

Introduction

As a global manufacturer of rupture discs and explosion vents, Oseco's intelligent pressure relief systems protect people, plants, processes and the environment across the globe. As a leader in technically advanced products, Oseco delivers unique design, testing and consultancy services for pressure management.

At Oseco, we strive for an innovative and dynamic solution, building on our reputation as a customer service driven organization. We use our global network to support our customers' local needs in a timely and efficient manner. With more than 30 years of engineering and testing experience, Oseco offers products with the highest technical specifications, worldwide approvals, quality accreditations, integral burst detection systems and industry best lead-times.

Oseco Pressure Intelligence Advantages

- Performance
- Quality
- Response
- Service
- Technical Support
- Delivery



Featured Products

Opti-Gard™ (High-Performance, Reverse-Acting Rupture Disc)

Peripherally scored on the vent side for accurate burst control, Opti-Gard™ is an advanced rupture disc. With a 95 percent operating to burst-pressure ratio and a performance tolerance of 3 percent, Opti-Gard provides a single disc solution across a wide range of sizes and burst pressures. With architecturally engineered burst pressures, Opti-Gard offers the highest performance characteristics for liquid, gas or vapor applications.

- Tested to more than 100,000 cycles
- Non-fragmenting design
- Manufactured in Stainless Steel and Hastelloy as standard
- Allows for potential stock reduction of up to 65 percent
- Unique in offering non-invasive detection as standard
- Full vacuum service
- Non-torque sensitive



Opti-Gard Holder™

Oseco's Opti-Gard Holder™ is designed to cater to multiple flange ratings. It comes available with taps for an excess flow valve/pressure gauge and for the integral Flo-Tel+ rupture detection sensor.

- Machined inlet for System-Loc to ensure correct installation
- Multiple flange ratings: ANSI, PN, and DIN
- Familiarity for maintenance/handling
- Single set of documents for quality engineers
- Single stock code for procurement

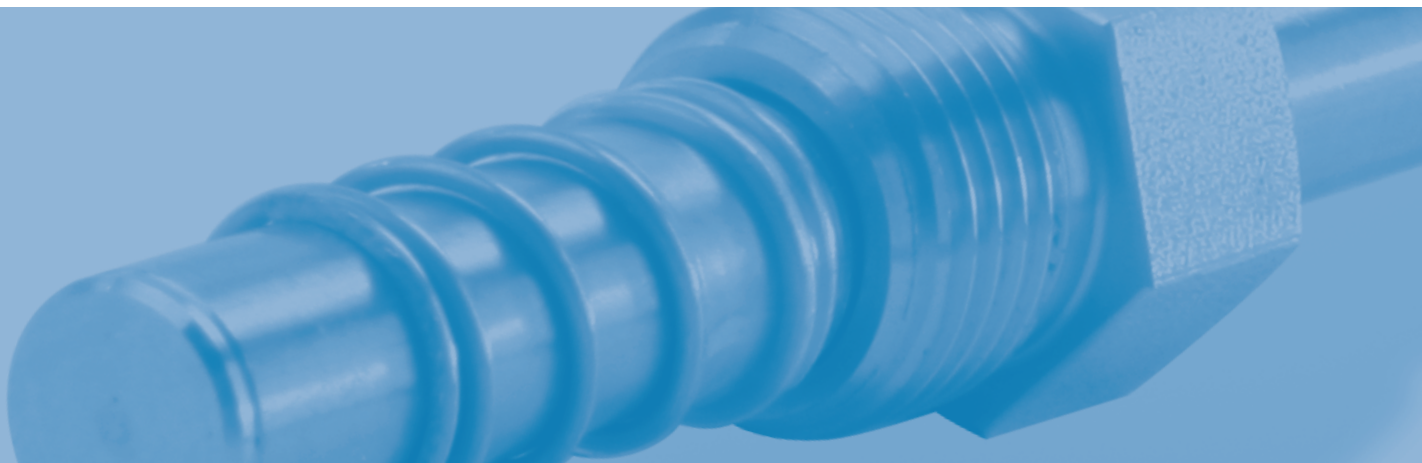


Flo-Tel™+ - Non-invasive burst detection

Flo-Tel™+ is a non-invasive detection system providing an excellent solution for identifying when a rupture disc bursts. After rupturing, the disc is the only element to be replaced, eliminating expensive rewiring costs.

