

# heatilator®

THE WOODBURNING SPECIALISTS

Heatilator Inc.  
1915 W. Saunders Street  
Mt. Pleasant, IA 52641  
Division, HON INDUSTRIES

## ST36A INSTALLATION & OPERATING INSTRUCTIONS FOR RESIDENTIAL USE

### I. LISTINGS AND CODE APPROVALS

The ST36A fireplace system has been tested in accordance with Underwriters Laboratories Inc. Standards, and has been LISTED by them for installation and operation as described in these Instructions and in the Operating Instructions accompanying each fireplace.

Fireplace Catalog Number ST36A has been tested and LISTED for use with the Optional Components described in Section II of these Instructions. These Optional Components may be purchased separately and installed either at the time of initial installation or at some later date.

Check with your local building code agency before you begin installation to ensure compliance with local codes, including the need for "permits" and follow-up inspections. If any problems are encountered regarding code approvals, or if you wish clarification of any of the instructions contained here, contact: Technical Services, Heatilator Inc., 1915 W. Saunders Street, Mt. Pleasant, Iowa 52641. HEATILATOR® is a registered trademark of Heatilator Inc., Division, HON INDUSTRIES.

#### WARNING

**THIS HEATILATOR FIREPLACE AND ITS COMPONENTS ARE DESIGNED TO BE INSTALLED AND OPERATED AS A SYSTEM. ANY ALTERATION TO OR SUBSTITUTION FOR ITEMS IN THIS SYSTEM UNLESS ALLOWED BY THESE INSTALLATION INSTRUCTIONS WILL VOID THE UNDERWRITERS LABORATORIES LISTING AND MAY VOID THE PRODUCT WARRANTY. IT MAY ALSO CREATE A HAZARDOUS INSTALLATION. READ THROUGH THESE INSTRUCTIONS THOROUGHLY PRIOR TO STARTING YOUR INSTALLATION AND FOLLOW THEM CAREFULLY THROUGHOUT YOUR PROJECT.**

## II. DESCRIPTION OF THE FIREPLACE SYSTEM

The HEATILATOR® fireplace system consists of the following:

- |                     |                                  |
|---------------------|----------------------------------|
| 1. Fireplace        | 4. Roof Termination              |
| 2. Hearth Extension | 5. Integral Grate                |
| 3. Chimney System   | 6. Outside Combustion Air System |

Optional components include:

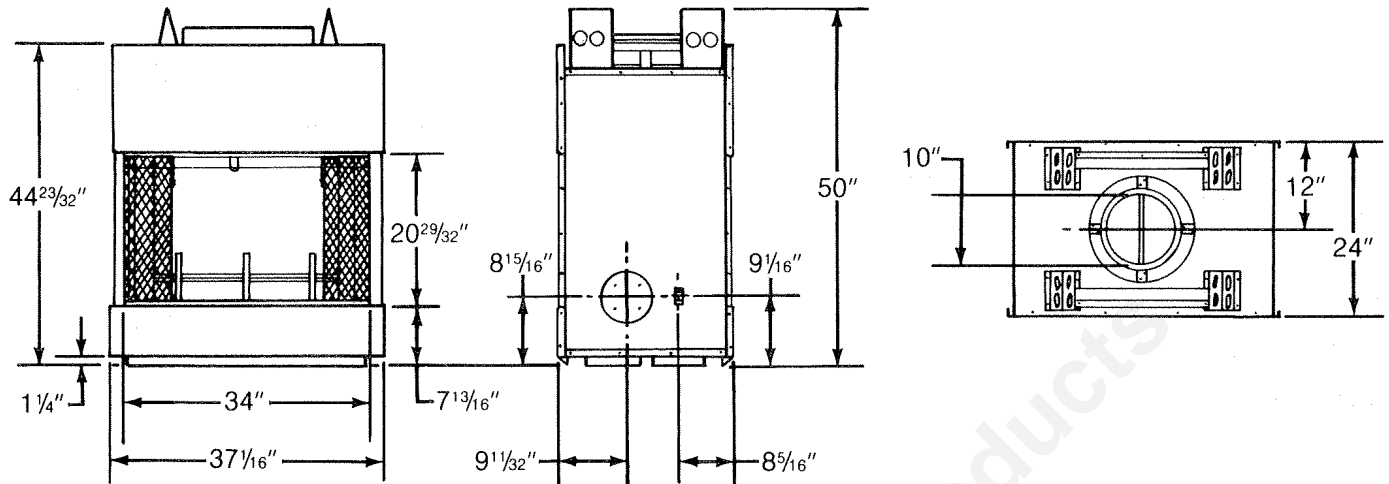
1. Glass Doors
2. Solid Brass Trim Kit

### THE FIREPLACE SYSTEM COMPONENTS

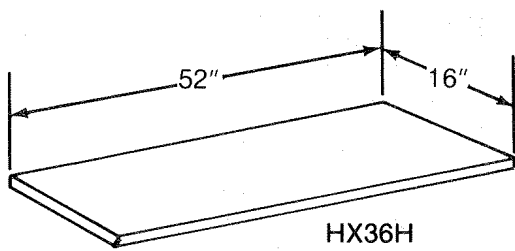
The table below, together with the following pictures, show only those components which may be safely used with this fireplace.

Catalog Number	Description
ST36A	See-Thru Fireplace
HX36H	Hearth Extension
WS1	Wall Shield
GS36A	Glass Doors - Clear-View, Antique Solid Brass
GS36B	Glass Doors - Clear-View, Bright Solid Brass
GD36ST	Glass Doors - Bifold, Antique Solid Brass
GD37ST	Glass Doors, Tinted - Bifold, Antique Solid Brass
TR2	Track Kit (required with GS36A, GS36B)
TK15	Antique Solid Brass Trim Kit
SS16	Standoff Skirt Kit
GR36-3	Integral Grate (included with Fireplace)
ID4	Insulated Duct/Outside Air
UD4	Uninsulated Duct/Outside Air
SL406	Chimney Section - 6 inch long
SL412	Chimney Section - 12 inch long
SL418	Chimney Section - 18 inch long
SL436	Chimney Section - 36 inch long
SL448	Chimney Section - 48 inch long
SL4	Chimney Stabilizer
SL430	Chimney Offset/Return - 30°
FS538	Firestop - Straight
FS540	Firestop - 30°
JB577	Chimney Joint Band
CB576	Chimney Bracket
RF590	Roof Flashing - Flat to 6/12 Pitch
RF591	Roof Flashing - 6/12 to 12/12 Pitch
RT492	Telescoping Chimney Terminal Cap - Round
RT494	Chimney Terminal Cap - Round
ST475	Chimney Terminal Cap - Square
VS50	Starter Vent Section
VS51	Vent Section - 16" long
VS53	Vent Section - 36" long
CT56	Chase Top

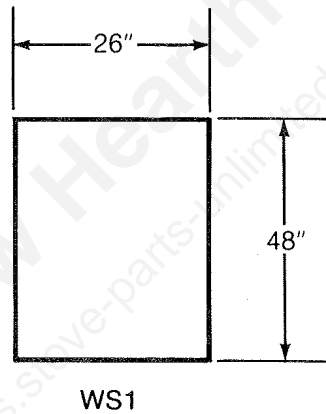
# ST36A FIREPLACE



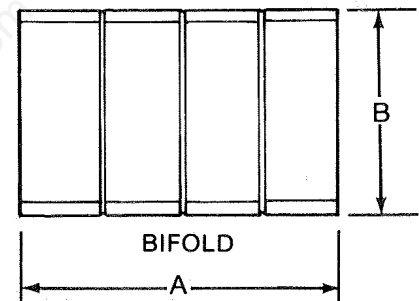
## HEARTH EXTENSION



## WALL SHIELD

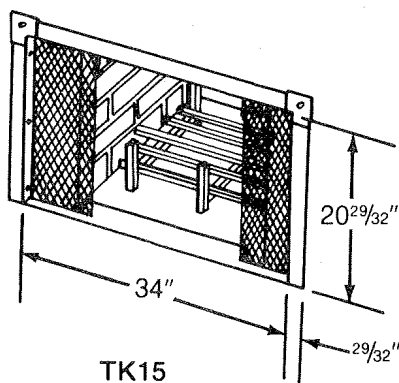


## GLASS DOORS

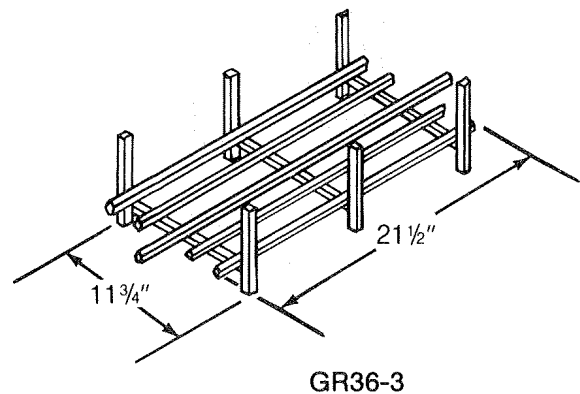


CAT. NO.	A	B
GS36A	$32\frac{15}{16}$ "	$19\frac{1}{16}$ "
GS36B	$32\frac{15}{16}$ "	$19\frac{1}{16}$ "
GD36ST	$33\frac{3}{8}$ "	$19\frac{5}{8}$ "
GD37ST	$33\frac{3}{8}$ "	$19\frac{5}{8}$ "

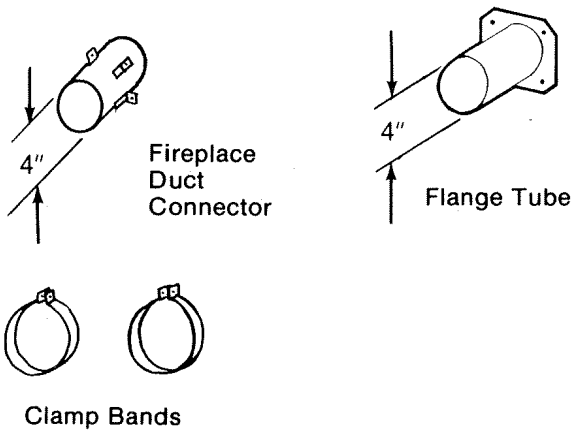
## TRIM KIT



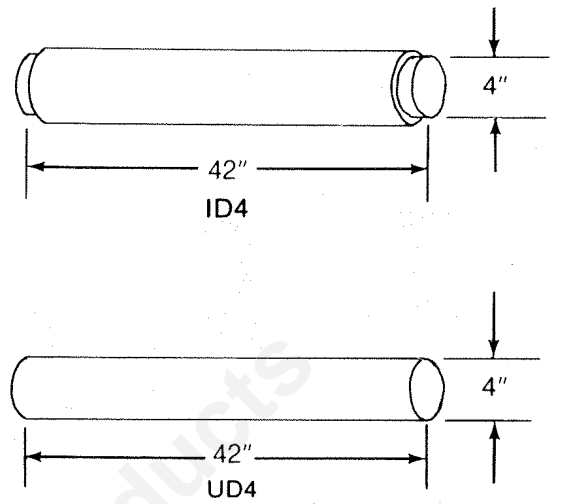
## INTEGRAL GRATE



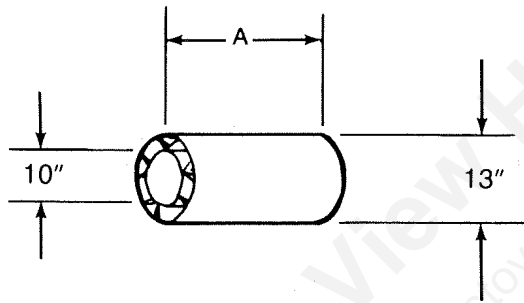
**OUTSIDE AIR COMPONENTS INCLUDED W/FIREPLACE**



**NOT INCLUDED W/FIREPLACE**

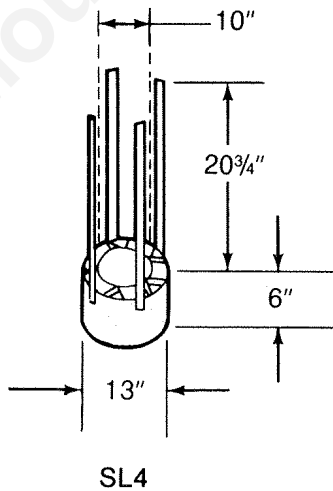


**CHIMNEY SECTIONS**

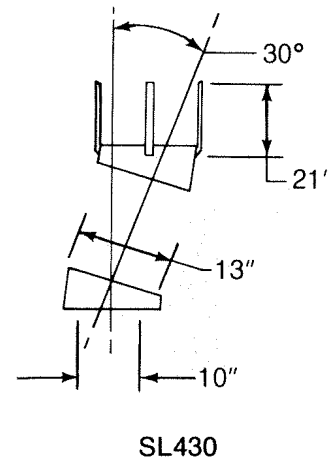


CAT. NO.	A
SL406	6"
SL412	12"
SL418	18"
SL436	36"
SL448	48"

