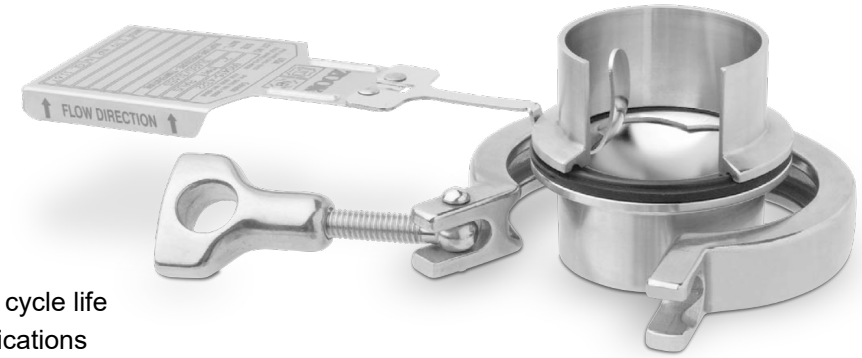
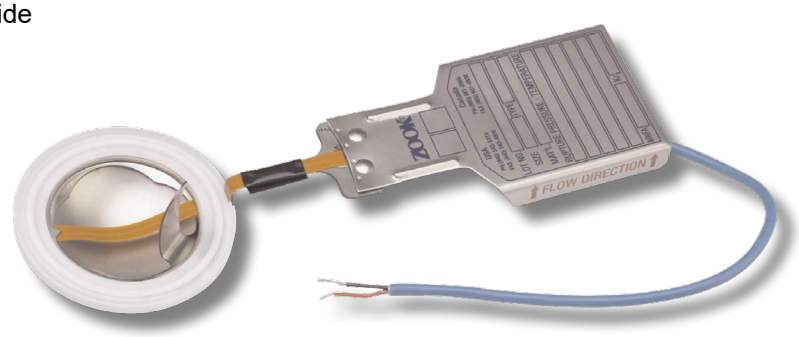
Sanitary Rupture Disks
RAUS Series

The RAUS Sanitary Disk is a Reverse Acting Metal Rupture Disk design. Applications include: food processing, dairy, breweries, pharmaceutical, distilling, baking, canning, cosmetics, biotechnology, and petrochemical industries.



Features

- Provides over-pressure protection in sanitary piping system
- Ideal for high purity and corrosion resistance service
- Designed for Non-fragmentation
- Rugged, scoreless design offers higher cycle life
- Excels in liquid, gas, or two-phase applications
- 0% manufacturing range is standard
- Operating ratios up to 95% of the low end of burst tolerance
- Self supporting under full vacuum
- Resists product buildup. Only the smooth convex side of the disk is exposed to the process medium
- Installs using industry standard Tri-clamp®/Tri-clover® fittings (NA-Connect mounting also available)
- Standard gasket materials: Black Buna-N, Black Viton, Black EPDM, White PTFE (see chart on reverse page for alternate materials)
- Sizes 1” (25mm) through 4” (100mm)
- Suitable for Clean-in-place (CIP) applications. Note: Disk dome should not be subject to contact or direct jet spray
- ASME UD, CE, KOSHA and TÜV compliance available
- 3-A available for applicable materials and options. Contact ZOOK for more information



Shown with optional BI Burst Indicator and PTFE gaskets

Options

RAUS-L*	A process side **PFA Teflon liner** provides extra protection from corrosion or viscous process build-up (PEEK liner required for 3A compliance)
RAUS-BI*	Equipped with ZOOK’s Integral **Burst Indicator**

Note: *The maximum temperature rating of rupture disks supplied with liners and BI’s is lower than the base disk material



Optional Torque-Rite® Nut

Torque-Rite Nut Features

- An audible “click” indicating correct torque setting
- Maintains the recommended constant 50 inch/pounds force
- Retrofits all sanitary clamps, 1” to 6”
- No torque wrench or special training required
- Torque-rite® sanitary clamp nut (eliminates the problems associated with over/under tightening)

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

Size in. (mm)	Burst Pressure – psig (barg)			MNFA in² (mm²)	Tri-Clover Ferrule Dimensions in (mm)	
	Minimum		Maximum			
	316*	w/liner			Ferrule OD	Tube ID
1"	83	88	300	0.36	1.984	0.870
25 mm	(5.723)	(6.068)	(20.684)	(232)	(50.4)	(22.1)
1-1/2"	27	30	250	0.94	1.984	1.370
40 mm	(1.862)	(2.069)	(17.236)	(606)	(50.4)	(34.8)
2"	24	27	180	1.79	2.516	1.870
50 mm	(1.655)	(1.862)	(12.410)	(1154)	(63.9)	(47.5)
3"	20	22	120	4.34	3.579	2.870
80 mm	(1.379)	(1.517)	(8.273)	(2799)	(90.9)	(72.9)
4"	18	20	80	7.80	4.681	3.834
100 mm	(1.242)	(1.379)	(5.515)	(5032)	(118.9)	(97.4)

Notes:
Maximum disk temperature is dependent on gasket material selected
* Alternate sizes, disk materials, gasket materials and lower burst ratings may be available on request. Contact ZOOK for more information.

FDA Certified Gaskets

Standard Gasket Materials (Stocked)			Temperature Range	
Materials	Cured	Colour	Min	Max
Viton	Bisphenol	Black	0° F (-18° C)	400° F (204° C)
Buna	Sulfur		-20° F (-29° C)	230° F (110° C)
EPDM	Peroxide		-67° F (-55° C)	347° F (175° C)
PTFE	-	White	-20° F (-29° C)	500° F (260° C)
Other Available Gasket Materials			**Temperature Range**	
Materials	Cured	Colour	Min	Max
Silicone	Peroxide	Red	-65° F (-54° C)	400° F (204° C)
		White		
		Black		
		Clear		
	Platinum	Clear	-76° F (-60° C)	400° F (204° C)
Viton	Bisphenol	White	0° F (-18° C)	400° F (204° C)
Buna	Sulfur		-20° F (-29° C)	230° F (110° C)
EPDM	Peroxide		-67° F (-55° C)	347° F (175° C)

Manufacturing Design Range & Total Performance Tolerance

ASME						PED				
Burst Pressure (psig)		Manufacturing Design Range			Burst Tolerance	Burst Pressure (barg)		Total Performance Tolerance		
Min	Max	Good	Better	Best		Min	Max	Good	Better	Best
1.0	<2.5	-10%	-5%	-0%	±0.33 psig	0.069	<0.172	±50%	-	±0.023 barg
2.5	<5.0	-10%	-5%	-0%	±0.5 psig	0.172	<0.345	±30%	±25%	±0.035 barg
5.0	<7.0	-10%	-5%	-0%	±0.5 psig	0.345	<0.483	±20%	±17.5%	±0.035 barg
7.0	<11.0	-10%	-5%	-0%	±0.8 psig	0.483	<0.759	±20%	±15%	±0.055 barg
11.0	<15	-10%	-5%	-0%	±1.3 psig	0.759	<1.034	±20%	±15%	±0.090 barg
15.0	<26	-10%	-5%	-0%	±2.0 psig	1.034	<1.793	±20%	±15%	±0.138 barg
26.0	<40	-10%	-5%	-0%	±2.0 psig	1.793	<2.758	±15%	±12.5%	±0.138 barg
40.0	Max	-10%	-5%	-0%	±5%	2.758	Max	±10%	±7.5%	±5%

Certified Flow Resistance Factors

Disk Type	K_{rl} (liquid)	K_{rg} (Gas)
RAUS	11.67	11.67

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