A WATTS Brand

Installation, Operation & Maintenance Manual

Commercial and CONQUEST® AquaPLEX® Storage Tank

Disclaimer:

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Manufacturing ASME Commercial Water Heaters Since 1961

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IMPORTANT

Read this Manual BEFORE using this equipment. Failure to read and follow all safety and use information can result in death, serious personal injury, property damage, or damage to the equipment.

Keep this Manual for future reference.

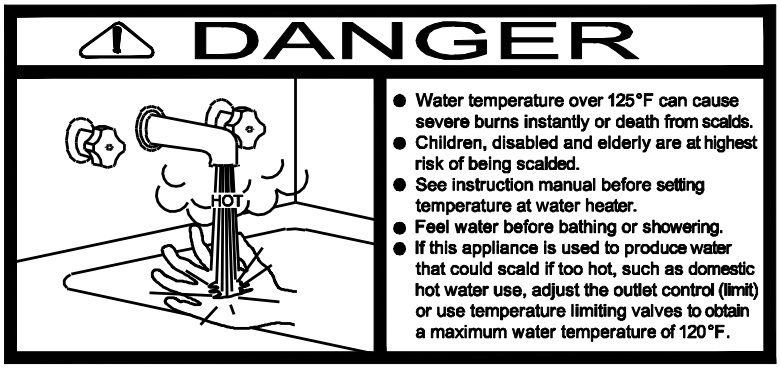
1. SAFETY CONSIDERATIONS

It takes only 5 seconds of skin contact with 140°F water to cause a second degree burn! You must protect against high water temperatures at all lavatories, tubs, showers and other points of hot water contact.

Accidental scalding from high water temperatures is a greater risk in some types of installations. Some examples are:

HOMES FOR THE MENTALLY HANDICAPPED
HOMES FOR THE PHYSICALLY HANDICAPPED
HOSPITALS AND NURSING HOMES
ELDER CATE FACILITIES AND REST HOMES
ORPHANAGESAND CHILD CARE FACILITIES

OTHER INSTALLATIONS – WHERE RESPONSE TO CONTACT WITH HOT WATER MAY BE SLOWER OR WHERE THE DANGER OF HOT WATER CONTACT IS GREATER

