Installation, Warnings,

and Operation Instructions

PROFLO, Potable Water Expansion Tanks

Operation

This thermal expansion tank is designed to maintain safe water pressures in a domestic water heating system that utilizes a backflow preventer or check valve. It features a butyl rubber diaphragm and polypropylene liner to separate the system water from the tank's inner walls and pre-charge. The system connection is stainless steel and the tank is finished with an appliance quality paint to minimize corrosion.

What it does

Adding a backflow preventer, water meter with a check valve, or any other "no return" valve to a domestic water heating system creates a closed loop system. When water heats up, it expands which can cause unsafe operating pressures and cause nuisance operation of the water heater's safety relief valve.

Adding a thermal expansion tank to the cold water inlet of the water heater creates a reservoir for the expanded water. Water enters the tank and is released back into the system on demand. The goal is to avoid dripping relief valves and improve the safety of the system.

THIS IS THE SAFETY ALERT SYMBOL. IT IS USED TO ALERT YOU TO POTENTIAL PERSONAL INJURY HAZARDS. OBEY ALL SAFETY MESSAGES THAT FOLLOW THIS SYMBOL TO AVOID POSSIBLE INJURY OR DEATH.

⚠WARNING

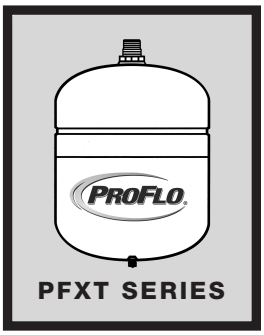
INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN SERIOUS INJURY OR DEATH.

⚠CAUTION

INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, MAY RESULT IN MINOR OR MODERATE INJURY OR RESULT IN PROPERTY DAMAGE.

Note: PFXT Series tanks are certified to NSF Standard 61 Domestic Hot, but are suitable for temperatures up to 200° F.

⚠WARNING This product must be installed by a **Qualified Professional** following all local and national plumbing and electrical codes. Read and understand fully the instructions included here and those on the Ferguson website which are updated on a regular basis. This product must be inspected annually by a qualified professional for any signs of corrosion or leakage and replaced immediately if these signs are present. Failure to follow these instructions may result in serious injury or death and or property damage and will void the product warranty.



⚠WARNING **EXPLOSION HAZARD** This expansion tank is designed for water storage at a maximum pressure of 150 psi and a maximum temperature of 200 F. A properly sized pressure relief valve set at a maximum of 150 psi must be installed in the system. This tank is shipped with a pre-charge of 40 psi and any adjustment to the pre-charge must be done prior to installation and at ambient temperature. Do not adjust the pre-charge of this tank if the product is corroded or damaged or shows any signs of diminished integrity. The maximum allowable pre-charge in this expansion tank is 80 psi. Do not adjust the pre-charge of the expansion tank with the system under pressure. Failure to follow these instructions is UNSAFE and may result in serious injury or death and or property damage.

⚠CAUTION This expansion tank and the associated piping may in time leak. This tank must be installed in a location that allows for easy access, visual inspection and where water leakage will not cause property damage. Installation must include a means for adequate drainage. This tank must not be installed in a location that is subject to freezing. This tank must be installed in the vertical position. The manufacturer of this product is not liable or responsible for any water damage associated with the installation and or failure of this product. Failure to follow these instructions will void the warranty and may result in personal injury or property damage.

⚠WARNING This tank is intended for use on potable water systems only and any other use may be dangerous and will void the warranty. This product's performance and lifespan can be significantly and adversely impacted by aggressive water conditions. A water test should be conducted at regular, periodic intervals specifically looking for corrosive water, acids and other relevant water contaminants which if present must be treated immediately and appropriately. The system piping must be properly grounded to earth and a dielectric union is recommended in the installation. Failure to follow these instructions may result in serious injury or death and or property damage.

Not for sale in California.

These instructions and warnings are subject to periodic updates on the Ferguson website **www.ferguson.com** and should be regularly reviewed by the consumer for important safety and instruction updates.

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Before Installation

Product Inspection

Visually inspect the product for any signs of damage that may have occurred during transportation. If the tank is dented, bent or scratched, return the product to the original purchase point for replacement.

Pre-Charge Adjustment

This expansion tank is shipped from the factory with a pre-charge of 40 psi. Any adjustments to the factory pre-charge must be done prior to initial tank installation and with 0 psi pressure on the system. DO NOT ADJUST THE PRE-CHARGE OF THE EXPANSION TANK WITH THE SYSTEM UNDER PRESSURE!

The expansion tank should be pre-charged to the incoming system water pressure but must not exceed 80 psi. **Failure to properly adjust the pre-charge will shorten the life expectancy of the product.**

To Adjust Tank Pre-Charge

- Remove the protective cap from the air valve.
- Check the tank pre-charge pressure using a standard tire pressure gauge.
- If required add air to the tank using a manual bicycle tire pump until the proper pre-charge pressure is reached.
- Replace the protective cap on the air valve.

