

HO/HOV SERIES

DESCRIPTION

Fike's HO Rupture Disc is a composite disc consisting of two components, the seal member and a slotted top. In this configuration the slotted top section contains the seal and the seal transmits the pressure load to the top section. The slotted top section controls the burst pressure of the disc and allows the use of fluoropolymer as a seal member. In addition to the typical seal materials available, tantalum, titanium or other precious metals may be used when dealing with corrosive media. The HOV Rupture Disc (high operating and vacuum) is constructed the same as the HO Disc with the addition of a vacuum support under the seal member.



HOV Disc with Fluoropolymer Seal

The HO/HOV is commonly manufactured with a 316 stainless steel top section and vacuum support with an FEP fluoropolymer seal member for temperatures up to 400°F (204°C). Alternate seal materials are available, see table on the following page for burst pressure ranges per size and seal material. Alternate top section and vacuum support materials are available as well, such as Nickel, Monel, Hastelloy, Inconel and Tantalum.

FEATURES AND BENEFITS

- Can operate up to 80% of its marked burst pressure
- Configuration requires a smaller amount of precious metal due to the top section controlling the burst pressure
- Operates in both gas and liquid applications

ACCESSORIES AND HOLDERS

HO/HOV Rupture Discs are designed for installation in flanges which utilize the standard 30° angular seating arrangement. The HO/HOV utilizes the bolt-type or union-type holders. For more information on the bolt-type holders, please see data sheet R.1.18.01 and for union-type holders please see data sheet R.1.09.01.

OPTIONS

- Available with PFA fluoropolymer liner with a maximum temperature of 500°F (260°C)
- Polyurethane 250°F (121°C) and Teflon 450°F (232°C) protective coatings also available
- Alternate top section and vacuum support materials such as Nickel, Monel, Hastelloy, Inconel and Tantalum
- Various seal materials (see following page) for temperatures >500°F (260°C) and burst pressures than acceptable for the standard fluoropolymer seal

