3000 (206.84)	100 (6.89)	3000 (206.84)	65 (4.48)	3000 (206.84)	60 (4.14)	3000 (206.84)	17 (1.17)	220 (15.17)	20 (1.38)	220 (15.17)	24 (1.65)	220 (15.17)	28 (1.93)	220 (15.17)	40 (2.76)	220 (15.17)	55 (3.79)	2500 (172.37)
3	80	90 (6.21)	3000 (206.84)	85 (5.86)	3000 (206.84)	50 (3.45)	3000 (206.84)	40 (2.76)	3000 (206.84)	10 (.69)	155 (10.69)	14 (.97)	155 (10.69)	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	60 (4.14)	3000 (206.84)	55 (3.79)	3000 (206.84)	38 (2.62)	3000 (206.84)	30.5 (2.10)	3000 (206.84)	8 (.55)	115 (7.93)	11 (.76)	115 (7.93)	13 (.90)	115 (7.93)	15 (1.03)	115 (7.93)	20 (1.38)	115 (7.93)	25 (1.7)	1500 (103.42)
6	150	50 (3.45)	2160 (148.93)	45 (3.10)	2160 (148.93)	29 (2.00)	2160 (148.93)	25 (1.72)	2160 (148.93)	7 (.48)	85 (5.86)	8 (.55)	85 (5.86)	10 (.69)	85 (5.86)	10 (.69)	85 (5.86)	15 (1.0)	85 (5.86)	20 (1.4)	1000 (68.95)
8	200	40 (2.76)	1440 (99.28)	32 (2.21)	1440 (99.28)	23 (1.59)	1440 (99.28)	18 (1.24)	1440 (99.28)	5 (.34)	65 (4.48)	5 (.34)	65 (4.48)	6 (.41)	65 (4.48)	8 (.55)	65 (4.48)	10 (.69)	65 (4.48)	17 (1.17)	500 (34.47)
10	250	31 (2.14)	720 (49.64)	26 (1.79)	720 (49.64)	23 (1.59)	720 (49.64)	18 (1.24)	720 (49.64)	4.5 (.31)	50 (3.45)	5 (.34)	50 (3.45)	6 (.41)	50 (3.45)	8 (.55)	50 (3.45)	10 (.69)	50 (3.45)		
12	300	27 (1.86)	720 (49.64)	24 (1.65)	720 (49.64)	19 (1.31)	720 (49.64)	17 (1.2)	720 (49.64)	3.2 (.22)	45 (3.10)	4 (.28)	45 (3.10)	5 (.34)	45 (3.10)	7 (.48)	45 (3.10)	9 (.62)	45 (3.10)		
14	350	24 (1.65)	720 (49.64)	20 (1.38)	720 (49.64)	17 (1.17)	720 (49.64)	15 (1.0)	720 (49.64)	2.8 (.19)	40 (2.76)	4 (.28)	40 (2.76)	5 (.34)	40 (2.76)	6 (.41)	40 (2.76)	8 (.55)	40 (2.76)		
16	400	21 (1.45)	720 (49.64)	18 (1.24)	720 (49.64)	15 (1.03)	720 (49.64)	12 (.83)	720 (49.64)	2.5 (.17)	35 (2.41)	4 (.28)	35 (2.41)	5 (.34)	35 (2.41)	6 (.41)	35 (2.41)	8 (.55)	35 (2.41)		
18	450	18 (1.24)	720 (49.64)	17 (1.17)	720 (49.64)	15 (1.03)	720 (49.64)	12 (.83)	720 (49.64)	2.3 (.16)	30 (2.07)	4 (.28)	30 (2.07)	5 (.34)	30 (2.07)	6 (.41)	30 (2.07)	8 (.55)	30 (2.07)		
20	500	15 (1.03)	720 (49.64)	15 (1.03)	720 (49.64)	15 (1.03)	720 (49.64)	12 (.83)	720 (49.64)	2 (.14)	25 (1.72)	4 (.28)	25 (1.72)	5 (.34)	25 (1.72)	6 (.41)	25 (1.72)	8 (.55)	25 (1.72)		
24	600	25 (1.72)	720 (49.64)	45 (3.10)	720 (49.64)	43 (2.96)	720 (49.64)	22 (1.52)	720 (49.64)	1.5 (.10)	20 (1.38)	4 (.28)	20 (1.38)	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 6	.3 to .4	+40 to -20
7 to 10	.5 to .7	+30 to -15
11 to 15	.8 to 1.0	+20 to -10
16 to 25	1.1 to 1.7	+16 to -8
26 to 45	1.8 to 3.1	+14 to -7
46 to 90	3.2 to 6.2	+12 to -6
91 to 270	6.3 to 18.6	+10 to -5
271 to 500	18.7 to 34.5	+8 to -4
501 to up	34.6 to up	+6 to -3

BURST/PERFORMANCE TOLERANCE

Marked Burst Pressure		Tolerance	
PSIG	BARG	PSIG	BARG
< 5	< .35	±1	± .07
5 - 14.99	.34 - 1.03	±1.5	± .10
15 - 40	1.03 - 2.8	±2	± .14
> 40	> 2.76	±5%	± 5%

HOW TO SPECIFY

Previous Lot Number:		
OR		
Size:		
Burst Pressure:	@	(Temperature)
Ring Material:		
Vacuum Material:		
Cover Material:		
Coatings:		
Seal Material:		
Certification:	ASME	CE

Performance Attributes			Process Media		Rupture Disc Holder		
Operating Ratio	Vacuum Resistant	Pulsating/Cycling	Liquid	Vapor / Gas	Bolted Type	Screw Type	Union Type
							
70%	yes	yes	yes	yes	yes	yes	yes

CERTIFICATIONS



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