Isokern ® Magnum ® Fireplace and DM Chimney System Installation, Operation and Owner's Manual

Magnum Model 86072, 60 & 72
A Product of Earthcore

Important: This manual contains assembly rules, installation steps, guidelines, use and maintenance instructions for the Magnum 86072 Series fireplace and the DM chimney system. This manual must become the property of and be reviewed by all current and future users of this product. It is the responsibility of the general contractor and the installer of this product to ensure that the instructions in this manual are followed exactly and, further that any allowed gas log appliance used in this product be installed in strict accordance with NFPA 58, NFPA 54/ANSI Z223.1 and the gas log manufacturer's explicit installation, sizing and operation instructions. It is the responsibility of the general contractor to provide adequate clearances from all firebox surfaces as specified in this manual.

INSTALLER: Leave this manual with the appliance
CONSUMER: Retain this manual for future reference

Be Sure to Read Entire Manual Before Beginning Construction.
Contents of this manual may change without prior notification.

THIS FIREPLACE IS DESIGNED FOR USE WITH SOLID WOOD LOGS, PLUMBED PROPANE (LP) OR NATURAL GAS (NG), ONLY

WARNING: If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

SBCCI NO. 9626
ICC Report NO. ESR-2316
IBC 2006, IRC 2006, IMC 2006

NYC-MEA 241-90-E
LA RR NO. 25483
Issued: September, 2012
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INTERTEK TESTING SERVICES REPORT NO. 3082504-T1

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THIS MANUAL CAN ONLY BE REPRODUCED IN ITS ENTIRETY

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General Information

The Magnum 86072 Series fireplace and DM chimney system is a prefabricated, refractory modular fireplace and chimney system designed for field assembly. The system consists of interlocking precast parts which are glued together with a masonry adhesive.

The parts of the Magnum 86072 Series fireplace and DM chimney system are precast using a proprietary mixture of volcanic pumice aggregate and cement. It includes all the parts necessary for assembly of a complete firebox, smoke dome and chimney system.

Each Magnum 86072 precast fireplace component is designed for a specific part of the fireplace such that only one means for assembly is possible.

The firebox and smoke dome are designed to be fitted with a traditional cast iron, poker-style throat damper. However, in-line or chimney top dampers are options.

The Magnum 86072 Series fireplace requires a standard refractory fire brick liner be applied to the interior of the firebox. Fire brick must be a minimum thickness of one and one-eighth inch (1-1/8") on the floor and back walls. A minimum four inch (4") fire brick must be applied to the side walls.

The Magnum 86072 Series fireplace is available in two sizes: sixty inch (60") and seventy-two inch (72").

All units have a thirty-eight inch (38") rough opening height before fire brick. The only parts which differ among the available sizes are width related pieces. All units use the same side wall pieces.

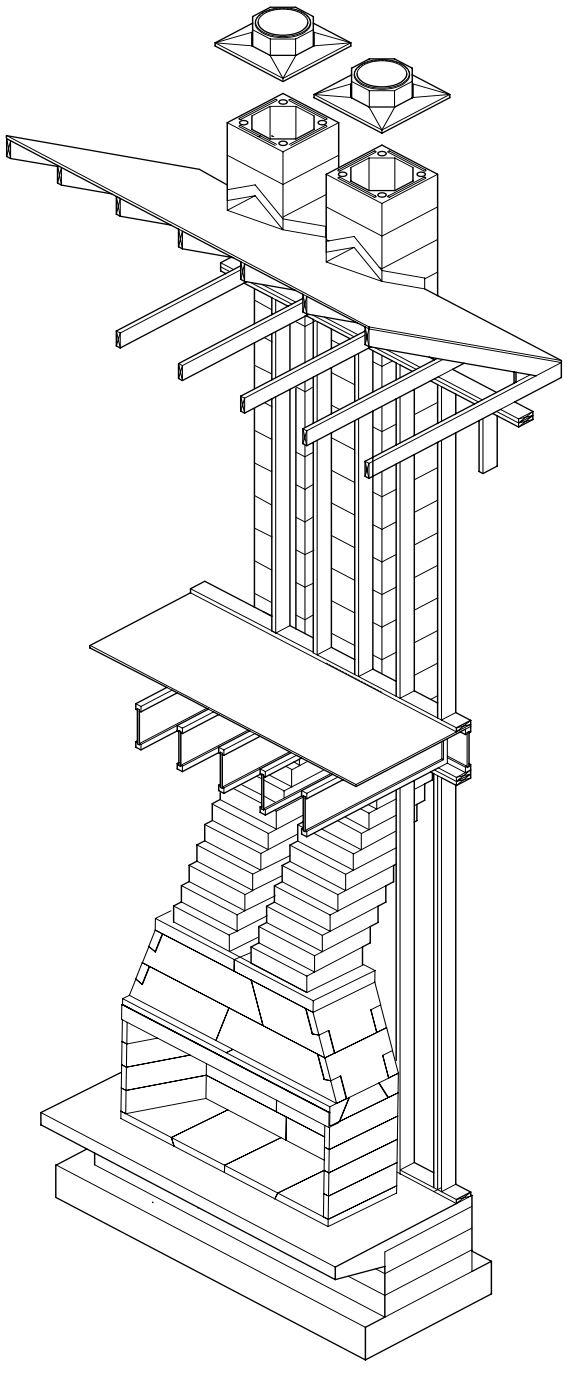
The DM chimney system is a dual module refractory chimney system. The basic chimney consists of an outer casing block and an inner liner. Two (2) flues are necessary on the 86072 model without a mechanical drafting system. It is acceptable to use mechanical draft systems, if the venting companies do the engineering calculations and make the necessary recommendations for fan size and flue vent diameter following the guidelines of NFPA 211/2006, pg. 211-13. Installation of such systems must also follow the mechanical drafting company's explicit installation and operation instructions.

"Smoke free" operation is not warranted nor is the manufacturer responsible for inadequate system draft caused by mechanical systems, general construction conditions, inadequate chimney heights, adverse wind conditions or any unusual environmental conditions or factors beyond the manufacturer's control. The chimney components are field assembled using Earthcore Mortar to glue the components together.

The DM chimney system also includes an offset chimney block component, used to create offsets to the vertical run of the chimney. A brickledge component is available, designed to support chimney top brick veneer finishes. Prefabricated masonry chimney termination caps are also available.

The various Magnum 86072 Series fireplace and DM chimney components will be described and illustrated in the following pages. Close attention should be paid to each component group's specifications and installation requirements as described in this manual.

Maximum overall height for the Magnum 86072 Series and **DM chimney system** for an indoor application is 22'-0" without additional structural support. This restriction does not apply for metal chimney systems.



Intended Use Statement

Intended Product Use Statement:

The Magnum 86072 Series fireplace and DM chimney systems are intended to burn solid wood fuel, propane or natural gas.

Note:
Installation of a gas pipe must comply with the Standard for Decorative Gas Appliances for Installation in Vented Fireplaces, ANSI Z21.60.

This fireplace is not designed to sit directly on a combustible floor system. The Fire-Lite application of the Magnum 86072 Series fireplace is an engineered system and designed to be built upon a combustible floor system. The Fire-Lite will also require a design that will support the total weight of the Isokern fireplace and chimney system. The FTF-13 or equivalent chimney system **only** must be used with the Fire-Lite application. Contact the Technical Department at 800-642-2920 for details.

This fireplace is intended for use as a supplemental heat source only and is not intended for heavy use as a primary heating system.

Overfiring, abusive burning or mistreatment will void any claims (eg. burning construction debris or other highly flammable material; tossing, kicking or otherwise forcing logs into the firebox).

Magnum 86072 Series fireplaces and DM chimney systems are conventional indoor or outdoor fireplaces designed to appear like traditional masonry fireplaces. Magnum 86072 Series fireplace and DM chimney system units are intended for installation in residential homes and other buildings of conventional construction.

Note: The local authority having code jurisdiction should be consulted before installation to determine the need to obtain a permit.

Important areas of concern with the installation of these fireplaces are: construction of proper load bearing foundation and concrete support slab; code required hearth extension substrates and supports; proper assembly of components; clearance to combustible materials; height of chimney; and, techniques employed in applying finishing materials to the fireplace opening and hearth extension.

Each of these important topics will be covered in detail throughout this manual. Installation personnel must give special attention to each topic as the installation progresses.

All work performed on, near and adjoining the fireplace and chimney installation must meet or exceed the specifications and requirements in this manual and the prevailing local building code.

Subsequent renovations, additions of cabinets and storage spaces in the enclosure surrounding the fireplace are also limited to the specifications in this manual and to the prevailing local building code.

Isokern is not responsible for other construction work around the fireplace unit.

WARNING: This fireplace has not been tested for use with doors. To reduce the risk of fire or injury, do not install doors. Operable doors are acceptable and if doors are required by the local authority having jurisdiction, then doors must be kept in the fully open position when the fireplace is in operation. Isokern does not limit the use of fireplace screens.

Note: Do not scale drawings. Illustrations in this manual are not to scale and are intended to show "typical" installations.

Nominal dimensions are given for design and framing reference only, since actual installations may vary due to job specific design preferences. Always maintain the stated minimum clearances to combustible materials. Do not violate any specific installation requirements.

The Magnum 86072 Series fireplace and DM chimney system is tested and listed by Warnock Hersey (Intertek Testing Service) - Report No. 3082504-T1 - to UL 127, and UL 103HT.

Magnum 86072 Series fireplace systems are also designed for installation in accordance with the National Fire Protection Association Standard for chimneys, fireplaces, vents and Solid Fuel-Burning Appliances (NFPA 211).

Safety Instructions

1. Before starting the Magnum 86072 Series fireplace and DM chimney installation, read these installation instructions carefully to be sure you understand them completely. Failure to follow them could cause fireplace malfunction resulting in serious injury or property damage.

2. Always check local building codes governing fireplaces and fireplace installations. The Magnum 86072 Series fireplace and DM chimney installation must comply with all local, regional, state and national codes and regulations.

3. Magnum 86072 Series fireplace and DM chimney systems are intended for use in any application where a traditional masonry type fireplace would apply. The chimney system must always vent vertically to the outside of the building.

4. Creosote and soot formation and the 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.

Because of creosote and soot buildup it is necessary to inspect and clean the fireplace and chimney prior to use and periodically during the heating season. Cleaning of the fireplace and the chimney system should be done annually at a minimum. In colder climates, chimney cleaning may need to be done periodically throughout the heating season.

5. Before servicing, allow the fireplace to cool. Always shut off any electricity or gas to the fireplace while working on it.

6. Use only solid fuel or natural or LP gas log sets in this unit. Do not use artificial wax based logs, chemical chimney cleaners or flame colorants in this fireplace.

7. Never use gasoline, kerosene, gasoline-type lantern fuel, charcoal lighter fluid, or similar liquids to start or "freshen up" a fire in this fireplace. Keep all flammable liquids at a safe distance from the fireplace.

8. Always keep the flue damper open when heat is present in the fireplace.

9. Do not use a fireplace insert or any other product not specified for use with the Magnum 86072 Series fireplace and DM chimney systems unless written authorization is given by Earthcore. Failure to heed this warning may cause a fire hazard and will void the warranty.

10. This fireplace is not intended to heat an entire home or to be used as a primary heat source. It is designed to ensure homeowner comfort by providing supplemental heat to the room.

11. Always ensure that an adequate supply of replacement combustion air from the outside of the house is accessible to the fire to support normal combustion. Fireplaces consume large volumes of air during the normal firing process.

In the event the home is tightly sealed and has modern energy efficient features, the optional combustion air supply kits may not provide all the air required to support combustion and the proper flow of combustion gases up the chimney.

The manufacturer is not responsible for any smoking or related problems that may result from the lack of adequate air supply flowing into the house. It is the responsibility of the builder/contractor to ensure that adequate air supply has been provided for the fireplace.

12. "Smoke free" operation is not warranted nor is the manufacturer responsible for inadequate system draft caused by mechanical systems, general construction conditions, inadequate chimney heights, adverse wind conditions or any unusual environmental conditions or factors beyond the manufacturer's control.

Caution: When used with the Magnum 86072 Series fireplace system, all gas log sets must be operated with the damper clamped in the fully open position. This includes unlisted "vent free" log sets. Only listed "vent free" log sets may be operated with the damper in the closed position.

13. When in doubt about a component's usability - has visible or suspected physical damage - consult your Isokern distributor or authorized Isokern representative for advice.

14. Modification to Magnum 86072components not mentioned in this manual may void claims, listings and approvals and could result in an unsafe and potentially dangerous installation.

Alterations to the Magnum 86072 firebox are allowed with prior written approval and instructions from Earthcore Industries, LLC. The installer indemnifies the manufacturer of all claims and under no circumstances will manufacturer be liable for consequential, incidental, indirect, punitive or other damages of any kind or nature, whether foreseeable or not, based on any claim by any party as to the modifications of the Isokern fireplaces.

15. Keep all insulation, vapor barriers, "house wrap" paper and other insulating type membranes and products, including fiberglass, cellulose and other insulation, (anything that carries an "R" rating) a minimum of three inches (3") away from all firebox and chimney surfaces. Exception:

If insulation is used in walls surrounding the fireplace, insulation may be installed behind sheathing of gypsom board, plywood, particle board or other material on the side facing the Isokern. The facing material cannot be within 1 1/2" to the fireplace sidewalls.

WARNING: Do not pack required air spaces with insulation or other materials.

16. Never leave children unattended when there is a fire burning in the fireplace.

17. Burning some fuels (such as charcoal) can be hazardous due to the possibility of producing carbon monoxide, a colorless, odorless gas. Early signs of carbon monoxide poisoning resemble flu symptoms, including headaches, dizziness or nausea. Over exposure to carbon monoxide can lead to illness and death. It is strongly recommended to install smoke and carbon monoxide alarm / detector devices wherever fireplaces are in use.

Warnock Hersey Listing Label
- Facsimile -

C WH US
Intertek
W/N 04897
DO NOT REMOVE
OR COVER
THIS LABEL

MODULAR REFRACTORY FIREPLACE
MAGNUM: ☐ 28" ☐ 36" ☐ 42" ☐ 48" ☐ 60" ☐ 72"
COMPLIES WITH APPLICABLE REQ. OF UL 127, ULC S610
WH-

ISOKERN®
☐ MADE IN USA
☐ MADE IN DENMARK
EARTHCORE INDUSTRIES, LLC.
JACKSONVILLE, FL 32256

CLEARANCE TO COMBUSTIBLES:	28", 36", 42", 48"		60" & 72"	
UNIT FRONT AND ISOKERN CHIMNEY	= 0 in.		= 0 in.	
UNIT SIDES AND REAR	= 1.5 in.	(38mm)	= 1.5 in.	(38 mm)
COMBUSTIBLE SHEATHING ABOVE OPENING TOP	= 8 in.	(203mm)	= 24 in.	(610 mm)
SHEATHING OR TRIM TO OPENING SIDES	= 8 in.	(203mm)	= 9 in.	(229 mm)
MANTLE ABOVE OPENING	= 14 in.	(356mm)	= 38 in.	(965 mm)
OPENING TO SIDEWALL	= 26 in.	(660mm)	= 48 in.	(1219 mm)
HEARTH EXTENTION BEYOND FRONT	= 20 in.	(508mm)	= 33 in.	(838 mm)
HEARTH EXTENTION BEYOND SIDES	= 12 in.	(305mm)	= 12 in.	(305 mm)
COMBUSTIBLE FLOOR	= 4 in.	(102mm)	= N/A	N/A
INSULATION FROM FIREBOX	= 3 in.	(76mm)	= 3 in.	(76 mm)

USE SOLID WOOD FUEL OR LISTED DECORATIVE GAS VENTED OR UNVENTED APPLIANCE. ALSO FOR USE WITH LISTED METAL CHIMNEY.
FIRE-LITE APPLICATION TO USE FTF13 OR EQUIVALENT CHIMNEY ONLY.

DO NOT USE A FIREPLACE INSERT OR OTHER PRODUCTS NOT SPECIFIED FOR USE WITH THIS PRODUCT. "WARNING" THIS FIREPLACE HAS NOT BEEN TESTED FOR USE WITH GLASS DOORS. TO REDUCE THE RISK OF FIRE OR INJURY, DO NOT INSTALL GLASS DOORS. IF DOORS ARE USED, OPERATE FIREPLACE WITH DOORS FULLY OPEN. WHEN BURNING A DECORATIVE GAS APPLIANCE IN THE FIREPLACE, LOCK THE DAMPER TO THE FULLY OPEN POSITION.

SEE INSTALLATION AND OPERATING INSTRUCTIONS FOR THIS MODEL AND ICC # ESR-2316,
LA.RR # 25483, MEA #2490E.

CONTACT BUILDING OFFICIAL PRIOR TO INSTALLATION

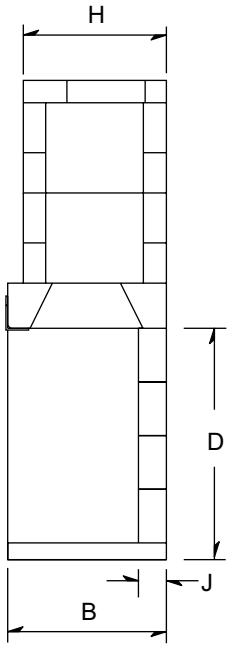
FIGURE 1

Isokern Fireplace and Chimney Systems are tested and listed to UL standards: UL 127, ULC S610, and UL 103HT. The listing label shown in Figure 1 above outlines the listed clearances to combustibles and indicates that the units are suitable for use with solid fuel or listed gas appliances. Refer to the manufacturer's installation manual for detailed description of clearances to combustibles and all other installation information.

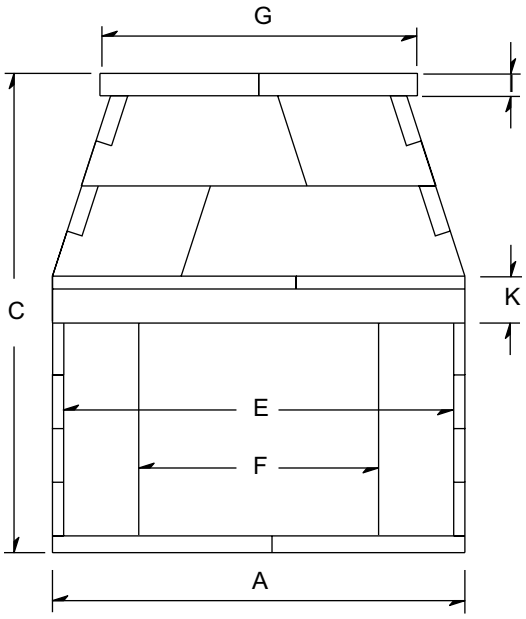
A metal listing label similar to that shown above is affixed to each Magnum 86072 Series fireplace. Do not remove the listing label from the Magnum 86072 Series fireplace.

Prior to beginning installation, contact your local building official to determine the need to obtain a permit.

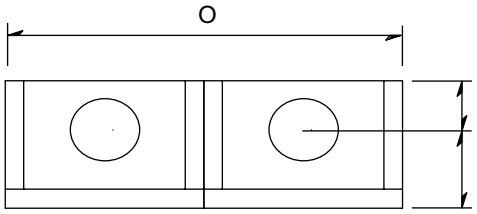
Assembled Firebox Dimensions - Model 86072



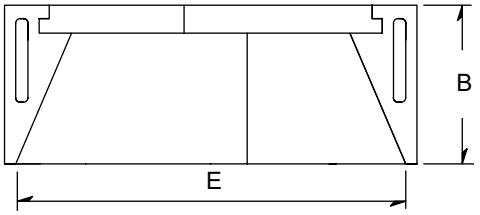
Right Section



Front Elevation



Top Plan View

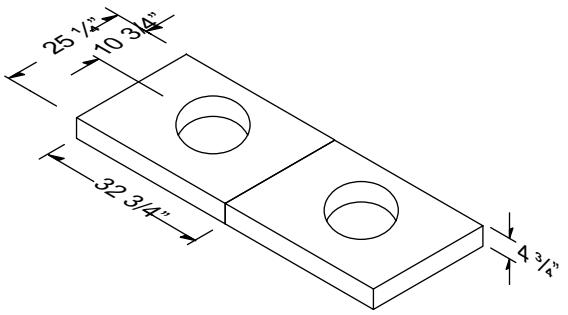


Plan Section

Model	A	B	C	D	E	F	G	H	I	J	K	M	N	O
60”	73 1/2”	28”	85 3/4”	41”	69”	57 1/4”	55 1/2“	25 ¼”	4 3/4”	5”	8”	14 1/2”	10 3/4”	55 1/2”
72”	85 1/2 ”	28”	85 3/4 ”	41”	81 1/4”	69 3/4”	65 1/2”	25 ¼”	4 3/4”	5”	8”	14 1/2”	10 3/4”	65 1/2”

Minimum Framing	Weight
76 1/2” W x 87 1/2” H x 29½”	2650 lbs.
88 1/2” W x 87 1/2” H x 29½”	2950 lbs.

Part No.:	Fireplace Size:	Quantity:
M77	60” W	2
M77	72” W	2

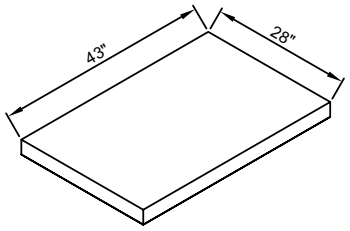


TOP PLATE
(TWO REQUIRED)

Component List & Dimensions 86072

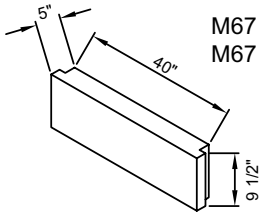
Base Plate

Part No:	Fireplace Size:	Quantity:
M91	60	2
M91	72	2



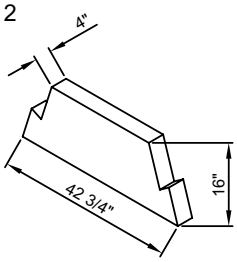
Backwall

Part No:	Fireplace Size:	Quantity:
M67	60	8
M67	72	8



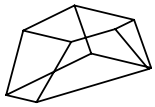
Top Medium

Part No:	Fireplace Size:	Quantity:
11	60	2
11	72	2



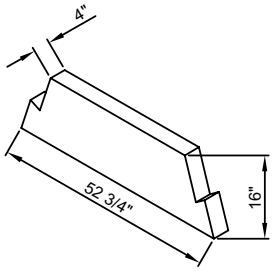
Damper Support (Left)

Part No:	Fireplace Size:	Quantity:
M94L	60	1
M94L	72	1



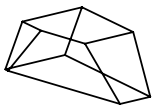
Top Large

Part No:	Fireplace Size:	Quantity:
13	60	6
13	72	6



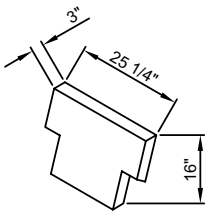
Damper Support (Right)

Part No:	Fireplace Size:	Quantity:
M94R	60	1
M94R	72	1



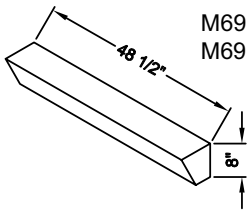
Top Sloping

Part No:	Fireplace Size:	Quantity:
34	60	4
34	72	4



Damper Front & Back

Part No:	Fireplace Size:	Quantity:
M69	60	4
M69	72	4



Isokern reserves the right to make changes at any time, without notice in design, materials, specifications and also to discontinue styles and products. Please call 1-800-642-2920 for an Isokern dealer near you.

Required Clearance to Combustibles

The Magnum 86072 Series fireplace and the DM chimney system is tested and listed for installation with "clearance to combustibles" as follows:

All DM 44 and 54 chimney components require 0" clearance. (Figure 2).

The Magnum 86072 Series firebox side walls and back wall require 1-1/2" clearance. (Figure 3)

The smoke dome front wall requires 0" clearance.

Note: "Combustibles" are defined as "normal construction materials" and are considered to be: wood framing materials, particle board, mill board, plywood sub-flooring, plywood paneling and wood flooring.

Sheathing materials, such as plywood, particle board and drywall may cover the smoke dome front at 0" clearance. All combustible sheathing materials that protrude beyond front of firebox must be held 9" away from the sides of the firebox opening and 24" above the top of the firebox opening. Drywall must be cut 9" back from the firebox opening sides and 24" above the top of the opening.

Keep all insulation, vapor barriers, "house wrap" paper and other insulating type membranes and products, including fiberglass, cellulose and other insulation, (anything that carries an "R" rating) a minimum of three inches (3") away from all firebox and chimney surfaces. See exception.

Exception:

If insulation is used in walls surrounding the fireplace, insulation may be installed behind sheathing of gypsom board, plywood, particle board or other material on the side facing the Isokern. The facing material cannot be within 1 1/2" to the fireplace sidewalls.

Notes: A. The Magnum 86072 Series fireplace must sit upon a concrete support slab designed to bear the total installed weight of the fireplace and DM chimney system. These support slabs can have no wood underpinnings. (Figure 3)

B. Concrete support slabs for Magnum 86072 Series fireplaces must provide the noncombustible hearth extension substrate needed to support the code required noncombustible hearth extension finish materials. (Figures 2 and 3)

C. All Magnum 86072 Series fireplaces shall have hearth extensions of approved noncombustible material such as brick, tile, or stone that is properly supported and with no combustible material against the underside thereof. Wooden forms used during the construction of hearths and hearth extensions must be removed when the construction is complete.

D. If a raised fireplace floor and raised hearth extension are preferred, the raised underlying structure must be built of noncombustible material, be structurally designed to hold the weight of the fireplace and chimney system and must sit on noncombustible substrate.