Operating on simple reed-switch and magnet technology, Flo-Tel+ is designed to offer a practical solution for rupture disc detection needs. The sensor is fitted into the holder with a magnet on the rupture disc. When the rupture disc bursts, the rupture disc with its magnet arcs away from the sensor, giving an open circuit signal.

- Sensor is not in contact with the process; therefore, there are no potential leak paths.
- Non-invasive design; therefore, unaffected by downstream pressure fluctuations or corrosion.
- IP 65-rated



Hygienic PRO-S System™

Oseco's Hygienic PRO-S System offers a complete solution to your sanitary pressure management needs. With burst pressures as low as 16 psig, the PRO-S is the "problem-solver" disc for pharmaceutical and biotech manufacturers.

System Includes:

- PRO-S reverse acting sanitary rupture disc
- OSS burst detection
- 316L Stainless Steel Spacer with tri-clamps

System Spacer

Oseco provides spacers with standard ferrule connections rather than proprietary holder systems. The spacers can be used to place sensors downstream of a rupture disc when a separate rupture disc and sensor is required.

Clamps

Oseco offers a 304 stainless steel tri-clamp for use with sensors and rupture discs.



Rupture Discs

FAS (Forward Acting Scored Rupture Disc)

This problem-solving disc will withstand full vacuum and will operate up to 90 percent of the stamped rating. The FAS will provide excellent service in static or high cycling service. The FAS, even if installed incorrectly or damaged, will fail at or below the rated burst pressure, thus being a true “fail-safe” device.

The FAS is non-torque sensitive and eliminates the necessity of expensive pre-torqued rupture disc holders.



Standard materials of construction include Hastelloy® C, 316 Series Stainless Steel, Nickel, Inconel® 600 Series and Monel®. Other materials are available on request.

PRO+ (Precision Reverse Operating Rupture Disc)

The PRO+ Rupture Disc is designed and manufactured for high performance and the most demanding rupture disc applications. The PRO+ is a fully opening peripherally-scored design, made possible by the precision delivered by Oseco's unique computerized load cell technology. The PRO+ rupture disc has a 95 percent operating ratio for applications requiring a high operating-to-set-pressure ratio.

The PRO+ is an excellent choice for isolation of safety relief valves due to the high-operating ratio and non-fragmenting design. Installing the leak tight PRO+ rupture disc between the process media and the safety relief valve protects the valve and prevents fugitive emissions to the atmosphere.



Standard materials of construction: Hastelloy® C, 316 Series Stainless Steel, Nickel, Inconel® 600 Series and Monel®.

PLR (Precision Low Pressure Reverse Buckling Rupture Disc)

Oseco's PLR is designed for extremely low pressures in an all-metal design. It is available in sizes 1" through 12".

The armored construction of the PLR protects the disc from damage that can affect the performance of other low-pressure rupture discs. For additional corrosion protection, a PFA Fluoropolymer liner is available on the process side.



Standard materials of construction include Hastelloy® C, 316 Series Stainless Steel, Nickel, Inconel® 600 Series and Monel®.

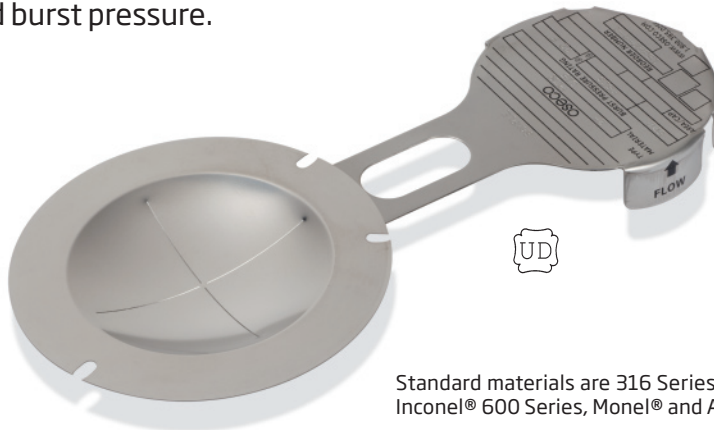
Our focus on lean manufacturing has helped us to achieve the best turnaround time in the industry. We welcome the opportunity to demonstrate our commitment to delivering our products faster than our competitors.

