



RAX Series Scored *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

- Solid metal cross-scored disk designed for Non-fragmentation
- 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)
- Disk designs offer high cycle life (when compared to forward-acting design disks)
- Certified for gas service only
- Standard manufacturing ranges of 0%, -5%, and -10% ensures marked rating on disk tag does not exceed the MAWP of equipment
- Wide range of standard and exotic materials available
- Sizes from 1" (25mm) through 12" (300mm)
- Burst ratings from 27 psi (1.86 barg) to 1000 psig (68.97 barg)
- Withstands full vacuum without vacuum support
- 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.

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

Disk Size	Minimum Burst Pressures – psig @ 72°F (barg @ 22°C)					Maximum Burst Pressure	MNFA in ² (cm ²)
	With Liner (RAX-L)	316SS	Inconel	Monel	Nickel		
		Gas Services Only – A gas pocket is required below disk for liquid applications – Contact ZOOK for Additional information.					
1"	92	221	141	122	92	1000	0.86
25 mm	(6.34)	(15.24)	(9.72)	(8.41)	(6.34)	(68.97)	(5.5)
1-1/2"	81	234	98	98	81	1000	2.00
40 mm	(5.59)	(16.14)	(6.76)	(6.76)	(5.59)	(68.97)	(12.90)
2"	60	188	83	83	60	1000	3.36
50 mm	(4.14)	(12.97)	(5.72)	(5.72)	(4.14)	(68.97)	(21.70)
3"	55	154	66	65	55	1000	7.25
80 mm	(3.79)	(10.62)	(4.55)	(4.48)	(3.79)	(68.97)	(46.80)
4"	40	122	54	55	48	800	12.53
100 mm	(2.76)	(8.41)	(3.72)	(3.79)	(3.31)	(55.17)	(80.80)
6"	35	94	47	44	35	800	26.59
150 mm	(2.41)	(6.48)	(3.24)	(3.03)	(2.41)	(55.17)	(171.50)
8"	33	▲	44	41	33	700	45.48
200 mm	(2.28)	▲	(3.03)	(2.83)	(2.28)	(48.28)	(293.40)
10"	30	▲	40	39	30	700	70.25
250 mm	(2.07)	▲	(2.76)	(2.69)	(2.07)	(48.28)	(453.20)
12"	27	▲	37	36	27	600	98.33
300 mm	(1.86)	▲	(2.55)	(2.48)	(1.86)	(41.38)	(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

▲ – Not Available

Manufacturing Range / Burst Tolerance

psig (barg) @ 72°F (22°C)

Specified Burst Pressure Rating	Manufacturing Ranges	Burst Tolerance
1 to below 5	0%, -5%, -10%	+/-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		+/-1.30
(0.69 to below 1.03)		(+/-0.09)
15 to 40		+/-2.00
(1.03 to 2.76)		(+/-0.14)
Above 40		+/-5%
(Above 2.76)	+/-5%	

Notes:

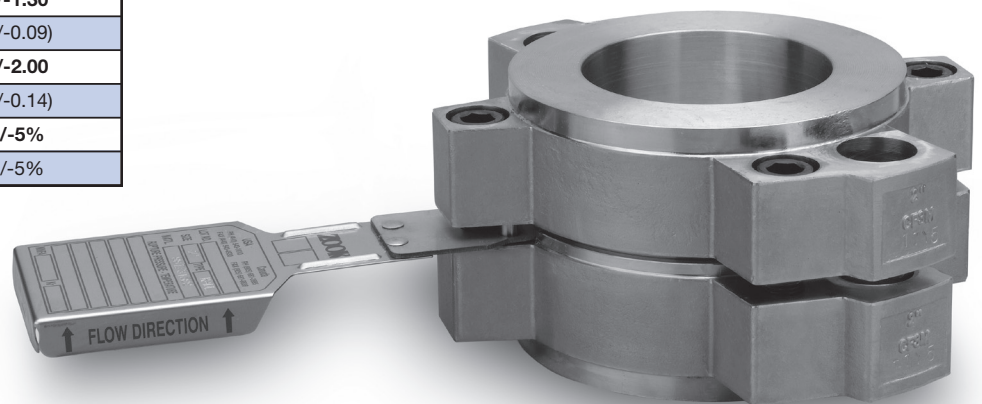
- 0% manufacturing range might not be available in all materials
- Burst tolerances are the maximum expected variation from the disk's marked burst pressure

Certified Flow Resistance factors

Disk Type	K _{rl} (Liquid)	K _{rg} (Gas)
RAX Series	▲	2.00

▲ – Not Available

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



Monel – TM Huntington Alloys
Inconel – TM International Nickel



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