heatilator®
The first name in fireplaces

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

RB36AI RB42AI INSTALLATION & OPERATING INSTRUCTIONS FOR RESIDENTIAL USE

I. LISTINGS AND CODE APPROVALS

These fireplace systems have been tested in accordance with Underwriters Laboratories Inc. Standards, and have been LISTED by them for installation and operation as described in these Installation & Operating Instructions.

Fireplace Catalog Numbers RB36AI and RB42AI have 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 at a later date. However, installation of the Outside Air Kit, Junction Box Kit and Fan Kit will require significant reconstruction, and should be installed at the time of initial installation.

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 BEFORE 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
2. Hearth Extension
3. Chimney System
4. Roof Termination
5. Integral Grate

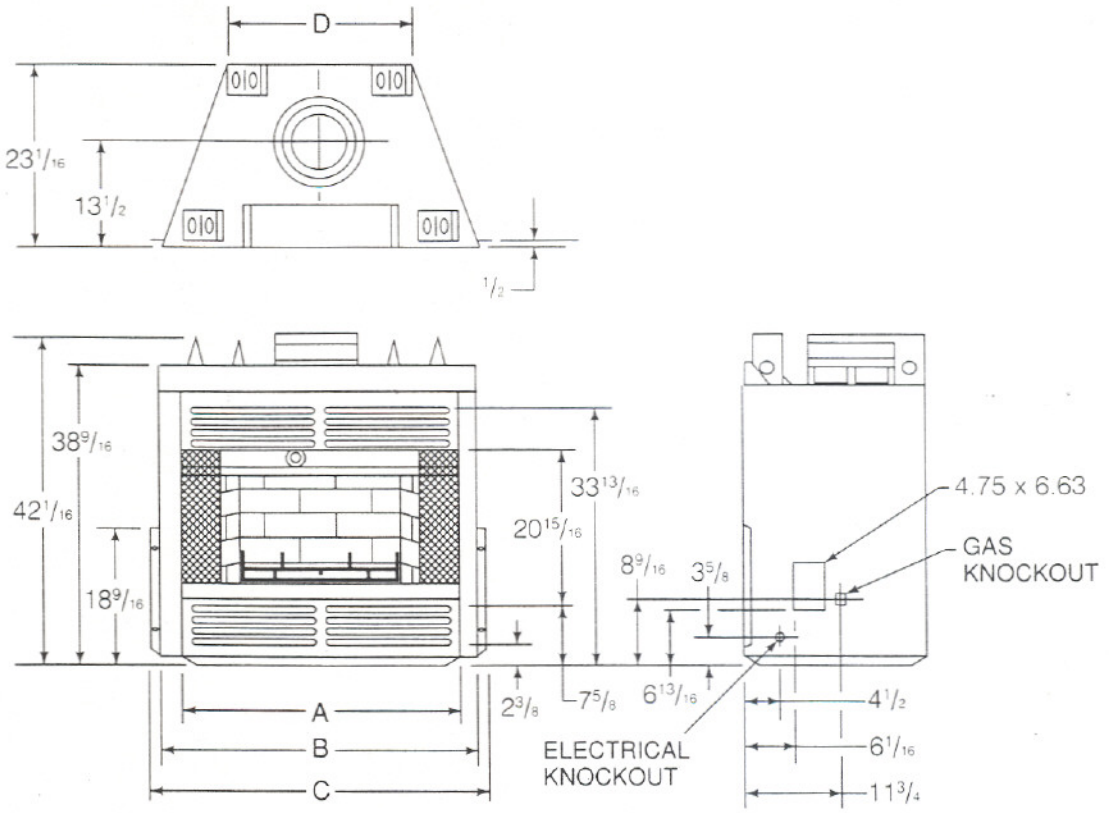
Optional components include:

1. Glass Doors
2. Outside Combustion Air System
3. Heat Circulating Fans

THE FIREPLACE SYSTEM COMPONENTS

Catalog Number	Description
RB36AI RB42AI	Fireplaces (Insulated Outer Shell)
HX3 HX4	Hearth Extensions
GD36B GD42B	Glass Doors - Clear-View, Bright Solid Brass
GR1 GR2	Integral Grate (included with Fireplace)
FK1	Fan Kit (Raceway and Single Fan)
FK2	Fan Kit (Single Fan)
JK1	Junction Box Kit
BC10	Motor Speed Control Kit
AK14	Air Kit - Outside Air
AK15	Roof Inlet
ID4	Insulated Duct/Outside Air
UD4	Uninsulated Duct/Outside Air
SL306	Chimney Section - 6 inch long
SL312	Chimney Section - 12 inch long
SL318	Chimney Section - 18 inch long
SL324	Chimney Section - 24 inch long
SL336	Chimney Section - 36 inch long
SL348	Chimney Section - 48 inch long
SL3	Chimney Stabilizer
SL330	Chimney Offset/Return - 30°
FS338	Firestop - Straight
FS340	Firestop - 30°
JB877	Chimney Joint Band
CB876	Chimney Bracket
RF370	Roof Flashing - Flat to 6/12 Pitch
RF371	Roof Flashing - 6/12 to 12/12 Pitch
RF372	Roof Flashing - 12/12 to 24/12 Pitch
RT382	Telescoping Chimney Terminal Cap - Round
RT384	Chimney Terminal Cap - Round
ST376	Telescoping Chimney Terminal Cap - Square
ST8	Housing Top Chimney Terminal Cap
RB4	4' Simulated Red Brick Chimney Panels
TB4	4' Simulated Tan Brick Chimney Panels
RB6	6' Simulated Red Brick Chimney Panels
TB6	6' Simulated Tan Brick Chimney Panels
CT35	Chase Top

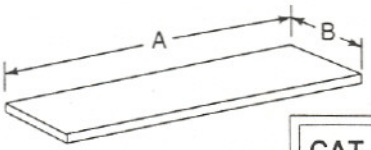
RB36AI & RB42AI FIREPLACES



(Dimensions in Inches)

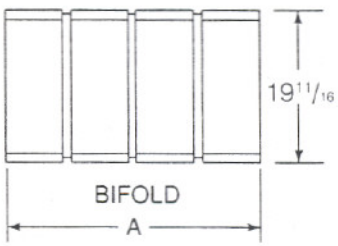
CAT. NO.	A	B	C	D
RB36AI	36	41	43	24 9/16
RB42AI	42	47	49	30 7/16

HEARTH EXTENSIONS



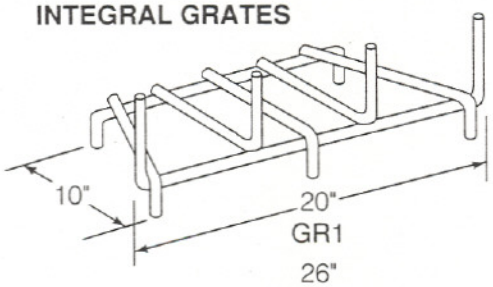
CAT. NO.	A	B
HX3	52"	16"
HX4	66"	20"

GLASS DOORS

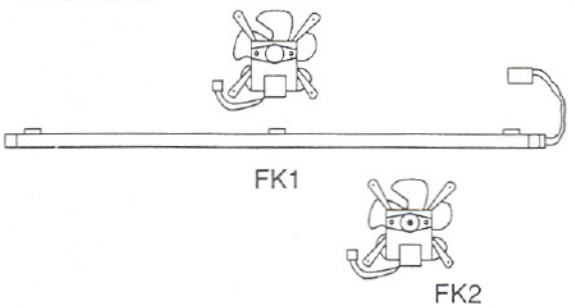


CAT. NO.	A
GD36B	34 13/16"
GD42B	40 15/16"