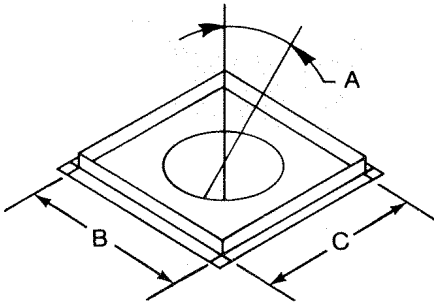
**CHIMNEY STABILIZER**



**OFFSET/RETURN**

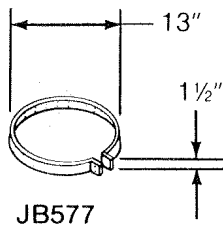


**FIRESTOP SPACERS**



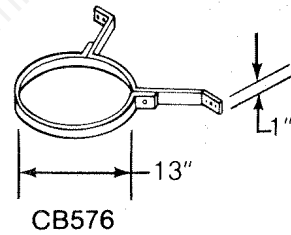
CAT. NO.	A	B	C
FS538	0°	17"	17"
FS540	30°	26"	17"

**JOINT BAND**



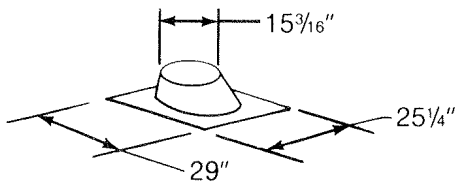
JB577

**CHIMNEY BRACKET**

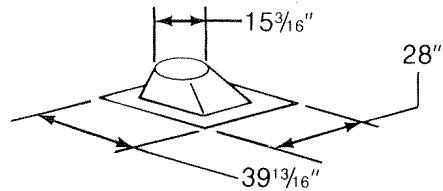


CB576

**ROOF FLASHINGS**

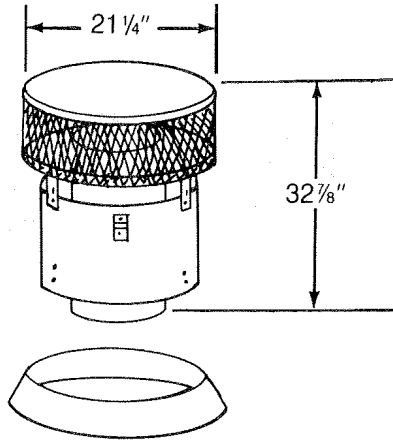


Flat to 6/12 Pitch  
RF590

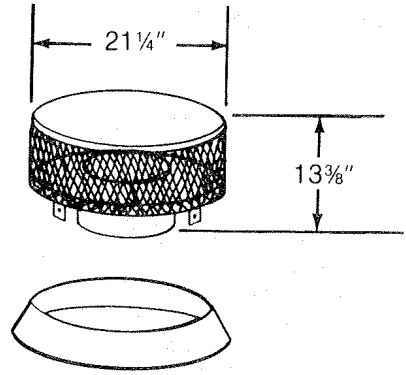


6/12 to 12/12 Pitch  
RF591

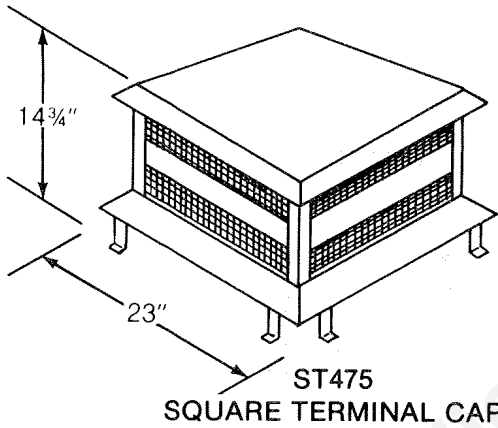
**CHIMNEY TERMINAL CAPS & VENT SECTIONS**



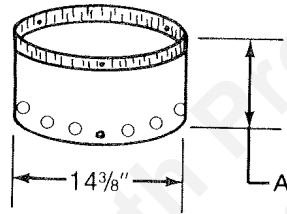
**RT492  
ROUND TERMINAL CAP**



**RT494  
ROUND TERMINAL CAP**

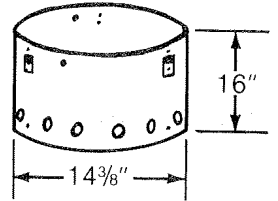


**ST475  
SQUARE TERMINAL CAP**



**VENT SECTIONS**

CAT. NO.	A
VS51	16"
VS53	36"

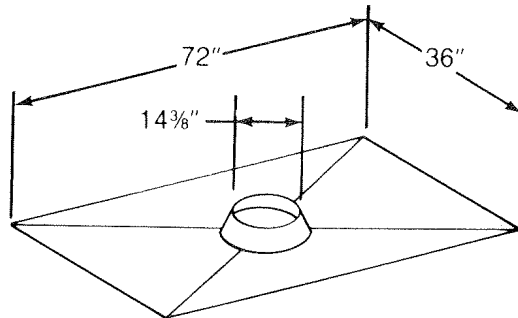


**VS50  
STARTER VENT SECTION**

**NOTICE**

**ALL INSTALLATIONS USING ROUND TERMINAL CAPS RT492 OR RT494 MUST ALSO USE A STARTER VENT SECTION VS50; EXCEPT CHASE INSTALLATIONS UTILIZING THE CONSTRUCTION SPECIFIED IN SECTION V, OPTION I OF THESE INSTRUCTIONS.**

**CHASE TOP**



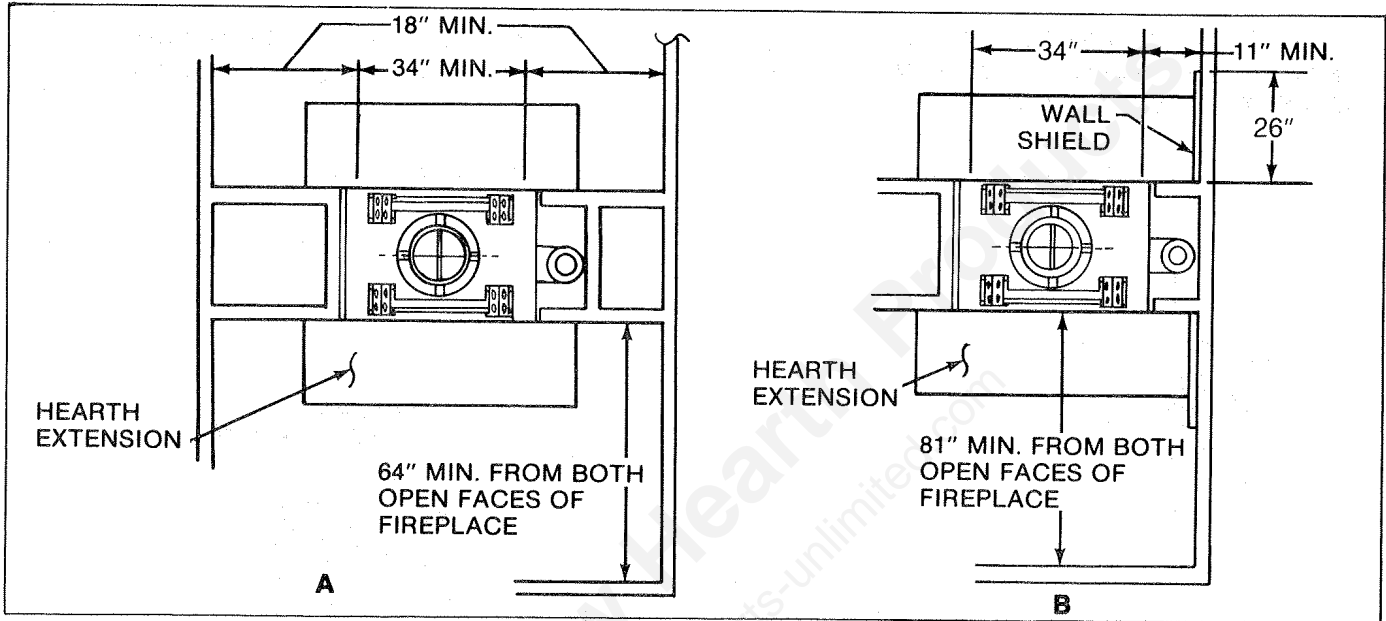
**CT56**

### III. FIREPLACE LOCATIONS, SPACE AND CONSTRUCTION REQUIREMENTS

The fireplace may be located as shown in Figures 1A and 1B.

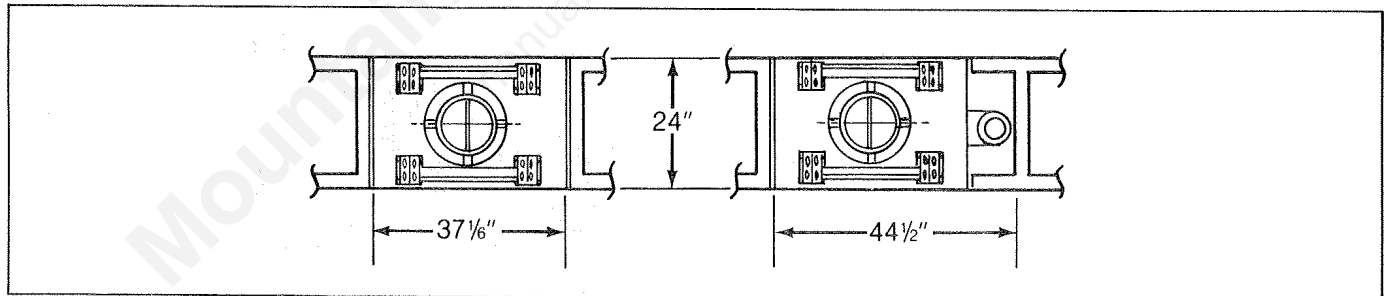
Figure 1A shows the minimum distance to combustible surfaces for side walls and for walls facing the open front of the fireplace.

