

F. INSTALLATION OF FIREPLACE

WARNING!

Before starting, do the following:

1. Wear gloves and safety glasses for protection.
2. Keep hand tools in good condition. Sharpen cutting edges and make sure tool handles are secure.
3. Always maintain the minimum air space required to the enclosure to prevent fire.

1. Positioning the Fireplace

This fireplace may be placed on either a combustible or noncombustible continuous flat surface. Follow the instructions for framing on pages 9 and 10. Slide the fireplace into position. **Be sure to provide the minimum air clearance at the sides of the fireplace assembly.**

2. Placing the Protective Metal Hearth Strips

Included with your fireplace you will find four metal hearth strips measuring approximately 28" x 4". These strips are used to provide added protection where the fireplace and the hearth extension meet.

Slide metal strips 2" under the front edge of the fireplace (two strips per opening). The individual pieces must overlap each other by 1" minimum in the middle of the fireplace openings to provide continuous coverage of the floor. See Figure 7. These metal strips should extend from the front and sides of the fireplace openings by 2".

3. Leveling the Fireplace

Level the fireplace side-to-side and front-to-back. Shim with noncombustible material, such as sheet metal, as necessary. Secure the fireplace (using the nailing flanges located on either side of the fireplace) to the vertical framing.

Important: To ensure proper fit of the glass doors, check the fireplace openings for square. Measure diagonal distances of the each opening to make sure they are equal. If they are not equal, continue to shim the fireplace until those diagonals are equal.

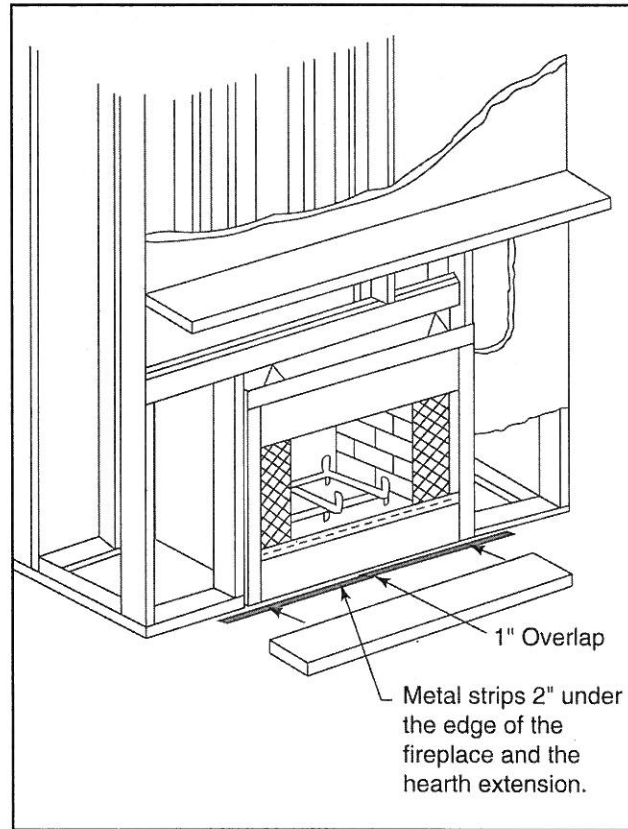


Figure 7 - Positioning the Metal Strips

4. Assembling Chimney Sections

Attach either a straight chimney section or an offset to the top of the fireplace (depending on your installation requirement). Chimney sections are locked together by pushing downward until the top section meets the stop bead on the lower section.

The inner flue is placed to the inside of the flue section below it. The outer casing is placed outside the outer casing of the chimney section below it. See Figure 8.

WARNING!

Carefully follow the instructions for assembly of the pipe and other parts needed to install this fireplace system. Failure to do so may result in a fire, especially if combustibles are too close to the fireplace or chimney and air spaces are blocked, preventing the free movement of cooling air.

