

*"Preferred by  
Professionals"*



**BACKSTOP<sup>®</sup>**

A Division of *elbi* of America

*Diaphragm-Type  
Safety Tanks  
& Accessories*

**PRODUCT  
CATALOG**



## Our Guarantee

**Products Covered: Pressure 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® Pressure 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.

**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.  
1210 N. Red Gum St., Anaheim, CA 92806**

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.**

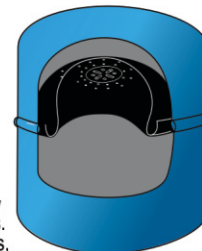
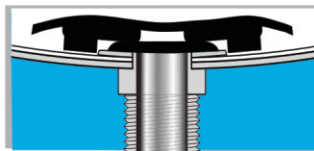
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## Leak Safe Technology

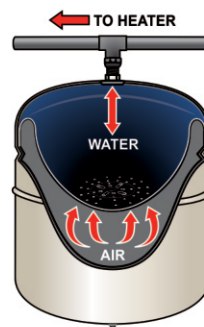


All BackStop® system connections use our patented "LeakSafe" technology, professionally engineered using the best quality components. We use solid 304 stainless steel, plasma welds, and a specialized double clamping process to achieve the securest connection possible.

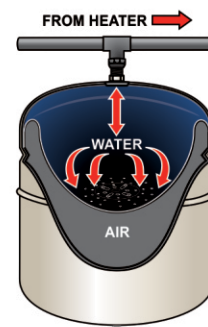
## How BackStop® Works

BackStop® protects safety valves from failing or wearing out quickly, protects against 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.



Under Normal System Pressure



With Increased System Pressure

## 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 **MUST** be tested and adjusted to the correct pressure as needed.



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### 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® H Series Hydronic Expansion Tanks** are diaphragm type tanks designed to keep system pressures below relief valve settings. **BackStop® Tanks** absorb the expansion of water in residential or commercial hydronic (forced hot water) heating and cooling systems. Without **BackStop® Tanks**, the system will quickly over-pressurize resulting in added stress to the various system components. **BackStop®** protects safety valves from failing or wearing out quickly, protects against valve stem and ball seal leaks, prevents wasted BTUs, and vastly extends the life of the system.

## Product List

Model	Volume (gal)	Height	Diameter	Sys. Con.	Ship Wt.
12-H15	2.1	12-1/2"	8"	1/2"	4.25 lbs
12-H30	4.5	15"	11"	1/2"	7.5 lbs
12-H60	6	16-5/8"	11-1/2"	1/2"	8.75 lbs
12-H90	14	23-1/2"	15-1/2"	1/2"	19 lbs
12-H120	20	30-1/2"	15-1/2"	1"	31 lbs
12-HX60	27	29"	20"	1"	48 lbs
12-HX90	40	37"	20"	1"	63 lbs
12-HX100	53	40"	24"	1-1/4"	80 lbs
12-HX110	66	46"	26"	1-1/4"	90 lbs
12-HX160	80	48"	26"	1-1/4"	112 lbs

ASME models are also available. Please call for further details.



**BackStop® Tanks** are finished with an appliance-quality coating that is resistant to harsh conditions.



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# THERMAL EXPANSION TANKS

## A Series (non-ASME)

# BACKSTOP®

### 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



### OPERATING LIMITATIONS

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

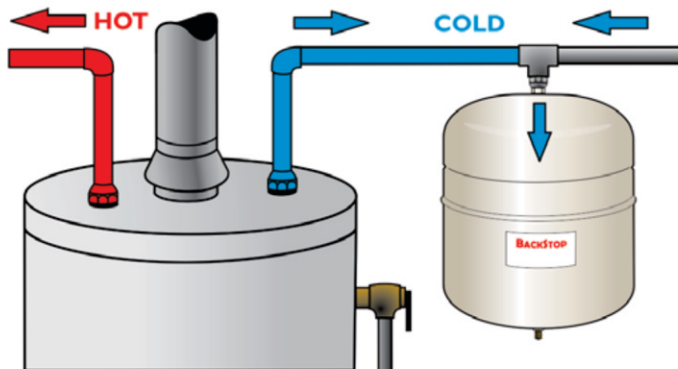
### APPLICATION

**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-A100	0.5	8.7"	5.5"	3/4"	2.6
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.

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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.	Total Tank Volume (gal.)	Height Base Included (Inch)	Diameter (Inch)	Length (Inch)	Gross Wt. (lbs.)	System Conn.
12-APT18H	4.5	12.2	11	14.3	9.7	3/4"NPT
12-APT24H	6.0	12.8	11.4	16.3	11.9	3/4"NPT
12-APT38H	10	12.8	11.4	22.2	16.4	3/4"NPT
12-APT58H	14	16.9	15.3	21.1	24.5	1"NPT
12-APT80H	20	16.9	15.3	28.1	32.5	1"NPT
12-APT100H	28	18.5	17.0	28.1	29.8	1"NPT

