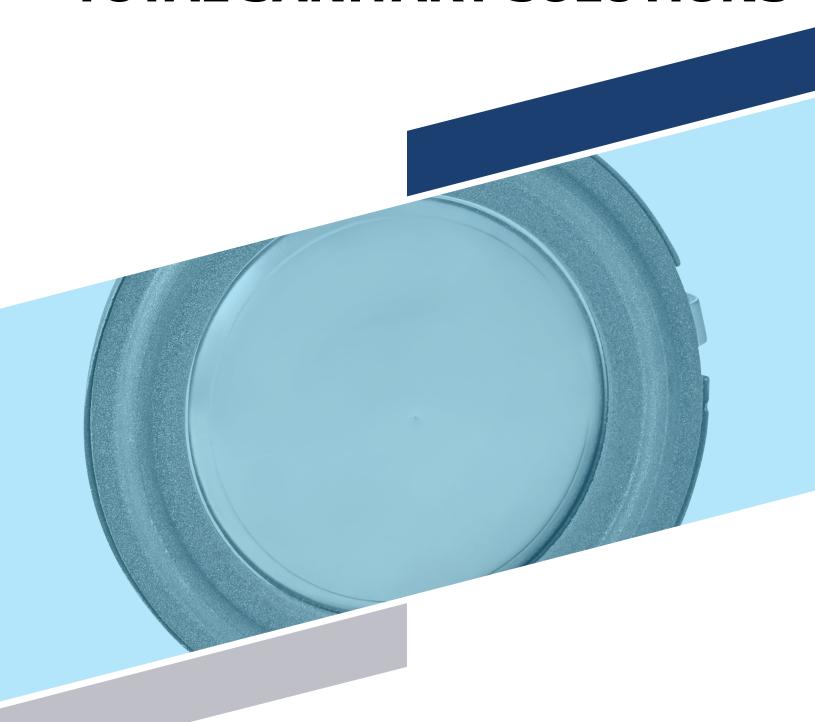


# **TOTAL SANITARY SOLUTIONS**





# Continental Disc® Corporation

## TABLE OF CONTENTS

ITRX HPX® II
ET®
ETS
IGS
PS
М

## SANITRX HPX® & SANITRX HPX® II

The Continental Disc SANITRX HPX® & SANITRX HPX® II Rupture Discs are semicircular scored reverse acting rupture discs designed specifically for the pharmaceutical, biotech, food and beverage industries.

These rupture discs are available to fit between industry standard sanitary ferrules, NA-CONNECT® flanges or SANITRX fittings. SANITRX HPX & SANITRX HPX II Rupture Discs are shipped in sanitary, environmentally friendly, non-toxic packaging.

#### **Technical Details**

#### SANITRX HPX®

- Nominal Size Range: 1" 3" (25 mm 80 mm)
- Burst Pressure Range: 10 psig 250 psig (0,689 barg 17,2 barg)

#### SANITRX HPX® II

- Nominal Size Range: 11/2" 4"(40 mm 100 mm)
- Burst Pressure Range: 10 psig 500 psig (0,689 barg 34,5 barg)

#### SANITRX HPX® & SANITRX HPX® II

- Maximum Recommended Operating Ratio: 90 or 95% of the rupture disc's rated (stamped) burst pressure.
- · Service: Liquid or Gas
- BDI Alarm System Compatible?: Yes
- ASME Code Symbol Stamp Available?: Yes
- Seating Configuration: Industry-standard sanitary ferrules, NovAseptic flanges or SANITRX fittings
- ASME Code Section VIII, Division 1 compliant. National Board Certified K<sub>R</sub> flow resistance values:

 $K_R$  G (gas) = 1.13 and KRL (liquid) = 1.60 for SANITRX HPX

 $K_R$  G (gas) = 1.60 and KRL (liquid) = 1.88 for SANITRX HPX II

ASME Code Symbol Stamp Available: Yes

#### **Options**

- Optional fluoropolymer coating is available for corrosion protection on the process and/or vent side of the rupture disc
- Electropolished surface finishes are available





## **SPECIFICATIONS**

#### **SANITRX HPX® Burst Pressures**

Size	316 SS,	316L SS	Alloy C276, Alloy C22		
Inches (mm)	Minimum psig (barg)	Maximum psig (barg)	Minimum psig (barg)	Maximum psig (barg)	
1 (25)	25 (1,72)	250 (17,2)	30 (2,07)	250 (17,2)	
11/2 (40)	10 (0,689)	200 (13,8)	20 (1,38)	200 (13,8)	
2 (50)	10 (0,689)	150 (10,3)	15 (1,03)	150 (10,3)	
3 (80)	10 (0,689)	100 (6,89)	15 (1,03)	100 (6,89)	

