



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

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

HPX<sup>®</sup> & HPX<sup>®</sup>-TA RUPTURE DISCS  
HPX<sup>®</sup> INSERT, PRE-TORQUED & DOUBLE DISC HOLDERS  
SANITRX HPX<sup>®</sup>, SANITRX HPX<sup>®</sup> II & SANITRX<sup>®</sup> LPX RUPTURE DISCS  
SANITARY GASKETS, FITTINGS & CLAMPS



# HPX<sup>®</sup>

RUPTURE DISC  
PRODUCT FAMILY



## 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 **five 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!

\*HPX<sup>®</sup> Rupture Discs were tested under laboratory conditions which may not reflect the end user's actual operating conditions. The cycle test validates that the rupture disc can operate in a pressure/vacuum operating condition. However, there are many other factors which can affect the rupture disc's performance, such as temperature variation, corrosion attack, etc. CDC recommends that a risk assessment be performed by customer/end user to consider their system operating conditions to determine the optimal service life for their rupture disc.

## 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 product family is the solution for you.

The HPX and SANITRX HPX product family of 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, the HPX and SANITRX HPX Rupture Disc product family offer the following versatile features:**

**DISC SIZES** // HPX: 1" through 12"; SANITRX HPX: 1" through 3"; SANITRX HPX II: 1½" through 4"

**DISC MATERIALS** // 316 and 316L Stainless Steel, Nickel, MONEL®, INCONEL®, HASTELLOY® C, Tantalum<sup>1</sup>

**BURST PRESSURES** // 10 psig to 2000 psig (0,689 barg to 138 barg)

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

**OPERATING RATIO** // Choice of 90% or 95% [see Burst Pressure Rating Types on pages 6 & 7](#)

**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 5 million cycles<sup>2</sup> from full vacuum to the maximum operating pressure

**DESIGN** // Non-fragmenting, reverse acting, bubble-tight seal<sup>3</sup>

### HOLDERS

- Carbon Steel, 316 SS, MONEL®, HASTELLOY® C materials
- Tantalum holder options and fluoropolymer coatings available for extra corrosion protection
- Insert, pre-torqued and double disc designs 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
- Superior 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>4</sup>
- Pressure Equipment Directive(PED)
- ISO 4126-2
- China Manufacturing License
- GOST
- KOSHA
- 3A<sup>4</sup>

<sup>1</sup> See page 15 for details // <sup>2</sup> Tests performed on HPX-95 316 SS // <sup>3</sup> See page 8 for details // <sup>4</sup> Only applies to SANITRX HPX Rupture Disc family





ASME Code Symbol Stamp  
Available When Specified



Pressure Equipment Directive  
Available When Specified



HPX PRODUCT FAMILY //

# SANITARY SOLUTIONS



## SANITRX HPX & SANITRX HPX II RUPTURE DISCS

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.

### Applications

The SANITRX HPX & SANITRX HPX II Rupture Discs 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  
CLEAN STEAM PIPING  
PROCESS VESSELS  
HEAT EXCHANGERS  
FILTERS

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

## Features

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



- Optional fluoropolymer coating is available for corrosion protection on the process and/or vent side of the rupture disc.
- Electropolished surface finishes are available as an option.
- ASME Code Section VIII, Division 1 compliant. National Board Certified  $K_R$  flow resistance values:
  - $K_{RG}$  (gas) = 1.13 and  $K_{RL}$  (liquid) = 1.60 for **SANITRX HPX**
  - $K_{RG}$  (gas) = 1.60 and  $K_{RL}$  (liquid) = 1.88 for **SANITRX HPX II**
- For rating, range and tolerance information, please see pages 6-7.

### SANITRX HPX 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).

### SANITRX HPX II 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
1½"	200	500	200	500
40 mm	13,8	34,5	13,8	34,5
2"	150	450	150	450
50 mm	10,3	31,0	10,3	31,0
3"	100	175	100	175
80 mm	6,89	12,1	6,89	12,1
4"	10	100	10	100
100 mm	0,689	6,89	0,689	6,89

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



FOR EVEN LOWER PRESSURES, SEE THE [SANITRX LPX DATASHEET](#)

## SANITARY ACCESSORIES //

### GASKETS

## GASKETS

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 (see below) 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 MATERIALS & TEMPERATURES //

The following gasket materials are readily available. *Other materials available upon request.*

GASKET MATERIALS	FDA COMPLIANT	USP CLASS VI COMPLIANT	SERVICE TEMPERATURES				RECOMMENDED FOR USE WITH:		
			MINIMUM		MAXIMUM		SANITARY FITTING CLAMP	MBC® CLAMP	NA-CONNECT® HOLDER
			°F	°C	°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	✓	✓	✓
PTFE Fluoropolymer	✓	✓	-40	-40	450	232		✓	✓
Steel Reinforced PTFE Fluoropolymer	✓	✓	-20	-29	450	232		✓	

## 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.

