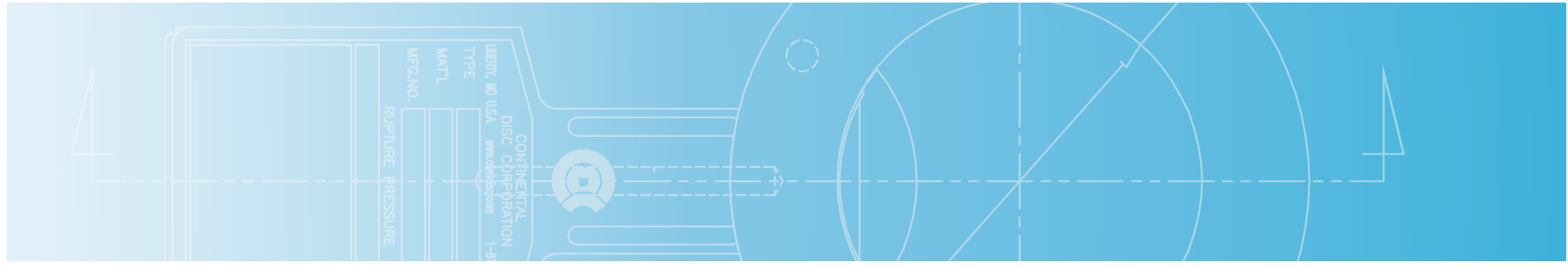




# HPX<sup>®</sup>

RUPTURE DISC  
PRODUCT FAMILY



INTRODUCING THE  
**HPX**<sup>®</sup>  
RUPTURE DISC  
PRODUCT FAMILY



ALWAYS MOVING FORWARD

ADVANCING TECHNOLOGY AND SAFETY...  
ONE INNOVATIVE DISC AT A TIME.

Built on years of research and development, the HPX and SANITRX<sup>®</sup> HPX rupture discs are high precision pressure relieving devices that protect personnel, equipment and the environment. The versatility of the HPX product family offers pressure protection for a wide range of applications in many processing industries, including: chemical, oil and gas, food, beverage, pharmaceutical, biotech, pulp and paper, power and more.

The HPX product family is the most advanced line of rupture discs available, incorporating proven performance in excess of a quarter million cycles, operating up to 95% of burst pressure, and offered in a wide range of burst pressures, materials and sizes. These features support reduced down time and lower maintenance costs, increasing the productivity of your facility!



# Versatility & Reliability

Whether you need a rupture disc to meet the most demanding application requirements or a rupture disc to economically meet the needs of a less demanding one, the HPX and SANITRX HPX rupture disc is the solution for you.

HPX and SANITRX HPX rupture discs are available in various sizes, materials, ratings, manufacturing ranges, and operating ratios to meet the performance criteria demanded by your application requirements.

**Designed for use in bolted flange or sanitary clamped installations, HPX and SANITRX HPX rupture discs offer the following versatile features:**

**DISC SIZES** // HPX: 1" through 8" sizes; SANITRX HPX: 1" through 3" sizes

**DISC MATERIALS** // 316 and 316L Stainless Steel, Nickel, MONEL®, INCONEL®, HASTELLOY® C

**BURST PRESSURES** // 10 psig to 1000 psig (0,689 barg to 68,9 barg)

**MANUFACTURING RANGE** // Zero, -5% and -10%

**OPERATING RATIO** // Choice of 90% or 95%

**SAFETY RATIO** // 1 to 1 or less. If the rupture disc becomes damaged, it will relieve at or below the burst pressure.

**DURABILITY** // Design tested for 250,000 cycles<sup>1</sup> from full vacuum to 95% of burst rating

**DESIGN** // Non-fragmenting, reverse acting, bubble-tight seal<sup>2</sup>

## HOLDERS

- > Carbon Steel, 316 SS, MONEL®, HASTELLOY® C materials
- > Tantalum and TEFLON® coatings available for extra corrosion protection
- > Pre-Torqued design available
- > ASME, DIN and JIS bolting classes

## Reliability is assured through:

- > Advanced product design
- > Precise manufacturing technology
- > Extensive testing performed during the manufacturing process and lot qualification
- > Pre-shipment inspection
- > Unique packaging designed to protect your rupture discs in shipment, storage and handling at your plant site
- > Ability to operate in pressure-to-vacuum cycling applications

## CODES, STANDARDS & APPROVALS

When specified, the HPX product family will be manufactured in accordance with:

- > ASME Sect VIII, Sect III
- > ASME BPE<sup>3</sup>
- > PED 97/23/EC
- > ISO 4126-2
- > SQL China
- > GOST
- > KOSHA
- > 3A<sup>3</sup>

HPX PRODUCT FAMILY //

# INDUSTRIAL SOLUTIONS



ASME Code Symbol Stamp  
Available When Specified

Pressure Equipment Directive  
Available When Specified



## HPX RUPTURE DISCS

The HPX rupture disc is a semicircular scored reverse acting rupture disc that is ideal for liquid or gas/vapor applications.

