

ATL® FIRE-BAGS

REMOVAL & INSTALLATION TIPS

** Always refer first to the Fire-Suppression System Manufacturer's Manual and Instructions. Use these tips from ATL only to augment Manufacturer's recommendations.*

REMOVING OLD/DAMAGED FOAM-CONCENTRATE BLADDER

1. Make sure to evacuate **ALL** foam concentrate from the rubber bladder and dispose/store in a safe manner. Drain all water from the steel tank in a similar safe manner.
2. Clear an area on the floor or ground large enough to lay out the bladder, once extracted, without cutting or puncturing it. Place a drop cloth or polyethylene sheet over the clean area to place the bladder on.
3. Disconnect all in/out plumbing from all tank flanges. Remove all tank flange bolting and tank flange covers. (Fig. 1)
4. **CAREFULLY** remove the perforated plastic center-tubes from the bladder through the open nozzles (1 tube assembly in vertical tanks, 2 tube assemblies in horizontal tanks).

NOTE: For horizontal tanks, remove the vertical tube first through the top flange, followed by the horizontal tube through the largest end flange.

5. Carefully compress ALL rubber nozzles (Fig. 2) **EXCEPT** the **LARGEST** nozzle which is where the bladder is to be removed. Push the smaller rubber nozzles inside the tank.

6. Reach inside the largest rubber nozzle (which is still in its original position) as far as possible and grasp the bladder, which is inside the tank, and begin pulling it into the large nozzle so that the bladder nozzle itself slides out of the tank. **DO NOT PULL ON THE BLADDER NOZZLE ITSELF.** At this point, take both hands and begin squeezing the bladder together and pulling it through the large steel tank flange. Continue this operation until the bladder has been removed from the tank. **USE CARE WHEN REMOVING BLADDERS FROM THE TANK, remember, DO NOT PULL ON THE RUBBER BLADDER NOZZLES THEMSELVES.**

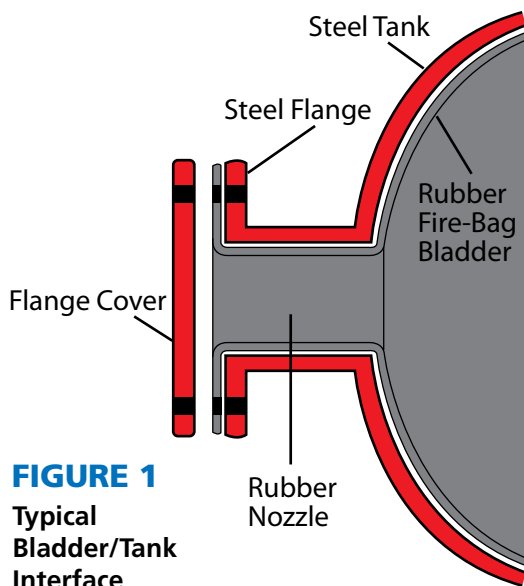


FIGURE 1
Typical
Bladder/Tank
Interface

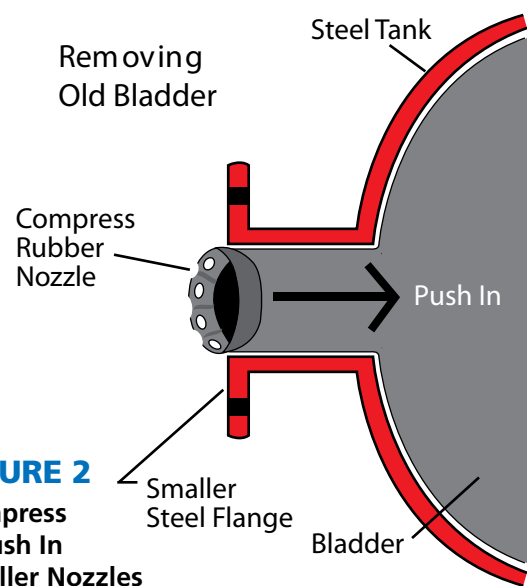


FIGURE 2
Compress
& Push In
Smaller Nozzles

INSTALLING NEW FIRE-BAG FOAM-CONCENTRATE BLADDER

1. Please first read and understand your Fire-System manufacturer's instructions and precautions regarding initial installation and/or replacement of the collapsible Fire-Bag bladder. Further to those instructions, ATL offers these helpful hints and tips for a safe, quick and accurate bladder-to-tank assembly. Please also use care and caution when unpacking, handling and preparing the new Fire-Bag for installation.

2. Prior to installation, inspect the interior of the steel tank. Be sure it is free of any rust, scale, weld slag, or other imperfections which could damage the Fire-Bag or preclude it from properly collapsing. Inspect the tank drain fitting to assure it has a screen or other support to protect the bladder from extrusion damage (See ATL Bulletin #DS-597).

