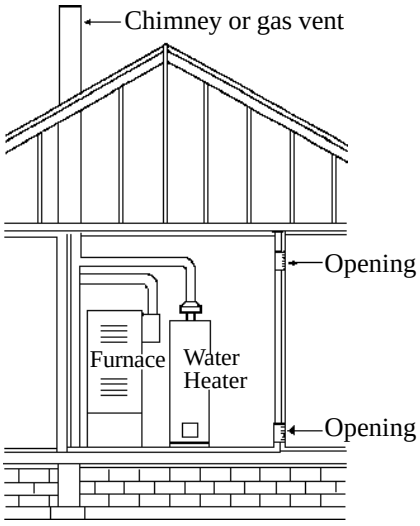
FRESH AIR FOR COMBUSTION, VENTILATION AND HEAT DISTRIBUTION - CONT'D.

STEP 4. Compare the total Btu the area can support (from Step 2) to the total Btu in the area the heater will be installed (from Step 3). If the total from Step 2 is larger this is considered an unconfined space, if Btu total from Step 3 is larger this is considered a confined space and provisions must be made for additional combustion and ventilation air. EXAMPLE: Btu area can support is 56,250, total Btu in area is 106,000 – this would be a confined space.

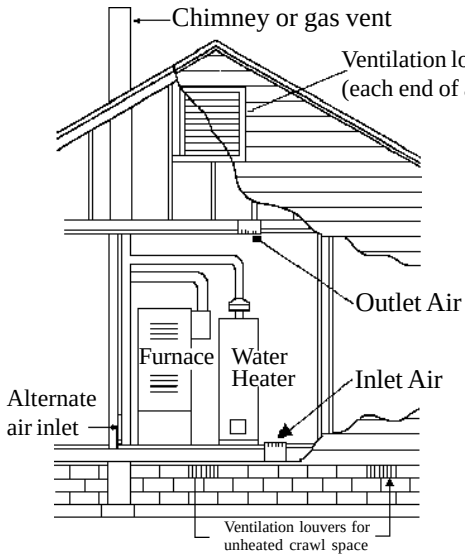
NOTE: A third construction class is one with unusually tight construction, defined as, construction where: (A) Walls and ceilings exposed to the outside atmosphere have a continuous water vapor retarder with a rating of 1 per (6x10-11 Kg per pa-sec-m²) or less with openings gasketed or sealed, and, (B) Weatherstripping has been added enable windows and doors, and , (C) Caulking or sealants are applied to areas such as joints around window and door frames, between sole plates and floors, between wall ceiling joints, between wall panels, at penetration for plumbing, electrical, and gas lines, and at other openings.

"**WARNING**: If the area in which the heater may be operated is smaller than that defined as an unconfined space, or if the building is of unusually tight construction, provide adequate combustion and ventilation air by one of the methods described in the National Fuel Gas Code, ANSI Z223.1, Section 5.3 or applicable local codes." Examples would be to provide two permanent openings either to an adjoining room, or to the outside. See the National Fuel Gas Code for details. See Figure 9 & Figure 10 below.



Equipment located in confined spaces; all air from inside the building. See 5.3.3(a).

FIGURE 9



Equipment located in confined spaces; all air from outdoors - inlet air from ventilated crawl space and outlet air to ventilated attic. See 5.3.3(b).

FIGURE 10

INSTALLATION

Installation and service must be performed by a qualified installer, service agency or the gas supplier.

LOCATION

1) For most efficient performance, locate heater as centrally as possible in the area to be heated.
2) Do not install heater in a closet, alcove or small hallway where the heater could be isolated from the space to be heated and adequate combustion air by closing a door.

INSTALLATION - CONTINUED

3) Protect heater from wind, high traffic areas, and drafts (such as doorways, locations that get direct air from a ceiling fan, etc.) as this will cause nuisance pilot outage.
4) All models may be wall mounted using the factory supplied (standard) wall mounting bracket. Additionally all models may be installed freestanding, by adding the optional VF-FSK Floor Stand Kit and using an approved, fire resistant floor mat (available from factory). **NOTE**: Both wall and floor mount installations require hard piping.
5) If optional blower is to be added, locate heater so there is safe access to an electrical outlet.

