

### Heatguard® Thermostatics

Cash Acme offers a wide range of mixing valves for both residential and commercial applications.

For more information visit:

[www.cashacme.com](http://www.cashacme.com)

For more information on Cash Acme's Tank Booster visit:

[www.cashacme.com/product/tank-booster/](http://www.cashacme.com/product/tank-booster/)



**Informational Disclaimer:** According to the U.S. Centers for Disease Control, an estimated 8,000 to 18,000 people in the U.S. get Legionnaires' disease each year. The CDC also estimates that 10 to 30 percent of these cases result in death. Although Legionella bacteria can be found in many types of water systems, the bacteria reproduce to high numbers in warm, stagnant water (78-122°F). The organism is spread when water, in the form of fine mist, is inhaled. A drastic reduction in the number of bacteria results from storing hot water at 140°F. This effectively lowers the risk of infection. In conjunction with a higher storage temperature, a thermostatic mixing valve should be installed, to once again lower water temperature to 120°F or below, thus providing greater protection from scalding. The Occupational Health and Safety Administration (OSHA) recommend the utilization of thermostatic mixing valves with a water heater installation. With water stored at higher temperatures, and by using a thermostatic mixing valve, you can afford your family greater protection from Legionnaires' disease and scalding.

#### Internet links for more info:

[www.cashacme.com/resources/hot-water-safety/](http://www.cashacme.com/resources/hot-water-safety/)

**CASH ACME**



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## HEATGUARD® TANK BOOSTER™ PRO

*Are you running out of hot water?*

*Having to downsize your water heater due to NAECA?*

## TANK BOOSTER PRO



**IS YOUR SOLUTION!**



#### Approvals & listings based on specific models:

ASSE 1017, ASSE 1069, ASSE 1070,  
CSA B125.3, NSF/ANSI 372, NSF/ANSI 61.  
Listed by ASSE, CSA & IAPMO.

TankBooster\_TRL\_11.14\_v7\_FINAL

# THE PROBLEM

## 1. Running out of Hot Water

Increase usable hot water by up to 50%\* with the Tank Booster PRO. This innovative valve was designed with safety and convenience in mind. Easily installed, the Tank Booster PRO combines hot and cold water before distributing safe tempered water to your fixtures. By raising the temperature of your water heater, the Tank Booster PRO draws less water out of your tank while still providing 120°F water throughout the home. This gives your tank the "boost" it needs.

## 2. Help Prevent Legionella Bacteria Growth and Scalding

This bacteria thrives in warm water environments (i.e. 120°F or less), and is thus a potential problem in hot water distribution systems. Water stored at 120°F or less can provide ideal conditions for the growth of Legionella bacteria within the water heater. It is necessary to store water at 140°F or higher to minimize the bacteria growth.

Protect your family and increase the safety of your home's hot water system. By increasing the temperature on your water heater to 140°F, you greatly reduce the chance of growing Legionella or other bacteria within your tank. In addition, Tank Booster greatly reduces the risk of scalding by safely tempering hot water before it is delivered to your fixtures.

## Protection Against Legionella and Scalding

### Legionella Bacteria STORE ABOVE 140°F

Disinfection: >160°F

Legionella die in <2 minutes **160°F**

Legionella die in 32 minutes **140°F**

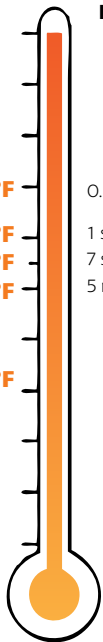
Legionella die in 5-6 hours **130°F**

Ideal growth range: 90°F - 108°F

Legionella growth range: 70°F - 120°F

**70°F**

Legionella survive but dormant: <70°F



### Scalding DELIVER BELOW 120°F Third Degree Burns

0.5 secs children, 1 secs adults

1 secs children, 5 secs adults

7 secs children, 30 secs adults

5 mins children and adults

## 3. Your water heater is getting bigger!

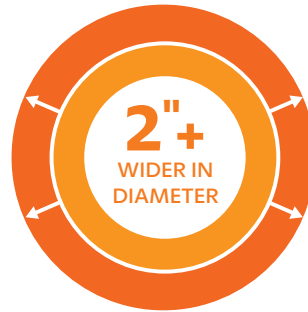
With NAECA (National Appliance Energy Conservation Act) regulations taking effect on April 16th, 2015 new energy efficiency standards will be mandated on all residential water heaters. These standards will impact the size of water heaters and space restrictions.

### What does this mean to you?

Larger water heaters mean more space is required for installation. The same water heater you have now could increase in size an extra 2" in diameter and 2" taller. For example, due to added insulation, a 30 gallon water heater will become approximately the same size of a current 40 gallon water heater\*\*.

For installations where space is an issue, like in closets or multifamily housing, a smaller capacity water heater will be necessary. That means replacing the 30 gallon water heater with a 20 gallon water heater due to the size constraints.

If you are installing larger than a 55 gallon electric water heater, it will now have to be a heat pump water heater. This will increase your equipment cost by more than double. Install a 50 gallon electric with Tank Booster PRO to produce up to 75 gallons of usable hot water and reduce your cost\*.



For example, the diameter of a new unit that has the same gallon capacity as an existing unit may be two or more inches wider.

In addition, the height of a new unit with the same gallon capacity as an existing unit may be two or more inches taller.



# THE SOLUTION

Installing a Tank Booster PRO on your water heater will increase the amount of usable hot water in the tank, especially when you have to "downsize" when replacing your water heater after April 16th, 2015.

The mixing valve will allow for the water to be stored at 140°F to reduce the growth of Legionella, and deliver to the fixture at 120°F to reduce the risk of scalding.

Adding a Tank Booster PRO allows for additional hot water without having to buy a larger water heater, ideal in situations where space is limited.

### Benefits of a mixing valve

- Water heaters with a Tank Booster PRO increase your usable hot water capacity.
- Legionella is destroyed within 2 minutes at temperatures of 140°F and killed instantly at 158°F.



ASSE 1017/1070

Part # 24832

## Getting More Hot Water (based on 30 gallon water heater)

Gallons of Hot Water by Storage Temp.				
	Incoming Water Temp. (°F)			
Storage Temp (°F)	45	55	65	75
120	30	30	30	30
140	38	39	41	43
160	46	48	52	57
180	54	58	63	70

Percentage Increase of Hot Water by Temp.				
	Incoming Water Temp. (°F)			
Storage Temp (°F)	45	55	65	75
120	BASELINE			
140	27%	31%	36%	44%
160	53%	62%	73%	89%
180	80%	92%	109%	133%

\*Results may vary based on usage conditions.

\*\*Will vary by Manufacturer.