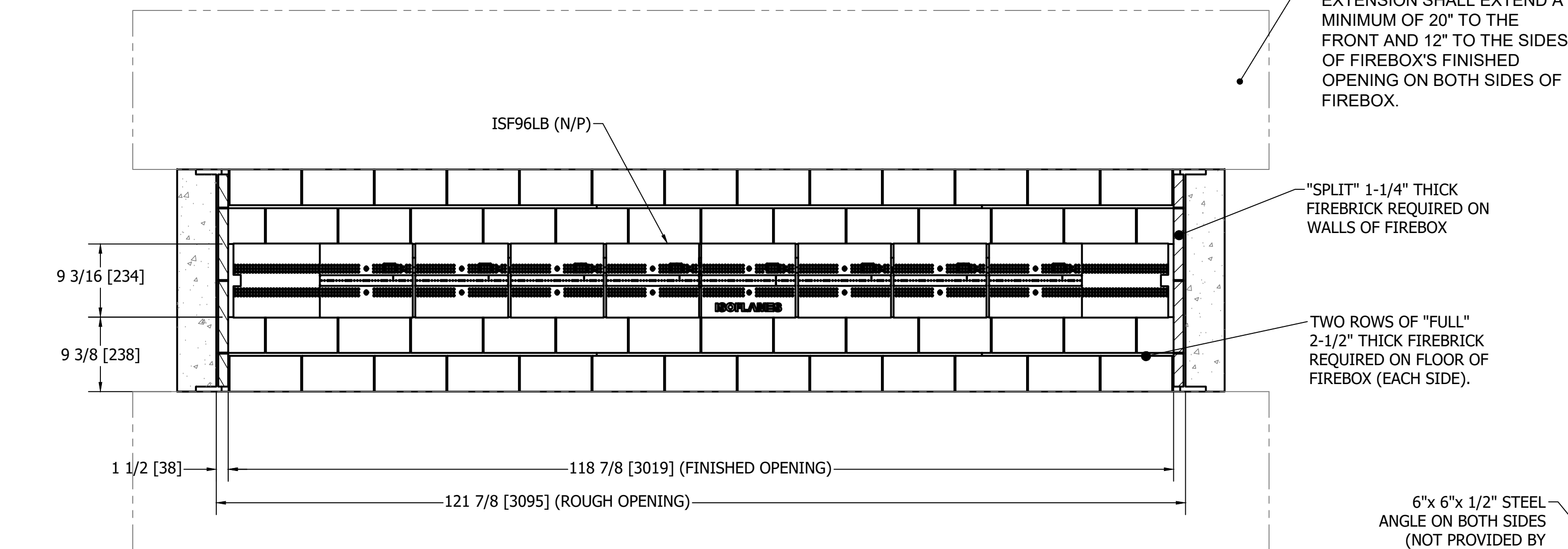


METAL-FAB 12" B-VENT PIPE (12" I.D./13" O.D.) W/ DOWN-DRAFT DIVERTER; X-VENTISO-MERIDIAN MAX LINEAR FAN SYSTEM REQUIRED.

FRAME OPENINGS TO 15" X 15" CLEAR TO MAINTAIN MIN. 1" CLEARANCE TO COMBUSTIBLES.

TOP VIEW



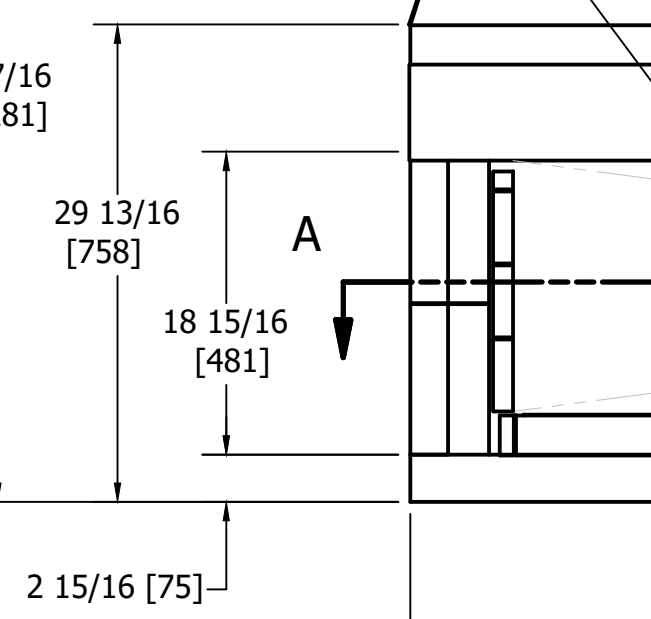
SECTION A-A

- X-VENTISO MERIDIAN 350 FAN
- X-VENTISO-12" PIPE ADAPTER FOR 350 FAN
- X-VENTISO-MERIDIAN DAMPER ASSEMBLY
  - MUST BE ACCESSIBLE
  - 2" CLEARANCE REQUIRED

- METAL FAB 12" TYPE -B GAS VENT
  - MUST USE ANCHOR PLATE WITH DOWN-DRAFT DIVERTER
  - MAINTAIN MINIMUM 1" CLEARANCE TO COMBUSTIBLES
  - FRAME OPENINGS 15"X15" CLEAR

- STACK PRESSURE PROBE
  - MOUNT 12" ABOVE FIREPLACE
  - CONNECT TO X-VENTISO HIGH PRESSURE PORT (TOP)

- 6"x 6"x 1/2" STEEL ANGLE ON BOTH SIDES (NOT PROVIDED BY EARTHCORE, SOURCE LOCALLY)



FRONT VIEW

THE REQUIRED HEARTH EXTENSION SHALL EXTEND A MINIMUM OF 20" TO THE FRONT AND 12" TO THE SIDES OF FIREBOX'S FINISHED OPENING ON BOTH SIDES OF FIREBOX.

"SPLIT" 1-1/4" THICK FIREBRICK REQUIRED ON WALLS OF FIREBOX

TWO ROWS OF "FULL" 2-1/2" THICK FIREBRICK REQUIRED ON FLOOR OF FIREBOX (EACH SIDE).