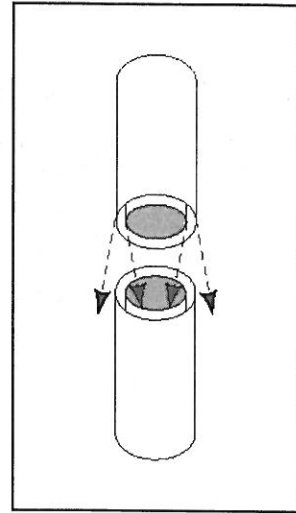


Figure 8
Assembling Chimney Sections

5. Installing Firestop Spacers

Mark and cut out an opening in the ceiling for the firestop spacer being utilized (17" x 17" for an FS538, 17" x 26" for an FS540). Frame the opening with the same dimension lumber used in the ceiling joists.

Install the firestop spacer.

These firestop spacers are designed to provide the minimum 2" air space required around the chimney. In all situations, the firestop spacers are to be nailed to the ceiling joists from the bottom or fireplace side, **EXCEPT** when the space above is an insulated ceiling or attic space. In this situation, the firestop spacer **must** be nailed from the top side to prevent loose insulation from falling into the required 2" air space around the chimney. See Figure 9.

CAUTION:

Firestop spacers must be used whenever the chimney penetrates a ceiling/floor area.

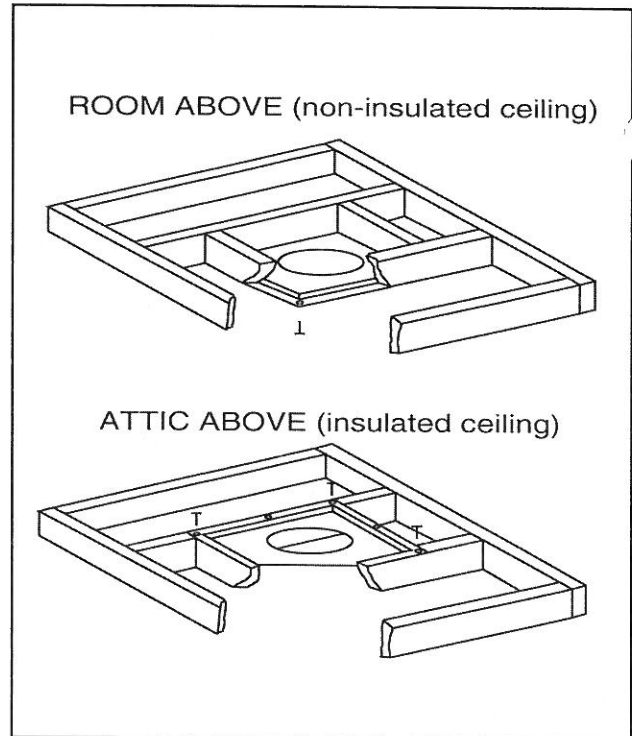


Figure 9
Installing the Firestop Spacer

3. Attic Insulation Shield

An insulation shield should be installed when there is a possibility of insulation coming into contact with the factory built chimney system. The insulation shield is installed by positioning it over the vertical chimney section where it penetrates a firestop spacer. The firestop spacer will support the insulation shield. See Figure 10.

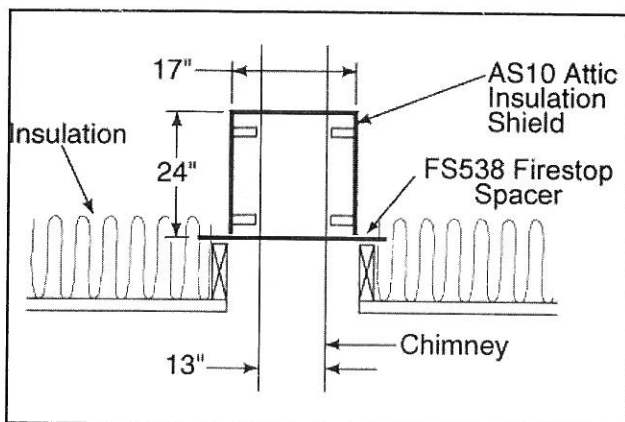


Figure 10 - Installing an Insulation Shield

7. Double-checking the Chimney Assembly

Continue assembling the chimney sections up through the firestop spacers as needed. While doing so, be aware of the height and unsupported chimney length limitations that are given on page 11 under "Chimney Requirements".

Check each section by pulling up slightly from the top to ensure proper engagement before installing the succeeding sections. If they have been connected correctly, they will not disengage when tested.

