



**Continental Disc[®]
Corporation**

HPX™ RUPTURE DISC

OFFERED with 90% or 95% OPERATING RATIO



The HPX™ rupture disc is a scored reverse acting rupture disc. This differential pressure relief device features an instantaneous full-open relief area for protecting equipment, vessels, systems and people from an overpressure condition. This high precision reverse acting rupture disc offers proven performance **in excess of 250,000 cycles at a 95% operating ratio¹**.

Features:

- **Extreme cycling durability** - proven performance in excess of a quarter million cycles!¹
- **High precision** - choice of 90% or 95% maximum recommended operating ratio
- **High versatility** - wide range of burst pressures, materials and sizes

Benefits:

- Lower maintenance costs
- Increased productivity
- ASME Code Section VIII, Division 1 compliant. National Board Certified K_R flow resistance values²:
 K_{RG} (gas) = 0.29
 K_{RL} (liquid) = 0.38

Holders:

HPX Insert Holder

Additional Features:

- Available in 316 SS, Hastelloy^{®*} C, Nickel, Monel^{®**} and Inconel^{®**}. Other materials available upon request.
- Manufactured to provide a safety ratio of 1 to 1 or less. If the rupture disc becomes damaged, it will relieve at or below the rated burst pressure.
- Vacuum conditions: rupture disc can be operated to full vacuum even in the lowest available burst pressure.
- Permanently attached Three-Dimensional Flow Direction Tag, allowing immediate visual verification of proper rupture disc orientation within the piping system.
- Ideal for gas/vapor, liquid and partial gas/liquid service applications.³
- Available with the B.D.I.[®] (Burst Disc Indicator) alarm system to remotely signal when the rupture disc has burst. Refer to *Rupture Discs with B.D.I. Alarm System* literature for details.
- HPX Rupture Discs are available with the full support and expertise of our Tech Team and Special Projects Group for special applications and new designs.

¹ Tests performed on 316 SS and Hastelloy[®] C

² See CERTIFLOW[®] Literature for full details and MNFA values.

³ To optimize service life and rupture disc performance, Continental Disc Corporation manufactures and tests each HPX rupture disc order for compressible or incompressible relief conditions as required by your application. HPX™ rupture discs manufactured and tested only for compressible (gas/vapor) relief conditions may not function properly in an incompressible (liquid) application. Please state in your specifications and orders if a scenario exists for relief of incompressible media or if relief conditions exist only for compressible media.

HPX Rupture Discs incorporate U.S. patent No. 6,006,938; 6,241,113 B1; 6,431,383; 4,597,505; 4,512,171; 4,759,460; 4,669,626; and 4,072,160; Chile patent no. 35096; Spain patent no. 289581; India patent no. 160204; Canada patent no. 1244315; 2,328,834; France, Netherlands, and United Kingdom patent no. EP 0 137 903; Germany patent no. P 3473633.6; Australia patent no. 579833; Venezuela patent no. 46.640; Ireland patent no. 55493; and Mexico patent no. 161587; Belgium, Germany, Ireland, the Netherlands, and United Kingdom patent no. EP 1 078 183 B1; China patent no. HK 1035766 B;

Burst Disc Indicator (B.D.I.[®]) Alarm System incorporates U.S. patent no. Re. 34,308 and 4,408,194; Australia patent no. 539415; Germany patent no. 3174227.0; Belgium, France and United Kingdom patent no. EP 0 033 867; Canada patent no. 1199990; Japan patent no. 2032464. U.S. and foreign patents pending.

* Hastelloy is a registered trademark of Haynes International.

** Inconel and Monel are registered trademarks of the Inco family of companies.

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Rupture Disc Specifications (Manufacturing Range, Burst Tolerance, Maximum Operating Pressure):

Product	Requested Burst Pressure	Available Manufacturing Range	Burst Tolerance Around Rated (Marked) Burst Pressure	Maximum Recommended Operating Pressure
HPX Rupture Disc with 95% Maximum Recommended Operating Ratio (HPX-95)	Above 40 psig 2,76 barg to Max	Zero	+/- 5%	95% of Rated (Marked) Burst Pressure
	Min up to and including 40 psig 2,76 barg		+/- 2 psig +/- 0,345 barg	95% of [Rated (Marked) Burst Pressure -2 psig or - 0,345 barg]
HPX Rupture Disc with 90% Maximum Recommended Operating Ratio (HPX-90)	Above 50 psig 3,44 barg to Max	Zero -5% -10%	+/- 5%	90% of Rated (Marked) Burst Pressure
	Above 40 psig 2,76 barg up to and including 50 psig 3,44 barg	Zero -2.5 psig - 0,172 barg -5 psig - 0,345 barg	+/- 5%	
	Min up to and including 40 psig 2,76 barg	Zero -2.5 psig - 0,172 barg -5 psig - 0,345 barg	+/- 2 psig +/- 0,345 barg	90% of [Rated (Marked) Burst Pressure -2 psig or - 0,345 barg]

Burst Pressure Available At 72°F (22°C): (white bars indicates psig/ grey bars indicate barg)

Size	Nickel, Monel®*		316 SS, Inconel®**		Hastelloy®** C	
	Min	Max	Min	Max	Min	Max
1"	15	1000	15	1000	30	1000
25 mm	1,03	68,9	1,03	68,9	2,07	68,9
1½"	10	900	10	1000	20	1000
40 mm	0,69	62,0	0,69	68,9	1,38	68,9
2"	10	850	10	900	15	1000
50 mm	0,69	58,6	0,69	62,0	1,03	68,9
3"	10	750	10	900	15	1000
80 mm	0,69	51,7	0,69	62,0	1,03	68,9
4"	10	650	10	800	15	900
100 mm	0,69	44,8	0,69	55,1	1,03	62,0
6"	10	400	10	450	15	500
150 mm	0,69	27,5	0,69	31,0	1,03	34,4
8"	10	250	10	300	15	350
200 mm	0,69	17,2	0,69	20,6	1,03	24,1

Minimum pressures are based upon the minimum of the manufacturing range at 72°F (22°C)

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



ASME Code Symbol Stamp
Available When Specified

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