High Temperature Hot Water Boilers (Section I) Specification & Order Form / Power Burner Fired

BURNER CAPACITY

The Boiler shall be a Rite Model _____ Hot Water boiler with a capacity of _____ MBH input and a nominal output of _____ MBH (_____ Boiler Horsepower).

PRESSURE VESSEL

The boiler shall be ASME Section I stamped for 150 PSIG or greater and registered with the National Board. It shall be of the inclined water tube design with 2" non-proprietary straight "see through" steel tubes (SA 178 Grade A, 13 Gauge) rolled between two headers (steel drums). Headers shall be free to expand and contract (no stay bolts shall be used) in order to reduce stresses caused by "thermal shock".

HEADERS (WATER DRUMS)

Both headers shall incorporate bolted-and-gasketed removable head-plates that will completely expose all waterside surfaces for inspection and cleaning when opened. Header flanges shall have drilled and tapped smooth surfaces for easy gasket clean-up and flange maintenance. Flange welded studs shall not be used. Headplates shall be insulated.

WATER TRIM

Standard water trim shall include safety relief valve(s) set at 150 psi minimum and a probe or float type low water cutoff (manual reset) rated for a minimum of 150 psi service. A high limit (manual reset) and operating control shall prevent the boiler water temperature from exceeding 350° F or higher. Separate pressure and temperature gauges shall be provided near the hot water outlet. An air elimination fitting shall be provided. A water flow switch is not required and the boiler shall be capable of firing and brought up to temperature with the system pump off without damaging the tubes or pressure vessel.

WARRANTY

The boiler shall carry a twenty-five year thermal shock warranty and a twenty-five year tube erosion warranty in addition to a standard parts and workmanship warranty.

LISTINGS / APPROVALS

In addition to the ASME & National Board Certifications, the boiler/burner package shall meet the requirements of CSD-1.

STACK REQUIREMENTS

If gas fired (Natural or LP) the boiler shall be recognized as a Category 1 appliance and U.L. listed for use with Type B Gas Vent. If #2 oil fired, combination gas and #2 oil fired or digester gas fired, then the boiler shall be recognized as a Category 3 appliance and the stack inner liner shall be stainless steel. All models shall be supplied with a barometric damper (shipped loose) and a draft gauge installed near the controls with the proper draft range shown in inches water column.

BURNER

The burner shall be power type with a blower motor and have air-fuel adjustment throughout the firing range. It shall have a burner mounted panel to house all burner controls including a stepdown control transformer for all three phase burner motors and a manual potentiometer for modulating burners.

FLAME SAFEGUARD

The flame safeguard control shall incorporate E-PROM memory and be capable of incorporating a message center. Main Flame shall be supervised when inputs are over 2500 MBH. U.V. scanner and spark ignition are standard unless otherwise specified.

GAS TRAIN - IF USED

The gas train shall be completely piped and wired with a minimum of two main safety gas shutoff valves wired in series. It shall also include a main and pilot gas pressure regulator, each suitable to handle the specified maximum supply gas pressure. Valve leak test cocks shall be provided. High and low gas pressure switches shall be provided for inputs over 2500 MBH. A motorized main safety shutoff valve with proof of closure shall be provided for inputs over 5000 MBH.

OIL PIPING - IF USED

The oil valve train shall consist of a minimum of two oil safety shutoff valves in series.

ELECTRICAL

The boiler/burner circuit shall require only one supply voltage and point of connection unless otherwise specified.

OPTIONS

The following options shall also be required:
_____ Hinged Headplates (front & rear)
_____ Insulated Headplates (front & rear)
_____ 3 X 4 Handholes (front & rear)
_____ Factory Mutual approvals
_____ Industrial Risk Insured approvals
_____ Other (See corresponding Green Price List C for more options)

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