

Isokern[®] MAGNUM[®] Fireplace

Installation, Operation, Maintenance and Owner's Manual

MAGNUM[®] Models 82084, 82096, 82108 & 82120

A Product of EARTHCORE INDUSTRIES, LLC.

Be Sure to Read Entire Manual Before Beginning Construction.

Contents of this manual may change without prior notification.

DO NOT install the MAGNUM[®] Series Fireplace in a manufactured home or mobile home or recreational vehicle.

Important: This manual contains assembly rules, installation steps, guidelines, use and maintenance instructions for the MAGNUM[®] 82084, 82096, 82108 & 82120 fireplaces with the ECO-STEEL & ECOSTEEL+ 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 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.

THESE FIREPLACES ARE DESIGNED FOR USE With: SOLID WOOD LOGS

Approved with Decorate Gas Appliance with PROPANE (LP) or NATURAL GAS (NG) ONLY



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Listing Services Report NO. F17-237
ICC Report NO. ESR-2316

**INSTALLER: Leave this manual with the fireplace.
CONSUMER: Retain this manual for future reference.**

THIS MANUAL CAN ONLY BE REPRODUCED IN ITS ENTIRETY

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General Information

The MAGNUM[®] Series fireplaces are a prefabricated, refractory modular fireplaces designed for field assembly. The system consists of interlocking precast parts, which are adhered versus glued together with a masonry adhesive.

The parts of the MAGNUM[®] Series fireplaces are precast using a proprietary mixture of volcanic pumice aggregate and cement. All necessary parts are included for assembly of a complete firebox, smoke dome and chimney system.

Each MAGNUM[®] precast fireplace component is designed for a specific part of the fireplace such that only one means for assembly is possible.

The MAGNUM[®] Series fireplace requires a standard refractory firebrick liner be applied to the interior of the firebox. The 84", 96", 108", and 120" models require a minimum 2-1/4" thick firebrick for the floor and back wall with four-inch (4") firebrick on the side walls.

All units have a forty-seven (47") rough opening height before firebrick. The only parts which differ among the available sizes are width-related pieces. All units use the same side wall pieces.

Three (3) flues are necessary on the 84" model, and four (4) flues are necessary on the 96", 108", NS 120" without an assisted mechanical drafting system. It is acceptable to use mechanical assist draft systems, if the venting companies perform the engineering calculations and make the necessary recommendations for fan size and flue vent diameter following the guidelines of NFPA 211/2006. 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 MAGNUM[®] Series fireplace 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.

Recommended minimum overall height for the Isokern fireplace, ECO-STEEL & ECO-STEEL+ chimney system for an indoor application is 18'-0" when the chimney is straight and 21'-0" when a chimney is offset.

INTENDED PRODUCT USE STATEMENT:

The MAGNUM[®] Series fireplace are intended to burn solid wood fuel, propane or natural gas.

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

Over-firing, abusive burning, or mistreatment will void any claims (i.e. burning construction debris or other highly flammable material; tossing, kicking or otherwise forcing logs into the firebox).

The MAGNUM[®] Series fireplaces are conventional indoor or outdoor fireplaces designed to appear like traditional masonry fireplaces. The MAGNUM[®] Series fireplaces 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.

General Information

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.

We require two (2) 4" outside air kits for the 84", 96", 108" and 120" MAGNUM[®] models.

The MAGNUM[®] Series fireplace is tested and listed by PFS - Report No. F17-237 and tested to UL 127.

MAGNUM[®] 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).

SEISMIC CODE:

If you are installing the MAGNUM[®] Series Fireplace in a location where there is seismic code follow these instructions for installation on page 46.

Four No. 4 ASTM A615 Grade 3.5" minimum, vertical reinforcing bars, 2 on the inside of each side wall cavity running from approximately 4" into the concrete slab (for anchorage) to the top of the side wall cavity and fill with 2000 psi minimum concrete or grout. See page 46 for more information.

IMPORTANT: The top plate of the firebox is not meant to be used as a structural support. Please consult structural engineer for structural support of any veneer bearing weight on the Isokern top plate.

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.

Safety Instructions

WARNING: This product contains or generates chemicals known to the state of California to cause cancer or birth defects or other reproductive harm.

IMPORTANT: Read this owner's manual carefully and completely before trying to assemble, operate or service this fireplace. Improper use of this fireplace can cause serious injury or death from fire, burns, explosions and carbon monoxide poisoning.

1. Always check local building codes governing fireplaces and fireplace installations. The MAGNUM[®] Series Fireplace installation must comply with all local, regional, state and national codes and regulations.
2. The MAGNUM[®] Series fireplaces 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.
3. 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.

4. Before servicing, allow the fireplace to cool. Always shut off any electricity or gas to the fireplace while working on it.
5. Use only solid fuel or decorative Gas appliance in this unit. Do not use artificial wax based logs, chemical chimney cleaners or flame colorants in this fireplace.
6. 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.
7. Always keep the flue damper open when heat is present in the fireplace.
8. Do not use a fireplace insert or any other product not specified for use with the MAGNUM[®] Series fireplace system unless written authorization is given by Earthcore Industries, LLC. Failure to heed this warning may cause a fire hazard and will void the warranty.
9. 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.
10. 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 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.

Safety Instructions

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

12. Modification to MAGNUM[®] components 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[®] 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 the 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.

13. 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 gypsum board, plywood, particle board or other material on the side facing the Isokern. The facing material cannot be within 1 1/2" to the side walls and back walls of the fireplace.

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

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

15. Burning some fuels 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. Overexposure 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 installed.

16. Young children should be carefully supervised when they are in the same room as the appliance. Toddlers, young children and others may be susceptible to accidental contact burns. A physical barrier is recommended if there are at-risk individuals in the house. To restrict access to the fireplace, install a adjustable safety gate to keep toddlers, young children and other at-risk individuals out of the room and away from hot surfaces.

17. Clothing or flammable material should not be placed on or near the fireplace.

18. Due to high temperatures, the fireplace should be located out of traffic and away from furniture and draperies.

19. Do not nail or screw into the isokern fireplace, which includes firebox or smoke dome components unless attaching the anchor plate for the metal flue system. This may alter the integrity of the fireplace and cause a house fire. This will VOID the warranty of the fireplace.

20. Never spray or apply any type of sealer, insulation or other materials to the fireplace.

PFS Rating Plate



PFS REPORT NO: F17-237

MODULAR REFRACTORY FIREPLACE

Magnum+: ☐ 82084 ☐ 82096 ☐ 82108 ☐ 82120

COMPLIES WITH APPLICABLE REQ. OF UL 127, ULC S610

SERIAL NO: 0000001



EARTHCORE
INDUSTRIES

MADE IN USA
CHESAPEAKE, VA 23323

HEADQUARTERS
JACKSONVILLE, FL 32256

CLEARANCE TO COMBUSTIBLES:

UNIT FRONT	= 0 in.
UNIT SIDES AND REAR	= 1.5 in. (38 mm)
COMBUSTIBLE SHEATHING ABOVE OPENING TOP	= 24 in. (610 mm)
SHEATHING OR TRIM TO OPENING SIDES	= 9 in. (229 mm)
MANTLE ABOVE OPENING	= 24 in (610 mm)
OPENING TO SIDEWALL	= 48 in. (1219 mm)
HEARTH EXTENTION BEYOND FRONT	= 30 in (762 mm)
HEARTH EXTENTION BEYOND SIDES	= 12 in. (305 mm)
COMBUSTIBLE FLOOR	= NA
INSULATION FROM FIREBOX	= 3 in. (76 mm)

FOR USE with SOLID WOOD FUEL OR LISTED DECORATIVE GAS VENTED OR UNVENTED APPLIANCE.

USE ECOSTEEL OR ECOSTEEL+ METAL 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. IF DOORS ARE TO BE 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,

CONTACT BUILDING OFFICIAL PRIOR TO INSTALLATION

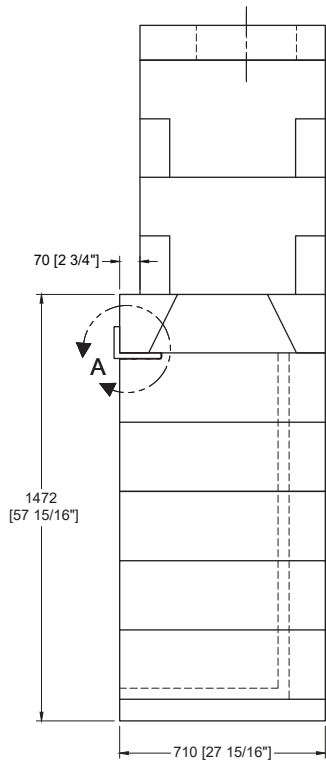
Isokern Fireplaces are tested and listed to UL standards: UL 127 and ULC S610. The listing label shown above outlines the listed clearances to combustibles and indicates that the units are suitable for use with solid fuel or listed gas appliances. Refer to the manufacturer's installation manual for detailed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

A metal listing label similar to those shown above is affixed to each fireplace.
Do not remove the listing label from the fireplace.

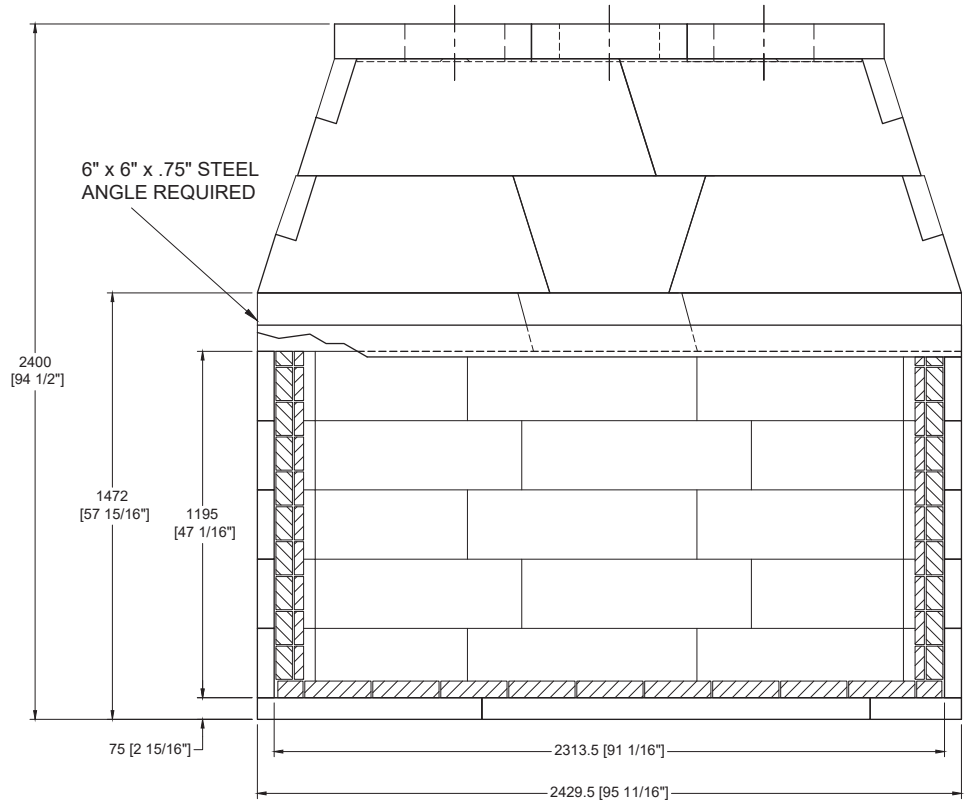
Prior to beginning installation, contact your local building official to determine the need to obtain a permit.

MAGNUM[®] 84 (82084) – Firebox Dimension

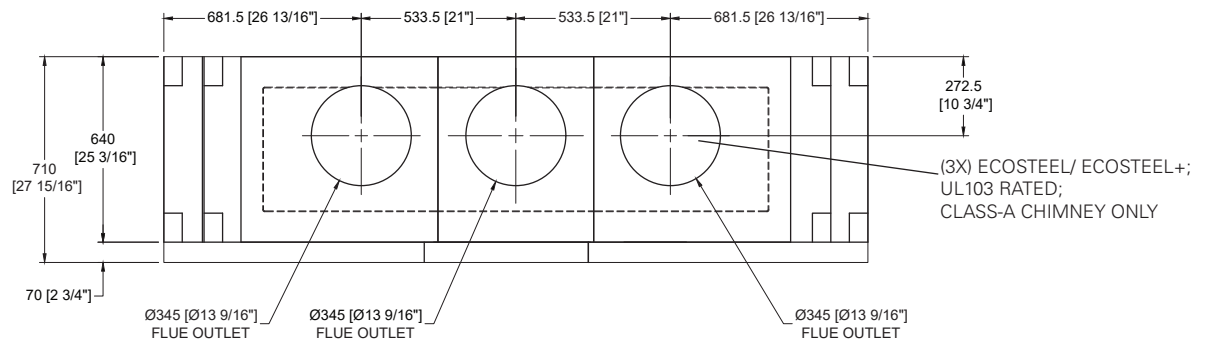
Side View



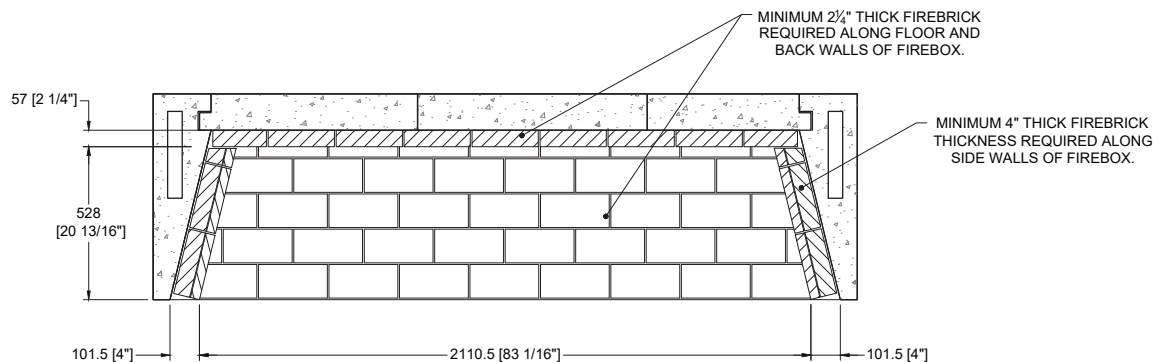
Front View



Top View



Plan View

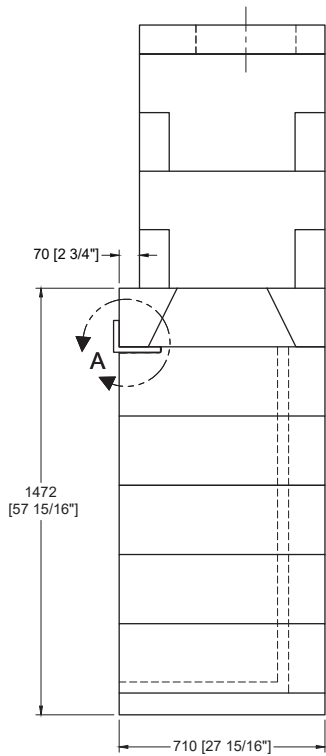


MAGNUM[®] 84 (82084) – Component List

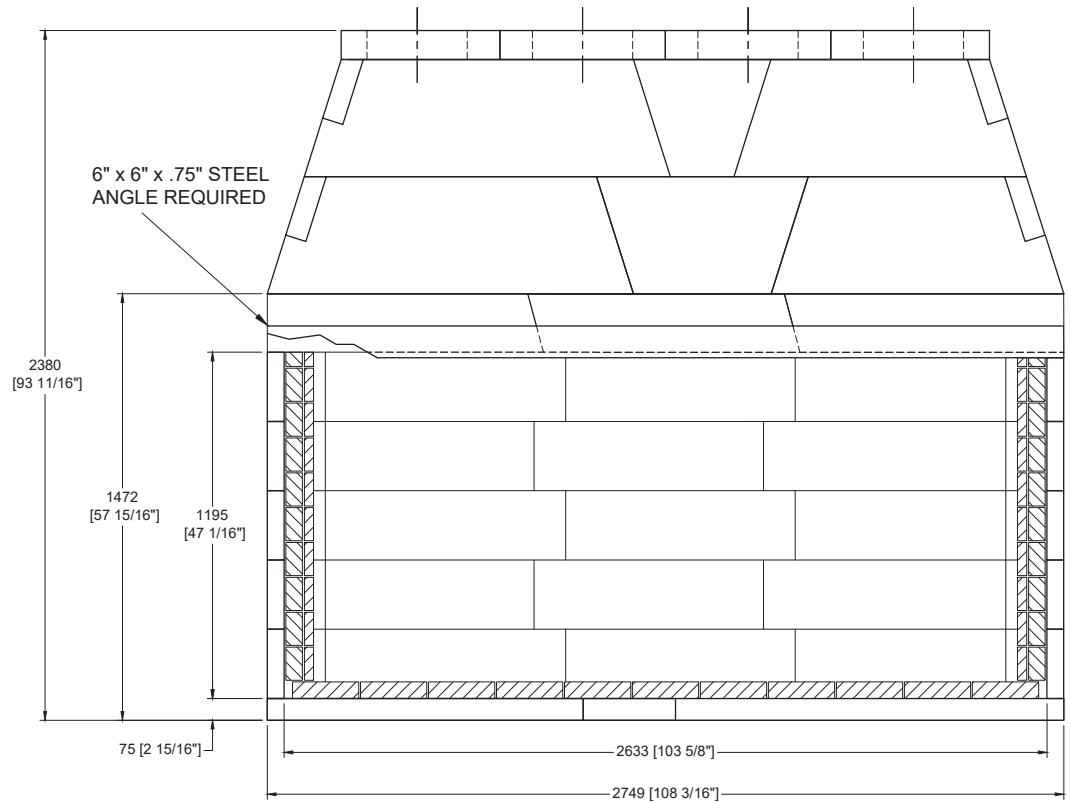
Component	Part#	Description	Component	Part#	Description
	M93	Isokern MAGNUM Base Plate		160	Isokern MAGNUM Back wall (Qty. 5)
	M96	Isokern MAGNUM Base Plate		162	Isokern MAGNUM Back wall (Qty. 5)
	191	Isokern MAGNUM Base Plate		71	Isokern MAGNUM Back wall (Qty. 5)
	16	Isokern MAGNUM Smoke Dome (Qty. 2)		177	Isokern MAGNUM Top Plate - Middle
	17	Isokern MAGNUM Smoke Dome (Qty. 4)		79L	Isokern MAGNUM Top Plate - Left
	18	Isokern MAGNUM Smoke Dome (Qty. 2)		79R	Isokern MAGNUM Top Plate - Right
	112	Isokern MAGNUM Smoke Dome (Qty. 2)		M94L & M94R	Isokern MAGNUM Damper End Left & Right
	34	Isokern MAGNUM Side Sloping (Qty. 4)		167	Isokern MAGNUM Damper Beam - Middle (Qty. 2)
	M90	Isokern MAGNUM Side wall (Qty. 10)		74	Isokern MAGNUM Damper Beam (Qty. 2)
				75	Isokern MAGNUM Damper Beam (Qty. 2)

