

## TANKLESS NON-CONDENSING WATER HEATERS

Fully modulating, gas fired, tankless water heater specifically designed for residential applications. Supplies hot water to domestic hot water systems (directly or indirectly) which can be used with storage tanks, recirculation systems, hydronic heating systems, radiant floor heating systems, and/or combined domestic and heating applications.

### FEATURES:

#### DESIGNED FOR PERFORMANCE

#### MAXIMUM FLOW RATES UP TO 10.0 GPM

#### AVAILABLE IN NATURAL GAS (NG) OR PROPANE (LP)

#### MODELS INCLUDE BOTH A REMOTE CONTROL AND POWER CORD AS STANDARD FEATURES

- Low NOx emissions
- Complies with lead free standards
- Heat exchanger (510 model) is constructed of commercial-grade copper
- Built-in freeze protection
- Easy-Link up to 4 units with no additional parts or accessories needed (510 models only)
- Air-fuel ratio (AFR) sensor
- Electronic ignition

### SAFETY FEATURES:

- Manual reset hi limit (set at 194°F)
- Overheat cutoff fuse
- Inlet and outlet thermistors for constant temperature monitoring
- Flame sensor

### WARRANTY

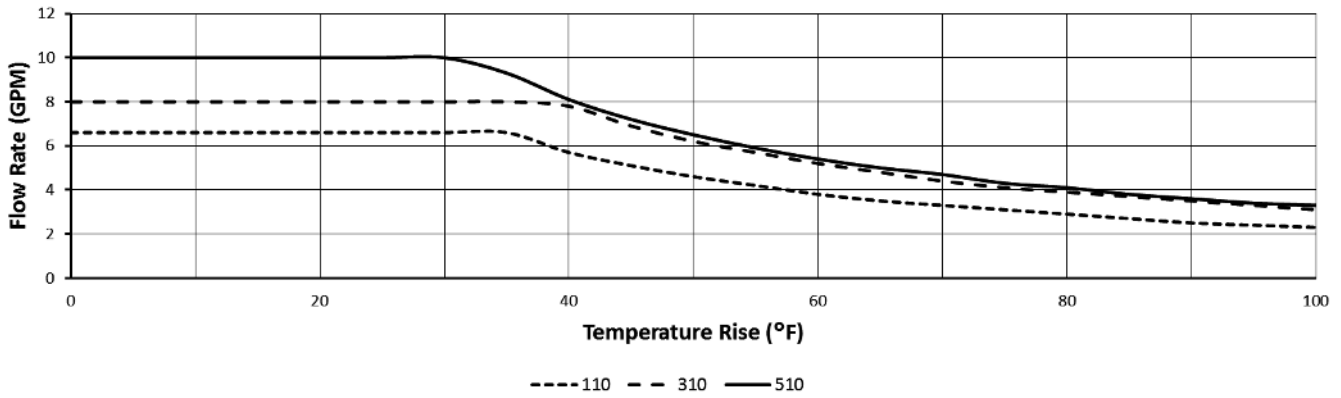
- 15-year limited warranty on heat exchanger in residential applications
- 5-year limited warranty on heat exchanger in commercial applications
- 5-year warranty on all parts



ATI-110, ATI-310, ATI-510

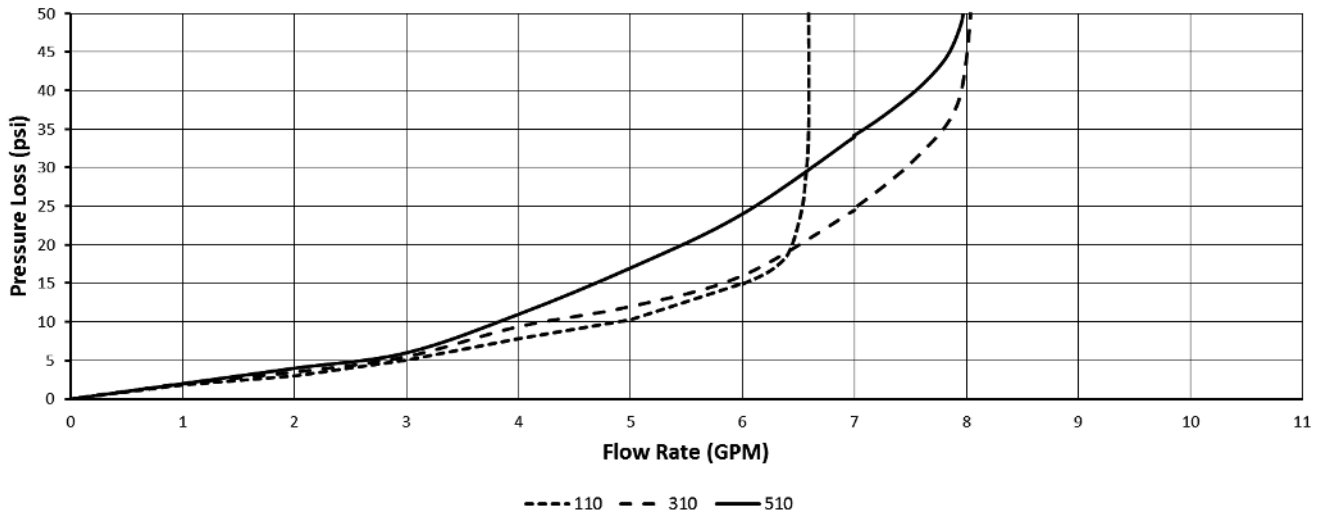


## FLOW RATE vs TEMPERATURE RISE



\*Maximum flow rate with set temperature above 131°F (55°C) is 8.0 GPM.