If a side wall is required closer than 18" to the screened fireplace opening, then a wall shield must be used. Use Wall Shield WS1, or construct with a 26" x 48" x 1/2" fiberboard (Micore CV230 or Conwed Spec 300 or equivalent), or a durable non-combustible material with a K value (thermal conductivity) of .48 or lower. Use of a wall shield allows construction of a side wall to 11" of the screened fireplace opening. Note that when a side wall is closer than 18" and a wall shield is required, the wall facing the open front of the fireplace must be at least 81" away.



**Figure 1**  
Fireplace Location

Figure 2 shows installation assuming outside air ducts with allowance for making 90° bends. Less space is required when ducting goes directly outside without forming elbows.



**Figure 2**  
Installation Along A Wall

#### WARNING

**WHEN LOCATING THE FIREPLACE IN A SPACE PROJECTING INTO A GARAGE, THE OUTSIDE AIR MUST NOT BE TAKEN FROM THE GARAGE SPACE. EXHAUST PRODUCTS OF GASOLINE ENGINES ARE HAZARDOUS.**

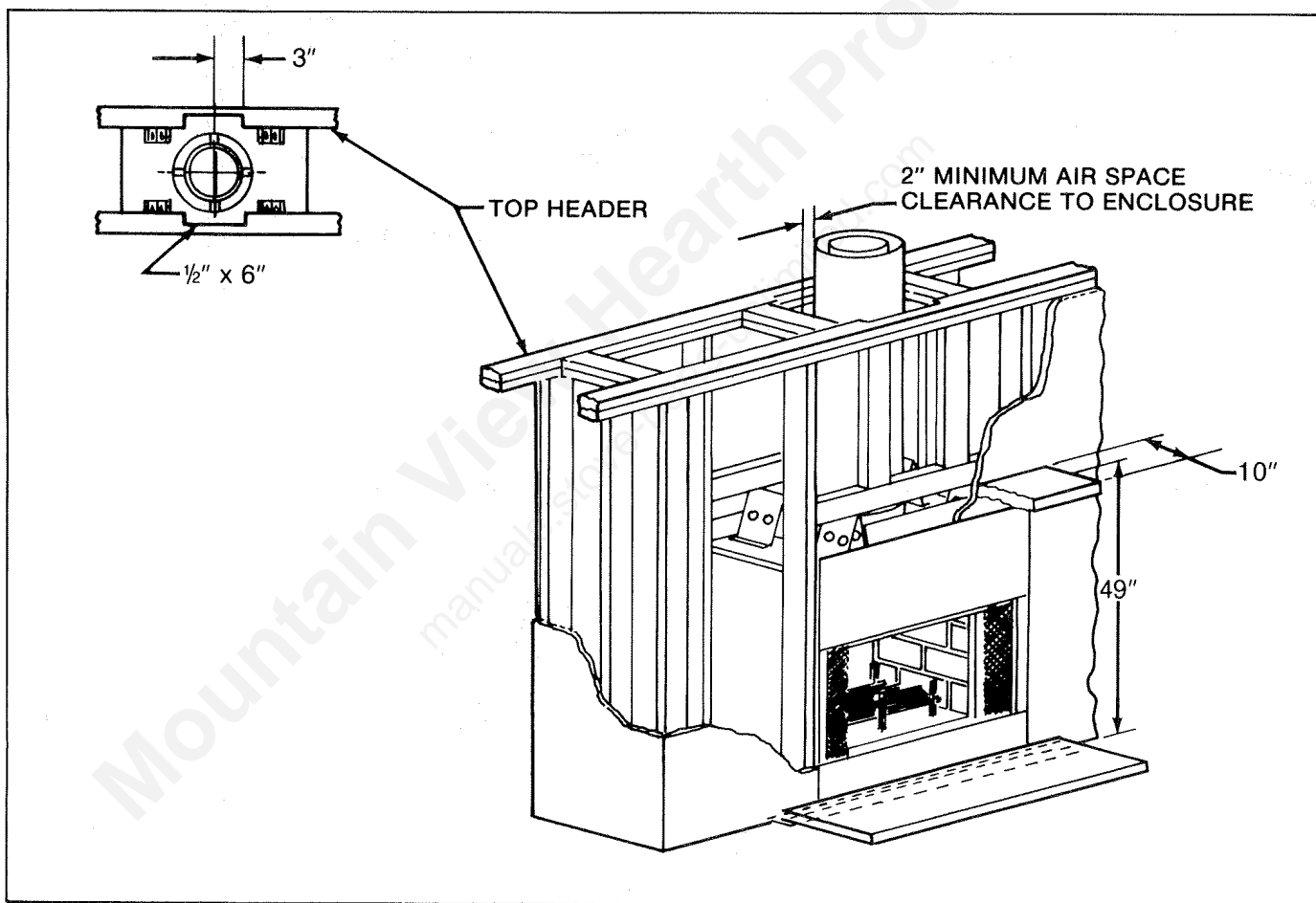
**DO NOT INSTALL OUTSIDE AIR DUCTS SUCH THAT THE AIR MAY BE DRAWN FROM ATTIC SPACES, BASEMENTS, OR ABOVE THE ROOFING WHERE OTHER HEATING APPLIANCES OR FANS AND CHIMNEYS EXHAUST OR UTILIZE AIR. THESE PRECAUTIONS WILL REDUCE THE POSSIBILITY FOR SMOKING OR FLOW REVERSAL.**

Figure 3 shows a typical framing of the fireplace, assuming combustible materials are used. All required clearances to combustibles around the fireplace must be adhered to. Any enclosure on top of the fireplace must be above the top standoffs. Chimney Sections at any level require a minimum air space of two inches to the enclosure, including any framing, for the total chimney height.

**NOTE:** Two inches minimum air space clearance must be maintained around the chimney. If a 2 x 4 top header is used, it may require notching to maintain this clearance. See Figure 3.

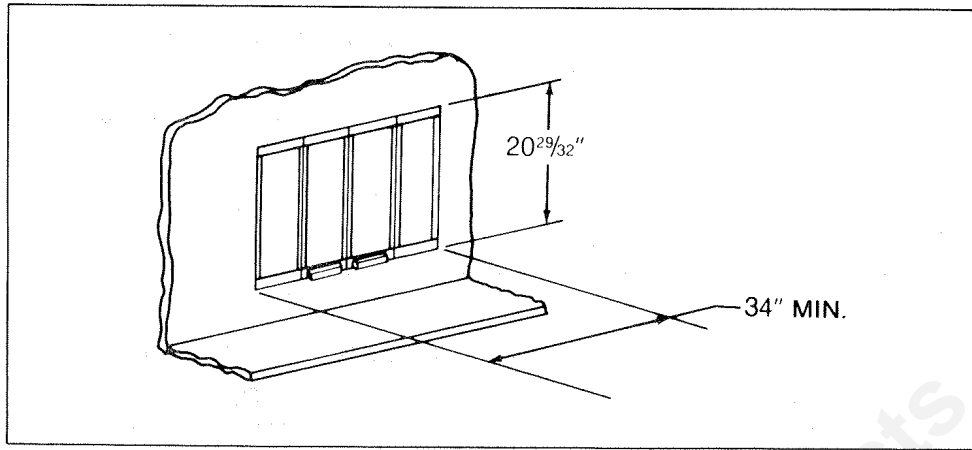
**WARNING**

**TO PREVENT CONTACT WITH SAGGING OR LOOSE INSULATION, THE FIREPLACE MUST NOT BE INSTALLED AGAINST VAPOR BARRIERS OR EXPOSED INSULATION. LOCALIZED OVERHEATING COULD OCCUR AND A FIRE COULD RESULT.**



**Figure 3**  
Framing the Fireplace

After completing the framing and after applying the facing material over the framing, see Figure 4, a non-combustible sealant, one-half inch wide maximum, must be used to close off any gaps at the top and sides between the fireplace and facing, to prevent cold air leaks. A mantel of combustible material may be installed no less than 49 inches above the platform or floor upon which the fireplace is located. The mantel may extend no more than 10 inches from the wall.



**Figure 4**  
Non-combustible Facing

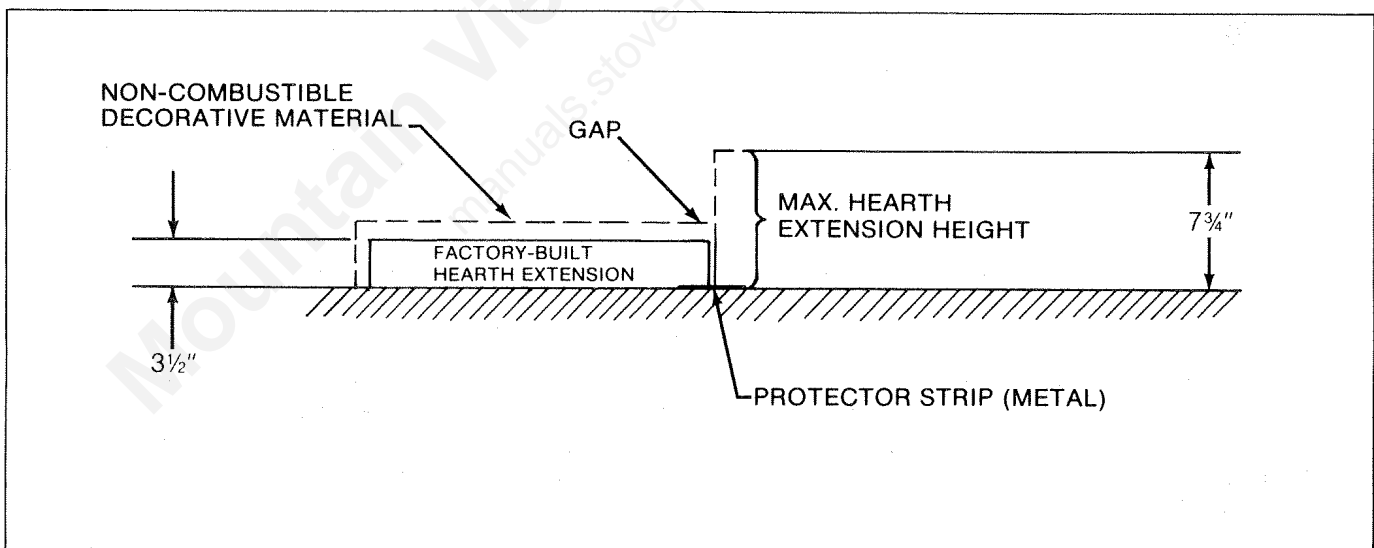
Non-combustible materials may be used to cover the black fireplace front, but must not restrict the air flow to or from the front of the unit in any manner. The following is a description of materials specified in these Instructions:

**Combustible Material.** Material made of or surfaced with wood, compressed paper, plant fibers, plastics, or other material that will ignite and burn, whether flameproofed or not, or whether plastered or unplastered.

**Non-combustible Material.** Material which will not ignite and burn, such materials consisting entirely of steel, iron, brick, tile, concrete, slate, asbestos, glass or plasters, or combination thereof.