Each lot of discs is built to order per the specifications of each overpressure relief requirement in your plant. Each lot is then performance tested to provide reliable performance in your plant during normal operations and in overpressure conditions. Each HPX rupture disc is proof pressure-tested prior to shipment.

Optimum material thickness and manufacturing tooling design provide not only the full opening and accurate burst rating you expect but also longer service life at higher operating-to-burst ratios demanded by today's process industries.

## Applications

Due to its high performance operating capabilities, range of burst ratings and materials of construction, the HPX rupture disc is the ideal product to use in plants where production includes batch processing runs where operating conditions and media may change frequently. The variability offered by HPX rupture discs makes future modifications to specifications easier to incorporate in change control procedures and without piping modifications.

The HPX rupture disc can be used in a very wide range of applications in many different industries:

**CHEMICAL** // Reactors, heat exchangers, chillers, relief valve isolation

**OIL & GAS** // Distillation columns, separators, coking drums

**PHARMACEUTICAL** // Production vessels, blending and milling vessels

**INDUSTRIAL GAS** // Process columns and vessels, storage and transportation tanks and trailers

## Optional Features

- **Available with a TEFLON liner** for corrosion protection on the process side of the rupture disc. <sup>1</sup>
- **TEFLON Outlet Protective Cover available** for corrosion protection on the vent side of the rupture disc and holder.
- **TEFLON coating is available** for corrosion protection on the process and/or vent side of the rupture disc.



- **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.
- **Ideal for liquid or gas/vapor applications.**
- **Available to be cleaned** for Oxygen or Chlorine Service.

**BURST PRESSURES** // The following table shows burst pressures available at 72°F [22°C].

SIZE	NICKEL, MONEL®		316 SS / 316L SS, INCONEL®		HASTELLOY® C	
	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM
	psig/ barg	psig/ barg	psig/ barg	psig/ barg	psig/ barg	psig/ barg
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	0,689	62,1	0,689	68,9	1,38	68,9
2"	10	850	10	900	15	1000
50 mm	0,689	58,6	0,689	62,1	1,03	68,9
3"	10	750	10	900	15	1000
80 mm	0,689	51,7	0,689	62,1	1,03	68,9
4"	10	650	10	800	15	900
100 mm	0,689	44,8	0,689	55,2	1,03	62,1
6"	10	400	10	450	15	500
150 mm	0,689	27,6	0,689	31,0	1,03	34,5
8"	10	250	10	300	15	350
200 mm	0,689	17,2	0,689	20,7	1,03	24,1

## MAXIMUM RECOMMENDED TEMPERATURE LIMITS

DISC MATERIAL	°F	°C
Nickel	800	427
MONEL	800	427
316 SS / 316L SS	900	482
HASTELLOY C	900	482
INCONEL	1000	538
TEFLON liner	500	260

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

<sup>1</sup> Teflon liners are available for: 1", 1.5" discs rated > 30 psig @ 72°F // 2" - 8" discs rated > 25 psig @ 72°F



# HPX Product Family Standard Burst Pressure Ratings

Rupture discs in the following tables illustrate:

- Standard burst pressure rating types and ranges available
- The associated tolerances for the burst pressure rating
- How to determine the maximum recommended operating pressure

*Special ranges are available upon request.*

## Keep in mind:

- For compliance to ASME Section VIII, Division 1, the **RATED** rating type must be used.
- For compliance to the Pressure Equipment Directive 97/23/EC (to carry the CE Mark) and the ISO 4126-2 standard, either the **SPECIFIED** or **MIN/MAX** rating type must be used .



FOR MORE INFORMATION ON RATING TYPES, PLEASE SEE THE [BURST RATING TYPES DATASHEET](#).

RATED RUPTURE DISC RATING TYPE				
PRODUCT	RATED BURST PRESSURE	MANUFACTURING RANGE	BURST TOLERANCE AROUND RATED (MARKED) BURST PRESSURE	MAXIMUM RECOMMENDED OPERATING PRESSURE
HPX-95 or SANITRX HPX-95	above 40 psig above 2,76 barg	Zero	-5% / +5%	95% of Rated (Marked) Burst Pressure
	up to and including 40 psig up to and including 2,76 barg		-2 psig / +2 psig -0,138 barg / +0,138 barg	95% of [Rated (Marked) Burst Pressure - 2 psig] 95% of [Rated (Marked) Burst Pressure - 0,138 barg]
HPX-90 or SANITRX HPX-90	above 50 psig above 3,45 barg	Zero	-5% / +5%	90% of Rated (Marked) Burst Pressure
		-5%		
		-10%		
	above 40 up to and including 50 psig above 2,76 up to and including 3,45 barg	Zero		
		-2.5 psig -0,173 barg		
		-5 psig -0,345 barg		
up to and including 40 psig up to and including 2,76 barg	Zero	-2 psig / +2 psig -0,138 barg / +0,138 barg	90% of [Rated (Marked) Burst Pressure - 2 psig] 90% of [Rated (Marked) Burst Pressure - 0,138 barg]	
	-2.5 psig -0,173 barg			
	-5 psig -0,345 barg			