CAUTION:

Inner flue and outer liner sections cannot be disassembled once locked together. Plan ahead to ensure the proper installation height is achieved with the selected chimney components.

WARNING!

Maintain a minimum of 2" air clearance to all parts of the chimney system at all times! Failure to maintain this 2" air clearance will cause a structure fire.

8. Securing the Chimney System

When offsets and returns are joined to straight pipe sections, they must be locked into position with the screws provided (outer only), using the predrilled holes. To prevent gravity from pulling the chimney sections apart, the returns and the chimney stabilizers have straps for securing these parts to joists or rafters. See Figure 11.

Note: You must provide support for the pipe during construction and check to be sure inadvertent loading has not dislodged the chimney section from the fireplace or at any chimney joint.

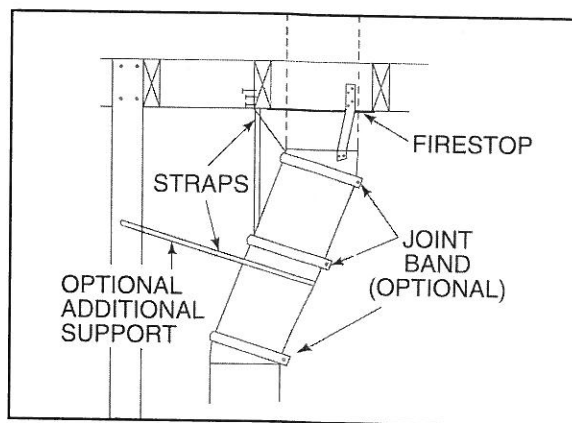


Figure 11 - Offset/Return with Stabilizer

WARNING!

When chimney sections exceeding six feet in length are installed between an offset and return, structural support must be provided to reduce off-center loading and prevent chimney sections from separating at the chimney joints.

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9. Marking the Exit Point of the Roof

Locate the point where the chimney will exit the roof by plumbing down to the center of the chimney. Drive a nail up through the roof to mark the center. See Figure 12.

10. Cutting out the Hole in the Roof

Measure to either side of the nail and mark the 17" x 17" or 17" x 26" opening required. This is measured on the horizontal; actual length may be larger depending on the pitch of the roof. Cut out and frame the opening. See Chapter 25 of the *Uniform Building Code for Roof Framing Details*.

Be sure to maintain a 2" minimum air space between the chimney section and the roof.

11. Assembling the Chimney Sections Through the Roof

Continue to add chimney sections through the roof opening, maintaining at least a 2" air space.

12. Installing the Roof Flashing

If a roof flashing is to be used, install the roof flashing appropriate to the roof pitch and install a round termination cap following the instructions shipped with the cap.

For chase installations you can use a round termination cap (TR11), a round telescoping termination cap (TR11T) or a square termination cap (ST1175). A chase installation must use a chase top. Chase tops are available from your Heatilator distributor. See page 20 for building a chase.

13. Installing the Outside Air Kit

The outside air kit is supplied as a standard feature with this fireplace and its use is highly recommended to minimize the effects of negative pressure within the structure. It is recommended to utilize the shortest duct run to optimize the performance of the outside air kit. The outside air kit inlet thimble should be positioned at least four feet above the ground level, in a manner that will not allow snow, leaves, etc. to block the inlet.

The outside air kit is installed on the left hand side of the fireplace. Remove the cover plate from the side of the fireplace assembly where the air kit is to be installed. See Figure 13 for handle location/operation.

14. Installing the Chimney Air Kit

When installing the chimney air kit, follow the instructions provided with this accessory.