6"x 6"x 1/2" STEEL ANGLE ON BOTH SIDES (NOT PROVIDED BY EARTHCORE, SOURCE LOCALLY)

SIDE WALLS MUST BE NOTCHED SO ANGLE IRON SITS FLUSH WITH TOP OF WALL

DETAIL A SCALE 1 / 4

- ROOM PRESSURE SENSOR
  - MOUNT INTO ROOM IN WHICH FIREPLACE IS INSTALLED (LOCATION MAY VARY, DO NOT PLACE IN LOCATION THAT MAY BE BLOCKED OR COVERED)
  - CONNECT TO X-VENTISO LOW PRESSURE PORT (BOTTOM)

4 PIN MOLEX CONNECTION

3 PIN MOLEX CONNECTION

(2) 120 VAC/ 15A RECEPTACLES

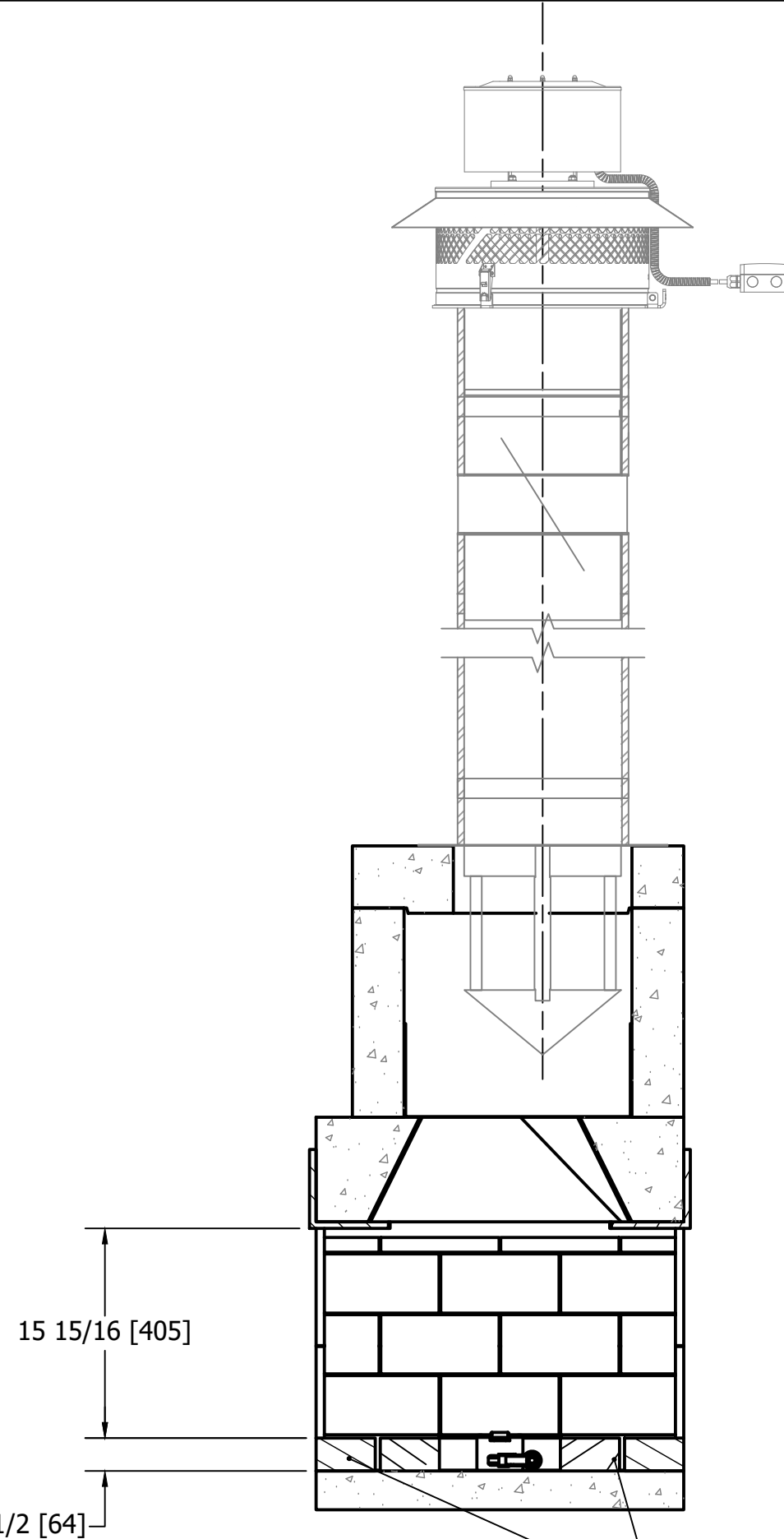
4 PIN MOLEX CONNECTION

E-VK(N/P) VALVE CONTROL BOX

120 VAC/ 15A IN

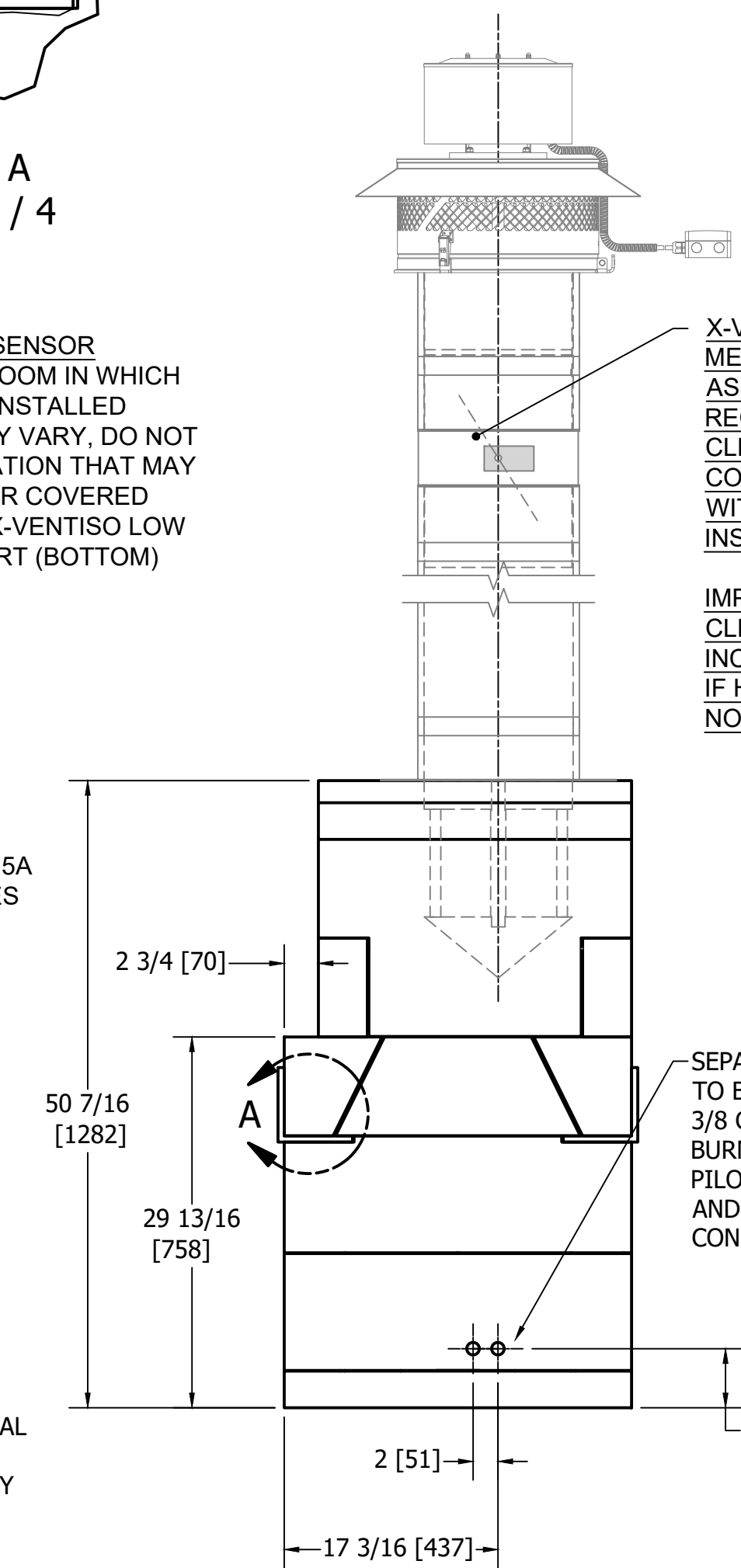
GAS AND ELECTRICAL CONNECTIONS TO PILOT ASSEMBLY

- 3/8" GAS SUPPLY TO VALVE:
  - NG: 5" W.C. MIN./ 10.5" W.C. MAX.
  - LP: 11" W.C. MIN./ 13" W.C. MAX.



SECTION B-B

TWO ROWS OF "FULL" 2-1/2" THICK FIREBRICK REQUIRED ON FLOOR OF FIREBOX (EACH SIDE).



RIGHT-SIDE VIEW

X-VENTISO-MERIDIAN DAMPER ASSEMBLY REQUIRES 2" CLEARANCE TO COMBUSTIBLES WITH HEAT-SHIELD INSTALLED.

