

Information Guide

Fireplaces & Chimneys



FORGED FROM THE EARTH'S CORE

Table of Contents

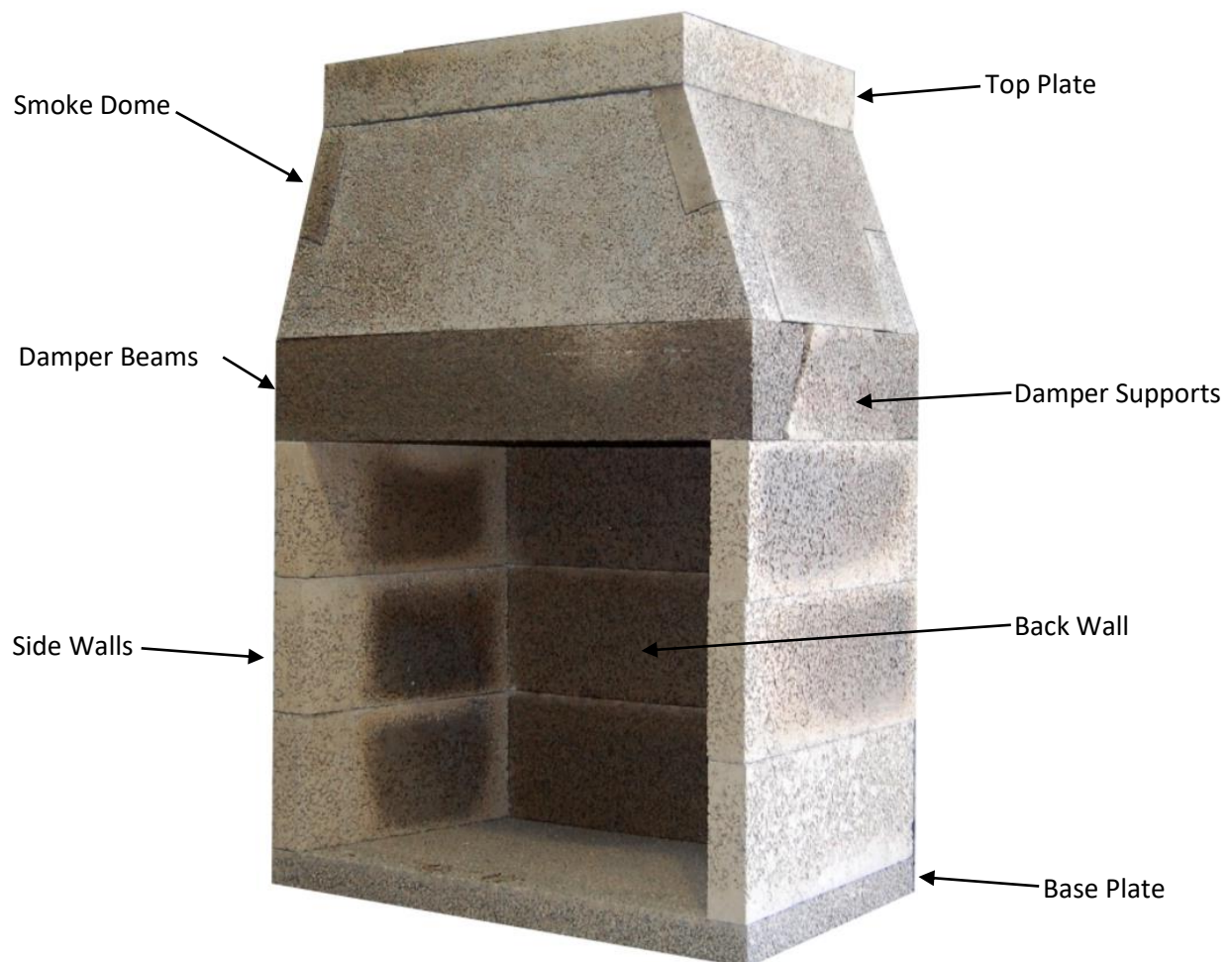
Fireplace System (Firebox) Kit Includes	1
Determining the Customers' Needs.....	2
Combustible Floor Options	2
Burning Options:	2
Non-Combustible Floor Options	2
Burning Options:	2
Combustible Floor – Wood-Burning or Gas Logs (Standard & Magnum Series)	3
Fire-Lite Application	3
Components.....	3
Fire-Lite Stand Sizing Chart	3
Combustible Floor – Gas Logs (IBV Series B-Vent Fireplace)	4
Components.....	4
Non-Combustible Floor – Wood-Burning	5
Masonry - DM54 Chimney Application	5
Components.....	5
Other Components to Consider	5
Non-Combustible Floor – Wood-Burning	6
Metal Chimney Application.....	6
Firebox Components.....	6
Metal Chimney Components	6
Non-Combustible Floor – Gas Logs	7
Metal Chimney Application.....	7
Firebox Components.....	7
Metal Chimney Components	7
Other Applications	8
Outdoor Fireplace Application.....	8
Components.....	8
2 Sided 'See Through' Application	8
Components.....	8
Miscellaneous Items	9
Earthcore® Mortar	9
Cast Iron Dampers.....	9
Cast Iron Damper Sizing Chart	9
Firebrick	10
Firebrick Requirement Chart.....	10
Gas Logs	10
Angle Iron.....	10
Additional Products.....	10