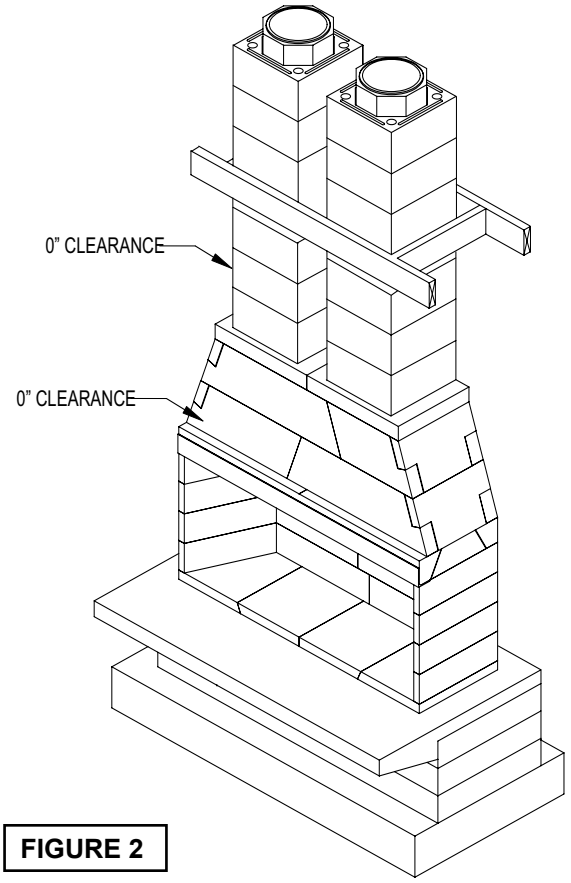


FIGURE 2

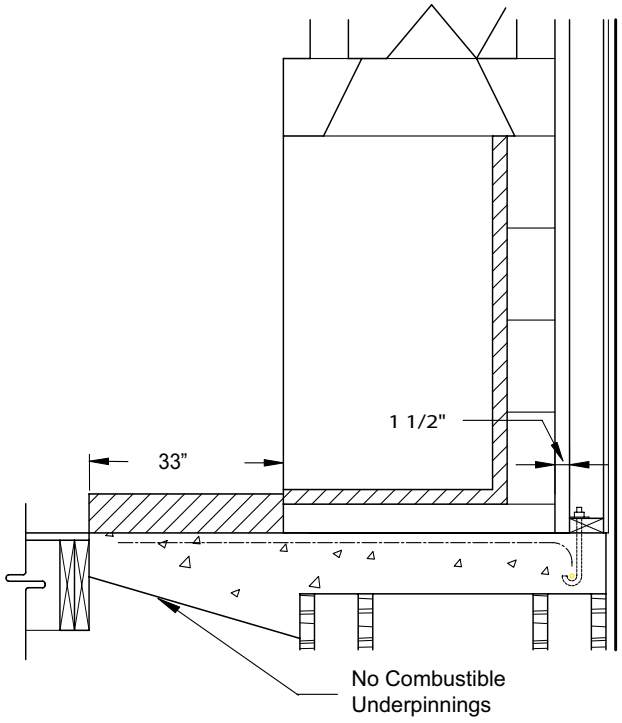


FIGURE 3

Rough Framing Dimensions

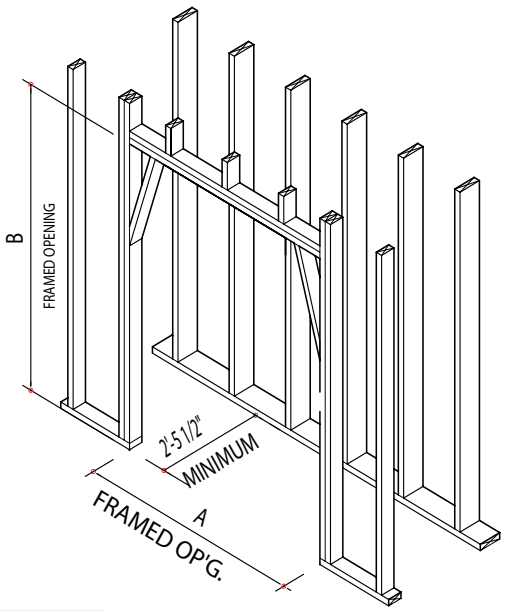


FIGURE 4

Rough Framing Dimensions

Model	Width A	Height B	Depth C
Model 60	76.5”	87.5”	29.5”
Model 72	88.5”	87.5”	29.5”

Notes:

A. “B” includes the Magnum 86072” 3” thick base plate. “B” is reduced by 3” if the base plate is eliminated to create a “flush hearth”.

B. “Raised hearth” requires additional rough opening height at “B” equal to the height of the raised hearth detail.

C. Rough framing dimension for width “A” allows for the required 1-1/2” clearance at the sides of the Magnum 86072 Series fireplace.

D. Rough framing dimension for depth allows for the required 1-1/2” clearance at the back of the Magnum 86072 Series fireplace.

Corner Location Layout

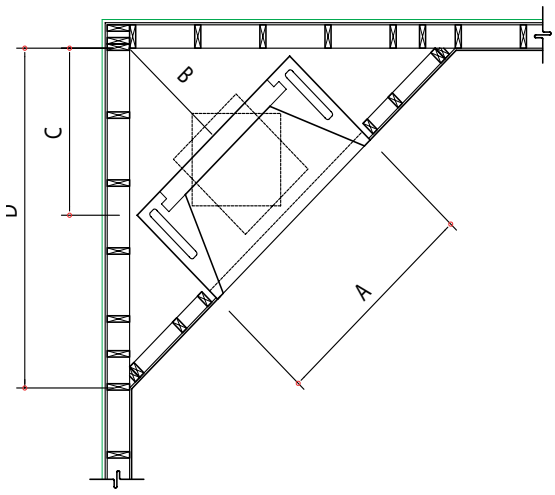


FIGURE 5

The following chart of dimensions is intended to aid in the positioning of an Magnum 86072 Series 86072 fireplace in a corner condition where the DM chimney must turn 45° degrees to align with overhead framing.

Firebox	A	B	C	D
Model 60	73 1/2”	39”	53 1/2”	102 1/2”
Model 72	85 1/2”	45”	62”	111”

To turn flue 45°, first set one offset block on the firebox so that the chimney offsets 3” toward the back of the firebox. (Figure 5)

Set a DM outer casing onto this offset block so that the outer casing is at 45° to the firebox and square to the overhead framing system. Run the vertical DM chimney through the overhead framing.

More offset blocks can be used - if necessary to align with overhead framing - before running the vertical DM chimney outer casing and liner.

Note: Support the third offset down to footings and at each third offset block thereafter.

Assembly Instructions - Access Modification

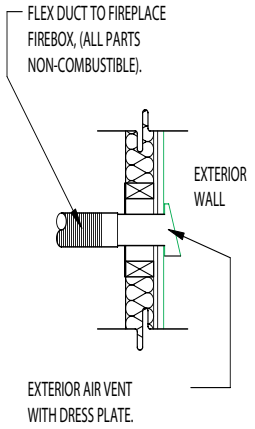


FIGURE 5

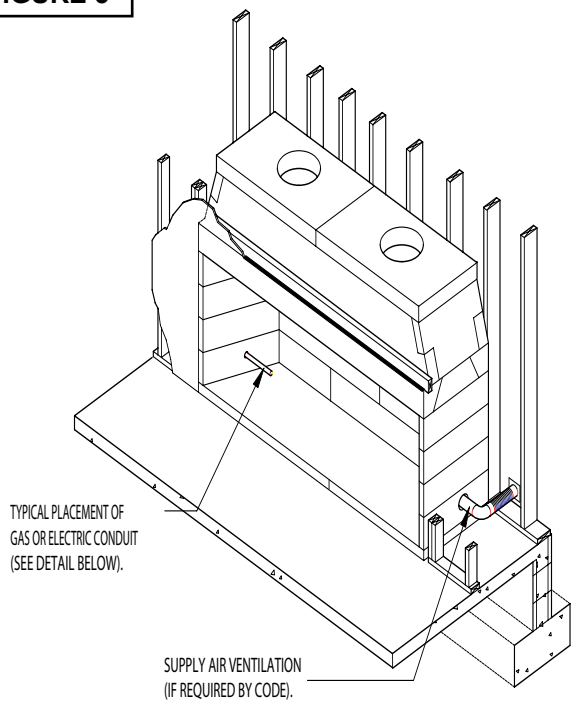


FIGURE 6

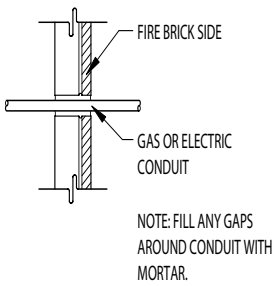


FIGURE 7

Through-Wall Accesses:

1. Combustion Air Inlet: Combustion air inlet kits though not required by Earthcore with other ventilating appliances installed.
Check local codes for combustion air inlet requirements.

The following is a general representation of a generic combustion air kit and not a requirement of Earthcore Industries, LLC. Local building codes prevail and should be checked before installation.

Generic fireplace combustion air kits typically consist of a sliding stainless steel access door affixed to a three inch (3") or four inch (4") diameter stainless steel sleeve approximately twelve inches (12") long. An exterior vent with dress plate, weather hood and rodent prevention screen of a maximum one-quarter inch (1/4") wire mesh completes the kit. (Figure 5)

The access door is fitted into the finished fire brick lining at the interior sidewall of the Magnum 86072 firebox. The twelve inch (12") long sleeve can be introduced into the firebox side wall by core drilling an appropriately sized hole at the selected firebox location. Keep the top of the access hole no more than six inches (6") above the finished firebrick floor. The hole size should allow for a one-quarter inch (1/4") mortar joint around the air access sleeve for heat expansion.

The sleeve passes through the firebox wall and must be connected to metal pipe (by other) - either flexible or rigid - that leads to the source for outside combustion air, as directly as possible from the Magnum 86072 Series fireplace (Few to no bends) with a maximum length of sixty feet (60').

WARNING: Do not use combustible duct material. Avoid installing a combustion air inlet where the opening could be blocked by snow, bushes or other obstacles. Air inlet must terminate a minimum of three feet below the chimney cap level. Air inlet ducts shall not terminate in attic spaces.

2. Gas Line Feed: For a fireplace having the provision for installation of a gas pipe, the provision is intended only for connection to a decorative gas appliance.

CAUTION: When using the decorative appliance, the fireplace damper must be set in the fully open position. Gas line for gas log sets used in the Isokern firebox can be routed through the side wall, by drilling an appropriately sized hole using a masonry drill bit (Figure 7).

3. Electrical Line Feed can be routed through the Magnum 86072 firebox side walls by drilling an appropriately sized hole using a masonry drill bit (Figure 6). Be sure to follow the gas log Appliance Manufacturer's explicit electrical line connection instructions for vented masonry fireplace installations.
Gas line and electric line must be fed through separate access holes.

CAUTION: All access holes must be grouted with mortar – after line or conduit feed - to seal any gaps or cracks around line feed conduits (Figure 7).

Assembly Instructions - Fire Brick Installation

Fire Brick Installation:

The manufacturer requires that the Magnum 86072 fireboxes be lined with a minimum one and one-eighth (1-1/8") thick fire brick on the back and floor of the firebox and four-inch (4") on the side walls. Thicker fire brick may be used as an option. The pattern for the fire brick lining is an owner option. Standard N or S type brick mortar is suitable mortar for the fireplace.

Fire brick mortar needs to be suitable to both adhere the fire brick to the inside of the firebox and to create the finished face joints of the brick work. Based on a history of field applications and experience, a suitable mortar would be as follows:

Mix:
* 1/2 bag EC mortar or Six parts masonry mortar (S or N type)
* Six parts sand
* One part Fire Clay (optional)
* Water to a sticky, toothpaste consistancy

Because of different climates, the use of good masonry practices for your area should also be considered.
It takes about 50 lbs. of mortar mix (dry measure) to fire-brick line a Magnum 86072 fireplace.

Installation Instructions:

Installation Instructions:

1. Wet mop the inside of the fireplace with a damp sponge to remove dust and loose particles from the interior before fire-bricking.

HINT: Dip each firebrick into water before applying.

2. Face joint dimensions of 1/4" to 3/8" in the brick work is recommended and has the best appearance. Other face joint dimensions are acceptable however smaller joints may not leave room for heat expansion of fire brick.

3. Start the fire brick at the front edge of the floor of the Isokern firebox, proceeding inward toward the back. Let the floor brick gap approximately 1/2" off the back wall and side walls. This air space allows heat expansion of the fire brick and is to be left empty of mortar. (Figures 8 & 10)

4. Next, apply fire brick to the back wall of the unit. The back wall fire brick covers the 1/2" expansion gap left at the brick floor along the back wall of the firebox. (Figure 9)

5. Set the side wall fire brick by starting at the front edge of the unit's side wall and working inward toward the back wall fire brick. The side wall fire brick, when completed, covers the 1/2" expansion gaps where both the floor fire brick and the back wall fire brick were held off the units side walls. (Figure 10)

All required through-wall accesses (gas and electrical line feeds and combustion air supply access holes) should be drilled before the required fire brick lining is installed.

Isokern makes no claims as to the performance of fire brick or fire brick mortar(s). It is typical for heat stress cracks to appear in the fire bricks in wood burning fireplaces.

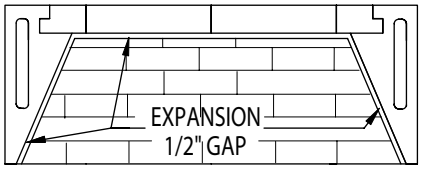


FIGURE 8

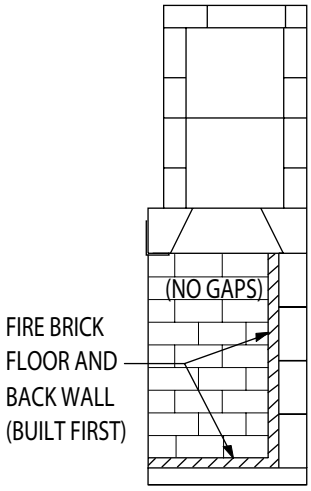


FIGURE 9

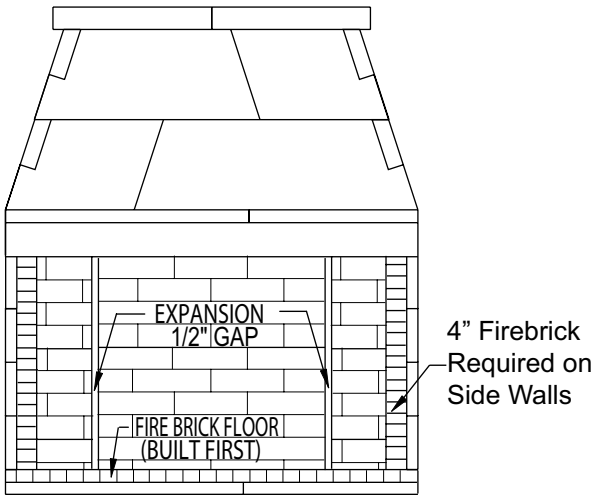


FIGURE 10

Flush Wall Finish Detail

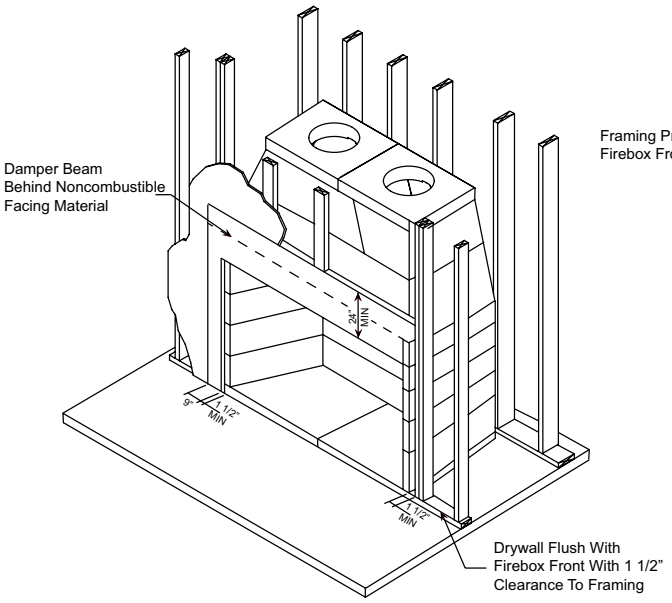


FIGURE 11

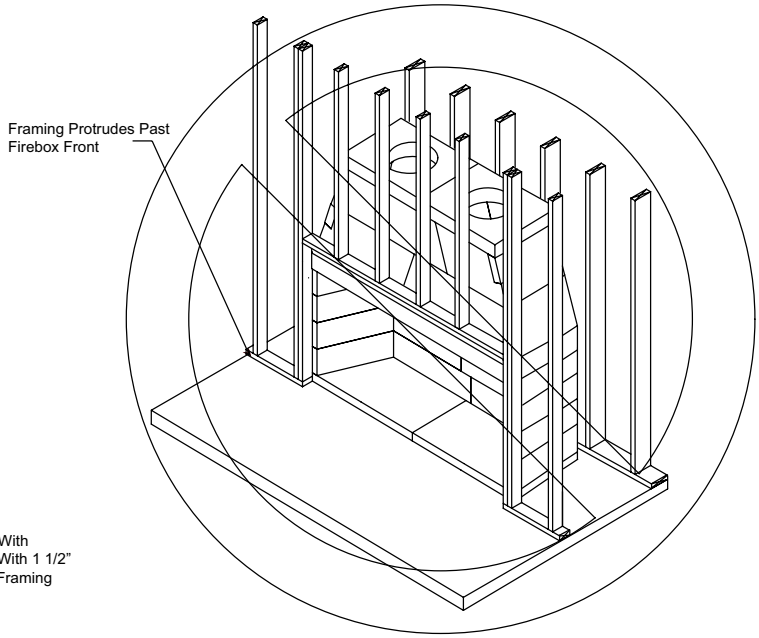


FIGURE 12

Magnum 86072 Series fireplaces are designed to be installed so that the rough front face of the firebox and damper beam project into the room approximately one-half inch (1/2") beyond the face of the rough framing members that create the room's wall surface.

Noncombustible facing material must span framing members above the fireplace opening for drywall to keep the required twenty four inches (24") above the firebox opening top; It is after this noncombustible material that framing members can be placed as shown above. Nine inches (9") on each side of the firebox opening is also required to be covered in noncombustible material. (Figure 11).

Important: Do not build a frame wall in front of the Magnum 86072 firebox and damper beam. (Figure 12)

Assembly Instructions - 86072-60

The Magnum 86072 - 60 is a custom unit made of standard parts that are cut and fitted together in the field. The following cut and assembly instructions identify the parts by name and by part number, the quantity required, the field cut dimensions for each modified component and the placement of each part in the assembly.

Note: At all component placement, be sure to mortar all contact surfaces with Earthcore Mortar. Check for complete sealing of each contact joint while assembly progresses

Step 1: Base plate, part # 91, two required; All require field cutting.

Set the un-cut # 91 base plate components on an appropriate masonry foundation. Cut one base plate to 30 1/2". (Figure 13) Set the two pieces so that the line of the grouping is a butt joint. (Figure 14). Set the cut # 91 pieces into place. This makes for square ends. The overall length of the base plate assembly should measure 73-1/2" and 28" deep.

Step 2: Side wall, part # 90, eight pieces required, used "as is". The fire box side wall components are used without modification. The side wall pieces stack four high on both the left and right hand ends of the base plate arrangement (Figure 15)

The stack of four fire box side wall components will be assembled in conjunction with the firebox back wall components described in the following steps.

Step 3: Back wall, part # 67, eight pieces required, to be "field modified". Cut the tongue off one end of each of the four # 67 back wall components as shown. After cutting, four of these, cut pieces should measure 38 1/2" from the cut end to the shoulder of the un-altered end.(Figure 16)

The other four cut pieces should measure 22 1/4" from the cut end to the shoulder of the unaltered end. (Figure 17)

Step 4: Build the Magnum 86072 - 60 firebox by setting a 38 1/2" # 67 back wall (from step 3) on the base plate with it's tongue end interlocked into the firebox side wall at the end of the baseplate.

The square cut end of this a 38-1/2" # 67 back wall component sits flush with the back of the base plate with its cut end past the centerline in the base plate arrangement (Figure 18).

Next set the 22-1/4" cut # 67 piece so that its tongue end interlocks with the side wall component at the opposite end of the base plate. The square cut end of the 22-1/4" # 67 should make a snug butt joint with the square cut end of the 38-1/2" # 67 component (Figure 19).

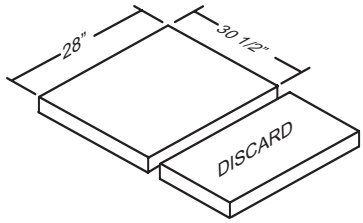


FIGURE 13

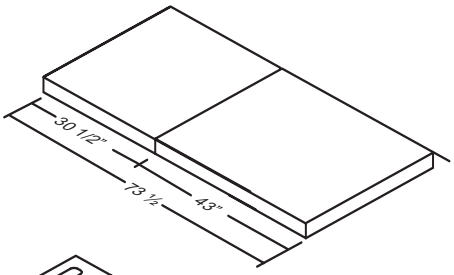


FIGURE 14

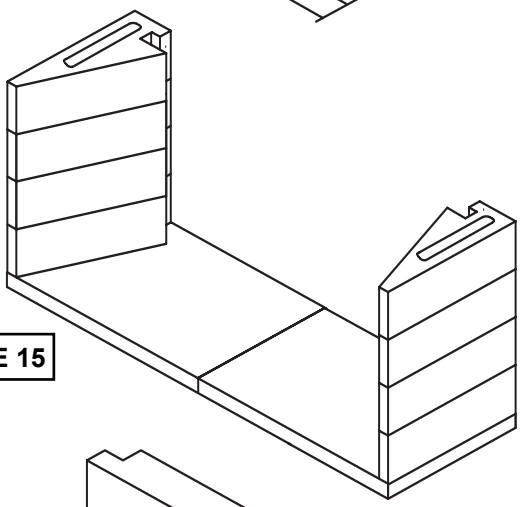


FIGURE 15

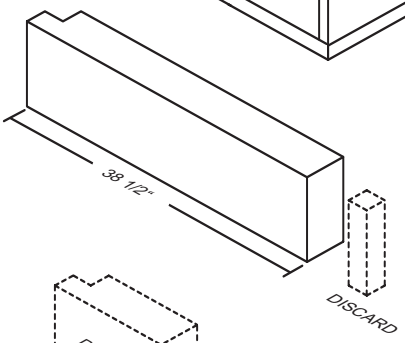


FIGURE 16

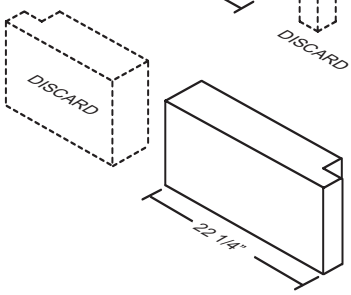


FIGURE 17

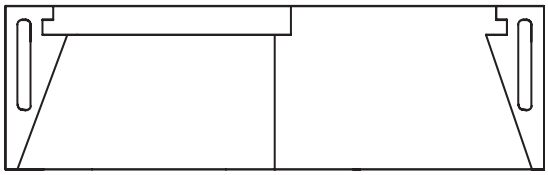


FIGURE 18

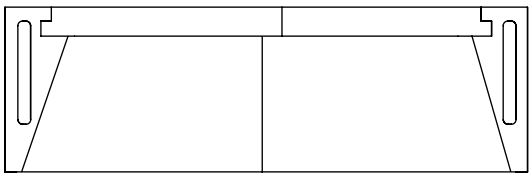


FIGURE 19

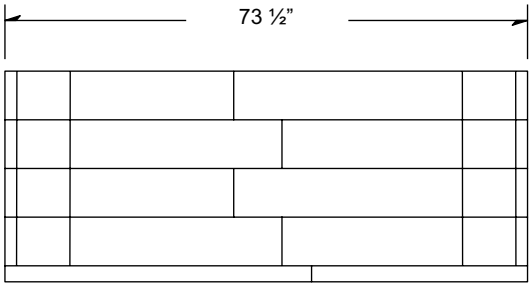


FIGURE 20

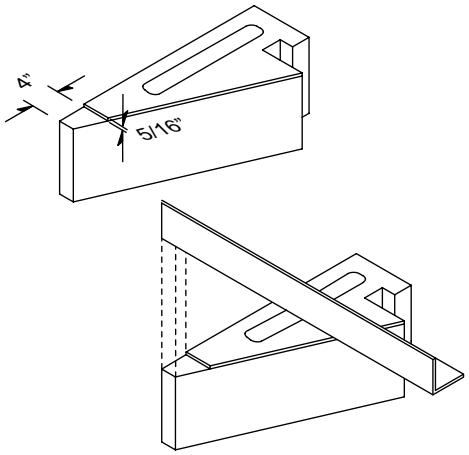


FIGURE 21

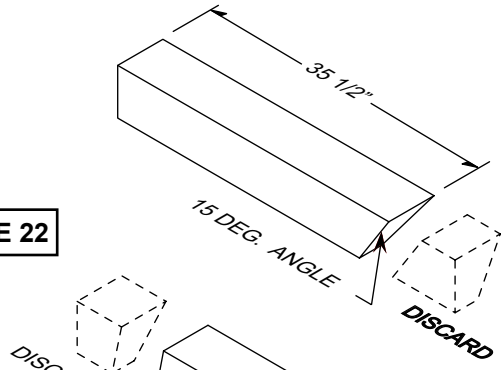


FIGURE 22

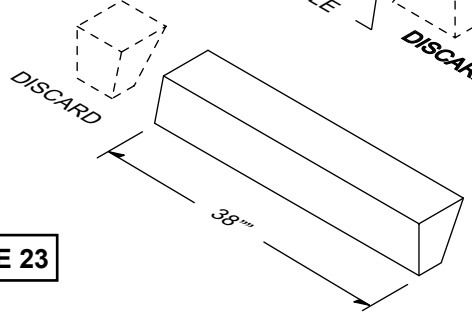


FIGURE 23

Step 5: Continue stacking the remaining three courses of back wall. Be sure to reverse the positions of the 38-1/2" # 67 and the 22-1/4" # 67 in each successive course. In this way, the butt joint where the two # 67 components meet are staggered from course to course. The overall width dimension at the back of the firebox should be 73-1/2" including the sidewalls. (Figure 20).

Step 6: Steel angle 4" x 6" x 5/16", one required, 73-1/2" long to span firebox opening.

This steel angle sits on top of the uppermost side wall component with the four inch leg in the horizontal position. To avoid a thickness problem with the placement of the steel angle it is necessary to cut a notch in the top Side wall component where the angle is to sit. This notch should be cut approximately 5/16" deep. The notch should start at the front face of the side wall component (at both the left and right hand walls) and run to a point 4" back toward the firebox (Figure 21).

The steel angle sits in this notch. The six inch leg of the steel angle is in the vertical position and is to be located in alignment with the front of the firebox. The ends of the steel angle should not protrude beyond the outer firebox side walls (Figure 21). Mortar between the steel and the notch in the top of the side wall is not needed.

Step 7: Damper support (front & rear), Part # 69, four required, to be field cut to fit.

Bevel cut one end of each of two # 69 damper supports to 35-1/2" in length from the long point of the bevel cut to the un-cut square end. (Figure 22). The long point of the bevel cut is to be at the top of the damper Support

For best results a 15˚ bevel angle is suggested.

Step 8: Bevel cut one end each of two # 69 damper supports to 38" with the long point of the bevel at the bottom of the damper support. The bevel angle must be at the same angle – in this case, 15 degrees - to match with the bevel angle of the other damper supports already cut in Step 7 (Figure 23).

Step 9: Set the cut damper supports along the front and along the rear of the firebox using one of each of the cut pieces (one with the long point at the top of the piece and one with the long point at the bottom of the piece) together as pairs.

Note: Be sure to put Earthcore Mortar on the contact surfaces of the vertical joints where the components connect. Look for some mortar to squeeze out along the joints of all contact surfaces as a sign that the joint is thoroughly sealed with the approved mortar. Fill any and all gaps in the assembly, as necessary, with the approved mortar.

The damper support pair at the front of the firebox opening will be mortared together and set into the steel angle from Step 6 (Figure 24).

Since the inside corner of the steel angle is rounded, it is a good idea to round the bottom front corner of the damper support to match the steel.

With the bevel cut ends of the damper support pairs meeting at the middle of the firebox, the bevel joint should be an even and good fit. The damper supports overall installed length should be 73-1/2". (Figure 24)

Note: Do not join the damper supports with a butt joint. The bevel joint discussed above is the **REQUIRED** type of joint for the damper support.

The bevel angle of 15˚ degrees is a convenient angle and is given as a suggested angle. The angle of the bevel cut could be greater, just so the bevel cut in each damper support joining pair is the same angle in order to have a good fit at the joint.

Please consult your local sales representative for the appropriate damper systems for Magnum 86072-60 Series.

Step 10: Damper support (left), part # 94L and damper support (right), part # 94R, one each required. To be used "as is".Set the damper support (left) and the damper support (right) into place on top of the firebox side walls in between the front and rear damper supports.

Each of the damper supports, right and left, is designed specifically for its own side of the unit. When properly set, each damper plate side piece sits flush with the outside face of the firebox side wall. The interior bottom edge of the damper support end pieces aligns with the angle of the interior of the firebox side wall (Figure 25).

For the Magnum 86072 - 60 the smoke dome components stack two tiers high giving a smoke dome of approximately 32" in height.

