MUST READ BEFORE FRAMING

IMPORTANT INFORMATION

EST. 2004

ontario hearth ltd.

Regency City Series Seattle See Through 60

CST60E-NG / CST60E-LP

FRAMING

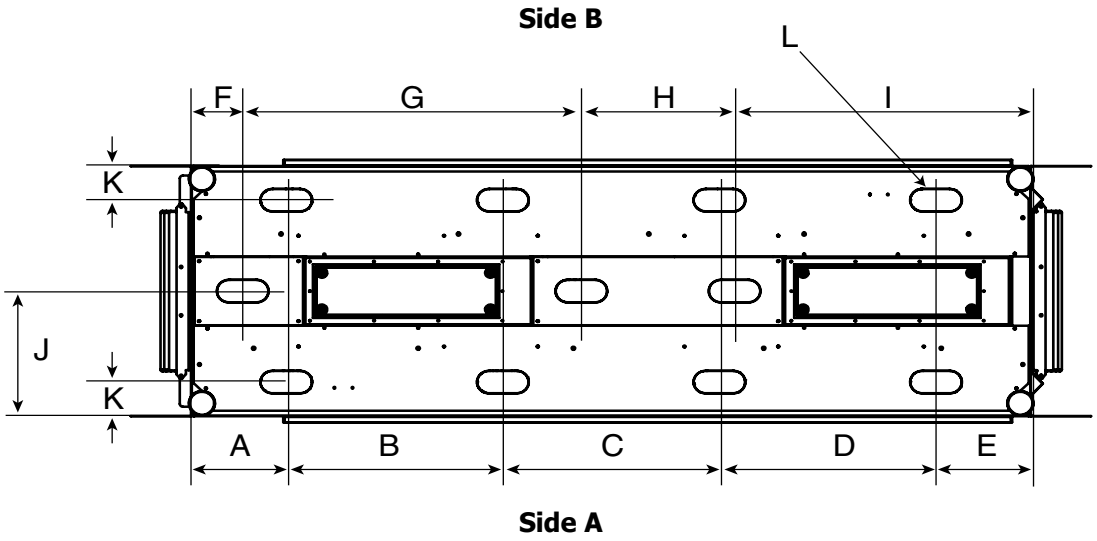
DIMENSIONS

SPECIFICATIONS

HEAT RELEASE REQUIREMENTS

QR LINK FOR
PDF DIGITAL COPY
OF SPECIFICATIONS:

Gas Connection - Bottom of Unit

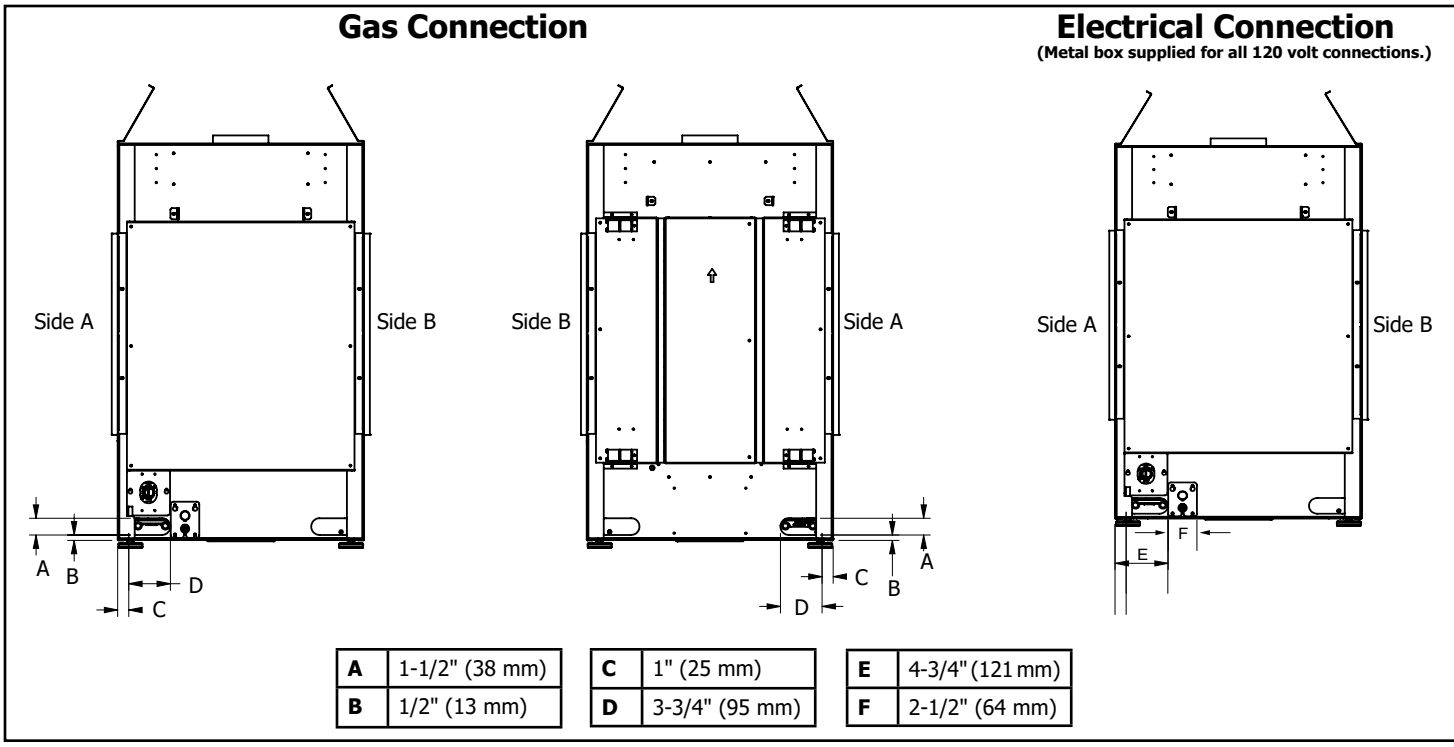


A	7-15/16" (201 mm)
B	18" (457 mm)
C	18" (457 mm)
D	18" (457 mm)
E	7-3/16" (199 mm)

F	4-5/16" (109 mm)
G	28-1/8" (715 mm)
H	12-3/4" (323 mm)
I	24 9/16" (624 mm)
J	11-1/8" (282 mm)

K	3-1/6" (77 mm)
L	11 knockouts total, each 2" (51 mm) x 13-11/16" (352 mm)

Gas/Electrical Connections - Side of Unit

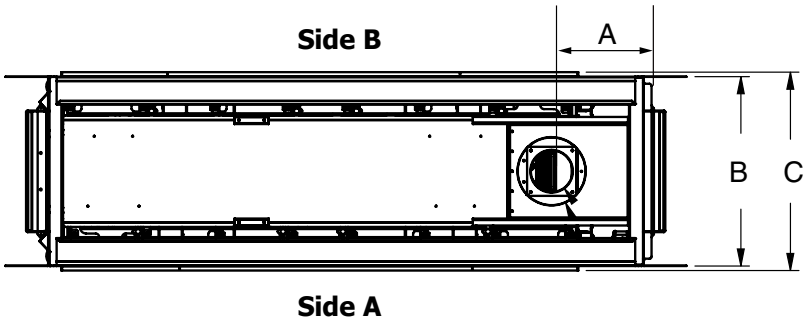


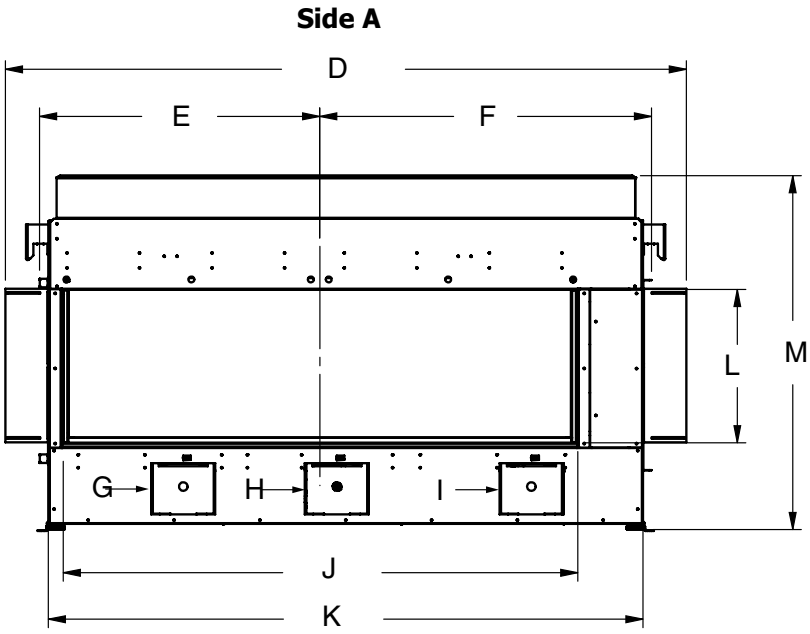
A	1-1/2" (38 mm)
B	1/2" (13 mm)

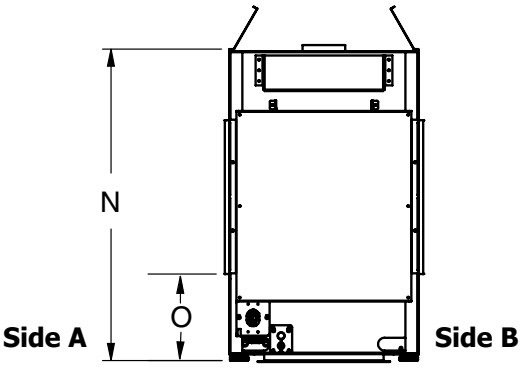
C	1" (25 mm)
D	3-3/4" (95 mm)

E	4-3/4" (121 mm)
F	2-1/2" (64 mm)

Dimensions







Item	Description	Measurement
A	**Exhaust center to stand-off**	12-11/16" (323 mm)
B	**Unit body depth**	22-3/16" (564 mm)
C	**Width (lip to lip)**	23-1/4" (591 mm)
D	**nailing strip**	79-1/13" (2009 mm)
E	**Glass center to standoff**	32-13/16" (833 mm)
F	**Glass center to standoff**	38-7/8" (987 mm)
G	**Gas connection**	N/A
H	**Aeration adjustment**	N/A

Item	Description	Measurement
I	**Electrical**	N/A
J	**Viewing opening width**	60-5/16" (1532 mm)
K	**Unit body width**	69-11/16" (1770 mm)
L	**Viewing opening height**	18" (457 mm)
M	**Unit height**	41-1/2" (1054 mm)
N	**Unit body height**	36-1/2" (927 mm)
O	**Unit base to bottom opening**	10-1/8" (257 mm)

NOTES
- Height dimension is taken with leveling legs fully inserted and may vary depending on the height of the leveling legs when unscrewed or extended.
- All pictures/diagrams shown throughout this manual are for illustration purposes only. Actual product may vary due to enhancements.
- Dimensions will appear as (inches)" / (metric) mm throughout this manual. The inches are rounded to the nearest 1/16" when converted.

Locating Your Gas Fireplace

1. When selecting a location for your fireplace, ensure that the clearances are met as outlined in the "Clearances" section.

2. Provide adequate clearances for servicing.

3. The appliance must be installed on a flat, solid, continuous surface (e.g. wood, metal, concrete). This may be the floor, or a platform to enhance visual impact. If the appliance is going to be installed on carpeting, combustible linoleum tile, or other combustible material (other than wood flooring), the appliance must be installed on a metal or wood panel extending the full width and depth of the appliance.

