

INSTALLING YOUR MARCO WOOD-BURNING FIREPLACE



**ARCHITECT'S SEE-THROUGH
36 INCH FIREPLACE**
792771A (A36ST)
792771M (A36ST/MANUFACTURED HOME)

CHECK LOCAL CODES PRIOR TO INSTALLATION

OPTIONAL FEATURES: OUTSIDE AIR

THIS MANUAL PROVIDES ALL THE INSTRUCTIONS NECESSARY FOR THE BUILDER OR HOMEOWNER TO INSTALL THE MODELS **792771A & M** MARCO FIREPLACES SAFELY AND EFFICIENTLY. IT ALSO PROVIDES INFORMATION ON HOW TO ORDER REPAIR PARTS WHEN NEEDED.

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THIS SYMBOL ON THE PRODUCT
MEANS IT IS LISTED BY
UNDERWRITERS LABORATORIES, INC.

TABLE OF CONTENTS

Accessories	Page 1
Installation Instructions (Introduction)	Page 1
Selecting Your Fireplace Location	Page 1 & 2
Clearances	Page 1 & 2
Framing Instructions	Page 2 & 3
Installing Your Fireplace	Page 3
Installation of Air Inlet Assembly	Page 3
Installing Your Double-Wall Chimney System	Page 4
Examples of Fireplace and Chimney Designs	Page 5
Firestop Spacers	Page 6
Terminations	Page 6
How To Determine Your Fireplace Chimney System	Page 8
Instructions for Offset of Chimney Using Elbows	Page 10
Finishing Your Fireplace	Page 11
Installing the Gas Line	Page 11
Hearth Extension	Page 11
Damper Control Lever	Page 14
Fireplace Facing	Page 15
Optional Cold Climate Installation	Page 16
Do's and Don'ts	Page 19
Reference Documents	Page 19
Rules Applying To Mobile Home Installations	Page 18
Component Parts & Replacement Parts	Page 20

SAVE THIS BOOK

This book is valuable. In addition to telling you how to install and maintain your fireplace and chimney, it also contains the information that will enable you to obtain repair parts when needed. Keep it with your other important papers.

KEEP YOUR FIREPLACE SAFE

NEVER USE GASOLINE, GASOLINE-TYPE LANTERN FUEL, CHARCOAL LIGHTER FLUID OR SIMILAR LIQUIDS TO START OR "FRESHEN-UP" A FIRE IN THE FIREPLACE. KEEP ALL SUCH LIQUIDS WELL AWAY FROM THE FIREPLACE.

ACCESSORIES

FIREPLACE GRATE:

This unit has been equipped with a grate designed to keep the operation of your fireplace efficient and safe. See Page 19 for operating instructions.

GLASS DOORS:

This fireplace has been equipped with door kit #793414 for care and operation see manual provided with doors.

NOTE: Use of glass doors other than those manufactured by Marco Mfg., Inc. could create a potentially hazardous condition and will void the MARCO warranty.

OUTSIDE AIR:

An optional outside air kit is available for installation. #793249 outside air kit, must be installed during the installation of the fireplace (See pages 3 & 4).

INSTALLATION INSTRUCTIONS

INTRODUCTION

- Before beginning the installation of your fireplace, read through these instructions and the instructions contained in the separate Operation Manual.
- This MARCO fireplace and components are safe when installed according to this Installation Manual. Unless you use MARCO components which have been designed and tested for the fireplace system, you may cause a fire hazard.
- This MARCO fireplace may be installed in a conventional home and modular manufactured home. In addition, this unit may also be installed in a mobile home. (See Instructions on page 17).
- The MARCO warranty will be voided by, and MARCO disclaims any responsibility for, the following actions:
 - a) Modification of the fireplace and/or components, including assembly of chimney, glass doors, air inlet system and damper control.
 - b) Use of any component part not manufactured or approved by MARCO in combination with a MARCO fireplace system.
 - c) Installation other than as instructed in this manual.
 - d) Do not use a fireplace insert or other products not specified for use with these fireplaces.
- **PROPER INSTALLATION** is the most important step in ensuring safe, long-term operation of this fireplace. Consult the local building codes as to the particular requirements concerning installation of all factory-built fireplaces.

This fireplace is not intended to be used as a substitute for a furnace to heat an entire home. Use for supplementary heating only.

SELECTING YOUR FIREPLACE LOCATION

To determine the safest and most efficient location for your fireplace, consider such factors as room traffic, location of doors and windows, and construction above and below the installation area. The fireplace may be installed in any location that is free of air conditioning ducts, electrical wiring and plumbing. This location must also provide the necessary clearances.

CLEARANCES

- A fireplace must not be installed closer than 12 inches to any unprotected combustible wall perpendicular to the fireplace opening (Figure 1).

LOCATION/CLEARANCE DIMENSIONS

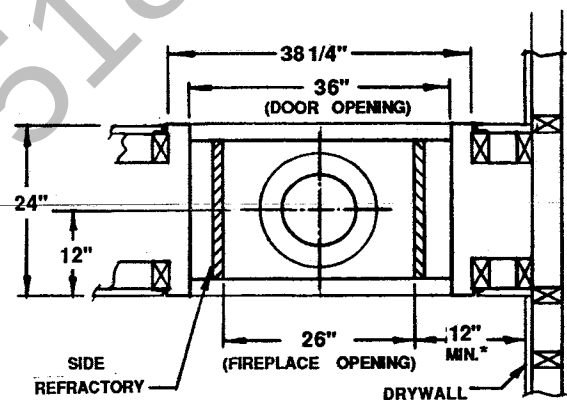


FIGURE 1

*** 12" MINIMUM TO COMBUSTIBLE WALL PERPENDICULAR TO FRONT OF FIREPLACE

- When installed in accordance with the instructions given in this manual, the fireplace system may touch combustible materials at the bottom. The lower frame can be covered almost to the level of the hearth. The vent must remain unobstructed. 1/2" air space is required on sides of fireplace, except at the nailing flange along the front edge on each side, where the clearance is 0". The chimney system requires 2" minimum air space.
- A fireplace may be installed flush with the finished wall or projecting any distance into the room. Flush installation is recommended for smooth or thin wall-facing materials. By installing the fireplace to project into the room, a shallower cavity is required to contain the fireplace; thicker natural materials, such as field stone, can then be used for face material (Figure 2).



- A location that requires cutting the least number of joists, roof rafters, and floor joists will reduce costs and make installation easier. This may mean moving only one or two inches from the selected ideal location. Any location selected must allow adequate room to accommodate the fireplace and framing dimensions shown in Figures 3 & 4.
- Do not place the fireplace on soft-surfaced floor coverings such as carpeting. The mounting surface must be flat and hard (such as plywood, wood flooring, particle board or any other hard-surfaced material), and support the total base of the fireplace evenly. A raised platform may be used to support the fireplace.
- When a fireplace is installed on a combustible floor, a non-combustible hearth extension must be provided to protect the floor in front of the opening. (Refer to Hearth Extension, Pages 10, 11, & 12).
- See ICBO ES Requirements Report No. 2578 for allowable values and/or conditions of use concerning material presented in this document.

FRAMING INSTRUCTIONS

Framing around the fireplace (flush or projected) can be designed to incorporate book shelves, wood bins, closets, etc.



FIGURE 3 — FIREPLACE DIMENSIONS

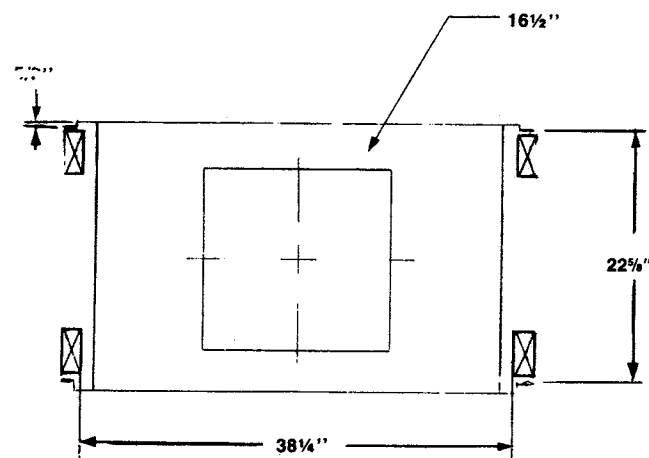
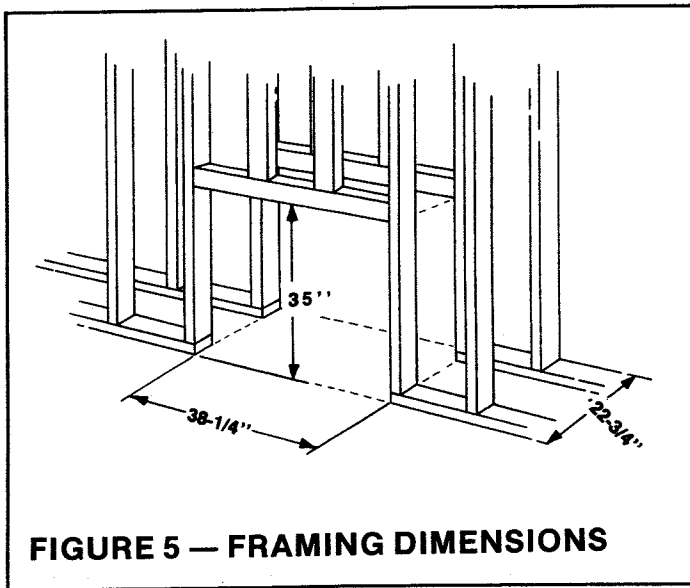
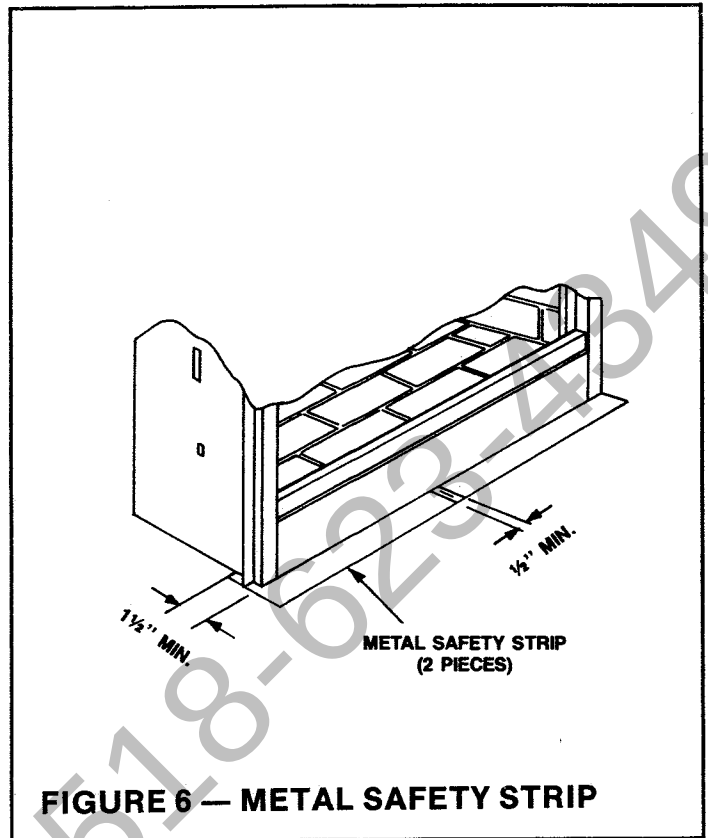


FIGURE 4 — FRAMING DIMENSIONS



The fireplace must be positioned and then the framing built around it. The dimensions shown in Figure 6 may be used to construct the fireplace opening.

WARNING: DO NOT PACK REQUIRED AIR SPACES WITH INSULATING OR OTHER MATERIALS.



INSTALLING YOUR FIREPLACE

STEP 1: Move the fireplace into position and install the metal safety strips (provided) under the fireplace as shown in Figure 7.

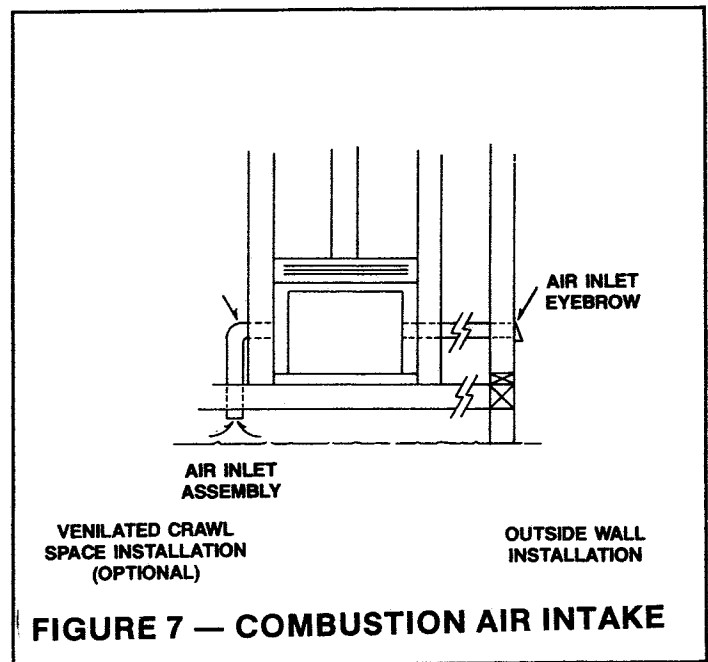
NOTE: If the outside air kit #793249 (Basic-OAK) is not used, proceed to the next section and continue with installation. Otherwise, the Basic-OAK should be installed at this point.

INSTALLATION OF AIR INLET ASSEMBLY

STEP 1A: Determine the source for outside air, which can be installed through an outside wall or into a ventilated crawl space (Figure 7). In either case, a 4 1/2 inch diameter hole will be required for installation of the air inlet assembly. **CAUTION:** Avoid installing the air inlet where the opening could be blocked by snow, bushes, or other obstacles. The maximum height for the outside air is 50" above the hearth, providing air inlet is terminated minimum 3 feet below chimney cap level.

NOTE: COMBUSTION AIR INLET DUCTS MUST NOT TERMINATE IN ATTIC SPACES.

STEP 1B: Remove the cover plate from the air inlet (Figure 9). Place the airduct flange over the air inlet, align the holes, and secure the flange with the 2 screws which formerly held the cover plate.