Fireplace System (Firebox) Kit Includes

- Base Plate
- Side Wall
- Back Wall
- Damper Beams
- Damper Supports
- Smoke Dome (Front, Back and Side Pieces)
- Top Plate.

Note: Additional components such as: Earthcore® mortar, dampers, chimney(s), Firebrick, Fire Clay, etc. are required. These additional components are not part of the Firebox Kit, and are sold separately.

Note: Other options you may need include: Fire-Lite Stand, caps, Air Intake Kit, and Angle Iron (for 2 Sided 'See Through' Applications & Magnum Series 60" and 72" Applications).



Determining the Customers' Needs

- 1) Is the fireplace going over a combustible or non-combustible floor?

Note: Combustible is defined as "normal construction materials" and are considered to be wood framing materials, particle board, plywood sub flooring etc.

Concrete is considered a "non-combustible" floor.

- 2) Is the fireplace going to be a wood-burning or will it be using gas logs?
- 3) What type of chimney system does the fireplace require - masonry or metal?

Note: Masonry chimneys can only be used on non-combustible floors.

Can be found on Pages 6 & 7

Combustible Floor Options

Standard Series:

- 36"
- 42"
- 46"

Magnum Series:

- 36"
- 42"
- 48"

Burning Options:

Wood-Burning:

- Standard Series Fireplace with Fire-Lite Stand
- Magnum Series Fireplace with Fire-Lite Stand

Gas Logs:

- Standard Series Fireplace with Fire-Lite Stand
- Magnum Series Fireplace with Fire-Lite Stand
- IBV Series B-Vent Fireplace

Non-Combustible Floor Options

Standard Series:

- 36"
- 42"
- 46"

Magnum Series:

- 36"
- 42"
- 48"
- 60"
- 72"

IBV Series B-Vent:

- 36"
- 46"

Burning Options:

Wood-Burning:

- Standard Series Fireplace
- Magnum Series Fireplace

Gas Logs

- Standard Series Fireplace
- Magnum Series Fireplace
- IBV Series B-Vent Fireplace

Combustible Floor – Wood-Burning or Gas Logs (Standard & Magnum Series)

Fire-Lite Application

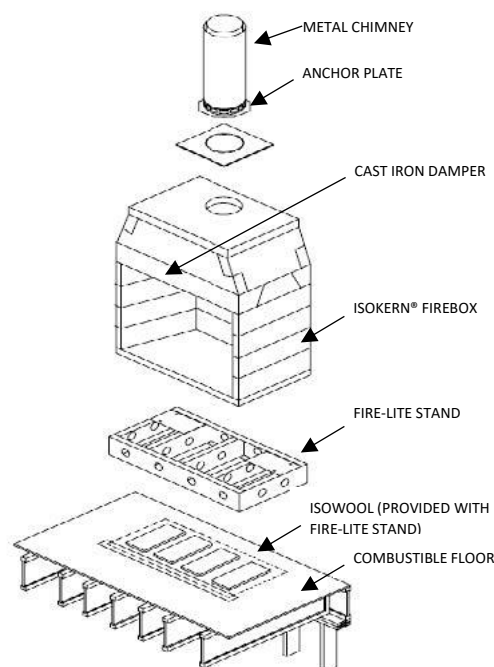
If installing on a combustible floor a Fire-Lite Stand is required.