### Product List

Model No.	Description	
12-SS1204	Stainless Steel Tank Adapter	3/4" FIP Cap Drilled 1/4"FIP
12-SV12	Self Piercing Saddle	For all Size Expansion Tanks.
12-STAND	Plastic Tank Base	For 14 & 20 Gallon Tanks



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# PRE-PRESSURIZED WELL TANKS

## AW Series

# BACKSTOP®



### 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  
**Factory Pre-set Pressure:** 35 PSI

### OPERATING LIMITATION

**Max. Pressure:** 150 PSI  
**Max. Temperature:** 200° F

### APPLICATION

Backstop® Well Tanks provide optimal control of pump performance by allowing efficient cycling, in turn, extending the life of the pump. Each Backstop Well Tank is pressure rated up to 150PSI and equipped with a solid 304 Stainless Steel connection. We use high-grade steel for an optimal strength to weight ratio. As an added benefit, every tank comes finished with an appliance-quality coating that is resistant to sunlight and harsh conditions. For your family's safety concerns all tanks are completely lead free.



## Product List

Model No.	Total Tank Volume (gal.)	Number of Shells	Total Accept Volume (gal.)	Height Base Included) (Inch)	Diameter (Inch)	Gross Wt. (lbs.)	System Conn.
12-AW100	0.5	2	0.25	8.7	5.5	10.4	3/4"NPT
12-AW101	2.0	2	.9	12	8.0	5.07	3/4"NPT
12-AW102	4.5	2	2.5	14.3	11	8.16	3/4"NPT
12-AW110	10	3	5.2	22.2	11.4	15	3/4"NPT
12-AW103S	14	2	11.3	23.4	15.3	24.3	1"NPT F Elbow (Plastic Base)
12-AW104S	20	2	16.2	27.3	17	30.9	1"NPT F Elbow (Plastic Base)
12-AW105ST-2	28	2	18	30.1	16.9	33	1"NPT F Elbow (Plastic Base)
122-AW132ST	32	5	15	45.2	15.3	50.1	1"NPT F Elbow (Plastic Base)
12-AW105S	34	2	22.5	30.9	21.7	54.1	1-1/4"NPT F Elbow (Steel Base)
12-AW106S	44	2	30	36.7	21.7	61.3	1-1/4"NPT F Elbow (Steel Base)
12-AW107S	62	3	35.2	47.1	21.7	83.2	1-1/4"NPT F Elbow (Steel Base)
12-AW108S	81	4	44	57.6	21.7	103.9	1-1/4"NPT F Elbow (Steel Base)
12-AW186S	86	2	60.2	45.5	25.6	106.9	1-1/4"NPT F Elbow (Steel Base)
12-AW109S	119	3	95.1	55.5	25.6	135.6	1-1/4"NPT F Elbow (Steel Base)

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

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### 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.

## Potable Water ASME Thermal Expansion Tanks

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	11	26"	12"	3/4"	47
12-HC40	25	33"	16"	1"	90
12-HC60	35	45"	16"	1"	111
12-HC80	45	38"	20"	1"	147
12-HC100	60	49"	20"	1"	167
12-HC120	70	46"	24"	1 1/2"	225
12-HC144	80	49"	24"	1 1/2"	245
12-HC180	90	52"	24"	1 1/2"	265
12-HC200	115	66"	24"	1 1/2"	295
12-HC240	140	78"	24"	1 1/2"	425
12-HC260	158	61"	30"	1 1/2"	475
12-HC280	211	79"	30"	1 1/2"	645

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# ELBI ASME THERMAL EXPANSION & HYDRONIC EXPANSION TANKS

ACB - HCB Series

# BACKSTOP®

## MATERIALS

Shell: Carbon Steel

System Connection: Malleable iron

Coating: Epoxy gray exterior finish

Bladder: Heavy Duty Butyl Rubber

## OPERATING LIMITATION

Max. Working Pressure: 150 PSI

Max. Temperature: 240° F

## FEATURES

BackStop® Tanks are built in accordance with ASME Specifications. Seamless one piece butyl bladder for longer life. Epoxy gray exterior finish .



## Potable Water ASME Thermal Expansion Tanks

Model No.	Total Tank Volume (gal.)	Description	Diameter (Inch)	Height Base Included) (Inch)
12-ACB8	2 GAL	ASME THERMAL EXP TANK	10.6"	7.8"H
12-ACB19	5 GAL	ASME THERMAL EXP TANK	10.6"	7.8"H
12-ACB30	8 GAL	ASME THERMAL EXP TANK	15.8"	13.1"H
12-ACB45	12 GAL	ASME THERMAL EXP TANK	15.8"	13.1"H
12-ACB80	21 GAL	ASME THERMAL EXP TANK	15.8"	33.7"H
12-ACB100	26.5 GAL	ASME THERMAL EXP TANK	19.7"	26.2"H
12-ACB140	37 GAL	ASME THERMAL EXP TANK	19.7"	32"H
12-ACB170	45 GAL	ASME THERMAL EXP TANK	19.7"	50"H
12-ACB200	53 GAL	ASME THERMAL EXP TANK	21.7"	50"H
12-ACB300	80 GAL	ASME THERMAL EXP TANK	25.6"	51"H
12-ACB400	105 GAL	ASME THERMAL EXP TANK	25.6"	60"H
12-ACB450	120 GAL	ASME THERMAL EXP TANK	25.6"	67"H