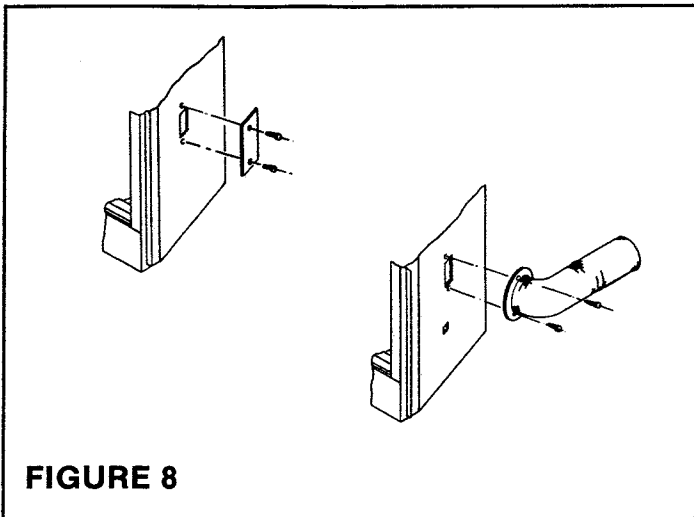


FIGURE 8

STEP 1C: Connect the opposite end of the NON-COMBUSTIBLE Class 0 or Class 1 flexible duct onto the eyebrow (see Basic OAK Installation Instructions for details).

OUTSIDE COMBUSTION AIR

For outside combustion air, open the airgate before starting a fire.

Outside air drawn into the fireplace supplies air to the fire for combustion. When the fireplace is not in use, close the airgate to prevent cold air from entering your home. Check the intake screen periodically to be sure it is clear of debris.

INSTALLING YOUR DOUBLE-WALL CHIMNEY SYSTEM

Each double-wall chimney section consists of an outer pipe, flue pipe and single-piece wire spacer. The pipe sections are not unitized and must be assembled independently as the chimney is installed.

STEP 1: When starting the chimney directly on the fireplace, install the inner pipe section by fitting the male end into the inner fireplace starting collar. Make sure the male end is fully inserted to lock into the lances. (Figure 9).

STEP 2: Fit the outer galvanized pipe with spacer in place over the outer fireplace starting collar located at the top-center of the fireplace unit.

Rotate the outer pipe to align the slots to the wire spacer locks. The wire spacer must protrude through the outer pipe slots.

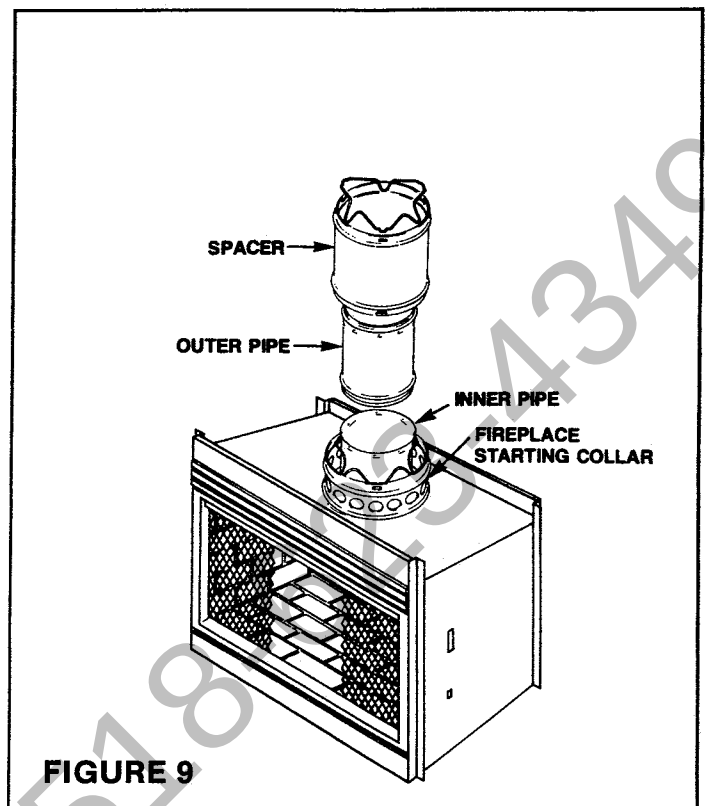


FIGURE 9

Continue to assemble chimney sections as outlined above, making sure that both inner and outer sections are locked together. Stop assembly before reaching the ceiling and cover exposed pipe end.

STEP 3: On the ceiling directly above the center of the double-wall pipe, lay out a 16½-inch square hole (use plumb bob) and cut out for chimney exit (Figure 4).

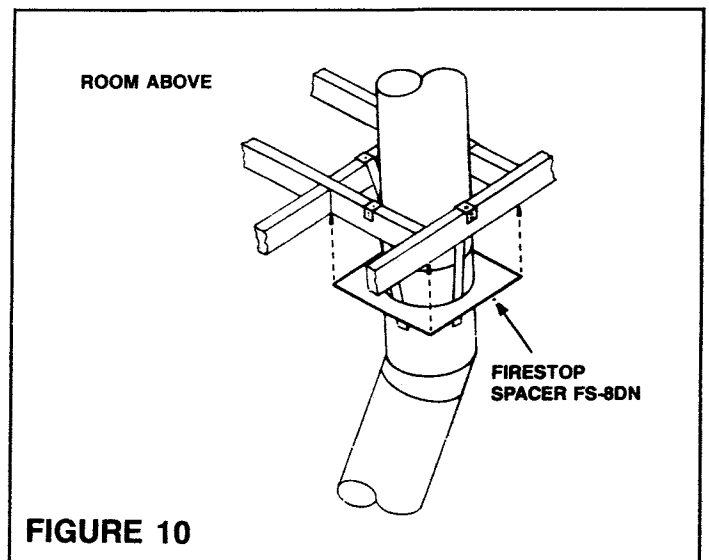
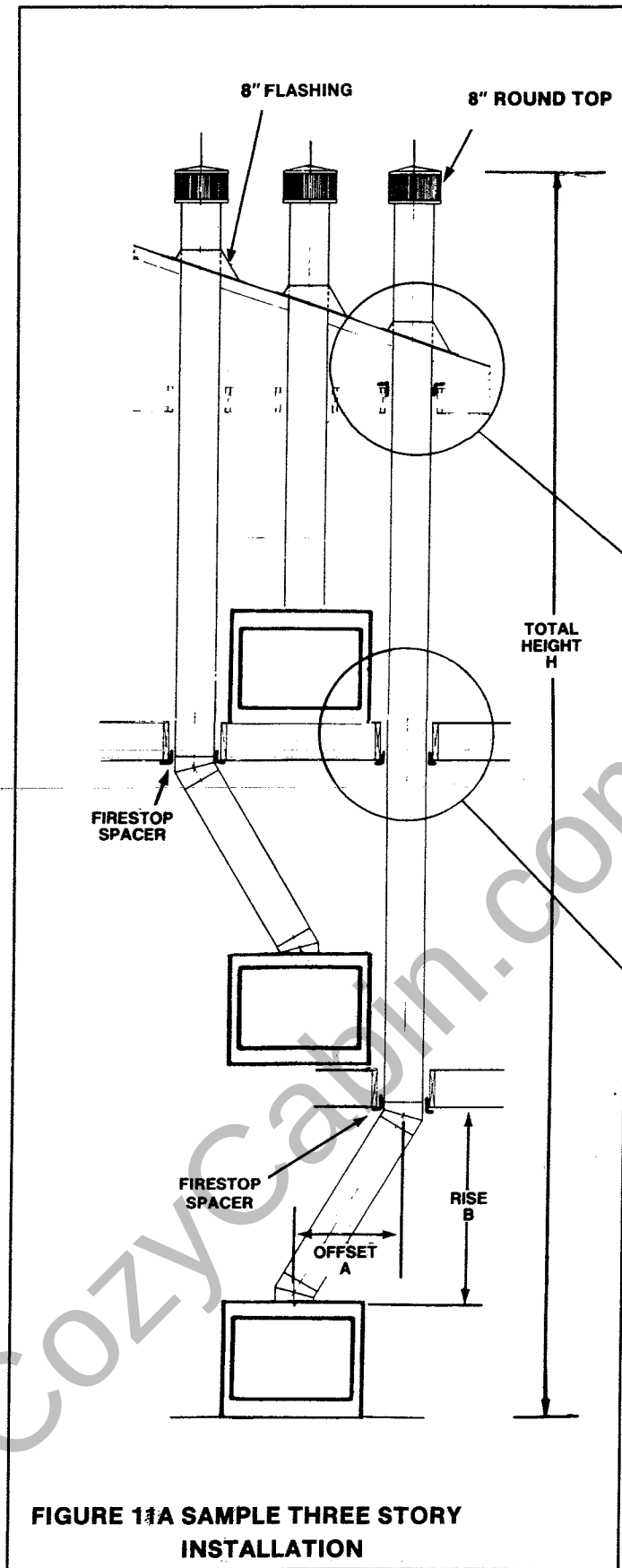


FIGURE 10

EXAMPLES OF FIREPLACE AND CHIMNEY DESIGNS



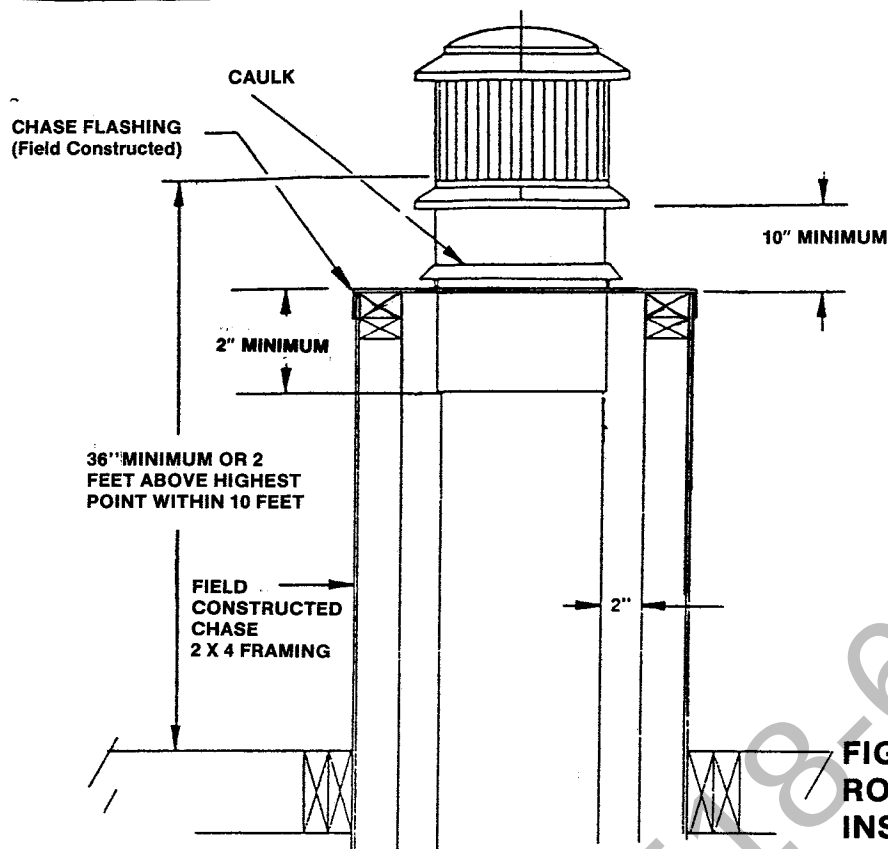


FIGURE 11B
ROUND TYPE TOP
INSTALLED ON A CHASE

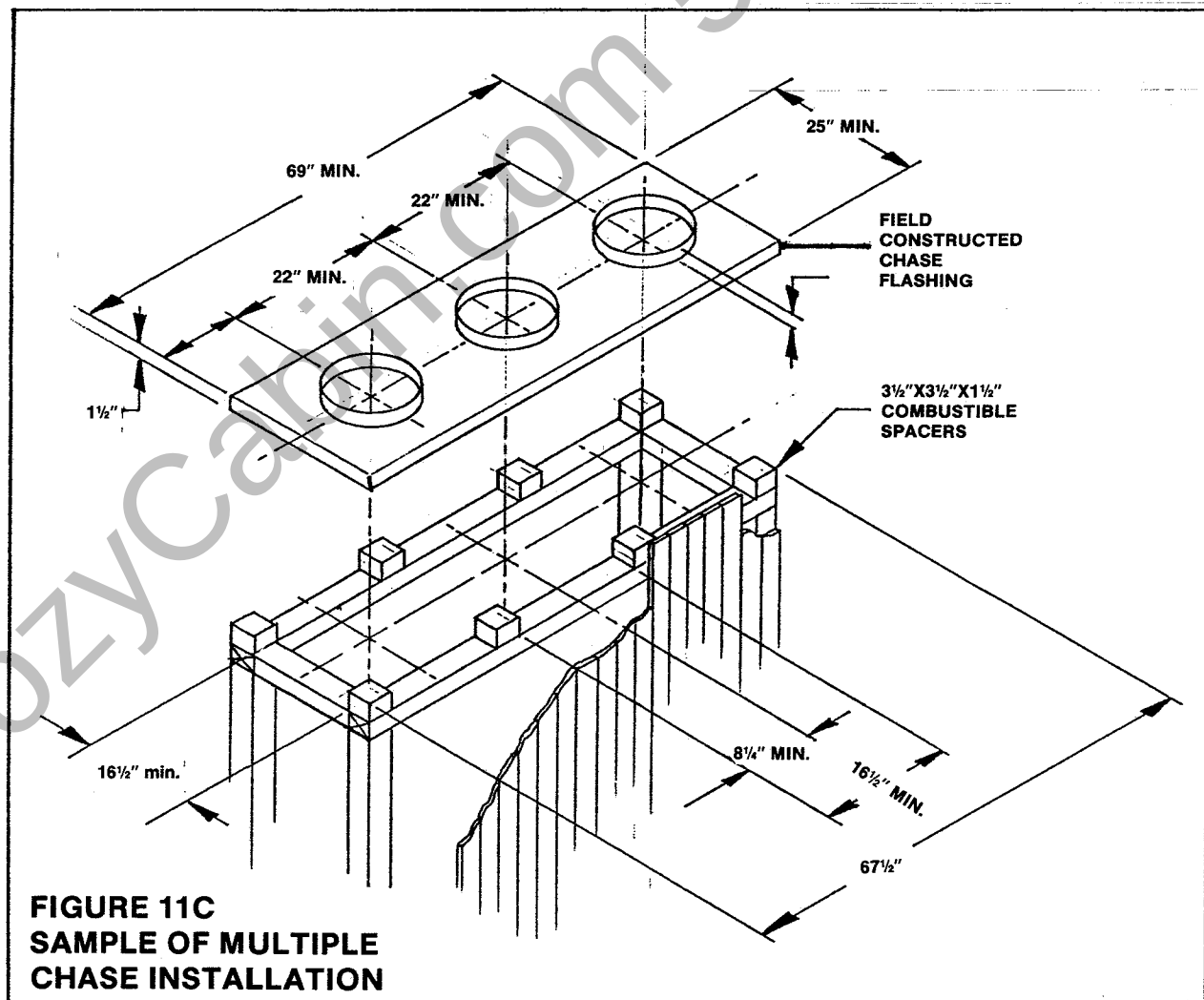


FIGURE 11C
SAMPLE OF MULTIPLE
CHASE INSTALLATION

FIRESTOP SPACERS:

Firestop spacers are required at each point where the chimney penetrates a floor or ceiling joist space. Their purpose is two-fold: they establish and maintain the required clearance between the chimney and combustible materials, and they provide complete separation from one floor space to another floor or attic space, as required by most codes. When penetrating a floor or ceiling at an angle, either the 15° or 30° firestop should be used.