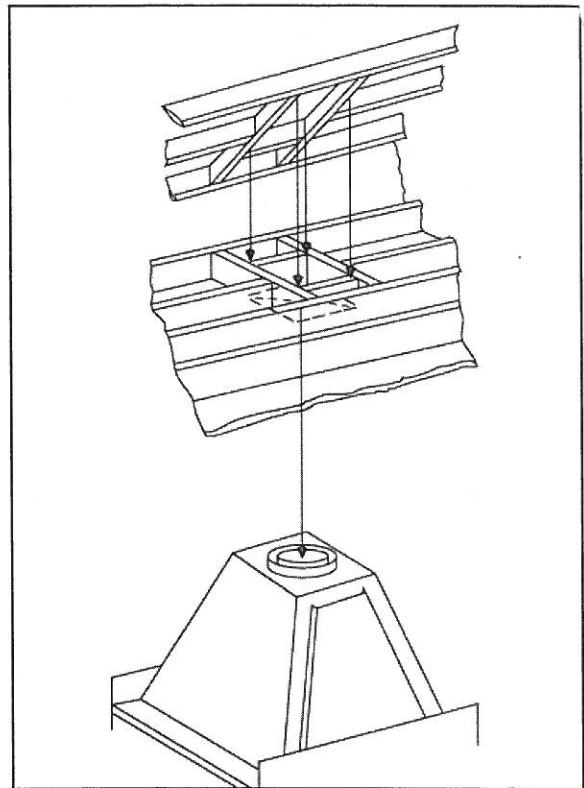


Figure 12 - Ceiling/Attic Construction

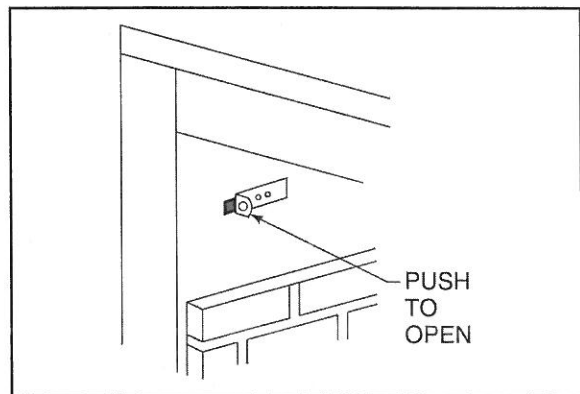


Figure 13 - Air Kit Handle Location

15. Completion of the Enclosure

Complete the fireplace enclosure, allowing space for outside air ducts and gas piping if desired. Electrical wiring should not come in contact with the fireplace. **A minimum clearance of 1/2" must be maintained between the fireplace sides and the enclosure.** See pages 9-10 for framing details.

Note: Use only a noncombustible material to finish the face of the fireplace below the level of the front standoffs. A noncombustible material such as USG MICORE CV230 Mineral Fiber Board, or USG DUROCK Cement Board is recommended for this purpose.

CAUTION:

When using a gas log set, the fireplace damper must be set in the fully open position. This ensures proper venting of combustion products.