Form No. R.1.22.01-5

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

In	DN	316/316L SST		Inconel® 600		Monel® 400		Nickel 200/201		Aluminum 1100		Aluminum 1100, Teflon® coated, both sides		Aluminum 1100, Teflon® coated, one side		Aluminum 1100, Polyurethane coated, one side		Silver		Fluoropolymer Film	
		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
		Max. Temp: 900°F (482°C)		Max. Temp: 1100°F (593°C)		Max. Temp: 900°F (482°C)		Max. Temp: 800°F (427°C)		Max. Temp: 600°F (316°C)		Max Temp: 250°F (121°C)		Max. Temp: 250°F (121°C)		Max. Temp: 250°F (121°C)		Max Temp: 250°F (121°C)		Max. Temp: 500°F (260°C)	
1	25	482 (33.24)	6000 (413.69)	410 (28.27)	6000 (413.69)	250 (17.24)	6000 (413.69)	190 (13.10)	6000 (413.69)	51 (3.52)	1500 (103.42)	75 (5.17)	1500 (103.42)	51 (3.52)	1500 (103.42)	53 (3.65)	1500 (103.42)	188 (12.96)	6000 (413.69)	31.6 (2.18)	465 (32.06)
1.5	40	365 (25.17)	3000 (206.85)	290 (19.99)	3000 (206.85)	175 (12.07)	3000 (206.85)	128 (8.83)	3000 (206.85)	35 (2.41)	1500 (103.42)	53 (3.65)	1500 (103.42)	35 (2.41)	1500 (103.42)	38 (2.62)	1500 (103.42)	128 (8.83)	3000 (206.84)	23 (1.59)	305 (21.03)
2	50	195 (13.45)	3000 (206.85)	180 (12.41)	3000 (206.85)	105 (7.24)	3000 (206.85)	75 (5.17)	3000 (206.85)	23 (1.59)	1125 (77.57)	42 (2.90)	1125 (77.57)	30 (2.07)	1125 (77.57)	33 (2.28)	1125 (77.57)	83 (5.72)	3000 (206.84)	15 (1.03)	200 (13.79)
3	80	135 (9.31)	3000 (206.85)	130 (8.96)	3000 (206.85)	80 (5.52)	3000 (206.85)	46 (3.17)	3000 (206.85)	15 (1.03)	750 (51.71)	38 (2.62)	750 (51.71)	21 (1.45)	750 (51.71)	23 (1.59)	750 (51.71)	53 (3.65)	3000 (206.84)	12 (.83)	140 (9.65)
4	100	105 (7.24)	3000 (206.85)	100 (6.89)	3000 (206.85)	54 (3.72)	3000 (206.85)	38 (2.62)	3000 (206.85)	12 (.83)	600 (41.37)	23 (1.59)	600 (41.37)	17 (1.17)	600 (41.37)	18 (1.24)	600 (41.37)	38 (2.62)	2250 (155.13)	8 (.55)	105 (7.24)
6	150	85 (5.86)	2160 (148.93)	75 (5.17)	2160 (148.93)	43 (2.96)	2160 (148.93)	33 (2.28)	2160 (148.93)	11 (.76)	450 (31.03)	15 (1.03)	450 (31.03)	12 (.83)	450 (31.03)	12 (.83)	450 (31.03)	30 (2.07)	1500 (103.42)	6 (.41)	80 (5.52)
8	200	65 (4.48)	1440 (99.29)	40 (2.76)	1440 (99.29)	37 (2.55)	1440 (99.29)	24 (1.65)	1440 (99.29)	8 (.55)	338 (23.30)	12 (.83)	338 (23.30)	8 (.55)	338 (23.30)	9 (.62)	338 (23.30)	26 (1.79)	750 (51.71)	4.5 (.31)	70 (4.83)
10	250	50 (3.45)	720 (49.64)	32 (2.21)	720 (49.64)	30 (2.07)	720 (49.64)	20 (1.38)	720 (49.64)	6 (.41)	263 (18.13)	12 (.83)	263 (18.13)	8 (.55)	263 (18.13)	9 (.62)	263 (18.13)			3.6 (.25)	65 (4.48)
12	300	50 (3.45)	720 (49.64)	27 (1.86)	720 (49.64)	28 (1.93)	720 (49.64)	20 (1.38)	720 (49.64)	4 (.28)	225 (15.51)	11 (.76)	225 (15.51)	6 (.41)	225 (15.51)	8 (.55)	225 (15.51)			3 (.21)	55 (3.79)
14	350	48 (3.31)	720 (49.64)	23 (1.59)	720 (49.64)	26 (1.79)	720 (49.64)	20 (1.38)	720 (49.64)	4 (.28)	225 (15.51)	9 (.62)	225 (15.51)	6 (.41)	225 (15.51)	8 (.55)	225 (15.51)			2.6 (.18)	50 (3.45)
16	400	44 (3.04)	720 (49.64)	20 (1.38)	720 (49.64)	24 (1.65)	720 (49.64)	18 (1.24)	720 (49.64)	4 (.28)	225 (15.51)	9 (.62)	225 (15.51)	6 (.41)	225 (15.51)	8 (.55)	225 (15.51)			2.3 (.16)	45 (3.10)
18	450	38 (2.62)	720 (49.64)	18 (1.24)	720 (49.64)	22 (1.52)	720 (49.64)	18 (1.24)	720 (49.64)	4 (.28)	188 (12.96)	9 (.62)	188 (12.96)	6 (.41)	188 (12.96)	8 (.55)	188 (12.96)			2 (.14)	40 (2.76)
20	500	30 (2.07)	720 (49.64)	16 (1.10)	720 (49.64)	20 (1.38)	720 (49.64)	18 (1.24)	720 (49.64)	4 (.28)	188 (12.96)	9 (.62)	188 (12.96)	6 (.41)	188 (12.96)	8 (.55)	188 (12.96)			1.8 (.12)	35 (2.41)
24	600	27 (1.86)	720 (49.64)	45 (3.10)	720 (49.64)	55 (3.79)	720 (49.64)	40 (2.76)	720 (49.64)	4 (.28)	150 (10.34)	9 (.62)	150 (10.34)	6 (.41)	150 (10.34)	8 (.55)	150 (10.34)			1.5 (.10)	40 (2.76)

Notes:

- Consult factory for discs larger than 24" (DN600) in diameter.
- Flat seat design is available for sizes greater than 24" (DN600).
- Lower minimum burst pressures may be possible. Consult Fike 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 factory.

HOW TO SPECIFY

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

Performance Attributes			Process Media		Rupture Disc Holder	
Operating Ratio	Vacuum Resistant	Pulsating/Cyclic	Liquid	Vapor / Gas	Bolted Type	Union Type
						
80%	yes	yes	yes	yes	yes	yes

CERTIFICATIONS

