

9600 HWG Hot Water Generator

Model HWG-200

Specification

Date: Bid Date:
Project #: Location:
Project Name: Engineer:
Contractor: Prepared By:

Contractor shall supply and install (1) Laars condensing water heater(s).

The heater(s) shall be Laars 9600 Series Model HWG-M2-200, sealed combustion, low mass, Category IV (condensing) heater(s) with an input rate of 199,000 BTU/hr (59kW). The output shall be 192,000 BTU/hr (56 kW) the unit(s) shall have a thermal efficiency of up to 96%. Unit shall be 120V, single phase, 15 Amps.

Heater(s) shall be design certified to comply with the current edition of the Harmonized ANSI Z21.10.3A / CSA 4.3A Standard for Gas Water Heaters. The unit(s) shall be designed and constructed in accordance with the ASME Boiler & Pressure Vessel Code, Section IV requirements for 160 psi working pressure.

Unit(s) shall be capable of sealed combustion operation. Exhaust and intake vent pipe lengths can each be up to 55 equivalent feet using 3" diameter material or up to 105 equivalent feet using 4" diameter material. Exhaust pipe material shall be PVC schedule 40 pipe per ASTM D1785, or PVC-DWV pipe per ASTM D2665, or CPVC schedule 40 pipe per ASTM F441 standard, or ABS-DWV pipe per ASTM D2661, or AL29-4C stainless steel certified to UL 1738 or ULC-S636.

Unit(s) shall have corrosion resistant waterways consisting of primary SB359 copper finned tube heat exchanger with secondary economizer heat exchanger constructed of type 304L stainless steel.

Heater(s) combustion system shall be pre-mixed, forced draft, combustion and contain a single speed fan, stainless steel burner, negative pressure regulated gas valve and hot surface igniter.

The heater(s) shall have NOx level certified at less than 20 ppm.

Unit(s) shall feature factory-piped internal mixing valve and an internal bronze body circulating pump with stainless steel impeller, which shall be capable of providing flow to an external storage tank. Unit shall be capable of operating without water softening in systems with water hardness up to 10 grains per gallon.

Unit(s) shall be suitable for installation on combustible flooring and with a minimum clearance of one inch on all sides.

Outer jacket shall be finished with a textured epoxy finish.

Unit(s) shall be covered by a ten (10) year limited manufacturer's warranty. Heater shall include as standard equipment the following controls and trim:

- 115/24 VAC power from class 2 transformer
- Manual reset high limit
- ON/OFF switch
- Combustion air proving switch
- Negative redundant gas valve
- Pressure gauge
- 150 psi (1034 kPa) A.S.M.E. pressure relief valve