

FAS™

FORWARD ACTING SCORED

The FAS features the lowest K_R in the industry for a forward acting disc. Available in the Oseco Safety Cartridge™.



The FAS™ rupture disc is designed and manufactured for high-performance and demanding rupture disc applications.

The disc is cross-scored after the forming of its high crown. This process yields a high-performance disc to withstand high operating pressures within the most difficult applications.

The FAS offers a smooth non-scored surface on the process side. This limits product accumulation on the disc and reduces the risk of polymerization and crystallization of media on the disc surface.

The low K_R value and high combination capacity factor make the FAS an excellent choice for isolation of safety relief valves.

Size	25mm - 600mm
Burst Pressure	2.8 - 344.7 barg
K_R Value	K_{RG} 0.223 K_{RL} 0.19
Operating Ratio	90%
Performance Tolerance	+/- 5%
Manufacturing Range	0%

**Let us help you with all
your pressure relief questions.**

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**REQUEST A QUOTE FOR
THE FAS**



TECHNICAL SPECIFICATIONS



Size range	25-600mm (1"-24")
Burst pressure range	2.8-344.7 barg (40-5,000 psig)
Temperature range	Up to 482°C (900°F)
Standard materials	316 Series Stainless Steel, Nickel, Inconel® 600, Monel®, Hastelloy® C
K _R Value	K _{RG} : 0.223 K _{RL} : 0.19
Max. Operating Ratio	90% of nominal burst pressure
Performance Tolerance	+/-5%
Manufacturing Range	0%
Fragmentation	Non-fragmenting design
Vacuum Service	Withstands full vacuum (14.7 psi) without separate vacuum support
Fluid compatibility	Gas service and liquid service
Torque requirements	See installation guide
Cycling or static service	Static service
Protective linings	PFA-grade Fluoropolymer liners available for atmospheric and/or process sides
Relief Valve Isolation	Suitable for safety relief valve isolation, especially at high pressures
Disc Surface Finish	Smooth surface on the process side to minimize product build-up
Design Standards	Designed to meet ASME Section XIII standards

Certifications

ASME UD
CRN
CE
CU/TR 032
China SELO

Related Products

Sensors

AMS
SVT
CMS

Holders

FRDI
FRDI - P
FRDH

One Piece Unit

Oseco Safety
Cartridge

Burst Pressure Ranges

FAS Min/Max Burst Pressure @ 22° C (barg) / 72° F (psig)



