

# BACKSTOP<sup>®</sup>

"Preferred by Professionals"

## PRODUCT CATALOG



*Diaphragm-Type  
Safety Tanks  
& Accessories*



# PRODUCT WARRANTY

## Coverage Details

### Our Guarantee

#### Products Covered: 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® 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 the warranty period 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.

#### 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 or 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 a 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

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) 674-0448. 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.

BACKSTOP® recommends replacing a tank seven years after installation in plumbing system.

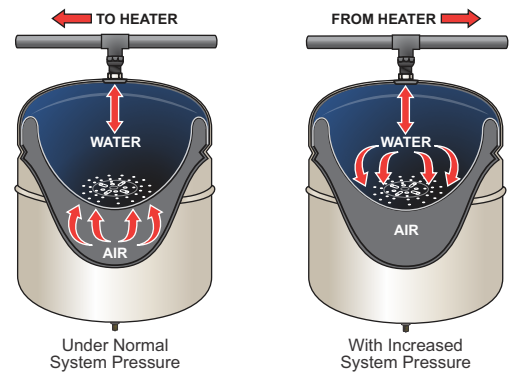
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## How BackStop® Works

BackStop® protects safety valves from failing or wearing out quickly, avoids valve stem and ball seal leaks, prevents wasted BTUs, and vastly extends water heater life.

Thermal expansion is the term used to describe the expansion of water volume as it is heated. Installing a properly sized and charged thermal expansion tank in a water heating system is the recommended way to eliminate the problems associated with increased volume and pressure in a closed or restricted plumbing system.



## Pre-Installation Warnings

- 1 BackStop® Tanks** must be installed only by a qualified, licensed professional in accordance with local plumbing codes. Maintenance inspections of the complete heating system should be performed by a licensed plumber annually.
- 2** 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.
- 3** Any use of the product for purposes other than what it is intended for is UNSAFE and may cause property damage, serious bodily injury or may result in death.
- 4 Before installation** the tank's pre-charge should be tested and adjusted to the to the correct pressure as needed.



**MATERIALS**

Shell: Carbon Steel

System Connection: Carbon Steel

Coating: Triple Layer Electrostatic Silver Paint

Diaphragm: Heavy Duty Butyl Rubber

Liner Material: No Liner

Factory Preset Pressure: 12 PSI

**OPERATING LIMITATION**

Max. Pressure: 150 PSI

Max. Temperature: 200° F

**APPLICATION**

**BackStop® Hydronic Expansion Tanks** absorb the expansion pressure in residential or commercial hydronic (forced hot water) heating and cooling systems. Each tank is pressure rated up to 150 PSI and equipped with a carbon steel connection. High-grade, deep drawn steel is used for improved strength to weight ratio. This tank is not to be used for potable water systems.

**Product List**

Model No.	Volume (gal.)	Height	Diameter	Sys. Conn.	Wt. (lbs.)
12-H15	2.1	12-1/2"	8"	1/2"	4.25
12-H30	4.5	15"	11"	1/2"	7.5
12-H60	6	16-5/8"	11-1/2"	1/2"	8.75
*12-H90	14	23-1/2"	15-1/2"	1/2"	19

\* Includes a durable plastic base

**INSTALLATION PRECAUTIONS**

All BackStop® 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.





# THERMAL EXPANSION TANKS

## A Series (Non-ASME)



### MATERIALS

Shell: Carbon Steel  
 System Connection: 304 Stainless Steel  
 Coating: Triple Layer Electrostatic Almond Paint  
 Diaphragm: Heavy Duty Butyl Rubber  
 Liner Material: FDA Grade Polypropylene  
 Factory Pre-set Pressure: 35 PSI