## ASME Hydronic Expansion Tanks

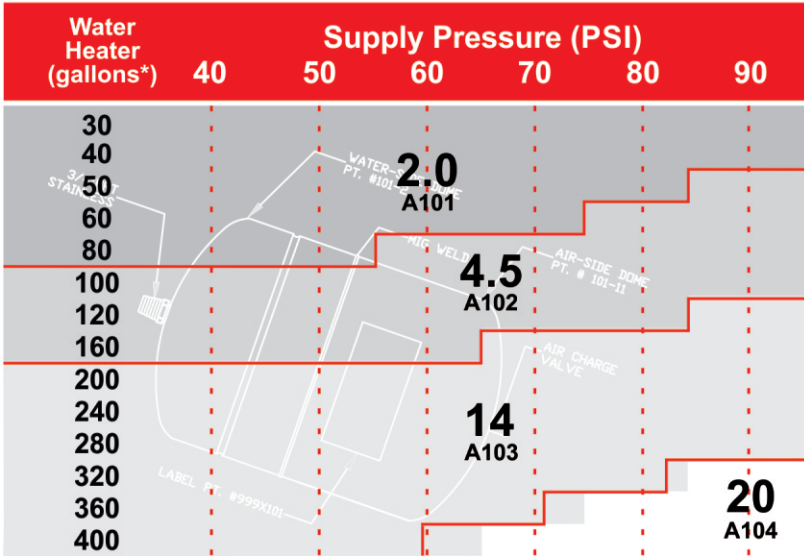
Model No.	Total Tank Volume (gal.)	Description	Diameter (Inch)	Height Base Included) (Inch)
12-HCB8	2 GAL	ASME BAG EXP TANK	10.6"	7.8"H
12-HCB19	5 GAL	ASME BAG EXP TANK	10.6"	7.8"H
12-HCB30	8 GAL	ASME BAG EXP TANK	15.8"	13.1"H
12-HCB45	12 GAL	ASME BAG EXP TANK	15.8"	18.3"H
12-HCB80	21 GAL	ASME BAG EXP TANK	15.8"	33.7"H
12-HCB100	26.5 GAL	ASME BAG EXP TANK	19.7"	26.2"H
12-HCB140	37 GAL	ASME BAG EXP TANK	19.7"	32"H
12-HCB170	45 GAL	ASME BAG EXP TANK	19.7"	50"H
12-HCB200	53 GAL	ASME BAG EXP TANK	21.7"	50"H

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### Thermal 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 Anaheim California. For ordering details, to locate a dealer, or for product warranty information, please call customer service at 1-866-678-8214.



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# TANKLESS WATER HEATER EXPANSION TANKS

# BACKSTOP®

**Introducing Backstop®'s newest product in the thermal expansion lineup!**

**A "Must Have" for every tankless water heater installation!**

**12-TWH1** (Plain Top)

**12-TWH2** (With Air Valve)



**All Stainless Steel**

**Easy to Install**

**Tested & Approved by IAPMO**

The new 12-TWH1 & TWH2 all stainless steel tankless water heater expansion vessel is designed for use with tankless water heaters or point of use (P.O.U.) water heaters having 2 gallons or less volume.

This new device absorbs thermal expansion and pressure surges in tankless and (P.O.U.) water heaters to protect the heat exchanger. They can also be used as a shock suppressor (water hammer arrestor) for appliances with a fixture unit capacity of 11 ("A" size). This unit is durable and corrosion resistant.

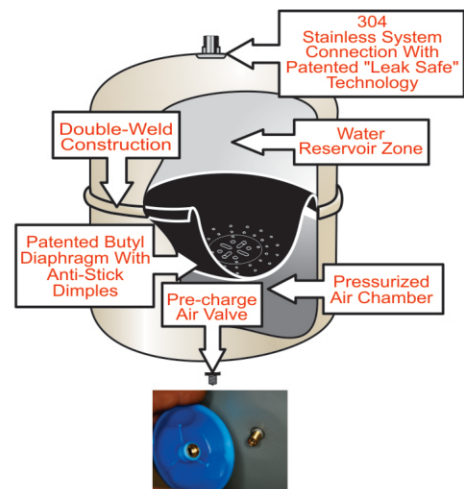
The unit is tested and approved by IAPMO, and tested at the IAPMO lab to the NSF 61 standard for potable water. The system connection is 1/2" MPT Stainless steel and is supplied with or without an air charge valve.

## Features and Benefits



- Industry leading 6 year warranty on manufacturing defects.
- Safely protects and extends life of the water heater boiler and the entire system.
- Ensures 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.

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®.



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

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**EXPANSION TANKS WITH FEATURES & BENEFITS //**

# BACKSTOP®

"Preferred by Professionals"



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**[www.backstop.net](http://www.backstop.net)**



Please contact your nearest  
authorized BackStop Representative for more details.