

ULTRA LOW-NO_x NON-CONDENSING TANKLESS WATER HEATERS

Fully modulating, gas fired, tankless water heater with sealed combustion and power vented flue. Indoor and outdoor models available for residential applications. Supplies hot water to domestic hot water systems (directly or indirectly) can be used with water storage tanks, recirculation systems, hydronic heating systems, radiant floor heating systems, and/or combined domestic & heating applications.

FEATURES:

COMPLIES WITH SCAQMD RULE 1146.2 AND OTHER AIR QUALITY MANAGEMENT DISTRICTS WITH SIMILAR NO_x EMISSION REQUIREMENTS OF 14 ng/J OR 20 PPM

MAXIMUM FLOW RATES UP TO 10.0 GPM

COPPER HEAT EXCHANGER

- 25x better heat transfer than stainless steel thus stabilizing outgoing water temperature quicker and reducing pressure drop across the heat exchanger

INDOOR AND OUTDOOR MODELS AVAILABLE

OUTDOOR MODELS INCLUDE REMOTE CONTROL AS A STANDARD FEATURE

INDOOR MODELS INCLUDE BOTH A REMOTE CONTROL AND A FACTORY-INSTALLED POWER CORD AS STANDARD FEATURES

AVAILABLE IN NATURAL GAS ONLY

ATI-510U AND ATO-510U CAN BE USED IN BOTH RESIDENTIAL AND COMMERCIAL APPLICATIONS

- Easy-Link up to 4 units (no additional parts or accessories needed)
- Multi-link up to 20 units

COMPLIES WITH LEAD FREE STANDARDS

SAFETY FEATURES:

- Built-in Freeze Protection
- Manual Reset Hi Limit (Up to 194°F)
- Overheat Cutoff Fuse
- Inlet and Outlet Thermistors for Constant Temperature Monitoring
- Air Fuel Ratio Rod
- Flame Sensor

VENTING AND COMBUSTION

- 4" Category III Stainless Steel
- Vertical or Horizontal Installation
- 50' Max Length, 5 Elbows max (90° elbows = 5' equivalent length)
- Power Vent or Power Direct Vent
- Electronic Ignition - No Pilot Light
- 3" Combustion Air Intake (with optional kit)

OPTIONAL ACCESSORIES

- Complete Line of Stainless Steel Venting
- Recess Box (outdoor models)
- Pipe Cover
- Direct Vent Conversion Kit (indoor models)
- Isolation Valve Kit
- Backflow Preventer
- Concentric Termination Kits

WARRANTY

- 15-year limited warranty on heat exchanger in residential applications
- 10-year limited warranty on heat exchanger in commercial applications
- 5-year limited warranty on all parts

INDOOR MODELS

ATI-110U, ATI-310U, ATI-510U



OUTDOOR MODELS

ATO-110U, ATO-310U, ATO-510U



(510U models only)

ANSI Z21.10.3

Model Number*	Type	Gas Consumption Input		Inlet Gas Pressure		Energy Factor (EF)	Maximum GPM**	Hot/Cold Connections	Gas Connection	Dimensions in Inches			Unit Weight (lbs)
		Minimum BTU/H	Maximum BTU/H	Minimum in. W.C.	Maximum in. W.C.					Height	Width	Depth	
Indoor Models													
ATI-110U-N	Natural	15,000	140,000	5.0	10.5	0.82	6.6	3/4" NPT	3/4" NPT	20-1/4	13-3/4	9-1/2	33
ATI-310U-N	Natural	15,000	190,000	5.0	10.5	0.82	8	3/4" NPT	3/4" NPT	20-1/4	13-3/4	9-1/2	37
ATI-510U-N***	Natural	15,000	199,000	5.0	10.5	0.82	10	3/4" NPT	3/4" NPT	20-1/4	13-3/4	9-1/2	39
Outdoor Models													
ATO-110U-N	Natural	15,000	140,000	5.0	10.5	0.82	6.6	3/4" NPT	3/4" NPT	20-1/4	13-3/4	9-1/2	33
ATO-310U-N	Natural	15,000	190,000	5.0	10.5	0.82	8	3/4" NPT	3/4" NPT	20-1/4	13-3/4	9-1/2	37
ATO-510U-N***	Natural	15,000	199,000	5.0	10.5	0.82	10	3/4" NPT	3/4" NPT	20-1/4	13-3/4	9-1/2	39

15-150 PSI water pressure. 40 PSI or above recommended for maximum flow.

*Available in natural gas only

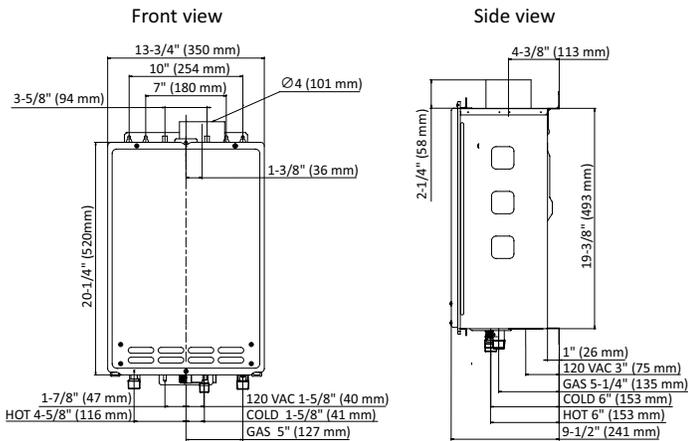
**Current numbers based on factory testing; 0.5 GPM required for activation; 0.4 GPM required for continuous fire after initial ignition.

