

PSR

PRECISION SCORED REVERSE

The PSR from OsecoElfab is reverse buckling, non-fragmenting and excellent for relief valve isolation.



The Oseco PSR (Precision Scored Reversing) rupture disk is designed and manufactured for high-performance and demanding rupture disk applications.

The reverse-buckling disc is scored on the vent side to reduce buildup of process media and contamination. It opens along scored lines and is designed to be non-fragmenting.

Combined with a 90% operating ratio, these features make the PSR an excellent choice for applications requiring a high operating to set pressure ratio and for isolating safety relief valves. Installing the leak-tight PSR rupture disk between the process media and the safety relief valve protects the valve and prevents fugitive emissions.

Size	1" - 8"
Burst Pressure	15 - 125 psig
K_R Value (K_{RGL})	2.13
Operating Ratio	90%
Performance Tolerance	+/- 5%
Manufacturing Range*	0% (5%, 10% also available)

*All manufacturing ranges are calculated on the minus side of the requested burst pressure.

Let us help you with all
your pressure relief questions.

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THE OPTI-GARD



TECHNICAL SPECIFICATIONS



Size range	1"-8" (25-200mm)
Burst pressure range	15 psig to 125 psig (1.03 barg to 8.6 barg)
Temperature range	< 1,000°F (< 537°C)
Standard materials	316 Series Stainless Steel, Nickel 200/201 and Inconel® 600. Monel® 400 and Aluminium are available on request.
K _R Value	2.13
Max. Operating Ratio	90%
Performance Tolerance	+/-5%
Manufacturing Range	0% (5% and 10% also available. Note: All manufacturing ranges are calculated on the minus side of the requested burst pressure.)
Fragmentation	Non-fragmenting design
Vacuum Service	Withstands full vacuum (14.7 psi) without separate vacuum support
Fluid compatibility	Gas service, liquid service
Torque requirements	Not torque sensitive
Cycling or static service	Cycling service
Relief Valve Isolation	Suitable for safety relief valve isolation
Design Standards	Designed to meet ASME Section XIII standards

Certifications

ASME UD
CRN
PED 2014/68/EU

Related Products

Sensors

SVT
AMS

HOLDERS

PRDI
PRDI-P
PRDH

Burst Pressure Ranges

PSR Min/Max Burst Pressure @ 72°F (22°C)



SIZE		MATERIAL	MIN psig (barg)	MAX psig (barg)
inches	DN (mm)			
1	25	316 Stainless Steel	58 (4.0)	125 (8.6)
		Nickel	40 (2.8)	
		Inconel	66 (4.6)	
1.5	40	316 Stainless Steel	47 (3.2)	100 (6.9)
		Nickel	25 (1.7)	
		Inconel	28 (1.9)	
2	50	316 Stainless Steel	44 (3.03)	100 (6.9)
		Nickel	19 (1.31)	
		Inconel	23 (1.6)	
3	80	316 Stainless Steel	31(2.1)	75 (5.2)
		Nickel	15 (1.03)	
		Inconel	20 (1.4)	
4	100	316 Stainless Steel	29 (2.0)	75 (5.2)
		Nickel	15 (1.03)	
		Inconel	20 (1.4)	
6	150	316 Stainless Steel	29 (2.0)	50 (3.4)
		Nickel	15 (1.03)	
		Inconel	20 (1.4)	
8	200	316 Stainless Steel	29 (2.0)	50 (3.4)
		Nickel	15 (1.03)	
		Inconel	20 (1.4)	

Free Flow Area / Minimum Net Flow Area (MNFA)



NOMINAL BORE		MNFA	
inches	DN (mm)	Sq. Inch	mm ²
1	25	0.6	387
1.5	40	1.3	838
2	50	2.5	1,612
3	80	4.8	3,096
4	100	8.0	5,161
6	150	18.0	11,612
8	200	32.0	20,645

