

# **IMPORTANT INFORMATION**



**Ortal Traditional 90**

**TR90**

**FRAMING**

**DIMENSIONS**

**SPECIFICATIONS**

**HEAT RELEASE REQUIREMENTS**

**QR LINK FOR  
PDF DIGITAL COPY  
OF SPECIFICATIONS:**

## Building Around the Fireplace

### Building Checklist

The following building checklist is a quick reference for a typical Ortal Traditional Series installation. This list is not exhaustive and does not supplement thorough review of the installation manual.

- ☑ **Fireplace Location:** Ensure the location allows for min. 40" clearance from viewing area to furniture and other combustibles. Make sure a clear path is established to allow the fireplace to be safely transported to installation location.
- ☑ **Venting:** Confirm vent size (5"x8"), vent clearance (1" on sides and bottom, 3" on top), vent configuration, and termination location.
- ☑ **Height from Floor:** The fireplace has no legs, allowing the firebox to sit directly on the floor. The distance between the bottom of the firebox and the bottom of the viewing area is 1 <sup>5</sup>/<sub>8</sub>". If desired viewing area location on the wall is higher than 1 <sup>5</sup>/<sub>8</sub>", a platform can be built for the fireplace to stand on.
- ☑ **Chase Floor/Platform:** The fireplace can stand on the chase floor or a platform. Floor or platform must be able to bear the weight of the fireplace. It can be constructed out of wood, concrete, metal, or any other solid materials (not required to be non-combustible).
- ☑ **Chase Construction:** No materials can be attached directly to the fireplace (exception: <sup>5</sup>/<sub>8</sub>" Type X Drywall). Drywall may be fastened to front zero-clearance stand-off only. Chase interior must be large enough to accommodate fireplace with all metal stand-offs fully extended. The area of the chase interior must be min. 124 square inches at any given point within the chase.
- ☑ **Framing:** Adhere to minimum framing dimensions (or greater). For recessed fireplaces, do not exceed 12" max. front overhang depth limit. No material is permitted to extend past the <sup>1</sup>/<sub>2</sub>" metal lip surrounding the fireplace viewing area.
- ☑ **<sup>5</sup>/<sub>8</sub>" Type X Drywall Requirements:** One layer of <sup>5</sup>/<sub>8</sub>" Type X Drywall (or equivalent) must be installed on the exterior of the chase framing. <sup>5</sup>/<sub>8</sub>" Type X Drywall (or equivalent) may be fastened to the *top front framing stand-off only*, with 1" self-tapping drywall screws 16".
- ☑ **TV/Artwork:** TV/Art must be min. 12" above top of fireplace viewing area.
- ☑ **Gas Supply Line and Power Location:** Gas and electrical components are located in the compartment on the left side of the fireplace. A single gang 120V outlet is provided in this compartment. Route gas line and electrical connections to this compartment. Locate gas line with manual shut off according to local code.
- ☑ **Access Panel:** Not required. Gas and electrical components are only accessible through the built-in access panel inside the firebox on the left wall. Exception: An access panel or some other form of clear access to the chase is only required if the fireplace is power-vented.
- ☑ **Heat Release:** *Crucial for Cool Wall Technology.* Must start within 6" (max.) from the chase's ceiling. Min. horizontal heat release size is 124 sq.in. of net free air space (vertical heat release min is 160 sq. in.). Height of the heat release must not exceed 1/3 of the width.
- ☑ **Finishing:** For finishes flush to the fireplace, no clearances are required. For finishes where the fireplace is recessed to the finish, maintain <sup>1</sup>/<sub>8</sub>" from the finish to the front face of the fireplace.

## Framing

Fireplace chase may be framed with either combustible (typically wood studs) or non-combustible framing (typically metal studs). Any framing within  $10\frac{7}{16}$ " from the top of the fireplace glass (viewing area) must be non-combustible. Any framing after that point may be combustible.

The framing of the fireplace chase must be designed to carry the entire weight of the wall and finish material. Surrounding material must not transfer weight to the fireplace or be connected in any way to the fireplace, with the exception of  $\frac{5}{8}$ " Type X drywall or its equivalent.  **$\frac{5}{8}$ " Type X drywall may be fastened to the top framing stand-offs only, with 1-inch self-tapping drywall screws 16 inches on center.**

No material is permitted to extend past the metal drywall lip surrounding the fireplace viewing area. This area must be unobstructed to allow the heat barrier and inside glass panel to be removable.

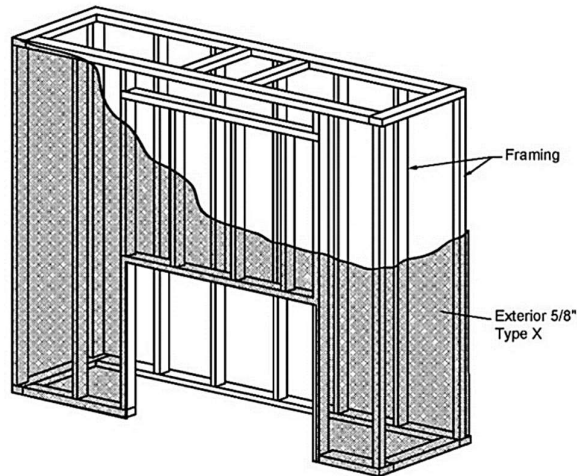
See next page for "Framing Dimensions" section.

## $\frac{5}{8}$ " Type X Drywall Requirements

Exterior of framing must be covered with  $\frac{5}{8}$ " Type X Drywall (or equivalent). Chase interior does not require a layer of  $\frac{5}{8}$ " Type X Drywall (or equivalent). This applies to both combustible and non-combustible framing.



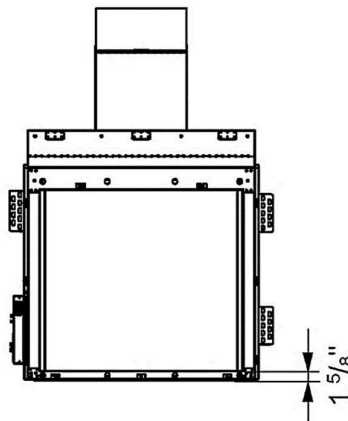
**NOTE:**  $\frac{5}{8}$ " Type X Drywall is not required on the exterior portion of an insulated outside-facing wall.



## Chase Floor/Platform

The fireplace must be installed on a flat, solid, continuous surface. Surface can be wood, concrete, metal, and other typical solid floor types. Surface material is not required to be non-combustible.

The distance from the bottom of the fireplace opening to the floor is  $1\frac{5}{8}$ ".