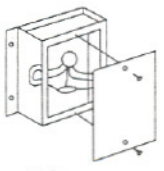
INTEGRAL GRATES



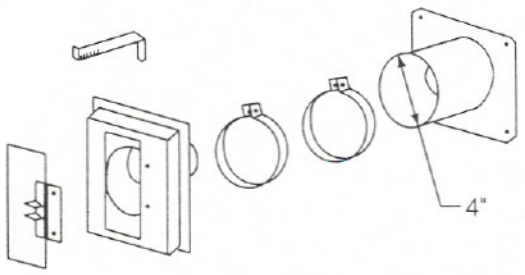
FAN KITS



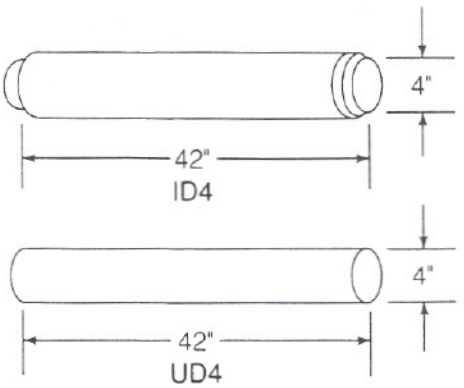
JUNCTION BOX KIT



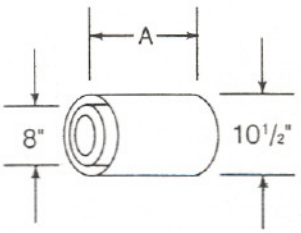
AIR KIT



AK14

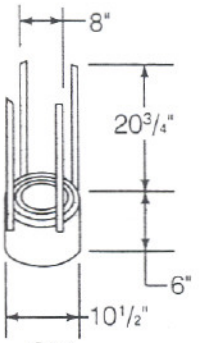


CHIMNEY SECTIONS



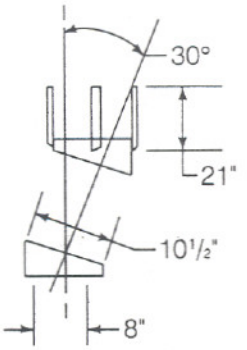
CAT. NO.	A
SL306	6"
SL312	12"
SL318	18"
SL324	24"
SL336	36"
SL348	48"

CHIMNEY STABILIZER



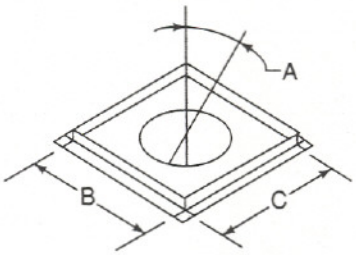
SL3

OFFSET/RETURN



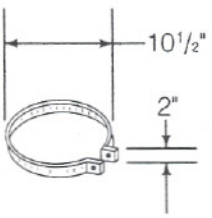
SL330

FIRESTOP SPACERS



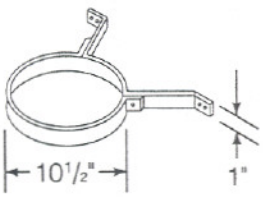
CAT. NO.	A	B	C
FS338	0°	14½"	14½"
FS340	30°	22 15/16"	14½"

JOINT BAND



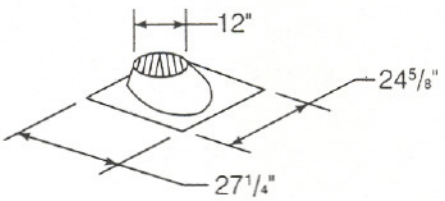
JB877

CHIMNEY BRACKET

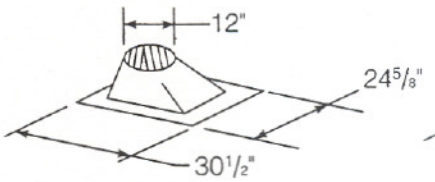


CB876

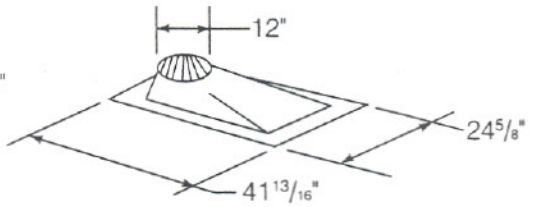
ROOF FLASHINGS



Flat to 6/12 Pitch
RF370

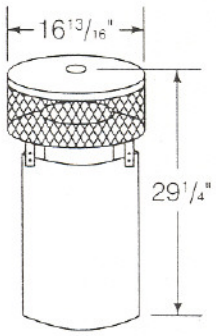


6/12 to 12/12 Pitch
RF371

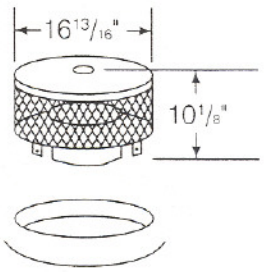


12/12 to 24/12 Pitch
RF372

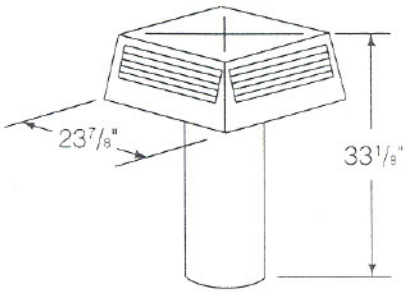
CHIMNEY TERMINAL CAPS & TERMINATIONS



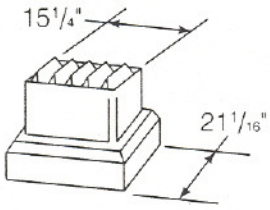
RT382
ROUND TERMINAL CAP



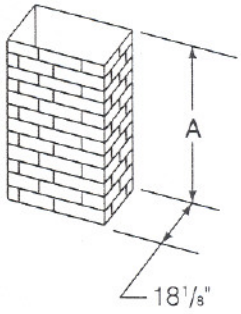
RT384
ROUND TERMINAL CAP



ST376
SQUARE TERMINAL CAP



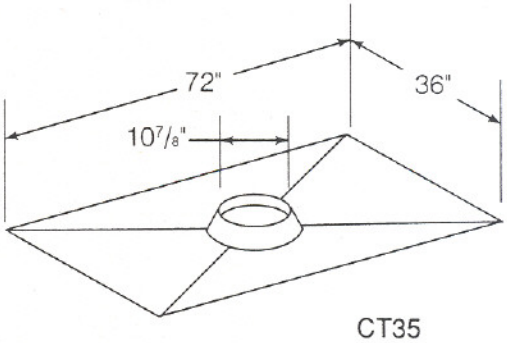
ST8
HOUSING TOP



CAT. NO.	A
RB4	45 3/4"
TB4	45 3/4"
RB6	69 3/4"
TB6	69 3/4"

SIMULATED BRICK TERMINATIONS

CHASE TOP



CT35

III. FIREPLACE LOCATIONS, SPACE AND CONSTRUCTION REQUIREMENTS

The fireplace may be located as shown in Figure 1.

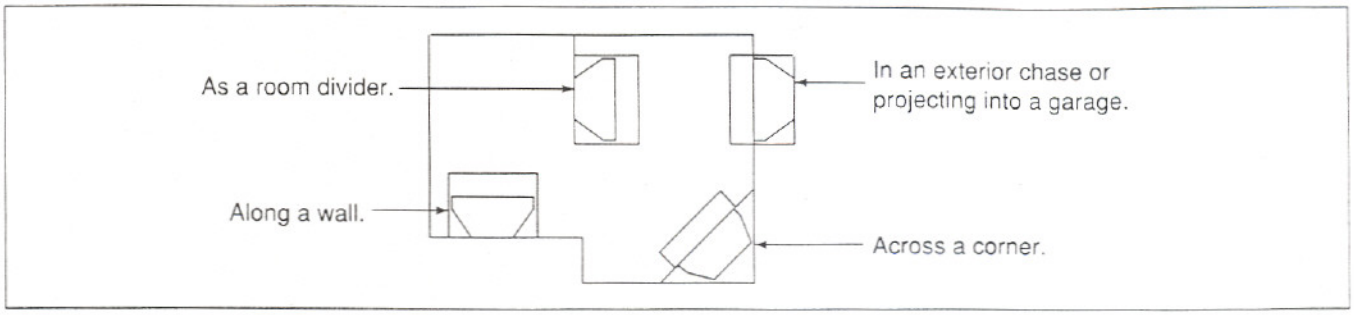


Figure 1
Fireplace Locations

Figures 2 and 3 show installations assuming outside air ducts with allowance for making 90° bends. Less space is required when ducting goes directly outside without forming elbows.

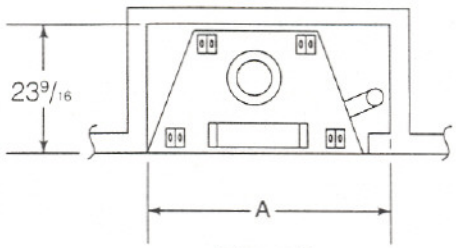


Figure 2
Installation along a wall or an exterior chase.

