

PURE-GARD

SANITARY WELDED RUPTURE DISC CARTRIDGE

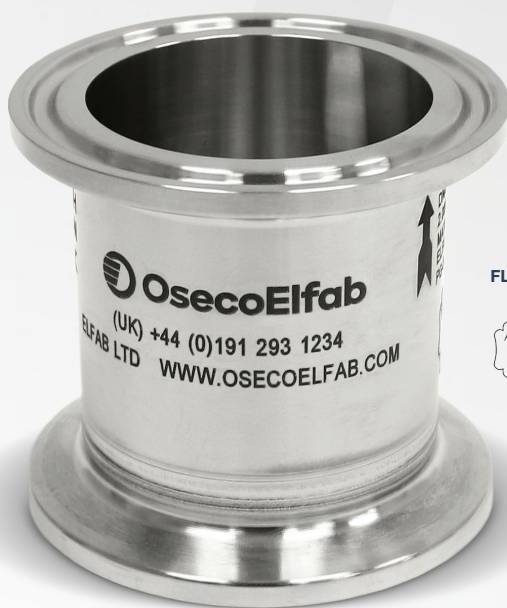
Welded innovation in sanitary pressure relief, designed for maximum cleanability and efficiency

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	25 - 100mm
Burst Pressure	0.34 - 10 barg
K_R Value (K_{RGL})	0.85
Operating Ratio	95%
Performance Tolerance	+/- 0.14 barg
Manufacturing Range	0%

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

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**REQUEST A QUOTE FOR
 PURE-GARD**



TECHNICAL SPECIFICATIONS



Size range	25-100mm (1"-4")
Burst pressure range	0.3 barg to 10 barg (5 psig to 145 psig)
Suitable for CIP/SIP processes	Yes. Suitable for temperatures up to 260°C (500°F)
Standard materials	316 Stainless Steel. Others available on request.
Max. Operating Ratio	95% of minimum burst pressure (92% of nominal burst pressure)
Performance Tolerance	+/- 0.14 barg or less up to 4.48 barg (+/- 3% above 4.48 barg)
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

Sensors

Vent-Tel (Sanitary)

Rupture Discs

Opti-Gard SoLo

Accessories

Tri-Clamps
Spacers

Burst Pressure Ranges

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



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

Minimum burst pressure to withstand full vacuum

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



Free Flow Area / Minimum Net Flow Area (MNFA)

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

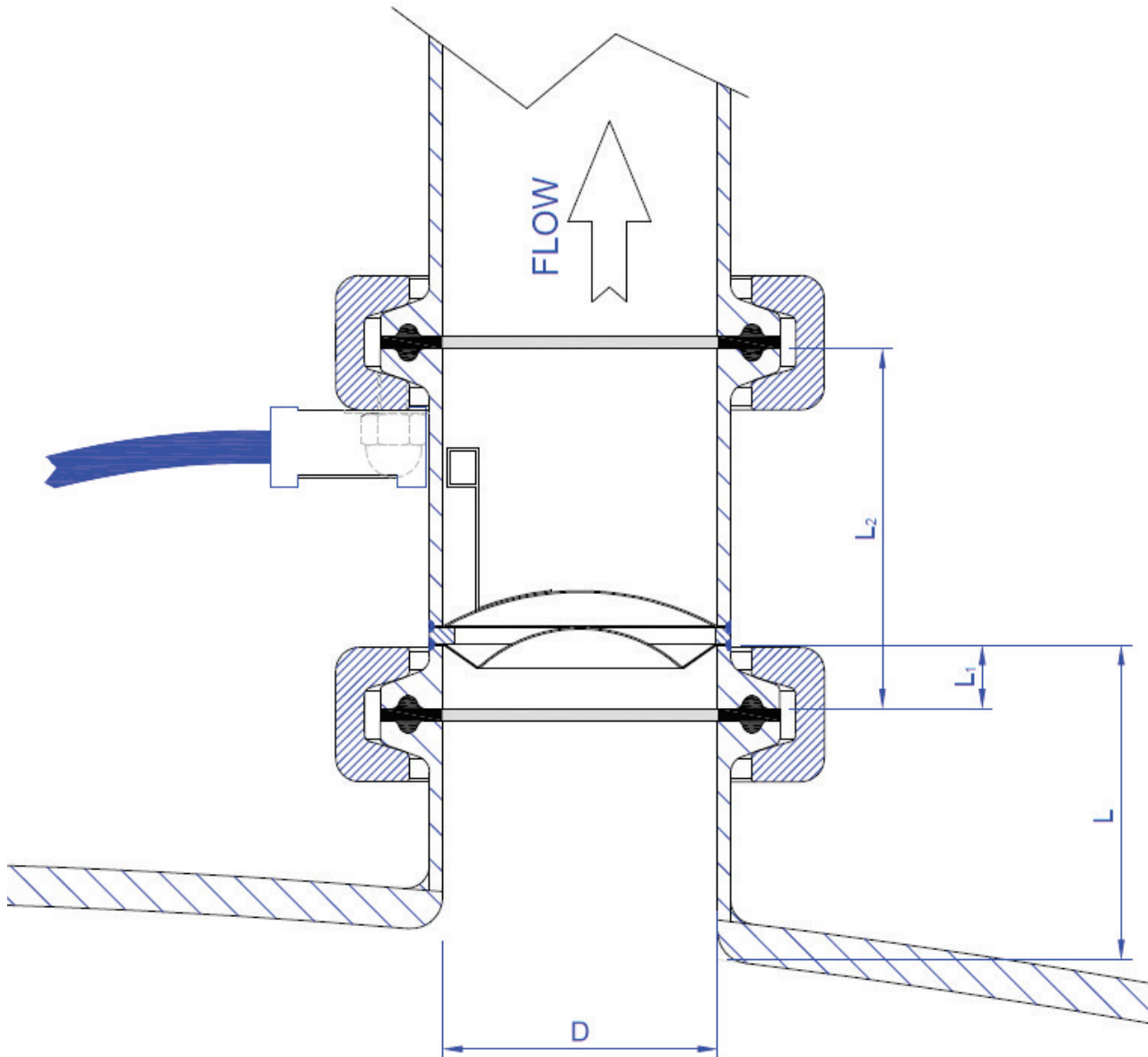
Burst Tolerance

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

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

K_R Value (Frictional Loss Factor)

K _R	Pure-Gard
K _{RGL}	0.85



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

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