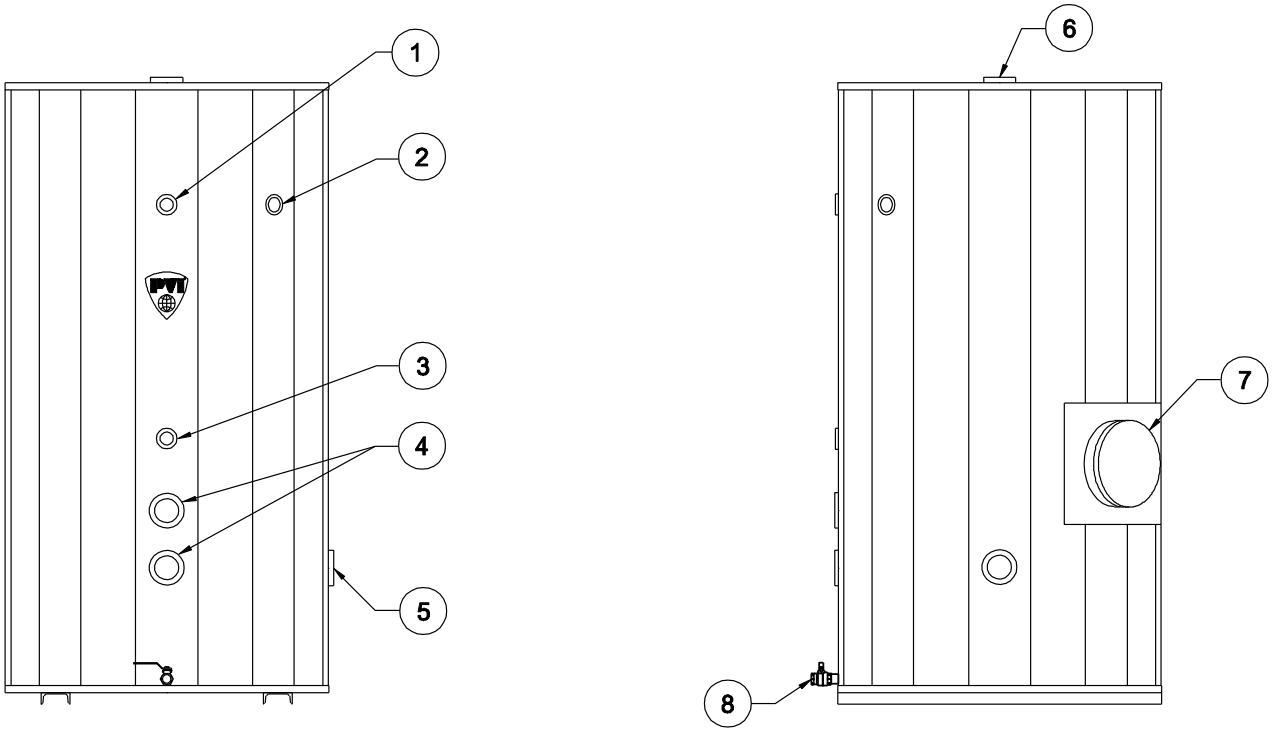


Thermostatically controlled mixing valves must be used in the design of the potable hot water system.

Potable hot water should be tempered to no more than 110°F when used for bathing or other personal use.

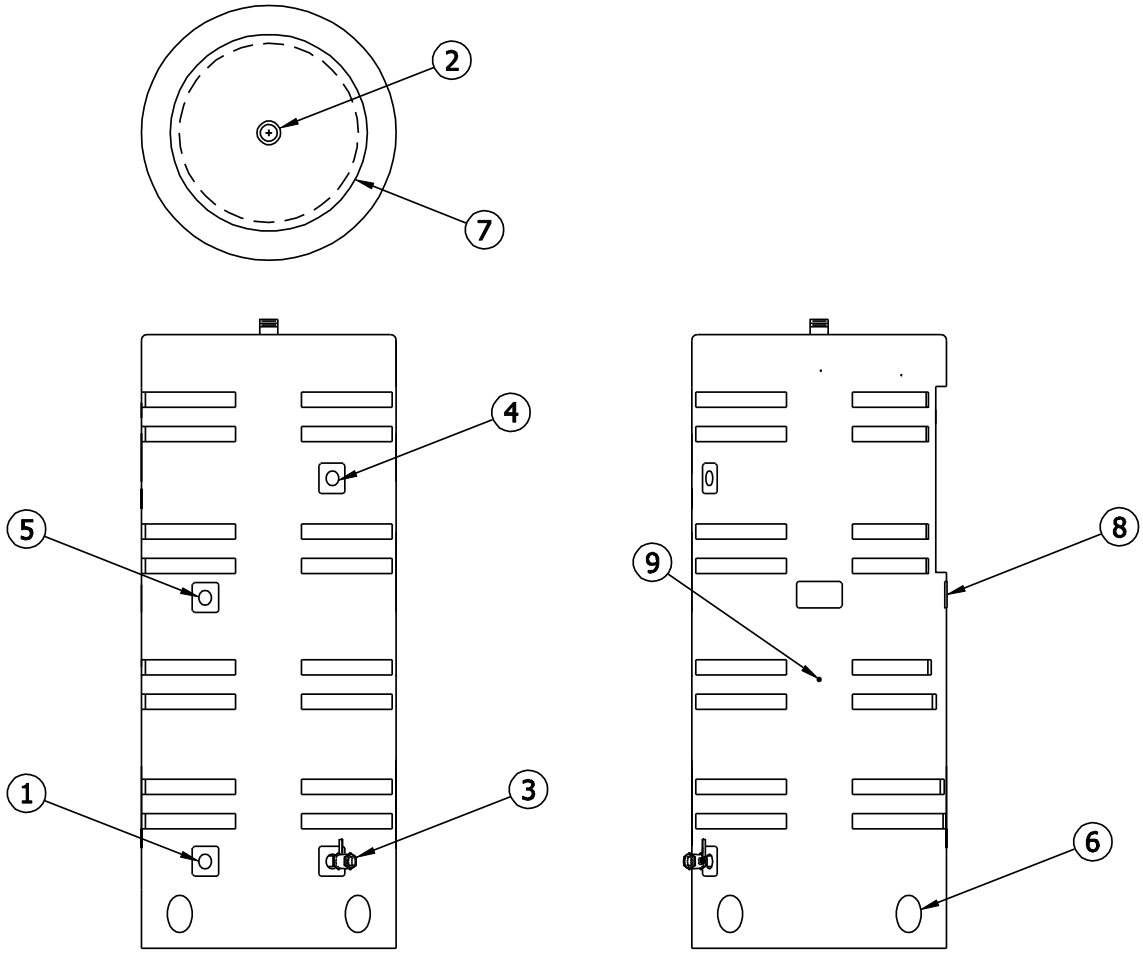
Good engineering practice mandates the use of thermostatically controlled mixing valves set at 120°F to keep the delivered water temperature below scalding temperatures.