Step 11: Smoke dome medium, part 11, two required, to be "field modified"; smoke dome large, part 13, six required, to be "field modified"; smoke dome top sloping, part 34, four required, to be used "as is".

Begin building the Magnum 86072 - 60 Fireplace smoke dome by cutting the haunch off of one end of each of the two smoke dome large components, part 13. After cutting the bottom length of the piece will be 49 3/4"". (Figure 26) When cutting the haunch off be sure to follow the angle of the sloping end in order to get the proper slope angle to the cut.

Step 12: Cut one end of two of the smoke dome top large, part 13, components at an angle parallel to the opposite end of the piece. The bottom length of the cut piece should measure 23 3/4 " (Figure 27)

.

Note: Be sure to put Earthcore Mortar on the contact surfaces of the vertical joints where the components connect. Look for some mortar to squeeze out along the joints of all contact surfaces as a sign that the joint is thoroughly sealed with the approved mortar. Fill any and all gaps in the assembly, as necessary, with the approved mortar.

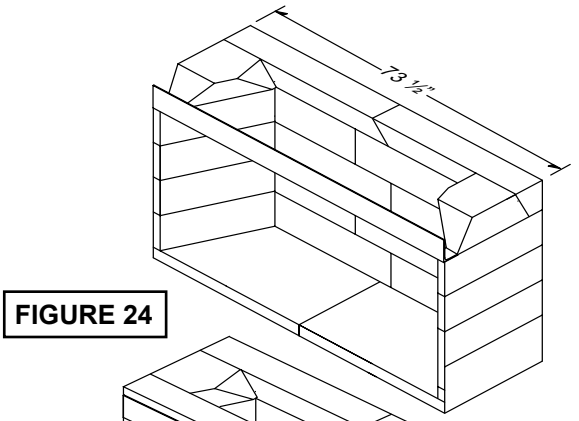


FIGURE 24

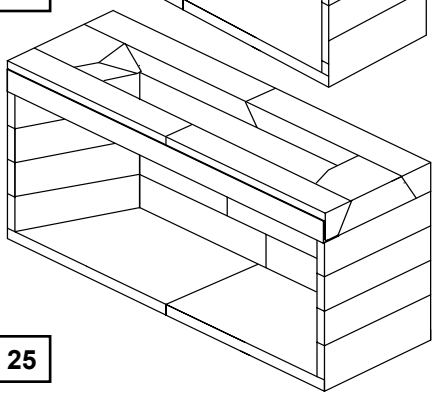


FIGURE 25

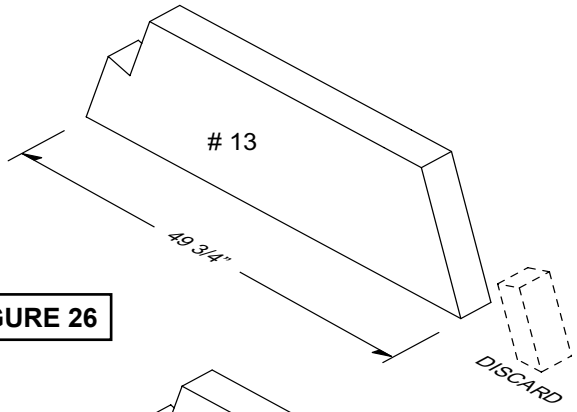


FIGURE 26

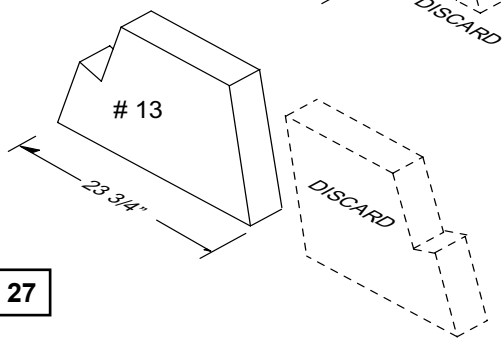


FIGURE 27

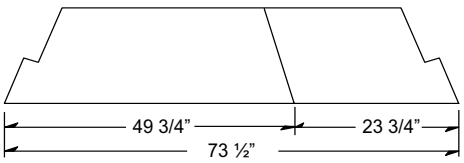


FIGURE 28

Assembly Instructions - 60” (cont.)

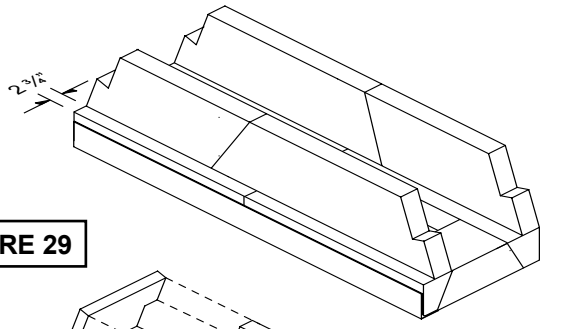


FIGURE 29

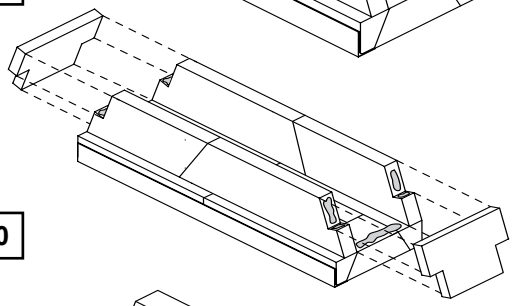


FIGURE 30

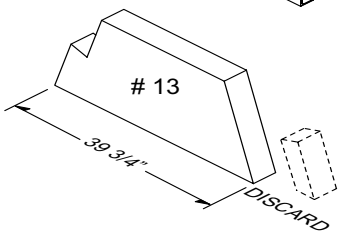


FIGURE 31

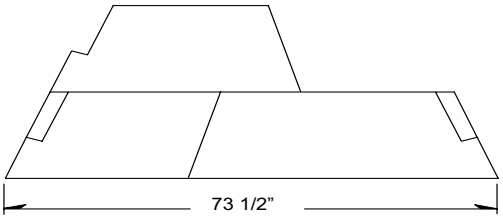


FIGURE 32

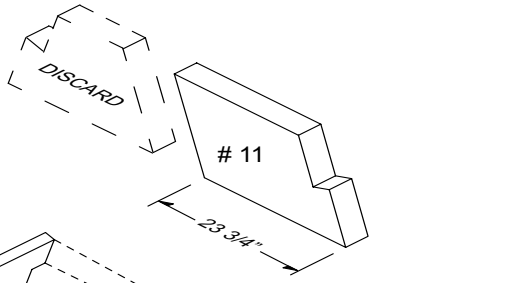


FIGURE 33

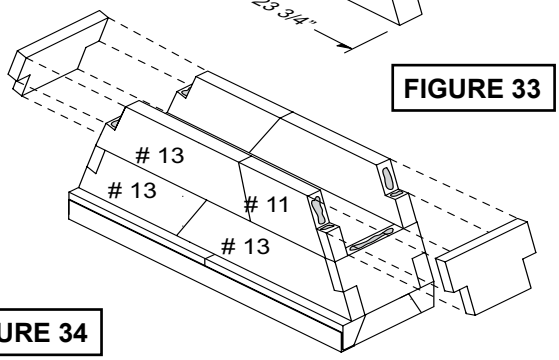


FIGURE 34

Step 13: Place one modified smoke dome large piece (haunch cut off and a bottom length of 49-3/4" together with another of the smoke dome large pieces that was angle cut to 23 3/4" bottom length and parallel angle) together on the damper support and flush with the back wall of the firebox so that the two smoke dome pieces meet along their field modified cut line.

The overall length of the two joined smoke dome pieces should be 73-1/2". (Figure 28)

Step 14: Repeat STEP 13 on the front damper support. Set the front smoke dome components 2-3/4" back from the front face of the front damper support (Figure 29).

Step 15: Fit the top sloping smoke dome side wall components, part 34, in place between the front and back smoke dome arrangements at each end of the smoke dome. (Figure 30)

Step 16: Continue building the Magnum 86072 - 60 fireplace smoke dome by cutting two of the smoke dome large pieces, part 13, to a bottom length dimension of 39 3/4”. The slope angle of the cut should match the slope angle of the end being cut. (Figure 31)

Place one of the modified smoke dome large pieces (39 3/4” bottom length) on top of and flush with the first tier of smoke dome components at the back of the first course of smoke dome. The haunched, un-cut end of this piece should be flush with the haunch end of the first tier smoke dome below it. (Figure 32)

Step 17: Repeat this arrangement at the front of the smoke dome.

Step 18: Cut each of the remaining two smoke dome medium pieces, part 11, at an angle cut that is parallel to the un-cut end and so that its bottom length is 23 3/4” (Figure 33).

Step 19: Place one of the angle cut smoke dome top medium pieces at the front and one at the back of the first tier smoke dome so that they meet the smoke dome large (cut to 39 3/4” bottom length) already set in Step 16. (Figure 34)

Step 20: Set the smoke dome sloping side walls, part 34, in place between the front and back smoke dome arrangements at their proper locations at each end of the smoke dome. (Figure 34).

Note: Be sure to put Earthcore Mortar on the contact surfaces of the vertical joints where the components connect. Look for some mortar to squeeze out along the joints of all contact surfaces as a sign that the joint is thoroughly sealed with the approved mortar. Fill any and all gaps in the assembly, as necessary, with the approved mortar.

The overall width dimension at the top of the smoke dome should be approximately 53-1/2 to 54". (Figure 35)

Note: The Magnum 86072 - 60 is designed to operate with two flues. The top of the smoke dome allows for the placement of two Isokern Modular Masonry DM chimneys or two solid fuel listed metal chimneys of the appropriate size.

Step 21: Smoke dome top plate small, part # 77A, two required, must field cut to fit.

Each of the two smoke dome top plate small, part # 77A, will sit side by side on the smoke dome assembly, meeting at the centerline of the smoke dome as a butt joint. The top plate, as standard, comes with a recessed edge (or, a thickened center). The recessed edge is approximately 3/8"and is intended to be the bottom face of the top plate.

Each of the two top plate pieces must first be cut in width in order to fit the overall smoke dome. Each top plate is to have its width cut by 5". (Figure 36). The cut edges must then become the butt joint of the two top plates when set into place. (Figure 37) Therefore, the width cuts for each top plate must be on opposite edges of each piece.

The un-altered end of each top plate sits at the end of the smoke dome assembly and rests on the smoke dome sloping side wall.

At the recessed edge on the underside of the un-altered ends of each of the two top plates, the thickened part of the top plate will need to be ground down flush with the recessed edge of the top plate so that the underside of the top plate does not ride high on the smoke dome sloping sidewall.

Place the two top plate components on top of the second tier smoke dome arrangement so that they meet at the centerline of the smoke dome. (Figure 37)

The outlet hole sits closer to the back of the smoke dome. The smoke dome top plates should sit flush with the front and back of the smoke dome.

The top width dimension of the completed smoke dome should measure approximately 53 1/2"- 54". Each top plate has a width cut dimension of approximately 27". Two of the top plates butted together should equal the smoke dome top width dimension of approximately 54".

The top plates may have some overhang at the ends of the top plate assembly, which is acceptable.

Note: Be sure to put Earthcore Mortar on the contact surfaces of the vertical joints where the components connect. Look for some mortar to squeeze out along the joints of all contact surfaces as a sign that the joint is thoroughly sealed with the approved mortar. Fill any and all gaps in the assembly, as necessary, with the approved mortar.

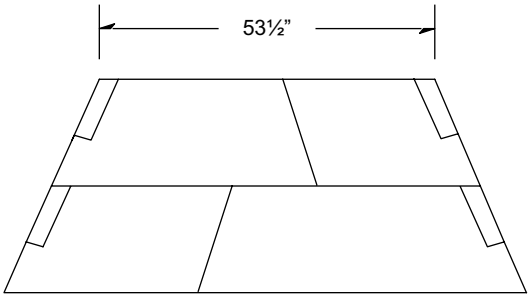


FIGURE 35

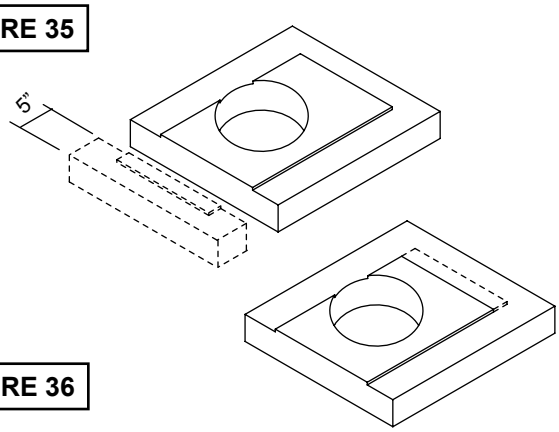


FIGURE 36

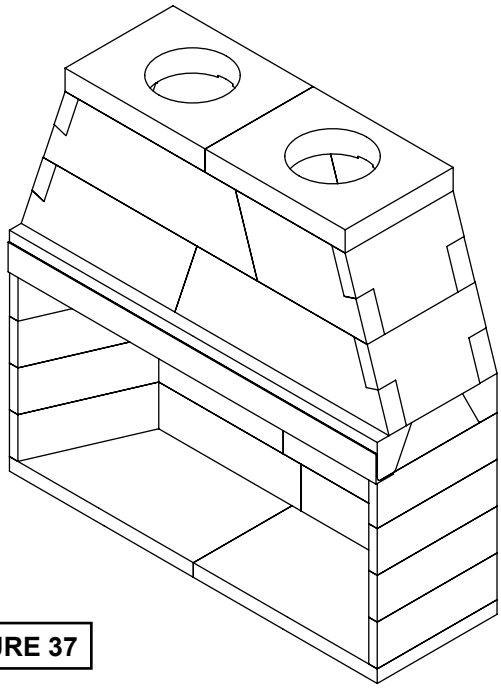


FIGURE 37

Assembly Instructions - 86072-72

The Magnum 86072 - 72 is a custom unit made of standard parts that are cut and fitted together in the field. The following cut and assembly instructions identify the parts by name and by part number, the quantity required, the field cut dimensions for each modified component and the placement of each part in the assembly.

Note: At all component placement, be sure to mortar all contact surfaces with Earthcore Mortar. Check for complete sealing of each contact joint while assembly progresses.

Step 1: Base plate, Part # 91, two required . These pieces are used "as is", without any field cutting required.

Set the two # 91 base plate components on an appropriate masonry foundation and positioned exactly where the firebox is to sit. Set the two pieces so that the centerline of the grouping is a butt joint. This makes for square ends at both the left and right ends of the grouping. The overall length of the base plate assembly should measure 85 1/2" and 28" inches deep. Figure 38)

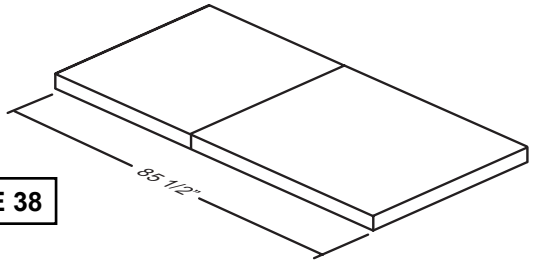


FIGURE 38

Step 2: Side wall, part # 60, eight pieces required, used "as is".

The firebox side wall components are used without modification. The side wall pieces stack four high on both the left and right hand ends of the base plate arrangement (Figure 39)

The stack of four firebox side wall components will be assembled in conjunction with the firebox back wall components described in the following steps.

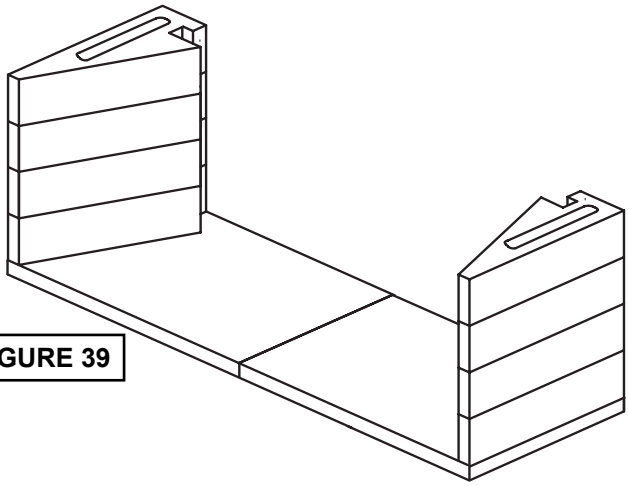


FIGURE 39

Step 3: Back wall, part # 67, eight pieces required, four pieces to be "field modified".

Cut the tongue off one end of each of the four # 67 back wall components. After cutting, each of these four cut pieces should measure 38 1/2" from the cut end to the shoulder of the un-altered end (Figure 40).

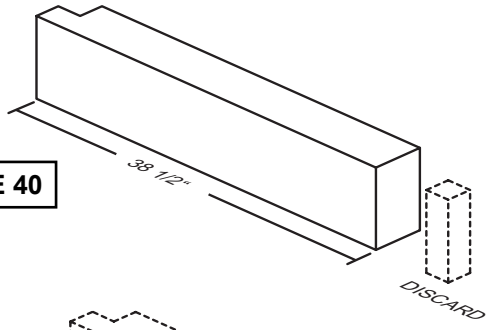


FIGURE 40

Step 4: Back wall, part # 67, four pieces required, to be "field modified".

Cut one end of each of the four # 67 back wall components. These four cut pieces should measure 34-1/2" from the cut end to the shoulder of the un-altered end (Figure 41).

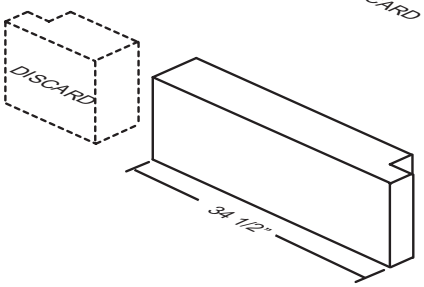


FIGURE 41

Step 5: Build the Magnum 86072-72 firebox by setting a 38 1/2" # 67 Back Wall (from Step 3) on the base plate with its tongue end interlocked into the firebox side wall positioned at the end of the base plate (Figure 42).

The square cut end of this 38 1/2" # 67 back wall component should sit flush with the back of the base plate with its cut end past the centerline butt joint in the base plate arrangement. (Figure 42).

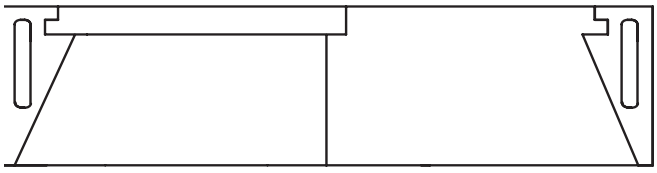


FIGURE 42

Note: Be sure to put Earthcore Mortar on the contact surfaces of the vertical joints where the components connect. Look for some mortar to squeeze out along the joints of all contact surfaces as a sign that the joint is thoroughly sealed with the approved mortar. Fill any and all gaps in the assembly, as necessary, with the approved mortar.

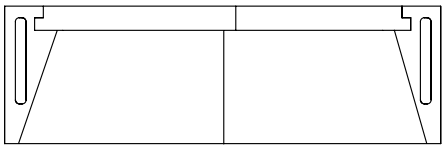


FIGURE 43

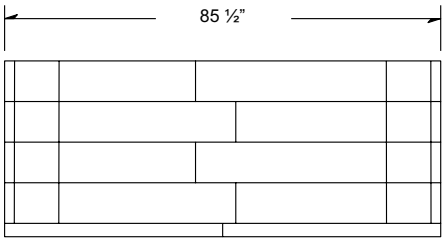


FIGURE 44

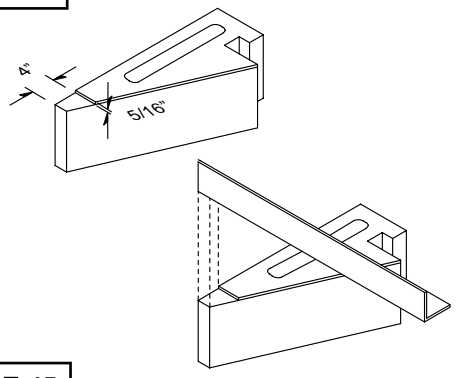


FIGURE 45

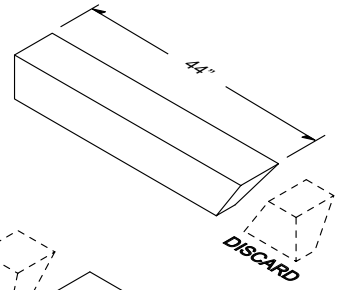


FIGURE 46

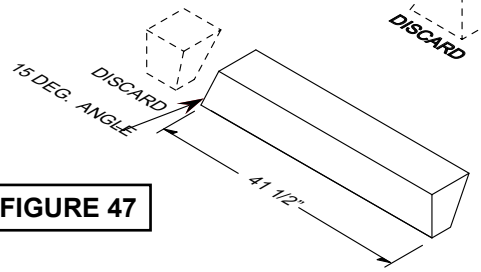


FIGURE 47

Next set the 34-1/2" inch cut # 67 piece so that its tongue end interlocks with the side wall component at the opposite end of the base plate.

The square cut end of the 34-1/2" # 67 should make a snug butt joint with the square cut end of the 38 1/2" # 67 component. (Figure 43)

Step 6: Continue stacking the remaining three courses of back wall. Be sure to reverse the positions of the 38 1/2" # 67 and the 34-1/2" # 67 in each successive course. In this way, the butt joint where the two # 67 components meet are staggered from course to course.

The overall width dimension at the back of the firebox should be 85 1/2". (Figure 44)

Step 7: Steel angle of 4" x 6" x 5/16", one required, 85 1/2" long to span firebox.

This steel angle sits on top of the uppermost side wall component with the four inch leg in the horizontal position. To avoid a thickness problem with the placement of the steel angle it is necessary to cut a notch in the top side wall component where the angle is to sit.

This notch should be cut approximately 5/16" deep. The notch should start at the front face of the side wall component (at both the left and right hand walls) and run to a point four inches back toward the firebox.(Figure 45)

The steel angle sits in this notch. The six inch leg of the steel angle is in the vertical position and is to be located in alignment with the front of the firebox. The ends of the steel angle should not protrude beyond the outer firebox side walls. (Figure 45)

Mortar between the steel and the notch in the top of the side wall is not needed.

Step 8: Damper support (front & rear), part # 69, four required, to be field cut to fit.

Bevel cut one end of each of two # 69 damper supports to 44" in length from the long point of the bevel cut to the un-cut square end. The long point of the bevel cut is to be at the top of the damper supports (Figure 46).

For best results a 15˚ bevel angle is suggested.

Step 9: Bevel cut one end each of two # 69 damper supports to 41 1/2" with the long point of the bevel at the bottom of the damper support. The bevel angle must be at the same angle in this case, 15˚ - to match with the bevel angle of the other damper supports already cut in Step 8. (Figure 47)

Step 10: Set the cut damper supports along the front and along the rear of the firebox using one of each of the cut pieces (one with the long point at the top of the piece and one with the long point at the bottom of the piece) together as pairs.

The damper support pair at the front of the firebox opening will be set into the 4" x 6" steel angle from Step 7 (Figure 48).

Since the inside corner of the steel angle is rounded, it is a good idea to round the bottom front corner of the damper support to match the steel.

With the bevel cut ends of the damper support pairs meeting at the middle of the firebox, the bevel joint should be an even and good fit. The damper supports overall installed length should be 85 1/2".

Notes:

A. Do not join the damper supports with a butt joint. The bevel joint discussed above is the REQUIRED type of joint for the damper support.

B. The bevel angle of 15˚ is a convenient angle and is given as a suggested angle. The angle of bevel could be different just so the angles cut in the adjoining damper supports join.

Step 11: Damper support (left), part M64L and damper support (right), part M64R, one each required. To be used "as is".

Set the damper support (left) and the damper support (right) into place on top of the firebox side walls in between the front and rear damper supports.

Each of the damper supports, right and left, is designed specifically for its own side of the unit. When properly set, each damper plate side piece sits flush with the outside face of the firebox side wall. The interior bottom edge of the damper support end pieces align with the angle of the interior of the firebox side wall (Figures 48 & 49).

For the Magnum 86072-72 the smoke dome components stack two tiers high giving a smoke dome of approximately 32 inches in height.

Step 12: Smoke dome top large, part 13, six required, to be "field modified"; smoke dome top medium, part 11, two required, to be "field modified"; smoke dome top sloping, part 34, four (4) required, to be used "as is".

Begin building the Magnum 86072-72 fireplace smoke dome by cutting the haunch off of one end of each of the four smoke dome top large components, part 13. After cutting the bottom length of the piece will be 49 3/4".

When cutting the haunch off be sure to follow the angle of the sloping end in order to get the proper slope angle to the cut (Figure 50).

Note: Be sure to put Earthcore Mortar on the contact surfaces of the vertical joints where the components connect. Look for some mortar to squeeze out along the joints of all contact surfaces as a sign that the joint is thoroughly sealed with the approved mortar. Fill any and all gaps in the assembly, as necessary, with the approved mortar.

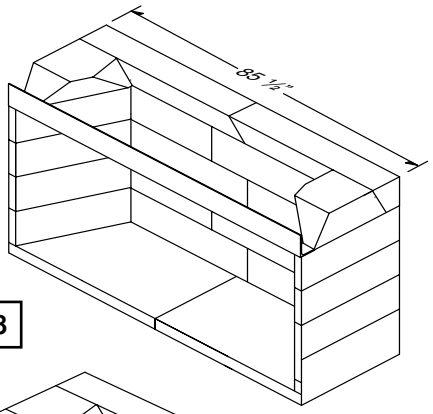


FIGURE 48

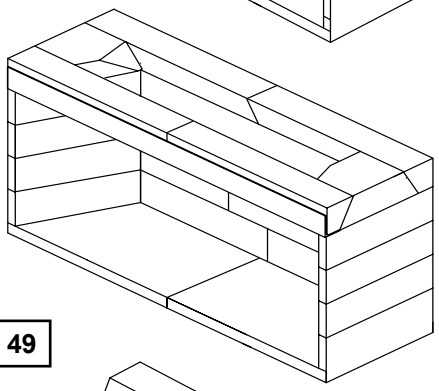


FIGURE 49

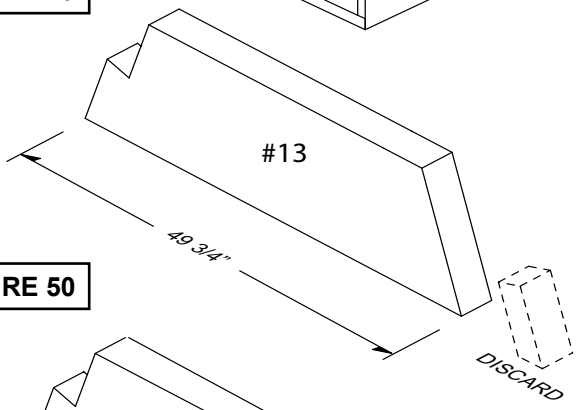


FIGURE 50

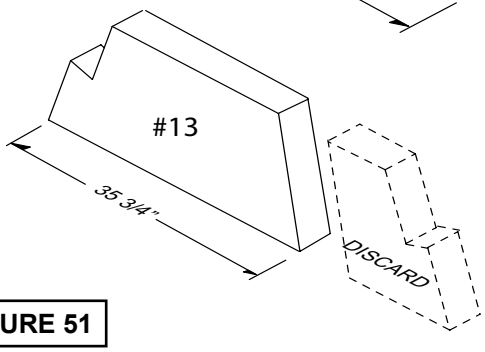


FIGURE 51

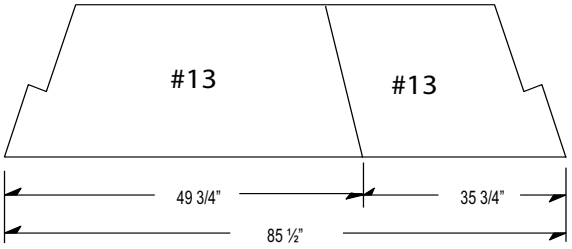


FIGURE 52

Assembly Instructions - 86072-72 cont.