SIZE		MATERIAL	MIN* barg (psig)	MINIMUM TO WITHSTAND FULL VACUUM*	RING ADDED IF BELOW**	MAX barg (psig)
DN (mm)	inches					
25	1	316 Stainless Steel	20.7 (300)	20.7 (300)	32.7 (475)	282.7 (4100)
		Nickel	4.8 (70)	9.7 (140)	24.1 (350)	241.3 (3500)
		Inconel	10.3 (150)	13.8 (200)	27.6 (400)	275.8 (4000)
		Monel	17.2 (250)	17.2 (250)	24.1 (350)	258.5 (3750)
		Hastelloy C	11.0 (160)	18.6 (270)	37.9 (550)	344.7 (5000)
40	1.5	316 Stainless Steel	5.5 (80)	11.0 (160)	24.1 (350)	275.8 (4000)
		Nickel	3.4 (50)	6.9 (100)	17.2 (250)	199.9 (2900)
		Inconel	5.5 (80)	11.7 (170)	20.7 (300)	268.9 (3900)
		Monel	4.1 (60)	8.3 (120)	19.0 (275)	241.3 (3500)
		Hastelloy C	8.6 (125)	17.2 (250)	27.6 (400)	310.3 (4500)
50	2	316 Stainless Steel	4.1 (60)	8.3 (120)	18.6 (270)	206.8 (3000)
		Nickel	2.8 (40)	5.5 (80)	12.4 (180)	137.9 (2000)
		Inconel	4.5 (65)	9.0 (130)	15.5 (225)	172.3 (2500)
		Monel	3.4 (50)	6.9 (100)	13.8 (200)	158.6 (2300)
		Hastelloy C	6.9 (100)	13.8 (200)	20.7 (300)	241.3 (3500)
80	3	316 Stainless Steel	3.8 (55)	7.6 (110)	13.8 (200)	137.9 (2000)
		Nickel	2.1 (30)	4.1 (60)	10.0 (145)	110.3 (1600)
		Inconel	3.4 (50)	6.9 (100)	15.5 (225)	144.8 (2100)
		Monel	2.8 (40)	5.5 (80)	12.1 (175)	124.1 (1800)
		Hastelloy C	5.5 (80)	11.0 (160)	17.2 (250)	137.9 (2000)
100	4	316 Stainless Steel	3.4 (50)	7.6 (110)	13.8 (200)	137.9 (2000)
		Nickel	2.8 (40)	5.5 (80)	8.6 (125)	96.5 (1400)
		Inconel	3.4 (50)	6.9 (100)	12.1 (175)	124.1 (1800)
		Monel	3.1 (45)	6.2 (90)	10.3 (150)	110.3 (1600)
		Hastelloy C	4.8 (70)	9.7 (140)	17.2 (250)	137.9 (2000)
150	6	316 Stainless Steel	3.4 (50)	6.9 (100)	8.6 (125)	124.1 (1800)
		Nickel	2.8 (40)	5.5 (80)	8.6 (125)	82.7 (1200)
		Inconel	3.8 (55)	7.6 (110)	8.6 (125)	110.3 (1600)
		Monel	3.4 (50)	6.9 (100)	8.6 (125)	96.5 (1400)
		Hastelloy C	5.5 (80)	11.0 (160)	12.1 (175)	137.9 (2000)
200	8	316 Stainless Steel	3.8 (55)	7.6 (110)	8.6 (125)	124.1 (1800)
		Nickel	2.8 (40)	5.5 (80)	8.6 (125)	75.8 (1100)
		Inconel	4.1 (60)	8.3 (120)	8.6 (125)	89.6 (1300)
		Monel	3.4 (50)	6.9 (100)	8.6 (125)	82.7 (1200)
		Hastelloy C	3.9 (85)	11.7 (170)	12.1 (175)	110.3 (1600)
250	10	316 Stainless Steel	4.5 (65)	9.0 (130)	8.6 (125)	103.4 (1500)
		Nickel	2.8 (40)	5.5 (80)	8.6 (125)	68.9 (1000)
		Inconel	4.5 (65)	9.0 (130)	8.6 (125)	82.7 (1200)
		Monel	3.8 (55)	7.6 (110)	8.6 (125)	75.8 (1100)
		Hastelloy C	6.9 (100)	13.8 (200)	12.1 (175)	103.4 (1500)
300	12	316 Stainless Steel	5.2 (75)	10.3 (150)	8.6 (125)	89.6 (1300)
		Nickel	2.8 (40)	5.5 (80)	8.6 (125)	68.9 (1000)
		Inconel	5.2 (75)	10.3 (150)	8.6 (125)	75.8 (1100)
		Monel	4.1 (60)	8.3 (120)	8.6 (125)	68.9 (1000)
		Hastelloy C	7.6 (110)	15.2 (220)	12.1 (175)	89.6 (1300)
350	14	316 Stainless Steel	5.9 (85)	11.7 (170)	n/a	68.9 (1000)
		Nickel	3.1 (45)	6.2 (90)		55.2 (800)
		Inconel	5.5 (80)	11.0 (160)		62.1 (900)
		Monel	4.5 (65)	9.0 (130)		55.2 (800)
		Hastelloy C	7.9 (115)	15.9 (230)		68.9 (1000)
400	16	316 Stainless Steel	6.2 (90)	12.4 (180)		62.1 (900)
		Nickel	3.4 (50)	6.9 (100)		48.3 (700)
		Inconel	5.9 (85)	11.7 (170)		55.2 (800)
		Monel	4.8 (70)	9.7 (140)		48.3 (700)
		Hastelloy C	8.3 (120)	16.5 (240)		62.1 (900)
450	18	316 Stainless Steel	6.5 (95)	13.1 (190)		55.2 (800)
		Nickel	3.4 (50)	6.9 (100)		41.4 (600)
		Inconel	5.9 (85)	11.7 (170)		48.3 (700)
		Monel	4.8 (70)	9.7 (140)		41.4 (600)
		Hastelloy C	8.6 (125)	17.2 (250)		55.2 (800)
600	24	316 Stainless Steel		Consult Factory		
		Nickel				
		Inconel				
		Monel				
		Hastelloy C				

*Consult factory for minimum burst pressures when using a liner

**300 Series Stainless Steel Ring added on vent side



Free Flow Area / Minimum Net Flow Area (MNFA)

NOMINAL BORE		MNFA	
DN (mm)	inches	mm ²	Sq. Inch
25	1	557	0.864
40	1.5	1,313	2.036
50	2	2,164	3.355
80	3	4,769	7.393
100	4	8,212	12.73
150	6	18,638	28.89
200	8	32,258	50.0
250	10	50,903	78.9
300	12	72,967	113.1
350	14	88,967	137.9
400	16	113,999	176.7
450	18	150,773	233.7
600	24	273,934	424.6

Burst Tolerance

+/-5% > 2.8 barg
+/-5% > 40 psig

+/-0.14 barg ≤ 2.8 barg
+/-2 psig ≤ 40 psig

K_R Value (Frictional Loss Factor)

K _R	FAS
K _{RG}	0.223
K _{RL}	0.19