If the pipe passes through a framed opening *between* floors, install a firestop spacer to the *bottom* of the joists (Figure 10). When pipe passes through *into* attic space, install the firestop spacer on the *top* of the joists (Figure 12) and secure with sheet metal screws or nails.

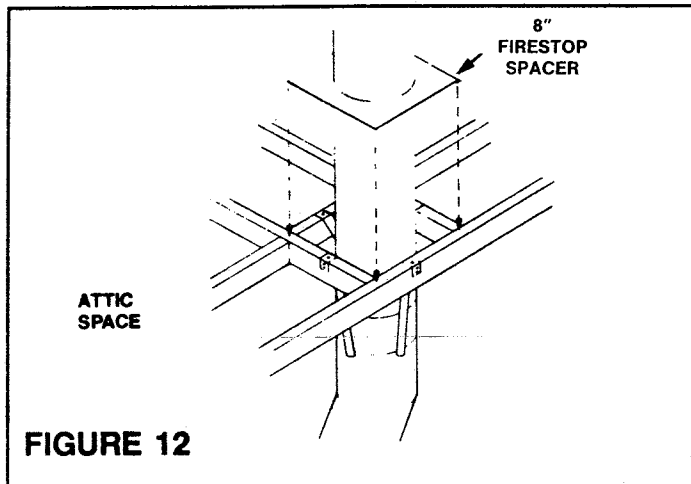


FIGURE 12

STEP 4: Determine the location of the hole to be cut in the roof. The roof hole cut-out depends on the pitch of the roof, so refer to the chart on Figure 15 Page 9.

STEP 5: After cutting the hole in the roof, uncover the pipe and add sections until the chimney extends a minimum of 14 inches above the highest point of the roof cutout (Figure 13).

STEP 6: Position the flashing over the chimney and flat on the roof. Mark an outline of the flashing on the roof and remove the flashing. Remove all nails within the outlined area (Figure 14).

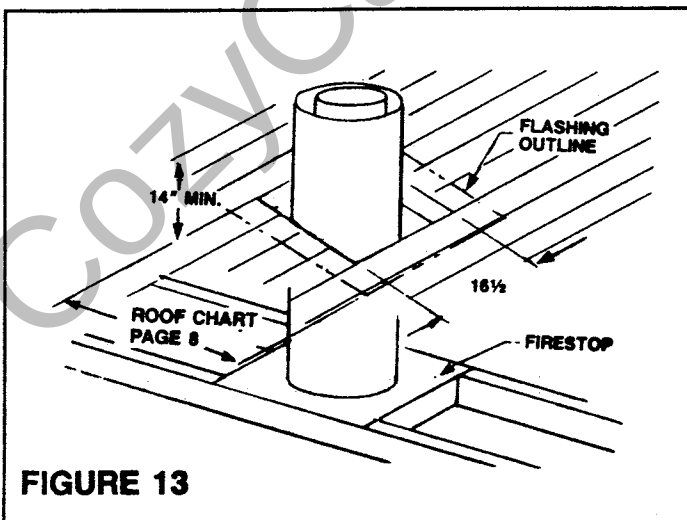


FIGURE 13

STEP 7: Place flashing into position on unshingled roof. Hold in position by nailing shingles in place over the flashing edges. **DO NOT** nail through the flashing.

STEP 8: Install storm collar on the chimney and push down securely to the top of the flashing. Apply waterproof caulking around the top of the storm collar.

NOTE: This is an important step to insure a watertight system.

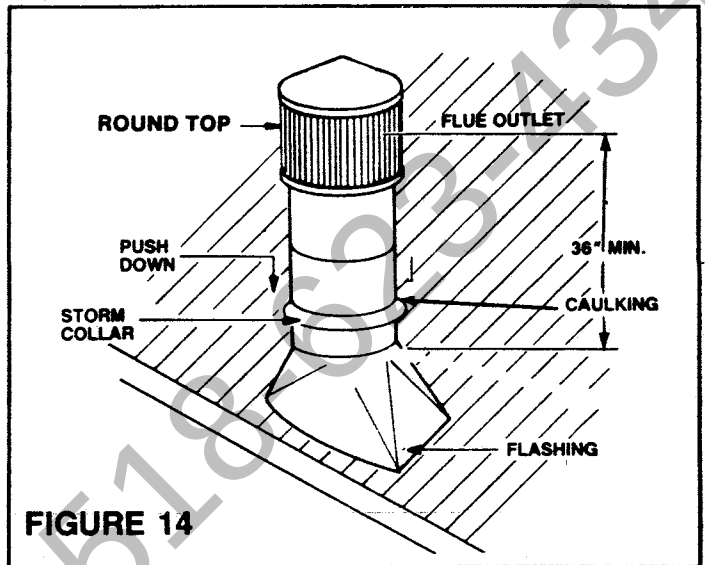


FIGURE 14

NOTE: You may wish to caulk seam notches on all joints above the flashing and paint all exposed parts of the chimney with galvanized primer paint. A coat of paint to match the house may then be applied.

TERMINATIONS:

The fireplace and chimney system must be vented to the out-of-doors and must be terminated with the listed contemporary or chase termination.

The completed chimney, including the termination, must extend 36 inches above the highest point where it passes through the roof and not less than 2 feet above the highest point of the roof within 10 feet horizontally (Figure 16).

STEP 9: INSTALL TERMINATION ON LAST SECTION OF PIPE. THERE ARE 5 ROUND TERMINATIONS AND A "TRIM STYLE TOP" (TST) APPROVED FOR 8" CHIMNEY SYSTEM. THE TRIM STYLE TOP IS DESIGNED TO BE USED ON A CHASE INSTALLATION OR DECORATIVE CHIMNEY ENCLOSURE ONLY.

ROUND TERMINATIONS CAN BE USED ON EITHER EXPOSED CHIMNEY OR CHASE INSTALLATIONS. THE BUILDER'S AND CLASSIC ROUND TOP "LONG" ARE ADJUSTABLE TO COMPENSATE FOR HEIGHT VARIATIONS.

FOR DETAILS SEE FIGURE 11A, B, C & CONSULT INSTALLATION INSTRUCTIONS OF THE TERMINATION BEING USED.

HOW TO DETERMINE YOUR FIREPLACE SYSTEM

1. DETERMINE TOTAL HEIGHT (DIMENSION H)
If raised hearth extension is used subtract
hearth extension height from Dim H. _____
2. HEIGHT OF FIREPLACE **35"**
3. RISE OF ELBOWS INCLUDING PIPE
Use table of contents offsets (page 9) _____
4. HEIGHT OF BT-8DN/BTL-8DN,
RT-8DN, RTL-8DN _____
- 4a. HEIGHT OF TST-8D TOP _____
5. TOTAL OF LINES 2 THROUGH 4a _____
6. SUBTRACT LINE 5 FROM LINE 1 _____
7. LINE 6 IS DIMENSION C. THE LENGTH OF PIPE NEEDED TO COM-
PLETE INSTALLATION (Refer to Chimney Height Chart) _____

	QUANTITY	
8. 12" PIECES OF PIPE		
9. 18" PIECES OF PIPE		
10. 36" PIECES OF PIPE		
11. 48" PIECES OF PIPE		
SUBTOTAL		

12. TOTAL OF LINES 5 AND 11 (SHOULD EQUAL LINE 1) _____

LINEAL GAIN CHART (REFER TO PAGE 9 FOR OFFSET CHART)		
MODEL	DESCRIPTION	LINEAL GAIN
792771 (DWF-36ST) FIREPLACE		35"
793116	DOUBLE-WALL PIPE	10¾"
793117	DOUBLE-WALL PIPE	16¾"
793118	DOUBLE-WALL PIPE	34¾"
793120	DOUBLE-WALL PIPE	46¾"
793121	CHIMNEY SUPPORT	10¾"
793073	ROUND TOP	6"
793072	ROUND TOP ASSEMBLY	5"-14"
793059	TRIM STYLE TOP ASSEMBLY	6"-17"
793074	ROUND TOP	6"
793005	ROUND TOP LONG	11"-17"

MARCO's Double-Wall Chimney System, when used on this fireplace, is listed for installation to a maximum of 60 feet. This measurement includes the fireplace, chimney sections and the effective height of the termination assembly. The minimum height of the fireplace system must not be less than 15 feet, including the fireplace, chimney sections, and termination assembly. The minimum height when utilizing one set of elbows is 18 feet. The minimum height when utilizing two sets of elbows is 24 feet.

CHIMNEY MAINTENANCE:

Regular inspection and cleaning of the chimney system is important. Refer to the Warranty and Operations Manual for instructions.

8" DIAMETER CHIMNEY HEIGHT CHART (DIMENSION H) FIGURE 8									
MAXIMUM HEIGHT	PIPE LENGTHS				MAXIMUM HEIGHT	PIPE LENGTHS			
	12	18	36	48		12	18	36	48
8'8"	1	—	—	2	32'7"	—	1	—	8
9'2"	—	1	—	2	33'0"	2	—	—	8
9'7"	2	—	—	2	33'6"	1	1	—	8
10'1"	1	1	—	2	34'1"	—	—	1	8
10'8"	—	—	1	2	34'6"	—	1	2	7
11'0"	2	1	—	2	35'1"	—	—	—	9
11'8"	—	—	—	3	35'6"	—	1	1	8
12'1"	—	1	1	2	36'0"	1	—	—	9
12'7"	1	—	—	3	36'6"	—	1	—	9
13'1"	—	1	—	3	36'10"	2	—	—	9
13'6"	2	—	—	3	37'4"	1	1	—	9
14'0"	1	1	—	3	38'0"	—	—	1	9
14'7"	—	—	1	3	38'4"	—	1	2	8
15'0"	—	1	2	2	39'0"	—	—	—	10
15'7"	—	—	—	4	39'4"	—	1	1	9
16'0"	—	1	1	3	39'10"	1	—	—	10
16'6"	1	—	—	4	40'4"	—	1	—	10
17'0"	—	1	—	4	40'9"	2	—	—	10
17'5"	2	—	—	4	41'3"	1	1	—	10
17'11"	1	1	—	4	41'10"	—	—	1	10
18'6"	—	—	1	4	42'3"	—	1	2	9
18'11"	—	1	2	3	42'10"	—	—	—	11
19'6"	—	—	—	5	43'3"	—	1	1	10
19'11"	—	1	1	4	43'9"	1	—	—	11
20'3"	2	—	1	4	44'3"	—	1	—	11
20'9"	1	1	1	4	44'8"	2	—	—	11
21'5"	—	—	2	4	45'2"	1	1	—	11
21'9"	1	1	—	5	45'9"	—	—	1	11
22'5"	—	—	1	5	46'2"	—	1	2	10
22'9"	—	1	2	4	46'9"	—	—	—	12
23'5"	—	—	—	6	47'2"	—	1	1	11
23'9"	—	1	1	5	47'8"	1	—	—	12
24'2"	2	—	1	5	48'2"	—	1	—	12
24'8"	1	1	1	5	48'7"	2	—	—	12
25'3"	—	—	2	5	49'1"	1	1	—	12
25'8"	1	1	—	6	49'8"	—	—	1	12
26'3"	—	—	1	6	50'1"	—	1	2	11
26'8"	—	1	2	5	50'8"	—	—	—	13
27'3"	—	—	—	7	51'1"	—	1	1	12
27'8"	—	1	1	6	51'7"	1	—	—	13
28'2"	1	—	—	7	52'1"	—	1	—	13
28'8"	—	1	—	7	52'5"	2	—	—	13
29'1"	2	—	—	7	52'11"	1	1	—	13
29'7"	1	1	—	7	53'7"	—	—	1	13
30'2"	—	—	1	7	53'11"	—	1	2	12
30'7"	—	1	2	6	54'7"	—	—	—	14
31'2"	—	—	—	8	54'11"	—	1	1	13
31'7"	—	1	1	7	55'5"	1	—	—	14
32'1"	1	—	—	8					

CEILING OPENING CHART			
CHIMNEY SET UP	OPENING		FIRESTOP PART NO.
	A	B	
VERTICAL	16 1/2	16 1/2	792989
15° OFFSET	16 1/2	22 1/2	792967
30° OFFSET	16 1/2	23 1/2	792968

ROOF OPENING CHART		
PITCH	OPENING	
	C	D
FLAT	16 1/2	16 1/2
6/12	16 1/2	18 1/2
12/12	16 1/2	23 1/2
18/12	16 1/2	29 3/4
24/12	16 1/2	37