### CERTIFICATIONS

**MODELS**  
 12-A101  
 12-A102  
 12-A110  
 12-A103  
 12-A104



### OPERATING LIMITATIONS

Max Design Pressure: 150 PSI  
 Max Design Temperature: 200°

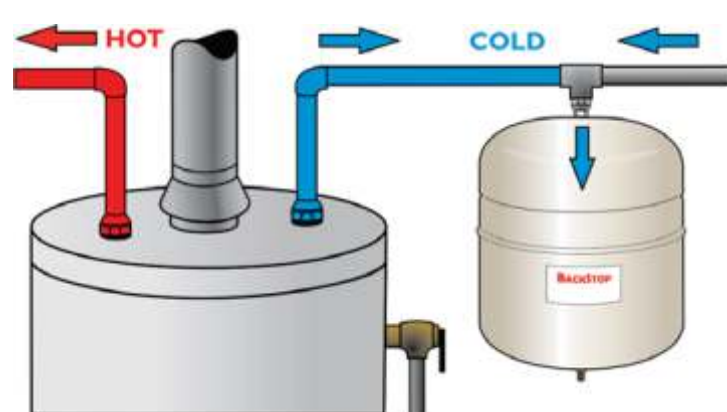
### APPLICATION

BackStop® A Series Tanks are fixed-diaphragm type, precharged thermal expansion tanks that are designed to absorb the expansion forces and control the pressure in potable water systems. Water is contained using a heavy-duty diaphragm with a FDA grade polypropylene liner preventing tank corrosion and waterlogging problems.

## Product List

Model No.	Volume (gal.)	Height	Diameter	Sys. Conn.	Wt. (lbs.)
12-A101	2.1	12-1/2"	8"	3/4"	4.7
12-A102	4.5	15"	11"	3/4"	8
12-A110	10	20"	11-1/2"	3/4"	13.5
12-A103	14	23-1/2"	15-1/2"	1"	20.5
12-A104	20	30-1/2"	15-1/2"	1"	27

## Pre-Installation Warnings



### WHERE TO INSTALL

BackStop® A Series Tanks are installed on the cold water line of the water heater to protect the system from the damaging effects of thermal expansion and increased pressure. The tank controls excessive pressure generated inside the water heater using a sealed compressible air cushion space to store and hold the additional expanded water volume.

Choose an installation location where leakage will not cause property damage and water draining is ideal.

### MATERIALS

**Shell:** Carbon Steel  
**System Connection:** 304 Stainless Steel  
**Coating:** Triple Layer Electrostatic Silver Paint  
**Diaphragm:** Heavy-Duty EPDM Rubber  
**Liner Material:** Polypropylene  
**Factory Pre-set Pressure:** 35 PSI

### OPERATING LIMITATION

**Max. Pressure:** 150 PSI  
**Temperature:** 250°F maximum working

### APPLICATION

**BackStop® Solar Expansion Tanks** are an integral safety device for every solar heating project. They feature a specialized EPDM Diaphragm that captures the expansion and condensation of the solar heat transfer fluid during changing climatic conditions, also known as “stagnation”.

Each tank withstands high temperatures while ensuring that the maximum operation pressure is never reached, safely extending the life of all major system components. The expanded volume of the solar heating system is contained in the **BackStop® Solar Expansion Tank**. The size of the expansion tank depends on the system pressure, collector area, system volume and static height of the system.



### Product List

Model No.	Volume (gal.)	Height	Diameter	Sys. Conn.	Wt. (lbs.)
12-S15	2.1	12 1/2"	8"	3/4"	4.7
12-S30	4.5	15"	11"	3/4"	8



**BackStop® Safely Protects SOLAR Components**

### FEATURES AND BENEFITS

Designed to operate with high-efficiency solar systems.

Accepts glycol solutions.

Each tank incorporates a heavy-duty EPDM diaphragm proven to withstand the high fluctuating temperatures found in solar applications.

Every **BackStop® Solar Expansion Tank** is constructed with high quality rolled carbon steel using double-welds and then coated with an appliance grade, electrostatic, epoxy finish.

**BackStop® Solar Expansion Tanks** have a factory pre-set pressure of 35 PSI and ship with a protective valve cover.



**BackStop® SOLAR Typical Installation**

# PRE-PRESSURIZED WELL TANKS

## AW Series



### MATERIALS

- Shell: Cold Rolled Carbon Steel
- System Connection: 304 Stainless Steel
- Coating: Triple Layer Electrostatic Blue Paint
- Diaphragm: Heavy Duty Butyl Rubber
- Liner Material: Food Grade Polypropylene

