

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.

W DIRECTION 1

Features

ZOOK

- 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)
- 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



Option

Optional Torque-Rite[®] Nut

Shown with optional BI

Burst Indicator and PTFE gaskets

- 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)

RLPS Series Specifications

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

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

Standar	d Gasket Ma (Stocked)	terials	Temperature Range			
Materials	Cured	Colour	Min	Max		
Viton	Bisphenol		0° F (-18° C)	400° F (204° C)		
Buna	Sulfur	Black	-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			
Other Avai	lable Gasket	Materials	Temperati	ure Range		
Materials	Cured	Materials Colour	Temperatu Min	ure Range Max		
			· ·	U		
	Cured	Colour	Min	Max		
		Colour Red	· ·	U		
Materials	Cured	Colour Red White	Min	Max		
Materials	Cured	Colour Red White Black	Min	Max		

White

0° F (-18° C)

-20° F (-29° C)

-67° F (-55° C)

400° F (204° C)

230° F (110° C)

347° F (175° C)

Bisphenol

Sulfur

Peroxide

Viton

Buna

EPDM

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. * RLPS-R's are equipped with a process side ring that restricts MNFA. Contact factory for details.

Manufacturing Design Range & Total Performance Tolerance

	ASME					PED				
Burst Pres	Burst Pressure (psig)		Manufacturing Design Range			Burst Pressure (barg)		Total Performance Tolerance		
Min	Max	Good	Better	Best	Tolerance	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%

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Safety through knowledge and performance.