

**Typical Specification for HTP  
Phoenix® Light Duty Gas-Fired Water Heaters  
Models: PH76-50 / PH76-60 / PH76-80**

**Guide Specification Sheet**

**Phoenix® Light Duty  
Gas-Fired Water Heaters**

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 Phoenix® Light Duty Gas-Fired Water Heater shall operate on either Natural or LP gas.

The heater 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. 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 heater combustion system shall be designed for two pipe (intake and exhaust) closed combustion, or a single pipe system taking mechanical room air and piping exhaust outside. Schedule 40 or 80 PVC or stainless steel piping materials are approved for venting applications (see installation manual for further venting details). **(NOTE: Foam core pipe is not an approved exhaust venting material.)** The vent connections (intake and exhaust) shall be located on the side of the heater.

**Appliance Venting Methods**

**Direct Venting** – Where the intake and exhaust vents terminate in a two pipe configuration or through a factory approved sidewall or roof termination kit.

**Indoor Combustion Venting from a Confined or Unconfined Space** – Where the exhaust runs vertically and combustion air is drawn from the mechanical room or from outdoors.

The total combined length of exhaust and intake vents cannot exceed 150 combined feet for 2” venting. Avoid the room contaminates listed in the installation manual.

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.