4. This Direct Vent Gas Fireplace can be installed as follows:

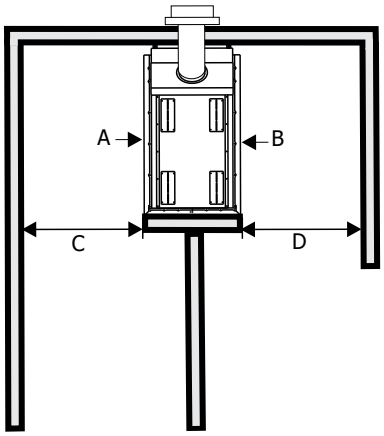
Position	Model #
A, B	CST60E See-through

5. This appliance is listed for bedroom installations when used with a listed millivolt thermostat. Some locations may have further requirements - check local codes before installation.

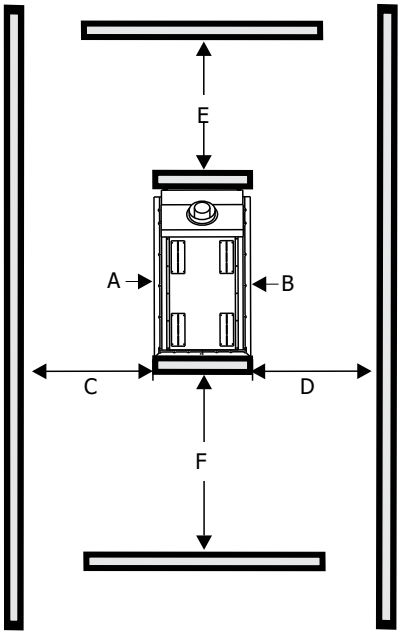
6. The CST60E Direct Vent Gas Fireplace is approved for alcove installations which meet the clearances listed on this page.

7. We recommend that you plan your installation on paper using exact measurements for clearances and floor protection. Have a qualified inspector, dealer, or installer review your plans before installation.

NOTE
See section "Exterior Vent Termination Locations."



A. CST60E - SEE-THRU



B. CST60E - SEE-THRU

A	Glass
B	Glass
C	36" min. (914 mm)
D	36" min. (914 mm)
E	36" min. (914 mm) walkway
F	36" min. (914 mm) walkway

Chase Enclosure

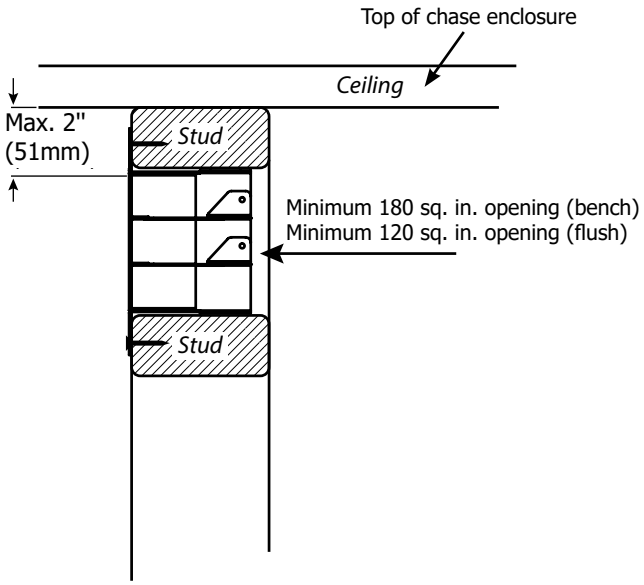
When choosing to install the ventilation openings from the front or sides, the top of the ventilation opening cannot be any lower than 0-2" (51mm) from the top of the chase enclosure for all installations.

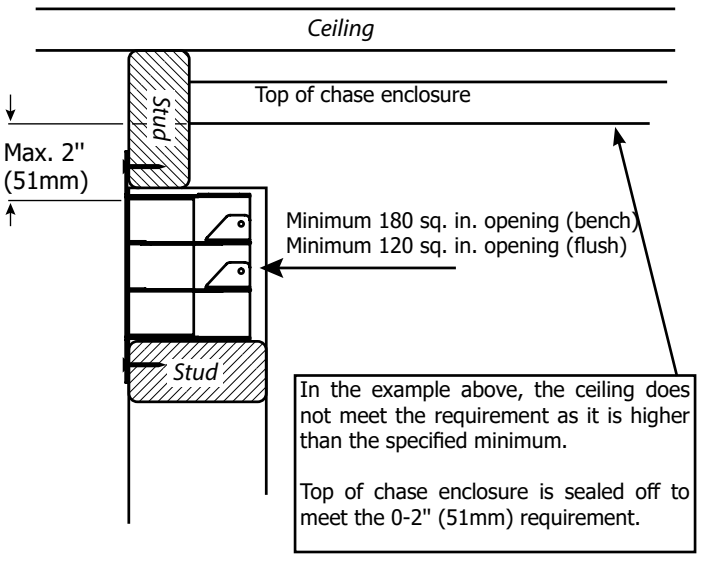
The minimum height of the enclosure from the base of the appliance is 52" (1321 mm) for the bench installation and 81-1/4" (2064 mm) for the flush installation.

A minimum 180 sq. in. (bench) or 120 sq. in. (flush) opening in the enclosure is required to maintain safe operating temperatures. This can be achieved in a number of ways, including those shown in the examples in this manual.

IMPORTANT

- **<u>Exterior wall/alcove enclosure</u> : when installing into an exterior cavity or alcove enclosure (ceiling, back, and sides) regardless of where the appliance is placed within the home, drywall or other materials such as plywood, wood studs, etc. are required to prevent heat from escaping above or through the enclosure (other than out the required grill / ventilation openings).**
- **<u>Internal chase :</u> when installing as an internal chase framing regardless of where the appliance is placed within the home, drywall or other materials such as plywood must be used on the rear wall of the chase to eliminate heat escaping into the rear wall cavity. The ceiling will also need to be finished to prevent heat escaping into floor joists, or the attic space if the chase extends to it. One of the following methods must be used to prevent the heat from escaping:**
  - **a. If choosing drywall, ensure that it butts up tight with no gaps.**
  - **b. Plywood, wood studs, etc. installed tightly with no gaps.**
- **This appliance was designed to allow hot air to escape through the chase enclosure ventilation/grill openings. If hot air is trapped as a result of it escaping through joints, crevasses, open studs, or other openings within the enclosure, this will change the clearances within the enclosure, causing it to overheat. It is vital that all hot air within the enclosure exit through the ventilation openings only. Ensure that the ventilation openings are constructed to prevent debris from falling into the enclosure.**
- **DO NOT cover or place objects in front of the ventilation opening air outlet(s).**





Clearances - Flush Installation

The clearances listed below are minimum requirements for either side of this see-through fireplace, unless otherwise stated. A major cause of chimney-related fires is failure to maintain required clearances (air space) to combustible materials.

NOTES
- Flush installation is when the chase enclosure height is at a minimum of 81-1/4" (2064 mm) or greater. This would be a typical installation, with walls placed between two rooms to divide them.

Clearance	Dimension	Measured From:
A: Mantel height (min.)	**	Top of fireplace opening
B: Sidewall (on one side) min.	8" (203 mm)	Side of fireplace opening
C: Enclosure inside cavity width (min.)	71-3/4" (1822 mm)	Side wall
D: Mantel depth (max.)	**	
E: Convection air outlet	120 sq. in.*	Top, front, or side of enclosure
F: Framing depth (min.)	22-1/4" (565 mm)	From back wall to chase front
G: Opening height	18" (457 mm)	Bottom/top of fireplace opening
H: Chase enclosure (min.)	81-1/4" (2064 mm) or greater	From base of unit/floor to underside of enclosure top
I:Ceiling height (min.)	81-1/4" (2064 mm)	Measured from base of appliance
J: Convection air outlet opening offset (max.)	2" (51 mm)	Max offset from top of chase enclosure
K: Convection air outlet opening width (min.)	10" (254 mm)	
L: Convection air outlet opening height (min.)	1-1/2" (38 mm)	
M: Clearance to sprinkler head (min.)	36" (914 mm)	Perpendicular from chase grill
Hearth	0"	No hearth required
** See mantel clearances chart in the manual.		

*A minimum of 120 square inches of open area, not lower than 0-2" from top of enclosure, is required for all installations.

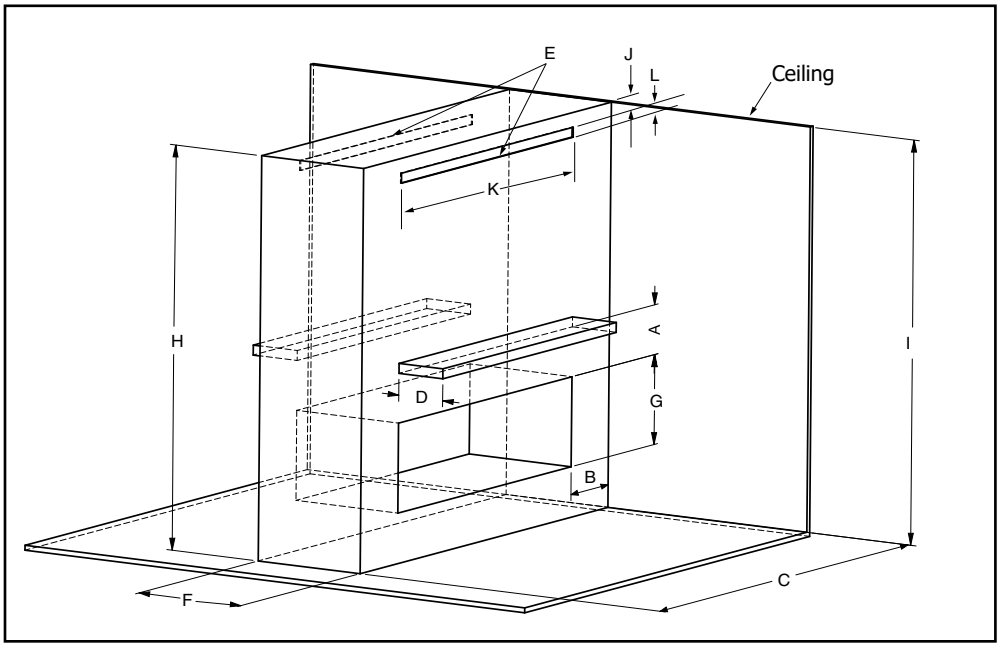
Flue Clearances to Combustibles	
Horizontal - Top	3" (76 mm)
Horizontal - Side	2" (51 mm)
Horizontal - Bottom	2" (51 mm)
Vertical	2" (51 mm)
Passing through wall/floor/ ceiling - when firestop is used.	1-1/2" (38 mm)

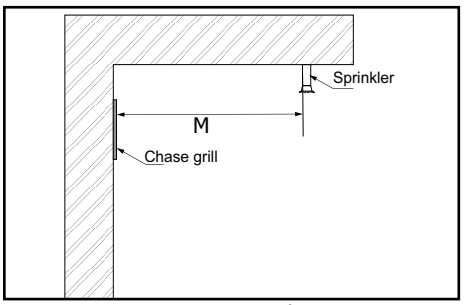
NOTE
This appliance uses 5" x 8" (127 mm x 203 mm) venting for non power vent applications. For power vent applications, vent pipe must be reduced to **4" x 6 5/8" (102 mm x 168 mm).**

Heat Wave

The ***HeatWave*** Duct Kit has different clearance and framing requirements, check the ***HeatWave*** manual for details.