The table shows burst pressures available at 72°F (22°C)

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

#### **SANITRX HPX®II Burst Pressures**

Size	316 SS,	316L SS	Alloy C276, Alloy C22	
Inches (mm)	Minimum psig (barg)	Maximum psig (barg)	Minimum psig (barg)	Maximum psig (barg)
11/2 (40)	200 (13,8)	500 (34,5)	200 (13,8)	500 (34,5)
2 (50)	150 (10,3)	450 (31,0)	150 (10,3)	450 (31,0)
3 (80)	100 (6,89)	175 (12,1)	100 (6,89)	175 (12,1)
4 (100)	10 (0,689)	100 (6,89)	10 (0,689)	100 (6,89)

The table shows burst pressures available at 72°F (22°C)

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

## **SANITRX® LPX**

The Continental Disc SANITRX® LPX is a stainless steel, reverse-acting rupture disc designed specifically for the European pharmaceutical, food and beverage, and biotech industries. This differential pressure relief device features an instantaneous full-open relief area for protecting equipment, vessels, systems and people from an overpressure condition.

#### **Technical Details**

- Sizes available: 40 mm, 50 mm, 80 mm
- Service: Gas/Vapor
- Rupture disc and ring materials: 316 SS, 316L SS
- Burst Pressure: 0.3 MIN to 0.5 MAX barg @ 20 Deg C
- Maximum recommended operating ratio: 90% of MIN burst pressure

#### **Features**

- Permanently attached three-dimensional flow direction tag provides immediate visual verification of proper rupture disc orientation within the piping system
- · Rupture disc can be operated to full vacuum
- Available to fit between industry standard sanitary ferrules and NA-CONNECT® flanges
- Precision scoring on the vent side of the disc dome assures optimum clean-ability and improves rupture disc performance
- Meets ASME BPE and USP Class VI criteria, including:
  - SF1 surface finish (0,5 Ra micrometers or better)
  - Solid metal construction provides clean-ability for CIP/SIP applications
  - Fully traceable materials including USP Class VI certified gaskets
  - All components are free of polishing compounds, release agents and animal derivatives



## SANITRX® LPX

#### **Burst Pressures**

Size Inches (mm)	Minimum psig (barg)	Maximum psig (barg)
1 ½ (40)	5.8 (0,40)	10 (0,689)
2 (50)	5.8 (0,40)	10 (0,689)
3 (80)	5.8 (0,40)	10 (0,689)

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

**Rated Rupture Disc Rating Type** 

Rated Burst Pressure psig (barg)	Manufacturing Range	Burst Tolerance Around Rated (Marked) Burst Pressure psig (barg)	Maximum Recommended Operating Pressure
ABV 8 (ABV 0,552)	0	-2 / +2 (-0,138 / +0,138)	90% of [Rated (Marked) Burst Pressure 2 psig (0,138 barg)
UTAI 8 (UTAI 0,552)	0	±25%	90% of [Rated (Marked) Burst Pressure - 25%]

**Specific Rupture Disc Rating Type** 

Rated Burst Pressure psig (barg)	Equivalent Manufacturing Range	Performance Tolerance psig (barg	Maximum Recommended Operating Pressure
ABV 8 (ABV 0,552)	0	-2 / +2 (-0,138 / +0,138)	90% of MIN of Performance Tolerance
UTAI 8 (UTAI 0,552)	0	±25%	90% of MIN of Performance Tolerance

Min/Max Rupture Disc Rating Type

Maximum Burst Pressure psig (barg)	Equivalent Manufacturing Range	Minumum = psig (barg	Maximum Recommended Operating Pressure
ABV 10 (ABV 0,689)	0	Max - 4 (-0,276)	90% of MIN of Burst Pressure
UTAI 10 (UTAI 0,0689)	0	Max / 1.25 x 0.75	90% of MIN of Burst Pressure

**Gasket Materials & Temperatures** 

Material	FDA Compliant	USP Class VI Compliant	Minimum Service Temperatures °F (°C)	Maximum Service Temperatures °F (°C)
Peroxide Cured Silicone	✓	<b>√</b>	-80 (-62)	450 (232)
Platinum Cured Silicone	✓	✓	-80 (-62)	350 (177)
White VITON°	✓	✓	-20 (-29)	400 (204)
Black VITON°	✓	✓	-20 (-29)	400 (204)
White EPDM	✓	✓	-55 (-48)	275 (135)
Black EPDM	✓	✓	-55 (-48)	300 (149)
PTFE <sup>2</sup>	✓	✓	-40 (-40)	450 (232)
Steel Reinforced PTFE <sup>2, 3</sup>		✓	-20 (-29)	450 (232)