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

INDUSTRIAL SOLUTIONS // HPX RUPTURE DISC



## SPECIFIED RUPTURE DISC RATING TYPE

PRODUCT	SPECIFIED BURST PRESSURE	PERFORMANCE TOLERANCE	EQUIVALENT MANUFACTURING RANGE	MAXIMUM RECOMMENDED OPERATING PRESSURE	
HPX-95 or SANITRX HPX-95	above 40 psig above 2,76 barg	-5% / +5%	Zero	100% of Min of Performance Tolerance	
	up to and including 40 psig up to and including 2,76 barg	-2 psig / + 2 psig -0,138 barg / + 0,138 barg		95% of Min of Performance Tolerance	
HPX-90 or SANITRX HPX-90	above 50 psig above 3,45 barg	-5% / +5%	Zero	95% of Min of Performance Tolerance	
		-9.75% / +5%	-5%		
		-14.5% / +5%	-10%		
	above 40 up to and including 50 psig above 2,76 up to and including 3,45 barg	-5% / +5%	Zero		-2.5 psig -0,173 barg
		$\left( \frac{(\text{SPEC } -2.5 \text{ psig}) 0.95}{\text{SPEC}} -1 \right) 100\% / +5\%$			
		$\left( \frac{(\text{SPEC } -0.173 \text{ barg}) 0.95}{\text{SPEC}} -1 \right) 100\% / +5\%$			
	up to and including 40 psig up to and including 2,76 barg	$\left( \frac{(\text{SPEC } -5 \text{ psig}) 0.95}{\text{SPEC}} -1 \right) 100\% / +5\%$	Zero		-5 psig -0,345 barg
		$\left( \frac{(\text{SPEC } -0.345 \text{ barg}) 0.95}{\text{SPEC}} -1 \right) 100\% / +5\%$			
		-2 psig / +2 psig -0,138 barg / +0,138 barg			
	-4.5 psig / +2 psig -0,311 barg / +0,138 barg	Zero	-2.5 psig -0,173 barg		
	-7 psig / +2 psig -0,483 barg / +0,138 barg			-5 psig -0,345 barg	

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

## MIN/MAX RUPTURE DISC RATING TYPE

PRODUCT	MAX BURST PRESSURE	MIN =	EQUIVALENT MANUFACTURING RANGE	MAXIMUM RECOMMENDED OPERATING PRESSURE		
HPX-95 or SANITRX HPX-95	above 42 psig above 2,90 barg	MAX / 1.05 x 0.95	Zero	100% of MIN Burst Pressure		
	up to and including 42 psig up to and including 2,90 barg	MAX - 4 psig MAX - 0,276 barg		95% of MIN Burst Pressure		
HPX-90 or SANITRX HPX-90	above 52.5 psig above 3,62 barg	MAX / 1.05 x 0.95	Zero	95% of MIN Burst Pressure		
		MAX / 1.05 x 0.95 x 0.95	-5%			
		MAX / 1.05 x 0.9 x 0.95	-10%			
	above 42 up to and including 52.5 psig above 2,90 up to and including 3,62 barg	MAX / 1.05 x 0.95	Zero		-2.5 psig -0,173 barg	
		$(\text{MAX} / 1.05 - 2.5 \text{ psig}) 0.95$ $(\text{MAX} / 1,05 - 0,173 \text{ barg}) 0,95$				
		$(\text{MAX} / 1.05 - 5 \text{ psig}) 0.95$ $(\text{MAX} / 1,05 - 0,345 \text{ barg}) 0,95$				
	up to and including 42 psig up to and including 2,90 barg	MAX - 4 psig MAX - 0,276 barg	Zero		-2.5 psig -0,173 barg	
		MAX - 6.5 psig MAX - 0,449 barg				-5 psig -0,345 barg
		MAX - 9 psig MAX - 0,621 barg				

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

INDUSTRIAL SOLUTIONS // HPX RUPTURE DISC



## INDUSTRIAL SOLUTIONS //

HPX INSERT HOLDER



## HPX INSERT HOLDER

The HPX Insert holder is designed to optimize flow, assure proper orientation of the HPX rupture disc in your piping system, provide a tight seal, prevent fragmentation of the rupture disc and enable direct mounting of a safety relief valve on the holder outlet.

### Features:

- **Flow optimization of the HPX holder and rupture disc assembly** is characterized by best-in-class certified  $K_R$  factors of 0.29 for gas/vapor relief or 0.38 for liquid relief.
- **Proper orientation of the disc in the holder is assured by the three alignment pins** in the holder inlet that properly align and orient the rupture disc in the holder. An optional J-Hook can be used to orient the holder in its mating flanges. The flow arrows on the holder and rupture disc tags confirm proper flow direction.
- **A durable tapered sealing surface on the holder inlet that, along with proper installation and handling, provides a bubble-tight (no air bubbles detected with leak detection fluid) metal-to-metal seal** between the holder inlet and rupture disc. Contact your sales representative for specific leak rate or leak testing requirements.
- **The holder outlet bore incorporates an arcuate that provides a radiused hinge** for the disc petal to form around preventing fragmentation of the disc.
- **HPX holder outlets are designed to eliminate the need for a spool piece** between the holder outlet and nozzle of a safety relief valve.
- **The holder inlet protects the rupture disc dome** during installation of the assembly into the piping system.
- **As a standard, the holder will come with spiral groove facing per ASME B16.5**, which will provide a surface finish between 125 and 250 microinches (3,2 to 6,3 micrometers).



