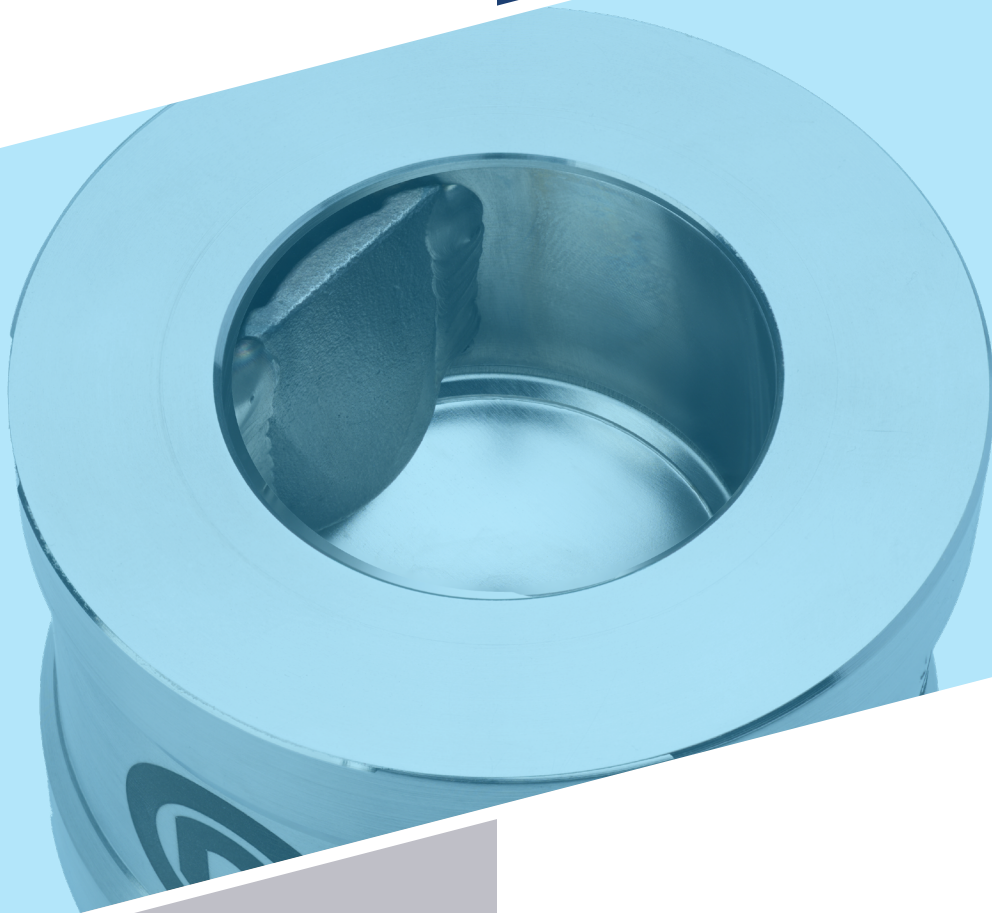


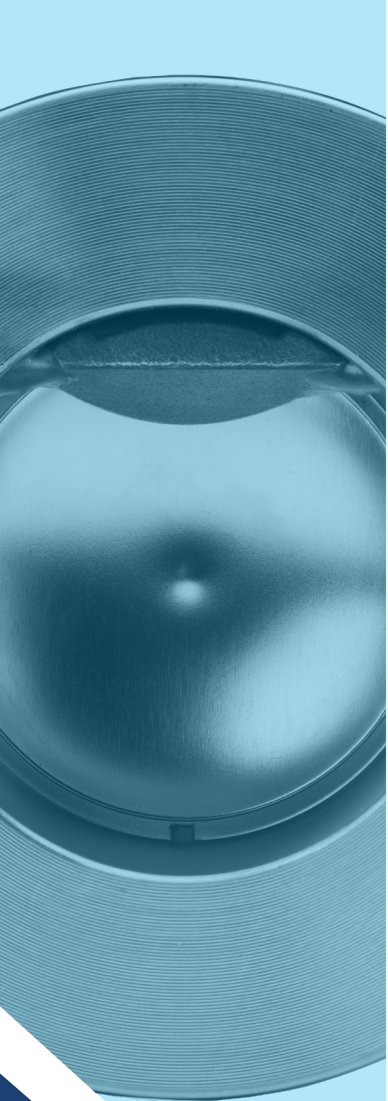


Continental Disc[®]
Corporation

CARTRIDGE RUPTURE DISC

HPX-CTG[™]