MAGNUM[®] 96 (82096) – Firebox Dimensions

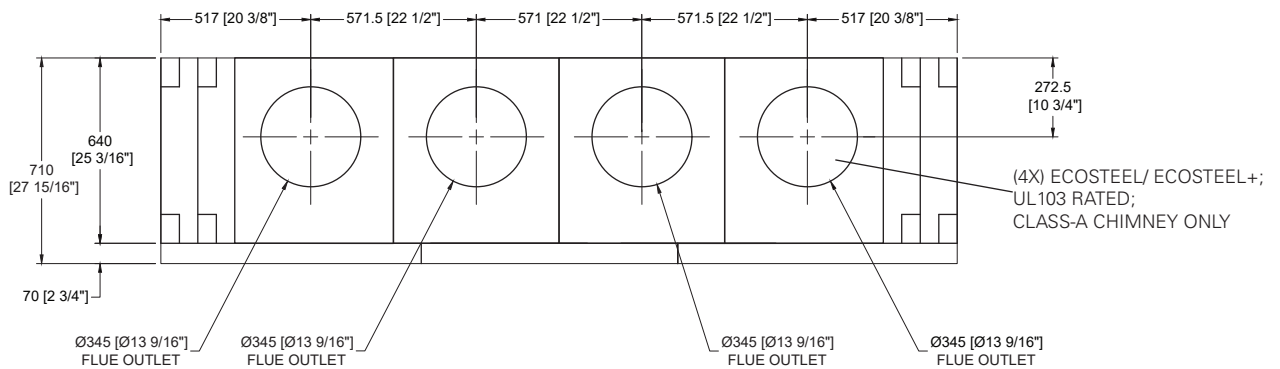
Side View



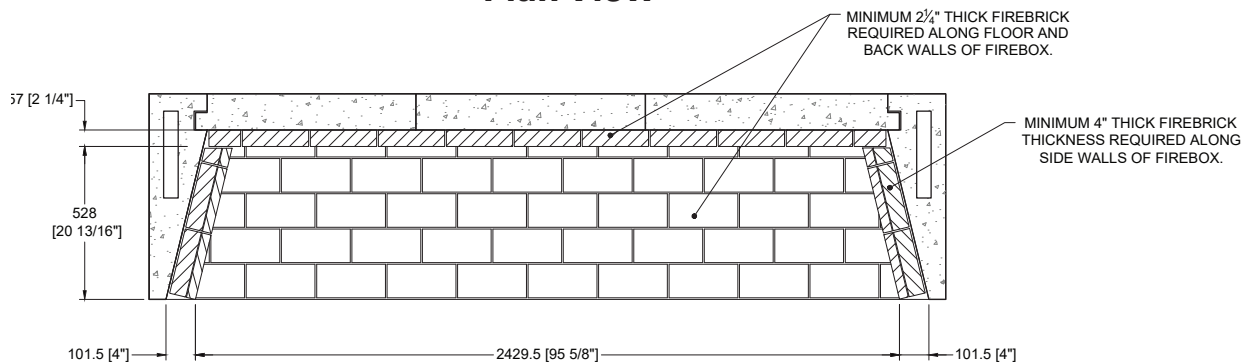
Front View



Top View



Plan View

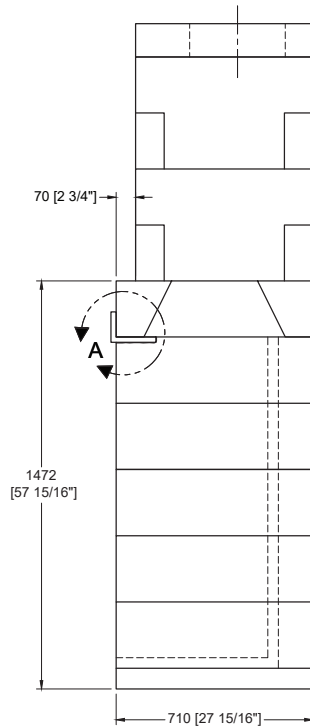


MAGNUM[®] 96 (82096) – Component List

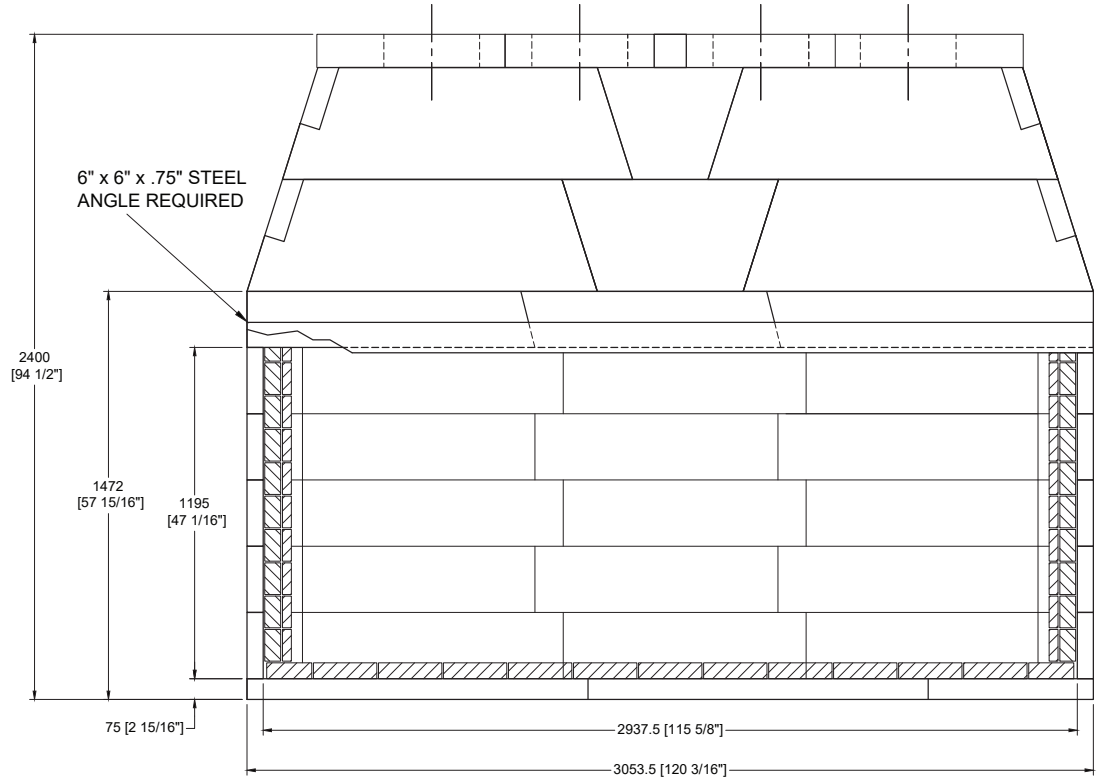
Component	Part#	Description	Component	Part#	Description
	M91	Isokern MAGNUM Base Plate		160	Isokern MAGNUM Back wall (Qty. 5)
	M93	Isokern MAGNUM Base Plate		162	Isokern MAGNUM Back wall (Qty. 5)
	191	Isokern MAGNUM Base Plate		73	Isokern MAGNUM Back wall (Qty. 5)
	16	Isokern MAGNUM Smoke Dome (Qty. 4)		136	Isokern MAGNUM Top Plate - Middle (Qty. 2)
	17	Isokern MAGNUM Smoke Dome (Qty. 4)		36S	Isokern MAGNUM Top Plate - Outside (Qty. 2)
	110	Isokern MAGNUM Smoke Dome (Qty. 2)		M94L & M94R	Isokern MAGNUM Damper End Left & Right
	113	Isokern MAGNUM Smoke Dome (Qty. 2)		168	Isokern MAGNUM Damper Beam - Middle (Qty. 2)
	34	Isokern MAGNUM Side Sloping (Qty. 4)		74	Isokern MAGNUM Damper Beam (Qty. 2)
	M90	Isokern MAGNUM Side wall (Qty. 10)		75	Isokern MAGNUM Damper Beam (Qty. 2)

MAGNUM[®] 108 (82108) – Firebox Dimensions

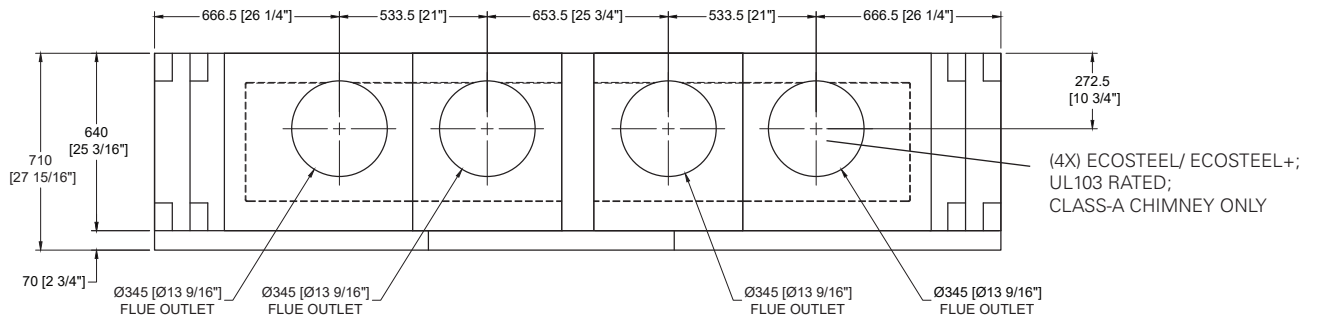
Side View



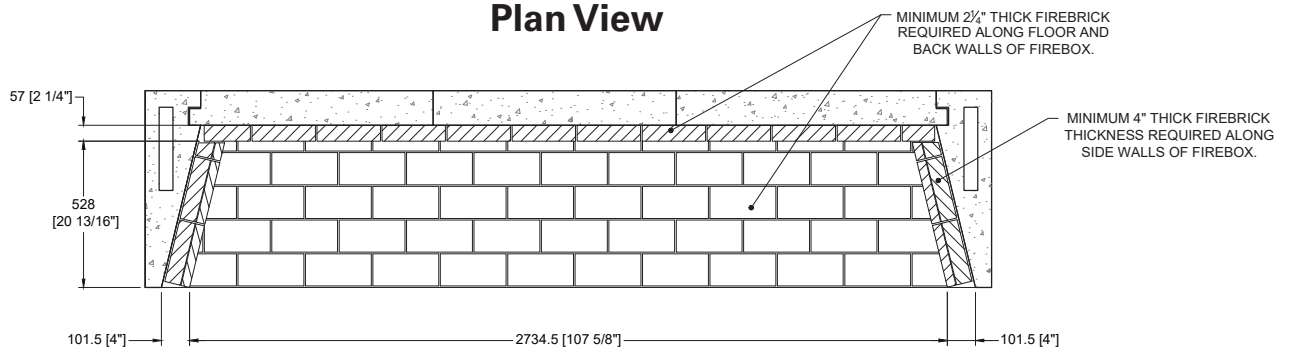
Front View



Top View



Plan View



MAGNUM[®] 108 (82108) – Component List

Component	Part#	Description	Component	Part#	Description
	M92	Isokern MAGNUM Base Plate (Qty. 2)		161	Isokern MAGNUM Back wall (Qty. 5)
	192	Isokern MAGNUM Base Plate		72	Isokern MAGNUM Back wall (Qty. 5)
	16	Isokern MAGNUM Smoke Dome (Qty. 8)		73	Isokern MAGNUM Back wall (Qty. 5)
	111	Isokern MAGNUM Smoke Dome (Qty. 2)		177	Isokern MAGNUM Top Plate - Middle (Qty. 2)
	114	Isokern MAGNUM Smoke Dome (Qty. 2)		79L	Isokern MAGNUM Top Plate - Left
	34	Isokern MAGNUM Side Sloping (Qty. 4)		79R	Isokern MAGNUM Top Plate - Right
	M90	Isokern MAGNUM Side wall (Qty. 10)		178	Isokern MAGNUM Top Plate Filler
	M94L & M94R	Isokern MAGNUM Damper End Left & Right		168	Isokern MAGNUM Damper Beam - Middle (Qty. 2)
				83	Isokern MAGNUM Damper Beam (Qty. 2)
				84	Isokern MAGNUM Damper Beam (Qty. 2)

MAGNUM[®] 120 (82120) – Component List

Component	Part#	Description	Component	Part#	Description
	M92	Isokern MAGNUM Base Plate		162	Isokern MAGNUM Back wall (Qty. 10)
	M96	Isokern MAGNUM Base Plate		71	Isokern MAGNUM Back wall (Qty. 5)
	M93	Isokern MAGNUM Base Plate		73	Isokern MAGNUM Back wall (Qty. 5)
	16	Isokern MAGNUM Smoke Dome (Qty. 8)		79L	Isokern MAGNUM Top Plate - Left (Qty. 2)
	115	Isokern MAGNUM Smoke Dome (Qty. 2)		79R	Isokern MAGNUM Top Plate - Right (Qty. 2)
	116	Isokern MAGNUM Smoke Dome (Qty. 2)		178	Isokern MAGNUM Top Plate Filler
	34	Isokern MAGNUM Side Sloping (Qty. 4)		170	Isokern MAGNUM Damper Beam - Middle (Qty. 2)
	M90	Isokern MAGNUM Side wall (Qty. 10)		83	Isokern MAGNUM Damper Beam (Qty. 2)
	M94L & M94R	Isokern MAGNUM Damper End Left & Right		84	Isokern MAGNUM Damper Beam (Qty. 2)

Required Clearance to Combustibles

The MAGNUM[®] Series fireplaces are tested and listed for installation with “clearance to combustibles” as follows:

- The MAGNUM Series firebox side walls and back wall require 1 1/2” clearance (**Figure 1**).
- 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.

MAGNUM[®] Series fireplaces are tested and listed for (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 2 & 3**).

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.

FIGURE 1

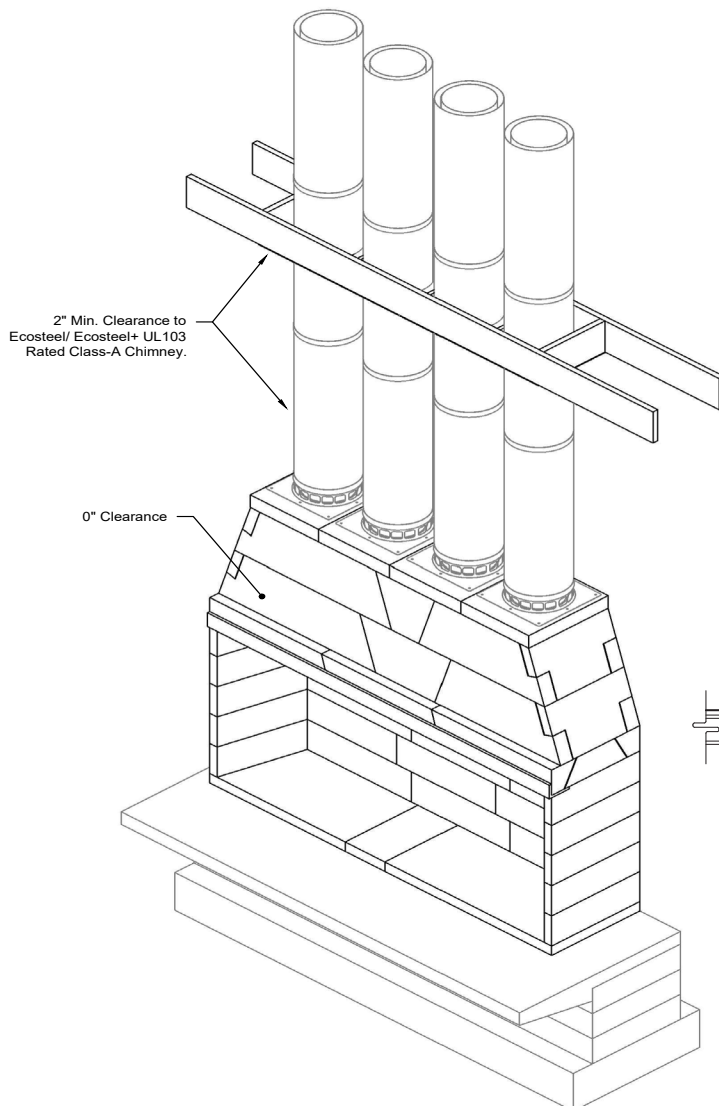
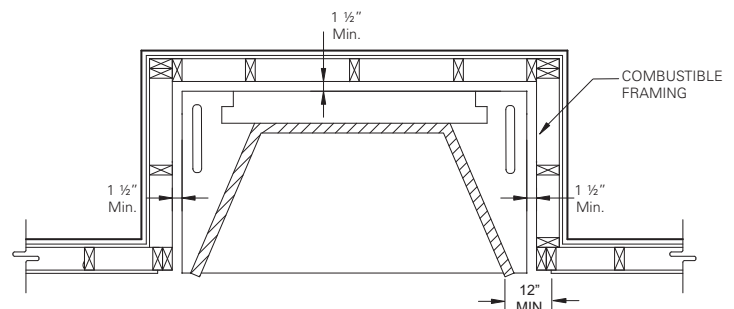


FIGURE 2



Required Clearance to Combustibles

***IMPORTANT:** 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 this installation manual.

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 for **Models 82, 96, 108, and 120** should follow:

- Sides: 12" away
- Top of opening: 24" away

Drywall must be cut back from the firebox opening sides and above the top of the opening according to information above.

EXCEPTION: If insulation is used in walls surrounding the fireplace, insulation may be installed behind sheathing of gypsum 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 side walls.

The MAGNUM[®] Series fireplace must sit upon a concrete support slab designed to bear the total installed weight of the fireplace. These support slabs can have no wood underpinnings (**Figure 3**). See page 18 for more information on weight loads. Concrete support slabs for MAGNUM[®] Series fireplaces must provide the non-combustible hearth extension substrate needed to support the code required non-combustible hearth extension finish materials (**Figures 4**).

All MAGNUM[®] Series fireplaces shall have hearth extensions of approved non-combustible 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.