HPX INSERT HOLDER



HPX HOLDER // Weights & Dimensions

NOMINAL SIZE	ASME		DIN		JIS		HPX HOLDER HEIGHT (in/mm)	WEIGHT (lb/kg)
	CLASS	OUTSIDE DIAMETER (in/mm)	CLASS	OUTSIDE DIAMETER (in/mm)	CLASS	OUTSIDE DIAMETER (mm)		
1" / 25 mm	150	2.50 / 63,5					1.80 / 45,7	2.0 / 0,9
	300 / 600	2.75 / 69,9	10 / 40	69,9	10 / 20	69,9	1.80 / 45,7	2.5 / 1,1
					30 / 40	76,0	1.80 / 45,7	3.0 / 1,4
	900 / 1500	3.00 / 76,2					2.40 / 61,0	3.6 / 1,6
			64 / 160	82,0			2.40 / 61,0	3.6 / 1,6
1½" / 40 mm	150	3.25 / 82,6					2.04 / 51,8	4.5 / 2,0
					10 / 20	86,0	2.04 / 51,8	4.9 / 2,2
	300 / 600	3.63 / 92,2	10 / 40	92,2			2.04 / 51,8	4.7 / 2,1
	900 / 1500	3.75 / 95,3					2.57 / 65,3	6.4 / 2,9
					30 / 40	97,0	2.04 / 51,8	5.0 / 2,3
			64 / 160	102,0			2.57 / 65,3	7.5 / 3,4
2" / 50 mm	150	4.00 / 101,6			10 / 20	101,6	2.36 / 59,9	5.9 / 2,7
	300 / 600	4.25 / 108,0	10 / 40	108,0			2.36 / 59,9	6.7 / 3,0
					30 / 40	111,0	2.36 / 59,9	7.2 / 3,3
			64	113,0			2.36 / 59,9	7.6 / 3,4
	900 / 1500	5.50 / 139,7					3.06 / 77,7	17 / 7,7
3" / 80 mm					10	132,0	3.21 / 81,5	11 / 5,0
	150	5.25 / 133,4					3.21 / 81,5	12 / 5,4
					16 / 20	137,0	3.21 / 81,5	16 / 7,3
			10 / 40	142,0			3.21 / 81,5	19 / 8,6
	300 / 600	5.75 / 146,1	64	146,1	30 / 40	146,1	3.21 / 81,5	21 / 9,5
4" / 100 mm					10	156,0	3.97 / 100,8	17 / 7,7
			10 / 16	162,0	16 / 20	162,0	3.97 / 100,8	20 / 9,1
			25 / 40	168,0	30	168,0	3.97 / 100,8	23 / 10,4
	150	6.75 / 171,5					3.97 / 100,8	24 / 10,9
			64	173,0			4.09 / 103,9	25 / 11,3
	300	7.00 / 177,8					3.97 / 100,8	27 / 12,2
					40	180,1	3.97 / 100,8	28 / 12,7
	600	7.50 / 190,5					4.09 / 103,9	34 / 15,4
6" / 150 mm			10 / 16	217,0	10	217,0	5.64 / 143,3	41 / 18,6
	150	8.63 / 219,2					5.64 / 143,3	43 / 19,5
			25 / 40	223,0			5.64 / 143,3	62 / 28,1
					16 / 20	235,0	5.64 / 143,3	69 / 31,3
	300	9.75 / 247,7			30	247,7	5.64 / 143,3	85 / 38,5
					40	262,0	5.64 / 143,3	99 / 44,9
	600	10.38 / 263,7					5.64 / 143,3	101 / 45,8
8" / 200 mm					10	267,0	7.26 / 184,4	65 / 29,5
			10 / 16	273,0			7.26 / 184,4	73 / 33,1
	150	10.88 / 276,4					7.26 / 184,4	78 / 35,4
					16 / 20	280,0	7.26 / 184,4	89 / 40,4
			25	283,0			7.26 / 184,4	87 / 39,5
			40	290,0			7.26 / 184,4	97 / 44,0
	300	12.00 / 304,8					7.26 / 184,4	119 / 54,0

NOTE: Gauge taps and facing options could affect the holder height and weight.

INDUSTRIAL SOLUTIONS //

HPX INSERT HOLDER



## INDUSTRIAL SOLUTIONS //

ADDITIONAL  
HOLDER FEATURES

## Additional Features

Holder assemblies are made from standard materials including Carbon Steel, 316 stainless steel, HASTELLOY C and MONEL. Other materials are available on request.

HPX rupture disc insert holders are available for ASME, JIS or DIN class flanges as shown on the previous table. Consult your sales representative for holders to fit other national or international standards or flange classes not shown.

