

Contacts, Runtime Contacts, Manual Reset Low Water Cutoff, Flow Switch, High and Low Gas Pressure Switches, Tank Thermostat, Three Wall Thermostat/Zone Controls, System Supply Sensor, Outdoor Sensor, Building Management System Signal, Modbus Control Contacts and Cascade Control Circuit. A high voltage terminal strip shall be provided for supply voltage. The high voltage terminal strip plus integral relays are provided for independent pump control of the System pump, the Boiler pump and the Domestic Hot Water pump.

The **BOILER** shall be installed and vented with a (select one):

**(a) Direct Vent Sidewall** system with a horizontal sidewall termination of both the vent and combustion air. The flue shall be PVC, CPVC or Stainless Steel sealed vent material terminating at the sidewall with the manufacturers specified vent termination. A separate pipe shall supply combustion air directly to the **BOILER** from the outside. The air inlet pipe may be PVC, CPVC, ABS, Galvanized, Dryer Vent, or Stainless Steel sealed pipe. The air inlet must terminate on the same sidewall with the manufacturer's specified air inlet cap. The **BOILER's** total combined air intake length shall not exceed 100 equivalent feet. The **BOILER's** total combined exhaust venting length shall not exceed 100 equivalent feet. *Foam Core pipe is not an approved material for exhaust piping.*

**(b) Direct Vent Vertical** system with a vertical roof top termination of both the vent and combustion air. The flue shall be PVC, CPVC or Stainless Steel sealed vent material terminating at the roof top with the manufacturers specified vent termination. A separate pipe shall supply combustion air directly to the **BOILER** from the outside. The air inlet pipe may be PVC, CPVC, ABS, Galvanized, Dryer Vent, or Stainless Steel sealed pipe. The air inlet must terminate on the roof top with the manufacturer's specified air inlet cap. The **BOILER's** total combined air intake length shall not exceed 100 equivalent feet. The **BOILER's** total combined exhaust venting length shall not exceed 100 equivalent feet. *Foam Core pipe is not an approved material for exhaust piping.*

**(c) Vertical Vent with Sidewall Air** system with a vertical rooftop termination of the vent with the combustion air being drawn horizontally from a sidewall. The flue shall be PVC, CPVC, or Stainless Steel sealed vent material terminating at the roof top with the manufacturers specified vent termination. A separate pipe shall supply combustion air directly to the **BOILER** from the outside. The air inlet may be PVC, CPVC, ABS, Galvanized, Dryer Vent, or Stainless Steel sealed pipe. The air inlet must terminate on a sidewall using the manufacturers specified air inlet cap. The **BOILER's** total combined air intake length shall not exceed 100 equivalent feet. The **BOILER's** total combined exhaust venting length shall not exceed 100 equivalent feet. *Foam Core pipe is not an approved material for exhaust piping.*

The **BOILER** shall have an independent laboratory rating for Oxides of Nitrogen (NO<sub>x</sub>) of 20 ppm or less corrected to 3% O<sub>2</sub>. The manufacturer shall verify proper operation of the burner, all controls and the heat exchanger by connection to water and venting for a factory fire test prior to shipping.

The **BOILER** shall be suitable for use with poly propylene glycol, up to 50% concentration without contingencies.

The **BOILER** shall operate at altitudes up to 4,500 feet above sea level without additional parts or adjustments.

Maximum unit dimensions shall be: Length \_\_\_\_\_ inches, Width \_\_\_\_\_ inches and Height \_\_\_\_\_ inches. Maximum unit weight shall be \_\_\_\_\_ pounds.

The Firing Control System shall be \_\_\_\_\_ (Options Below).

**M9 Direct Spark Ignition with Electronic Supervision (Standard)**

#### **OPTIONAL CONSTRUCTION CODES**

The **BOILER** shall be constructed in accordance with \_\_\_\_\_ requirements. (Options Below)

**M7 California Code (KB 210-285)**

**MA Massachusetts Code**

**KY Kentucky Code**

**Note: Due to the large discrepancy in CSD-1 requirements from state to state, please confirm to the factory all controls required in your jurisdiction.**