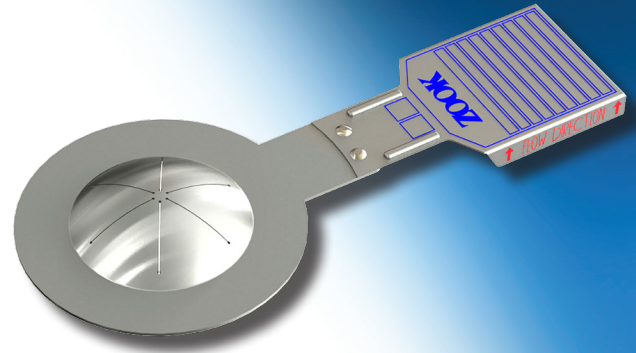




FDZ Series Forward-Acting Composite Metal Rupture Disks

Features

- The FDZ Series is a slotted metal top section and allows the use of metal & Teflon seal materials. A wide variety of corrosive resistant seal materials are available.
- State-of-the-art laser slotted metal burst cap
- Operating ratios up to 85% of the low end of burst tolerance
- Disk design offers high cycle life
- Excellent for liquid, gas or 2 phased flow
- Wide range of standard and exotic materials available
- Sizes from 1/2" (13mm) through 30" (750mm)
- Burst ratings from 3 psig (0.21 barg) to 2500 psig (172.37 barg)
- 3-dimensional stainless steel tag permanently engraved with complete disk specifications
- CE (PED), and TÜV compliance available



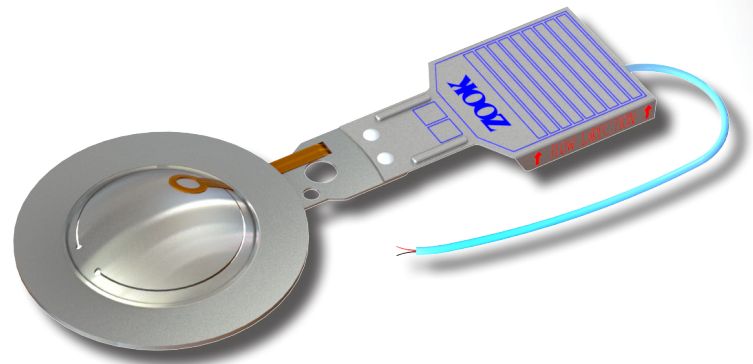
Options

- FDZ-V* **Vacuum Supports** are required on vacuum services. Vacuum supports are attached to the process side of the disk and allow the disk to support a full system vacuum
- FDZ-R* **Protective Rings** are recommended with FDZ Series disks to protect delicate materials and/or to provide stability when vacuum supports are not supplied
- FDZ-H* **Handling Supports** are attached to the process side of the disk to protect disk seals when vacuum supports are not supplied
- FDZ-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.



FDZ Series disk mounts into UHZ Series disk holder (refer to UHZ Series data sheet)



FDZ Series Specifications

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

Disk Size	Minimum Burst Pressures with Listed Seal Materials									Maximum Burst Pressure	MNFA in ² (mm ²)	
	Burst Cap Materials: 316, Inconel, Monel, Nickel or Hastelloy C276							Aluminum	PFA Teflon		FDZ	FDZ-V FDZ-V-BI FDZ-BI
	316	Inconel	Monel	Nickel	Hastelloy C276							
1/2"	1100	880	600	540	1100	140	90	2500	0.30	0.18		
13 mm	75.86	60.69	41.38	37.24	75.86	9.66	6.21	172.41	193	116		
3/4"	800	700	460	440	800	110	60	2500	0.53	0.49		
20 mm	55.17	48.28	31.72	30.34	55.17	7.59	4.14	172.41	341	316		
1"	400	300	240	185	400	60	25	2500	0.86	0.77		
25 mm	27.59	20.69	16.55	12.76	27.59	4.14	1.72	172.41	554	496		
1-1/2"	275	200	155	125	275	35	20	2000	2.04	1.68		
40 mm	18.97	13.79	10.69	8.62	18.97	2.41	1.38	137.93	1316	1083		
2"	165	120	90	80	165	25	15	1500	3.36	3.23		
50 mm	11.38	8.28	6.21	5.52	11.38	1.72	1.03	103.45	2167	2083		
2-1/2"	145	105	80	65	145	20	13	1250	4.79	4.16		
65 mm	10.00	7.24	5.52	4.48	10.00	1.38	0.90	86.19	3090	2683		
3"	125	95	70	55	125	15	10	1000	7.39	6.34		
80 mm	8.62	6.55	4.83	3.79	8.62	1.03	0.69	68.97	4767	4090		
4"	90	75	50	40	90	12	8	900	12.73	10.30		
100 mm	6.21	5.17	3.45	2.76	6.21	0.83	0.55	62.07	8212	6645		
6"	75	60	40	35	75	10	6	700	28.89	24.31		
150 mm	5.17	4.14	2.76	2.41	5.17	0.69	0.41	48.28	18638	15683		
8"	60	40	35	25	60	8	5	600	50.03	38.34		
200 mm	4.14	2.76	2.41	1.72	4.14	0.55	0.34	41.38	32277	24735		
10"	45	30	30	22	45	7	4	500	78.85	67.52		
250 mm	3.1	2.07	2.07	1.52	3.1	0.48	0.28	34.48	50870	43561		
12"	40	25	25	19	40	7	3	400	113.10	90.08		
300 mm	2.76	1.72	1.72	1.31	2.76	0.48	0.21	27.59	72967	58116		
Max. Temp.	900°F (482°C)	900°F (482°C)*	800°F (427°C)	750°F (399°C)	900°F (482°C)	600°F (316°C)	500°F (260°C)					