### OPTIONAL ACCESSORIES

**CORROSION RESISTANCE** can be enhanced by TEFLON® coating or TANTALINE® treatment of the holder inlet and/or outlet.

- The TANTALINE process creates a pinhole-free, corrosion-resistant barrier of pure tantalum metal. The Tantalum metal is grown into the substrate metal (typically, 316 stainless steel) and alloy bonded. As a result, typical modes of failure of traditional tantalum coatings that are sprayed or dipped, such as delamination, chipping and spalling, are virtually non-existent.

**STUDS AND NUTS** of the appropriate length to engage the HPX insert holder with an inlet and outlet flange are available in alloy steel<sup>1</sup> or 316 SS<sup>2</sup> materials.

**TELL-TALE INDICATOR** components between any two inline pressure relief devices can include the following:

- Gauge taps in the holder outlet: 1/4", 3/8" and 1/2" threaded (tap size, location and type may impact holder height)
- Pipe nipples and tees, CS or SS: 1/4" or 1/2"
- Excess Flow valve, 316 SS: 1/4" or 1/2"
- Gauges

**JACKSCREWS**, alloy steel: 3 per set

**EYEBOLTS**, alloy steel

**CLEANING FOR OXYGEN** or **CHLORINE SERVICE**



HOLDER ACCESSORIES

<sup>1</sup> ASME SA-193-B7 studs, SA-194-2H nuts

<sup>2</sup> ASME SA-193-B8M Class 2 studs, SA-194-8M nuts



PRE-TORQUED HOLDER WITH CAPSCREWS

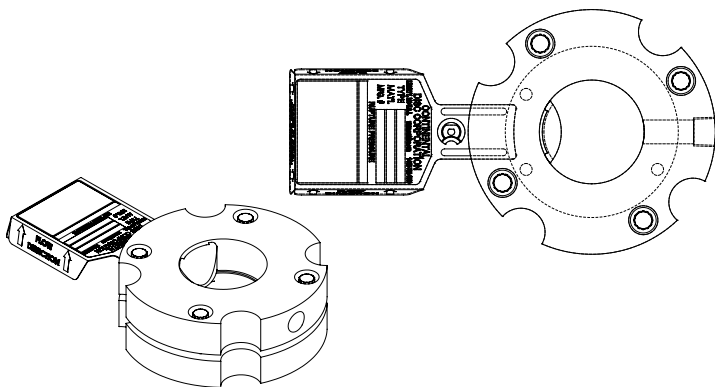
## Additional Holder Designs

HPX-PT pre-torqued holders incorporate high strength steel socket cap screws to ensure accurate loading and sealing of the HPX rupture disc. The HPX-PT holder allows the disc to be correctly fitted in the workshop using precise recommended torque levels, prior to installation of the complete assembly between the companion flanges in the process system.

Common installations utilizing pre-torqued holders:

- **Process equipment having glass or TEFLON® lined flanges** that cannot provide the compression required to seal the rupture disc in the holder
- **Installations where the piping arrangement restricts access**, preventing correct torque loading of the flange fasteners
- **Challenging processes requiring regular removal of the rupture disc** and holder assembly for inspection
- **Applications requiring leak testing** of the rupture disc assembly prior to installation in the piping system
- **Maintains precise loading of the rupture disc** where poor flange alignment and gasket cold flow may be an issue

DRAWING : PRE-TORQUED HOLDER



Additional holder designs and features such as special coatings or alternate heights are available. Please contact your sales representative for more information.

INDUSTRIAL  
SOLUTIONS //

ADDITIONAL  
HOLDERS





ASME Code Symbol Stamp  
Available When Specified



Pressure Equipment Directive  
Available When Specified



HPX PRODUCT FAMILY //

# SANITARY SOLUTIONS



## SANITRX HPX RUPTURE DISCS

The SANITRX HPX rupture disc is a semicircular scored reverse acting rupture disc designed specifically for the pharmaceutical, biotech, food, and beverage industries. This rupture disc is available to fit between industry standard sanitary ferrules, NA-CONNECT® flanges or SANITRX fittings.

SANITRX HPX rupture discs are shipped in sanitary, environmentally friendly, non-toxic packaging.

For rating, range and tolerance information, please see pages 4-5.

## Applications

The SANITRX HPX rupture disc can be used in a wide range of sanitary and hygienic applications throughout pharmaceutical, biotech, food, and beverage facilities. The following list is only a small sample of the many ways in which this outstanding rupture disc can be used.





AUTOCLAVES  
 BIOREACTORS  
 PROCESS VESSELS  
 HEAT EXCHANGERS

STORAGE & TRANSPORT VESSELS  
 MIXING, DRYING, GRANULATING EQUIPMENT  
 LYOPHILIZERS (FREEZE DRYING)  
 CIP & SIP SKIDS AND PIPING

WFI VESSELS & PIPING  
 CLEAN STEAM PIPING  
 FERMENTERS  
 FILTERS

## Optional Features

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



- Ideal for liquid or gas/vapor applications.
- The SANITRX HPX is also available with a horizontal tag option.
- TEFLON coating is available for corrosion protection on the process and/or vent side of the rupture disc.

