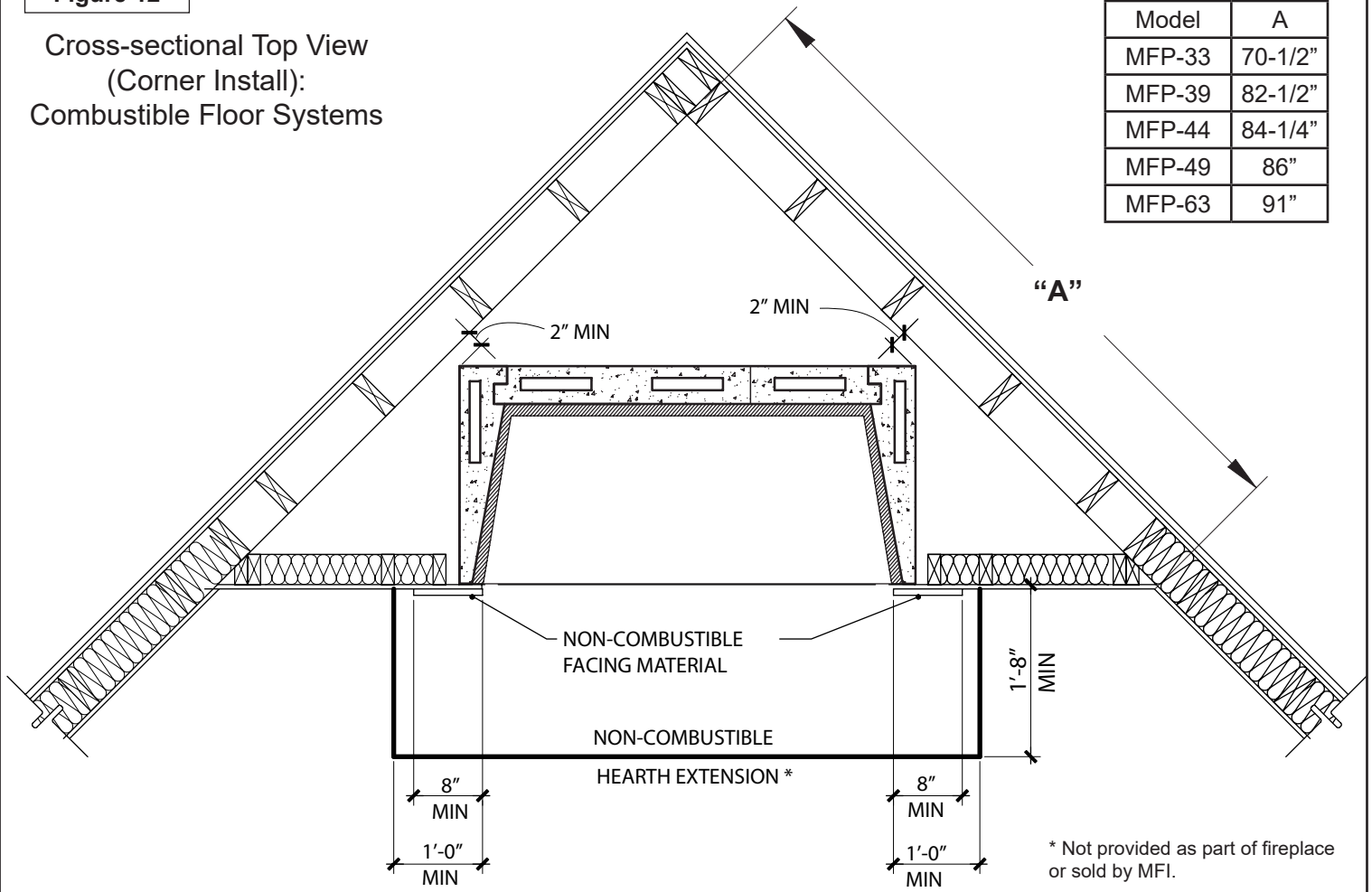


Fireplace Framing Dimensions

Figure 12

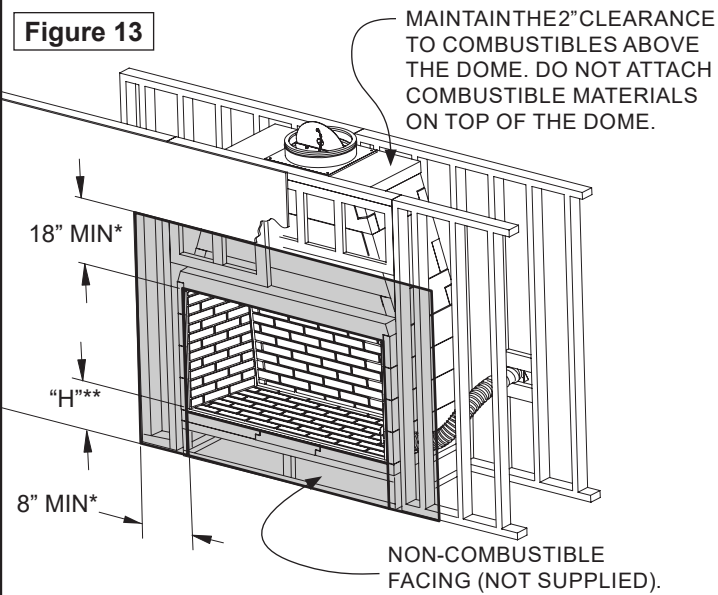
Cross-sectional Top View
(Corner Install):
Combustible Floor Systems

Model	A
MFP-33	70-1/2"
MFP-39	82-1/2"
MFP-44	84-1/4"
MFP-49	86"
MFP-63	91"



* Not provided as part of fireplace or sold by MFI.

