

HPX[®]-Ta

TANTALUM
RUPTURE
DISC

OFFERS
RESISTANCE
IN HIGHLY
CORROSIVE
APPLICATIONS



The HPX[®]-Ta Rupture Disc is a Tantalum semicircular scored reverse acting rupture disc designed specifically for use in highly corrosive media, such as bromine, chlorine, HCL, nitric acid or sulphuric acid. In certain concentrations, temperatures and moisture conditions, Tantalum is frequently the only suitable rupture disc material for the application.

APPLICATIONS

The HPX-Ta Rupture Disc can be used in a wide range of applications in many different industries, some of which include:

- PETROCHEMICAL/AGRICULTURAL CHEMICAL** // Reactors, Storage Vessels, Heat Exchangers, Discharge Heads, Safety Relief Valve Isolation
- OIL & GAS** // Distillation Columns, Separators
- PHARMACEUTICAL** // Production Vessels, Heat Exchangers
- INDUSTRIAL GAS** // Process Columns and Vessels, Storage & Transportation Tanks
- SEMICONDUCTOR PRODUCTION** // Specialty Gas Distribution & Storage

FEATURES

- Sizes available: 1"-12"
- Tantalum rupture disc material for corrosion protection
- 316 SS standard outlet ring material, HASTELLOY C[®], Tantalum and other materials available upon request
- Cyclic durability designed for a minimum of 1,000 cycles from full vacuum to the maximum recommended operating pressure
- 90% maximum recommended operating ratio** ([see note on next page](#))
- Safety ratio of 1 to 1 or less. If the rupture disc becomes damaged, it will relieve at or below the burst pressure
- Ideal for liquid or gas/vapor applications*** ([see note on next page](#))
- Non-fragmenting design
- Fluoropolymer liner is available for corrosion protection on the process side of the rupture disc* ([see note on next page](#))
- Fluoropolymer outlet protective cover available for corrosion protection on the vent side of the rupture disc and holder
- ASME Code Section VIII, Division 1 compliance available when requested. National Board Certified K_R flow resistance values when installed in the HPX Insert and HPX-PT (Pre-Torqued) Holders:
K_{RG} (gas) = 0.29 and K_{RL} (liquid) = 0.38
- Available option: Cleaned for oxygen or chlorine service
- In compliance with the Dodd-Frank Act, our Tantalum is procured from conflict-free smelters

BENEFITS

- Provides lower maintenance cost, greater reliability as compared to alternate rupture disc types or materials
- Compatible with the HPX[®] Insert, HPX-PT[®] (pre-torqued) or HPX[®] Double Disc holders
- Holder corrosion resistance can be enhanced by Tantalum lining or coating of the holder inlet and/or Tantalum coating of the outlet holder
- Tantalum lined HPX-PT[®] (pre-torqued) holders are ideal for use on vessels or pipe spools having protective lined flanges
- Increased productivity of your system



ASME Code Symbol Stamp



Pressure Equipment Directive

BURST PRESSURES //

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

SIZE	TANTALUM	
	MINIMUM psig / barg	MAXIMUM psig / barg
1"	15	800
25 mm	1,03	55,2
1½"	10	700
40 mm	0,689	48,3
2"	10	650
50 mm	0,689	44,8
3"	10	450
80 mm	0,689	31,0
4"	10	300
100 mm	0,689	20,7
6"	10	200
150 mm	0,689	13,8
8"	10	100
200 mm	0,689	6,89
10"	15	75
250 mm	1,03	5,17
12"	15	50
300 mm	1,03	3,45

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

MAXIMUM RECOMMENDED TEMPERATURE LIMITS //

DISC MATERIALS	°F	°C
Tantalum	500	260
Fluoropolymer Liner**	500	260

*Fluoropolymer liners are available on the process side of the rupture disc for:
1", 1 ½" discs rated > 30 psig @ 72°F
2" - 12" discs rated > 25 psig @ 72°F



HPX®-Ta in HPX® Insert Holder coated with Tantalum

** RATINGS, RANGES, TOLERANCES & MAXIMUM RECOMMENDED OPERATING RATIOS //

The HPX®-Ta Rupture Disc is available with the same ratings, ranges, tolerances and maximum recommended operating ratios as the (-90) version of the HPX® Rupture Disc. For details, please see the [HPX® Product Family Standard Burst Pressure Ratings](#) section of the [HPX® Product Family](#) literature.

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

NOTE: Product parameters are based on United States customary units. Values in metric units are provided for reference only.



For more information on all of our HPX® Rupture Disc offerings, please see our [HPX® PRODUCT FAMILY](#) literature.

HASTELLOY® is a registered trademark of Haynes International

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