



SRA Series

Scored Reverse-Acting Metal Rupture Disks

Features

- Non-fragmenting design solid metal cross-scored disk
- Operating pressures to 90% of the disk's marked burst pressure
- Suitable for gas service only
- Disk is scored on the vent side to minimize the effect of product build up on the process side
- Burst ratings 20 to 1000 psig
- Sizes 1" thru 24"
- Temperature ratings to 900°F (482°C)
- Materials of construction: 316SS, Inconel, Monel, Nickel, or Aluminum
- 3-dimensional stainless steel tag is standard
- No Vacuum Support required
- Extended cycle life: withstands positive-to-negative cycling
- ASME UD marking available
- Use alone or combine with relief valves
- Unique notches in disk O.D. ensures proper mounting into SR7A Disk Holder

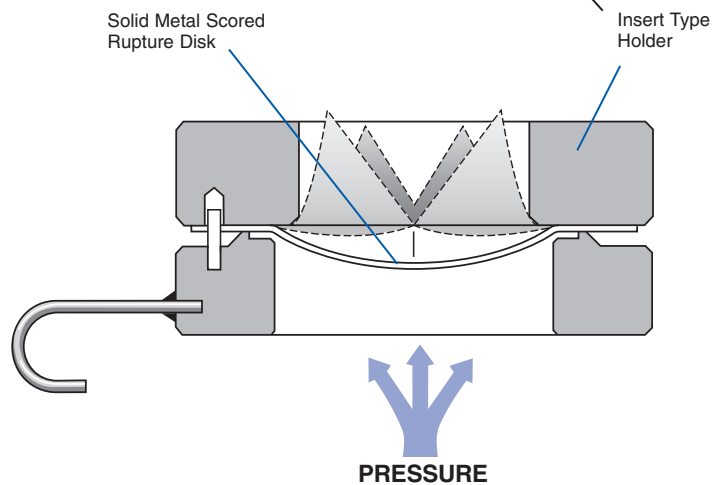


Safety Relief Valve Protection

SRA Series Disks mounted under the valve isolate working parts from hostile environments.

Option

Liners TFE liners are available to provide protection from corrosive media if required. Refer to Table 1 for maximum temperature ratings for disks and liners.



SRA Series Disks mount with the convex surface facing the process media. As pressure increases above the recommended operating ratio, the compressive stress in the disk material increases until a point of instability is reached. At that point the disk begins to buckle. It tears along the score lines as it reverses, which initiates the complete rupture of the disk.

Table 1 – SRA Series Minimum and Maximum Pressure Ratings –
psig (bar) @72° F (22°C)

| Disk Size | Disk Material Burst Pressure Range | | | | | | | | | |
|------------|------------------------------------|------|---------------------|-------|---------------|-------|---------------|-------|---------------|-------|
| | Aluminum ¹ | | Nickel ² | | Monel | | Inconel | | 316SS | |
| | min. | max. | min. | max. | min. | max. | min. | max. | min. | max. |
| 1" | 75 | 125 | 92 | 1000 | 122 | 1000 | 141 | 1000 | 221 | 1000 |
| 25 mm | 5.17 | 8.62 | 6.34 | 68.97 | 8.41 | 68.97 | 9.72 | 68.97 | 15.24 | 68.97 |
| 1-1/2" | 54 | 90 | 81 | 1000 | 98 | 1000 | 98 | 1000 | 234 | 1000 |
| 40 mm | 3.72 | 6.21 | 5.59 | 68.97 | 6.76 | 68.97 | 6.76 | 68.97 | 16.14 | 68.97 |
| 2" | 45 | 75 | 60 | 1000 | 83 | 1000 | 83 | 1000 | 188 | 1000 |
| 50 mm | 3.10 | 5.17 | 4.14 | 68.97 | 5.72 | 68.97 | 5.72 | 68.97 | 12.97 | 68.97 |
| 3" | 36 | 60 | 55 | 1000 | 65 | 1000 | 66 | 1000 | 154 | 1000 |
| 80 mm | 2.48 | 4.14 | 3.79 | 68.97 | 4.48 | 68.97 | 4.55 | 68.97 | 10.62 | 68.97 |
| 4" | 30 | 50 | 48 | 800 | 55 | 800 | 54 | 800 | 122 | 800 |
| 100 mm | 2.07 | 3.45 | 3.31 | 55.17 | 3.79 | 55.17 | 3.72 | 55.17 | 8.41 | 55.17 |
| 6" | 24 | 40 | 35 | 800 | 44 | 800 | 47 | 800 | 94 | 800 |
| 150 mm | 1.66 | 2.76 | 2.41 | 55.17 | 3.03 | 55.17 | 3.24 | 55.17 | 6.48 | 55.17 |
| 8" | ▲ | | 33 | 700 | 41 | 700 | 44 | 700 | ▲ | |
| 200 mm | ▲ | | 2.28 | 48.28 | 2.83 | 48.28 | 3.03 | 48.28 | ▲ | |
| Max. Temp. | 250°F (121°C) | | 750°F (399°C) | | 800°F (427°C) | | 900°F (482°C) | | 900°F (482°C) | |