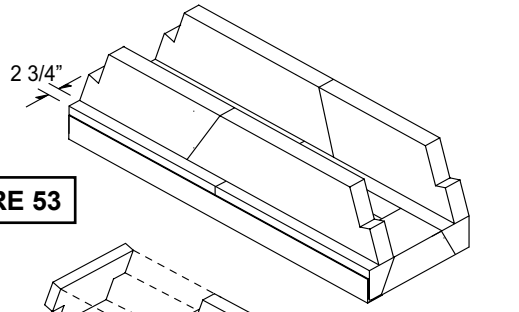


FIGURE 53

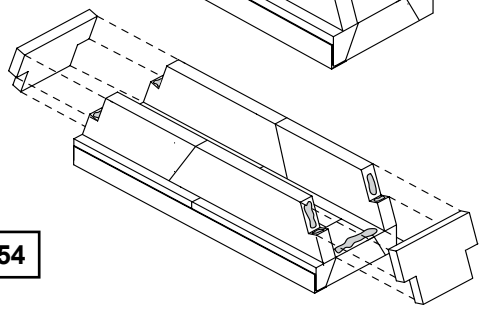


FIGURE 54

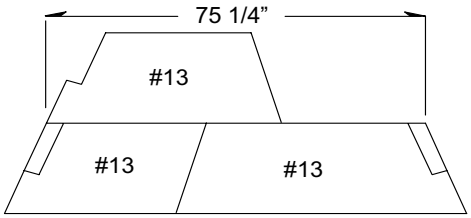


FIGURE 55

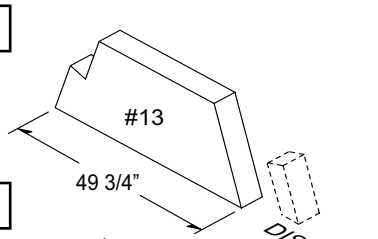


FIGURE 56

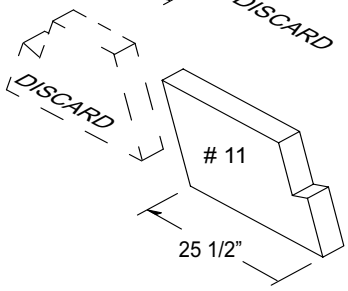


FIGURE 57

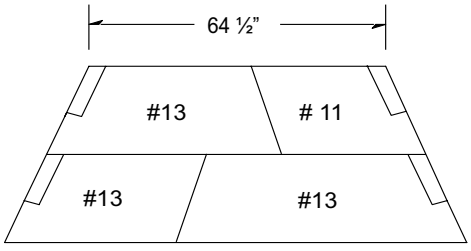


FIGURE 58

Step 13: Cut one end of the other two smoke dome top big, part 13, components at an angle parallel to the opposite end of the piece. The bottom length of the cut piece should measure 35 3/4”. (Figure 51)

Step 14: Place one modified smoke dome top big pieces (haunch cut off and a bottom length of 49 3/4” together with one of the smoke dome top big pieces that was angle cut to 35 3/4” bottom length and parallel angle) together on the damper support and flush with the back wall of the firebox so that the two smoke dome pieces meet along their field modified cut line. (Figure 52)

The overall length of the two joined smoke dome pieces should be 85 1/2”.

Step 15: Repeat Step 14 on the front damper support. Set the front smoke dome components 2-3/4” back from the front face of the front damper support. (Figure 53)

Step 16: Fit the top sloping smoke dome side wall components, part 34, in place between the front and back smoke dome arrangements at each end of the smoke dome. (Figure 54)

Step 17: Place one of the four modified smoke dome top big pieces (haunch cut off and 49 3/4” bottom length) on top of and flush with the first tier of smoke dome components at the back of the first course of smoke dome.

The haunched, un-cut end of this piece should be flush with the haunch end of the first tier smoke dome below it. (Figure 55)

The overall length of the two joined smoke dome pieces should be 73 1/4”.

Step 18: Repeat this arrangement at the front of the smoke dome.

Step 19: Cut each of the two smoke dome top medium pieces, part # 11 at an angle cut that is parallel to the un-cut end and so that its bottom length is 25 1/2”. (Figure 57)

Step 20: Place one of the angle cut smoke dome top medium pieces at the front and one at the back of the first tier smoke dome so that they meet the smoke dome top large (haunch cut off and 49 3/4” bottom length) already set in Steps 14 and 15.

The overall width dimension at the top of the smoke dome should be 64 1/2”. (Figure 58)

Step 21: Fit the top sloping smoke dome side wall components, part 34, in place between the front and back smoke dome arrangements at each end of the smoke dome. (Figure 59)

Assembly Instructions - 86072-72 cont.

Note: The Magnum 86072 model 72 is designed to operate with two flues. The top of the smoke dome allows for the placement of two Isokern DM chimneys or two solid fuel listed metal chimneys of the appropriate size.

Step 22: Top plate part # 77A, two required, to be used "as is". (Figure 60)

Place the two top plate small components on top of the second tier smoke dome arrangement so that they meet at the centerline of the smoke dome. Typically, the outlet hole sits closer to the back of the smoke dome. The top plates should sit flush with the front and back of the smoke dome. (Figure 61).

The top width dimension of the completed smoke dome should measure 64 1/2". (Figure 58) Each top plate has a width dimension of 32-3/4 inches. Two of the top plates butted together should cover the smoke dome top with minor overhang which is acceptable. The top plates should be flush with the top sides of the smoke dome assembly.

Note: Be sure to put Earthcore Mortar on the contact surfaces of the vertical joints where the components connect. Look for some mortar to squeeze out along the joints of all contact surfaces as a sign that the joint is thoroughly sealed with the approved mortar. Fill any and all gaps in the assembly, as necessary, with the approved mortar.

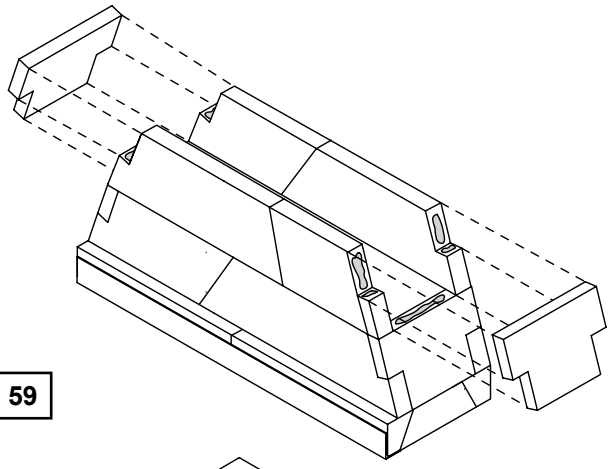


FIGURE 59

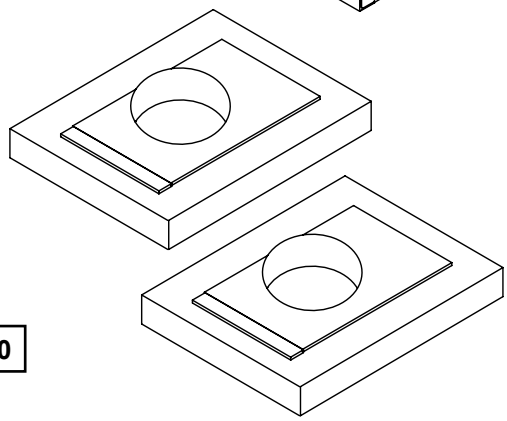


FIGURE 60

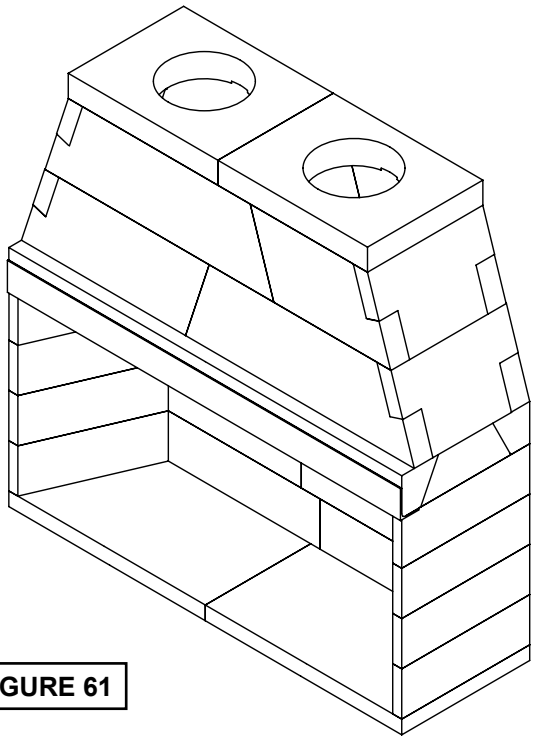
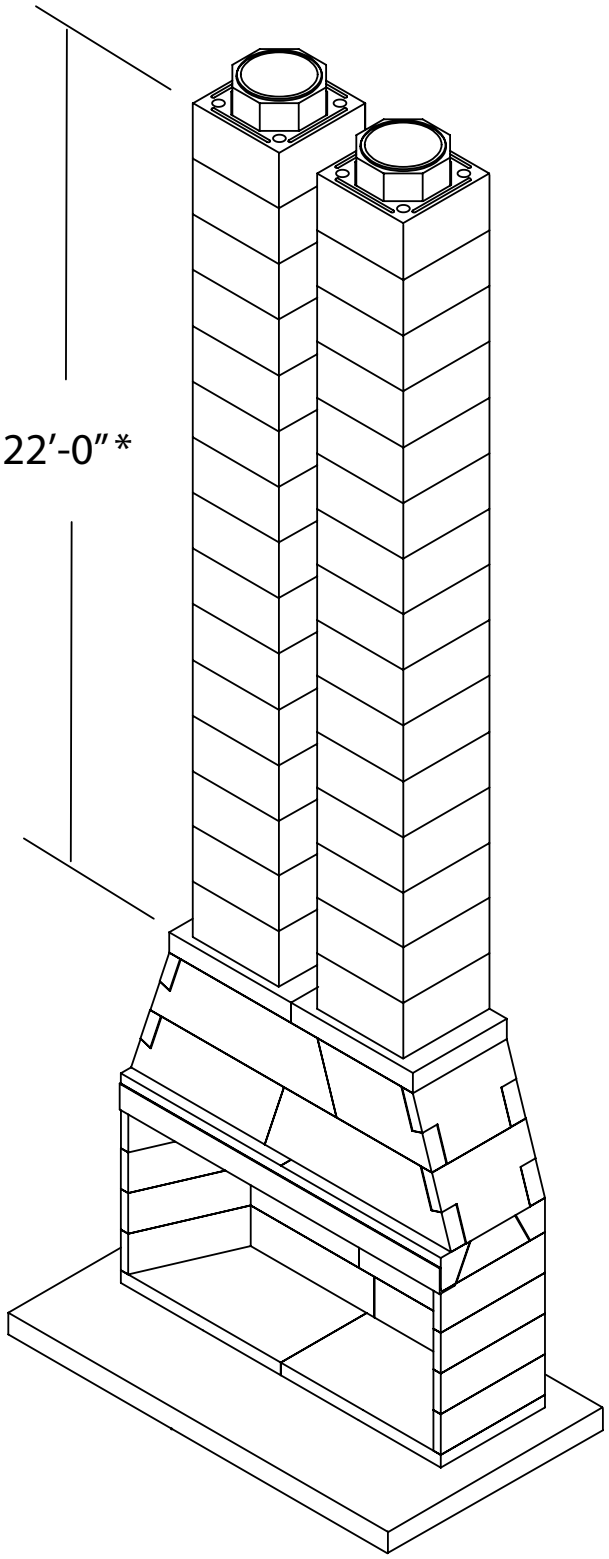


FIGURE 61

DM Chimney System - 86072



NOTE: The maximum installed height of the Isokern DM system on the model 86072 dual chimney system is 22’ without additional structural support. A structural engineer should be consulted for any DM installation over 22’-0”

* BKE Report dated March 30, 2011

Required Clearances (when sheathing protrudes beyond front of firebox)

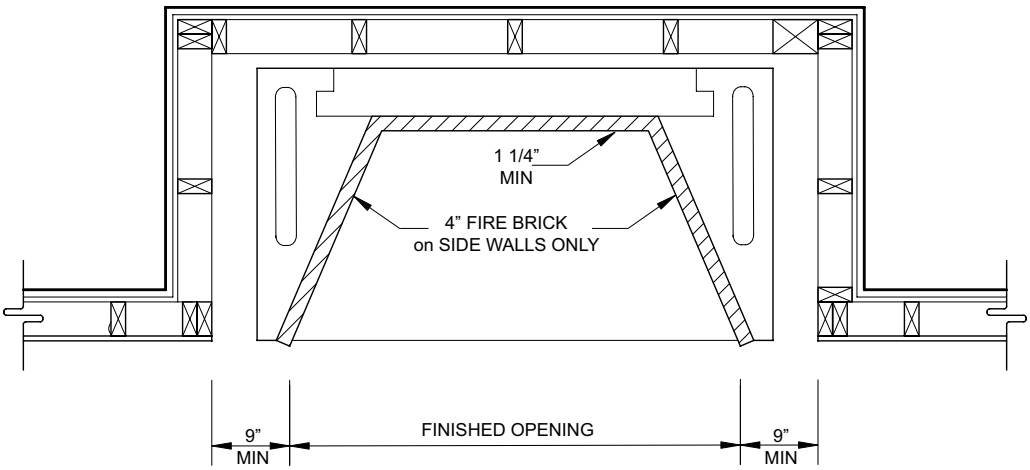


FIGURE 62

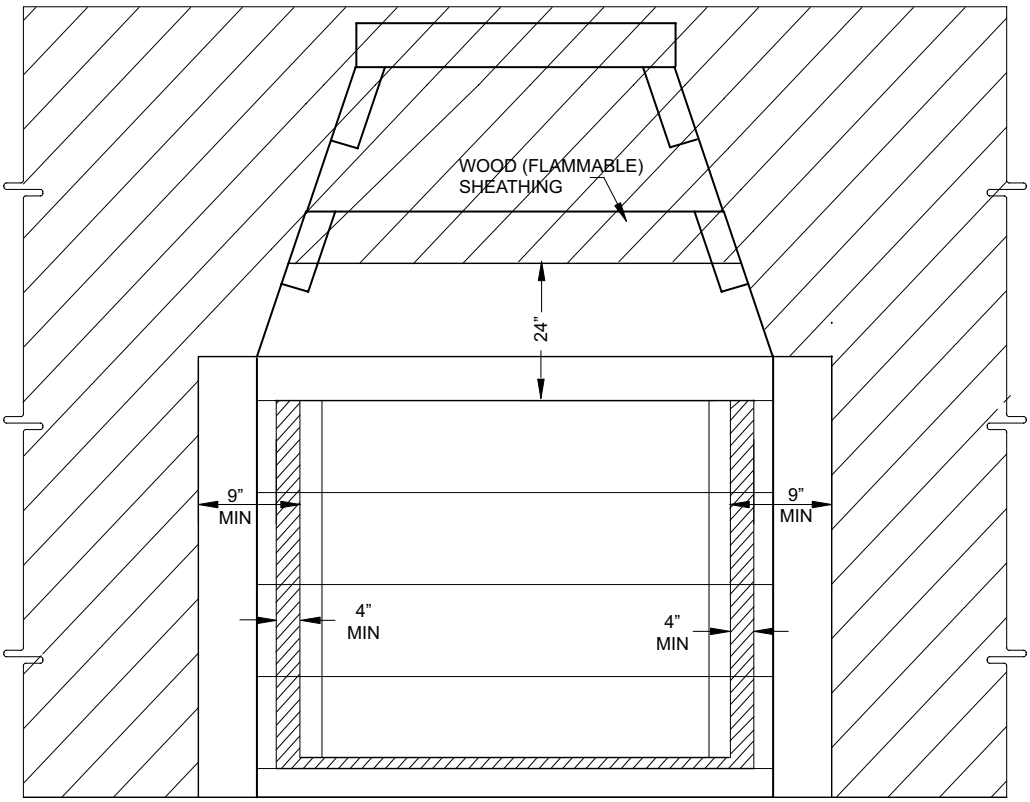


FIGURE 63

Combustible sheathing such as plywood and particle board may be used to cover the front face of the Magnum 86072 smoke dome and be in direct contact with it. If sheathing protrudes in front of the firebox, application of such combustible sheathing must assure that the sheathing is held a minimum of nine inches (9") away from each side of the Magnum 86072 opening and a minimum of twenty four inches (24") above the top of the Magnum 86072 opening. (Figure 62 & 63)

Do not build a combustible framed wall out in front of the Magnum 86072 firebox. If combustible sheathing and framing are to be installed across the front face of the Magnum 86072 smoke dome, then the framing and sheathing must be held a minimum of twenty four inches (24") above the top of the Magnum 86072 firebox opening. This means that combustible framing and sheathing across the smoke dome front must be kept 16" above the Magnum 86072 damper beam.

Required Clearance to Combustible Framing

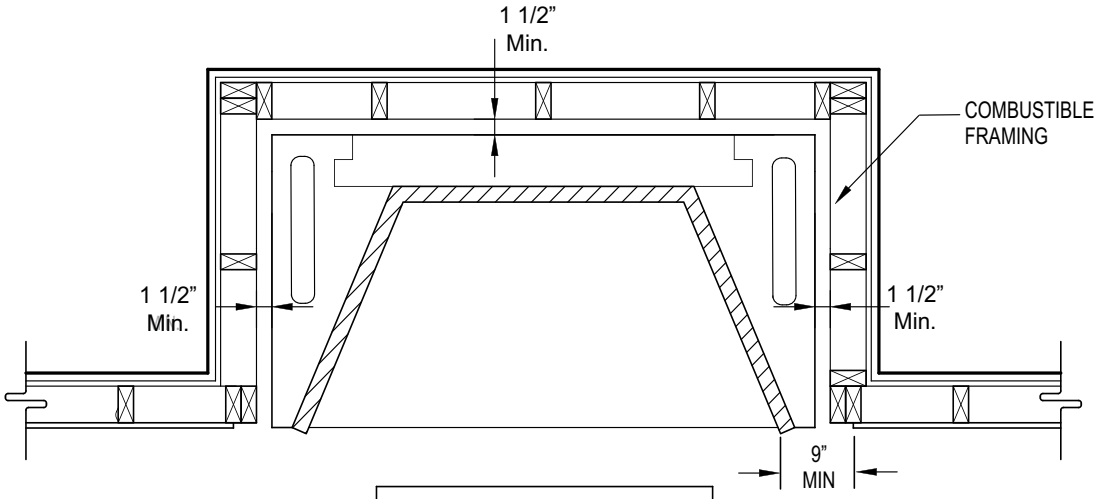


FIGURE 64

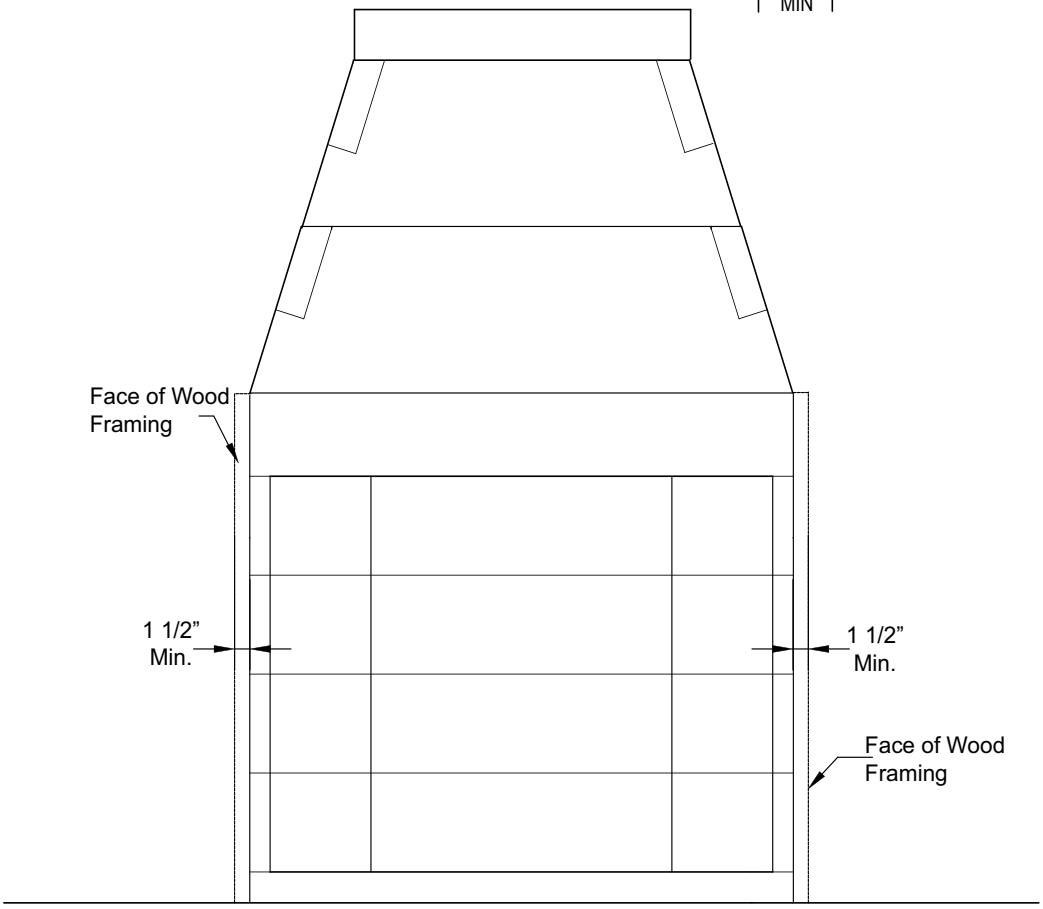


FIGURE 65

Magnum 86072 Series fireplaces are tested and listed for one and one-half inch (1-1/2") clearance to combustible framing material at the firebox sides and back.

Installation and use practices that are beyond the control of the manufacturer* can result in situations where clearance requirements (as determined through testing and as stated by the manufacturer) are not maintained due to construction subsequent to the installation of the Isokern unit. It is the general contractor's responsibility to assure that listed clearances to combustible framing and to insulation are maintained throughout the construction of the project subsequent to the installation of the Isokern unit.

To avoid causing a fire resulting in damage to property, personal injury or loss of life, do not pack or fill the required air spaces with insulation or other material. No material is allowed in these areas. (Figures 64 & 65)

*The manufacturer is not responsible for installation and use practices that are beyond the scope of the product as defined in the product listing and in the installation manual.

Clearance to Insulation & Vapor Barriers

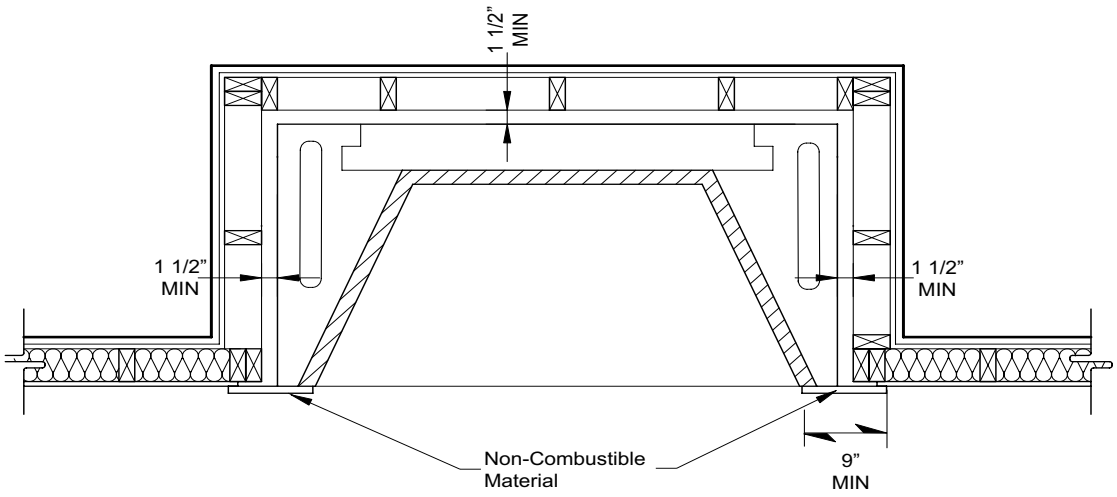
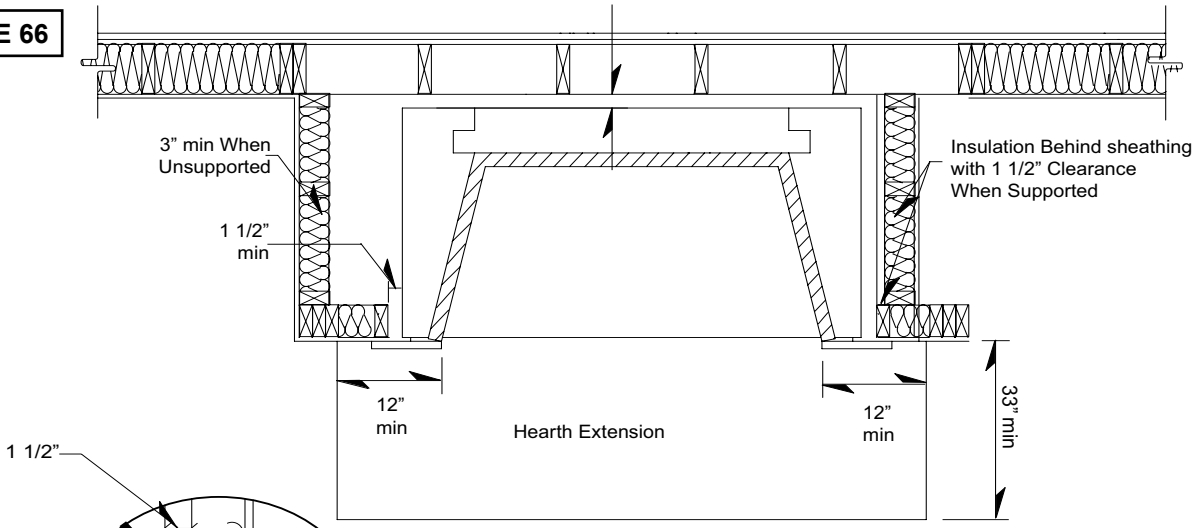


FIGURE 66



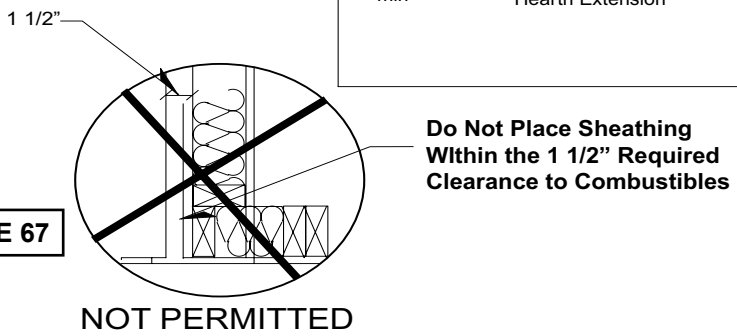


FIGURE 67

The Magnum 86072 Series firebox backwall, side walls and the smoke dome back require 1 1/2" clearance. (Figure 66)

Keep all insulation, vapor barriers, "house wrap" paper and other insulating type membranes and products, including fiberglass, cellulose and other insulation, (anything that carries an "R" rating) a minimum of three inches (3") away from all firebox and chimney surfaces. Exception:

If insulation is used in walls surrounding the fireplace, insulation may be installed behind sheathing of gypsom board, plywood, particle board or other material on the side facing the Isokern. The facing material cannot be within 1 1/2" to the fireplace sidewalls.