<sup>1</sup> Other materials available upon request

<sup>2</sup> PTFE and Steel Reinforced PTFE are recommended for use with the MBC™ Multi-Bolt Clamp

<sup>3</sup> Not available in (NA) seat types

## CAL-VAC® and POS-A-SET®

The Continental Disc CAL-VAC® and POS-A-SET® Rupture Disc Assemblies are highly accurate, double acting pressure relief devices designed to protect processing and storage tanks against implosion or overpressure conditions that can occur in:

- Positive Pressure: overfill, external fire, steam regulator failure
- Vacuum Relief: liquid pump out, insufficient flow through sanitary vent filer, flash vacuum due to CIP cool rinse, primary vent malfunctions, blanket gas or air regulator failure

Both designs relieve pressure settings starting as low as 1 InWC (inches water column) differential. The difference in the CAL-VAC Rupture Disc and POS-A-SET Rupture Disc is the orientation of the components to meet the relieving requirements. The CAL-VAC Rupture Disc relieves ultra low pressure in the vacuum (negative) pressure direction, while the POS-A-SET Rupture Disc relieves ultra low pressure in the positive pressure direction.

#### **Technical Details**

- Sizes: 3" 12" (80mm 300mm)
- Service: Gas or Liquid
- Nonfragmenting Design
- Operating Conditions: Static, Cyclic or Pulsating
- Top Section and Ring Material(s):316 SS, 316L SS, Alloy C276, Nickel, Alloy 400, Alloy 600 & Tantalum
- Girdle Material(s): Fluoropolymer, 316 SS, 316L SS & Alloy C276
- Girdle Material Temperature Limit
  - Fluoropolymer: Min -40°F (-40°C) / Max-150°F (66°C)
  - 316 SS, 316L SS and Alloy C276: Min -40°F (-40°C) / Max-400°F (204°C)
- Seal and Slot Cover Material: Fluoropolymer
- Seat Configuration: Flat Seat (FS), Sanitary Fitting (SF)
- Holders: Sanitary Holder, Insert Holder
- Compatible with Integral B.D.I.® Alarm System

#### **Features**

- Dual directional (positive and negative) pressure protection to relieve ultra low pressure as low as 1 InWC in one direction and a higher pressure in the other direction
- When specified, can be manufactured to meet 3A Sanitary Standards when a Sanitary Fitting Holder is utilized
- No moving parts eliminates the possibility of mechanical malfunction and assures proper operation
- Available with either an Insert or Sanitary Fitting Holder
- Provides lower maintenance cost and greater reliability compared to a valve, which increases productivity of your system





## CAL-VAC® and POS-A-SET®

#### Vacuum Burst Pressures

Size	Minimum	Maximum		
Inches (mm)	psig (barg)	Insert Type Holder psig (barg)	Sanitary Fitting Type Holder psig (barg)	
3 (80)	8 (0,552)	150 (10,3)	100 (6,89)	
4 (100)	7 (0,483)	125 (8,62)	75 (5,17)	
6 (150)	4 (0,276)	100 (6,89)	50 (3,45)	
8 (200)	3 (0,207)	75 (5,17)	40 (2,76)	
10 (250)	3 (0,207)	50 (3,45)	30 (2,07)	
12 (300)	2 (0,138)	40 (2,76)	n/a	

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

### Vacuum Manufacturing Ranges for Top Section

Requested Rated Burst	ABV 100	ABV 50 UTAI 100 psig	ABV 19 UTAI 50 psig	ABV 12 UTAI 19 psig	ABV 8 UTAI 12 psig	UTAI 8 psig
Pressure psig (barg)	(ABV 6,89)	(ABV 3,45 UTAI 6,89 barg)	(ABV 1,31 UTAI 3,45 barg)	(ABV 0,827 UTAI 1,31 barg)	(ABV 0,552 UTAI 0,827 barg)	(ABV 0,345 UTAI 0,552 barg)
Standard Manufacturing Range	-4% +7%	-4% / +10%	-4% / +14%	-10% / +20%	-30% / +30%	-40% / +40%

