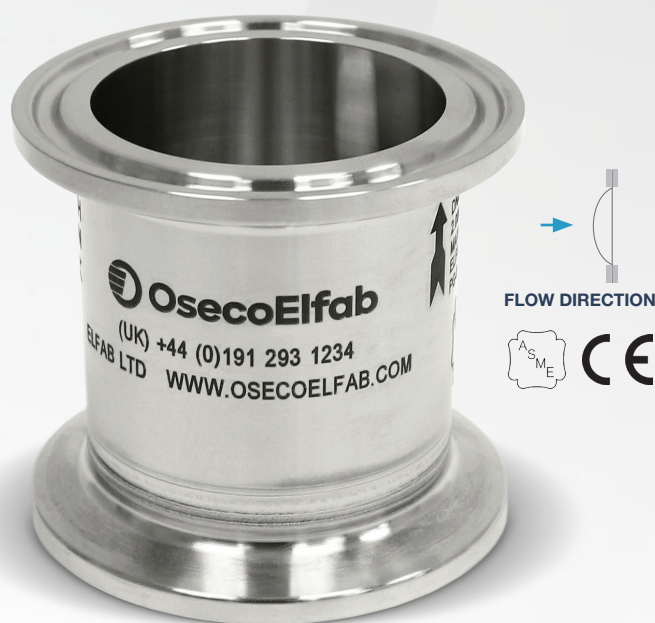


PURE-GARD

SANITARY WELDED RUPTURE DISC CARTRIDGE

Welded innovation in sanitary pressure relief, designed for maximum cleanability and efficiency



FDA

ASME BPE

ISO 1127

Meets bioprocessing requirements

Pure-Gard is an innovative, sanitary pressure relief solution specifically designed for applications where cleanability is of paramount importance. The new disc design provides a cleanable, robust solution to address the challenges of complex manufacturing environments including pharmaceutical, biopharmaceutical and food.

Using our tried-and-tested Opti-Gard technology, we electron-beam weld the disc between two metal ferrules to provide a solution that is installed independently to gaskets. You are free to use your preferred gaskets and change them as often as needed without needing to change the rupture disc.

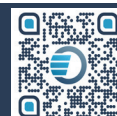
Size	1" - 4"
Burst Pressure	5 - 145 psig
K_R Value (K_{RG})	0.85
Operating Ratio	95%
Performance Tolerance	+/- 2 psig
Manufacturing Range	0%

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

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TECHNICAL SPECIFICATIONS



Size range	1"-4" (25-100mm)
Burst pressure range	5 psig to 145 psig (0.34 barg to 10 barg)
Suitable for CIP/SIP processes	Yes. Suitable for temperatures up to 500°F (260°C)
Standard materials	316 Stainless Steel. Others available on request.
Max. Operating Ratio	95% of minimum burst pressure (92% of nominal burst pressure)
Performance Tolerance	+/- 2 psig or less up to 65 psig (+/- 3% above 65 psig)
Manufacturing Range	0%
Fragmentation	Non-fragmenting design
Vacuum Service	See details on next page for minimum burst pressures required to withstand full vacuum
Fluid compatibility	Gas service, liquid service, vapour service, two-phase service
Surface finish	0.4 µm Ra (15 micro inches)
Design Standards	Manufactured to ASME XIII or ISO 4126-2:2019 standards

Certifications

Meets FDA requirements
Meets ASME BPE requirements
ASME UD
CE
PED
SIL

Related Products

Rupture Discs

Opti-Gard
Opti-Gard SoLo

Sensors

Vent-Tel (Sanitary)

Accessories

Tri-Clamps
Spacers

Burst Pressure Ranges

Pure-Gard Min/Max Burst Pressure @ 59-86°F (15-30°C)



SIZE		MATERIAL	Burst pressures	
inches	DN (mm)		MIN psig (barg)	MAX psig (barg)
1	25	316 Stainless Steel	23 (1.58)	145 (10)
1.5	40	316 Stainless Steel	19 (1.31)	130 (9)
2	50	316 Stainless Steel	15 (1.03)	116 (8)
2.5	65	316 Stainless Steel	12 (0.82)	116 (8)
3	80	316 Stainless Steel	11 (0.75)	101 (7)
4	100	316 Stainless Steel	5 (0.34)	101 (7)

Minimum burst pressure to withstand full vacuum

NOMINAL BORE		Minimum psig (barg)
inches	DN (mm)	
1	25	25 (1.72)
1.5	40	23 (1.59)
2	50	21 (1.45)
2.5	65	21 (1.45)
3	80	23 (1.59)
4	100	23 (1.59)



Free Flow Area / Minimum Net Flow Area (MNFA)

NOMINAL BORE		Pure-Gard MNFA	
inches	DN (mm)	Sq. Inch	mm ²
1	25	0.5	323
1.5	40	1.24	804
2	50	2.37	1,534
2.5	65	3.87	2,498
3	80	5.71	3,685
4	100	10.46	6,749

