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**Crossover Floor Mounted Hybrid Tankless Water Heater Specification Sheet**

***Model: RGH20-75F / 76F / 100F***

The Crossover Floor Mounted Water Heater, manufactured by HTP, Inc., includes three (3) models with inputs ranging from 75,000 to 100,000 Btu/Hr. Model RGH- F, having an input of Btu / Hr. The water heater shall ship ready to operate on Natural gas, and also be equipped with a instructions and components to convert the water heater to LP gas operation.

The water heater shall be constructed of stainless steel. The combustion heat exchanger is fire tube type, constructed of 316L stainless steel for maximum corrosion resistance. The tank inlet and outlet fittings and all drain and sensor fittings shall be constructed of stainless steel.

The tank shall have foamed insulation to minimize heat loss. Insulation shall be enclosed in a steel jacket. All components shall be located on the top of the heater for easy service access. All water connections shall be located on the top of the heater.

The heater shall carry CSA listings. Each heater shall be tested to the safety ratings of ANSI-Z21.10.1 for the 75F model and ANSI- Z21.10.3 for the 76F and 100F models. All water heaters will be supplied with a factory installed ASME rated temperature and pressure relief valve, a burner temperature limiting switch (305oF), an upper hot water sensor and ECO (194oF), a vent blockage switch, fan mounting system (RPM), Flame Sensing (Flame Rod) and a condensate collection system.

The water heater shall have an integrated digital control device with integral diagnostics, and an LCD control display panel for establishing stored set point and differential temperature settings and displaying fault codes to aid in troubleshooting. The push button display allows users to monitor parameters such as run time, ignitions, fan speed, storage temperature, and other outputs to help determine if system is running to maximum efficiency.

The water heater shall be equipped with an ASSE 1017 rated domestic water thermostatic valve piped to the outlet to increase first draw and provide reliable temperature control.

Ignition shall be direct spark and take place at a speed preset for the burner blower. The control shall utilize an algorithm to fully adjust the burner modulating firing rate while maintaining the desired storage temperature. The control adjusts input rate based on the flow sensor monitoring system to full output when flow through the heater is greater than 1 gpm. When flow is lower than .9 gpm the system will reduce water heating input to minimize the potential for short cycling and overheating. The pre-mix stainless steel mesh burner uses a 120 volt DC motor with pulse width control modulation to change the fan speed, automatically adjusting the volume of combustion air and fuel to provide the exact amount of BTU and establish a continuous heating of the water to the desired set point.

The water heaters will have a sealed combustion system, taking intake air from the outdoors or the mechanical room for combustion and exhausting the flue gas outdoors in 3” schedule 40 PVC, CPVC, Stainless Steel, or Polypropylene pipe. The water heaters total combined equivalent vent length, including fittings allowances for both intake and exhaust, shall not exceed 100 feet for 3” diameter pipe.

**Horizontal Venting –** Shall be done in Power Vent (single pipe exhaust only – piped and terminated to the outdoors) or Direct Vent (two pipe system – one for exhaust vent – one for combustion air intake – piped and terminated to the outdoors). Direct Vent shall be balanced, with both the intake and exhaust terminating on the same side of the structure. (Refer to water heater installation manual venting section for additional venting requirements.)

**Vertical Venting –** Shallbe done in Power Vent (single pipe exhaust only – piped and terminated to the outdoors) or Direct Vent (two pipe system – one for exhaust vent – one for combustion air intake – piped and terminated to the outdoors). Direct Vent shall be balanced, with both the intake and exhaust terminating on the same side of the structure. (Refer to water heater 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 limits 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 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.

The appliance shall operate at high elevations without additional parts. However, adjustments to the combustion system may be required at any elevation. See installation manual for combustion system setting details.

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

pounds.

**NOTE:** HTP reserves the right to make product changes or updates without notice and will not be held liable for typographical errors in literature.