



# Teal Aquatherm

## OVERVIEW



## Overview

Teal Aquatherm applies the traditional Teal concepts of vertical hot water management to a system that combines hydronic space heat + domestic hot water by utilizing a shared equipment package and shared hot water distribution piping. In other words, a water heating and piping system that delivers potable hot water and hydronic space heating.

The Teal Aquatherm system should be considered in climates where gas space heat is desirable. Teal Aquatherm is an alternative to traditional Aquatherm systems which utilizes an upsized gas fired water heater combined with a hot water fan coil and pump in each apartment.

Teal Aquatherm utilizes a fan coil and pump similar to the traditional Aquatherm systems, but depends on a Central Plant which is owned and operated by Teal as its energy source. Teal Aquatherm eliminates large gas fired water heaters inside each apartment and all the hot water and hydronic water for the property is generated by the Teal Aquatherm System. The hot water is then piped throughout the property via a hot water main (or mains). When there is a demand for heat in an apartment, the small pump draws water from the hot water main to the heater fan coil; likewise, when a resident runs water via the sink or shower, there is an unlimited supply of hot water in the main waiting to flow through the apartment's faucets.

The water heater in each apartment is eliminated and replaced with a “zero-down-time” gas hot water system. The system is large enough to supply unlimited hot water to the entire property. The residents never run out of hot water.

## The Teal System can:



Deliver construction costs savings



Eliminate maintenance costs



Reduce energy costs



Increase equity



Provide a desirable amenity



Supply a GREEN space heating and hot water solution



## Teal System Benefits the Developer, Owner, and Resident

The developer doesn't need to purchase a water heater. There are no maintenance costs during the 15-year term agreement other than the owner's ongoing cost for the Teal Aquatherm agreement which is only \$500 per year for the entire property.

The resident pays for gas consumption and a small boiler maintenance fee. The fee is normally offset by the savings realized from using the highly efficient Teal Aquatherm System in lieu of electric hot water and space heating appliances. The result turns to net savings for the resident and virtually no costs to the owner.

Teal Aquatherm bundles 7 elements of vertical hot water management:

- 1 Design collaboration
- 2 Construction management
- 3 Leasing and billing support
- 4 Total maintenance
- 5 Energy management
- 6 24/7/365 monitoring
- 7 State of the art plug and play equipment







## Benefits to the Property Owner

Property owners enjoy the benefits of lower costs, higher profits, and fewer problems with the Teal Aquatherm System.



### Lower Construction Costs

Because the Teal System is centralized, the costs associated with installing individual water heaters is eliminated. With Teal, there is no cost for purchasing the up sized water heater in each unit or installing the associated plumbing and trim. While additional hot water piping and equipment are required, the overall costs are typically lower than traditional water heaters. The gas infrastructure and flue gas venting may also be eliminated from each apartment's living space.



### Lower Operating Costs

With Teal, the property owner incurs no cost for water heater maintenance. Additionally, the owner and resident avoid potential property damage from water heaters that leak. The gas piping and flue gas venting may be eliminated from the residents living space, providing a safer environment for the resident.



### Improved Profit, NOI, and ROI

Lower operating costs and better leasing performance will improve net operating income (NOI). Lower construction costs and higher NOI improve everyone's Return On Investment.

Footnote: \* In some cases, owner provided water softener or conditioning may be necessary.





## Benefits to the Resident

Residents love the cost savings, luxury, and convenience the Teal hot water system offers. They also appreciate that it is environmentally friendly.



## Energy Savings

The Teal system can save the resident energy; we accomplish this in the following ways:

- 1 A highly efficient central system in lieu of less efficient high volume water heaters.
- 2 We provide 24/7/365 days a year monitoring and energy management logic with each system.
- 3 Each Teal Aquatherm system includes perpetual maintenance making sure the hot water system is functioning at peak performance all the time.
- 4 The Teal system reduces the stand by energy loss created with water heaters which store 60 to 80 gallons of hot water each (a 300 unit apartment with 60 gallon water heaters has 18,000 gallons of hot water standing dormant and losing energy 24 hours every day).



## Luxury of Unlimited Hot Water

Residents value the luxury of never running out of hot water. Whether they are filling roman tubs, running showers, doing laundry, or washing dishes, all can be done at the same time and the hot water keeps flowing.



## More Usable Space

Space that would have housed a typical water heater turns into usable square footage in every residence — the water heater space can now be a usable closet! Because there is no water heater in the resident's apartment, there is one less reason for maintenance intrusions as well as an avoidance of potential water leaks and/or property damage.



## Green

Traditional high capacity water heaters utilize over 100 pounds of steel and material to construct and may be installed and replaced 3 or more times over the life span of the Teal equipment. The Teal Aquatherm System, which will utilize 75% less material, can last 20 to 30 years. In addition, the Teal Aquatherm System uses less energy and will emit lower emissions than traditional water heaters.