Burst Tolerances & Maximum Recommended Operating Pressures for Top Section

burst rolerances a maximum Recommended Operating Pressures for Top Section					
Rated (Marked) Burst Pressure	Burst Tolerance Around Rated (Marked) Burst Pressure	Maximum Recommended Operating Pressure			
ABV 40 psig ABV 2,76 barg	-5% / +5%	, 3			
ABV 14 UTAI 40 psig ABV 0,965 UTAI 2,76 barg	-2 psig /+ 2 psig -0,138 barg / + 0,138 barg	80% of Rated (Marked)			
ABV 12 UATI 14 psig ABV 0,827 UTAI 0,965 barg	-10% / +10%	Burst Pressure			
ABV 8 UTAI 12 psig ABV 0,552 UTAI 0,827 barg	-15% / +15%				
UTAI 8 psig UTAI 0,552 barg	-20% / +20%				

### Burst Tolerances & Maximum Recommended Operating Pressures for Top Section

Size	Maximum Rating	(Full Relief Point) InWC	Minimum Rating	Maximum
Inches (mm)			(Start Relief Point) Inwc	Recommended Operating Pressure
3 (80)	7/36	12/115	For MAX ratings UTAI	For MIN ratings UTAI
4 (100)	7/36	12/70	45 InWC: MAX Rating minus 6 InWC	10 InWC: MIN Rating
6 (150)	7/36	12/70	IIIIIus o IIIvvc	minus 1 InWC
8 (200)	7/36	12/70	For MAX ratings ABV	For MIN ratings ABV 10
10 (250)	n/a	12/60	45 InWC: MAX Rating minus 15	InWĆ:
12 (300)	n/a	12/60	InŴC	90% of MIN Rating

Maximum range at 72°F (22°C). CAL-VAC Vacuum (Negative) Direction and POS-A-SET Positive Direction

## SANITARY ACCESSORIES - GASKETS

The Continental Disc Standard gaskets are designed for use in industry standard ferrules, SANITRX flat face fittings and NovAseptic Na-Connect® Flanges. Replacement slotted gaskets are available upon request. Slotted gaskets of the same material and seat type as the original should be used to maintain the original specifications as shown on the rupture disc tag.

Gasket materials shown in the Gasket Materials and Temperatures table have been tested and are compliant with USP Class VI, Section <88> Biological Reactivity Tests, "In Vivo". PTFE fluoropolymer gaskets are compliant with FDA CFR Title 21, 177.1550. Materials other than PTFE fluoropolymer and steel reinforced PTFE fluoropolymer shown in the Gasket Materials and Temperatures table are compliant with FDA CFR Title 21, 177.2600. All of these gaskets are free of animal and human derivatives, polishing compounds and release agents.

Gasket	FDA USP		Service Temperatures		Recommended for Use with:			
Material	Compliant	Class VI Compliant	Minimum °F (°C)	Maximum °F (°C)	Sanitary Fitting Clamp	MBC <sup>®</sup> Clamp	NA-CONNECT® Holder	
Peroxide Cured Silicone	✓	✓	-80 (62)	450 (232)	✓	$\checkmark$	✓	
Platinum Cured Silicone	✓	✓	-80 (62)	350 (177)	✓	✓	✓	
White FKM	$\checkmark$	✓	-20 (29)	400 (204)	✓	$\checkmark$	✓	
Black FKM	$\checkmark$	✓	-20 (29)	400 (204)	✓	✓	✓	
White EPDM	✓	✓	-55 (-48)	275 (135)	✓	✓	✓	
Black EPDM	$\checkmark$	✓	-55 (-48)	300 (149)	✓	$\checkmark$	✓	
PTFE Fluoropolymer	✓	✓	-40 (-40)	450 (232)		✓	✓	
Steel Reinforced PTFE Fluoropolymer	✓	✓	-20 (29)	450 (232)		✓		

These gasket materials are readily available. Other materials available upon request.

#### **Replacement Gaskets**

Sanitary slotted replacement gaskets are available for flat face SANITRX (SF) and industry standard (IS) seat types. When replacing gaskets, care must be taken when removing the original gasket, installing the replacement gasket and use of a gasket of the same material and seat type.

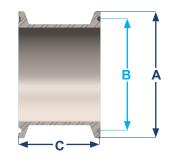


## **SANITARY ACCESSORIES - FITTINGS**

The Continental Disc offers ASME BPE and 3A compliant grooved fittings designed for use with the SANITRX HPX Rupture Disc product family.