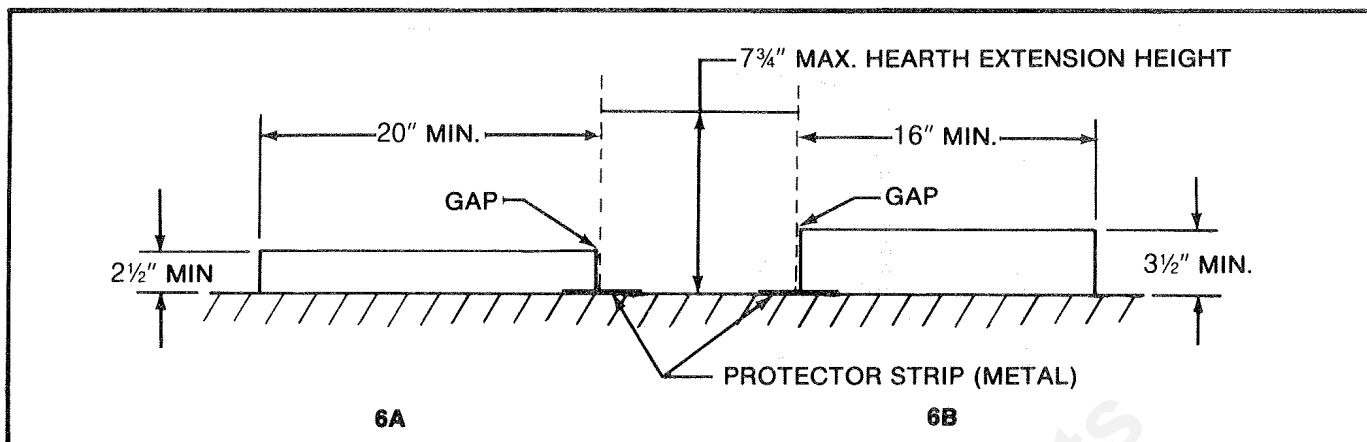
**Non-combustible Sealant Material.** General Electric RTV103 (Black), or equivalent. Rutland, Inc. Fireplace Mortar #63, or equivalent.

The use of factory-built Hearth Extensions is shown in Figure 5. These may be covered with a non-combustible decorative material with a maximum thickness of 4 1/4 inches. Seal gaps with non-combustible (sand-cement) grout.



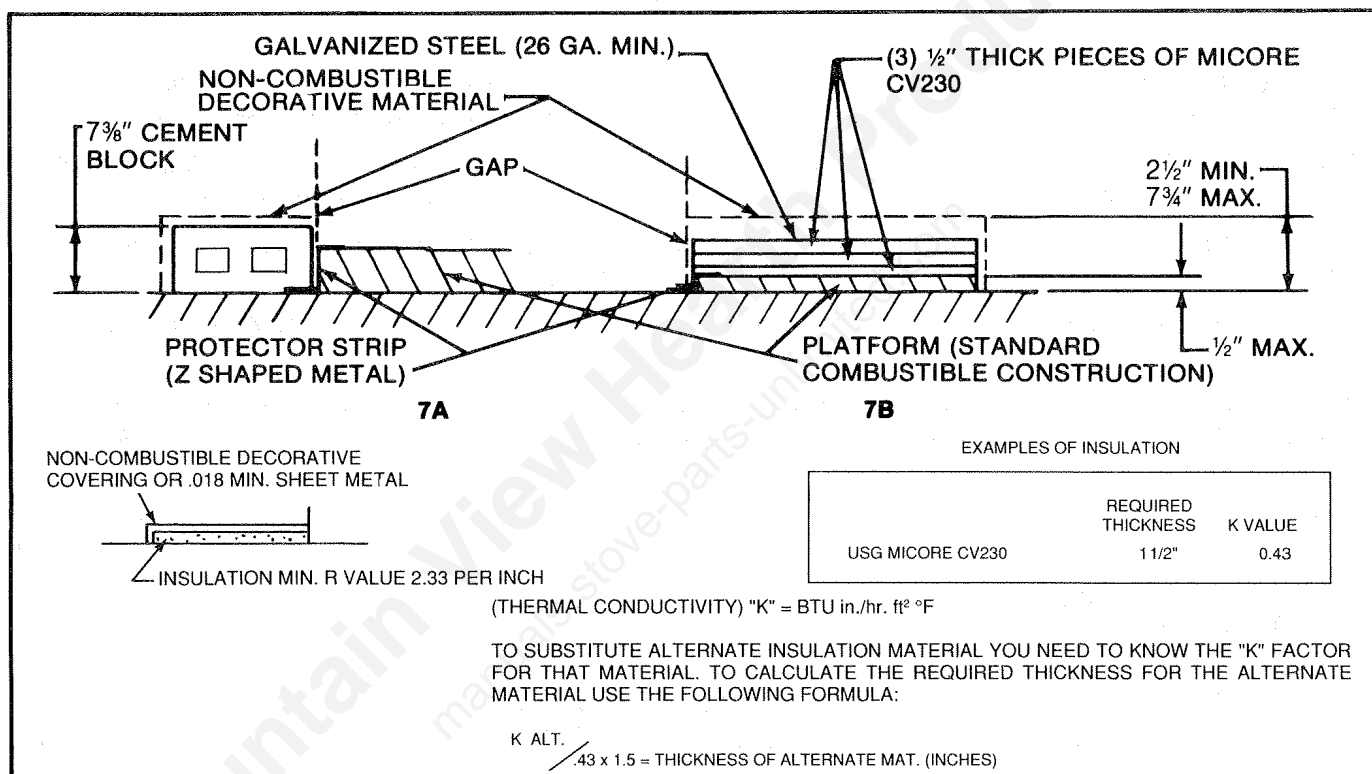
**Figure 5**  
Factory-Built Hearth Extension

Field constructed Hearth Extensions may be used, but must be constructed in accordance with the following instructions. In all cases of field construction, the Hearth Extension must extend 8 inches on each side beyond the firebox opening (minimum 50" overall length). The field constructed Hearth Extension must also conform to the dimensions given in Figure 6A or 6B. Figure 7 illustrates two typical constructions.



**Figure 6**

Minimum Dimensions - Field Constructed Hearth Extensions



**Figure 7**

Field Constructed Hearth Extensions

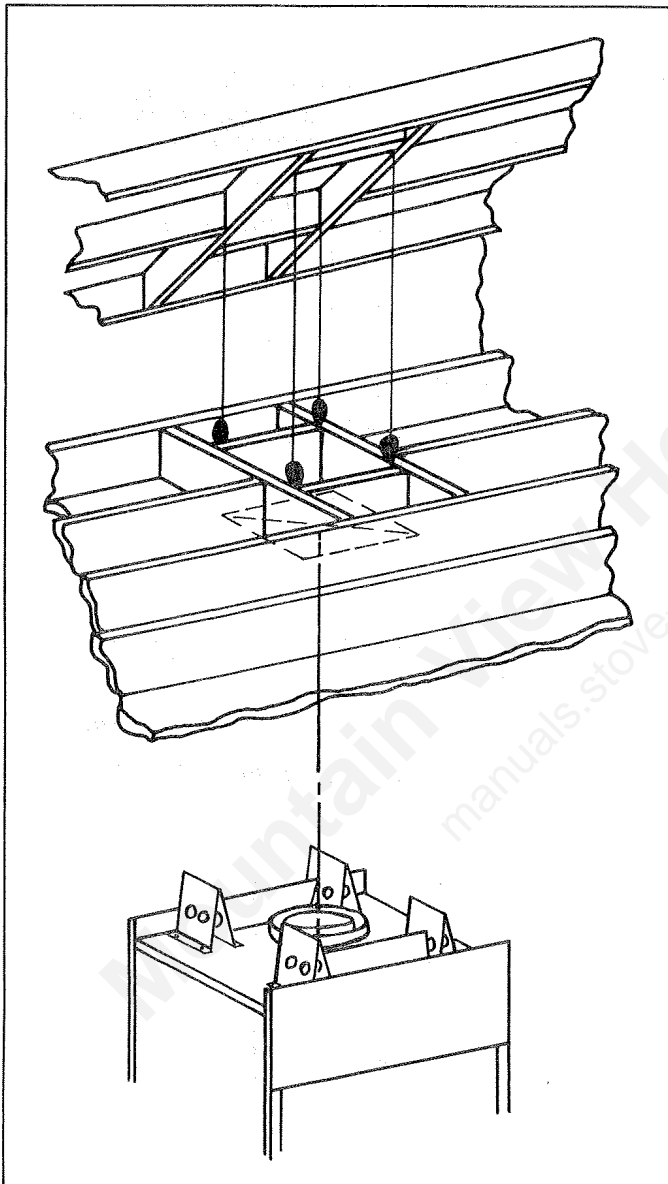
The constructions illustrated in Figure 7 may require that the fireplace or Hearth Extension be raised on a platform. A Protector Strip (metal) must be used between the fireplace and the field constructed Hearth Extension. Depending on the construction, a special ( ) shape may be needed. Each horizontal leg must be 2" wide and the length must be at least equal to the length of the Protector Strip (metal) provided with each fireplace. The fireplace must rest on a continuous, level surface.

**WARNING**

**HEARTH EXTENSIONS ARE TO BE INSTALLED ONLY AS ILLUSTRATED TO PREVENT HIGH TEMPERATURES FROM OCCURRING ON CONCEALED COMBUSTIBLE MATERIALS. METAL 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.**

When planning your fireplace location, the chimney construction and necessary clearance must be considered. Figure 8 illustrates a typical one floor with attic space installation in which joists and rafters may require modification. The fireplace system and chimney components have been tested to provide the following flexibility in construction.

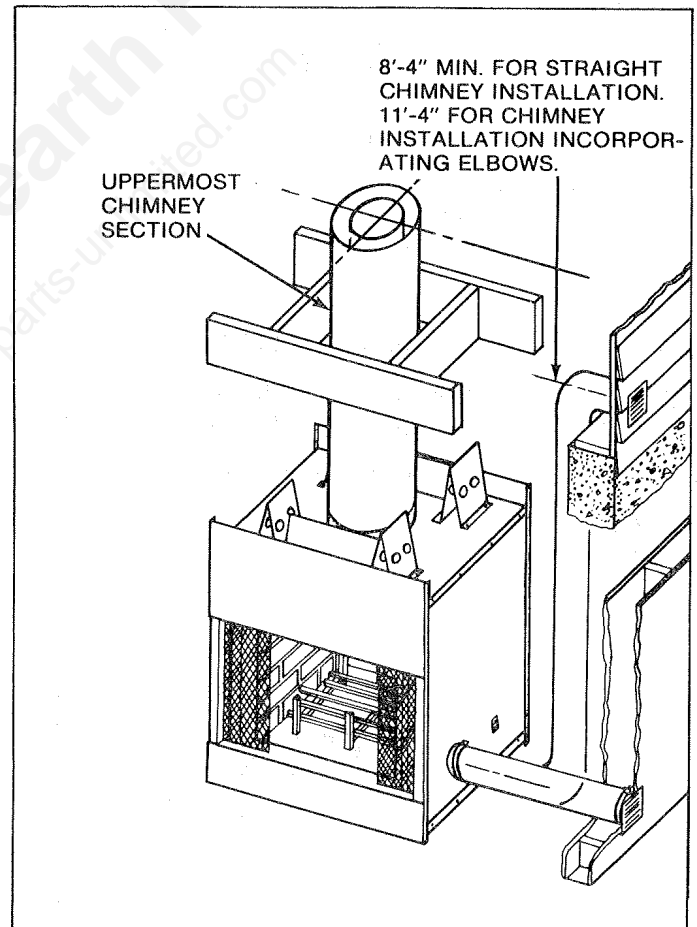
Minimum straight height	14 ft.
Minimum height with Offset/Return	17 ft.
Maximum height	90 ft.
Maximum chimney length between an Offset/Return	8 ft.
Maximum distance between Chimney Stabilizers	35 ft.
Double Offset/Return minimum height	24 ft.
Maximum unsupported chimney length between Offset/Return	6 ft.
Maximum straight unsupported chimney height above firebox	25 ft.