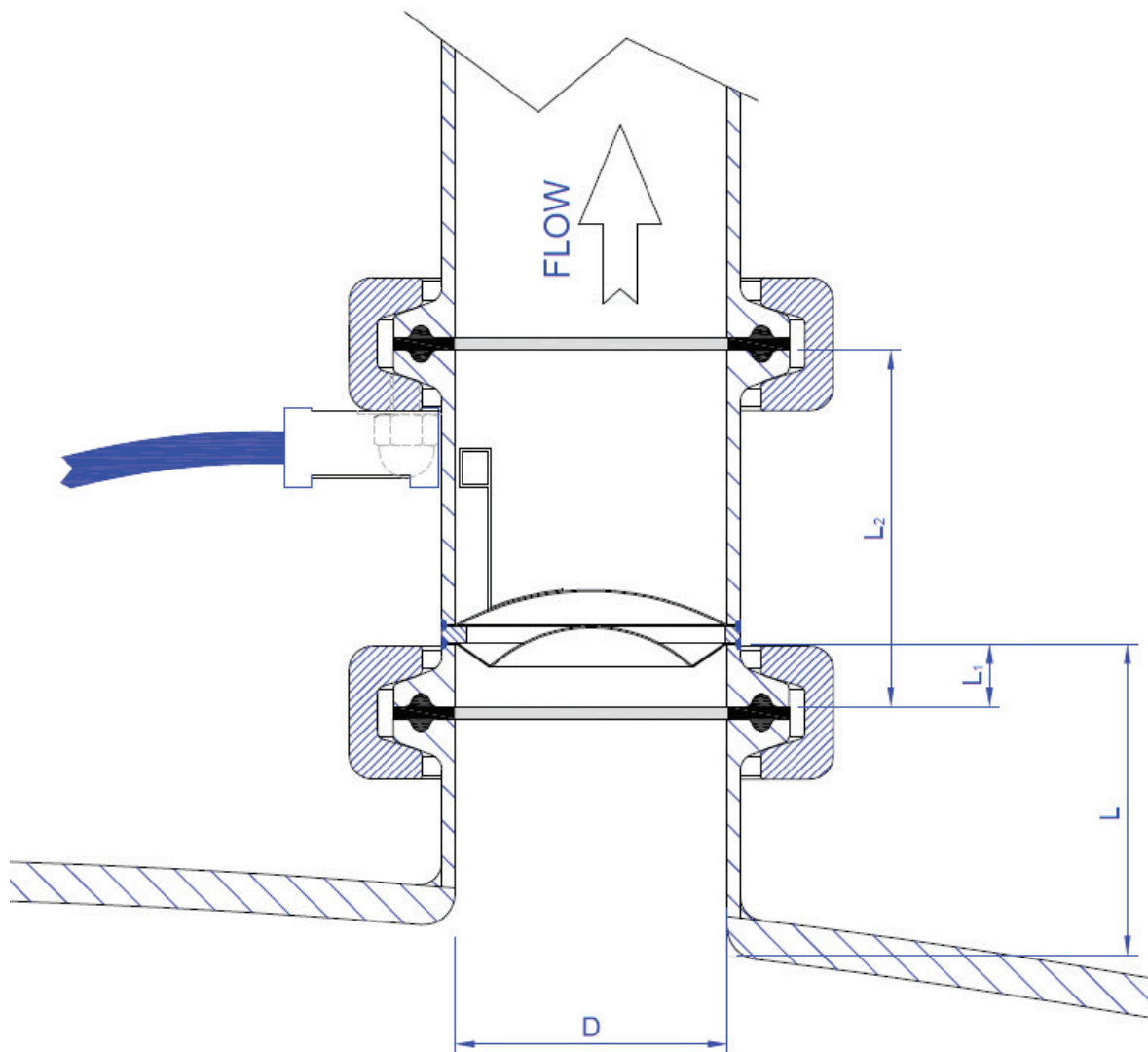
Burst Tolerance

+/- 1 psig \leq 14 psig
+/- 2 psig $>$ 14 - \leq 65 psig
+/- 3% $>$ 65 psig

+/- 0.07 barg \leq 0.97 barg
+/- 0.14 barg $>$ 0.97 - \leq 4.48 barg
+/- 3% $>$ 4.48 barg

K_R Value (Frictional Loss Factor)

K _R	Pure-Gard
K _{RGL}	0.85



NOMINAL BORE (D)		Pure-Gard (with Opti-Gard SoLo)	
inches	DN (mm)	L/D geometry (L1)	Overall length (L2)
1	25	0.31" (8mm)	1.77" (45mm)
1.5	40	0.31" (8mm)	1.77" (45mm)
2	50	0.31" (8mm)	1.77" (45mm)
2.5	65	0.35" (9mm)	1.81" (46mm)
3	80	0.39" (10mm)	1.85" (47mm)
4	100	0.39" (10mm)	1.85" (47mm)

'L' = Distance from the vessel to Pure-Gard. This distance will vary depending on application.