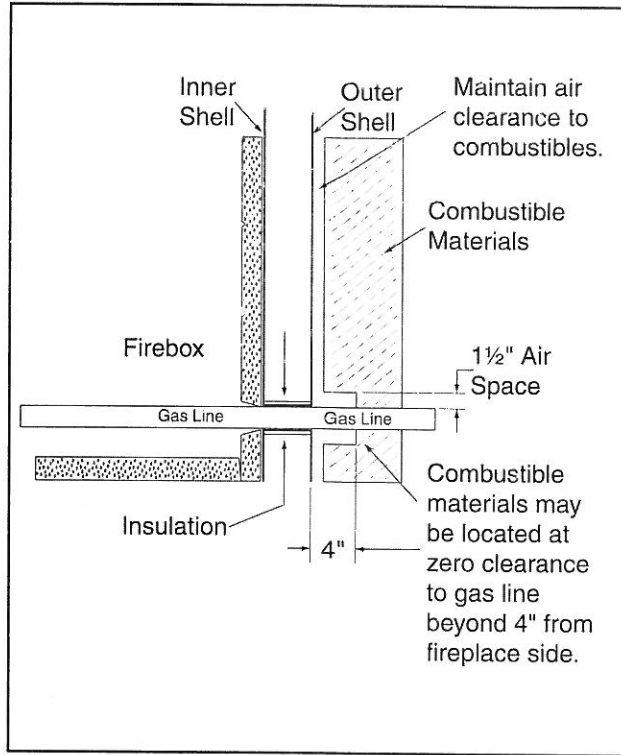


Figure 14 - Air Clearance Around Gas Line

16. Gas Log/Lighter Provisions

Knockouts are provided on both sides of the fireplace to allow for connection of a certified gas log lighter or a decorative gas appliance with a maximum input of 100,000 BTU/hour, incorporating an automatic gas shut-off device and complying with the *Standard for Decorative Gas Appliances for Installation in Vented Fireplaces, ANSI Z21.60*. The decorative gas appliance should be installed in accordance with the *National Fuel Gas Code, ANSI Z223.1-1980*. The side refractories are designed to allow 1/2" iron pipe to pass through. Use a noncombustible sealant to seal any opening between the gas pipe and refractory on the inside. Repack the insulation removed to seal around the gas pipe where it exits the side of the fireplace. A minimum 1 1/2" air clearance must be provided around the 1/2" iron pipe for a minimum of 4 inches beyond the fireplace. See Figure 14.

CLEARANCES!

A minimum 1/2" air clearance must be maintained at the sides of the fireplace assembly.

Chimney sections at any level require a 2" minimum air space clearance between the framing and chimney section.

WARNING!

This fireplace was not tested by the fireplace manufacturer for use with an unvented gas log heater. To reduce risk of injury, do not install an unvented gas log heater in this fireplace unless it has been specifically tested and listed by Underwriter's Laboratories Inc. for use in this specific model fireplace. Unless the unvented gas log heater is tested and listed for use in this factory-built fireplace, a fire hazard may be created that can result in a structure fire.

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17. Hearth Extension

A hearth extension must be installed with all fireplaces to protect the combustible floor in front of the fireplace from both radiant heat and sparks.

The construction of, and materials used for a hearth extension are shown in Figures 15 and 16. A hearth extension of this construction may be covered with any noncombustible decorative material and may have a maximum thickness as per the illustration. Seal gaps between the hearth extension and the front of the fireplace with a bead of noncombustible sealant.

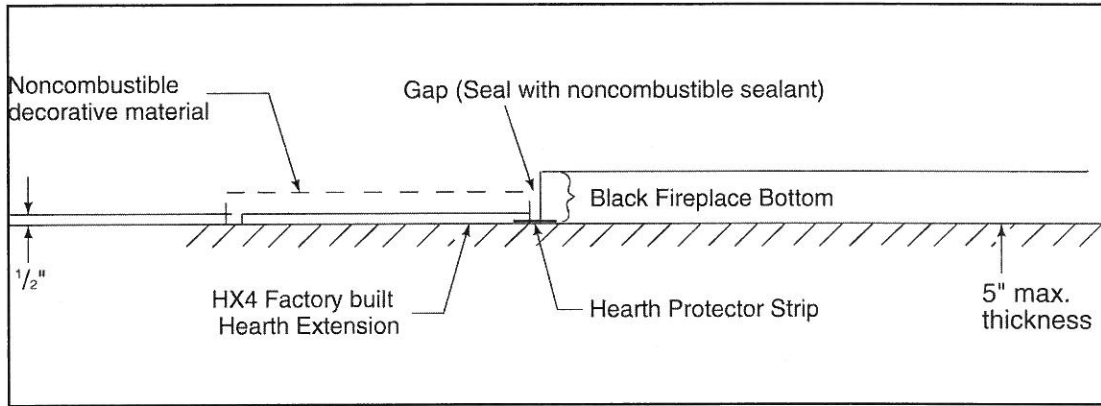


Figure 15 - Factory Hearth Extension

Field constructed hearth extensions should be constructed in accordance with the instructions in Figure 16. The field constructed hearth extension must be constructed from 1/2" MICORE CV230, or a material with an equivalent insulation value.

