

# LoKr DUO™

## TWO-PIECE SAFETY CARTRIDGE SOLUTION

Overcome installation issues, minimize leaking, and reduce waste in a cost-effective, two-piece modular Safety Cartridge



The LoKr Duo™ solves many of the pain points common to three-piece rupture discs: It offers improved leak tightness, easy installation, and easy maintenance, all in a cost-effective, modular safety cartridge.

Instead of a single welded cartridge that must be removed in its entirety after activation, the LoKr Duo separates into an outlet body and a welded inlet/rupture disc module. When the disc bursts, you simply replace the inlet module; the outlet body stays in line, saving time and reducing waste.

Additional key benefits include non-torque-sensitive installation, a wide range of sizes and pressures, high reliability and a non-fragmenting disc design.

<b>Size</b>	1"-12"
<b>Burst Pressure</b>	10 - 2,500 psig
<b>Temperature</b>	Up to 900°F
<b>K<sub>R</sub> Value (K<sub>RGL</sub>)</b>	0.22
<b>Operating Ratio</b>	95%
<b>Performance Tolerance</b>	+/-5%
<b>Manufacturing Range</b>	0%

Let us help you with all your pressure relief questions.

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FOR THE LoKr DUO



# TECHNICAL SPECIFICATIONS



Size range	1"-12" / 25-300mm
Burst pressure range	10-2,500 psig / 0.69-172.3 barg
Temperature range	Up to 900°F / 482°C
Standard materials	Disc: 316 Series Stainless Steel, Inconel® 600, Monel®, Hastelloy® C Body: 316 Series Stainless Steel, Carbon Steel, Inconel® 600, Monel®, Hastelloy® C
K <sub>R</sub> Value	K <sub>RGL</sub> : 0.22
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 1 million cycles)
Relief Valve Isolation	Suitable for safety relief valve isolation
Leak tightness	Hermetically sealed, welded inlet eliminates leak paths. Helium leak checked to 1x10 <sup>-8</sup> cc-atm/sec.
Design Standards	Designed to meet ASME Section XIII standards

## Certifications

ASME UD

## Related Products

### OE Welded Cartridges

Oseco Safety Cartridge  
LoKr Safety Cartridge  
HPSR

### Rupture Discs

LoKr

### Sensors

AMS  
SVT

# Burst Pressure Ranges

LoKr Duo Min/Max Burst Pressure @ 72° F (psig) / 22° C (barg)



SIZE		MATERIAL	MIN psig / barg	MAX psig / barg
(inches)	DN (mm)			
1	25	316	15 / 1.04	2,000 / 137.8
		Inc	25 / 1.73	2,000 / 137.8
		Mon	15 / 1.04	2,000 / 137.8
		Hast C	25 / 1.73	2,500 / 172.3
1.5	40	316	10 / 0.69	1,500 / 103.4
		Inc		1,500 / 103.4
		Mon		1,300 / 89.6
		Hast C		2,200 / 151.6
2	50	316	10 / 0.69	1,200 / 82.7
		Inc		1,500 / 103.4
		Mon		1,200 / 82.7
		Hast C		2,200 / 151.6
3	80	316	10 / 0.69	1,200 / 82.7
		Inc		1,500 / 103.4
		Mon		1,200 / 82.7
		Hast C		2,000 / 137.8
4	100	316	10 / 0.69	1,200 / 82.7
		Inc		1,500 / 103.4
		Mon		1,200 / 82.7
		Hast C		1,500 / 103.4
6	150	316	10 / 0.69	750 / 51.7
		Inc		
		Mon		
		Hast C		
8	200	316	10 / 0.69	600 / 41.3
		Inc		600 / 41.3
		Mon		600 / 41.3
		Hast C		750 / 51.7
10	250	316	10 / 0.69	400 / 27.5
		Inc		400 / 27.5
		Mon		400 / 27.5
		Hast C		500 / 34.4
12	300	316	10 / 0.69	300 / 20.6
		Inc		
		Mon		
		Hast C		



## Free Flow Area / Minimum Net Flow Area (MNFA)

NOMINAL BORE		MNFA	
inches	DN (mm)	Sq. Inch	mm <sup>2</sup>
1	25	0.86	554
1.5	40	2.04	1,316
2	50	3.36	2,167
3	80	7.39	4,767
4	100	12.73	8,212
6	150	28.89	18,638
8	200	50.02	32,271
10	250	78.85	50,870
12	300	111.9	72,193

## Burst Tolerance

+/-2 psig ≤ 40 psig  
+/-5% > 40 psig

+/-0.14 barg ≤ 2.8 barg  
+/-5% > 2.8 barg

## K<sub>R</sub> Value (Frictional Loss Factor)

K <sub>R</sub>	LoKr Duo
K <sub>RGL</sub>	0.22



NOMINAL BORE		STANDARD HEIGHT*	
inches	DN (mm)	inches	mm
1	25	1.91	48.5
1.5	40	2.00	50.8
2	50	2.25	57.1
3	80	2.50	63.5
4	100	3.25	82.55
6	150	4.00	101.6
8	200	4.25	107.9
10	250	5.25	133.3
12	300	6.50	165.1

*Standard height dimensions account for the welded cartridge assembly only. They do not account for gasket thickness.*

FLANGE SPECIFICATIONS	
EN 1092-1 PN DESIGNATED	BS EN 1759-1 ANSI DESIGNATED
PN 6	ANSI 150
PN 10	ANSI 300
PN 16	ANSI 600
PN 20	ANSI 900
PN 25	ANSI 1500
PN 50	ANSI 2500
PN 63	
PN 100	