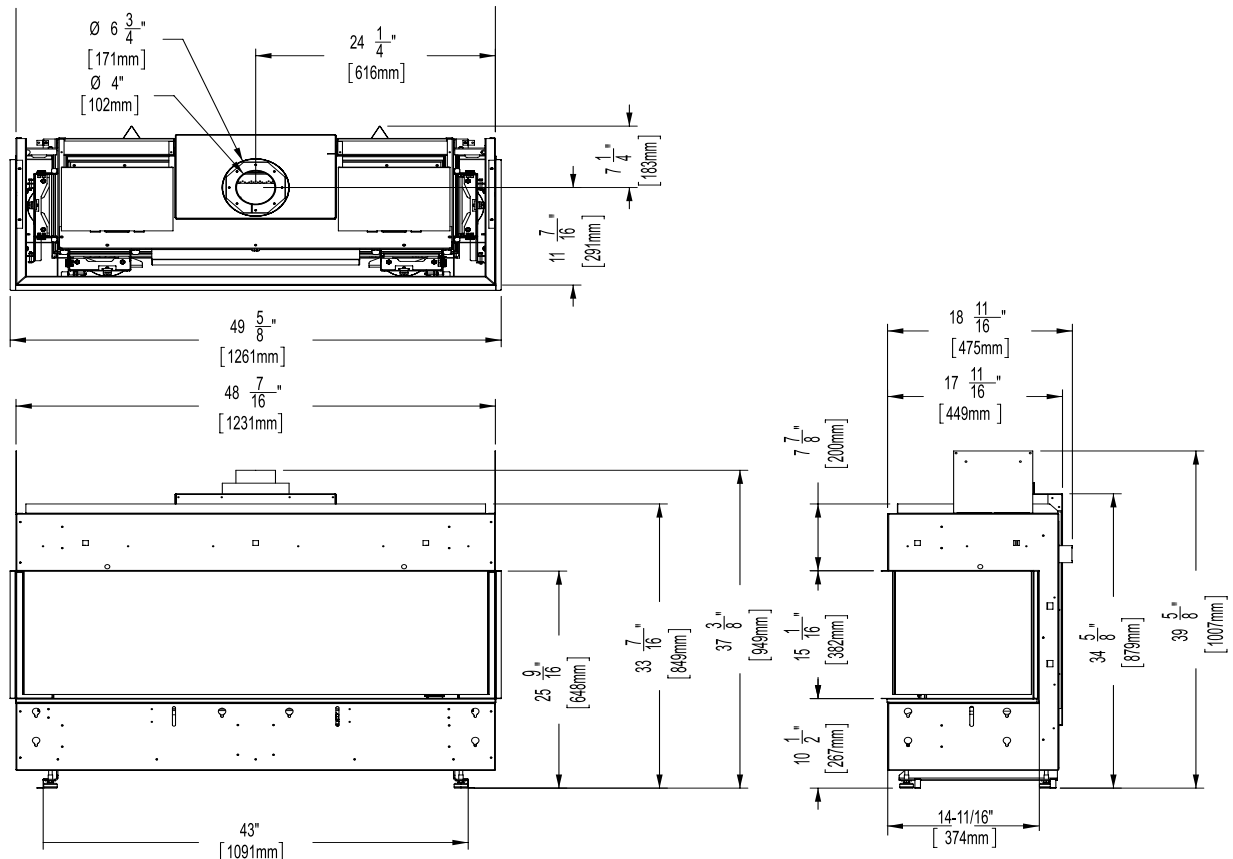


# City Series CB40E-12 Direct Vent Gas Fireplace

Model	CB40E-NG12	CB40E-LP12
Fuel	Natural Gas	Propane
Minimum Supply Pressure	5" W. C. (1.25 kPa)	11" W.C. (2.73 kPa)
Manifold Pressure - High	3.8" W. C. (0.94 kPa)	10.5" W.C. (2.61 kPa)
Manifold Pressure - Low	1.1" W.C. (0.27 kPa)	2.9" W.C. (0.72 kPa)
Orifice Size Altitude 0-4500 pi (0-1372 m)	#42 DMS	#53 DMS
Minimum Input Altitude 0-4500 pi (0-1372 m)	15,500 Btu/h (4.54 kW)	15,500 Btu/h (4.54 kW)
Maximum Input Altitude 0-4500 pi (0-1372 m)	28,500 Btu/h (8.35 kW)	28,500 Btu/h (8.35 kW)
Vent Sizing	4" Inner / 6-5/8" Outer	4" Inner / 6-5/8" Outer
CSA P.4.1	55.23%	56.06%



## DIMENSIONS



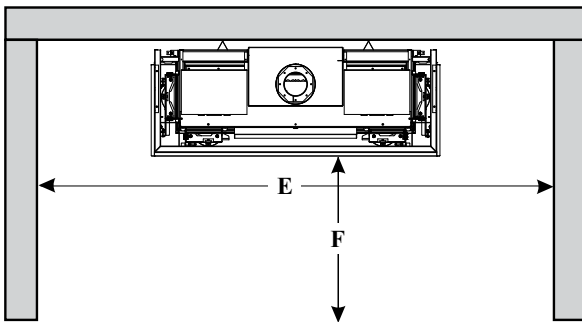
## CLEARANCES

Clearance: 3 sided	Dimension	Measured From:
A: From Floor	Min. 0"	Bottom of Fireplace Opening
A1 : Mantel Height (min.)	**	Top of Fireplace Opening
B: Sidewall (on one side)	8-1/2" (216 mm)	Side of Fireplace Opening
C: Enclosure Width (min.)	48-7/16" (1230 mm)	Minimum inside dimensions
D: Mantel Depth (max.)	**	
E: Alcove Width	84" (2134 mm)	Side wall to side wall (min.)
F: Alcove Depth	36" (914 mm)	Front of Unit
G: To Enclosure Ceiling (min/max)	0-3" (0-76 mm)	From top of enclosure
H: Convection Air outlet	120 sq. inches (0.07 sq. meters) (min)	* Top/front or side of enclosure
I: Enclosure Depth (min.)	19" (483 mm)	Minimum inside dimensions
J: Opening Height	15-1/16" (383 mm)	Bottom/Top of Fireplace Opening
K: To Ceiling (min) All 3 sides	1-1/2" (38 mm)	To Top of Ceiling
L: Chase Enclosure (min.)	63" (1600 mm)	From base of unit/floor
M: Clearance to sprinkler head (Min.)	36" (914 mm)	Perpendicular from chase grill
Hearth	0"	No hearth required

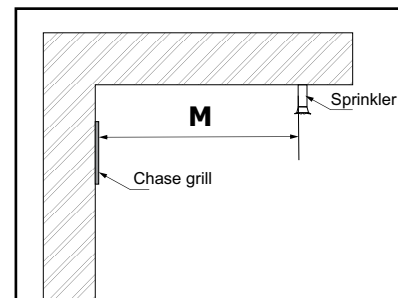
\*\* See mantel clearances chart in this section

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)

\* A minimum of 120 square inches of open area, not lower than 3" (76 mm) from top of enclosure, required for all installations — this can be achieved by having an open area in front, each side, and/or above as shown in the four diagrams on the next page.