3. Lay out a protective liner on the ground or floor where the new Fire-Bag is to be placed. Spread out the Fire-Bag on the protective liner and determine that it is the correct size and configuration for the tank it is to be installed into; check part number, nozzles, nozzle orientation, length, and diameter. (Fig. 3)



4. Visually inspect (inflate if possible) the Fire-Bag to be sure that no damage has occurred either in shipping or unpacking. These bladders are double pressure-tested at the factory.

5. To aid in proper installation, locate all Fire-Bag nozzle alignment marks (Fig. 4). These lines are permanently painted on all rubber nozzles. Keep these marks in mind as you prepare the Fire-Bag for installation and as you install the Fire-Bag to ensure that it is properly aligned (clocked) in the steel tank.



6. Compress all nozzles (Fig. 5) except the nozzle that corresponds to the largest tank flange, through which you will install the Fire-Bag. It is helpful to use duct tape to hold the nozzles in the compressed state. (Fig. 6)



7. Tie a length of rope to each compressed nozzle, (3 if a "horizontal", 1 if a "vertical" Fire-Bag) not including the nozzle which corresponds to the tank flange through which you will install the Fire-Bag (Fig. 7). The rope(s) must be long enough to reach through the inside of the tank to the appropriate tank flange with some slack to allow for the Fire-Bag to slide into the tank. Using a pole device or "reacher /grabber" tool, feed the rope(s) from the large entry flange into the empty tank to the corresponding steel tank flange and tie off to that tank flange.



Guide Rope Attached to Smaller Nozzles

8. While keeping alignment marks and guide ropes in mind, tightly roll the Fire-Bag length-wise (Fig. 8) and prepare to install. It is recommended that you use duct tape to hold the Fire-Bag in the rolled position. Depending on the length of the tank/Fire-Bag, you may need to duct tape around the body 2 to 4 times, equally spaced.

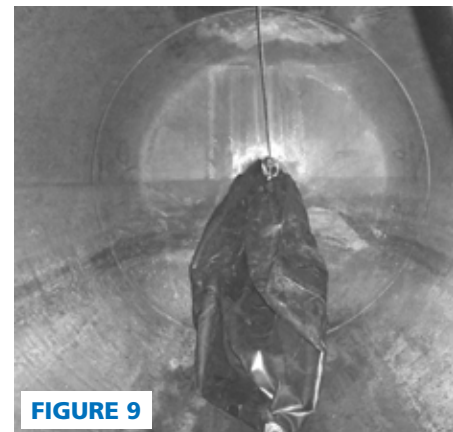


FIGURE 8

Rolled & Taped Fire-Bag

9. Apply a generous amount of petroleum jelly or other lubricant on the interior of the largest steel tank flange, through which the Fire-Bag will be installed. You may need to re-lubricate during the installation process.

10. Station one man at the far end of the tank, and one man at the installation end. You may require a third man for horizontal configuration tanks. Feed by pushing the Fire Bag into the tank flange with care not to damage the Fire-Bag (Fig. 9). Remove duct tape from around Fire-Bag body as this point reaches the installation flange. As the Fire-Bag is installed, take up the slack on the ropes tied to the Fire-Bag nozzles. **DO NOT PULL THE FIRE-BAG INTO THE TANK USING THESE ROPES.** The ropes are to guide the rubber nozzles to the appropriate tank flange only.



View From Inside Tank >>

FIGURE 9

11. Once the Fire-Bag is completely in the tank, reach in and pull the rubber Fire-Bag nozzles through the corresponding tank flanges. Remove guide ropes and duct tape. Allow the nozzles to pop into place through and onto the tank flanges. If necessary, turn the Fire-Bag nozzles to align bolt holes and alignment marks accordingly. All alignment marks should point in the same direction and be located in the same relative position. (Special Note Fig. 10)

12. Prior to reinserting the perforated plastic center-tubes, and before installing the tank flange covers, close the tank shell drain valve and attach a vacuum cleaner hose to the tank shell vent valve. With this valve open, start the vacuum. This will pull the Fire-Bag out to the tank shell wall. While looking inside the bladder, either through the top tank flange (vertical style), or through either end tank flange (horizontal style), watch until the bottom flange opening is visible. At this point, the Fire-Bag should be fully conforming to the interior tank shell walls. Using a flashlight, inspect the interior of the Fire-Bag to ensure that it is not twisted or misaligned. Look for any "swirling" of material around all nozzles, which would indicate improper alignment. If any "swirling" is evident, make the proper adjustments using the nozzle alignment marks. (Fig. 10)