Figure 13



Condition	Dim. "H"***
with 6" platform	11-1/2"
with 8" platform	13-1/2"
without platform (non-combustible floors)	4-1/2"

* MINIMUM CLEARANCE TO COMBUSTIBLE MATERIALS.
** MEASURED FROM FLOOR TO TOP OF FIREBRICK LINER.

Where the flooring material at the opening of the fireplace is combustible, it is required that the hearth extension be covered with a non-combustible material. The extension should be set flush against the front of the fireplace front and measure 20" minimum at the front (1'-8" min) and 12" minimum (1'-0" min) beyond the sides of the fireplace opening as shown in Figures 10 and 12.

If a raised hearth extension is being installed, it must be constructed of non-combustible material and any material under the structure must also be non-combustible.

If using a raised hearth or metal base plate, note that a combustible wood header must be no closer than 2" to the top of the dome (see Figure 13).

Attention: You will note that there will be a gap between the fireplace front and the extension of the non-combustible hearth material. Be certain that you seal this with non-combustible material.

Fireplace Framing Dimensions

Figure 14
Non-Combustible
Floor Systems

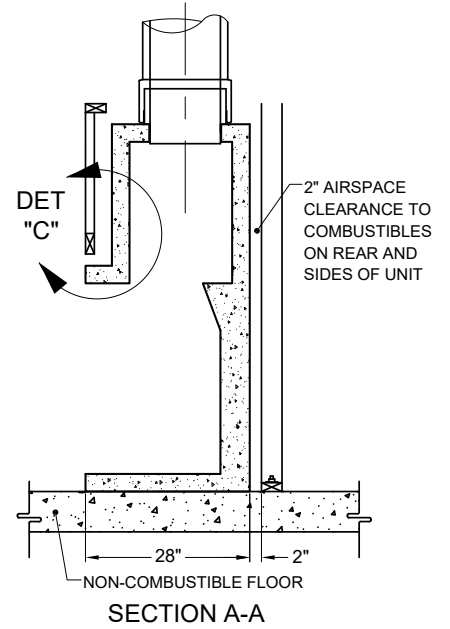
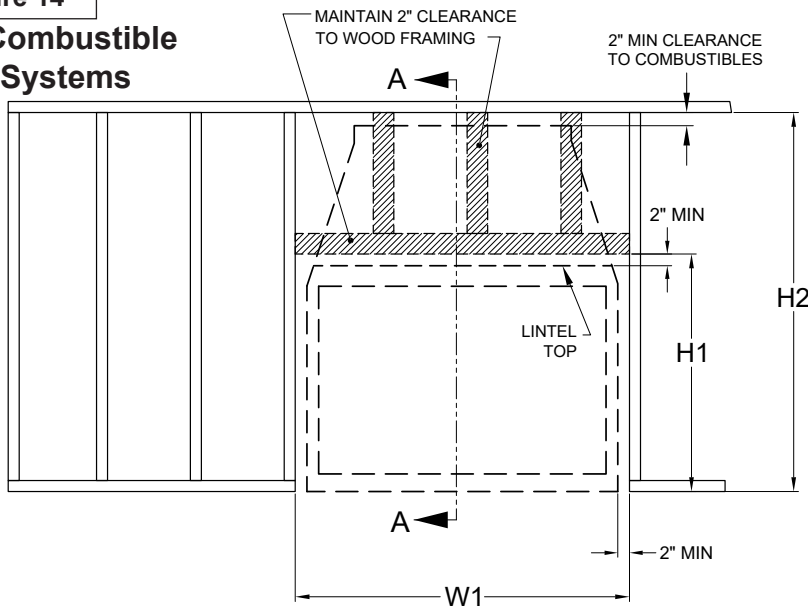
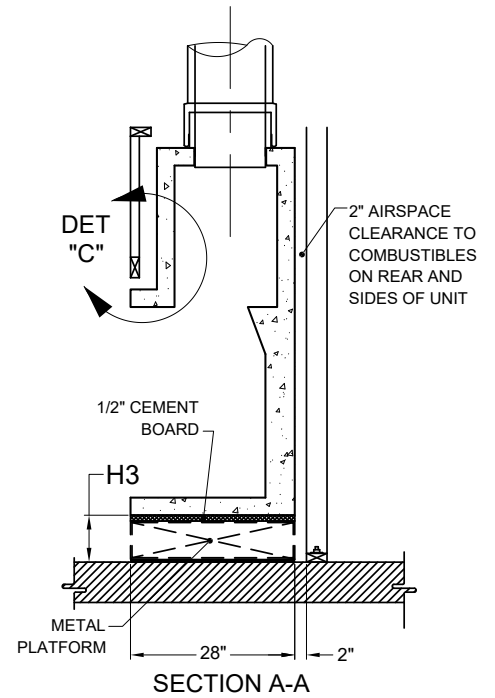
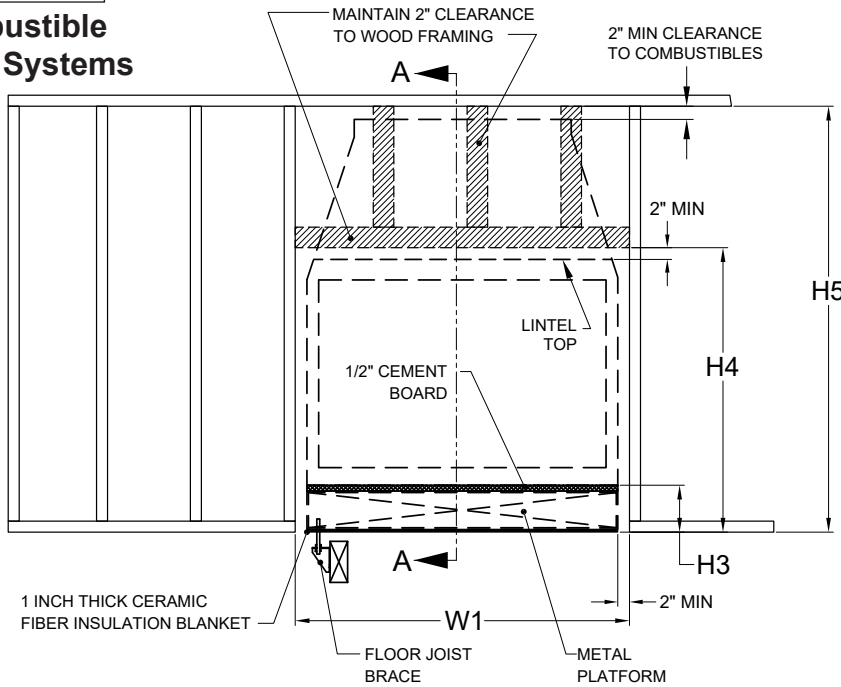