If insulation or vapor barriers are used in walls surrounding the Magnum 86072 Series fireplace, it is strongly recommended that the walls be sheathed with gypsum board, plywood, particle board or other material on the side facing the Isokern. Unsecured insulation and vapor barriers must be placed a minimum of 3" away from the unit.

Flush Wall Fire Brick Finish Detail

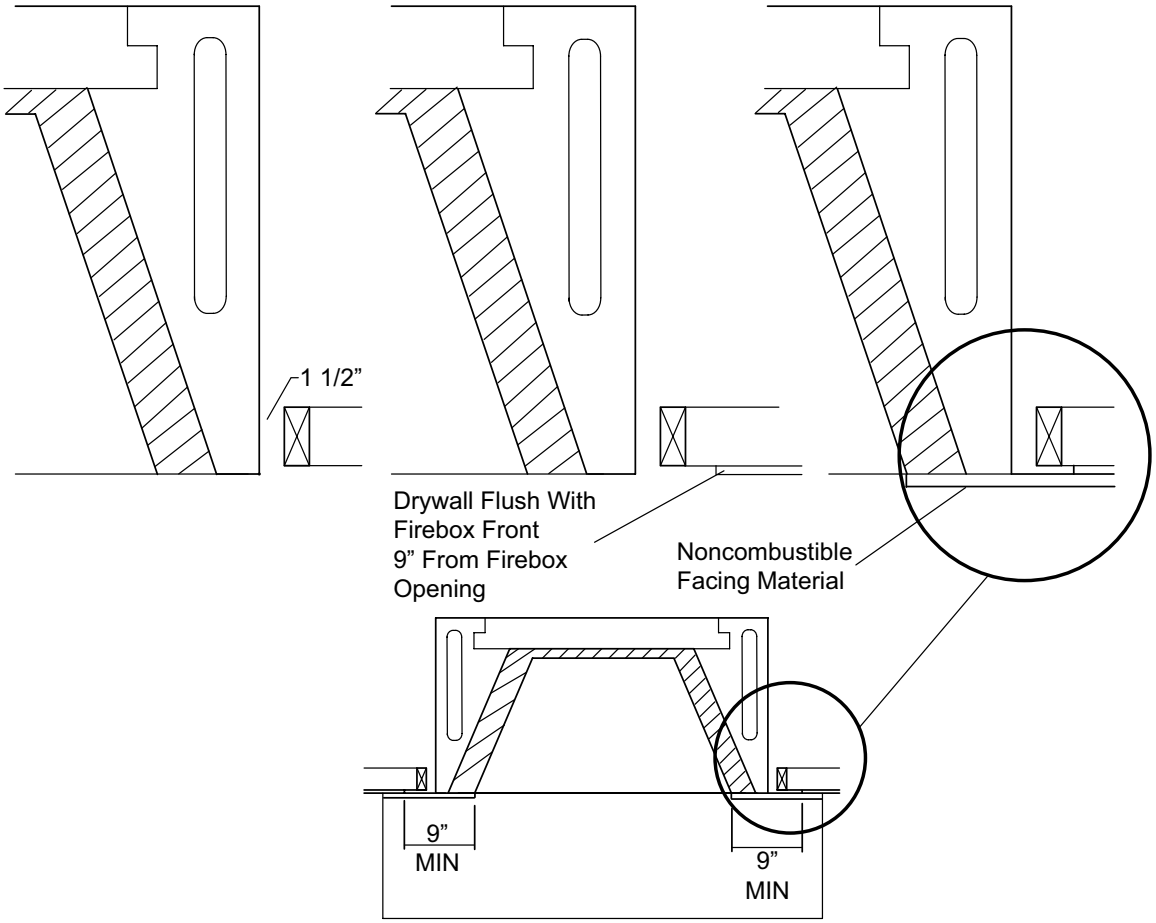


FIGURE 68

Recommended Fire Brick Detail: When drywall is the wall finish at the Magnum 86072 face and flush with the rough face of the Magnum 86072 firebox and damper beam, it is recommended when installing the required fire brick lining to the interior of the firebox, that the leading edge of the fire brick - at the floor and at the side walls of the firebox - be set flush with the Magnum’s rough firebox front. This will aid in the overall fit and finish of the Magnum 86072 Series fireplace front when the code required noncombustible finished facings are applied.

This alignment of fire brick application, as shown above (Figure 68), allows the fire brick lining to be in the same plane with the room’s wall finish surface. With the fire brick set in this fashion the noncombustible finish facing material can be set tight against the leading edge (or, “room edge”) of the fire brick at the sides of the fireplace opening. At the same time the finished facing material can lay flat against the room’s finished wall surface.

Flush Wall Brick Finish Detail

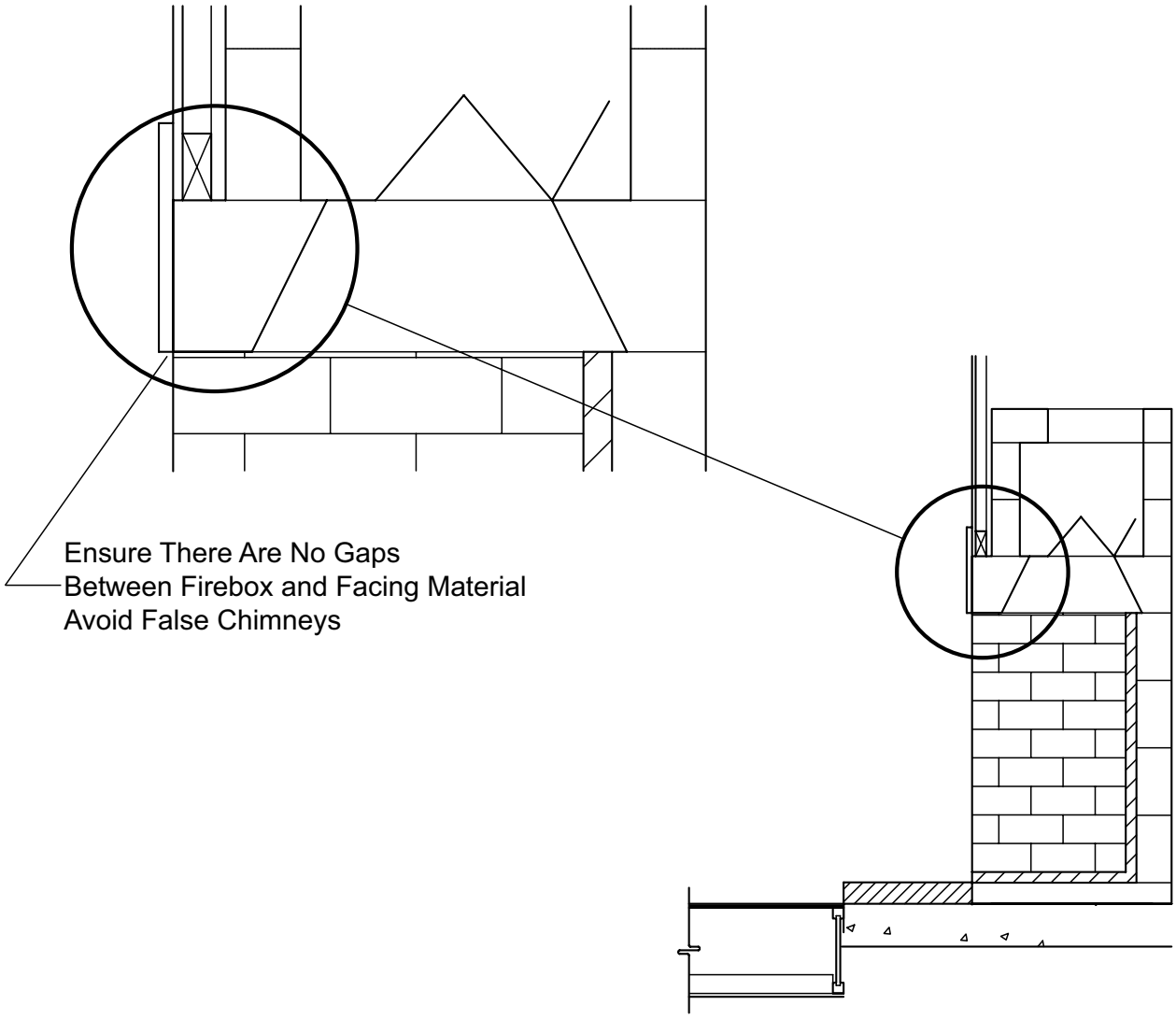


FIGURE 69

Important: Since there is no fire brick set along the top of the Magnum's firebox opening, when setting the noncombustible finished facing material (code required and supplied by others) across the top of the firebox opening there may be a gap between the back of the noncombustible finish material and the rough front face of the Magnum 86072 damper beam. Be sure to check for and fill any gaps with noncombustible Earthcore Mortar in conjunction with placement of the code required noncombustible finish facing material set across the top of the firebox opening. (Figure 69)

WARNING: **Avoid false chimneys.**

Important: Failure to seal any gaps between the front face of the Magnum 86072 damper plate and the back of the noncombustible finished facing material will create what is known as a "false chimney". A "false chimney", in this case, is the narrow gap (mentioned above) between the back of the noncombustible facing material at the top of the firebox opening and the rough front of the Magnum 86072 damper beam. If left unfilled this gap creates a "false chimney" which can draw smoke, heat and fire out of the firebox into the space behind the noncombustible finish facing and on up into overhead framed spaces causing a fire hazard.

Interior Masonry Veneer Fireplace Finishes & Clearances

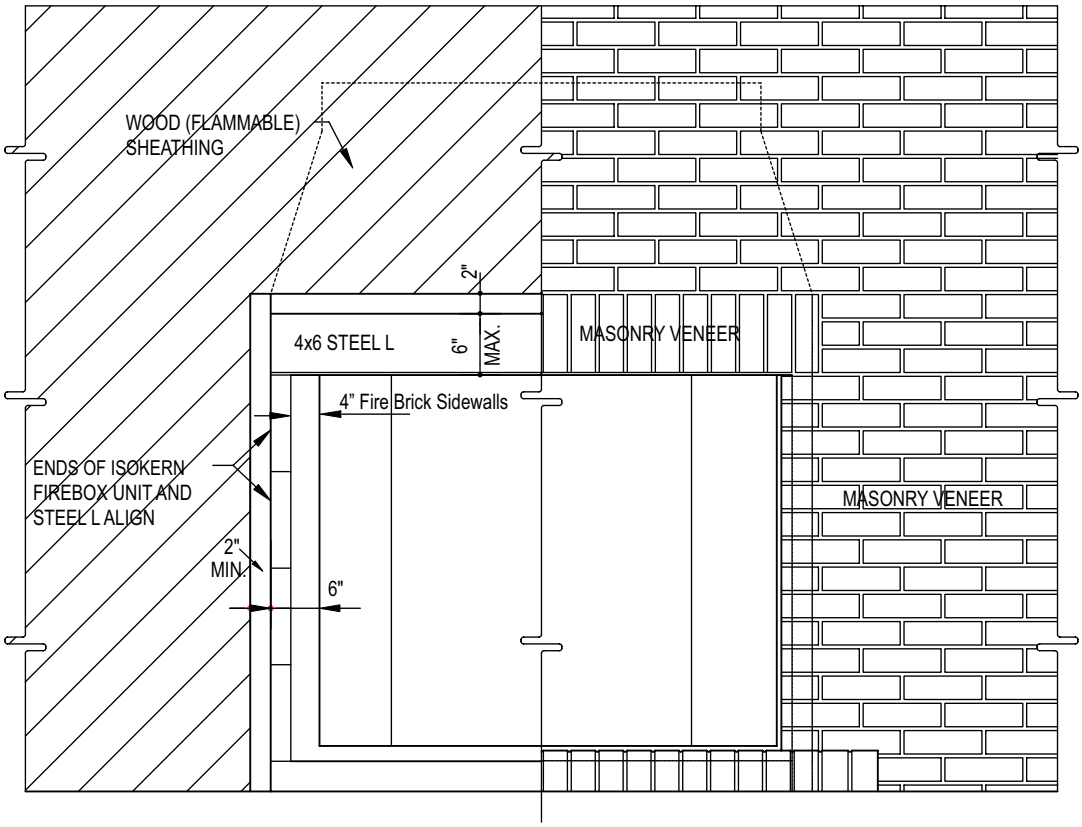


FIGURE 70

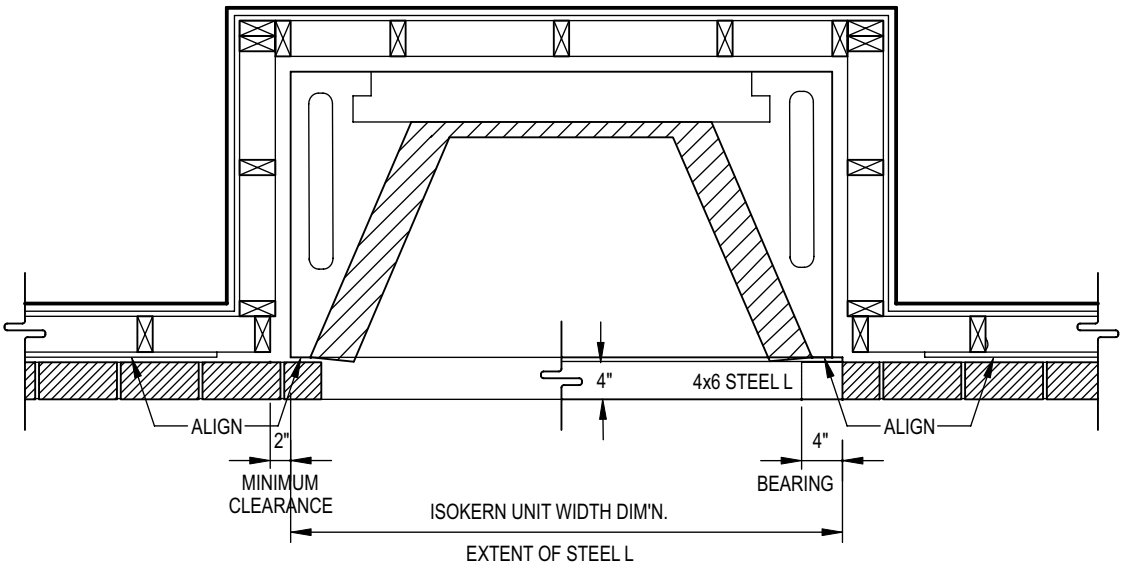


FIGURE 71

Masonry Veneer Construction Details

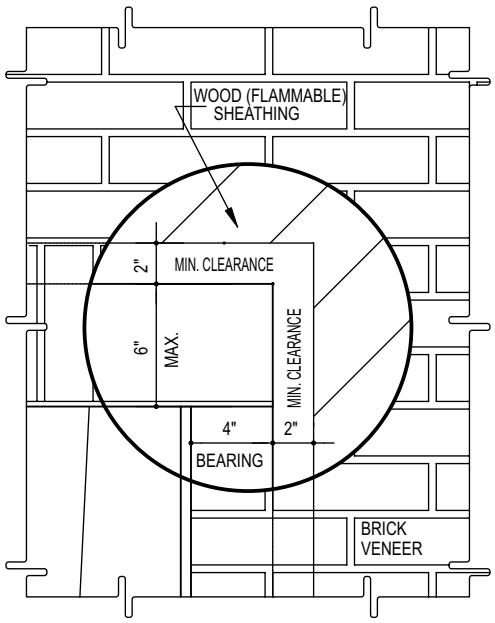


FIGURE 72

Brick, stone or other masonry veneer finished fronts to the Magnum series 86072 fireplaces are possible. Special attention is required with regards to:
(1) the placement of the proposed masonry veneer facing, its interface with the Magnum 86072 fire brick lining, and
(2) the masonry veneer and clearance to combustible framing and sheathing from any steel "L" support used in the masonry veneer around the front of the Magnum 86072 unit behind the veneer facing.

Any proposed brick, stone or other masonry veneer facing must have sufficient foundation to support the full weight of the veneer work. This may require review by a local structural engineer prior to construction.

The veneer facing, when installed, must present a tight seal with the leading edge - the room edge - of the Magnum 86072 fire brick lining at the sides of the firebox opening. (Figure 71)

A steel "L" will need to span the top of the finished fireplace opening to carry the masonry veneer as it spans over the firebox opening. (Figures 70 & 71)

By code requirement this steel "L" must have a minimum four inch (4") end bearing. This bearing surface area shall be provided in the veneer work. (Figure 72) It is important that the steel "L" is set tight against the Magnum's damper beam front and set in a mud joint to avoid creating a "false chimney" between the back of the steel "L" and the Magnum's damper beam front. (Figure 73)

Steel "L" or "angle" used to support masonry veneer as it spans the Magnum's firebox opening must, in all cases, have a two inch (2") minimum clearance to all combustible materials. The vertical leg of the steel "L" cannot exceed six inches (6") in height.

Note: Properly placed combustible sheathing is kept a minimum of eight inches (9") away from the Magnum 86072 firebox opening sides and top.

Important: Combustible framing members, normally set at one and one-half inch (1-1/2") clearance to the sides of the Magnum firebox must be moved to at least two inch (2") clearance to the firebox sidewalls to maintain required minimum two inch (2") clearance to the steel "L" to avoid a potential fire hazard.

Moving framing members two inches (2") away from the firebox side walls will maintain the minimum required two inch (2") clearance from the steel "L" and, at the same time allow full four inch (4") end bearing required for the steel "L". (Figure 71)

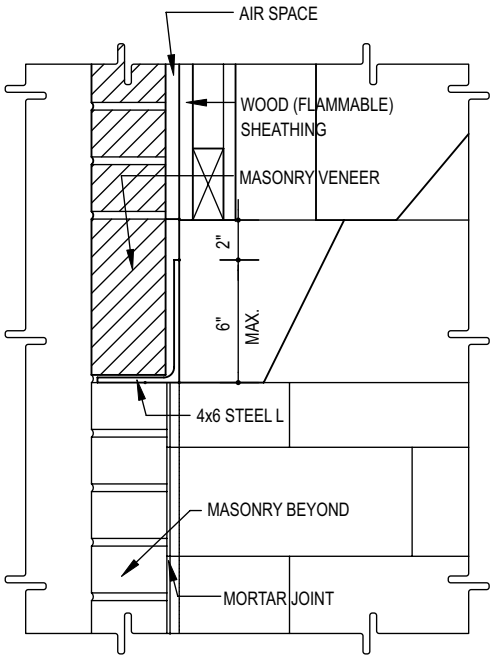


FIGURE 73

Non-combustible Finished Facing requirements & Clearance to Combustible Trim

Hearth Extensions:

All Magnum 86072 Series fireplaces shall have hearth extensions of brick, concrete, stone, tile or other code approved noncombustible material. Suitable hearth extension material for the Magnum 86072 Series fireplace shall be placed on the hearth extension's noncombustible substrate and must extend to at least thirty three inches (33") in front of the fireplace's finished opening and must extend to at least twelve inches (12") beyond the sides of the finished fireplace opening. (Figure 74 & 75)

WARNING: The noncombustible hearth extension, by code, must sit on noncombustible substrate which shall have no wood underpinnings.

This means that off-grade wood floor systems shall be constructed in such a way that all wood floor joists and subflooring shall stop thirty three inches (33") out from the front of the Magnum 86072 firebox. (Figure 75)

Mantle and Mantle Shelf Clearances: Magnum 86072 Series fireplaces are subject to the same building code safety clearances to combustible trim as with any radiant heat fireplace.

All combustible trim shall be kept at least nine inches (9") from the finished fireplace opening. Combustible trim located along the sides of the fireplace opening, which project more than one and one-half inches (1-1/2") from the face of the fireplace, shall have additional clearance from the nine inches (9") equal to the projection. Combustible projecting mantles up to twelve inches (12") of projection - shall not be placed less than thirty eight inches (38") from the top of the fireplace opening. Combustible mantles which project more than twelve inches (12") from the face of the fireplace, shall have additional clearance from the thirty eight inches (38") equal to the projection.

Note: The local authority having jurisdiction may require greater clearances for projection combustible mantle shelves. Be sure to check local building codes regarding required clearances to projecting combustible mantles.

Adjoining Walls. Side walls and walls to rooms adjoining the Magnum 86072 Series fireplace installations cannot be closer than forty eight inches (48") to the finished fireplace opening. (Figure 75)

Note: "Clearance to Combustible Trim" are those distances required to ensure that a fireplace mantle or facing will not catch fire. In most cases the distances should also be adequate to prevent any discoloration or warping due to heat. However each installation presents a unique and completely different set of circumstances involving many variables.

These include paint or finish composition, previous exposure to heat, methods and quality of construction, air flow patterns, etc. Because of these variables, the manufacturer does not guarantee that heat warping or discoloration will never occur.

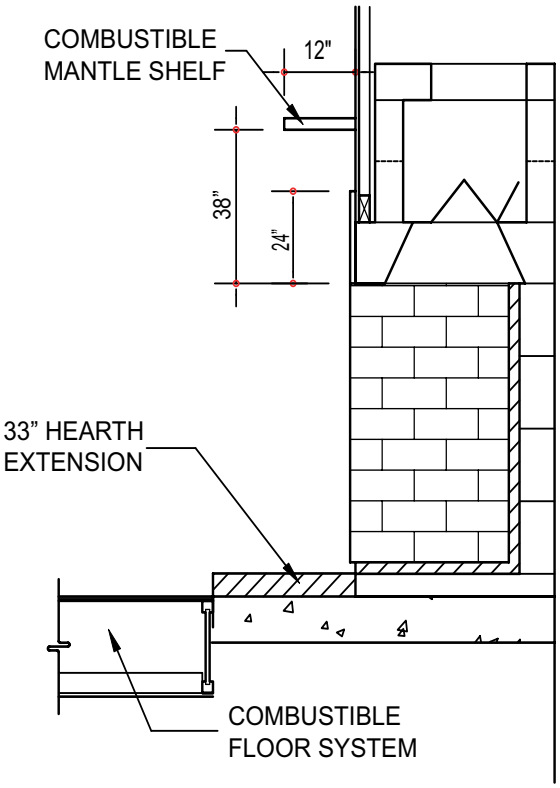


FIGURE 74

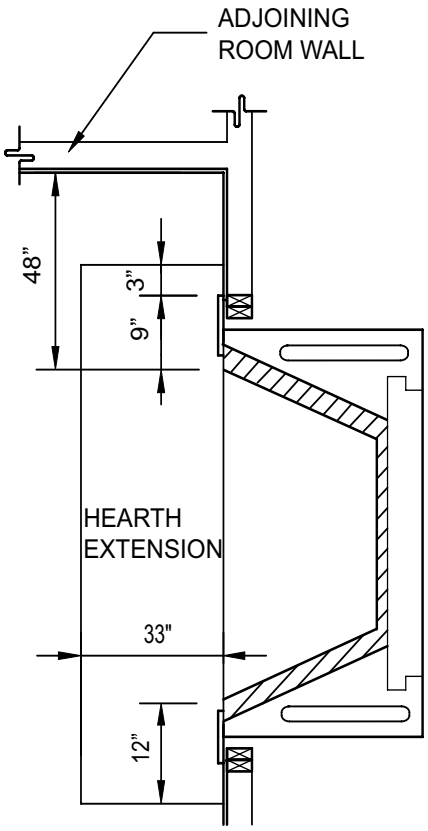


FIGURE 75

Concrete Support

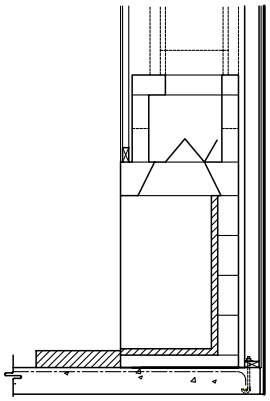


FIGURE 76

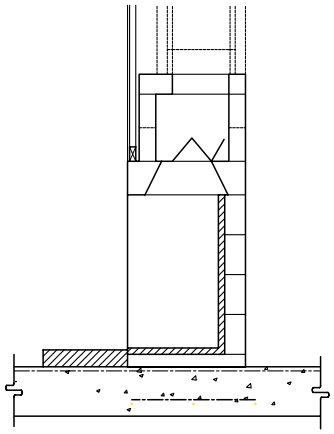


FIGURE 77

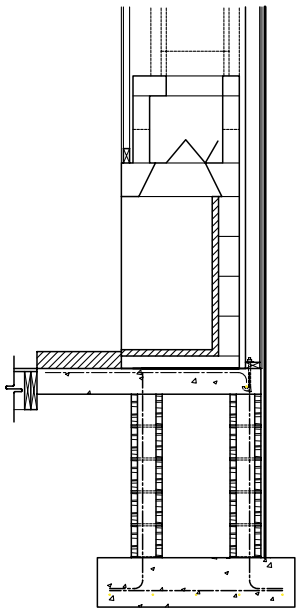


FIGURE 78

The Magnum 86072 fireplace is not rated for installation on a combustible floor system. Engineered drawings for a Fire-Lite installation on a combustible floor can be obtained bey calling 800-642-2920. Magnum 86072 Series fireplaces must be built upon a concrete support slab with no wood underpinnings. Proper reinforced concrete support slab for Magnum 86072 installations may include the following types:

1. Slab on grade: standard residential, minimum four inch (4") thick, 2500 psi concrete foundations on properly compacted fill. This type foundation can support Isokern installations up to thirty feet (30') overall height (brickledge installations not included). (Figure 76).

2.Slab-on-grade foundations, thickened and reinforced: for additional
load carrying. (Figure 77)

3. Off-grade slab on foundation walls and footings.

Projects with off-grade floor systems as well as upper story installations require this type of support. (Figure 78)

When building off-grade support slabs the code required hearth extension substrate should be built as a continuation of the support slab for the Magnum 86072 unit. (Figure 78)

Supports for off grade slabs must be concrete or steel and capable of supporting the slab, Isokern unit and the chimney.

For multi-floor and back-to-back installations proper weight computation on an individual basis is required. Consult local structural engineer for load bearing requirements.

Important: Foundations and footings must meet local code and be approved by the local building authority. For any foundation design and load requirements check with local structural engineer. It is the responsibility of the General contractor to insure adequate foundations.

Magnum 86072 Series fireplace weights and "foot print" areas: The total fireplace weight for each Magnum 86072 model listed below includes: Magnum 86072unit pumice parts only:

A. Model Magnum 86072 - 60: 2952 lbs. @ 73.5"x 28" = 14.29 sq.ft.
B. Model Magnum 86072 - 72: 2652 lbs. @ 83.5"x 28" = 16.63 sf.ft.

Totals are exclusive of any chimney components. See page 36 for Isokern DM chimney component weights.

"Footprint" areas listed above are base plate dimensions for each model and are exclusive of code required hearth extension areas. See page 32 for hearth extension dimensions.

Note: Additional support slab area may be required at the side or back of the Magnum 86072 unit to provide bearing for structural supports to a DM offset chimney sequence. (See pages 40-42 for offset chimney support requirements.)

DM Chimney System: General Information

The DM chimney is a dual module, refractory masonry chimney system. It is composed of two precast, mating components, the outer casing block and an inner liner.