***Suitable for commercial applications.

Indoor models are certified from sea level to 10,100 ft. elevations. Outdoor models are certified from sea level to 6,000 ft. elevation.

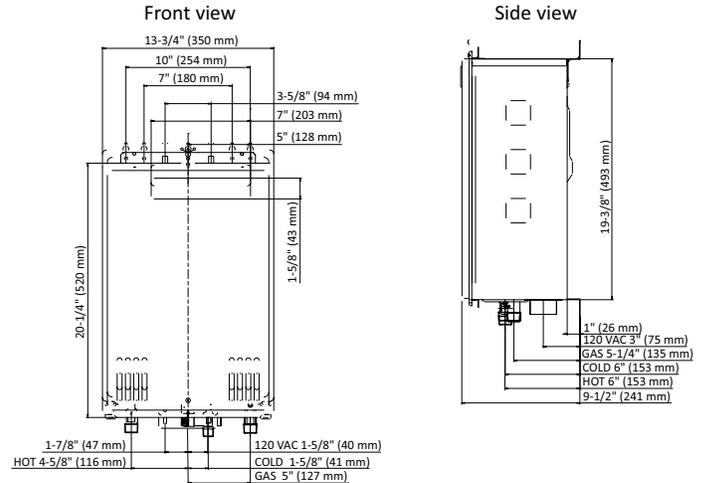
INDOOR MODEL DIMENSIONS

CLEARANCES: TOP 12", BOTTOM 12", FRONT 4", BACK .5", SIDES 3"



OUTDOOR MODEL DIMENSIONS

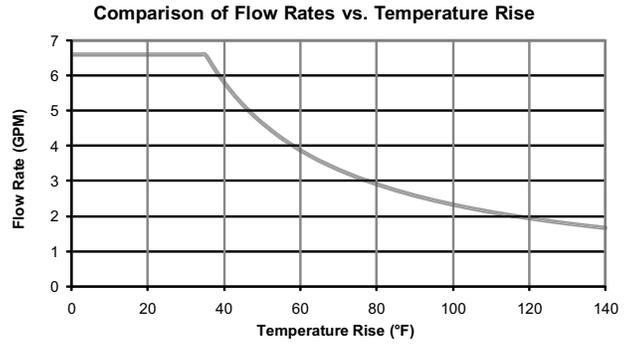
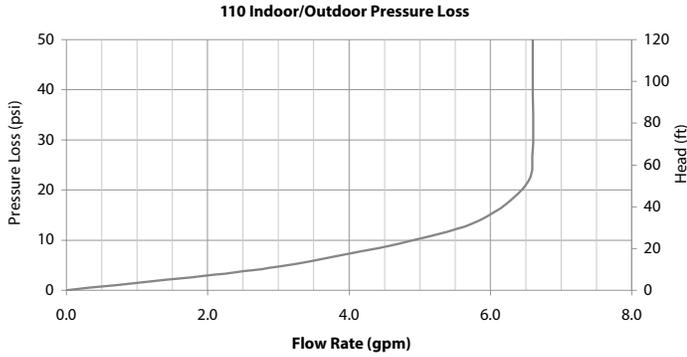
CLEARANCES: TOP 36", BOTTOM 12", FRONT 24", BACK .5", SIDES 3"



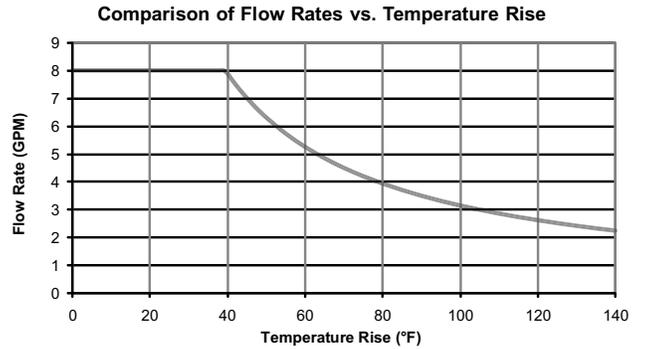
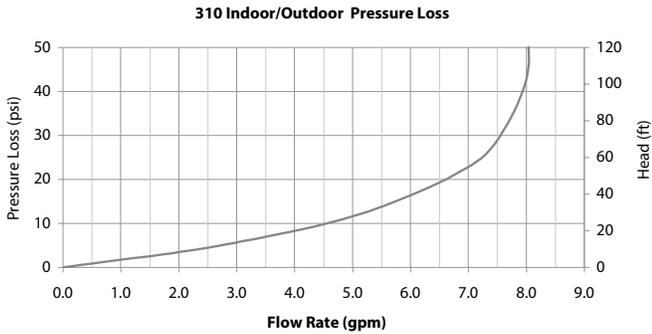


