



# RA4 Series Reverse-Acting 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 psi (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

## 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.

## Option Liners

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

Disk Size	With Liner (RA4-L)	Minimum Burst Pressures – psig @ 72°F (barg @ 22°C)								Maximum Burst Pressure		MNFA in <sup>2</sup> (cm <sup>2</sup> )
		316SS		Inconel		Monel		Nickel		Liquid	Gas	
1"	18	13	13							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)	(125.50)
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)				

**CONTACT  
ZOOK  
for Pressure  
Specifications**

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

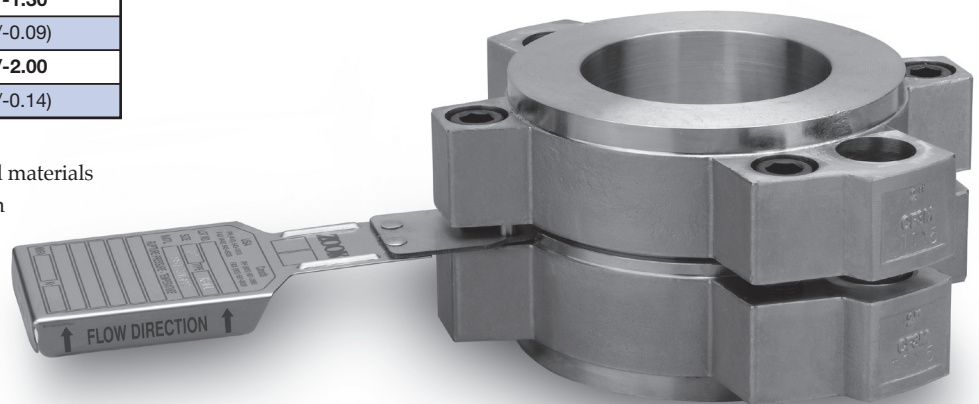
### Manufacturing Range / Burst Tolerance psig (barg) @ 72°F (22°C)

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

RA4 Series Disk mounts  
into RAH Series Disk Holder  
(refer to ZOOK product bulletin 475100)



### Certified Flow Resistance factors

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

Monel – TM Huntington Alloys  
Inconel – TM International Nickel



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