General Information:

This chimney system is designed for installation in accordance with the National Fire Protection Standard for Chimneys and Solid Fuel-Burning Appliances, NFPA 211 and in accordance with codes such as ICC, BOCA Basic/National Codes, the standard Mechanical Code and the Uniform Building Codes.

Note: Illustrations shown reflect "typical" installations with nominal dimensions and are for design and framing reference only. Always maintain minimum required clearances to combustible materials and do not violate any specific installation requirements.

Required DM Chimney Clearance:

The DM chimney system, rated UL 103HT, is listed for zero clearance to normal construction materials. The DM chimney system may be enclosed in a wood chimney chase at zero clearance to wood framing members.

Note: A firestop is required wherever a chimney passes between one zone of a building to another. Ex: When the chimney passes through the ceiling into the attic area, there must be a sealed area around the chimney so there isn't a chaseway for a fire to get to the attic.

Since lateral support is required for DM chimneys the framing members will be in contact with the DM chimney system.

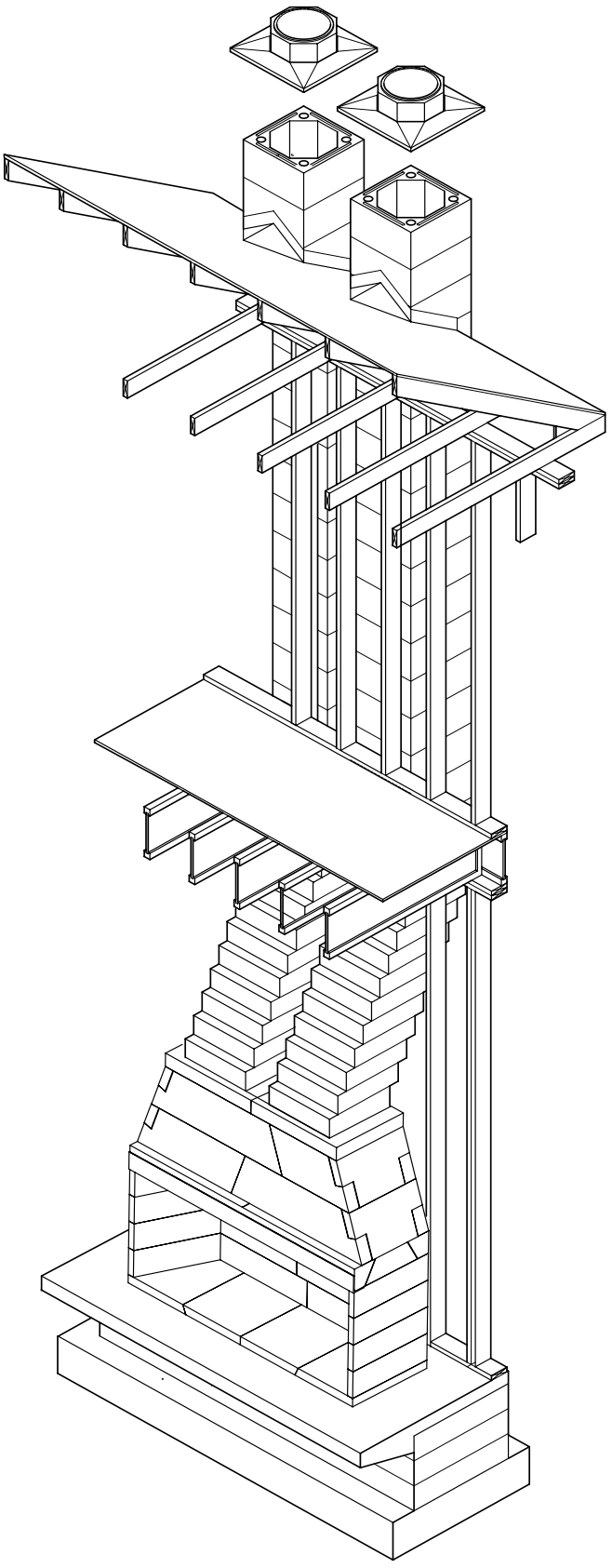
Important: "Combustibles" are defined as "normal construction materials" and are considered to be: framing materials, particle board, mill board, drywall, plywood paneling, plywood sub flooring, and wood flooring.

Keep all insulation, vapor barriers, "house wrap" paper and other insulating type membranes and products, including fiberglass, cellulose and other insulation, (anything that carries an "R" rating) a minimum of three inches (3") away from all firebox and chimney surfaces. Exception:

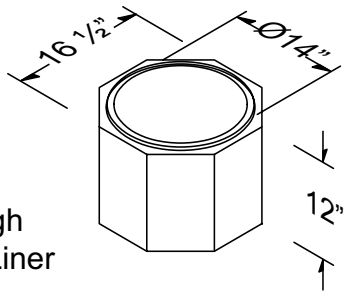
If insulation is used in walls surrounding the fireplace, insulation may be installed behind sheathing of gypsom board, plywood, particle board or other material on the side facing the Isokern. The facing material cannot be within 1 1/2" to the fireplace sidewalls.

Mechanical Vent Systems:

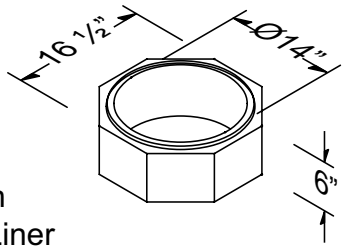
It is acceptable to use mechanical draft systems, if the venting companies do the engineering calculations and make the necessary recommendations for fan size and flue vent diameter following the guidelines of NFPA 211/2006, pg. 211-13. Installation of such systems must also follow the mechanical drafting company's explicit installation and operation instructions.



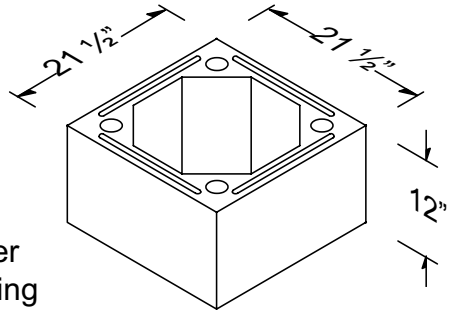
DM Chimney Component List & Dimensions



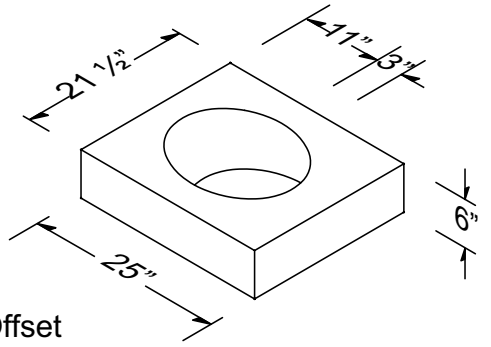
12" High
Inner Liner



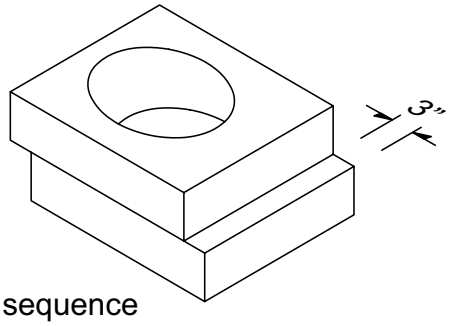
6" High
Inner Liner



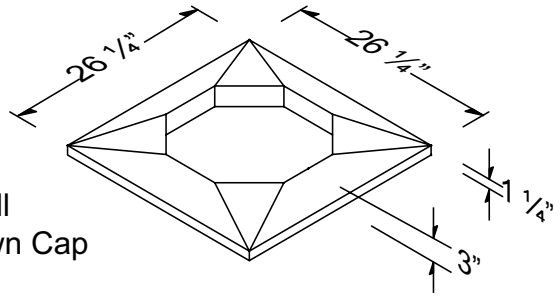
Outer
Casing



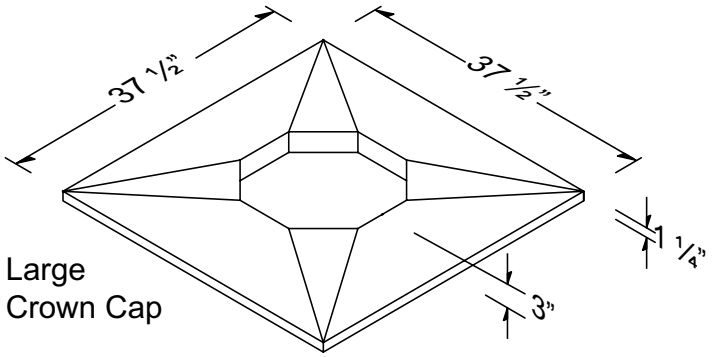
Offset
Block



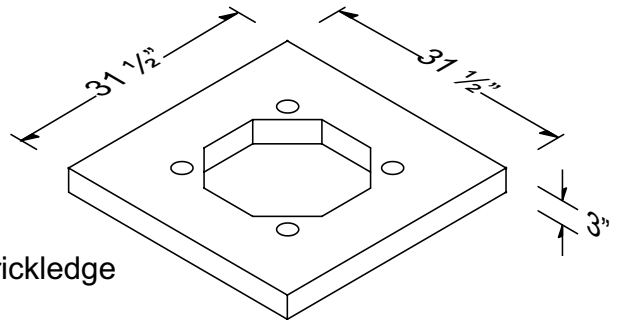
Offset
Block in sequence



Small
Crown Cap



Large
Crown Cap



Brickledge

DM Chimney: Component Weights

Isokern DM Chimney Weights:

Total installed Isokern DM chimney weight will vary according to each specific installation. Total installed chimney weight will be based on the overall height and the configuration of the chimney system.

Chimneys may be straight vertical stacks of DM outer casing and inner liner (22'-0" Maximum without additional structural support) but may also include the use of offset chimney blocks, brickledge, chimney reinforcement, brick/stone veneers, cement crown caps and clay chimney pot termination.

The DM chimney component weights are as follows:

Small crown cap: 80 lb.
Large crown cap: 100 lb.
Brickledge: 110 lb.
14" diameter inner liner: 45 lb.
Outer casing block: 90 lb.
Offset block*: 110 lb.

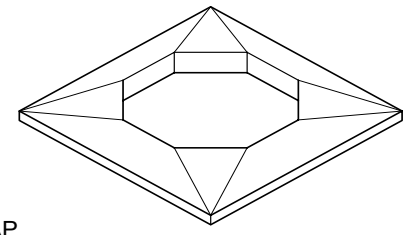
*Construction of an offset block sequence will shift a portion, if not all of the chimney load off of the firebox and smoke dome. Additional reinforced concrete footing and slab area may need to be provided adjacent to or as a continuation of the primary support slab area for bearing the steel or masonry support required for an offset sequence. (See pages 40-42 following.)

Notes:

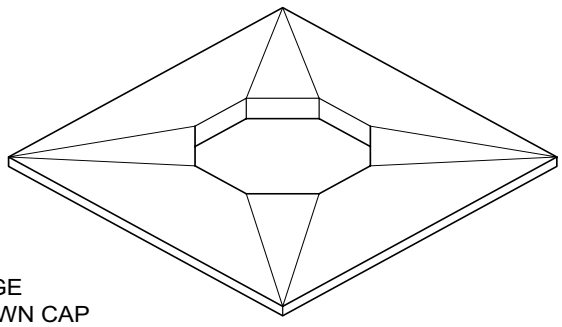
Plan chimney configuration carefully before constructing the required reinforced concrete support foundation for the Magnum 86072 Series fireplace. Be sure that enough structural masonry area is available to support any offset chimney sequence included in the proposed chimney design.

Isokern is not responsible for site specific structural support details and load specifications for Magnum 86072 Series fireplace and DM chimney system installations. Consult local structural engineer for proper job-specific support structure design, sizing and load bearing specifications.

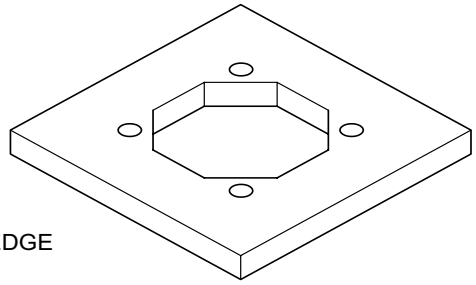
Unless otherwise noted, all floor drawings in this manual are merely illustrations to indicate the presence of an underlying noncombustible support structure to the Magnum 86072 installation.



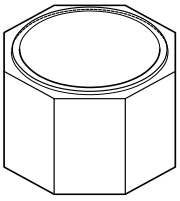
SMALL
CROWN CAP



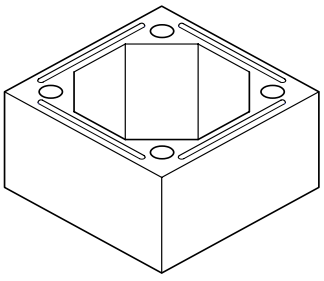
LARGE
CROWN CAP



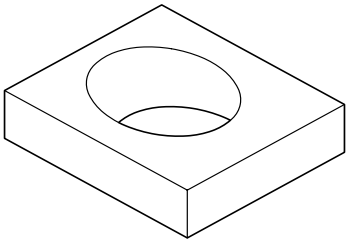
BRICKLEDGE



INNER
LINER



OUTER
CASING



OFFSET
BLOCK

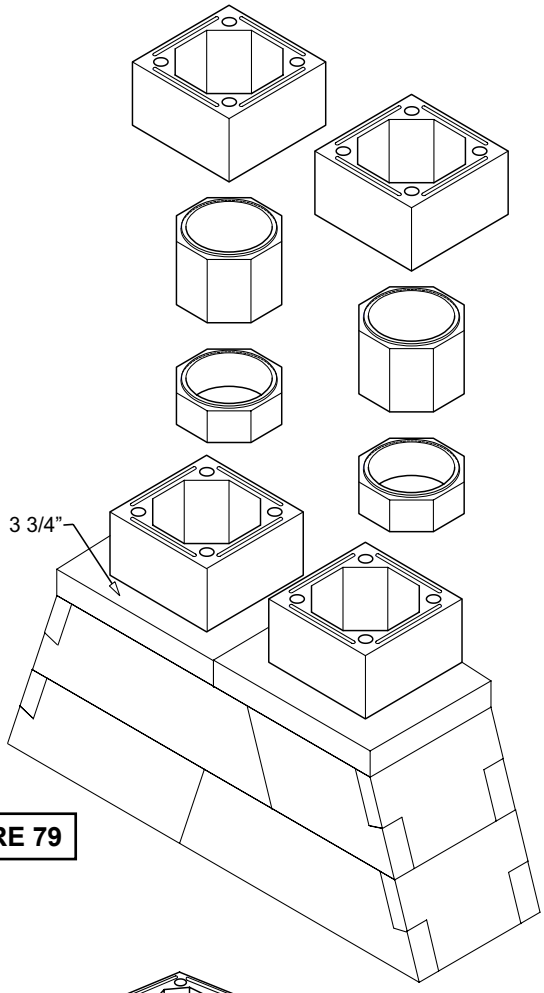


FIGURE 79

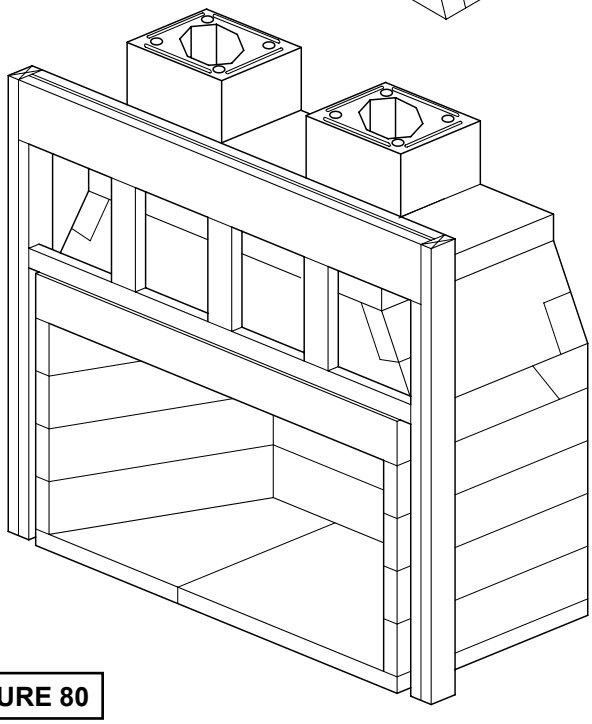


FIGURE 80

DM Chimney Alignment:

Where the chimney run is to be a straight vertical run the DM outer casing block sits directly onto the Isokern smoke dome lid. The DM outer casing block, properly set is intended to be flush with the back face of the firebox smoke dome assebly.

Set in this way the DM outer casing block will sit three and three fourths inches (3-3/4”) back from the front face of the smoke dome. (Figure 79)

This total set-back distance makes it possible for a three and one-half inches (3-1/2”) thick bearing header to pass over the Magnum 86072 firebox smoke dome assembly and for the DM chimney to run straight up the back side of the bearing header (Figure 80).

Installation of the DM chimney:

Begin straight DM chimney runs by setting a DM outer casing block in a bed of mortar on top of the Magnum 86072 smoke dome lid with the outer casing block centered on the lid from side to side and flush with the back of the smoke dome lid.

Be sure that the outer casing block aligns with the flue hole in the smoke dome lid.

Next set the DM inner liner’s six inch (6”) tall starter piece (Figure 79) inside the first outer casing block. The “factory” version of the six inch (6”) tall inner liner starter piece has a female end and a flat end. Set this inner liner starter with the flat end down.

Set the downward end into Earthcore Mortar so that it is fully sealed to the smoke dome lid.

WARNING: Do not mortar the air space between the liners and the outer casing blocks.

Starting with the six inch (6”) tall inner liner starter piece creates six inch (6”) staggered horizontal joints between the inner liner and the outer casing block as the chimney is built up.

Both the outer casing block and the inner liner components have tongue and groove type detailing on each end to assure alignment and interlock of the pieces as they are stacked and glued together.

Notes:

If the “factory” inner liner starter piece is broken or otherwise unavailable then a full twelve inch (12”) tall inner liner piece can be cut to six inches (6”) in height to make an inner liner starter piece.

DM chimney inner liners can be stacked with either the male or the female end up. In either case start the inner liner stack with a six inch (6”) starter piece.

DM Chimney System: Lateral Support

After setting the DM inner liner starter piece, apply mortar to the top of the starter liner. Continue the straight chimney run by placing a full height inner liner onto the six inch (6") starter liner. The top of this full height inner liner will sit 6" above the top of the outer casing block that was previously set.

This six inch (6") offset between joints of the inner liner stack and the joints of the outer casing stack continues to the top of the chimney run.

Continue the straight vertical DM chimney by setting an outer casing block onto the mortared top surface of the preceding outer casing. The grooves on the bottom end of the upper outer casing block fit onto the tongues on the top of the lower outer casing block. This assures proper alignment of the two components.

Next place a full height inner liner onto the mortared top end of the previously set inner liner. Proceed this alternate stacking of outer casing blocks and inner liners until the desired height of the flue is attained.

Mortar all outer casing blocks together and mortar all inner liners together. Do not mortar the space between the outer casing and the liner.

Lateral Support for DM Chimneys:

Though not required, it is recommended that where the DM chimney is built up along an exterior wall the vertical chimney system can be connected to the structural wall system at a minimum of four foot (4') intervals. This connection can be made using 18 gauge strap ties (Simpson Strong Tie CS coil strap, or equivalent).

Starting on one side of the DM chimney, at four foot (4') intervals up the structural wall adjoining the chimney, connect one 18 gauage strap tie to the structural wall with two, three inch (3") #8 (minimum) wood screws or masonry anchors, as appropriate.

Next fold the strap around the three exposed sides of the outer casing. Connect the strap to each of the three outer casing faces with two, one and one-half inch (1-1/2") long masonry anchors, such as "Tapcon" or "Titen" screws. Fasten the strap back to the structural wall with two three inch (3") # 8 (minimum) wood screws or masonry screws, as appropriate. (Figure 81)

Where DM chimneys are built up from the interior walls the DM chimney outer casing block is to be laterally braced at ceiling and roof penetrations.

Pressure treated two inch (2") by four inch (4") blocks, set at each side of the flue between the trusses or rafters and fastened to the pre-engineered roof trusses or rafters with two 16d common nails at each end, provides lateral support, parallel with the framing. Additionally, a two inch (2") by four inch (4") by six feet (6') minimum pressure treated member ("rat run") installed on each side of and butted up to the outer casing block will provide lateral support perpendicular to the direction of the truss or rafter framing system.

Fasten the perpendicular member with two 16d common nails to each intersecting truss or rafter. The perpendicular bracing should be installed on the top side the ceiling level framing as well as on the bottom side of the rafters. (Figure 82)

Note: A firestop is required wherever a chimney passes between one zone of a building to another. Ex: When the chimney passes through the ceiling into the attic area, there must be a sealed area around the chimney so there isn't a chaseway for a fire to get to the attic.

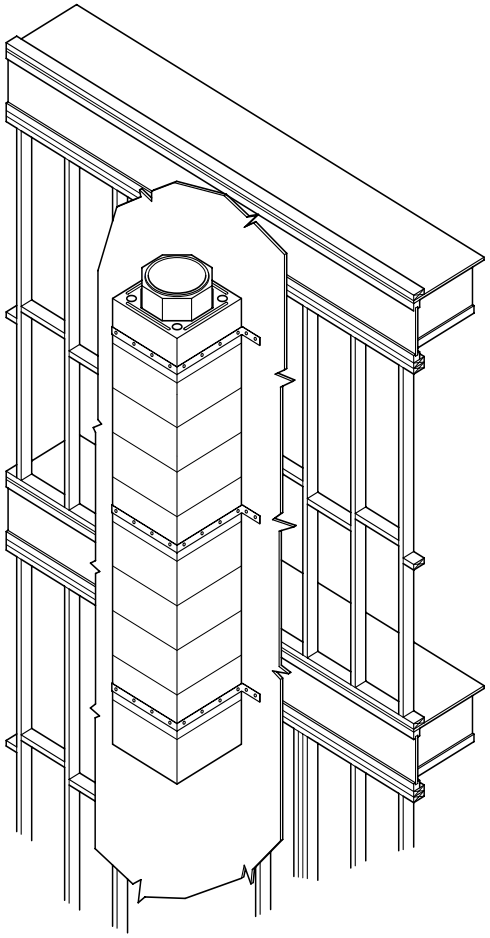


FIGURE 81

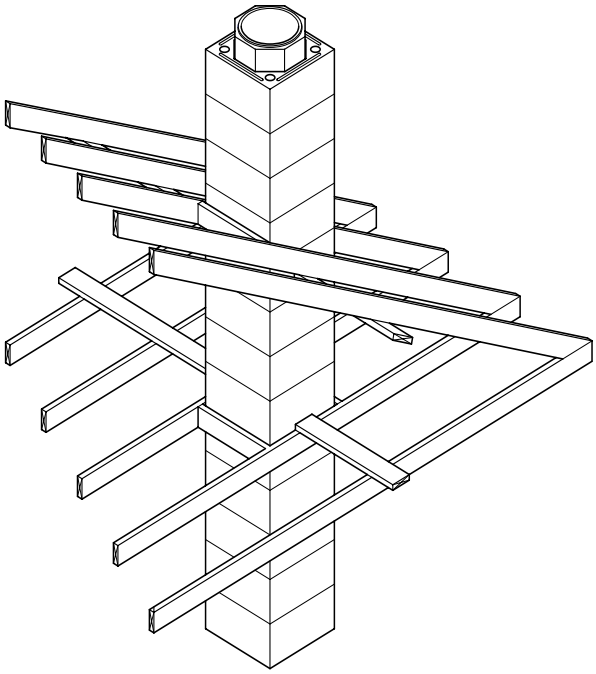


FIGURE 82

DM Chimney System: Offset Block

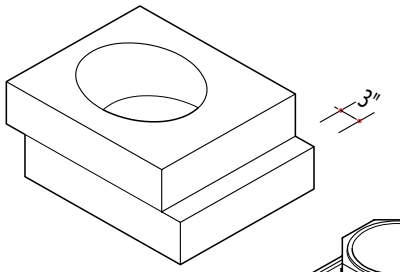


FIGURE 83

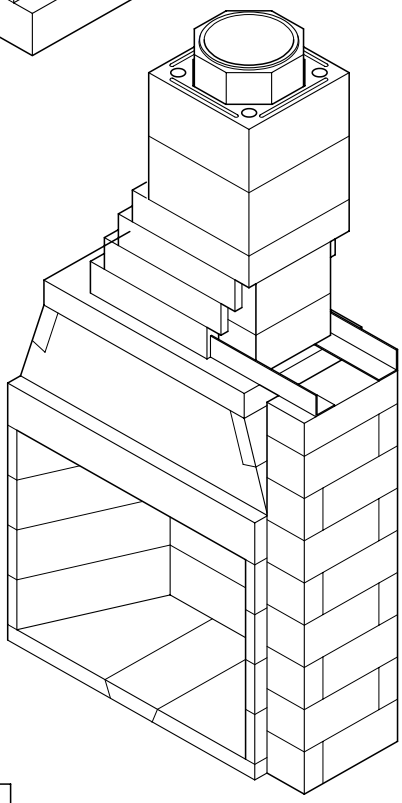


FIGURE 84

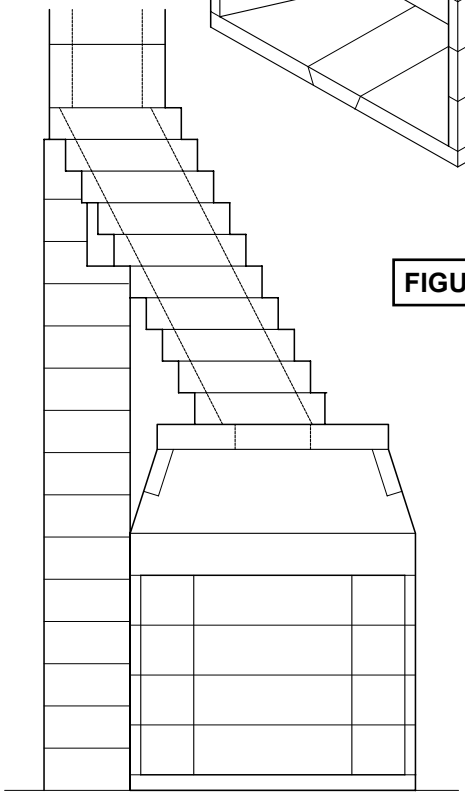


FIGURE 85

DM Offset Chimney Block:

For vertical DM chimney to bypass overhead obstructions, the Isokern offset chimney block is used. Offset blocks are six inch (6") thick, single module chimney components, measuring twenty-one and one-half inch (21-1/2") wide by twenty-five inches (25") long. The fourteen inch hole passes through the block at thirty (30°) degrees.

An offset chimney block can be set as the first flue component on top of the Magnum 86072 smoke dome.

When building offset sequences it is necessary to support the third offset block in the sequence and every third offset block thereafter. When using only one or two offset blocks no additional support is required.

Offset sequences are best when built as low as possible in the chimney run to maximize performance.

Do not make support columns of brick, stone or wood. All support columns must bear onto proper noncombustible foundations.

Isokern Offset Chimney Block Installation:

Isokern offset chimney blocks are stacked in a stair step fashion with each successive block overhanging the previous offset block by three inches (3"), allowing the flue to rise at an angle of thirty (30°) degrees off of vertical. (Figure 83)

When building offset sequences check the interior flue alignment as each offset block is set to avoid creating overhanging ledges on the inside of the flue. Such internal overhangs will inhibit flue drafting.