*– Bryan Sanderlin
President*

PCR (Precision Cut Reverse Rupture Disc)

Oseco's PCR is available in sizes 1" through 12". This rupture disc opens along scored lines and is designed to be non-fragmenting.

The PCR will withstand full vacuum and will operate to 90 percent of its rated burst pressure. If installed upside down or damaged, it will rupture no higher than 1.5 times the rated burst pressure.



Standard materials are 316 Series Stainless Steel, Nickel, Inconel® 600 Series, Monel® and Aluminum.

STD (Standard Rupture Disc)

Oseco's STD is an economical, pre-bulged rupture disc with a 30°-angular seating area. The STD is excellent for gas or liquid service. Optional components are vacuum supports, support rings and Fluoropolymer liners.

Available in sizes 1/2" - 24" and available in pressure ranges 2 psig to 80,000 psig.

Standard materials of construction include Hastelloy® C, 316 Series Stainless Steel, Nickel, Inconel® 600 Series and Monel®. Other materials are available on request.



CO (Composite Rupture Disc)

Oseco's CO is designed to operate effectively at rupture pressures lower than those of the Standard type rupture discs. The CO consists of a slotted top section and a Fluoropolymer or metal seal.

It is designed for gas or liquid service. It is also excellent for static or cycling service. The disc, under normal operating conditions, may be exposed to operating pressures up to 80 percent of the rated pressure of the discs with good service life. Available in sizes 11/16" to 24".

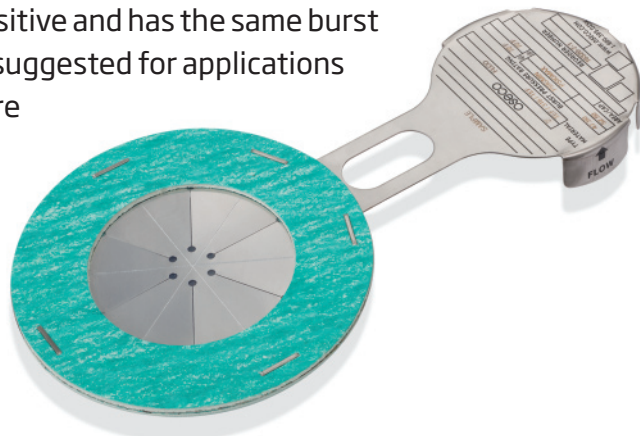
Standard materials available include Hastelloy® C, 316 Series Stainless Steel, Inconel® 600 Series, Monel®, Nickel and Aluminum.



FLCO (Flat Low-Pressure Composite Rupture Disc)

The Oseco Type FLCO provides low-pressure relief from 1 psig to 50 psig and is available in sizes 2" through 36" diameters. The FLCO fits between standard ANSI flanges and is supplied from standard rupture disc materials and is encapsulated with fluoropolymer liners. It is not torque-sensitive and has the same burst pressure in either direction. The FLCO is suggested for applications in which the normal operating pressure does not exceed 50 percent of the rated burst pressure.

Constructed with a metal center section of 316 Series Stainless Steel, Nickel, Inconel® 600 Series, Monel® or, the section is lined on both sides with a fluoropolymer liner to form a corrosion barrier. Klingsil C-4401 ring gaskets are standard and attached to both sides to form the completed assembly.



Transportation

Oseco manufactures a wide variety of discs specialized for transportation vessels such as intermodal containers and railcars. Products include the Intermodal Container Disc (ICD), Hydrochloric Acid Railcar Disc (HCL-RC), Composite Railcar Disc (CRC) and the Scored Railcar Disc (SRC).



GRO

Oseco's GRO pressure relief devices provide an economical, high-performance solution to the fragility drawbacks of graphite discs. The GRO is easy to install, designed to fit standard ANSI flanges, and comes with a spacer on its vent side to provide interchangeability with existing monoblock graphite disc installations.



VAPRO/POSIPRO

The Oseco VAPRO and POSIPRO are economical alternatives for applications requiring both positive- and vacuum-pressure protection. The VAPRO (vacuum relief) and the POSIPRO (positive pressure relief) operate over a range of 6" W.C. The VAPRO rupture discs are used in applications requiring extremely low vacuum relief: as low as 1" W.C. (vacuum relief) and up to 150 psig (positive pressure relief).