Installation

Location

Select a location where a water leak will not cause property damage and provides adequate means for water drainage. This expansion tank and the associated piping may in time leak. The manufacturer is not responsible for any water damage that may occur in association with the expansion tank installation.

⚠WARNING Disconnect or shut off the electrical power source to the water heater. Shut off the water supply to the system and remove all water pressure from the system. Failure to follow these instructions may result in serious injury or death and or property damage.

The tank is designed to be supported by the system piping. Make sure that there is adequate means of supporting the system piping and if necessary add strapping, brackets or pipe hangers. DO NOT INSTALL THIS EXPANSION TANK IN THE HORIZONTAL POSITION UNLESS IT IS PROPERLY SUPPORTED!

Install the expansion tank in the incoming water line to the water heater between the water heater and the backflow preventer or check valve (see Fig. 1). Adequate thread sealant must be added to ensure a leak free installation.

Before turning on the water supply to the system, open a hot water faucet to prevent any damage to the water heater and remove air from the system piping. Turn on the water supply and inspect the installation for water leaks paying close attention to the connection between the expansion tank and the piping.

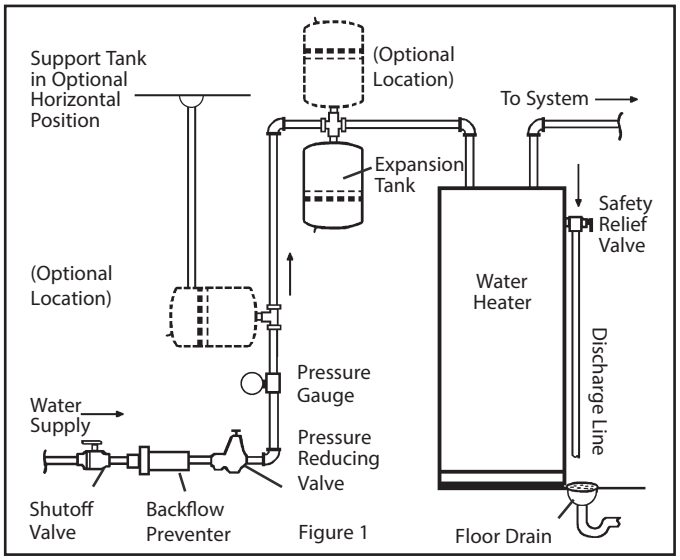


Figure 1

NOTE: If vertical installation is impractical, PFXT tank may be installed in a horizontal position as long as the tank weight is fully supported independent of the piping. The support can be in the form of strapping or a support platform. ABSENCE OF AN INDEPENDENT TANK SUPPORT WILL VOID THE WARRANTY.

Follow the water heater manufacturer's instructions for proper start-up of the heater and the system.

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Maintenance Specs/Dimensions

This expansion tank and the entire system must be checked annually by a qualified professional.

Visually examine the tank and its connection to the system piping looking for any signs of water leakage or corrosion on the exterior of the tank or the connection.

⚠WARNING If this expansion tank shows any visible signs of leaking, corrosion or rusting, the tank must be replaced immediately to avoid personal injury or property damage. Do not adjust the tank air pressure if there are any signs of corrosion on the tank. Failure to follow these instructions may result in serious injury or death and or property damage.

Specs/Dimensions

Materials of Construction

- Tank: 16 gauge cold rolled steel
- Finish: Appliance quality paint for indoor or outdoor installation
- Water chamber: 100% butyl rubber, lined with polypropylene
- Connection: Stainless Steel
- Testing: High pressure, seam weld, helium, final precharge check
- Air valve: Brass valve with o-ring seal
- Warranty: One year

Dimensions & Capacities

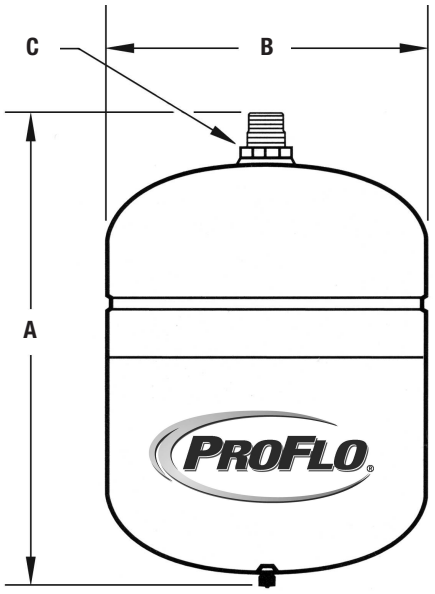
Model	Total Tank Volume		A Height		B Diameter		C Connection	Total Weight	
	gal	liters	in	cm	in	cm		lbs	kilos
PFXT5I	2.1	8	11.6	30.0	8.00	20.0	3/4" MNPT	5.0	2.3
PFXT12I	4.8	18	14.5	37.0	11.00	28.0	3/4" MNPT	10.0	4.6

Maximum working pressure 150 psig. Maximum working temperature, internal & external 200° F. Tank pre-charge 40 psig.
NOTE: PFXT Series tanks are certified to NSF Standard 61 Domestic Hot, but are suitable for temperatures up to 200° F.

