




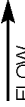
BS&B SAFETY SYSTEMS, INC.  
BS&B SAFETY SYSTEMS LTD.

# SAF-T-GRAF™ RUPTURE DISK INSTALLATION INSTRUCTIONS

**BULLETIN**

**77-85001**

- ◆ **NEW INSTALLATIONS**
- ◆ **REPLACEMENT OF DISKS IN EXISTING INSTALLATIONS**
- ◆ **ORDER REPLACEMENT DISKS BY LOT NUMBER**

FAX 918 665 3904	SAF-T-GRAF™ MONOBLOC DISK	Size:	Reorder by Lot Number	 ASME ISO 6718 BS 2915	 FLOW
44 81 876 05 LONDON, U.K.	Material: Impregnated Graphite	SCFM	BURST PRESSURE at 22°C/72°F at		
Flange Rating:	Tag No.				

Select proper location

## 1. CAUTION-VENT TO SAFE AREA

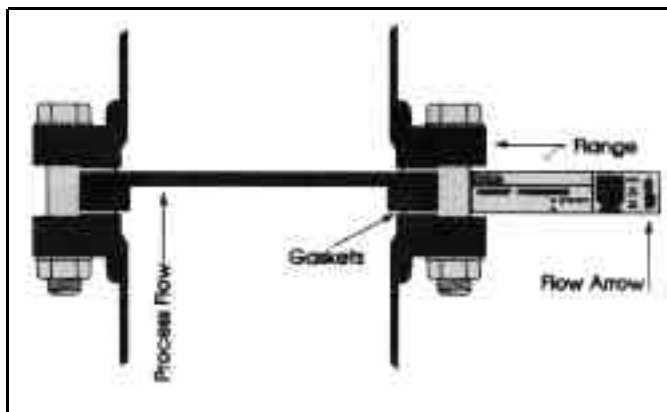
Check the location. Do not locate where personnel or property could be exposed to product and fragments from graphite rupture disks being discharged through the vent opening. Any equipment or property in the vicinity of discharge could be damaged.

2. Consider recoil or "kickback." Recoil is the force the system will experience upon rupture. Recoil (lbs.) is approximately twice the disk rating (psig) times the relief area (in.<sup>2</sup>). Provide adequate support to piping and connections. If the discharge is free-vented, a baffle plate mounted on the vent opening with extra length studs will minimize recoil.
3. Provide adequate support for the downstream vent piping. The rupture disk should not be subjected to excessive structural bending stresses.
4. The rupture disk must match the companion flange size and rating.
5. Flange materials should be compatible with your process.

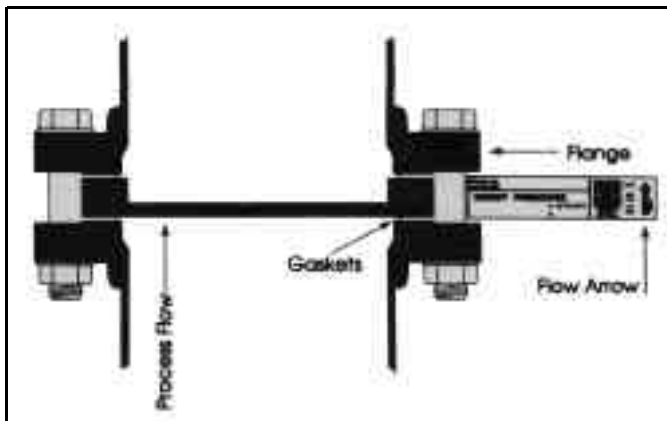
## BEFORE YOU INSTALL THE RUPTURE DISK

1. Inspect Flange.  
Clean seating surfaces of both flanges before installing rupture disk. Pits, dirt or grit can damage rupture disk or cause leakage.
2. Inspect Rupture Disk.  
Handle rupture disk carefully – it is a precision instrument. Examine disk surfaces before installing. **DO NOT INSTALL THE DISK IF THERE IS ANY DAMAGE.** A damaged disk is any disk with visible nicks, scratches – it must not be installed. Installation of a damaged disk may result in premature rupture of the disk. However, even if damaged, it will still open completely below the disk's rated pressure.
3. Disk materials should be compatible with your process.  
**NOTE:** Corrosion and service conditions may affect disk life thus requiring periodic change.