2. PRODUCT DESCRIPTION



AquaPLEX® Storage Tank

1. Temperature gauge fitting
2. T&P valve fitting
3. Thermostat fitting
4. Circulating connections
5. Cold water inlet and Building return connection
6. Hot water outlet
7. Manway access (250 gallon and larger)
8. Drain valve



Conquest® AquaPLEX® Storage Tank

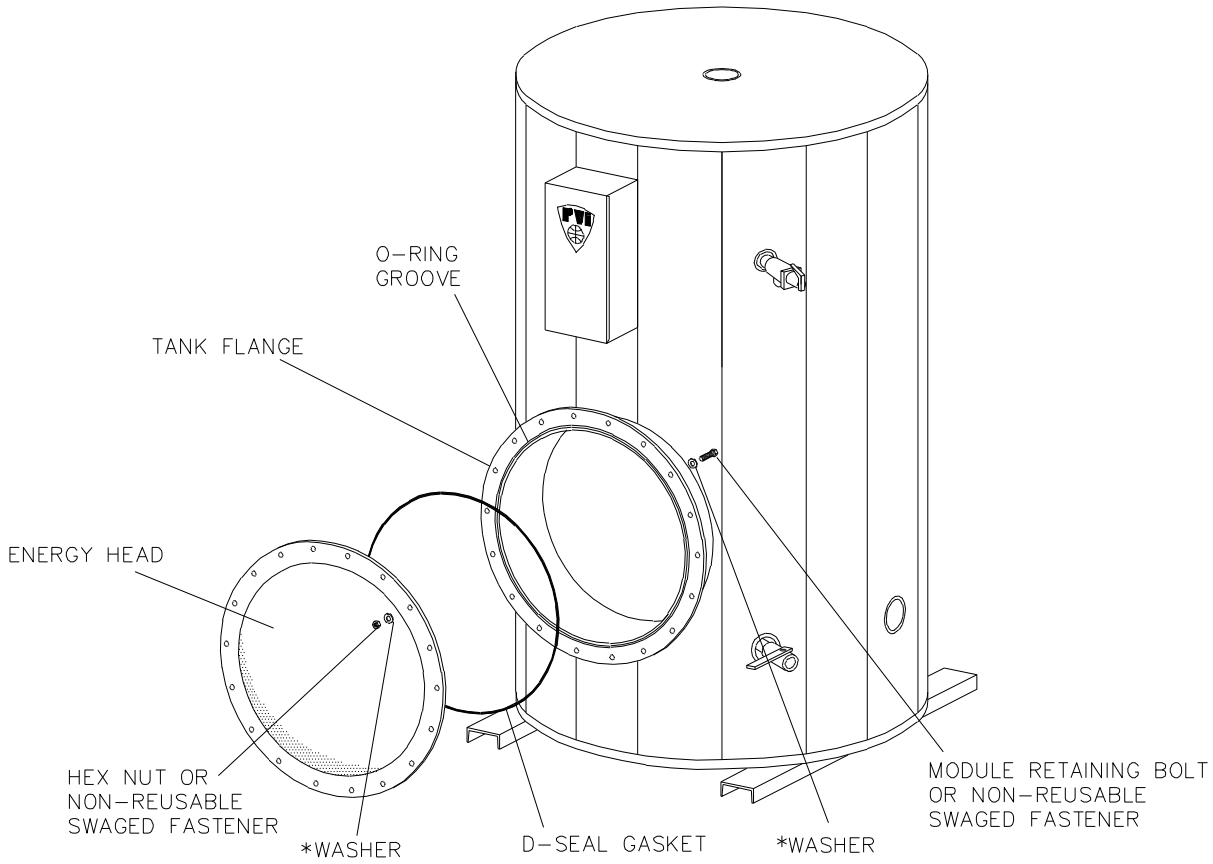
1. Cold water inlet
2. Hot water outlet
3. Drain valve
4. T&P valve fitting
5. Return water connection
6. Access to attachment points for floor anchors
7. Top access
8. Temperature sensor fitting
9. Optional tie down points, kit attachment points inside jacket (field installed, each side)

3. BOLTED HEAD REMOVAL

AquaPLEX Commercial Storage Tanks MAY have one or more removable heads used to access the tank (See Figure 1, maybe located on top of head). If it is necessary to remove a head, the existing bolts and nuts should be replaced. Contact your PVI Representative or the factory at 1-800-433-5654 to order a D-Seal replacement kit:

Part Number 116816 Kit, Fastener Flange 18 Holes w/Instruction Sheet Gr 8

Part Number 116817 Kit, Fastener Flange 40 Holes w/Instruction Sheet Gr 8



*NOT USED WITH SWAGED FASTENERS

4. INSTALLATION

Checking Equipment Before You Install

Inspect the unit completely upon receipt from the freight carrier before signing the bill of lading. Inspect the appliance and all accompanying parts for signs of impact or mishandling. Contact the freight carrier immediately if any damage or shortage is detected.

