

# BACKSTOP® INSTALLATION WARNINGS & OPERATING INSTRUCTIONS

BackStop® tanks are engineered to safely maintain optimal water pressure levels in domestic water heating systems. Thermal expansion tanks work in conjunction with a backflow preventer or check valve. BackStop® Thermal Expansion Tanks are equipped with a stainless steel system connection and have a corrosion-resistant, appliance grade finish. Inside each tank is a heavy-duty, butyl rubber diaphragm encased with a polypropylene liner where the water is separated from the pre-charged air chamber.

## SPECIFICATIONS

Tank - 16 gauge rolled steel  
Finish - Appliance grade paint for indoor installation  
Water Chamber - 100% butyl rubber, lined with polypropylene  
Connection - 304 Stainless steel  
Air Valve - Brass with o-ring seal  
Warranty - Six years  
Maximum working pressure - 150 psig  
Maximum working temperature - 200°F (internal and external)  
Tank Pre-charge - 35 psi  
Maximum Pre-charge - 80 psi

## HOW BACKSTOP WORKS

A BackStop® Thermal Expansion Tank is a safety device that prevents dripping valves and extends the overall life of the heating system. Once attached to the cold water inlet of the water heater, a reservoir for the expanded water is maintained inside the tank. A closed loop domestic water system may also include a backflow preventer, water meter with a check valve, or any other "no return" valve. Once when water is heated, it expands causing unsafe operating pressures and continual operation of the water heater safety relief valve. BackStop® tanks prevents this from occurring by allowing water to enter the tank and safely releasing it back into the system on demand.

## PRODUCT INSPECTION

Prior to installation, inspect the tank for damage that may have occurred during shipping. If any portion of the tank is dented, bent, or scratched, return the product to the original point of purchase for a replacement.

## PRE-CHARGE ADJUSTMENT



*Do not attempt to adjust the tank pre-charge once installed on the system and under the system 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 of the product.*

BackStop® Thermal Expansion Tanks ship with a factory pre-charge of 35 psi. Any adjustment to the factory pre-charge must be done prior to initial tank installation or with 0 psi pressure in the system.

### Step 1

Remove the protective cap from the air valve located on the bottom of the tank.

### Step 2

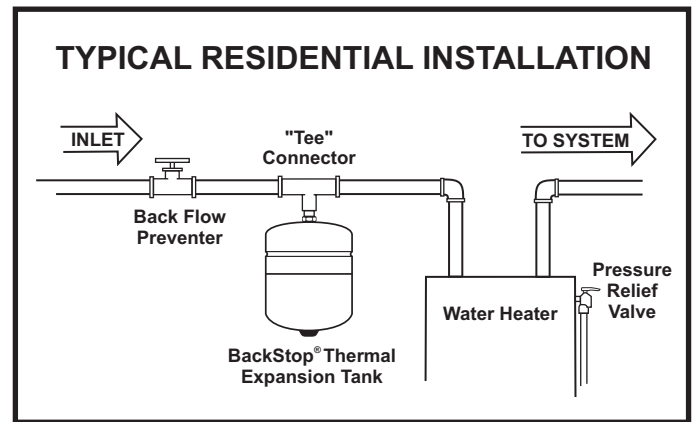
Check the tank pre-charge using a standard tire pressure gauge.

### Step 3

If required add air to the tank using a manual bicycle tire pump until the proper pre-charge pressure is reached.

### Step 4

Replace the protective cap on the air valve.



## TANK INSTALLATION



*Before installing, disconnect or turn off the electrical power source to the water heater, turn off the water supply to the system, and remove all water pressure from the system. Failure to turn off the electrical and water supply and releasing the water pressure could result in serious injury or death and or property damage.*

Be sure to choose an installation location where a water leak will not cause property damage and that is not subject to freezing. Over an extended period of time, it is possible that the expansion tank or the pipes could leak. Selecting a location where there is proper water drainage is ideal. BackStop® is not responsible for water damage that may occur in association with the expansion tank installation. Please see reverse for further warranty information.

The tank must be installed in the vertical position a minimum of 18" from the water heater. Although the tank is designed to be supported by the system pipe work, before installing make sure that there is adequate means of supporting the system piping. Add additional strapping, brackets or pipe hangers to the system piping as needed.

Install the expansion tank in the incoming water line to the water heater between the water heater and the backflow preventer or check valve. Proper thread sealant must be used to ensure a leak free installation.

Open a hot water faucet prior to turning on the water supply to system to remove air from the system piping. Failure to do so might cause damage to the water heater. Once the water supply is turned on, inspect the installation for water leaks paying close attention to the connection between the expansion tank and the piping. Follow the water heater manufacturer's instructions for proper start-up of the heater and the system.

## MAINTENANCE

BackStop® recommends annual inspections of the expansion tank and system by a qualified professional. Visually examine the tank and the system connection for signs of water leaks or corrosion on the tank exterior and connection.

Should the tank show visible signs of leaking, corrosion or rusting, replace it immediately to avoid personal injury or property damage. Do not attempt to 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.