RECOMMENDED FLASHING	
ROOF PITCH	FLASHING PART NO.
0 - 6/12	793035
6 - 12/12	793076
12 - 18/12	793045
18 - 24/12	793046

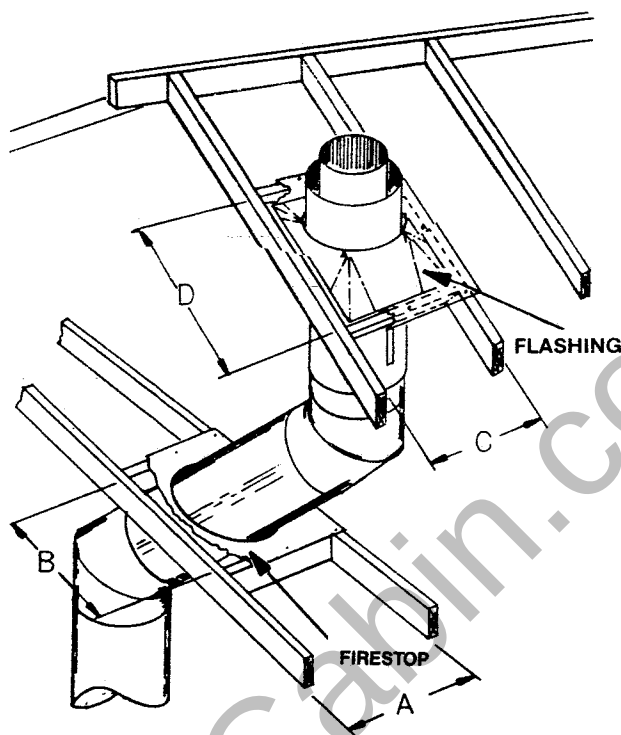


FIGURE 15

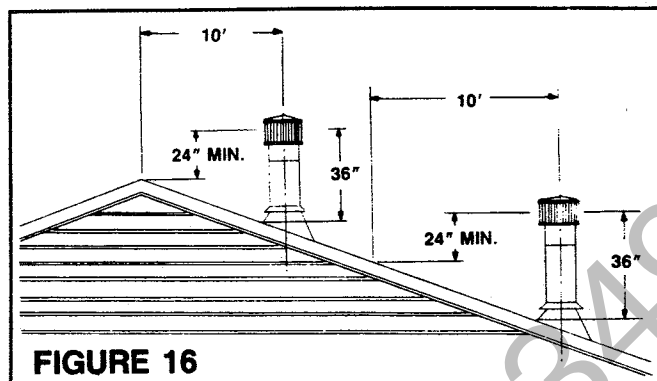


FIGURE 16

10' Rule—if chimney is within 10' of the roof peak, adjacent wall or building, the top should extend a minimum of 2' above the peak. When further than 10' from the roof peak, the tip should extend 2' higher than the closest point 10' away horizontally (See Figure 16).

IMPORTANT: If an exposed portion of chimney is greater than 5 feet above the roof line, use support wires to keep the chimney secure. The support wires may be attached to the outer pipe of the chimney with screws, provided the screws are not long enough to penetrate the inner flue pipe.

CHIMNEY PIPE SUPPORT:

The chimney pipe support is a double-wall, unitized 12" length of pipe and is designed to relieve the extra weight load on the fireplace and elbows when high chimneys are installed.

A chimney support is required at the 35-foot level above the fireplace after a straight chimney run or 35 feet above a return elbow after a straight chimney run (Figure 24).

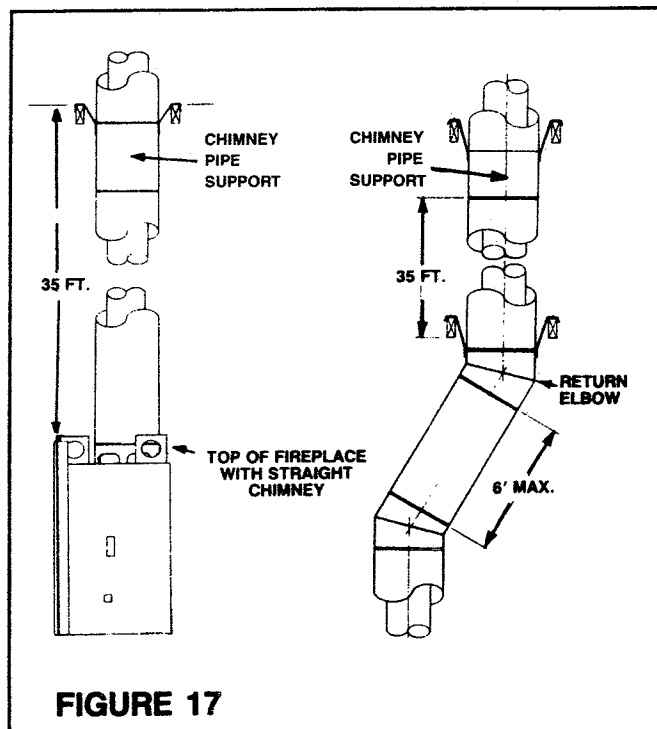


FIGURE 17

INSTRUCTIONS FOR OFFSET OF CHIMNEY USING ELBOWS

TO INSTALL ELBOWS

1. To achieve desired offset, you may install combinations of 12", 18", 36", 48" lengths of double wall pipe (see single offset chart and Figures 18, 19, 20).
2. Chimney weight above offset rests on return elbow. Straps must be securely nailed to rafters or joists. (see Figure 19).
3. Maximum length of pipe between supports (return elbow or chimney pipe support) is 6' of angled run. Maximum of two 6' angled run sections per chimney system (Fig20).
4. The maximum allowable offset is 30°. Elbows must be secured to the pipe utilizing a minimum of three screws per joint. Fasten screw through outer pipe slot. Drill 1/8" pilot hole or use self-drilling screws provided.

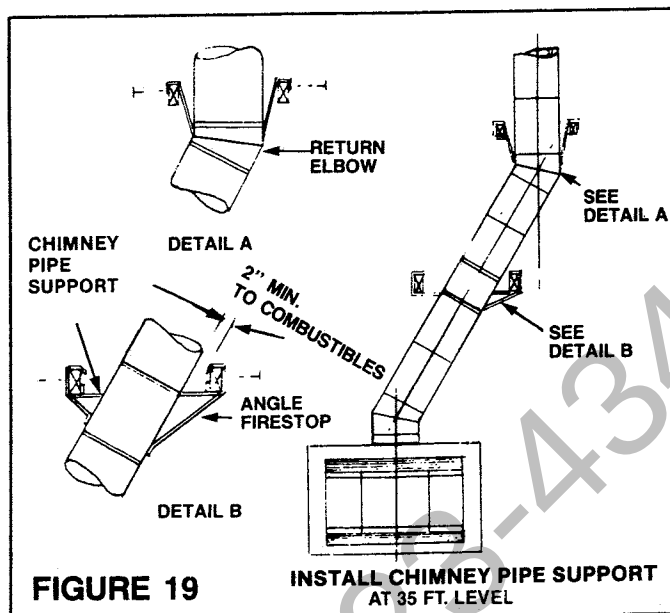


FIGURE 19

**INSTALL CHIMNEY PIPE SUPPORT
AT 35 FT. LEVEL**

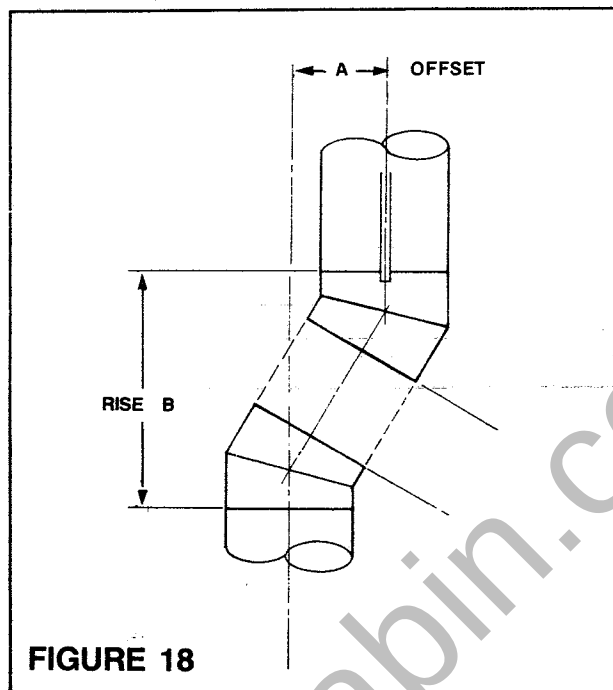
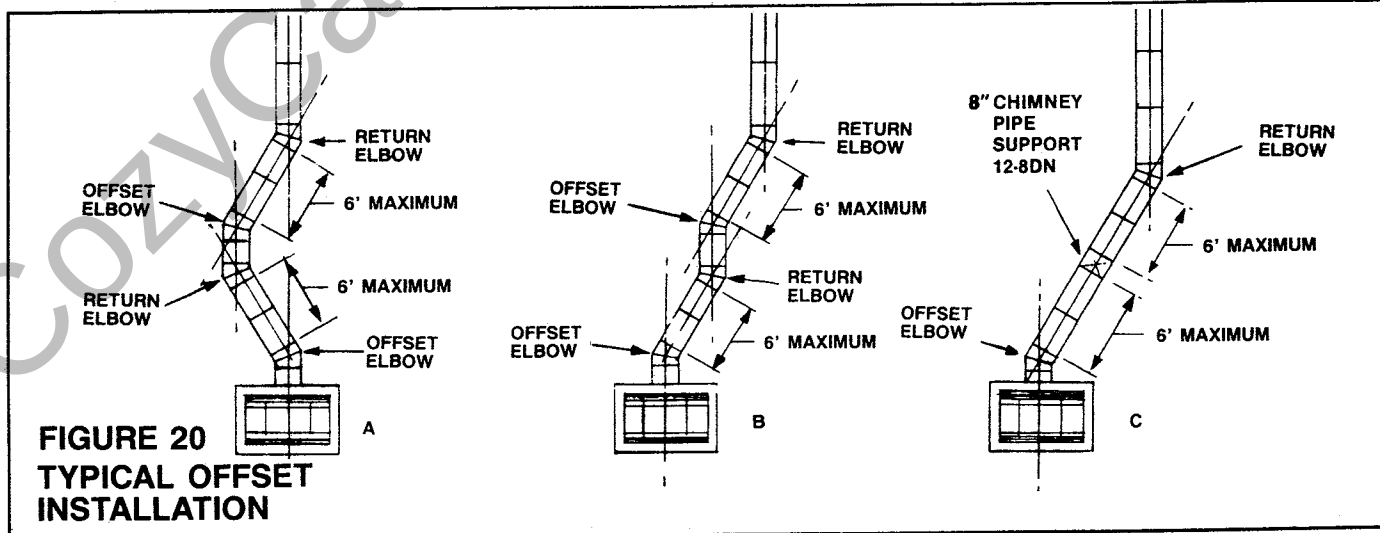


FIGURE 18

NUMBER AND LENGTH OF DOUBLE WALL PIPE					1-30° Offset Elbow 1-30° Return Elbow		1-15° Offset Elbow 1-15° Return Elbow	
12"	18"	36"	CHIM- NEY SUPT.	48"	A	B	A	B
—	—	—	—	—	5½	19½	2½	20½
1	—	—	—	—	10½	28½	5½	30½
—	1	—	—	—	13½	33½	7	36½
2	—	—	—	—	16	36	8½	41½
1	1	—	—	—	19	43½	9½	47
—	2	—	—	—	22	48½	11½	52½
—	—	1	—	—	22½	49½	11½	54
2	1	—	—	—	24½	52½	12½	57½
1	2	—	—	—	27½	57½	14½	63½
1	—	1	—	—	28	58½	14½	64½
—	—	—	—	1	28½	59½	14½	65½
—	3	—	—	—	30½	62½	15½	69
—	1	1	—	—	31	64	16	70½
2	—	1	—	—	33½	68	17½	74½
1	—	—	—	1	34	69½	17½	76
1	1	1	—	—	36½	73½	18½	80½
2	—	—	—	1	39½	78½	20½	86½
—	—	2	—	—	40	79½	20½	87½
—	—	2	1	—	45½	88½	23½	98



**FIGURE 20
TYPICAL OFFSET
INSTALLATION**

MINIMUM CHIMNEY HEIGHT: The recommended minimum height of the chimney system (15 feet) is based on the wind and pressure conditions usually found around the average home-site. Unusual conditions such as adjacent hills, tall trees, high wind areas, etc. can cause downdrafts to occur in any chimney system and would therefore require an extra length of pipe to ensure the proper draft conditions during the use of the fireplace. Consult your supplier or the local building inspector for any information they may have regarding local weather characteristics.

INSTALLING THE GAS LINE

IMPORTANT: Install the gas line before finishing the fireplace. If desired, a decorative gas appliance may be installed. Use only iron pipe, $\frac{1}{2}$ " size, and appropriate fittings. When installing a gas line, a valve designed for installation outside the fireplace is recommended (Figure 21).

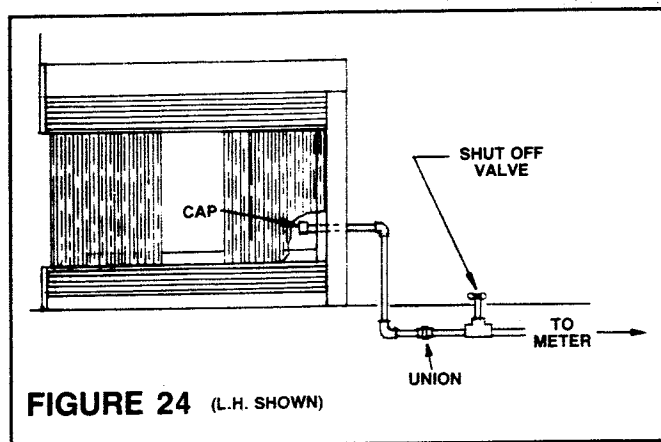


FIGURE 24 (L.H. SHOWN)

The gas line may enter the fireplace from either side. Refer to Figure 3 for hole location. To remove knock-out plug from refractory side, first remove cover from outside of fireplace casings with $\frac{5}{16}$ " socket wrench and remove conduit sleeve. Take insulation material out of gas line conduit and save for reuse. On the inside wall of firebox, using a light punch, strike mark located $1\frac{1}{2}$ " inches from floor in the center of the side panel. Knock the plug through from inside the firebox to the outside. Reinsert the conduit sleeve.