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

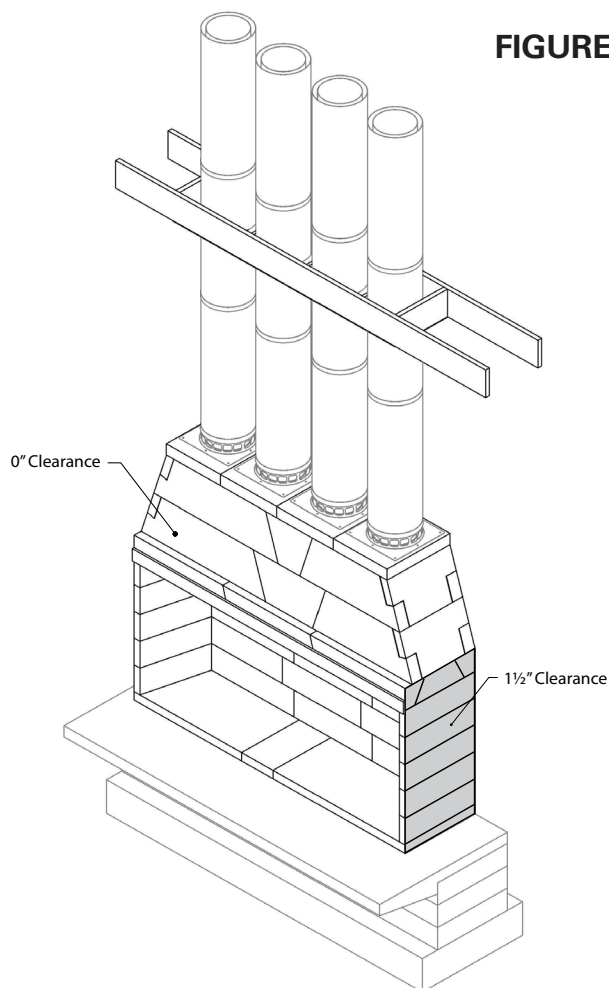


FIGURE 3

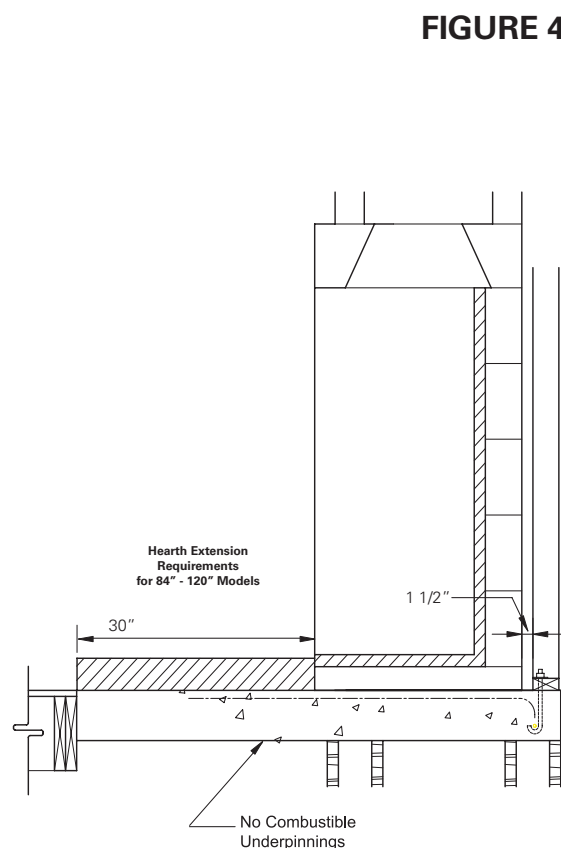


FIGURE 4

Supporting Floor System

The fireplaces are not rated for installation on a combustible floor system. Fireplaces must be built upon a concrete support slab with no wood underpinnings. Proper reinforced concrete support slab for fireplace installations may include the following types:

1. Slab on grade: standard residential, minimum 4"-thick, 2500 psi concrete foundation on properly compacted fill (**Figure 5**).
2. Slab-on-grade foundations, thickened and reinforced for additional load carrying (**Figure 6**).
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. When building off-grade support slabs the code required hearth extension substrate should be built as a continuation of the support slab for the fireplace unit (**Figure 7**). 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 a 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 a local structural engineer. **It is the responsibility of the General Contractor to insure adequate foundations.**

The total fireplace weight* and "footprint" area for each model, with pumice components only, are listed below:

MAGNUM[®] 84: 3198 lbs. @ 95¹¹/₁₆" x 28" = 2679¹/₄ sq.in.
MAGNUM[®] 96: 3515 lbs. @ 108³/₁₆" x 28" = 3029¹/₄ sq.in.
MAGNUM[®] 108: 3979 lbs. @ 120³/₁₆" x 28" = 3365¹/₄ sq.in.
MAGNUM[®] 120: 4265 lbs. @ 131³/₄" x 28" = 3689 sq.in.

"Footprint" areas listed above are base plate dimensions for each model and are exclusive of code required hearth extension areas. See page 17 for hearth extension dimensions.

FIGURE 5

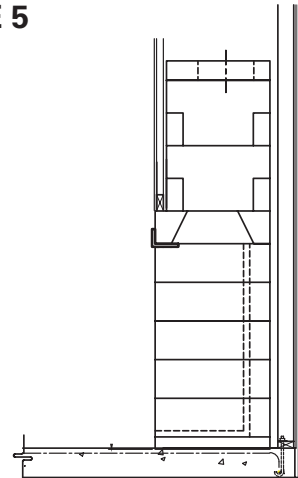


FIGURE 6

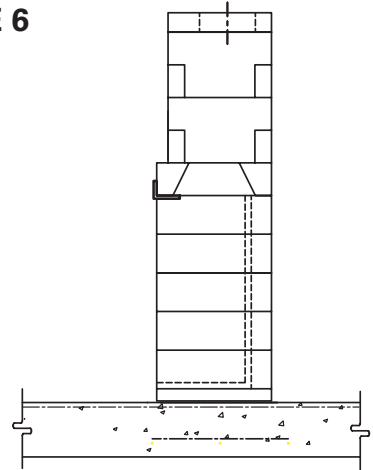
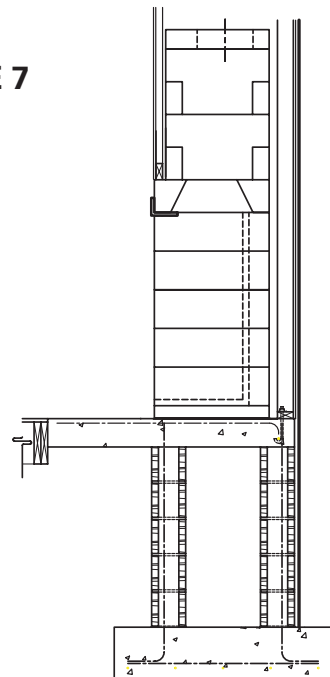
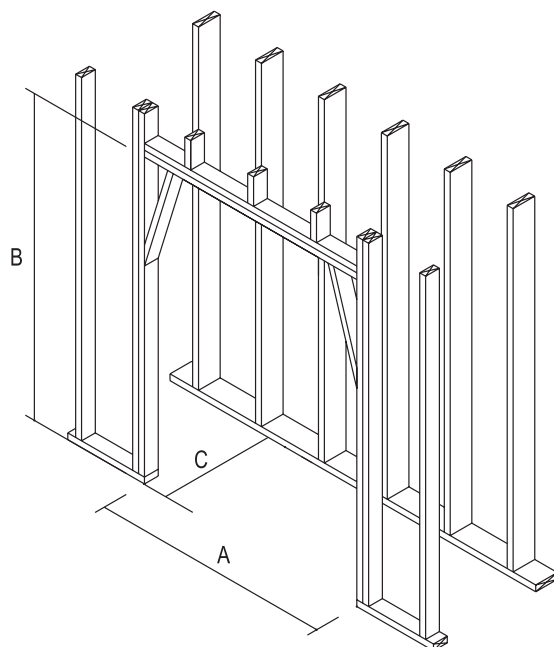


FIGURE 7



Rough Framing Dimensions

FIGURE 8



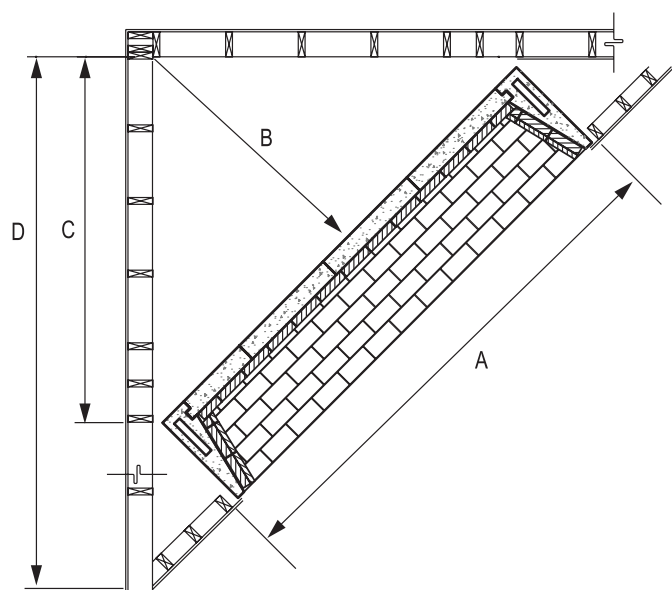
TYPICAL INSTALLATION FRAMING DIMENSIONS

MAGNUM [®]	Width - A	Height - B	Depth - C
Model 84	99"	97"	29 1/2"
Model 96	111 1/2"	97"	29 1/2"
Model 108	123 1/2"	97"	29 1/2"
Model 120	135"	97"	29 1/2"

Notes:

- B** includes the 3"-thick base plate.
- "Raised hearth" requires additional rough opening height at **B** equal to the height of the raised hearth detail.
- Rough framing dimension for width **A** allows for the required 1 1/2" clearance at the sides of the fireplace.
- Rough framing dimension for depth **C** allows for the required 1 1/2" clearance at the back of the fireplace. 29 1/2" is only for an interior wall as most exterior wall framings have insulation. Even if the wall is 2x6', the foam sprayed expands, so typically 31" is allowed on an exterior wall (**Figure 8**).

FIGURE 9



CORNER INSTALLATION FRAMING DIMENSION

The following chart of dimensions detail the positioning of a MAGNUM Series fireplace in a corner (**Figure 9**).

MAGNUM [®]	A	B	C	D
Model 84	99"	62"	77 1/2"	127"
Model 96	111 1/2"	68"	86 1/2"	136"
Model 108	123 1/2"	74"	95"	144 1/2"
Model 120	135"	80"	103"	152 1/2"

General Assembly Instructions

When beginning the assembly process, mix the Earthcore Adhesive with clean water to a smooth, workable texture (without lumps or dry pockets) of a “toothpaste” consistency. This mixture is suitable for application onto Isokern components by using a masonry grout bag supplied with the unit.

Attention should be paid that the Earthcore Adhesive mixture is not too thin or runny, as this will not allow the Earthcore Adhesive to reach its maximum bonding strength.

Mark out the position of the base plate on the supporting floor system. Apply a thin layer of Earthcore Adhesive to the area and set base plate in the mortar (**Figure 12**).

Earthcore Adhesive is then squeezed from a grout bag onto the contact surfaces of the Isokern components as they are fitted together.

NOTE: It is important that a 1/2” bead of Earthcore Adhesive is piped onto all the components’ contact surfaces, about 1/2” in from all edges (**Figure 13**).

When setting the next component onto the Earthcore Adhesive contact surface of the base plate, some Earthcore Adhesive should squeeze out along the face of the entire joint as a sign of complete and proper sealing of the joint.

On broader contact surfaces, it is advisable to apply several additional 1/2” beads of the Earthcore Adhesive to the area to assure proper sealing of the joint.

Proper firebox and smoke dome assembly requires approximately 100 pounds (dry measure) of Earthcore Adhesive.

LEVELING AND ALIGNING COMPONENTS:

Be sure to assemble all Isokern components level and flush with adjoining components.

Earthcore Adhesive is not intended to create a Earthcore Adhesive joint of any thickness for leveling purposes.

Therefore, leveling and alignment adjustments are made by the use of small plastic shims supplied with the unit (Figure 14).

The shims can be inserted under a component to level and align it with adjacent Isokern components. Be sure to re-grout any and all gaps resulting from shim insertion to maintain components to full bearing.

BROKEN COMPONENTS:

Components can be repaired by using Earthcore Adhesive along the break line as the component is set into place. Components broken into multiple small pieces should be discarded and replaced.

IMPORTANT:

1. Do not mix Earthcore Adhesive with anti-freeze agents.
2. The maximum recommended Earthcore Adhesive joint thickness at Isokern components is 1/4”.

FIGURE 12

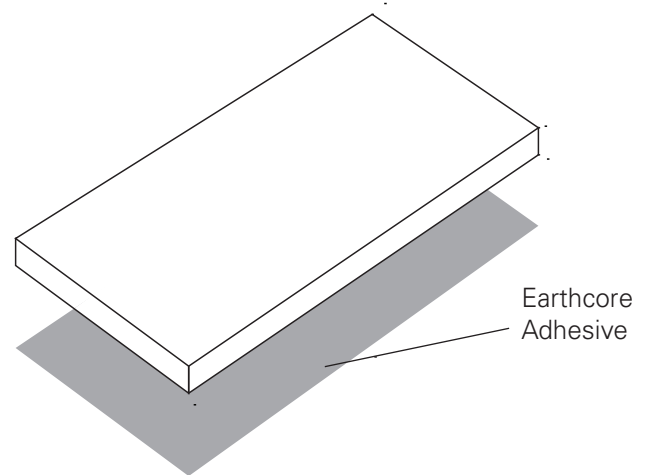


FIGURE 13

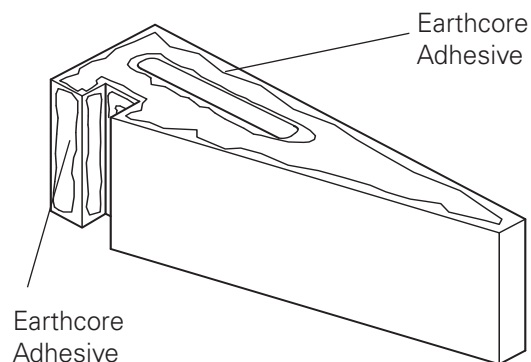
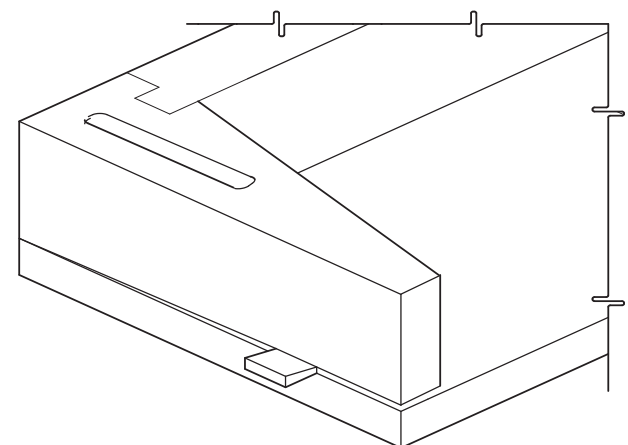


FIGURE 14



MAGNUM[®] Assembly Instructions

Base Plates:

84": Part# 191, M96, M93

96": Part# 191, M91, M93

108": Part# 192, M90, M92

120": Part# M96, M93

FIGURE 15

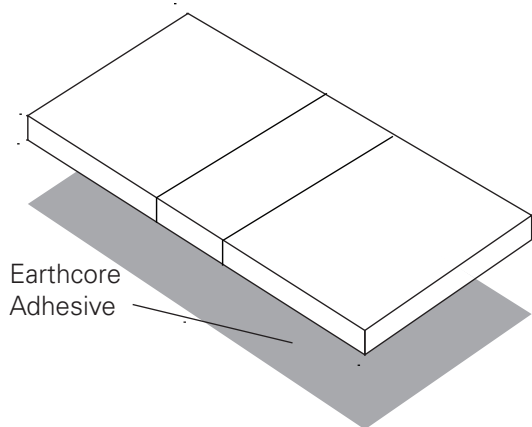


FIGURE 16

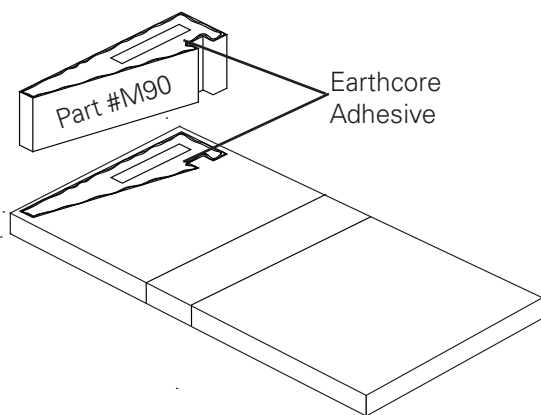


FIGURE 17

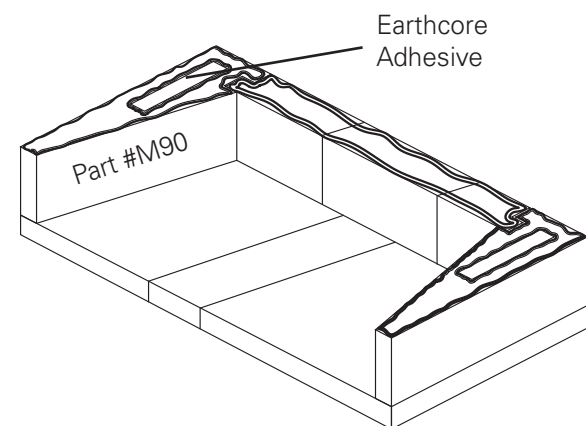
Back wall Course:

84": Part# 160, 162, 71

96": Part# 160, 162, 73

108": Part# 161, 72, 73

120": Part# 162, 162, 71, 73



The following assembly instructions identify the parts by name, part number and the placement of each part in the assembly process.

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

1. Apply Earthcore Adhesive to the joint between each baseplate part and set the base plates in a full bed of Earthcore Adhesive on a level support surface (**Figure 15**). See page 18 for supporting floor system. Do not set the base plate so that it is in span. Refer to pages 8-15 for part dimensions.

FLUSH HEARTH:

If the design preference is for a "flush hearth," the base plate can be omitted from the assembly, and the firebox walls can be built directly on a minimum 4" concrete support slab. The fire brick floor of the firebox is then set directly to the concrete support slab. This makes the fireplace finished fire brick floor approximately one and one-half inches (1 1/2") above the top of the concrete support slab.

RAISED HEARTH:

If the design preference is for a raised hearth (floor of the fireplace elevated above the room's floor), then the base plate can be set on a noncombustible platform that is built up to the desired raised hearth height on the concrete support slab. See page 18.

When calculating raised hearth height, be sure to allow for the 3"-thick base plate plus the 1 1/2"-thick fire brick floor in addition to the height of the platform.

For all "raised hearth" construction where concrete blocks are used to create the raised platform, it is necessary to use the base plate. Be sure to Earthcore Adhesive the concrete block platform together. CMU used for base plate support should be rated ASTM 90.

Whether a flush hearth or a raised hearth is installed, the combustible floor in front of the fireplace must be covered with a noncombustible hearth extension set tight against the fireplace front and extending at least 30" out from the finished fireplace and at least 12" beyond the sides of the fireplace opening. See pages 16 and 17 (**Figure 11**).

2. Set the first course of the firebox side walls and back walls into place (**Figures 16 and 17**).

NOTE: It may be convenient to dry set the first course of side walls and back walls into place on the Isokern base plate and then trace their position on the base plate with a pencil.

