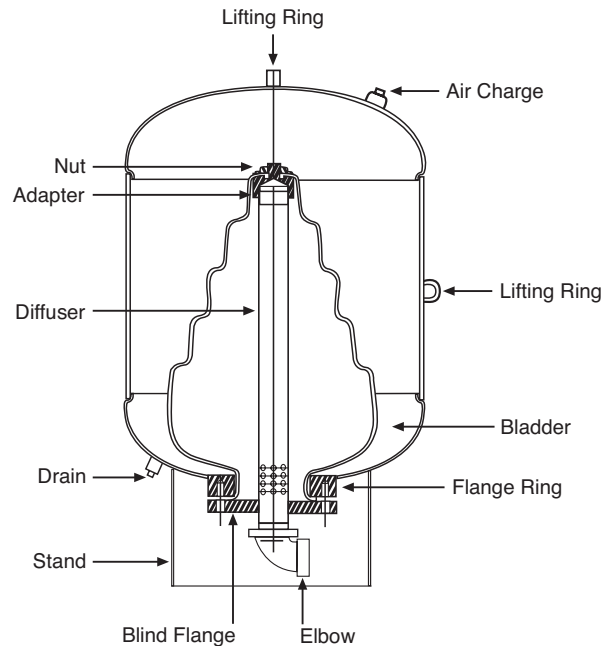




THERM-X-TROL® STL (CL) SERIES

FOR USE ONLY WITH POTABLE WATER SYSTEMS
REPLACEMENT BLADDER INSTRUCTIONS

Models ST-35L(CL) through ST-600L(CL)



NOTE: Inspect for shipping damage and notify freight carrier or store where purchased immediately if damage is present. To avoid risk of personal injury and property damage, if the product appears to be malfunctioning or shows signs of corrosion, call a licensed professional immediately. Current copies of the Product manual can be viewed at www.amtrol.com. Use proper safety equipment when installing.



THIS IS THE SAFETY ALERT SYMBOL. IT IS USED TO ALERT YOU TO POTENTIAL PERSONAL INJURY AND OTHER HAZARDS. OBEY ALL SAFETY MESSAGES THAT FOLLOW THIS SYMBOL TO REDUCE THE RISK OF PERSONAL INJURY AS WELL AS PROPERTY DAMAGE.

WARNING READ CAREFULLY THE PRODUCT INSTALLATION INSTRUCTIONS. FAILURE TO FOLLOW THE INSTRUCTIONS AND WARNINGS MAY RESULT IN SERIOUS OR FATAL INJURY AND/OR PROPERTY DAMAGE, AND WILL VOID THE PRODUCT WARRANTY. THIS PRODUCT MUST BE INSTALLED BY A LICENSED PROFESSIONAL. FOLLOW ALL APPLICABLE LOCAL AND STATE CODES AND REGULATIONS. IN THE ABSENCE OF SUCH CODES, FOLLOW THE CURRENT EDITIONS OF THE NATIONAL PLUMBING CODE AND NATIONAL ELECTRIC CODE, AS APPLICABLE.

WARNING EXPLOSION OR RUPTURE HAZARD. THE EXPANSION TANK MUST BE OPERATED SO THAT THE PRESSURE DOES NOT EXCEED THE MAXIMUM WORKING PRESSURE.

WARNING This Product, like most Products under pressure, may over time corrode, weaken and burst or explode, causing serious or fatal injury, leaking or flooding and/or property damage. To minimize risk, a licensed professional must install and periodically inspect and service the Product. A drip pan connected to an adequate drain must be installed if leaking or flooding could cause property damage. Do not locate in an area where leaking could cause property damage to the area adjacent to the appliance or to lower floors of the structure.

