



TYPICAL SPECIFICATIONS FOR RBI LCD SERIES HYDRONIC HEATING BOILERS MODELS 225 - 2300

The **BOILER** shall be a **RBI DOMINATOR SERIES** Model **LB** _____ having an input rating of _____ BTU/HR and an output rating of _____ BTU/HR. The Boiler shall be operated on _____ Natural Gas _____ L.P. Gas. Boiler thermal efficiency will be a minimum of 82%.

The Boiler shall be design certified and tested by International Approval Services. The Boiler shall meet the requirements of ANSI Standard Z21.10.3 and the Canadian Gas Association Standard CGA 3.3. The Boiler shall operate on negative stack pressure and Category I according to ANSI Standards or Class I according to CGA Standards. The Boiler shall be approved for indoor or outdoor installation. The Boiler shall be approved for Sidewall, Direct Vent Vertical and Direct Vent Horizontal sealed combustion up to 35' equivalent length. Flue outlet shall be field convertible to allow venting from top or rear outlet of Boiler.

HEAT EXCHANGER:

The heat exchanger shall be inspected and bear the A.S.M.E. Section IV seal of approval. The A.S.M.E. Section IV seal of approval will not be provided as standard for jurisdictions not requiring the A.S.M.E. Section IV seal of approval. The heat exchanger shall be a two-pass design with maximum working pressure of 160 psi. The water tube shall be of straight 7/8" I.D., .064" minimum wall thickness; integral finned copper tube, 7 fins per inch, with a fin height of 3/8". The water tubes shall be set horizontally with heavy galvanized steel "V" baffles tightly secured above the tubes throughout the length of the water tubes. Each end of the water tubes shall be strength rolled onto a steel tube sheet. The headers shall be secured to the tube sheet by properly placed stud bolts, flange nuts and with the use of "o" rings. Headers will be of cast iron construction. "O" rings must be constructed of EPDM and Silicone, capable of withstanding temperature of 540° F. The use of red "o" rings constructed of Neoprene and Silicone with temperature ratings of 250° *will not* be allowed.

The Boiler shall have a **HEAT EXCHANGER DRAWER GUIDE RAIL** so that the heat exchanger may slide out for ease of service and maintenance.

COMBUSTION CHAMBER:

The combustion chamber shall be sealed and completely enclosed with high temperature ceramic fiberboard insulation. The burners shall be constructed of "4509 Uginox" Stainless Steel Alloy and fire on a horizontal plane. The Boiler shall have two, two-speed integral combustion air blowers to precisely control the fuel/air mixture for maximum efficiency across the firing range. Standard firing for the Boiler will be two-stage, capable of 50% of total input in stage one and 100% in full-fire mode.

CONTROLS:

Boiler staging will be controlled by a Honeywell two-stage set point control. A Relay Logic Board will incorporate all relay functions and purge time delays. Standard control system will be a United Technologies Controls 600A Series spark-to-pilot proven ignition with full flame monitoring capability. Hot Surface Ignition systems of any type *will not* be permitted. The control panel shall have a master switch with an indicating light and sequential and diagnostic indicator lights. Honeywell RM7896C flame safeguard available as optional control.

Additional standard controls shall include manual reset high limit, low air and blocked flue pressure switch to monitor fan operation, inlet and outlet temperature gauges, and 24 VAC control circuit.

GAS TRAIN:

The gas train shall include a lubricated manual gas valve, pilot gas pressure regulator, Honeywell VR8205Q two-stage Pilot Valve, Honeywell V8943 Safety Valve, and two Honeywell V8944B two-stage Firing Valve.

INDUSTRY STANDARD OPTIONS:

Industry standard options include:

1. Factory Mutual (FM)
2. Industrial Risk Insurers (IRI)
3. Improved Risk Mutual (IRM)
4. California Code (CC)
5. Illinois School Code (ISB)
6. Minnesota Code (MC)

NOx EMISSIONS:

The Boiler shall have certification with SCAQMD Rule 1146.2 for NOx emissions of 30 PPM or less.

PAINT FINISH:

The paint finish shall be RBI Gray Hammer Toned Finish or Brushed Stainless Steel