

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 optional vacuum 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)
- Suitable for clean-in-place (CIP) applications*
- CE, KOSHA and TÜV compliance available
- 3-A available for applicable materials and options. Contact ZOOK for more information

*Note: Disk dome should not be subject to contact or direct jet spray

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)



Shown with optional BI Burst Indicator and PTFE gaskets



Optional Torque-Rite® Nut

RLPS Series Specifications

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

Size in. (mm)	Burst Pressure – psig (barg)			MNFA in ² (mm ²)		Tri-Clover Ferrule Dimensions in (mm)	
	Minimum		Maximum	RLPS (w/o Vacuum Ring)	RLPS-R (with Vacuum Ring)	Ferrule OD	Tube ID
	316*	w/liner					
1"	11	16	83	0.35	0.32	1.984	0.870
25 mm	(0.759)	(1.104)	(5.722)	(225)	(206)	(50.4)	(22.1)
1-1/2"	9	11	27	0.78	0.77	1.984	1.370
40 mm	(0.621)	(0.759)	(1.861)	(503)	(496)	(50.4)	(34.8)
2"	7	11	24	1.60	1.51	2.516	1.870
50 mm	(0.483)	(0.759)	(1.654)	(1032)	(974)	(63.9)	(47.5)
3"	6	10	20	3.80	3.58	3.579	2.870
80 mm	(0.414)	(0.690)	(1.378)	(2451)	(2309)	(90.9)	(72.9)
4"	3	8	18	7.00	6.40	4.681	3.834
100 mm	(0.207)	(0.552)	(1.241)	(4516)	(4129)	(118.9)	(97.4)

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		0° F (-18° C)	400° F (204° C)
Buna	Sulfur	White	-20° F (-29° C)	230° F (110° C)
EPDM	Peroxide		-67° F (-55° C)	347° F (175° C)

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.

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 - Trademark of The Chemours Company
Tri-clamp/Tri-clover – Trademark of Alfa Laval
Torque-Rite – Trademark of Rubber Fab



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Safety through knowledge and performance.