WARNING EXPLOSION OR RUPTURE HAZARD. A relief valve must be installed to prevent pressure in excess of local code requirement or maximum working pressure designated in the Product Manual, whichever is less. At least once every 3 years or if discharge is present, a licensed contractor should inspect the temperature and pressure relief valve and replace if corrosion is evident or the valve does not function. **FAILURE TO INSPECT THIS VALVE AS DIRECTED COULD RESULT IN UNSAFE TEMPERATURE OR PRESSURE BUILD-UP WHICH CAN RESULT IN PRODUCT FAILURE, SERIOUS INJURY OR DEATH AND/OR SEVERE PROPERTY DAMAGE AND VOID THE PRODUCT WARRANTY.**

WARNING Use only with potable water systems. Do not operate in a setting with freezing temperatures or where the temperature can exceed 240°F and do not exceed the maximum working pressure specified in the Manual. Mount vertically only.

WARNING **Chlorine & Aggressive Water:** The water quality can significantly influence the life of this Product. You should test for corrosive elements, acidity, total solids and other relevant contaminants, including chlorine and treat your water appropriately to insure satisfactory performance and prevent premature failure.

WARNING This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

**PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY
IMPORTANT GENERAL SAFETY INFORMATION -
ADDITIONAL SPECIFIC SAFETY ALERTS APPEAR IN THE FOLLOWING INSTRUCTIONS.**

Installation

WARNING THIS PRODUCT MUST BE INSTALLED BY A LICENSED PROFESSIONAL.

1. Be sure to have a complete bladder kit (bladder kit consists of blind flange, bladder support pipe and bladder assembly).
2. Isolate tank from system.
3. Drain water from bladder.
4. Remove air valve core to bleed remaining air charge.
5. Remove drain plug. (Figure 1).
6. Disconnect system connection.
7. Unbolt blind flange from tank and pull out bladder kit from tank. (Figure 2).
8. Wash down inside walls of tank as necessary.
9. Mop up remaining water.
10. Dry out inside of tank (reversed vacuum cleaner or air line from compressor).
11. Clean out any remaining dirt.
12. Examine interior of tank for any rust blisters and remove them.
13. Fold new bladder around bladder support pipe. (Figure 3).
14. Insert new bladder kit into bottom of tank. *Use existing bolts from tank flange.* (Figure 4).
15. Using water from spray bottle, lubricate bladder to make it easier to fit through flange opening. (Figure 5).

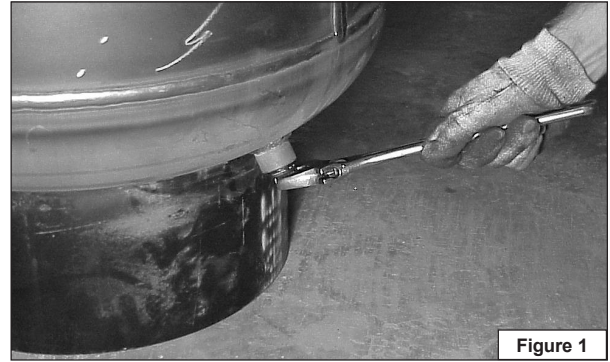


Figure 1



Figure 2



Figure 3



Figure 4

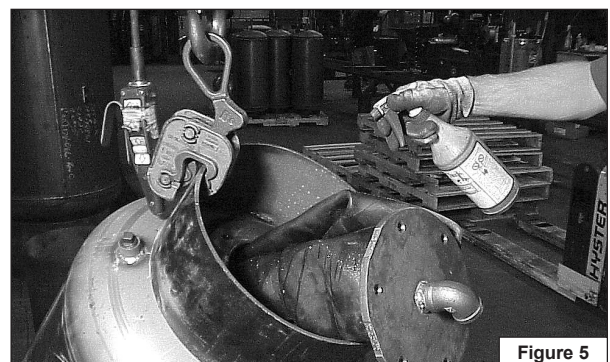


Figure 5

16. Insert bladder neck into bottom of tank. (Figure 6).
17. Pull out flange neck of bladder and fit on blind flange. *Bladder neck becomes gasket for flange.* (Figure 7).
18. Align elbow with hole in skirt to make system connection.
19. Insert bolts by hand into flange and tighten in a cross pattern to 40-50 foot-pounds. (Figure 8).
20. Screw in drain plug using a liberal amount of Tite-Seal compound 55 or equal. (This connection must be absolutely air-tight).