IMPORTANT: CLEARANCE INCREASES TO 18" IF HEAT SHIELD IS NOT INSTALLED.

SEPARATE Ø1" HOLES TO BE DRILLED FOR 3/8 GAS SUPPLY TO BURNER AND THE PILOT ASSEMBLY GAS AND ELECTRICAL CONNECTIONS

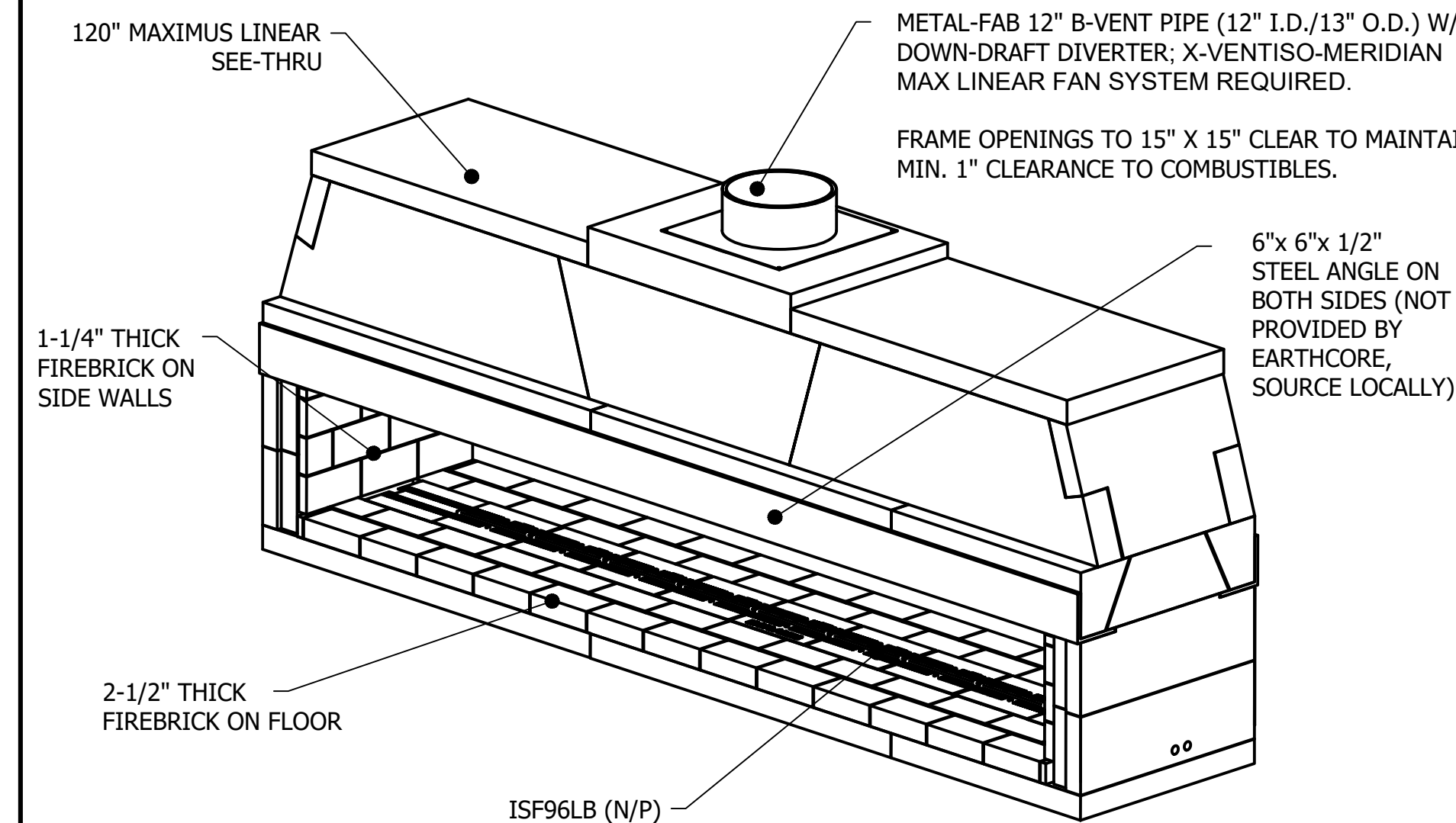
PARTS LIST

PART NUMBER	QTY	DESCRIPTION
82L120ST	1	ISOKERN MAXIMUS LINEAR SEE-THRU-120"
N/A	2	6"x6"x1/2" STEEL ANGLE (MUST BE SOURCED LOCALLY, NOT PROVIDED BY EARTHCORE)
ISF96LB (N/P)	1	96" LINEAR BURNER ASSEMBLY AND VALVE/ CONTROLS (N: NATURAL GAS/ P: PROPANE)
12MDD	1	METAL- FAB 12" B-VENT DOWN DRAFT DIVERTER
XV-MERDML	1	X-VENTISO-MERIDIAN MAX LINEAR FAN SYSTEM (CONSISTS OF THE FOLLOWING-): <ul style="list-style-type: none"> <li>X-VENTISO-MERIDIAN-350 FAN (XV-MERD-350)</li> <li>X-VENTISO-350 FAN RAIN CAP (XV-350RC)</li> <li>X-VENTISO-12" PIPE ADAPTER FOR 350 FAN (XV-350ADP12)</li> <li>X-VENTISO-MERIDIAN DAMPER ASSEMBLY (XV-MERD-DAMP)</li> <li>X-VENTISO-MERIDIAN ROOM PRESSURE PROBE/ COVER PLATE, STACK PRESSURE PROBE, TUBING (XV-MERD-PRESSKIT)</li> <li>X-VENTISO-MERIDIAN CONTROL PANEL (XV-MERD-CTLR)</li> </ul>