WITHOUT OUTSIDE AIR

CAT. NO.	A
RB36AI	41 1/8
RB42AI	47 1/8

WITH OUTSIDE AIR

CAT. NO.	A
RB36AI	45 3/16
RB42AI	51 3/16

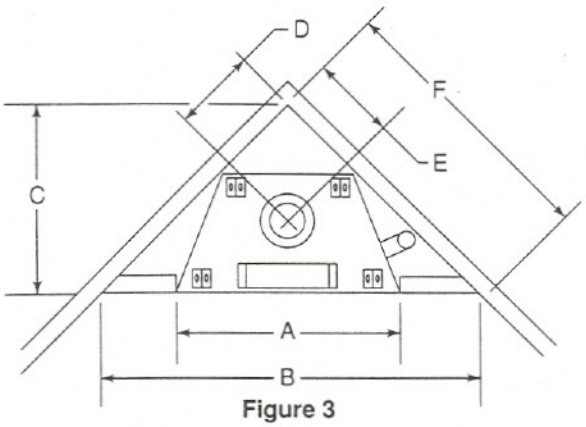


Figure 3
Corner Installation

WITH OR WITHOUT OUTSIDE AIR

CAT. NO.	A	B	C	D	E	F
RB36AI	41 1/8	72 1/8	36 1/16	15 15/16	15 15/16	51
RB42AI	47 1/8	78 1/8	39 1/16	18 1/16	18 1/16	55 1/4

ALL DIMENSIONS IN INCHES

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 4 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 2" to the enclosure, including any framing, for the total chimney height.

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.

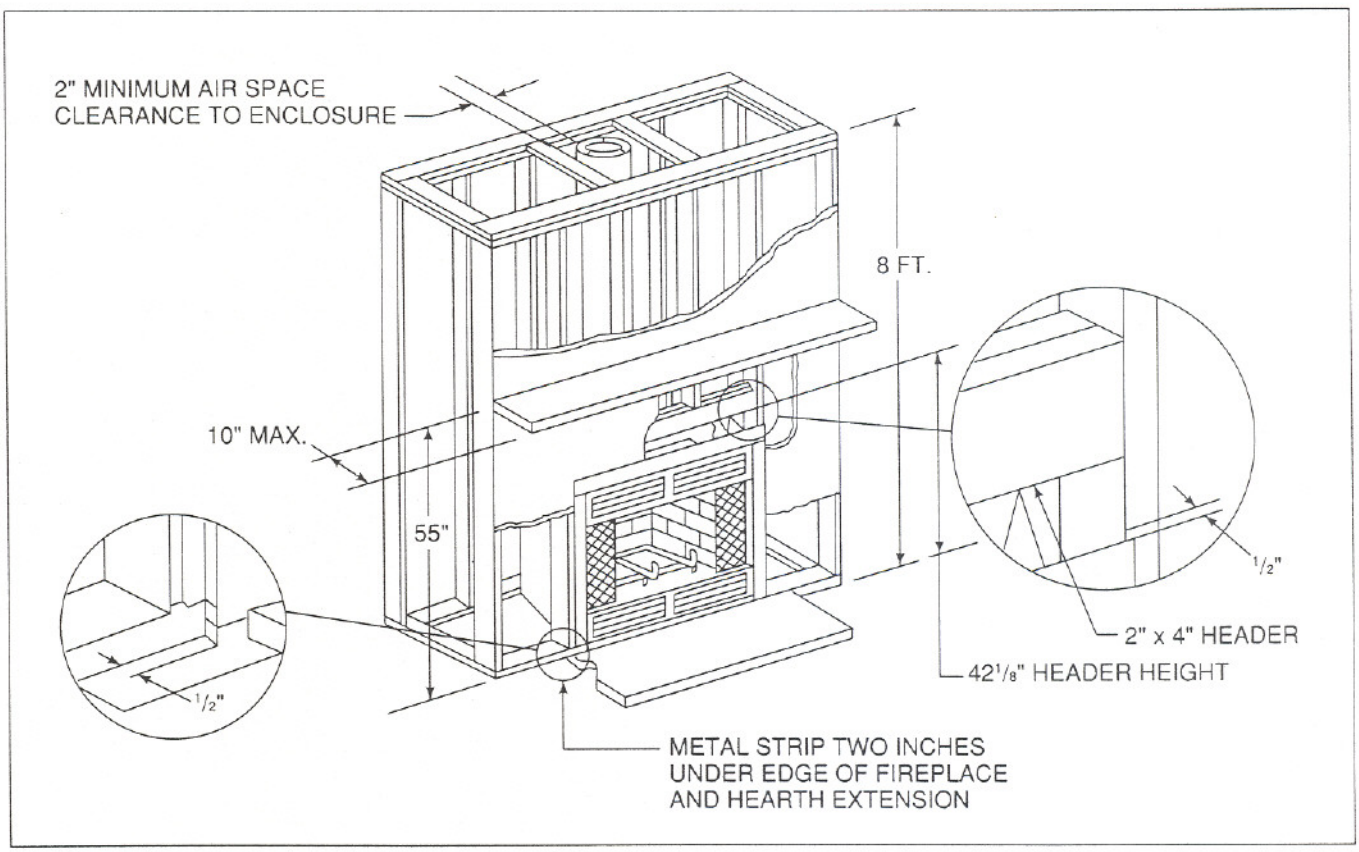


Figure 4
Framing the Fireplace

After completing the framing and after applying the facing material over the framing, 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.

WARNING

DO NOT APPLY FINISH MATERIALS OVER THE LOUVERED FACE OF THESE FIREPLACES. THIS WILL BLOCK THE FLOW OF COOLING AIR AND MAY CAUSE DANGEROUSLY HIGH TEMPERATURES ON COMBUSTIBLE SURFACES OR ON THE FIREPLACE ITSELF.

Non-combustible materials may be used to cover the black non-louvered 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.

HEARTH EXTENSIONS

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 15/16 inch. Seal gaps with non-combustible (sand-cement) grout or sealant.

