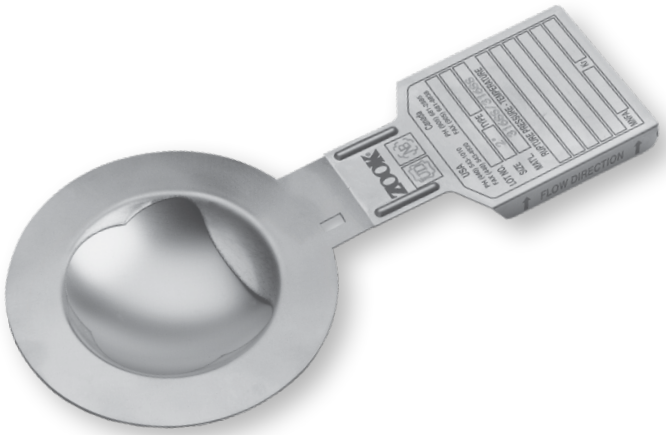
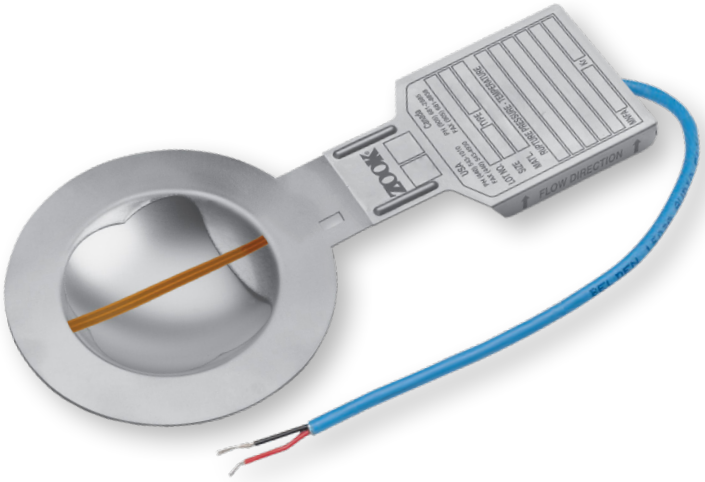
URA Series
Universal Reverse-Acting Rupture Disks

Disk Features

- Designed for Non-fragmentation
- Operating ratios up to 95% of the low end of burst tolerance
- Disk design offers high cycle life
- Suitable for liquid, gas, or two-phase applications
- Standard manufacturing design range and total tolerance ensures marked rating on disk tag does not exceed the MAWP of equipment
- Withstands full vacuum without vacuum support
- Wide range of standard and exotic materials available
- Withstands back pressure up to the positive set pressure of the disk
- Sizes from 1” (25 mm) through 30” (750 mm)
- Burst ratings from 12 psig (0.83 barg) to 1000 psig (68.97 barg)
- Resists product build-up. The smooth convex side of the disk is exposed to the process media
- Damage ratio of 1.0 or less
- 3-dimensional stainless steel tag permanently engraved with complete disk specifications
- ASME UD, CE (PED), and TÜV compliance available





Options

URA-L* A process side PFA Teflon liner provides protection from corrosive media

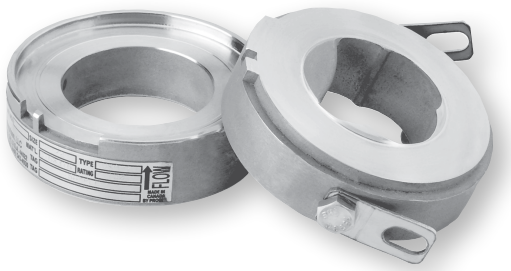
URA-BI* Equipped with ZOOK’s Integral Burst Indicator

URA+ Factory tested to 100% of the low end of the tolerance to insure no disks will burst low

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

Disk Holder Features

- Unique holder ensures proper disk orientation
- Non-torque sensitive flat seat design
- Standard material of construction is Stainless Steel. Other materials available upon request.
- Available options include: gauge tap; nipple and tee; excess flow valve; pressure gauge; J-hook; special facings and coatings



URA Series disk mounts into URAI Series disk holder

URA Series Specifications

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

Disk Size	Minimum Burst Pressure										URA-L	URA-BI	MNFA in² (mm²)	URAI Holder (Overall Height)
	316		Inconel 600		Monel 400		Nickel 200/201		Hastelloy C276					
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.				
1”	24	1000	22	1000	22	1000	22	1000	24	1000	34	Same as minimum material	0.86	1-1/2
25 mm	1.655	68.947	1.517	68.947	1.517	68.947	1.517	68.947	1.655	68.947	2.345		554	38.10
1-1/2”	22	1000	20	1000	20	900	20	900	22	1000	Same as minimum material		2.00	1-5/8
40 mm	1.517	68.947	1.379	68.947	1.379	62.052	1.379	62.052	1.517	68.947			1,290	41.28
2”	20	900	18	900	18	850	18	850	20	1000			3.36	1-3/4
50 mm	1.379	62.052	1.242	62.052	1.242	58.605	1.242	58.605	1.379	68.947			2,167	44.45
3”	18	900	16	900	16	750	16	750	18	1000			7.25	2-1/8
80 mm	1.242	62.052	1.104	62.052	1.104	51.710	1.104	51.710	1.242	68.947			4,677	53.98
4”	16	800	14	800	14	650	14	650	16	900			12.53	2-7/8
100 mm	1.104	55.158	0.966	55.158	0.966	44.815	0.966	44.815	1.104	62.052			8,063	73.03
6”	14	450	12	450	12	400	12	400	14	500			26.59	3-11/16
150 mm	0.966	31.026	0.828	31.026	0.828	27.579	0.828	27.579	0.966	34.473			17,154	93.68
8”	12	300	12	300	12	250	12	250	12	350			45.48	3-13/16
200 mm	0.828	20.684	0.828	20.684	0.828	17.236	0.828	17.236	0.828	24.131			29,341	96.85
Max. Temp.	900°F (482°C)		900°F (482°C)*		800°F (427°C)		750°F (399°C)		900°F (482°C)		500°F (260°C)	400°F (204°C)		

Note: For materials, sizes, burst ratings and temperatures not shown, contact ZOOK
* Contact ZOOK for higher temperatures
• Refer to ASME/ANSI B16.5 pipe flanges and flange fittings (Table 2) for max allowable pressure/temperature ratings per flange class.

Manufacturing Design Range & Total Performance Tolerance

ASME						PED				
Burst Pressure (psig)		Manufacturing Design Range			Burst Tolerance	Burst Pressure (barg)		Total Performance Tolerance		
Minimum	Maximum	Good	Better	Best		Minimum	Maximum	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%

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

Krg (Gas)	Krl (Liquid)
0.78	0.78

Teflon - Trademark of The Chemours Company
Inconel - Trademark of Special Metals Corporation
Monel - Trademark of Special Metals Corporation
Hastelloy - Trademark of Haynes International

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