GENERAL NOTES

- THE ISOKERN 120" MAXIMUS LINEAR SEE-THRU FIREPLACE IS A TOP-VENTED, GAS ONLY FIREPLACE THAT IS APPROVED FOR USE ONLY WITH THE ISOFLAMES LINEAR BURNER SYSTEM AS SHOWN IN THIS DRAWING (ISF96LB(N/P)). USAGE OF ANY OTHER BURNER IN THIS FIREPLACE IS PROHIBITED AND WILL ABSOLVE EARTHCORE/ ISOKERN OR ANY DIVISION THEREOF FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES OR EXPENSES ARISING OUT OF THE USE OF THIS FIREPLACE.
- THIS FIREPLACE'S BURNER SYSTEM (ISF96LB (N/P)) COMES WITH A GAS CONTROL VALVE ASSEMBLY (E-VK(N/P)) THAT INCLUDES AN AUTOMATIC DRAFT AND SAFETY SYSTEM.
- THIS APPLIANCE IS ONLY FOR USE WITH THE TYPE OF GAS INDICATED ON THE BURNER RATING PLATE. VERIFY GAS SUPPLY AND BURNER VALVE ARE OF SAME TYPE PRIOR TO INSTALLATION.
- THE EXHAUST FLUE GASES ARE TO BE VENTED THROUGH THE TOP OF THE UNIT WITH 12" METAL-FAB UL LISTED B-VENT PIPING WITH DOWN-DRAFT DIVERTER. THIS TWELVE INCH (12") DIAMETER, DOUBLE WALL B-VENTING SYSTEM IS NOT SUPPLIED BUT IS REQUIRED FOR PROPER OPERATION.
- THE MAXIMUS LINEAR SERIES FIREPLACES SHALL BE INSTALLED WITH THE MINIMUM CLEARANCES TO COMBUSTIBLES AS LISTED BELOW:
  - UNIT FRONT: 0"
  - SIDES AND REAR: 1.5"
  - COMBUSTIBLE SHEATHING ABOVE OPENING TOP: 8"
  - SHEATHING OR TRIM TO OPENING SIDES: 8"
  - MANTEL ABOVE OPENING: 12"
  - OPENING TO SIDEWALLS: 24"
  - HEARTH EXTENSION BEYOND FRONT: 20"
  - HEARTH EXTENSION BEYOND SIDES (FINISHED): 12"
  - COMBUSTIBLE FLOOR: 0" (MUST USE ISOKERN BASE PLATE, "FULL" 2-1/2" FIREBRICK, AND ISOFLAMES LINEAR BURNER/ VALVE)
  - INSULATION FROM FIREBOX (UNSHIELDED): 3"
- THIS DESIGN REQUIRES MECHANICAL VENTILATION ASSISTANCE USING THE X-VENTISO-MERIDIAN MAX LINEAR FAN SYSTEM FOR GAS-ONLY OPERATION. VENT PATHS ARE LIMITED TO A MAXIMUM OF TWO 90° ELBOWS AND MAY TERMINATE EITHER VERTICALLY OR HORIZONTALLY. REFER TO INSTALLATION MANUAL FOR MAXIMUM VENT LENGTHS AND ADDITIONAL INFORMATION REGARDING FLUE RUNS.
- ENSURE TWO 120VAC/ 15A OUTLETS ARE PROVIDED FOR GAS VALVE AND X-VENTISO-MERIDIAN CONTROL PANEL IN ACCORDANCE WITH INSTALLATION MANUAL. CONTROLS SHALL BE LOCATED IN ACCESSIBLE LOCATION.
- ALL ACCESSORIES/ EQUIPMENT INSTALLED WITH THIS FIREPLACE TO BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- INSTALL AND SUPPORT B-VENT PIPE TO ALL MANUFACTURER SPECIFICATIONS. ENSURE MIN.1" CLEARANCE TO COMBUSTIBLES IS KEPT AT ALL TIMES.
- IMPORTANT: THE X-VENTISO-MERIDIAN DAMPER ASSEMBLY REQUIRES 2" CLEARANCE TO COMBUSTIBLES WITH HEAT SHIELD INSTALLED. IF HEAT SHIELD IS NOT INSTALLED, THIS CLEARANCE INCREASES TO 18".
- DRAWINGS ARE FOR DESIGN PURPOSES ONLY AND ARE THE SOLE PROPERTY OF EARTHCORE INDUSTRIES. ANY REPRODUCTION OR UNAUTHORIZED USE IS STRICTLY PROHIBITED.
- EARTHCORE/ ISOKERN OR ANY DIVISION THEREOF SHALL NOT BE HELD LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES OR EXPENSES ARISING OUT OF THE USE OF THE FIREPLACES OR CHIMNEY SYSTEMS.
- ALWAYS CHECK LOCAL BUILDING CODES GOVERNING FIREPLACES AND FIREPLACE INSTALLATIONS.

ISOMETRIC VIEW (N.T.S.)



earthcore INDUSTRIES, L.L.C.

UNLESS OTHERWISE STATED, ALL DIMENSIONS ARE IN INCHES

PROJECT: 10' MAXIMUS LINEAR SEE-THRU

DESCRIPTION: FIREPLACE CONSTRUCTION DOCUMENT W/ X-VENTISO-MERIDIAN

MATERIAL: E.C. PUMICE MIXTURE

DATE: 8/29/2024

DRAWN: K.B.H.

APPROVED: [Signature]

SIZE: D

SCALE: 1"=1'-0"

