

FAS

RUPTURE DISK

The Oseco FAS (*Forward Acting Scored*) Rupture Disk is designed and manufactured for high-performance and demanding rupture disk applications.

The FAS is scored after the forming of its high crown. This process yields a high-performance disk to withstand the most difficult applications. The FAS offers a smooth non-scored surface toward the process media. This limits product accumulation on the disk and reduces the risk of polymerization and crystallization of media on the disk surface.

Relief Valve Isolation:

The FAS rupture disk has a 90% operating ratio for applications requiring a high operating to set pressure ratio. Due to the high operating ratio and nonfragmenting design, the FAS rupture disk is an excellent choice for isolation of safety relief valves. Installing the leak-tight FAS rupture disk between the process media and the safety relief valve protects the valve and prevents emissions to the atmosphere. Call Oseco with your specific application parameters.

Some applications may require a support ring on the atmospheric side of the FAS. This support ring is recommended in sizes 12" and smaller where lower burst pressures may require additional support. Table 1 shows min/max burst pressures where the FAS will withstand full vacuum as well as those minimums where the full vacuum requirement cannot be met. The ring material is 300 series half hard stainless steel. When ordering the FAS rupture disk with the optional support ring, specify type RFAS.

The FAS is Oseco's problem-solving rupture disk.



Oseco FAS Rupture Disk

- Sizes 1" through 18"
- Standard materials of construction: 316 Stainless Steel, Nickel 200/201, Inconel®-600, Monel®-400, and Hastelloy® C-276*.
- "0", "5%" & "10%" Manufacturing Ranges available (*Note: All manufacturing ranges are calculated on the minus side of the requested burst pressure.*)
- Excellent for gas or liquid service applications.
- Nonfragmenting design.
- "Fail-safe". A damaged or incorrectly installed FAS will always burst at less than the rated pressure.
- Elevated temperatures up to 1000° F.
- Burst tolerance $\pm 5\%$ > 40 psig & $\pm 2\%$ psig \leq 40 psig.
- Non-torque-sensitive.
- Lowest K_F in the industry means less flow restriction
- Withstands full vacuum without a separate vacuum support. **See Table 1.**
- Operates to 90% of stamped burst pressure.
- PFA-grade fluoropolymer liners available for atmospheric and/or process sides (*specify LFAS or FASL when ordering.*)

*Hastelloy® C-276 requires special pricing

TABLE 1 FAS: Minimum / Maximum Burst Pressure @ 72° F (psig) / 22° C (barg)

