VAC-SAF™ SYSTEM

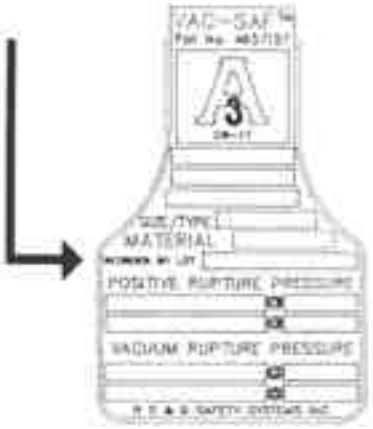
VKB RUPTURE DISK
KB-C SAFETY HEAD

INSTALLATION INSTRUCTIONS

BULLETIN 77-8006IS

BS&B SAFETYSYSTEMS, INC.
BS&B SAFETYSYSTEMS LTD.

- **NEW INSTALLATIONS**
- **REPLACEMENT OF DISKS OR VACUUM SECTIONS IN EXISTING INSTALLATIONS**
- **ORDER REPLACEMENT DISKS AND VACUUM SECTION BY PREVIOUS LOT NUMBER**



Select proper location for VKB Disk

1. **CAUTION - VENT TO SAFE AREA**
   Do not locate where personnel or property could be exposed to the product being discharged through the disk, also 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 is approximately twice the disk rating (psig) times the relief area (in^2). Provide adequate support for piping and connections.
3. VKB rupture disks are precision instruments. Do not bend, twist, or apply excessive force to any part of the rupture disk. If disks are liquid cleaned, do not use a high velocity coarse particle spray or jet.
4. Razor sharp edges of the cutting blades can cause injury.

BEFORE YOU INSTALL THE RUPTURE DISK:

1. **Inspect Pipe Ferrules**
   Clean seating surfaces of both ferrules before installing the assembly.
2. **Inspect Safety Heads**
   Clean seating surfaces of both Safety Head flanges before installing rupture disk. Pits, dirt, or grit can damage rupture disk or cause leakage. If surfaces are rough, polish with a fine emery cloth. DO NOT MACHINE! Dimensions of the Safety Head are critical. DO NOT ALTER THEM.
3. **Inspect the Knife Blades**
   CAUTION! Damage or interference with blade sharpness caused by various factors could prevent complete opening of the plastic section. Possible contributing factors include: product build-up, rolled edges or nicks on the cutting edge, repeated cutting during normal usage, dropping or setting the blades with cutting edge down on hard surfaces, corrosion and erosion.
   If damage is found - do not install. Consult factory for repair/replacement.
4. **Inspect the Disk**
   Inspect all disk parts before installation. Examine the disk for indentations or severe scratches. Do not install a damaged disk as it may result in failure of the disk to fully open.

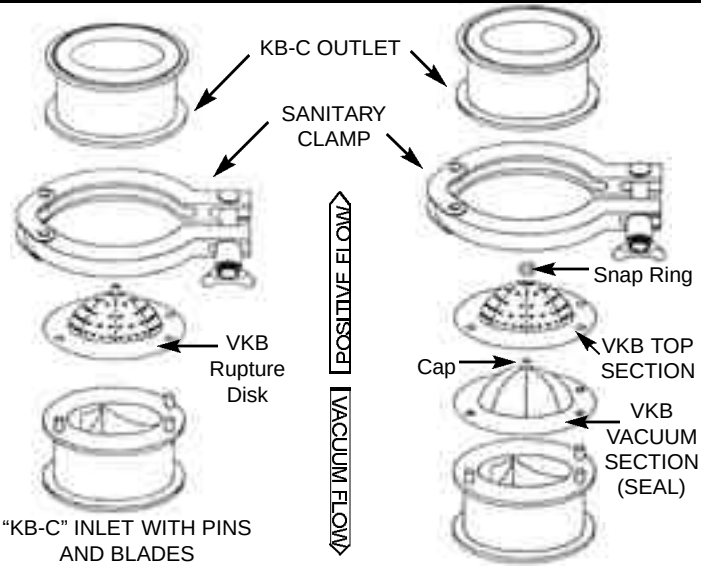


FIGURE 1
NEW INSTALLATION

FIGURE 2
VACUUM SECTION REPLACEMENT

PREASSEMBLE YOUR KB-C ASSEMBLY WITH VKB RUPTURE DISK

I. NEW INSTALLATION OR REPLACEMENT DISK PREASSEMBLY (See Figure 1)

1. Place Safety Head inlet in position as shown with pins up.
2. Place new undamaged VKB rupture disk on inlet. The holes in the disk will mate with the pins on the Safety Head.
3. Carefully place Safety Head outlet in position as shown.
4. Assemble unit with sanitary clamp. Tighten nut on clamp.
5. Attach metal tag to assembly with wire.