HPX-CTG™

The Continental Disc HPX-CTG™ cartridge rupture disc addresses the need to minimize potential leak paths in chemical applications. The welded rupture disc cartridge assembly, built with HPX technology, seamlessly integrates between traditional flange connections. By eliminating the need for a separate holder, the welded design provides superior protection against potential leak paths compared to conventional rupture disc systems.

As a seal-welded version of our HPX rupture disc, the HPX-CTG ensures a leak-tight assembly, making it ideal for applications involving toxic or hazardous media or where emissions regulations are a concern. With the proven durability of the HPX rupture disc – type tested to five million cycles – the HPX-CTG enhances safety and reliability while minimizing emissions risks in critical applications.

The single-piece HPX-CTG assembly simplifies installation and minimizes the risk of damaging the rupture disc during installation and handling. Its fully welded design eliminates torque sensitivity, alleviating concerns about inconsistent torque application and the higher torque required for certain gaskets, ensuring a more reliable and flexible installation.

Technical Details

- Sizes: 1" to 4" (25 mm to 100 mm)
- Rupture Disc Materials: Nickel, Alloy 400, 316 SS, 316L SS, Alloy C276, Alloy 600
- Holder Material*: Alloy C276, 316SS, 316L SS, Alloy 400, Alloy C22
- Flange Classes: ASME, JIS, DIN
- BDI Alarm system compatible: Yes
- Burst Pressure Range: 10 psig to 1400 psig (0.69 barg to 96.5 barg)
- Temperature Range**: -320°F to 1000°F (-195°C to 537°C)
- Maximum Recommended Burst to Operating Ratio:
 - 90% or 95% of the burst pressure for marked burst pressures above 40 psig (2.76 barg)
 - For marked burst pressures 40 psig and below, 90% or 95% of the burst pressure setting minus the burst tolerance
- K_R Factors: 0.29 gas/vapor relief
0.38 liquid relief
- Global certifications and approvals including ASME (UD) and PED (CE)
- Ideal for liquid or gas/vapor applications***

*Holder material is dependent on disc material. Limited options are available for specific disc material.

**Max temperature may be limited based on selected disc material.

*** To optimize service life and rupture disc performance, Continental Disc Corporation manufactures and tests each HPX-CTG rupture disc order for compressible or incompressible relief conditions as required by your application. HPX-CTG 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.

Features

- Welded, 1-piece design improves ease-of-installation and protects rupture disc from damage due to mishandling
- High performance operating ratio capabilities up to 95% of burst pressure
- Broad range of burst ratings from 10 psig thru 1400 psig
- Wide range of materials available to meet your process needs
- Ideal for batch process run facilities with frequent operating condition and media changes
- The versatility offered by the HPX makes future modifications to specifications easier to incorporate in change-control procedures with no piping modifications necessary
- Safety ratio of 1 to 1 - if the rupture disc is damaged, it will relieve at or below the burst pressure
- Rupture disc can be operated to full vacuum
- Hermetically seal welded assembly, process side helium leak checked to 1×10^{-9} cc-atm/sec (assemblies with gage taps in inlet are checked to 1×10^{-8} cc-atm/sec)
- Assembly eliminates the risk of improper disc installation in the holder
- Welded design supports usage of recommended torque rates from mating gaskets

Options

- Reduced height variation
- Gauge taps offered in inlet and outlet (Tell-tale compatibility)
- Optional J-Hook to assist in proper flow orientation of the welded assembly
- Optional eye bolts