Note: Fire-Lite stands cannot be used with 60" or 72" Magnum fireplaces.

The Fire-Lite Stand replaces the need to use additional non-combustible foundation support. The combustible floor may need engineering to make sure it can carry the total load of the fireplace, brick, pipe, etc.

Components

- Fire-Lite Stand – includes ISOwool
- Isokern Standard or Magnum Firebox Kit
- Outside Air Kit
 - Minimum 4" Duct Size
- Earthcore® mortar
- Cast iron or anchor plate damper
- Note: See Page 9 for cast iron damper sizes*
- Metal chimney
- Note: See Pages 6 & 7 for metal chimney parts list*
- Firebrick (installed with Fire Clay)
- Note: See Page 10 for Firebrick information*



Fire-Lite Stand Sizing Chart

The table below shows the size of Fire-Lite stand required for each size of Firebox Kit.

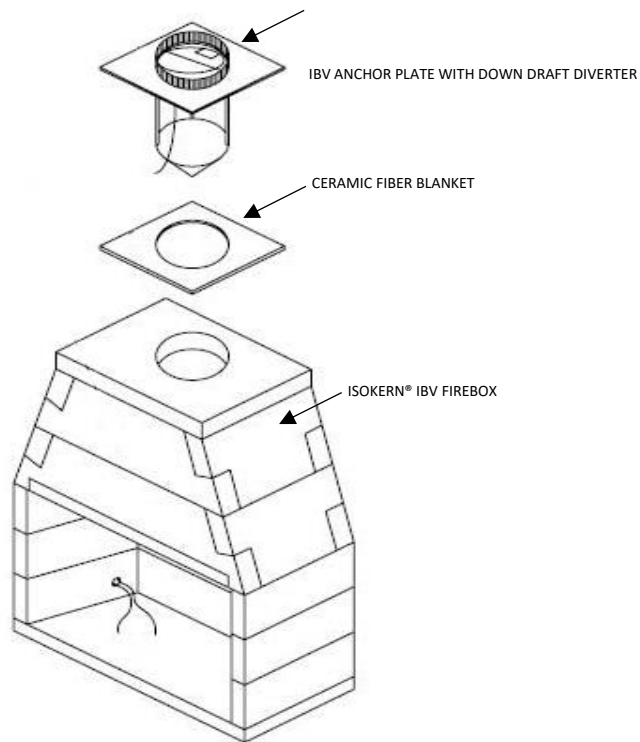
Firebox	Fire-Lite Stand Required Size
Standard Series Fireplace	
Firebox Kit – 36"	Fire-Lite Stand – 36"
Firebox Kit – 42"	Fire-Lite Stand – 42"
Firebox Kit – 46"	Fire-Lite Stand – 46"
Magnum Series Fireplace	
Firebox Kit – 36"	Fire-Lite Stand – 36"
Firebox Kit – 42"	Fire-Lite Stand – 42"
Firebox Kit – 48"	Fire-Lite Stand – 48"

Combustible Floor – Gas Logs (IBV Series B-Vent Fireplace)

Note: Fire-Lite stand not required for IBV Series B-Vent applications

Components

- Isokern IBV Series B-Vent Firebox Kit
 - Kit includes ceramic fiber blanket
 - IBV Sensor Kit is required, and is sold separately
- Earthcore® mortar
- IBV 10" B- Vent chimney & cap
- Firebrick (installed with Fire Clay)
- Gas Log Set – liquid propane or natural gas



