

# SUGGESTED SPECIFICATIONS



## Series GM™ Atmospheric Gas-Fired Boilers

### I. GENERAL REQUIREMENTS

- A. The boiler(s) shall be of a low pressure, cast iron, atmospheric gas design and shall be tested and design certified to the current ANSI Z21.13 CSA 4.9 standard.
- B. The boiler(s) shall be capable of developing full ETL listed heating capacity at 100 percent firing rate and shall bear the ETL listed mark on the boiler.
- C. The boiler(s) shall be listed in the AHRI Directory of Certified Product Performance and shall bear the I=B=R Emblem.
- D. The boiler(s) shall be GM-e Model \_\_\_\_\_ for natural gas with a ETL heating capacity of \_\_\_\_\_ MBH and a Net I=B=R Water Rating of \_\_\_\_\_ MBH.
- E. The boiler sections 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 100 PSIG.
- F. The boiler(s) shall be factory packaged with jacket, burners, limit control boiler reset with low water cut-off, flame rollout safety shutoff switch, vent safety shutoff switch, and gas control train mounted and wired.

### II. BOILER CONSTRUCTION FEATURES

- A. The boiler sections shall be assembled with steel push nipples to provide a permanent water-tight seal between the sections.
- B. Each section shall be evenly spaced with spacing pads and high temperature sealing rope shall be used to provide a permanent gas-tight seal between the sections.
- C. The boiler(s) shall be furnished with a corrosion resistant aluminized steel flue collector and vertical draft hood. The flue collector shall be sealed to the top of the boiler sections with high temperature ceramic blanket.
- D. The boiler(s) shall be provided with aluminized steel main burners of a one-piece slotted port design. The burners shall be designed to provide quiet ignition and extinction.
- E. The return piping connection shall be located in the front and the supply piping connection at the top/front of the boiler.
- F. All controls shall be located at the front or top/front of the boiler for ease of service and maintenance.
- G. The boiler(s) shall be provided with an insulated steel deluxe jacket with a painted finish.

### III. BOILER FOUNDATION

- A. A concrete housekeeping pad shall be provided as recommended by the boiler manufacturer if the boiler room floor is not level or if additional support is needed.

## IV. BOILER TRIM AND CONTROLS

- A. The boiler(s) shall be provided with a safety relief valve set to relieve at (30) (50) (80) (100) PSIG. 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 control.

*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. IGNITION SYSTEM

*Intermittent Ignition*

- A. The gas control train shall be factory assembled and shall include a combination gas control with manual valve, two automatic operators, pressure regulator and pilot adjustment. The control shall automatically recycle after a gas or power outage.
- B. The boiler(s) shall be provided with an intermittent burning electronically supervised safety pilot.
- C. The boiler(s) shall be provided with a motorized vent damper that closes whenever the boiler is not firing to minimize standby losses. The vent damper shall be provided with a plug-in wiring harness for ease of installation.
- D. Inlet gas pressure to the gas train under full flow conditions shall be a minimum of 4.5" W.C. for the GM-e-05 and 06, and 4.8" W.C. for the GM-e-07.
- E. 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.