CLEARANCES

1) Maintain adequate accessibility clearances for servicing and proper operation.
2) Minimum clearances as viewed from front of heater, see Fig. 1. 3" clearance below heater shall be measured from top surface of carpeting, tile, etc.
3) If VF-FSK Free Standing Kit is used and the heater is installed directly on carpeting, tile, or other combustible material other than wood flooring, the appliance shall be installed on a metal or wood panel extending the full width and depth of the appliance, such as a stove board.

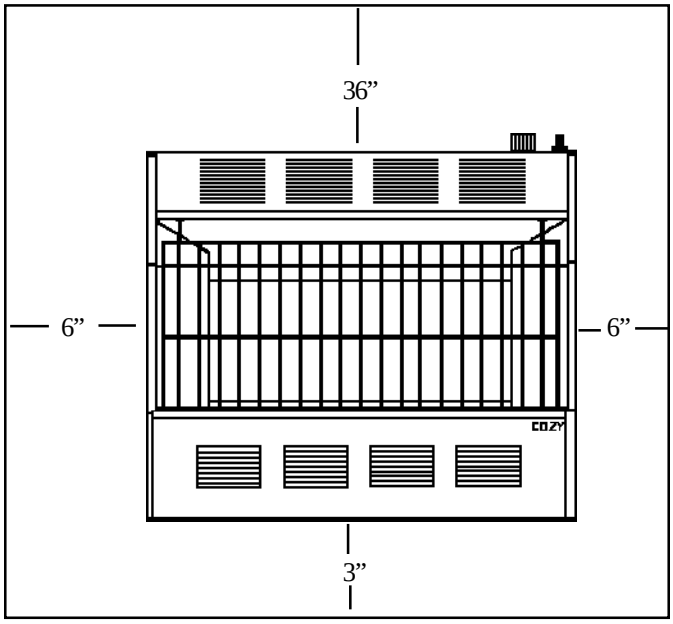


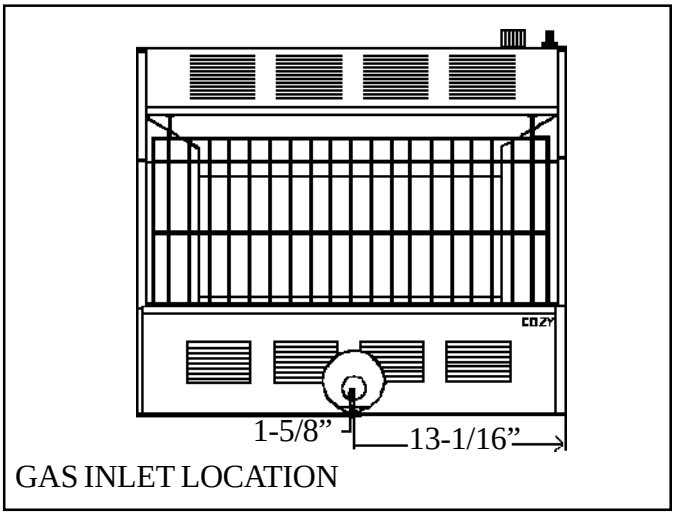
FIGURE 1

TOOLS AND ADDITIONAL SUPPLIES REQUIRED

1) Pipe wrenches (2).
2) Phillip head screwdriver or screwgun.
3) Pressure test gauge.
4) An A.G.A. certified manual shut off valve with 1/8" NPT pressure tap.
5) Union connector for type of piping used (check local codes).
6) Pipe sealant certified for use with L.P. gas.
7) Components to assemble a drip leg.
8) Level.
9) Drill (if anchors are required).

ROUGH-IN GAS SUPPLY

1) Determine location of heater. (See "Operation", "Fresh Air", and "Safety Instructions" for details.
2) Install at least a ½" diameter gas supply line. (Gas supply can enter through bottom or back of heater). See Figure 2.



GAS INLET LOCATION
FIGURE 2