Non-Combustible Floor – Wood-Burning

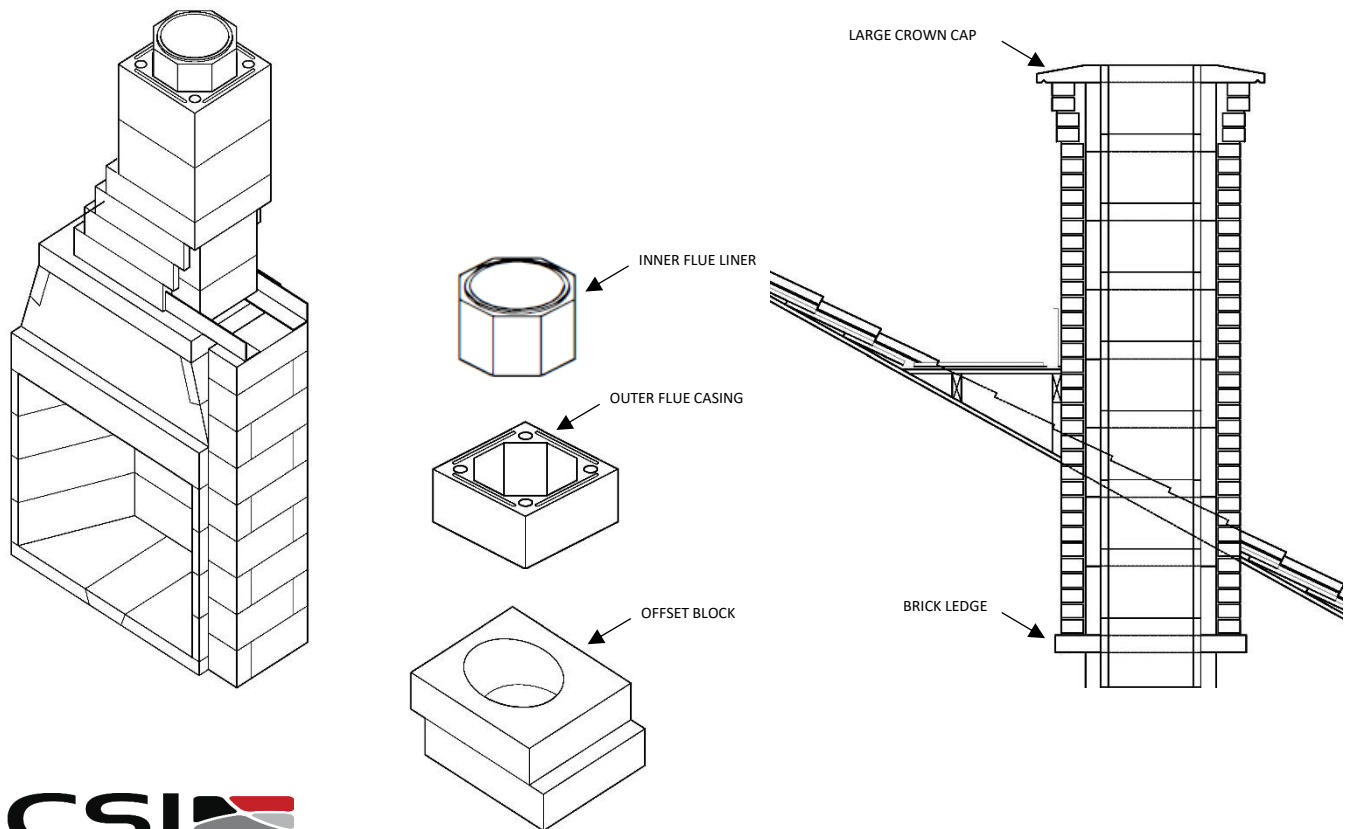
Masonry - DM54 Chimney Application

Components

- Isokern Standard or Magnum Firebox Kit
- Outside Air Kit
 - Minimum 4" duct size
- Earthcore® mortar
 - 1 pail for Firebox Kit
 - 2 pails for Magnum Series 60" & 72"
 - 1 pail per every 10 linear feet of chimney
- Cast iron damper or a top/bottom mount damper
Note: See Page 9 for cast iron damper sizes
- DM54 Inner Flue Liner - 1 piece per linear foot of chimney
- DM54 Outer Flue Casing - 1 piece per linear foot of chimney
- Spark arrestor/Termination cap (Iso-Cap)
- Crown cap
Note: Small crown cap for stucco or veneer & large crown cap for full brick or stone
- Firebrick (installed with Fire Clay)
Note: See Page10 for Firebrick information