MAGNUM[®] Assembly Instructions

After outlining the dry set pieces, remove them and apply Earthcore Adhesive to the areas traced on the base plate where the side walls and back wall are to sit. By doing this, the first layer of wall components can be set directly into Earthcore Adhesive already applied to the proper areas on the base plate.

3. Continue assembly of the consecutive courses of the firebox side wall and back wall, **making sure to stagger the back wall components so that the vertical joints do not align.** Apply Earthcore Adhesive to the top of each layer of wall components, set the next course above into place. Be sure to apply Earthcore Adhesive to all vertical joints of the side wall to back wall connection when setting each component to its mate (**Figure 18**).

Look for some Earthcore Adhesive to squeeze out along the joints of all contact surfaces as a sign that the joint is thoroughly sealed with the approved Earthcore Adhesive.

4. When all of the firebox side wall and back wall components are set, check the top surface of the firebox for level. If necessary, adjust the top surface of the box assembly for level by inserting a shim supplied with the unit between the lowest wall component and the top surface of the base plate.

Any gap created under the wall components during the shim leveling process must be filled with Earthcore Adhesive to fill bearing against the base plate.

5. Steel angle iron with measurements of 6" x 6" x 3/4" cut to span firebox opening will be needed to assemble the firebox. **This item is not included in the components and can be sourced locally.**

This steel angle sits on top of the uppermost side wall component with the 6" leg in the horizontal position. To avoid a thickness problem with the placement of the steel angle, it is necessary to cut a notch approximately 3/4" deep in the top side wall component where the angle is to sit. 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 6" back toward the firebox (**Figure 19**).

The steel angle sits in this notch. The ends of the steel angle should not protrude beyond the outer firebox side wall. Earthcore Adhesive is not needed between the steel and the notch in the top of the side wall.

FIGURE 18

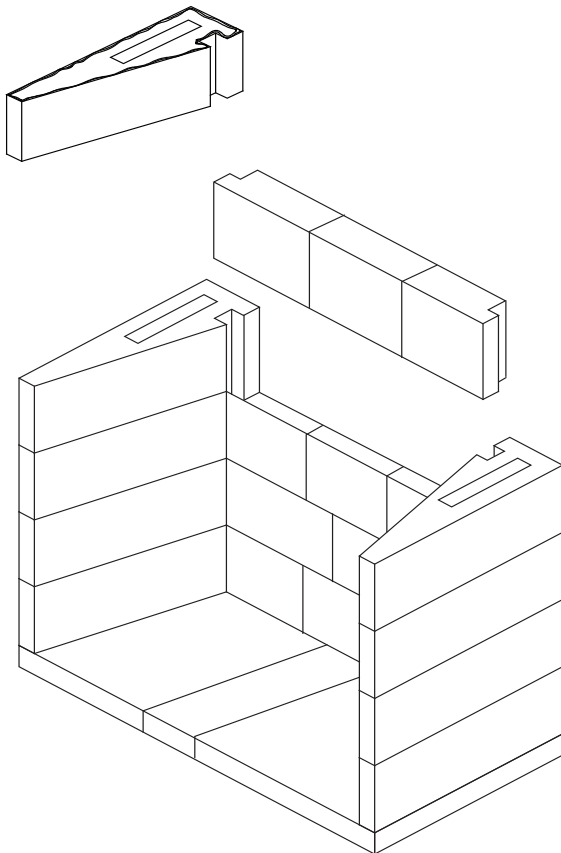
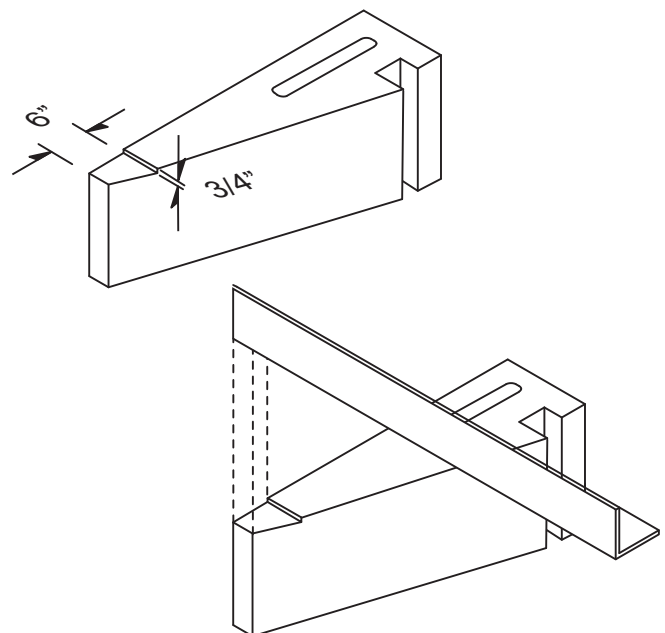


FIGURE 19



MAGNUM[®] Assembly Instructions

6. The fireplaces come with an 8"-thick damper beam assembly, an eight (8) piece component group that is to be assembled on top of the firebox side walls and back wall.

The damper beam assembly consists of six (6) long lintel pieces and two (2) short damper beam side pieces.

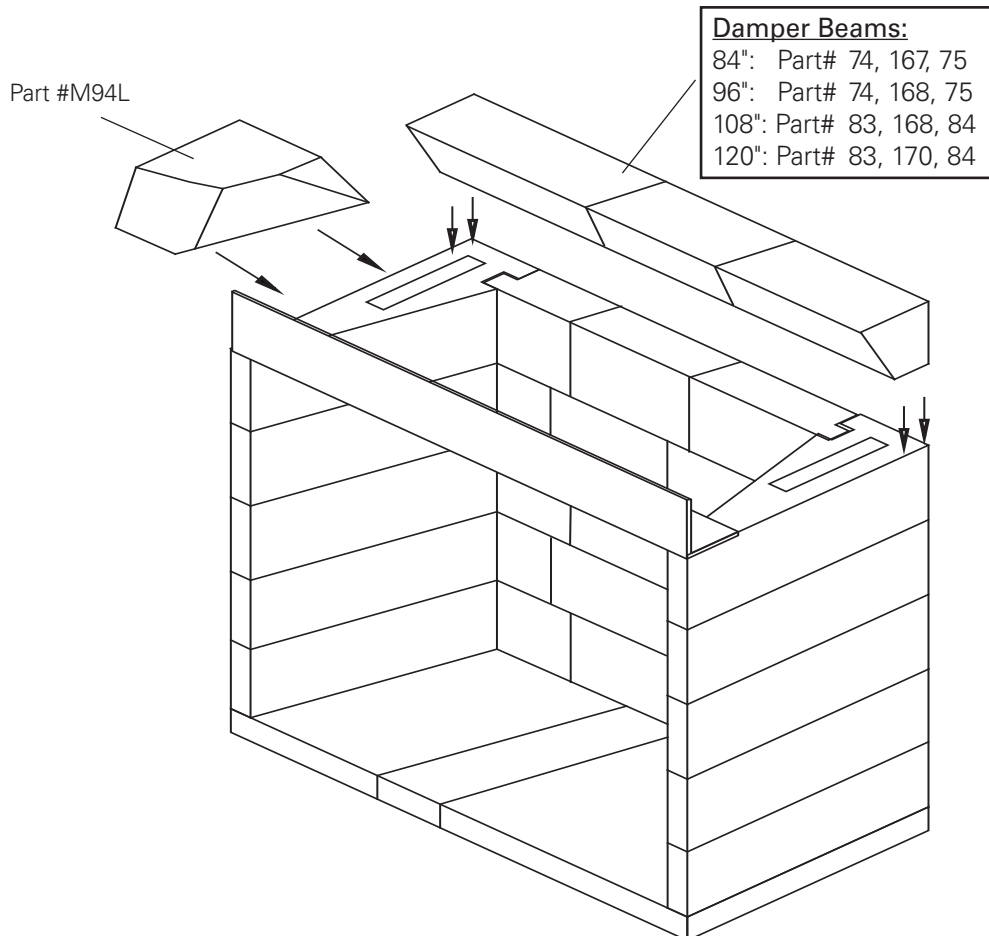
The damper side pieces are designed to sit on the firebox side wall between the front lintel and the back lintel. Each of the damper side pieces is designed specifically for its own side of the unit. When properly set, each damper side piece fits flush with the outside face of the firebox side wall so that its interior bottom edge aligns with the interior angle of the firebox side wall that it sits on (**Figure 20**).

The six (6) lintels will be equal to the width of the fireplace model that they serve. Properly placed, the lintel is to sit on top of the firebox back wall and flush with it; the other lintel sits flush with the front of the firebox, spanning the firebox opening. These components both sit on their narrow base so that their beveled face points down and into the firebox interior (**Figure 20**).

Be sure to Earthcore Adhesive all damper beam components to the top surfaces of the firebox. Apply Earthcore Adhesive to the contact surfaces of each damper side component where it meets the front and back damper beam lintel components.

NOTE: The MAGNUM[®] Fireplace will require anchor plates with damper or chimney top dampers. The dampers are not included with the firebox.

FIGURE 20



MAGNUM[®] Assembly Instructions

7. Set the rear smoke dome components across the damper beam in a bed of Earthcore Adhesive and flush with the back face of the back damper beam lintel.

Set the front smoke dome components in Earthcore Adhesive across the front damper beam and 2 3/4" back from the front of the front damper beam lintel. This placement should create a space of 17" between the front and rear smoke dome components (**Figure 21**).

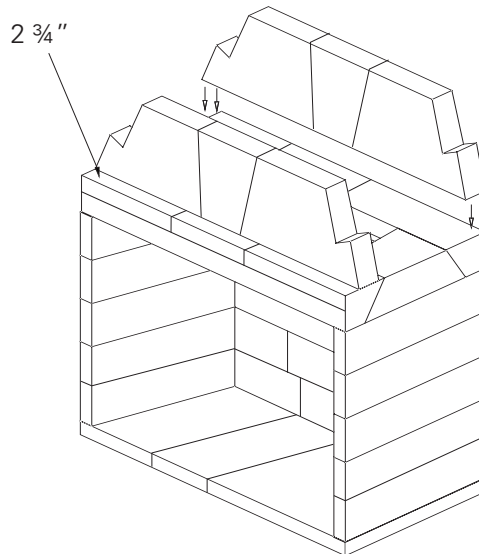
8. Position the smoke dome's sloping side walls at each end of the smoke dome components.

The sloping side walls fit in between the front and rear smoke dome components and also fit into the haunches at the ends of the front and rear smoke dome components. Apply Earthcore Adhesive to all contact surfaces thoroughly. The smoke dome sloping side walls have a beveled bottom edge so that they will sit tight onto the flat top of the damper beam assembly (**Figure 22**).

9. Set the second tier of rear smoke dome components across the top of the first tier of smoke dome components with Earthcore Adhesive between the two tiers. Making sure both tiers are flush with one another.

Follow the same instructions of the second tier of rear smoke dome components for the second tier of front smoke dome components. This placement should create a space of 17" between the front and rear smoke dome components (**Figure 23**).

FIGURE 21



Smoke Dome - 1st Course:

84": Part# 17, 112, 17

96": Part# 16, 113, 17

108": Part# 16, 114, 16

120": Part# 16, 116, 16

FIGURE 22

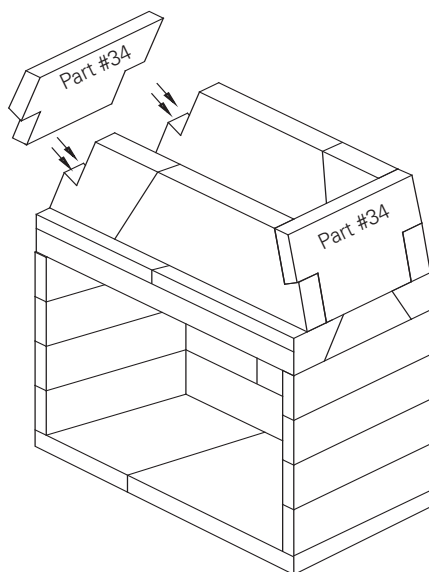
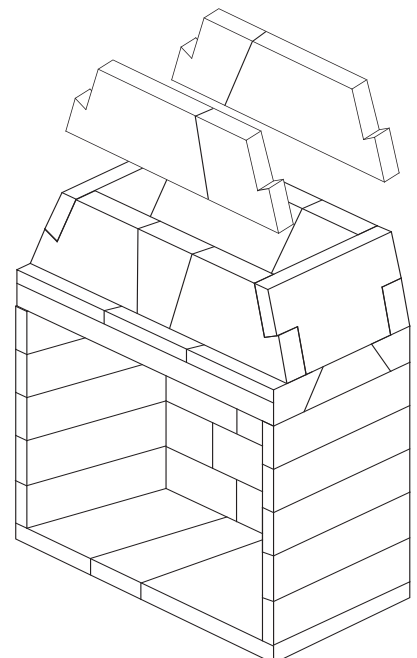


FIGURE 23



Smoke Dome - 2nd Course:

84": Part# 16, 18

96": Part# 16, 110, 17

108": Part# 16, 111, 16

120": Part# 16, 115, 16

MAGNUM[®] Assembly Instructions

10. Position the second tier of the smoke dome's sloping side walls at each end of the smoke dome components.

The sloping side walls fit in between the front and rear smoke dome components and also fit into the haunches at the ends of the front and rear smoke dome components. Apply Earthcore Adhesive to all contact surfaces thoroughly. The smoke dome sloping side walls have a beveled bottom edge so that they will sit tight onto the flat top of the damper beam assembly (**Figure 24**).

11. Set the top plates into position and apply Earthcore Adhesive on top of the smoke dome wall assembly.

One side of the top plate shows a thickened center. This side is the bottom face.

The flue hole in the top plate is centered in the smoke dome from side to side but is offset from front to back, the center being ten and three-fourths inches (10 $\frac{3}{4}$ "") from the back of the firebox (**Figure 25**).

FIGURE 24

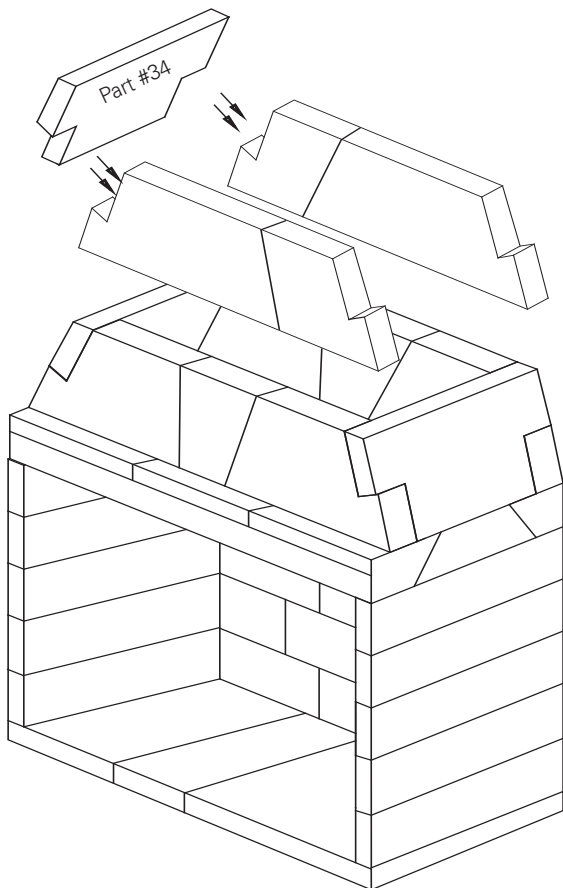
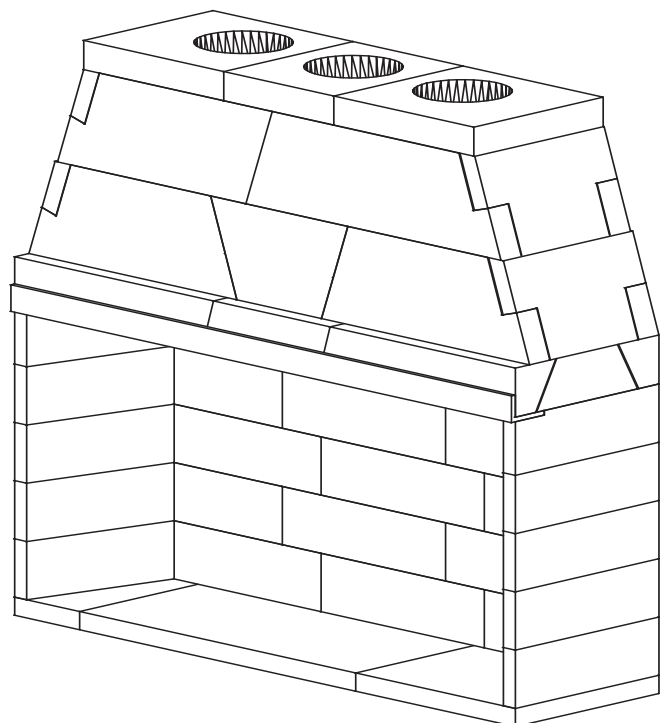
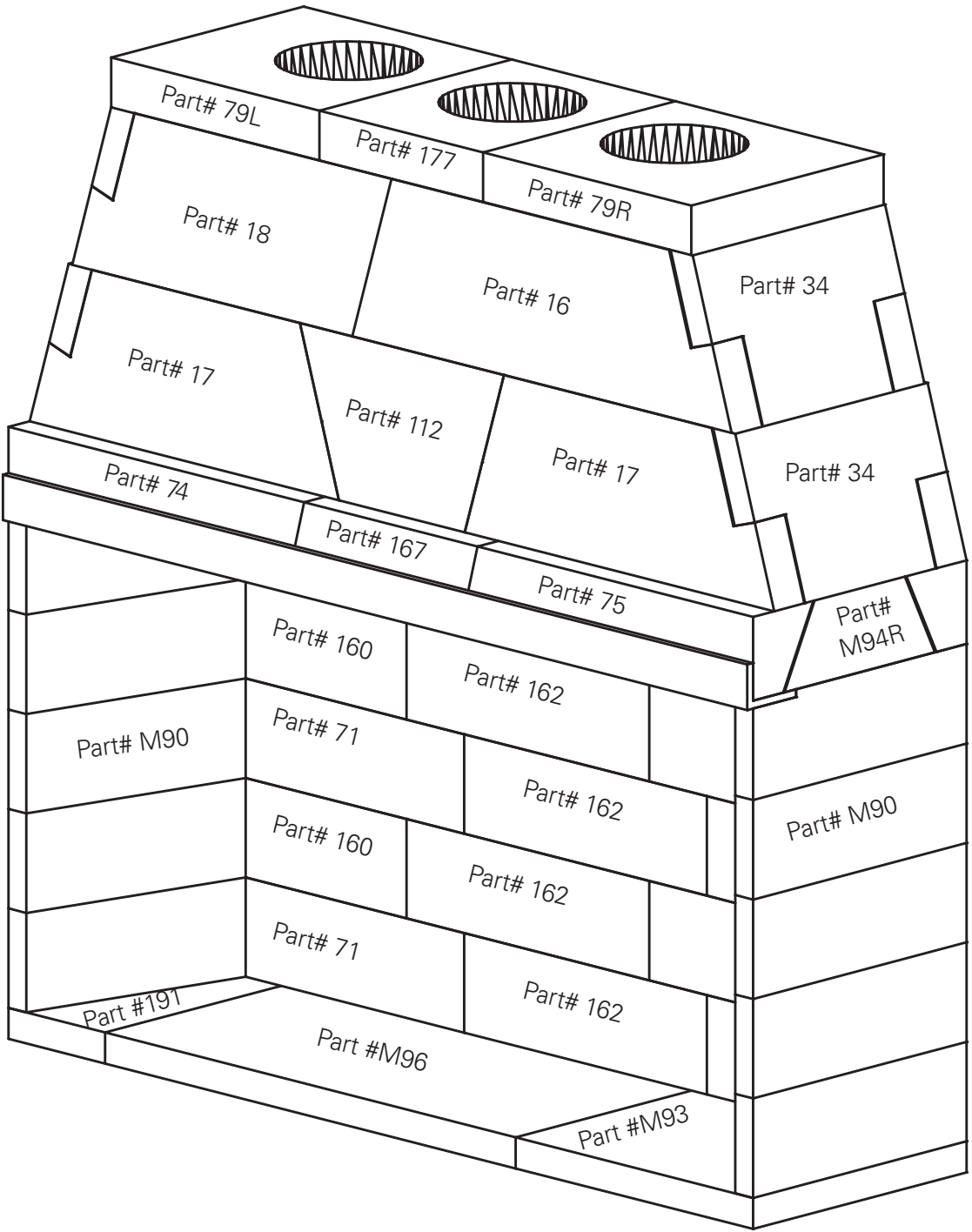