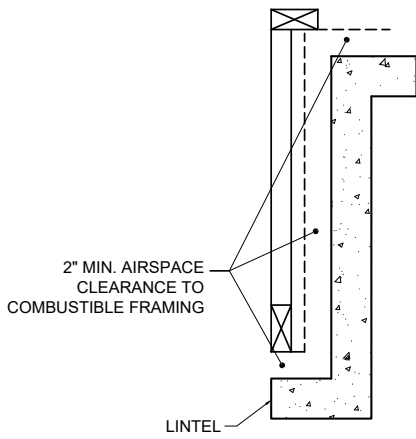
Figure 15
Combustible
Floor Systems



1 INCH THICK CERAMIC FIBER INSULATION BLANKET

FLOOR JOIST BRACE

METAL PLATFORM



DETAIL "C"

MODEL	W1	H1	H2	H3	H4	H5
MFP-33	41"	32-1/2"	57"	7"	39-1/2"	64"
MFP-39	47"	40-1/2"	65"	7"	47-1/2"	72"
MFP-44	52"	40-1/2"	65"	7"	47-1/2"	72"
MFP-49	57"	40-1/2"	65"	7"	47-1/2"	72"
MFP-63	71"	40-1/2"	73"	9"	49-1/2"	82"

Safety Information

WARNING: THIS FIREPLACE HAS NOT BEEN TESTED FOR USE WITH AN UNVENTED GAS LOG SET. TO REDUCE THE RISK OF FIRE OR INJURY, DO NOT INSTALL AN UNVENTED GAS LOG SET INTO FIREPLACE.

WARNING: THIS FIREPLACE HAS BEEN TESTED FOR USE WITH OPTIONAL MASON-LITE GLASS DOORS MFPXX-GD ONLY.

WARNING:

For MFP-33,39,44: Install only approved, listed UL 103-12" I.D. Class A Chimney System.

For MFP-49: Install only approved, listed UL 103-14" I.D. Class A Chimney System.

For MFP-63: Install only approved, listed UL 103-16" I.D. Class A Chimney System.

Chimney maximum height: 40 feet

Chimney minimum height: 14 feet (with offset = 17 feet)
2 offsets maximum.

Important: Follow the chimney pipe manufacturer's instructions on the installation of their specific flue system.

NOTICE: when installed in Canada, the Mason-lite needs to use ULC S-604 and ULC-610 listed chimney (Only Canadian approved chimney)

GUIDELINES FOR USE:

All current and future users of Mason-Lite Fireplaces are charged with the responsibility for full knowledge of the information contained within this manual which includes:

Strict requirements for assembly.

Detailed instructions for installation.

Cautionary guidelines for use.

On-going maintenance instructions.

It is the responsibility of the distributor, subcontractor and/or the general contractor – whoever shoulders the liability for installation of this product – to see to it that the work is in complete compliance with the guidelines and instructions in this manual. Note that the general contractor is the party accountable for seeing that adequate clearances are provided from all firebox surfaces per specifications in this manual.

DO NOT USE A FIREPLACE INSERT OR OTHER PRODUCTS NOT SPECIFIED FOR USE WITH THIS FIREPLACE.

The Mason-Lite is Designed for Use Only with:

- Solid Wood Logs
- Plumbed LPG or Natural Gas Log Lighter.
- Plumbed ANSI Z21.60 Decorative Gas Log.

DO NOT USE OR STORE GASOLINE OR OTHER FLAMMABLE LIQUIDS OR GASES IN OR NEAR THE FIREPLACE!

ATTENTION: A fire or an explosion could occur causing property damage, injury or loss of life if you do not follow the information in this manual!

NOTE: THIS MANUAL MUST BE REPRODUCED ONLY IN ITS ENTIRETY.

Before Beginning the Installation

Read these instructions carefully before beginning the installation of this fireplace. Also, if installing an ANSI Z21.60 Decorative Gas Log, read the gas log appliance manufacturer's literature regarding sizing and suitability for the installation into this enclosure prior to installation.

Statement of Intended Use:

The Mason-Lite Masonry Fireplace is a modular refractory masonry unit designed for field assembly. The firebox is constructed using pre-cast, interlocking refractory blocks. The blocks are then secured to each other using Mortar. The system includes all parts necessary for the assembly of a complete masonry fireplace. In addition to the basic enclosure, a standard 1-1/8" thick, high temperature refractory brick is required to line the interior of the firebox and can be purchased from the manufacturer.

These fireplaces are not intended to serve as a primary heat source, rather, the fireplace was expressly created as a supplemental source of heat. The unit is designed for use with solid fuels such as cord wood.

