

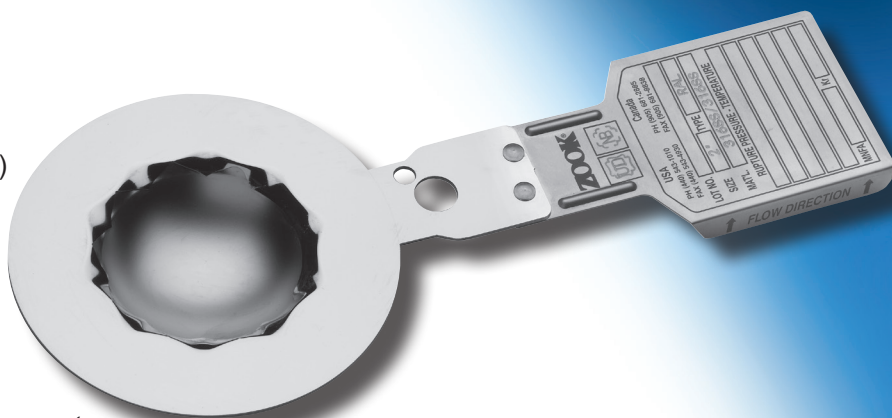


# RA4 Series Reverse-Acting Metal Rupture Disks

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.

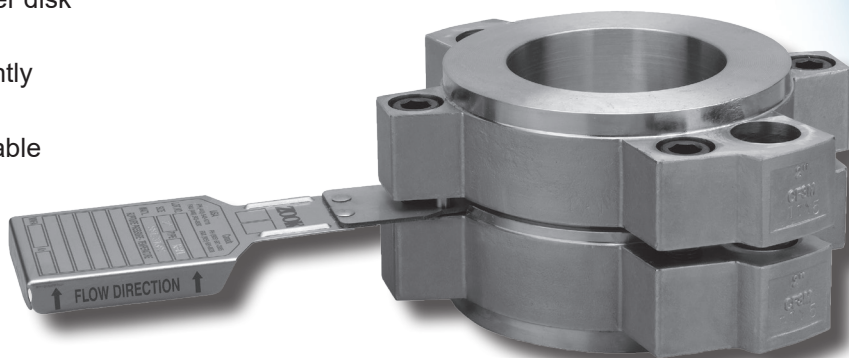
## Features

- Designed for Non-fragmentation
- Operating ratios up to 90% of the low end of burst tolerance
- Disk designs offer high cycle life (when compared to forward-acting design disks)
- 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
- Sizes from 1" (25mm) through 12" (300mm)
- Burst ratings from 2 psig (0.14 barg) to 40 psig (2.76 barg)
- Resists product build-up. The smooth convex side of the disk is exposed to the process media
- 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



## 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. The process side liner is placed between the disk and process side ring.



**RA4 Series disk mounts into RAH Series disk holder (refer to RAH Series data sheet)**

## 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.



**Safety** through **knowledge** and **performance**.

# RA4 Series Specifications

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

Disk Size	Minimum Burst Pressure - psig @ 72°F (barg @ 22°C)								Maximum Burst Pressure		MNFA in <sup>2</sup> (cm <sup>2</sup> )
	With Liner (RA4-L)	316SS		Inconel		Monel		Nickel			
		Liquid	Gas	Liquid	Gas	Liquid	Gas	Liquid	Gas	Liquid	
1"	18	13	13	Contact ZOOK for Pressure Specifications					40	40	0.86
25 mm	(1.24)	(0.9)	(0.9)						(2.76)	(2.76)	(5.5)
1-1/2"	14	9	9						25	25	1.63
40 mm	(0.97)	(0.62)	(0.62)						(1.72)	(1.72)	(10.50)
2"	8	6	6						25	25	2.78
50 mm	(0.55)	(0.41)	(0.41)						(1.72)	(1.72)	(17.90)
3"	7	4	4						25	25	5.69
80 mm	(0.48)	(0.28)	(0.28)						(1.72)	(1.72)	(36.70)
4"	5	3	3						20	20	9.51
100 mm	(0.34)	(0.21)	(0.21)						(1.38)	(1.38)	(61.40)
6"	3	2	2						18	18	19.46
150 mm	(0.21)	(0.14)	(0.14)						(1.24)	(1.24)	(214.70)
8"	3	2	2						18	18	33.28
200 mm	(0.21)	(0.14)	(0.14)						(1.24)	(1.24)	(214.70)
10"	3	2	2						14	14	50.78
250 mm	(0.21)	(0.14)	(0.14)						(0.97)	(0.97)	(327.60)
12"	3	2	2						14	14	71.97
300 mm	(0.21)	(0.14)	(0.14)						(0.97)	(0.97)	(464.30)
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 (0.07 to below 0.34)	0%, -5%, -10%	+/-0.50 (+/-0.03)
5 to below 10 (0.34 to below 0.69)		+/-0.80 (+/-0.06)
10 to below 15 (0.69 to below 1.03)		+/-1.30 (+/-0.09)
15 to 40 (1.03 to 2.76)		+/-2.00 (+/-0.14)

### 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

## Certified Flow Resistance Factors

Disk Type	K <sub>rl</sub> (liquid)	K <sub>rg</sub> (Gas)
RA4 Series	1.63	1.63



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