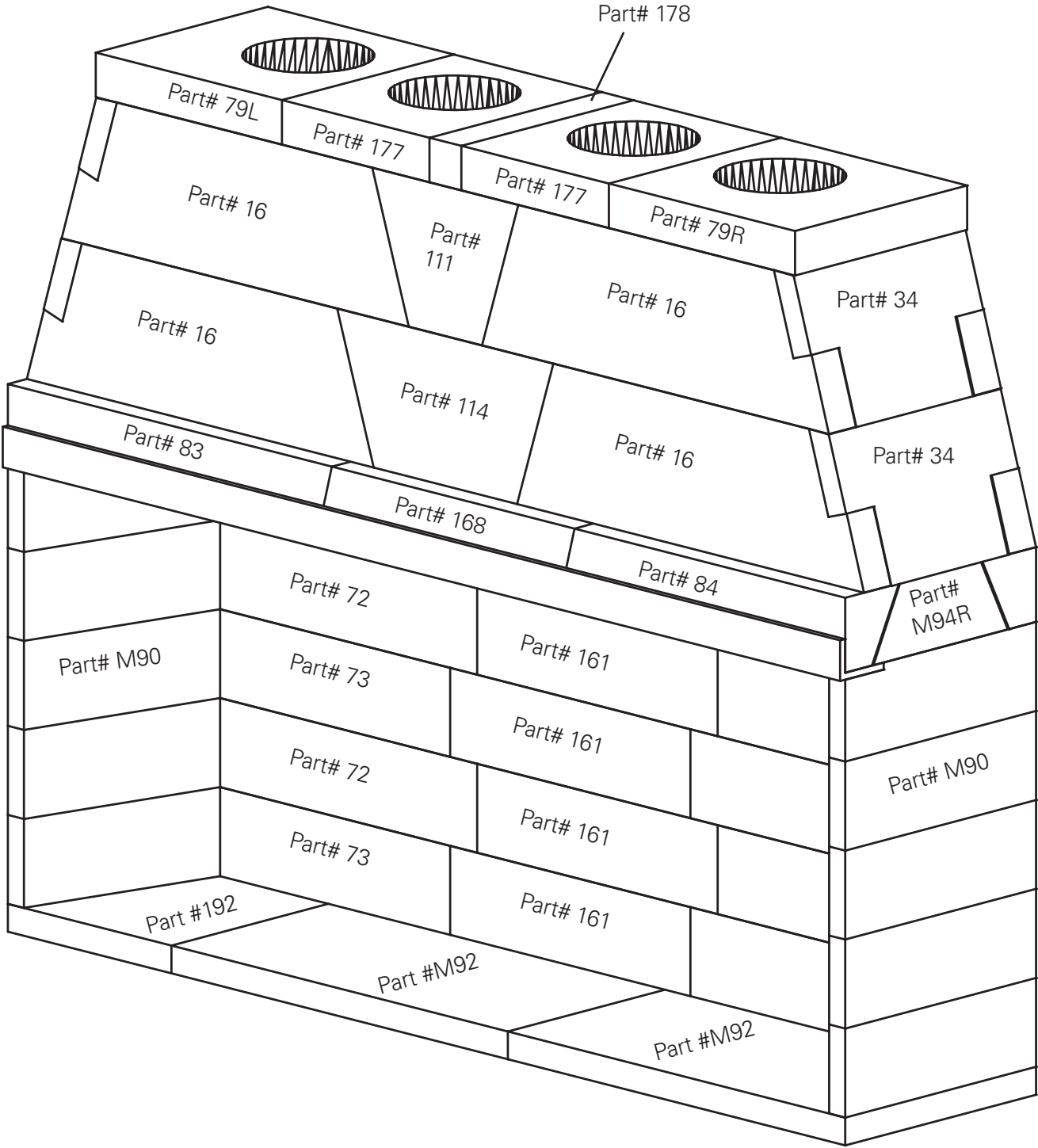
FIGURE 25



Assembled – MAGNUM[®] 84"



Assembled – MAGNUM[®] 108"





ECO-STEEL & ECO-STEEL+ Metal Chimney Flue

The MAGNUM[®] Series Fireplaces are tested and listed for use only with Earthcore's Proprietary ECO-STEEL & ECO-STEEL+ chimney systems complying with UL103/ULC-S604.

ECO-STEEL/ECO-STEEL+

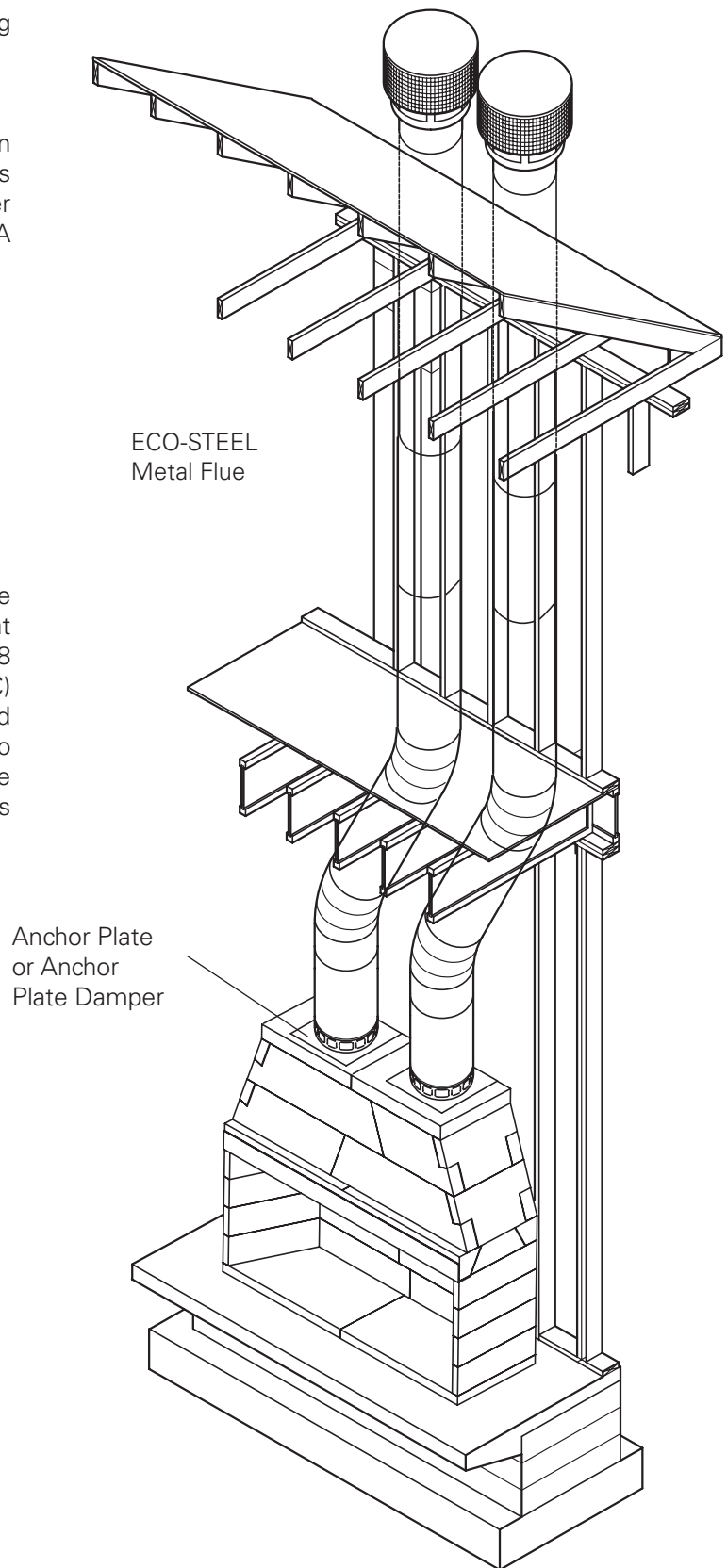
A lightweight venting solution created so each section connects securely together. This versatile system has a 12-5/8" inner diameter and 15-5/8" outer diameter and is available in two options. ECO-STEEL Class A Insulated has a Stainless Steel Outer and Inner Pipe.

METAL CHIMNEY TYPES:

1. ECO-STEEL Air Cooled Chimney Features
 - Double wall, non-insulated
 - Locking-tab design
2. ECO-STEEL+ Insulated Chimney Features
 - Double wall with solid-pack insulation
 - Locking-tab design


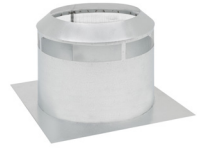


NOTE: ECO-STEEL & ECO-STEEL+ chimneys are not designed for use on products that operate at continuous temperatures in excess of 1000 °F (538 °C); intermittent temperatures of 1700 °F (927 °C) are acceptable. Only use approved terminations and chimney shrouds provided by Earthcore. Be sure to maintain a 2" clearance to combustibles around the metal chimney flue. The ECO-STEEL+ has a Stainless Steel Outer and Inner Pipe.

FIGURE 26



Components List - ECO-STEEL / ECO-STEEL+ Metal Chimney Flue

ECO-STEEL Air-Cooled Chimney Flue		
Component	Part#	Description
	13ACECO6	6" Chimney Section
	13ACECO12	12" Chimney Section
	13ACECO18	18" Chimney Section
	13ACECO36	36" Chimney Section
	13ACECO48	48" Chimney Section
	13ACECOAP	Anchor Plate
	13ACECOAPD	Anchor Plate w/Damper
	13ACECO15OS	15 Degree Offset
	13ACECO30OS	30 Degree Offset
	13ACECOFC	Chase Top Flashing
	13ACECOSC	Storm Collar
	13ACECOFS	Firestop

Component	Part#	Description
	13ACECOFT	Tall Cone Flashing 1-6/12 and 6-12/12 roof flashing
	13ACECOIS	Attic Insulation Shield
	13ACECOWB	Wall Band
	13ACECOCC	Chimney Cap - Stainless Steel

ECO-STEEL+ Insulated Chimney Flue		
	13INECO6	6" Insulated Chimney Section Stainless Steel
	13INECO12	12" Insulated Chimney Section Stainless Steel
	13INECO18	18" Insulated Chimney Section Stainless Steel
	13INECO36	36" Insulated Chimney Section Stainless Steel
	13INECO48	48" Insulated Chimney Section Stainless Steel
	13NECOAP	Insulated Anchor Plate Stainless Steel
	13NECOAPD	Insulated Anchor Plate w/Damper Stainless Steel
	13INECO15OS	Insulated 15 Degree Offset Stainless Steel
	13INECO30OS	Insulated 30 Degree Offset Stainless Steel

ECO-STEEL / ECO-STEEL+ General Information

The ECO-STEEL Air-Cooled and Insulated Chimney is intended for use on Isokern fireplaces. Do not use with forced draft or positive-pressure appliances. The ECO-STEEL Air-Cooled and Insulated chimney system is designed to extend a maximum of 60 feet vertically and with a maximum of two (2) offsets (four elbows total) of up to 30° from vertical. Contact Local Building or Fire Officials about restrictions and installation inspection in your area. These instructions must be followed in all details and failure to do so may result in a hazardous installation.

ECO-STEEL Air-Cooled Chimney is not designed for use on products that operate at continuous temperatures in excess of 1000 °F (538 °C). The following instructions are a general representation for ECO-STEEL & ECO-STEEL+ Chimney Installation.

CREOSOTE AND SOOT – FORMATION AND NEED FOR REMOVAL

When wood is burned slowly, it produces tar and other organic vapors, which combine with expelled moisture to create creosote. The creosote vapors condense in the relatively cool chimney flue of the slow burning fire. As a result, creosote residue accumulates on the flue lining. When ignited, the creosote makes an extremely hot fire. The chimney should be inspected at least once every two (2) months during the heating season to determine if a creosote or soot buildup has occurred. If creosote or soot has accumulated, it should be removed to reduce the risk of chimney fire.

Chimneys must be installed so that access is provided for inspection and cleaning.

Never fill any required clearance space with insulation or any other building materials surrounding the chimney.

Do not use a fireplace for food grilling. Grease from foods can collect in chimney causing fireplace to become a potential fire hazard.

Some chemical chimney cleaners can be harmful to the chimney. These cause accelerated oxidation or corrosion. If chemical cleaners are used, they must be non-corrosive in nature. If a brush is used, it must be of proper size with plastic bristles. Have your chimney cleaned by a professional, certified chimney sweep.

If a flue fire occurs, close all possible air inlets and call your Fire Department. Do not use the chimney again until it has been inspected by a Certified Chimney Sweep for possible damage.

Exterior metal parts, with exception of the top portion of the chimney cap, can be painted with a high temperature rust proof paint. Wash the metal surface with a vinegar and water solution to remove any residue before painting. Painting the chimney will help to increase chimney life.

Earthcore assumes no liability for structural damage or roof contamination as the result of creosote formation. It is the owner's responsibility to comply with inspection and cleaning requirements as described in these instructions, and those of the appliance manufacturer.

Interior chimneys shall be enclosed where they extend through closets, storage areas, occupied spaces, or anywhere the surface of the chimney could be contacted by persons or combustible materials. **The air space between the outer wall of the chimney and the enclosure shall not be less than 2 inches.**

WARNING: Do not place any type of insulation or other materials in the required clearance spaces surrounding the chimney assembly.

Except for installation in one or two family dwellings, a factory built chimney that extends through any zone above that on which the connected appliance is located is to be provided with an enclosure having a fire resistance rating equal to or greater than that of the floor or roof assemblies through which it passes.

In cold climates, chimneys mounted on an outside wall should be enclosed in a chase. Exterior chases reduce condensation, creosote formation and enhance draft.

Proper planning for your ECO-STEEL or ECO-STEEL+ Air-Cooled Chimney installation will result in greater safety, efficiency and convenience. You must use only ECO-STEEL & ECO-STEEL+ Chimney parts and components to maintain a listed chimney system. Do not mix parts or try to match with other products or use improvised solutions.

Install your Isokern fireplace as described in this installation manual and maintain all required clearances.

Connect only one fireplace per chimney. Follow the fireplace safety manual for maximum efficiency and safety. Do not over fire. Any damage to the fireplace or chimney can possibly void the warranty.

Do not burn driftwood, plastic, or chemically-treated wood, such as railroad ties. They are corrosive to your chimney system.

A MAJOR CAUSE OF CHIMNEY-RELATED FIRES IS FAILURE TO MAINTAIN REQUIRED CLEARANCE (AIR SPACES) TO COMBUSTIBLE MATERIAL*. MINIMUM CLEARANCE FOR 13" DIAMETER AIR-COOLED AND INSULATED CHIMNEY IS TWO (2) INCHES. IT IS OF UTMOST IMPORTANCE THAT THIS CHIMNEY IS INSTALLED ONLY IN ACCORDANCE WITH THESE INSTRUCTIONS.

ECO-STEEL / ECO-STEEL+ Metal Chimney Installation

1. Mount Anchor Plate: Chimneys for Isokern fireplaces begin with an Anchor Plate or Anchor Plate with Damper.

It is important that the surface of the Isokern chimney has a level surface on which to attach the Anchor Plate. If the top of the Isokern does not have a level surface, then it will need to be modified accordingly.

Center the Iso-wool blanket over the Isokern Top Plate hole and trace outline of hole with a pen or marker. Cut a hole in the blanket to match the hole in the Isokern Top Plate. Center the Iso-wool blanket over the Isokern Top Plate flue opening, then center the Anchor Plate over the Iso-wool blanket. If a Damper is used, make sure nothing interferes with the Damper plate movement.

Secure the Anchor Plate with four (4) masonry anchors (**Figure 27**). If the Anchor Plate with Damper is installed, the Damper should swing freely. When the chain is pulled down, the Damper should close (horizontal position). When the chain is released (no weight on the chain), the Damper should swing open (vertical position).

To install the lintel hook, place the Damper plate in the closed (horizontal) position. Determine and mark the position of the lintel hook. The lintel hook should be mounted in a position so as to provide a small amount of tension in the spring attached to the chain.

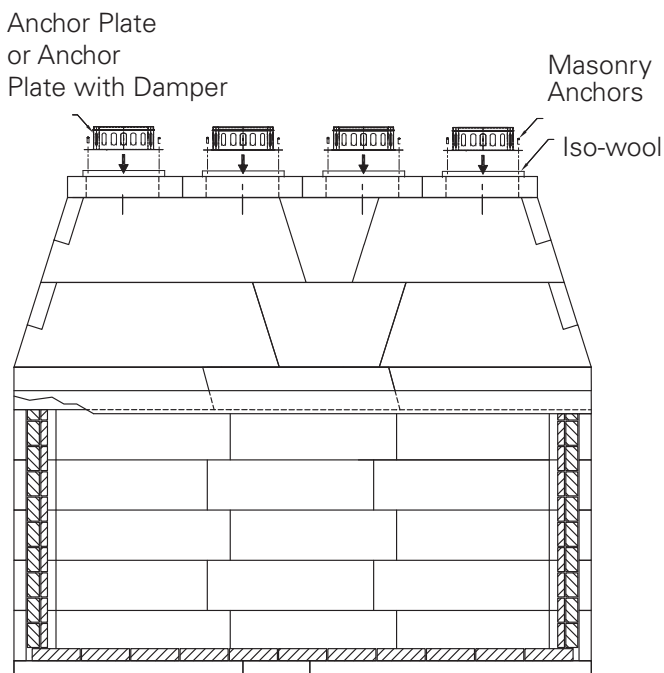
The tension is needed to prevent the Damper plate from rattling when closed. Mount the lintel hook to masonry with the screws provided. Do not obstruct the oval openings in the Anchor Plate.