**BURST PRESSURES** // The following table shows burst pressures available at 72°F (22°C).

SIZE	316 SS / 316L SS		HASTELLOY® C	
	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM
	psig / barg	psig / barg	psig / barg	psig / barg
1"	25	250	30	250
25 mm	1,72	17,2	2,07	17,2
1½"	10	200	20	200
40 mm	0,689	13,8	1,38	13,8
2"	10	150	15	150
50 mm	0,689	10,3	1,03	10,3
3"	10	100	15	100
80 mm	0,689	6,89	1,03	6,89

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

**GASKET MATERIALS & TEMPERATURES** // The following gasket materials are readily available.<sup>1</sup>

FDA AND USP CLASS VI COMPLIANT GASKET MATERIALS	SERVICE TEMPERATURES			
	MINIMUM		MAXIMUM	
	°F	°C	°F	°C
Peroxide Cured Silicone <sup>2</sup>	-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 TEFLON®	-40	-40	450	232

<sup>2</sup> Not available in (IS) seat type

## MAXIMUM RECOMMENDED TEMPERATURE LIMITS

DISC MATERIAL	°F	°C
316 SS / 316L SS	900	482
HASTELLOY® C	900	482

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



## SANITARY SOLUTIONS //

ASME BPE  
STANDARD

# GASKETS

Standard gaskets are designed for use in industry standard ferrules with optional gaskets available for use in SANITRX flat face fittings and NovAseptic Connectors. 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.

Gaskets made from materials shown in the *Gasket Materials and Temperatures* table (see previous page) have been tested and certified to be in compliance with USP Class VI, Section <88> Biological Reactivity Tests, "In Vivo". PTFE TEFLON® gaskets are in compliance with FDA CFR Title 21, Part 177, Subpart B Section 177.1550. Materials other than PTFE TEFLON® shown in the *Gasket Materials and Temperatures* table are in compliance with FDA CFR Title 21, Part 177, Subpart C Section 177.2600. All of these gaskets are free of animal and human derivatives, polishing compounds and release agents.



FOR MORE INFORMATION ON OUR REPLACEMENT GASKETS, PLEASE SEE THE [SANITARY FITTINGS DATASHEET](#).

## ASME BPE STANDARD

This standard provides requirements applicable to the design of equipment used in the biotech, pharmaceutical and personal care industries including aspects related to sterility and cleanability, materials of construction, dimensions and tolerances, surface finish, material joining and seals.

The standard applies to components in contact with the product, raw materials or intermediates. Systems that are a critical part of the manufacturing process such as water for injection (WFI), clean steam, filtration and intermediate storage may also abide by this standard.

**SANITRX HPX is in compliance with the essential criteria of the ASME BPE standard as follows:**

- CIP and SIP cleanable
- Withstands temperatures of 130°C where steam sterilization is required
- The standard surface finish meets SF1 (20 Ra microinch) for the SANITRX HPX and the internal surfaces of the ASME BPE compliant sanitary fittings
- The SANITRX HPX gaskets in the *Gasket Materials and Temperatures* table (see previous page) meet ASME BPE requirements, including full traceability and prohibition of animal derivatives
- Rupture discs and fittings are usually, as a standard, made out of 316L SS material; alternates are available if specified by users
- Fully traceable 316 or 316L SS materials

- Fittings are marked and packaged in accordance with ASME BPE
- USP Class VI certified gaskets meet all ASME BPE requirements including full traceability and prohibition of animal derivatives



## SANITARY PACKAGING

SANITRX HPX rupture discs are shipped in sanitary, non-toxic environmentally-friendly packaging.

### Benefits:

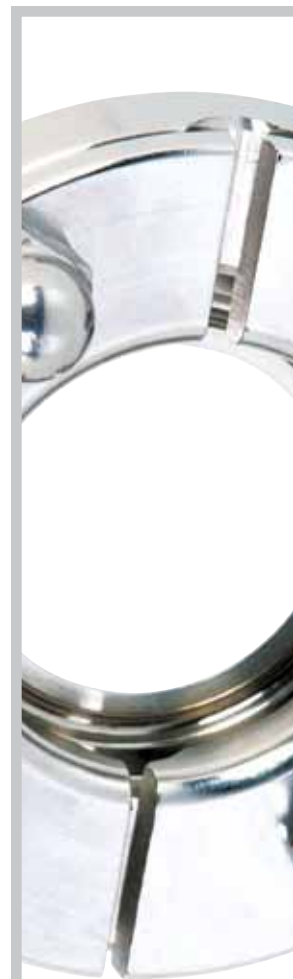
- **Plastic packaging eliminates direct contact of the rupture disc** with open cell material, such as cardboard or foam, which can carry contaminants or leave particles on the rupture disc.
- **Clear packaging provides visibility of the rupture disc tag** allowing verification of the rupture disc specification without removal from the package.
- **The plastic package and cardboard carton are recyclable materials.**
- Combined with the vertical tag, the new plastic packaging **provides a compact, space saving container for the rupture disc**

## NA-CONNECT® HOLDER

The SANITRX HPX also specifically fits within the sanitary clamping design of the NovAseptic NA-CONNECT holder. 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 SOLUTIONS //

SANITARY PACKAGING



NA CONNECT®  
HOLDER

## RELATED PRODUCTS

RELATED  
PRODUCTS //  
SANITARY



SANITARY FITTING CLAMP & MULTI-BOLT CLAMP

### Clamps

SANITRX HPX rupture discs are 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) or a Sanitary Fitting Clamp (both pictured above). Both 304 SS clamp types are available in 1" through 4" sizes.