CAUTION
- **EXTREME RISK OF FIRE if these clearances (air space) to combustible materials are not followed.**
- **It is of the greatest importance that the installation of this fireplace and vent system comply with the instructions in this manual.**
- **The top, back, and sides of the fireplace are defined by standoffs. The metal ends of the standoffs may NOT be recessed into combustible construction.**



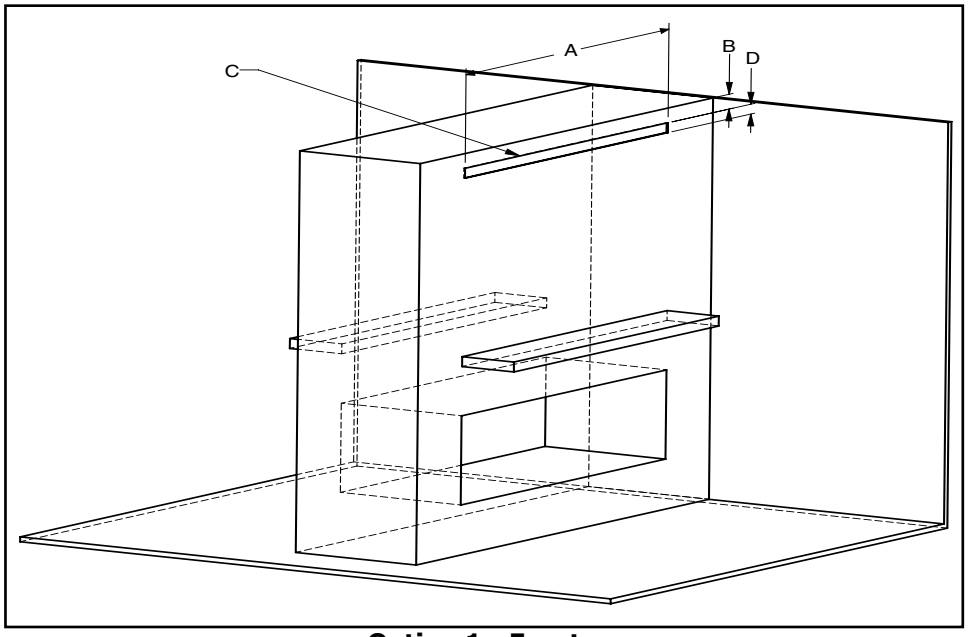


Side view

Flush Installation Examples (Ventilation Openings)

IMPORTANT

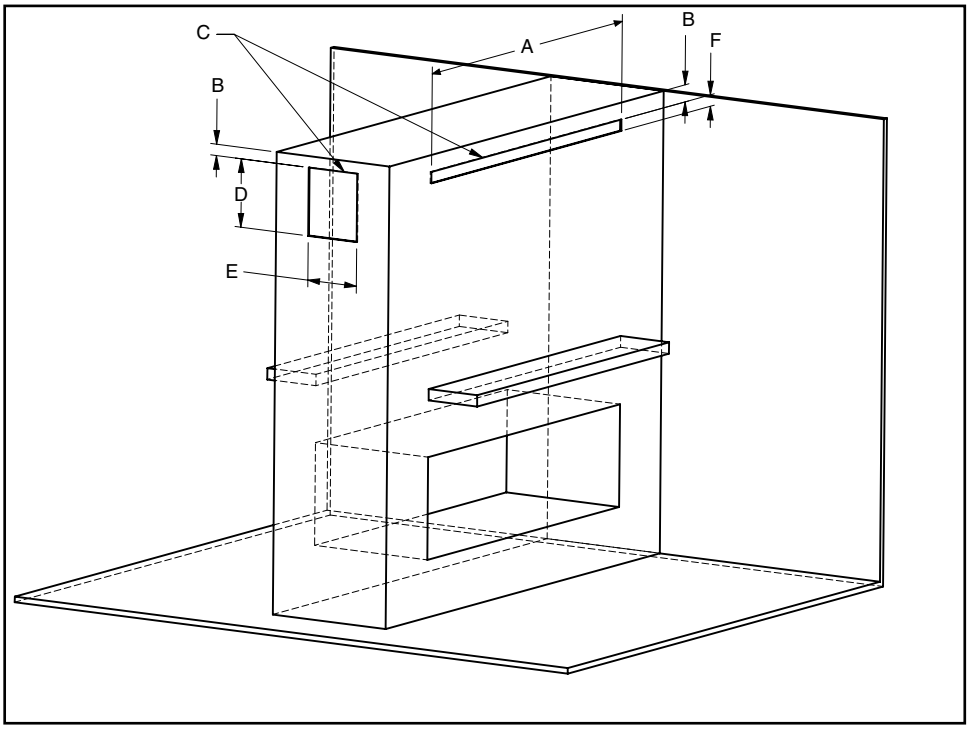
- **When creating any type of ventilation opening, measures should be taken to prevent objects falling or being thrown into the ventilation opening. Mesh screen, louvers, or other protection should be used.**
- **If the ventilation openings are placed in two rooms (two different pressure zones), the ventilation openings must have equally split air openings to balance air flow.**



A	10" (154 mm) min.
B	2" (51 mm) max.
C	120 sq in min.
D	1-1/2" (38 mm) min.

Option 1 - Front

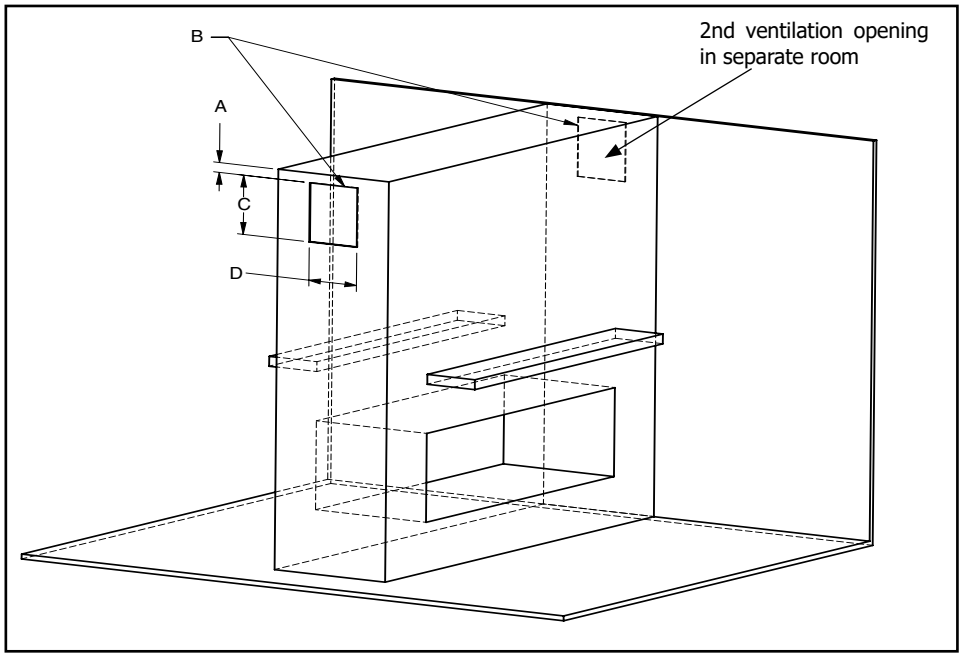
Shown with ventilation openings on the front to meet the minimum requirement of 120 sq. in.



A	10" (254 mm) min.
B	2" (51 mm) max.
C	120 sq. in. min.
D	4" (102 mm) min.
E	10" (254 mm) min.
F	1-1/2" (38 mm) min.

Option 2 - Front/Side

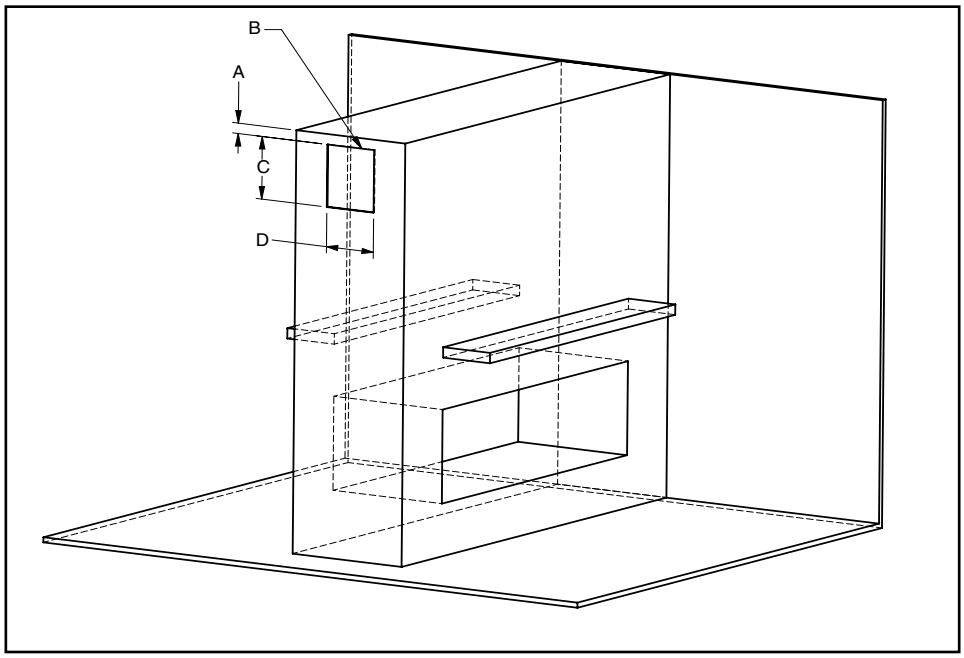
Shown with ventilation openings on side and front (60 sq. in. each) to meet the minimum requirement of 120 sq. in.



A	2" (0 - 51 mm) max.
B	120 sq. in. min.
C	4" (102 mm) min.
D	10" (254 mm) min.

Option 3 - Both Sides

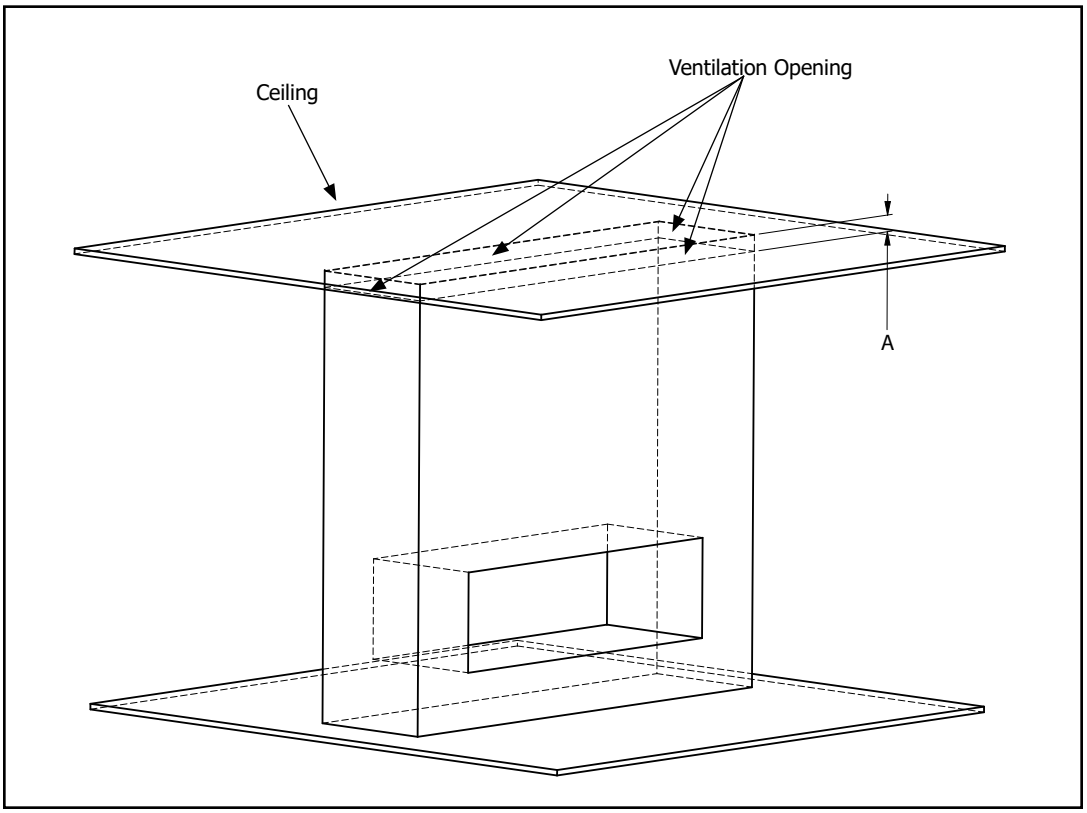
Shown with ventilation openings on both sides (60 sq. in. each) to meet the minimum requirement of 120 sq. in. When ventilation openings are on both sides with the second opening in another room (two different pressure zones), ventilation openings must be the same size to balance air flow.