Run gas line to just inside entrance hole of fireplace. Install a 7" minimum nipple to reach inside the fireplace. Repack insulation to conduit sleeve around nipple, finish installation by either capping the gas line or attaching decorative gas appliance.

The gas line is intended for connection to a decorative gas appliance incorporating an automatic shutoff device and complying with the Standard for Decorative Gas Appliances for Installation in Vented Fireplaces, ANSI Z21.60. Decorative gas appliance should be installed in accordance with the National Fuel Gas Code, ANSI Z223.1. and NFPA 54.

CAUTION: WHEN USING THE DECORATIVE APPLIANCE, THE FIREPLACE DAMPER MUST BE SET IN THE FULLY OPEN POSITION.

TEST FOR GAS LEAKS

All gas piping and connections must be tested for leaks after the installation is completed. Be sure gas valve is turned on. Apply soap suds solution to all connections and joints. If bubbles appear, leaks can be detected and corrected. **DO NOT** use a match or open flame of any kind to test for leaks. Never operate any appliance with leaky connections.

"THIS INSTALLATION IS NOT LISTED BY UNDERWRITERS LABORATORIES, INC."

Gas log lighter has been tested by RADCO LAB. in accordance with ICBO requirements and approved for use with this fireplace model.

INSTALLATION OF GAS LOG LIGHTER.

IF YOUR FIREPLACE IS PROVIDED WITH A GAS LINE FOR ATTACHMENT TO A GAS LOG LIGHTER, PLEASE FOLLOW THESE INSTRUCTIONS CAREFULLY:

- 1) BEFORE DOING ANYTHING, MAKE SURE THE GAS VALVE LOCATED OUTSIDE YOUR FIREPLACE IS SHUT OFF.
- 2) REMOVE THE CAP AT END OF GAS PIPELINE PROTRUDING FROM SIDE OF THE REFRACTORY. (SEE FIG. 34).
- 3) CONNECT FITTINGS:
TWO - $\frac{1}{2}$ INCH DIA. 45" ELBOW
ONE - $\frac{1}{2}$ INCH DIA. CLOSE NIPPLE
- 4) INSTALL GAS LOG LIGHTER MAX. 24" LONG, $\frac{1}{2}$ INCH DIAMETER TO ELBOW. (SEE FIG. 25). GAS LOG LIGHTER MUST BE INSTALLED FLUSH TO THE HEARTH FLOOR OF YOUR APPLIANCE. **DO NOT** ELEVATE GAS LOG LIGHTER. YOUR GAS LOG LIGHTER IS NOW READY FOR USE.

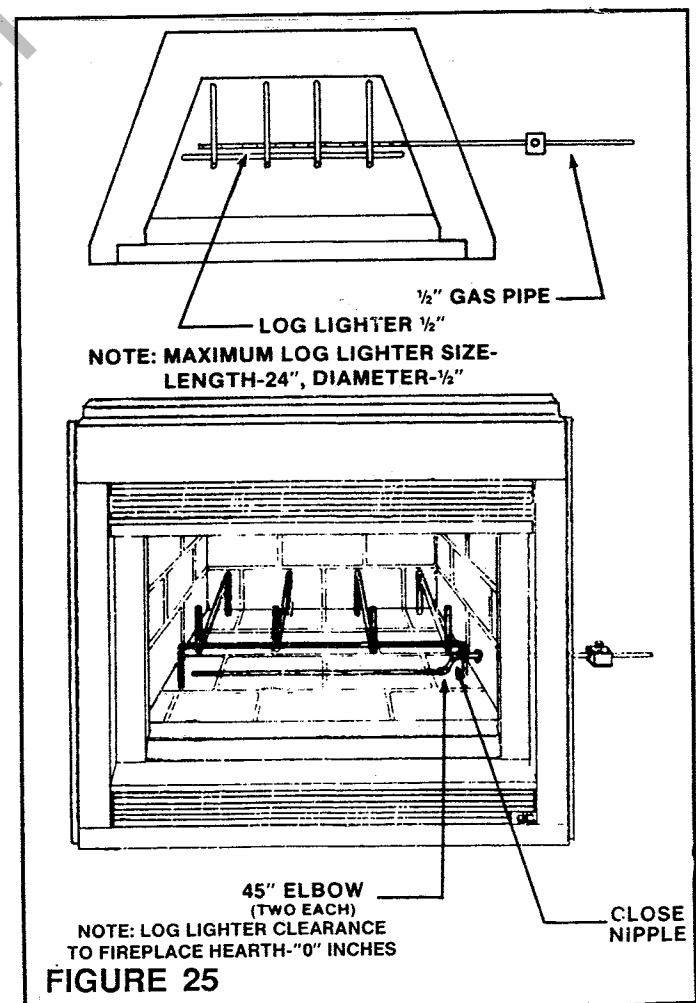


FIGURE 25

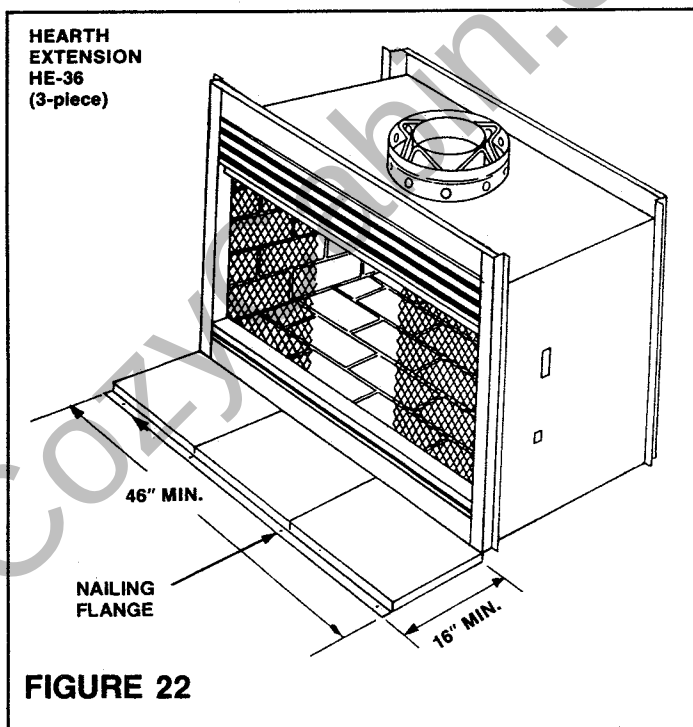
CAUTION:

- 1) Make sure the damper in your fireplace is set in a permanently open position in case the gas valve is turned on by accident. By following this simple instruction, you will prevent gas from escaping into your living room and causing possible serious injuries or damage to your dwelling.
- 2) Turn on gas valve.
- 3) Light log lighter with a match. Use common sense in lighting. For your safety, never use or store gasoline or other flammable liquids in this or any other appliance.
- 4) After your log has started to burn, turn off gas valve. The key used for turning the gas valve on/off should be kept out of reach of children.
- 5) To restart, repeat relighting instructions.
- 6) Keep orifices clean from ashes and debris. This will prevent the orifices from becoming clogged. Clean it only when cold.

Never allow gas to run unlighted. If this happens, there is a possibility of gas escaping into your living area. If you smell gas, open windows, extinguish any open flame and immediately call your local gas supplier. Never leave children alone near the appliance when in use. Refer to instruction appliance when in use. Refer to instruction manual for other instruction details.

Keep these instructions for future reference.

HEARTH EXTENSION



If there is combustible floor construction in front of the fireplace, a hearth extension is required to protect it. The hearth extension as shown in Figure 22, must be a minimum of 16" deep by 46" wide and extend a minimum of 8" beyond each side of the fireplace opening. The hearth extension must be made from a non-combustible inorganic material with a thermal conductivity, K, of .84 or less. The thermal conductivity, K, or thermal resistance, R, of materials can usually be obtained from the manufacturer. The factors are related by the formula $K = 1/R$. The thickness required for various common materials and their factors are shown in Figure 23.

EXAMPLE OF DETERMINING HEARTH EXTENSION EQUIVALENT

To determine the thickness required for any material:

$$\frac{K \text{ (new material)} \times 1"}{.84} = \text{Thickness Required}$$

.84

Example for insulating Board-K-FAC 19 (K from Figure 37)

$$\frac{.77 \times 1"}{.84} = .91"$$

Whatever the material used, sufficient thickness must be laid down to maintain an equivalent K factor.

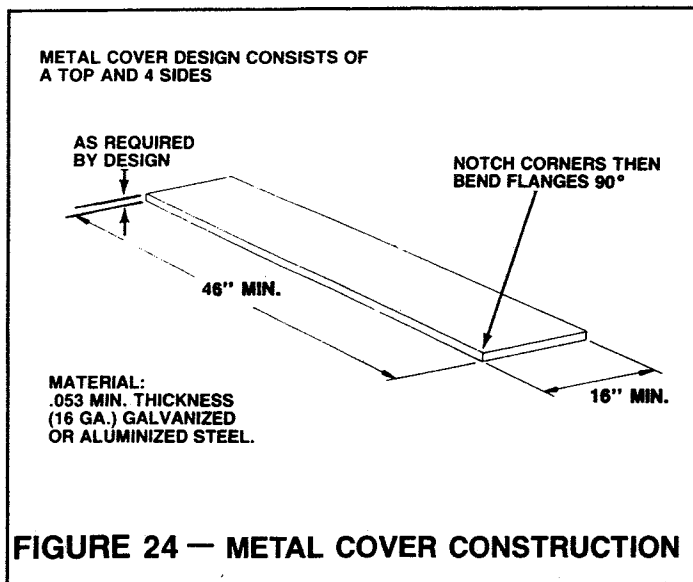
The thermal insulating layer may be covered by any non-combustible material such as metal, tile, slate, brock, glass, concrete, marble, or stone. When using a low density insulating material a supporting metal cover such as shown in Figure 24 should be fabricated and installed. NOTE: Some noncombustible coverings such as metal, slate, sandstone and marble are relatively good conductors of heat and must be used in combination with the more thermally resistant materials.

In finishing up the hearth extension, be sure to fasten it security to the floor to prevent shifting, and seal the gap between the fireplace frame and the hearth extension with a non-combustible material (see Figure 27-29).

Type of Insulation	K*	Minimum Thickness Required
Johns Manville CERAFORM 126	.27	.32"
U.S. Gypsum Corp. MICORE CV230	.43	.51"
Insulating Board (K-FAC 19)	.77	.91"
Lydall, Inc. LYTHERM 1401	.64	.76"
Standard Oil DURABOARD LDandHD	.60	.71"
Common Brick	4.92	5.85"

*Units of K are BTU/In, Hr, Sq. Ft, °F

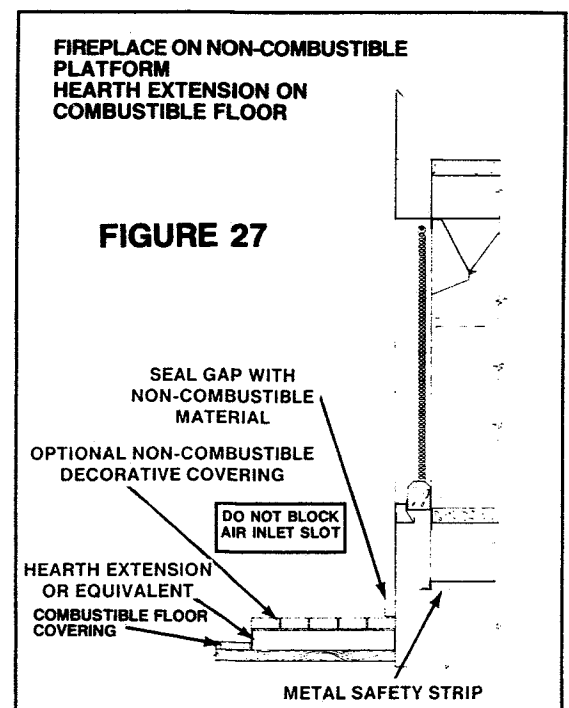
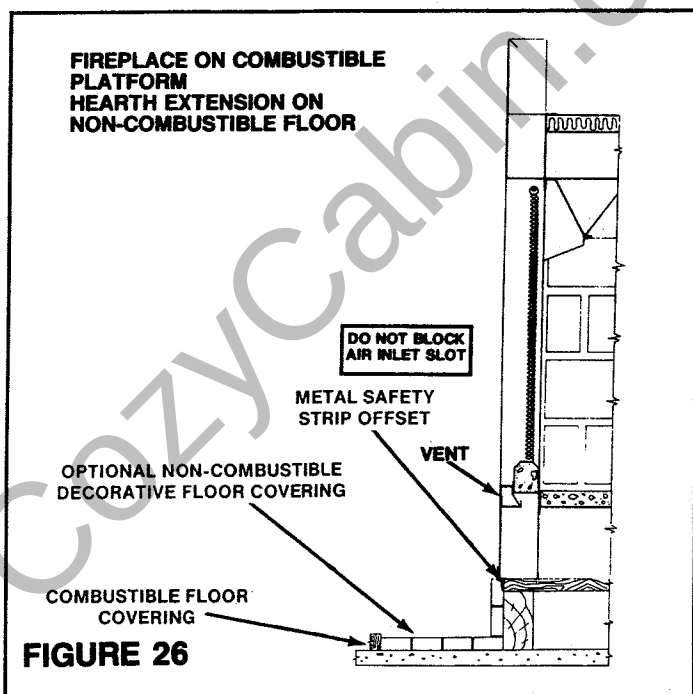
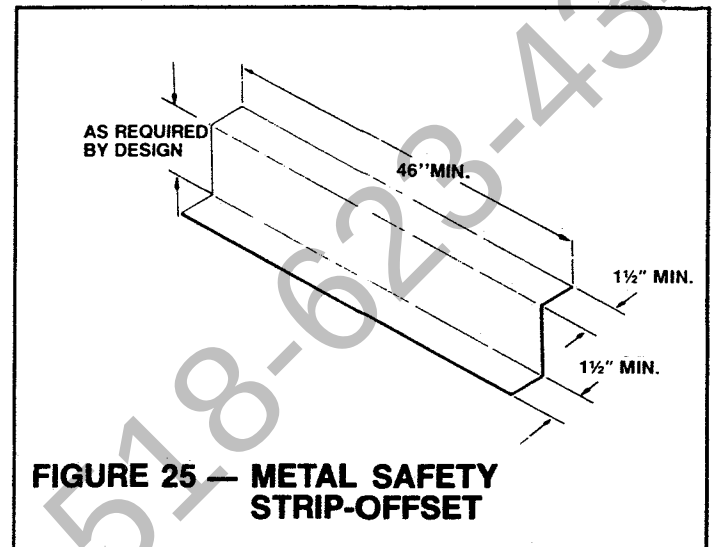
FIGURE 23 — COMMON MATERIALS AND THEIR FACTORS