Alcove



Side view

<b>Heat Wave</b>	The <b>HeatWave</b> Duct Kit has different clearance and framing requirements, check the <b>HeatWave</b> manual for details.
------------------	--

**Caution Requirements**

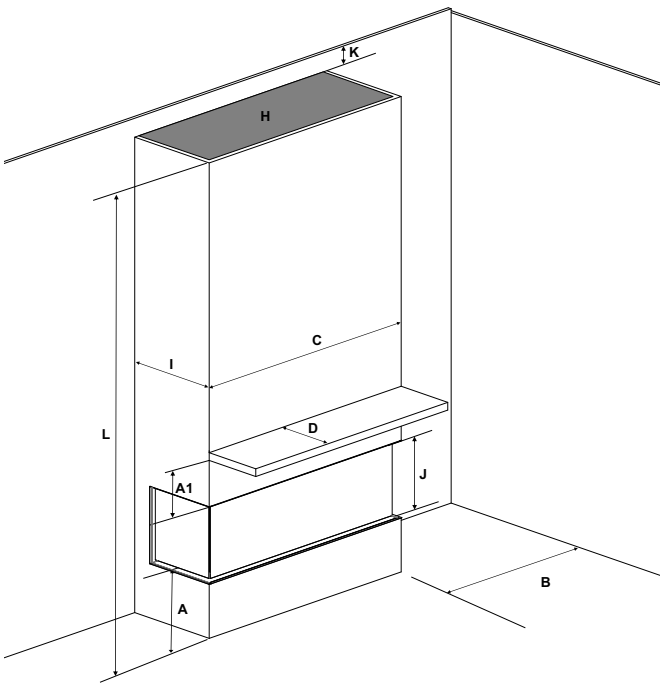
The top, back and sides of the fireplace are defined by standoffs. The metal ends of the standoff may **NOT** be recessed into combustible construction.

**WARNING**

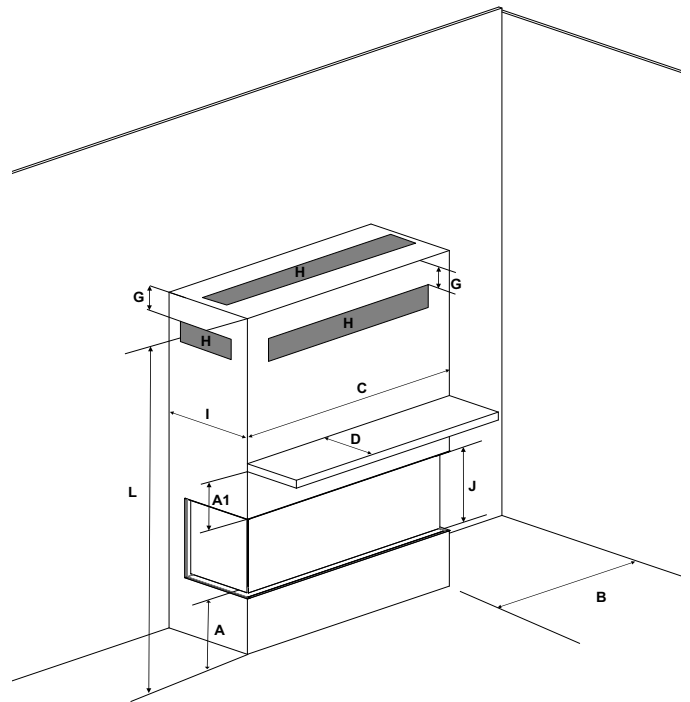
**Fire hazard is an extreme risk**

**if these clearances (air space) to combustible materials are not adhered to. It is of greatest importance that this fireplace and vent system be installed only in accordance with these instructions.**

