SUGGESTED SPECIFICATIONS

PEERLESS®
PINNACLE®
HIGH EFFICIENCY STAINLESS STEEL BOILER

PO BOX 447
NEW BERLINVILLE, PA 19545-0447

Peerless® Pinnacle™ High Efficiency Stainless Steel Boiler

I. GENERAL REQUIREMENTS

A. The boiler(s) shall be of a low pressure, stainless steel, direct vent, sealed combustion, premix gas design and shall be tested and design certified to the current ANSI Z21.13 standard and listed in the UL Certifications Directory.

B. The boiler(s) shall be certified in the U.S. and Canada by Underwriters Laboratories, Inc. and shall bear the C-UL-US Mark.

C. The boiler(s) shall be listed in the I=B=R Ratings Directory and shall bear the I=B=R Emblem.

D. The boiler(s) shall be capable of developing full DOE Heating Capacity at 100 percent firing rate.

E. The boiler(s) will be Peerless Model PI-_____ for (natural) (LP) gas with a DOE Heating Capacity of _____ MBH and a Net I=B=R Water Rating of _____ MBH.

F. The boiler(s) shall be constructed in accordance with the provisions of Section IV of the ASME Boiler and Pressure Vessel Code and shall be stamped with the required ASME symbol. The boiler(s) shall be hydrostatically tested for a maximum allowable working pressure of 30 PSI.

G. The boiler(s) shall be low NOx certified by the South Coast Air Quality Management District (SCAQMD) in California, shall have a seasonal efficiency rating of 92% AFUE and shall bear the ENERGY STAR® label.

H. The boiler(s) shall be factory assembled, wired and fire tested prior to shipment.

II. BOILER CONSTRUCTION FEATURES

A. The heat exchanger shall be constructed of a high-grade stainless steel.

B. The boiler(s) shall be provided with a premix design high-grade stainless steel burner. The burner shall be designed to operate quietly during all phases of operation.

C. System supply and return piping connections, gas connection and electrical connections (J-box with pre-stripped wires, plate and switch) shall be located on the LH side of the boiler.

D. All controls shall be accessible from the top/front of the boiler for ease of service and maintenance.

E. The boiler(s) and boiler vent pipe shall be design certified for installation with zero clearance to combustibles.

F. The boiler(s) shall be design certified for closet installations and installation on combustible floors.

G. A condensate drain connection and trap shall be factory piped and located at the bottom rear of the boiler(s).

H. The boiler(s) shall be provided with a scratch resistant, high-density injection molded poly-plastic jacket.

III. BOILER FOUNDATION

A. Provide a suitable level surface or platform for the boiler(s) to sit on.

Following is optional (specify if required):

B. The boiler(s) shall be provided with a 26"W x 26"D x 17" to 31"H adjustable height floor mounted galvanized steel stand *(one required per boiler)*.

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IV. BOILER TRIM AND CONTROLS

A. The boiler(s) shall be provided with a safety relief valve set to relieve at 30 PSI. The valve shall conform to Section IV of the ASME Boiler and Pressure Vessel Code.

B. The boiler(s) shall be provided with a combination pressure-temperature gauge to indicate boiler pressure and temperature.

C. The boiler(s) shall be provided with a high limit temperature switch, thermodisc temperature switch, water pressure switch, air pressure switch and (2) water temperature thermistors.

Following are optional (specify if required):

D. The boiler(s) shall be provided with a manual reset high limit temperature control.

E. The boiler(s) shall be provided with a probe type low water cut-off.

V. BURNER AND CONTROLS

A. The gas control train shall be factory assembled and shall include a manual shutoff valve, a venturi style gas valve and a variable speed combustion blower. Premix technology shall mix the combustion air and gas before it is burned.

B. The boiler(s) shall be provided with direct spark ignition of the main flame. Main flame shall be supervised using a flame rod and flame rectification.

C. Burner operation shall be full modulation with a 3:1 turndown ratio.

D. A microprocessor controller shall control pre-purge and post-purge, burner modulation and boiler operation. The controller shall include adjustable temperature and differential set points, an LED diagnostic light to indicate normal operation and to assist with troubleshooting, and a set of dry circulator contacts.

E. Electrical requirements shall be 120 Volt, 60 HZ, 1 Phase with a 15 amp circuit breaker.

F. Inlet gas pressure to the gas train under full flow conditions shall be a minimum of 3.7” W.C. If the inlet gas pressure exceeds 13.5" W.C., a lock-up type gas pressure regulator shall be installed in the main gas supply to the boiler(s) to provide a maximum lock-up gas pressure of 13.5" W.C.

VI. VENTING

A. The boiler(s) shall be vented (through the wall) (through the roof) using 3" Schedule 40 PVC pipe for the exhaust and the air intake. The exhaust and air intake connections shall be at the rear of the boiler(s).

B. The boiler(s) shall be capable of being vented up to a combined total equivalent length of 85' of 3" PVC pipe *(includes exhaust pipe, air intake pipe and fitting allowance).*

C. The boiler(s) shall be provided with a vent termination kit consisting of a 3" PVC screened “T” air intake terminal and a 3" PVC screened coupling exhaust terminal *(requires 2 holes through wall/roof).*

Following are optional (specify if required):

D. The boiler(s) shall be provided with a 3" concentric vent termination kit *(requires 1 hole through wall/roof).*

E. The boiler(s) shall be provided with a 3" aluminum vent termination kit *(requires 2 holes through wall).*

VII. CONDENSATE REMOVAL

A. Provide a suitable means of condensate removal *(Use either gravity to a drain or a condensate pump to pump it to a drain, depending on boiler location; condensate has a low PH level; check with local codes and ordinances before connecting to a drain).*