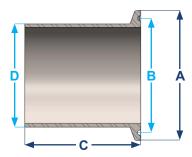
#### **Spool Piece**

Size		Weight		
Inches (mm)	A In (mm)	B In (mm)	C In (mm)	Lbs (kg)
1 (25)	1.98 (50,3)	0.85 (21,6)	1.63 (41,4)	0.41 (0,19)
11/2 (40)	1.98 (50,3)	1.36 (34,5)	1.63 (41,4)	0.24 (0,11)
2 (50)	2.52 (64,0)	1.86 (47,2)	1.63 (41,4)	0.33 (0,15)
3 (80)	3.58 (90,9)	2.86 (72,6)	2.25 (57,2)	0.64 (0,29)
4 (100)	4.68 (119)	3.81 (96,8)	2.25 (57,2)	1.09 (0,49)



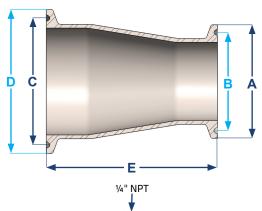
#### **Butt Weld Ferrule**

Size		Weight			
Inches (mm)	A In (mm)	B In (mm)	C In (mm)	D In (mm)	Lbs (kg)
1 (25)	1.98 (50,3)	0.87 (22,1)	1.75 (44,5)	1.00 (25,4)	0.23 (0,10)
11/2 (40)	1.98 (50,3)	1.37 (34,8)	1.75 (44,5)	1.50 (38,1)	0.21 (0,095)
2 (50)	2.52 (64,0)	1.87 (47,5)	2.25 (57,2)	2.00 (50,8)	0.34 (0,15)
3 (80)	3.58 (90,9)	2.87 (72,9)	2.25 (57,2)	3.00 (76,2)	0.53 (0,24)
4 (100)	4.68 (119)	3.83 (97,3)	2.25 (57,2)	4.00 (102)	0.90 (0,41)



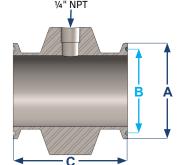
#### **Concentric Reducer**

Size		Dimensions				
Inches (mm)	A In (mm)	B In (mm)	C In (mm)	D In (mm)	E In (mm)	Lbs (kg)
1 ½ x 1 (40 x 25)	1.98 (50,3)	0.86 (21,8)	1.36 (34,5)	1.98 (50,3)	3.00 (76,2)	0.40 (0,18)
2 x 1 ½ (50 x 40)	1.98 (50,3)	1.36 (34,5)	1.86 (47,2)	2.52 (64,0)	3.00 (76,2)	0.21 (0,095)
3 x 2 (80 x 50)	2.52 (64,0)	1.86 (47,2)	2.86 (72,6)	3.58 (90,9)	5.00 (127)	1.00 (0,45)
4 x 3 (100 x 80)	3.58 (90,9)	2.86 (72,6)	3.81 (96,8)	4.68 (119)	5.13 (130)	1.69 (0,77)



## Spool Piece with Gauge Tap

Size		Weight		
Inches (mm)	A In (mm)	B In (mm)	C In (mm)	Lbs (kg)
1 (25)	1.98 (50,3)	0.86 (21,8)	3.00 (76,2)	2.84 (1,29)
11/2 (40)	1.98 (50,3)	1.36 (34,5)	3.00 (76,2)	2.01 (0,91)
2 (50)	2.51 (63,8)	1.86 (47,2)	3.00 (76,2)	2.54 (1,15)
3 (80)	3.58 (90,9)	2.86 (72,6)	3.00 (76,2)	3.59 (1,63)
4 (100)	4.68 (119)	3.81 (96,8)	3.00 (76,2)	4.87 (2,21)



#### **NA-CONNECT® Holder**

Sanitary rupture discs also specifically fits within the sanitary clamping design of the NovAseptic NA-CONNECT® flanges. This flush-mount holder is becoming increasingly popular in sanitary processing industries because it allows installation of the rupture disc directly against the wall of the vessel to allow for easy cleaning and sterilization.

## SANITARY ACCESSORIES - CLAMPS

The Continental Disc SANITRX HPX Rupture Disc product family is designed for installation directly between sanitary tube O.D. connections secured in place with a heavy-duty clamp, such as the Continental Disc MBC™ (Multi-Bolt Clamp), Sanitary Fitting Clamp or Insert Holders.

The MBC is a highly durable sanitary clamping device for securing vessel and piping connections in pharmaceutical, biotech, food, beverage, fine chemical, and other sanitary type environments. The multi-bolt clamp design features four stainless steel bolts and nuts securing a two-piece, cast stainless steel body. This sturdy clamp yields the ultimate in connection integrity, providing a dependable, sure-hold for system fittings and components. An opposed multi-bolt pattern, utilizing four bolts, ensures reliable performance and safeguards your system and personnel from possible damage that could result from the failure and release of a clamp relying on only one or two fasteners. The clamp permits installation of the SANITRX HPX Rupture Disc product family, which feature the innovative, attached 3-dimensional flow tag extending beyond the assembly for easy identification of proper rupture disc orientation.