WARNING:

Any application other than the "Intended Use" as stated above is in violation of the manufacturer's instructions and is hereby prohibited. Such violation may cause immediate hazard, property damage or loss of life and will void all liabilities to the manufacturer and will void all warranties explicit or implied.

Product Overview

Introduction

We extend a warm welcome from all of us at Masonry Fireplace Industries, Inc. (MFI), proud manufacturers of Mason-Lite Fireplaces. Thank you for Choosing MFI.

You may have thought long and hard before you chose the fireplace which would grace your home. Rest assured that every component of the Fireplace has been tested to ensure long-term durability.

Product Overview

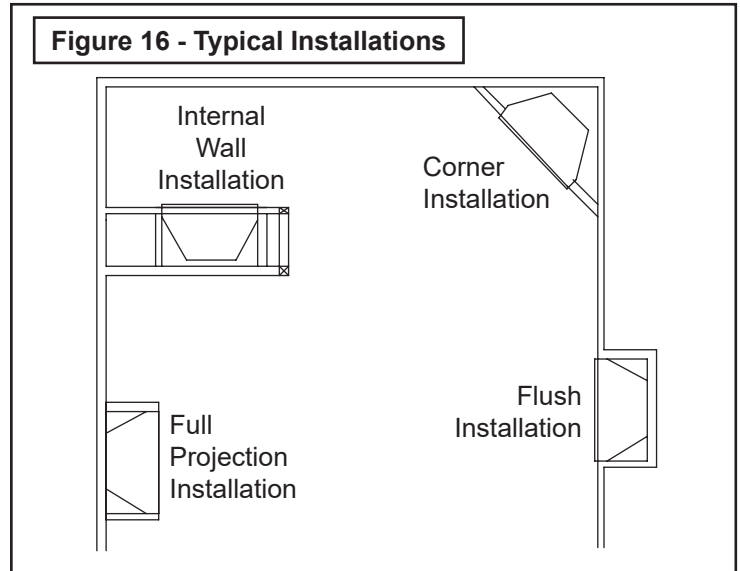
Mason-Lite Fireplaces are designed as factory-built blocks to be assembled on-site. These fireplaces may be installed on either combustible or non-combustible floors. In order for the fireplace to be installed on a combustible floor though, it is necessary that the fireplace be supported on a platform or sub-floor that is non-combustible.

The Four Components of the Mason-Lite Fireplace:

- Combustible or Non-Combustible Floor
- Non-Combustible Raised Platform
- MASON-LITE Firebox and Smoke Dome
- UL103 class A listed chimney system required.
Important: Follow the chimney pipe manufacturer's instructions on the installation of their specific flue system.

Careful step-by-step instructions for each phase of the installation procedure will be given for the Mason-Lite conventional radiant heat fireplaces. Those instructions generally fall into the following categories:

- Spacing and clearance as it relates to combustible materials.
- Familiarity of installation for all components.
- The strength of the floor on which it rests.
- Chimney system measurements.
- Choice of materials and craftsmanship in fireplace and hearth finishing.



Note that each of these topics will be covered in detail and that the installer is expected to understand each phase completely before going on to subsequent instructions.

Attention: Be advised that all the illustrations in this manual are for general reference only. Do not scale drawings. Actual design elements will vary from case to case. Pay attention to specified minimum clearances to combustibles.

Testing and listing for these Mason-Lite Fireplaces has been undertaken by PFS, Inc.

Attention: You may need a residential building permit to install a Mason-Lite Fireplace. Consult local jurisdictions before you get started!

If asked, advise the local authorities that the Mason-Lite Fireplace is designed for installation per the National Fire Protection Association Standard for Chimneys, Fireplaces, Vents and Solid Fuel-Burning Appliances (NFPA211).

When choosing the location of your Mason-Lite Fireplace, keep in mind you must maintain 2" (two inches) minimum clearance from left, right and rear of Fireplace to surrounding structure. Also, when choosing a location, consider outside air requirements to determine if it will be on the left or right side of the Fireplace. In the case of an island installation, outside air accessibility may be obtained through sub flooring. See section on Installing Outside Air on page 28.

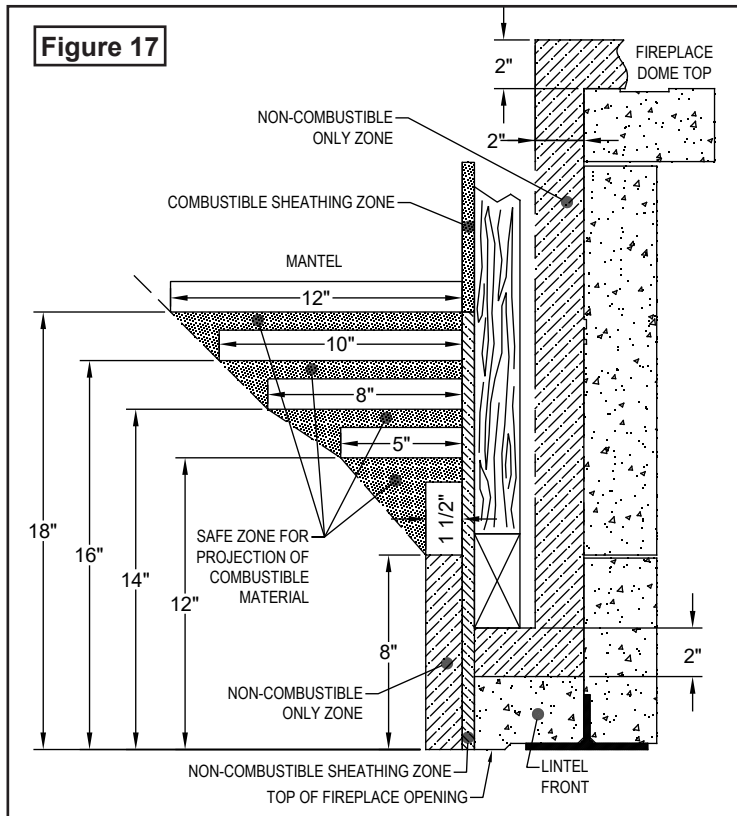
Clearances to Combustibles

The distance to be maintained from the surfaces of the fireplace to combustibles must be observed. Below is a list of the most common combustible materials to name a few:

Drywall	Wood flooring	Plywood
Sub-flooring	Wood Framing	Particle board
Mill board	Plywood paneling	

Maintain the following clearances:

- Unit sides, rear, Dome sides, rear & top: 2" (51 mm)
- Combustible Floors (MFP-33,39,44,49): 6" (152 mm)
- Combustible Floors (MFP-63 only): 8" (203 mm)
- Combustible Sheathing above opening top: 18" (203 mm)
- Sheathing or trim to opening sides: 8" (203 mm)
- Mantel above opening: (see Fig.17)
- Opening to sidewall: 24" (609 mm)
- Hearth extension beyond front: 20" (508 mm)
- Hearth extension beyond sides: 12" (305 mm)
- Insulation from firebox: 2" (51 mm)



Understanding Clearance to Combustibles

There is a build-up of a considerable amount of radiant heat on the outer surfaces of the Mason-Lite Fireplace. It's critical that proper clearances to combustibles be maintained so that this radiant heat is maintained to safe limits.

Combustible Floor Clearances

These Mason-Lite Fireplaces have been designed with clearance to combustible floors as indicated in Page 18. Cover any part of the combustible floor system left exposed with 1" (one inch) thick ceramic fiber insulation rated up to 2,100° F.

Attention: It is critical to abide by the clearances listed in this manual for all components specified as it allows for movement of hot air from the fireplace into interior areas of the chimney chase. Also, be certain that the chimney system be installed as stated below. Prior to starting the installation, check with local, regional or state codes for any restrictions or required permits regarding your fireplace installation.

Mason-Lite Fireplace & Chimney System

- 1) The Mason-Lite is designed to be installed with a listed UL103 - Class A, Metal Chimney System.
- 2) This Mason-Lite fireplace is intended as a supplemental heat source only. It is not intended as a primary heat source.
- 3) It is the responsibility of the contractor installer (not the manufacturer) to ensure that adequate combustion air is provided for proper function of this fireplace. Fireplaces take up a large volume of replacement air from outside the house and if the house is of airtight construction, smoke spillage may occur if proper draft is not achieved.
- 4) There are many conditions beyond the manufacturer's control regarding improper fireplace operation. The manufacturer cannot ensure "smoke free" operation, nor can the manufacturer take on the responsibility for problems with surrounding construction; chimneys that have not been built at the correct heights; system drafts caused by faulty mechanical systems; adverse weather conditions or any other environmental situations over which the manufacturer has no control.
- 5) Inspect all fireplace & chimney components for evidence of damage prior to starting installation. Consult your local distributor for replacement parts if necessary.
- 6) Under no circumstances should you make any adjustments or modifications to the chimney system during the installation procedure. If you do, you are not only liable for negating the warranty, but you could very well cause a serious malfunction of the fireplace. You must follow these chimney instructions.
- 7) Caution is urged if it is decided to add insulation material to any part of the Mason-Lite Fireplace or Chimney system, be certain that the insulation material is kept at least 2" (two inches) away from any part of the system. When using insulation or vapor barrier materials, cover with a layer of plywood, particle board or gypsum board to maintain the specified 2" (two inch) clearance.
- 8) Air spaces around firebox must remain open. DO NOT fill these open spaces with insulation or packing material of any kind.

Chimney System Heights

When installed, the **maximum** overall height of the chimney system from bottom of fireplace to the top/termination chimney is 40 feet. The **minimum** installed height of the completed Chimney System is 14 feet with a straight flue stack, 17 feet if the chimney includes one or two offset sections.

Supporting Floor Systems

It is the ultimate responsibility of the installer to ensure that proper concrete slab supports are used.

WARNING to the licensed design professional and/or building contractor: It is your responsibility to be certain that the Mason-Lite can be properly supported by the combustible floor system on which the fireplace will rest.

For fireplace support foundations installed on concrete refer to Appendix I and II (pages 31 & 32) for specific instructions.

Rebar locations

Lay-out the position of the fireplace and drill holes where the rebar will be located. Secure the #3 rebar 4 inches into the concrete foundation with ITW Epoxy or Simpson Epoxy. Follow manufacturer's instructions for installation of rebar into slab.

Wood Floor

Anchorage of fireplace to wood floor construction is required. Refer to **Figure 21** for anchorage dimensions. Four anchors are required to attach to the sub-flooring framing.

Crawl Space or Upper Floor:

For installation of firebox over combustible crawl spaces or upper floors, anchorage of the firebox is required. Illustrations of examples of possible anchorage methods are shown in Figures 18 thru 20 depending upon the type of floor framing. Final method of anchorage is to be determined by licensed design professional.

For conventional framing, where the floor joists are parallel with the sides of the firebox, the addition of floor joists to align with the anchor brackets allows the brackets to be directly connected to the floor joists.

Note that additional floor joists may be required to support the weight of the firebox and chimney. Where the floor joists run parallel to the front of the firebox, anchorage can be accomplished in like manner as shown in Figure 18 using blocking between the floor joist.