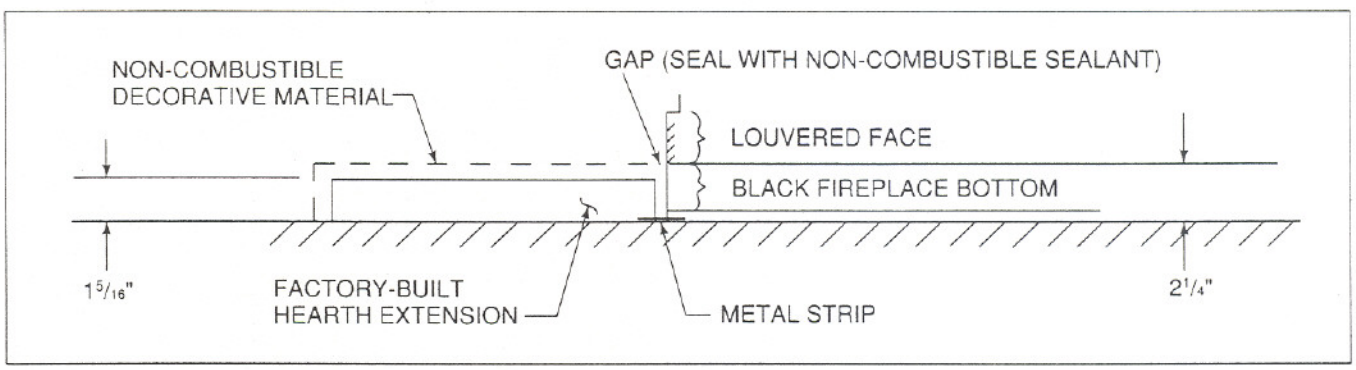
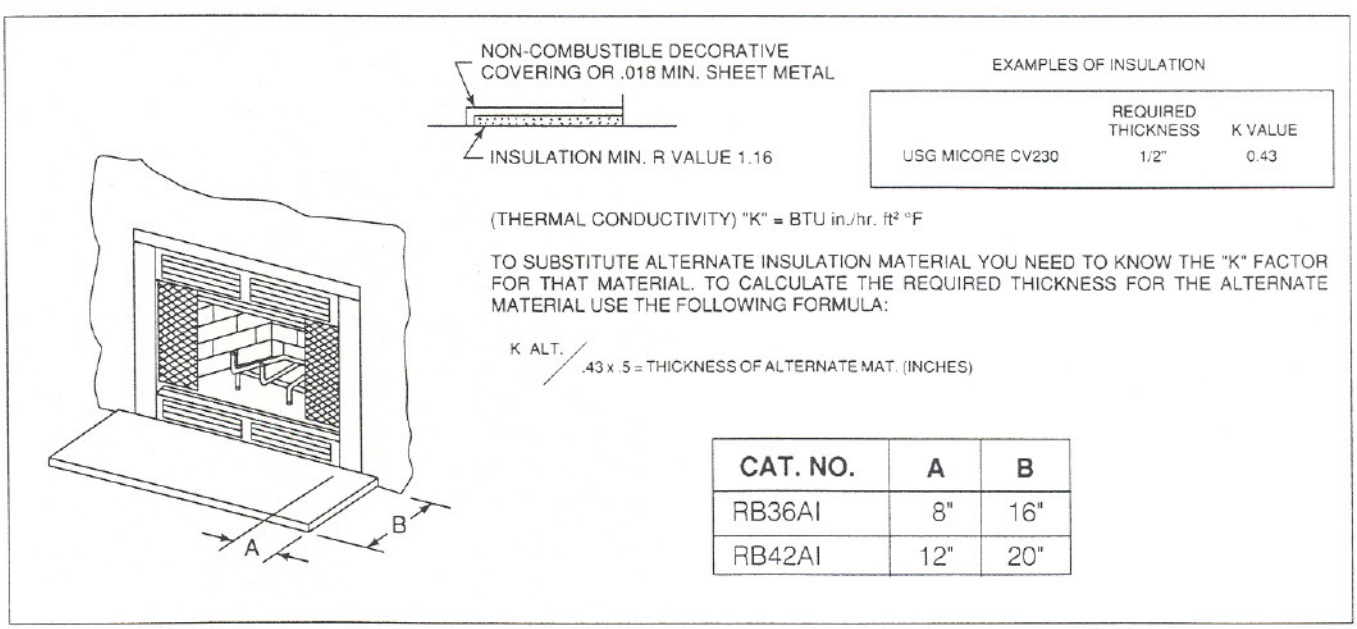


Figure 5
Factory-Built Hearth Extension

Field constructed Hearth Extensions may be used, but must be constructed in accordance with the following instructions. A typical construction is shown in Figures 6 and 7. In all cases of field construction, a minimum dimension of 16" to the front and extending 8" on either side of the fireplace opening must be used on the RB36AI, and gaps must be sealed with non-combustible (sand-cement) grout or sealant. A minimum of 20" to the front and 12" to either side of the opening must be maintained for the RB42AI fireplace.



CAT. NO.	A	B
RB36AI	8"	16"
RB42AI	12"	20"

Figure 6

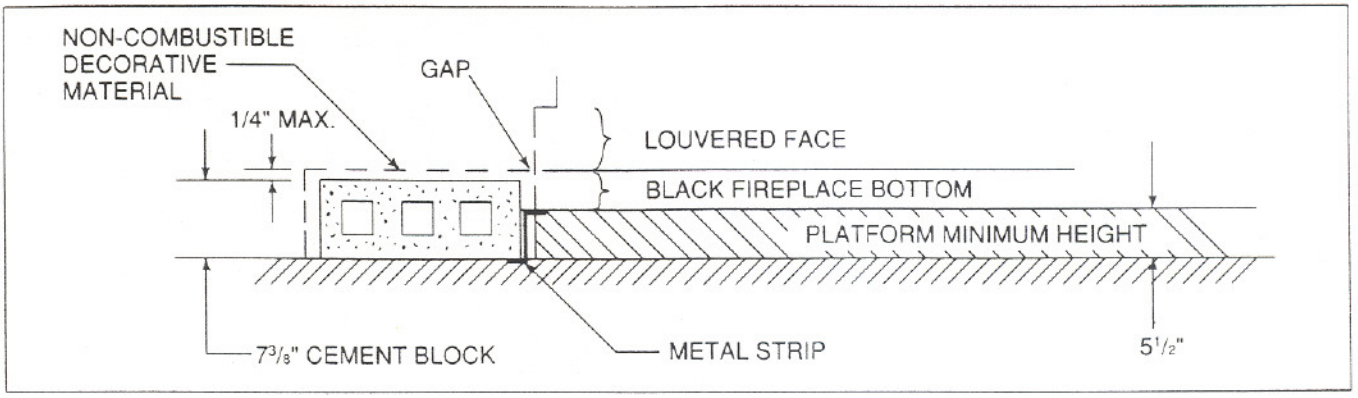


Figure 7
Field Constructed Hearth Extension

A second alternative to the cement block construction shown in Figure 7 is as follows:

1. One course common brick on edge - top layer.
2. 3/8" minimum millboard - middle.
3. Standard combustible construction - base.

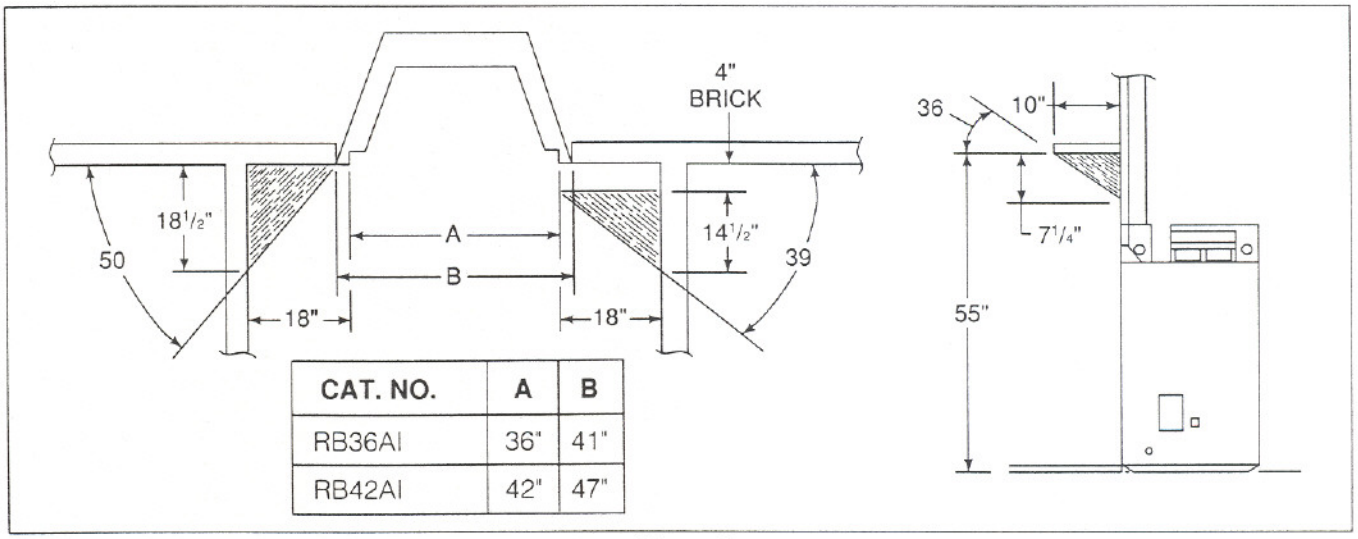
Both Figure 7, and the above construction, require that the fireplace be raised on a platform. A metal strip must be used between the fireplace and the field constructed Hearth Extension. Depending on the construction, a special (⌐‾‾) shape may be needed. Each horizontal leg must be 2" wide and the length must be at least equal to the length of the Metal Strip 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.

SIDEWALLS/SURROUNDS

Adjacent combustible side walls must be located a minimum of 18" from the fireplace opening. See Figure 8. If using a decorative surround of combustible material, it must be located within the shaded angle area defined in Figure 8. Short stub walls are also acceptable if they are contained in the shaded area.



CAT. NO.	A	B
RB36AI	36"	41"
RB42AI	42"	47"

Figure 8

MANTEL

A mantel of combustible material may be intalled no less than 55" above the platform or floor upon which the fireplace is located. The mantel may extend no more than 10" from the wall. Decorative combustible materials, such as a surround or mantel support brackets may be located within the shaded area defined in Figure 8. Mantels of depths less than 10" can be located at lower heights if the entire mantel is contained within the shaded area.