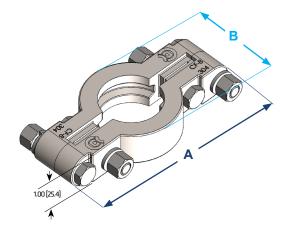
Where product purity and corrosion resistance are critical, use our Sanitary Rupture Disc Holder Assembly. Quick-release and easy to change, this fitting assembly is trusted in dairy, pharmaceutical, food processing, canning, cosmetic and chemical industries.

CAL-VAC and POS-A-SET Insert Holders are machined from standard materials including carbon steel, 304 SS, 316 SS and Alloy C276. Standard knifeblade materials include heat-treated 17-7 PH stainless steel, 316 SS or Alloy C276. Consult the factory for availability of other holder or knife-blade materials.

#### MBC™ Technical Details

- Sizes available: 11/2" through 4"
- Body material: Solid, cast stainless steel
- Bolts, nuts and lock washer material: 304 Stainless Steel
- Depending upon size and limitations of complementary components, the clamp can be installed on systems operating at pressures up to 1500 psig (103 barg) or at temperatures up to 450°F (232°C)

C'		D		Clamp Maximum Operating Pressure		
Size Inches (mm)	Inches (mm)	B Inches (mm)	Weight Ibs (kg)	@ 70°F psig (barg)	@ 450°F psig (barg)	
1 ½ (40)*	5.61 (142)	2.71 (68,8)	2.0 (0,91)	1500 (103)	500 (34,5)	
2 (50)	6.11 (155)	3.25 (82,6)	2.44 (1,09)	1000 (68,9)	450 (31,0)	
3 (80)	7.12 (181)	4.34 (110)	3.1 (1,41)	1000 (68,9)	450 (31,0)	
4 (100)	8.11 (206)	5.45 (138)	3.4 (0,54)	1000 (68,9)	450 (31,0)	





\*Use for 1" (25mm) connection



## **SANITARY ACCESSORIES - CLAMPS**

The Continental Disc Clamps are quick-release, easy to change and allow space for the tag extension to pass through the clamp adjacent to the hinge.

### **Sanitary Fitting Technical Details**

- Sizes available: 1" 10" (25 mm 250 mm)
- Material: 304 Stainless Steel
- Depending upon size and limitations of complementary components, the clamp can be installed on systems operating at pressures up to 1500 psig (103 barg) or at temperatures up to 450°F (232°C)

Size Inches (mm)	A Inches (mm)	Rating @ 70°F psig (barg)	Rating @ 250°F psig (barg)
½ (12.7) & ¾ (19)	1.062 (26.97)	1500 (103)	1200 (83)
1 (25)	2.122 (53.90)	500 (34)	300 (21)
1 ½ (40)	2.654 (67.41)	450 (31)	300 (21)
2 (50)	3.185 (80.90)	400 (28)	200 (14)
3 (80)	3.717 (94.41)	350 (24)	195 (13)
4 (100)	4.820 (122.43)	300 (21)	150 (10)
6 (150)	6.695 (170.05)	150 (10)	75 (5)
8 (200)	8.695 (220.85)	100 (7)	50 (3)
10 (250)	10.695 (271.65)	75 (5)	40 (3)



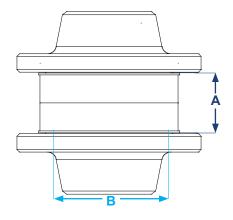


## **SANITARY ACCESSORIES - CLAMPS**

#### **Insert Holder Technical Details**

- Sizes available: 3" 12" (80 mm 300 mm)
- Material: Cabon Steel, 304 Stainless Steel, 316 Stainless Steel, Alloy C276