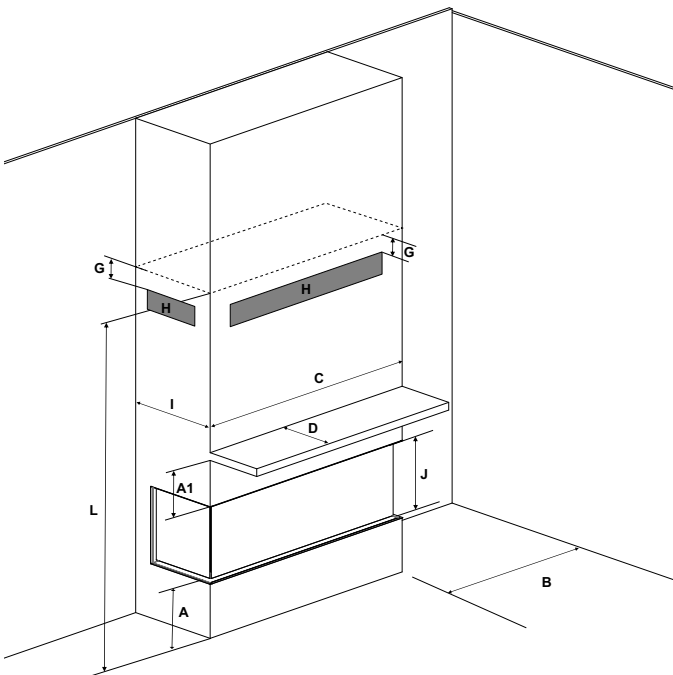
## CLEARANCES



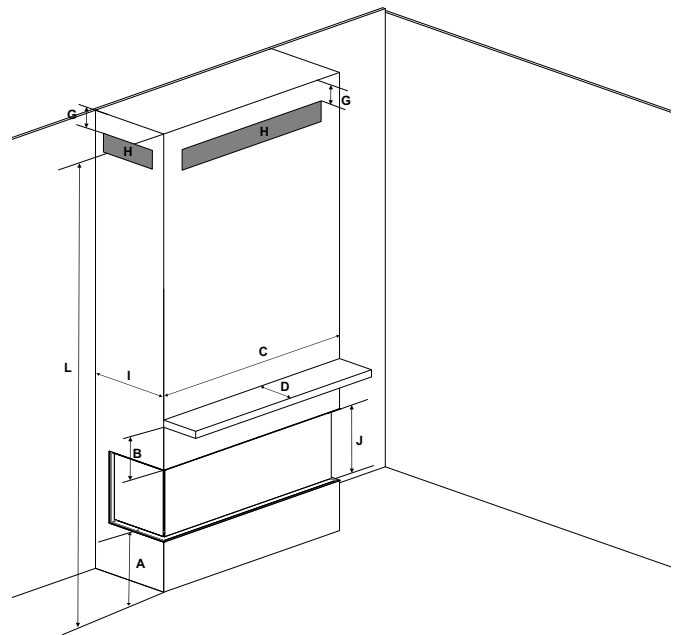
Floor to ceiling with top opening



Low framing with vents in front/2 sides or top



Full framing with low vents in front or 2 sides

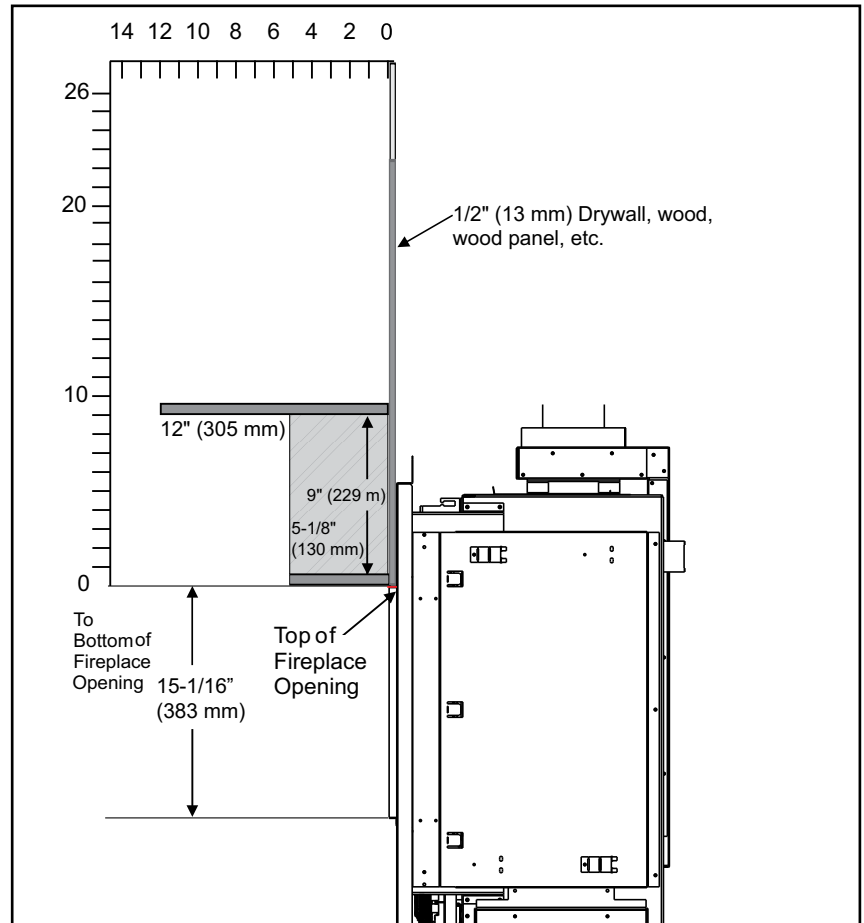


Full framing with vents in front or 2 sides

**Note: The ventilation opening may only be placed above, on both sides and in front as shown above. Ventilation grills can never be placed behind the appliance.**

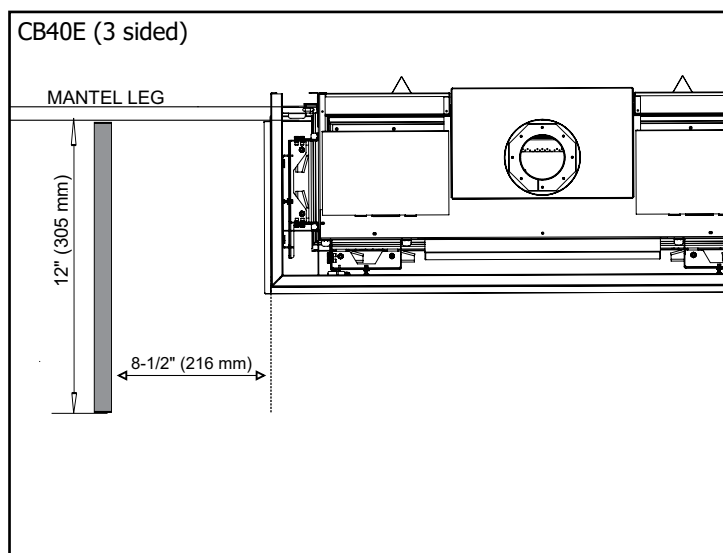
## MANTEL CLEARANCES

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



## Mantel Leg Clearances

Combustible mantel leg clearances as per diagram:



## Framing Dimensions

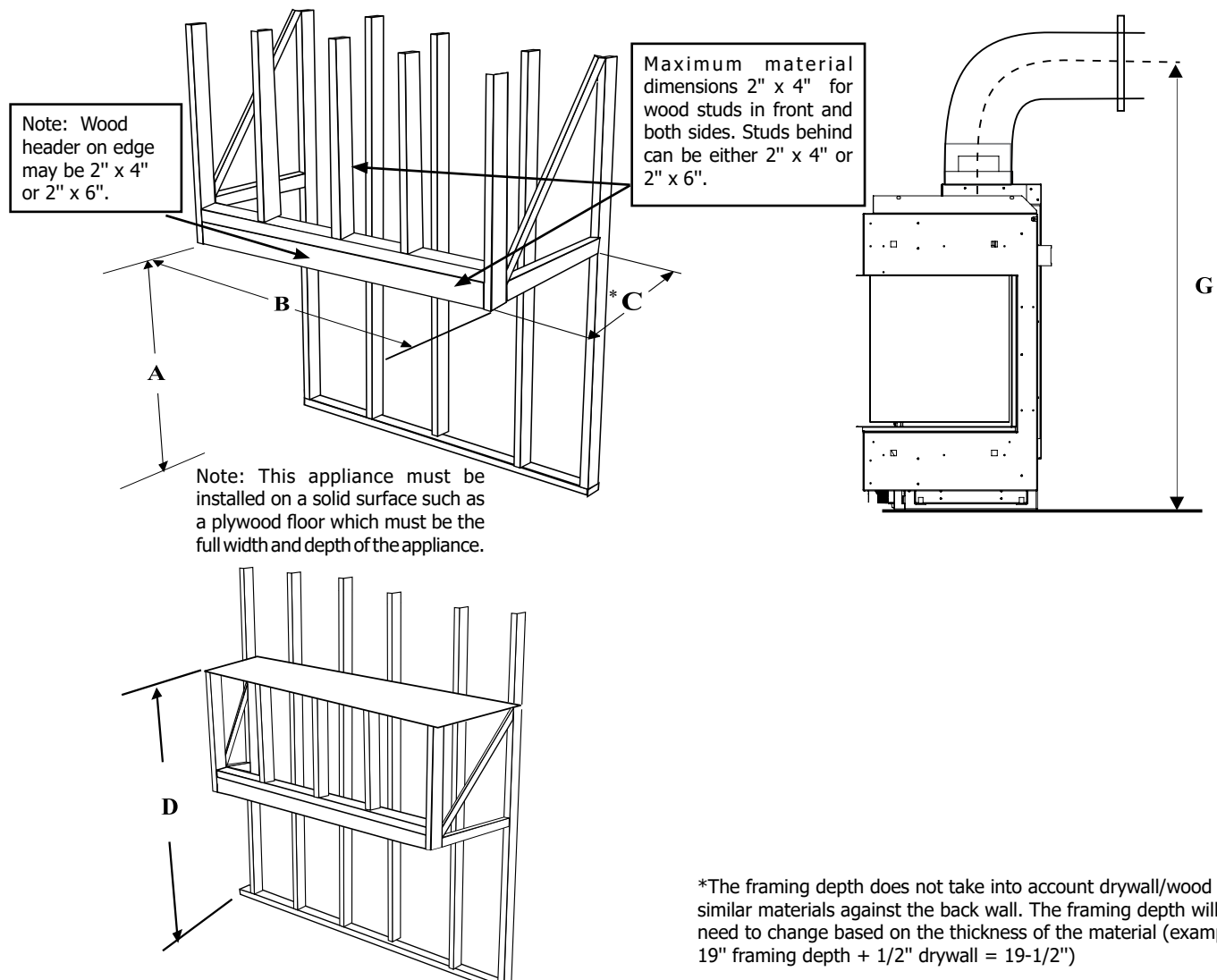
**NOTE:** Framing may be constructed of combustible material (ie. 2x4) and does not require steel studs. Two (2) optional steel stud kits may also be purchased. These kits may be used in place of the conventional wood framing as shown below. It comes as a compact kit (flush to the appliance on all sides) or an extended kit. The extended kit protrudes beyond each side of the appliance as shown on the front cover of this manual. There is also an optional hearth kit which may be purchased as shown on the front cover of this manual. These kits are highly recommended as it was designed specifically for the product to facilitate ease of installation. See instructions in this manual for details.

