

MRK RUPTURE DISC

DESCRIPTION

The Fike MRK (Modified Reverse-acting Knifeblade) rupture disc has a low pressure opening characteristics and is recommended for gas or vapor service only. The special design of the MRK and the swept knife design of the MRK flange assembly is an option for applications where low burst pressures / high back pressure are encountered.



MRK Rupture Disc

FEATURES AND BENEFITS

- 90% operating ratio for high cyclical performance
- Non-fragmenting
- Will withstand full vacuum without the aid of vacuum support
- Low burst pressures

ACCESSORIES AND HOLDERS

The MRK Rupture Disc is specifically designed to be used with the Fike MRK holder. Please see Data Sheet R.1.29.01.

OPTIONS

- Teflon or Polyurethane coating on process side only.
- Burst Indication - BurstCheck, BurstCheck Plus, BC2. For more information, please see Data Sheet R.1.02.01.

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

| Size | Inch | 1 | 1 1/2 | 2 | 3 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 24 |
|---------------------------------|---|----------------|----------------|----------------|----------------|----------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|
| | DN | 25 | 40 | 50 | 80 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 |
| Min. Burst Pressure PSIG (BARG) | 316/316L SST, Inconel 600®, Monel 400®, Nickel 200/201, Hastelloy® C276 | 60 (4.14) | 35 (2.41) | 28 (1.93) | 25 (1.72) | 20 (1.38) | 15 (1.03) | 12 (0.83) | 10 (0.69) | 7 (0.48) | 7 (0.48) | 6 (0.41) | 5 (0.34) | 5 (0.34) | 4 (0.28) |
| Max. Burst Pressure PSIG (BARG) | | 720 (49.64) | 720 (49.64) | 720 (49.64) | 720 (49.64) | 720 (49.64) | 720 (49.64) | 50 (3.45) | 45 (3.10) | 40 (2.76) | 35 (2.41) | 30 (2.07) | 25 (1.72) | 20 (1.38) | 10 (.69) |
| Minimum Free Vapor Volume | Cubic Feet | .4 | .4 | .4 | 1 | 1.7 | 4 | 6.8 | 10.6 | 15 | 20.7 | 27 | 34 | 42 | 61 |
| | Cubic Meters | .01 | .01 | .01 | .03 | .05 | .11 | .19 | .30 | .43 | .59 | .76 | .97 | 1.20 | 1.72 |

- Consult Fike for sizes larger than 24" (DN600)
- Consult Fike for lower burst pressures with partial opening

Form No. R.1.28.01-3

MANUFACTURING RANGES

| Specified Rupture Pressure | | Manufacturing Range % @ 72°F (22°C) |
|----------------------------|--------------|--|
| PSIG @ 72°F | BARG @ 22°C | |
| < 4 | < .276 | Zero |
| 4 to 6.99 | .3 to .4 | +40 to -20 |
| 7 to 10.99 | .5 to .7 | +30 to -15 |
| 11 to 15.99 | .8 to 1.0 | +20 to -10 |
| 16 to 25.99 | 1.1 to 1.7 | +16 to -8 |
| 26 to 45.99 | 1.8 to 3.1 | +14 to -7 |
| 46 to 90.99 | 3.2 to 6.2 | +12 to -6 |
| 91 to 270.99 | 6.3 to 18.6 | +10 to -5 |
| 271 to 500.99 | 18.7 to 34.5 | +8 to -4 |
| 501 up | 34.6 up | +6 to -3 |








RUPTURE TOLERANCE *

| Specified Rupture Pressure | | Manufacturing Range % @ 72°F (22°C) |
|----------------------------|----------------|--|
| PSIG @ 72°F | BARG @ 22°C | |
| < 5 | < .345 | ±1 PSIG/.07 BARG |
| 5 to 14.99 | .345 to 1.034 | ±1.5 PSIG/.103 BARG |
| 15 to 40 | 1.034 to 2.758 | ±2 PSIG/.14 BARG |
| Above 40 | Above 2.758 | ±5% |

* Consult Fike for disc with less than standard manufacturing range or rupture tolerance.

HOW TO SPECIFY

| | | |
|----------------------|------|---------------|
| Previous Lot Number: | | |
| | OR | |
| Size: | | |
| Material: | | |
| Burst Pressure: | @ | (Temperature) |
| Manufacturing Range: | Std: | Other: |
| Coating: | | |
| Certifications: | ASME | CE |

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

* Minimum vapor volume required, see table.

CERTIFICATIONS



Copyright © Fike Corporation All Rights Reserved.
Form No. R.1.28.01-3 November, 2008 Specifications are subject to change without notice.