# INSTALLATION & OPERATION

**TYPE:** COMMERCIAL PRE-PRESSURIZED EXPANSION TANKS. ASME AND NON-ASME.

**MODELS:**
ZELA, ZETA (HYDRONIC EXPANSION)
ZTXA, ZTTA (THERMAL EXPANSION)

Date: 10/2021

## VESSEL DESCRIPTION

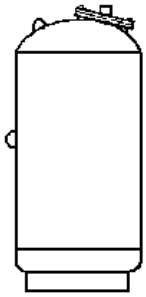
Zilmet Commercial Expansion Tanks are ASME constructed, pre-charged expansion tanks. They are designed to absorb the expansion forces and control the pressure in heating/cooling systems (ZELA AND ZETA) and potable hot water system (ZTXA AND ZTTA). The system's expanded water is contained in a heavy-duty bladder or a diaphragm/liner assembly preventing tank corrosion and waterlogging problems.

## CONSTRUCTION

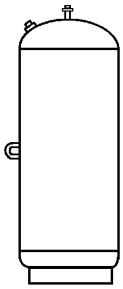
Shell: Carbon Steel
Bladder/Diaphragm: Heavy duty butyl
Exterior: Primer paint

## PRECHARGE

Factory precharge: 40psig (all models)



REPLACEABLE BLADDER STYLE WITH SYSTEM CONNECTION ON BOTTOM AND BLADDER ACCESS COVER ON TOP



FIXED DIAPHRAGM STYLE WITH SYSTEM CONNECTION ON TOP

Visually inspect tank for damage, which may occur during transit.

Factory pre-charge pressure may not be correct for the installation.

Tank MUST be pre-charged to system operating 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 the system has been filled, 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.

If the pre-charge adjustment is necessary, oil and water free compressed air or nitrogen gas 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 pipe plug over charging valve for protection.

Set tank in place and pipe system connection to system on the cold water inlet side of the heater. Be sure to include isolation valve(s) and drain. Do not loosed 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.

Purge air from system BEFORE placing tank into operation. All models have system water contained inside bladder.

When filling the system with water, open valves to tank to ensure that any residual air in the tank is displaced by water.

Measure and record the pre-charge annually to ensure proper system protection and long-life for the vessel. Keep precharge log with the vessel.

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