### OPERATING LIMITATION

- Max. Pressure: 150 PSI
- Max. Temperature: 150° F

### APPLICATION

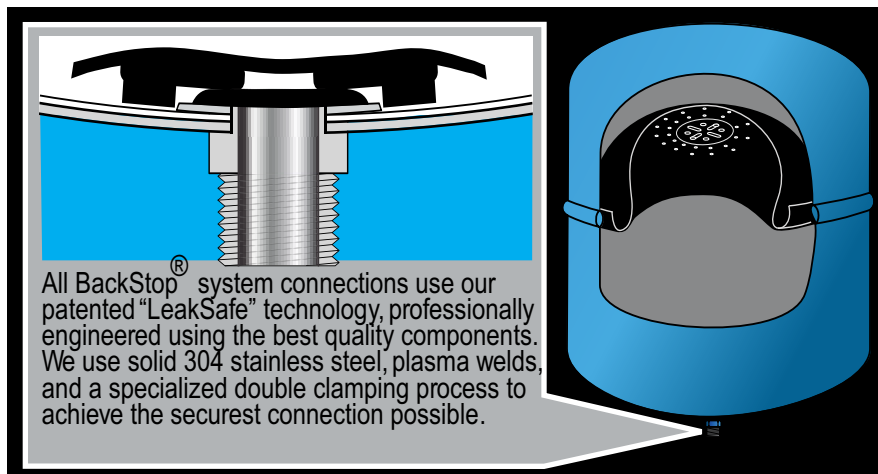
BackStop® Well Tanks provide optimal control of pump performance by allowing efficient cycling, in turn, extending the life of the pump. Each tank is pressure rated up to 150 PSI and equipped with a solid stainless steel connection. High-grade rolled steel for improved strength-to-weight ratio. Larger models feature an attached steel base that is both rugged and stable.



## Product List

Model No.	Volume (gal.)	Height	Diameter	Sys. Conn.	Wt. (lbs.)
12-AW100	0.5	9-1/2"	5"	3/4"	2.5
12-AW101	2.1	12 1/2"	8"	3/4"	4.7
12-AW102	4.5	15	11"	3/4"	8
12-AW110	10	20"	11-1/2"	3/4"	13.5
12-AW103S	14	23-1/2"	15-1/2"	1"	21.5
12-AW104S	20	30-1/2"	15-1/2"	1"	28
12-AW105ST	28	39-1/2"	15-1/2"	1"	35
12-AW105S	32	29-1/2"	22"	1-1/4"	52
12-AW106S	44	35-1/2"	22"	1-1/4"	58
12-AW107S	62	47"	22"	1-1/4"	78
12-AW108S	81	57"	22"	1-1/4"	97

12-AW103S through 12-AWS108S are provided with 90° elbow



All BackStop® system connections use our patented "LeakSafe" technology, professionally engineered using the best quality components. We use solid 304 stainless steel, plasma welds, and a specialized double clamping process to achieve the securest connection possible.



Pump Sold Separately

#### BOOSTER PUMP TANKS

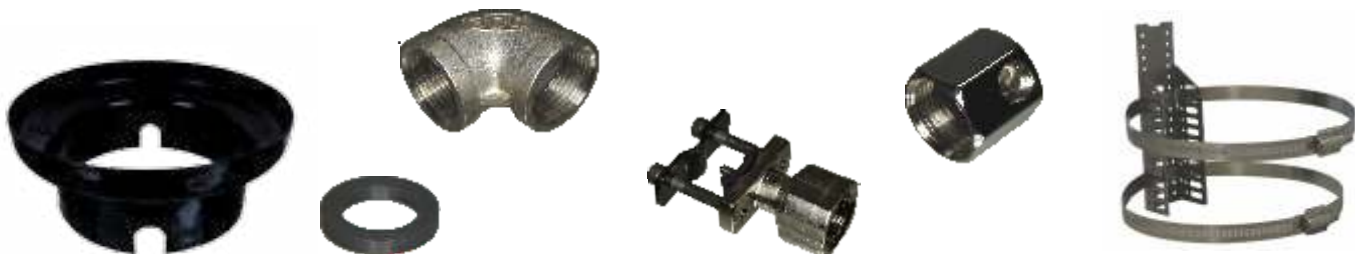
BackStop® Booster Pump Tanks are used in potable water systems to maintain system pressure when the pump is not operating. Pump tanks increase the pump and water system life by reducing system cycling time. The heavy duty diaphragm keeps the water permanently isolated from the pre-charged air cushion.