Framing Dimensions	Description	CB40E
A	Framing Height	37-3/8" (949mm)
B	Framing Width	48-1/2" (1232mm)
*C	Framing Depth	19" (483mm)
D	Minimum Height to Combustibles	63"(1600mm)
G	Vent Centerline Height	56-1/4" (1429mm)

**Note:** A combined minimum of 120 square inches of open area is required for the convection air outlet to cool the enclosure. Ensure clearances for Convection Air Outlets are met. See clearances CB40E (3 sided) in this manual as there are different methods as to how this can be achieved.

**Note:** Only basic framing dimensions are shown. The framing may also extend beyond the appliance on either side and also extend out front if a hearth is desired. See clearance/finishing requirements for details.

**Note:** Unit is not load bearing. All finished materials must be supported by framing.



## Horizontal Terminations - Flex Vent 4" x 6-7/8" (102mm x 175mm)

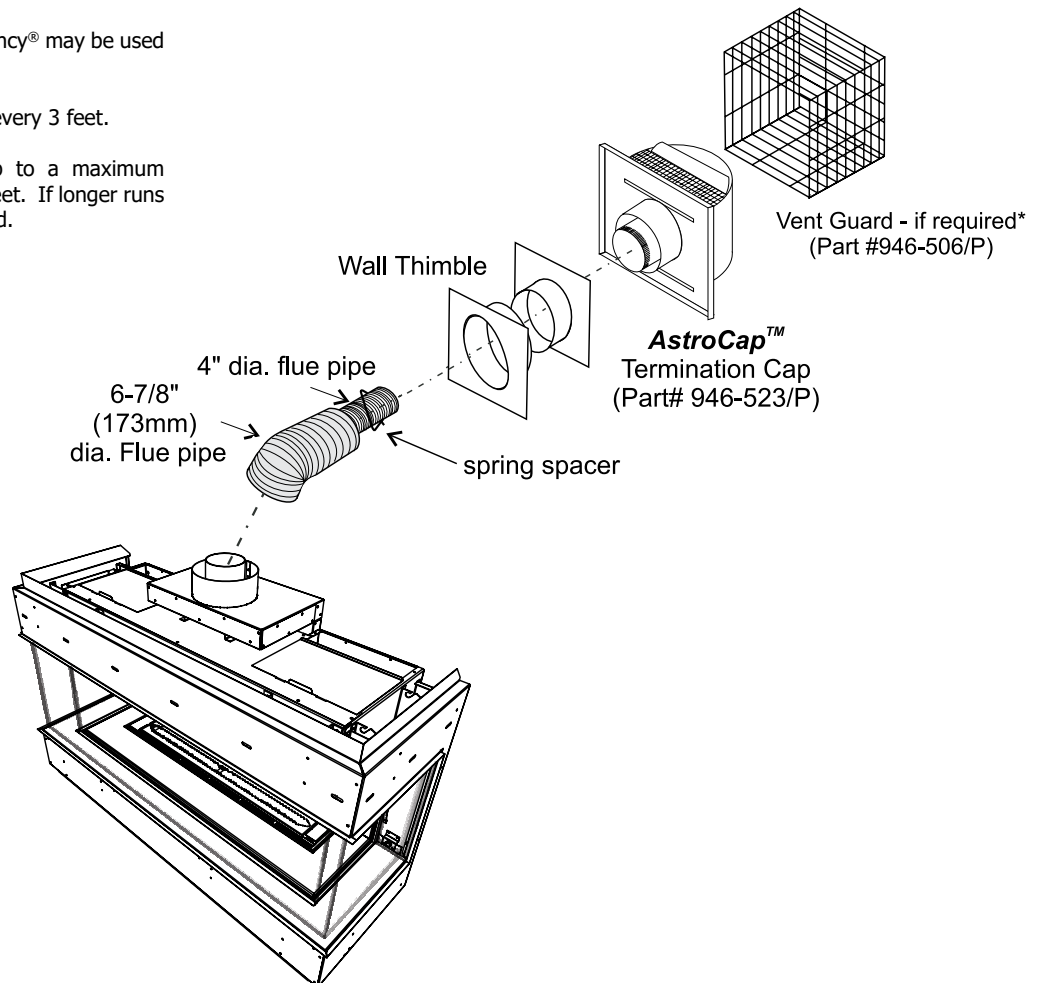
These venting systems, in combination with the CB40E Direct Vent Gas Fireplace, has been tested and listed as a direct vent heater system by Warnock Hersey/ Intertek. The location of the termination cap must conform to the requirements in the Vent Terminal Locations diagram in "Exterior Vent Termination Locations" section.

**Regency® Direct Vent (Flex) System Termination Kits** includes all the parts needed to install the CB40E using a flexible vent.

FPI Kit #	Length	Contains:
#946-513	2 Feet	<ol style="list-style-type: none"> <li>1. 6-7/8" (178 mm) flexible outer liner (Kit length)</li> <li>2. 4" (102 mm) flexible inner liner (Kit length)</li> <li>3. spring spacers</li> <li>4. thimble</li> <li>5. <b>AstroCap</b> termination cap</li> <li>6. screws</li> <li>7. tube of Mill Pac</li> <li>8. plated screws</li> <li>9. S.S. screws #8 x 1-1/2" (38mm) drill point</li> </ol>
#946-515	4 Feet	
#946-516	10 Feet	

### Notes:

1. Liner sections should be continuous without any joints or seams.
2. Only Flex pipe purchased from Regency® may be used for Flex installations.
3. Horizontal vent must be supported every 3 feet.
4. Flex system can only be used up to a maximum continuous vent length of up to 10 feet. If longer runs are required, rigid pipe must be used.



## Venting Introduction

The CB40E uses the "balanced flue" technology Co-Axial system. The inner liner vents products of combustion to the outside while the outer liner draws outside combustion air into the combustion chamber thereby eliminating the need to use heated room air for combustion and losing warm room air up the chimney.