Notes: * Contact ZOOK for higher temperatures

• For materials, sizes, burst ratings and temperatures not shown, contact ZOOK

Table Tolerance

Table Tolerance - ZOOK											Table Tolerance - PED						
Burst Pressure Range (psig)		ZOOK Manufacturing Design Range (psig)									Burst Tolerance	Burst Pressure Range (barg)		Total Performance Tolerance			
		Standard		Reduced Tolerance				Minimum	Maximum	Standard				Reduced Tolerance			
		Minimum	Maximum	Minus	Plus	Minus	Plus					Minus	Plus	Minus	Plus	Good	Better
Min	<1.0	0	0.3	0.00	0.15	0.00	0.08	0.00	0.00	± 0.25 psig	Min	<0.069	±75%	±73%	±70%	±0.017 barg	
1.0	<2.5	0.5	0.5	0.25	0.25	0.13	0.13	0.00	0.00	± 0.33 psig	0.069	<0.172	±65%	±45%	±35%	±0.023 barg	
2.5	<4.0	1	1	0.50	0.50	0.25	0.25	0.00	0.00	± 0.5 psig	0.172	<0.276	±50%	±30%	±20%	±0.035 barg	
4.0	<7.0	1	2	0.50	1.00	0.25	0.50	0.00	0.00	± 0.5 psig	0.276	<0.483	±50%	±30%	±20%	±0.035 barg	
7.0	<11.0	1.5	2.5	0.75	1.25	0.38	0.63	0.00	0.00	± 0.8 psig	0.483	<0.759	±50%	±30%	±20%	±0.055 barg	
11.0	<15.0	2	3	1.00	1.50	0.50	0.75	0.00	0.00	± 1.3 psig	0.759	<1.034	±25%	±20%	±15%	±0.090 barg	
15.0	<17	2	3	1.00	1.50	0.50	0.75	0.00	0.00	± 2.0 psig	1.034	<1.172	±25%	±20%	±15%	±0.138 barg	
17	<26	2	4	1.00	2.00	0.50	1.00	0.00	0.00	± 2.0 psig	1.172	<1.793	±25%	±20%	±15%	±0.138 barg	
26	<40	3	5	1.50	2.50	0.75	1.25	0.00	0.00	± 2.0 psig	1.793	<2.758	±20%	±15%	±10%	±0.138 barg	
40	<66	4	6	2.00	3.00	1.00	1.50	0.00	0.00	± 5%	2.758	<4.552	±15%	±10%	±7.5%	±5%	
66	<101	5	9	2.50	4.50	1.25	2.25	0.00	0.00	± 5%	4.552	<6.966	±15%	±10%	±7.5%	±5%	
101	<151	6	12	3.00	6.00	1.50	3.00	0.00	0.00	± 5%	6.966	<10.412	±10%	±7.5%	±6.5%	±5%	
151	<201	9	16	4.50	8.00	2.25	4.00	0.00	0.00	± 5%	10.412	<13.859	±10%	±7.5%	±6.5%	±5%	
201	<351	12	23	6.00	11.50	3.00	5.75	0.00	0.00	± 5%	13.859	<24.201	±10%	±7.5%	±6.5%	±5%	
351	<500	15	30	7.50	15.00	3.75	7.50	0.00	0.00	± 5%	24.201	<34.474	±10%	±7.5%	±6.5%	±5%	
500	Max	3%	6%	1.5%	3.0%	0.75%	1.5%	0.00	0.00	± 5%	34.474	Max	±10%	±7.5%	±6.5%	±5%	

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



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