Each offset block is to be set fully in a bed of Earthcore Mortar, completely sealing each offset block to the underlying component.

Offset chimney block sequences can be built to shift the chimney run to the left, right or to the rear of the firebox/smoke dome assembly.

Offset blocks can be set in a spiraling rotation, thus moving the chimney to a point that is diagonally away from its starting point.

Offset blocks require 1 1/2" to combustible framing.

Offsets to the Left or Right:

When offsetting chimneys to the left or right of the firebox it is not possible to build a support column directly under the third offset block.

To create proper support, construct a support column against the firebox from bearing up to the level of the smoke dome. Bridge from the column over to bearing on the smoke dome with two pieces of four inch (4") by four inch (4") by five-eighths inch (5/8") steel angle. (Figure 84)

On the steel angles build a masonry or steel support column up to the underside of the third offset block in the sequence. (Figure 84)

NOTE: For offset chimney block sequences that clear the side wall of the firebox below, it is allowable to support the first offset block that clears the the firebox side wall and then to proceed with supports at each third offset block thereafter. (Figure 85)

DM Chimney System: Offset Block (cont.)

With straight chimneys the front of the DM outer casing block sits approximately three and three-quarters inch (3- 3/4") back from the front of the smoke dome. This allows for a nominal 4" thick wall to be flush with the room side face of smoke dome assembly while the DM chimney passes up the backside of the wall.

For a nominal 2" by 6" wall thickness the chimney can be offset 3" rearward.

Set the first DM outer casing block flush to the back end of this offset block. This will leave a distance of 6-3/4" from the face of the Magnum 86072 firebox smoke dome assembly to the face of the DM outer casing block. This allows for the smoke dome to sit flush with the inside face of the 2" by 6" wall and the straight chimney to run up the outside of the wall. (Figure 86).

For a wall thickness of 9", nominal 8" CMU plus 1-1/2" furring strip - first set two offset chimney blocks in sequence, rearward. This leaves a distance of 9-3/4" from the front face of the smoke dome to the front face of the DM outer casing once the outer casing block is set in position. (Figure 88)

Greater offset distances can be accomplished by building with more offset chimney blocks. (Figure 87)

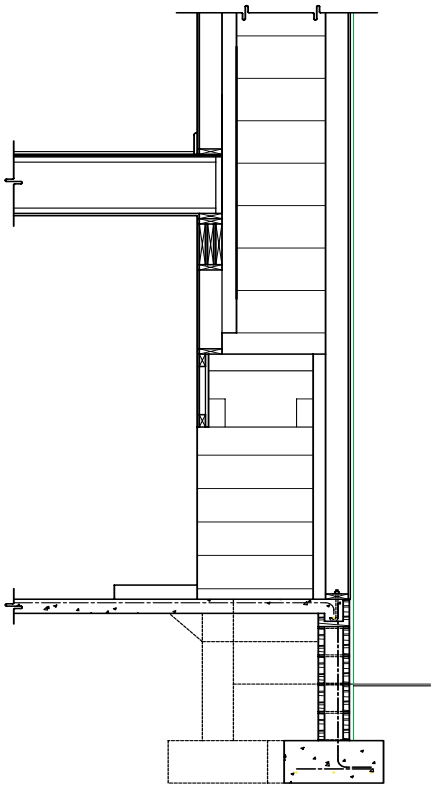


FIGURE 86

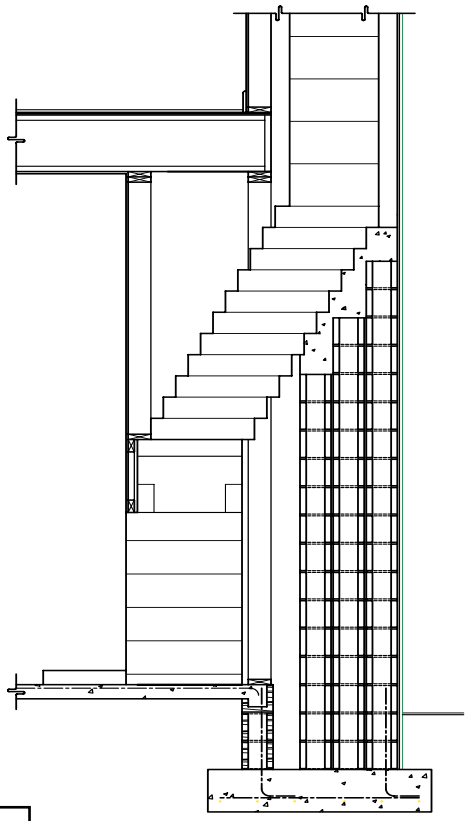


FIGURE 87

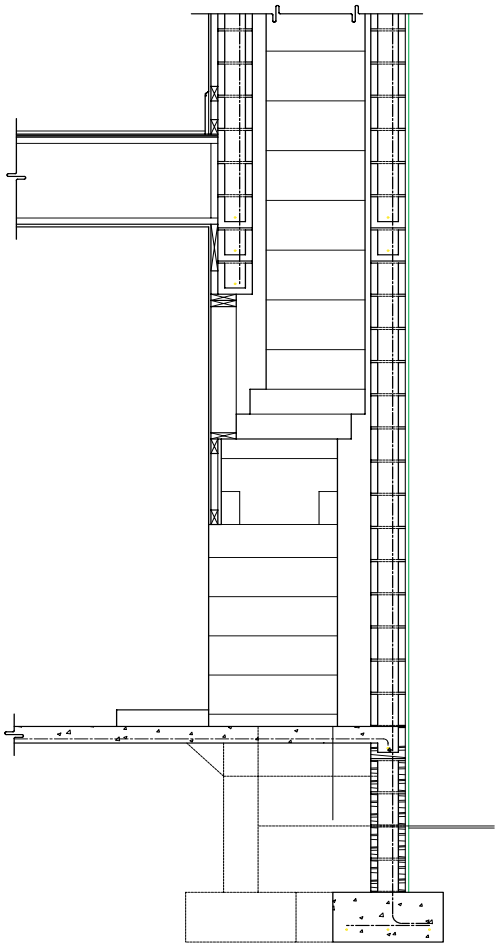


FIGURE 88

DM Chimney System: Offset Block (cont.)

Offset block Support Foundations:

It is required that every third Isokern offset chimney block in the sequence be supported down to footings via concrete block or steel support columns.

Plan fireplace and DM chimney systems carefully before foundations are laid to assure that proper footings are available to support Isokern offset blocks chimney run.

To calculate the distance of Isokern offset chimney travel in a straight line to the right, left or to the rear of the firebox/smoke dome assembly, proceed as follows:

Refer to Figure 89: temporarily dry set a DM outer casing block in its proper location on top of the completed firebox/smoke dome assembly as though starting a straight chimney.

If the offset sequence is to move to the left then, starting from the right side of the temporary DM outer casing measure left ward to the far face of the overhead obstruction that needs to be bypassed by the vertical chimney run.

For accurate measuring drop a plumb line down from the far face of overhead obstruction to the level of the top of the smoke dome assembly. Measure from the far side of the temporary DM outer casing to the plumb line. This measurement, taken in inches and divided by three (three inches of horizontal travel per offset block) gives the total number of offset blocks needed to accomplish the required travel distance.

To calculate the height that the offset block sequence will require, take the total number of offset blocks needed to accomplish the travel distance (described above) multiplied by 6". This number is the height (inches) that the offset sequence will require.

When establishing the "far face" of the overhead obstruction, be sure that the DM chimney blocks can run straight to chimney termination without further overhead obstruction since a second offset sequence is not allowed. (Figure 90)

Be sure that there is sufficient space beyond the "far face" of the overhead obstruction to accept the DM chimney's outer casing dimension of 21 1/2".

Support all offset sequences down to bearing as previously discussed on page 40.

Note:

Always support the last offset block in a sequence for full support of the DM chimney where it returns to vertical.

Support columns often carry the majority of the total load of the vertical chimney that is set onto the last offset block.

The total chimney weight above the last offset block will be the total weight of the vertical chimney plus any additional allowable loads such as the Isokern brickledge, its related brick or stone veneers, and any crown caps, clay pots or other masonry chimney terminations.

Be sure the foundation under all support columns is made of concrete or steel and designed to support the loads applied to it.

NOTE Cont:

Check with local codes and a structural engineer to confirm loading and foundation requirements.

Chimney runs are limited to one offset sequence per chimney system.

Maximum horizontal distance of offset is six feet (6') and represents twenty-four offset blocks in sequence.

By code the maximum angle of offset for chimney system is 30° off of vertical.

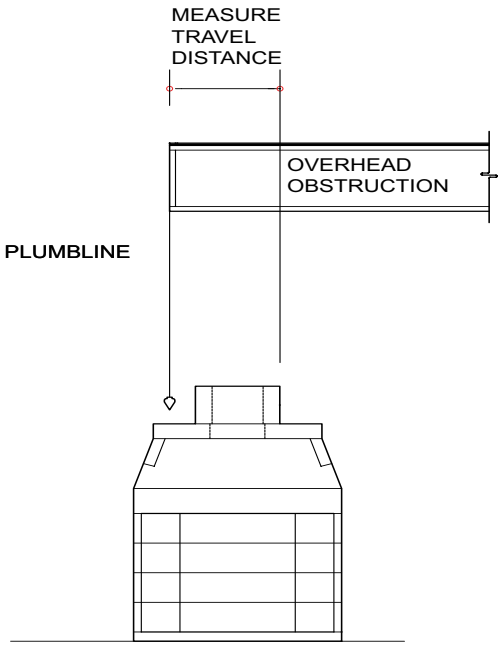


FIGURE 89

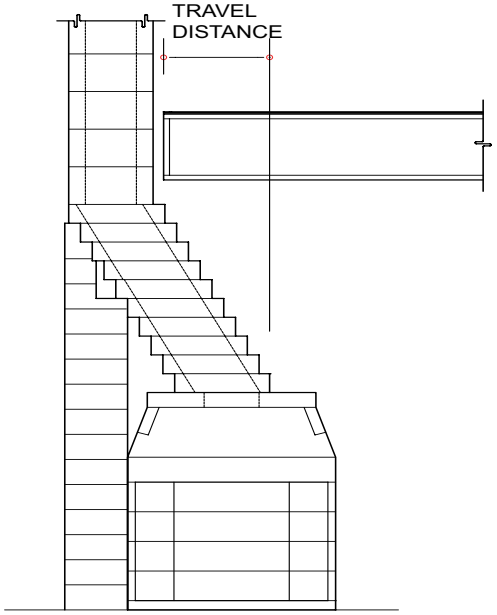


FIGURE 90

DM Chimney System: DM Brick Ledge

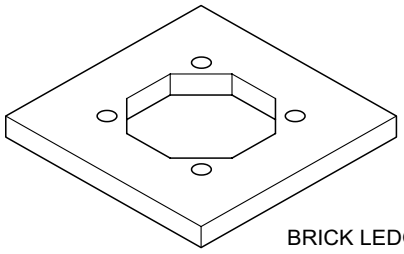


FIGURE 91

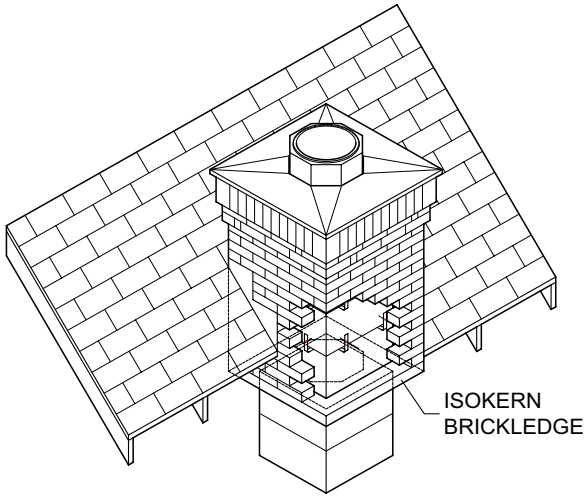


FIGURE 92

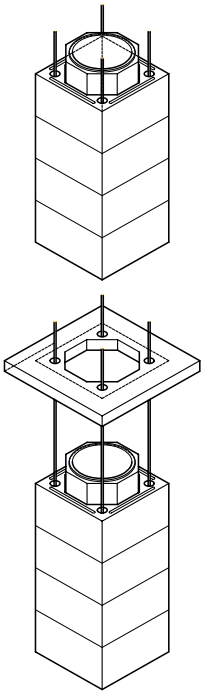


FIGURE 93

DM Brick Ledge:

The DM brickledge is a 3" thick, 32-1/2" square, steel reinforced, concrete and pumice slab (Figure 91). It provides a 5" ledge at all four sides of the outer casing block and is designed to support masonry veneers to DM chimneys starting below the rafters and continuing to termination. (Figure 92)

The component is cast with an octagonal hole in its center so that the DM octagonal inner liner can pass through it.

The brickledge has four 2-1/2" holes through it that align with the hole in each of the four corners of the DM outer casing block. These four holes are provided for reinforcement of the chimney stack by the insertion of #4, minimum, steel reinforcing rods and subsequent grouting. (Figure 93)

The brickledge is intended for use in chimneys that rise through the roof only where all four sides of the chimney are bounded by the roof.

WARNING: To maintain structural performance the DM brickledge must not be cut or altered in any way.

DM Brick Ledge Installation:

Use of the brickledge will require a roof framing rough opening of at least 34" in width. The required opening dimension along the length of the rafter, where the chimney is to penetrate the roof line, will increase above 34" relative to the pitch of the roof.

As the DM outer casing and inner liner assembly approaches the roof penetration set an outer casing block to a level of approximately 6" below the low side of the roof framing. (Figure 94)

The alignment tongues on the top of this outer casing block must be ground off to leave a flat contact surface for the brickledge. Temporarily leave out the inner liner that fits this outer casing block.

Set the Isokern brickledge onto the flat top surface of the outer casing in a full bed of Earthcore Mortar. Be sure to align the four 2-1/2" holes in the brickledge with the matching holes in the outer casing block below it. Return to setting the next inner liner in the sequence. This inner liner comes up from below and passes through the octagonal hole in the brickledge. The liner's top end will be approximately 3" above the top surface of the brickledge. Set the next outer casing block onto the top of the brickledge in a bed of Earthcore Mortar.

Insert one piece of #4 (minimum) steel reinforcing rod into each of the four 2-1/2" holes in the brickledge. The reinforcement rods must start from a depth of at least 18" below the bottom of the brickledge. (In some cases, a minimum reccommendation could be 5')

Consult local structural engineer for proper job-specific support structure design, sizing and load bearing specifications for the Magnum Model 86072.

DM Chimney System: Brick Ledge Installation

If short lengths of steel rods are used be sure to properly lap and wire tie all splices in the rebar. As the reinforcing progresses, completely fill the holes with grout. Suitable grout can be a pourable mixture of Portland cement and sand or Portland cement, sand and pea gravel. The rebar must be fully embedded in grout.

Leave enough of the #4 steel reinforcing rod exposed above the brickledge so that as the stacking of outer casing blocks continues to termination the reinforcing rods and grout can continue through the stack. Reinforcing shall continue to chimney termination.

All DM chimneys that include the DM brickledge must be reinforced as described above.

CAUTION: When using the Isokern brickledge it is required that the Magnum 86072 firebox/smoke dome assembly include the placement of a 4" by 4" by 3/8" minimum steel angle across the firebox opening. (See page 48 for "Structural Information" for details regarding specification and placement of steel angles in Magnum fireplaces.)

Lateral Support for Isokern Brickledge Chimneys:

Once the DM chimney and brickledge are assembled and after the intended masonry veneer has been installed on the brickledge, be sure to brace the chimney following the guidelines on page ___ of this manual for Lateral Support of DM chimneys.

Load Capacity for DM Brickledge:

The sources of load delivered into the Isokern brickledge are:
(1) the total physical load of brick, stone or other masonry veneer on the brickledge, and (2) loading due to the force of wind delivered against the exposed height of the chimney mass.

The required height of any chimney is governed by applicable local building codes. The overall finished height of any chimney varies based upon site-specific conditions (eg. elevation of roof line, roof pitch, distance of the chimney from the ridge, etc.).

It is relatively simple to calculate the total physical load on the brickledge resulting from the physical weight of applied veneers built to code height, however, calculation values for load to the brickledge due to wind are site specific and based on local variables such as wind speed zone, exposure classification, eave height and roof pitch of the structure, as well as height of chimney mass exposed to wind.

Important: The total load delivered into the brickledge is job specific and will be the sum of:
(1) the physical load from veneers, plus
(2) the load due to wind.

The total of physical load and load due to wind must be calculated by a structural engineer for the Magnum 86072.

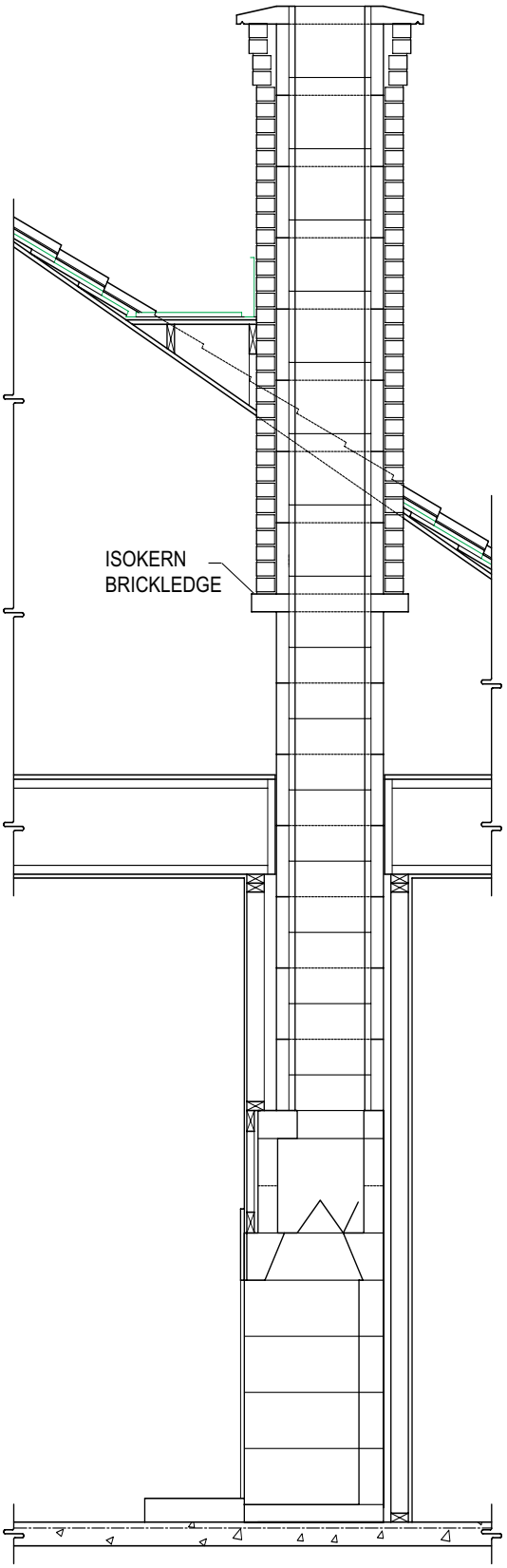


FIGURE 94

DM Chimney System: Load Capacity - Brick Ledge

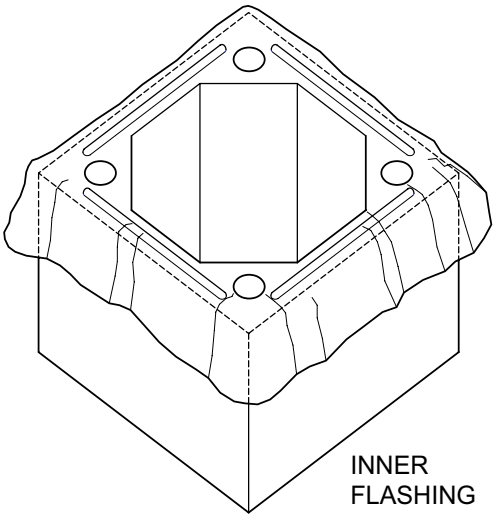


FIGURE 95

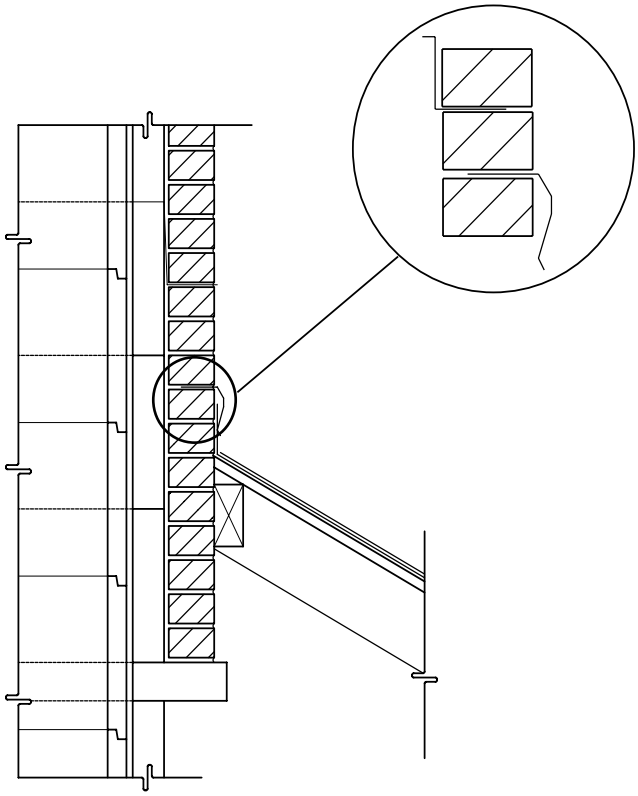


FIGURE 96

Notes:

Calculation of wind load requires the services of a local structural engineer who can evaluate wind load for the specific structure and site in question.

Do not subject the brickledge to unequal loading when applying veneers. Build veneers equally on all four sides of the brickledge.

Brickledge Veneer Finish and Flashing Details:

When applying brick, stone or other masonry veneer to the Isokern brickledge standard good building practices for masonry veneer work should govern weather-proofing details and the placement of flashings.

A typical flashing detail would be to field fabricate an aluminum or galvanized sheet metal flashing, approximately thirty-two inches (32”)square with a twenty inch (20”) square hole in it, to serve as an inner flashing. (Figure 95)

Place the inner flashing on the first DM outer casing block that fully clears the roof line. Keep the flashing to about a one-half inch (1/2”) lap onto the top of the outer casing block. The twenty inch (20”) square hole in the flashing should fit to the outside of the alignment grooves on top of the DM outer casing. Continue the DM chimney up to the required termination height.

Once the masonry veneer is in progress the inner flashing is set into a horizontal joint in the veneer at a level above all other roof deck flashings, chimney-to-roof flashings and counter flashings. Weep holes should open to the outer face of the veneer at vertical mortar joints located at the level of the inner flashing. (Figure 96)

Where moisture may develop between the DM outer casing and the chimney veneer, inner flashings as described above will help to divert such moisture to exterior face of the veneer by way of the weep holes and thereby keep such moisture from working its way down between the veneer facing and the DM outer casing and into the interior of the structure below.

DM Chimney System: Crown Caps

DM Small Crown Cap (Figure 97)

The DM small crown cap is a prefabricated cement weather cap that measures 26- 1/2" square and 3" thick. The small crown cap is designed and installed the same as the large crown cap.

The small crown cap is intended for use where DM chimneys are to receive thin veneers and cultured stone that do not require the installation of the Isokern brickledge. The small crown cap is also suitable where DM chimneys are to receive a stucco finish.

Other chimney terminations are possible with DM chimneys. Check local codes for use of custom chimney terminations and decorative shrouds.

DM Large Crown Cap (Figure 98)

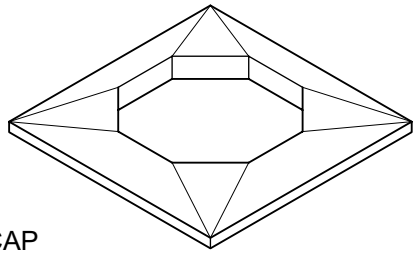
The DM large crown cap is a prefabricated cement weather cap for masonry veneer chimneys. The large crown cap measures 37-1/2" square and is 3" thick at its center.

The component has an octagonal hole at its center so that the top inner liner of the DM chimney stack can pass through it. The crown cap then sits on the top most DM outer casing block.

To set the large crown cap the last inner liner should be at least 3" above the last outer casing block in the chimney stack.

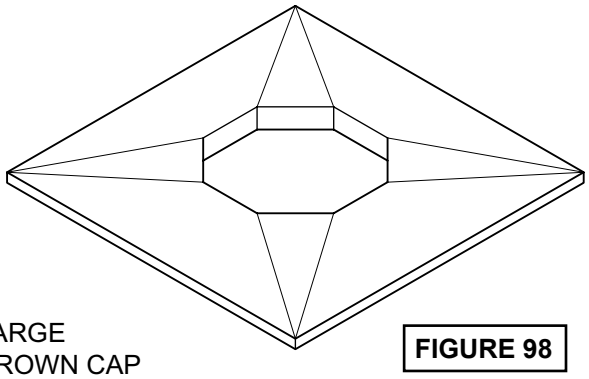
Mortar the top of the last outer casing block. Set the large crown cap over the inner liner and onto the top of the last outer casing in the stack.

Caulk or mortar the joint between the octagonal liner and the crown cap where the liner comes through the top surface of the large crown cap.



SMALL
CROWN CAP

FIGURE 97



LARGE
CROWN CAP

FIGURE 98

DM Chimney System: Height Requirements

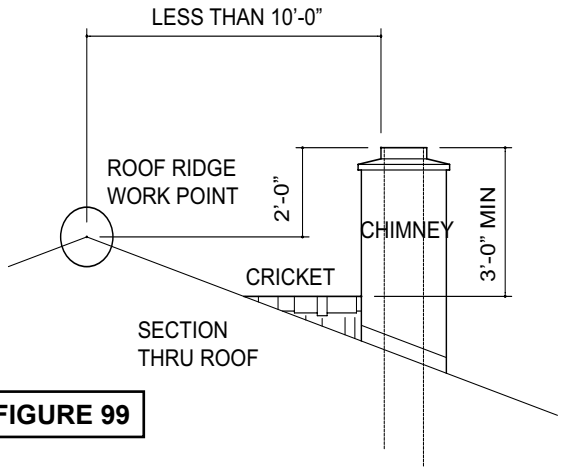


FIGURE 99

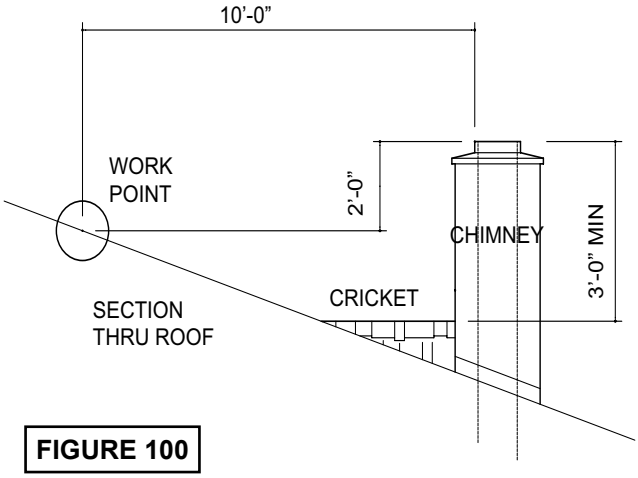


FIGURE 100

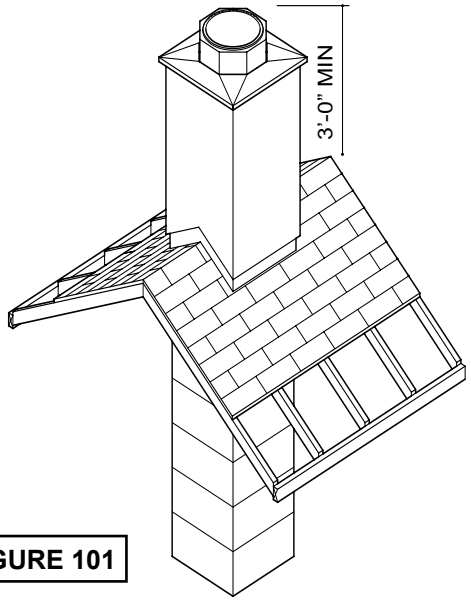


FIGURE 101

Chimney Height Requirement:

The required minimum chimney height above the roof and adjacent walls and buildings is specified by all major building codes and is summed up in what is known as "the 2 foot in 10 foot rule":

(1) If the horizontal distance from the roof ridge to the opening of the chimney is less than 10', the top of the chimney must be at least 2' above the roof ridge (Figure 99).

