

# BDT Bladder Tank Series Installation & Operation Instructions

**VESSEL DESCRIPTION:**

American Wheatley tanks are constructed in accordance with ASME Section VIII, Division I. They are designed for storage of potable water for pressure boost systems, as well as typical cooling/heating applications. The system's expanded water is contained in a heavy-duty bladder preventing tank corrosion and water logging problems. The factory set pre-charge for these tanks is 12 psig.

**IMPORTANT:** When pressure testing the system piping, the expansion tank must be isolated from the elevated pressure test. Bladder stress and premature failure may result. When filling the system with water, open valve to tank to ensure that any residual air in the tank is displaced by water. It is recommended that the pre-charge be checked annually to ensure proper system protection and long-life for the vessel.

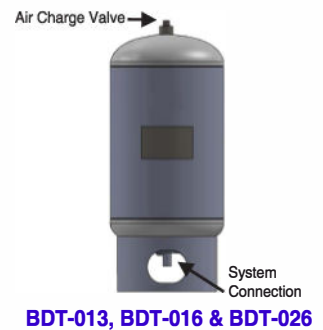
**TANK PREPARATION:** Visually inspect tank for damage, which may occur during transit. Factory pre-charge pressure may not be correct for the installation. Pre-charge is typically set to equal the system pressure. If unsure, consult a factory representative. The tank **MUST** be pre-charged to system design pressure **BEFORE** placing into operation. Remove pipe plug covering the valve enclosure. Check and adjust the charge pressure by adding or releasing air for each application.

If system has been filled with water and the tank has been through several cycles, the tank must be isolated from the system and the tank emptied before charging. This ensures all fluid has exited the bladder and proper charging will occur. After emptying bladder, the tank should be charged to 2-3 psi below system initial fill pressure. This air charge pressure may have to be adjusted periodically.

If the pre-charge adjustment is necessary, oil and water free compressed air may be used. Check the pre-charge using an accurate pressure gauge at the charging valve and adjust as required. Check air valve for leakage. If evident, replace the Schrader-type tire valve core. Do not depend on the valve cap to seal the leak. After making sure air charge is correct, replace protective cover over the charging valve for protection.

Set tank in place and pipe system connection to system. Be sure to include isolation valve and drain. Do not loosen nuts on cover plate; this will result in loss of pre-charge. Cover plate should only be removed when replacing bladder, and then only after the tank has been bled to zero gauge pressure.

**CAUTION**-If charging above 80 psi, charge to approximately 60 psi, then slowly introduce approximately 1/3 of tank water volume before **SLOWLY** charging up to desired pressure.



JOB NAME _____
LOCATION _____
CONTRACTOR _____
CONTRACTOR P.O. NO. _____

ITEMS	QUANTITY