IV. CHIMNEY REQUIREMENTS

When planning your fireplace location, the chimney construction and necessary clearance must be considered. The fireplace system and chimney components have been tested to provide the following flexibility in construction.

Minimum straight height	13 ft.
Minimum height with Offset/Return	14.5 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	20 ft.
Maximum unsupported chimney length between Offset/Return	6 ft.
Maximum straight unsupported chimney height above firebox	25 ft.

OFFSET INSTALLATIONS

To clear any overhead obstructions, the chimney may be offset using a 30° Offset/Return, Catalog Number SL330. Figure 9 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 9, dimension "A".

2. Refer to Table 1 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.

3. Find the "B" dimension in Table 1 and determine if it is compatible with your installation.

4. Read across the chart and find the Catalog Number and number of Chimney Sections required.

5. Refer to Section V, Step-By-Step Installation of the Fireplace System.

6. All joist areas must be Firestopped.

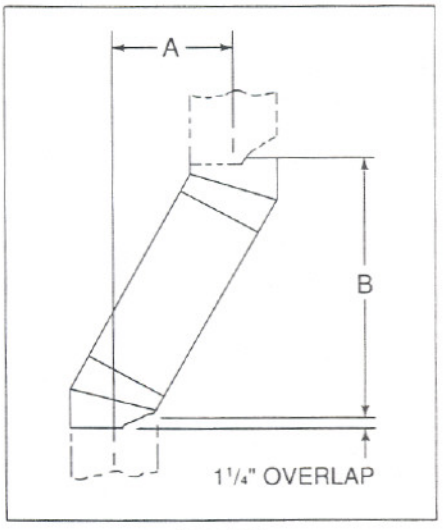


Figure 9
Chimney Offset/Return

TABLE 1

30° Offset Chart (Dimensions in Inches)

A	B	SL306	SL312	SL318	SL324	SL336	SL348
3 7/8	14 7/16	—	—	—	—	—	—
6 1/4	18 9/16	1	—	—	—	—	—
8 5/8	22 11/16	2	—	—	—	—	—
9 1/4	23 3/4	—	1	—	—	—	—
11 5/8	27 7/8	1	1	—	—	—	—
12 1/4	28 15/16	—	—	1	—	—	—
14 5/8	33 1/16	—	2	—	—	—	—
15 1/4	34 1/8	—	—	—	1	—	—
17 5/8	38 1/4	1	—	—	1	—	—
20 5/8	43 7/16	—	—	2	—	—	—
21 1/4	44 9/16	—	—	—	—	1	—
23 5/8	48 11/16	1	—	—	—	1	—
26 5/8	53 13/16	—	—	2	—	—	—
27 1/4	55 3/4	—	—	—	—	—	1
29 5/8	59 1/16	1	—	—	—	—	1
32 5/8	64 1/4	—	1	—	—	—	1
35 5/8	69 7/16	—	—	1	—	—	1
38 5/8	74 5/8	—	—	—	1	—	1
41	78 3/4	1	—	—	1	—	1
44 5/8	85 1/16	—	—	—	—	1	1
47	89 1/8	1	—	—	—	1	1
50 5/8	95 7/16	—	—	—	—	—	2

Figure 10 illustrates the height from the bottom of the fireplace to the top of the Chimney Starter Section. Proper assembly of Air Cooled Chimney Sections results in an overlap at chimney joints of 1 1/4".

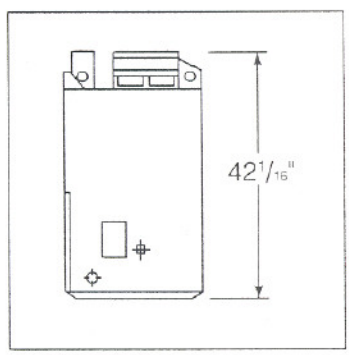


Figure 10
Fireplace (Side View)

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 11.

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 12.

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.

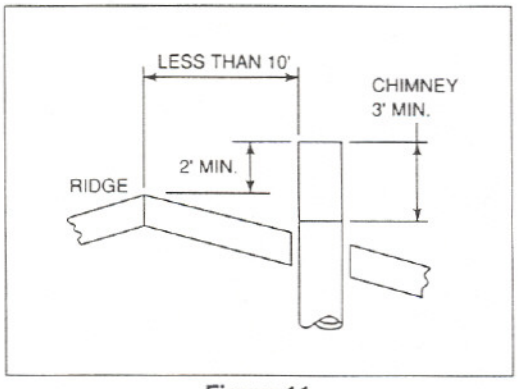


Figure 11
Chimney Height

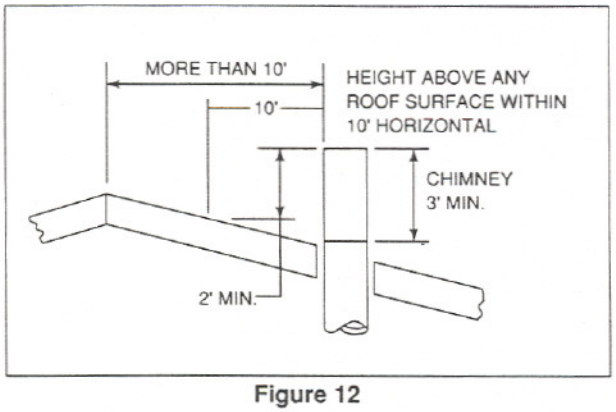


Figure 12
Chimney Height

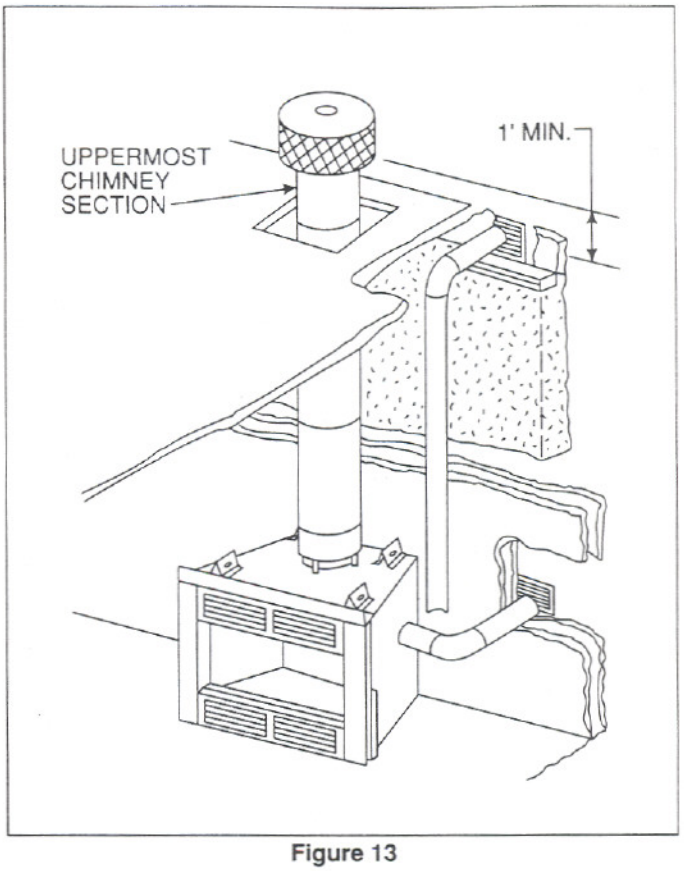


Figure 13
Outside Air Location

If Outside Combustion Air is used, Figure 13 illustrates only two of many possible locations - a basement fireplace with a vertical outside air arrangement; and a horizontal, direct exit from the fireplace side.

NOTE: A 1' minimum height difference must be maintained from the top of the uppermost Chimney Section to the Outside Combustion Air inlet.

V. STEP-BY-STEP INSTALLATION OF THE FIREPLACE SYSTEM

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.**

☐ **STEP 1**

Position the fireplace in the desired location and frame.

☐ **STEP 2**

Slide the metal strip two inches under the front edge of the fireplace. See Figure 4. When the metal strip is not provided as a single piece, then the individual pieces must overlap each other by one inch.

