



Suggested Specifications Utica Boilers Combi Condensing Boiler CO-90, 150, 200

1.0 General Requirements:

- 1.1 Provide and Install Boiler(s) in accordance with plan drawings, written specifications, and contract documents.
- 1.2 All work shall be performed in a neat workmanship like manner compliant with all local code authorities.

2.0 Submittal

- 2.1 Product Data: Submit manufacturer's technical product data, including rated capacities of selected model, weight, installation and start-up instructions, and furnished accessory information.
- 2.2 Shop Drawings: Submit manufacturer's assembly drawings indicating dimensions, connection locations, and clearance requirements.
- 2.3 Wiring Diagrams: Submit manufacturer's electrical requirements for the boiler including ladder type wiring diagrams for interlock and control wiring.

3.0 Boiler Requirements

- 3.1 Boiler shall provide hot water for heating zones and shall include a built-in stainless steel brazed plate heat exchanger to provide potable domestic hot water at the stated rate.
- 3.2 Boiler shall be certified for Category IV and Direct Vent applications.
- 3.3 Boiler shall be a wall hung model.
- 3.4 Boiler shall be factory tested.
- 3.5 Refer to all local codes and jurisdictional requirements for installation of field supplied anti-scald valve(s).

4.0 Acceptable Manufacturers

- 4.1 Equivalent units and manufacturers must meet all performance criteria for all fuel options and will be considered upon prior approval.

5.0 Certifications & Listings

- 5.1 Boiler shall be certified by CSA, AHRI, NRCAN.
- 5.2 Registered with Massachusetts Board, National Board BPVI.
- 5.3 Boiler shall be constructed in accordance with the American Society of Mechanical Engineers (ASME)
- 5.4 Boiler shall have an ASME H stamp that is applied to the heat exchanger. Each heat exchanger shall be independently reviewed by an ASME authorized inspector. The boiler heat exchanger shall be rated for a maximum allowable working pressure of 50 psig. The boiler shall be equipped with a 30-psig relief valve.

6.0 System Requirements

- 6.1 Central heat hydronic system pressure shall be no more than 30 psig and no less than 11.6 psig.
- 6.2 Domestic hot water hydronic system pressure shall be between 14.5 and 166 psig.



7.0 Construction

- 7.1 Boiler heat exchanger shall be constructed of Iron-Chromium stainless steel parallel tube, encased in a Noryl Resin housing.
- 7.2 Burner Components
 - 7.2.1 Gas valve shall be capable of firing in a range suitable for installation requirements and at a 10:1 turndown ratio.
 - 7.2.2 Induced draft blower shall be variable speed and controlled by a PCB.
 - 7.2.3 Burners shall be constructed of Iron-Chromium stainless steel.
 - 7.2.4 Ignition system shall be direct spark with a separate flame sensing rod.
 - 7.2.5 Boiler shall include an internal stainless steel brazed plate heat exchanger for potable hot water and an automatic 3 way diverting valve to allow Domestic Hot Water Priority operation.
- 7.3 Boiler shall include an internal factory installed and wired Boiler Loop Pump.

8.0 Control System

- 8.1 Control system shall be PCB integral controller with an LCD digital display.
- 8.2 Control will sense supply water temperature and adjust firing rate of the boiler to deliver amount of heat needed.
- 8.3 Control will sense and display supply water temperature and indicate by icon when boiler is in central heating or domestic water mode.
- 8.4 Control will have a Brazed Plate Pre-Heat function. Pre-Heat mode will maintain the temperature of brazed plate heat exchanger to speed DHW delivery.
- 8.5 Control can accept wired Outdoor Air sensor and have field adjustable reset curves.
- 8.6 Control displays error codes and diagnostic information.
- 8.7 Control can accept 0-10V input to manage heating set-point or heating power level.



9.0 Combustion Air And Flue Vent Exhaust

- 9.1 The boiler shall be Category IV or Direct Vent, with materials compatible with those standards, and installed as per the manufacturer's written instruction, plan drawings and all applicable code authorities.
- 9.2 The flue gas exhaust shall connect directly to the boiler at the labeled location.

10.0 Electrical Connections

- 10.1 Supply voltage 120 volts 60 HZ 12 amp minimum size circuit (15 amp recommended). Boiler shall have factory wired and installed cord with male plug end 3 feet long.
- 10.2 Boiler shall have Low voltage terminal strip with clearly marked connections.

11.0 Quality Assurance

- 11.1 Warranty - Factory Standard Warranty is 10 years limited warranty on heat exchanger, five years limited warranty on parts for residential applications. Commercial applications is an 8 year limited warranty on heat exchanger, three years limited warranty on parts.
- 11.2 Factory testing - boiler shall be factory test fired.

12.0 Boiler Manuals

- 12.1 The boiler shall be provided with a complete set of instructions as follows:
 - 12.1.1 Installation, Operation and Maintenance Manual (IOM) with Application Guide
 - 12.1.2 Repair Parts Manual
 - 12.1.3 User's Manual