SPECIFICATION TEMPLATE

1. GENERAL

Furnish and install as shown on the plans (Qty) Precision model FPS_____ forced-draft, (natural gas) (oil) (gas/oil) fired, vertical firetube steam boiler rated at (__) boiler horsepower. Boiler shall be designed for a maximum allowable working pressure of (___) psi and shall deliver (____) lb/hr (from & at 212°F) of steam at (_____) psi operating pressure. Boiler shall be completely factory assembled and tested, with controls and trim as specified below. Complete package shall be UL Listed and shall carry the Underwriters Laboratories Listing Mark. Units shall also comply with ASME CSD-1. Boiler burner shall be designed for (__) V, (_) PH, (___) HZ electrical supply with single point power connection.

2. PRESSURE VESSEL

Vessel shall be constructed and stamped in accordance with ASME Section IV "H' code and shall be registered with the National Board. Shell and tube-sheets shall be fabricated from carbon steel. Tubes shall be 2" OD x 0.105" wall SA178A ERW tubing. Vessel shall be equipped with inspection openings as required by ASME Code.

3. COMBUSTION CHAMBER

Combustion chamber shall be fabricated from steel plate, lined with ceramic fiber blanket. Combustion chamber wall and bottom shall be of monolithic construction, formed from high temperature refractory, not less than 4-inches thick.

4. BURNER

Provide forced-draft, flame retention head burner to burn (natural gas) (oil) (gas/oil) with (off-on) (low-high-low) (full modulation) firing rate control. Burner shall be equipped to fire at a maximum input of (_____) Btu/hr at an elevation of (_____) ft above sea level. Blower motor shall be 3450 rpm design and includes motor starter. Burner controls shall conform to UL795 (natural gas fired), UL726 (oil fired), and/or UL2096 (Low Nox natural gas fired) and (CSD-1/FM/IRI) codes. For power supply other than 120V, the burner shall be equipped with a control circuit transformer.

5. BURNER CONTROLS & BOILER TRIM

Boiler shall be provided with the following controls:

- Properly sized ASME safety valve(s) set at (_____) psig, manual drain valve and pressure gauge with gauge cock.
- Operating control, automatic reset high limit, and manual reset high limit with siphon manifold.
- Float type primary water level control and automatic reset low water cut-off with water level gauge glass and manual blowdown valve; probe type auxiliary secondary low water cut-off with manual reset and pilot light.
- Slow-opening and quick-opening bottom blowdown valves.

6. Packaging

Complete package shall be factory assembled and mounted on structural channel support skid. All specified components are to be mounted, piped and wired. Boiler shall be insulated with a minimum of 4 inches of 3/4 pound density fiberglass and housed in a rectangular, 16 gauge enamel painted steel jacket. Jacket temperatures shall not exceed 130°F during continued operation at high fire. Lifting lugs shall be provided to allow rigging of package during installation.

SPECIFICATION TEMPLATE

1. GENERAL

Furnish and install as shown on the plans (Qty) Precision model FPS_____ forced-draft, (natural gas) (oil) (gas/oil) fired, vertical firetube steam boiler rated at (__) boiler horsepower. Boiler shall be designed for a maximum allowable working pressure of (___) psi and shall deliver (____) lb/hr (from & at 212°F) of steam at (_____) psi operating pressure. Boiler shall be completely factory assembled and tested, with controls and trim as specified below. Complete package shall be UL Listed and shall carry the Underwriters Laboratories Listing Mark. Units shall also comply with ASME CSD-1. Boiler burner shall be designed for (__) V, (_) PH, (___) HZ electrical supply with single point power connection.

2. PRESSURE VESSEL

Vessel shall be constructed and stamped in accordance with ASME Section I "S' code and shall be registered with the National Board. Shell and tube-sheets shall be fabricated from carbon steel. Tubes shall be 2" OD x 0.105" wall SA178A ERW tubing. Vessel shall be stress relieved (units > 15 psi design) and equipped with inspection openings as required by ASME Code.

3. COMBUSTION CHAMBER

Combustion chamber shall be fabricated from steel plate, lined with ceramic fiber blanket. Combustion chamber wall and bottom shall be of monolithic construction, formed from high temperature refractory, not less than 4-inches thick.

4. BURNER

Provide forced-draft, flame retention head burner to burn (natural gas) (oil) (gas/oil) with (off-on) (low-high-low) (full modulation) firing rate control. Burner shall be equipped to fire at a maximum input of (_____) Btu/hr at an elevation of (_____) ft above sea level. Blower motor shall be 3450 rpm design and includes motor starter. Burner controls shall conform to UL795 (natural gas fired), UL726 (oil fired), and/or UL2096 (Low Nox natural gas fired) and (CSD-1/FM/IRI) codes. For power supply other than 120V, the burner shall be equipped with a control circuit transformer.

5. BURNER CONTROLS & BOILER TRIM

Boiler shall be provided with the following controls:

- Properly sized ASME safety valve(s) set at (_____) psig, manual drain valve and pressure gauge with gauge cock.
- Operating control, automatic reset high limit, and manual reset high limit with siphon manifold.
- Float type primary water level control and automatic reset low water cut-off with water level gauge glass and manual blowdown valve; probe type auxiliary secondary low water cut-off with manual reset and pilot light.
- Slow-opening and quick-opening bottom blowdown valves.

6. Packaging

Complete package shall be factory assembled and mounted on structural channel support skid. All specified components are to be mounted, piped and wired. Boiler shall be insulated with a minimum of 4 inches of 3/4 pound density fiberglass and housed in a rectangular, 16 gauge enamel painted steel jacket. Jacket temperatures shall not exceed 130°F during continued operation at high fire. Lifting lugs shall be provided to allow rigging of package during installation.