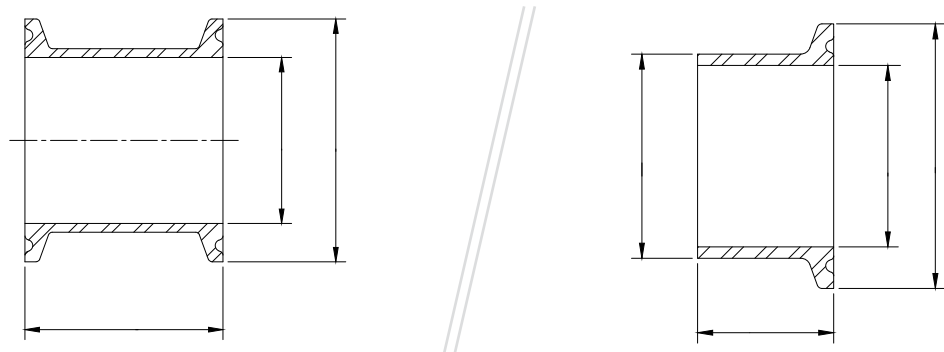


FOR MORE INFORMATION ON OUR CLAMPS, PLEASE SEE THE [SANITARY FITTINGS DATASHEET](#).

### Fittings

SANITRX® and SANITRX HPX rupture discs are designed for use with ASME BPE and 3A compliant grooved fittings. For convenience, Continental Disc offers ASME BPE compliant butt weld ferrules, spool pieces and concentric reducers.

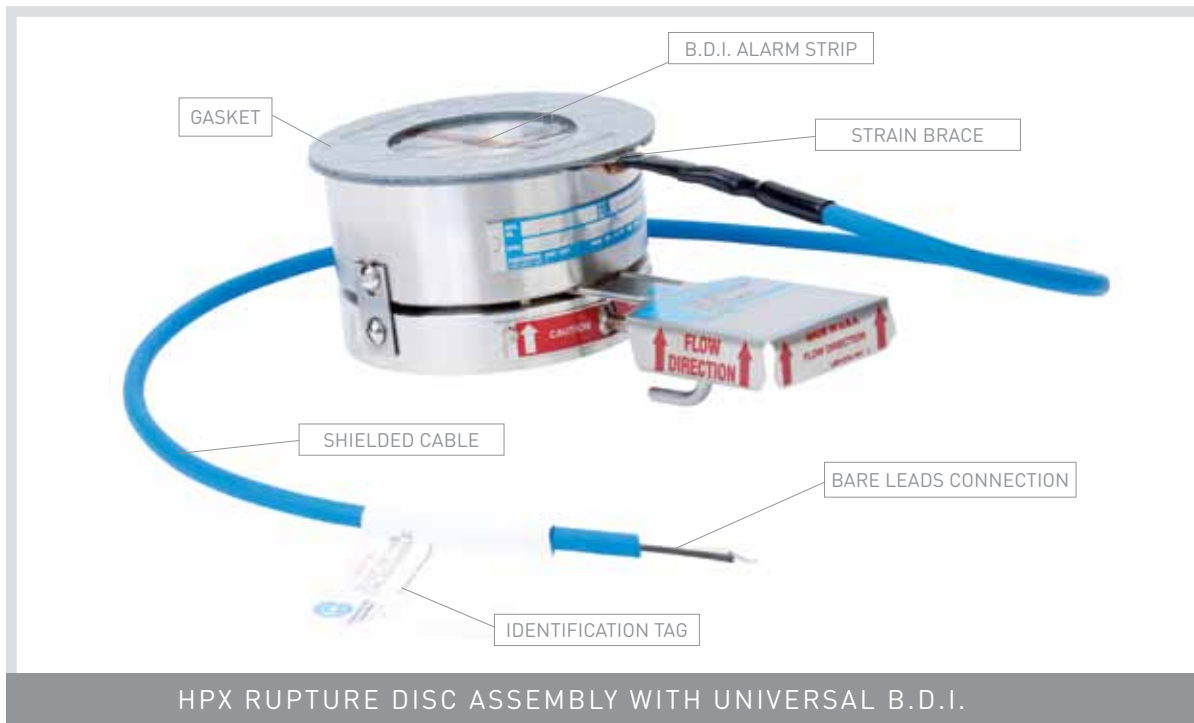
DRAWINGS : SPOOL PIECE // BUTT WELD FERRULE



FOR MORE INFORMATION ON OUR FITTINGS, PLEASE SEE THE [SANITARY FITTINGS DATASHEET](#).