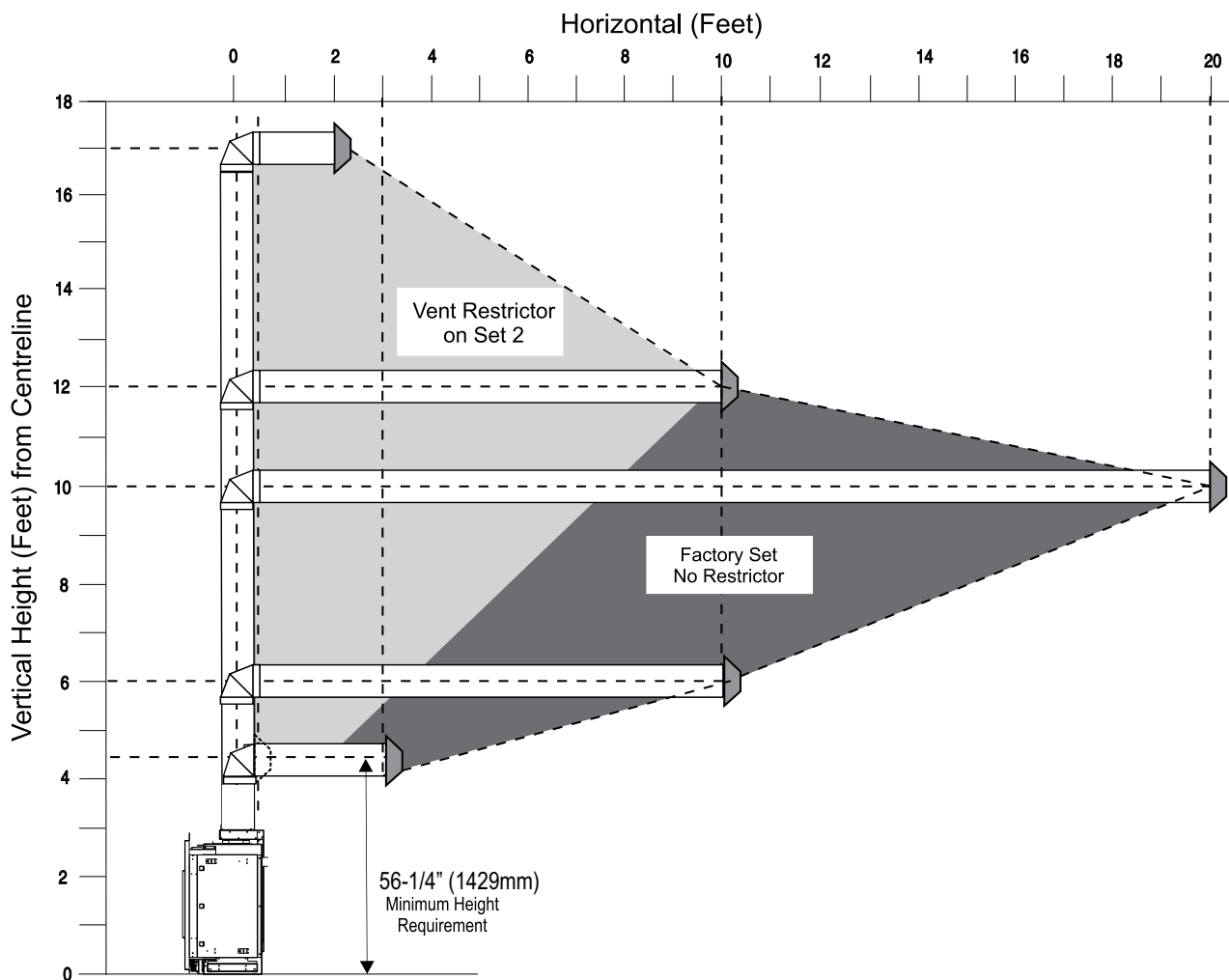
Note: These flue pipes must not be connected to any other appliance.

The gas appliance and vent system must be vented directly to the outside of the building, and never be attached to a chimney serving a separate solid fuel or gas burning appliance. Each direct vent gas appliance must use its own separate vent system. Common vent systems are prohibited.

## Venting Arrangement for Horizontal Terminations (Rigid/Flex Pipe)

The diagram shows all allowable combinations of vertical runs with horizontal terminations, using one 90° (two 45° elbows equal one 90° elbow).

**Note:** Must use optional rigid pipe adapter (Part# 510-994) when using Rigid Pipe Venting Systems.



### VENT RESTRICTOR SETTING:

**Vent restrictor factory set at Set 0.**

Refer to the "Vent Restrictor Position" section for details on how to change the vent restrictor from the factory setting of Set 0 to Set 2 if required.

Note: For horizontal terminations the Regency Direct Vent Flex System may be used for installations with a maximum continuous vent length of up to 10 feet. If longer runs are required, rigid pipe must be used.

- Maintain clearances to combustibles as listed in "Clearances" section
- Horizontal vent must be supported every 3 feet.
- Firestops are required at each floor level and whenever passing through a wall.
- A vent guard should be used whenever the termination is lower than the specified minimum or as per local codes.
- Flex system can only be used up to 10 feet - otherwise rigid venting must be used.

## Horizontal Terminations - Rigid Pipe 4" x 6-5/8" (102mm x 168mm)

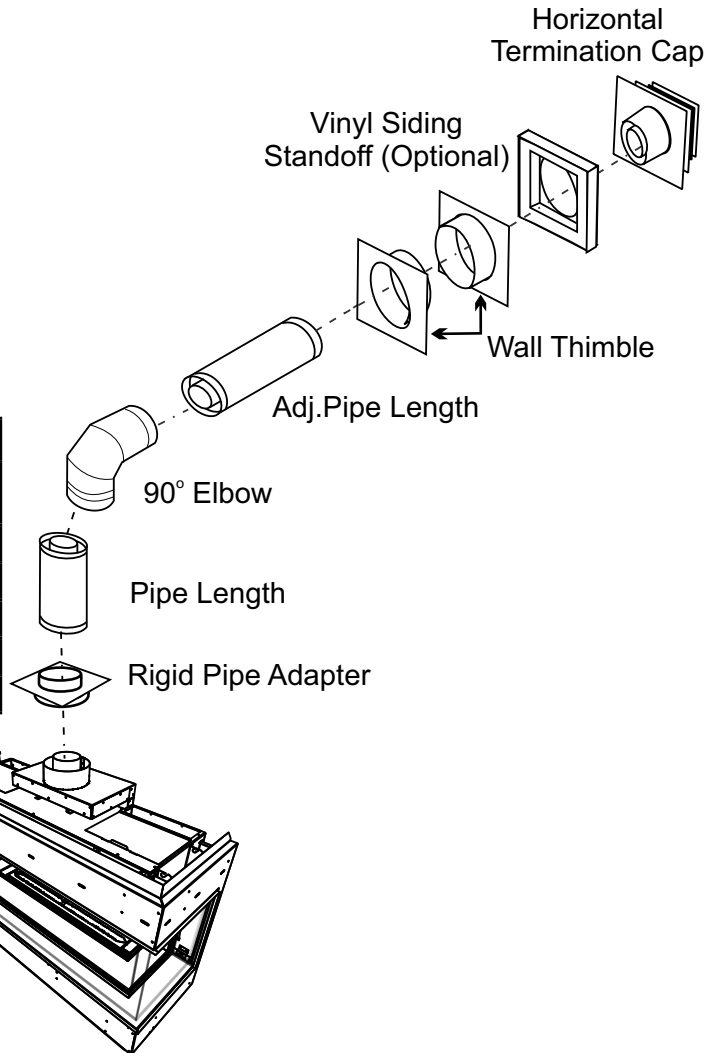
The minimum components required for a basic horizontal termination are:

- 1 Horizontal Termination Cap
- 1 Rigid Pipe Adaptor (510-994)
- 1 Wall Thimble
- 1 Length of pipe to suit wall thickness (see chart)

Wall thickness is measured from the back standoffs to the inside mounting surface of termination cap. For siding other than vinyl furring strips may be used, instead of the vinyl siding standoff, to create a level surface to mount the vent terminal. The Terminal must not be recessed into siding. Measure the wall thickness including furring strips.

If a Vinyl Siding Standoff is required (it must be used with vinyl siding), measure to outside surface of wall without siding and add 2 inches.

