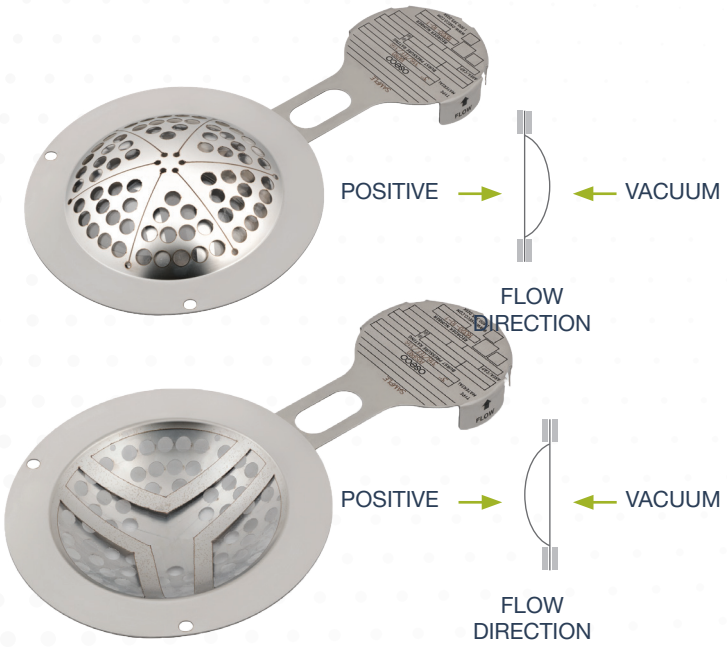
OsecoElfab

VAPRO / POSIPRO

VACUUM AND POSITIVE PRESSURE PROTECTION

The **bi-directional** *VAPRO / POSIPRO discs are* **excellent** *for applications requiring both* **positive and vacuum pressure protection.**



VAPRO
The VAPRO is used in applications requiring extremely low vacuum relief. It can activate as low as 6" Water Column (W.C.) vacuum. The burst pressure range encompasses 6" - 30" (W.C.), with a positive burst pressure range of 4 psig to 150 psig.

POSIPRO
The POSIPRO is used in applications requiring extremely low positive pressure relief. It can activate as low as 6" W.C. It is excellent for storage tank pressure protection.

As vessel pressure approaches the disc set pressure, a girdle is loaded until it collapses back past a knife blade assembly, opening the seal. Under vacuum conditions, a perforated metal top section activates at a predetermined set point.

Size
3" - 10"

Temperature Range
-25° to 400° F (316 Stainless Steel)

Burst Pressures
VAPRO: Vacuum: 6" - 30" W.C. | Positive: 4-150 psig
POSIPRO: Positive: 6" - 30" W.C. | Vacuum: 4-14.7 psig

Let us help you with all your pressure relief questions.

US office | *Broken Arrow*
+1 (918) 258 5626 | info@osecoelfab.com

UK office | *North Shields*
+44 (0)191 293 1234 | uksales@osecoelfab.com

osecoelfab.com

TECHNICAL SPECIFICATIONS

	VAPRO	POSIPRO
Size range	3"-10" (75-250mm)	3"-10" (75-250mm)
Burst pressure range	*Vacuum:* 6" - 30" W.C. *Positive:* 4-150 psig	*Positive:* 6" - 30" W.C. *Vacuum:* 4-14.7 psig
Temperature range	-25° to 400° F (316 Stainless Steel girdle)	-25° to 400° F (316 Stainless Steel girdle)
Standard materials	Perforated, composite-style controlling membranes, fluoropolymer seals and a 316 Stainless Steel girdle.	316 Stainless Steel with a fluoropolymer seal
Operating Ratio	*Vacuum:* Within 1" W.C. below 10" W.C., 90% of min. vacuum burst pressure above 10" W.C. *Positive:* 80%	*Positive:* Within 1" W.C. below 10" W.C., 90% of min. positive burst pressure 10"-30" W.C. *Vacuum:* Up to 80% of vacuum burst pressure
Performance Tolerance	*Vacuum:* 6" W.C. MIN/MAX *Positive:* +/- 5%	*Positive:* 6" W.C. MIN/MAX *Vacuum:* +/- 5%
Manufacturing Range	*Vacuum:* 6" W.C. MIN/MAX *Positive:* 0%, 5%, 10%	*Positive:* 6" W.C. Opening Range *Vacuum:* -10%, -5% or 0%

Related Products

Sensors
LPSFI

Holders
VRDI (VAPRO)
POSI (POSIPRO)

VAPRO Burst Pressure Ranges

VAPRO Ranges of Vacuum and Positive Pressure Relief

SIZE		VACUUM RELIEF (inches H_20) *Range of Starting Relief Points Available*	POSITIVE PRESSURE RELIEF (psig @ 72° F)	
inches	mm	316 SS GIRDLE H_20 Inches W.C. (mbarg)	MIN psig (barg)	MAX psig (barg)
3	80	6-30 (14.9-74.6)	11 (0.8)	150 (10.3)
4	100	6-30 (14.9-74.6)	8 (0.6)	125 (8.6)
6	150	6-30 (14.9-74.6)	6 (0.4)	100 (6.9)
8	200	6-30 (14.9-74.6)	5 (0.3)	75 (5.2)
10	250	6-30 (14.9-74.6)	4 (0.3)	50 (3.4)

Example – VAPRO Required Relief Spread:
Operator requests 6" VAPRO with 316 Stainless Steel girdle to relieve at 30" H_20 vacuum. VAPRO will puncture at above 30" H_20 and achieve maximum flow area at or below 36" H_20 positive pressure.

Burst Tolerance - Vacuum

6" W.C. MIN/MAX

Burst Tolerance - Positive

+/-2 psig at or below 40 psig +/-5% above 40 psig	+/-0.14 barg at or below 2.8 barg +/-5% above 2.8 barg

POSIPRO Burst Pressure Ranges

POSIPRO Ranges of Vacuum and Positive Pressure Relief

SIZE		POSITIVE PRESSURE RELIEF *Starting Relief Points*	VACUUM RELIEF (psig @ 72° F)	
inches	mm	Inches W.C. (mbarg)	MIN psig (barg)	MAX psig (barg)
3	80	6-30 (14.9-74.6)	11 (0.8)	14.7 (1.0)
4	100	6-30 (14.9-74.6)	8 (0.6)	14.7 (1.0)
6	150	6-30 (14.9-74.6)	6 (0.4)	14.7 (1.0)
8	200	6-30 (14.9-74.6)	5 (0.3)	14.7 (1.0)
10	250	6-30 (14.9-74.6)	4 (0.3)	14.7 (1.0)

Example – POSIPRO Required Relief Spread:
Operator requests 8" POSIPRO with 316 Stainless Steel girdle to relieve at 25" W.C. positive pressure. POSIPRO will puncture at above 25" W.C. and achieve maximum flow area at or below 31" W.C. positive pressure.