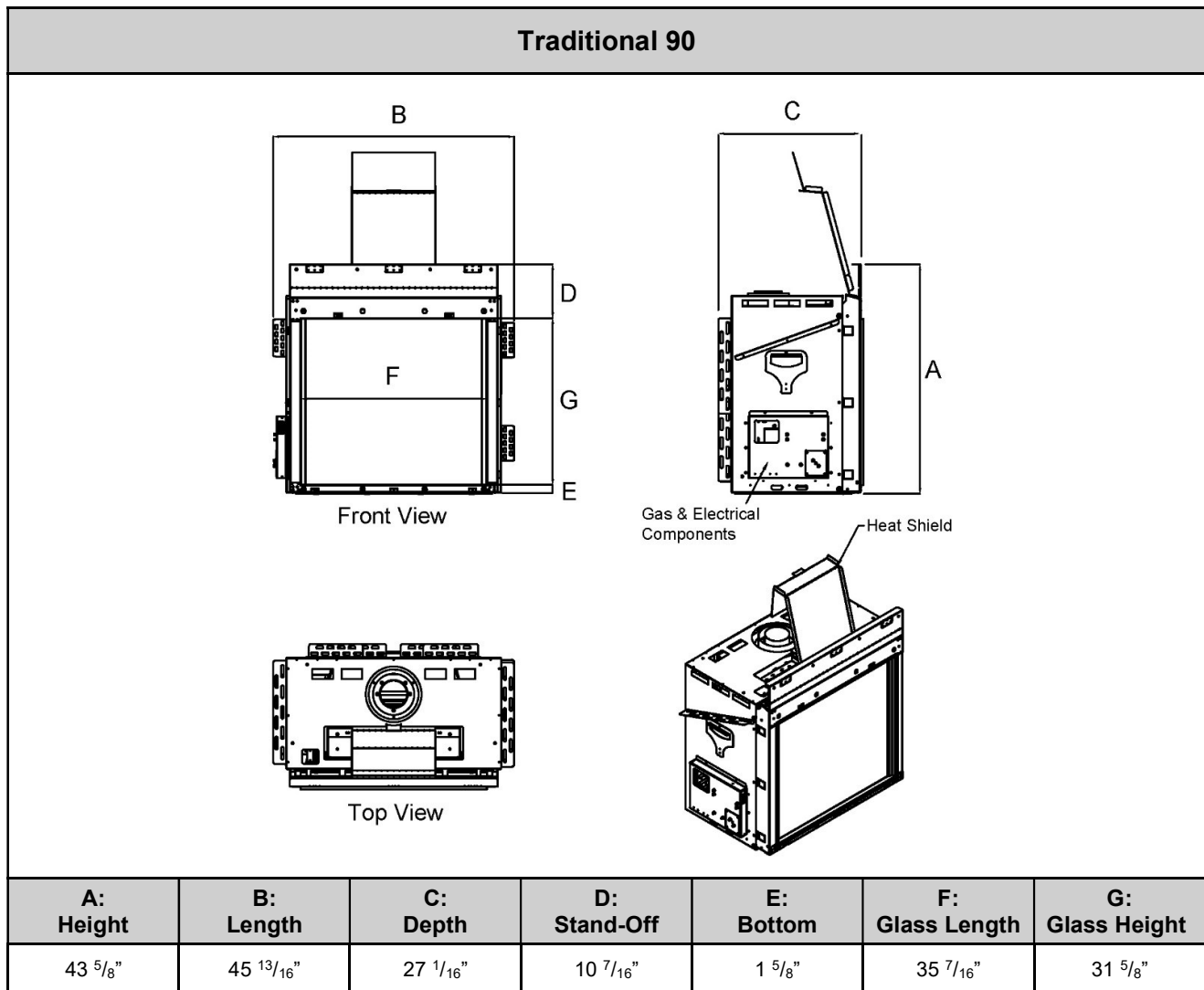
**Raised Platform Option:** To raise the fireplace higher than  $1\frac{5}{8}$ ", build a platform for the fireplace to stand on. Platform must be stable and able to bear the full weight of the fireplace. Platform can be constructed out of wood, concrete, metal, or any other solid materials. Platform material is not required to be non-combustible.

## Hearth Extension

A hearth extension is not required. Any hearth extension used is for appearance only and does not have to conform to a standard hearth extension installation requirement.

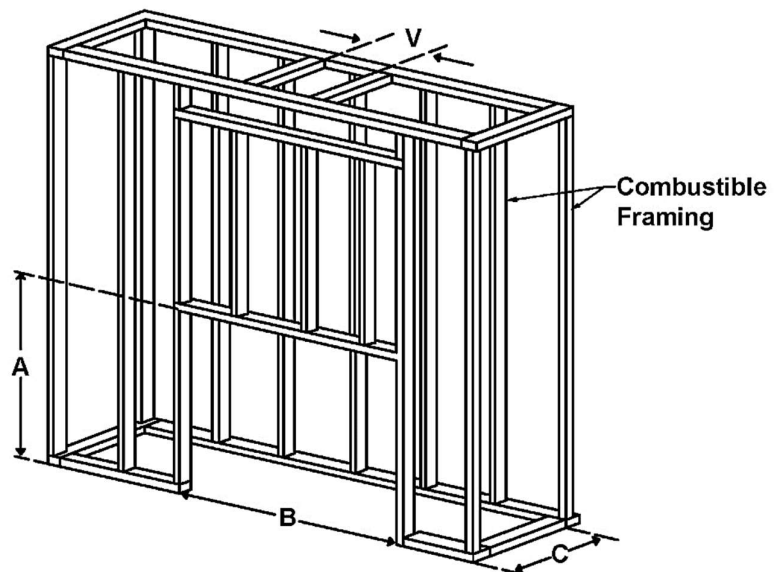
## Framing Dimensions

The following diagrams are for illustrative purposes only. There are multiple approved installation scenarios. A flush application is not the only permitted application. The fireplace may be recessed into the wall. Refer to diagrams and values below and in the following pages for details. **Framing dimensions are the same for combustible and non-combustible framing.**



No material is permitted to extend past the <sup>5</sup>/<sub>8</sub>" metal drywall lip surrounding the fireplace viewing area. This area must be unobstructed to allow the heat barrier and inside glass panel to be removable.

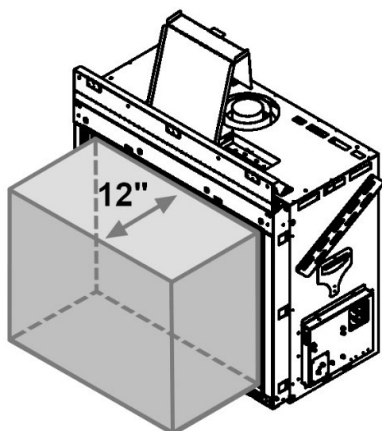
Framing	
A: Height	43 <sup>5</sup> / <sub>8</sub> "
B: Length	45 <sup>13</sup> / <sub>16</sub> "
C: Depth	27 <sup>1</sup> / <sub>16</sub> "
V: Firestop	Refer to pipe manufacturer's firestop dimensions



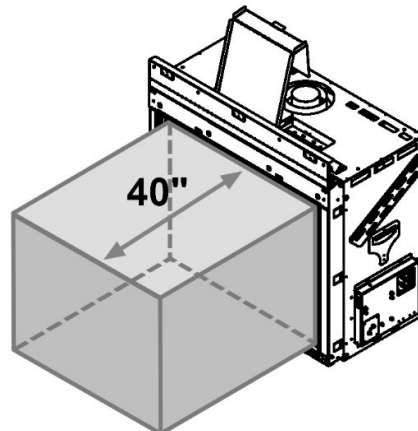
## General Clearances

### Viewing Area Clearance Zone

The viewing area clearance zone is an area that extends perpendicular from the fireplace viewing area. The depth of the viewing area clearance zone depends on the combustibility of the material in question. Distance is measured from the fireplace heat barrier.