BURST PRESSURE RATING

Product	Rated Burst Pressure psig (barg)	Manufacturing Range psig (barg)	Burst Tolerance Around Rated (Marked) Burst Pressure psig (barg)	Maximum Recommended Operating Pressure psig (barg)
HPX-CTG-95	above 40 (above 2,76)	Zero	-5% / +5%	95% of Rated (Marked) Burst Pressure
	up to & including 40 (up to & including 2,76)		-2 / +2 (-0,138 / +0,138)	95% of [Rated (Marked) Burst Pressure - 2] (95% of [Rated (Marked) Burst Pressure - 0,138])
HPX-CTG-90	above 50 (above 3,45)	Zero	-5% / +5%	90% of Rated (Marked) Burst Pressure
		-5%		
		-10%		
	above 40 up to & including 50 (above 2,76 up to & including 3,45)	Zero		
		-2.5 (-0,173)		
		-5 (-0,345)		
	up to & including 40 (up to & including 2,76)	Zero	-2 / +2 (-0,138 / +0,138)	90% of [Rated (Marked) Burst Pressure - 2]
		-2.5 (-0,173)		(90% of [Rated (Marked) Burst Pressure - 0,138])
		-5 (-0,345)		

Rating and Range is based on psig values, barg values are provided for reference

Product	Specified Burst Pressure psig (barg)	Performance Tolerance psig (barg)	Equivalent Manufacturing Range psig (barg)	Maximum Recommended Operating Pressure psig (barg)	
HPX-CTG-95	above 40 (above 2,76)	-5% / +5%	Zero	100% of Min of Performance Tolerance	
	up to & including 40 (up to & including 2,76)	-2 / +2 (-0,138 / +0,138)		95% of Min of Performance Tolerance	
HPX-CTG-90	above 50 (above 3,45)	Zero	Zero	95% of Min of Performance Tolerance	
		-5%	-5%		
		-10%	-10%		
	above 40 up to & including 50 (above 2,76 up to & including 3,45)	Zero	Zero		-2.5 (-0,173)
		$\left(\frac{(\text{SPEC} - 2.5 \text{ psig}) 0.95}{\text{SPEC}} - 1\right) 100\% / +5\%$	-5 (-0,345)		
		$\left(\frac{(\text{SPEC} - 0,173 \text{ barg}) 0.95}{\text{SPEC}} - 1\right) 100\% / +5\%$			
		$\left(\frac{(\text{SPEC} - 5 \text{ psig}) 0.95}{\text{SPEC}} - 1\right) 100\% / +5\%$			
		$\left(\frac{(\text{SPEC} - 0,345 \text{ barg}) 0.95}{\text{SPEC}} - 1\right) 100\% / +5\%$			
	up to & including 40 (up to & including 2,76)	-2 / +2 (-0,138 / +0,138)	Zero		90% of [Rated (Marked) Burst Pressure - 2]
		-4.5 / +2 (-0,311 / +0,138)	-2.5 (-0,173)		(90% of [Rated (Marked) Burst Pressure - 0,138])
		-7 / +2 (-0,483 / +0,138)	-5 (-0,345)		

In table: SPEC = Specified Burst Pressure

Rating and Range is based on psig values, barg values are provided for reference

BURST PRESSURE RATING

Product	MAX Burst Pressure psig (barg)	MIN =	Equivalent Manufacturing Range psig (barg)	Maximum Recommended Operating Pressure psig (barg)
HPX-CTG-95	above 42 (above 2,90)	$MAX / 1.05 \times 0.95$	Zero	100% of MIN Burst Pressure
	up to & including 42 (up to & including 2,90)	MAX - 4 psig (MAX - 0,276 barg)		95% of MIN Burst Pressure
HPX-CTG-90	above 52 (above 3,62)	$MAX / 1.05 \times 0.95$	Zero	95% of MIN Burst Pressure
		$MAX / 1.05 \times 0.95 \times 0.95$	-5%	
		$MAX / 1.05 \times 0.9 \times 0.95$	-10%	
	above 42 up to & including 52,5 (above 2,90 up to & including 3,62)	$MAX / 1.05 \times 0.95$	Zero	
		$(MAX / 1.05 - 2.5 \text{ psig}) 0.95$ $(MAX / 1.05 - 0,173 \text{ barg}) 0.95$	-2.5 (-0,173)	
		$(MAX / 1.05 - 5 \text{ psig}) 0.95$ $(MAX / 1.05 - 0,345 \text{ barg}) 0.95$	-5 (-0,345)	
	up to & including 42 (up to & including 2,90)	MAX - 4 psig (MAX - 0,276 barg)	Zero	90% of MIN Burst Pressure
		MAX - 6.5 psig (MAX - 0,449 barg)	-2.5 (-0,173)	
		MAX - 9 psig (MAX - 0,621 barg)	-5 (-0,345)	

