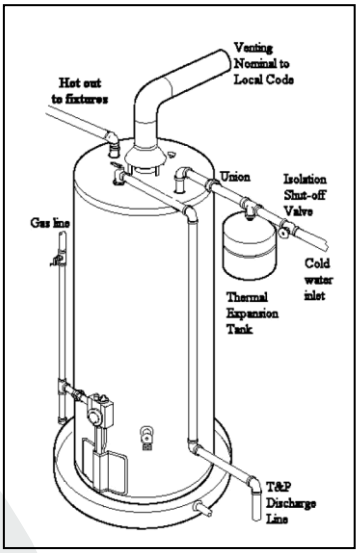
Installation of an Expansion Tank



1. Ensure expansion tank is sized properly for the system.
2. Before beginning installation, determine system water pressure
    a. Install a water pressure gauge on your system
    b. This can be done at the drain valve of the water heater or other location which a water pressure gauge can be installed.
    c. Open a faucet and let the system pressure equalize (this should only take a couple of minutes).
    d. Close the faucet.
    e. Read the system water pressure.
3. The **expansion tank pre-charge must be set to system pressure** as determined in step 2.
    a. Unscrew protective cap from air inlet.
    b. Using a tire gauge, check the pressure of the tank.
    c. If necessary, pressurize the tank to the proper setting using a manual bicycle tire pump. **Caution do not exceed 80psi.**
    d. Replace the protective cap.
4. Shut off water supply.
5. Shut off power source to water heater (Electricity or gas supply).
6. Install expansion tank in the system on the cold water supply between the water heater and backflow prevention device. **Note**: Some manufactures do not specify cold or hot water line, check with manufacture of expansion tank and/or authority having jurisdiction.
    a. The weight of the expansion tank filled with water needs to be appropriately supported. Therefore, it is important that, where appropriate, the piping has suitable bracing (strapping, hanger, brackets). Check with authority having jurisdiction for support methods.
    b. Check with expansion tank manufacturer about the installed position of the expansion tank. **Caution: The tank must be properly supported in horizontal applications.**
    c. All expansion tanks, may eventually leak. Ensure you have adequate protection from water leaks.
7. Turn on water supply.
8. Open a hot water fixture and allow water flow until all air is removed from the system.
9. Turn on electricity or gas supply to water heater, which ever applies. Relight pilot if necessary.
10. Allow water heater to reach operating temperature.
11. Open a hot water faucet to allow system pressure to equalize.
12. Turn off hot water faucet.
13. Recheck system water pressure. See step 2.

Caution: Pre-charge prior to installation in the system. Do not adjust the air pre-charge of the expansion tank with the system under pressure. The air pre-charge should only be adjusted under zero system water pressure. If necessary, adjust the water pressure regulator on the water supply to the expansion tank pre-charge as determined in Step 3.

Expansion Tank Volume (Gal.) Maximum Temperature Setting 140°F

Water Heater Size (gals.)	Static Supply Pressure (psig)		
	40	**60**	**80**
40	2.0	2.0	2.0
50	2.0	2.0	2.0
60	3.2	3.2	3.2
80	3.2	3.2	4.4
120	4.4	4.4	10.3

Expansion Tank Volume (Gal.) Maximum Temperature Setting 160°F

Water Heater Size (gals.)	Static Supply Pressure (psig)		
	40	**60**	**80**
40	2.0	2.0	3.2
50	2.0	3.2	3.2
60	3.2	3.2	4.4
80	3.2	4.4	10.3
120	4.4	10.3	10.3

Expansion Tank Volume (Gal.) Maximum Temperature Setting 180°F

Water Heater Size (gals.)	Static Supply Pressure (psig)		
	40	**60**	**80**
40	3.2	3.2	3.2
50	3.2	3.2	4.4
60	3.2	4.4	10.3
80	4.4	10.3	10.3
120	10.3	10.3	10.3

Residential sizing based on: 40°F incoming water temperature; 150 psi T&P safety relief valve; Pre-charge equal to static supply pressure.