



RESIDENTIAL ATTIC INSTALLATION REQUIREMENTS FOR FORCED AIR UNIT 2019 CALIFORNIA MECHANICAL

The following are general requirements for an attic furnace based on the 2019 CA Mechanical Code. This handout is intended to provide only general information, for further information contact the Building & Safety Division. **The manufacturers installation instructions shall be onsite and available for inspection.**

CMC Section 304.4

Appliances in Attics and Under-Floor Spaces. An attic or under-floor space in which an appliance is installed shall be accessible through an opening and passageway not less than the largest component of the applicant, and not less than 22 inches by 30 inches.

304.4.1 Length of Passageway.

Where the height of the passageway is less than 6 feet, the distance from the passageway access to the appliance shall not exceed 20 ft measured along the center line of the passageway.

304.2 Width of Passageway.

The passageway shall be unobstructed and shall have solid flooring not less than 24 inches wide from the entrance opening to the appliance.

304.4.3 Work Platform.

A level working platform or grade surface not less than 30 inches by 30 inches shall be provided in front of the service side of the appliance.

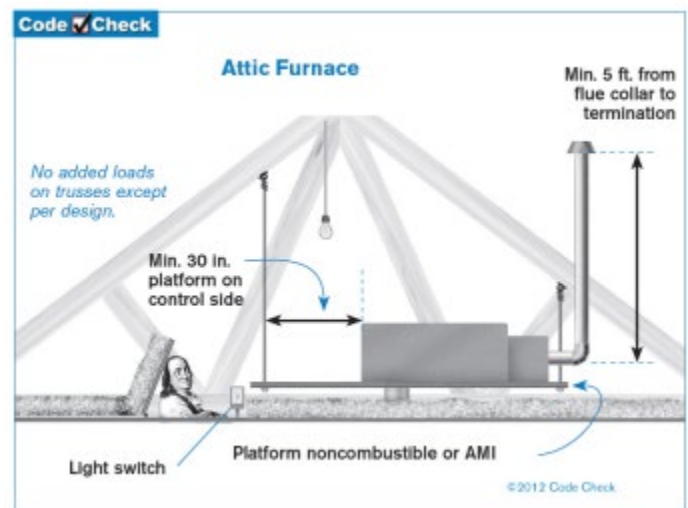
Exception: A working platform need not be provided where the furnace is capable of being serviced from the required access opening. The furnace service side shall not exceed 12 inches (305 mm) from the access opening.

304.4.4 Lighting and Convenience Outlet.

A permanent 120-volt receptacle outlet and lighting fixture shall be installed near the appliance. The switch controlling the lighting fixture shall be located at the entrance to the passageway.

904.10 Furnace (Upright and Horizontal).

Upright furnaces shall be permitted to be installed in an attic, furred, or under-floor space exceeding 5 feet in height, provided the required listings and furnace and duct clearances are observed. Horizontal furnaces shall be permitted to be installed in an attic, furred, or under-floor space, provided the required listings and furnace and duct clearances are observed.



Electrical Requirements

1. An approved, independent means of disconnect for the electrical supply to each piece of equipment shall be provided in sight of the equipment served when the supply voltage exceeds 50 volts. [CMC310, CEC 422.31(B), CEC 422.33(A)]
2. A dedicated circuit shall be provided for the furnace. (CEC 422.12)
3. A 120-volt service receptacle shall be located within 25 feet of, and on the same level as, the equipment for maintenance. The service receptacle shall not be connected on the load side of the required means of disconnect.
4. A permanent switch-controlled lighting fixture shall be installed for maintenance of equipment is required and shall be accessible. Such fixture shall provide enough illumination to safely approach the equipment and perform the tasks for which access is provided. Control of the lighting shall be provided at the access entrance. [CEC 210.70(A)(3)]
5. All electrical wiring within 6' of the attic access scuttle must be secured and protected by a guard strip to prevent damage to the cable. (CEC 320.23)

Duct Air Leakage Test [CEC 150.2(b)(1)(E)].

An air leakage test, performed by a HERS rater, is required for existing ducts whenever the existing furnace is replaced, a new one is installed, or an existing system is expanded. A completed CF1R form registered with CHEERS or CalCerts is required at the time of permit application. At the final inspection, the CF3R form completed by a HERS rater is required to be provided to the building inspector. A listing of certified HERS raters maybe found at: <http://www.energy.ca.gov/HERS/providers.html>

Clearance from Combustible Materials (CMC 904.2)

The clear space and distance to combustible materials around the furnace unit shall comply with the manufacturer's installation instructions.

Anchorage of Equipment (CMC 303.4)

The furnace shall be properly anchored and supported to sustain vertical and horizontal loads within the stress limitations specified in the California Building Code.

Plastic Vent Piping (CMC 802.4.2)

Plastic pipe and fittings used to vent appliances shall be installed in accordance with the appliance manufacturer's installation instructions. When primer is required, it shall be of a contrasting color.

Appliance Shutoff Valves and Connections (CPC 1212.6)

Appliance connected to a gas piping system shall have an accessible gas shut off valve within 6' of the appliance it serves.

FINAL INSPECTION

- Inspector's copy of the Permit shall be onsite.
- HERS testing forms shall be onsite.
- If a ladder is required to access the unit, the contractor shall have a ladder set up for inspection.
- Smoke detectors and carbon monoxide detectors must be installed and working at time of inspection.

All work is subject to field verification by the City Building Inspectors. Additional building permits may be required if scope of work exceeds the permit description.



Typical Installation of Furnace in Attic

