



Residential/Light Commercial Gas Tankless Water Heaters

TANKLESS RESIDENTIAL/LIGHT COMMERCIAL MODELS

Fully modulating, gas fired, tankless water heater specifically designed for residential and light commercial applications. Indoor and outdoor models available. Capable of supplying hot water for domestic hot water systems or heating applications (local codes dictate proper compliance). Features HRS35 copper alloy and a thicker heat exchanger drum for added durability. Up to four units can be easily linked without a multi-unit controller in systems for larger applications.

FEATURES

PRIMARY HEAT EXCHANGER IS CONSTRUCTED OF HRS35 COPPER

- Stronger than standard copper and more resilient against erosion

CONTINUOUS MAXIMUM FLOW RATES UP TO 10.0 GPM

CAN BE USED IN BOTH RESIDENTIAL AND LIGHT COMMERCIAL APPLICATIONS

ENERGY STAR® QUALIFIED

OUTDOOR MODELS INCLUDE REMOTE CONTROL AS A STANDARD FEATURE

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

EASY-LINK UP TO 4 UNITS

- With no additional parts or accessories needed
- Includes Temperature Controller

LOW NO_x EMISSIONS

COMPLIES WITH LEAD PLUMBING LAW

SAFETY FEATURES:

- Built in Freeze Protection
- Manual Reset Hi Limit (Set at 194°F)
- Overheat Cutoff Fuse
- Inlet, Outlet & Mixing Thermistors for Constant Temperature Monitoring
- Air Fuel Ratio Rod
- GFI Power Supply Connection
- 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
- Electronic Ignition - No Pilot Light
- 3" Combustion Air Intake (with optional kit)

OPTIONAL ACCESSORIES

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

WARRANTY

- 12-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-510-N
ATI-510-P



ATO-510-N
ATO-510-P



ANSI Z21.10.3

CSA 4.3



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MODEL NUMBER	FUEL TYPE	GAS CONSUMPTION INPUT		ENERGY FACTOR	INLET GAS PRESSURE		MAX GPM*	DIMENSIONS (INCHES)			VOLT	AMP	FLUE**	INTAKE (OPTIONAL)	HOT/COLD GAS CONN.	APPROX. SHIPPING WEIGHT (LBS)
		MIN. BTU/H	MAX. BTU/H		MIN. W.C.	MAX. W.C.		HEIGHT	WIDTH	DEPTH						
ATI-510-N	Natural	11,000	199,000	0.82	5.0	10.5	10.0	20-1/2	13-4/5	8-1/2	120	0.77	4" O.D.	3" O.D.	3/4" NPT	45
ATI-510-P	Propane	11,000	199,000	0.82	8.0	14.0	10.0	20-1/2	13-4/5	8-1/2	120	0.77	4" O.D.	3" O.D.	3/4" NPT	45
ATO-510-N	Natural	11,000	199,000	0.82	5.0	10.5	10.0	20-1/2	13-4/5	8-1/2	120	0.77	N/A	N/A	3/4" NPT	45
ATO-510-P	Propane	11,000	199,000	0.82	8.0	14.0	10.0	20-1/2	13-4/5	8-1/2	120	0.77	N/A	N/A	3/4" NPT	45

All dimension in inches.

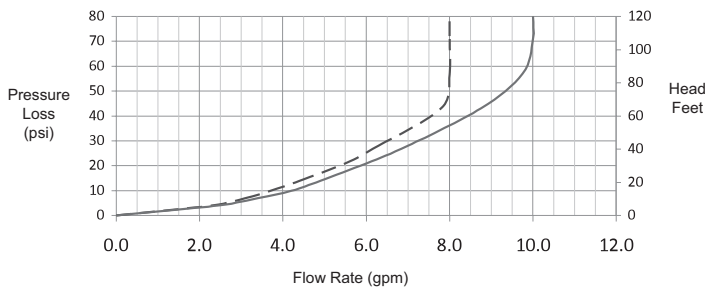
15-150 psi water pressure. 40 psi or above recommended for maximum flow.