Flat Wall Installation	
Wall Thickness (inches)	Vent Length Required (inches)
4" - 5-1/2" (102 - 140 mm)	6" (152mm)
7" - 8-1/2" (178 - 216 mm)	9" (229mm)
10" - 11-1/2" (254 - 292 mm)	12" (305mm)
9" - 14-1/2" (229 - 368 mm)	11" - 14-5/8" (279 - 371mm) Adj. Pipe
15" - 23-1/2" (381 - 597 mm)	17" - 24" (432 - 610mm) Adj. Pipe



**When using Rigid Vent other than Simpson Dura-Vent, 3 screws must be used to secure rigid pipe to adaptor.**

**WARNING:**

Do not combine venting components from different venting systems.

Use of the the AstroCap™ and FPI Riser is acceptable with all systems.

This product has been evaluated by Intertek for using a Rigid Pipe Adaptor in conjunction with Duravent Direct-Vent, Selkirk Direct-Temp, Ameri Vent Direct Venting, ICC Excel Direct, Olympia Chimney and Security Secure Vent systems. Use of these systems with the Rigid Pipe adaptor is deemed acceptable and does not affect the Intertek WHI listing of components.

The FPI AstroCap™ and FPI Riser Vent terminal are certified for installations using FPI venting systems as well as Simpson Dura-Vent® Direct Vent, American Metal Products Ameri Vent Direct Vent, Security Secure Vent®, ICC Excel, Selkirk Direct-Temp and Olympia Chimney. AstroCap™ is a proprietary trademark of FPI Fireplace Products International Ltd. Dura-Vent® and Direct Vent are registered and/or proprietary trademarks of Simpson Dura-Vent Co. Inc.



## Horizontal Terminations - Rigid/Flex Pipe 4" x 6-5/8" (102mm x 168mm)

The diagrams below shows examples of horizontal termination arrangements using one, two, or three 90° elbows (two 45° elbows equal one 90° elbow)

1. A maximum of three 90° elbows are permitted.

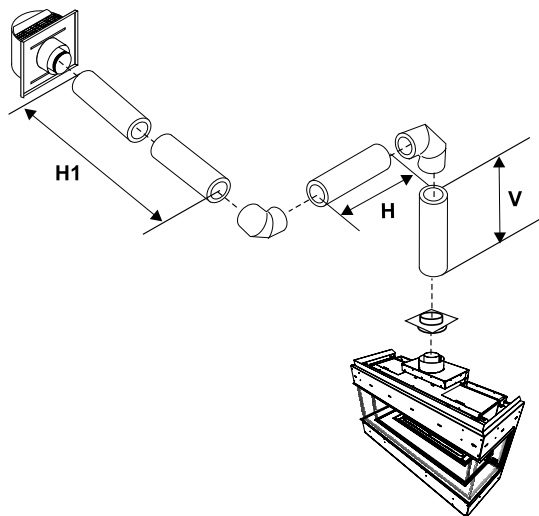
2. Minimum distance between elbows is 1 ft. (305mm).

- Maintain clearances to combustibles as listed in the "Clearances" section.
- Horizontal vent must be supported every 3 feet.
- Firestops are required at each floor level and whenever passing through a wall.
- Must use optional rigid pipe adaptor (Part# 510-994) when using rigid pipe vent systems.
- A vent guard should be used whenever the termination is lower than the specified minimum or as per local codes.
- Flex system can only be used up to 10 feet - otherwise rigid venting must be used.

### Horizontal Venting with Two (2) 90° Elbows

*One 90° elbow = Two 45° elbows.*

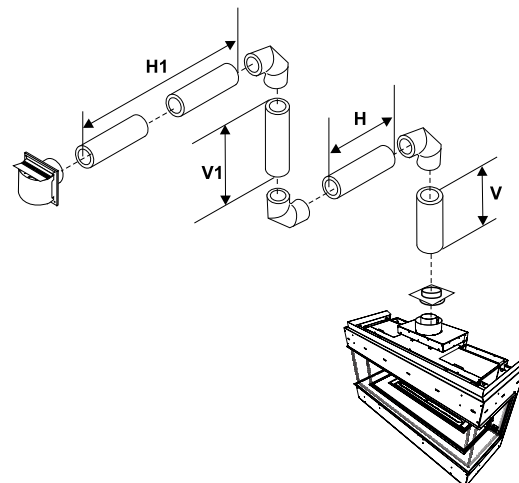
Option	V	H + H1	With these options, maximum total pipe length is 30 feet with minimum of 6 feet total vertical and maximum 8 feet total horizontal.  <b>Please note minimum 1 foot between 90° elbows is required.</b>
A)	1' Min.	2' Max.	
B)	2' Min.	4' Max.	
C)	3' Min.	5' Max.	
D)	4' Min.	6' Max.	
E)	5' Min.	7' Max.	
F)	6' Min.	8' Max.	
Restrictor Set 0 - Factory Setting			



### Horizontal Venting with Three (3) 90° Elbows

*One 90° elbow = Two 45° elbows.*

Option	V	H	V + V1	H + H1	With these options, max. total pipe length is 30 feet with min. of 12 feet total vertical and max. 9 feet total horizontal.  <b>Please note min. 1 foot between 90° elbows is required.</b>
A)	1' Min.	1' Max.	2' Min.	2' Max.	
B)	1' Min.	2' Max.	3' Min.	3' Max.	
C)	2' Min.	2' Max.	5' Min.	4' Max.	
D)	3' Min.	2' Max.	7' Min.	5' Max.	
E)	4' Min.	3' Max.	9' Min.	6' Max.	
F)	5' Min.	4' Max.	10' Min.	7' Max.	
G)	6' Min.	5' Max.	11' Min.	8' Max.	
H)	7' Min.	6' Max.	12' Min.	9' Max.	
Restrictor Set 0 - Factory Setting					



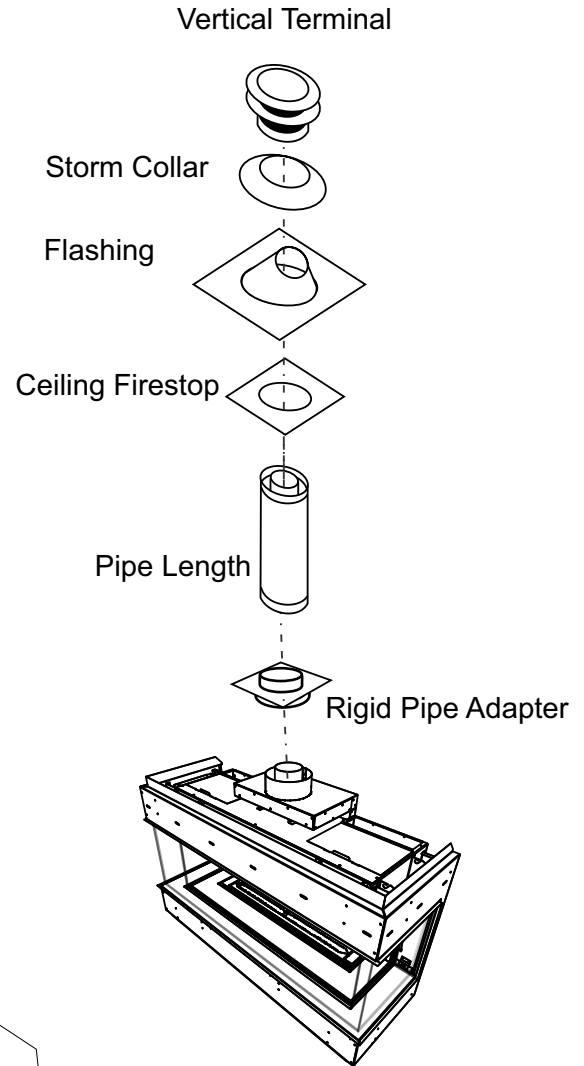
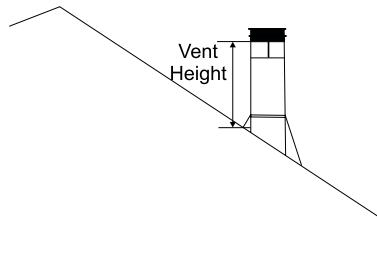
## Vertical Terminations - Rigid Pipe 4" x 6-5/8" (102mm x 168mm)