Other Components to Consider

- DM54 Offset Block
- DM54 Brick Ledge



Non-Combustible Floor – Wood-Burning

Metal Chimney Application

Firebox Components

- Isokern Standard or Magnum Firebox Kit
- Outside Air Kit
 - Minimum 4" Duct Size

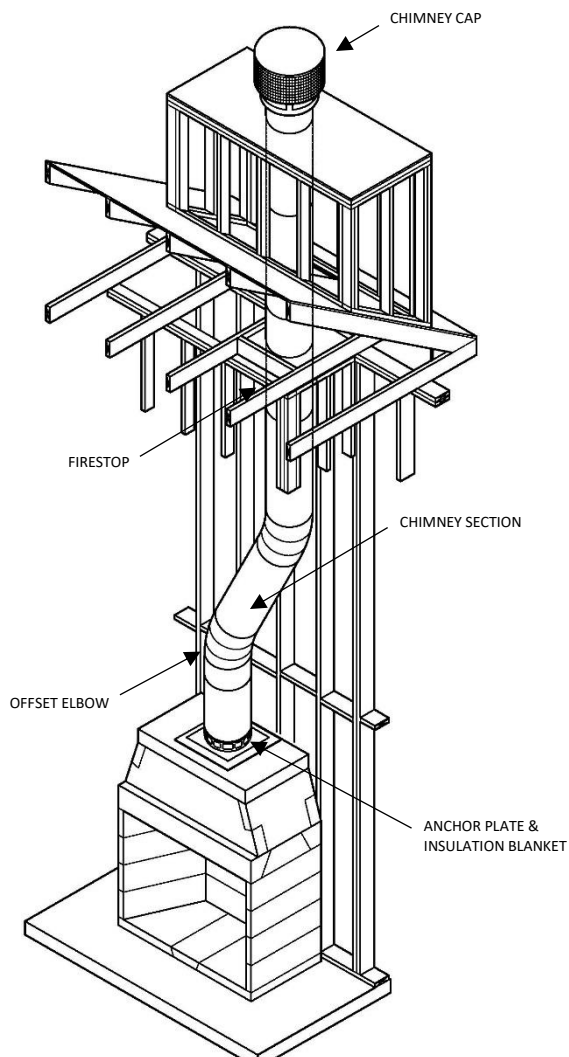
Note: Magnum 60" & 72" requires 2 of the 4" kits
- Earthcore® mortar
 - 1 pail for Firebox

Note: Magnum 60" & 72" requires 2 pails Earthcore® mortar
- Cast iron damper or anchor plate with damper

Note: See Page 9 for cast iron damper sizes
- Anchor Plate (comes with wool)
- Metal Chimney

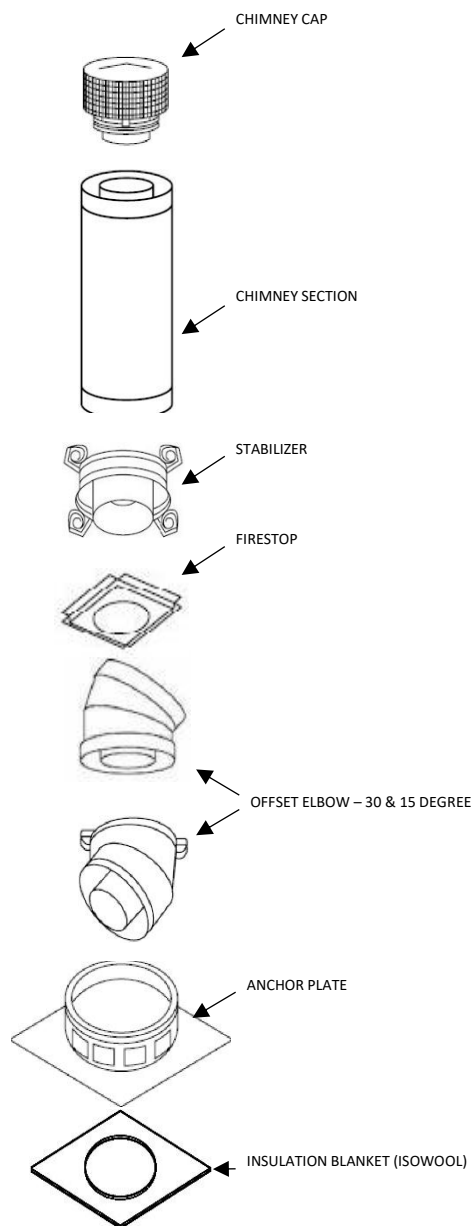
Note: See image to the right for parts list
- Firebrick (installed with Fire Clay)