WARNING: Do not locate Anchor Plate with Damper in a location inaccessible for inspection, cleaning, and servicing after installation.

2. Attach Chimney: Attach the first section of chimney on the Anchor Plate. The joint assembly is a male to female slip fit and held together with tab lock, twist lock, or screwed together (**Figure 28**).

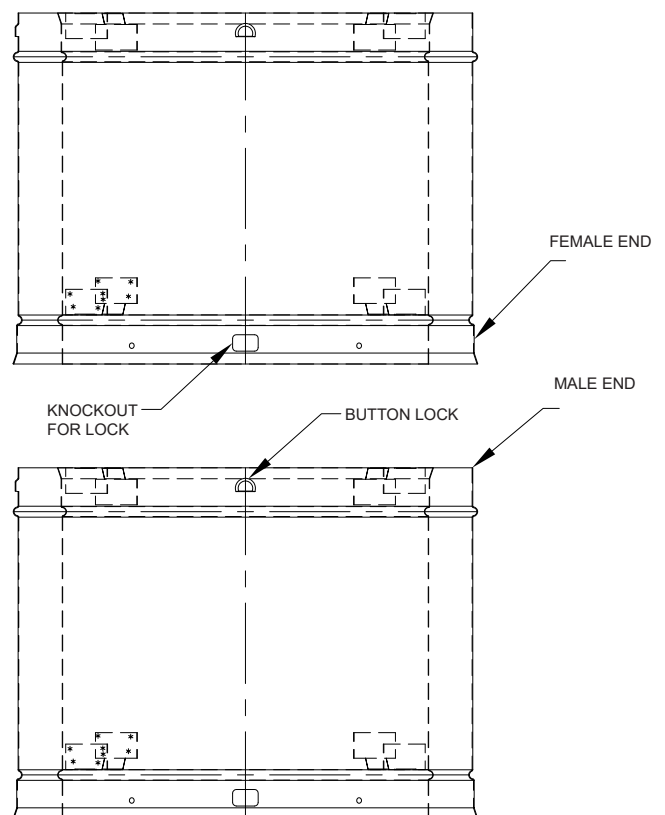
If installing screws, do not penetrate the inner liner of the chimney with screws. Maintain a 2 inch (2") clearance to combustibles. Do not fill the clearance space with any materials. If an offset is required, refer to the Elbow Offset Installation Section.

FIGURE 27



MAGNUM[®] 96" Shown

FIGURE 28



ECO-STEEL Design Only

ECO-STEEL / ECO-STEEL+ Metal Chimney Installation

3. Frame Openings: From the ceiling, drop a plumb bob to the center of the fireplace's flue outlet and mark the center point on the ceiling. See **TABLE 1** below.

Mark appropriate cutting lines around the center point. Cut a square hole in the ceiling. Frame a level, square opening centered over the hole that you have cut. Frame openings at each floor level above the fireplace (**Figure 29**). These openings are to hold the Firestop and Attic Insulation Shield. Locate each opening by dropping a plumb bob to the four corners of the opening below. Maintain the 2-inch airspace to combustibles.

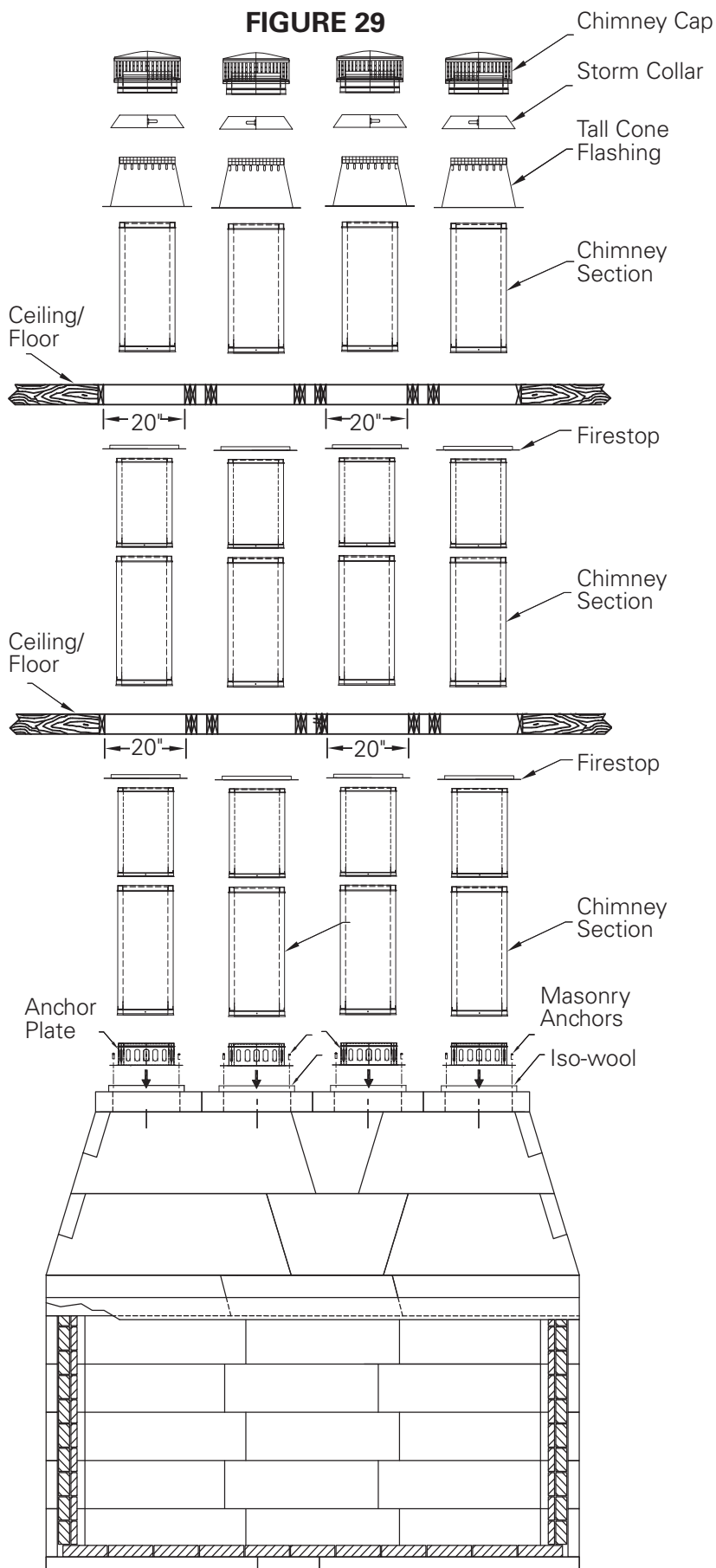
TABLE 1

Frame Opening Dimensions	
Diameter	Framing Dimensions
16" OD nominal	20" X 20"

4. Cut Roof Opening: If penetrating through the roof, determine and cut an opening in the roof directly above the opening below. The cut opening must be 4 inches larger than the chimney's outside diameter to provide at least a 2-inch clearance all around the chimney. The chimney must be centered in this opening.

5. Install Firestop: A Firestop is required on each floor penetration in multistory installations. Building Codes require a Firestop at every floor/ceiling level, including where the chimney penetrates the attic. **Figure 29** shows a typical 2 story installation with an attic.

NOTE: A Firestop is not installed where the chimney penetrates through the roof. The Firestop is installed on the underside of the ceiling/floor framing and secure in place with nails or screws (**Figure 29**).



ECO-STEEL / ECO-STEEL+ Metal Chimney Installation

6. Angle Support and Support Band: Install a Support Band if total chimney height is greater than 50 feet, or if the fireplace manufacturer requires it. If additional support is needed, install one or more Support, which will support 30 feet of chimney (**Figure 31**).

Slide the Support Band around the chimney and align over the framed opening. Secure to casing with four (4) sheet metal screws and assemble brackets (**Figure 30**). Nail the brackets to the framing using a minimum of (2) nails or screws per bracket.

A Support Band may be required by some fireplace manufacturers to keep the chimney vertical and help maintain clearances to combustibles within a chase. Clamp the Support Band to the pipe using the nut and bolt provided and secure legs to nearby framing using plumbers strap or guy wires (**Figure 32**). The Support Band does not support the weight of the chimney, it is only used to keep the chimney centered within a chase.

FIGURE 30

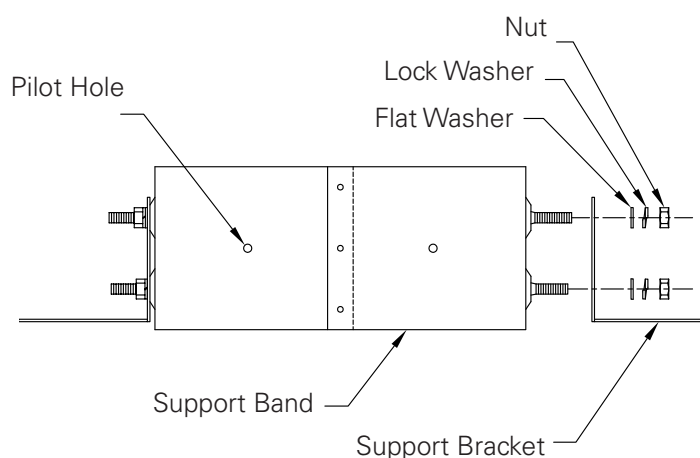


FIGURE 31

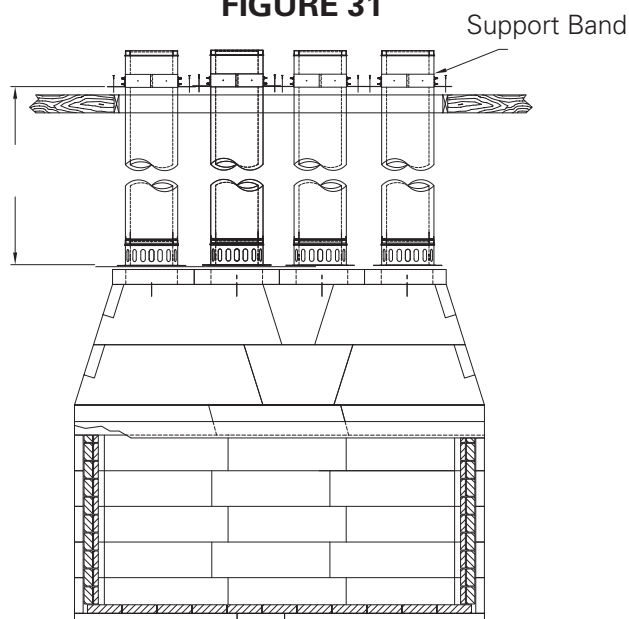


FIGURE 32

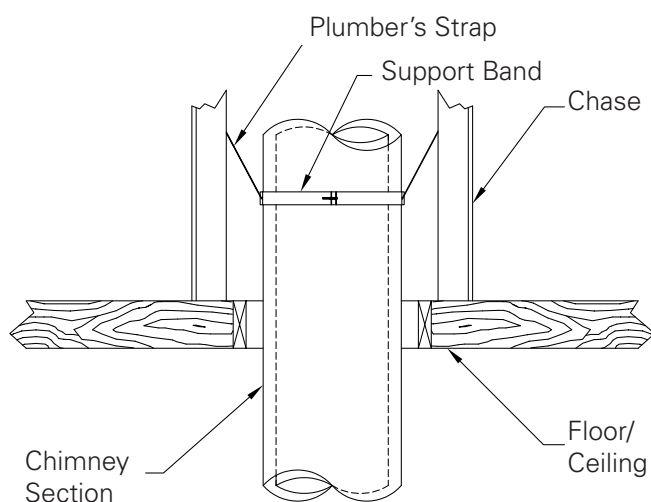
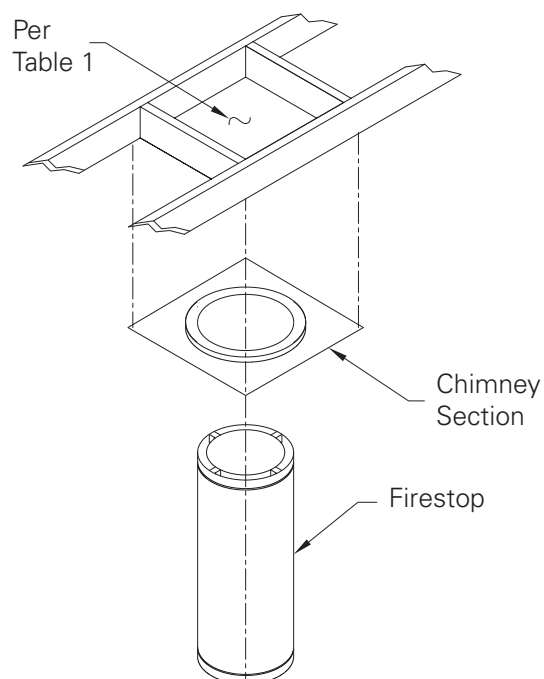


FIGURE 33



ECO-STEEL / ECO-STEEL+ Metal Chimney Installation

7. Attic Insulation Shield: The Attic Insulation Shield must be installed where the chimney passes into an attic. Its purpose is to maintain clearances from loose packed or blown insulation from the chimney. If an Attic Shield is not used, the chimney needs to be enclosed within a framed enclosure. Always maintain a 2" air-space clearance to combustibles. Install the shield as follows:

- Remove any insulation or debris from attic floor around the framed opening.
- Assemble chimney sections above the Firestop to a height that extends beyond the height of the attic insulation shield.
- Slip the Attic Insulation Shield over the chimney until the base sits squarely on the framed opening.
- Secure the Attic Insulation Shield to the top of the framed opening using nails or screws. See **Figure 34**.

8. Elbow Installation: 15° and 30° elbows are provided to allow chimneys to avoid framing members or roof peaks. A maximum of 30° from vertical is allowed, and a total of two elbows are used for each chimney installation. A 2" clearance to combustibles must be maintained. If more than two (2) offsets are needed, a mechanical exhaust fan should be used. The mechanical fan company would determine the viability of performance.

Attach the elbow to the chimney pipe, support or other part. Using the offset chart, add chimney sections between elbows. **A Support Band or Plumbers Strap is required for every 4-foot interval between elbows to support the load (Figure 35).** Attach the upper elbow to bring the chimney back to vertical. See **TABLE 2** and **(Figure 35)** for offset combinations; 2 offsets (4 elbows) maximum.

FIGURE 34

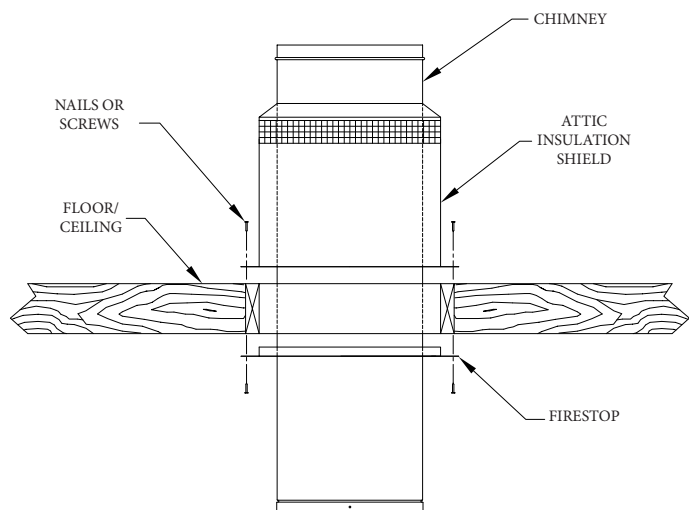


FIGURE 35

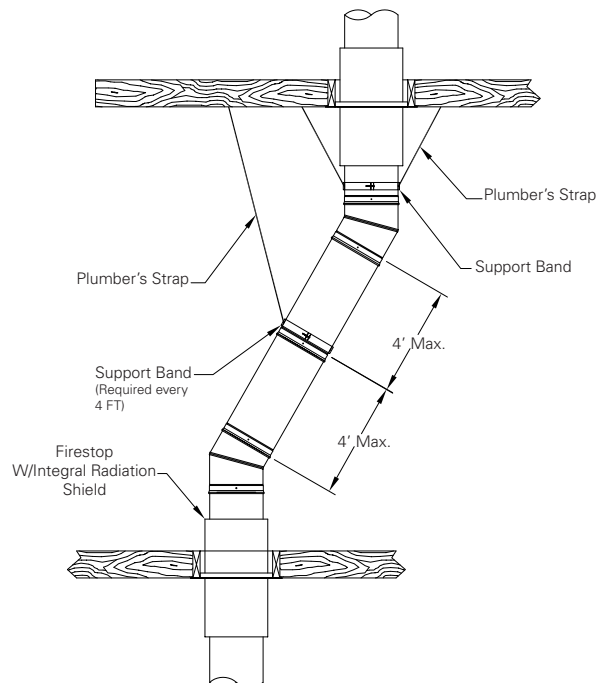
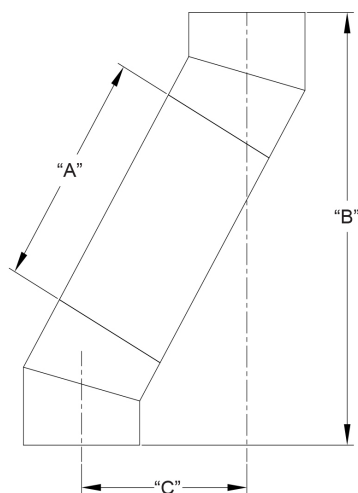


