



LoKr SAFETY CARTRIDGE™

*Upgrade your pressure relief performance with **no changes to piping, no torque concerns and no leaks***

EXCEPTIONALLY LOW K_R / WIDE BURST PRESSURE RANGE / NOT TORQUE SENSITIVE



A Halma company

The Safety Cartridge Eliminates Common Pain Points

Featuring a one-piece, e-beam welded design, the Oseco Safety Cartridge solves many pain points common to three-piece rupture discs. The patented, hermetically sealed assembly is leak-tight, easy to install, and not torque sensitive.

1 LEAK-TIGHT

- Hermetically sealed design removes common leak paths
- Process media cannot leak outside the piping
- Supports LDAR and EPA Guidelines (VOCs, HRVOCs, and VHAPs)

2 EASY TO INSTALL

- Single-piece assembly is easy and intuitive to install
- This eliminates installation errors and reduces installation time
- The disc dome is protected from damage during installation

3 NO CONFLICTING TORQUE VALUES

- One-piece design is not torque sensitive
- Follow gasket torque values for worry-free installation
- No risk of damage from uneven torque
- Less sensitive to misaligned piping



The LoKr disc Improves Process Performance

Delivering a best-in-class Flow Resistance Factor (FRF) or K_R , the LoKr is a highly engineered rupture disc. The advanced design maximizes pressure relieving performance while providing superior reliability and extraordinary service life.

BEST-IN-CLASS K_R VALUE

- Minimize line sizes for rupture discs installed in-series with PRVs
- Improve performance and efficiency, even at low flow rates
- Makes it easier to keep pressure drops across the relief line below 3%
- Help prevent valve chatter



USE AS A SINGLE-DISC SOLUTION

- Sizes and pressure ranges cover the majority of applications in the plant
- High-cycling and high temperature capabilities for superior reliability and long service life, even in the toughest applications
- Reduce inventory of holders and discs required in the stock-room

The LoKr Safety Cartridge™ Offers a Universal Solution

The next step in the evolution of rupture disc technology for pressure relieving systems unites the innovative welded technology of the Oseco Safety Cartridge with the technically advanced design of the LoKr rupture disc.

No Need to Change Line Sizes for a Greater Flow Rate



The “Universal” Safety Cartridge

Suitable for nearly all applications, the LoKr SC offers an exceptionally low K_R value and high burst accuracy, all offered in **ONE HERMETICALLY SEALED COMPONENT.**

CROSS-SECTION



3 PIECES welded into ONE

- Sizes 1"-10"
- Operating ratio: 95%
- Burst tolerance: +/-5% of specified burst pressure
- Materials available: 316 Series Stainless Steel, Inconel® 600, Monel® and Hastelloy® C
- Available for gas and liquid service
- Suitable for high-cycling or pulsating applications
- Leak checked to 1×10^{-8} cc-atm/sec using helium
- Non-fragmenting design
- Fully isolated pressure relief device allows for torquing to any gasket specifications
- Withstands full vacuum

Easy Installation



SAFETY EQUIPMENT

- Safety Goggles
- Gloves
- Other as required by facility

TOOLS & MATERIALS

- Torquing Specifications
- Torque Wrench
- Cleaning Solvent compatible with service media

Technical Specifications

COMMON APPLICATIONS: Lethal service, difficult installations, high-cycling or pulsating applications. Applications where a Safety Cartridge is desirable and there is a need for a low K_R value, particularly where it is advantageous to keep lines sizes or pipework modifications to a minimum.

The table below outlines our standard sizes, materials, burst pressures, and MNFA. Specifications outside of those listed may be possible as a custom order. Please contact us to discuss your requirements.

NOMINAL BORE inches	MATERIAL	BURST PRESSURE (PSIG)		MINIMUM NET FLOW AREA (MNFA)	CARTRIDGE HEIGHT	
		MIN psig	MAX psig		STANDARD inches	MINIMUM inches
1"	316 Inc Mon Hast C	15 25 15 25	2,000 2,000 2,000 2,500	0.86	1.500	1.250
1.5"	316 Inc Mon Hast C	10	1,500 1,500 1,300 2,200	2.04	1.688	1.500
2"	316 Inc Mon Hast C	10	1,200 1,500 1,200 2,200	3.36	1.880	1.625
3"	316 Inc Mon Hast C	10	1,200 1,500 1,200 2,000	7.39	2.188	2.000
4"	316 Inc Mon Hast C	10	1,200 1,500 1,200 1,500	12.73	2.875	2.500
6"	316 Inc Mon Hast C	10	750	28.89	3.625	3.250
8"	316 Inc Mon Hast C	10	600 600 600 750	50.02	3.750	3.750
10"	316 Inc Mon Hast C	10	400 400 400 500	78.85	4.500	4.500

K_R Value

LoKr SC	0.22
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Our Products and Services Provide Complete Peace of Mind

PRODUCT LINE



LoKr Safety Cartridge

Exceptionally low K_R covering the widest possible range of burst pressures and application types



Opti Safety Cartridge

Reverse acting disc in a single piece with non-invasive Flo-Tel burst detection



FAS Safety Cartridge

Forward acting disc in a single piece unit eliminates multiple leak paths



HPSR

Ultra High Pressure Scored Reverse: Single piece unit designed for burst pressures over 6,000 psig



High Performance Rupture Discs

LoKr™: Best-in-class low K_R value



OPR+/OPK+: Non-invasive burst detection system



FAS™: Lowest K_R value available for forward acting discs



Explosion Protection

Explosion vents and burst detection



Burst Sensors

SERVICES

Engineering and Maintenance Training Seminars

Safety Surveys

Custom Engineered Solutions

Expedited Shipments

Emergency Response Team

24/7/365 Customer Service

Let us help you with all your pressure relief questions.

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