SPECIFICATIONS FOR
P-K COMPACT® Semi-Instantaneous Water Heater

STEAM TO WATER

Furnish and install as shown on the plans, P-K Compact water heater(s), Model Number _______________ as manufactured by Patterson Kelley Co.

Each water heater shall be a factory-assembled package, rated to heat _____ gpm of water from ____ °F to ____ °F, and control the domestic fixture outlet temperature to within +/- 4°F of the selected temperature when supplied with _____ psig saturated steam before the control valve.

Due to overhead clearance restrictions, each heater shall be capable of being disassembled in place, for maintenance and inspection purposes, without having to remove the shell from the domestic water piping. The heater’s support shall provide ample clearance for tube bundle removal. A full diameter threaded tube sheet shall be provided to allow for inspection and maintenance while the shell remains under pressure

Each packaged water heater shall consist of the following components, completely factory assembled ready for connection to services:

1. P-K Compact water heater with vertical support
2. Visible metal plate stamped with CRN (Canadian Registration Number)
3. Bronze ASME rated pressure and temperature relief valve set at 150 psig and 210F
4. Bronze circulator pump pre-wired with pilot lighted ON/OFF switch operating at 60/1/115V. The purpose of this pump is to prevent scale build-up in the unit shell
5. Double solenoid temperature limit system.
6. Insulation in accordance with the current ASHRAE standards. Flexible foam insulation laminated to a durable, reinforced PVC jacket
7. Spence series “J” pneumatic steam control valve with 250# thrd. cast iron globe style body with hardened 420 stainless steel trim. Mounted with a pneumatic air-to-open (fail closed) pneumatic actuator. Valve sizing by manufacturer to meet capacity requirements.
8. Spence type “T61” pneumatic temperature controller with air filter/regulator loading set.
9. Domestic water thermometer direct mounted with separable thermowell
10. Steam pressure gauge with shut-off cock

Each packaged water heater shall consist of the following components, as supplied by the water heater manufacturer, shipped loose for installation on-site.

1. Colton CFT series float & thermostatic steam trap as sized by manufacturer to meet capacity requirements
2. Colton CVB series vacuum breaker

MATERIALS OF CONSTRUCTION

Shell – 90/10 Copper Nickel, ASME certified for 155 psig working pressure
Tubes – 90/10 Copper-Nickel, Single Wall
Tubesheet – Solid Copper Alloy
Baffles – Teflon
Shell Connections – Solid Copper Alloy

WARRANTY

The heater manufacturer shall warranty all components and workmanship for one year from date of start-up. The following components are to carry an extended, unconditional, non-prorated warranty, which shall be included as part of the submittal:

1. TUBE BUNDLE

The entire tube bundle assembly, from the steam inlet to the condensate outlet, shall be guaranteed for 10 years against failure from thermal shock, mechanical failure or erosion

2. PRESSURE VESSEL

20 year warranty against leakage

3. ANTICIPATOR TEMPERATURE CONTROL

20 year warranty against any failure