☐ **STEP 3**

Level the fireplace side-to-side and front-to-back. Shim with non-combustible material as necessary. Secure the fireplace by utilizing the nailing flanges located on either side of the fireplace.

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.

☐ **STEP 4**

Assemble either a straight Pipe Section or an Offset to the top of the fireplace. Chimney Sections are locked together by pushing downward until the section meets the stop bead on the section below. When using Offset/Returns, the Offset and Return sections should be secured in place with screws to insure proper orientation. See Figure 14.

CAUTION

INNER FLUE AND OUTER LINER SECTIONS CANNOT BE DISASSEMBLED ONCE LOCKED TOGETHER. PLAN AHEAD TO INSURE PROPER INSTALLATION HEIGHT IS ACHIEVED WITH THE SELECTED CHIMNEY COMPONENTS.

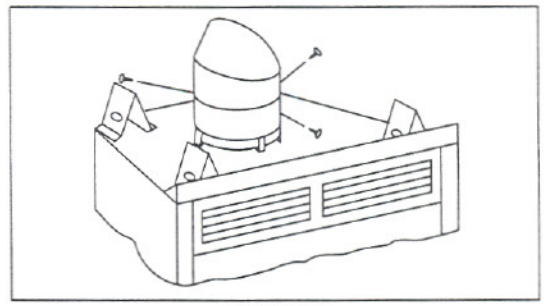
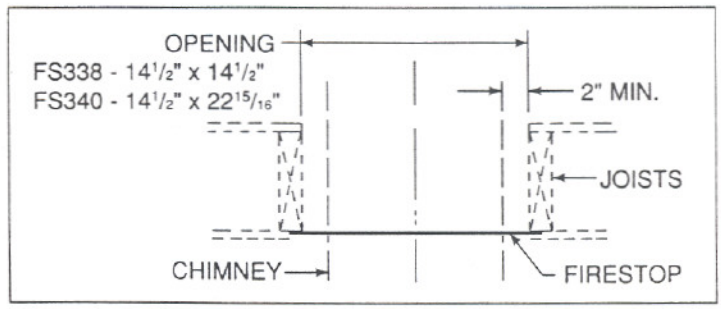


Figure 14
Offset Secured to Fireplace

☐ **STEP 5**

Mark and cut out an opening in the ceiling for the particular Firestop Spacer being utilized (14 1/2" x 14 1/2" for an FS338, or 14 1/2" x 22 15/16" for an FS340). 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 FS338 (Straight), or FS340 (30° Offset, if Offset is located in the ceiling joist area). Nail the four sides of the Firestop to the joists using a minimum of (3) nails per side. 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.

NOTE: Nails must always be driven so the nail head is in shear (shank is perpendicular to the chimney load). This will prevent the nail from pulling loose.

☐ **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 (SL3).

☐ **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.

NOTE: Be sure to provide intermediate support for the pipe during construction and check to be sure inadvertent loading has not dislodged the Pipe from the fireplace or at any chimney joint.

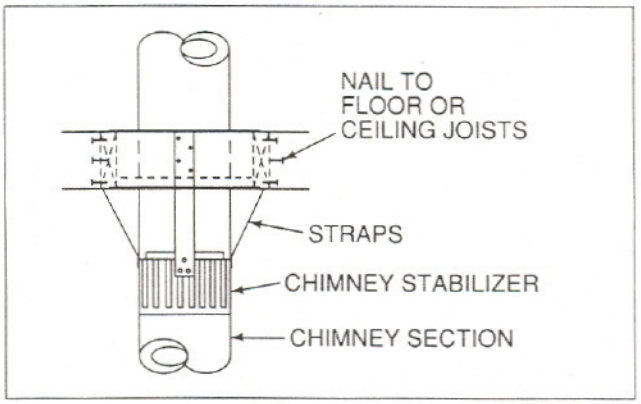


Figure 15
Chimney with Stabilizer

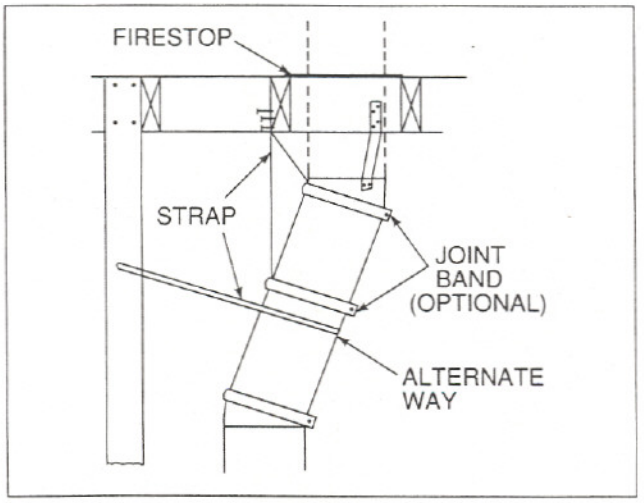


Figure 16
Offset/Return Installation

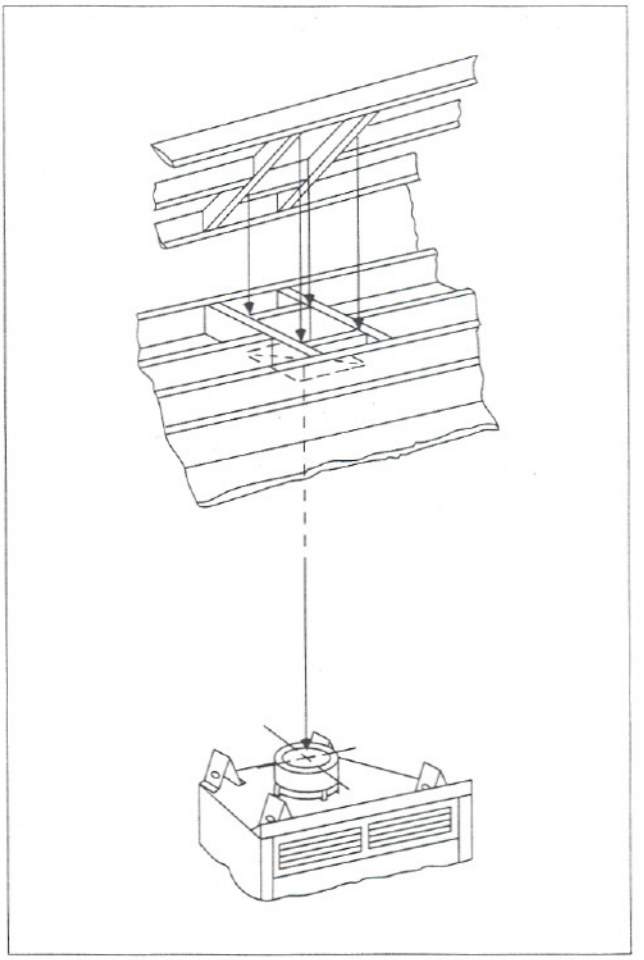


Figure 17
Ceiling and Attic Construction

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. See Figure 17.

☐ **STEP 10**

Measure to either side of the nail and mark the 14 1/2" x 14 1/2" opening required. This 14 1/2" x 14 1/2" 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. Assemble the Storm Collar 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: RT382 (Telescoping-Round), RT384 (Round), ST376 (Telescoping-Square), or ST8 (Housing Top) with RB4, TB4, RB6 or TB6 Simulated Brick Panels.

WARNING

DETAIL INSTRUCTIONS FOR INSTALLATION OF THE ROOF FLASHING, 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**

Complete 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.

☐ **STEP 14**

Knockouts are provided on both sides of the fireplace to allow for connection of a decorative gas appliance, in accordance with the National Fuel Code, ANSI Z223.1-1980. The side refractories are 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 15**

Install Outside Air if desired or required by local code, using the Instructions supplied with the AK14 Air Kit. The use of Outside Air is strongly recommended.

☐ **STEP 16**

If a Fan Kit is desired, first install the Junction Box Kit, using the Instructions supplied in the JK1 Kit. Fan Kits FK1 and/or FK2 can only be installed after the JK1 Junction Box Kit has been installed. Follow the Instructions supplied with the Fan Kits for proper installation. It is recommended to install the JK1 Junction Box Kit during initial construction even if fans are not initially desired - this allows for adding a Fan Kit at a later date.

