



## TYPICAL SPECIFICATIONS FOR INFINITE ENERGY HOT WATER SUPPLY BOILER MODELS 199 & 399

The **Hot Water Supply Boiler** shall be **RBI INFINITE ENERGY** Model **IEW**\_\_\_\_\_ having an input rating of \_\_\_\_\_ MBH and \_\_\_\_\_ MBH output. The **Hot Water Supply Boiler** shall operate on \_\_\_\_\_ NATURAL \_\_\_\_\_ PROPANE. The efficiency shall be up to 97.3% AFUE (IEW-199) and 95.5% Combustion (IEW-399).

The **Hot Water Supply Boiler** shall be capable of full modulation firing to 20% of rated input at a 5:1 turn down ratio. The **Hot Water Supply Boiler** shall be designed certified and tested by Intertek ETL Semko. The **Hot Water Supply Boiler** shall meet the latest requirements of ANSI Z21.13/CSA 4.9 as listed by CSA International standards.

### COMBUSTION CHAMBER:

The combustion chamber shall be stainless steel. The **Hot Water Supply Boiler** shall be constructed with a heavy gauge steel jacket assembly pre-painted black with 120V convenience outlet. The combustion chamber shall be completely enclosed and sealed independent of the outer jacket assembly.

### BURNER:

The burner shall be a premix, modulating design constructed of high temperature stainless steel with woven metal fiber providing equal distribution of heat throughout the entire heat exchanger. The burner shall be easily removed for maintenance without disruption of any other major component of the Water Heater. A window view port shall be provided for visual inspection of the flame during firing.

### HEAT EXCHANGER:

The **Hot Water Supply Boiler** shall be designed, constructed and inspected in accordance with ASME Boiler and Pressure Vessel code Section IV and bear the "H" Stamp seal of approval. The heat exchanger shall be gasketless. Heat exchangers utilizing gaskets or "O" rings will not be accepted. The stainless steel heat exchanger shall be designed to drain condensation to the bottom of the heat exchanger assembly. Water Heater shall have built-in condensate trap with neutralization and blocked condensate switch to allow condensation to drain from the assembly. The heat exchanger shall carry a maximum working pressure of 160 psi and be constructed of 304L stainless steel. A pressure relief valve of 125 lb/sq. in. shall be supplied with the boiler.

### CONTROLS:

Standard **Hot Water Supply Boiler** control shall be factory mounted control with plain English status display for set-up, operating status and diagnostics. Control sensors shall include: thermistors for sensing inlet and outlet temperatures, high limit control, aquastat, and flow switch (not included), and relief valve, on/off switch, flue temperature sensor, low water cutoff connection, freeze protection, service notification and fault history.

### FIRING MODE:

Firing mode shall be full modulation 5:1 ratio.

### GAS TRAIN:

Gas valve shall be a negative pressure gas valve with variable speed blower operation to precisely control the air/fuel mixture for maximum modulating efficiency. Gas valve shall operate in a safe condition with gas supply pressures as low as 3.5 inches of water column.

### IGNITION MODULE:

The Water Heaters ignition control system shall be dual flame sensing with electronic supervision and high energy spark ignition.

### VENTING OPTIONS:

1. Direct Venting with PVC, CPVC, PP(s) or Stainless Steel
2. Sidewall Venting with PVC, CPVC, PP(s) or Stainless Steel
3. Vertical Venting with PVC, CPVC, PP(s) or Stainless Steel

Total combined air intake length should not exceed 100 equivalent feet (30 m). Total combined exhaust venting length shall not exceed 100 equivalent feet (30 m). Total combined intake and exhaust vent lengths should not exceed 200 equivalent feet (60 m).

### INDUSTRY STANDARDS OPTIONS:

California Code Compliant  
Massachusetts Code Compliant