**Figure 8**  
Ceiling and Attic Construction

Joint Bands must be used at every joint between an Offset and Return.

Figure 9 illustrates only two of many possible locations for Outside Combustion Air - a basement fireplace with a maximum vertical height, and a direct exit from the fireplace side.



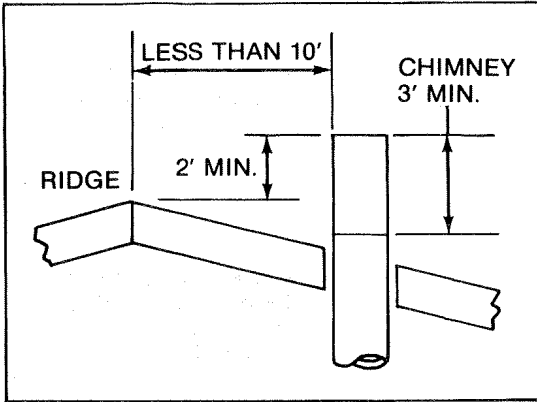
**Figure 9**  
Outside Locations

**NOTE:** An 8'-4" minimum height in a straight chimney installation (and 11'-4" in an Elbow installation) must be maintained from the top of the uppermost Chimney Section to the Outside Combustion Air inlet.

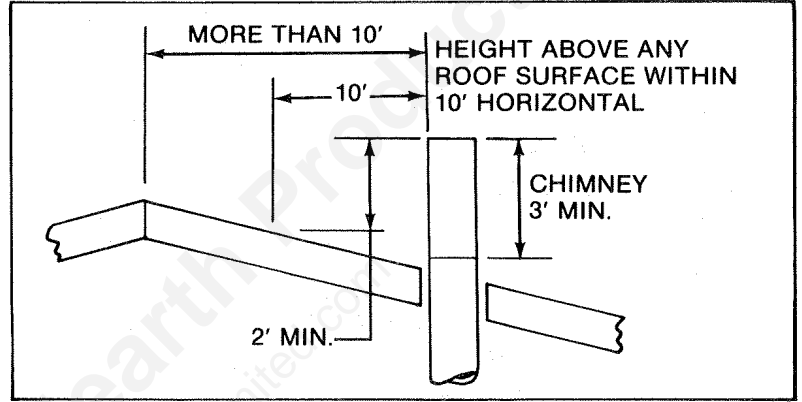
Major building codes specify a minimum chimney height above the roof top. These specifications are summarized in what is known as the "Ten Foot Rule". This rule states:

1. If the horizontal distance from the side of the chimney to the peak of the roof is 10 feet or less, the top of the chimney must be at least 2 feet above the peak of the roof, but never less than 3 feet in height above the highest point where it passes through the roof. See Figure 10.
2. If the horizontal distance from the side of the chimney to the peak of the roof is more than 10 feet, a chimney height reference point is established on the surface of the roof a distance of 10 feet from the side of the chimney in a horizontal plane. The top of the chimney must be at least 2 feet above this reference point, but never less than 3 feet in height above the highest point where it passes through the roof. See Figure 11.

These chimney heights are necessary in the interest of safety and do not assure smoke-free operation. Trees, buildings, adjoining roof lines, adverse wind conditions, etc., may require a taller chimney should smoking occur.



**Figure 10**  
Chimney Height



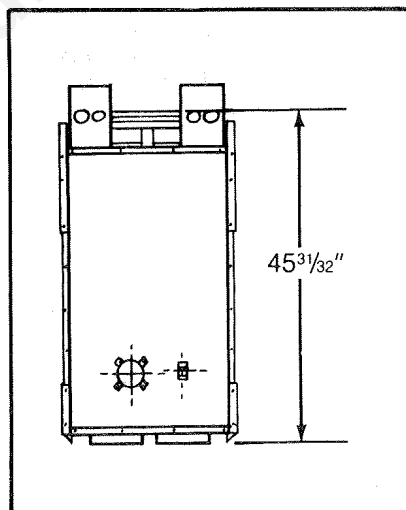
**Figure 11**  
Chimney Height

### SELECTING THE CHIMNEY COMPONENTS

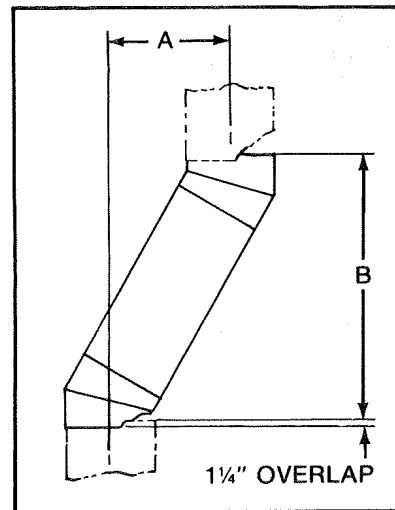
Figure 12 illustrates the height from the bottom of the fireplace to the top of the Chimney Adapter. Proper assembly of Air Cooled Chimney Sections results in an overlap at chimney joints of 1 1/4".

Figure 13 and Table 1 enable selection of the appropriate chimney components when using Offsets and Returns.

1. Determine amount of offset required to extend the chimney through a wall or around an obstacle. See Figure 13, dimension "A".



**Figure 12**  
Fireplace (Side View)



**Figure 13**  
Chimney Offset/Return

- Refer to the following 30° offset chart and find the "A" dimension closest to but not less than the amount of offset required in your installation.

**WARNING**

**DO NOT COMBINE OFFSETS TO CREATE AN OFFSET GREATER THAN 30° FROM VERTICAL. THIS MAY CREATE A FIRE HAZARD SINCE THE NATURAL DRAFT MAY BE RESTRICTED.**

- Find the "B" dimension on the chart and determine if it is compatible with your installation.
- Read across the chart and find the Catalog Number and number of Chimney Sections required.
- Refer to the Step-By-Step Installation Instructions following the chart.
- All joist areas must be Firestopped.

**TABLE 1**

**30° Offset Chart**

**(Dimensions in Inches)**

A	B	SL406	SL412	SL418	SL436	SL448
3 <sup>7</sup> / <sub>8</sub>	14 <sup>7</sup> / <sub>16</sub>	—	—	—	—	—
6 <sup>1</sup> / <sub>4</sub>	18 <sup>9</sup> / <sub>16</sub>	1	—	—	—	—
9 <sup>1</sup> / <sub>4</sub>	23 <sup>3</sup> / <sub>4</sub>	—	1	—	—	—
12 <sup>1</sup> / <sub>4</sub>	28 <sup>5</sup> / <sub>16</sub>	—	—	1	—	—
14 <sup>5</sup> / <sub>8</sub>	33 <sup>1</sup> / <sub>16</sub>	—	2	—	—	—
17 <sup>5</sup> / <sub>8</sub>	38 <sup>7</sup> / <sub>4</sub>	—	1	1	—	—
21 <sup>1</sup> / <sub>4</sub>	44 <sup>9</sup> / <sub>16</sub>	—	—	—	1	—
23 <sup>5</sup> / <sub>8</sub>	48 <sup>1</sup> / <sub>16</sub>	1	—	—	1	—
27 <sup>1</sup> / <sub>4</sub>	55 <sup>3</sup> / <sub>4</sub>	—	—	—	—	1
29 <sup>5</sup> / <sub>8</sub>	59 <sup>1</sup> / <sub>16</sub>	1	—	—	—	1
32 <sup>5</sup> / <sub>8</sub>	64 <sup>1</sup> / <sub>4</sub>	—	1	—	—	1
35 <sup>5</sup> / <sub>8</sub>	69 <sup>7</sup> / <sub>16</sub>	—	—	1	—	1
38	73 <sup>9</sup> / <sub>16</sub>	—	2	—	—	1
41	78 <sup>3</sup> / <sub>4</sub>	—	1	1	—	1
44 <sup>5</sup> / <sub>8</sub>	85 <sup>1</sup> / <sub>16</sub>	—	—	—	1	1
47	89 <sup>1</sup> / <sub>8</sub>	1	—	—	1	1
50 <sup>5</sup> / <sub>8</sub>	95 <sup>7</sup> / <sub>16</sub>	—	—	—	—	2

**IV. STEP-BY-STEP INSTALLATION OF THE FIREPLACE SYSTEM**

**WARNING**

**BEFORE STARTING, DO THE FOLLOWING:**

- WEAR GLOVES AND SAFETY GLASSES FOR PROTECTION.**
- KEEP HAND TOOLS IN GOOD CONDITION. SHARPEN CUTTING EDGES AND MAKE SURE TOOL HANDLES ARE SECURE.**
- ALWAYS MAINTAIN THE MINIMUM AIR SPACE REQUIRED TO THE ENCLOSURE TO PREVENT FIRE.**

**STEP 1**

Position the fireplace and nail wood blocks along the sides to prevent the fireplace from shifting (blocks must be removed later).

**STEP 2**

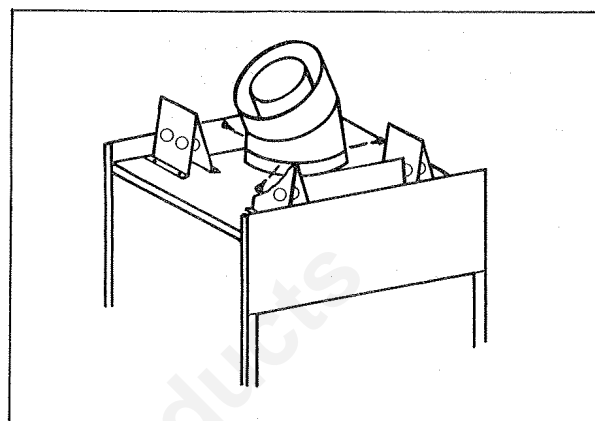
Slide the metal strip two inches under the front edge and bottom standoffs of the fireplace. See Figure 3. When the metal strip is not provided as a single piece, then the individual pieces must overlap each other approximately one inch.

**STEP 3**

Level the fireplace side-to-side and front-to-back. Shim with non-combustible material as necessary.

**STEP 4**

Assemble either a straight Pipe Section or an Offset to the fireplace. Always secure all Offsets with the screws provided. See Figure 14.



**Figure 14**  
Offset Secured to Fireplace

**WARNING**

**FOLLOW THE INSTRUCTIONS FOR ASSEMBLY OF THE PIPE AND OTHER PARTS, WHICH ARE PACKED WITH EVERY PIPE SECTION AND ALL OTHER COMPONENTS 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.**

**STEP 5**

Mark and cut out an opening in the ceiling for the particular Firestop Spacer being utilized. Frame the opening with the same size lumber used in the ceiling joists. See Chapter 25 of the Uniform Building Code for general construction requirements when "Framing Around Openings".

**STEP 6**

Install the Firestop Spacer FS538 (Straight), or FS540 (30° Offset, if Offset is located in the ceiling joist area). These Firestop Spacers are designed to provide the minimum two inch air space around the chimney. In all situations, the Firestops are to be nailed to the ceiling joists from the bottom or fireplace side, EXCEPT, when the space above the ceiling is an attic space. In this situation, the Firestop must be nailed from the attic side to ensure against loose or later blow-in-type insulation from falling into the required two inch air space around the chimney. Firestop Spacers must be used at all ceiling levels where the chimney penetrates a living space.