TABLE 2

Elbow Angle	Length "A"	8" Diameter		10" Diameter		12" Diameter		13" Diameter		14" Diameter		16" Diameter	
		"B"	"C"	"B"	"C"	"B"	"C"	"B"	"C"	"B"	"C"	"B"	"C"
15°	0"	19-1/4"	2-3/8"	19-3/4"	2-1/2"	20-1/4"	2-1/2"	20-1/2"	2-1/2"	20-3/4"	2-1/2"	21-1/4"	2-5/8"
	12"	29-1/4"	5"	29-3/4"	5-1/8"	30-3/8"	5-1/4"	30-1/2"	5-1/4"	30-3/4"	5-1/4"	31-3/8"	5-3/8"
	18"	35"	6-5/8"	35-5/8"	6-3/4"	36-1/8"	6-3/4"	36-3/8"	6-3/4"	36-5/8"	6-3/4"	37-1/8"	6-7/8"
	24"	40-7/8"	8-1/8"	41-3/8"	8-1/4"	41-7/8"	8-1/4"	42-1/8"	8-3/8"	42-3/8"	8-3/8"	42-7/8"	8-3/8"
	36"	52-1/2"	11-1/4"	53"	11-3/8"	53-1/2"	11-3/8"	53-3/4"	11-3/8"	54"	11-1/2"	54-1/2"	11-1/2"
	48"	64"	14-3/8"	64-5/8"	14-1/2"	65"	14-1/2"	65-3/8"	14-1/2"	65-5/8"	14-5/8"	66"	14-5/8"
30°	0"	21-1/8"	5-1/4"	22-1/8"	5-5/8"	23-1/8"	5-7/8"	23-5/8"	6"	24-1/8"	6-1/8"	25-1/8"	6-3/8"
	12"	30-3/8"	10-5/8"	31-3/8"	10-7/8"	32-3/8"	11-1/8"	32-7/8"	11-1/4"	33-1/8"	11-3/8"	34-1/8"	11-5/8"
	18"	35-1/2"	13-5/8"	36-1/2"	13-7/8"	37-1/2"	14-1/8"	38"	14-1/4"	38-3/8"	14-3/8"	39-3/8"	14-5/8"
	24"	40-3/4"	16-5/8"	41-3/4"	16-7/8"	42-3/4"	17-1/8"	43-1/4"	17-1/4"	43-1/2"	17-3/8"	44-1/2"	17-5/8"
	36"	51-1/8"	22-5/8"	52-1/8"	22-7/8"	53-1/8"	23-1/8"	53-5/8"	23-1/4"	53-7/8"	23-3/8"	54-7/8"	23-5/8"
	48"	61-1/2"	28-5/8"	62-1/2"	28-7/8"	63-1/2"	28-1/8"	64"	29-1/4"	64-3/8"	29-3/8"	65-3/8"	29-5/8"



ECO-STEEL / ECO-STEEL+ Metal Chimney Installation

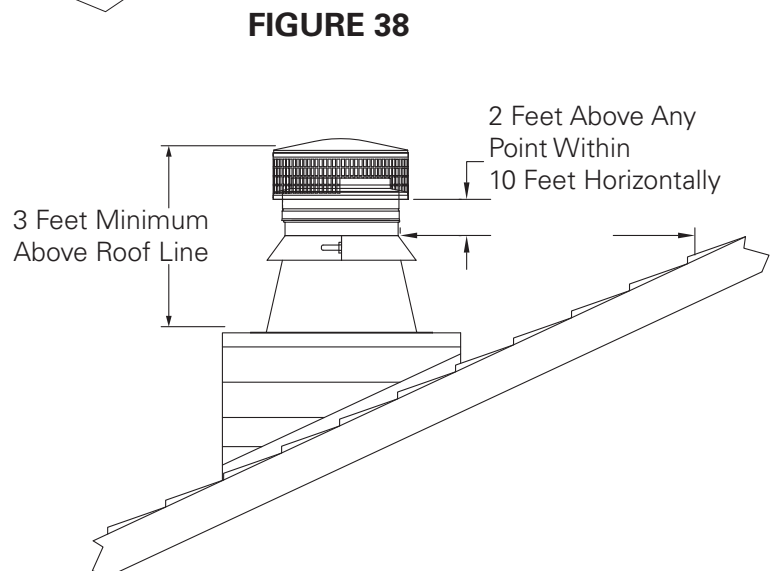
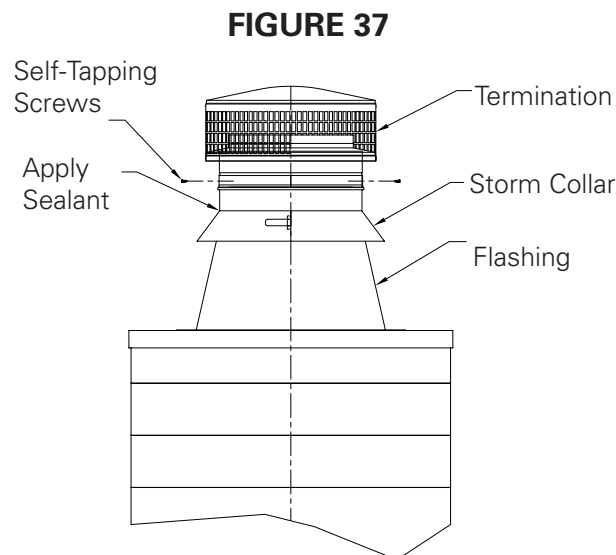
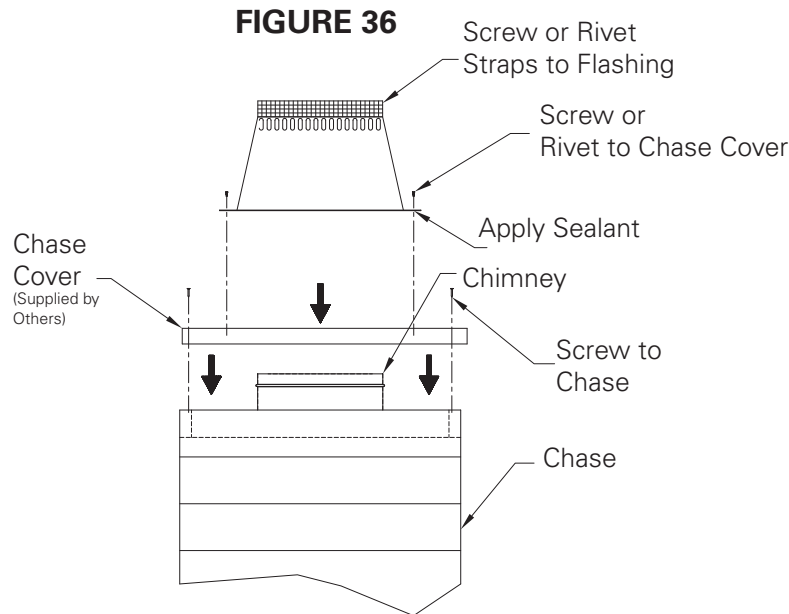
9. For chase enclosures, install the chase top cover (supplied by others) to the chase enclosure. Cut a hole in the chase top cover the same diameter as the base of the cone on the flashing. Attach the Flashing to the top of the chase cover, sealing with a non-hardening waterproof sealant. Secure in place with screws or rivets (**Figure 36**).

10. Attach the storm collar around the chimney above the screen of the flashing. Secure in place with the locking tab and button. Seal around the storm collar with a non-hardening waterproof sealant. Attach the Termination Cap to the chimney by sliding the male to female joint connection together and secure in place with four (4) sheet metal screws provided (**Figure 37**).

11. Termination: NFPA 211, "Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances," states that chimneys shall extend at least 3 feet above the highest point where it passes through the roof of a building, and at least 2 feet higher than any portion of a building within 10 feet (**Figure 38**).

If the horizontal distance from the chimney edge to the peak of the roof is greater than 10 feet, a chimney height reference point is established on the roof surface 10 feet horizontally from the chimney edge. The top of the chimney (point where exhaust gases exit) must be at least 2 feet above this reference point. In all cases, the chimney must terminate a minimum of 3 feet above the highest point of the roof opening.

The "10 Foot" rule is necessary in the interest of safety and does not ensure smoke free operation. Trees, building, adjoining roof lines, adverse wind conditions, etc. may require a taller chimney should a smoking problem exist.



Guide for Mechanical Draft System

MECHANICAL DRAFT SYSTEM FOR WOOD AND FIRED FIREPLACE WITH SINGLE FLUE

This is the most common form of installation and is used in all jurisdictions where the 2000 or later edition of the NFPA211 has not yet been adopted.

Sequence of operation:

1. Prepare the wood logs in the fireplace.
2. Turn the Fan Speed Control (FSC) on by turning the knob clockwise. A "click" indicates the control is turned on. Adjust the knob to the desired speed.
3. Start the fire by igniting the logs.
4. Once the fire is fully burning, turn the dial clockwise (to reduce the speed) until there is spillage coming from the fireplace. From this point, gradually increase the fan speed by turning the dial counter-clockwise until no flue gases spill from the fireplace. This dial can be left in this position.
5. If logs are added to the fire, it may be necessary to increase the fan speed again.
6. When the fire is dying, reduce the speed setting further to remove remaining products of combustion.

IMPORTANT NOTE: Never leave a fire unattended. When a fire is smoldering, it is more likely to emit carbon monoxide. You should always have a smoke detector and a carbon monoxide detector installed in the same room where the solid-fuel burning appliance is installed.

The EcoDamper System quietly manages a perfect draft and prevents conditioned air from escaping through the chimney when the fireplace is not in use. It eliminates the need for glass doors, opening up many new design options while allowing for a larger view area of the fire and a more natural look.

The system consists of the RSHT Chimney Fan, the Manual Fireplace Damper (MFD), and Fan Speed Control.

RSHT CHIMNEY FAN

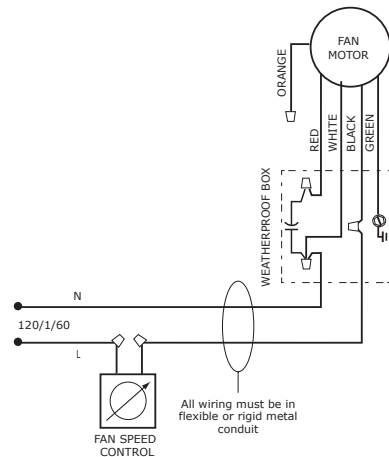
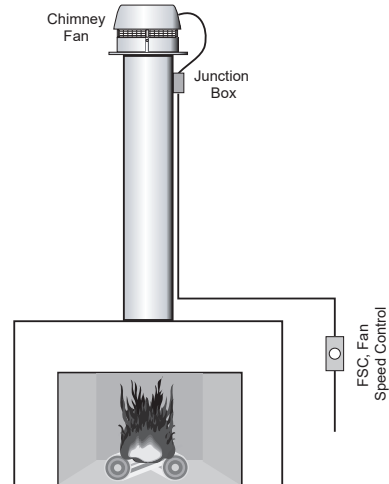
The RSHT Chimney Fan is a high temperature fan used to maintain the proper draft in a solid fuel chimney or stack system. It is intended for wood burning fireplaces. It boasts a 1000 °F (538 °C) temperature rating. The variable FSC comes standard with the fan.

MANUAL FIREPLACE DAMPER

The MFD-S Fireplace Damper for solid fuel prevents conditioned air from escaping through the chimney when the fireplace is not in use, and prevents back draft down the chimney. It includes an easy-open pull cable and handle that is mounted inside the fireplace.

FAN SPEED CONTROL

The FSC is used in conjunction with all single-phased chimney fans. It is specially engineered to provide variable speed control of split capacitor motors.



NOTES:

1 THE DISCONNECT MEANS AND CIRCUIT PROTECTION ARE TO BE PROVIDED BY THE INSTALLER OF THIS DEVICE

LEGEND:
— 24 VAC
— 120 VAC

Note: The diagram is for reference only. Job specific wiring diagrams can be provided by ENERVEX.

Component	Part#	Description
	RSHT	1600 RPM High Temperature Chimney Fan
	MFD-S	Manual Fireplace Damper
	FSC	Fan Speed Control (included with Chimney Fan)

Access Modification – Combustion Air Kits, Gas & Electrical Line Feed

FIGURE 39

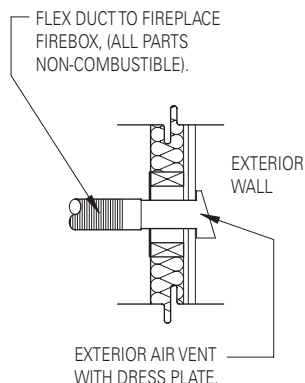


FIGURE 40

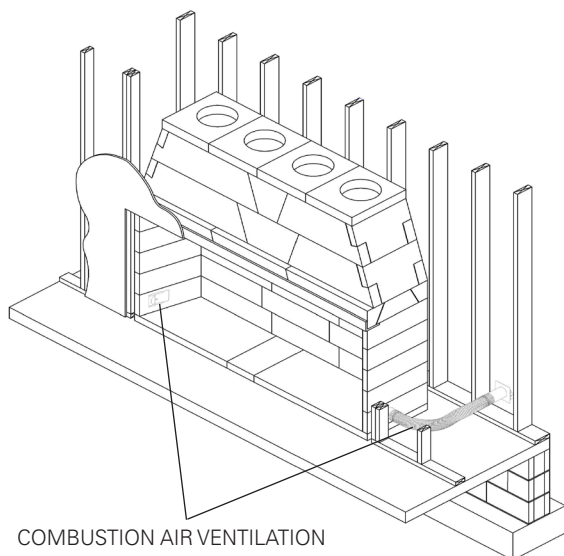
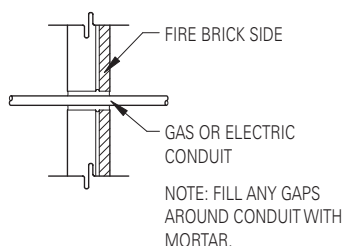


FIGURE 41



Two (2) 4" Combustion air inlet kits are required by Earthcore and may help improve fireplace operation in homes tightly sealed and with other ventilating appliances installed (**Figures 39 and 40**). The following is a general representation of a combustion air kit that is required by Earthcore Industries.

The combustion air kit consist of a sliding stainless steel access door affixed to a four inch (4") in 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. The MAGNUM[®] fireplaces will require two (2) four inch (4") air kits.

The access door is fitted into the front 1/3 of the side wall. 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. Do not install in the rear of the firebox because sparks will be blown into room.

The sleeve passes through the firebox side wall and must be connected to a UL Listed Air Duct pipe that leads to the source for outside combustion air, as directly as possible from the fireplace. The duct cannot rise vertical higher than the finished opening of the firebox.

We recommend not to exceed twenty feet (20') of four inch (4") pipe. If you require a longer length we recommend that you use a six inch (6") diameter pipe for the complete run of up to forty feet (40').

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 ducts shall not terminate in attic, basement or garage spaces.

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.

ELECTRICAL LINE FEED

Can be routed through the MAGNUM[®] firebox side walls by drilling an appropriately sized hole using a masonry drill bit. 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: 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 41**).

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 41**).

Firebrick Installation

The manufacturer requires for the MAGNUM[®] model fireboxes be lined with a minimum 2-1/4" thick firebrick for the Floor and Back wall and four inch (4") firebrick on the side walls. Thicker firebrick may be used as an option. The pattern for the firebrick lining is an owner option. The ISOSET mortar by Earthcore is to be used when lining the Isokern Fireplace.

ISOSET FIREBRICK MORTAR APPLICATION:

- Add .75 quarts of water per 10 lbs of dry product until completely blended.
- Only mix what can be utilized within 15 minutes.
- Do not retemper (the addition of water after the chemical reaction has begun).
- The use of warm water will accelerate setup.
- Joint thickness should be thin (1/4" - 3/8")
- Complete set time is between 48 and 72 hours.
- For best results, please allow 28 days before heat is applied.
- Approximately 35 to 40 lbs of prepared mortar will lay up one hundred 9 x 4 1/2 x 2 1/2" straights.
- **DO NOT add additives, such as fireclay, sand, cement, or other accelerators.**

These instructions may vary because of different climates and conditions. The use of good masonry practices for your area should also be considered.

INSTALLATION INSTRUCTIONS:

1. Wet mop the inside of the fireplace with a damp sponge to remove dust and loose particles from the interior before installing firebrick. Keep the fireplace damp while installing firebrick.

For Best Results:

- **After wetting sponged interior of firebox, apply a 1/4 notch bed joint on rear sides and floor**
- **Dip each firebrick in a pail of water before applying mortar to one side for adherence to firebox.**

2. Facing 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 firebrick.

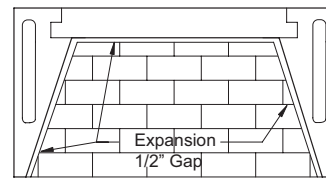
3. Start the firebrick at the front edge of the floor of the Isokern firebox, proceeding inward toward the back. Let the floor brick gap approximately 1/2" off the back wall and side walls. This air space allows heat expansion of the firebrick and is to be left empty of mortar (**Figure 42**).

4. Next, apply firebrick to the back wall of the unit. The back wall firebrick covers the 1/2" expansion gap left at the brick floor along the back wall of the firebox (**Figure 43**).

5. Set the side wall firebrick by starting at the front edge of the unit's side wall and working inward toward the back wall firebrick. The side wall firebrick, when completed, covers the 1/2" expansion gaps where both the floor firebrick and the back wall firebrick were held off the units side walls (**Figure 44**).

All required through-wall accesses (gas and air intake supply access holes) should be drilled before the required firebrick lining is installed. Do not cover these areas with firebrick.

FIGURE 42



The expansion joint in this illustration is on the hearth.

FIGURE 43

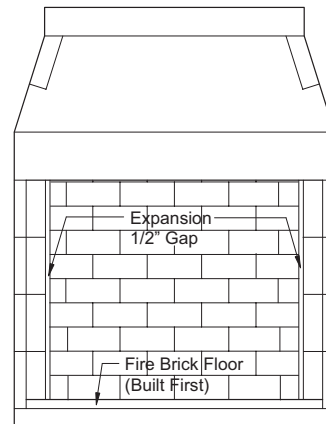
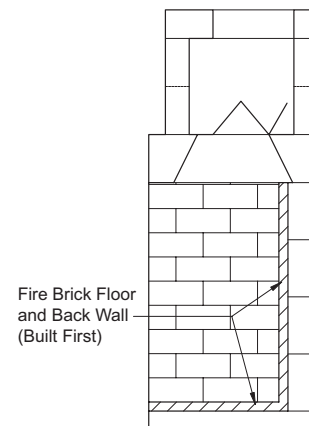


FIGURE 44



The expansion joint in this illustration is on the back wall.

