



BS&B SAFETY SYSTEMS, INC.  
BS&B SAFETY SYSTEMS LTD.

# TC AND SR-TC RUPTURE DISKS

## Installation Instructions

**DANGER:** Rupture disks are intended to provide a pressure relief opening. This rupture disk is designed to burst at a specified temperature and pressure, thereby relieving excess pressure or preventing excessive vacuum in a system. **A RUPTURE DISK BURST COULD CAUSE SEVERE BODILY INJURY OR DEATH, COULD RESULT IN PROPERTY DAMAGE, AND MAY RESULT IN THE RELEASE OF PRODUCT INTO THE ATMOSPHERE OR SURROUNDING AREA. IT IS IMPERATIVE THAT THIS RUPTURE DISK BE PROPERLY INSTALLED AND SAFELY VENTED IN ORDER TO AVOID BODILY INJURY, DAMAGE TO PROPERTY, POLLUTION AND LOSS OF PRODUCT.** BS&B is not liable for any damage resulting from improper installation, unsafe venting, or other factors beyond BS&B's control.

The rupture disks are designed specifically for the protection of railroad tank cars and over-the-road trailers, against over-pressure. The disks conform to AAR A5.03 specifications and fit standard tank car fittings.

### Safety Precautions

1. Do not locate the rupture disk where personnel will be exposed to released product and pressure through the disk.
2. The rupture disk should not be subjected to bending stresses or corrosive agents to ensure proper operation.
3. Rupture disks should be periodically replaced.

### Before You Install the Rupture Disk

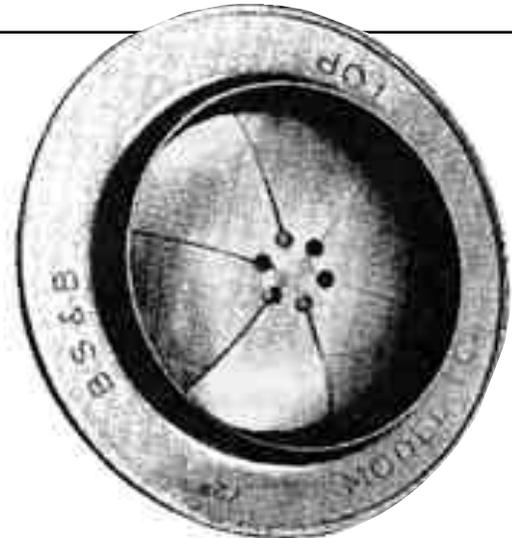
#### Inspect Tank Car Fittings

1. Clean the seating surfaces where the disk will be installed, Clean the internal bore and gasket surfaces from dirt or product accumulation using a suitable cleaning compound or fine emery paper.
2. The disk size must match the dimensions of the tank car fitting.
3. The rupture disk must not be machined or modified in any way except by/or with the approval of BS&B.

#### Inspect the Rupture Disk

1. Handle the rupture disk carefully holding the disk by the flange area. Examine seating and domed surfaces for nicks, dents, scratches and foreign material which can damage the disk or cause leakage or affect the burst pressure. Do not install a damaged disk.

Caution: Do not re-install a disk that had been removed from the tank car fitting even if it has not ruptured. When stresses in the disk are relieved by unbolting, the impression in the seating area taken by the disk during its original installation may prevent sealing and affect disk performance if re-installed.



### Installation of Rupture Disks

Fit the gasket provided on to the Tank Car fitting. Place new undamaged rupture disk on to the tank fitting with the slotted top section marked "Top" facing the direction of discharge.

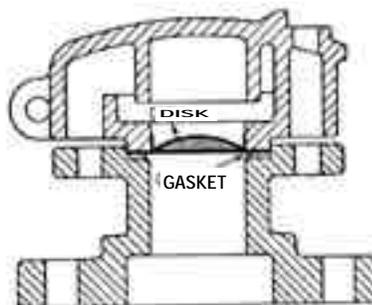
### Bolted Tank Car Fitting

Tighten all nuts finger tight. Tighten all nuts evenly in a diagonal pattern to achieve a bubble tight seal.

