

OPR+/OPK+ FOR API

HIGH-PERFORMANCE REVERSE ACTING RUPTURE DISC

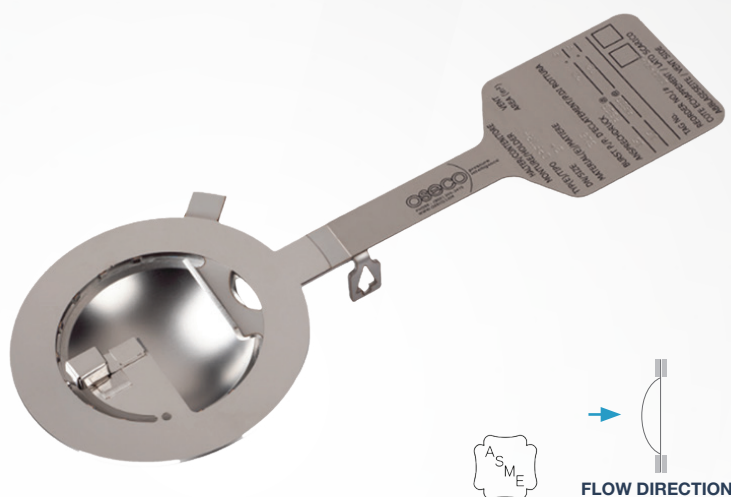
Versatile, single disc solution suitable for a wide range of bioprocessing and API plant requirements.

FDA

ASME BPE

ISO 1127

Meets bioprocessing requirements



OsecoElfab's OPR+/OPK+ disc is an advanced rupture disc peripherally scored on the vent side for accurate burst control. With a 95% operating to burst pressure ratio, the OPR+/OPK+ provides a single disc solution across a wide range of sizes and burst pressures.

The OPR+/OPK+ offers outstanding performance characteristics for liquid, gas or vapor applications. It is non-fragmenting and is often used in combination with a safety valve.

The OPR+/OPK+ disc can be used with the Flo-Tel burst sensor for non-invasive burst detection (NB: Ferromagnetic disc materials are not suitable for use with Flo-Tel).

Size	25mm - 300mm
Burst Pressure	0.35 - 79.98 barg
K_R Value (K_{RGL})	0.78
Operating Ratio	95%
Performance Tolerance	+/- 5%
Manufacturing Range	0%

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

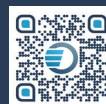
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TECHNICAL SPECIFICATIONS



Size range	25-300mm (1"-12")
Burst pressure range	0.35 barg to 79.98 barg (5 psig to 1160 psig)
Standard materials	316 Series Stainless Steel, Inconel® 600, Monel® and Hastelloy® C
K _R Value	0.78
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, liquid service and vapour service
Torque requirements	See installation guide
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

Flo-Tel

Holders

OPR
OPK

One Piece Unit

Oseco Safety
Cartridge

Burst Pressure Ranges

OPR+/OPK+ Min/Max Burst Pressure @ 22° C (barg) / 72° F (psig)



SIZE		OPR+ (LOW PRESSURE)		OPK+ (HIGH PRESSURE)	
inches	D N (mm)	MIN* psig (barg)	MAX psig (barg)	MIN* psig (barg)	MAX psig (barg)
1	25	100 (6.89)	250 (17.24)	250 (17.24)	1160 (79.98)
1.5	40	25 (1.72)	250 (17.24)	250 (17.24)	1087 (74.95)
2	50	15 (1.03)	250 (17.24)	250 (17.24)	1015 (69.98)
3	80	8 (0.55)	200 (13.79)	200 (13.79)	507 (34.96)
4	100	5 (0.34)	175 (12.07)	175 (12.07)	363 (25.03)
6	150	13 (0.90)	100 (6.89)	100 (6.89)	320 (22.06)
8	200	13 (0.90)	100 (6.89)	100 (6.89)	300 (20.68)
10	250	13 (0.90)	100 (6.89)	100 (6.89)	274 (18.89)
12	300	13 (0.90)	100 (6.89)	100 (6.89)	250 (17.24)

* Mins increase if a Flo-Tel burst detector is added

Free Flow Area / Minimum Net Flow Area (MNFA)



NOMINAL BORE		MNFA	
DN (mm)	inches	mm ²	Sq. Inch
25	1	0.79	0.79
40	1.5	1.71	1.71
50	2	2.90	2.90
80	3	7.03	7.03
100	4	11.17	11.17
150	6	24.18	24.18
200	8	45.46	45.46
250	10	67.64	67.64
300	12	99.29	99.29

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	OPR+	OPK+	OPFTR	OPFTK
K _{RGL}	0.78	1.5	1.7	2.77