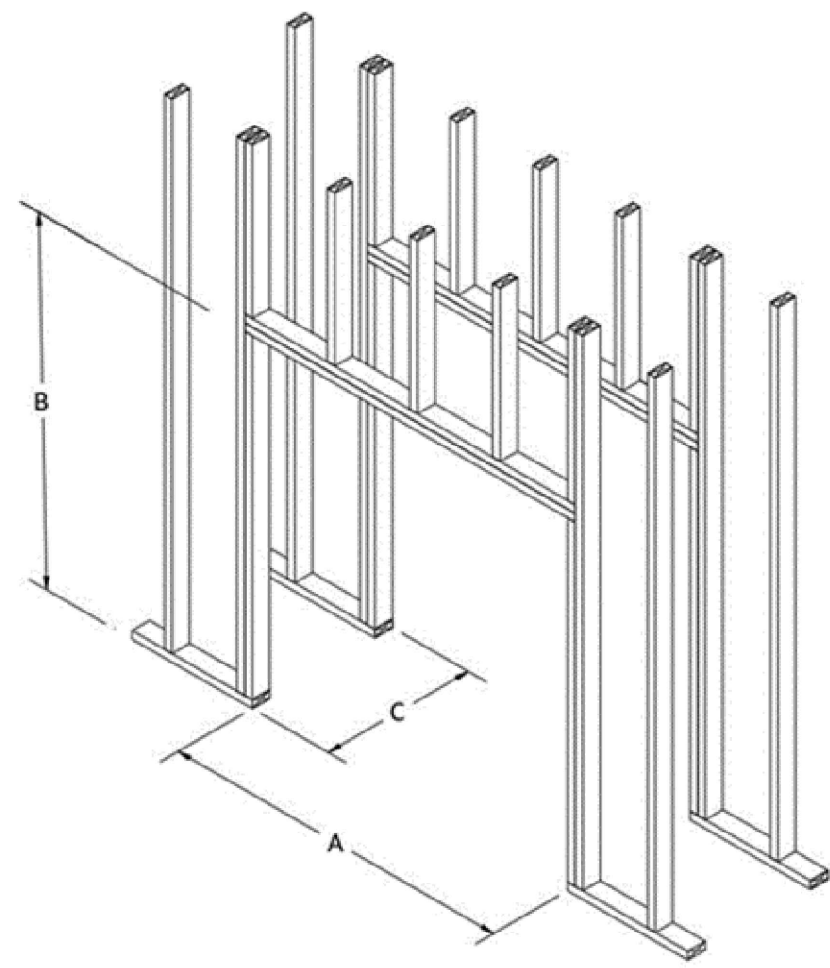
DRAWING #: 82L120ST

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DO NOT SCALE



## Rough Framing Dimensions



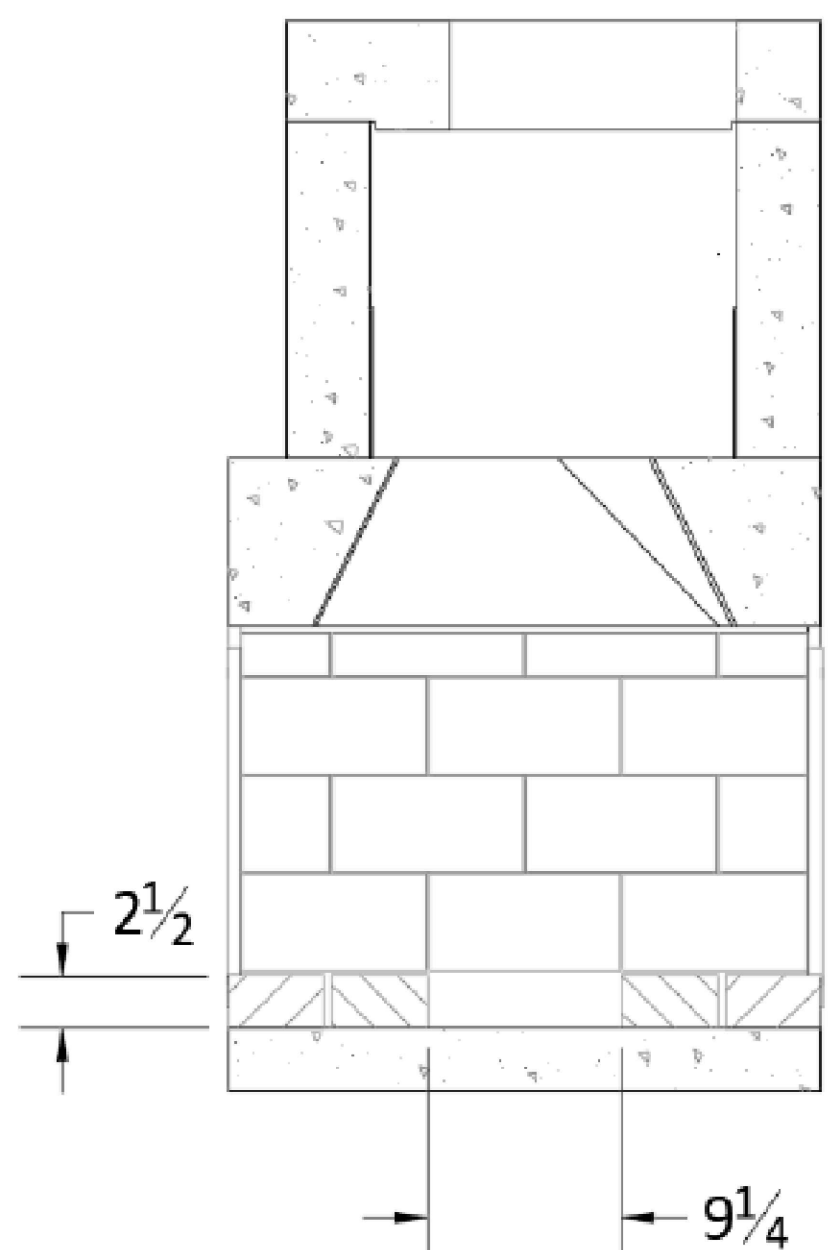
TYPICAL INSTALLATION FRAMING DIMENSIONS			
Model #	A - Width	B - Height	C - Depth
82L48ST	56"	51"	28"
82L60ST	77"	51"	28"
82L72ST	89"	51"	28"
82L96ST	112"	51"	28"
82L120ST	135"	51"	28"

### NOTES:

- "B" includes the required 3" thick base plate.
- If the Maximus Linear See-Thru installation is to be elevated, this "Raised hearth" installation will require additional rough opening height at "B" that is equal to the height of the raised hearth.

**IMPORTANT:** Unless the insulation on walls at sides of firebox is installed behind plywood sheathing, the walls must be framed to account for the required 3" clearance to insulation. Even at this distance, the installer should be aware that usage of spray foam insulation may expand past the face of the stud wall and will require trimming prior to firebox installation to maintain the required 3" clearance. It is important that any insulation that is not installed behind sheathing shall be installed in such a manner that it cannot fall on the firebox and encroach on this clearance.

## Firebrick Installation - Maximus Linear See-Thru Fireplace



- Lay two courses of "full" sized firebrick on floor so that the leading edge of the coursing is aligned with opening of the firebox. Ensure a gap of approximately 1/2" is kept between firebrick and sidewall to allow for expansion.
- Repeat Step 1 for the opposite side of See - Thru firebox.
- Starting at the front edge of the unit's sidewall, apply "split" firebrick to the side wall of the unit. Ensure approximately 1/2" gap is kept between firebrick and damper beam/damper block assembly to allow for expansion.
- Repeat on opposite side wall.