The POSIPRO rupture discs are used in applications requiring extremely low positive pressure relief (as low as 1" W.C.).

Both the VAPRO and POSIPRO will rupture and achieve maximum flow area at or below the maximum specified pressure. (Note: Specified pressure plus 6" W.C. equals maximum specified pressure).

These discs may be supplied with perforated, composite-style controlling membranes, fluoropolymer seal and a fluoropolymer or 316 Stainless Steel girdle.

Also available in hygienic VAPRO-S and POSIPRO-S.



Holder

Insert Holder

The Oseco Insert Holder is a reduced-diameter, flat-faced flange assembly that bolts between standard ANSI pipe flanges and fits within the bolt circle. This holder allows the rupture disc to be pre-assembled to ensure it is properly seated before installation into the pressure system. PRDI and FRDI Insert Rupture Disc Holders are available in nominal standard ANSI flange ratings up to 24". Standard material of construction is 316 Stainless Steel. Other materials and sizes are available upon request.



Booted Holder

The Oseco Fluoropolymer-Booted Insert Holder is used in applications where aggressive corrosives are present. A solid PFA insert is pressed into the inner diameter of FRDI and PRDI non-torque-sensitive holders.

When used with rupture discs that have fluoropolymer liners attached to the process side, only fluoropolymer is in contact with the media.

Pre-Torqued Insert Holders

The Pre-Torqued Insert Holders, FRDI(P) and PRDI(P), may be removed for inspection purposes and returned without disturbing the torque values placed on the rupture disc. Available in sizes from 1" through 18" in the FRDI format and 1" through 8" in the PRDI format.



OTU

Oseco's One Time Unit assembly is an inexpensive, bubble-tight pressure relief device. If an overpressure occurs, the entire assembly is replaced. This device provides an ideal pressure relief device for air conditioning systems, gas cylinders, hydraulic accumulators, portable compressed air systems and high-pressure water power cleaning systems.



Union Assembly

The Oseco Union Rupture Disc Holders are low in cost and are ideal for applications where installation space is limited. Time to replace the rupture disc is reduced as only the union nut is removed to obtain access to the rupture disc. Standard sizes fit ½", 1", 1½" and 2" nominal pipe sizes.

Threaded Assembly

Oseco's Threaded Rupture Disc Holder is widely used on high-pressure applications up to 15,000 psig. The standard unit utilizes an 11/16" flat seat or 1/2" flat seat hold-down ring. For disc ratings of 1000 psig and less, the 11/16" hold-down ring is used. Standard construction material is 316 Stainless Steel.



Sanitary Products

PRO-S & FAS-S

The PRO-S and FAS-S discs are special designs for use in hygienic service. The integral sanitary gaskets in FDA-approved elastomers allow easy installation without any special holder required. These discs are excellent for both gas and liquid service, are non-fragmenting, do not require separate vacuum supports, and may be operated to 90 percent of set burst pressure with excellent service life. Specially designed, paint free tags are standard to ensure correct installation in sanitary environments. Both discs feature a smooth surface in contact with process media, which minimizes product buildup and contamination.



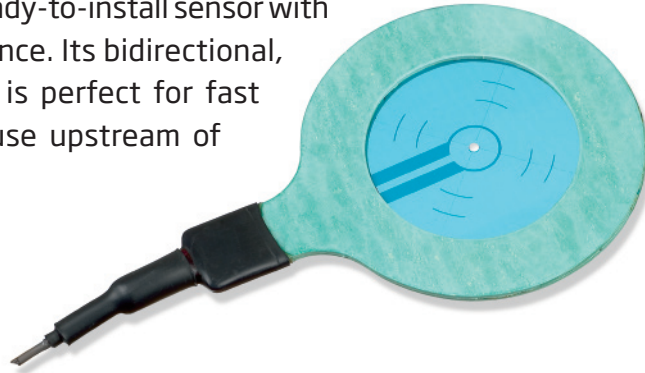
FM-S

The FM-S is the first flat, bidirectional rupture disc for pharmaceutical and hygienic industries. The FM-S is constructed of 316 Stainless Steel with gaskets in a choice of FDA-approved elastomers, and it fits within standard ferrule connections. The FM-S may be operated to 60 percent of set burst pressure with excellent service life.