### Product List

Model No.	Volume (gal.)	Length	Diameter	Sys. Conn.	Wt. (lbs.)
12-APT18H	4.5	16"	11"	3/4"	11
12-APT24H	6	17"	11.6"	3/4"	13
12-APT38H	10	20"	11.6"	3/4"	17
12-APT58H	14	23-1/2"	15"	1"	25
12-APT80H	20	30-1/2"	15"	1"	33

### Tank Accessories Product List

Model No.	Description	Diameter
12-SS1204	Stainless Steel Tank Adapter	3/4" FIP Cap Drilled 1/4" FIP
12-SS16EL	Stainless Steel Close Coupled 1" Elbow	For 14 & 20 Gallon Tanks
12-SS220804	Stainless Steel Bell Reducer	1/2" FIP x 1/4" FIP
12-SS221204	Stainless Steel Bell Reducer	3/4" FIP x 1/4" FIP
12-SV12	Self- Piercing Saddle	For All Size Expansion Tanks
12-STAND	Plastic Tank Base	For 14 & 20 Gallon Tanks
12-DTB-2	Bracket for 2 Gallon Tanks	Up to 9" Tank Diameter
12-DTB-5	Bracket for 4.5 Gallon Tanks	Up to 13" Tank Diameter





# ASME EXPANSION & HYDRONIC TANKS

## AC Series & HC Series

# BACKSTOP®

### MATERIALS

Shell: Carbon Steel

System Connection: Stainless Steel

Coating: Primer

Diaphragm: Heavy Duty Butyl Rubber

### OPERATING LIMITATION

Max. Pressure: 150 PSI

Max. Temperature: 240° F

### APPLICATION

BackStop® AC (ASME) Series Tanks are fixed diaphragm type pre-charged thermal expansion tanks that are used to absorb the expansion forces and control the pressure in potable water systems.



## ASME Expansion Product List

Model No.	Volume (gal.)	Height	Diameter	Sys. Conn.	Wt. (lbs.)
12-AC5	3.5	14"	10"	3/4"	22
12-AC12	5	14"	12"	3/4"	28
12-AC20	8	20"	12"	3/4"	34
12-AC30	15	23"	16"	1"	64
12-AC42	22	32"	16"	1"	88
12-AC60	26	34"	16"	1"	93
12-AC80	35	45"	16"	1"	109
12-AC100	45	38"	20"	1"	148
12-AC125	60	49"	24"	1-1/2"	175
12-AC160	70	46"	24"	1-1/2"	259
12-AC180	80	49"	24"	1-1/2"	268
12-AC210	90	52"	24"	1-1/2"	283

## ASME Hydronic Product List

Model No.	Volume (gal.)	Height	Diameter	Sys. Conn.	Wt. (lbs.)
12-HC15	8	19"	12"	3/4"	44
12-HC20		26"	12"	3/4"	47
12-HC40	25	33"	16"	1"	90
12-HC60		45"	16"	1"	111
12-HC80	45	38"	20"	1"	147
12-HC100		49"	20"	1"	167
12-HC120	70	46"	24"	1 1/2"	225
12-HC144		49"	24"	1 1/2"	245
12-HC180	90	52"	24"	1 1/2"	265
12-HC200		66"	24"	1 1/2"	295
12-HC240	140	78"	24"	1 1/2"	425
12-HC260		61"	30"	1 1/2"	475
12-HC280	211	79"	30"	1 1/2"	645

### MATERIALS

Shell: Carbon Steel

System Connection: Carbon Steel

Coating: Primer

Diaphragm: Heavy Duty Butyl Rubber

### OPERATING LIMITATION

Max. Pressure: 150 PSI (1035 kPa) HC15-HC60

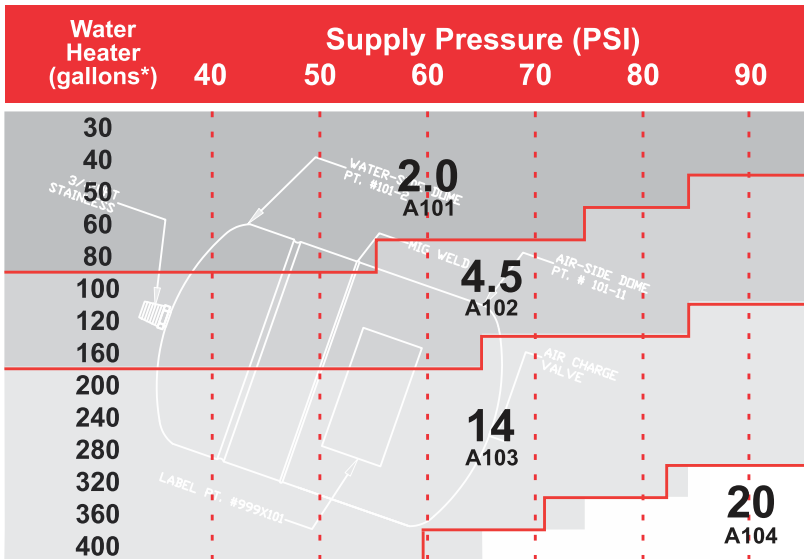
Max. Pressure: 125 PSI (861 kPa) HC80-HC200