### IMPORTANT:

Ensure that the required holes for the Isoflames Linear burner's 3/8" gas supply and pilot assembly gas and electrical connections are drilled prior to firebrick installation. **DO NOT COVER THESE AREAS WITH FIREBRICK!**

## Clearance to Combustible Trim

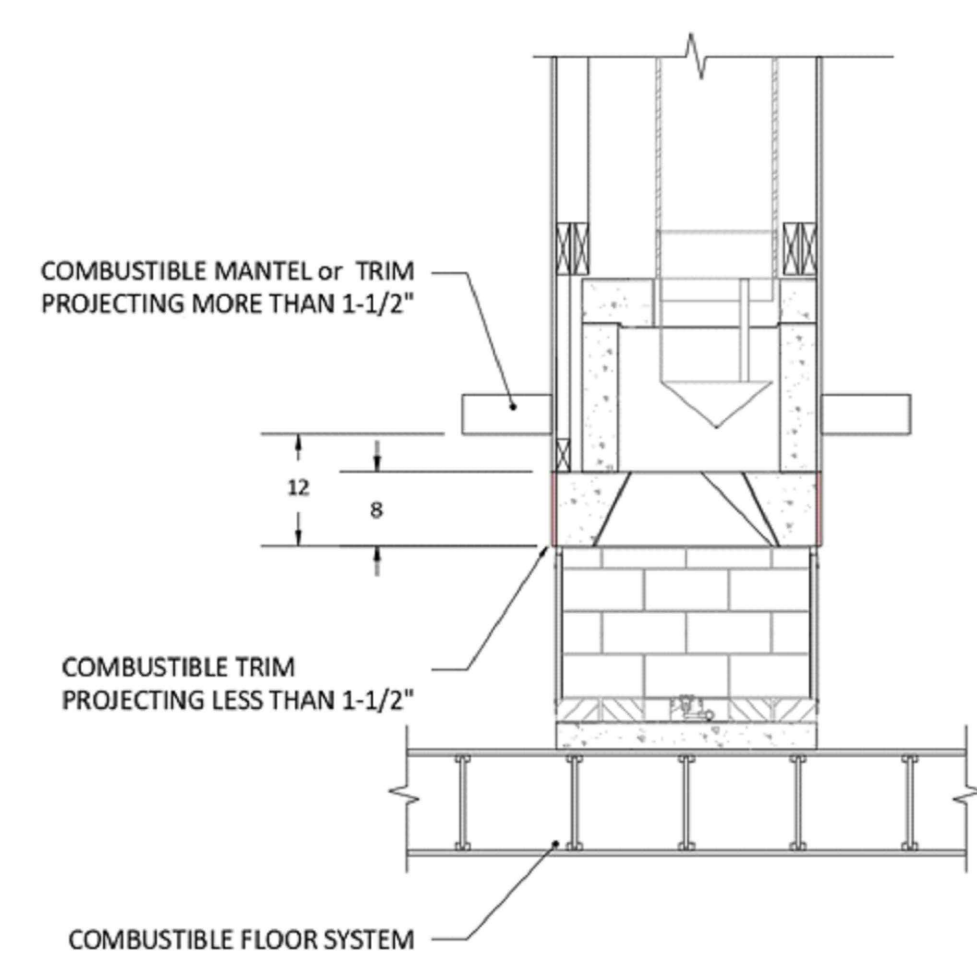


FIGURE 36

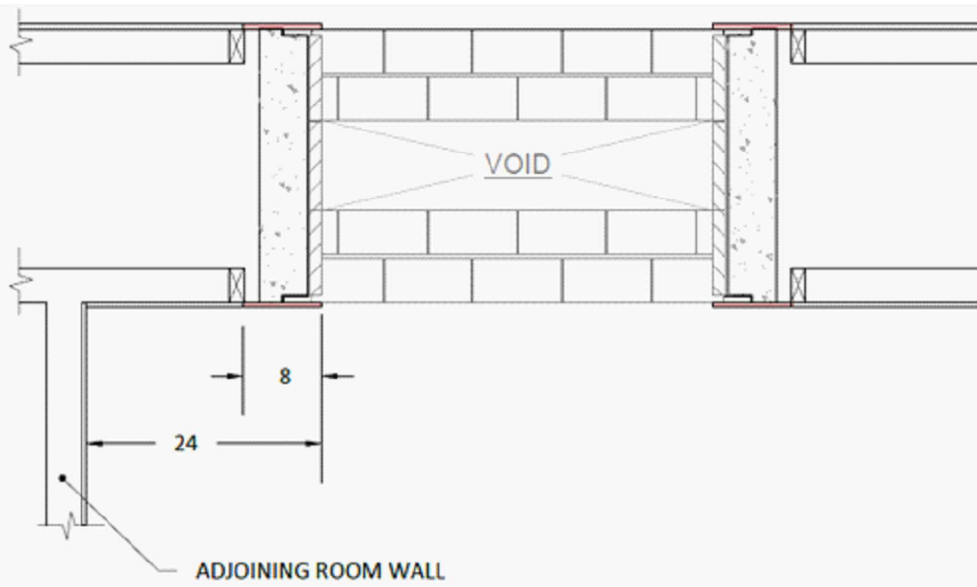
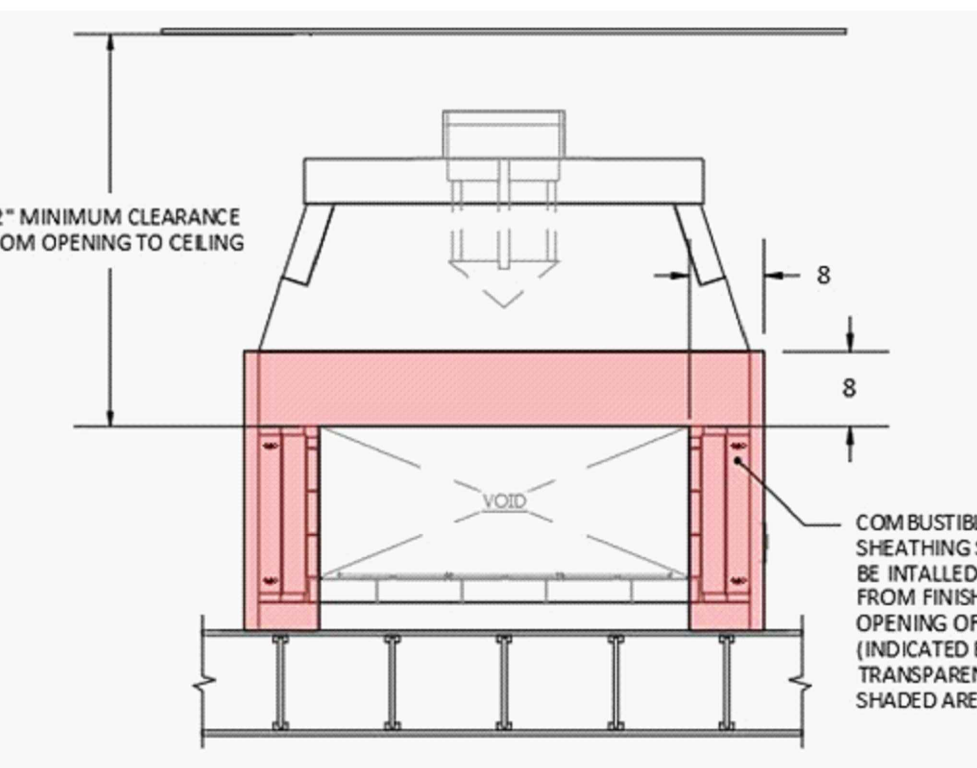


FIGURE 37



**NOTE:** "Clearance to Combustible Trim" are those distances required to ensure that a fireplace mantel 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 variables 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.