In table: MAX = MAX Burst Pressure and MIN = MIN Burst Pressure
Rating and Range is based on psig values, barg values are provided for reference

SPECIFICATIONS

Size Inches (mm)	Material	Min Pressure psig (barg)	Max Pressure psig (barg)
1 (25)	316 SS/316L SS	15 (1,03)	825 (56,9)
	Alloy C276	30 (2,07)	1350 (93,1)
	Alloy 400	15 (1,03)	825 (56,9)
	Alloy C22	15 (1,03)	1415 (97,6)
	Nickel	15 (1,03)	495 (34,1)
	Alloy 600	15 (1,03)	1135 (78,3)
1.5 (40)	316 SS/316L SS	10 (0,689)	615 (42,4)
	Alloy C276	20 (1,38)	1005 (69,3)
	Alloy 400	10 (0,689)	615 (42,4)
	Alloy C22	10 (0,689)	1055 (72,7)
	Nickel	10 (0,689)	365 (25,2)
	Alloy 600	10 (0,689)	845 (58,3)
2 (50)	316 SS/316L SS	10 (0,689)	505 (34,8)
	Alloy C276	15 (1,03)	825 (56,9)
	Alloy 400	10 (0,689)	505 (34,8)
	Alloy C22	10 (0,689)	865 (59,6)
	Nickel	10 (0,689)	300 (20,7)
	Alloy 600	10 (0,689)	690 (47,6)
3 (80)	316 SS/316L SS	10 (0,689)	380 (26,2)
	Alloy C276	15 (1,03)	620 (42,7)
	Alloy 400	10 (0,689)	380 (26,2)
	Alloy C22	10 (0,689)	650 (44,8)
	Nickel	10 (0,689)	225 (15,5)
	Alloy 600	10 (0,689)	520 (35,9)
4 (100)	316 SS/316L SS	10 (0,689)	310 (21,4)
	Alloy C276	15 (1,03)	505 (34,8)
	Alloy 400	10 (0,689)	310 (21,4)
	Alloy C22	10 (0,689)	530 (36,5)
	Nickel	10 (0,689)	185 (12,8)
	Alloy 600	10 (0,689)	425 (29,3)

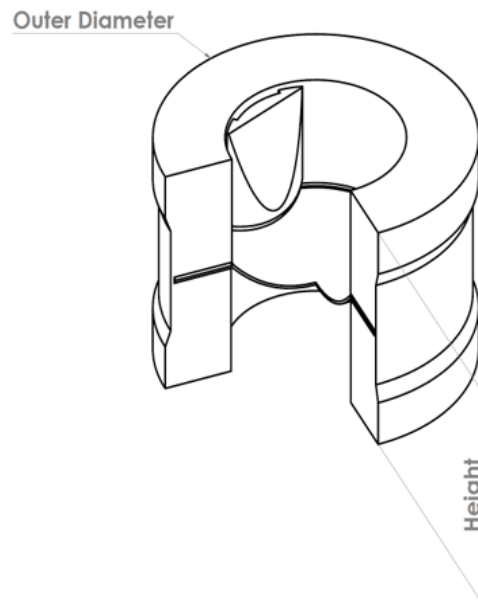
*Minimum and Maximum pressures are based upon the corresponding minimum and maximum of the manufacturing range at 72°F (22°C).

**For pressures outside the limits shown, please contact your Continental Disc Corporation representative or the factory.