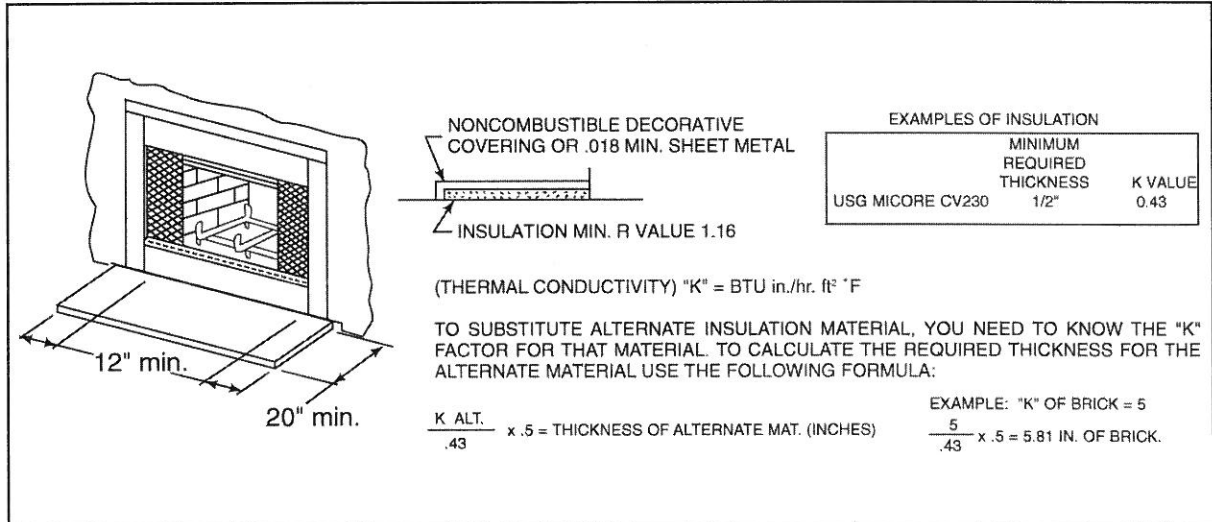


Figure 16 - Field Constructed Hearth Extension

WARNING!

Hearth extensions are to be installed only as illustrated to prevent high temperatures from occurring on concealed combustible materials. Hearth sealing strips prevent burning or hot particles from inadvertently falling directly on combustible surfaces in the event the building should settle and disturb the original construction.

18. Position the Hearth Extension

Position and secure the hearth extension over the protective metal strips that have been placed partially under the fireplace front. These strips should be protruding approximately 2" from under the fireplace front and 2" on both sides of the fireplace opening. **Seal the crack between the hearth extension and fireplace with a bead of noncombustible sealant.** See Figure 17. Apply a noncombustible finishing material of your choice to the hearth extension.

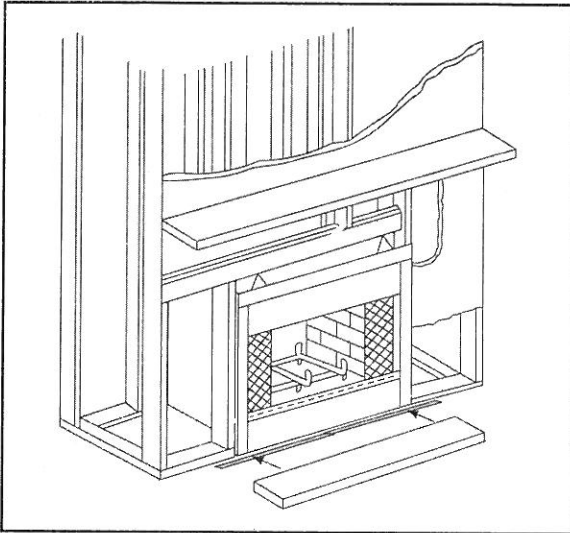


Figure 17 - Position the Hearth Extension

19. Finishing Material

Do not install combustible materials over the black face of the fireplace! This poses a safety hazard and may start a fire. You may only use noncombustible material over the black face of the fireplace.

a. Combustible Material

Material which is made of or surfaced with wood, compressed paper, plant fibers, plastics, or any material capable of igniting and burning, whether flame proofed or not, plastered or unplastered.

b. Noncombustible Material

Material which will not ignite and burn. Such materials are those consisting entirely of steel, iron, brick, tile, concrete, slate, glass or plasters, or any combination thereof.

c. Noncombustible Sealant Material

Sealants which will not ignite and burn; General Electric RTV103 Black (or equivalent), Rutland, Inc. Fireplace Mortar #63 (or equivalent).

After completing the framing and applying the facing material (dry wall) over the framing, a ½" wide (maximum) bead of noncombustible sealant must be used to close off any gaps at the top and sides between the fireplace and facing to prevent cold air leaks.

Only noncombustible materials may be used to cover the black metal fireplace front.