Note: See Page 10 for Firebrick information



Metal Chimney Components

- Chimney cap (with or without damper)
- Chimney section lengths:
 - 12", 18", 36", & 48"
- Stabilizer (include one at each floor)
- Firestop (include one at each floor)
- Offset elbows
 - 30 degree & 15 degree
- Anchor plate (with or without damper)

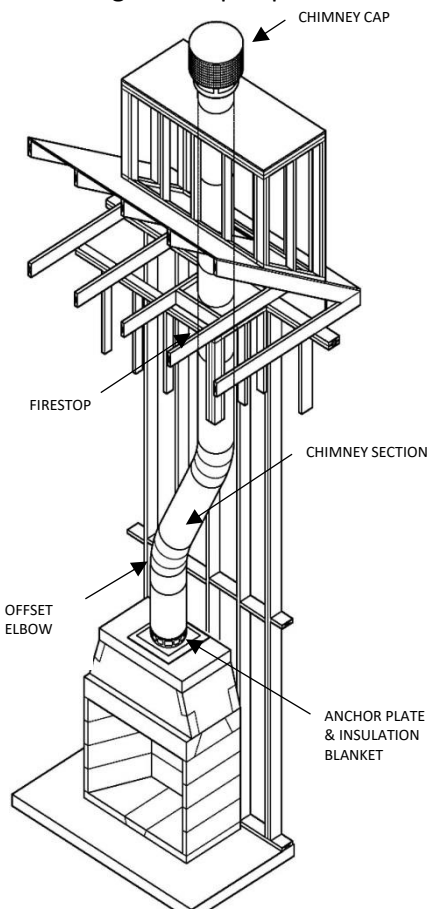


Non-Combustible Floor – Gas Logs

Metal Chimney Application

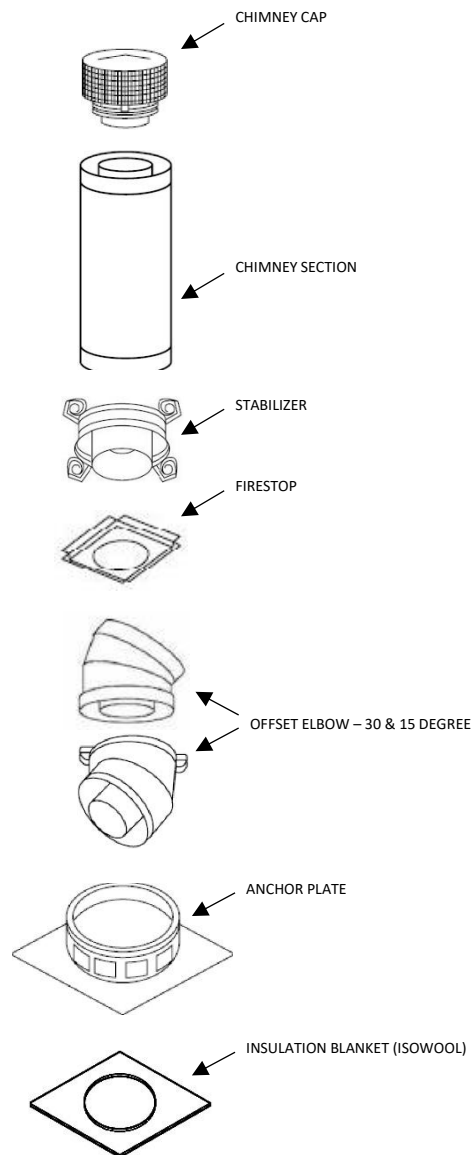
Firebox Components

- Isokern Standard or Magnum Firebox Kit
- Outside Air Kit
(not required but recommended)
 - Minimum 4"
 - Note: Magnum 60" & 72" requires 2 of the 4" kits
- Earthcore® mortar
 - 1 pail for Firebox
 - Note: Magnum 60" & 72" requires 2 pails Earthcore® mortar
- Cast iron damper (or anchor plate with damper)
 - Note: See Page 9 for cast iron damper sizes
- Anchor plate or anchor plate with dampers
- Metal chimney
 - Note: See image to the right for parts list
- Firebrick (installed with Fire Clay)
 - Note: See Page 10 for Firebrick information
- Gas Log Set – liquid propane or natural gas