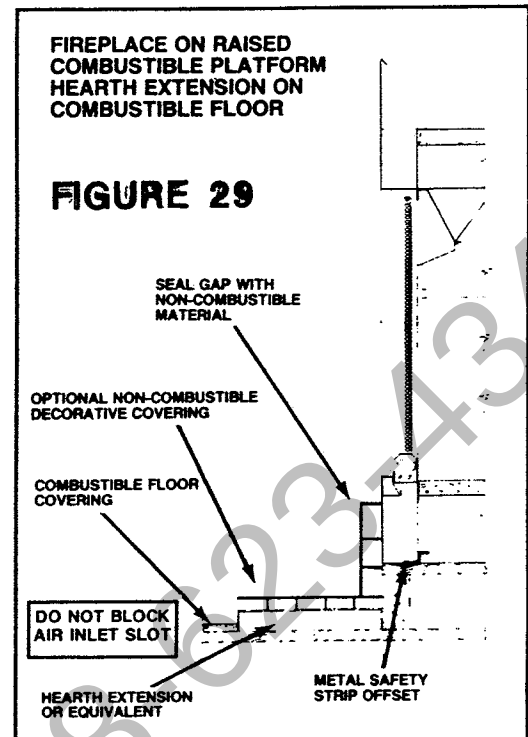
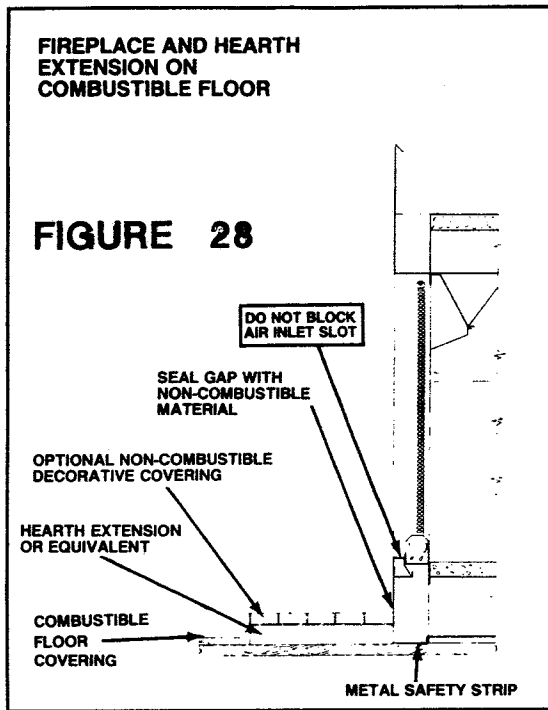


WARNING:
HEARTH EXTENSION IS TO BE INSTALLED ONLY AS ILLUSTRATED. FIGURES 26 THRU 29 SHOW OPTIONAL INSTALLATIONS.

METAL SAFETY STRIP-OFFSET (SUPPLIED BY OTHERS)

When the fireplace and hearth extension are not installed at the same height a custom safety strip will be required. The safety strip shall be constructed of a minimum thickness of .018 galvanized steel and should be shaped as shown in Figure 25.





*NON-COMBUSTIBLE DECORATIVE COVERING:

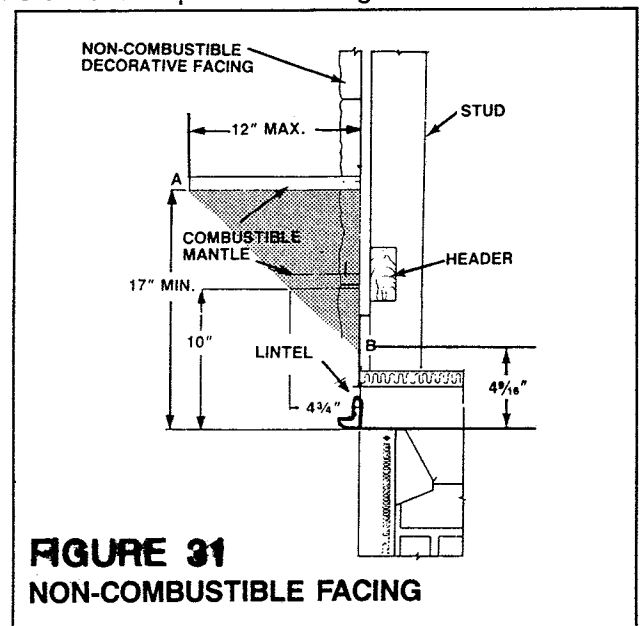
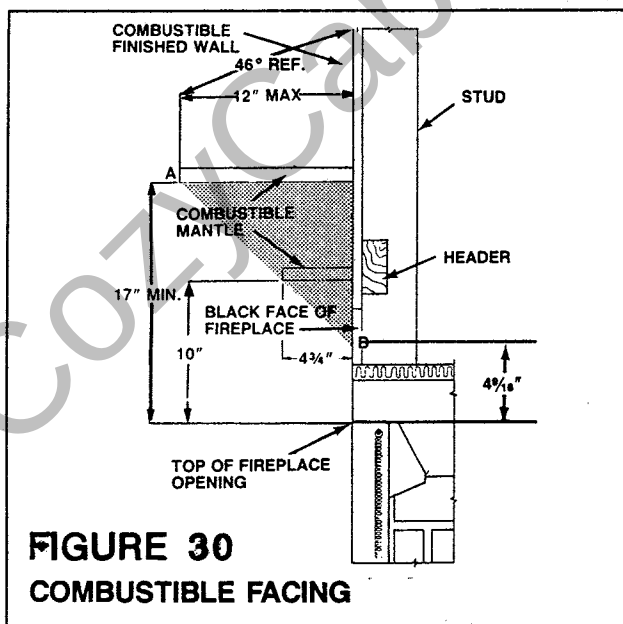
Should be at least 3/8" thick and meet H.U.D. and/or local building code requirements. The finished height of the hearth extension must not block the inlet grille at the bottom of the fireplace.

FIREPLACE FACING

When selecting the finish material for your fireplace, it is important to remember the following: THE BLACK FACE OF THE FIREPLACE MUST NOT BE COVERED WITH ANY TYPE OF COMBUSTIBLE MATERIAL. THE SLOT AT THE BOTTOM AND THE GRILLE AT THE TOP MUST NOT BE OBSTRUCTED IN ANY WAY.

Combustible mantles may be safely installed provided they do not project beyond a line from point A to point B, as illustrated in Figures 30 and 31.

NOTE: Use an "L" shaped piece of metal (lintel) across the top of the fireplace opening when a non-combustible material is used on the face of the fireplace. It can be attached to the face of the fireplace with screws (See Figure 32). Non-combustible facing material such as tile, brick, glass, etc. may overlap the black face of the fireplace. Be sure to use non-combustible heat resistant mortar or adhesive when attaching to fireplace face. The face of the fireplace may be painted to match the room decor provided you use a heat resistant paint. NOTE: Decorative facing must not extend into the fireplace opening at all, because it will interfere with the operation of the glass doors.



BRICK
PANELING
EXAMPLE

FIREPLACE RAISED ON PLATFORM

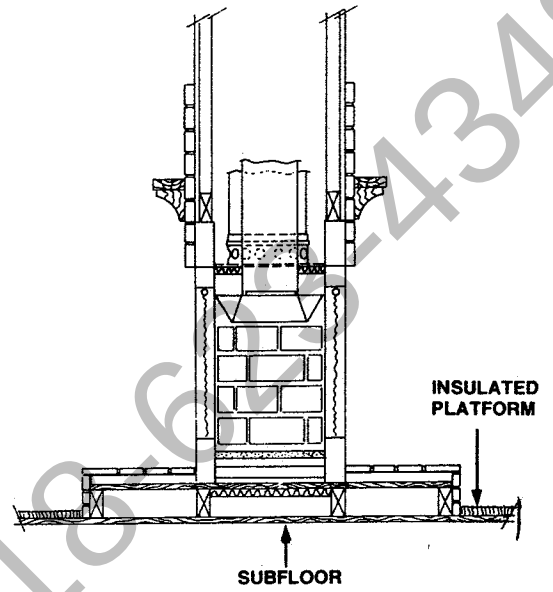
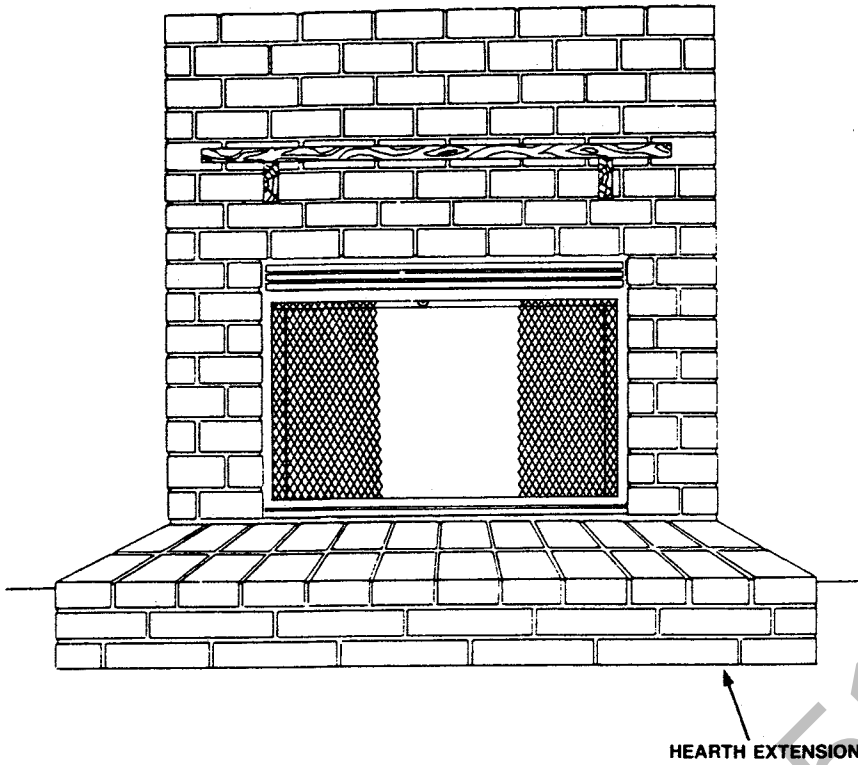


FIGURE 32

WOOD
PANELING
EXAMPLE

FIREPLACE FLUSH WITH WALL

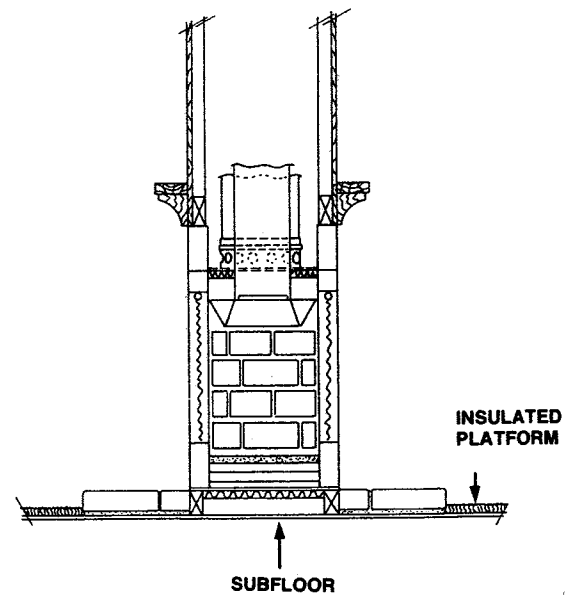
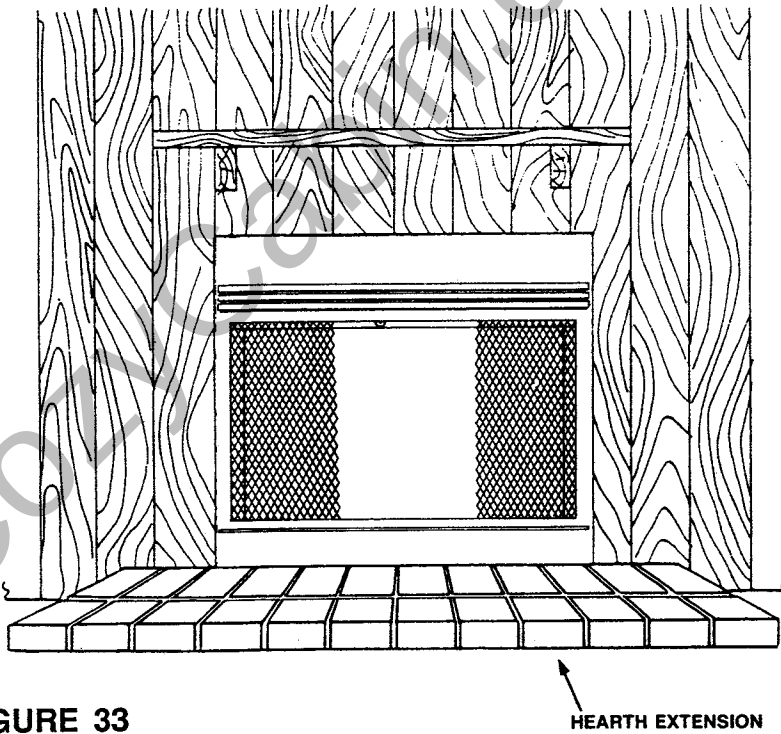
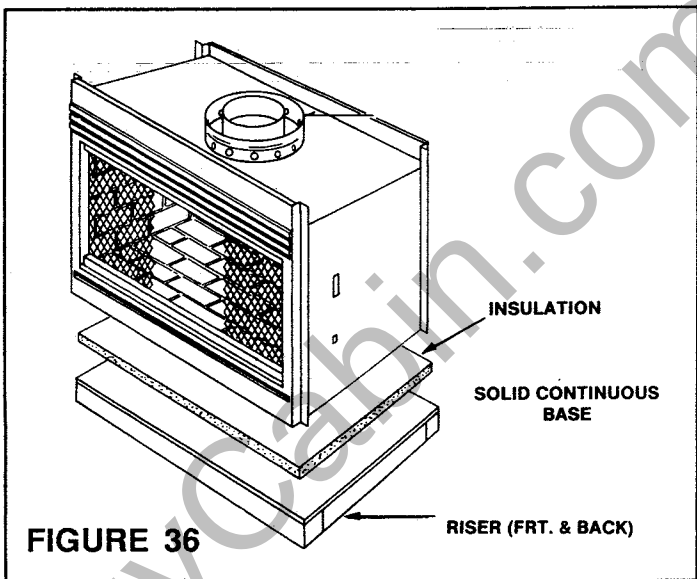
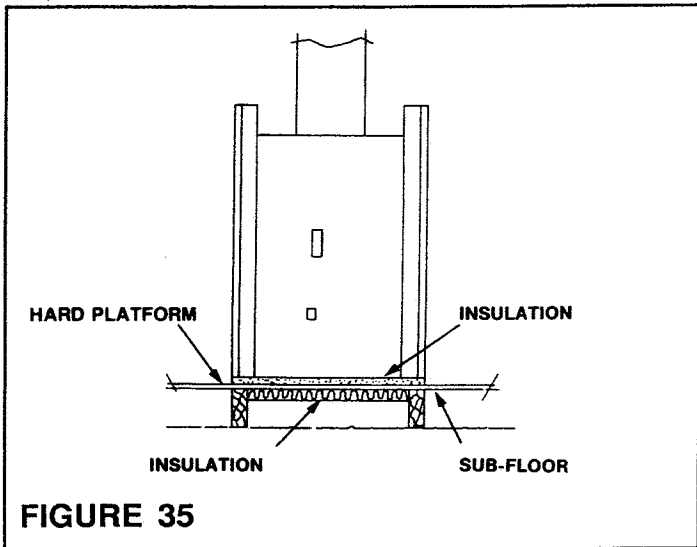