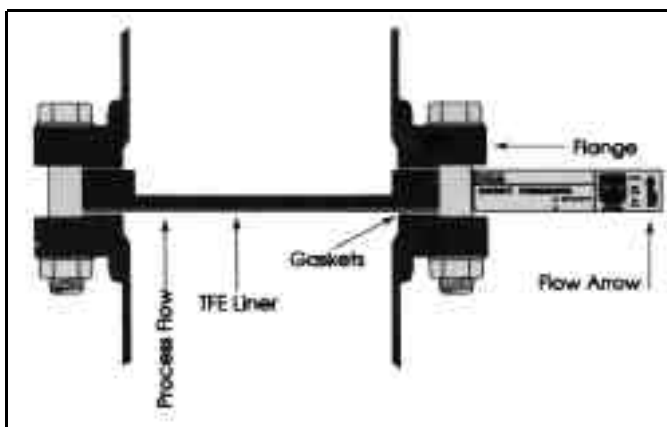
## MONOBLOC



## INVERTED MONOBLOC



## INVERTED MONOBLOC WITH LINER



## INSTALL THE GRAPHITE RUPTURE DISK

1. Insert the rupture disk in the pressure system. MAKE SURE FLOW ARROW ON NAMEPLATE POINTS THE DIRECTION YOU WANT FLOW TO OCCUR UPON RUPTURE
2. Install studs with nuts. Tighten all nuts finger-tight before torquing. Evenly torque the studs to the values in the table below. Even torque can be achieved by applying 1/4 of desired final torque to each stud. Repeat pattern by torquing to 3/4 of the desired final torque. Then, using same pattern, torque to full specified torque. Do not over torque. Uneven or excessive torquing may cause a premature burst.

TORQUE TABLE						
SIZE		COMPANION FLANGE RATING			TORQUE	
INCHES	MM	ANSI	DIN & AFNOR	JIS	FT-LB	NM
1/2	15	150/300	10/16/25/40	10/16/20/30	6	8
3/4	20	150/300	10/16/25/40	10/16/20/30	8	11
1	25	150/300	10/16/25/40	10/16/20/30	10	14
1 1/2	40	150/300	10/16/25/40	10/16/20/30	14	19
2	50	150	10/16/25/40	10	20	27
2	50	300	-	16/20/30/40	10	14
3	80	150	-	-	40	55
3	80	300	10/16/25/40	10/16/20/30	26	36
4	100	-	-	16/20/30/40	24	33
4	100	150/300	10/16/25/40	-	30	41
6	150	150	10/16/25/40	-	40	55
6	150	300	-	16/20/30/40	31	43
8	200	150	10	-	50	69
8	200	300	16/25/40	10/16/20/30	38	52
10	250	150/300	10/16/25	10/16/20	60	82
10	250	-	40	30/40	50	69
12	300	150	10/16	-	70	96
12	300	300	25/40	10/16/20/30/40	58	80
14	350	150	-	-	75	103
14	350	300	10/16/25/40	10/16/20/30	63	86
16	400	150	16/25	10/16/20/30/40	84	115
16	400	300	10/40	-	68	93
18	450	150	-	-	87	119
18	450	300	10/16	10/16/20	75	103
20	500	150/300	10/16/25/40	10/16/20	85	117
24	600	150/300	10/16/25/40	10/16/20	85	117

### NOTES:

1. Torque values are based on free running and lightly oiled threads.
2. The torque values are based on using compressed fiber gaskets. Do not use spiral wound, fiber-filled gaskets.
3. Torque values are for use with companion flanges that have a minimum yield strength of 25,000 PSI. Consult BS&B when using other flange materials such as glass lined, when suppliers recommend a maximum torque value, which is lower than the BS&B required torque value.

## LIMITATIONS OF WARRANTIES

BS&B Safety Systems, Inc. warrants its products against defective workmanship and material under normal and proper use in service for a period of twelve (12) months from the date of shipment, when owned by the original buyer and only when subject to normal operating conditions outlined by Buyer when the order is placed; except that, rupture disks are not guaranteed except to burst within specified pressure ranges at temperatures specified at the time of sale.

Where the products involved include a rupture disk inside a rupture disk holder, each must be of the proper type to be utilized with its mating part as otherwise recommended by and manufactured by BS&B. BS&B specifically disclaims any warranty and any and all liability for damages, either direct or indirect, incidental or consequential arising from the use of rupture disk assemblies not wholly comprised of BS&B manufactured products.

Any article not manufactured by BS&B and which is sold hereunder is sold only under such warranties as the manufacturer thereof extends to BS&B and which BS&B can pass through to the Buyer and enforce with reasonable effort.

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# SAF-T-GRAF™



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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.

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## ISO 9001 Quality System Certification

