

OIL FIRED BOILER – 80%+ AFUE – REPLACEMENT

Equipment Requirements

- Furnish and install an oil-fired boiler AFUE rating to be 80%+, as per manufacturer's installation instructions, state mechanical code and per the following specifications.
 - Boiler 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, back flow prevention device/RPZ (testing included if required), automatic fill, low water cut-out, pressure and temperature gauges, 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 required is with invoice.
- Minimum service clearance shall be as per manufacturer specifications.
- Minimum clearance to combustibles shall be followed as indicated on the appliance rating plate.
- Flame retention burner included in procurement pricing.

Venting

- Combustion chamber is to be lined on dry base boilers to prevent burn through.
- Install new 24-gauge flue with new barometric damper with proper rise (minimum ¼ in. per ft) to ensure the elimination of waste gas.
- Horizontal flue connectors not to exceed 75% of the height of the vertical chimney.
- All flue joints should overlap 1 1/4" and be fastened with at least 3 screws and be securely anchored to boiler.
- In masonry chimneys, install a metal thimble to line the flue passage through the chimney wall, sealing around the chimney wall and thimble with mortar.
- Minimum clearance to combustibles shall be followed as per state mechanical code.

Fuel Line

- Replace the exposed oil supply with new copper supply with a new, in line oil filter.
- If leaking, replace oil supply valve with ball valve specifically designed for use with oil.

Distribution System

- The new boiler placed on raised platform or blocks.
- 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 closed cell foam pipe wrap. Radiation is to provide steady balanced heating.

Electrical

- Wiring of the furnace 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/>.