

FORCED AIR OIL FIRED FURNACE 80%+ with EC MOTOR – REPLACEMENT

Equipment Requirements

- Furnish and install forced air oil fired furnace AFUE rating to be 80%+ with EC motor as per manufacturer's installation instructions, state mechanical code and per the following specifications:
 - Furnace is to be sized with sufficient BTU output rating to maintain 70°F interior at -20°F exterior temperature as per Manual J.
- Minimum 15-year heat exchanger warranty on furnace
- Unit installed with minimum clearance to combustibles as indicated on the appliance rating plate.
- Remove and proper disposal of existing equipment.
- Install a new programmable thermostat.
- An ACCA approved Manual J required with invoice.
- Flame retention burner included in procurement.

Venting

- Combustion chamber is to be lined to prevent burn through.
- Install new flue (minimum of 24 gauge) with barometric damper with proper rise (minimum of 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". Each joint must be fastened with at least 3 screws. Flue is to be securely anchored to furnace.
- Install a metal thimble to line the flue passage through the chimney wall, sealing around the chimney wall and thimble with mortar.

Fuel line

- Replace exposed oil supply with new copper supply with a new in-line oil filter, by General Filter or equivalent.
- If leaking, replace oil supply valve with ball valve specifically designed for use with oil.

Distribution System

- The new furnace is to be placed on raised platform or blocks.
- Mechanically fasten furnace existing plenum and ducts, in a professional manner.
- Insulate existing heat runs passing through unheated spaces (unconditioned crawl spaces, attics, etc) to R-11.
- Negative air pressure in basements or furnace rooms is unacceptable.
- An easily accessible air filter rack with filter cover shall be installed in the main return air plenum.
- A new pleated filter of the highest MERV rating that can be installed without being overly restrictive is required as part of this installation.

Electrical

- Wiring of the furnace by a licensed electrician to be included as part of this contract.
- Service supply must be on a separate circuit that is controlled and identified at the service panel.

Homeowner info/Education

- Leave owner's manual(s), all warranties, and instructions on equipment operation.
- Prominently display the contractor's contact information on new unit.
- Educate household on proper operation and maintenance of system.
 - filter replacement; MERV rating, size, frequency, and how
 - proper use and programming of thermostat.

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/>.