



LOTRX™ RUPTURE DISC

**Continental Disc
Corporation**

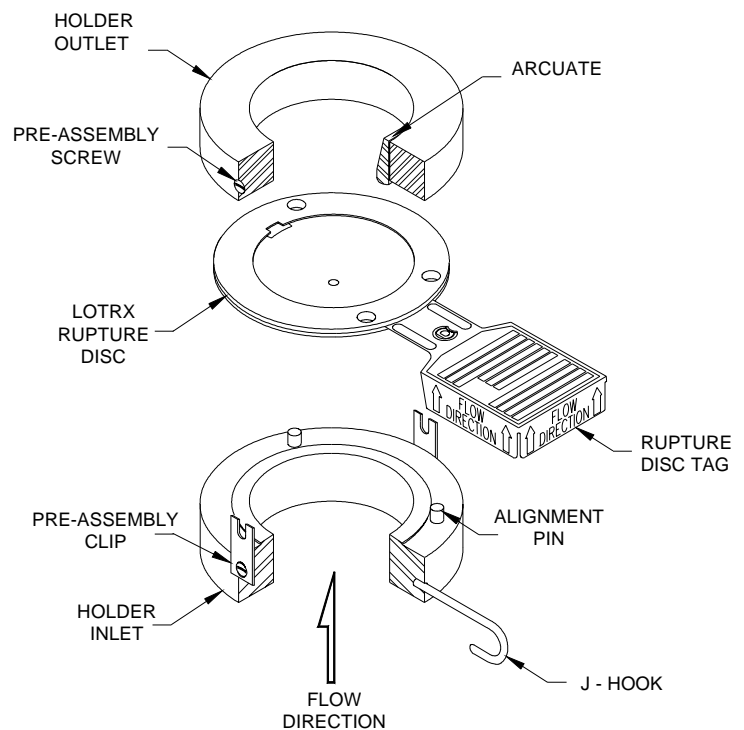
TECHNICAL BRIEF

Continental Disc Corporation introduces a breakthrough in rupture disc design: **The LOTRX Rupture Disc**. This scored, reverse acting overpressure safety device is the newest member in a proven line of dependable, solid metal rupture discs from C.D.C.

When you choose the LOTRX Rupture Disc, you get all the benefits of our scored, reverse acting line of rupture discs, but with added features that make it ideal for low pressure applications. These enhancements, along with the proven technology demonstrated in our ULTRX®, MINTRX®, and STAR X® Rupture Discs, represent the pinnacle of modern rupture disc design.

The enhancements offered by the LOTRX Rupture Disc include:

- C.D.C.'s Failure Initiating Indent, located at or near the apex of the rupture disc dome, lowers the pressure at which reversal occurs (compared to other solid metal, reverse acting rupture discs of similar size, material, or thickness, see table on back) – as low as 2 psig in a 1" nominal size (0,14 barg in 25 mm size).
- C.D.C.'s Notched Outlet Ring — the shear - enhancing notch facilitates opening of the rupture disc along the Precision Semicircular Score at extremely low reversal pressures.
- Safety ratio of 1-to-1 – Should your LOTRX Rupture Disc be damaged during installation or handling, it has been designed to provide pressure relief *at or below* the burst pressure rating.
- C.D.C.'s Backpressure Support Ring permits operation under full vacuum conditions, for burst pressure ratings 5 psig (0,34 barg) and above. For lower burst pressure settings, full vacuum protection may be available based on size and material; consult the factory.



The superior design of the LOTRX Rupture Disc maintains many of the benefits inherent with our other scored, reverse acting rupture discs:

- A ZERO MANUFACTURING RANGE as standard
- Recommended maximum operating pressure of 90% of the value of the rated burst pressure minus the burst tolerance. Example: a LOTRX Rupture Disc rated 4 psig can be exposed to operating pressures up to 3.06 psig (4 psig minus 15% burst tolerance x 90%)
- Solid metal design in a variety of available materials for corrosion resistance
- Encapsulating rings, which minimize torque sensitivity and provide a leak-tight metal-to-metal seal
- Three-Dimensional Flow Direction Tag, Alignment Pins, and J-Hook for proper rupture disc and holder orientation
- The LOTRX Rupture Disc is ideal for gas service; contact the factory for liquid service applications
- The LOTRX Rupture Disc is available with the full support and expertise of our Tech Team and Special Projects Group for special applications and new designs

LOTRX RUPTURE DISC SPECIFICATIONS

- **Manufacturing Range:** Zero manufacturing range is standard.
Additional manufacturing ranges available
-5% or -10% manufacturing range for pressures 6 psig (0,4 barg) and above
-0.3 psig or -0.6 psig for pressures below 6 psig (0,4 barg)

- **Burst Tolerance:**

Burst Pressure	Burst Tolerance
< 5 psig (<0,34 barg)	± 15%
5 to 20 psig (0,34 - 1,4)	± 10%
> 20 psig (>1,4)	± 2 psig (0,13)

- **Available Materials:** Rupture Disc: 316SS, Nickel, Monel®, Inconel®, Hastelloy C®
Teflon® coating available
Other materials available upon request.

Inlet / Outlet Ring: 316SS, Nickel, Monel, Inconel, Hastelloy C

- **Maximum Recommended Temperature:**

Material	Maximum Recommended Temperature
Nickel, Monel	800°F (427°C)
316SS, Hastelloy C	900°F (482°C)
Inconel	1000°F (538°C)

- **LOTRX Holder:** Materials: Carbon Steel, 316SS, Monel, and Hastelloy C.
Other materials available upon request.

Options/ Accessories: Gauge tap, nipple and tee, excess flow valve, pressure gauge, special facings, and Teflon coating.

Minimum - Maximum Burst Pressures (white bars in psig/grey bars in barg @ 72°F/22°C)

Nominal Size	DISC MATERIALS			
	Nickel/ Monel/ 316SS/ Inconel		Hastelloy C	
	Min	Max	Min	Max
1"	2	19.9	4	39.9
25 mm	0,14	1,4	0,3	2,8
1½"	2	15.9	4	29.9
40 mm	0,14	1,1	0,3	2,1
2"	2	14.9	4	24.9
50 mm	0,14	1,0	0,3	1,7
3"	3	14.9	5	21.9
80 mm	0,21	1,0	0,34	1,5
4"	1.5	14.9	3	21.9
100 mm	0,10	1,0	0,21	1,5
6"	2.5	12.9	7	19.9
150 mm	0,17	0,89	0,48	1,4
8"	3.5	24.9	10.5	34.9
200 mm	0,24	1,7	0,72	2,4

*Inconel and Monel are trademarks of the Inco family of companies. **Hastelloy is a registered trademark of Haynes International.
*** Teflon is a registered trademark of DuPont® Corporation.

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ASME Code Symbol Stamp
Available When Specified



Pressure Equipment Directive
Available When Specified

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