The minimum components required for a basic vertical termination are:

- 1 Vertical Termination Cap
- 1 Rigid Pipe Adaptor (510-994)
- 1 Ceiling Firestop
- 1 Flashing
- 1 Storm Collar
- 1 Length of pipe to suit wall thickness (see chart)

Galvanized pipe is desirable above the roofline due to its higher corrosion resistance. Continue to add pipe sections through the flashing until the height of the vent cap meets the minimum height requirements specified in table below or local codes. Note that for steep roof pitches, the vertical height must be increased. A poor draft, or down drafting can result from high wind conditions near big trees or adjoining roof lines, in these cases, increasing the vent height may solve the problem.

Roof Pitch	Minimum Vent Height	
	Feet	Meters
flat to 7/12	2	0.61
over 7/12 to 8/12	2	0.61
over 8/12 to 9/12	2	0.61
over 9/12 to 10/12	2.5	0.76
over 10/12 to 11/12	3.25	0.99
over 11/12 to 12/12	4	1.22
over 12/12 to 14/12	5	1.52
over 14/12 to 16/12	6	1.83
over 16/12 to 18/12	7	2.13
over 18/12 to 20/12	7.5	2.29
over 20/12 to 21/12	8	2.44



### WARNING:

Do not combine venting components from different venting systems.

Use of the the AstroCap™ and FPI Riser is acceptable with all systems.

This product has been evaluated by Intertek for using a Rigid Pipe Adaptor in conjunction with Duravent Direct-Vent, Selkirk Direct-Temp, Ameri Vent Direct Venting, ICC Excel Direct, Olympia Chimney, and Security Secure Vent systems. Use of these systems with the Rigid Pipe adaptor is deemed acceptable and does not affect the Intertek WHI listing of components.

**When using Rigid Vent other than Simpson Dura-Vent, 3 screws must be used to secure rigid pipe to adaptor.**

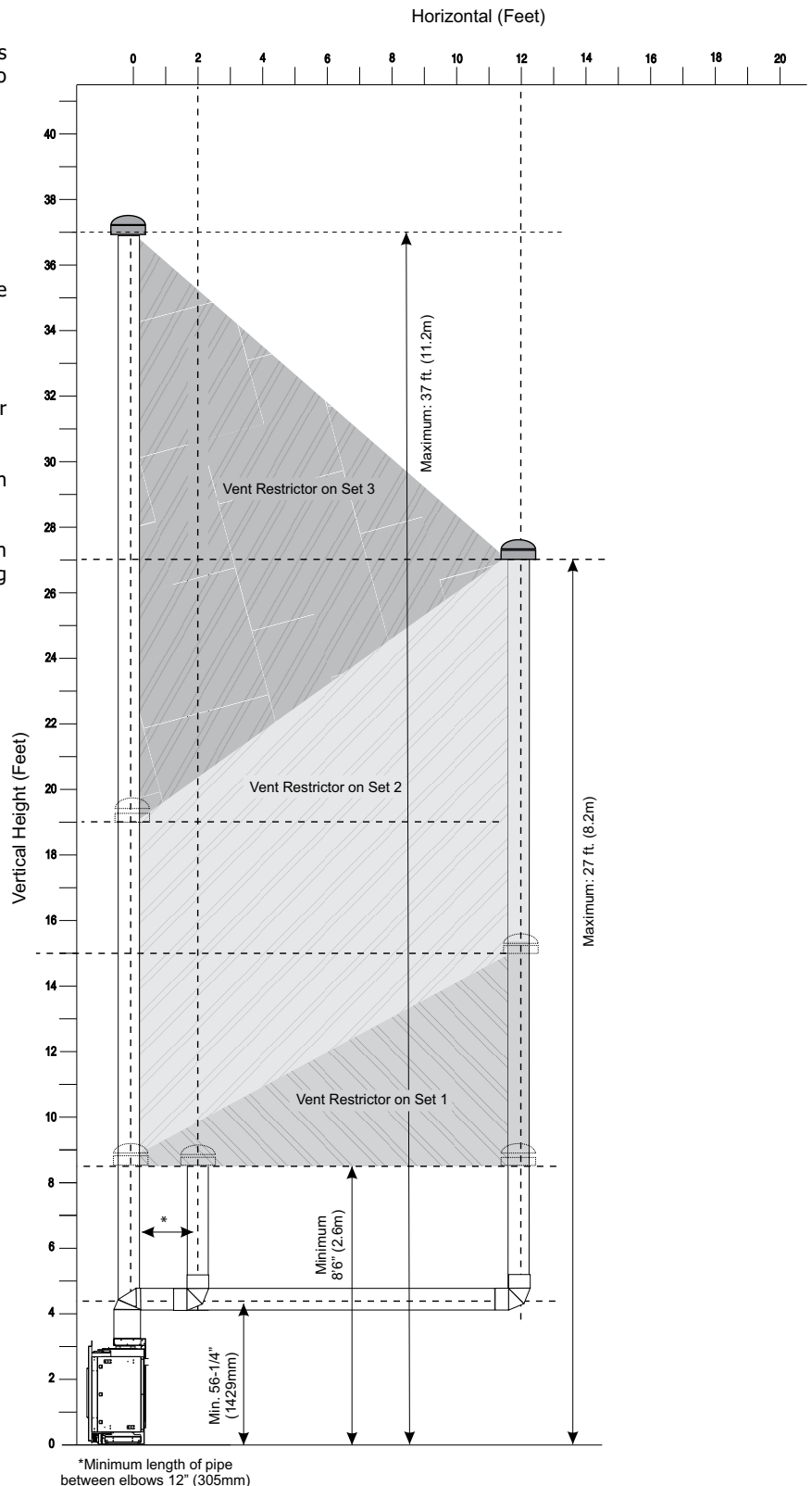
The FPI AstroCap™ and FPI Riser Vent terminal are certified for installations using FPI venting systems as well as Simpson Dura-Vent® Direct Vent, American Metal Products Ameri Vent Direct Vent, Security Secure Vent®, ICC Excel, Selkirk Direct-Temp and Olympia Chimney. AstroCap™ is a proprietary trademark of FPI Fireplace Products International Ltd. Dura-Vent® and Direct Vent are registered and/or proprietary trademarks of Simpson Dura-Vent Co. Inc.