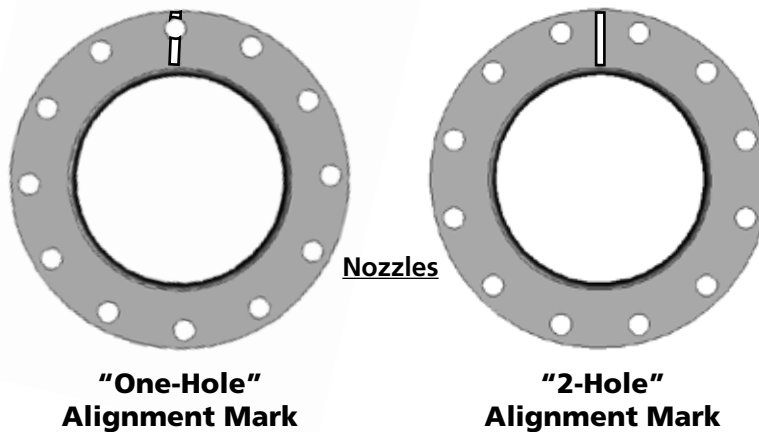
13. Before attempting to fill the Fire-Bag, a bladder integrity test should be conducted. Consult your Fire-Suppression System provider or their instruction manual for Fire-Bag integrity-testing and fill-procedures.

Figure 10 - A Special Note on Nozzle Alignment:

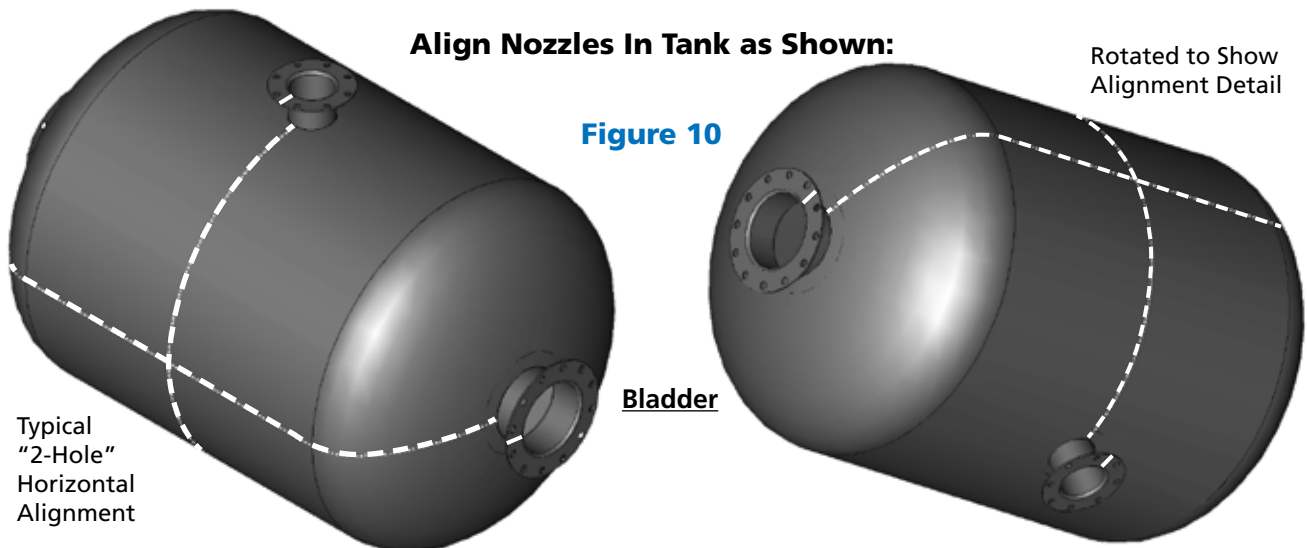
It is imperative that the bladder nozzles are properly aligned with the steel tank flanges to avoid twisting the Fire-Bag. After the Fire-Bag has been installed, and the Fire-Bag nozzles are in place on the tank flanges, all alignment marks must aim at the same point on the steel tank. See drawing below.

Also note that most tanks are designed for "two-hole" alignment; the alignment mark is centered between two bolt holes (as shown). However, there are some tanks which will be designed as "one-hole" alignment; the alignment mark runs through the center of a bolt hole. To determine which alignment style your tank is designed for, look at an end tank flange. If there is a space at 12:00, your tank is two-hole alignment; if there is a bolt hole at 12:00, your tank is one-hole alignment. Be sure that the Fire-Bag bladder alignment markings correspond with that of the tank.

Aligning Rubber Nozzles with Steel Tank Flanges



Align Nozzles In Tank as Shown:



Thank you for reading these installation guidelines.



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