

OSECO SAFETY CARTRIDGE™

FEATURING OPR+/OPK+ TECHNOLOGY

Reduce fugitive emissions with the Oseco Safety Cartridge, a one-piece, welded rupture disc solution that is leak-tight and installs in minutes.



The Oseco Safety Cartridge™ combines the traditional three components of a rupture disc system into one hermetically sealed component. It provides worry-free installation for your critical applications, while eliminating maintenance complexities, expenses and time requirements.

The Oseco Safety Cartridge™ system guarantees leak protection by completely removing the need to seal your rupture disc within a holder. These high performance, one-piece units come leak-tight from the factory and install in minutes.

No other rupture disc solution is as effective or as easy to install. The patented design makes the Oseco Safety Cartridge™ system the only widely available solution to eliminate exterior seam leakage.

Size	25mm - 250mm
Burst Pressure	0.69 - 79.98 barg*
K_R Value (K_{RGL})	OPR+: 0.78 / OPK+: 1.5
Operating Ratio	95%
Performance Tolerance	+/-5%
Manufacturing Range	0%

* Burst pressures outside this range are possible, please consult factory

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

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TECHNICAL SPECIFICATIONS



Size range	25-250mm (1"-10")
Burst pressure range	0.69-79.98 barg (10-1,160 psig)
Temperature range	Up to 482°C (900°F)
Standard materials*	Hastelloy® C, 316 Series Stainless Steel, Carbon Steel, Inconel® 600, Monel®
K _R Value	OPR+: 0.78 OPK+: 1.5
Max. Operating Ratio	95%
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 liquid service
Torque requirements	Non-torque sensitive; Fully isolated pressure relief device allows for torquing to any gasket specifications.
Cycling or static service	Suitable for high-cycling applications: tested to one million cycles.
Relief valve isolation	Suitable for safety relief valve isolation
Leak tightness	Hermetically designed assembly eliminates leak paths. Leak checked to 1x10 ⁻⁸ cc-atm/sec using helium.
Design standards	Designed to meet ASME Section XIII standards

* Weld technology for dissimilar materials

Certifications

ASME UD
CRN

Related Products

Rupture discs

LoKr
FAS
OPR+/OPK+
PCR

One Piece Unit

HPSR

Sensors

FLO-TEL+

Burst Pressure Ranges

Oseco Safety Cartridge Min/Max Burst Pressure @ 22° C (barg) / 72° F (psig)



SIZE		OPR+		OPK+	
DN (mm)	(inches)	MIN barg (psig)	MAX barg (psig)	MIN barg (psig)	MAX barg (psig)
25	1	6.89 (100)	17.24 (250)	17.24 (250)	79.98 (1160)
40	1.5	3.44 (50)	17.24 (250)	17.24 (250)	74.95 (1087)
50	2	1.72 (25)	17.24 (250)	17.24 (250)	69.98 (1015)
80	3	1.03 (15)	17.24 (250)	17.24 (250)	34.96* (507*)
100	4	0.69 (10)	12.07 (175)	12.07 (175)	25.03* (363*)
150 - 250	6 - 10	Consult factory for technical specifications			

* Higher pressures available with the PCR rupture disc

Burst Tolerance

+/-0.14 barg at or below
2.8 barg (40 psig)

+/-5% above
2.8 barg (40 psig)

Free Flow Area / Minimum Net Flow Area (MNFA)



NOMINAL BORE		OPR+		OPK+	
DN (mm)	inches	mm ²	Sq. Inch	mm ²	Sq. Inch
25	1	500	0.78	511	0.79
40	1.5	1,092	1.69	1,102	1.71
50	2	1,834	2.84	1,870	2.90
80	3	4,393	6.81	4,535	7.03
100	4	7,072	10.96	7,208	11.17
150	6	15,085	23.38	15,601	24.18
200	8	28,506	44.18	29,327	45.46
250	10	41,969	65.05	43,638	67.64

Standard height* conforms to:

CARTRIDGE SIZE		HOLDER SIZE*	
DN (mm)	inches	mm	inches
25	1	38.1	1.5
40	1.5	42.9	1.688
50	2	47.63	1.875
80	3	55.58	2.188
100	4	73.1	2.875
150	6	73.82	2.906
200	8	91.29	3.594
250	10	105.57	4.156

*Special heights are also available – please consult factory for more information.

K_R Value (Frictional Loss Factor)

K _R	OPR+	OPK+
K _{RGL}	0.78	1.5