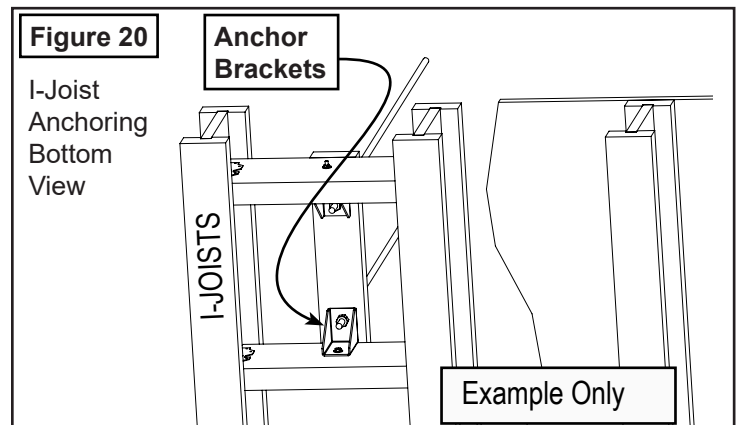
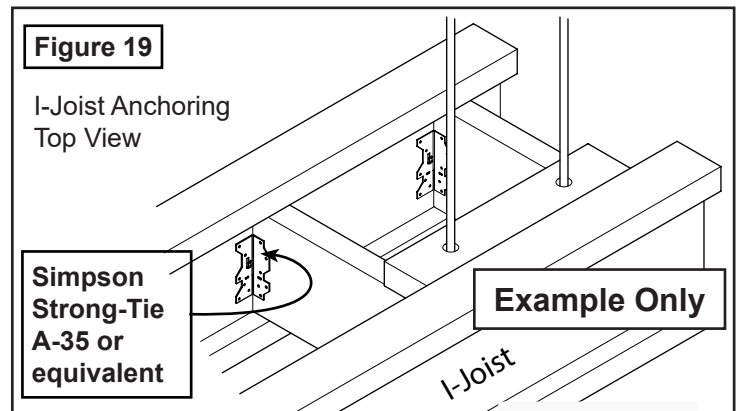
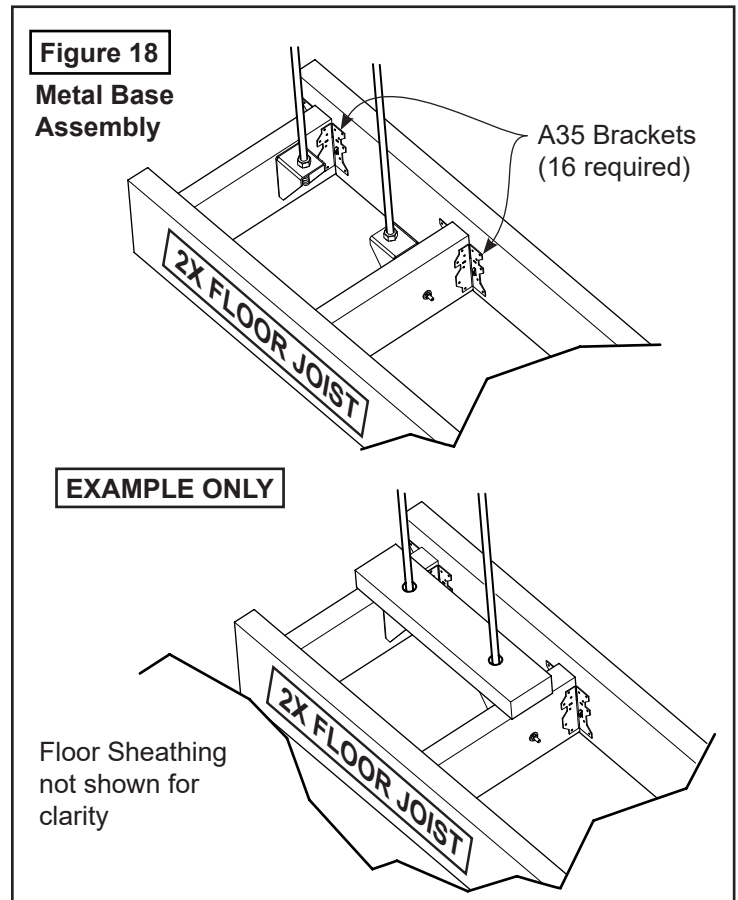
For floors supported by I-Joists, the method of anchorage is illustrated in Figures 19 and 20. Figure 23 illustrates the general arrangement of anchorage to floor framing.

It is important to take into consideration that the load for the Mason-Lite Fireplace must be considered as additional dead load that will have to be supported by the floor framing. Additional floor joists or I-joists may be required as determined by the licensed design professional.

The dead weights for the fireplace are noted in Table I. It is the task and responsibility of the general contractor/installer to see that the proper reinforcement for weight loads are made by a licensed design professional prior to the fireplace installation.

As stated above, it is desirable to place additional framing for alignment of anchor rods. Refer to Figure 21 for anchor rod locations.

Attach the firebox side wall anchors to steel support frame by inserting all-thread rods through holes on the bottom flange on the steel support frame as shown in Figure 24 and 25. Secure with two $\varnothing 2"$ o.d. x $\varnothing 9/16"$ i.d. x 0.10" Washers and two 1/2"-13 UNC Nuts.



MASON-LITE Weight Determination

The following are dead load weight estimates for the Mason-Lite Fireplace.