A	2" (51 mm) max.
B	120 sq. in. min.
C	4" (102 mm) min.
D	10" (254 mm) min.

Option 4 - One Side

Shown with ventilation opening on one side to meet the minimum requirement of 120 sq. in.



A	1-3/4" (44 mm) max.

Option 5 - Reveal at Top

Shown with ventilation opening at top of enclosure to meet the minimum requirement of 120 sq. in. A minimum gap of 1-3/4" (44 mm) between the top of the enclosure and the ceiling is required with this type of ventilation opening, to equal the minimum requirement of 120 sq. in.

Clearances - Bench Installation

The clearances listed below are minimum requirements for either side of this see-through fireplace, unless otherwise noted.

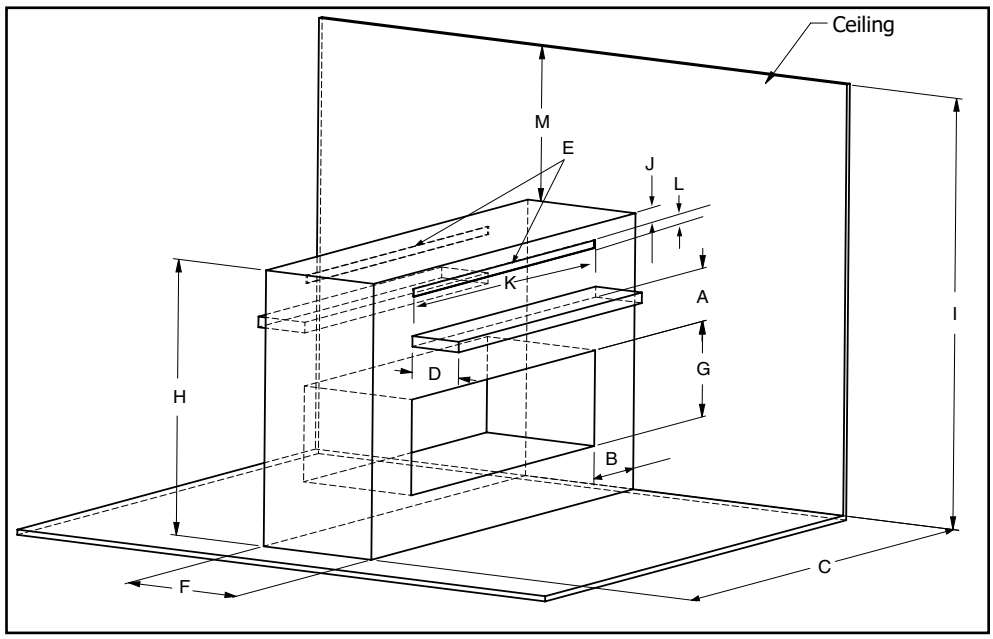
A major cause of chimney-related fires is failure to maintain required clearances (air space) to combustible materials. It is of the greatest importance that

NOTE
- Bench installation is when the chase enclosure height is at a minimum of 52" (1321 mm) to a maximum of 81-1/4" (2064 mm). If the bench installation is completed at the minimum height, a shelf, counter top, or other finsh can be installed.

Clearance	Dimension	Measured From:
A: Mantel height (min.)	**	Top of fireplace opening
B: Sidewall (on one side) min.	8" (203 mm)	Side of fireplace opening
C: Enclosure inside cavity width (min.)	71-3/4" (1822 mm)	Side wall
D: Mantel depth (max.)	**	
E: Convection air outlet (min.)	180 sq. in.	Top, front of enclosure
F: Framing depth (min.)	22-1/4" (565 mm)	From back wall to chase front
G: Opening height	18" (457 mm)	Bottom/top of fireplace opening
H: Chase enclosure (min.)	52" (1321 mm) to 81-1/4" (2064 mm) max.	From base of unit/floor to underside of enclosure top
I: Ceiling height (min.)	81-1/4" (2064 mm)	Measured from base of appliance
J: Convection air outlet opening offset (max.)	2" (51 mm)	Max offset from top of chase enclosure
K: Convection air outlet opening width (min.)	10" (254 mm)	
L : Convection air outlet opening height (min.)	1-1/2" (38 mm)	
M: Ceiling clearance (min.)	3" (76 mm)	Top convection air outlet only
N: Clearance to sprinkler head	36" (914 mm)	Perpendicular from chase grill
Hearth	0"	No hearth required
** See mantel clearances chart in the manual.		
* For clearances greater than 81 1/4" (2064 mm), see flush installation clearances in this manual. The size of the ventilation opening is reduced from 180 sq. in. to 120 sq. in.		

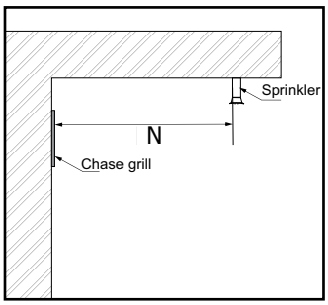
*A minimum of 180 square inches of open area, not lower than 0-2" (51 mm) from top of enclosure, is required for all installations.

CAUTION
- **EXTREME RISK OF FIRE if these clearances (air space) to combustible materials are not adhered to. It is of greatest importance that this fireplace and vent system are installed in accordance with the instructions in this manual.**
- **The top, back, and sides of the fireplace are defined by standoffs. The metal ends of the standoff may <u>NOT</u> be recessed into combustible construction.**



Flue Clearances to Combustibles	
Horizontal - Top	3" (76 mm)
Horizontal - Side	2" (51 mm)
Horizontal - Bottom	2" (51 mm)
Vertical	2" (51 mm)
Passing through wall/ floor/ceiling - when firestop is used.	1-1/2" (38 mm)

NOTES
- This appliance uses 5" x 8" (127 mm x 203 mm) venting for non power vent applications. For power vent applications, vent pipe must be reduced to **4" x 6 5/8" (102 mm x 168 mm).**
- **HeatWave not permitted in bench applications.**

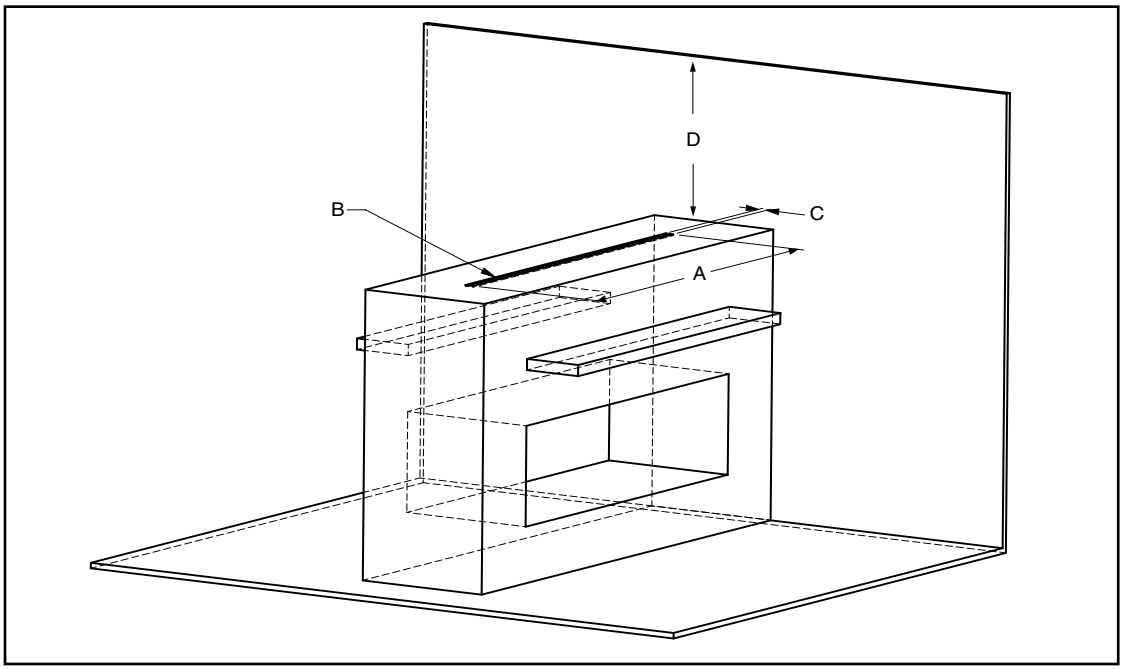


Side view

Bench Installation Examples (Ventilation Openings)

IMPORTANT

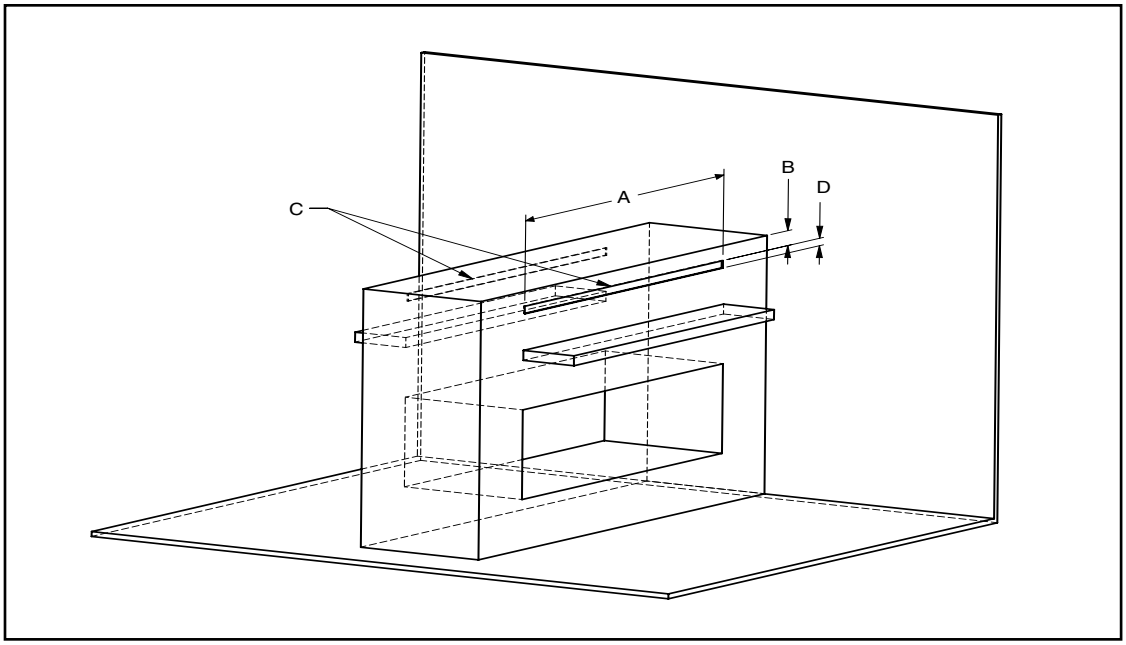
- **When creating any type of ventilation opening, measures should be taken to prevent objects falling or being thrown into it. Mesh screen, louvers, or other protection should be used.**
- ****If the ventilation openings are placed in two rooms (two different pressure zones), the ventilation openings must have equally split air openings to balance air flow.**



A	10" (254 mm) min.
B	180 sq. in. min.
C	1-1/2" (38 mm) min.
D	3" (77 mm) min.

