

SRX RUPTURE DISC

DESCRIPTION

Fike SRX rupture disc is a reverse acting rupture disc with a cross scored design for use with vapor services only. These discs have many high performance characteristics that make them ideal for demanding applications such as the isolation of pressure relief valves.



SRX Rupture Disc

FEATURES AND BENEFITS

- SRX rupture discs have superior service life in heavily pulsating and cyclic duty when compared to forward acting (tension loaded) rupture discs. This is primarily due to the reverse buckling (compression loaded) design.
- The SRX is designed to be non-fragmenting. The cross score configuration controls the disc opening and enables the disc to rupture without fragmentation.
- SRX discs will sustain process operating pressures as high as 90% of the marked disc rating, without premature failure due to metal fatigue.
- The SRX will withstand full vacuum, or back pressure service in magnitudes equivalent to the stamped burst pressure.
- SRX discs perform reliably even under less than ideal installation conditions due to their special seating configuration.
- 316/316L SST, Inconel® 600, Monel® 400, Nickel 200/201, and Hastelloy® C276 are available as standard materials of construction. Consult factory for other materials.
- The DiscLoc™ locator tab prevents incorrect, inverted installation in the holder. Prominent flow arrows indicate the process flow direction during venting.

PRESSURE RELIEF VALVE APPLICATION

When SRX discs are used to isolate pressure relief valves, a combination capacity factor of 0.9 may be used. Higher combination capacity factors may be established by testing and certification in accordance with the ASME Code, Section VIII, Div I. See Fike Technical Bulletin TB8103 for more information.

OPTIONS

- Available with fluoropolymer liner 450°F (232°C)
- Polyurethane 250°F (121°C) and Teflon 450°F (232°C) protective coatings also available
- Standard O-rings are available in Viton with a maximum operating temperature of 450°F (232°C)

Form No. R.1.27.01-4

ACCESSORIES AND HOLDERS

SRX holders achieve a bubbletight metal to metal seal, while maintaining tight rupture tolerances. An optional O-ring in the base and/or holddown may be specified to reduce fugitive emissions. Tests have proven SRX leaktightness to 1 x 10⁻⁸ CC He/Sec. The holddown design further enhances the non-fragmenting characteristics of the SRX. The SRX holder may also be ordered in a pretorqueable style, which allows the correct torque to be achieved prior to field installation. Refer to Fike Data Sheet R.1.05.01 for more information.

The Fike SRX may be ordered with either 1/4” or 1/2” gauge tap for insertion of a pressure gauge, excess flow valve or other device when used in combination with a pressure relief valve.

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

		316/316L SST		Inconel® 600		Monel® 400		Nickel 200/201		Hastelloy® C276	
		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: 900°F (482°C)	
In	DN	Min. BP	Max. BP	Min. BP	Max. BP	Min. BP	Max. BP	Min. BP	Max. BP	Min. BP	Max. BP
1	25	275 (18.96)	820 (56.54)	110 (7.58)	820 (56.54)	110 (7.58)	820 (56.54)	85 (5.86)	820 (56.54)	320 (22.06)	820 (56.54)
1.50	40	275 (18.96)	820 (56.54)	110 (7.58)	820 (56.54)	110 (7.58)	820 (56.54)	85 (5.86)	820 (56.54)	320 (22.06)	820 (56.54)
2	50	230 (15.86)	820 (56.54)	90 (6.21)	820 (56.54)	90 (6.21)	820 (56.54)	75 (5.17)	820 (56.54)	265 (18.27)	820 (56.54)
3	80	165 (11.38)	720 (49.64)	70 (4.83)	720 (49.64)	70 (4.83)	720 (49.64)	60 (4.14)	720 (49.64)	200 (13.79)	720 (49.64)
4	100	130 (8.96)	720 (49.64)	60 (4.14)	720 (49.64)	60 (4.14)	720 (49.64)	50 (3.44)	720 (49.64)	160 (11.03)	720 (49.64)
6	150	90 (6.21)	630 (43.44)	45 (3.10)	630 (43.44)	45 (3.10)	630 (43.44)	40 (2.76)	630 (43.44)	115 (7.93)	630 (43.44)
8	200	90 (6.21)	500 (34.47)	40 (2.76)	500 (34.47)	40 (2.76)	500 (34.47)	35 (2.41)	500 (34.47)	115 (7.93)	500 (34.47)
10	250	80 (5.52)	350 (24.13)	35 (2.41)	350 (24.13)	35 (2.41)	350 (24.13)	30 (2.07)	350 (24.13)	102 (7.03)	350 (24.13)
12	300	70 (4.83)	250 (17.24)	30 (2.07)	250 (17.24)	30 (2.07)	250 (17.24)	27 (1.86)	250 (17.24)	89 (6.14)	250 (17.24)
14	350	56 (3.86)	165 (11.38)	30 (2.07)	165 (11.38)	30 (2.07)	165 (11.38)	27 (1.86)	165 (11.38)	CF	CF
16	400	36 (2.48)	150 (10.34)	30 (2.07)	150 (10.34)	28 (1.93)	150 (10.34)	25 (1.72)	150 (10.34)	CF	CF
18	450	34 (2.34)	135 (9.31)	30 (2.07)	135 (9.31)	28 (1.93)	135 (9.31)	25 (1.72)	135 (9.31)	CF	CF
20	500	32 (2.21)	120 (8.27)	30 (2.07)	120 (8.27)	27 (1.86)	120 (8.27)	20 (1.38)	120 (8.27)	CF	CF
24	600	30 (2.07)	120 (8.27)	30 (2.07)	120 (8.27)	27 (1.86)	120 (8.27)	20 (1.38)	120 (8.27)	CF	CF

Notes:

CF=Consult Factory

MINIMUM FREE VAPOR VOLUME

Size	IN	1	1.5	2	3	4	6	8	10	12
	DN	25	40	50	80	100	150	200	250	300
Cubic Inches (in ³)		13	13	28	91	205	701	1,597	3,141	5,428
Cubic Centimeters (cm ³)		213	213	459	1,491	3,359	11,487	26,170	51,472	88,949

Size	IN	14	16	18	20	22	24
	DN	350	400	450	500	550	600
Cubic Feet (ft ³)		4.23	6.45	9.33	13.00	17.40	22.80
Cubic Meters (M ³)		0.12	0.18	0.26	0.37	0.49	0.65

AVAILABLE MANUFACTURING RANGES









Available Manufacturing Ranges
+0/-10%
+0/-5%
Zero

BURST/PERFORMANCE TOLERANCE

Marked Burst Pressure		Tolerance	
PSIG	BARG	PSIG	BARG
≤ 40	≤ 2.76	± 2	± 0.14
> 40	> 2.76	± 5%	± 5%

HOW TO SPECIFY

Previous Lot Number:			
	OR		
Size:			
Flange Rating:			
Burst Pressure:	@	(Temperature)	
Seal Material:			
Manufacturing Range:	Std:	Other:	
Coatings:			
Optional O-Rings:	Yes / No	Qty:	
Certification:	ASME	CE	

Performance Attributes				Process Media		Rupture Disc Holders	
Operating Ratio	Non-Fragmenting	Vacuum Resistant	Pulsating/Cyclic	Liquid	Vapor/Gas	Bolted/Type	Pre-Torque
							
90%	yes	yes	yes	no*	yes	yes	yes

* Minimum vapor volume required - see table

CERTIFICATIONS



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Form No. R.1.27.01-4 December, 2010 Specifications are subject to change without notice.