Quick Sizing Chart

Water Heater Size/Volume	Maximum Water Temperature			
	130° F	140° F	160° F	180° F
30 GALLONS	PFXT5I	PFXT5I	PFXT5I	PFXT5I
40 GALLONS	PFXT5I	PFXT5I	PFXT5I	PFXT5I
50 GALLONS	PFXT5I	PFXT5I	PFXT5I	PFXT12I
60 GALLONS	PFXT5I	PFXT5I	PFXT5I	PFXT12I
80 GALLONS	PFXT5I	PFXT12I	PFXT12I	PFXT12I
100 GALLONS	PFXT12I	PFXT12I	PFXT12I	(2) PFXT12I
120 GALLONS	PFXT12I	PFXT12I	PFXT12I	(2) PFXT12I
150 GALLONS	PFXT12I	PFXT12I	(2) PFXT12I	(2) PFXT12I
175 GALLONS	PFXT12I	(2) PFXT12I	(2) PFXT12I	(2) PFXT12I

Sizing based on water heater recovery from 40F, water supply pressure of 60 PSIG, and relief valve set at 150 PSIG. Adjust tank precharge to equal incoming water pressure.



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One Year Limited Warranty

Products Covered: All Thermal Tanks Manufactured and Distributed by Ferguson

All parts for PROFLO products are warranted to the original consumer purchaser to be free from defects in material and workmanship for a period of one (1) year. This warranty is made to the original consumer purchaser and shall be effective from date of purchase as shown on purchaser's receipt.

PROFLO will replace, free of charge, during the warranty period, any part which proves defective in material and/or workmanship under normal installation, use and service. PROFLO's obligation under this warranty shall be limited to the replacement of any part or parts which prove defective upon PROFLO's local dealer inspection. Transportation charges should be prepaid, please ship with a copy of the purchase receipt. For the PROFLO Dealer nearest you, call 757-874-7795. THIS WARRANTY IS THE ONLY EXPRESS WARRANTY MADE BY PROFLO AND IS LIMITED TO THE DURATION OF THIS WARRANTY AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, WHETHER IMPLIED BY OPERATION OF LAW OR OTHERWISE, INCLUDING, WITHOUT LIMITATION, ALL IMPLIED WARRANTIES OF MERCHANTABLILITY AND FITNESS OR FITNESS FOR A PARTICULAR PURPOSE, ARE FOR PERSONAL INJURY OR PROPERTY DAMAGE OR ANY OTHER LOSS, DAMAGE, COST OF REPAIRS OR INCIDENTAL, PUNITIVE, SPECIAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, WHETHER BASED UPON WARRANTY, CONTRACT, STRICT LIABILITY, DESIGN, MANUFACTURE, SALE, TRANSPORTATION, INSTALLATION, USE OR REPAIR OF THE PRODUCTS SOLD BY PROFLO. BUYER HEREBY ACKNOWLEDGES AND AGREES THAT UNDER NO CIRCUMSTANCE, AND IN NO EVENT, SHALL PROFLO'S LIABILITY, IF ANY, EXCEED THE REPLACEMENT OF THE DEFECTIVE PRODUCT(S); NO ADDITIONAL ALLOWANCE SHALL BE MADE FOR THE LABOR OR EXPENSE OF REPAIRING OR REPLACING DEFECTIVE PRODUCTS OR WORKMANSHIP OR DAMAGE RESULTING FROM THE SAME. EXCEPT AS EXPRESSLY SET FORTH IN THIS PARAGRAPH, ALL PRODUCTS AND/OR SERVICES PROVIDED BY PROFLO AND ITS EMPLOYEES AND AGENTS ARE PROVIDED "AS IS," "WHERE IS," "AND "WITH ALL FAULTS."

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty is void for any damage to the PROFLO product due to misuse, abuse, neglect, accident, improper installation, any use in violation of instructions furnished by us, or any use of replacement parts other than genuine PROFLO parts.

Owners Record Keep for later use

Serial number (see tank data label at bottom of tank): _____

Model (see tank data label at bottom of tank): _____

Date Installed: _____

Installer Name: _____

Telephone number: _____

Retain copy of cancelled check and installation receipt

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