WARNING

DISCONNECT POWER BEFORE STRIPPING OR JOINING ANY SUPPLY WIRES. ONLY PERSONS QUALIFIED FOR MAKING ELECTRICAL INSTALLATIONS (ELECTRICIANS) AS RECOGNIZED BY LOCAL OR NATIONAL GOVERNMENTAL BODIES SHOULD ATTEMPT TO MAKE THE INCOMING SUPPLY WIRE CONNECTIONS.

EDGES ARE SHARP. HAND PROTECTION IS RECOMMENDED. RECHECK ALL FASTENERS BEFORE LEAVING JOB.

NOTE: A Motor Speed Control Kit, Catalog Number, BC10, is available for use with this Fan Kit. Refer to the Instructions packed with it for proper installation. If a speed control option is desired, it is recommended to use the BC10 Kit to insure proper function.

☐ **STEP 17**

Attach the firescreen to the fireplace side, utilizing the (2) hair pin clips from the enclosed fastener package. Use pliers to insert the clip through the last strand of screen wire and into the hole at midpoint of the fireplace side.

☐ **STEP 18**

Install Glass Doors if desired, using the Instructions supplied with these optional accessories. Protect Glass Doors from breakage by temporarily removing them until all construction is complete.

☐ **STEP 19**

Position the Hearth Extension over the metal protective strip which should project two inches in front of the fireplace bottom front. See Figure 4. Seal the crack between the Hearth Extension and fireplace with a non-combustible (sand-cement) grout or sealant.

☐ **STEP 20**

Apply the finish materials of your choice. Do not install combustible materials over the black face of the fireplace or louvered openings. You may use non-combustible material over the black - non-louvered - face of the fireplace. Refer to Figure 8 for combustible surround information.

☐ **STEP 21**

This fireplace is equipped with a factory installed Integral Grate. In the event it becomes necessary to replace it, remove the pin from the leg of the back bar, using a vise grip to pull it free. Lift the Grate so the legs will come free of the retaining brackets. Your new Grate will be supplied with a new pin. Remove this pin and position the Grate into the brackets located at the rear of the firebox, and replace the pin into the leg of the Grate bar. Use only Catalog Number GR1 or GR2 Integral Grate for replacement.

☐ **STEP 22**

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.

VI. CONSTRUCTING A CHASE

The chase may be constructed for the fireplace and chimney or for the chimney only. A chase is an enclosure built around the system. It is most commonly constructed on an outside wall as shown below.

Three examples of chase applications are shown in Figure 18.

1. Fireplace and chimney enclosed in chase - exterior.
2. Chimney offset through exterior wall and enclosed in chase.
3. Chase constructed on roof.

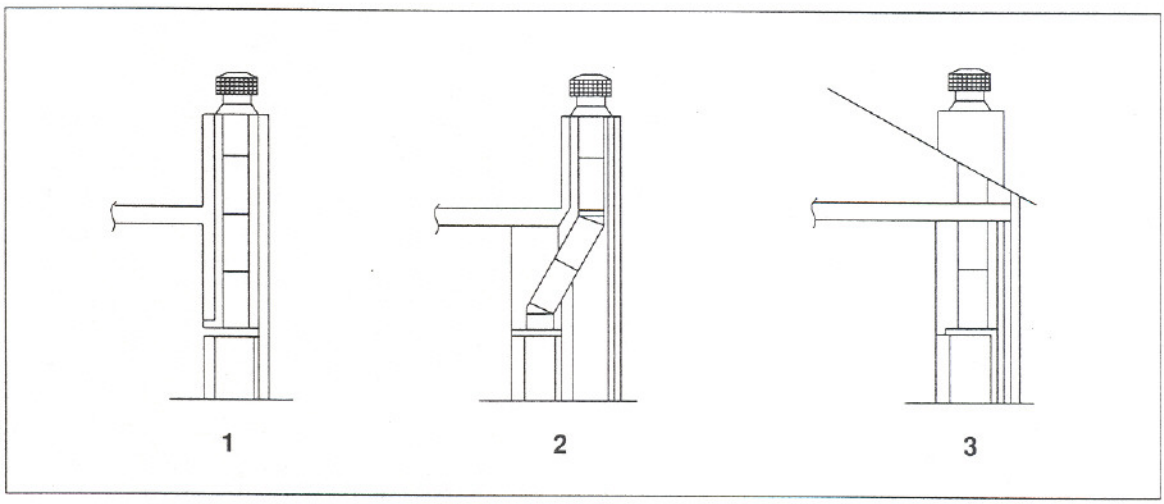


Figure 18
Chase Construction

MATERIALS FOR CHASE

The chase is constructed 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.

1. Maintain a 2" air space clearance around the chimney.
2. The Chase Top must be constructed of a non-combustible material.
3. The walls of the chase must be insulated to prevent heat leaking from the home around and through the fireplace.

TO INSTALL TERMINAL CAP ON CHASE - ENCLOSED CHIMNEY

1. Construct chase of desired materials maintaining a minimum 2" air space around the chimney.

WARNING

NEVER INSTALL A SINGLE WALL SLIP SECTION OR SMOKE-PIPE IN A CHASE STRUCTURE. THE HIGHER TEMPERATURE OF THIS SINGLE WALL PIPE MAY RADIATE SUFFICIENT HEAT TO COMBUSTIBLE CHASE CONSTRUCTION MATERIALS TO CAUSE A FIRE.

2. Install the Chimney Sections up through the chase. When using a Round Terminal Cap (RT384), the last section of Pipe must extend above the Chase Top to allow installation of the Storm Collar and Terminal Cap. For installations utilizing a Telescoping Round Terminal Cap (RT382) or Telescoping Square Terminal Cap (ST376), the last Chimney Section must be below the top of the Chase Top, but not more than 18" below the Chase Top. See Figure 19.

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.

3. Attach the Chase Top (CT35) to the top of the chase.

4. If a Round Terminal Cap (RT384) is to be utilized, loosen the bolt on the Storm Collar and slide it down over the Pipe to the Chase Top. Tighten the bolt and seal around the Collar.

5. Attach and secure either a Round or Square Terminal Cap.

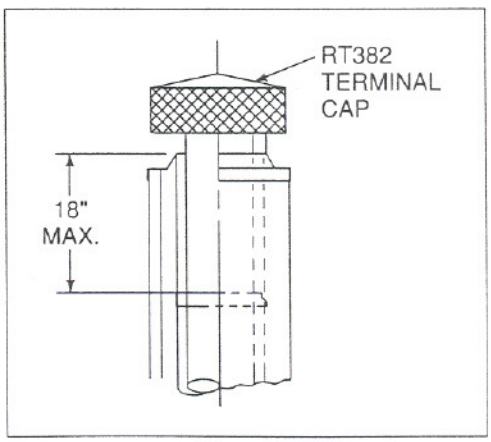


Figure 19

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.

CAUTION

REMOVE ALL CLEAR PLASTIC PROTECTIVE COVERING FROM BRASS BEFORE FIRING THE FIREPLACE.

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

A. FLUE DAMPER. The flue damper is operated by moving the handle to the right, which should place the damper in the full open position. Verify by looking up from the inside of the firebox. Always operate this fireplace with the damper fully open. Please note, downdrafts, obstructions, damaged or poor (wet) fuels can cause smoke spillage.

WARNING

DO NOT OPERATE THE FIREPLACE WITH THE DAMPER RESTRICTED OR PARTIALLY CLOSED. THIS CAN RESULT IN SEVERE OVERTEMPERATURES AND POSSIBLE FIRE. 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 a year 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 or Housing Top. See Figure 20.
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 small stones or sand. Work up and down the flue until clean.

