



Tankless Gas Water Heaters



ENERGY STAR® QUALIFIED



U.S. CRAFTMASTER® COMPLETE LINE OF TANKLESS GAS WATER HEATERS

U.S. Craftmaster® Tankless Gas Water Heaters

Endless Hot Water.* Endless Innovation.

Trust U.S. Craftmaster® to give you more choices in tankless water heating. The comprehensive line of U.S. Craftmaster® tankless water heaters supplies endless hot water at preset temperatures*. All models are ENERGY STAR® qualified. Our Condensing models provide the highest energy efficiency, saving money in all applications.



All residential models:
110, 310, 320, 510 and 520

Product Features:

Innovative Technology

- Condensing models feature a 316L stainless steel secondary heat exchanger, providing additional protection against corrosion
- Increased flow rates provide continuous hot water (up to 10 GPM)
- Improved scale-reduction software
- Whole house water heating solution
- All models include internal freeze protection and multiple safety features
- Direct vent conversion kits available for indoor installations
- Applicable for residential hydronic heating applications

Excellent Performance

- Complete range of models from 140,000 to 199,000 BTU to cover every application
- Residential warranty: 12-year limited warranty on heat exchanger/5-year parts

Energy Efficiency

- All models are ENERGY STAR® qualified
- Condensing models provide the highest energy efficiency with 0.91 EF (Energy Factor)
- Models are eligible for Federal Tax Credit.
Visit www.uscraftmaster.com for more information.

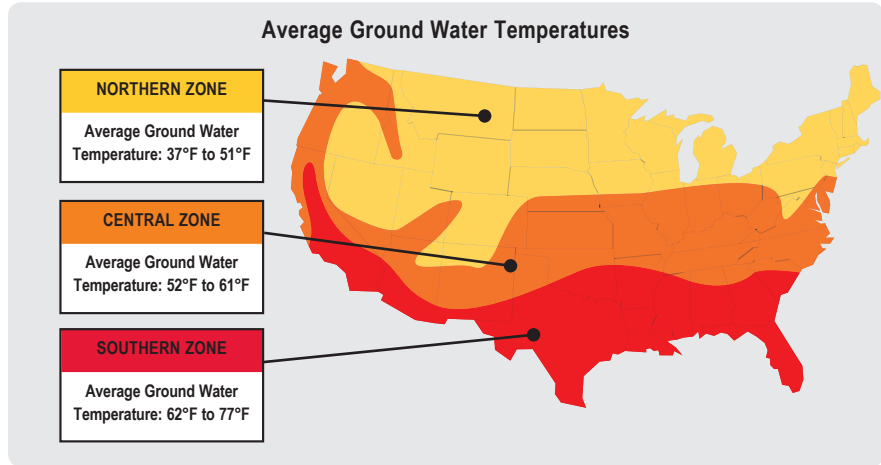
* U.S. Craftmaster® tankless water heaters provide endless hot water when sized appropriately for your home's needs.

Things to Consider Before Purchasing a Tankless Water Heater

Tankless water heaters have special installation requirements.

1. Gas supply - A 3/4" or larger gas supply pipe is required.
2. Venting - Some indoor models require Category III stainless steel venting purchased separately.
3. Gas Meter and/or Regulator - Must have enough capacity to supply all gas appliances in the home.
4. Isolation Valves - Make required periodic maintenance easier.

U.S. Craftmaster® has many other high efficiency water heating options available. One of these may be a better choice for your application.



Ground water temperature factor

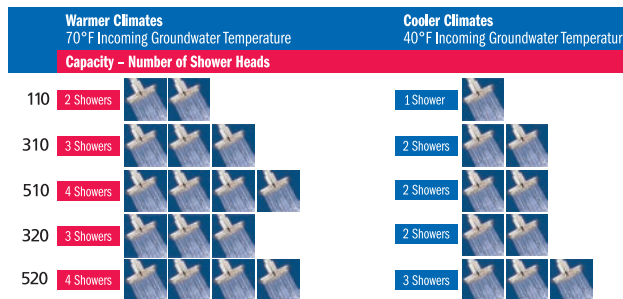
The temperature of incoming ground water (cold water inlet temperature) varies greatly throughout the U.S. and also fluctuates with the changing of the seasons. The temperature of water as it enters the water heater will determine the amount of "temperature rise" required to achieve the desired hot water outlet temperature (120°F is recommended).

The best way to measure your incoming ground water temperature is to use a thermometer to measure cold water temperature during the coldest season of the year. To simplify the process, use this map to determine whether your installation location is in the Southern Zone, Central Zone, or Northern Zone.

Peak hot water demand

The next step is to determine how much hot water will be required during the busiest usage period ("peak demand"). To use the chart, consider all appliances and fixtures that use hot water, including lavatory faucets, kitchen faucets, washing machines, dishwashers, showers, and bathtubs. Be sure to determine how many appliances and fixtures will be used at the same time ("peak demand").