Size	Materials		316 SS	Nickel	Inconel	Monel	Alum	Hast. C-276
1.0" DN 25	Minimum	psig	110	70	100	75	70	135
		barg	7.6	4.8	6.9	5.2	4.8	9.3
	Maximum	psig	4100	3500	4000	3750	500	5000
		barg	282.7	241.3	275.8	258.5	34.5	344.7
To withstand full vacuum	psig	220	140	200	140	110	270	
Ring recommended if below	barg	15.2	9.7	13.8	9.7	7.6	18.6	
	psig	475	350	400	350	--	550	
	barg	32.7	24.1	27.6	24.1	--	37.9	
1.5" DN 40	Minimum	psig	80	50	80	60	50	125
		barg	5.5	3.4	5.5	4.1	3.4	8.6
	Maximum	psig	4000	2900	3900	3500	450	4500
		barg	275.8	199.9	268.9	241.3	31.0	310.3
To withstand full vacuum	psig	160	100	170	120	90	250	
Ring recommended if below	barg	11.0	6.9	11.7	8.3	6.2	17.2	
	psig	350	250	300	275	--	400	
	barg	24.1	17.2	20.7	19.0	--	27.6	
2.0" DN 50	Minimum	psig	60	40	65	50	40	100
		barg	4.1	2.8	4.5	3.4	2.8	6.9
	Maximum	psig	3000	2000	2500	2300	300	3500
		barg	206.8	137.9	172.4	158.6	20.7	241.3
To withstand full vacuum	psig	120	80	130	100	80	200	
Ring recommended if below	barg	8.3	5.5	9.0	6.9	5.5	13.8	
	psig	270	180	225	200	--	300	
	barg	18.6	12.4	15.5	13.8	--	20.7	
3.0" DN 80	Minimum	psig	55	30	50	40	35	80
		barg	3.8	2.1	3.4	2.8	2.4	5.5
	Maximum	psig	2000	1600	2100	1800	250	2000
		barg	137.9	110.3	144.8	124.1	17.2	137.9
To withstand full vacuum	psig	110	60	100	80	70	160	
Ring recommended if below	barg	7.6	4.1	6.9	5.5	4.8	11.0	
	psig	200	145	225	175	--	250	
	barg	13.8	10.0	15.5	12.1	--	17.2	
4.0" DN 100	Minimum	psig	50	40	50	45	30	70
		barg	3.4	2.8	3.4	3.1	2.1	4.8
	Maximum	psig	2000	1400	1800	1600	200	2000
		barg	137.9	96.5	124.1	110.3	13.8	137.9
To withstand full vacuum	psig	110	80	100	90	60	140	
Ring recommended if below	barg	7.6	5.5	6.9	6.2	4.1	9.7	
	psig	200	125	175	150	--	250	
	barg	13.8	8.6	12.1	10.3	--	17.2	
6.0" DN 150	Minimum	psig	50	40	55	50	25	80
		barg	3.4	2.8	3.8	3.4	1.7	5.5
	Maximum	psig	1800	1200	1600	1400	150	2000
		barg	124.1	82.7	110.3	96.5	10.3	137.9
To withstand full vacuum	psig	100	80	110	100	50	160	
Ring recommended if below	barg	6.9	5.5	7.6	6.9	3.4	11.0	
	psig	125	125	125	125	--	175	
	barg	8.6	8.6	8.6	8.6	--	12.1	
8.0" DN 200	Minimum	psig	55	40	60	50	30	85
		barg	3.8	2.8	4.1	3.4	2.1	5.9
	Maximum	psig	1800	1100	1300	1200	100	1600
		barg	124.1	75.8	89.6	82.7	6.9	110.3
To withstand full vacuum	psig	110	80	120	100	50	170	
Ring recommended if below	barg	7.6	5.5	8.3	6.9	3.4	11.7	
	psig	125	125	125	125	--	175	
	barg	8.6	8.6	8.6	8.6	--	12.1	
10.0" DN 250	Minimum	psig	65	40	65	55	35	100
		barg	4.5	2.8	4.5	3.8	2.4	6.9
	Maximum	psig	1500	1000	1200	1100	75	1500
		barg	103.4	68.9	82.7	75.8	5.2	103.4
To withstand full vacuum	psig	130	80	130	110	60	200	
Ring recommended if below	barg	9.0	5.5	9.0	7.6	4.1	13.8	
	psig	125	125	125	125	--	175	
	barg	8.6	8.6	8.6	8.6	--	12.1	
12.0" DN 300	Minimum	psig	75	40	75	60	40	110
		barg	5.2	2.8	5.2	4.1	--	7.6
	Maximum	psig	1300	1000	1100	1000	--	1300
		barg	89.6	68.9	75.8	68.9	--	89.6
To withstand full vacuum	psig	150	80	150	120	--	220	
Ring recommended if below	barg	10.3	5.5	10.3	8.3	--	15.2	
	psig	125	125	125	125	--	175	
	barg	8.6	8.6	8.6	8.6	--	12.1	
14.0" DN 350	Minimum	psig	85	45	80	65	--	115
		barg	5.9	3.1	5.5	4.5	--	7.9
	Maximum	psig	1000	800	900	800	--	1000
		barg	68.9	55.2	62.1	55.2	--	68.9
To withstand full vacuum	psig	170	90	160	130	--	230	
Ring recommended if below	barg	11.7	6.2	11.0	9.0	--	15.9	
	psig	--	--	--	--	--	--	
	barg	--	--	--	--	--	--	
16.0" DN 400	Minimum	psig	90	50	85	70	--	120
		barg	6.2	3.4	5.9	4.8	--	8.3
	Maximum	psig	900	700	800	700	--	900
		barg	62.1	48.3	55.2	48.3	--	62.1
To withstand full vacuum	psig	180	100	170	140	--	240	
Ring recommended if below	barg	12.4	6.9	11.7	9.7	--	16.5	
	psig	--	--	--	--	--	--	
	barg	--	--	--	--	--	--	
18.0" DN 450	Minimum	psig	95	50	85	70	--	125
		barg	6.5	3.4	5.9	4.8	--	8.6
	Maximum	psig	800	600	700	600	--	800
		barg	55.2	41.4	48.3	41.4	--	55.2
To withstand full vacuum	psig	190	100	170	140	--	250	
Ring recommended if below	barg	13.1	6.9	11.7	9.7	--	17.2	
	psig	--	--	--	--	--	--	
	barg	--	--	--	--	--	--	
MAX TEMP	° F	900	750	900	800	250	900	
	° C	482.2	398.9	482.2	426.7	121.1	482.2	

Maximum Temperature for all materials if Teflon lined is 500 Degrees F.