DATASHEET /
TECHNICAL SPECIFICATIONS

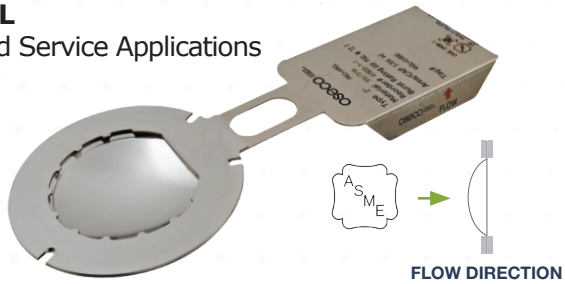
OsecoElfab

PRO+*KRGL*

PRECISION REVERSE OPERATING BURSTING 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	25mm - 250mm
Burst Pressure	0.3 - 53.4 barg
Temperature	< 482°C
K_R Value (K_{RGL})	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.

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

TECHNICAL SPECIFICATIONS

Size range	25-250mm (1"-10")
Burst pressure range	0.3-53.4 barg (4-775 psig)
Temperature range	< 482°C 900°F (900°F)
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 @ 22° C (barg) / 72° F (psig)

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

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

Free Flow Area / Minimum Net Flow Area (MNFA)

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

Burst Tolerance

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

K_R Value (Frictional Loss Factor)

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