**Non-Combustible Materials** must be minimum **12 inches** from fireplace viewing area.



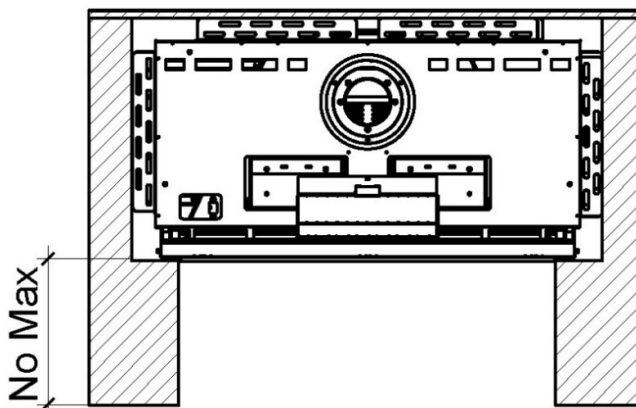
**Combustible Materials** must be minimum **40 inches** from fireplace viewing area.

Materials (including combustible flooring and combustible finish material) are permitted below and around the viewing area clearance zone.

**! IMPORTANT NOTE:** When placing material near the glass, take care to consider fireplace serviceability. It is strongly recommended that any items/materials placed in front of the front (long) glass be movable for easy access to the fireplace during servicing.

### Clearance to a Side Wall/Mantle Legs

The fireplace viewing area is zero-clearance to a side wall or mantle legs. A side wall is defined as a wall that meets the viewing area at a 90° angle.



 = Building Material

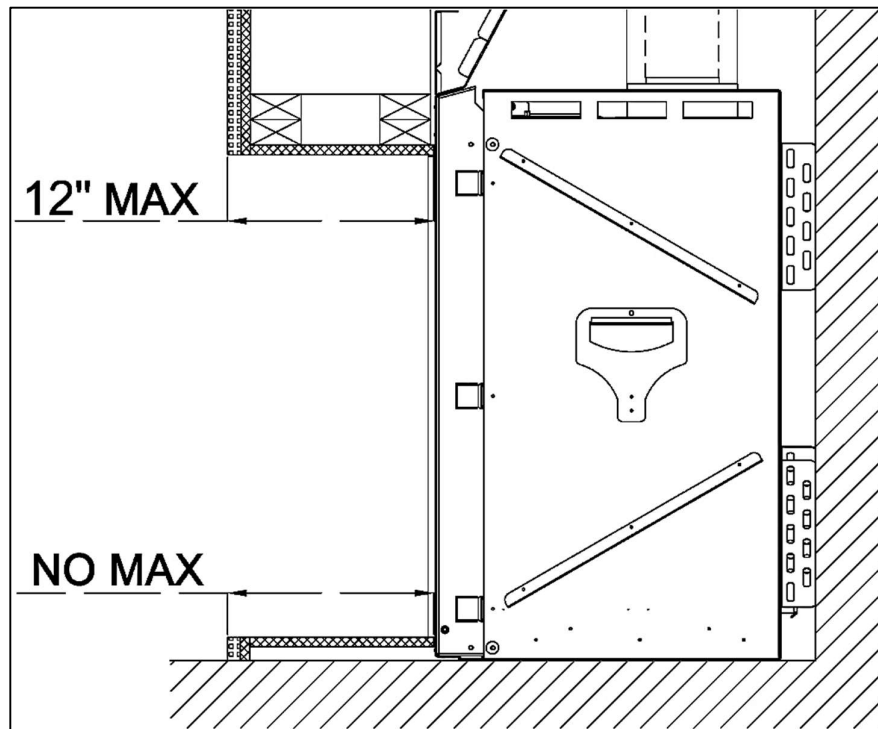
The temperature on the side wall can get as high as 150°F above ambient temperature. While the fireplace certification allows for this temperature variance, building and finish materials will have their own limitations. Consult the material manufacturer to ensure the material can safely withstand this temperature range.

This information does not apply to a wall that is constructed in front of the viewing area. For materials that will be in front of a main or side viewing area, please refer to the "Viewing Area Clearances" section.

### **Maximum Overhang/Mantle Depth**

Overhang depth of a recessed fireplace (aka mantle) must not exceed **12 inches**. Overhang depth/mantle is measured from the edge of the fireplace lip to the out-most part of the wall (including finish material). Overhang framing and finish materials may be either non-combustible or combustible.

Bottom recess (or "hearth extension") has no minimum or maximum depth requirement. If bottom recess depth exceeds 12 inches, ensure the structure is capable of supporting the weight of a fireplace technician for servicing.



## Heat Release

A heat release is an opening in the fireplace chase that allows the heat inside the chase to passively circulate into an interior room. This heat is generated convectively as the fireplace heats up. It is separate from exhaust heat produced at the combustion chamber of the fireplace. A **heat release is required** to keep the wall around the fireplace cool.

### Heat Release Requirements

- The heat release must be located at or near the top of the fireplace chase and **start within** 6 inches (0-6 inches max) of the chase ceiling (draft stop). It can start at the chase ceiling. It can be located on the front, sides or back of the chase. It can be released into any interior space that shares a wall with the chase.
- The heat release cannot be vented outdoors as this would expose the fireplace to outdoor elements.
- Minimum heat release size requirement depends on heat release orientation:

Horizontal Heat Release	Vertical Heat Release
Minimum 124 sq. in. of net free air space	Minimum 160 sq. in. of net free air space

