

ARD Series Low Pressure Rupture Disks

Features

- State-of-the-art laser slotted metal section
- Mounts between standard ANSI Class 150 and 300 welding neck flanges, or equivalent with same bore diameter *
- No disk holder required
- Standard materials of construction: 316SS metal section(s), Teflon seal, Compressed fiber gaskets (Other materials available)
- Operating pressures to 50% of the disk's marked burst pressure
- Sizes 2" thru 36"
- Burst ratings 1 to 15 psig
- Temperature ratings to 500°F (260°C)
- · Manufacturing range: all ARD Disks are supplied with 0% manufacturing range

Options

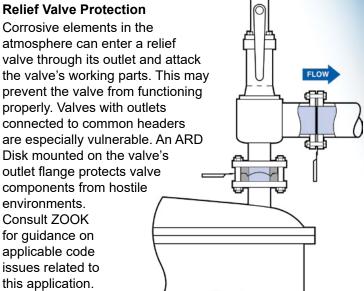
- Burst Indication
- Teflon Gaskets

Storage Tank Protection

Storage tanks are made from relatively light gauge materials. This limits their ability to contain pressure and, if they are emptied without proper venting, makes them vulnerable to collapse. ARD Disks provide simple, inexpensive protection against either condition.

CAUTION

Disk size should be at least equal to the size of the flow inlet or outlet connection (whichever is greater) to the tank. Maximum rupture pressure should be no greater than the design pressure or vacuum (whichever is smaller) of the tank. Minimum rupture pressure should be at least double the maximum working pressure or vacuum (whichever is greater) to which the tank will be exposed.



CAUTION

Disk size should be the same as the outlet flange of the valve. Maximum rupture pressure should be no greater than the set pressure of the valve. Minimum rupture pressure should be at least double the maximum working pressure in the header.



ARD Series Specifications

Table 1 - ARD Series Disk Type Specifications

| Disk Type | Materials of Construction | Function | Features | Nominal Thickness | |
|--------------|--------------------------------|-----------------|---|----------------------|--|
| ARD | Gasket/Seal/Cap/Seal/Gasket | Bi-Directional | Bursts at the specified pressure in both directions | | |
| ARD-L | Gasket/Cap/Seal/Gasket | Uni-Directional | Bursts at the specified pressure in one direction | 1/8" | |
| ARD-S | Gasket/Cap/Seal/Cap/Gasket | Bi-Directional | Bursts at two different set pressures as specified | (3.18 mm) | |
| ARD-V* | Gasket/Cap/Seal/Support/Gasket | Uni-Directional | Bursts at the specified pressure in one direction, withstands full vacuum | | |

Notes:

Standard gasket material is non-asbestos compressed fiber. Contact ZOOK for optional materials

Table 2 - ARD Series Minimum and Maximum Pressure Ratings psig (bar) @ 72°F (22°C)

| Disk Size | ARD-L, ARD-S, ARD-V | ARD | Maximum Burst | |
|------------|----------------------|----------------------|--------------------|--|
| DISK SIZE | Minimum Burst Rating | Minimum Burst Rating | Rating (all Types) | |
| 2" | 6.00 | 7.00 | | |
| 50 mm | 0.41 | 0.48 | | |
| 3" | 4.00 | 5.00 | | |
| 80 mm | 0.28 | 0.34 | | |
| 4" | 3.00 | 3.00 | | |
| 100 mm | 0.21 | 0.21 | | |
| 6" | 2.00 | 2.00 | 15.00psi | |
| 150 mm | 0.14 | 0.14 | (1.03 bar) | |
| 8" | 1.50 | 1.60 | | |
| 200 mm | 0.10 | 0.11 | | |
| 10" | 1.25 | 1.25 | | |
| 250 mm | 0.09 | 0.09 | | |
| 12" | 1.00 | 1.00 | | |
| 300 mm | 0.07 | 0.07 | | |
| Max. Temp. | 500°F (260°C) | | | |

Table 3 - Burst Tolerance psig (barg) @ 72°F (22°C)

| Specified Burst Pressure Rating | Burst Tolerance | |
|------------------------------------|-----------------|--|
| Below 1 | +/- 0.33 | |
| (Below 0.07) | (+/- 0.02) | |
| 1 to 4 | +/- 0.50 | |
| (0.07 to 0.28) | (+/- 0.03) | |
| Above 4 | +/- 1.00 | |
| (Above 0.28) | (+/- 0.07) | |

Notes:

- . 0% manufacturing range is standard. Disk will be marked with
- Burst tolerances are the maximum expected variation from the disk's marked burst pressure

- ARD Series disks mount between standard ANSI Class 150 and 300 welding neck flanges, or equivalent with the same bore diameter. Contact ZOOK if disk is to be mounted into other style flanges
- Contact ZOOK for sizes 14" and larger and burst ratings greater than 15 psi

Caution for Installation:

- Additional gaskets not required
- . 2" thru 24" installation between standard bore ANSI raised face flanges
- 30" thru 36" installation between standard bore MSS SP44 raised face flanges
- Contact ZOOK if disk is to be mounted into other style flanges



ARD 012018

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^{*}ARD-V series disk has a non-opening vacuum support. Contact ZOOK for flow and free area specifications