Number of showers each U.S. Craftmaster® unit can handle, depending on ground water temperature



Assuming the outgoing temperature is 105°F - Assuming a standard showerhead of 2.5 GPM

Flow Rate Guide

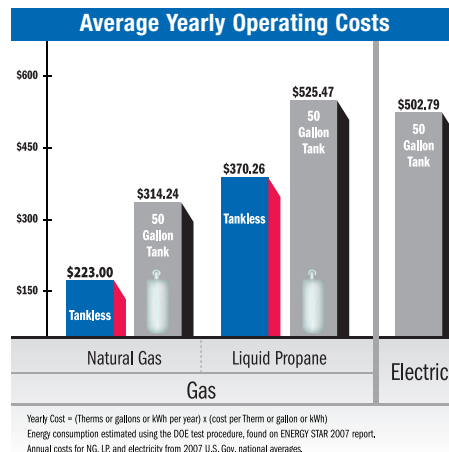
Temperature Rise vs Gallons Per Minute
Model Numbers

Temp Rise	110	310	510	320	520
30	6.6	8.0	10.0	8.0	9.0
35	6.6	8.0	9.3	8.0	9.0
40	5.7	7.8	8.1	8.0	9.0
45	5.1	6.9	7.2	7.3	8.1
50	4.6	6.2	6.5	6.5	7.3
55	4.2	5.7	5.9	6.0	6.7
60	3.8	5.2	5.4	5.5	6.1
65	3.5	4.8	5.0	5.0	5.6
70	3.3	4.4	4.7	4.7	5.2
75	3.1	4.1	4.3	4.4	4.9
80	2.9	3.9	4.1	4.1	4.6
85	2.7	3.7	3.8	4.0	4.3

Flow rate is determined by temperature rise. To determine your temperature rise, subtract the incoming water temperature from the set output temperature.

All units are factory set to 120°F or 122°F but can be changed.

Save Money



Yearly Cost = (Therms or gallons or kWh per year) x (cost per Therm or gallon or kWh).

Energy consumption estimated using the DOE test procedure, found on ENERGY STAR® 2007 report.

Annual costs for NG, LP and electricity from 2007 U.S. Gov. national averages.

U.S. Craftmaster® Tankless Gas Water Heaters

Each U.S. Craftmaster® tankless gas water heater is designed for a specific application. Consult your sales representative or contact U.S. Craftmaster® for specifications and recommendations on which model is right for your specific requirements.

MODEL SPECIFICATIONS

Model Number*	Type	BTU Input Natural/Propane		Energy Factor (EF)	Annual Operating Cost Nat / LP	Hot Water Output (GPM)		
		Minimum	Maximum			Maximum	45°F Rise	70°F Rise
RESIDENTIAL/LIGHT COMMERCIAL NON-CONDENSING MODELS								
GTU-110-NI	Indoor	19,500	140,000	0.82	\$223 / \$376	6.6	5.1	3.3
GTU-310-NI	Indoor	11,000	190,000	0.82	\$224 / \$378	8.0	6.9	4.4
GTU-510-NI**	Indoor	11,000	199,000	0.82	\$224 / \$378	10.0	7.2	4.7
GTU-110-NE	Outdoor	19,500	140,000	0.82	\$223 / \$376	6.6	5.1	3.3
GTU-310-NE	Outdoor	11,000	190,000	0.82	\$224 / \$378	8.0	6.9	4.4
GTU-510-NE**	Outdoor	11,000	199,000	0.82	\$224 / \$378	10.0	7.2	4.7
RESIDENTIAL/LIGHT COMMERCIAL CONDENSING MODELS								
GTU-320-NIH	Indoor	13,000	180,000	0.91	\$196 / \$327	8.0	7.3	4.7
GTU-520-NIH	Indoor	13,000	199,000	0.91	\$202 / \$340	9.0	8.1	5.2
GTU-320-NEH	Outdoor	13,000	180,000	0.91	\$191 / \$323	8.0	7.3	4.7
GTU-520-NEH	Outdoor	13,000	199,000	0.91	\$202 / \$340	9.0	8.1	5.2

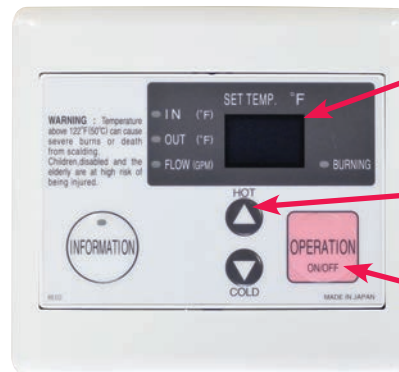
*For propane, change N to P in the model number when ordering. Example: GTU-520-PIH.

**Can be installed in light-duty commercial applications. Includes remote control and can connect up to 4 units.

OPTIONAL TEMPERATURE CONTROLLERS

For 110/310 models:

Optional remote temperature controller can set the temperature of the water within a specific range. Available for 110 and 310 models.



Temperature Display
Shows the current temperature setting

Thermostat
Increases/decreases temperature setting

On/Off Button
Turns the water heater on/off

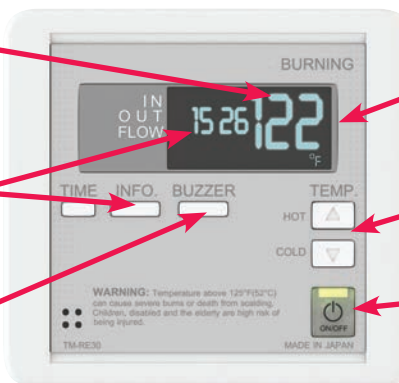
For 320/510/520 models:

Remote temperature controller can set the temperature of the water within a specific range (This optional remote controller is also acceptable for use on the 320/520 series heaters. It is however, only included with the 510 models.)

Error Codes
When a fault is detected an error code flashes at the temperature display

Information Mode
Displays diagnostic information such as inlet and outlet water temperatures and flow rate

Buzzer
Audible alert in addition to the error code displayed



Temperature Display
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Thermostat
Increases/decreases temperature setting

On/Off Button
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