Option 1 - Top

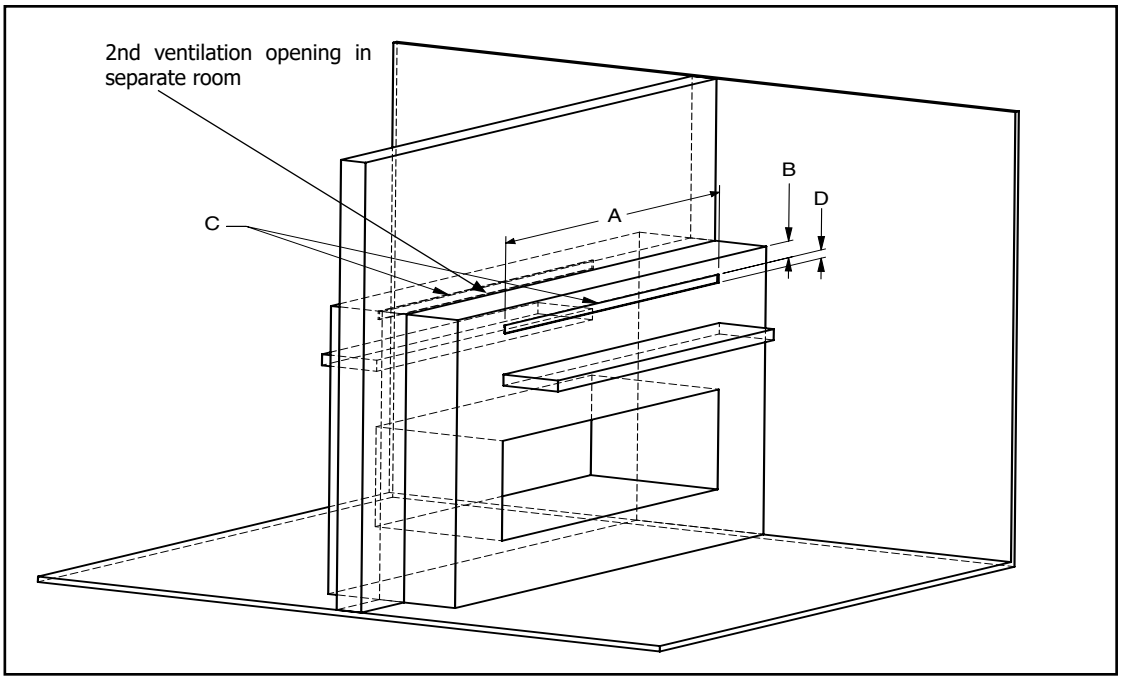
Shown with ventilation opening on top of the enclosure to meet the minimum requirement of 180 sq. in.



A	10" (51 mm) min
B	2" (51 mm) max.
C	90 sq. in. front and back
D	1-1/2" (38 mm) min.

Option 2 - Front and Back

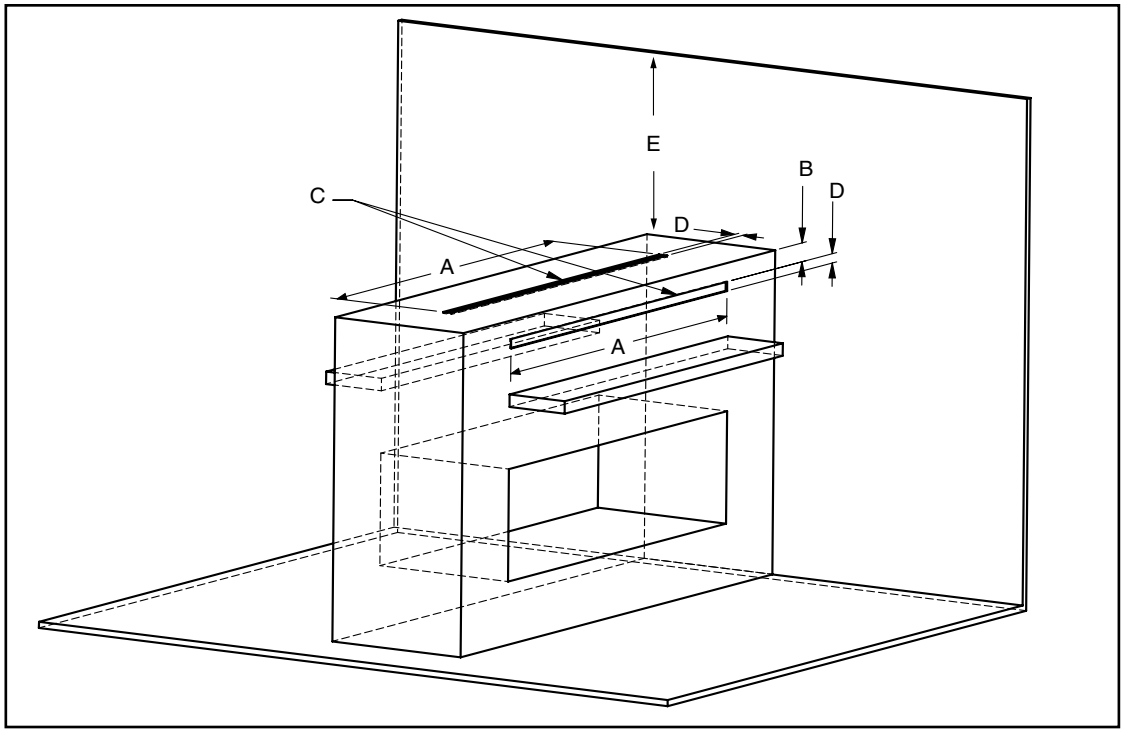
Shown with ventilation openings on the front and back (90 sq. in. each) of the enclosure to meet the minimum requirement of 180 sq. in.



A	10" (51 mm) min
B	2" (51 mm) max.
C	90 sq. in. front and back
D	1-1/2" (38 mm) min.

****Option 3 - Front/Back Wall with second ventilation in separate room**

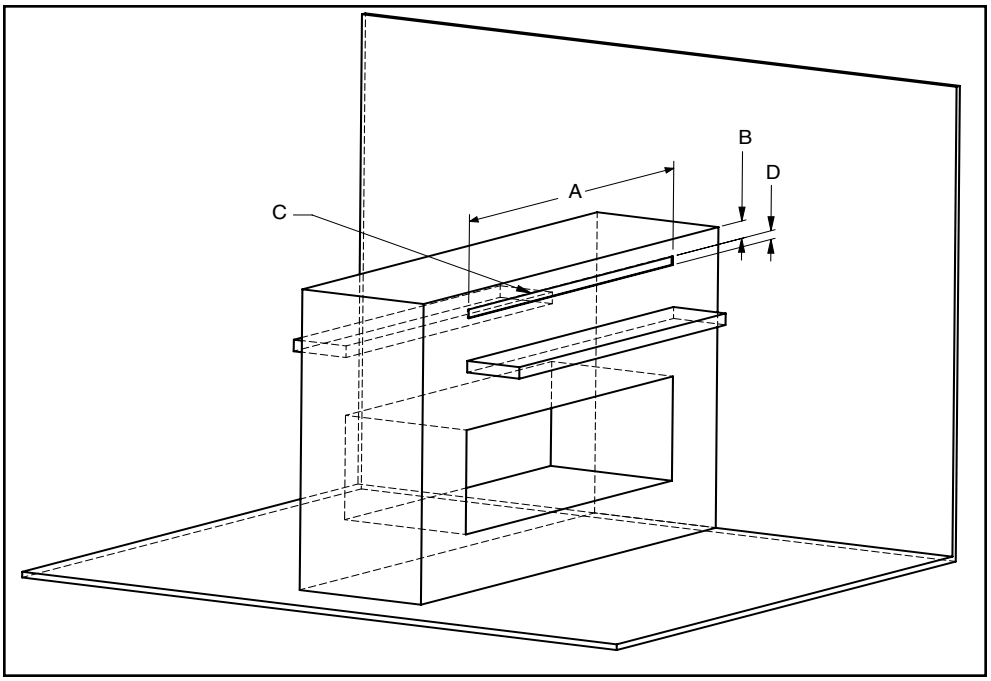
Shown with ventilation opening on front and back (90 sq. in. each) to meet the minimum requirement of 180 sq. in. When on the front and back with second ventilation located in another room (two different pressure zones), ventilation openings must be the same size and have equally split air openings to balance air flow.



A	10" (254 mm) min.
B	2" (51 mm) min.
C	180 sq. in min.
D	1-1/2" (38 mm) min.
E	3" (77 mm) min.

Option 4 - Top and Front

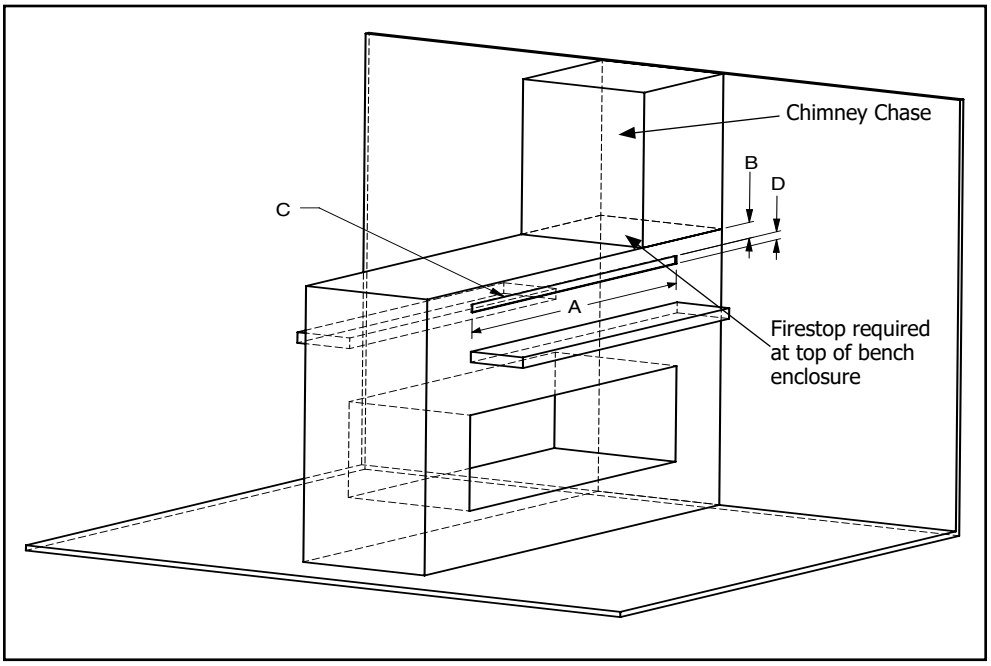
Shown with ventilation opening on top and front (90 sq. in. each) to meet the minimum requirement of 180 sq. in.



A	10" (254 mm) min.
B	2" (51 mm) min.
C	180 sq. in min.
D	1-1/2" (38 mm) min.

Option 5 - Front

Shown with ventilation opening on the front to meet the minimum requirement of 180 sq. in.



A	10" (254 mm) min.
B	2" (51 mm) min.
C	180 sq. in min.
D	1-1/2" (38 mm) min.