(2) If the horizontal distance from the opening of the chimney to the roof ridge is more than 10' then a chimney height "work point" is established on the roof surface 10' horizontally from the opening of the chimney. The top of the chimney must be at least 2' above this work point (Figure 100).

(3) In all cases, the chimney cannot be less than 3' above the roof at the edge of the chimney (Figures 99 & 100).

A simple example of this would be if the roof is flat then the chimney would need to be at least 3' above the roof surface. Or, if the chimney penetrates the roof at the ridge then the chimney must be at least 3' above the ridge. (Figure 101)

Note: The "2 foot in 10 foot rule" is necessary in the interest of fire safety but does not ensure smoke-free operation of the fireplace. Trees, buildings, adjoining roof lines, adverse wind conditions, etc. may require a taller chimney for the fireplace to draft properly.

Chase Enclosures: DM chimneys can be enclosed within a wood framed chase at zero clearance to wood framing members. Chase enclosures need to be built to local wind load requirements and shall be structurally independent of the Isokern chimney. As with all chimney installations, avoid overhead obstructions such as trees, power lines, etc.

CAUTION: If insulation is used in chase walls the fireplace and chimney must not be placed directly against it and must be kept a minimum 3" from all fireplace and chimney components. It is recommended that where fireplace and chimney chases are insulated or have vapor barriers that the inside face of the chase first be covered with gypsum board, plywood, particle board or other sheathing material to assure that insulation and vapor barriers remain in place and a minimum 3" away from the unit.

WARNING: Do not pack insulation around the Standard fireplace or chimney. Do not insulate the chase cavity with blown or loose-fill type insulation materials.

Chase Top Flashings:

Non-combustible, weather tight chase flashing must be used to cover the top of the chimney chase. Be sure to seal the joint where the DM liner passes through the chase top flashing for positive weather seal. Chase flashings may be supplied by others.

Structural Information

The Magnum 86072 firebox/smoke dome assembly has a load capacity that allows for the fireplace system to carry a limited amount of straight, vertical DM chimney sections.
The load capacity for the 86072, stated as maximum DM chimney heights without additional structural support is as follows:

Magnum 86072: Max. 22 feet of DM Chimney Flue

This chimney height is for straight chimneys (no offsets) and are exclusive of brickledge.

Important: DM chimneys taller than the above listed maximum height require a steel angle (minimum of 4" x 4" x 3/8") be set across the Magnum 86072 firebox opening when assembling the unit as a structural lintel.

This steel lintel shall span the Magnum 86072 firebox opening, bearing fully on the front 4 inches of the firebox side wall components. The vertical leg of the angle steel lintel should turn up and sit in front of the Magnum 86072 damper beam component. (Figure 102)

Important: For DM chimneys with both offsets and a brickledge it is important to fully support the last offset block where the chimney returns to vertical. This is required in order to provide complete vertical support for the brickledge and its related loads.

Important: When placing steel angles or any other steel support members into the Magnum 86072 fireplace structure maintain a 2" minimum air space around steel members for clearance to combustible members and combustible surfaces.

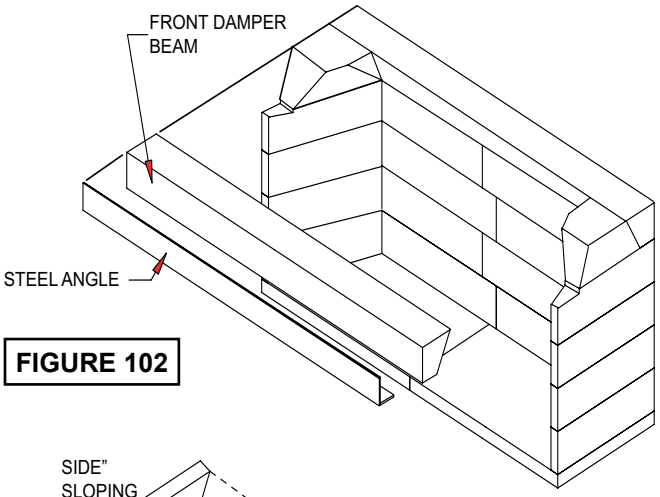


FIGURE 102

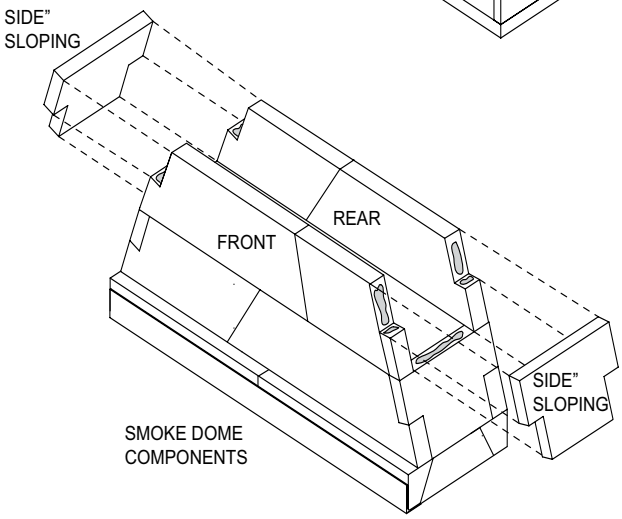


FIGURE 103

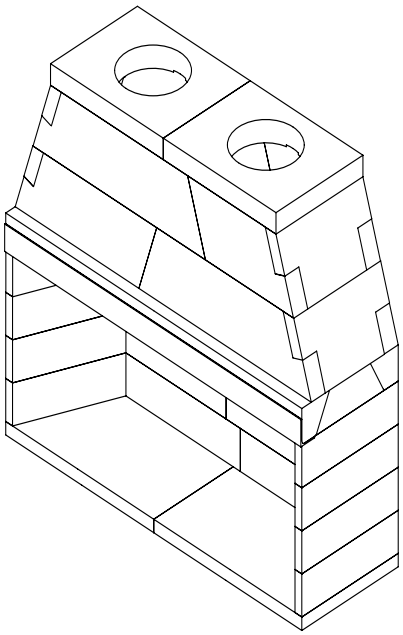
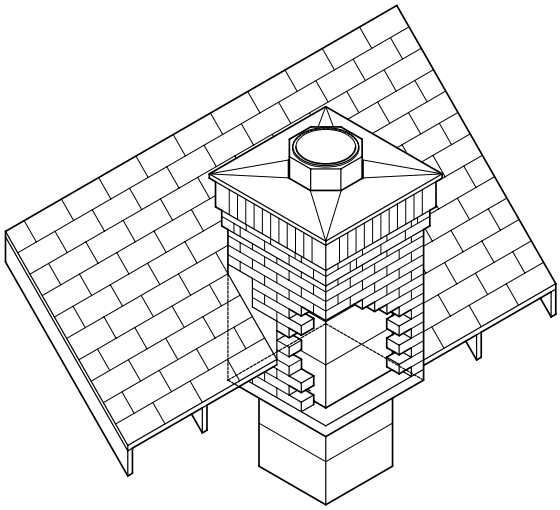


FIGURE 104

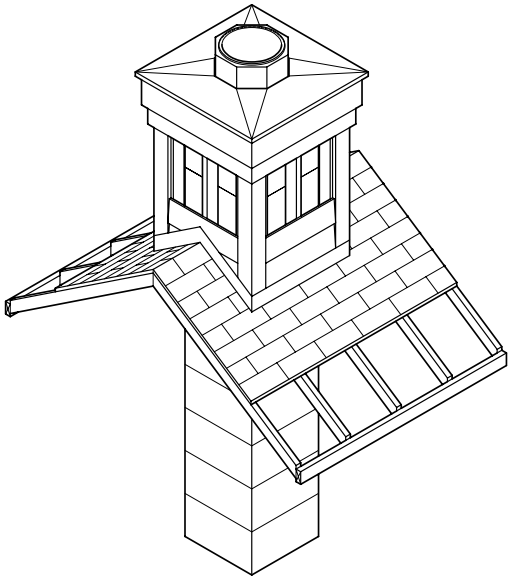
Common Chimney Terminations

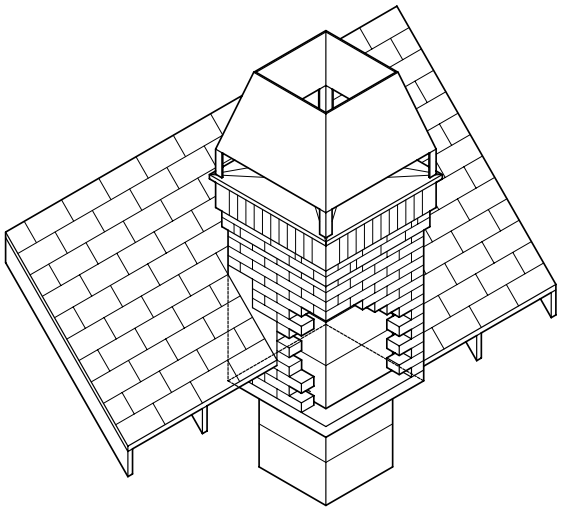


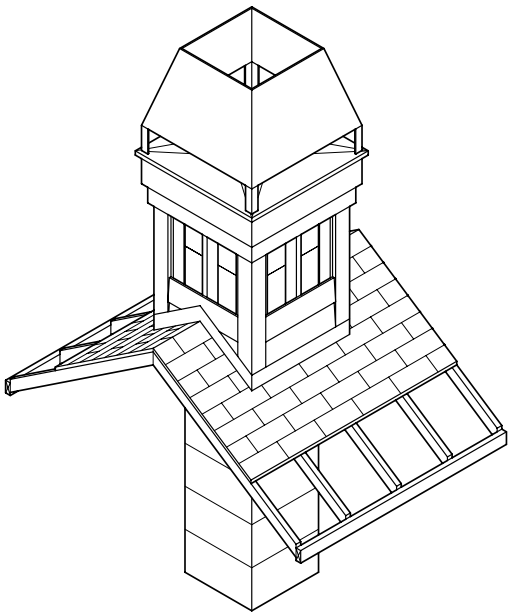
Two chimney terminations are offered by Isokern, the DM large crown cap and the DM small crown caps. These are cement crown caps designed to provide a weather cap to the DM chimney system. Their design is typical of the cement caps found on traditional masonry chimneys.

Due to owner preference and architectural design criteria other chimney terminations can be used alone or in conjunction with the crown caps. Special design caps may be designed and constructed by others and must be fashioned so as not to restrict the flow of smoke and gasses out the top of the flue opening. Figure 105 depicts common chimney terminations.

Check with local building codes to establish the need for chimney caps and spark arrestors or for any limitations to their design and use.







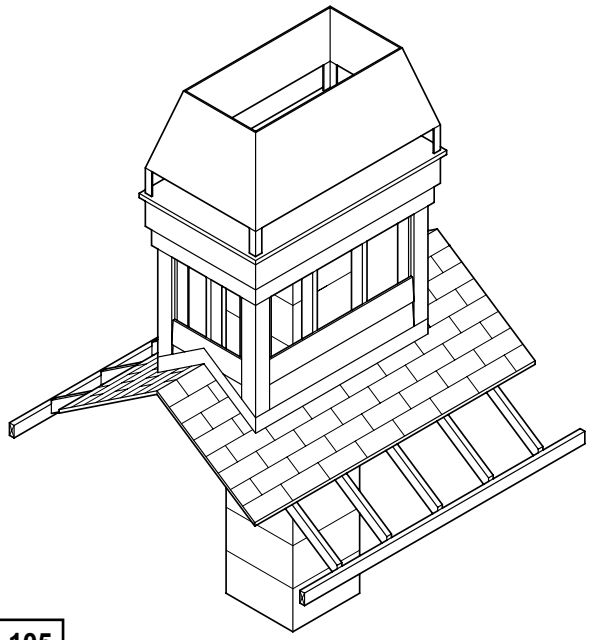


FIGURE 105

Class A Metal Flue

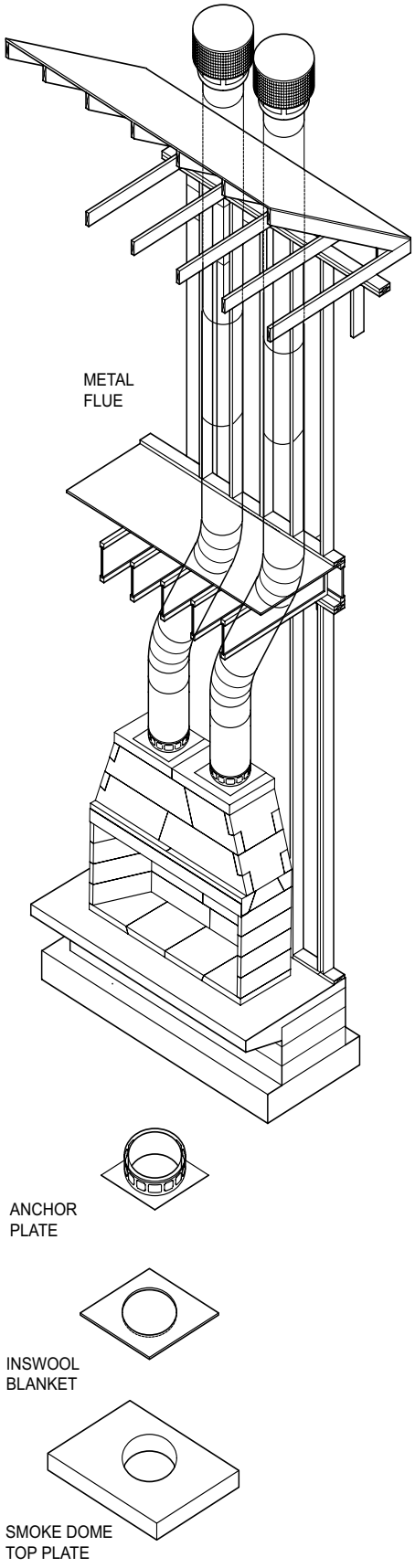


FIGURE 106

Magnum 86072 Series fireplace is tested and listed for use with factory-built metal, Class "A" (solid fuel) chimneys as an option. Any Class "A" or UL 103 listed metal chimney system is accetable for use on an Isokern system. (Figure 106)

Class "A" Metal Flue Types:

The selected factory-built metal chimney for use with the fireplaces, at a minimum, must be listed by a recognized agency for solid fuel and as tested to UL 103, for continuous use of one thousand degrees (1000°) Fahrenheit and intermittent use of seventeen hundred degrees (1700°) Fahrenheit.
The factory-built metal flue design can be from the following types:

1. Non-insulated completely thermal siphoning, double-wall, air-cooled solid fuel rated chimneys listed to UL 103, ULC S629.

2. Double-wall with solid-pack insulation.

3. A combination of double-wall, solid-pack insulation and air space (triple-wall).

4. Triple-wall air space solid fuel chimney.

5. Listed chimney liners conforming with the seventeen hundred degree (1700°) Fahrenheit requirements of UL 1777 or ULCS635 or ULC640 may also be used with Isokern fireplaces.

Notes:

The selected, approved chimney manufacturer must provide the masonry anchor plate designed to fit their flue system. (Figure 106)

All chimneys and chimney liners must be installed in accordance with the manufacturer's installation instructions and under the terms of their listing for use with open faced fireplaces.

Summary

1. WARNING:

Fire-Lite fireplace and Class "A" metal chimney systems will only draught properly when they are installed according to the instructions, in an appropriate location and with the proper chimney height. Installing the fireplace according to the instructions, choosing an appropriate location, and choosing an appropriate chimney
height are the responsibility of the designer and the building contractor.

Tightly insulated and sealed homes, two story interior spaces and high vaulted ceilings can cause negative air pressures within the house which can impair drafting performance. HVAC return air ducts near the fireplace opening will adversely affect the fireplace drafting performance.

It is the responsibility of the designer, the building contractor and their mechanical contractor to determine that the building's internal air pressures are conducive to positive fireplace drafting.

Avoid placing any fireplace in an area near tall trees, tall buildings, or high land masses. These structures can reduce ambient air flow pressure as well as produce down draughts, either of which can impair fireplace drafting performance.

Earthcore Industries L.L.C. does not warrant drafting and is not responsible for it.

2. Magnum 86072 Series 86072 fireplace and Fire-Lite Fireplace Curing
Instructions:

It is critical that the Isokern masonry elements in the Fire-Lite firebox and smoke dome assembly be dry before firing of the unit. Moisture left in the Fire-Lite components from exposure during storage and shipping, as well as moisture from the installation phase, must be eliminated before the unit is put to its intended use.

The first step in reducing the ambient moisture is to be sure that the completed Fire-Lite fireplace rest totally in a dried-in setting for a minimum of 28 days after construction of the unit is complete.

The next step in curing the Fire-Lite fireplace is to be sure that the first five or six fires are of short duration.

The first fire of the unit can take place once the minimum twenty-eight day drying period has passed. This fire should be especially short.

Start the first fire slowly with a small amount of paper and kindling (small dry wood splits or twigs) and a maximum load of four to six pounds of dry firewood, estimated to be no more than two or three logs each of about three inches (3") to four inches (4") diameter.

The first fire should burn for no more than thirty to sixty minutes and then allowed to go out. Do not refuel the fireplace during the first lighting.

A cooling off period of twenty-four hours, at a minimum, should follow the first fire.

The second fire should be the same as the first fire.

The second fire should burn for no more than thirty to sixty minutes and allowed to go out. Do not refuel the fireplace during the second lighting.

A twenty-four hour cooling off period must be observed following second lighting.
After first and second fire, continue use of the unit with three or four small fires of short duration (sixty minutes or so) and small fuel load.

After these first five or six small fires of short duration normal use of the fireplace can proceed. For normal use the maximum recommended fuel load is twelve to sixteen pounds of dry firewood at a time. This fuel load is considered to be approximately three to five cured hardwood logs of about three inches (3") to six inches (6") in diameter. As the fire burns down, refueling should be only one or two logs added at a time.

Important: Do not burn construction debris or trash of any kind in the Fire-Lite fireplace.

Whereas it is not uncommon for construction debris and refuse to be burned in a fireplace by site personnel on a project that is under construction, this activity must be avoided.

It is the responsibility of the building contractor to insure that the required dry-in period is met and that the required lighting sequence is performed by the owner or by the owner's agent.

3. Log grates are required for burning solid fuel in the Isokern fireplace. Grates allow for easy air flow up through the burning logs thus creating a more complete and efficient burning of the fuel.

4. How to Build a Fire:

First set the fireplace damper in the full open position. Begin laying the fire by placing several pieces of wadded up paper directly on the log grate. Place kindling (small splits of dry pine or other dry softwood) on top of the paper, enough to loosely cover the paper. Next arrange several small, dry hardwood or softwood logs or log splits on top of the kindling layer.

Finally, arrange two or three larger hardwood logs (oak, hickory, etc.) or log splits on top of the stack.
Ignite the paper at the bottom of the stack. The burning paper will ignite the kindling which will, in turn, set the remaining fuel on fire.

Be sure to stack all firewood in such a way that it will settle into the log grate as the paper and kindling layers are burned away. Additional logs can be set onto the fire as each fueling burns down.

Ideally, fuel logs should be of a hardwood species that have been air dried for one year or longer. Use of cured or uncured pine logs and uncured hardwood logs for fuel should be avoided. Pine logs and uncured hardwood logs will tend to smolder and burn at relatively low temperatures producing high levels of soot and creosote.

Important: Do not throw, toss, jam, kick or otherwise force logs into the Standard fireplace.

Summary

WARNING:

Never use gasoline, gasoline type lantern fuel, kerosene, charcoal lighter fluid or other similar liquids to start or "freshen up" the fire in this fireplace or in any fireplace.

WARNING:

If processed solid fuel firelogs are used: Do not poke or stir the logs while they are burning. Use only firelogs that have been evaluated for the application in fireplace and refer to firelog warnings and caution markings on packaging prior to use.

5. Avoid over-firing this fireplace. Some examples of over-firing are:

a. Burning of scrap lumber, construction debris, pine branches and brush or cardboard boxes;
b. Burning small diameter twigs, branches or any other small sized combustible materials in quantities which exceed the volume of the normal log fire;
c. Use of artificial wax base logs, trash or other chemicals or chemically treated combustibles.

WARNING: Over-firing can permanently damage this fireplace system.

6. Fireplace Doors and Screens:

This fireplace has not been tested for use with doors. To reduce the risk of fire or injury, do not install doors. Operable doors are acceptable and if doors are required by the local authority having jurisdiction, then doors must be kept in the fully open position when the fireplace is in operation. Isokern does not limit the use of fireplace screens.

7. Disposal of Ashes:

It is recommended that the firebox be cleaned of excessive ashes before each use. It is necessary to remove ashes from the open front of the fireplace. To do so, proceed in the following manner:

Allow the fire to go out and the ashes to cool for at least six to eight hours.

After the cooling period carefully pick up the ashes from the firebox with a small, metal fireplace shovel or other metal scoop and place them in a metal container with a tight fitting lid.

If possible do not sweep the ashes as this will stir them into the air and disperse them into the room.

The closed container of ashes should be placed on a noncombustible 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.

8. Inspection and Cleaning:

At least twice a year in warm climates or monthly during the heating season in colder climates, thoroughly inspect the Fire-Lite fireplace and chimney system. Chimneys must be installed so that access is provided for inspection and cleaning. The chimney should be inspected monthly during the heating season.

Inspect the entire flue from the top down for obstructions such as birds' nests, leaves, etc. Such obstructions must be removed.

Check spark arrestor screens for clear flow of smoke every two to four weeks during the heating season.
Inspect the flue periodically during the heating season for the presence of soot and creosote build up. If creosote or soot has accumulated, it should be removed to reduce the risk of chimney fire.

Have your chimney cleaned by a professional chimney sweep if you have doubts about your ability to do it.
Use a plastic, wood or steel brush to clean the chimney.
Scrub the spark arrestor/chimney cap with a wire brush.
Remove any chimney cap for flue cleaning from the top. Open the damper in the firebox for cleaning access from below.

Clean the inner portion of the flue by using a flexible handled chimney cleaning brush.

For straight run flue the proper size brush can be pulled up through the flue from the firebox with the damper open.

If the chimney has an offset chimney section, brush cleaning from the chimney top down to the offset/return and then from the firebox up to the offset section is the proper method.

In either case, cover the fireplace opening with a damp sheet (sealed to the opening with masking tape) before brush cleaning. Do not remove sheet until the soot has settled. It is advised to vacuum loosened soot. Do not sweep loosened soot as sweeping will disperse soot into the air and about the room.

WARNING: Do not use chemical fireplace and chimney cleaners that are poured on a hot fire. These can be dangerous and generally work only on the flue section nearest the fire, leaving the rest of the flue unaffected.

9. Exterior Maintenance:

Annually, at a minimum, check all metal flashings and weather seals around the exterior chimney where it penetrates the roof surface; inspect any chimney top spark arrestors, metal cowlings and weather hoods to make sure they are secure and weather tight.

Seal any cracks or gaps in chimney-to-roof flashings to prevent possible roof and chimney chase leaks.
Inspect any cement chimney cap or clay chimney pot terminations to make sure they are not diverting water into the structure. Seal any suspected cracks or gaps in these masonry components.

Registration Card

Please tear out along dashed lines and send to:

Earthcore Industries
Attn: Technical Dept.
6899 Phillips Industrial Blvd.
Jacksonville, FL. 32256

Or register your Isokern online at: www.earthcore.co

WARRANTY CARD

Purchased From:

Date of Purchase: _____

Name: _____

Address: _____

City, State & Zip: _____

Phone No: _____

Gas Log Burner Size: (Circle One) 24" 30" Other_____

Fireplace Series/Size: Magnum _____ Isokern Standard _____ IBV _____ Vent-Free _____

Green Tech _____ ISO'ven _____ Fire-Lite Stand? (Circle One) Yes No

Gas Control Valve Type: (Circle One) Remote Control Safety Pilot

Gas Type: (Circle One) Natural Gas Propane

Buyer:

Date of Installation: (Completed) _____

Name: _____

Address: _____

City, State & Zip: _____

Phone No: _____

Fireplace Serial Number: (Located on Rating Plate Inside Fireplace) _____

Installed By: _____

Address: _____

Phone Number _____

Notes

Warranty & Disclaimer

ISOKERN FIREPLACE

ISOKERN offers a lifetime warranty for all Isokern components, to be free from defects in materials that negatively affect system performance from the date of purchase, subject to the terms and conditions of this limited warranty.

This warranty covers only the above stated components, and NO WARRANTY, EXPRESS OR IMPLIED, EXTENDS TO ANY OF THE HARDWARE, FOOTING, VENTS, DUCTING, METAL FLUES, FIRE BRICK OR ACCESSORIES. THIS WARRANTY DOES NOT COVER DRAFTING, SMOKING OR PUFFING OF THE FIREPLACE SYSTEM. Factors beyond the manufacturer's control affect fireplace drafting, smoking, and puffing, and ISOKERN cannot guarantee these aspects of performance.

If a component is found to be defective under the terms of this warranty the party to whom this warranty is extended shall, notify ISOKERN, 6899 Philips Industrial Blvd, Jacksonville, Florida 32256, in writing, by registered mail, within thirty (30) days following the discovery of the defect within the lifetime warranty period. The notice shall contain (1) the date of purchase; (2) place of purchase; (3) address of installation; (4) name, address and phone number of the owner; and (5) a brief description of the defect.

ISOKERN, or any division thereof, is not responsible for any labor costs or indirect costs incurred for the replacement of defective components.

ISOKERN is not responsible for misuse or mishandling of components. Nothing in this warranty makes ISOKERN, or any division thereof, liable in any respect for any injury or damage to the building or structure in which the fireplace or chimney system has been installed or to persons or property therein arising out of the use, misuse, or installation of properly manufactured ISOKERN product.

ISOKERN, OR ANY DIVISION THEREOF, SHALL NOT BE HELD LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES OR EXPENSES ARISING OUT OF THE USE OF THE FIREPLACES OR CHIMNEY SYSTEMS. ALL SUCH DAMAGES AND EXPENSES ARE HEREBY EXCLUDED.

This warranty is null and void when the fireplace or chimney systems are not installed pursuant to the installation instructions provided by ISOKERN or local building codes have not been followed completely.

This warranty applies only to those fireplace and chimney systems installed in the continental United States, Alaska, and Canada. If any part of this warranty is found to be unenforceable, the remaining parts shall remain in force and effect.

ISOKERN HEREBY DISCLAIMS ALL GUARANTEES AND WARRANTIES, EXPRESS OR IMPLIED, BEYOND THE WARRANTIES SET FORTH HEREIN.

earthcore®

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