DATA SHEET

RD320 RUPTURE DISC

DESCRIPTION

The RD320 is a reverse-acting rupture disc, suitable for most common industrial pressure relief applications. Utilizing Fike's patented G2 Manufacturing Technology, this rupture disc is pre-engineered and will provide accurate and reliable burst pressure protection.

PERFORMANCE ATTRIBUTES

Performance Attributes				Process Media		Bolted Type Rupture Disc Holders	
Operating Ratio	Non-Fragmenting	Vacuum Resistant	Pulsating / Cyclic	Liquid	Vapor/Gas	Insert Type (GI)	Pre-Torque Type (TQ/TQ+)
95% CE 90% ASME	YES	YES	YES	YES	YES	XL / XLO	

FEATURES

- Operating Ratio
  - 90% of marked burst pressures over 40 psig (2.76 barg) (ASME)
  - 90% of minimum burst tolerance for burst pressures less than or equal to 40 psig (2.76 barg) (ASME and EN ISO 4126-2)
  - 95% of minimum burst pressure over 40 psig (2.76 barg) (EN ISO 4126-2)
- Cycling: Capable of up to 10,000 cycles with pressures ranging between full vacuum up to 90% of marked burst pressure (ASME) or 95% of the minimum burst pressure range (EN ISO 4126-2) (up to 90% of min burst pressure for pressures below 40 psig)
- Damage ratio: ≤ 1
- Backpressure: 100% of specified burst pressure
- Process Media: Operates in both gas and liquid applications
- Vacuum Resistance: Capable of withstanding full vacuum
- Zero manufacturing range: Included (ASME)

APPROVALS

ASME

CE Marked

KOSHA

SELO

CRN

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MINIMUM / MAXIMUM BURST PRESSURE (BP) in psig (barg) @ 72°F (22°C)

Size \ Material		316/316L SST (1.4401/1.4404)		Hastelloy® C276 (2.4819)		Inconel® 625 (2.4856)	
		Max Temp: 900°F (482°C)		Max Temp: 900°F (482°C)		Max Temp: 1100°F (593°C)	
IN	DN	Min. BP	Max. BP	Min. BP	Max. BP	Min. BP	Max. BP
1 (1)	25	10 (0.69)	525 (36.20)	12 (0.83)	600 (41.37)	10 (0.69)	450 (31.03)
1.5	40	8 (0.55)	385 (3) (26.54)	8 (0.55)	485 (3) (33.44)	8 (0.55)	215 (14.82)
2	50	8 (0.55)	390 (26.89)	8 (0.55)	470 (32.41)	8 (0.55)	150 (10.34)
3	80	7 (0.48)	325 (22.41)	7 (0.48)	430 (29.65)	7 (0.48)	80 (5.52)
4	100	7 (0.48)	285 (19.65)	7 (0.48)	300 (20.69)	7 (0.48)	60 (4.14)
6	150	8 (0.55)	200 (13.79)	8 (0.55)	200 (13.79)	Consult Factory	Consult Factory
8	200	8 (0.55)	150 (10.34)	8 (0.55)	140 (9.65)		
10	250	8 (0.55)	100 (6.89)	8 (0.55)	90 (6.21)		
12	300	8 (0.55)	70 (4.83)	8 (0.55)	60 (4.14)		

Notes:

(1) 1 in (DN 25) size is not suitable for liquid systems at burst pressure less than 20 psig (1.38 barg) with an inlet piping length greater than 10 in (250 mm)

(2) 385 psig (26.54 barg) is the maximum ASME certified burst pressure rating with a 316 / 316L (EN 1.4401 / 1.4404) SST ring.
200 psig (13.79 barg) is the maximum ASME certified burst pressure rating with a Hastelloy ® C276 (EN 2.4819) ring

For applications requiring higher burst pressures or larger sizes, please refer to the RD300 rupture disc data sheet R.1.53.01

For applications requiring higher operating ratio or cycle life, please refer to the RD520 AXIUS® rupture disc data sheet R.1.37.01

RUPTURE PERFORMANCE TOLERANCE

Burst Pressure @ 72°F (22°C)		Tolerance	
psig	barg	psi	bar
≤ 40	≤ 2.76	± 2	±0.14
>40	>2.76	±5%	±5%

HOLDERS

The RD320 is designed for use with XL (ValveGuard) or XLO (low profile) holders fitting between bolted flanges. These are available as either insert-type with pre-assembly side-clips (GI) or pre-torque type with cap screws (TQ/TQ+). These holders are offered in a variety of materials and configurations. For complete specifications, see GI Insert Type Holder data sheet R.1.05.01 or TQ Series Pre-torqueable Holders data sheet R.1.45.01.

OPTIONS AND ACCESSORIES

- Optional Teflon coating available
- Optional FEP or PFA fluoropolymer liner on the process side available

Size	Liner Material	Temperature Range	Minimum Burst Pressure
1 – 4 in (DN25 – DN100)	FEP	-40° to 400°F (-40° to 204°C)	30 psig (2.07 barg)
	PFA	-40° to 200°F (-40° to 93.3°C)	45 psig (3.10 barg)
	PFA	>200° to 500°F (>93.3° to 260°C)	30 psig (2.07 barg)
6 – 12 in (DN150 – DN300)	FEP	-40° to 400°F (-40° to 204°C)	15 psig (1.03 barg)
	PFA	-40° to 500°F (-40° to 260°C)	