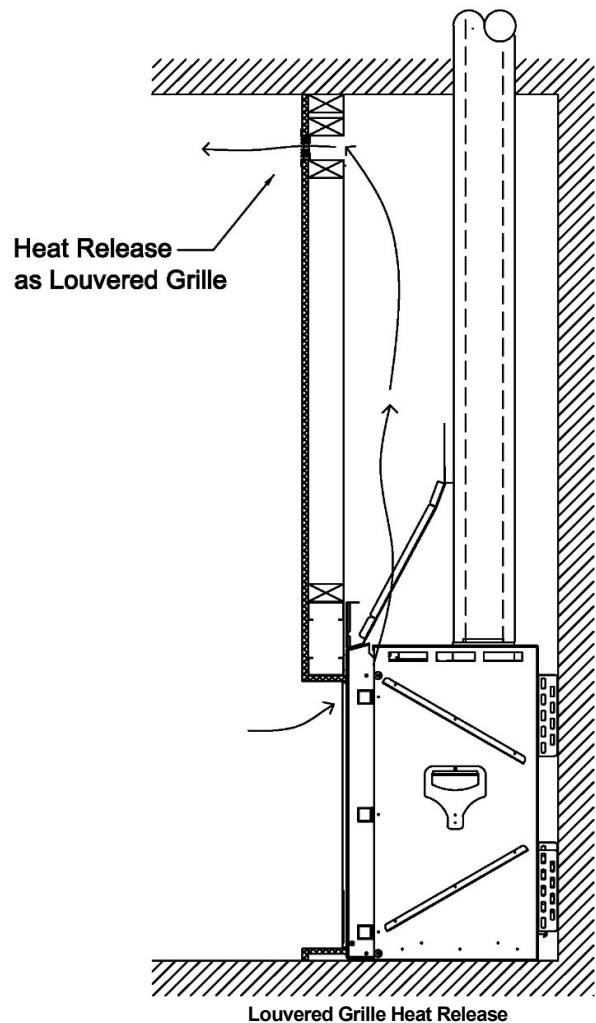
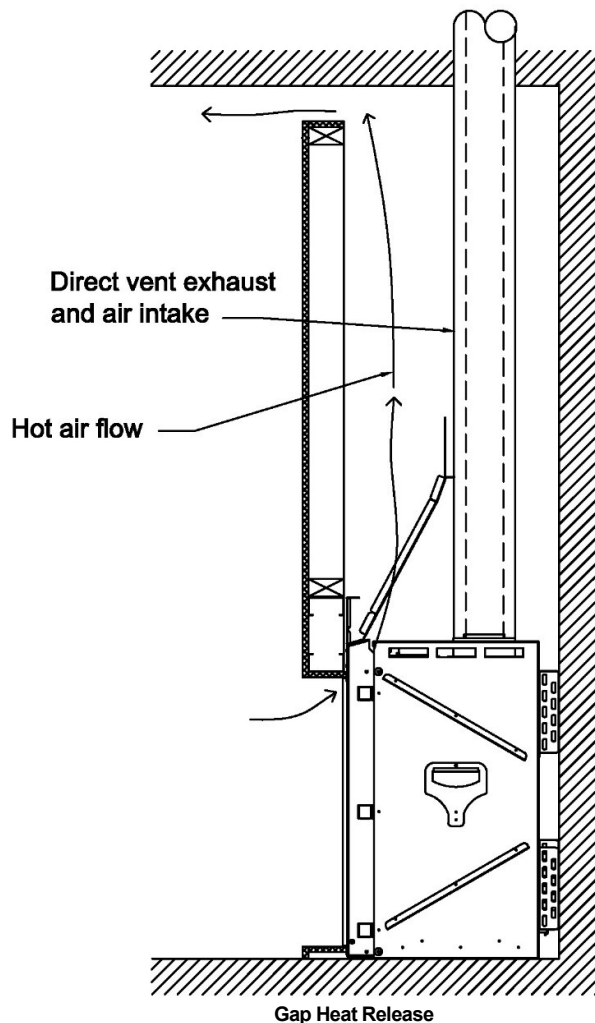
- For horizontal heat releases, the height of the heat release must not exceed 1/3 of the width. The heat release must be 2/3 wider than it is tall.
- The heat release can be in the form of (but not limited to) a louvered ventilation grille, gap, or reveal.
  - For louvered ventilation grilles, the net free air space allowed in the louvered area must be equal or greater than the minimum number of square inches required per fireplace.
- The interior area of the narrowest part of the fireplace chase (in square inches) must never be less than your required heat release size (see "Chase Area Minimum" section for details).
- The heat release cannot be vented outdoors or to an unconditioned space.



**NOTE: An angled heat release is not permitted.**

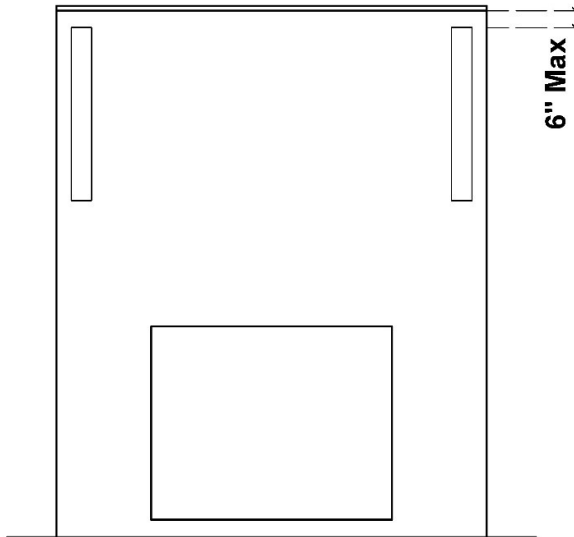
The following diagrams are examples of potential heat release options. These drawings serve as illustrative purposes only.

### Horizontal Heat Release



**Vertical Heat Release: Split Front**

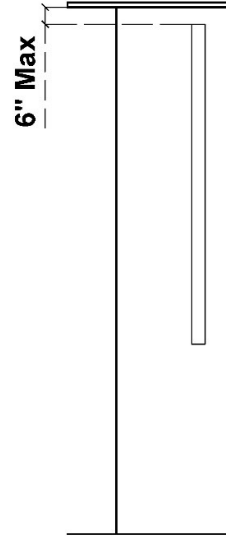
The heat release is oriented vertically and split between the two sides of the chase.



**Split Front Vertical Heat Release**

**Vertical Heat Release: Full Side**

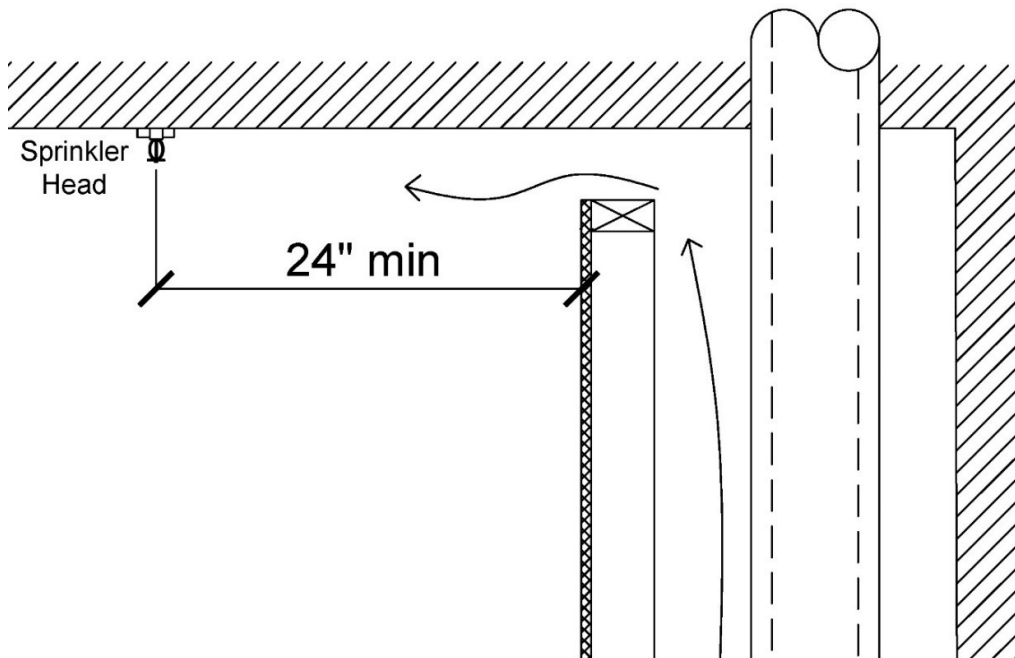
The heat release is oriented vertically. Entire heat release is on one side of the fireplace chase.