		ASME		DIN		JIS		Maximum	
Size Inches (mm)	Class	B Inches (mm)	Class	B Inches (mm)	Class	B Inches (mm)	A Inches (mm)	Pressure Rating @ 72°F (22°C) psig (barg)	Weight Ib (kg)
					10	5.16 (131,0)	1.25 (32)		4.2 (1,9)
3 (80)	150	5.25 (33,4)					1.25 (32)	150 (10,4)	4.5 (2,0)
3 (00)					16 / 20	5.39 (137,0)	1.25 (32)	150 (10,4)	4.9 (2,2)
			10/40	142,0			1.25 (32)		5.5 (2,5)
					10	6.14 (156,0)	1.25 (32)		5.1 (2,3)
4 (100)			10 / 16	6.38 (162,0)	16 / 20	6.38 (162,0)	1.25 (32)	125 (8,6)	5.9 (2,7)
	150	6.75 (171,5)					1.25 (32)		7.3 (3,3)
			10 / 16	8.54 (217,0)	10	6.14 (156,0)	1.25 (32)		5.1 (2,5)
6 (150)	150	8.63 (219,2)					1.25 (32)	100 (6,9)	5.9 (2,7)
					16 / 20	9.25 (235,0)	1.25 (32)		7.3 (3,3)
					10	10.51 (267,0)	1.25 (32)		11 (5,0)
8 (200)			10/16	10.71 (272,0)			1.25 (32)	75 (5,2)	12 (5,4)
8 (200)	150	10.88 (276,4)					1.25 (32)	/3 (3,2)	13 (5,9)
					16 / 20	11.02 (280,0)	1.25 (32)		14 (6,4)
			10 / 16	12.87 (327,0)			1.5 (38)		20 (9,1)
10 (250)					10	12.99 (330,0)	1.5 (38)	50 (3,5)	20 (9,1)
10 (230)	150	13.25 (336,6)					1.5 (38)	JU (J,J)	23 (10)
					16 / 20	13.9 (353,0)	1.5 (38)		28 (13)
			10	14.87 (377,0)	10	14.76 (375,0)	1.5 (38)		21 (9,5)
12 (300)			16	15.08 (383,0)			1.5 (38)	40 (2,8)	27 (12)
12 (300)					16 / 20	15.87 (403,0)	1.5 (38)	40 (2,0)	33 (15)
	150	16 (406,4)					1.5 (38)		33 (15)





## **B.D.I.® ALARM SYSTEM**

Use the BDI to immediately alert your system operator when an overpressure or vacuum condition causes a disc to rupture. The BDI can be applied across a nearly limitless range of industries and processes – wherever you need instant notification of a ruptured disc.

#### B.D.I. Alarm System

The B.D.I. Burst Disc Indicator Alarm System provides many benefits, which include:

- Expanded availability in sizes up to 36" (900mm)
- Available as integral design to many rupture disc and vent panel products

#### BDI-FLX® Burst Disc Sensor System

Continental Disc Corporation provides two systems for monitoring the burst of a rupture disc, the BDI-FLX® Sensor System and the B.D.I.® Alarm System. Common features include:

- Detects venting, provides instantaneous notification of the bursting of a rupture disc.
- Signals emergency equipment, control room and/or operating personnel to alter or stop a process.
- Can be combined with a CDC Alarm Monitor to protect equipment, lives and the environment.

#### MTB-700 Alarm Monitor

The MTB-700 Alarm Monitor incorporates intrinsically safe galvanically isolated barriers, approved for use in many countries worldwide. An MTL5018AC barrier is utilized on the MTB-700 Alarm Monitor with a 120/240 VAC input power option. An MTL5018 barrier is utilized on the MTB-700 Alarm Monitor with the 24 VDC input power option. Upon disc rupture, these barriers activate signals and/or output relays to warn operators and actuate pumps, valves or other equipment connected to the system.





## INTEGRX-HPX™

The Continental Disc IntegrX-HPX" rupture disc addresses the need within the biopharmaceutical industry to improve process performance, reliability, and safety. The pioneering and innovative IntegrX-HPX" combines the unrivaled performance of the legendary HPX with ASME BPE compliant crevice-free inlet design, removing the need for integral seals.

Traditional sanitary rupture disc designs limit access to the full spectrum of benefits delivered by HPX technology. The new IntegrX-HPX is a semi-circular, scored, reverse-acting rupture disc, perfectly suited for cyclic process conditions from full vacuum to 95% of the stamped rating. Its welded design mitigates the impact of downstream piping loads on the rupture disc burst pressure and overall performance. Continental Disc incorporated an external tag, aiding installation and providing clearly visible identification in the field and easy access to marked data.

IntegrX-HPX rupture disc offers a unique opportunity to boost efficiency, safety, and keep cost down by utilizing legendary HPX service life. The bold new design reduces maintenance, minimizes the chance of installation damage, and allows you to control the source and type of seal material without affecting rupture disc performance.