FIGURE 33

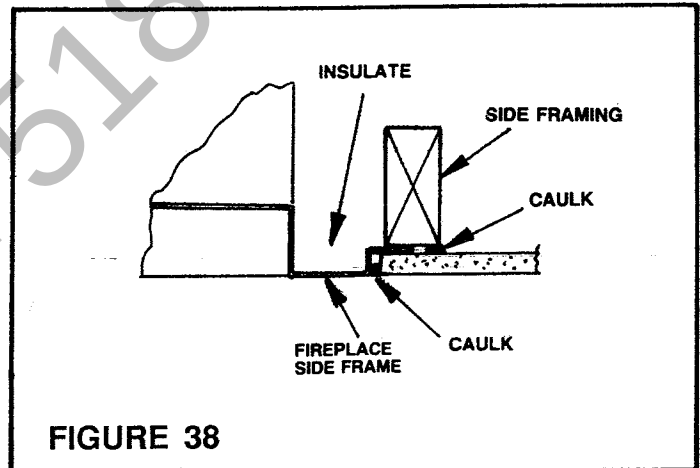
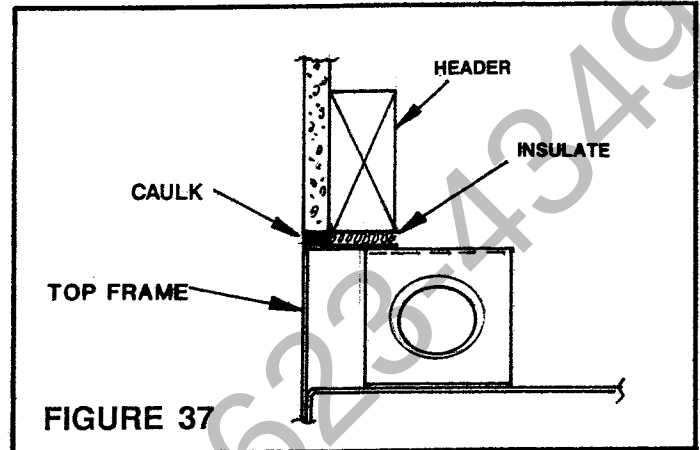
OPTIONAL COLD CLIMATE INSTALLATION

When installing a fireplace in an area where outside temperatures reach 32°F or lower, it is important to protect the metal bottom from the cold air by setting the fireplace on a non-combustible, insulated, solid surface. (Figures 35 & 36). The insulation must be rated to withstand a temperature of 300°F.



Inspect all joints for fit. If a joint is not fitting properly, caulk or use duct tape to prevent cold air leaks through the fireplace into the room.

Caulk all cracks around fireplace wherever cold air can enter the room (See Figures 37 & 38).



NOTE: Do not let insulation material come in contact with the fireplace in required air spaces.

As a further precaution, finish trim around the fireplace should be caulked between trim and fireplace to prevent entry of cold air or escape of warm air.

In areas of extreme cold, it is recommended that the outer walls of the chase be insulated. This will reduce the possibility of cold air convection currents on the fireplace. NEVER use blown-in type of insulation as this could plug the holes at the base of the chimney and interfere with the thermal syphoning action necessary to keep the chimney cool.

INSTRUCTIONS FOR OPERATION OF 36" SEE-THROUGH FIREPLACE

A See Through (two sided) fireplace, although quite beautiful, can be prone to minor smoking problems. Many environmental conditions in any individual installation can cause this smoking such as:

- cross drafts in the room or between rooms
- low chimney heights
- outside downdrafts
- weather tight home construction hampering adequate make-up air for combustion or other ventilation appliances.

These problems can plague any "See Through" type fireplace whether a masonry custom built unit or factory made.

Your Marco See-Through 36 is a quality fireplace unit, however, as noted above, it also may exhibit minor smoke spillage under certain circumstances.

The following installation and operating hints will help reduce smoke spillage:

INSTALLATION:

1. Read the installation instructions thoroughly. Minimum chimney height should be 15 feet. Additional height will generally help.
2. In weathertight homes and homes where other ventilation appliances are used which exhaust air, make-up air is needed, A MARCO "Outside Air Kit" should be installed.

OPERATION:

1. Build your fire with dry wood keeping the wood to the center of the hearth.
2. Make sure the damper and outside air controls (when installed) are open. If no outside air kit has been installed, provide additional ventilation by partially opening a window. Start the fire and close both sets of doors. "Refer to the Care and Operation Guide for complete instructions."
3. Do not leave the fire unattended. Always keep the screens and doors fully closed and make sure the damper is fully open.

NOTE:

THE FIREPLACE MUST ALWAYS BE OPERATED WITH BOTH SETS OF DOORS FULLY OPEN OR FULLY CLOSED. FAILURE TO DO THIS MAY CAUSE SMOKE OR FLAME TO BE DRAWN OUT OF THE FIREPLACE.

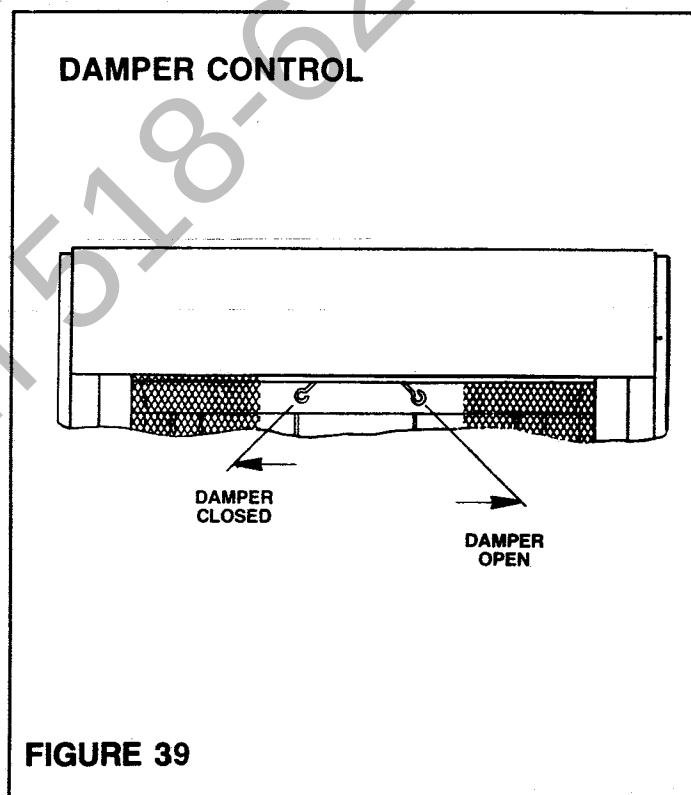
FIREPLACE GRATE

This unit has been equipped with a grate designed to keep the operation of your fireplace efficient and safe. **Do not attempt to defeat its purpose.** The size and position of the grate was engineered to give the ideal combustion characteristics for the fire. By keeping your logs within the grate and not on the hearth, you will prevent the chance of having a log "spill" or roll out of the fireplace. **DO NOT OVERLOAD the fireplace.** Piling excessive wood on your grate will not increase efficiency and could possibly cause smoke to enter your room. Keep the hearth area under the grate free of excessive ash build-up to allow a free flow of air for the fire.

DAMPER CONTROL LEVER

The damper control lever located inside the top front of the firebox has been engineered to provide for safe operation of your fireplace. Do not close the damper in an attempt to reduce a large fire. To do so may cause a potential smoke hazard, just as any fuel-burning appliance would do if not properly exhausted. If you forget to open the damper before you start your fire (you will know immediately by the smoke entering your home) simply move the damper lever from its closed position notch to the open position (Figure 39).

The fireplace flue damper must always remain open until the fire is totally out. Partially burned logs can appear to be out even when still burning giving off dangerous gases. If the damper is closed too soon, these gases may escape into the room.



OUTSIDE AIR CONTROL

The outside combustion air kit is an optional accessory installed at the time of fireplace installation. It aids greatly in the efficient operation of your fireplace. It should be opened during operation.

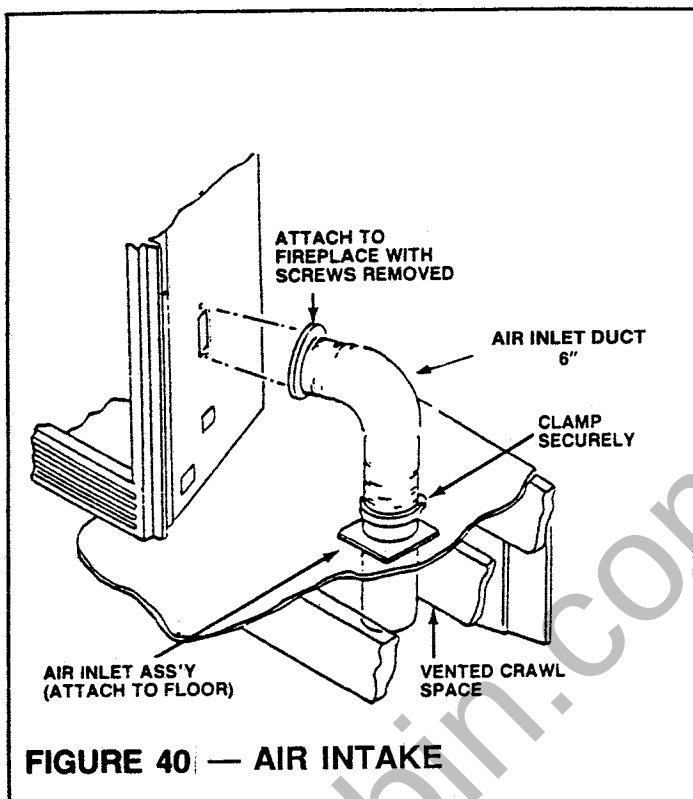
RULES APPLYING TO MOBILE HOME INSTLLATIONS

- Total height of fireplace and chimney sections, including round top, must be at least 10 feet, 6 inches but must not exceed 20 feet.

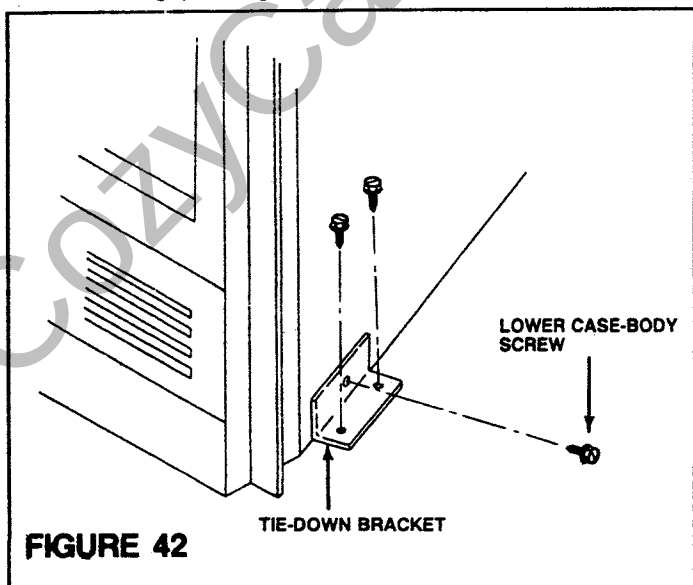
WARNING: THIS FIREPLACE AND CHIMNEY SYSTEM IS NOT APPROVED FOR USE IN A BEDROOM OR ANY ROOM USED FOR SLEEPING

CAUTION: THE STRUCTURAL INTEGRITY OF THE MOBILE HOME FLOOR, WALL, CEILING AND ROOF MUST BE MAINTAINED.

- The firestop thimble must be used on a mobile home installation. The firestop thimble must extend from the ceiling through the roof. Chimney clearance to the thimble is 1". Thimble clearance to combustibles is 0".
- Utilization of outside air is mandatory on mobile home installations. (See Figure 40) for proper installation.



- Secure the fireplace to the floor of the mobile home to prevent shifting (see Figure 42).