Sensors

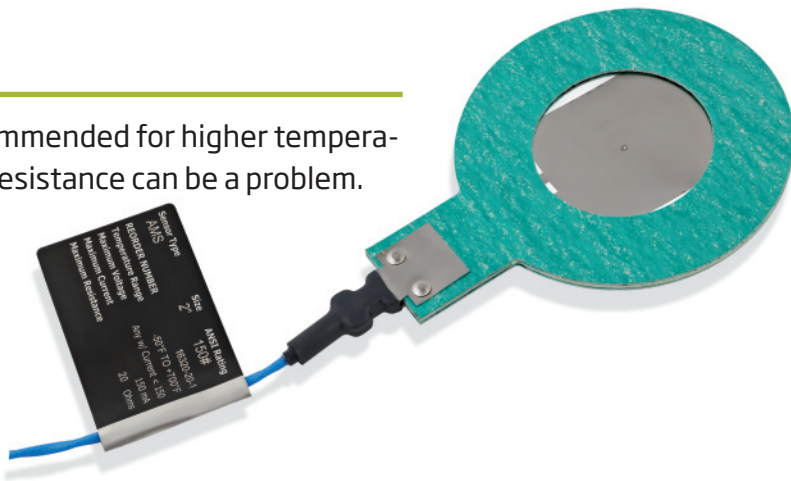
SVT

Oseco's SVT Sensor is a ready-to-install sensor with superior chemical resistance. Its bidirectional, non-fragmenting design is perfect for fast failure recognition and use upstream of relief valves.



AMS

The All Metal Sensor is recommended for higher temperatures and where corrosion resistance can be a problem. Can be used with metal or graphite rupture discs.



At Oseco, we pride ourselves on our ability to solve problems. If you have a difficult application, we'll work with you to provide a safe, reliable, custom-engineered solution.

– Mark Holt
VP Engineering



OSS

The Oseco Sanitary Sensor is designed to be used with Oseco sanitary rupture discs. Available in 1½", 2", 3" & 4".

Visit www.oseco.com to view the entire range of available sensors.

Explosion Vents

Oseco's round, square and rectangular explosion vents offer the highest relief capacity. Vents range from 8" square or round to 44" x 69" rectangular. Almost every size and rupture pressure are available, and standard materials include Stainless Steel 316, with seals of fluoropolymer or aluminum. Please contact Oseco for a quote regarding your specific size and pressure needs.



CRVC pictured.

CRV/CRVC (Composite Rupture Vent)

Oseco's CRV offers a heavy duty design with an operating ratio of 50 percent of set burst pressure.

The CRVC is a CRV which can be used in applications where the positive pressure does not exceed 70% of the minimum tolerance. It is excellent for use in very high cycling applications. The CRVC is also available with insulation to decrease problems associated with condensation or heat loss (CRVCI).

GLVF/GLV (Gasket Lined Vent)

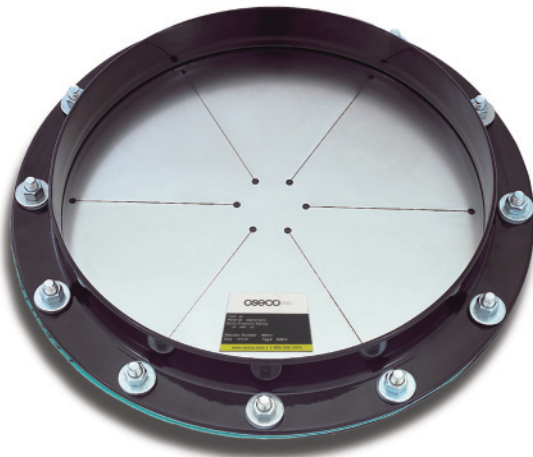
The Oseco GLVF is an economical solution to protect bucket elevators during deflagrations. Designed to meet the requirements of NFPA 61, the GLVF is available and is in stock for the most commonly used sizes. In addition, the built-in outlet frame eliminates the need to fabricate an angle iron hold down frame. GLV is available without the outlet frame.

