OsecoElfab

FST™

FORWARD SCORED TENSION

***The high-performance FST is* forward acting, non-fragmenting *and* excellent for relief valve isolation.**

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

The FST is scored after the forming of its low crown. This yields a high-performance disc that can withstand the most difficult applications, especially in materials such as tantalum.

The FST rupture disc has an 85% operating ratio for applications requiring a high operating to set pressure ratio.

Due to its high operating ratio and non-fragmenting design, the FST is an excellent choice for isolating safety relief valves. Installing the leak-tight FST disc between the process media and the safety relief valve protects the valve and prevents emissions to the atmosphere.

Size	1" - 8" / 25 - 200mm
Burst Pressure	25-400 psig / 1.4-27.58 barg
K_R Value	K_{RGL} 2.29
Operating Ratio	85%
Performance Tolerance	+/- 5%
Manufacturing Range	0%

Let us help you with all your pressure relief questions.

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TECHNICAL SPECIFICATIONS

Size range	1" - 8" / 25 - 200mm
Burst pressure range*	25-400 psig / 1.4-27.58 barg
Temperature range	Up to 1,000°F / 537°C
Standard materials**	316 Series Stainless Steel, Nickel, Inconel® 600, Monel®, Hastelloy® C, Tantalum
K_R Value	K_{RGL}: 2.29
Max. Operating Ratio	85% of stamped 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	Non-torque sensitive
Cycling or static service	Static service
Relief Valve Isolation	Suitable for safety relief valve isolation
Disc Surface Finish	Smooth surface on the process side to minimize product build-up
Design Standards	Designed to meet ASME Section XIII standards

* For lower burst pressures, some applications may require a support ring on the atmospheric side of the FST. The ring material is 300-series half-hard stainless steel.
** Aluminum available on request.

Certifications

ASME UD

Related Products

Sensors
AMS
SVT

Holders
FRDI
FRDI - P
FRDH

Burst Pressure Ranges

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

SIZE		MATERIAL	MIN psig (barg)	MAX psig (barg)
inches	DN (mm)			
1	25	Tantalum Hastelloy C Aluminum	97 (4.0) 86 (2.8) 55 (4.6)	400 (27.58)
1.5	40	Tantalum Hastelloy C Aluminum	90 (3.2) 80 (1.7) 45 (1.9)	400 (27.58)
2	50	Tantalum Hastelloy C Aluminum	72 (3.03) 64 (1.31) 40 (1.6)	400 (27.58)
3	80	Tantalum Hastelloy C Aluminum	57 (2.1) 50 (1.03) 35 (1.4)	400 (27.58)
4	100	Tantalum Hastelloy C Aluminum	55 (2.0) 49 (1.03) 30 (1.4)	400 (27.58)
6	150	Tantalum Hastelloy C Aluminum	52 (2.0) 46 (1.03) 25 (1.4)	400 (27.58)
8	200	Tantalum Hastelloy C Aluminum	50 (2.0) 44 (1.03) 25 (1.4)	400 (27.58)

Free Flow Area / Minimum Net Flow Area (MNFA)

NOMINAL BORE		MNFA	
inches	DN (mm)	Sq. Inch	mm^2
1	25	0.864	557
1.5	40	2.036	1,313
2	50	3.355	2,164
3	80	7.393	4,769
4	100	12.73	8,212
6	150	28.89	18,638
8	200	50.0	32,258

Burst Tolerance

+/-5% > 40 psig +/-5% > 2.8 barg	+/-2 psig ≤ 40 psig +/-0.14 barg ≤ 2.8 barg

K_R Value (Frictional Loss Factor)

K_R	FST
K_{RGL}	2.29