TRICON

Condensing Gas Fired Water Heater

399 to 900 MBH

Up to 95%
Thermal Efficiency
with seamless VFD modulation

AquaPLEX®
engineered duplex alloy tank and heat exchanger

- No tank lining
- No anode rods
- Superior to 316L stainless
- Super strong material for lighter weight
- 15 year tank and heat exchanger warranty

Pre-mix, low NOx burner with proportional gas/air

Electronic operating control with Modbus communication

PVI®
Engineered Water Heating Solutions®

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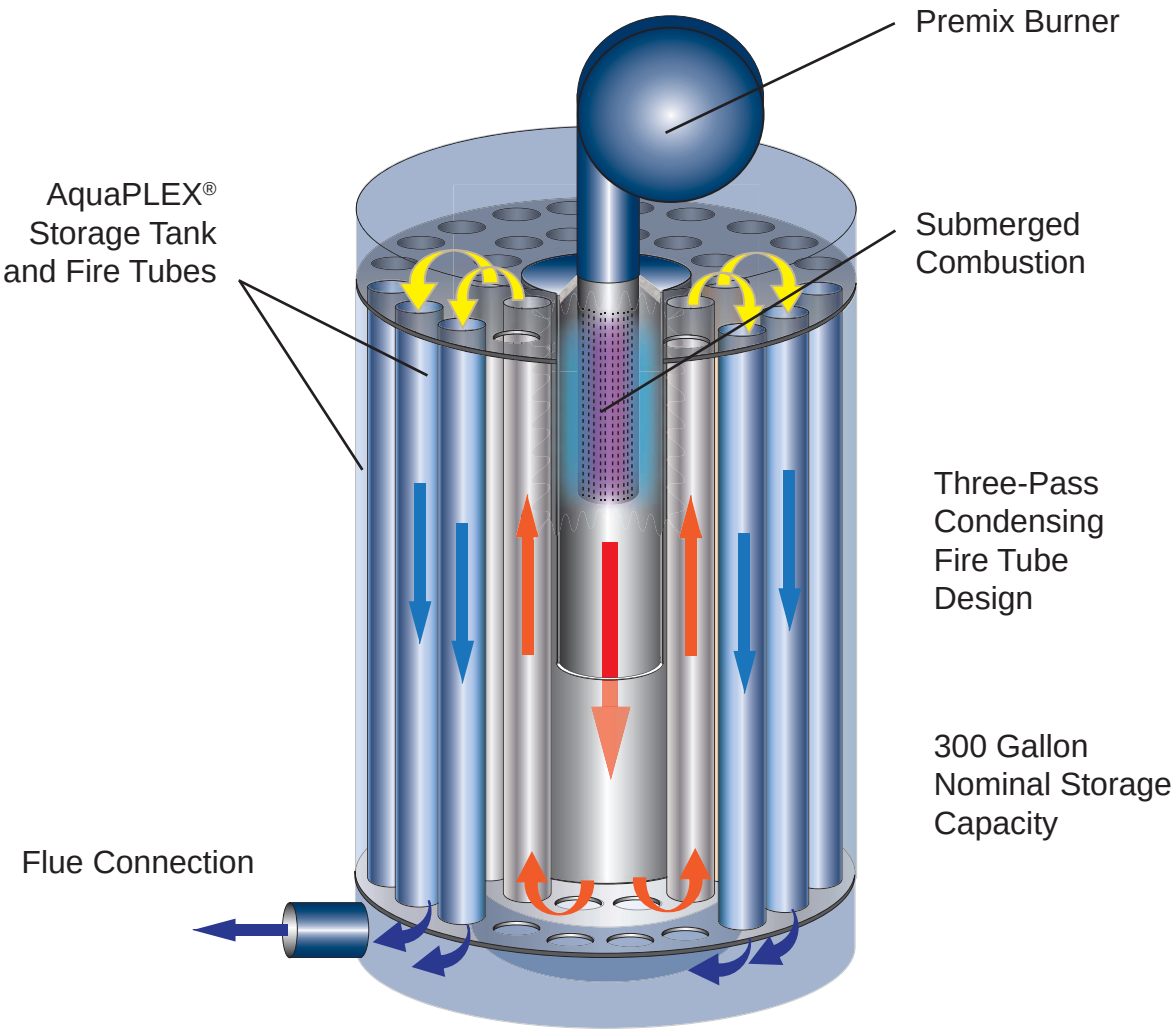


Efficiency increases with downward burner modulation to as high as 95% with 140°F leaving water temperature.

Draws inlet air through up to 100 equivalent feet while concurrently exhausting through 100 equivalent feet of 6-inch duct. Longer vent runs are possible through larger diameter material.

All components that contact condensate are constructed of corrosion resistant materials.

AquaPLEX tank requires no anodic protection, whether sacrificial or induced current.

All tank connections are non-ferrous and galvanically neutral to the AquaPLEX tank.

AquaPLEX tank is entirely robotically welded. Afterward, the tank is acid-cleaned and fully passivated in a process that involves complete submersion of the vessel.