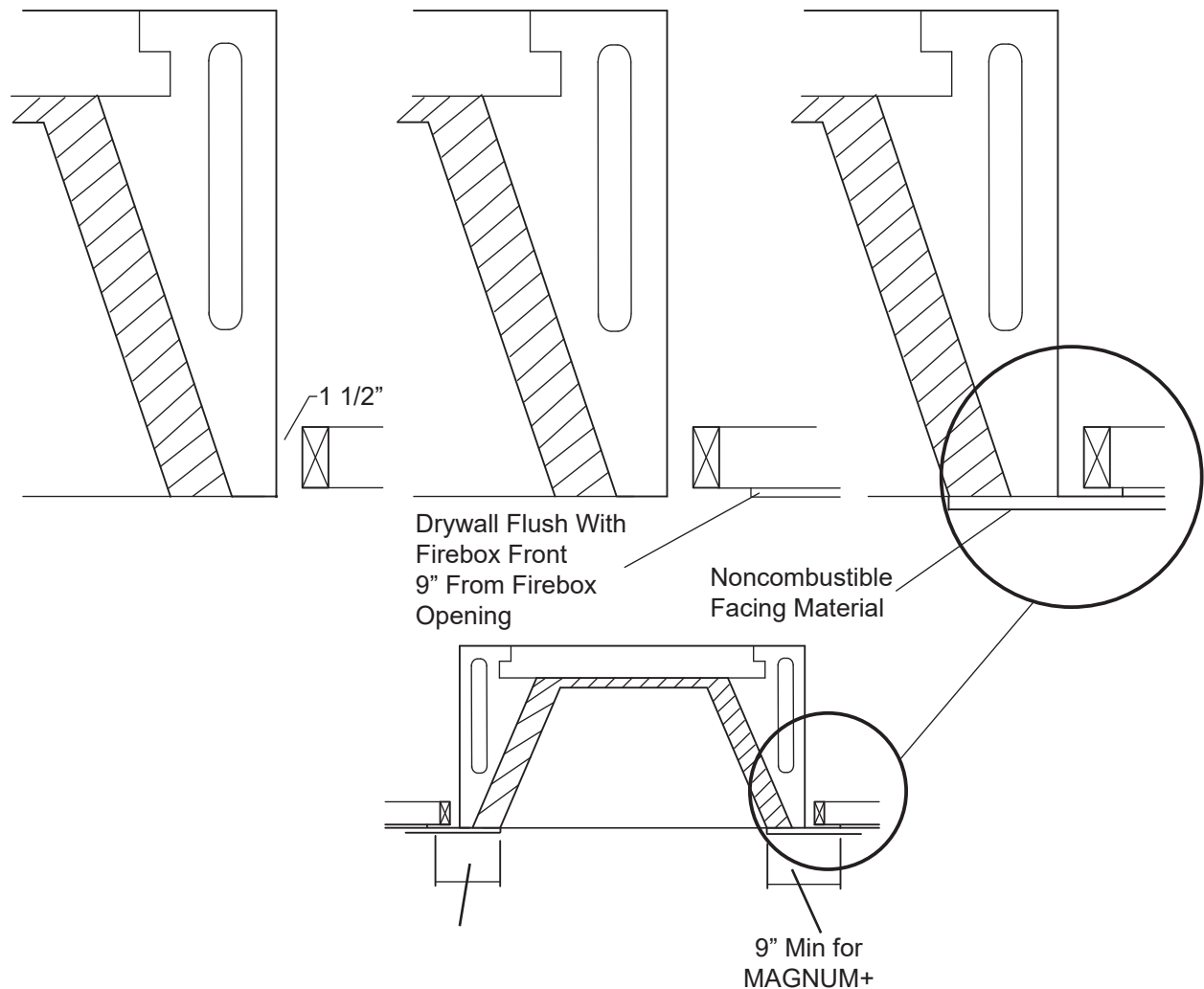
Earthcore makes no claims as to the performance of firebrick or firebrick mortar(s). It is typical for heat stress cracks to appear in the firebrick in fireplaces.

Flush Wall Finish Detail

When drywall is the wall finish at the MAGNUM[±] face and flush with the rough face of the MAGNUM[±] firebox and damper beam when installing the required firebrick lining to the interior of the firebox, it is recommended that the leading edge of the firebrick – at the floor and at the side walls of the firebox – be set flush with the MAGNUM[±] rough firebox front. This will aid in the overall fit and finish of the MAGNUM[±] Series fireplace front when the code required non-combustible finished facings are applied.

This alignment of firebrick application, as shown in **Figure 45**, allows the firebrick lining to be in the same plane with the room's wall finish surface. With the firebrick set in this fashion, the non-combustible finish facing material can be set tight against the leading edge (or "room edge") of the firebrick 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.

FIGURE 45



Clearance to Combustible Trim

HEARTH EXTENSIONS

All MAGNUM[®] fireplaces shall have hearth extensions of brick, concrete, stone, tile or other code approved non-combustible material. Suitable hearth extension material for the MAGNUM[®] Series fireplace shall be placed on the hearth extension's non-combustible substrate and must extend to at least thirty inches (30") 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 46 and 47**).

WARNING: The non-combustible hearth extension, by code, must sit on non-combustible 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 inches (30") out from the front of the MAGNUM[®] firebox (**Figure 46**).

MANTLE AND MANTLE SHELF CLEARANCES

MAGNUM[®] 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, with up to twelve inches (12") of projection, shall not be placed less than twenty four inches (24") from the top of the fireplace opening. Combustible mantles that project more than twelve inches (12") from the face of the fireplace shall have additional clearance from the twenty four inches (24") 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[®] Series fireplace installations cannot be closer than forty eight inches (48") to the finished fireplace opening (**Figure 47**).

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 46

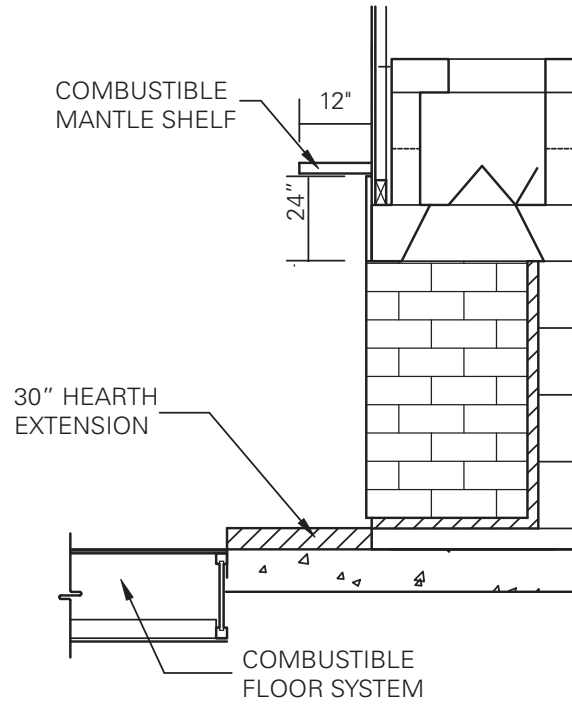
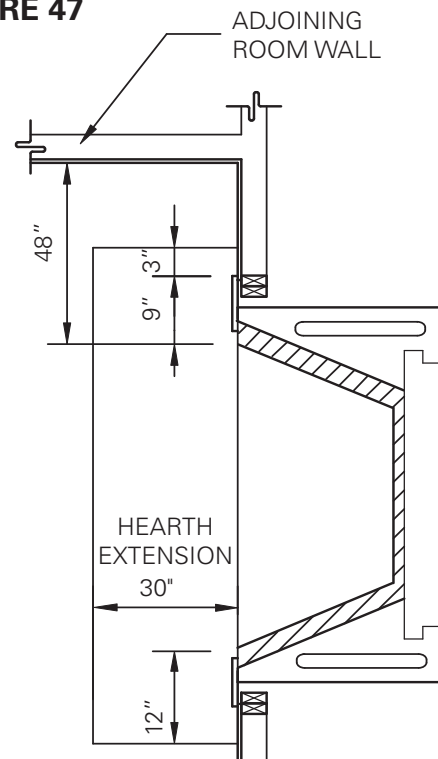


FIGURE 47



Specialty Applications – Outdoor Installation

The Isokern fireplace can be used in an outdoor application and is considered an "Outdoor Application" if the fireplace is a freestanding unit, located a minimum of ten feet (10') away from any structure. These structures would include your house, patio cover, detached garage or any other standing structure (**Figure 48**).

SELECTING AN OUTDOOR LOCATION

To determine the safest and most efficient location for the fireplace, you must take into consideration the following guidelines:

1. The location must allow for proper clearances and venting.
2. Consider a location where the fireplace will not be affected by down drafts, impending structures or frequently opened doors.
3. Avoid a location where the chimney termination will be near abrupt changes in the roof shape, nearby wall, under trees or above the roof of a single story wing of a two-story building.

CHIMNEY FLUE

Minimum height of chimney, measured from base plate of the fireplace to flue gas outlet of termination, should be 9.5 feet. If the fireplace is located adjacent to structures on the property, the chimney height should be a minimum of two feet taller than that structure. The height of the chimney will require calculated dimensions to make sure the smoke vents properly upward through the chimney and doesn't create a downdraft that will push the smoke back out of the hearth.

The use of ECO-STEEL & ECO-STEEL+ chimney flue are the flue types for the MAGNUM[®] models in the outdoor application. With the use of an ECO-STEEL & ECO-STEEL+ chimney, a 2" clearance to combustible material is required. See page 16 for more information.

SUPPORTING FOOTERS

In the outdoor application, careful load calculations should be made for the veneer type used on the fireplace. Foundations and footings must be made of a frost -protected foundation 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. See page 18 for weight calculations.

IMPORTANT: Due to heat and weight issues, Isokern fireplace installations require that the system be built upon a non-combustible concrete slab with no wood underpinnings supported to footings with concrete or steel and designed to carry the total weight of the Isokern fireplace.

ASSEMBLY INSTRUCTIONS

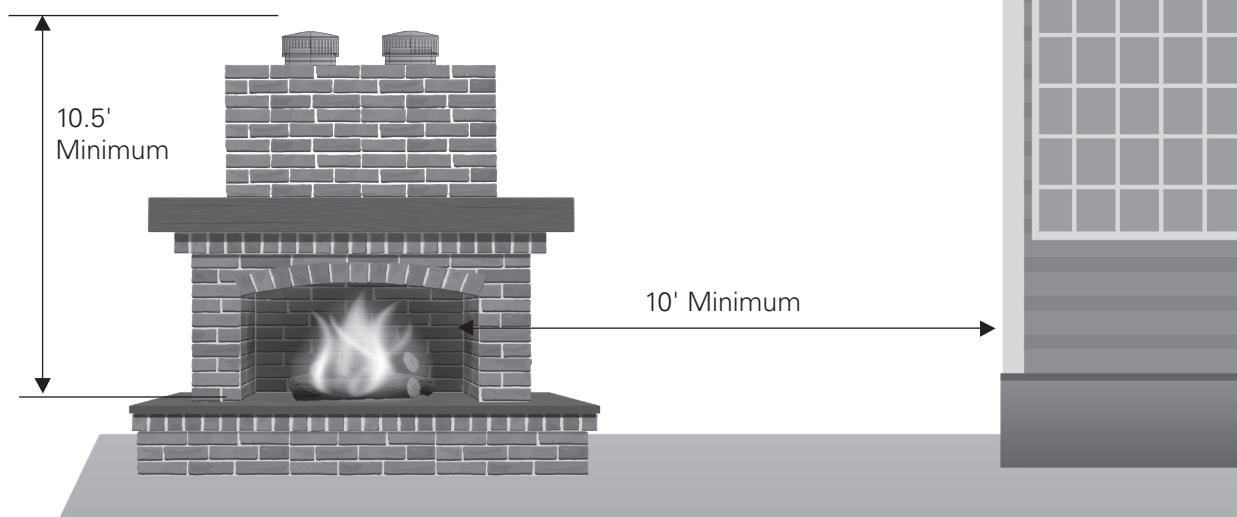
Refer to the assembly instructions that are found on pages 20-25.

NOTE: A damper is not required in an outdoor application of the Isokern fireplace.

CLEARANCE TO COMBUSTIBLES

Follow the instructions on pages 16 and 44 for the Required Clearances to Combustibles.

FIGURE 48



Specialty Applications – Reduced Height Fireplace Opening / Seismic Requirements

FIGURE 49

The Isokern Fireplace can have a reduced height opening by removing one layer of the back wall and side walls from the fireplace construction. All other construction for the fireplace will remain the same as shown on pages 20-25. The use of three to four flues on the 84"-120" models will still be required (**Figure 49**).

SEISMIC REQUIREMENTS (SLAB ON GRADE)

The produce for seismic requirements is as follows (**Figure 50**):

1. Drill a hole of proper diameter and depth using a carbide tipped drill or coring bit. Avoid any existing reinforcing steel by relocating hole slightly.

Minimum Rebar Requirements		
Bar Size	Rod Size (inches)	Bit Dia. (inches)
#4	1/2	5/8
#5	5/8	3/4
#6	3/4	7/8
-	7/8	1
-	1	1-1/8

2. Clean the hole thoroughly by vacuum or air pressure.

3. Make sure that the hole is dry and clean before grouting.

4. Place epoxy grout in hole with caulking gun or similar equipment starting at bottom, and fill the hole approximately 2/3 full.

5. Coat dowel with the same epoxy grout and insert into the hole, forcing material around the sides of the bar and completely filling all voids.

6. Provide support for dowel by trying to add rebar or other element until grout has cured.

7. Epoxy grout in CMU shall be Simpson Set Epoxy tie (ESR-1772), HILTI HIT-HY 150 max (ESR-1967), or equal.

8. Epoxy grout in concrete shall be HIT-RE 500-SD by Hilti corporation. (ESR-2322), Simpson Set-xp (ESR-2508) or equal.

9. Special inspection is required.

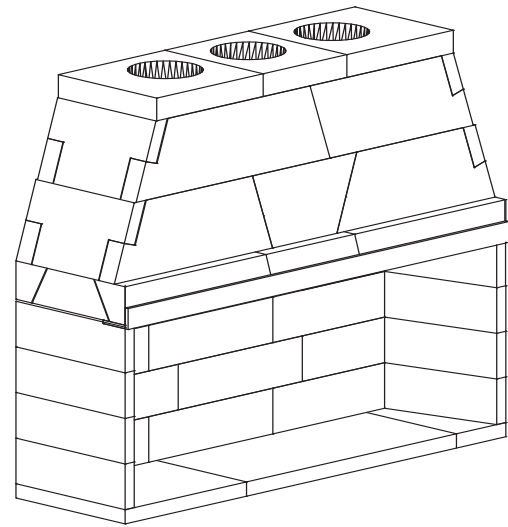
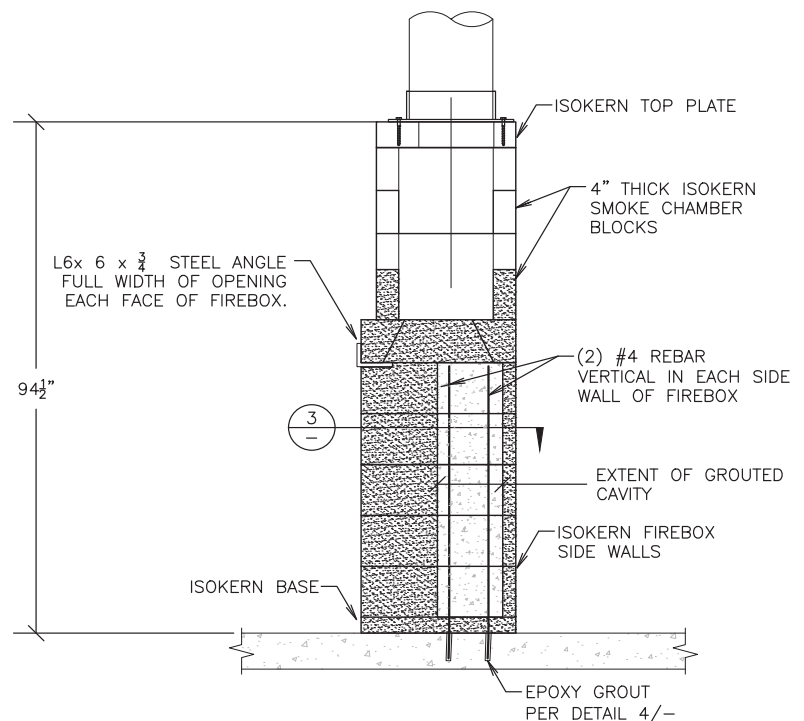


FIGURE 50



Summary

1. Chimney Installation and Draft

Chimney systems will only draft 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 drafts, either of which can impair fireplace drafting performance.

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

2. Fireplace Curing Instructions

It is critical that the Isokern masonry elements in the firebox and smoke dome assembly be dry before firing of the unit. Moisture left in the 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 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 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. It 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 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

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.

Summary

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 Isokern fireplace.

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 fire logs are used, do not poke or stir the logs while they are burning. Use only fire logs that have been evaluated for the application in fireplace and refer to fire log 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

We require two 4" outside air kits for the MAGNUM[®] 84, 96, 108, and 120. All glass must be a minimum of 3/16" in thickness and shall be of tempered or ceramic glass as supplied by our approved vendors.

DOORS MUST BE KEPT IN THE OPEN POSITION WHEN FIREPLACE IS IN USE.

The following door manufacturers are approved for installation and use on all Isokern gas fireplaces. We require two outside air kits be installed into the fireplace with a minimum duct size of 4" to provide adequate make up air supply. See page 41 for Outside Air Kit guidelines. All glass must be a minimum of 3/16" in thickness and shall be of tempered or ceramic glass as supplied by our approved vendors.

DOORS MUST BE KEPT IN THE OPEN POSITION WHEN FIREPLACE IS IN USE.

Approved vendors:

Design Specialties
11100 W Heather Ave
Milwaukee, WI 53224
414-371-1200

Ironhaus Inc.
113 Lewis Lane
Hamilton, MT 59840
406-961-1800

Stoll Fireplace
153 Hwy 201
Abbeville, SC 29620
800-421-0771

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 non-combustible floor or on the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled.

Summary

8. Gas Log Sets

If you install a vented gas log set (decorative gas appliance), the log set must comply with the Standard for Decorative Gas Appliance for Installation in Solid Fuel Burning Fireplaces, ANSI Z21.60 or Z21.84 and shall also be installed in accordance with the National Fuel Gas Code, ANSI 7223NFPA 54 latest edition.

If you wish to install an unvented (vent-free) gas log set, only unvented gas log sets that have been found to comply with the standard for unvented room heaters, ANSI Z21.11.2 are to be installed in this fireplace. Check local codes for compliance for unvented (vent free) gas log sets.

WARNING: Do not operate a vented gas log set in this fireplace with the chimney removed.

If a log lighter is installed, it should be installed on the front of the grate in such a manner to minimize flame impingement, the amount of heat exposure and that logs placed on the grate will not rest directly on the log lighter tube. Also, the floor clearance should be sufficient to minimize the chance of the blockage of the burner ports by ash accumulation.

Installation of the log lighter should follow all local codes or, in the absence of local codes, to the National Fuel Gas Code, ANSI Z 223. 1NFPA 54.

Refer to log lighter manufacturer for installation instructions, clearances and any information specific to that log lighter system.

9. Inspection and Cleaning

At least twice a year in warm climates or monthly during the heating season in colder climates, thoroughly inspect the 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 bird 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 and inspected by a professional chimney sweep annually.

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.

10. 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

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

Dealer _____

Date of Purchase: _____ Date of Installation: _____

Address: _____

City, State, Zip: _____

Phone No.: _____

MAGNUM[®] Fireplace Size (Circle One): 84 (82084) 96 (82096) 108 (82108) 120 (82120)

Fuel Type (Circle One): Solid Wood Natural Gas Propane

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

Buyer: _____

Address: _____

City, State, Zip: _____

Phone No.: _____

Installed By: _____

Address: _____

City, State, Zip: _____

Phone No.: _____

[illegible]

NOTES

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This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Warranty & Disclaimer

Isokern MAGNUM[®] Series Fireplace

Earthcore 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, FIREBRICK 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 Earthcore 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 Earthcore, 6899 Phillips 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.

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

Earthcore is not responsible for misuse or mishandling of components. Nothing in this warranty makes Earthcore, 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.

EARTHCORE, 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 Earthcore 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.

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

earthcore[®]

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