



RLPS Series Sanitary Metal Rupture Disks

The RLPS Sanitary Disk is an extension of ZOOK's 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 (with included support ring)
- 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)
- 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

RLPS-L* A process side **PFA Teflon liner** provides extra protection from corrosion or viscous process build-up

RLPS-R* A **Vacuum Ring** is required to withstand Vacuum

RLPS-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.

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)



Optional Torque-Rite® Nut



RLPS Series Specifications

Minimum and Maximum Pressure Ratings

Size in. (mm)	Burst Pressure – psig (barg)			MNFA in ² (mm ²)	Tri-Clover Ferrule Dimensions in (mm)	
	Minimum		Maximum		Ferrule OD	Tube ID
	316*	w/liner				
1"	11	16	83	0.35	1.984	0.856
25 mm	(0.76)	(1.10)	(5.72)	(225)	(50.4)	(21.7)
1-1/2"	9	11	27	0.79	1.984	1.356
40 mm	(0.62)	(0.76)	(1.86)	(509)	(50.4)	(34.4)
2"	7	11	24	1.63	2.516	1.856
50 mm	(0.48)	(0.76)	(1.66)	(877)	(63.9)	(47.1)
3"	6	10	20	3.86	3.579	2.865
80 mm	(0.41)	(0.69)	(1.38)	(2490)	(90.9)	(72.5)
4"	3	8	18	6.82	4.682	3.810
100 mm	(0.21)	(0.55)	(1.24)	(4399)	(118.9)	(96.8)

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.

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	-67° F (-55° C)	400° F (204° C)
		White		
		Black		
		Clear		
	Platinum	Clear		
Buna	Sulfur	White	0° F (-18° C)	400° F (204° C)
Viton	Bisphenol		-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%

Teflon - TM The Chemours Company
Tri-clamp/Tri-clover – TM Alfa Laval
Torque-Rite – TM Rubber Fab



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Safety through knowledge and performance.