Metal Chimney Components

- Chimney cap (with or without damper)
- Chimney sections
 - 12", 18", 36", & 48"
- Stabilizer (include one at each floor)
- Firestop (include one at each floor)
- Offset elbows
 - 30 degree & 15 degree
- Anchor plate



Other Applications

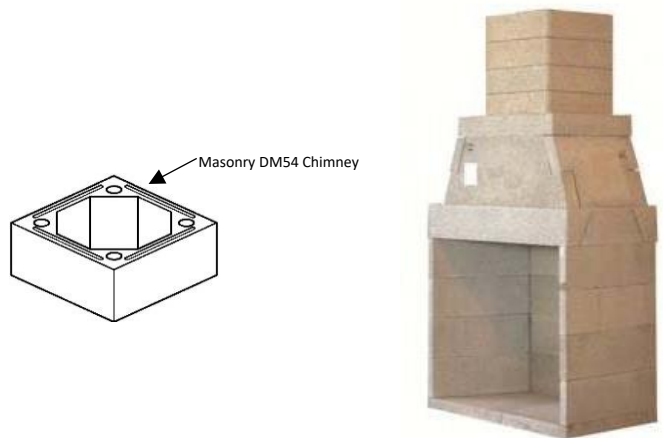
Outdoor Fireplace Application – Dampers are Optional

Components

- Isokern Firebox Kits
 - Any size of Standard or Magnum Series
- Chimney options
 - Masonry - DM54 Chimney
 - Metal Chimney
- Earthcore® mortar
 - 1 pail for Firebox Kit
 - 1 pail per every 10 linear feet of chimney

Note: Magnum 60" & 72" requires 2 pails Earthcore® mortar
- Firebrick (installed with Fire Clay)

Note: See Page 10 for Firebrick information



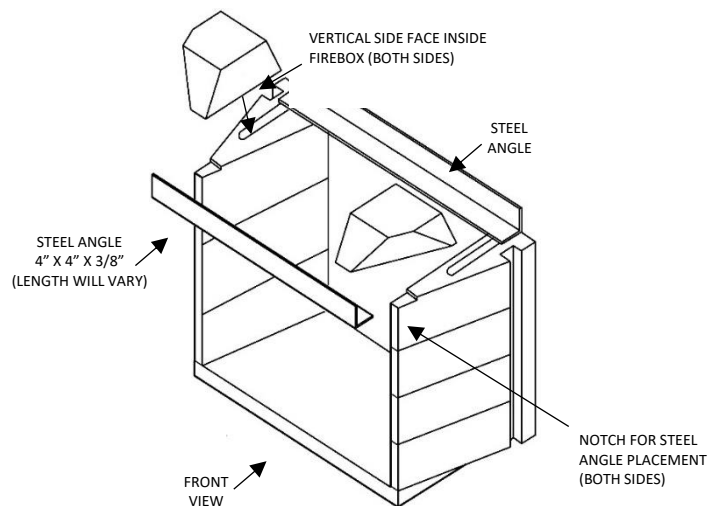
2 Sided 'See Through' Application

Components

- Isokern Firebox Kits
 - Any size of Standard or Magnum Series (except 60" & 72")
 - Omit the back walls & flip side walls
- Steel angle

Note: Steel angle part is not provided by Isokern
- Chimney options
 - Masonry - DM54 Chimney
 - Metal Chimney
- Bottom or top mount damper
- Earthcore® mortar
 - 1 pail for Firebox Kit
 - 1 pail per every 10 linear feet of chimney
- Firebrick (installed with Fire Clay)

Note: See Page 10 for Firebrick information



To support the smoke dome and chimney, steel angles are required to be installed as shown in the diagram above. Additionally, sidewalls and damper supports are installed in a manner to achieve flush sidewalls of the firebox.