5. Replace the Terminal Cap or Housing Top.

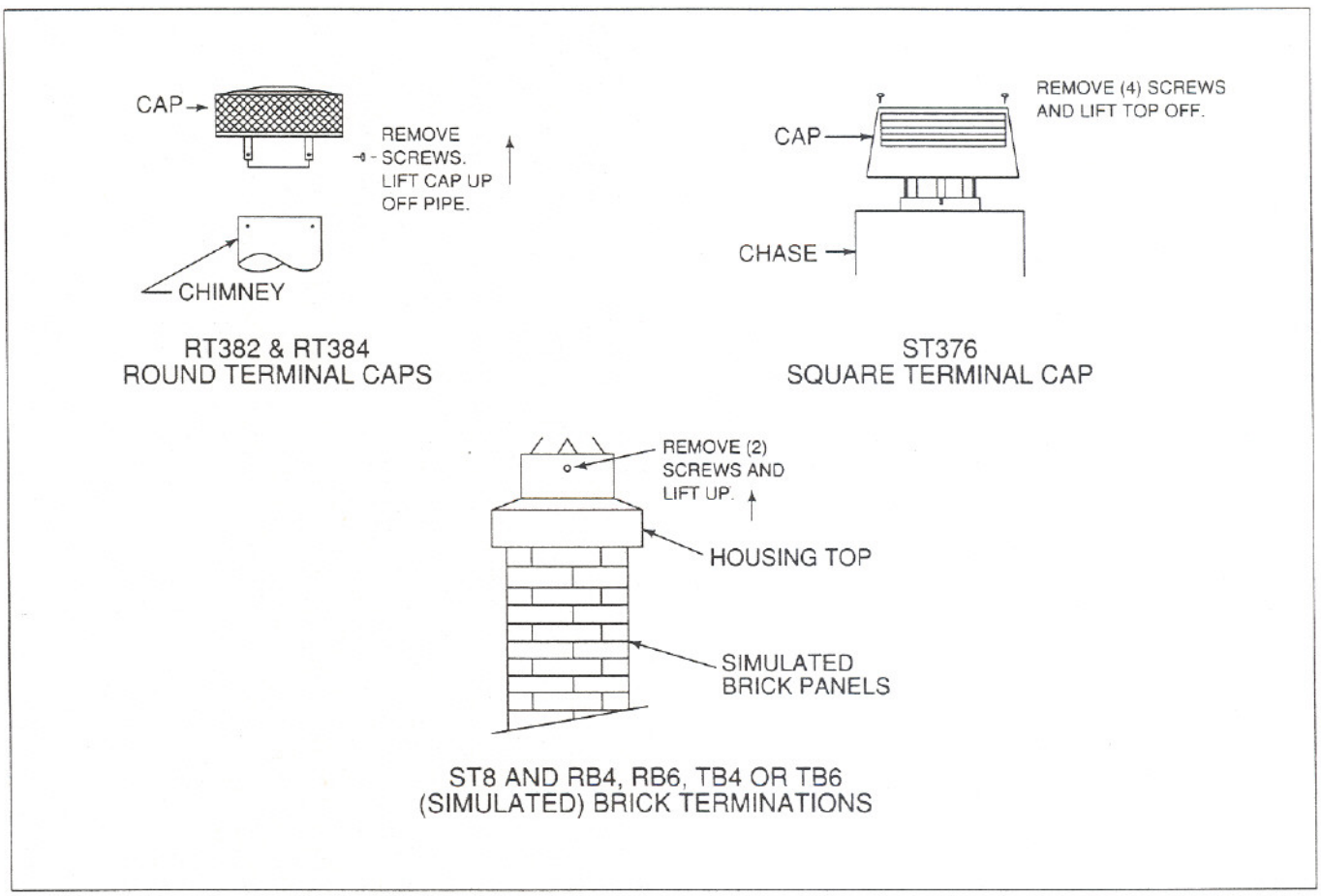


Figure 20
Terminal Caps

D. CLEAR SPACE NEAR FIREPLACE. The Hearth Extension must extend at least 16 inches to the front and 8 inches on either side of the firebox opening for the RB36AI fireplace; and 20" to the front and 12" to the sides for the RB42AI fireplace. Combustible materials must not be stored in this area. Combustible walls perpendicular to the front of the fireplace must be at least 18 inches from the fireplace opening. Room furnishings such as drapes, curtains, chairs, or other combustibles must be at least 4 feet from the open front 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 21. Use only Catalog Number GR1 or GR2 Integral Grate for replacement.

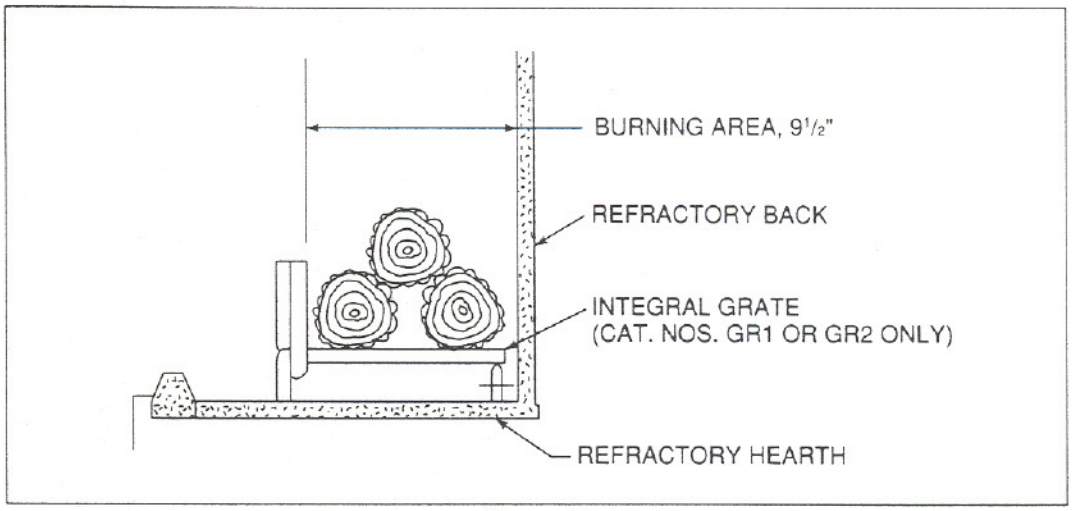


Figure 21
Section Through Fireplace

F. FIRESCREEN. A firescreen is always provided to control sparks. It 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 individual control of the Outside Air inlets if your fireplace is equipped with this option. 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 21, 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

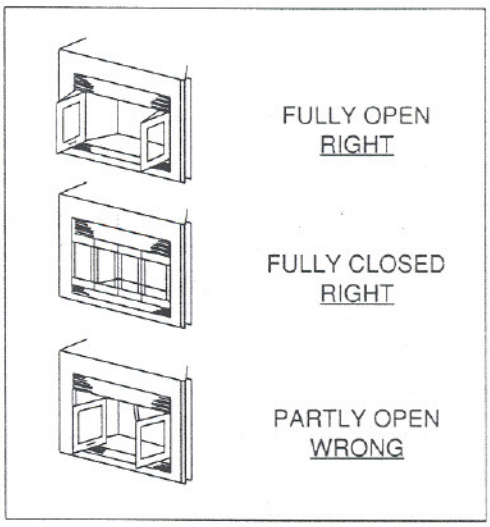
NEVER USE GASOLINE, GASOLINE-TYPE LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID, OR SIMILAR LIQUIDS TO START OR 'FRESHEN UP' A FIRE IN THIS FIREPLACE. KEEP ALL SUCH LIQUIDS WELL AWAY FROM THE FIREPLACE WHILE IT IS IN USE TO AVOID THE RISK OF FIRE.

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. When the fireplace is not in use, Glass Doors will prevent loss of room heat through the chimney. Only HEATILATOR® Glass Doors, Catalog Number GD36B may be used on the RB36AI. Glass Doors, Catalog Number GD42B may be used on the RB42AI.

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 BACK WALL OF THE FIREPLACE. THE RATE OF FIRING MUST NOT EXCEED THESE THREE LOGS PER HOUR.**

L. FAN KIT. HEATILATOR® FK1 and FK2 Heat Circulating Fans may be used with this fireplace. An external ON/OFF switch must be provided, or a Motor Speed Control BC10, may be used. Using these fans will increase efficiency and heat output.

M. 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 practices as surrounding the fireplace with loose fill insulation, and especially leaving the fire unattended, will increase the risk of fire. Additionally, an annual inspection of all fireplace systems should be performed, as like any appliance, minor repairs may be required to maintain the system in top operating condition.

CAUTION

THE BRASS FINISH ON YOUR FIREPLACE HAS BEEN PROTECTED WITH A CLEAR COATING TO PREVENT THE MATERIAL FROM TARNISH. DO NOT USE COMMERCIAL BRASS CLEANERS OR DETERGENTS TO CLEAN. THIS WILL DAMAGE THE PROTECTIVE COATING. TO CLEAN, WIPE WITH SOFT DRY CLOTH. DO NOT WIPE WITH ANYTHING ABRASIVE.