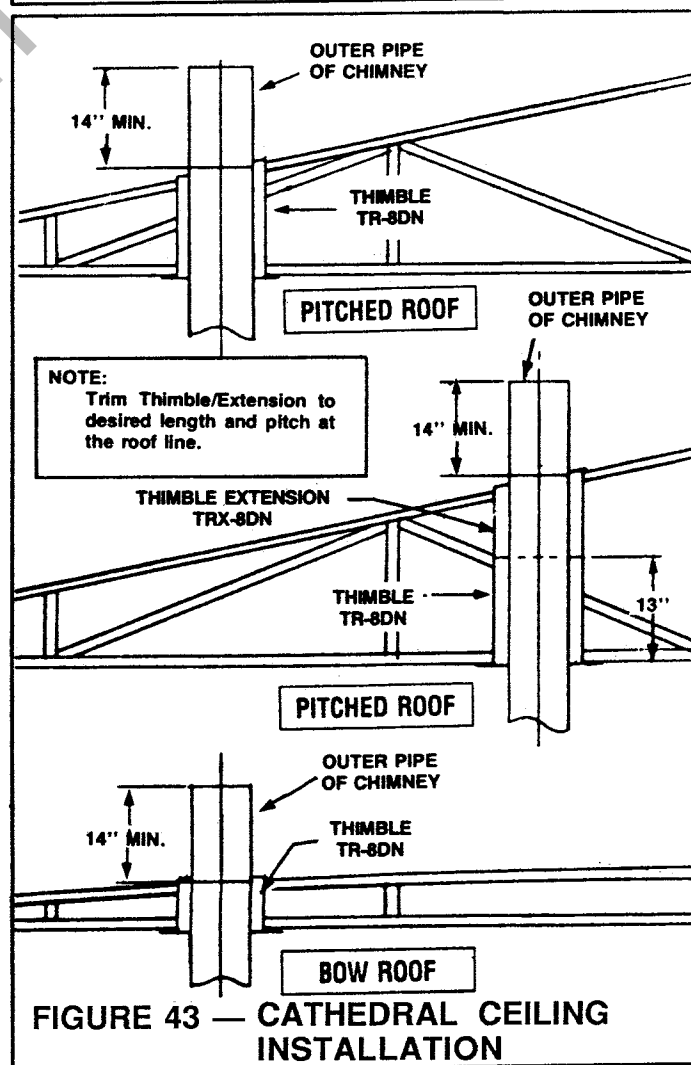
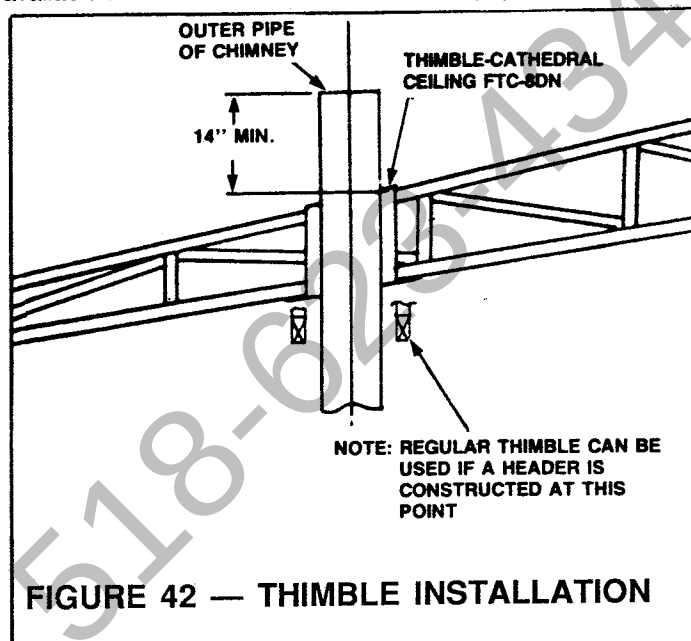


Nail the thimble (TR-8D) into place through the ceiling making sure the thimble penetrates the roof opening. NOTE: For construction

exceeding 13" from outside of roof to inside of ceiling, a thimble extension (TRX-8DN) is available from your MARCO dealer. The thimble provides for zero clearance to combustibles and must be used at the ceiling/roof on mobile homes with double wall chimney. (Figure 42).

NOTE:

For cathedral or open beam ceilings, a thimble (FTC-8DN) is available to eliminate the need for a header (Figure 43).



DO'S AND DON'TS

- * This fireplace is not intended to heat the home.
- * Read operation and warranty manual thoroughly before installing and using this fireplace.
- * **THIS FIREPLACE IS INTENDED FOR USE WITH SOLID WOOD FUEL ONLY.**
- * If installing fireplace in cold climates, follow the cold climate instructions listed on page 12.
- * Check the hearth periodically for cracks and damage. Hairline cracks are a normal result of repeatedly heating and cooling the refractory firebrick and will not damage the fireplace. However, if a crack should become larger than 1/16" (approx. the width of a dime), then replace the refractory.
- * Have repairs done by a qualified service technician.
- * Open the damper to ensure proper operation.
- * If an outside air kit has been installed, open the outside air gate before starting your fire. Ventilating fans, central heating systems and exhaust fans can cause fireplaces to smoke by stealing the available combustion air needed for burning the wood in your fireplace.
- * "Cure" the refractory lining by building only small fires the first three times you use the fireplace. The refractory firebrick is made from a combination of materials, including cement and water. A large roaring fire, built on "uncured" refractory, may cause cracks by generating steam within the refractory.
- * Keep the area in front of the fireplace clear of combustible materials such as drapes, paper products, wood storage, furniture, etc.
- * **CREOSOTE FORMATION AND NEED FOR REMOVAL -**
Slowly burning wood produces tar and other organic vapors that combine with expelled moisture to form creosote. This creosote residue will condense in the relatively cool chimney flue of a slow burning fire and accumulate on the flue lining. When ignited, this creosote makes an extremely hot fire. Inspect the chimney at least twice a year during the heating season to determine if creosote buildup has occurred. If creosote has accumulated, remove it to reduce the risk of chimney fire. Using only dry, seasoned wood will help prevent excessive creosote buildup. Consult your warranty manual for cleaning instructions.
- * See-Through Models should be operated only with both door sets fully closed. For best performance, doors should remain closed except while adding wood.
- * To help prevent grate "burnout", keep the base of the fireplace clean of excess ash buildup.
- * Except when adding fuel, keep the fireplace screens closed at all times.
- * **WARNING: DO NOT OBSTRUCT THE COLLAR OPENINGS AROUND THE BASE OF THE CHIMNEY AT THE TOP OF THE FIREPLACE. NEVER USE BLOWN INSULATION TO FILL THE CHIMNEY ENCLOSURE.**
- * Do not use a fireplace insert or other products not specified for use with this fireplace.
- * Do not overload the grate; it could cause smoke to enter the room.
- * Do not allow ash under the burning logs to build to a point where it hinders the air flow.
- * Do not block the bottom vent or louver grille.
- * Do not burn large amounts of wastepaper or cardboard in your fireplace.
- * Do not burn scrap construction lumber; it produces excessive sparks.
- * **DO NOT BURN WOOD PRODUCTS WITH SYNTHETIC BINDERS LIKE ARTIFICIAL LOGS OR PLYWOOD, AS THESE PRODUCE ABNORMALLY HIGH TEMPERATURES.**
- * Never use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start or "freshen up" a fire. Keep all such liquids well away from the fireplace.
- * Never close the damper until you are certain that there are no warm embers.
- * Disposal of Ash: Place ash in a metal container with a tight-fitting lid. Keep the closed container 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.

REFERENCE DOCUMENTS:

1. MARCO Woodburning Fireplace Warranty and Operation Manual, P/N 181536.
2. Glass Door Kit Installation Instructions, P/N 181691.
3. 8" Round Trim Style Termination (TST-8D) P/N 181689.
4. 8" Trim Style Termination (TST-8D) P/N 181689.
5. Outside Air Kit Installation Instructions P/N 181620.

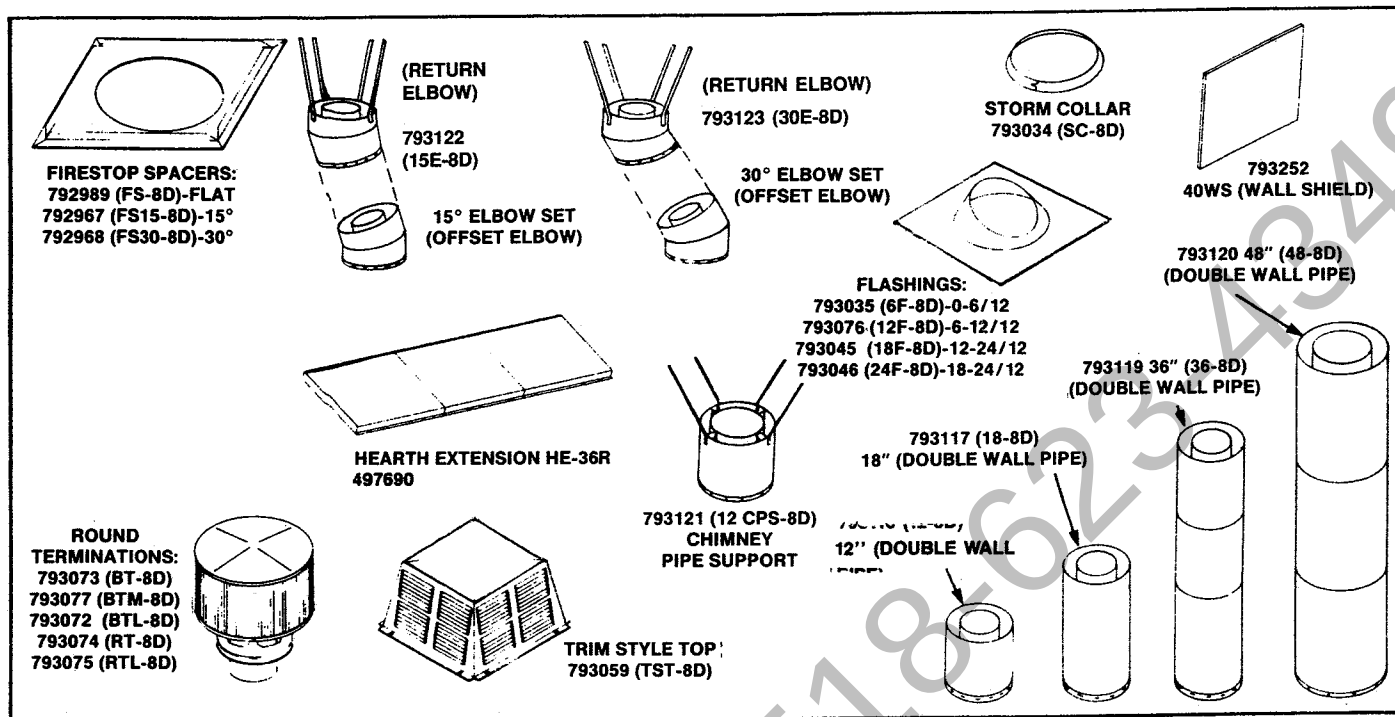
WARNING:

DO NOT USE ANY ARTIFICIAL LOGS. USE ONLY NATURAL CURED WOOD LOGS IN THE FIRE.

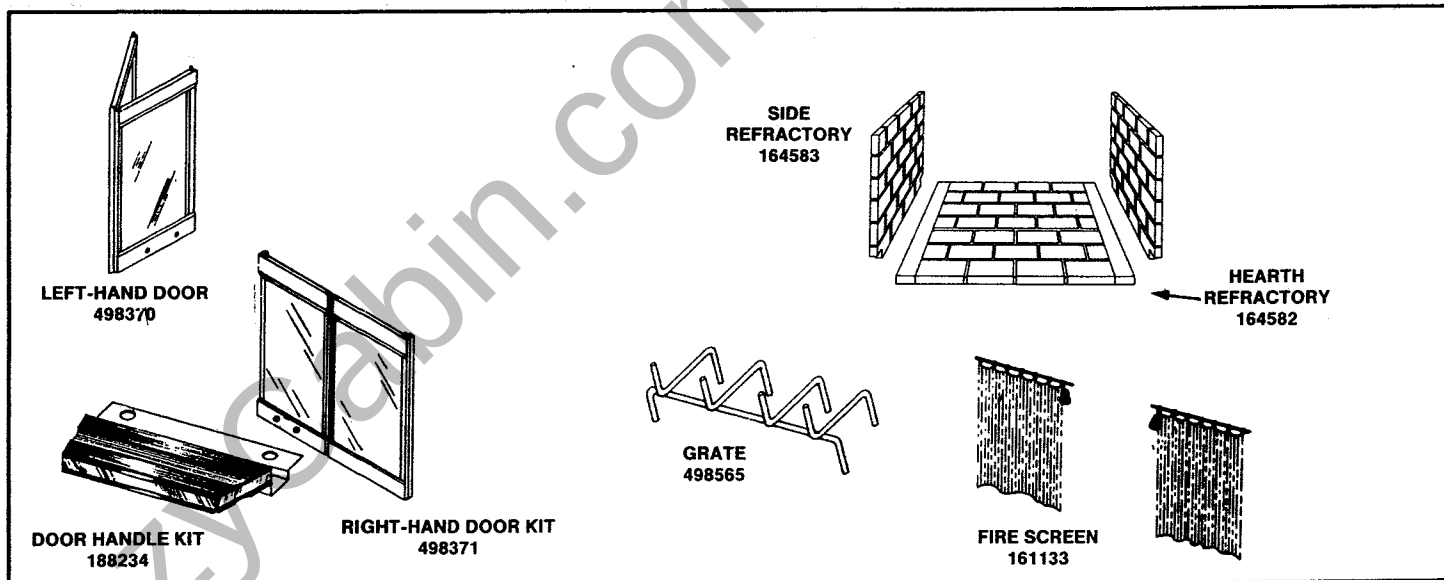
DO NOT USE PINE TAR FIRESTARTER. USING IT WILL RESULT IN THE CLOGGING OF THE CHIMNEY AND CHIMNEY CAP.

COMPONENT PARTS

U.L. LISTED FIREPLACE PARTS LISTED BELOW SHALL BE USED WITH THE DWF-36ST FIREPLACE.



REPLACEMENT PARTS



HOW TO ORDER REPAIR PARTS

1. Order repair parts from the Dealer through whom you purchased the fireplace, if possible.
2. Be sure to give the Part Number, the Name of the part, and the Fireplace Model Number. The Model Number is on the inside right hand side of the fireplace.
3. When remittance is sent with the order, include enough for transportation.
4. There is a minimum invoice charge of \$10.00 plus postage for each order.
5. All parts are subject to change without notice.

CozyCabin.com 518-623-4349



MARCO

MARCO MFG., INC.

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