

## TECHNICAL BRIEF

Continental Disc Corporation has developed special scored rupture discs compatible with face seal bead fittings for critical leak rate applications. Available in 1/2", 3/4" and 1" sizes, these nonreclosing differential pressure relief devices respond within milliseconds to overpressure and provide the user instantaneous full opening relief protection of equipment, vessels and systems from damaging overpressure conditions.

There are two designs to choose from:

- Special Welded Scored Reverse Acting Rupture Disc suitable for 90% operating-to-burst-pressure ratio
- Special Welded Cross-Scored Forward Acting Rupture Disc suitable for 80% operating-to-burst-pressure ratio

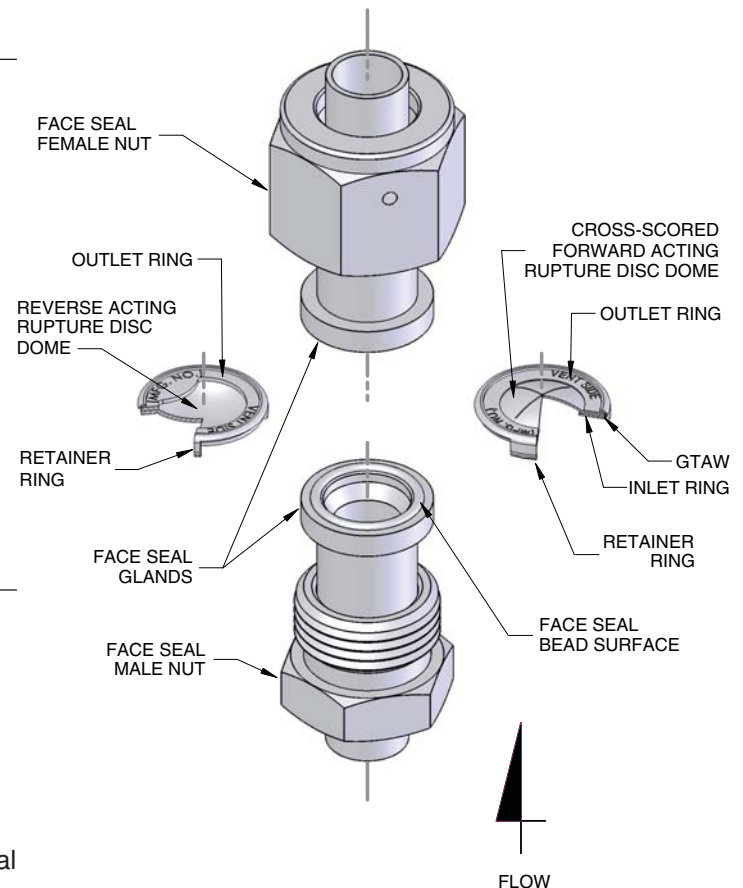
The special welded rupture discs are suitable for applications which must meet leak rate specifications beyond  $1 \times 10^{-4}$  atm. cc/sec. helium and up to  $4 \times 10^{-9}$  atm. cc/sec. helium.

### Applications

- Ultra pure gas (including corrosives, toxics and reactive gases)
- High pressure to critical vacuum
- Micro processing (semi-conductor)
- Gas panels - gauges - instrumentation
- Pumps and compressors
- Valve connections
- Manifolds
- Purge and vent lines
- Sampling lines

### Features

- Designed for non-fragmentation
- Scored design
- Standard materials of 316 stainless steel, nickel, Monel® or Inconel® are available. Contact the factory for availability of other materials.
- Excels in gaseous or partial gas/liquid service
- Unique rupture disc configuration mates to face seal bead fitting
- Manufacturing range: minus 10%
- Retainer ring provides proper indexing of the rupture disc flow direction on the inlet seal gland
- Zero clearance (for most configurations)
- May be supplied to ASME Section III or VIII, ISO, DIN, EN, BSI, JIS, or other codes as requested.



# SPECIAL SCORED RUPTURE DISCS

Table I — Scored Reverse Acting Rupture Disc Minimum/Maximum Burst Pressure at 72° F / 22° C

White bars indicate psig; gray bars indicate barg.

Nominal Size	Rupture Disc Material					
	Nickel - Monel®*		316SS - Inconel®*		Hastelloy®* C-276	
	Min.	Max.	Min.	Max.	Min.	Max.
1/2"	45	1000	120	1000	125	1000
13 mm	3,2	68,9	8,28	68,9	8,62	68,9
3/4"	35	1000	50	1000	85	1000
19 mm	2,5	68,9	3,5	68,9	5,9	68,9
1"	27	1000	50	1000	55	1000
25 mm	1,9	68,9	3,5	68,9	3,8	68,9

\*Inconel and Monel are trademarks of the Inco family of companies. Hastelloy is a trademark of Haynes International.

Table II — Cross-Scored Tension Type Rupture Disc Minimum/Maximum Burst Pressure at 72° F / 22° C

White bars indicate psig; gray bars indicate barg.

Nominal Size	Rupture Disc Minimum*				Rupture Disc Minimum To Withstand Full Vacuum				Maximum Pressure			
	Nickel	Monel	Inconel	316SS	Nickel	Monel	Inconel	316SS	Nickel	Monel	Inconel	316SS
1/2"	250	250	350	450	300	325	450	530	2800	2800	2800	2800
13 mm	17,3	17,3	24,2	31,1	20,7	22,5	31,1	36,6	193	193	193	193
3/4"	200	200	300	400	250	275	375	465	2400	2400	2400	2400
19 mm	13,8	13,8	20,7	27,6	17,3	19,0	25,9	32,1	165	165	165	165
1"	150	150	250	350	200	225	300	400	2400	2400	2400	2400
25 mm	10,4	10,4	17,3	24,2	13,8	15,6	20,7	27,6	165	165	165	165

\* A vacuum support is not available for this product type.

Table III — Available Connections

Face Seal Bead Holder assemblies are available with the following connections. For other connections, consult the factory.

Inlet Connections Available	Face Seal	Tube Butt Weld	NPT	Socket Weld	Automatic Tube Weld	S.A.E. Threaded	Tube Adapter	
Outlet Connections Available	Face Seal	Tube Butt Weld	NPT	Socket Weld	Automatic Tube Weld	Male Weld	Free	Muffled



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Certified Quality System  
First Certified In 1992

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