

ENGINEERING SPECIFICATIONS

The complete heating system supplied shall have the following certifications and characteristics:

- CSA design certified
- Made in the U.S.A.
- Manufactured under a recognized quality management system (ISO 9001)

Burner and Controls

Burners shall be capable of being equipped to operate on either natural gas or LP gas.

For Altitudes 0-2000ft (US) 0-4500 (Canada); Burners shall be supplied to operate at any of the following fuel input rates:

- 40,000 BTU/hr.
- 60,000 BTU/hr.
- 75,000 BTU/hr.
- 100,000 BTU/hr.
- 125,000 BTU/hr.
- 150,000 BTU/hr.
- 175,000 BTU/hr.
- 200,000 BTU/hr. (Natural gas only)

For Altitudes 0-6000ft (US) 0-6000 (Canada); Burners will need to be de-rated according to the chart located at the back of this document.

High altitude conversions are only approved for models rated 75 MBTUH to 175 MBTUH (Natural and LP).

Burners shall be equipped with a fully automatic ignition system including a hot-surface igniter and an independent flame (rectification) sensor, and have a single trial-for-ignition control with 100% safety lockout.

Power supplied to each heater shall be 120V, 60Hz, single-phase and be rated for 5.0A max. for ignition sequence and 1.2A max. for run sequence.

Burner shall be equipped with thermal overload motor protection, balanced air rotor, combustion air proving safety air-pressure switch, pilot lights for indication of main power and gas valve operation, and a viewing window for flame observation.

For use in contaminated atmospheres, burners shall be capable of supplying outside combustion air.

Burners shall be controlled by a line-voltage thermostat and two units may be controlled by the same thermostat.

The enclosure shall be powder-coated to provide corrosion resistance and preserve appearance.

Gas supply shall be as follows:

Natural gas: 6in w.c. min/ 14in w.c. max
Propane: 12in w.c. min/14in w.c. max

Connection at burner shall be 1/2" NPT

Emitter Tubing

The emitter tubing shall be 4in OD, 16-gauge steel. The first 10ft. shall be Alum-a-therm on every model except 175 and 200 MBTUH models. These models must have 20ft of Alum-a-therm tubing adjacent to the burner.

Tubing sections shall be joined by type 1 aluminized steel couplers.

Reflectors shall be of mill-finished aluminum designed such that they can be aimed straight down or angled at 45 degrees.

The reflector system shall be capable of accepting end caps at each interface to retain heat.

Aluminized steel non-load-bearing baffles shall be used as specified to properly distribute heat.