SPECIFICATIONS

Size Inches (mm)	ASME		DIN		JIS		HPX-CTG Holder Height In (mm)	HPX-CTG-RH Holder Height In (mm)	HPX-CTG Holder Weight Lbs (kg)	HPX-CTG-RH Holder Weight Lbs (kg)
	Class	Outside Diameter In (mm)	Class	Outside Diameter (mm)	Class	Outside Diameter (mm)				
1 (25)	150	2.50 (63,5)					1.80 (45,7)	1.47 (37,3)	2.0 (0,9)	1.5 (0,7)
	300/600	2.75 (69,9)	10/40	(69,9)	10/20	(69,9)	1.80 (45,7)	1.47 (37,3)	2.5 (1,1)	1.9 (0,9)
					30/40	(76,0)	1.80 (45,7)	1.47 (37,3)	3.0 (1,4)	2.4 (1,1)
	900/1500	3.00 (76,2)					2.40 (61,0)		3.6 (1,6)	
1.5 (40)			63/160	(82,0)			2.40 (61,0)		3.6 (1,6)	
	150	3.25 (82,6)					2.04 (51,8)	1.67 (42,4)	4.5 (2,0)	2.7 (1,2)
					10/20	(86,0)	2.04 (51,8)	1.67 (42,4)	4.9 (2,2)	3.0 (1,4)
	300/600	3.63 (92,2)	10/40	(92,2)			2.04 (51,8)	1.67 (42,4)	4.7 (2,1)	3.7 (1,7)
	900/1500	3.75 (95,3)					2.57 (65,3)		6.4 (2,9)	
					30/40	(97,0)	2.04 (51,8)	1.67 (42,4)	5.0 (2,3)	4.2 (1,9)
2 (50)			63/160	(102,0)			2.57 (65,3)		7.5 (3,4)	
	150	4.0 (101,6)			10/20	(101,6)	2.36 (59,9)	1.80 (45,7)	5.9 (2,7)	4.0 (1,8)
	300/600	4.25 (108,0)	10/40	(108,0)			2.36 (59,9)	1.80 (45,7)	6.7 (3,0)	4.9 (2,2)
					30/40	(111,0)	2.36 (59,9)	1.80 (45,7)	7.2 (3,3)	5.3 (2,4)
			63	(113,0)			2.36 (59,9)	1.80 (45,7)	7.6 (3,4)	5.3 (2,4)
3 (80)	900/1500	5.50 (139,7)					3.06 (77,7)		17 (7,7)	
					10	(132,0)	3.21 (81,5)	2.19 (55,6)	11 (5,0)	9.0 (4,1)
	150	5.25 (133,4)					3.21 (81,5)	2.19 (55,6)	12 (5,4)	8.0 (3,6)
					16/20	(137,0)	3.21 (81,5)	2.19 (55,6)	16 (7,3)	8.3 (3,8)
			10/40	(142,0)			3.21 (81,5)	2.19 (55,6)	19 (8,6)	9.0 (4,1)
4 (100)	300/600	5.75 (146,1)	63	(146,1)	30/40	(146,1)	3.21 (81,5)	2.19 (55,6)	21 (9,5)	11 (5,0)
					10	(156,0)	3.97 (100,8)	2.90 (73,6)	17 (7,7)	12 (5,4)
			10/16	(162,0)	16/20	(162,0)	3.97 (100,8)	2.90 (73,6)	20 (9,1)	14 (6,3)
			25/40	(168,0)	30	(168,0)	3.97 (100,8)	2.90 (73,6)	23 (10)	16 (7,3)
	150	6.75 (171,5)					3.97 (100,8)	2.90 (73,6)	24 (11)	17 (7,7)
			63	(173,0)			4.09 (103,9)		25 (11)	
	300	7.00 (177,8)					3.97 (100,8)	2.90 (73,6)	27 (12)	20 (9,1)
					40	(180,1)	3.97 (100,8)		28 (13)	
600							4.09 (103,9)	2.52 (64,0)	34 (15)	22 (10)
	600	7.50 (190,5)								

*Heights will vary based on options





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