**Full Vertical Heat Release on One Side**

***Sprinkler Clearance to Heat Release***

In a situation where a sprinkler head is near the heat release, the sprinkler head must be minimum **24 inches** (linear length) from every point of the heat release opening.





## Mounting a TV/Artwork

Ortal's Cool Wall Technology is a technique that reduces the convective heat from the fireplace and prevents heat buildup inside the fireplace chase, mitigating any damage that may result from the wall reaching high temperatures. Ortal's Cool Wall system enables the option of safely installing artwork, a TV, or other similar electronic components above the fireplace by reducing the wall temperature above the fireplace.

Location	Wall Temperature
0-6 inches above fireplace	100°F - 120°F
6-12 inches above fireplace	90°F - 100°F
12 inches above fireplace	80°F - 90°F

Required minimum clearance between bottom edge of TV or other similar device or artwork and top of fireplace viewing area is 12 inches.

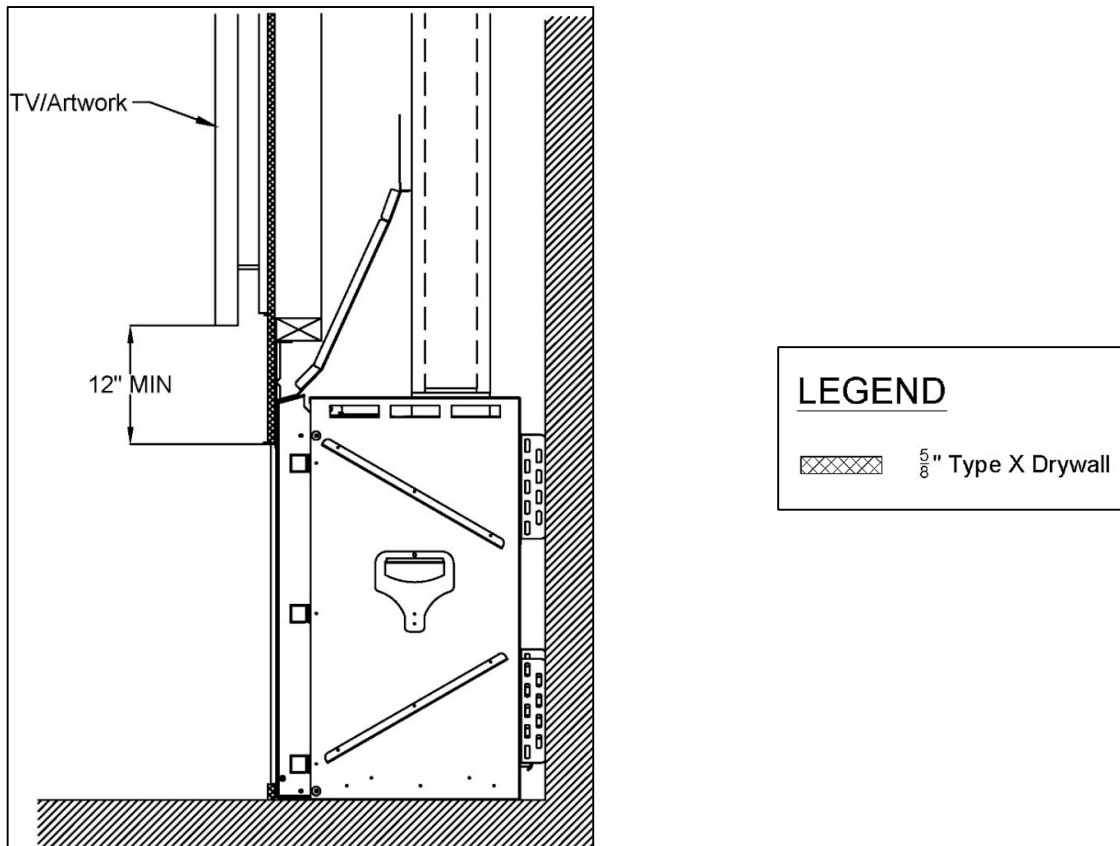
### Maintain the following general requirements to mount a TV or artwork above the fireplace and prevent heat damage:

- Mount the TV or artwork a minimum of 12 inches above the top of the fireplace viewing area.
- Wires inside the chase are not permitted to cross over the fireplace. Wires must be installed against a wall.

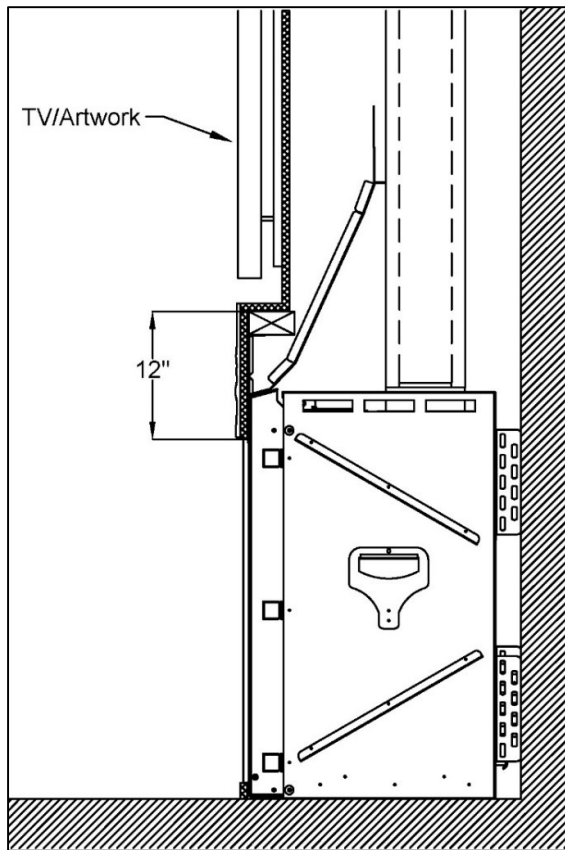
The decision to install a television above an Ortal fireplace is up to the discretion of the owner. TV and art manufacturers may specify that their product should not be installed on, near or above a heat source. Ortal will not be held liable for any adverse effects on a TV, artwork or other equipment located near the Ortal fireplace. It is the owner's responsibility to verify that their TV or artwork can withstand the wall temperatures as outlined in the above wall temperature chart.

The following diagrams can be used as a guide for customers who do decide to locate their TV and artwork above their Ortal fireplace. These drawings illustrate ways of reducing the amount of heat impact to the area surrounding the fireplace.


