

## GAS FIRED BOILER – 95%+ AFUE – REPLACEMENT

### Equipment Requirements

- Furnish and install a 2 pipe sealed combustion AFUE rating to be 95%+ gas fired boiler as per manufacturer's installation instructions, state mechanical code, and the following specifications.
  - Boiler is to be sized with sufficient BTU output rating to maintain 70°F interior at -20° F exterior temperature as per Manual J.
- The unit is to include high limit control and relay, flow-sensing device in the outlet piping, back flow prevention device/RPZ (testing included if required), pressure and temperature gauges, a new expansion tank with automatic drain valve and pressure relief valve and piping to within 6" to floor.
- Minimum 20-year heat exchanger warranty on unit
- Remove and proper disposal of existing equipment.
- Install new programmable thermostat(s).
- An ACCA approved Manual J is required with invoice.
- Minimum service clearance shall be as per manufacturer specifications.

### Venting

- Close off and seal the existing flue opening in the chimney with a permanent seal.
- Furnish and install venting system as per the manufacturer's specifications and per the following:
  - All PVC connections on the boiler must be cleaned with purple cleaner.
  - Piping must be secured & suspended (not directly attached) to floor joists a minimum every 5'.
  - Intake terminates a minimum of 12" above the average snow accumulation or 12" above grade level, whichever is greater. Seal venting as they pass through the sill plate.
- Install condensate drain line and terminate at a floor drain or plumbing drain. Condensate pump must be installed if line will create a trip hazard.
- Test holes must be sealed with a stainless steel or PVC plug.

### Gas Line

- Furnish and install new approved gas line as per the state mechanical code.
- Determine gas supply by the length of run from the meter and must avoid pressure drop inconsistent with the boiler burner design.
- Install a new manual in-line gas approved shut-off valve on the supply side of the union, a ground joint type union, and a gas drip tee leg.

**NOTE: If ward flex or Gastite gas line will remain, it must be bonded by a licensed Electrician as per manufacturer's instructions and per state code.**

### Distribution System

- Furnish and install isolation valves (ball valves) above and below new circulation pump(s).
- Install siliconized water additive as per the manufacturer's specifications.
- The boiler is to be installed with existing zone(s).
- Ensure zone valves are in good working order, repair or replace as needed to provide proper distribution.
- Connect the boiler to the existing distribution system.
- Supplies running through unheated areas (crawl spaces, attics, etc.) shall be insulated with minimum R3 or higher closed cell foam pipe wrap. Radiation is to provide steady balanced heating.

### Electrical

- Wiring of the boiler by a licensed Electrician to be included as part of this contract.

### Homeowner info/Education

- Leave all manuals, all warranties, and instructions on equipment operation.
- Prominently display the installer's contact information on new unit.
- Educate household on proper operation and maintenance of system.
- Educate household on proper use and programming of thermostat(s).

Work shall be performed in accordance with the Standard Work Specifications developed by the National Renewable Energy Laboratory for the Weatherization Assistance Program along with state, local and municipal codes. These standards can be referenced at <https://sws.nrel.gov/>.