## PRESSURE LOSS vs FLOW RATE





# Residential Gas Tankless Water Heaters

## OPTIONAL ACCESSORIES

PART NUMBER	DESCRIPTION
100074536	Direct vent conversion kits
100112156	Isolation valve kits
100078178	Backflow preventer
100066818	Concentric direct vent kit
100112188	Pipe cover for 110 models
100112187	Pipe cover for 310/510 models

### SUGGESTED SPECIFICATION

Water heater(s) shall be the fully modulating, non-condensing gas fired A. O. Smith tankless water heater model \_\_\_\_\_, having a maximum input rating of \_\_\_\_\_ BTU/h. The heater shall have 3/4" male NPT water and gas connections. The inlet gas supply pressures shall be \_\_\_\_\_ in. WC (minimum) up to \_\_\_\_\_ in. WC (maximum) for \_\_\_\_\_ fuel. The heater shall incorporate an integrated temperature controller that will provide diagnostic information, fault history, and heater set temperature. The heater shall operate using 120V/60Hz power and will incorporate a factory-installed power cord.

The water heater(s) shall be direct vented with 3"/5" APNC35 concentric vent with a length not to exceed 43 equivalent feet, terminating horizontally or vertically with no more than four (4) 90° elbows.

The water heater(s) shall use a commercial grade copper alloy, fin tube primary heat exchanger with quick release brass or bronze waterways. The heater(s) shall be controlled by an onboard solid-state printed circuit board which uses thermistors to monitor inlet and outlet water temperature and exhaust temperature, a flow sensor to measure flow rate, a flame sensor to monitor combustion, and an air-fuel ratio rod to measure and adjust operation in order to maintain optimal combustion efficiency. The heater(s) shall also consist of inline fusing and surge absorbers for electrical surge protection, an electronic spark igniter, aluminized stainless steel burners, hi-limit temperature switch to monitor water temperature, modulating gas valve, an overheat cutoff fuse, and incorporate ceramic heating blocks and an auto-fire system for freeze protection of the heat exchanger and water piping.

The water heater(s) shall be design certified by CSA according to ANSI Z21.10.3 \*CSA 4.3 and meet the energy efficiency requirements of NRCan and the current edition of ASHRAE 90.1.

MODEL NUMBER	TYPE	GAS CONSUMPTION INPUT		INLET GAS PRESSURE		ENERGY FACTOR (EF)	MAXIMUM GPM*	HOT/COLD CONNECTIONS	GAS CONNECTION	DIMENSIONS IN (CM)			UNIT WEIGHT LB (KG)
		MINIMUM BTU/h	MAXIMUM BTU/h	MINIMUM IN. W.C.	MAXIMUM IN. W.C.					HEIGHT	WIDTH	DEPTH	
ATI-110-N	Natural	19,500	140,000	5.0	10.5	0.82	6.6	¾" NPT	¾" NPT	20 ¼ (52)	13 ¾ (35)	7 ¾ (20)	33 (15)
ATI-110-P	Propane	19,500	140,000	8.0	14.0	0.82	6.6	¾" NPT	¾" NPT	20 ¼ (52)	13 ¾ (35)	7 ¾ (20)	33 (15)
ATI-310-N	Natural	11,000	190,000	5.0	10.5	0.82	8	¾" NPT	¾" NPT	20 ¼ (52)	13 ¾ (35)	9 ½ (24)	38 (17)
ATI-310-P	Propane	11,000	190,000	8.0	14.0	0.82	8	¾" NPT	¾" NPT	20 ¼ (52)	13 ¾ (35)	9 ½ (24)	38 (17)
ATI-510-N	Natural	11,000	199,000	5.0	10.5	0.82	10	¾" NPT	¾" NPT	20 ¼ (52)	13 ¾ (35)	9 ½ (24)	39 (18)
ATI-510-P	Propane	11,000	199,000	8.0	14.0	0.82	10	¾" NPT	¾" NPT	20 ¼ (52)	13 ¾ (35)	9 ½ (24)	39 (18)

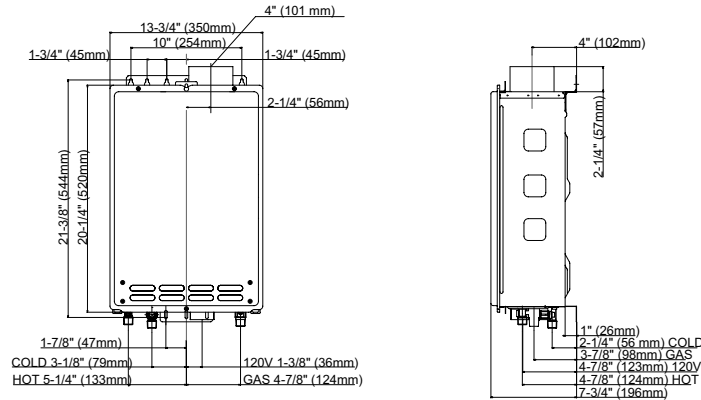
15-150 PSI water pressure. 40 PSI or above recommended for maximum flow.

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

Models are certified from sea level to 6,000 ft. elevation.

### ATI-110 DIMENSIONS

CLEARANCES: TOP 12", BOTTOM 12", FRONT 4", BACK 1", SIDES 3"



### ATI-310 AND ATI-510 DIMENSIONS

CLEARANCES: TOP 12", BOTTOM 12", FRONT 4", BACK 1", SIDES 3"