#### **Technical Details**

- Sizes: 1" (25mm) to 4" (100mm)
- Rupture Disc Materials: 316 Stainless Steel, Alloy C276, Alloy C22
- Ferrules Material: 316/316L Stainless Steel as standard
- Burst Pressure Range: 15 psig to 500 psig (1.03 barg to 34.5 barg)
- Temperature Range: -320°F to 500°F (-196°C to 260° C)
- Manufacturing Range: Zero
- Burst Tolerance: +/- 5% over for marked burst pressure 40 psig (2.76 barg) and +/- 2 psig (0.138 barg) @ 40 psig (2.76 barg) and under
- Burst to Operating Ratio:
  - 95% of the burst pressure for settings with 40 psig (2.76 barg)
  - For burst pressures below 40 psig, 95% of the burst pressure setting minus the burst tolerance
- Sanitary Ferrule Connections: ASME BPE, ISO 2852, DIN 32676
- Global certifications and approvals including ASME (UD), PED (CE), UKCA, CRN

#### **Features**

- Versitle installation options, including between industry standard ferrules, NovAseptic®
   Connectors and others
- Each disc is manufactured and tested to optimize service life and performance\*
- Crevice free design per ASME BPE-2019 Appendix M Spray Device Coverage Test
- Cleanability test performed on inlet side of 100% of rupture discs using Dye Penetrant per ASME BPVC Section V to ensure crevice free design
- CIP and SIP cleanable to ASME BPE requirements
- Ideal for liquid or gas/vapor applications\*\*

#### Options

• Electropolished surface finishes available

## **SPECIFICATIONS**

Size Inches (mm)	Overall Length Inches (mm)	Burst Pressure Range psig (barg)	MNFA In <sup>2</sup> (mm <sup>2</sup> )	Ra Value microinch (mircometers)	Krgl
1 (25)	1.33 (33.8)	30 to 250 (2.07 to 17.2)	0.493 (318)	20 (0.5)	1.88
1.5 (40)	1.45 (36.8)	20 to 500 (1.38 to 34.5)	1.18 (761)	20 (0.5)	1.88
2 (50)	1.53 (38.9)	20 to 450 (1.38 to 31.0)	2.25 (1452)	20 (0.5)	1.88
3 (80)	1.92 (48.8)	15 to 175 (1.03 to 12.1)	5.49 (3542)	20 (0.5)	1.88
4 (100)	2.12 (53.8)	15 to 100 (1.03 to 6.89)	9.77 (6303)	20 (0.5)	1.88





## 3/4" SANITRX HPX®

The CDC 3/4" SANITRX HPX® Rupture Disc is a semicircular scored reverse acting rupture disc designed specifically for applications in the pharmaceutical, food & beverage and biotech industries. This rupture disc is available to fit between standard sanitary ferrules. The 3/4" SANITRX HPX rupture disc is shipped in sanitary, environmentally friendly, non-toxic packaging.

#### **Technical Details**

- Materials: 316SS, 316L SS, Alloy C-276, Nickel
- Burst Pressure Range: 40 psig 500 psig (2,76 barg 34,5 barg)
- Maximum Recommended Operating Ratio: 90% of the rupture disc's rated (stamped) burst pressure
- Service: Liquid or Gas/Vapor
- Meets ASME BPE and USP class VI criteria including:
  - SF1 surface finish (20 Ra microinch or better)
  - Solid metal construction provides cleanability for CIP/SIP applications
  - Fully traceable materials including USP Class VI certified gaskets
  - All components are free of polishing compounds, release agents and animal derivatives
- ASME Code Section VIII, Division 1 compliant. National Board Certified KR flow resistance values: KRG (gas) = 1.13 and KRL (liquid) = 1.60

#### **Features**

- Extreme cycling durability
- Precision scoring on the vent side of the rupture disc dome assures optimum cleanability and improves rupture disc performance
- · Rupture disc can be operated to full vacuum
- Flow direction is verified with "downstream" stamping on outlet ring to assist with proper installation
- Each disc includes wire-on tagging, which is designed to be placed to the mating clamp to make rupture disc data visible to the end user

#### Options

 Contact the Continental Disc or your local representative for available configuration options



## 3/4" SANITRX HPX®

#### **Burst Pressures**

Size	316 SS / 316L SS		Alloy C-276		Nickel	
In (mm)	Minimum psig (barg)	Maximum psig (barg)	Minimum psig (barg)	Maximum psig (barg)	Minimum psig (barg)	Maximum psig (barg)
3/4" (19mm)	50 (3,45)	500 (34,5)	50 (3,45)	500 (34,5)	40 (2,76)	500 (34,5)

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

**Gasket Materials & Temperatures** 

FDA and USP	Service Temperatures				
Class VI Compliant Gasket Materials	Minimum °F (°C)	Maximum °F (°C)			
Peroxide Cured Silicone	-80 (-62)	450 (232)			
Platinum Cured Silicone	-80 (-62)	350 (177)			
White VITON®	-20 (-29)	400 (204)			
Black VITON®	-20 (-29)	400 (204)			
White EPDM	-55 (-48)	275 (135)			
Black EPDM	-55 (-48)	300 (149)			

Other materials available upon request



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