



FAX Series Cross-Scored Forward Acting Metal Rupture Disks

The FA Series of rupture disks are complementary designs to cover the majority of rupture disk applications and are designed to be used in the FAH Series disk holder.

Features

- A Fail-Safe Design. If the disk is damaged or incorrectly installed, it will always burst at or below the marked burst rating as indicated on the disk tag
- Designed for Non-fragmentation
- Operating ratios up to 90% of the low end of burst tolerance
- Disk design offers high cycle life
- Excellent for liquid, gas or 2 phased flow
- 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
- Sizes from 1" (25mm) through 12" (300mm)
- Burst ratings from 45 psig (3.10 barg) to 3600 psig (248.28 barg)
- Resists product build-up. The smooth concave side of the disk is exposed to the process media
- Unique alignment pin design ensures proper disk orientation into FAH Series disk holder
- 3-dimensional stainless steel tag permanently engraved with complete disk specifications
- ASME UD, CE (PED), and TÜV compliance available



FAX Series disk mounts into FAH Series disk holder (refer to FAH Series data sheet)

Options

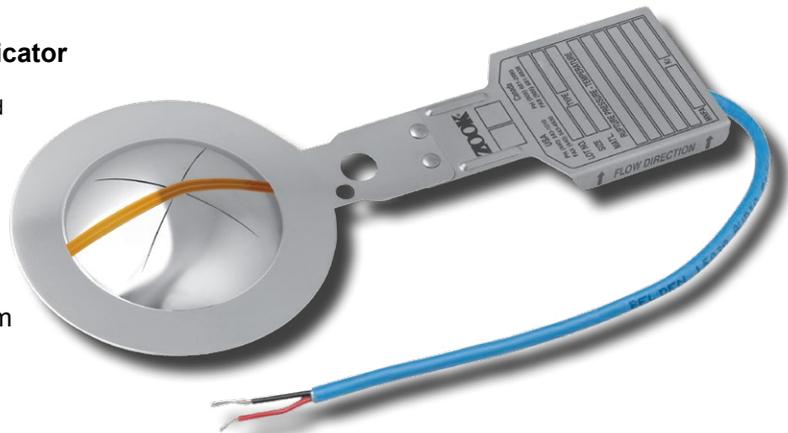
FAX-L* A process side **PFA Teflon liner** provides protection from corrosive media.

FAX-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.

Safety Relief Valve Protection

When a disk is mounted under a Safety Relief Valve, the working components of the valve are isolated from hostile environments.



FAX Series Specifications

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

Disk Size	Minimum Burst Pressure						FAX-L	FAX-BI	Maximum Burst Pressure	MNFA in ² (mm ²)
	316	Inconel	Monel	Nickel	Hastelloy C276					
1"	110	110	100	79	165	Same as minimum material	Same as minimum material	3600	0.86	
25 mm	7.59	7.59	6.90	5.45	11.38			248.28	554	
1-1/2"	80	85	73	73	125			3600	2.04	
40 mm	5.52	5.86	5.03	5.03	8.62			248.28	1316	
2"	61	70	65	61	102			3600	3.36	
50 mm	4.21	4.82	4.48	4.21	7.03			248.28	2167	
2 1/2"	60	60	60	45	87			2159	4.79	
64 mm	4.14	4.14	4.14	3.10	6.00			148.90	3090	
3"	60	60	60	45	87			2159	7.39	
80 mm	4.14	4.14	4.14	3.10	6.00			148.90	4767	
4"	60	60	55	45	84			2159	12.73	
100 mm	4.14	4.14	3.79	3.10	5.79			148.90	8212	
6"	60	60	55	45	96			1440	28.89	
150 mm	4.14	4.14	3.79	3.10	6.62			99.31	18638	
8"	60	60	55	45	93			1440	50.03	
200 mm	4.14	4.14	3.79	3.10	6.41			99.31	32277	
10"	72	72	60	45	111			1440	78.85	
250 mm	4.97	4.97	4.14	3.10	7.66			99.31	50870	
12"	82	82	65	45	120			720	113.10	
300 mm	5.66	5.66	4.48	3.10	8.28			49.66	72967	
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)			

Notes: * Contact ZOOK for higher temperatures

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

Teflon liner may be added to provide additional protection against corrosive media

Requirements/Limitations when liner is added:

1. A protective ring is recommended
2. Max. Temperature of 500°F (260°C) – Limitations of liner material
3. Liner may be applied to all ratings. Contact ZOOK if liner is required on both sides of rupture disk
4. The maximum temperature rating of rupture disks supplied with liners and BI's is lower than the base disk material

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%

Note: Burst tolerances are the maximum expected variation from the disk's marked burst pressure

Certified Flow Resistance Factors

Krl (Liquid)	Krg (Gas)
1.78	0.39

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



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Safety through knowledge and performance.