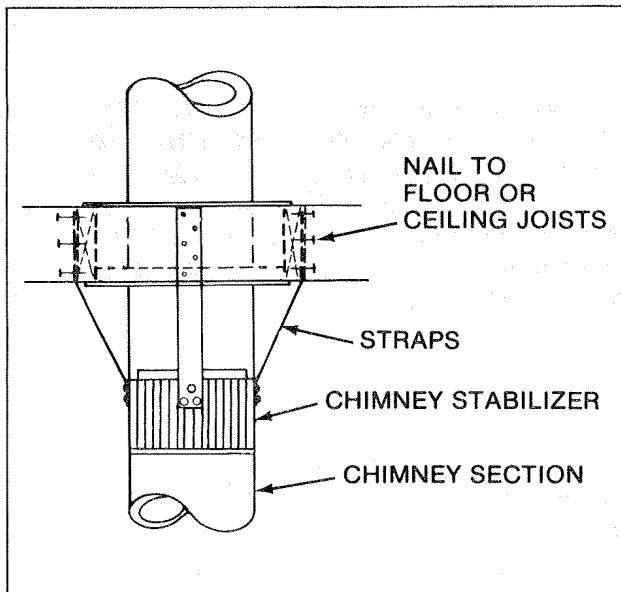
**STEP 7**

Continue assembling Chimney Sections up through the Firestop Spacers as needed. Check height and unsupported chimney length limitations described earlier.

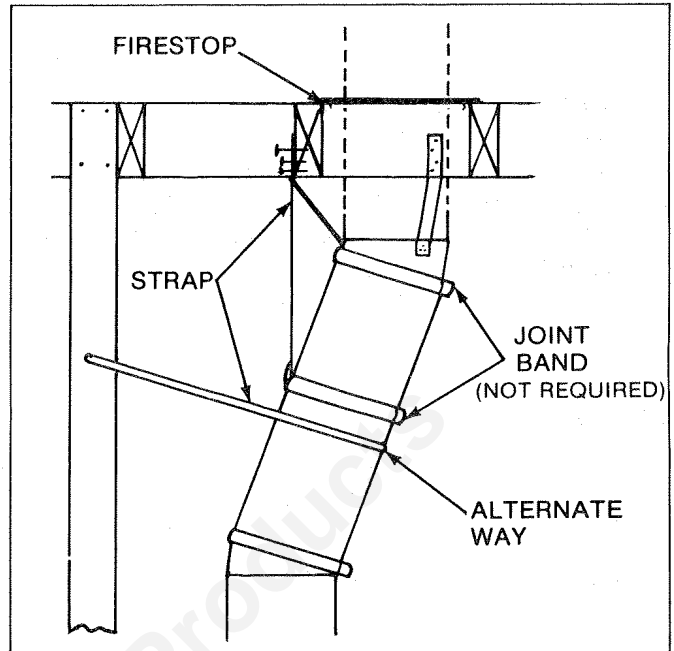
The maximum straight unsupported height is 25 feet above the firebox and 35 feet between Chimney Stabilizers.

**STEP 8**

When Offsets/Returns are joined to straight Pipe Sections, they must be locked in position with the size 10 sheet metal screws provided, using the predrilled holes. Offsets/Returns and Chimney Stabilizers have straps for securing these parts to joists or rafters. Plumbers tape may be purchased locally and used in conjunction with Joint Bands to secure the chimney as an alternate method. Chimney Brackets may be used to stabilize the chimney. See Figures 15 and 16.



**Figure 15**  
Chimney with Stabilizer



**Figure 16**  
Offset/Return Installation

**WARNING**

**WHEN CHIMNEY SECTIONS EXCEEDING 6 FEET IN LENGTH ARE INSTALLED BETWEEN AN OFFSET/RETURN, STRUCTURAL SUPPORT MUST BE PROVIDED TO REDUCE OFF-CENTER LOADING AND PREVENT CHIMNEY SECTIONS FROM SEPARATING AT THE CHIMNEY JOINTS.**

**STEP 9**

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

**STEP 10**

Measure to either side of the nail and mark the 17" x 17" opening required. This 17" x 17" 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.

**STEP 11**

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

**STEP 12**

Install the Roof Flashing appropriate to the roof pitch. Install a Starter Vent Section VS50 and Vent Sections VS51 and VS53 as required, finishing with at least 4" of Vent Section extending into the Roof Flashing. Assemble the Storm Collar around the Vent Section to protect against rain entering around the outside of the chimney, and add the Chimney Terminal Cap. The Terminal Cap must be one of the following: RT492 (Telescoping-Round), RT494 (Round) or ST475 (Square).

**NOTICE**

**ALL INSTALLATIONS USING ROUND TERMINAL CAPS RT492 OR RT494 MUST ALSO USE A STARTER VENT SECTION VS50; EXCEPT CHASE INSTALLATIONS UTILIZING THE CONSTRUCTION SPECIFIED IN SECTION V, OPTION I OF THESE INSTRUCTIONS.**

### WARNING

**DETAIL INSTRUCTIONS FOR INSTALLATION OF THE ROOF FLASHING, STARTER VENT SECTION, VENT SECTIONS, STORM COLLAR AND TERMINAL CAP ARE FOUND PACKAGED WITH THESE PARTS. TO AVOID DANGER OF FIRE, ALL INSTRUCTIONS MUST BE STRICTLY FOLLOWED, INCLUDING THE PROVISION OF AIR SPACE CLEARANCE BETWEEN CHIMNEY SYSTEM AND COMBUSTIBLE ENCLOSURE. TO PROTECT AGAINST EFFECTS OF METAL CORROSION OF THE ABOVE PARTS, FIRST WASH THEM WITH A SOLVENT OR VINEGAR, RINSE WITH WATER, AND THEN PAINT WITH A RUST RESISTANT PAINT.**

### □ STEP 13

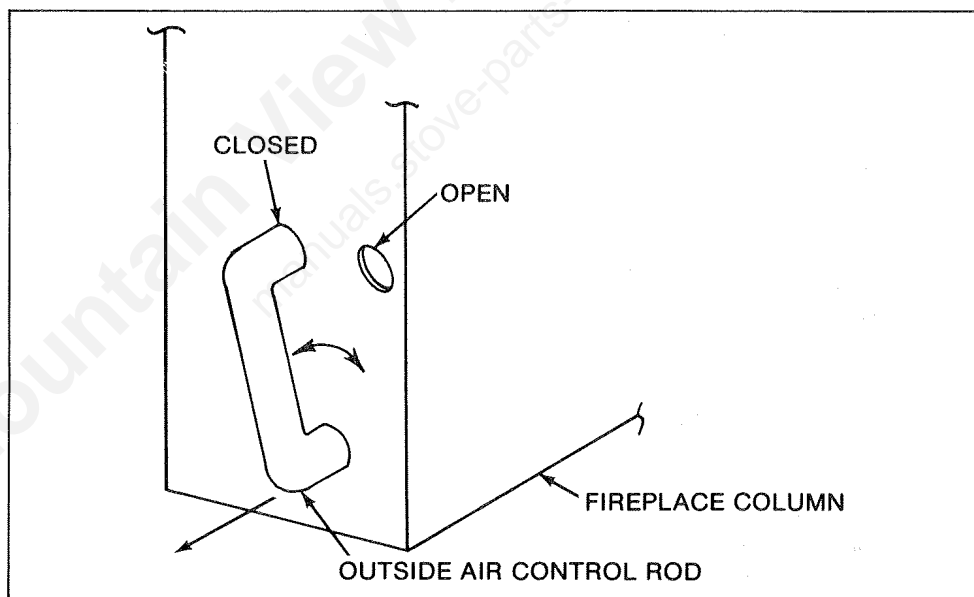
Supplied with each fireplace is an Outside Air Kit. Installation of the Outside Air Kit is optional, but recommended. To install the Outside Air Kit, mark and cut out the location selected on the building for air entry. Apply caulking and/or insulation to the building side of the flange tube, and fasten it to the building.

Remove the Outside Air cover from the side of the unit and install the fireplace duct connector, using the same screws.

Assemble the flexible duct between the fireplace duct connector and the flange tube. Secure it in position with clamp bands from the fastener package.

**NOTE: If Insulated Duct, Catalog Number ID4, is used for Outside Air, the studs will compress the side of the Insulated Duct about 3/4 inch. Insulated or Uninsulated Duct, UD4, must be ordered separately.**

The Outside Air control is located at the lower right front of the firebox opening. See Figure 17. To operate, pull the rod toward the center of the fireplace, then turn it to the front to open, to the back to close. Lock the Outside Air control in position by pushing the rod into the holes provided on the fireplace column.



**Figure 17**  
Outside Air Control

### CAUTION

**SIGNIFICANT COLD AIR MAY INFILTRATE THROUGH THE DUCT OR OTHER PARTS OF THIS SYSTEM. TO GUARD AGAINST THIS, CHECK FOR LIGHT LEAKS WITH A FLASHLIGHT AND SEAL THESE WITH DUCT TAPE AND/OR INSULATION.**

**STEP 14**

Frame the fireplace enclosure, allowing space for outside air ducts and gas piping if desired. Care must be taken with any electrical wiring to avoid exposure to high temperatures or mechanical damage to wire insulation. A minimum clearance of 1/2" must be maintained between the fireplace sides and the combustible enclosure. Check to make sure the blocks from STEP 1 have been removed.

**STEP 15**

Knockouts are provided on the side refractory to allow for connection of a decorative gas appliance, in accordance with the National Fuel Code, ANSI Z223.1-1980. This side refractory is designed to allow 1/2" iron pipe to pass through. Use a non-combustible 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.

**CAUTION**

- 1. WHEN USING THE DECORATIVE APPLIANCE, THE FIREPLACE DAMPER MUST BE SET IN THE FULLY OPEN POSITION.**
- 2. A FULLY OPEN DAMPER ENSURES PROPER VENTING OF COMBUSTION PRODUCTS.**

**STEP 16**

Install Glass Doors if desired, using the Instructions supplied with these optional accessories. One Glass Door Kit, GD36ST or GD37ST, is required for each face of the unit. Protect Glass Doors from breakage by temporarily removing them until all construction is complete.

**STEP 17**

Position the Hearth Extension over the metal protective strip which should project two inches in front of the fireplace bottom front. See Figure 5. Seal the crack between the Hearth Extension and fireplace with a non-combustible (sand-cement) grout. Hearth Extensions are required on both sides of the fireplace.

**STEP 18**

Apply the finish materials of your choice. Do not install combustible materials over the black face of the fireplace or over the cooling air inlet slots in the firebox opening. You may use non-combustible material over the black face of the fireplace.

**STEP 19**

This fireplace is equipped with a factory installed Integral Grate. In the event it becomes necessary to replace it, remove the pins from both ends of the middle horizontal bar, using a vise grip to pull them free. Slide the Grate to one side so the opposite end clears the hub. Your new Grate will be supplied with new pins. Remove these pins and slide the Grate into the hubs located in each side refractory (one side at a time), and replace the pins on both ends of the Grate bar. Use only Catalog Number GR36-3 Integral Grate for replacement.