Table I					
Fireplace Model	MFP-33	MFP-39	MFP-44	MFP-49	MFP-63
Fireplace Weight	835 lbs.	1,194 lbs.	1,250 lbs.	1,359 lbs.	1,704 lbs.
Mortar, Rebar & Ready Mix Concrete	200 lbs.	350 lbs.	357 lbs.	364 lbs.	370 lbs.
Firebrick Lining	290 lbs.	333 lbs.	345 lbs.	356 lbs.	435 lbs.
Damper/Anchor Plate	17 lbs.	17 lbs.	17 lbs.	17 lbs.	21 lbs.
Steel Platform	89 lbs.	94 lbs.	96 lbs.	100 lbs.	132 lbs.
Floor Area	37" x 28" (7.2 ft ²)	42" x 28" (8.12 ft ²)	48" x 28" (9.33 ft ²)	53" x 28" (10.30 ft ²)	67" x 28" (13 ft ²)

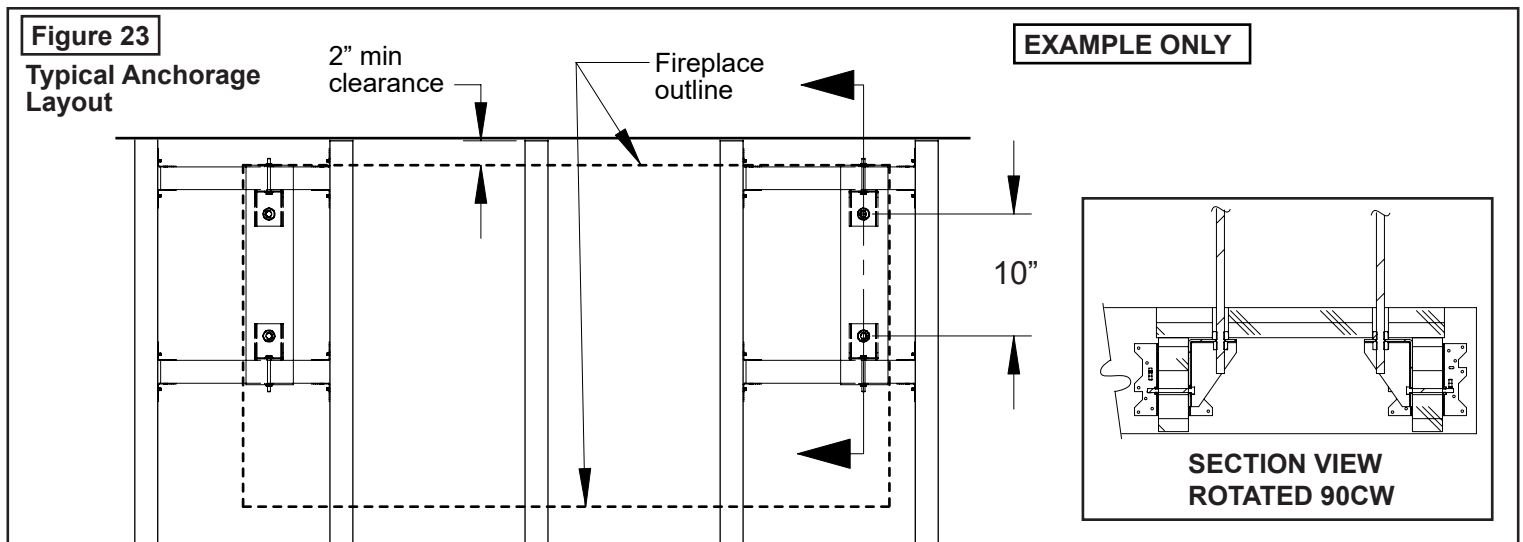
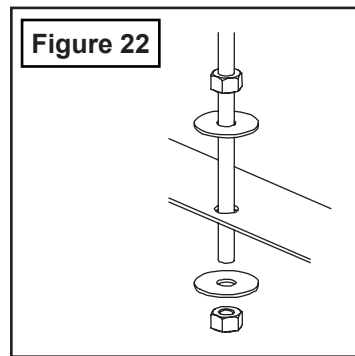
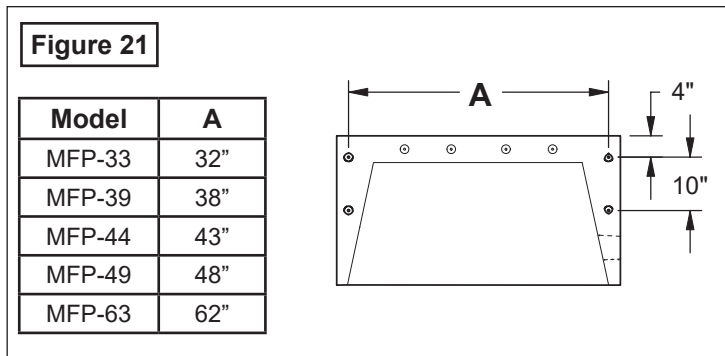
Other Weight Considerations:

- 1) Fireplace finished facing (surround): This information needs to be obtained from the contractor.
- 2) Weight of metal flue: See chimney manufacturer's weight specifications. Some chimney systems can weigh up to 50 lbs per lineal foot.

Table II - Deflection Limits			
Construction	L	S or W	D + L ₁
Floor Members	l/360	---	l/240

¹ For wood structural members having a moisture content of less than 16 per cent at time of installation and used under dry conditions, the deflection resulting from L + 0.5D is permitted to be substituted for the deflection resulting from L + D.

Note that MASON-LITE cannot accept responsibility for structural floor support details. All drawings are presented as mere illustrations to indicate the presence of the underlying floor system. It is the responsibility of the general contractor/installer to consult with a local licensed design professional for guidance in building a proper floor support system.