▲ For larger sizes or sizes not shown, contact ZOOK

¹ Aluminum not available with UD marking

² ASME minimum available burst pressures

Table 1 – notes

- Minimum rating will support full vacuum without additional vacuum support
- Alternate materials and lower burst ratings are available on request. Contact ZOOK for more information

SR7A Series Disk Holder

Features

- Insert type Rupture Disk Holder – designed exclusively for use with the SRA Series Rupture Disk
- The SR7A Holder and Rupture Disk are assembled using safety designed side clips
- Standard materials of construction: 316SS and carbon steel. Other materials available upon request
- Permanently attached stainless steel nameplates are standard. Nameplates indicate flow direction and provide visual verification that holder assembly is properly oriented in the piping system
- Holder supplied with alignment pins and J-hook as standard

Available options include:

Gauge tap; nipple and tee; excess flow valve; pressure gauge; special facings and coatings



Holder Dimensions
Inches (mm)

| Nominal Size | ASME B16.5 Flange Classes ■ | | Height |
|--------------|-----------------------------|----------------------|----------|
| | Class 150 O.D. | Class 300/600 ▲ O.D. | |
| 1" | 2-1/2" | 2-3/4" | 1-1/2" |
| 25 mm | 63.50 | 69.85 | 38.10 |
| 1-1/2" | 3-1/4" | 3-5/8" | 1-5/8" |
| 40 mm | 82.55 | 92.08 | 41.28 |
| 2" | 4" | 4-1/4" | 1-3/4" |
| 50 mm | 101.60 | 107.95 | 44.45 |
| 3" | 5-1/4" | 5-3/4" | 2-1/8" |
| 80 mm | 133.35 | 146.05 | 53.98 |
| 4" | 6-3/4" | 7" ▲ | 2-7/8" |
| 100 mm | 171.45 | 177.80 | 73.03 |
| 6" | 8-5/8" | 9-3/4" ▲ | 3-11/16" |
| 150 mm | 219.08 | 247.65 | 93.68 |
| 8" | 10-7/8" | 12" ▲ | 3-13/16" |
| 200 mm | 276.23 | 304.80 | 96.85 |

NA Not Available

■ Available to fit DIN and JIS flanges

▲ Contact ZOOK for flange class rating 600

Manufacturing Range Burst Tolerance @ 72°F (22°C)

| Specified Burst Pressure Rating psig (bar) | Available Manufacturing Ranges | Burst Tolerance |
|--|--------------------------------|-----------------|
| 40 (2.76) and below | 0%, -5%, -10% | ± 2 psig (0.14) |
| Above 40 (2.76) | 0%, -5%, -10% | ± 5% |

Notes:

- 0% manufacturing range is not available in all materials
- Burst tolerances are the maximum expected variation from the disk's marked burst pressure

TFE liner may be added to provide additional protection against corrosive media

Requirements/Limitations when TFE liner is added:

1. Max. temperature of 500°F (260°C) – Limitation of liner material
2. Liner may be applied to all ratings. Contact ZOOK if liner is required on both sides of rupture disk



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