Max. Temperature: 240° F

### APPLICATION

BackStop® HC Series ASME Hydronic Tanks are fixed diaphragm type pre-charged thermal expansion tanks. ASME Hydronic Tanks reduces required tank size up to 80% and adhere to building codes.

## Tank Quick Sizing Guide



\*For multiple heaters, use the total volume of the heaters plus any storage tanks.



## Hydronic Tank Quick Sizing Guide

Net Output in 1000's of BTU per Hour	Finned Tube Baseboards or Radiant Panels	Convectors or Unit Heaters	Cast Iron Radiators	Cast Iron Baseboards
25	H15	H15	H15	H15
50	H15	H15	H30	H30
75	H30	H30	H30	H60
100	H30	H30	H60	H60
125	H30	H60	H60	H90
150	H30	H60	H90	H90
175	H60	H60	H90	H90
200	H60	H60	H90	H90
250	H60	H90	H90	CALL
300	H90	H90	H90	CALL
350	H90	H90	CALL	CALL
400	H90	CALL	CALL	CALL



## Contact Information

### ABOUT BACKSTOP®

BackStop® Products are an integral part of a complete line of gas and waterflex connectors and specialty plumbing items from DuraTrac, LLC headquartered in Brea California.

For ordering details, to locate a dealer, or for product warranty information, please call customer service at 1-866-678-8214 or visit us online at [www.backstop.net](http://www.backstop.net).

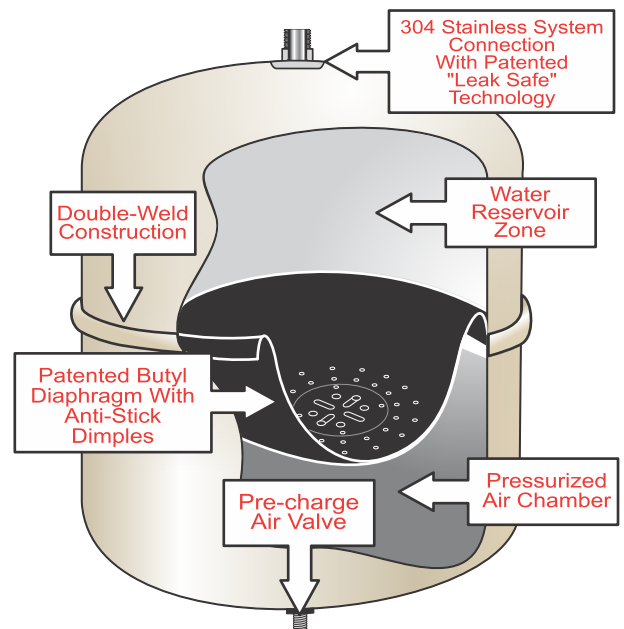


## Features and Benefits



*BackStop® takes pride in offering only the best quality products at an exceptional value. We engineer our tanks to provide a lifetime of safe operation in both residential and commercial applications. Here are some of the advantages when choosing BackStop®.*

- Industry leading 6 year warranty on manufacturing defects.
- Safely protects and extends life of the water heater boiler and the entire system.
- Insures efficient operating performance.
- Electrostatically applied appliance quality coating.
- High-grade steel construction with double rolled seals.
- In stock for immediate delivery.
- IAPMO & NSF certified or ASME approved models offered.



*Every BackStop Tank ships with a protective cover on the air pressure valve to help insure that the factory pre-charge is always kept.*



**WARNING:** BackStop® tanks must be installed only by a qualified, licensed professional in accordance with local plumbing codes. Maintenance inspections of the complete heating system should be performed by a licensed plumber annually. The tank's pre-charge should be tested and adjusted to the correct pressure as needed.



# **BACKSTOP<sup>®</sup>**

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**1-866-678-7814**  
**[www.backstop.net](http://www.backstop.net)**



**Please contact your nearest  
authorized BackStop Representative for more details.**