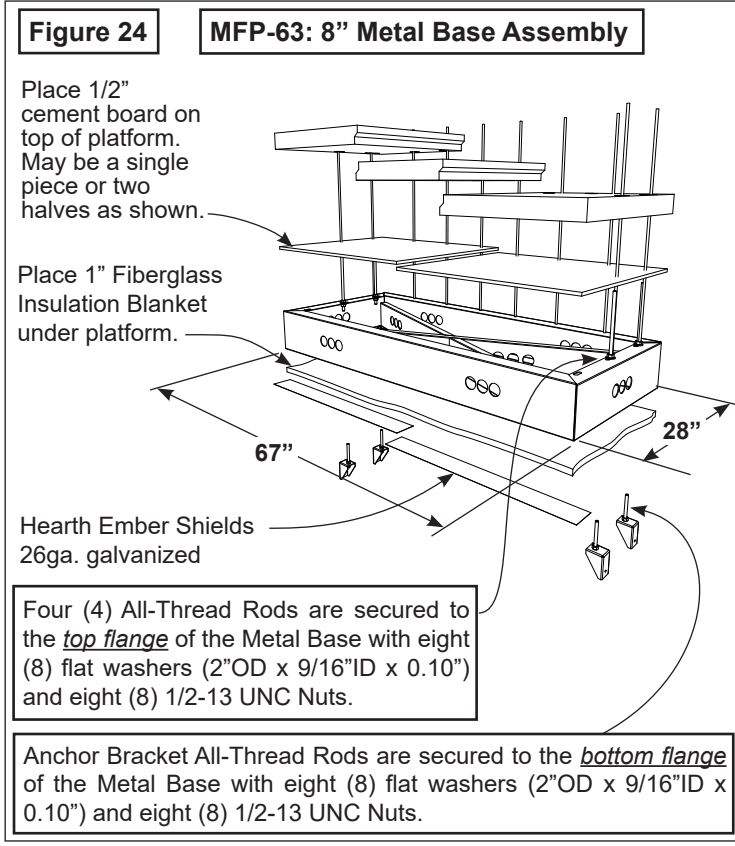


Combustible Floor Installations

8" Metal Base (MFP-63)

The MFP-63 Mason-Lite Metal Base (MFPB63) ensures the minimum **eight inch clearance** above combustible flooring is maintained.

A layer of 1/2" minimum Concrete Board is required on top of the platform and 1" thick fiberglass blanket below as shown in Figure 24.



▲ IMPORTANT:

Remember to tighten up nuts below the floor after fireplace installation in order to take up any slack in the threads.

Hearth Ember Shields:

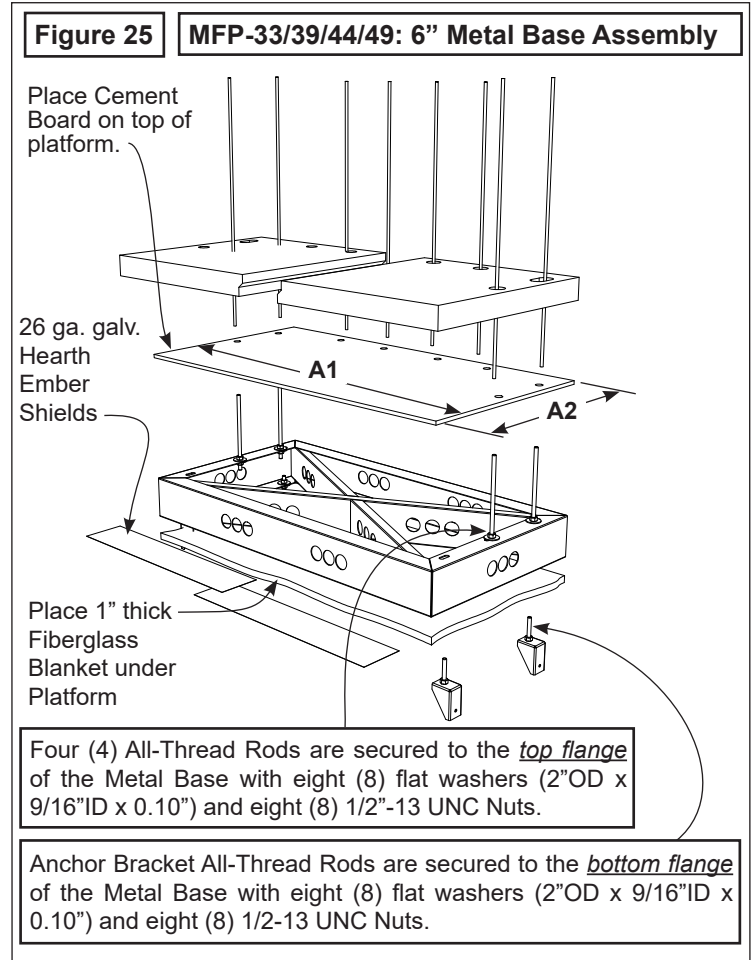
Metal safety stripping is required between the front of the Fireplace Hearth and Hearth Extension (not supplied). A 26 gauge galvanized 4" wide metal strip can be used. The length needs to extend 2 inches beyond each side of the fireplace opening. If two strips are used, make sure they overlap at least two inches in the middle. The strip is placed about 2" into the underside of the platform at the front.

Note: When using an on-site constructed hearth extension, you may use a sand-cement grout between the hearth and extension instead.

6" Metal Base (MFP-33/39/44/49)

The Mason-Lite Metal Base ensures the minimum **six inch clearance** above combustible flooring is maintained.

6" Metal Bases	
Model	P/N
MFP-33	MFPB33
MFP-39	MFPB39
MFP-44	MFPB44
MFP-49	MFPB49



A layer of 1/2" minimum Concrete Board is required on the top and mid-section of the Metal Base as shown in Figure 25. The required sizes are shown in the following table:

1/2" Thick Cement Board Dimensions				
Model	A1	A2	B1	B2
MFP-33	37"	28"	30"	23"
MFP-39	43"	28"	36"	23"
MFP-44	48"	28"	41"	23"
MFP-49	53"	28"	46"	23"

Note: The insulation (concrete) board chosen must meet a thermal conductivity rating ≥ 0.4 Btu-in/hr-ft²-F°.