Note: A exhaust fan may be required for a 2 Sided 'See Through' Application

Miscellaneous Items

Earthcore® Mortar

All Firebox Kits will require a minimum of 1 pail of Earthcore® mortar. The Magnum Series 60" and 72" Firebox Kits will require 2 pails of Earthcore® mortar.

If you are using a masonry DM54 chimney system, 1 pail of Earthcore® mortar is required for every 10 linear feet of chimney.

Earthcore® mortar is to always be used where an Isokern surface touches another Isokern surface. It can also be used for parging and repairing cracks.

Note: Broken pieces of Isokern can be reattached using Earthcore® mortar (only up to 2-3 breaks per piece)

Note: Earthcore® mortar is not to be used for installing Firebrick or stone.



Cast Iron Dampers

A damper has a small flap inside the flue, which can be adjusted manually to allow smoke to escape or air to enter.

Though required for interior applications, a damper is recommended, but not required with an exterior fireplace application.

Top or bottom mount dampers are also available and are the only option when building a 2 Sided 'See Through' application.

An anchor plate with damper is also available for use with either metal or masonry DM54 chimneys.

Cast Iron Damper Sizing Chart

The table below shows the size of cast iron damper required for each size of Firebox Kit.

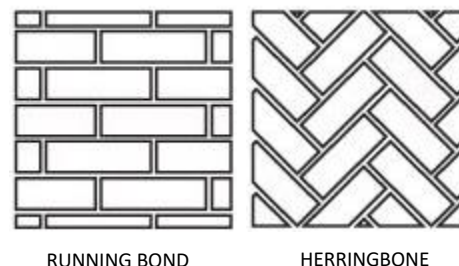
Firebox	Damper Required Size
Standard Series Fireplace	
Firebox Kit – 36"	Damper Cast – 33"
Firebox Kit – 42"	Damper Cast – 33"
Firebox Kit – 46"	Damper Cast – 42"
Magnum Series Fireplace	
Firebox Kit – 36"	Damper Cast – 33"
Firebox Kit – 42"	Damper Cast – 33"
Firebox Kit – 48"	Damper Cast – 42"
Firebox Kit – 60"	Damper Cast – 60"
Firebox Kit – 72"	Damper Cast – 72"

Firebrick

Popular design options include Running Bond or Herringbone.

The manufacturer requires the fireboxes be lined with a minimum of 1 1/8" thick Firebrick (often referred to as 'splits').

The Magnum Series 60" & 72" fireboxes will be lined with a minimum of 1 1/8" thick Firebrick for the floor, and backwall and 4" Firebrick (often referred to as 'fulls') on the sidewalls.



Note: Thicker Firebrick may be used

Note: When installing Firebrick, stove and furnace cement is required (NOT Earthcore® mortar)

Firebrick Requirement Chart

The table below shows the approximate number of Firebrick pieces required for each size of Firebox Kit.

Firebox Model	Firebrick Needed for Running Bond	Firebrick Needed for Herringbone
Firebox Kit – 36"	90	110
Firebox Kit – 42"	100	120
Firebox Kit – 46"	120	145
Firebox Kit – 48"	140	170
Firebox Kit – 60"	180 Splits / 60 Full	220 Splits / 60 Full
Firebox Kit – 72"	200 Splits / 60 Full	240 Splits / 60 Full

Gas Logs

Gas logs in both natural gas or propane options can be used with Isokern Firebox Kits.

For outdoor gas units, a stainless-steel gas logs will be required.

IBV Series B-Vent Firebox Kits require both a gas logs and IBV Sensor Kit.

Note: IBV Sensor Kit sold separately

Angle Iron

Refer to the Isokern Fireplace Installation Manual for the size and length of angle iron required - varies per firebox model and size.

Note: Various Isokern Fireplace Installation Manuals can be found here:

<http://www.canadianstone.ca/isokern/>

Additional Products

Other products by Earthcore® include: Maximus Fireplace Systems, Linear Burner Solutions, Iso'ven Wood-Burning Pizza Ovens, Chimney Pots and Isopanel (for outdoor kitchens).

For more information please visit www.earthcore.ca