### MANTEL AND MANTEL SHELF CLEARANCES:

Maximus Linear See Thru units are designed to be installed so that the rough front face(s) of the Isokern firebox and smoke dome sit flush with the face of the rough framing members that create the room wall finish.

All combustible trim projecting less than one-and one-half inch (1-1/2") from this plane must be kept a minimum of eight inches (8") from the sides/top of the firebox openings.

All combustible trim projecting more than one and one-half inch (1-1/2") must be kept a minimum of twelve inches (12") from the fireplace opening.

Parts of the combustible mantle assembly 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 equal to that of the projection.

Parts of the combustible mantle assembly located above and projecting more than one- and one-half inches (1-1/2") from the fireplace opening shall not be placed less than twelve inches (12") from the top of the fireplace opening.

### ADJOINING WALLS:

Side walls and walls to rooms adjoining the Isokern fireplace installation cannot be closer than twenty-four inches (24") to the finished fireplace opening.

### CEILINGS:

The minimum clearance from the top of the fireplace opening to a ceiling is forty-two inches (42")

## Maximus Linear Series (Gas Only) Specifications

### MANUFACTURER:

ISOKERN Fireplace and Chimney Systems, North America distribution by Earthcore Industries, LLC, Jacksonville, Florida (Telephone 800-642-2920)

### PRODUCT DESCRIPTION:

Modular refractory masonry precast fireplace and chimney system.

- Designed for field assembly as a fireplace and B-vent chimney system.
- All interlocking parts necessary for assembly of a complete firebox, smoke dome, and Glass-Front Kit (Glass-Front Kit is installation option of the Maximus Linear series and is not required for all installations).
- Isoflames Linear Burner and Valve system (per installation manual)
- 12" B-vent chimney flue (per installation manual)
- Mechanical draft system (per installation manual)

### MATERIALS:

- Light weight concrete of a proprietary mixture of Icelandic volcanic aggregate and aluminum cement for precast firebox, chimney block and flue liner components.
  - Compressive Strength: Firebox Block: 972 psi.
- Premixed (dry) EARTHCORE ADHESIVE.
  - Tensile strength: 807 psi; Compressive strength: 2460 psi.
  - Tested per ASTM C109, ASTM C307, and ANSI 118.4.
- Standard 1-1/8" high temperature refractory brick to line firebox interior walls.
- Standard 2-1/2" high temperature refractory brick to line firebox floor.

### INSTALLATION:

- Reference manufacturer's installation instructions for standard configurations, weights, sizes and installation details.
- Suitable masonry foundation or structural wood floor system must be provided.
- Non combustible hearth extensions must be provided.
- Unit to be assembled on site per manufacturer's illustrated instructions.
  - Premixed EARTHCORE ADHESIVE is used at all joints between components.
  - Firebox to be lined with a minimum 1-1/8" rated firebrick on the walls and 2-1/2" rated firebrick on floor (trough created in firebrick floor for Isoflames Linear Burner installation).
  - A 1-1/2" minimum clearance to combustible materials is required for firebox side and back-walls.
  - A 3" minimum clearance to insulation required.
- Shall be installed only with the approved Isoflames Linear Burner and Valve System as detailed in the instruction manual.
- Installation must use 12" B-vent pipe as detailed in the instruction manual (Anchor Plate with Down-Draft Diverter required).
- Only approved mechanical draft systems shall be utilized, as detailed in the instruction manual.

### CERTIFICATION:

- PFS Corporation, PFS Report No. F19-161
- Meets or exceeds ANSI Z 21.50-2014, CSA 2.22-2014

### CODE COMPLIANCE:

- ICC NO. ESR 4873

**NOTE:** Isokern components are a natural material and slight variations in dimensions may occur. These should be no more than 1/8".

## WEIGHTS AND LOAD CALCULATIONS

Total dead load amounts include (but are not necessarily limited to) the following items and their corresponding weight estimates as listed below:

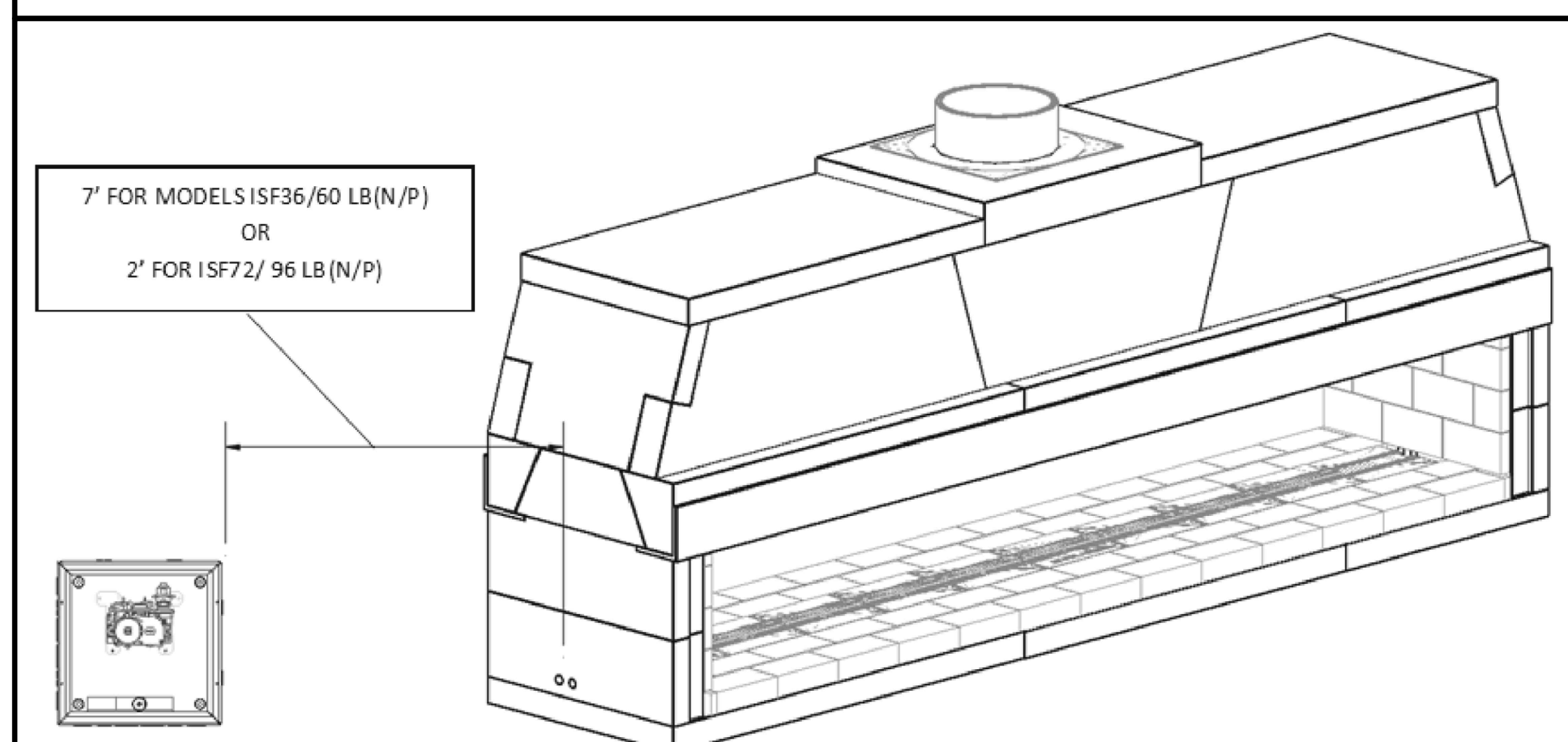
- Isokern Maximus Linear - See-Thru unit weights:
  - Maximus Linear See-Thru - 48: 1,112 lbs. (no burner, flue, accessories)
  - Maximus Linear See-Thru - 60: 1,658 lbs. (includes steel angle; but no burner, flue, accessories)
  - Maximus Linear See-Thru - 72: 1,828 lbs. (includes steel angle; but no burner, flue, accessories)
  - Maximus Linear See-Thru - 96: 2,247 lbs. (includes steel angle; but no burner, flue, accessories)
  - Maximus Linear See-Thru - 120: 2,756 lbs. (includes steel angle; but no burner, flue, accessories)
- Approximate weight of glass media: 100 lbs.
- Fire brick and Adhesive: 350 lbs. - 1800 lbs. depending on brick size and pattern
- Facing material: per general contractor
- B-Vent metal flue: per manufacturer and installation requirements

The floor area for each model is as follows:

- Maximus Linear See-Thru - 48: @ 53" x 28" = 10.3 sq. ft.
- Maximus Linear See-Thru - 60: @ 73-1/2" x 28" = 14.3 sq. ft.
- Maximus Linear See-Thru - 72: @ 85-3/4" x 28" = 16.67 sq. ft.
- Maximus Linear See-Thru - 96: @ 108-1/4" x 28" = 21.04 sq. ft.
- Maximus Linear See-Thru - 120: @ 131-3/4" x 28" = 25.62 sq. ft.

Earthcore is not responsible for structural floor support details for this fireplace system. Unless otherwise noted all floor framing drawings in this manual are merely illustrations to indicate the presence of an underlying floor system. Consult your local structural engineer for proper floor system design, sizing, and specifications.

## E-VK(N/P) VALVE LOCATION



## SCAN QR CODE FOR LATEST INSTALLATION MANUALS



**PFS** ISOKERN SEE THRU LINEAR GAS FIREPLACE LISTED VENTED GAS FIREPLACE PER ANSI Z21.50 - 2019 CSA 2.22-2019 **ISOKERN** MADE IN THE USA CHESAPEAKE, VA 23323

**US** NOT FOR USE WITH SOLID FUEL

PFS REPORT NO. F19-161 SERIAL NO. S1000001 MODEL #  82L48ST  82L72ST  82L60ST  82L96ST  82L120ST

FOR USE WITH PROPANE (LP) OR NATURAL GAS, SEE GAS IDENTIFYING TAG ON BURNER

- 82L48ST NATURAL GAS MAX BTU 54,000; PROPANE MAX BTU 48,000
- 82L60ST NATURAL GAS MAX BTU 72,000; PROPANE MAX BTU 64,000
- 82L72ST NATURAL GAS MAX BTU 90,000; PROPANE MAX BTU 80,000
- 82L96ST NATURAL GAS MAX BTU 108,000; PROPANE MAX BTU 96,000
- 82L120ST NATURAL GAS MAX BTU 110,000; PROPANE MAX BTU 105,000

\*See Burner Rating Plate For Additional Information

MANIFOLD PRESSURE: PROPANE (LP): 10" WATER COLUMN; NATURAL GAS: 3.5" WATER COLUMN  
MINIMUM PERMISSIBLE GAS SUPPLY PRESSURE FOR PURPOSE OF INPUT ADJUSTMENT:  
PROPANE (LP): 11" WATER COLUMN; NATURAL GAS: 5" WATER COLUMN

ELECTRICAL RATING: UNIT: ELECTRONIC 1 PH 60 HZ 120 VOLTS LESS THAN 5 AMPS	CLEARANCE TO COMBUSTIBLES:	Open Front Only		Glass Front Only	
	SMOKE DOME FRONT	= 0in	= 0in		
	UNIT SIDES AND REAR	= 1.5in.	= 1.5in.		
	COMBUSTIBLE SHEATHING ABOVE OPENING	= 8in	= 8in		
	TOP SHEATHING OR TRIM TO OPENING SIDES	= 8in	= 8in		
	MANTEL ABOVE OPENING	= 12in.	= 12in.		
	INSULATION FROM FIREBOX	= 3in.	= 3in.		

**CAUTION:** THIS APPLIANCE IS ONLY FOR USE WITH THE TYPE OF GAS INDICATED ON THE RATING PLATE. THIS APPLIANCE IS NOT CONVERTIBLE FOR USE WITH OTHER GASES, UNLESS A CERTIFIED UNIT IS USED.

This appliance must be installed in accordance with local codes, if any, if not, follow the current ANSI Z223.1/NFPA 54 or CSA B149.1.

See Installation and Operating Instructions for this model and ICC # ESR - 4873

EARTHCORE INDUSTRIES HEADQUARTERS JACKSONVILLE, FL 32256

earthcore INDUSTRIES, L.L.C.	UNLESS OTHERWISE STATED, ALL DIMENSIONS ARE IN INCHES		PROJECT: 10' MAXIMUS LINEAR SEE-THRU	
	UNSPECIFIED TOLERANCES:	THIRD ANGLE PROJECTION	DESCRIPTION: GENERAL INFORMATION AND SPECIFICATIONS	
ANG. 1A ±		MATERIAL:		
LIN. XX ±		DATE: 8/29/2024	SIZE: D	SCALE: N.T.S.
XXX ±		APPROVED: K.B.H.	DRAWING #: 82L120ST	REV: D
		DATE:	DO NOT SCALE	SHEET 1 OF 2