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

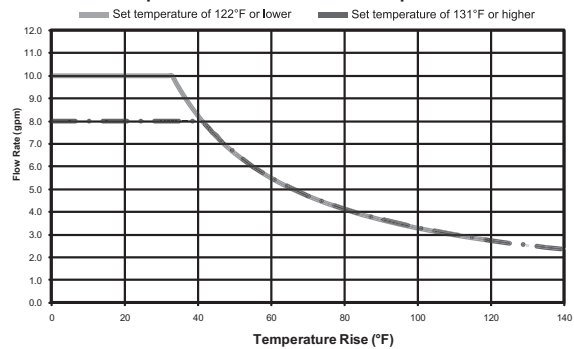
**Category III Required

Pressure only relief valve requires (Min. 200,000 BTUs. 150 PSI). Min 40 PSI or above recommended for maximum flow.

510 Indoor/Outdoor Pressure Loss

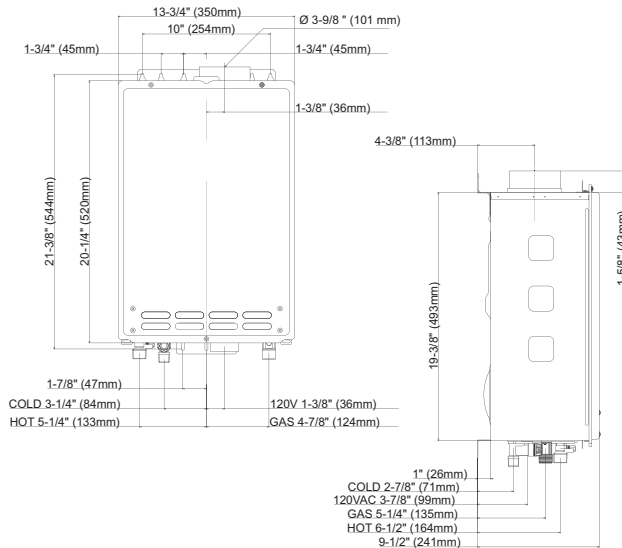


Comparison of Flow Rate vs. Temperature Rise



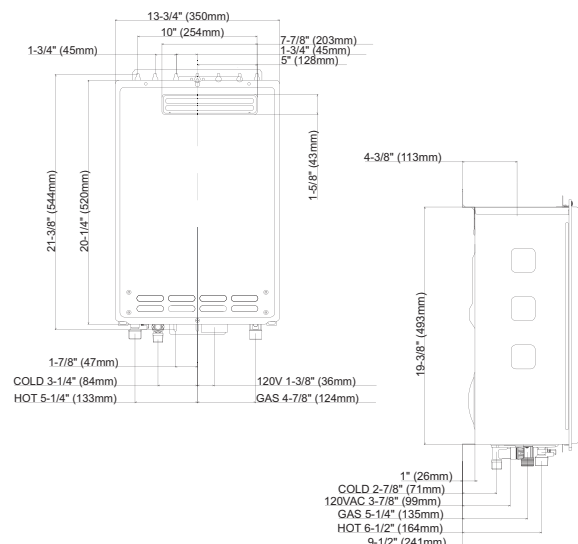
510 INDOOR DIMENSIONS

CLEARANCES: Top 12", Bottom 12", Front 24", Back 1", Sides 2"



510 OUTDOOR DIMENSIONS

CLEARANCES: Top 36", Bottom 12", Front 24", Back 1", Sides 2"



Specification

Water heater(s) shall be Model _____ as manufactured by A. O. Smith. The water heater(s) shall be a copper coil integral fin and tube construction with quick release brass or bronze waterways. Heater(s) will be factory assembled and tested. The heater shall be vented with 4" Stainless steel Category III vent pipe a distance not to exceed 50' (equivalent) feet terminating vertically or horizontally as prescribed. Intake air with optional direct vent kit may be of such material as PVC not to exceed a total of 50' (equivalent). The heater(s) shall be controlled by onboard solid state printed circuit board monitoring incoming and outgoing temperatures with factory-installed thermistors, sensing and controlling flow rate to set point temperature with control both air and gas mixture inputs to maintain thermal combustion efficiency. Unit also consists of ground fault interrupter, inline fusing, spark ignition and sensor system, aluminized stainless steel burners, air-fuel ratio rod, Hi limit switch, modulating and proportional gas valves, freeze protection sensor and heating block and overhead cutoff fuses. The water heater(s) shall be CSA listed, exceeds the energy efficiency requirements of ASHRAE 90. 1b-1992 and complies with SCAQMD rule 1146.2 and other Air Quality Management Districts with similar requirements for low NOx emissions.

For Technical Information call 1-877-737-2840. A. O. Smith Corporation reserves the right to make product changes or improvements without prior notice.