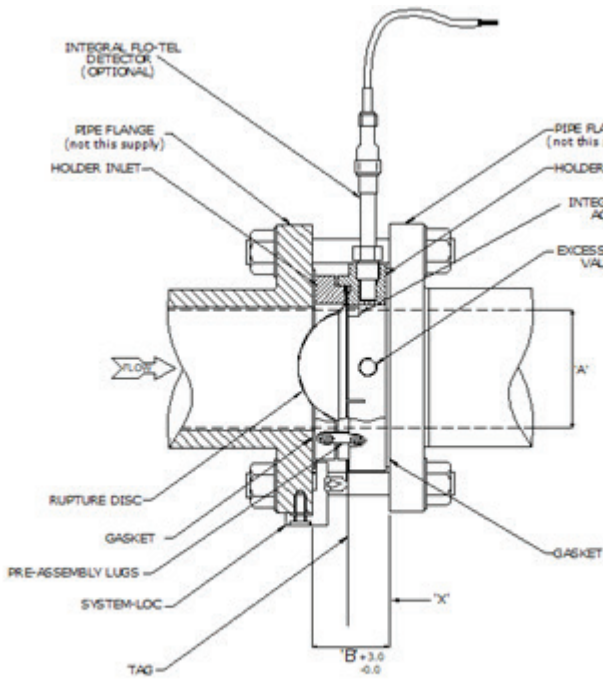
Burst Tolerance

+/-2 psig ≤ 40 psig
+/-5% > 40 psig

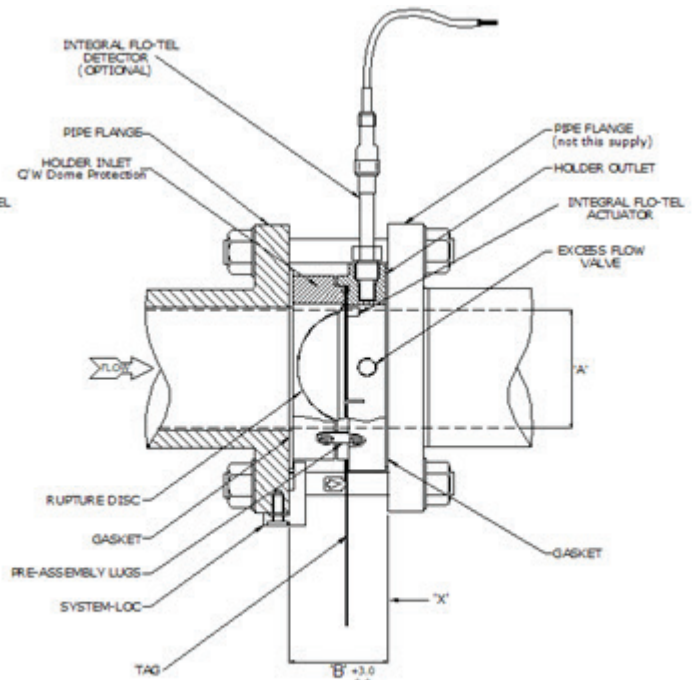
+/-0.14 barg ≤ 2.8 barg
+/-5% > 2.8 barg

K_R Value (Frictional Loss Factor)

K _R	PSR
K _{RGL}	2.13



Without Dome Protection



With Dome Protection

NOMINAL BORE (A)		FACE-TO-FACE (B)	
DN (mm)	inches	With dome protection (mm)	No dome protection (mm)
25	1	40.4 (Std)	-
40	1.5	42.4 (Std)	-
50	2	44.4 (Std)	-
65	2.5	50 (Std)	-
80	3	55 (Std)	-
100	4	58 (Std)	-
150	6	74.5 (Std)	-
200	8	90.5	51.5 (Std)
250	10	105.5	51.5 (Std)
300	12	120.5	51.5 (Std)
350	14	145	51 (Std)
400	16	166	51 (Std)
450	18	182	51 (Std)
500	20	201	51 (Std)
600	24	238	51 (Std)

FLANGE SPECIFICATIONS	
EN 1092-1 PN DESIGNATED	BS EN 1759-1 ANSI DESIGNATED
PN 6	ANSI 150
PN 10	ANSI 300
PN 16	ANSI 600
PN 20	ANSI 900
PN 25	ANSI 1500
PN 40	ANSI 2500
PN 50	-
PN 63	-
PN 100	-

Face-to-face dimensions account for the disc and holder assembly only. They do not account for gasket thickness.