### Flush Mounted TV/Artwork



## Recessed TV/Artwork



### LEGEND

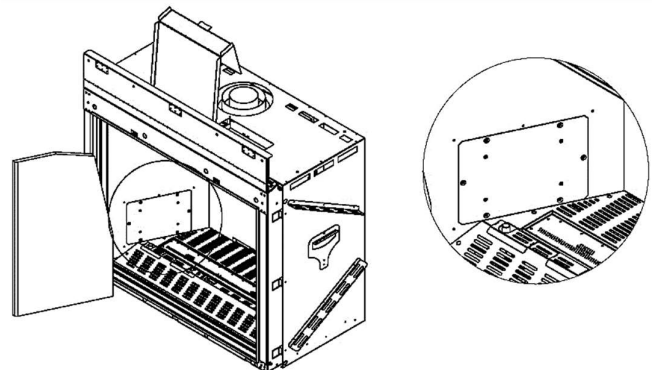
 5/8" Type X Drywall

## Access Panel

It is unnecessary to provide an access panel in the fireplace chase (see note below for exception).

Components are accessed through the fireplace via a built-in access panel on the inner left side of the fireplace.

**NOTE:** An access panel, or some other form of clear access, is required for power vented fireplaces. For servicing purposes, the power vent control box (located at the fireplace) must be easily accessible in a way that does not require removal of the fireplace glass.

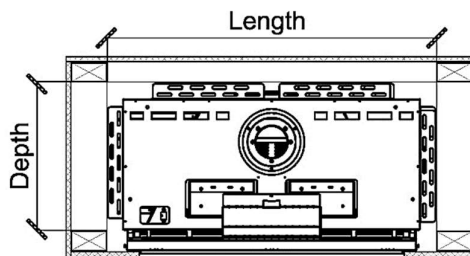


Built-in Access Panel

## Chase Area Minimum

To ensure the convective heat within the chase passively moves to the heat release at an optimal rate, all parts of the interior of the chase must be **minimum 124 sq. in.** in size at any given point. To determine if your chase meets this requirement, use the following equation at the narrowest part of the chase.

$$\text{Chase Area} = (\text{Chase Length} \times \text{Chase Depth}) - (50.27\text{in}^2)$$



Fireplace Chase (Top View)

If the heat release is split into 25/75 portions due to an oversized ledge, the chase only needs to be the size of 75% of the heat release because 25% of the heat is already being released at the ledge (see "Ledge Detail" section below for details).

## Finishing

The following diagrams show various finish applications. **Diagrams apply to both combustible and non-combustible finish material.**



### IMPORTANT NOTES:

- All recessed installations must comply with applicable maximum overhang limit and side wall clearances. See “Maximum Overhang Depth” and “Clearance to a Side Wall” sections for details.
- No material is permitted to extend past the metal lip surrounding the fireplace viewing area. This area must be unobstructed to allow the heat barrier and inside glass panel to be removable.
- MANUFACTURED STONE: A minimum 2-inch recess is suggested. Consult stone manufacturer for clearance requirements.
- $\frac{5}{8}$ " DensGlass® Fireguard® Sheathing is an approved  $\frac{5}{8}$ " Type X Drywall equivalent. This may be necessary for use with heavier finishes.

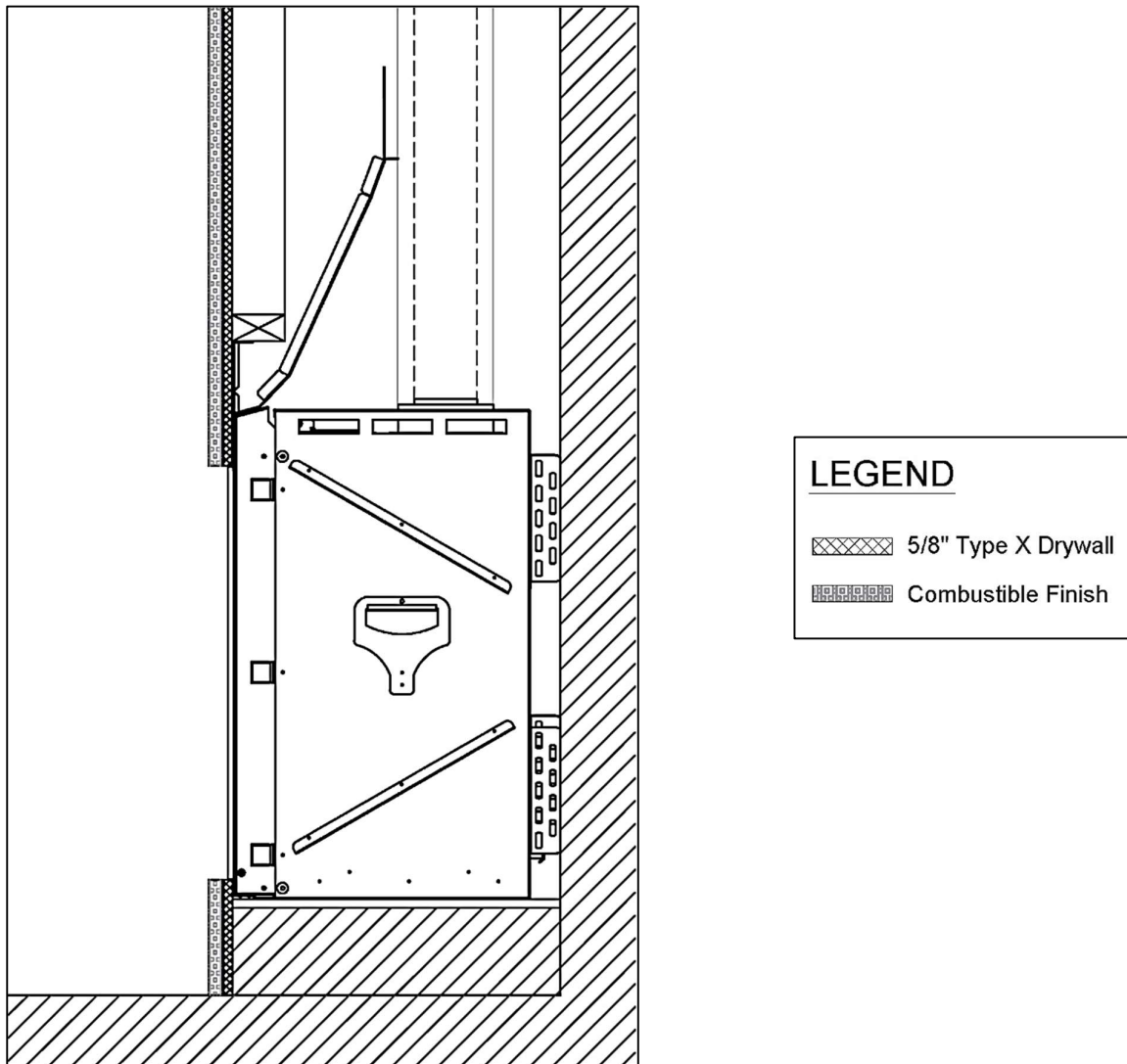


**WARNING:** Wood finish or floor/hearth extension may dry out, crack, warp or become discolored over time. Consult with floor manufacturer for required clearances to a heat source.

## Flush Installation

**Diagram applies to both combustible and non-combustible finish material.**

No material is permitted to extend past the metal lip surrounding the fireplace viewing area. This area must be unobstructed to allow the heat barrier and inside glass panel to be removable.