⚠ WARNING FAILURE TO PROPERLY SEAL WILL RESULT IN LOSS OF PRECHARGE CAUSING TANK TO FAIL.

21. Install air valve core. Charge tank to equal system pressure using dry air or nitrogen (Figure 9).

⚠ WARNING DANGER! EXPLOSION HAZARD. IF YOU ADJUST THE PRE-CHARGE PRESSURE OR ADD PRESSURE TO A TANK THAT IS CORRODED OR DAMAGED OR WITH DIMINISHED INTEGRITY, THE TANK CAN BURST OR EXPLODE, POSSIBLY CAUSING SERIOUS OR FATAL PERSONAL INJURY AND/OR PROPERTY DAMAGE.

- ONLY ADJUST THE PRE-CHARGE AS DESCRIBED IN THIS MANUAL WHEN THE TANK IS NEW OR WHEN THE INTEGRITY OF THE TANK AND LACK OF INTERNAL OR EXTERNAL CORROSION IS CONFIRMED.
- ONLY LICENSED PROFESSIONALS SHOULD CHECK, ADJUST OR RE-CHARGE THE PRE-CHARGE OF TANKS.

- ⚠ IMPORTANT:** If increasing pre-charge pressure above 55 psig the following steps must be followed:
- a. Tank must be connected to the system with isolation valve open.
 - b. System must be pressurized to 55-60 psig or slightly higher than the pre-charge setting of the tank.
 - c. Isolation valve needs to be shut.
 - d. Pre-charge pressure of tank can now be increased to the recommended high pressure setting.
 - e. Bring system up to pressure, and then open the isolation valve to the tank.

Failure to follow these steps could result in damage to the bladder and void all warranties.

22. Using soapy water, check the drain fitting threads, air valve core and flange joint for leakage.
23. Connect tank to system. Open fill-valve and check operation. Always pre-charge before completing this step.

⚠ WARNING FAILURE TO FOLLOW ALL WARNINGS MAY RESULT IN SERIOUS INJURY OR FATAL PERSONAL INJURY AND/OR PROPERTY DAMAGE AND WILL VOID THE WARRANTY.

Warranty

Replacement Bladder: One (1) Year Warranty

Visit www.amtrol.com for complete warranty details.

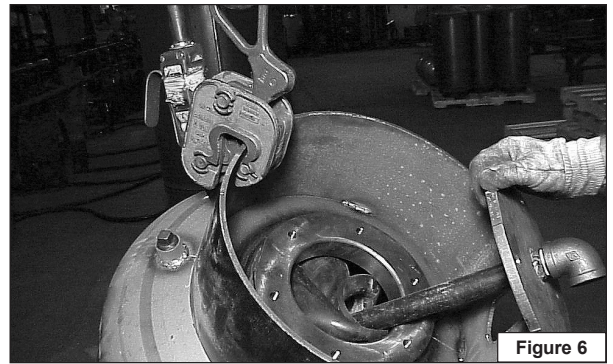


Figure 6

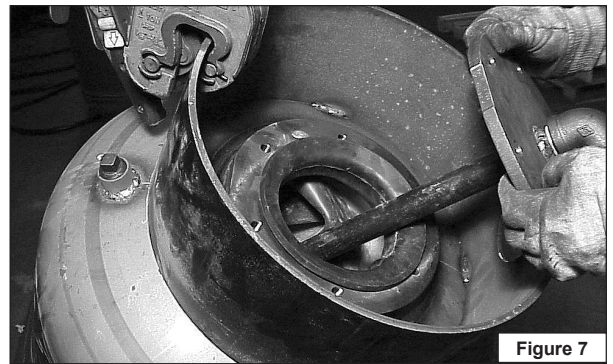


Figure 7



Figure 8



Figure 9

Required Tooling & Supplies:

1. New AMTROL Bladder Kit
2. Source of Compressed Dry Air or Nitrogen
3. Light with 20 ft. Cord
4. Power Extension Cord (as required)
5. Chain Block
6. Pressure Gauge and Air Valve Tool
7. Spray Bottle



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