**STEP 20**

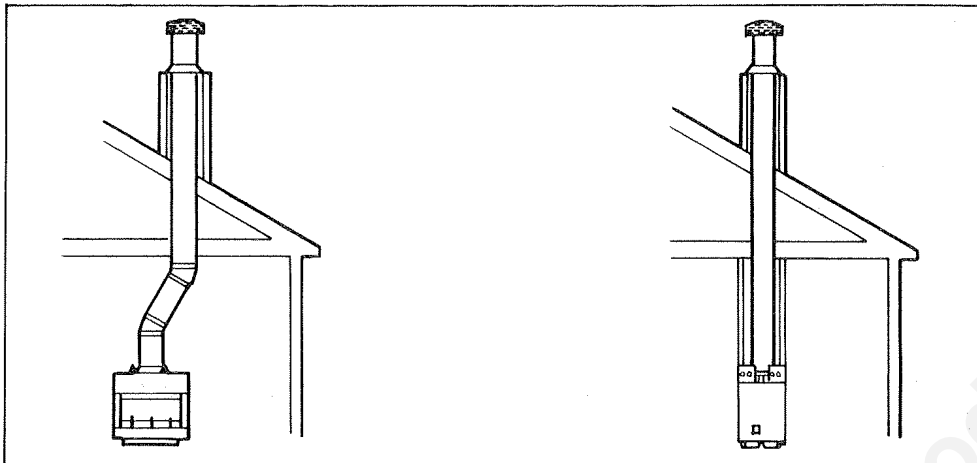
Prior to building your first fire in your fireplace, please read the "Operating Instructions" section that follows.

**WARNING**

**DO NOT PACK REQUIRED AIR SPACES WITH INSULATION OR OTHER MATERIALS. THIS PREVENTS THE NATURAL CONVECTION COOLING WHICH MUST TAKE PLACE. THE REQUIRED CLEARANCES ARE TO THE ENCLOSURE AND SHOULD NOT BE REDUCED BY THE ADDITION OF OTHER MATERIALS WHETHER OF NON-COMBUSTIBLE OR COMBUSTIBLE MATERIAL. COMBUSTIBLE MATERIALS AS WELL AS THE NON-COMBUSTIBLE MATERIALS USED IN THE FIREPLACE MAY HAVE THEIR USEFUL LIFE REDUCED.**

## V. CONSTRUCTING A CHASE

A chase may be constructed for the fireplace and chimney or for the chimney only. A chase is an enclosure around the system. Figure 18 illustrates examples of a chase constructed on a roof.



**Figure 18**  
Chase Constructions

A variety of materials may be used to construct the chase including brick, stone, or any standard siding material. The following are important considerations when constructing a chase enclosure:

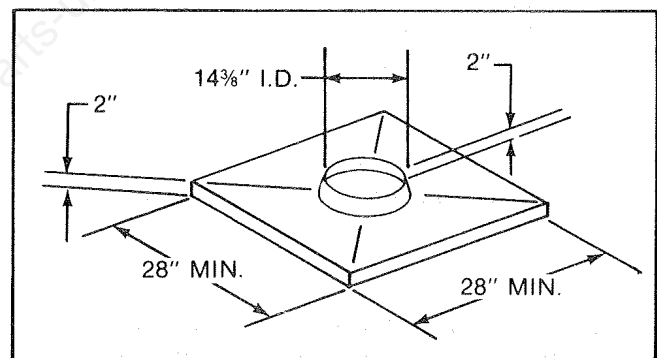
1. The enclosed area under the Chase Top must be ventilated to remove excess heat build-up.
2. Maintain a 2" air space around the Chimney Sections.
3. The Chase Top must be constructed from non-combustible materials.
4. The walls of the chase enclosure must be insulated to prevent excessive heat loss through the fireplace.

Chase Top construction should be one of the following two options:

### OPTION I

- (a) The Chase Top should be constructed with the minimum dimensions as shown in Figure 19.

**NOTE:** A 28" x 28" minimum Chase Top dimension assumes a chase exterior dimension of 25" x 25" minimum. Therefore, a 3" minimum larger Chase Top must be formed for any chase exterior dimension. See Figure 21 for additional detail.



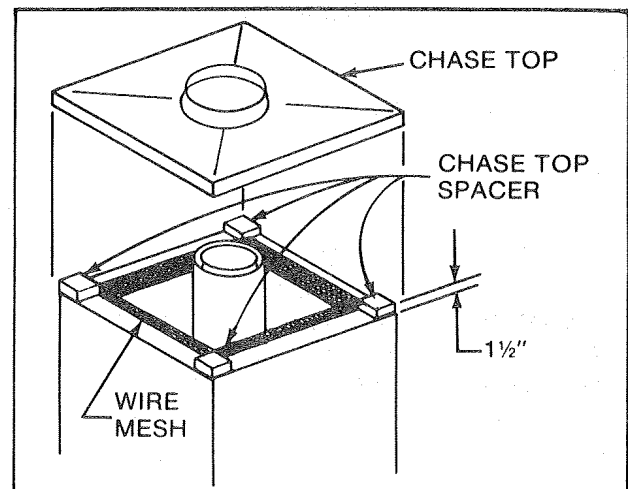
**Figure 19**  
Chase Top

- (b) Attach the Chase Top spacers as shown in Figure 20. These spacers may be cut from any 1½" thick material such as 2x4 framing lumber.

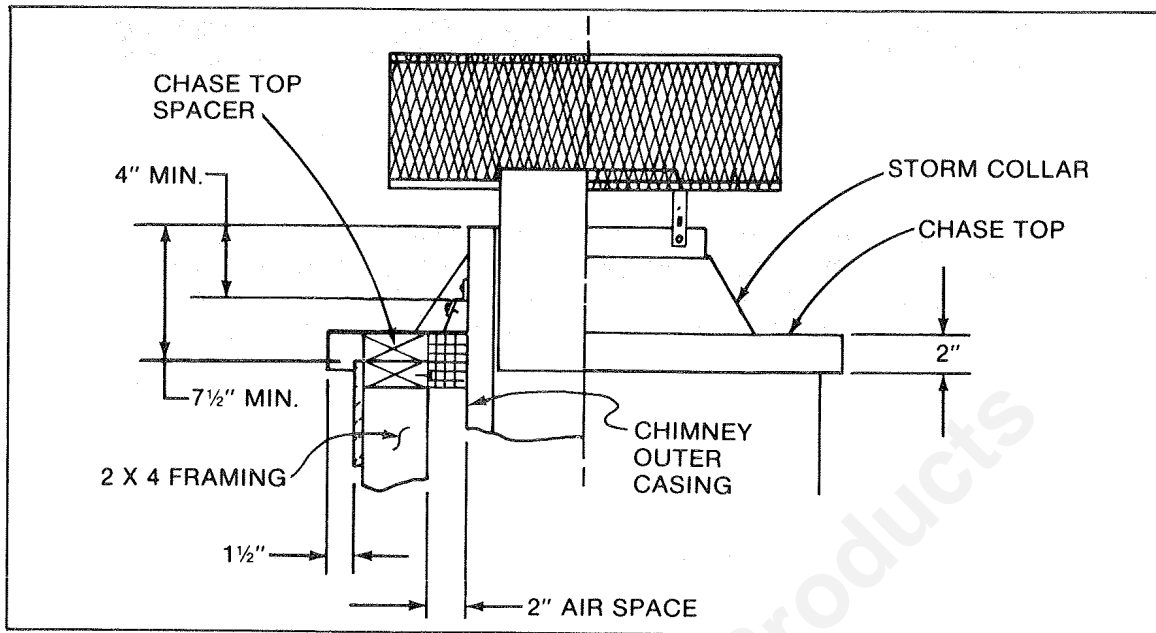
- (c) Attach either a wire mesh or an expanded metal screen of 1/2" x 1/2" or less opening size and total opening not less than 74%, to the inside edges of the chase to a height equal to the Chase Top spacer height (1½"), to cover the entire opening that will be created by this spacer.

- (d) Install Chimney Sections to a minimum of 4" above the Chase Top collar.

- (e) Insert the Chase Top over the Chimney Section and nail it in place. See Figures 20 and 21. The Chase Top collar must be centered with the chimney center before you secure the Chase Top to these spacers.



**Figure 20**



**Figure 21**

- (f) Install the Storm Collar over the top Chimney Section to prevent water leakage, tighten the Storm Collar and caulk all seams.
- (g) Attach an RT494 Round Terminal Cap to the top Chimney Section and secure it, or slip the Telescoping Round Terminal Cap RT492 over the top Chimney Section and secure it to the Chase Top (use of an RT492 requires the top Chimney Section to be terminated in a range of 15" under the Chase Top to 3" above the Chase Top). If an ST475 Square Terminal Cap is to be installed, install the Chase Top as described above, however, the top Chimney Section must be terminated in a range of 4 3/4" under the Chase Top to 1 1/2" above the Chase Top. Follow the Installation Instructions packaged with the Square Terminal Cap.

**WARNING**

**DETAIL INSTRUCTIONS FOR INSTALLATION OF THE CHASE TOP, STORM COLLAR AND TERMINAL CAP ARE FOUND PACKAGED WITH THESE PARTS. TO AVOID DANGER OF FIRE, ALL INSTRUCTIONS MUST BE STRICTLY FOLLOWED, INCLUDING THE PROVISION OF AIR SPACE CLEARANCE BETWEEN CHIMNEY SYSTEM AND COMBUSTIBLE ENCLOSURE AND BETWEEN CHASE AND CHASE TOP. TO PROTECT AGAINST EFFECTS OF METAL CORROSION OF PARTS SUCH AS CHASE TOP AND THOSE ABOVE CHASE TOP, FIRST WASH THEM WITH A SOLVENT OR VINEGAR, RINSE WITH WATER, AND THEN PAINT WITH A RUST RESISTANT PAINT.**

**OPTION II**

- (a) Construct chase of desired materials maintaining a minimum 2" air space around the chimney.
- (b) The Chase Top should be constructed to fit over the chase, and provide a 14 3/8" I.D. collar (2" high) for the chimney to pass through. Reference Figure 19. Catalog Number CT56 Chase Top is also available for use.
- (c) Install the Chimney Sections up through the chase. The last section of Pipe must not be more than 15" below or 3" above the Chase Top.

**NOTE: If a Square Terminal Cap ST475 is utilized, see separate Installation Instructions.**

- (d) Attach the Chase Top to the top of the chase.
- (e) Install Vent Section Starter VS50 and Round Terminal Cap RT492. Refer to the Instructions packed with these parts for installation details.
- (f) Install the Storm Collar over the Vent Section Starter to prevent water leakage. Tighten the Storm Collar and caulk all seams.

# OPERATING INSTRUCTIONS

## NOTICE

**SAVE AND PASS THESE OPERATING INSTRUCTIONS AND THE INSTALLATION INSTRUCTIONS TO SUBSEQUENT OWNERS. THE INFORMATION PROVIDED IS INTENDED TO NOTIFY AND WARN THEM ABOUT MAKING UNSAFE FUTURE MODIFICATIONS SUCH AS THE ADDITION OF SHELVES OR THE USE OF UNAUTHORIZED PARTS AND REPAIRS.**

## CAUTION

**EDGES ARE SHARP. HAND PROTECTION IS RECOMMENDED.**

Before starting a fire in your new or existing fireplace, use the following check list:

- A. **FLUE DAMPER.** When the lever is free to move (not locked in a notch), the lever should move toward the full open position. Verify by looking up from the inside of the firebox. Then lock it in this full open position.

## WARNING

**THE FIREPLACE MUST BE OPERATED WITH THE DAMPER IN THE FULL OPEN POSITION.**

- B. **CHIMNEY INSPECTION.** Visually inspect the chimney internally for obstructions and construction damage. Flue pipe joints and seams must be continuous and mechanically tight. In a used chimney, additional inspection is needed for the following:

### **"Creosote - Formation and Need for Removal.**

When wood is burned slowly, it produces tar and other organic vapors, which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue of a slow-burning fire. As a result, creosote residue accumulates on the flue lining. When ignited, this creosote makes an extremely hot fire.