20. Mantel

A combustible mantel may be positioned no lower than 12" above the top of the fireplace opening. The combustible mantel may have a maximum depth of 12". Combustible trim pieces that project no more than 1½" from the face of the fireplace can be placed no closer than 6" from the top and side of the fireplace opening. Combustible trim must not cover the black metal surfaces of the fireplace. This mantel clearance is in accordance with **Section 7-3.3.3 of ANSI/NFPA211.**

21. Glass Doors

This fireplace has been tested and listed for use with doors as specified in Section C, "Fireplace System Components". Please refer to the manual packed with each set of doors for installation instructions.

G. CONSTRUCTING A CHASE

A chase is a vertical boxlike enclosure built around the chimney and fireplace. A chase may be constructed for the fireplace and chimney or for the chimney only. It is most commonly constructed on an outside wall.

In cold climates, it is recommended that the chase floor be insulated using batt type insulation between the floor joists.

Two examples of chase applications are shown in Figure 18.

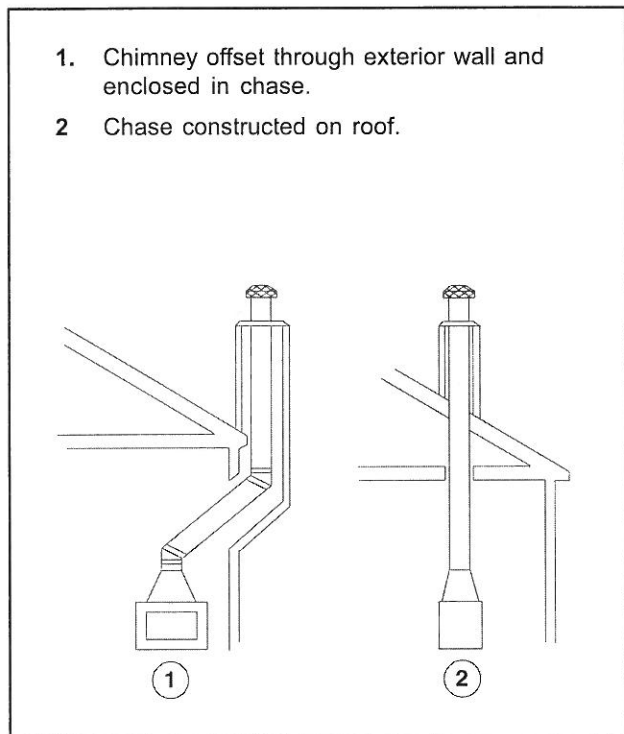


Figure 18 - Chase Constructions

1. Materials

- The chase is constructed using framing materials much the same as the walls in your home. A variety of materials may be used including brick, stone, veneer brick, or standard siding materials.
- In constructing the chase, several factors must be considered:
 - Maintain a 2" air space around the chimney.
 - The chase top must be constructed of noncombustible material.
 - In cold climates, a firestop spacer should be installed in an insulated false ceiling at the 8' level above the fireplace assembly. This reduces heat loss through the chase.
 - In cold climates, the walls of the chase should be insulated to the level of the false ceiling as shown in Figure 19. This will help reduce heat loss from the home around the fireplace.

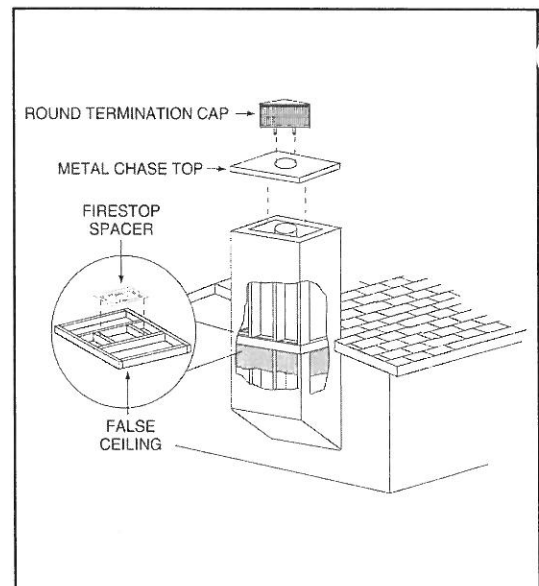


Figure 19 - Chase Assembly