- Economical
- Built-in gasket
- Built-in outlet frame
- Meets the requirements of NFPA 61
- Available alarm sensor for automatic system shut-down
- Custom sizes and set pressures available upon request



MV (Metal Vent)

Oseco's MV explosion vent is an all metal design (no fluoropolymer) using a stainless steel controlling membrane. No holes or slits are visible, which makes the MV vent excellent for applications where product buildup may be a concern. The MV may be used in applications where the positive pressure does not exceed 60% of the minimum tolerance. The MV is also available with FDA-approved gaskets for use in sanitary service applications (MV-S).



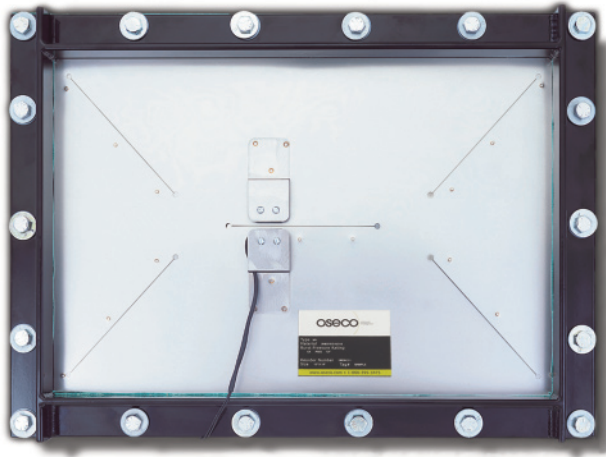
RND (Round Vent)

The RND is a round vent design with the same advanced technology and superior manufacturing capabilities utilized for our square and rectangular explosion vents. The RND can be fitted with optional vacuum support if required.

MVRB Explosion Vent (Metal Vent Reverse-Buckling)

The MVRB is designed and manufactured for high performance and the most demanding explosion vent applications. The MVRB is a reverse-buckling explosion vent with a smooth surface in contact with the process. It should be used to protect dust collectors, conveyor systems, dryers and most other equipment that requires precise over pressure protection. Ideal for hygienic and sanitary service.



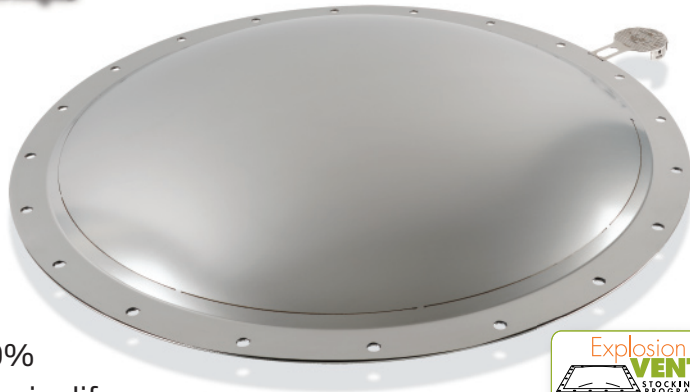


CRP (Composite Rupture Panel)

Oseco's CRP has a classic four-petal, full-opening lightweight design to provide the fastest relief for dust deflagrations. Reliability guaranteed by Oseco's in-house laser.

RNDCC (Round Crowned Vent)

The RNDCC is a crowned, round explosion vent designed for use with round ductwork. It may be exposed to system pressures up to 70% of minimum tolerance with good service life.



The perimeter stitching of the top section allows utilization of much thicker materials than previous domed designs, which results in a much more damage resistant vent panel. The RNDCC can withstand full vacuum without the need for vacuum support bars on the frame.



EXPLOSION VENT STOCKING PROGRAM

Oseco's explosion vent stocking program is designed with the most common explosion venting applications in mind. The program includes the MV/MV-S, CRVC, and the RNDCC explosion vents, all of which include black neoprene gaskets on the inlet side. All explosion vents included in this program meet the requirements of the OSHA Combustible Dust National Emphasis Program and NFPA 68.

The Explosion Vent Stocking Program allows for a significant cost and time savings when you need explosion vents in a hurry. Offering one of the industry's best lead times of three days, makes Oseco the clear choice for your explosion vent needs.

Stocked vents are available in select sizes please contact Oseco or visit www.oseco.com for more information.



Oseco

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