The chimney should be inspected at least twice monthly during the heating season to determine if creosote build-up has occurred.

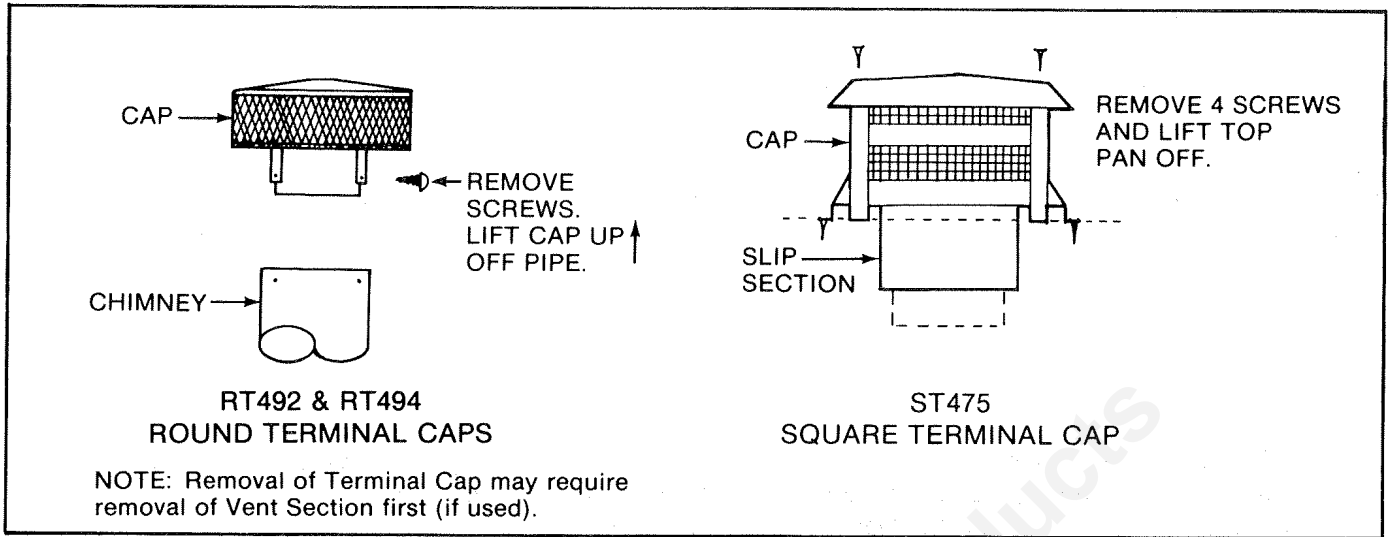
If creosote has accumulated, it should be removed to reduce the risk of a chimney fire."

- C. **CHIMNEY CLEANING.** If you do detect a build-up of creosote, contact a qualified chimney sweep or clean it yourself.

1. Open the damper.
2. Hang a damp sheet across the fireplace opening to stop dirt and soot from entering the room.
3. Remove the Terminal Cap. See Figure 1.
4. Clean with a stiff bristled brush attached to a pole,

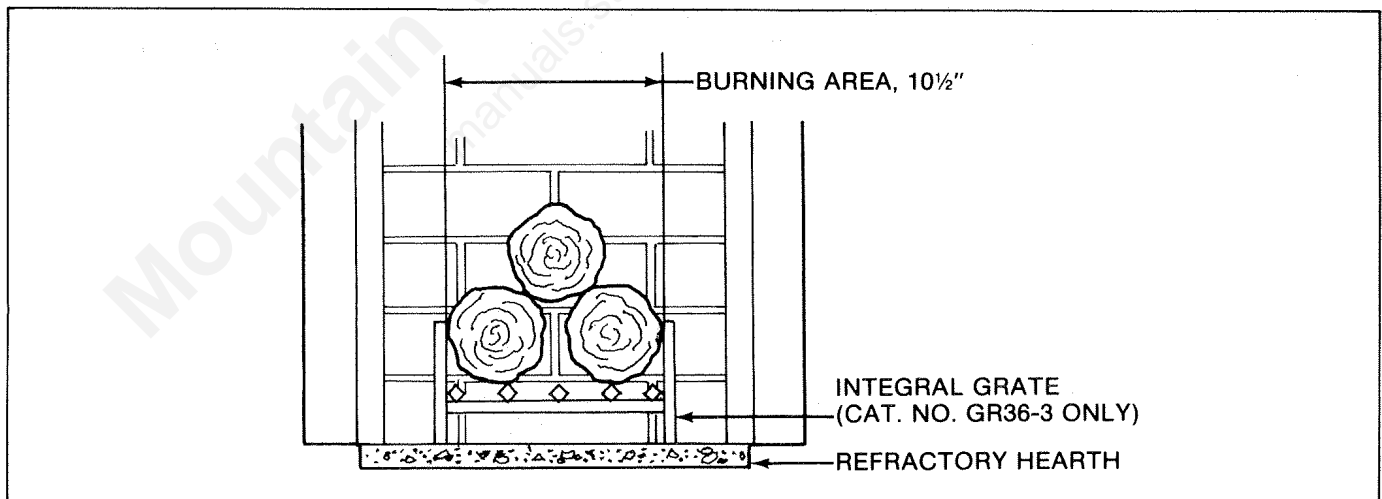
**OR**

- 4A. Tie a rope to a burlap bag filled with straw and several stones. Work up and down the flue until clean.
5. Replace the Terminal Cap.



**Figure 1**  
Terminal Caps

- D. **CLEAR SPACE NEAR FIREPLACE.** The Hearth Extensions must extend at least 16 inches to the front and 8 inches on either side of the firebox. Combustible materials must not be stored in this area. Combustible walls perpendicular to the front and open side of the fireplace must be at least 18 inches from the fireplace opening or 11 inches if a wall shield is used. Room furnishings such as drapes, curtains, chairs, or other combustibles must be at least 64 inches from the open fronts of the fireplace.
- E. **GRATE.** The factory installed Integral Grate must be used to hold the logs from falling out of an open fireplace and to allow air to pass between the burning logs. It is important to keep the fire off the hearth and to allow the ashes to collect beneath the fire, thereby forming a layer of additional heat protection. See Figure 2. Use only Catalog Number GR36-3 Integral Grate for replacement.



**Figure 2**  
Section Through Fireplace

- F. **FIRESCREEN.** Firescreens are always provided to control sparks. Both firescreens must be closed whenever the fireplace is in use. Glass Doors or firescreens must not be used to hold burning material inside the fireplace as might occur when overfilling the fireplace with empty boxes or branches. Only those Glass Door units specifically tested and listed for use with the specific fireplace model should be used. Screens should be closed when the Glass Doors are closed.
- G. **OUTSIDE AIR.** A damper allows control of the Outside Air inlet of your fireplace. In a tightly sealed or well insulated home, replacement of combustion air is necessary to keep harmful gases from entering living spaces.

**CAUTION**

**FIREPLACE OPERATION DOES REQUIRE AIR. DO NOT TAKE AIR FROM OTHER FUEL BURNING APPLIANCES WHICH CAN RESULT IN IMPROPER VENTING (SMOKING) OR AIR DILUTION. ALWAYS PROVIDE ADEQUATE MAKE-UP AIR.**

- H. **SETTING THE FIRE.** Check the flue damper to be sure it is fully open. Place crumpled or twisted paper under the Grate. Loosely arrange kindling or small pieces of wood to form a layer above the paper. Place three logs in a rough pyramid as shown in Figure 2, being sure to allow free air space between the logs. Small sticks of wood may be used to separate the logs. **NOTE:** When heated the first time, the temperature of the fireplace must be raised gradually, to prevent moisture within the refractory from causing cracks, and to allow the binders in the insulation to dissipate.

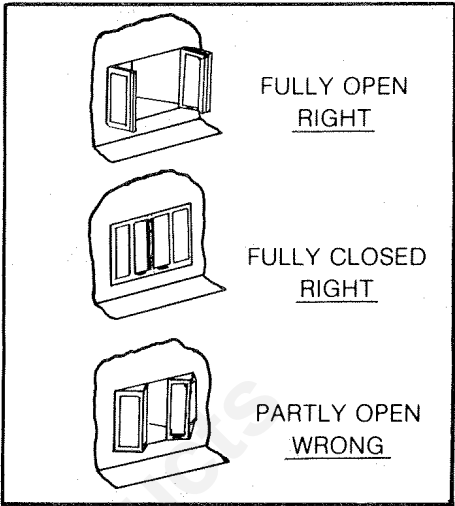
**CAUTION**

**NEVER USE GASOLINE, GASOLINE-TYPE LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID, OR SIMILAR LIQUIDS TO START OR 'FRESHEN UP' A FIRE IN THIS FIREPLACE. KEEP ALL SUCH LIQUIDS WELL AWAY FROM THE FIREPLACE WHILE IT IS IN USE TO AVOID THE RISK OF FIRE.**

- I. **DISPOSAL OF ASHES.** Ashes should be placed in a metal container with a tight-fitting lid. The closed container of ashes should be placed on a non-combustible floor or on the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled.
- J. **GLASS DOORS.** Most efficient fireplace operation using Glass Doors is with the Doors open, as can be felt when standing in front of the fireplace. When not burning the fireplace, Glass Doors will prevent loss of room heat through the chimney. Only HEATILATOR® Glass Doors, Catalog Numbers GS36A, GS36B, GD36ST or GD37ST, may be used.

**WARNING**

**FIREPLACES EQUIPPED WITH DOORS SHOULD BE OPERATED ONLY WITH DOORS FULLY OPEN OR DOORS FULLY CLOSED. IF DOORS ARE LEFT PARTLY OPEN, GAS AND FLAME MAY BE DRAWN OUT OF THE FIREPLACE OPENING, CREATING RISKS OF BOTH FIRE AND SMOKE.**



GLASS DOORS

**K. OPERATING YOUR FIREPLACE.**

**WARNING**

**CONTINUED OVERFIRING CAN PERMANENTLY DAMAGE YOUR FIREPLACE SYSTEM. EXAMPLES OF OVERFIRING ARE:**

- 1. QUANTITIES OF SCRAP LUMBER, PINE BRANCHES OR CARDBOARD BOXES WHICH EXCEED THE VOLUME OF THE "NORMAL LOG FIRE". THESE MATERIALS PRODUCE MANY SPARKS AND MUST NOT BE USED.**
- 2. THE "NORMAL LOG FIRE" IS THREE LOGS, EACH FOUR INCHES IN DIAMETER, WITH THE LENGTH NO GREATER THAN THE WIDTH OF THE FIREBOX OPENING. THE RATE OF FIRING MUST NOT EXCEED THESE THREE LOGS PER HOUR.**

**L. SAFETY - A FINAL WORD.** Fireplaces as well as other woodburning appliances have been used safely for many years. Our own experience is that most problems are caused by improper installation, fueling, and operating. All dimensions specified are minimum and increasing distances to combustibles decreases risk. Such common practice as surrounding the fireplace with loose fill insulation, and especially leaving the fire unattended, will increase the risk of fire.



# *Attention* **Fireplace Installer:**

*Please return operating  
and installation  
instructions to the firebox  
for consumer use.*

**heatilator**<sup>®</sup>  
THE WOODBURNING SPECIALISTS