Water Quality Requirements

It is critical to ensure that the chemical composition is not harmful to the heater. PVI requires feedwater to be within the EPA defined limits for potable water. Potable water is defined as complying with the U.S. EPA primary drinking water regulations and secondary drinking water standards.

⚠ **WARNING:** Use industry standard safe rigging methods when attempting to lift or move this product. Failure to follow these instructions could result in property damage, serious injury, or death.

1. Locate the unit in a clean and dry area.
2. Install the unit on a firm, level foundation.
3. Locate the foundation on a pitched floor near a suitable drain or make other provisions to prevent contact to areas of the building subject to water damage should the tank or a water connection leak. The drain must be sufficient to contain water in excess of 210°F.
4. Carefully remove all shipping supports and bracing.
5. Install shut-off valves and unions on the inlet and outlet water piping for servicing. Use caution when threading pipe nipples into tank connections to prevent cross threading, or over-tightening. Always use a back-up wrench on tank nipples when tightening unions, valves, etc.
6. Insulate hot water and return circulation lines. Also, if subject to freezing during shutdown or during operation, insulate all water piping and take whatever steps are necessary to keep the appliance and all water containing pipes and components from freezing, such as heat tracing where appropriate.
7. The storage tank is equipped with a temperature and pressure relief valve. Pipe the relief valve discharge to a suitable open drain. The drainpipe may not be smaller than the relief valve opening and must be secured to prevent it from lifting out of the drain under discharge pressure. Do not install valves or restrictions in the discharge line.
8. Pipe the drain valve to a suitable open drain.

IMPORTANT!

Do not use standard galvanized, plain steel, or dielectric pipe nipples when making connections to the tank. Use only non-ferrous nipples.

5. MAINTENANCE

1. A preventative maintenance program should be established to assure a long, trouble-free life of the unit.
2. A scale of lime will normally form and accumulate in the storage tank during operation. The lime is formed from the natural chemicals in the water that precipitate out during the heating cycles. Some water supplies contain more of these chemicals than others, and the scale buildup will occur more rapidly. Other factors affecting the scale buildup are the amount of hot water used and the temperature of the water. The more hot water used, the more fresh water containing the scale-forming chemicals is brought into the tank. As the temperature of the water increases, the rate of scale deposited will be increased.
3. To control sediment and scale buildup in the water heater, the tank should be initially flushed at three-month intervals with frequency depending on water conditions in your location. To flush, open the drain valve and allow water to flow through the tank until it runs clear. Close the drain valve.
4. If the tank has a manway access for inspection and cleaning use. The tank should be inspected for scale buildup through this opening. If scale is present, it can be loosened with a high-pressure stream of water. The smaller pieces can be flushed through the drain and the larger pieces removed by hand. The frequency of inspections will be determined by the rate of scale buildup. We recommend 30-60 day intervals.
5. The temperature and pressure relief valve should be checked at regular intervals to determine its condition for safe operation. The openings inside the valve may become inoperative. If the valve does not open and close properly when tested, it must be replaced. Replace relief valve with a like kind or one meeting the requirements stated on the rating decal located adjacent to the relief valve mounting location.

   CAUTION: The relief valve is a primary safety device.
6. Extended shutdown of the appliance and restarting are as follows:
   a. Turn off all power on fuel supplies.
   b. Drain and flush tank as previously discussed.
   c. Tag all power switches to indicate that fuel is off and the tank is empty.
   d. Refill tank with water and energize fuel and power switches to restart. Reset all controls and conduct start-up of the appliance.

Since PVI cannot control use of the appliance, water conditions, or maintenance, the warranty on the heat exchanger does not cover poor performance, structural failure, or leaking due to accumulation of scale.

Warranty Forms Ship Separately with Each Product

MODEL NUMBER: _____

SERIAL NUMBER: _____

INSTALLATION DATE: _____

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