Option 6 - Chimney Chase

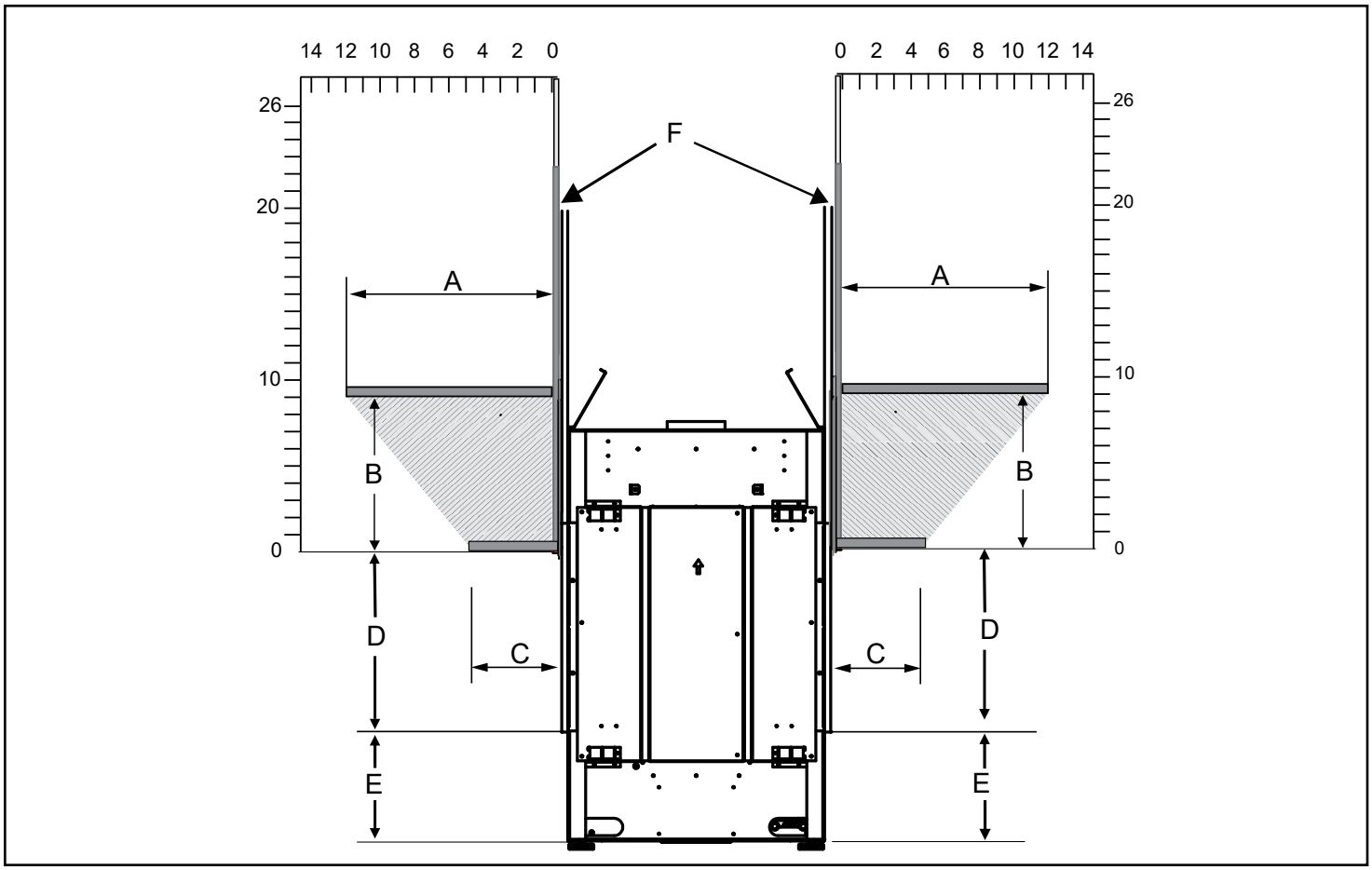
Shown with ventilation opening on the front with a chimney chase to meet the minimum requirement of 180 sq. in.

IMPORTANT

The chimney chase must be sealed with a firestop to prevent heat from escaping into the chimney chase enclosure. All heat must exit through the ventilation openings.

Mantel Clearances

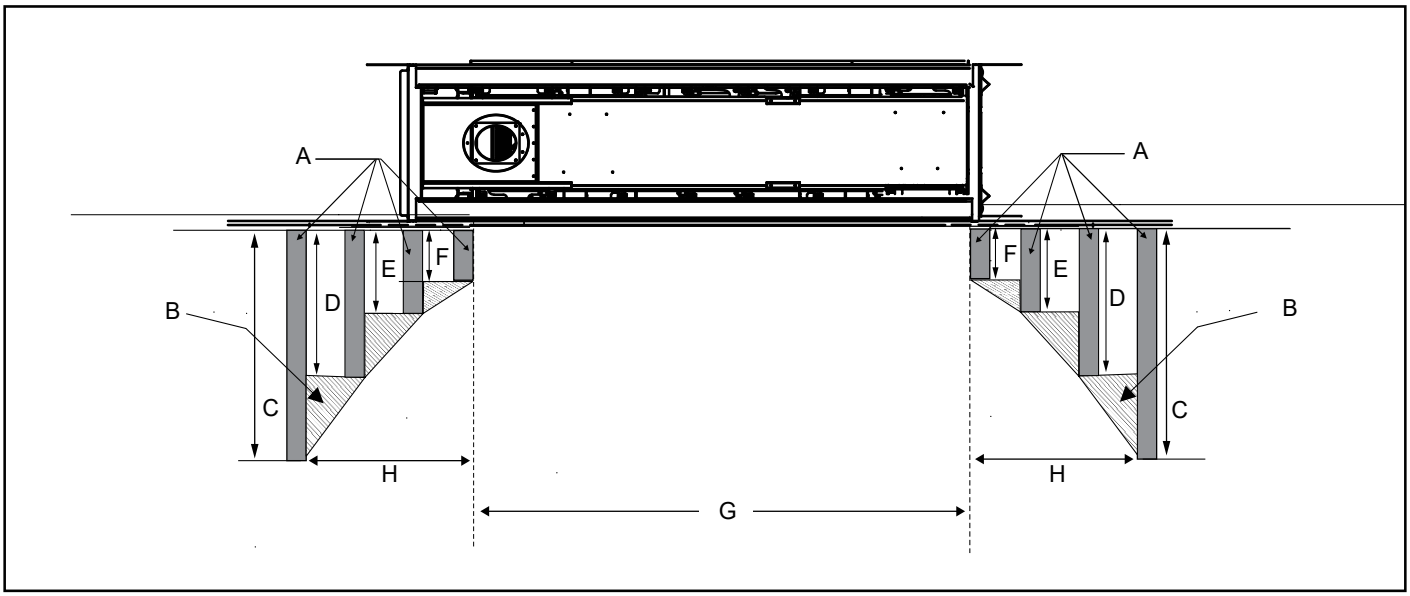
Combustible mantel clearances from top of front facing are shown in the diagram below.



A	12" (305 mm) maximum
B	9" (229 mm)
C	5-1/4" (133 mm) maximum
D	18-1/16" (459 mm)
E	10-1/4" (260 mm) - from base of unit to bottom of fireplace
F	1/2" Drywall, wood, wood panel, etc.

Mantel Leg Clearances

Combustible mantel leg clearances as per diagram.



A	Mantel Leg
B	Allowable mantel leg projection
C	12" (305 mm)
D	9" (229 mm)

E	7" (179 mm)
F	5" (127 mm)
G	60-5/16" (1532 mm) - measured from side lip finishing
H	10-1/4" (260 mm)

NOTE
- One side shown. Clearances are the same on the other side.

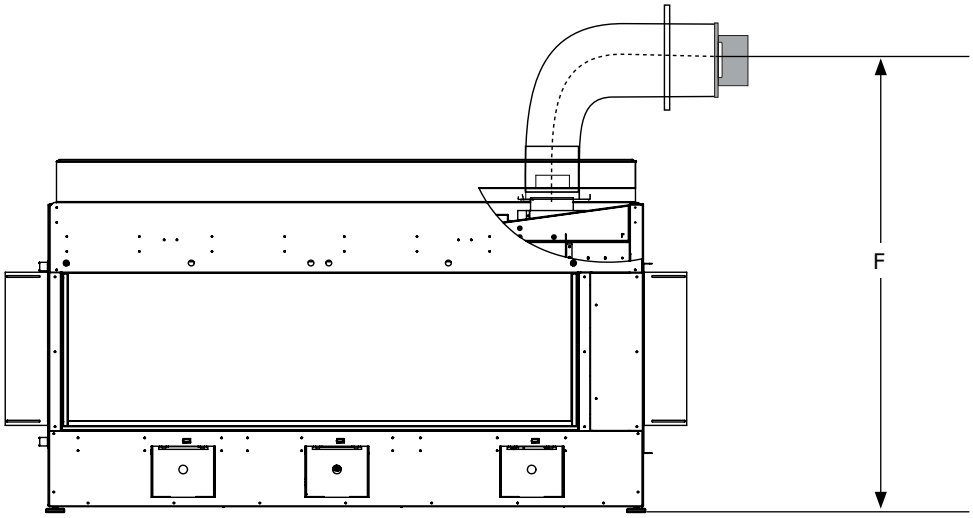
Framing Dimensions

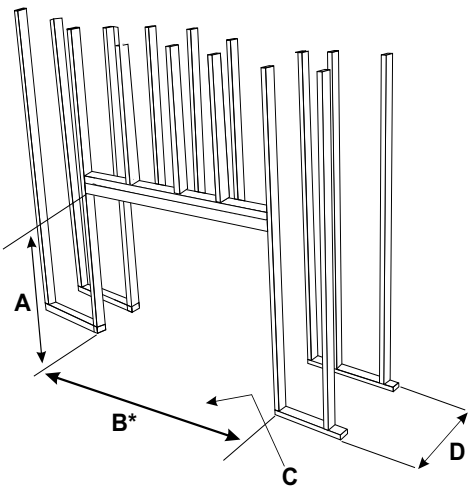
NOTE
- Framing may be constructed of combustible material (i.e. 2 x 4 or 2 x 6) and does not require steel studs.

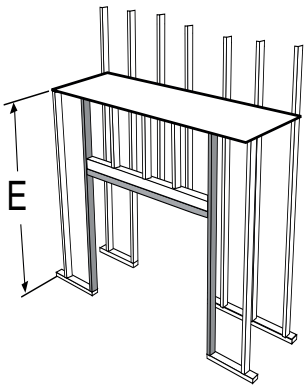
Framing Dimensions	Description	CST60E
A	Framing height	For 2" x 4": 45-1/8" (1146 mm) For 2" x 6": 52" (1321 mm)
B*	Framing width	71-3/4" (1822 mm)
C	Finished floor or hearth	
D	Framing depth	22-1/4" (565 mm)
E	Minimum height to combustibles	BENCH: 52" (1321 mm) FLUSH: 81-1/4" (2064 mm)
F	Minimum height to flue centerline measured from base of appliance	46-1/4" (1175 mm)

*The lift handles add approximately 4 inches to the width of the appliance. If the appliance will be lifted off the ground and slid into the framed opening, we suggest changing the framing width from 71-3/4" (1822 mm) to 75-11/16" (1922 mm) to allow the appliance to slide into position with the handles on, or creating a platform in front of the framed opening where the lift handles can be removed prior to installation. If the framing is raised off the ground, you can install it after the appliance is in place with handles removed to maintain the framing width of 71-3/4" (1822 mm). Ensure that the wood base for the appliance is strong enough to support its shipping weight of 556 pounds (252 kg).

NOTES
- Framing may be constructed of combustible material (i.e. 2 x 4 or 2 x 6) and does not require steel studs.
- This appliance must be installed on a solid surface such as a plywood floor which must be the full width and depth of the appliance.
- A combined minimum of 180 square inches of open area for the bench installation and 120 square inches for the flush installation is required for the convection air outlet to cool the enclosure. Ensure clearances for convection air outlets are met.
- See clearances in this manual for different ways to achieve this.

