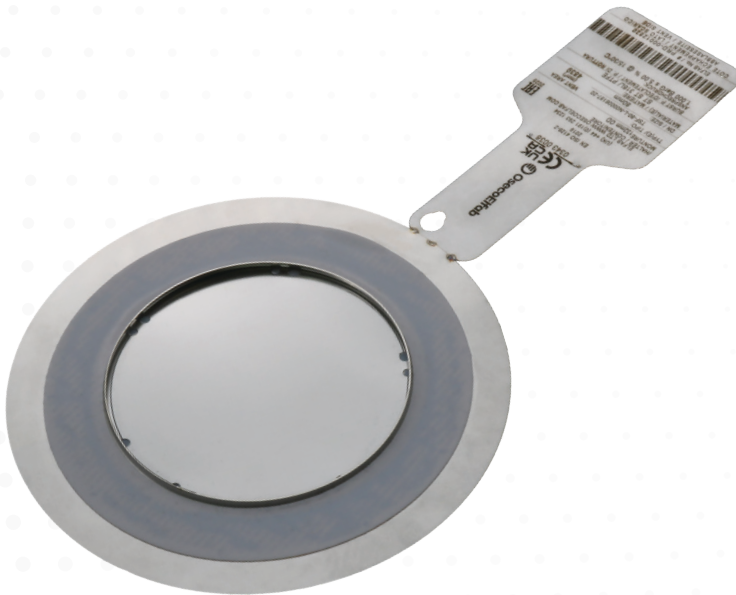


TWO-WAY TANK-SAFE

HOLDERLESS BIDIRECTIONAL RUPTURE DISC

*A single disc for **positive and negative pressure protection** where a holder is not desired or needed.*



Two-Way Tank-Safe dual-pressure rupture disc acts as a single design for both positive and negative pressure protection.

The unique construction of this disc comprises a slotted top section, seal membrane and vacuum support. The rupture disc can withstand the same pressure on both sides of the disc (2WS) or differing pressure on each side (2WD).

The holderless design makes this bursting disc ideal for applications where a rupture disc holder is not desired or needed. The non-fragmenting disc offers good life-cycle resistance and excellent relief valve isolation. Installing this disc can therefore contribute to keeping ongoing maintenance costs down.

We supply the Two-Way Tank-Safe bursting disc with a suitable gasket to allow for direct installation between industry-standard flanges.

Size	25 - 300 mm
Burst Pressure	0.07 - 2.07 barg
Operating Ratio	40%
Performance Tolerance_	+/-5%
Manufacturing Range	0%

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

UK office | North Shields
+44 (0)191 293 1234 | uksales@osecoelfab.com

US office | Broken Arrow
+1 (918) 258 5626 | info@osecoelfab.com

osecoelfab.com



TECHNICAL SPECIFICATIONS



Size range*	25mm to 300mm (1" to 12")*
Burst pressure range	0.07 barg to 2.07 barg (1 psig to 30 psig)
Standard materials	316 Stainless Steel (Others available on request)
Max. Operating Ratio	40% of minimum burst pressure (36% of nominal burst pressure)
Performance Tolerance	+/-5%
Manufacturing Range	0%
Fragmentation	Non-fragmenting design
Vacuum Service	Not suitable for vacuum service
Fluid compatibility	Liquid service, gas service, vapour service
Torque requirements	Not torque sensitive
Protective linings	Please contact us if you require protective linings
Relief Valve Isolation	Suitable for relief valve protection
Design Standards	Designed to meet ISO 4126-2:2019

** Larger sizes are available, please consult factory*

Certifications

SIL

Burst Pressure Ranges

Two-Way Tank-Safe Min/Max Burst Pressure 15-30°C (59-86°F)



SIZE		TOP SECTION MATERIAL*	MIN barg (psig)	MAX barg (psig)
DN (mm)	inches			
25	1	Nickel Stainless Steel / Inconel	0.21 (3) 0.42 (6)	1.04 (15) 2.07 (30)
40	1.5	Nickel Stainless Steel / Inconel	0.14 (2) 0.28 (4)	0.7 (10) 1.38 (20)
50	2	Nickel Stainless Steel / Inconel	0.14 (2) 0.28 (4)	0.7 (10) 1.38 (20)
65	2.5	Nickel Stainless Steel / Inconel	0.14 (2) 0.28 (4)	0.7 (10) 1.38 (20)
80	3	Nickel Stainless Steel / Inconel	0.14 (2) 0.28 (4)	0.7 (10) 1.38 (20)
100	4	Nickel Stainless Steel / Inconel	0.14 (2) 0.28 (4)	0.7 (10) 1.38 (20)
150	6	Nickel Stainless Steel / Inconel	0.07 (1) 0.14 (2)	0.35 (5) 0.7 (10)
200	8	Nickel Stainless Steel / Inconel	0.07 (1) 0.14 (2)	0.35 (5) 0.7 (10)
250	10	Nickel Stainless Steel / Inconel	0.07 (1) 0.14 (2)	0.35 (5) 0.7 (10)
300	12	Nickel Stainless Steel / Inconel	0.07 (1) 0.14 (2)	0.35 (5) 0.7 (10)

*All with Fluoropolymer seal

Notes

1) For two-way discs with the same burst pressure in both directions (2WS), the disc burst pressure can be specified anywhere between the minimum and maximum burst pressure ranges shown above. For example, for a 50mm disc you can specify a burst pressure anywhere between 2 psig and 20.psig.

2) For two-way discs with different burst pressures for forward and reverse operation (2WD), the maximum burst pressure specified may not exceed five times the specified low burst pressure. For example, if you specify a low burst pressure of 3 psig for a 50mm disc, the maximum burst pressure you specify may not exceed 15 psig.

Free Flow Area / Minimum Net Flow Area (MNFA)



NOMINAL BORE		HIGH-PRESSURE DIRECTION (2WS)		LOW-PRESSURE DIRECTION (2WD)	
DN (mm)	inches	mm ²	Sq. Inch	mm ²	Sq. Inch
25	1	491	0.76	152	0.23
40	1.5	1,018	1.58	418	0.64
50	2	1,735	2.71	699	1.08
65	2.5	3,117	4.86	1,159	1.79
80	3	4,657	7.26	1,742	2.70
100	4	7,088	11.05	2,732	4.23
150	6	16,513	25.75	6,408	9.93
200	8	29,865	46.58	11,780	18.25
250	10	47,144	73.53	18,566	28.77
300	12	68,349	106.6	26,906	41.70

Notes

1) For two-way discs with the same burst pressure in both directions (2WS), please refer to the column 'High-pressure direction' for the free flow area. The free flow area will be the same for forward or reverse operation of the bursting disc.

2) For two-way discs with different burst pressures for forward and reverse operation (2WD), please refer to both the 'High-pressure direction' and 'Low-pressure direction' columns for the free flow area of the disc. The disc free flow area will be significantly lower in the low-pressure direction.

Burst Tolerance

+/- 0.026 barg ≤ 0.24 barg
 +/- 0.053 barg > 0.24 - < 0.5 barg
 +/- 5% ≥ 0.5 barg

+/- 0.375 psig ≤ 3.5 psig
 +/- 0.75 psig > 3.5 - ≤ 7.25 psig
 +/- 5% > 7.25 psig