AquaPLEX® construction for a "corrosion proof" water heater

The entire pressure vessel; shell, tube sheets and fire tubes, are fabricated from AquaPLEX, an unlined duplex alloy specifically engineered for potable water service with storage temperatures in excess of 200°F.*

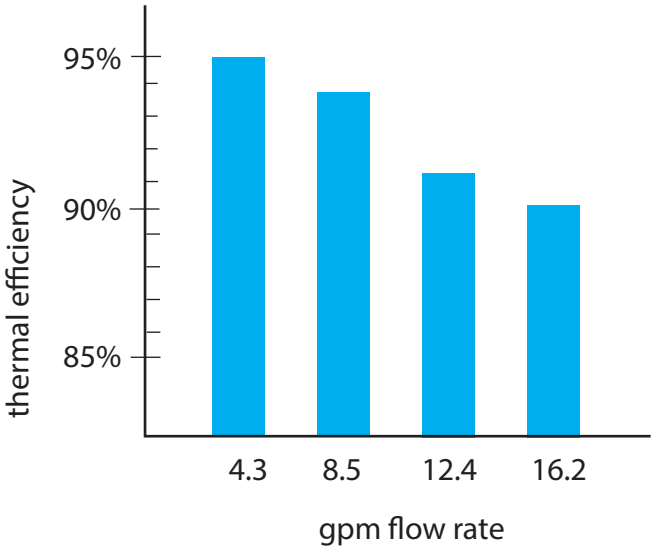
AquaPLEX combines the aqueous corrosion resistance of 316L stainless with the resistance to chloride corrosion seen in 400 series or ferritic stainless steels. This creates a water heater that is in every sense "corrosion proof" and results in unprecedented longevity in a water heater tank and heating surfaces.

TempTrac® electronic operating control with Modbus RTU communication

Precise and programmable water heater operation is provided by an electronic temperature control with digital readouts of water temperature. The control offers a serial connection using Modbus RTU protocol for communication with a building automation system. This allows remote viewing of set point, probe temperatures, operating hours and alarm condition and also provides for remote nighttime setback of operating temperature if desired.

Modulation through variable blower speed

As demand for hot water changes, the burner seamlessly modulates down through a VFD drive on the blower motor. The reduced rate allows the efficiency to climb as high as 95% during periods of low demand. The graph below shows the effect of modulation with 40°F entering and 140°F leaving water temperature in a 900 MBH TRICON water heater at different flow rates.



Stainless steel burner with dual-fuel capability

TRICON uses a stainless steel surface burner enabling low NOx operation. A zero-governor gas valve provides for infinitely proportional mixing of gas and air, assuring proper combustion under all vent pressure conditions. A combination natural gas and LP gas train is available for backup fuel utilization.

* maximum recommended storage temperature for general purpose potable water is 140°F.

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Available models and performance data

Model	Btu Input	Btu Output	GPH 70° to 140°F ①	GPH 40° to 140°F ②
50 L 300A-PVIF	500,000	450,000	823	588
75 L 300A-PVIF	750,000	675,000	1235	882
90 L 300A-PVIF	900,000	810,000	1482	1059

Parenthetical information in model number indicates available tank series.
① Recovery based upon 90% thermal efficiency per DOE10 CFR 431(ANSI Z21.10.3 @ 70°F to 140°F.
② Recovery based upon 92% thermal efficiency with 40°F entering water temperature.

Rough-in Heater Dimensions

Width	Depth	Height
45	54	94

Selected Standard Equipment

- < 20 ppm NOx
- AquaPLEX® tank and fire tubes (unlined duplex alloy)
- ASME stamped and National Board Registered for 150 psi (section IV, part HLW)
- Nonferrous, removable fittings at all tank connections
- Hand hole tank cleanout
- Fiberglass insulation
- Steel jacket panels with industrial-grade finish
- Drain valve
- Intertek / ETL listed to safety standard UL795
- Intertek / ETL certified as low-lead compliant
- FM compliant
- ASHRAE 90.1
- Seamless VFD modulation with up to a 4-to-1 turndown
- Pre-mix surface burner with self-adjusting, proportionate gas/air
- UL compliant gas train; includes regulator, dual safety shutoff valves and dual manual shutoff valves
- Electronic flame safeguard with pre- and post-purge
- Combustion sequence panel lights including lockout
- Programmable electronic operating control with digital temperature readouts
- Immersion temperature limiting device
- ASME-rated temperature and pressure relief valve
- NEMA-1 control enclosure
- 120V electrical supply
- Terminals for remote on-off control
- Switched contacts for remote lockout notification
- 15-Year tank and heat exchanger warranty
- First-year cost-free service policy
- Factory authorized startup

Selected Optional Equipment

- L.P. gas operation or dual fuel (natural and LP gas)
- GE-GAP (IRI) / CSD-1 code package
- Electronic low-water cutoff
- Manual-reset high limit
- CSA-rated temperature and pressure relief valve(s)
- Audible flame failure alarm with silencing switch
- Relay and proving terminals for remote combustion air louvers
- 485 serial cable to connect the electronic operating control to a Building Automation System (Modbus RTU)
- Alarm on any failure notification to BAS
- Protocol gateway for BacNet or Lonworks

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