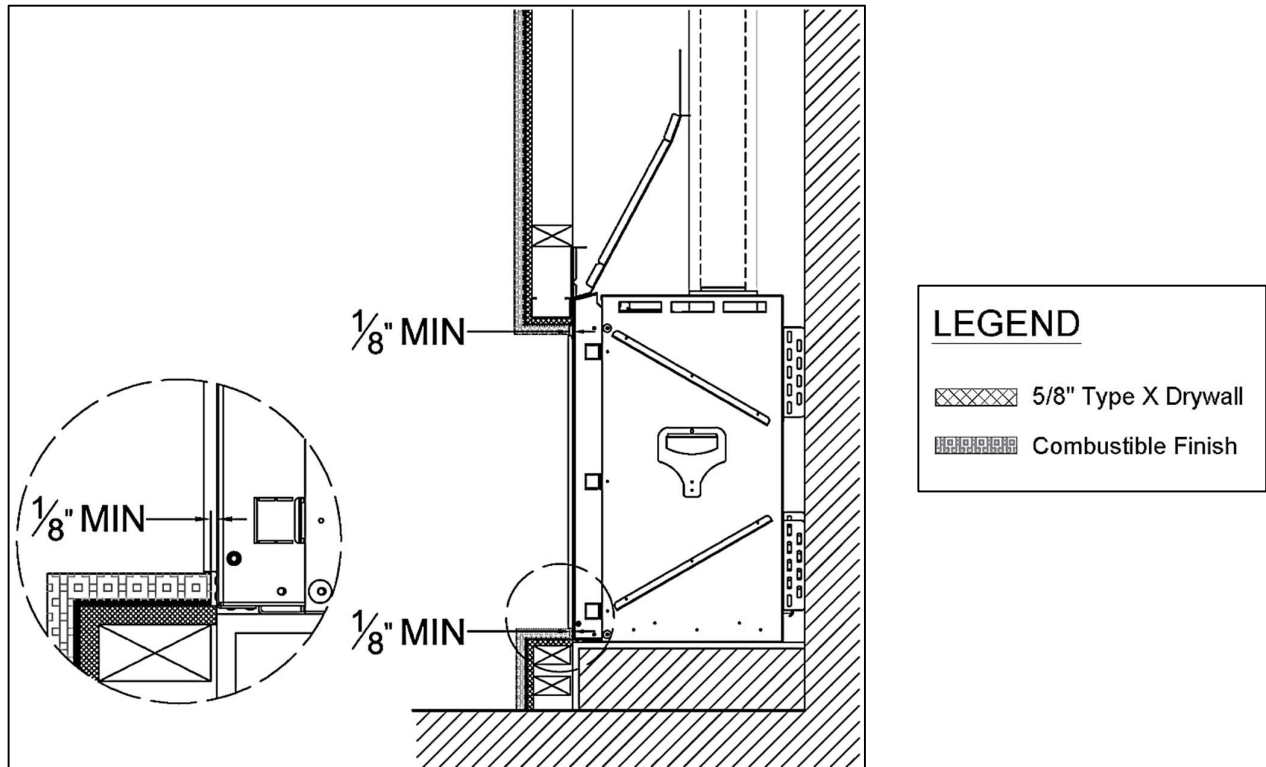


**NOTE:** A fireplace with a screen heat barrier and platform are shown for illustrative purposes only. These features are *not* a required part of the finish detail.

## Recessed Installation

**Diagram applies to both combustible and non-combustible finish material.** The finish must maintain at least  $\frac{1}{8}$ " clearance to the fireplace to both the top and bottom recesses.

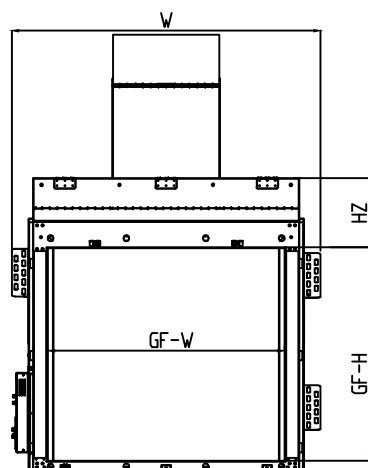
No material is permitted to extend past the metal lip surrounding the fireplace viewing area. This area must be unobstructed to allow the heat barrier and inside glass panel to be removable.



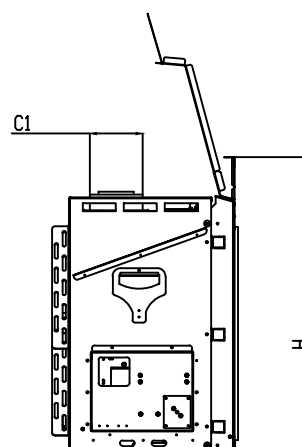
**NOTE:** A fireplace with a screen heat barrier and platform are shown for illustrative purposes only. These features are *not* a required part of the finish detail.



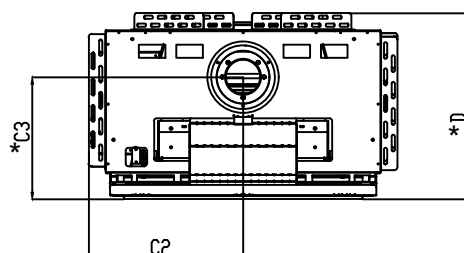
## Traditional 90 Framing Information



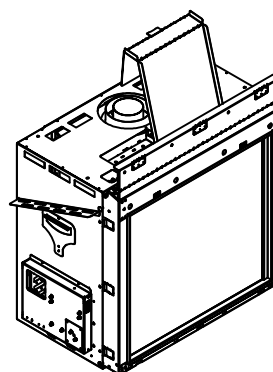
Front View



Side View



Top View



Model	(H) Height	(W) Width	(D) Depth	HZ	C1	C2	C3	Glass Opening	
								(GF) Front	(GS) Side
TR 90	43 $\frac{5}{8}$ "	45 $\frac{13}{16}$ "	27 $\frac{1}{16}$ "	10 $\frac{3}{8}$ "	7 $\frac{7}{8}$ "	22 $\frac{15}{16}$ "	18 $\frac{1}{16}$ "	35 $\frac{7}{16}$ " W X 31 $\frac{5}{8}$ " H	—