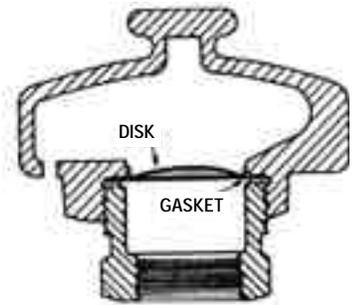
### Threaded Type Tank Car Fitting

Tighten unit until a bubble tight seal is achieved.

NOTE: Uneven or under-torquing can cause disk rupture below its rated burst pressure. Excessive torquing can cause damage to the disk and holder.



Bolted Type Safety Vent



Threaded Type Safety Vent

## Limitations of Warranties

BS&B Safety Systems, Inc. warrants its products, when properly installed, used and maintained by the original purchaser, against defective workmanship and materials for a period of twelve (12) months from the date of shipment. Purchaser's failure to use this product in strict compliance with all material operating specifications provided to BS&B by purchaser prior to BS&B's production or shipment of this product shall void this warranty. Rupture disks are warranted solely to burst within specified pressure ranges at temperatures specified at the time of sale.

Where pressure relief or other products used by Buyer involve multi-part assemblies, each part must be manufactured by BS&B. BS&B specifically disclaims any warranties and any and all liability for damages, either direct or indirect, incidental or consequential, arising from the use of rupture disk assemblies (e.g. rupture disk and rupture disk holder), explosion vent assemblies (e.g. vent and safety frame) or other assemblies not wholly comprised of BS&B manufactured products.

BS&B does not warrant any article not manufactured by BS&B. BS&B does not warrant this product against loss or damage caused directly or indirectly by improper pressure relief system design; by the improper use, maintenance or installation (including improper torque) of this product; or by corrosion, erosion or malfunction caused by acids, chemicals, fumes, rust, dirt, debris, thermal shock, shock waves or other external agencies over which BS&B has no control.

THE EXPRESSED WARRANTIES HEREIN GIVEN ARE EXCLUSIVE AND IN LIEU OF ALL WARRANTIES

EXPRESSED OR IMPLIED, BY OPERATION OF LAW OR OTHERWISE, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. BUYER'S SOLE AND EXCLUSIVE REMEDY FOR BREACH OF ANY WARRANTY SHALL BE, AT BS&B'S OPTION, THE REPAIR OR REPLACEMENT OF THE PRODUCT, F.O.B. TULSA, OKLAHOMA.

Liability Limitations – BS&B manufactures and supplies its products in reliance upon information and specifications provided by its customers. BS&B specifically disclaims any and all liability, of whatever nature, resulting or arising from Buyer's failure to disclose fully all material operating conditions, design parameters, process components, or system or vessel requirements, or from any misrepresentations or omissions by Buyer, Buyer agrees to indemnify and hold harmless BS&B for all costs, loss, liability or damage arising or resulting from BS&B's manufacture or supply of this product in accordance with Buyer's specifications or requirements.

BS&B'S AGGREGATE TOTAL LIABILITY TO BUYER FOR ANY AND ALL LOSS OR DAMAGE ARISING OUT OF BUYER'S USE OR INABILITY TO USE THE PRODUCT SHALL IN NO EVENT EXCEED THE PURCHASE PRICE OF THE PRODUCT OR \$1,000.00, WHICHEVER IS LESSER, BS&B SHALL NOT BE LIABLE FOR PERSONAL INJURY OR PROPERTY DAMAGE ARISING OUT OF BUYER'S PURCHASE, INSTALLATION OR USE OF THE PRODUCT, AND IN NO EVENT SHALL BS&B BE LIABLE FOR SPECIAL, INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES RESULTING FROM ANY SUCH CAUSES.



BS&B SAFETY SYSTEMS, INC.  
BS&B SAFETY SYSTEMS LTD.

BS&B Safety Systems, Inc. and BS&B Safety Systems Ltd. are here to assist you in providing a safe and efficient work place. For assistance on installation, audits, training or technical advice, please contact our Customer Service Department.

BS&B Safety Systems, Inc.  
7455 East 46th Street  
Tulsa, OK 74145  
Telephone: 918-622-5950  
Facsimile: 918-665-3904  
www.bsbsystems.com

or

BS&B Safety Systems Ltd.  
Raheen Business Park  
Raheen, Limerick, Ireland  
Telephone: +353 61 227022  
Facsimile: +353 61 227987  
www.bsb.ie