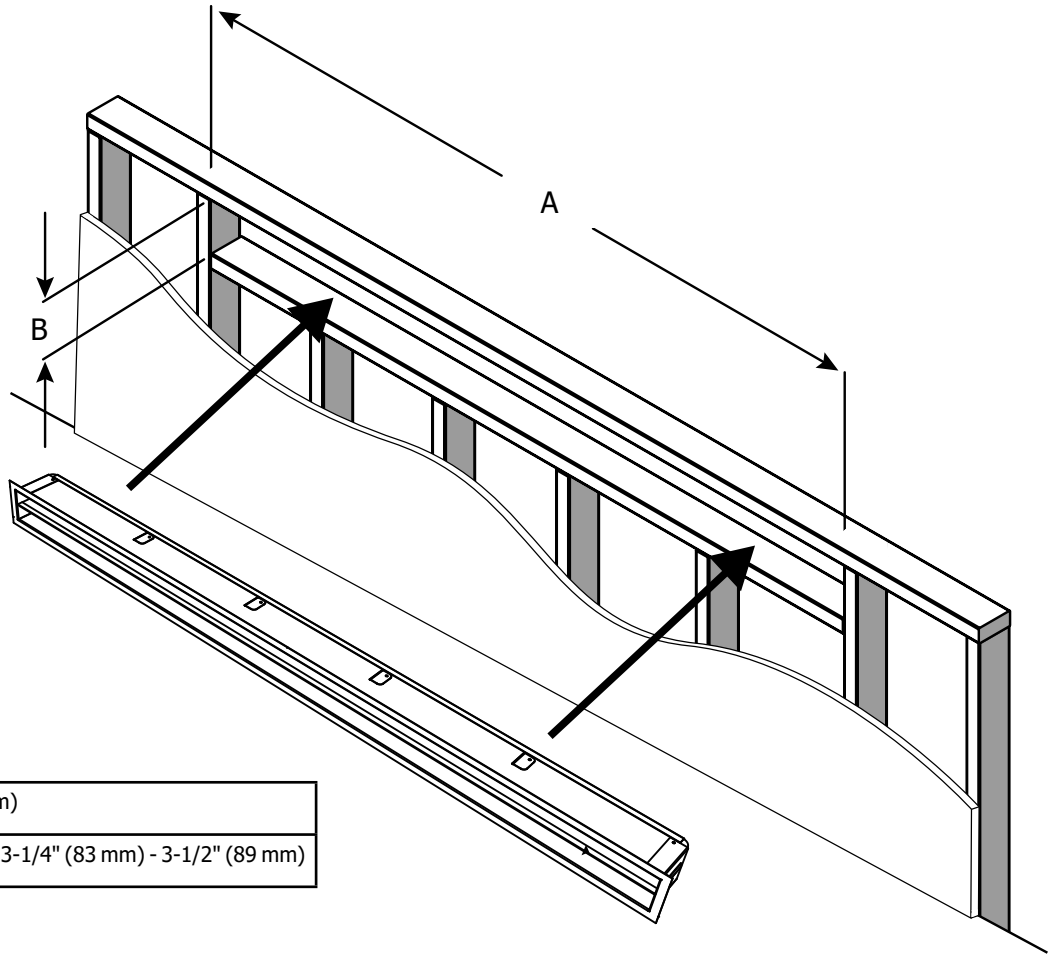




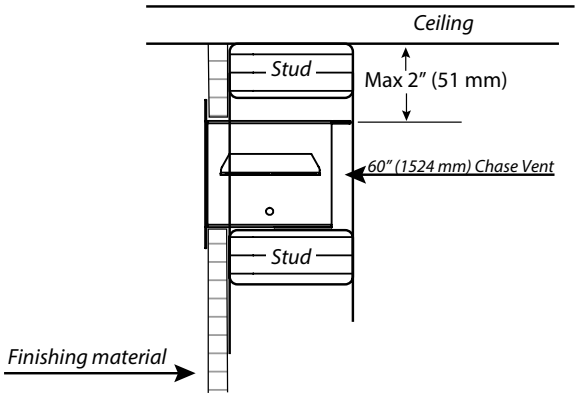


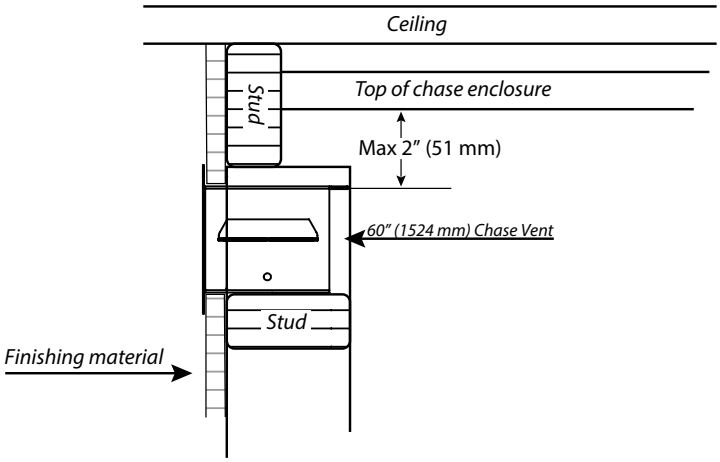
Chase Vent Installation (White Front) (Part # 686-991)

NOTE
- This chase vent is only used when accommodating a 180 sq. in. ventilation opening.



A	60-1/2" (1537 mm)
B	Opening for vent: 3-1/4" (83 mm) - 3-1/2" (89 mm)





Wall Board/Drywall Installation

Finishing Instructions

It is important to follow the framing and finishing instructions in this manual to ensure proper placement of the fireplace in the surrounding materials. Wall board materials 1/2 in. (13 mm) thick are specified in this manual to align with the optional finishing methods offered with this appliance. The CST60E may be finished to the appliance opening with 1/2 inch (13 mm) thick drywall.

• Ensure that the back and side clearances are maintained.

WARNING

- **Risk of Fire!**
- **Maintain specified air space clearances to combustibles. Inadequate air space could cause overheating and fire.**
- **DO NOT use screws more than 1/2 inch (13 mm) in length on the lower access cover panel. Longer screws may penetrate the gas line or damage valve or electrical components.**
- **DO NOT apply combustible materials beyond the minimum clearances. Comply with all minimum clearances to combustibles specified in this manual. Overlapping materials could ignite and will interfere with proper operation.**

NOTE

- It is acceptable to use a high temperature silicone sealant to adhere drywall to the lower access cover panel.

The appliance is designed for use with minimum 1/2 in. (13 mm) wall sheathing such as drywall, plywood, wood composites, or non-combustible materials. Thicker materials may be used; refer to facing and finishing details in this manual.

FACING MATERIAL

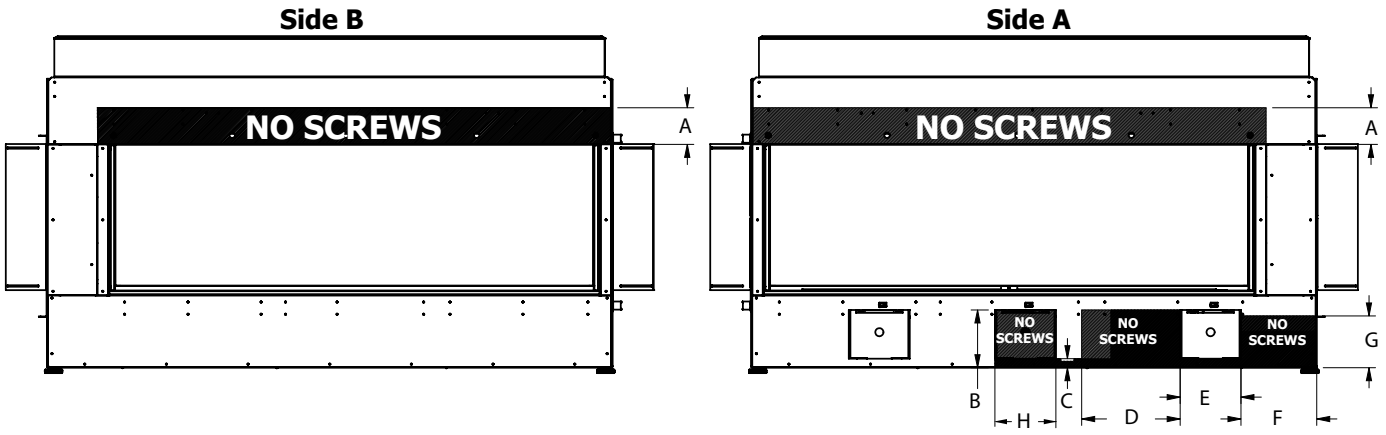
• Facing and/or finishing materials must never overhang the glass opening. See finishing details in this manual.
• Facing materials may be combustible or non-combustible.

PAINTING

If desired finishing includes a painted wall, 100% acrylic latex, oil-based, or standard acrylic paints may be used. Follow paint manufacturer's instructions for paint and primer application.

No Screw Zones

No screw zones (in shaded areas) as shown below must be adhered to.



A	4-1/2" (114 mm)	**E**	7-1/2" (191 mm)
B	7-1/8" (181 mm)	**F**	9-5/16" (237 mm)
C	1-1/8" (29 mm)	**G**	6-3/8" (162 mm)
D	12-1/8" (308 mm)	**H**	7-1/2" (191 mm)

Framing and Finishing Inset Installations

1. Frame the enclosure for the unit with framing material.

> **NOTE** When constructing the framed opening, ensure there is access to install the gas lines and electrical. Also, the wiring harness must be wall mounted using the receptacle provided with the appliance. The wiring harness is located on the right side of the appliance if facing it from the front. This must be done prior to any finishing.

2. For exterior walls, insulate the enclosure to the same degree as the rest of the house and apply vapour barrier and drywall, as per local installation codes. Do not insulate the fireplace itself.

> **WARNING** **Failure to insulate and add vapor barriers to the inside of the exterior wall will result in operational and performance problems including, but not limited to: excessive condensation on glass doors, poor flame package, carbon, blue flames, etc. These are not product related issues.**

3. One of the following methods must be used to prevent heat from escaping into the cavity of the enclosure:
   a. If choosing drywall, joints MUST be sealed using drywall tape and mud.
   b. Insulation, plywood, wood studs, etc. must be installed tightly with no gaps or seams.

   This appliance was designed with hot air escaping through the chase enclosure ventilation grills only. If hot air is trapped as a result of it escaping through joints, crevasses, open studs, or other openings within the enclosure, this will change the clearances within the enclosure, causing it to overheat. It is vital that all the hot air exits through the ventilation openings only. Using the optional HeatWave kit does not reduce the size of the ventilation grill, which must be a minimum of 120 square inches (flush installation) or 180 square inches (bench Installation), regardless.

> **NOTE** In all applications, while there is zero clearance to combustibles to the unit, all clearances to combustibles from the venting inside the chase still apply. Please see venting clearances in the specific product manual.

