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| C:\Users\colleen.johnson\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Outlook\QUO8XSCY\N-HTP-Logo.gif | Advanced Heating and Hot Water Systems | **Guide Specification Sheet** |
| P.O. Box 429 ∙ 120 Braley Road ∙ East Freetown, MA 02717508-763-8071∙ Fax: 508-763-3769 | **Phoenix Light Duty Water Heater*****Models: PH76-50 / PH76-60 / PH76-80*** |

The Phoenix® Light Duty Gas-Fired Water Heater shall be manufactured by HTP with an identification of model number PH76- and a modulation input range of Btu/Hr. The water heater shall operate on either Natural or LP gas.

The water storage tank shall be constructed of 316L stainless steel. The primary condensing heat exchanger shall be constructed of 90/10 cupronickel.

Tank insulation shall be 2” thick water blown foam. Insulation shall be enclosed in a plastic jacket. All components shall be located on the front of the heater for easy service access. All water connection nipples shall be constructed of stainless steel and attached to the top of the heater. The water heater shall be supplied with an auxiliary top port for a recirculation line or air handler feed line to increase overall efficiency. A full port drain valve is provided with each heater.

The heaters shall be ETL listed and will exceed the minimum efficiency requirements of ASHRAE 90.1b-1992. All heaters shall be approved in accordance with ANSI Z 21.10.3. All heaters will be supplied with a factory installed ASME rated temperature and pressure relief valve, a high temperature switch, an upper hot water sensor, a flue sensor, and a condensate system with built-in neutralizer cartridge assembly to neutralize condensate discharge.

The heater shall have an integrated digital controller device with integral diagnostics, LCD control display for fault and temperature settings for establishing set point and temperature differential. The water heater will also have an ECO mode which will increase overall unit efficiency up to 8 percent. The digital LCD control display shall provide means, via push buttons, for adjustments of operating temperatures, differential adjustment, ECO reset, test mode, installer mode, and real time status mode. In addition, there shall be provided a computer connection for history, including all fault codes, and real time status reporting of all operations.

Ignition shall be direct spark and take place at a speed pre-set for the burner blower. The control shall utilize an algorithm to fully adjust the burner modulating firing rate while maintaining the desired temperature. The pre-mix stainless steel burner uses a 120 volt motor with pulse width modulation control to change the fan speed, adjusting the volume of fuel and combustion air through the burner to establish a continuous BTU input range that equals the water heating set point requirement. The burner assembly shall be mounted so as to be easily removed as an integral unit for ease of service.

The water heater will have a sealed combustion system, taking outside air for combustion and exhausting the flue gas with a ULC-636 CPVC connector for 2" Schedule 40 or 80 PVC, CPVC, Stainless Steel, or Polypropylene. The water heater’s total combined equivalent vent length, including fitting allowances for both intake and exhaust, shall not exceed 150 feet.

**Horizontal Venting** shall be done as a balanced system only. Both intake and exhaust must terminate on the same side of the building.

**Vertical Venting** shall be done either as a balanced or unbalanced system. An unbalanced system shall ONLY be allowed when the exhaust is installed vertically and the intake horizontally. Both exhaust and intake must remain within the boiler’s combined equivalent length.

**Indoor Combustion Venting from a Confined or Unconfined Space** – Where the exhaust runs vertically and combustion air is drawn either from the mechanical room or from outdoors. (Refer to boiler’s installation manual venting section for additional venting requirements.)

**CAUTION: Foam core pipe is NOT an approved material for either intake or exhaust piping.**

The water heater shall be in compliance with the NOx emissions limit set forth in SCAQMD Rule 1146.2. The heater shall be factory assembled, test-fired for correct BTU input, and adjusted for proper combustion parameters. Complete operating and installation instructions shall be furnished with every heater as packaged by the manufacturer for shipping.

The heater shall operate at altitudes up to 4500 feet above sea level without additional parts or adjustment.

The surfaces of these products contacted by consumable water contain less than 0.25% lead by weight, as required by the Safe Drinking Water Act, Section 1417.

Maximum unit dimensions shall be length inches, width inches and height inches. Maximum unit weight shall be pounds.