II. VACUUM SECTION (SEAL) REPLACEMENT PRE-ASSEMBLY ONLY

(See Figure 2)

1. If the disk is ruptured in vacuum direction only (seal cut on blades), the metal top section may be reusable if undamaged. DO NOT REUSE ADAMAGED METAL TOP SECTION.
   Remove the snap ring, cap and ruptured seal. A sharp pointed tool can be used to remove the snap ring.

2. Remove all plastic from the ruptured VKB until only the bare metal VKB top section remains.

3. Make sure the “use with VKB top lot number” printed on the replacement vacuum section (seal) matches the “reorder by lot number” stamped on the VKB metal top section disk tag wired to the assembly (See Figure 3). If they do not match - DO NOT INSTALL.

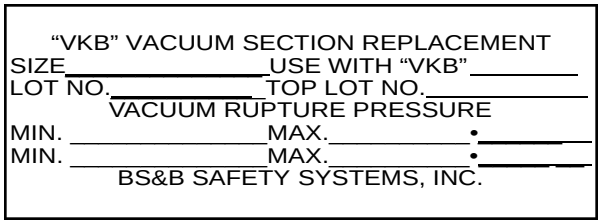


Figure 3

4. Preassemble plastic vacuum section replacement to metal top section:
   a) Remove the new snap ring from the vacuum section (seal). Remove the paper tag.
   b) Carefully push the cap of the new seal up through the metal top.
   c) Rotate the seal until all three locating holes of the seal match those in the metal top.
   d) Install the snap ring without applying force to the metal top section. Carefully push against the back of the snap ring while holding the cap of the seal. Inspect the snap ring to make certain it is fully located.

5. Place Safety Head inlet in position as shown in Figure 2 with pins up.

6. Place the disk on Safety Head inlet. The holes in the disk will mate with the pins on the Safety Head.

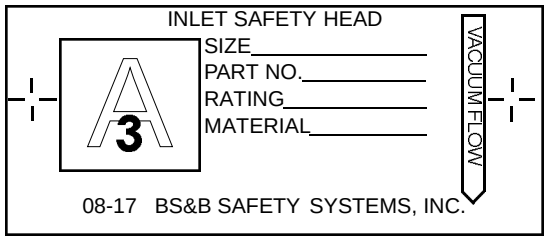
7. Carefully place the Safety Head outlet in position - aligning holes in outlet with pins on inlet.

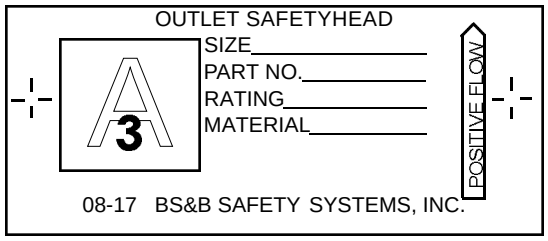
8. Assemble unit with sanitary clamp. Tighten nut on the clamp.

INSTALL YOUR KB-C ASSEMBLY

1. Place standard sanitary gaskets on each side of the assembly. The “O” ring in the gasket should fit into the groove provided in the Safety Head.

2. Note the flow direction on each Safety Head of the assembly. The inlet Safety Head is marked "Vacuum Flow" with an arrow. The Safety Head outlet is marked "Positive Flow" with an arrow.





3. Place the assembly between companion pipe ferrules being sure to match the flow directions of your system to those marked on the KB-C assembly.

4. Assemble unit to companion pipe ferrules with sanitary clamps. Tighten nut on clamps.

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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.

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Because of the effects of corrosion or erosion caused by acids, chemicals, fumes, rust, dirt, debris and other factors of storage, use, and installation, over which BS&B has no control, BS&B makes no other warranties beyond those expressly stated in this limited warranty.

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