

PLR

PRECISION LOW PRESSURE REVERSE BUCKLING

*The PLR is an **all-metal** reverse buckling rupture disc with an armoured design for **superior performance** at very low pressures*



OsecoElfab's PLR is a high performance reverse buckling rupture disc designed for very low-pressure applications. The PLR is ideal for gas or liquid applications requiring burst pressures down to 2 PSIG.

The armored construction protects the disc from damage that often affects the performance of other low-pressure rupture discs.

The PLR is excellent for protecting and isolating safety relief valves (SRV). Due to the large opening characteristics, in some sizes an extended outlet holder may be required when installed directly under an SRV.

Size	25mm - 300mm
Burst Pressure	0.14 - 9.10 barg
Operating Ratio	90%
Performance Tolerance	+/-10%
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](https://www.osecoelfab.com)

**REQUEST A QUOTE FOR
THE PLR**



TECHNICAL SPECIFICATIONS



Size range	1"-12" / 25-300mm
Burst pressure range	2-132 psig / 0.14-9.10 barg
Standard materials	316 Series Stainless Steel, Nickel, Inconel® 600, Hastelloy® C, Monel®
Max. Operating Ratio	90%
Performance Tolerance	+/-10%
Manufacturing Range	0%
Fragmentation	Non-fragmenting design
Vacuum Service	Withstands full vacuum (14.7 psi) without separate vacuum support
Fluid compatibility	Gas service, liquid service
Torque requirements	See installation guide
Cycling or static service	Suitable for high-cycling applications
Protective linings	Fluoropolymer liner available on process side
Relief Valve Isolation	Suitable for safety relief valve isolation

Certifications

PED 2014/68/EU
CU/TR 032

Related Products

Sensors

SVT
AMS

Holders

PRDI
PRDI - P
PRDH

Burst Pressure Ranges

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



SIZE		MATERIAL	MIN psig (barg)	MIN WITH LINER* psig (barg)	MAX psig (barg)
(inches)	DN (mm)				
1	25	316 Stainless Steel Nickel Inconel Monel Hastelloy C	12 (0.83) 12 (0.83) 13 (0.90) 11 (0.76) 12 (0.83)	17.5 (1.21)	91 (6.27) 60 (4.13) 56 (3.86) 80 (5.51) 100 (6.89)
1.5	40	316 Stainless Steel Nickel Inconel Monel Hastelloy C	9 (0.63) 7 (0.49) 10 (0.69) 6 (0.42) 19 (1.31)	11 (0.76)	132 (9.10) 77 (5.30) 116 (7.99) 104 (7.17) 165 (11.37)
2	50	316 Stainless Steel Nickel Inconel Monel Hastelloy C	6 (0.42) 8 (0.56) 8 (0.56) 6 (0.42) 9 (0.63)	8 (0.56)	92 (6.34) 50 (3.44) 60 (4.13) 67 (4.61) 118 (8.13)
3	80	316 Stainless Steel Nickel Inconel Monel Hastelloy C	3 (0.21) 4 (0.28) 4 (0.28) 3 (0.21) 4 (0.28)	6 (0.42)	64 (4.41) 35 (2.41) 45 (3.10) 42 (2.89) 96 (6.61)
4	100	316 Stainless Steel Nickel Inconel Monel Hastelloy C	2 (0.14) 3 (0.21) 3 (0.21) 2 (0.14) 3 (0.21)	4.5 (0.32)	65 (4.48) 39 (2.68) 35 (2.41) 50 (3.44) 91 (6.27)
6	150	316 Stainless Steel Nickel Inconel Monel Hastelloy C	2 (0.14)	3 (0.21)	50 (3.44) 29 (1.99) 40 (2.75) 49 (3.37) 78 (5.37)
8	200	316 Stainless Steel Nickel Inconel Monel Hastelloy C	2 (0.14)	3 (0.21)	50 (3.44) 30 (2.06) 40 (2.75) 50 (3.44) 75 (5.17)
10	250	316 Stainless Steel Nickel Inconel Monel Hastelloy C	Consult Factory		
12	300	316 Stainless Steel Nickel Inconel Monel Hastelloy C	Consult Factory		

*Fluoropolymer liner (PFA)
Max. temperature @450° F

Free Flow Area / Minimum Net Flow Area (MNFA)



NOMINAL BORE		MNFA	
DN (mm)	inches	mm ²	Sq. Inch
25	1	388.38	0.602
40	1.5	963.22	1.493
50	2	1,764.5	2.735
80	3	3,215.4	4.984
100	4	5,901.9	9.148
150	6	13,412	20.79
200	8	23,225	36
250	10	35,741	55.4
300	12	50,128	77.7

Burst Tolerance

+ /- 1.5 psig below 5 psig	+ /- 0.1 barg below 0.34 barg
+/-3 psig from 5-40 psig	+/- 0.2 barg from 0.34-2.8 barg
+/-10% at or over 40 psig	+/-10% at or over 2.8 barg