

RA6 Series Reverse-Acting Metal Rupture Disks

The RA Series of rupture disks are complementary designs to cover the majority of rupture disk applications and are designed to be used in the RAH type holder.

Features

- Designed for Non-fragmentation
- Scoreless design offers higher cycle life when compared to scored reverse acting disks
- Standard operating ratio of 90% of the marked rating on disk tag. May be extended to 95% of the minimum burst pressure. Contact ZOOK for operating ratio on pressures below 40 psig
- Certified for liquid, gas, or two-phase applications
- Standard manufacturing ranges of 0%, -5%, and -10% ensures marked rating on disk tag does not exceed the MAWP of equipment
- Withstands full vacuum without vacuum support
- Wide range of standard and exotic materials available
- Withstands back pressure up to the positive set pressure of the disk
- Sizes from 1" (25mm) through 24" (600mm)
- Burst ratings from 12 psig (0.83 barg) to 200 psig (2.76 barg)
- Resists product build-up. The smooth convex side of the disk is exposed to the process media
- Damage ratio of 1.0 or less
- Unique alignment pin design ensures proper disk orientation into RAH holder
- 3-dimensional stainless steel tag permanently engraved with complete disk specifications
- ASME UD, CE, and TUV compliance available



RA6 series disk mounts into RAH Series disk holder (refer to RAH Series data sheet)

Options

TFE liners are available to provide protection from corrosive media. Note that the maximum temperature ratings for disks supplied with liners is lower than an unlined disk.

Safety Relief Valve Protection

When a disk is mounted under a Safety Relief Valve, the working components of the valve are isolated from hostile environments.



RA6 Series Specifications

Minimum and Maximum Pressure Ratings - psig (barg) @ 72°F (22°C)

	Minimum Burst Pressure - psig @ 72°F (barg @ 22°C)									Maximum		MNFA
Disk Size	With Liner (RA6-L)	316SS		Inconel		Monel		Nickel		Burst Pressure		in ²
		Liquid	Gas	Liquid	Gas	Liquid	Gas	Liquid	Gas	Liquid	Gas	(cm²)
1"	34	26	26	26	26	26	26	26	26	200	144	0.86
25 mm	(2.34)	(1.79)	(1.79)	(1.79)	(1.79)	(1.79)	(1.79)	(1.79)	(1.79)	(13.79)	(9.93)	(5.5)
1-1/2"	20	22	22	20	20	20	20	20	20	167	120	2.00
40 mm	(1.38)	(1.52)	(1.52)	(1.38)	(1.38)	(1.38)	(1.38)	(1.38)	(1.38)	(11.52)	(8.28)	(12.90)
2"	18	20	20	18	18	18	18	18	18	118	100	3.36
50 mm	(1.24)	(1.38)	(1.38)	(1.24)	(1.24)	(1.24)	(1.24)	(1.24)	(1.24)	(8.14)	(6.9)	(21.70)
3"	16	18	18	16	16	16	16	16	16	68	65	7.25
80 mm	(1.1)	(1.24)	(1.24)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(4.69)	(4.48)	(46.80)
4"	14	16	16	14	14	14	14	14	14	69	55	12.53
100 mm	(0.97)	(1.1)	(1.1)	(0.97)	(0.97)	(0.97)	(0.97)	(0.97)	(0.97)	(4.76)	(3.79)	(80.80)
6"	12	14	14	12	12	12	12	12	12	67	45	26.59
150 mm	(0.83)	(0.97)	(0.97)	(0.83)	(0.83)	(0.83)	(0.83)	(0.83)	(0.83)	(3.72)	(2.41)	(293.40)
8"	12	12	12	12	12	12	12	12	12	54	35	45.48
200 mm	(0.83)	(15.24)	(0.83)	(0.83)	(0.83)	(0.83)	(0.83)	(0.83)	(0.83)	(3.72)	(2.41)	(293.40)
10"	12	12	12	12	12	12	12	12	12	46	30	70.52
250 mm	(0.83)	(0.83)	(0.83)	(0.83)	(0.83)	(0.83)	(0.83)	(0.83)	(0.83)	(3.17)	(2.07)	(455.00)
12"	12	12	12	12	12	12	12	12	12	38	26	98.33
300 mm	(0.83)	(0.83)	(0.83)	(0.83)	(0.83)	(0.83)	(0.83)	(0.83)	(0.83)	(2.62)	(1.79)	(634.40)
Max. Temp.	500°F (260°C)	900°F ((482°C)	900°F ((482°C)	900°F (482°C) 750°F (399°C)						

Note: For materials, sizes, burst ratings and temperatures not shown, contact ZOOK

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

Specified Burst Pressure Rating	Manufacturing Ranges	Burst Tolerance		
1 to below 5		+/-0.50		
(0.07 to below 0.34)		(+/-0.03)		
5 to below 10		+/-0.80		
(0.34 to below 0.69)		(+/-0.06)		
10 to below 15	00/ 50/ 100/	+/-1.30		
(0.69 to below 1.03)	0%, -5%, -10%	(+/-0.09)		
15 to 40		+/-2.00		
(1.03 to 2.76)		(+/-0.14)		
Above 40		+/-5%		
(Above 2.76)		+/-5%		

Certified Flow Resistance Factors

Disk Type	K _{rl} (liquid)	K _{rg} (Gas)		
RA6 Series	0.98	0.80		

Notes:

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



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