

# FAS

FORWARD ACTING SCORED

## The FAS is Oseco's problem-solving rupture disc

- Sizes 1" through 18"
- Standard materials of construction: 316 Series Stainless Steel, Nickel, Inconel® 600, Monel®, and Hastelloy® C
- Excellent for gas or liquid service applications
- Lowest  $K_R$  in the industry means less flow restriction
- $K_{RG}$  0.223  $K_{RL}$  0.19
- Non-fragmenting design
- "Fail-safe" A damaged or incorrectly installed FAS will always burst at less than the rated pressure
- Elevated temperatures up to 900° F
- Burst tolerance  $\pm 5\%$  > 40 psig &  $\pm 2$  psig  $\leq$  40 psig
- Non-torque-sensitive

## FAS

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

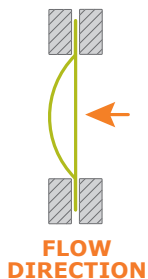
The FAS is scored after the forming of its high crown. This process yields a high-performance disc to withstand the most difficult applications. The FAS offers a smooth non-scored surface toward the process media. This limits product accumulation on the disc and reduces the risk of polymerization and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

The FAS rupture disc has a 90% operating ratio for applications requiring a high operating to set pressure ratio. Due to the high operating ratio and non-fragmenting design, the FAS rupture disc is an excellent choice for isolation of safety relief valves. Installing the leak-tight FAS rupture disc between the process media and the safety relief valve protects the valve and prevents emissions to the atmosphere.



- Operates at 90% of stamped burst pressure
- PFA-grade Fluoropolymer liners available for atmospheric and/or process sides

- ASME Approved



### COMMON APPLICATIONS

Safety relief valve isolation - High Pressure

### OPERATING RATIO

90%

### BURST TOLERANCE

$\pm 5\%$  over 40 psig,  $\pm 2$  psig at or below 40 psig

### MANUFACTURING RANGE

0%



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

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

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

## Related products

**SENSORS**

AMS  
SVT  
CMS

**HOLDERS**

FRDI  
FRDI-P  
FRDH

## Free Flow Area/Minimum Net Flow Area (MNFA)

Disc Size (Inch)	Net Flow Area (Sq. In.)
1	0.864
1.5	2.036
2	3.355
3	7.393
4	12.73
6	28.89
8	50
10	78.9
12	113.1
14	137.9
16	176.7
18	233.7
24	405.9

## Burst Tolerance

$\pm 5\% > 40$ psig	$\pm 2$ psig $\leq 40$ psig
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Let us help you with all your pressure relief questions. Contact Oseco at **800-395-3475** or email us at [info@oseco.com](mailto:info@oseco.com).

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