4. Combustible material (drywall,wood,wood panels, etc.) may be brought up to the appliance (top, bottom, and sides)

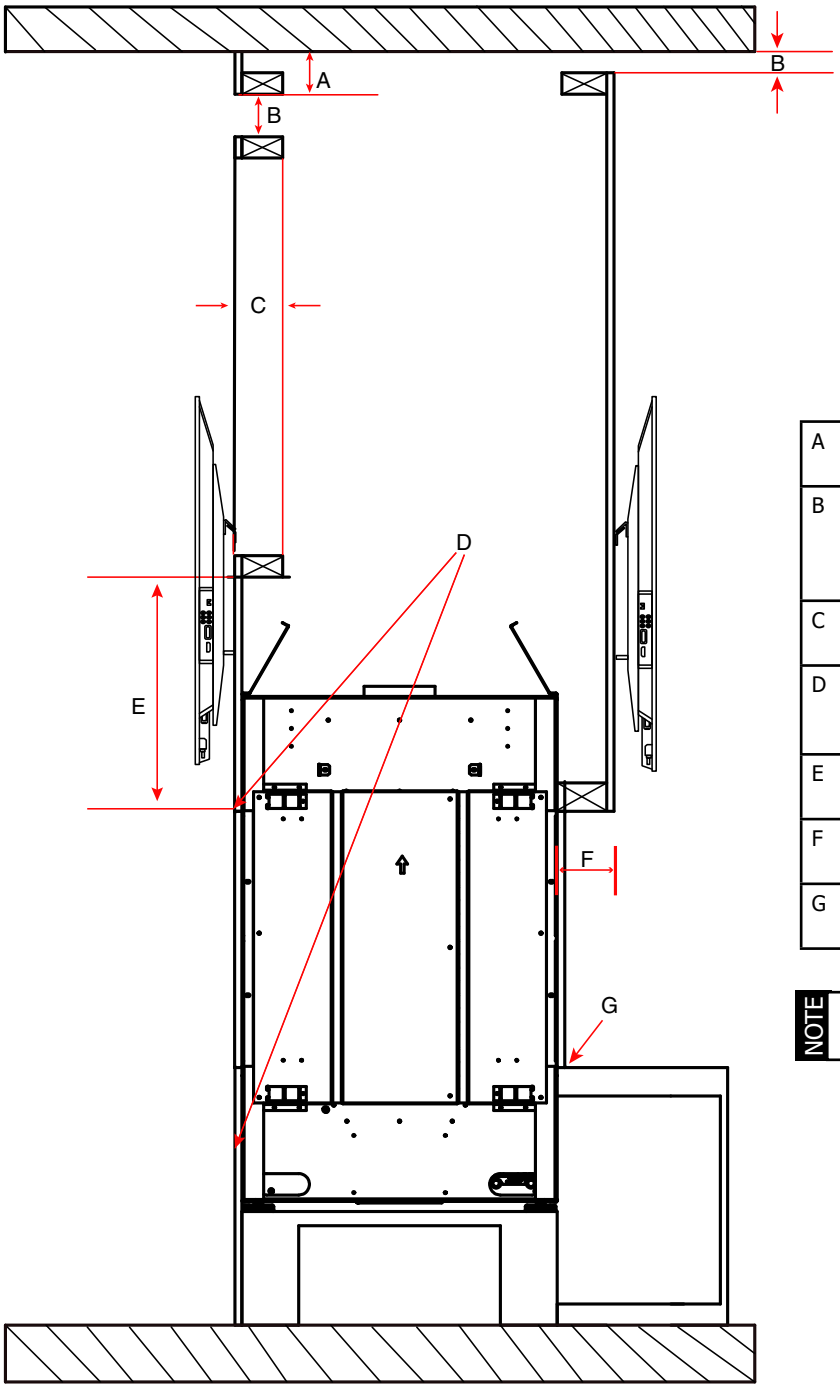
5. Ensure that the material used does not encroach anywhere in the area of the glass. This causes dangerous operating conditions.

6. This appliance comes with a 1/2" (13 mm) lip at the top, sides, and bottom to hide the ends of the drywall. The 1/2" (13 mm) side and bottom lip supplied with the appliance can be replaced (see Diagram 1) with J style trim or metal corner bead purchased at your local hardware store to cover cut/exposed edges of the combustible facing material or any other finishing. Six screws secure the bottom lip — see Diagram 1. These are hidden - the outer panels will need to be removed to access them. See outer panel removal instructions in this manual.

7. This appliance can also be recessed (using combustible materials) with a hearth in front that can extend to the top. See manual for details.

> **NOTE** Combustible material may extend a minimum of 1/2" (13 mm) up to a maximum of 5-1/4" (133 mm) from the front top (with larger glass). See mantle clearance chart for details. The base and side (with smaller glass) have no limit on how far the combustible material extends from the appliance. Ensure that no material encroaches anywhere in the area of the glass as defined by the finishing lip surrounding the appliance.

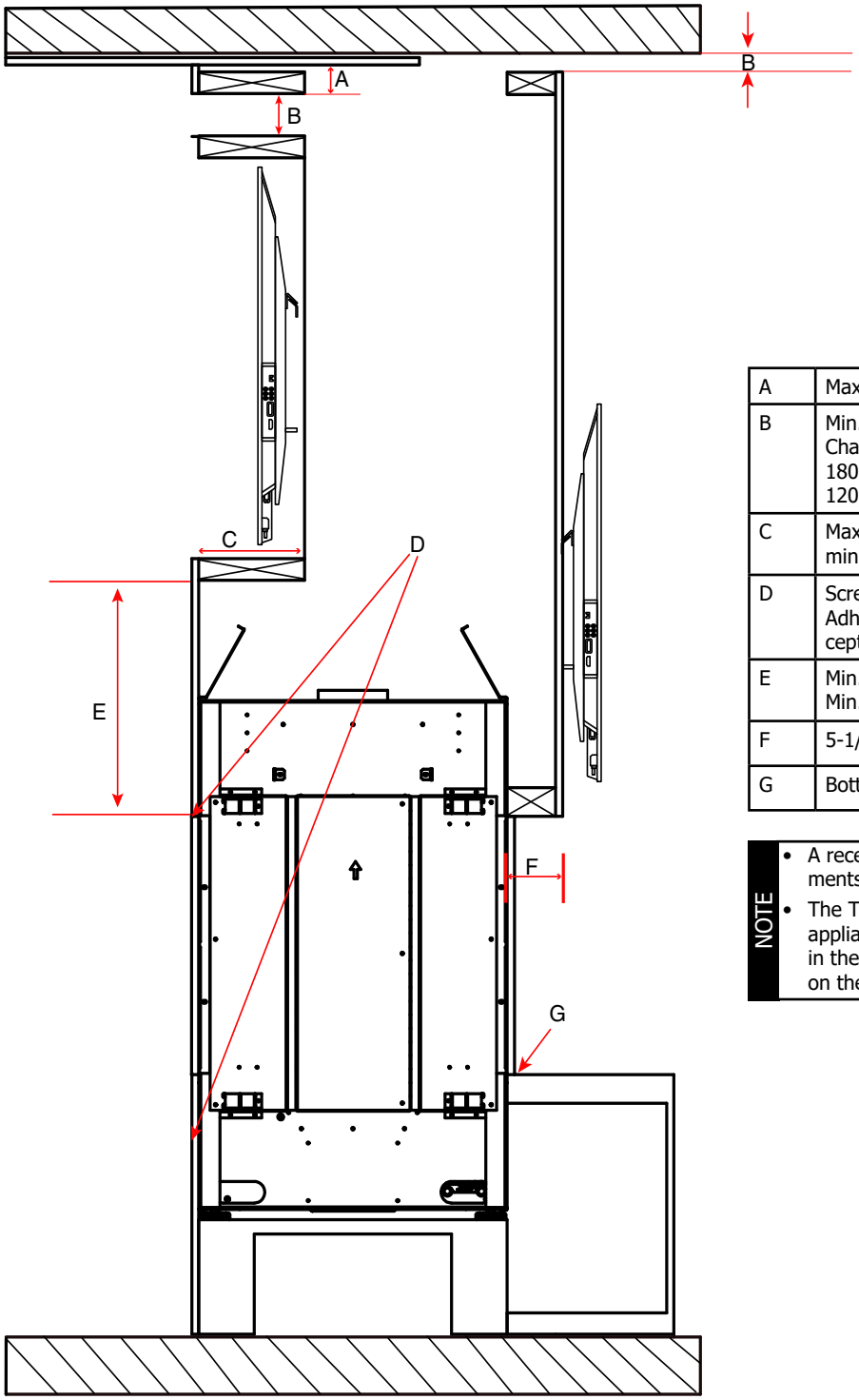
Typical Installations - Flush TV Install



A	Max. 2" (51 mm) to top of enclosure
B	Min. 1-1/2" (38 mm) Chase vent min. open area: 180 sq. in. Bench Install 120 sq. in. Flush Install
C	Max. 5-1/2" (140 mm) (2 x 6 stud) See E for corresponding min. height requirements.
D	Screws must not penetrate unit more than 1/2" (25 mm). Adhere to "No Screw" zones painted on unit; glue is an acceptable alternative.
E	Min. 16-1/2" (419 mm) with 2 x 4 - dimension C Min. 23-3/8" (594 mm) with 2 x 6 diemnsion C
F	Maximum 5-1/4" (133 mm)
G	Bottom of fireplace opening - combustible hearth shown.

NOTE A recess may be used on both sides if the clearance requirements shown above are adhered to.

Typical Installations - Recessed TV Install



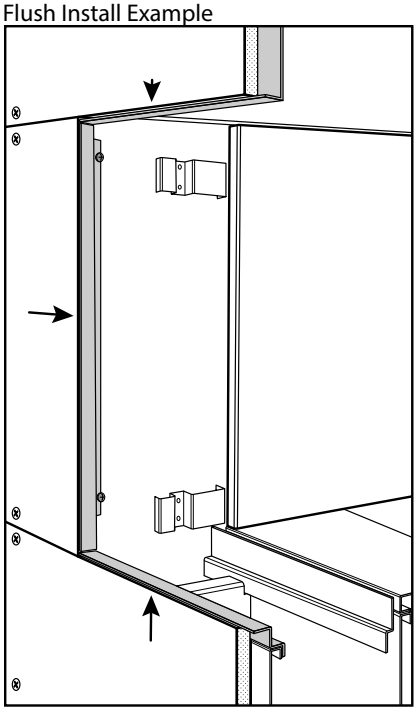
A	Max. 2" (51 mm) to top of enclosure
B	Min. 1-1/2" (38 mm) Chase vent min. open area: 180 sq. in. (bench Install) 120 sq. in. (fush Install)
C	Max.: 5-1/2" (140 mm) 2 x 6 stud. See E for corresponding min. height requirements.
D	Screws must not penetrate unit more than 1/2" (25 mm). Adhere to "No Screw" zones painted on unit. Glue is an acceptable alternative.
E	Min. 16-1/2" (419 mm) with 2 x 4 - dimension C Min. 23 3/8" (594 mm) with 2 x 6 - dimension C
F	5-1/4" (140 mm) maximum
G	Bottom of fireplace opening - combustible hearth shown.

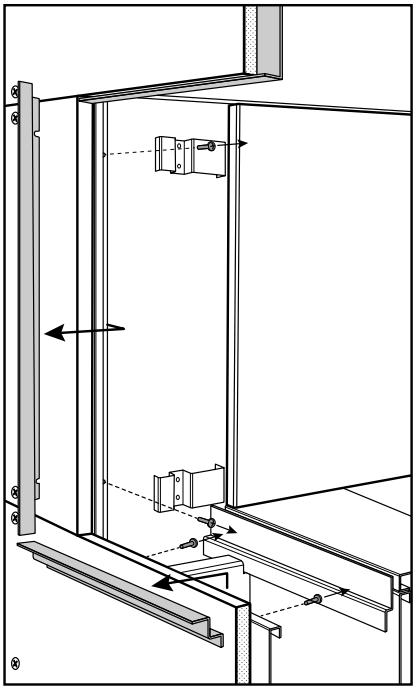
NOTE

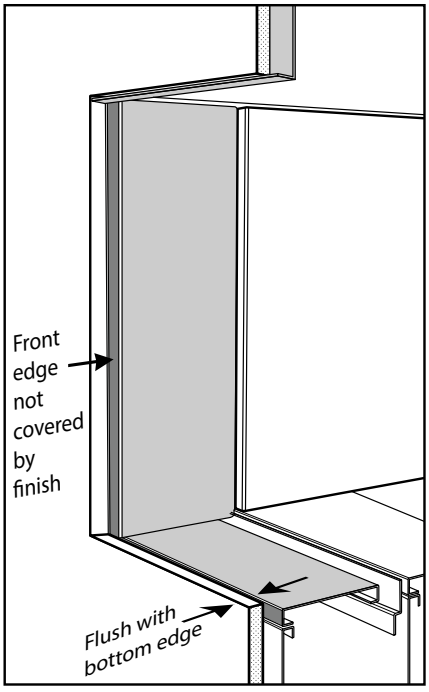
- A recess may be used on both sides if the clearance requirements shown above are adhered to.
- The TV mounting bracket cannot be secured directly to the appliance-it must be secured to the framing. The TV depicted in the image above may require a higher placing, depending on the style of the TV and the mounting bracket used.

Finishing

Flush Install Example







- Finish up to trim on all 4 sides

- Loosen screws using supplied Offset Screwdriver and remove bottom and side trim pieces

- Front edge of side liner panels must not be covered by finishing material or removal of the Firebox Glass will not be possible
- Bottom edge should be flush with top surface of Inner Liner Panel

Recess Install Example