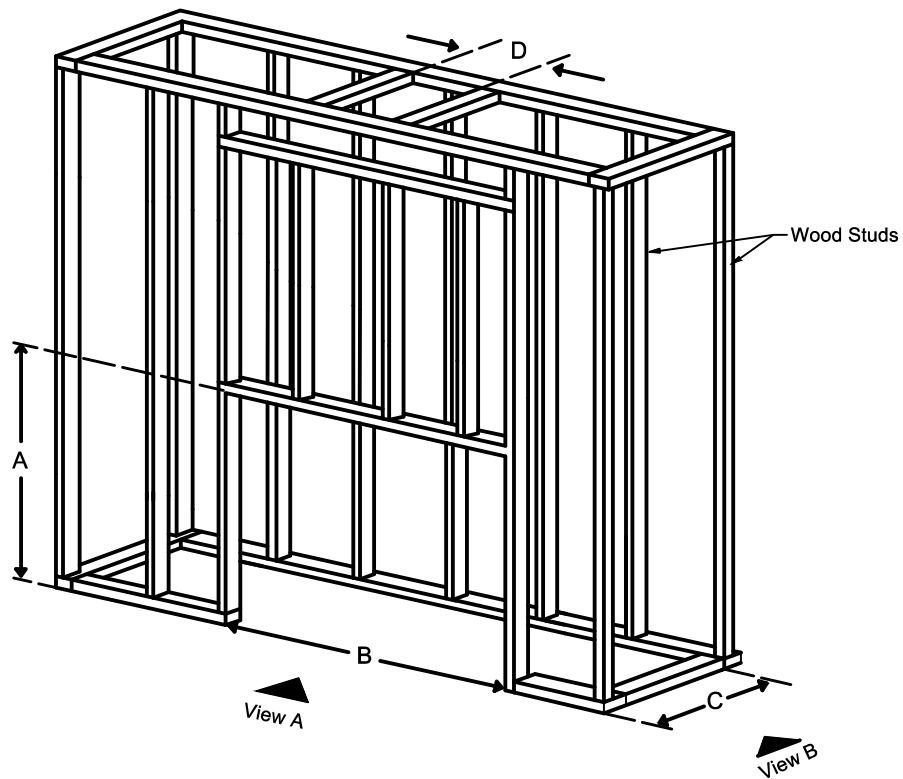
\* Dimensions include  $\frac{1}{2}$ " lip (for drywall)

Note : 1. Drawings are not to Scale

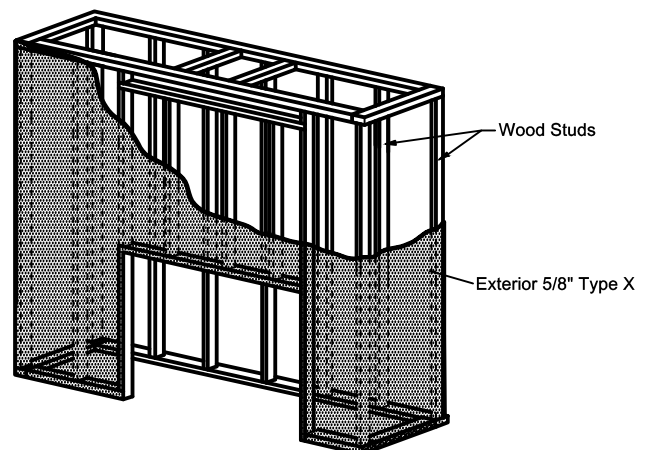
2. All dimensions are in inches



## Traditional 90 Framing Information



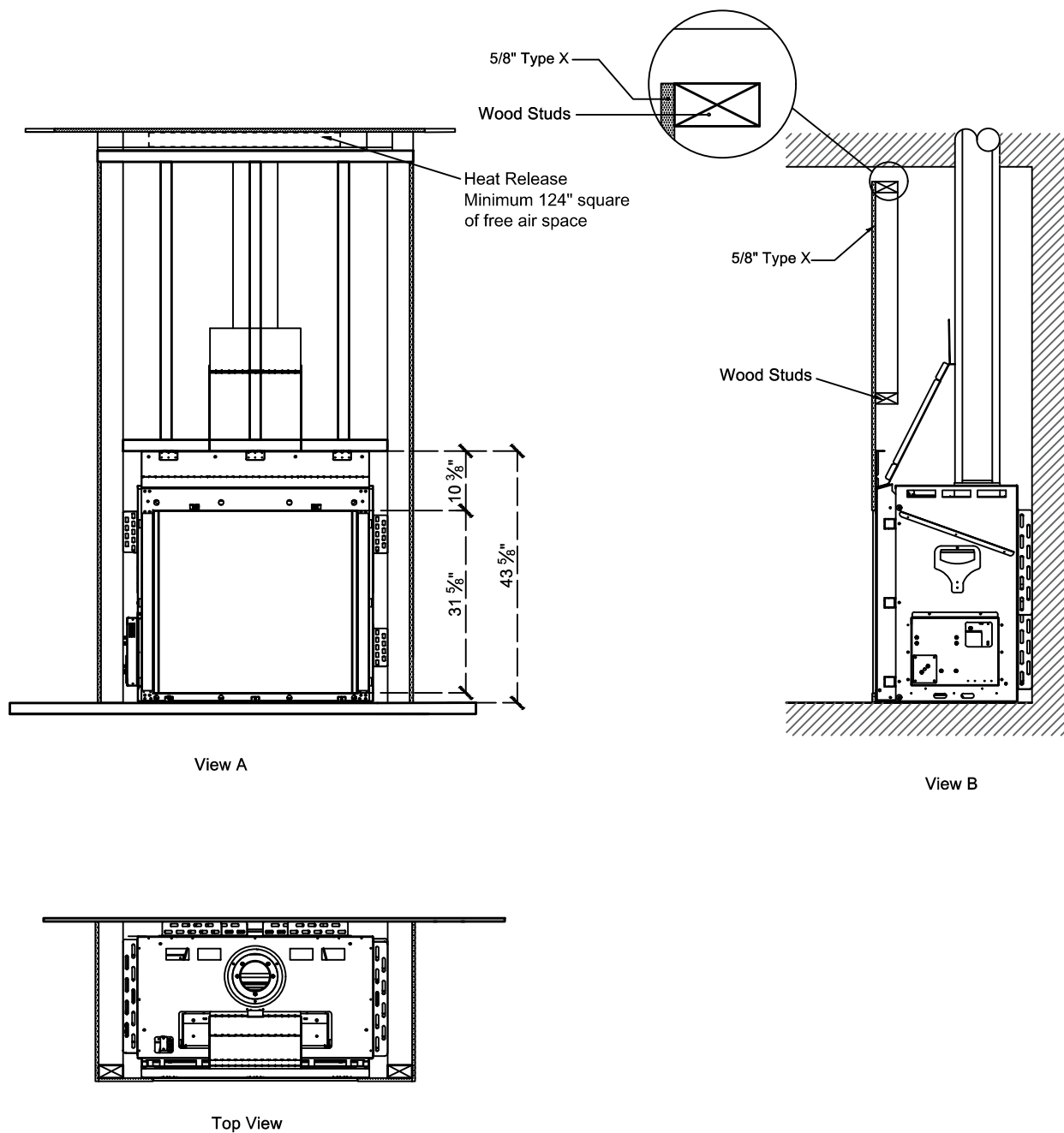
Model	A	B	C	D
TR 90	43 $\frac{5}{8}$ "	45 $\frac{13}{16}$ "	27 $\frac{1}{16}$ "	Refer to pipe manufacturer's firestop dimensions



Note : 1. Drawings are not to Scale  
2. All dimensions are in inches



## Traditional 90 Framing Information



Note : 1. Drawings are not to Scale  
2. All dimensions are in inches



# ORTAL Traditional 90 Screen

YOUR LIFE. YOUR FIRE