# BACKSTOP® LIMITED 6 YEAR PRODUCT WARRANTY

Products covered: Thermal Expansion Tanks manufactured by BACKSTOP®

This warranty cannot be transferred - it is extended only to the original Purchaser or First User of the Product. By accepting and keeping this Product you agree to all of the warranty terms and limitations of liability described below.

***IMPORTANT WARNING - READ CAREFULLY THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS MANUAL to avoid serious personal injury and/or property damage and to ensure safe use and proper care of this product***

## **Who Receives BACKSTOP's Product Warranty**

All purchasers or first users of the BACKSTOP® Thermal Expansion Tanks. The Warranty is non-transferable.

## **What is covered by this Warranty**

BACKSTOP® warrants to the purchaser or first user of the new Product that at the time of manufacture, the Product is free from defects in material and workmanship. Any warranty claim must be made within six (6) years unless another time period is set forth in the Manual, measured from the time the Product was purchased.

## **What BACKSTOP® Will Do If You Have a Covered Warranty Claim**

In the event of a breach of the foregoing warranty, BACKSTOP® will at its option replace or make repairs to correct any defect in material or workmanship or supply and ship either new or used replacement parts or products. BACKSTOP® will not accept any claims for labor or other costs.

## **What This Warranty Does Not Cover - Exclusions and Limitations**

This Warranty does not cover any failure or problem unless it was caused by a defect in material or workmanship. In addition this Warranty shall not apply:

- if the Product is not correctly installed, operated, repaired or maintained as described in the Manual provided with the Product; " to any failure or malfunction resulting from abuse (including freezing); improper or negligent handling, shipping (by anyone other than BACKSTOP®). Storage, use, operation, accident or alteration, lightning, flood or any other environmental condition;
- to any failure or problem resulting from the use of the Product for any purpose other than those specified in the accompanying Manual or alteration of any part of the product;
- if the Product is used anywhere except the United States, its territories or possessions. or Canada;
- this Warranty does not cover labor costs, shipping charges, service charges, delivery expenses. Administrative fees or any costs incurred in removing or reinstalling the Product;
- this Warranty does not cover any claims submitted to BACKSTOP® or an BACKSTOP-authorized distributor or retailer more than 30 days after expiration of the applicable warranty time period described in this Warranty
- this Warranty also does not cover repair or replacement costs not authorized in advance by BACKSTOP®. Additional Warranty Limitations

## **Additional Warranty Limitations**

**ALL IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE SPECIFICALLY DISCLAIMED.**

## **Limitations of Remedies**

**THE REMEDIES CONTAINED IN THIS WARRANTY ARE THE PURCHASER'S OR FIRST USER'S EXCLUSIVE REMEDIES. IN NO CIRCUMSTANCES WILL BACKSTOP BE LIABLE FOR MORE THAN, AND PURCHASER-FIRST USER'S REMEDIES SHALL NOT EXCEED, THE PRICE PAID FOR THE PRODUCT. IN NO CASE SHALL BACKSTOP BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM NON-DELIVERY OR FROM THE USE, MISUSE, OR INABILITY TO USE THE PRODUCT OR FROM DEFECTS IN THE PRODUCT OR FROM BACKSTOP'S OWN NEGLIGENCE OR OTHER TORT.** This exclusion applies regardless of whether such damages are sought for breach of warranty, breach of contract, negligence, strict liability, in tort or under any other legal theory. Such damages include, but are not limited to inconvenience, loss or damage to property, mold, loss of profits, loss of savings or revenue, loss of use of the Products or any associated equipment facilities, buildings or services, downtime, and the claims of third parties including customers.

## **What To Do If You Have a Problem Covered By This Warranty**

Any covered Warranty service must be authorized by BACKSTOP®. Contact the person from whom you purchased the Product who must receive authorization from a BACKSTOP® distributor or BACKSTOP®. If you do not receive a prompt response, call BACKSTOP® directly at (714) 674-0590. Notice of a Warranty claim should be submitted by the authorized distributor to BACKSTOP® at the following address:

**BACKSTOP®** Warranty Claim Dept.  
465 N. Berry St., Brea, CA

Before BACKSTOP® determines to provide any replacement part or Product, it may as a pre-condition to making such a determination require that the warranty claimant ship the Product postage prepaid to an authorized BACKSTOP® distributor, or to BACKSTOP® and provide proof of purchase evidenced by the original sales receipt.

## **ADDITIONAL PRE-CAUTIONS**



*BackStop® Expansion Tanks must be installed by a qualified professional follow all local and national plumbing and electrical codes. Read and understand fully the instructions included here and those on the manufacturer's website which are updated on a regular basis. Failure to follow these instructions may result in serious injury or death and or property damage and will void the product warranty.*



*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 life span can be significantly and adversely impacted by aggressive water conditions. A water test should be done at regular intervals looking for corrosive water, acids, and other contaminants which must be treated immediately if present.*



*The system piping must be properly grounded to earth and a dielectric union is recommended in the installation.*