Residential/Commercial Gas Water Heaters

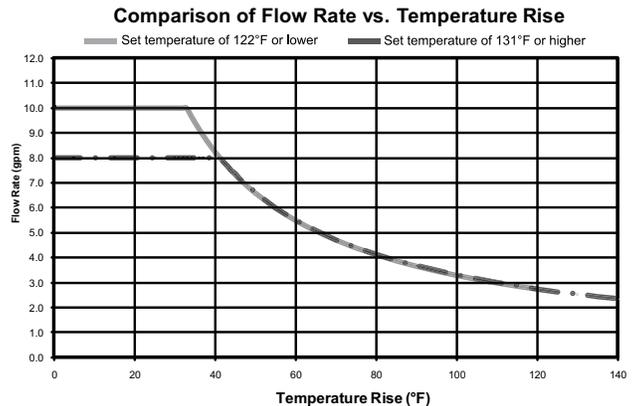
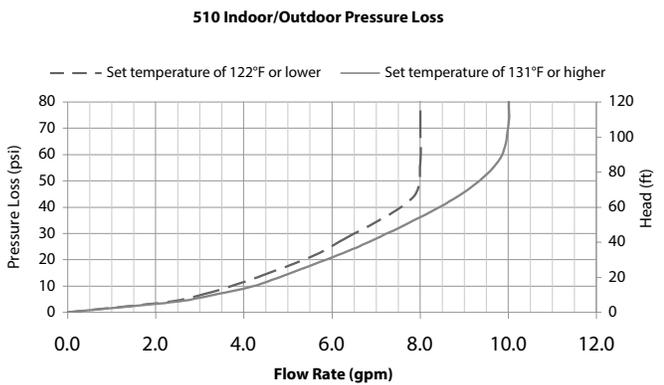
110U MODELS



310U MODELS



510U MODELS





Residential/Commercial Gas Water Heaters

SUGGESTED SPECIFICATIONS FOR THE ATI-510U OR ATO-510U

The fully modulating, on-demand, gas fired tankless water heater shall be A. O. Smith Tankless Water Heater model ATI-510U OR ATO-510, having a maximum input rating of 199,000 Btu/h and available in NG. The heater shall have ¾ in. male NPT water and gas connections. The inlet gas supply pressures shall be 5.0 in. WC (min.) up to 10.5 in. WC (max) for NG. The heater shall be supplied with a temperature remote, 9009069005, that can be installed up to 400 ft. from the heater using 20 gauge (minimum) control wire. The temperature remote shall provide diagnostic information, fault history, and heater set temperature. The heater shall operate using 120 V / 60 Hz power source. The indoor heater will incorporate a factory installed power cord.

The indoor heater shall be vented with 4" diameter Category III vent pipe with a length not to exceed 50 ft. (equivalent), terminating horizontally or vertically. The indoor heater can be direct vented with optional direct vent conversion kit, 9007667005, using 3" diameter intake air pipe. The intake pipe may use material such as PVC, ABS, aluminum, or Category III pipe and cannot exceed 50 ft. (equivalent) length. The outdoor heater shall be constructed with an integral exhaust vent on the front of the heater.

The water heater shall use a commercial grade copper alloy, fin tube heat exchanger with quick release brass or bronze waterways. The heater shall be controlled by an onboard solid-state printed circuit board which uses the following factory installed components: thermistors to monitor inlet and outlet water temperature; a flow sensor to measure flow rate; a flame sensor to monitor combustion; an Air-Fuel Ratio Rod to measure and adjust operation in order to maintain optimal combustion efficiency. The heater also consists of inline fusing and surge absorbers for electrical surge protection, an electronic spark igniter, a hi-limit temperature switch, modulating gas valve, an overheat cutoff fuse, ceramic heating blocks to protect the heat exchanger and water piping. The indoor heater shall incorporate auto-fire system for additional freeze protection.

The heater can manifold to Easy-Link up to 4 heaters to provide additional capacity. The Easy-Link controls shall be built onto the onboard solid-state printed circuit board and does not require external controls. The linking control wire shall be supplied with the heater. The heaters can use a Multi-Unit controller, 9008300005, to manifold 5-20 heaters. The Easy-Link and Multi-Unit Controller shall modulate the system for the most efficient performance. The Easy-Link and Multi-Unit Controller shall rotate the priority heater every 12 hours of operation time or 100 starts for balanced duty/cycle operation.

The heater shall be design certified by CSA according to ANSI Z21.10.3, approved for sale in the United States with a minimum energy factor of 0.82, meets the energy efficiency requirements of the U. S. Department of Energy and ASHRAE 90.1, complies with SCAQMD Rule 1146.2 and other air quality districts with similar requirements for low NOx emissions of 14 ng/J or 20 ppm, and shall be certified by NSF to NSF/ANSI 5 Standard.

A. O. Smith Corporation reserves the right to make product changes or improvements without prior notice.