


BS&B[®]

Tank Car Rupture Disks

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Tank Car Rupture Disks

The BS&B type TCTM rupture disk for railroad tank car service is designed to conform with ICC regulations. The highly accurate disk is adaptable to standard threaded or bolted type tank car fittings. If dimensions of tank car fittings are different from the ones shown, BS&B will design a special disk on request.



Type TC tank
car disks

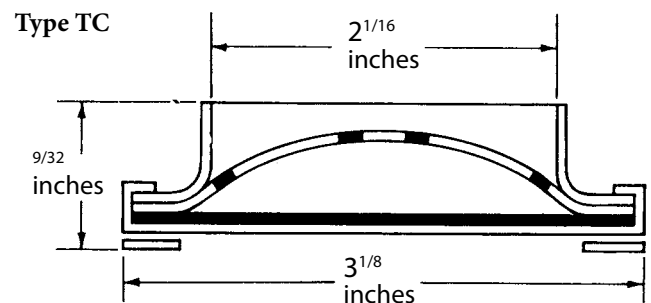
US patents 2,954,897;
3,698,598; and international
patents apply

The pressure zone of the TC disk is the slotted top section. fluoropolymer seal isolates the top section from contents of the tank. Vacuum support prevents excessive downward movement of the seal should the disk be subjected to vacuum during unloading or while the car is in transit. Vacuum support also protects the disk when the car is in transit or being “humped.”

The tank car ring located on the atmospheric side of the disk protects controlled pressure zone of the disk even though ID dimensions of tank car fittings are not within fixed tolerances.

Features

- Available in standard AAR burst ratings
- Simple installation
- Accurate
- Superior cycle life under pressure cycling conditions



Materials

- Top section: Inconel[®] (alloy 600)
- Vacuum support: 316 stainless steel
- Tank car ring: 316 stainless steel
- Gasket: fluoropolymer
- Seal: fluoropolymer

Special materials available on request

Inconel[®] is a trademark of Inco Alloys International, Inc

The type SR-TC™ rupture disk is a surge-resistant rupture disk for railroad tank cars and over-the-road trailers. It is designed for direct installation on to standard threaded or bolted type tank car fittings and is available in standard AAR burst ratings.

Type SR-TC rupture disks



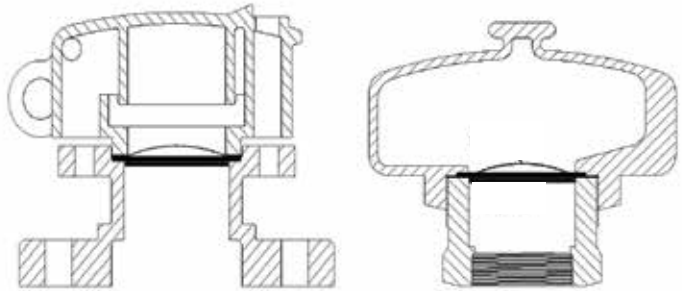
US patent 5,377,716 and international patents apply

Construction

The slotted top section is protected by a tank car ring which also ensures burst accuracy. A vacuum support prevents damage to the disk, should the disk be subjected to vacuum during unloading or while the tank car is in transit. A spacer ring is located above the FEP / PTFE seal and the top section.

Installation

The TC or SR-TC rupture disk may be installed directly on to standard threaded or bolted type tank car fittings.



Bolted type safety vent

Threaded type safety vent

Performance

The SR-TC rupture disk will resist overpressure surges* of 125% to 140% of the rated burst pressure for up to 0.5 seconds duration. Greater surge protection may be expected for shorter surge duration.

The SR-TC rupture disk offers extended disk service life where the disk may be subjected to “humping” action or when rapid deceleration of a tank car or an OTR trailer occurs.

**The value of the over pressure surge depends on the disk's burst pressure rating*

Standard Pressure Ranges of Rupture Disks			
Special ranges available on request 25-222 psig (1.7-15 barg)			
psig	barg	Total burst pressure	
		psig	barg
30	2	26-30	9.6-2
45	3	38-45	2.6-3
52	3.6	44-52	3-3.6
60	4.1	51-60	3.5-4.1
75	5.2	64-75	4.4-5.2
100	6.9	85-100	5.9-6.9
165	11.4	140.25-165	9.6-11.4



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