FERRULE &  
SPOOL PIECES





HPX RUPTURE DISC ASSEMBLY WITH UNIVERSAL B.D.I.

## Universal or Integral B.D.I.<sup>®</sup> (Burst Disc Indicator) Alarm System

The B.D.I. (Burst Disc Indicator) Alarm System is designed for use with Continental rupture discs. The B.D.I. Alarm System signals the system operator when a rupture disc has burst to relieve an overpressure or vacuum condition.

The heart of the system is the B.D.I. Alarm Strip. Upon disc rupture, the B.D.I. Alarm Strip is severed, disrupting the flow of electric current through the strip. The change in the electric circuit status can be monitored in a control room, or with a Continental Disc B.D.I. Monitor. The B.D.I. Monitor can warn with a visual and/or audible alarm and can also activate appropriate equipment.

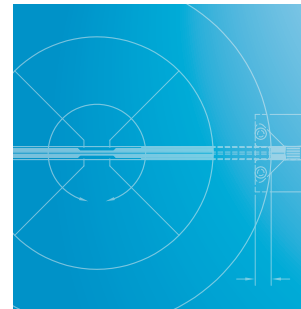
### The B.D.I. Alarm System should be specified:

- When warning of pressure relief is essential for plant safety
- When immediate notice is needed of relief of an overpressure or vacuum condition to indicate process malfunction
- When indication is vital that a rupture disc has burst and toxic substances are venting
- When emergency equipment must be triggered immediately upon disc rupture to alter or stop a process
- When loss or contamination of product will occur if a rupture disc is not replaced immediately
- When monitoring of rupture discs is important in hard-to-reach locations

➔ FOR MORE INFORMATION ON OUR B.D.I. ALARM SYSTEM, PLEASE SEE THE [B.D.I.: BURST DISC INDICATOR DATASHEET](#).

## RELATED PRODUCTS //

INDUSTRIAL & SANITARY



INTEGRAL  
BURST DISC  
INDICATOR

## RELATED PRODUCTS //

INDUSTRIAL &  
SANITARY



B.D.I. ALARM SYSTEM

### B.D.I. Alarm Monitors

The B.D.I. Alarm System uses a normally closed electrical circuit. A continuous signal flows between the B.D.I. Alarm Strip and the B.D.I. Alarm Monitor under normal conditions. Once the rupture disc bursts, the B.D.I. Alarm Strip breaks, opening the electrical circuit.

B.D.I. Alarm Monitors contain replaceable modules with individual channel relays. Each channel relay connects to one B.D.I. Alarm Strip. As the rupture disc and B.D.I. Alarm Strip break, a specific relay is actuated, sending a signal to the control panel.

Our MTB-700 Alarm Monitor incorporates intrinsically safe galvanically isolated barriers, approved for use in many countries worldwide. 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.



FOR MORE INFORMATION ON OUR B.D.I. ALARM SYSTEMS, PLEASE SEE THE [B.D.I.: BURST DISC INDICATOR DATASHEET](#).

### ENVIRO GUARD® Pipe End Cover

Provide protection of piping, rupture discs, and safety relief valves from unwanted foreign material, rain, insects and/or birds by specifying and installing a ENVIRO GUARD pipe end cover. The ENVIRO GUARD pipe end cover is fabricated from a tough PTFE coated/impregnated fiberglass material suitable for use in harsh environments and temperatures up to 500°F (260°C).



FOR MORE INFORMATION ON OUR ENVIRO GUARD PIPE END COVER, PLEASE SEE THE [ENVIRO GUARD PIPE END COVERS DATASHEET](#).

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WORLDWIDE LEADERS IN SAFETY & PROTECTION SOLUTIONS



# Continental Disc<sup>®</sup> Corporation

P E R F O R M A N C E   U N D E R   P R E S S U R E <sup>®</sup>



## HEADQUARTERS //

3160 W. Heartland Drive  
Liberty, MO 64068 USA  
Ph (816) 792 1500 | Fax (816) 792 2277  
sales@contdisc.com

[contdisc.com](http://contdisc.com)

## THE NETHERLANDS

Energieweg 20  
2382 NJ Zoeterwoude-Rijndijk  
The Netherlands  
Ph +(31) 71 5412221 | Fax +(31) 71 5414361  
cdcnl@contdisc.com

## CHINA

Room 910, Tower B, COFCO Plaza  
No. 8 JianGuoMenNei Avenue  
Beijing (100005), P.R. China  
Ph +(86) 10 522 4885 | Fax +(86) 10 6522 2885  
cdcchina@contdisc.com

## INDIA

423/P/11, Mahagujarat Industrial Estate, Moraiya,  
Sarkhej-Bavla Road, Ahmedabad (GJ)  
382213 INDIA  
Ph +(91) 2717 619 333 | Fax +(86) 10 6522 2885  
gcimpl@contdisc.com