DATASHEET /
TECHNICAL SPECIFICATIONS

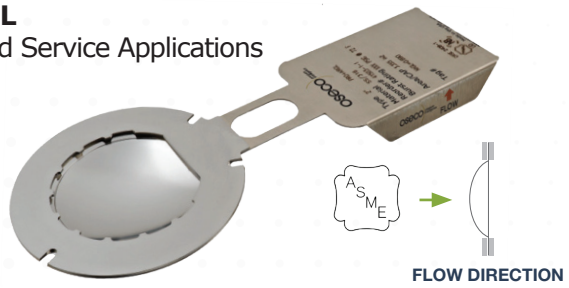
OsecoElfab

PRO+*KRGL*

PRECISION REVERSE OPERATING RUPTURE DISC

The PRO+KRGL is a **high-performance rupture disc** *featuring a fully opening, perimeter-scored design to* **maximise system performance** *in elevated temperatures up to 900°F*

PRO+KRGL
Gas & Liquid Service Applications



PRO+
Gas Service Applications

The PRO+KRGL rupture disc is designed and manufactured for high-cycling and demanding applications. The fully opening, perimeter-scored design is achieved by OsecoElfab's unique computerized load cell technology. This process yields a high-performance disc that withstands operations in the most difficult conditions.

The PRO+KRGL can help maximize your system performance, delivering a 95% operating ratio* and an exceptionally low Flow Resistance Factor (FRF) or K_R, in both gas and liquid. With minimal fragmentation, it is excellent for isolating safety relief valves.

Size	1" - 10"
Burst Pressure	4 - 775 psig
Temperature	< 900°F
K_R Value	K_{RGL} 0.69 K_{RG} 0.29
Operating Ratio	95%*
Performance Tolerance	+/-5%
Manufacturing Range	0%

** Operating Ratio when using Tantalum is 80%*

Let us help you with all your pressure relief questions.

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TECHNICAL SPECIFICATIONS

Size range	1"-10" (25-250mm)
Burst pressure range	4-775 psig (0.3-53.4 barg)
Temperature range	< 900°F (482°C)
Standard materials	Hastelloy® C, 316 Series Stainless Steel, Nickel, Inconel® 600, Monel®
K_R Value	PRO+KRGL (K_{RGL}): 0.69 PRO+ (K_{RG}): 0.29
Max. Operating Ratio	95% (80% when using Tantalum)
Performance Tolerance	+/-5%
Manufacturing Range	0%
Fragmentation	Non-fragmenting design
Vacuum Service	Withstands full vacuum (14.7 psi) without separate vacuum support
Fluid compatibility	Gas service and gas+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
Disc Surface Finish	Smooth surface on the process side to minimize product build-up
Design Standards	Designed to meet ASME Section XIII standards

Certifications

ASME UD
CRN
PED 2014/68/EU

Related Products

Sensors
AMS
SVT

Holders
PRDI
PRDI - P
PRDH

Burst Pressure Ranges

PRO+*KRGL* Min/Max Burst Pressure @ 72° F (psig) / 22° C (barg)

SIZE (inches)	SIZE DN (mm)	MATERIAL	MIN psig (barg)	SAFETY RELIEF VALVE ISOLATION MAX psig (barg)	PRIMARY AND SECONDARY RELIEF* MAX** psig (barg)
1	25	316 Stainless Steel Nickel Inconel Monel Hastelloy C	30 (2.1) 22 (1.5) 30 (2.1) 21 (1.4) 29 (2.0)	400 (27.6)	775 (53.4)
1.5	40	316 Stainless Steel Nickel Inconel Monel Hastelloy C	15 (1.0) 14 (1.0) 15 (1.0) 14 (1.0) 23 (1.6)	400 (27.6)	775 (53.4)
2	50	316 Stainless Steel Nickel Inconel Monel Hastelloy C	9 (0.6) 8 (0.6) 9 (0.6) 8 (0.6) 9 (0.6)	300 (20.7)	775 (53.4)
3	80	316 Stainless Steel Nickel Inconel Monel Hastelloy C	9 (0.6) 8 (0.6) 9 (0.6) 8 (0.6) 9 (0.6)	200 (13.8)	725 (50.0)
4	100	316 Stainless Steel Nickel Inconel Monel Hastelloy C	9 (0.6) 8 (0.6) 9 (0.6) 8 (0.6) 9 (0.6)	200 (13.8)	400 (27.6)
6	150	316 Stainless Steel Nickel Inconel Monel Hastelloy C	7 (0.5) 6 (0.4) 7 (0.5) 6 (0.4) 7 (0.5)	100 (6.9)	300 (20.7)
8	200	316 Stainless Steel Nickel Inconel Monel Hastelloy C	6 (0.4)	25 (1.7)	250 (17.2
10	250	316 Stainless Steel Nickel Inconel Monel Hastelloy C	4 (0.3)	15 (1.03)	100 (6.9)

**Minimal fragmentation*
***PRO+ Max. pressure values may vary slightly*

Free Flow Area / Minimum Net Flow Area (MNFA)

NOMINAL BORE		MNFA	
inches	DN (mm)	Sq. Inch	mm^2
1	25	0.864	557
1.5	40	2.036	1,313
2	50	3.355	2,164
3	80	7.393	4,769
4	100	12.73	8,212
6	150	28.89	18,638
8	200	50.0	32,258
10	250	78.9	50,903

Burst Tolerance

+/-5% > 40 psig +/-5% > 2.8 barg	+/-2 psig ≤ 40 psig +/-0.14 barg ≤ 2.8 barg

K_R Value (Frictional Loss Factor)

K_R	PRO+	PRO+KRGL
K_{RG}	0.29	
K_{RL}		0.69