## Venting Arrangement for Vertical Terminations - Straight Vertical Venting and/or with a Max. of Two (2) 90° Elbows (1 - 90° = 2 - 45°)

The shaded area in the diagram shows all allowable combinations of straight vertical and offset to vertical terminations, using two 90° elbows, with **Rigid Pipe Venting Systems**.

Two 45° elbows equal to one 90° elbow.

- Vent must be supported at offsets.
- Minimum distance between elbows is 1 ft. (305mm).
- Maintain clearances to combustibles as listed in the "Clearances" section.
- Horizontal vent must be supported every 3 feet.
- Firestops are required at each floor level and whenever passing through a wall.
- Must use optional rigid pipe adaptor (Part# 510-994) when using rigid pipe vent systems.
- Refer to the "Vent Restrictor Position" section for details on how to change the vent restrictor from the factory setting of Set 0 through to Set 3 if required.



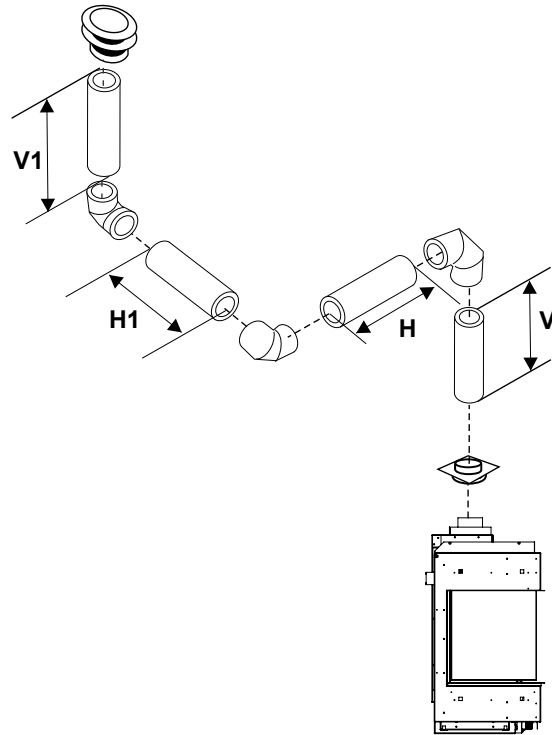
## Vertical Terminations - Rigid Pipe 4" x 6-5/8" (102 mm x 168 mm)

- Two 45° elbows equal to one 90° elbow. Maximum of six 45° elbows allowed.
- Vent must be supported at offsets.
- Minimum distance between elbows is 1 ft. (305mm).
- Maintain clearances to combustibles as listed in the "Clearances" section.
- Horizontal vent must be supported every 3 feet.
- Firestops are required at each floor level and whenever passing through a wall.
- Must use optional rigid pipe adaptor (Part# 510-994 when using rigid pipe vent systems)

### Vertical Venting with Three (3) 90° Elbows

**One 90° elbow = Two 45° elbows.**

Option	V	H + H1	V + V1	
A)	1' Min.	2' Max	3' Min.	With these options, max. total pipe length is 30 feet with min. of 10 feet total vertical and max. 8 feet total horizontal.  <b>Please note min. 1 foot between 90° elbows is required.</b>
B)	2' Min.	3' Max	4' Min.	
C)	3' Min.	4' Max	6' Min.	
D)	4' Min.	5' Max	7' Min.	
E)	5' Min.	6' Max	8' Min.	
F)	6' Min.	7' Max	9' Min.	
G)	7' Min.	8' Max	10' Min.	
<i>Lengths do not include elbow indicated</i>				
Restrictor Set 0 - Factory Setting				

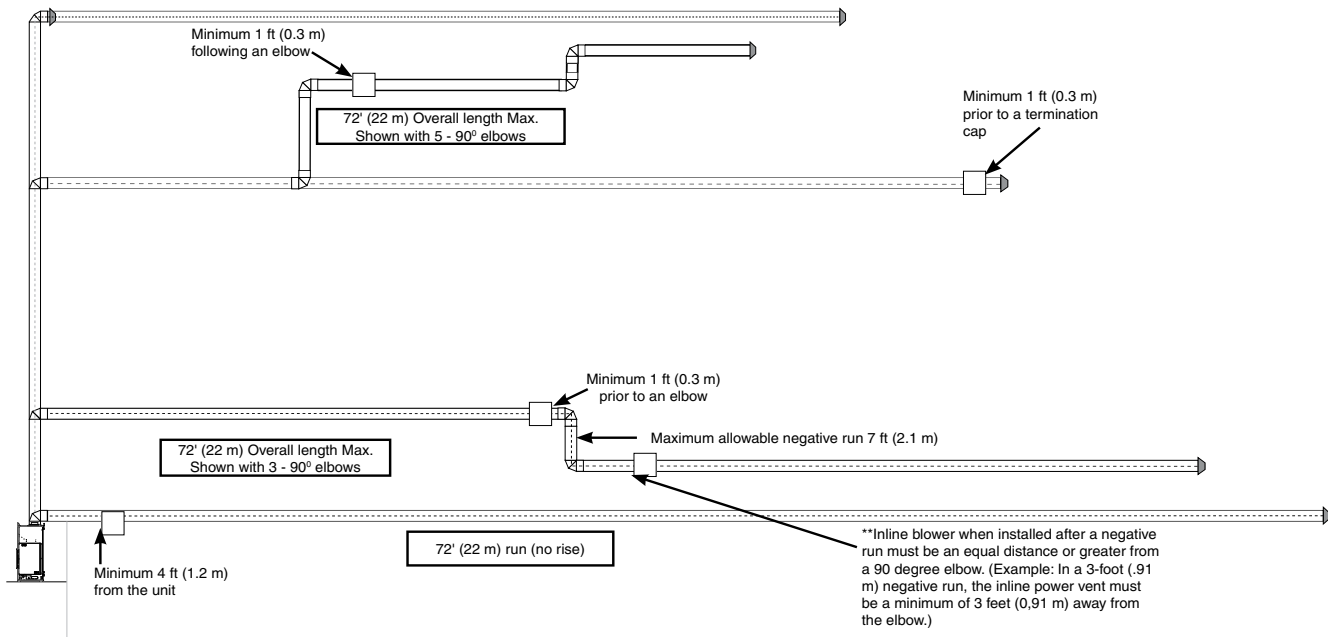


## Horizontal Terminations - Inline Horizontal Vent Chart inline power vent kit # 666-945

**NOTES**

- Rigid pipe is approved for up to 72 feet (21.95 m).
- Flex pipe is approved for up to 40 feet (12.19 m) using 2 X 946-756-- 20 foot (6.10 m) flex kits.

The gas power vent system is designed to allow the installation of a gas appliance when typical vent configurations (Non-Power Vent Direct Vent Systems With no Fan Assist) are not possible.



**IMPORTANT**

- **Maximum total vent length (based on overall length of combined chimney components) = 72' (22 m)**
- **Maximum total negative vent length = 7' (2.1 m).**
- **Do not run positive venting after a negative run.**
- **Maximum of six - 90° elbows permitted.**
- **One 90° elbow = two 45° elbows.**
- **Minimum 4' (1.2 m) from the unit prior to terminating.**

Inline power vent location restrictions:

- Minimum 4 ft (1.2 m) from the unit
- Minimum 1 ft (0.3 m) prior to an elbow.
- Minimum 1 ft (0.3 m) following an elbow.
- Minimum 1 ft (0.3 m) prior to a termination cap.

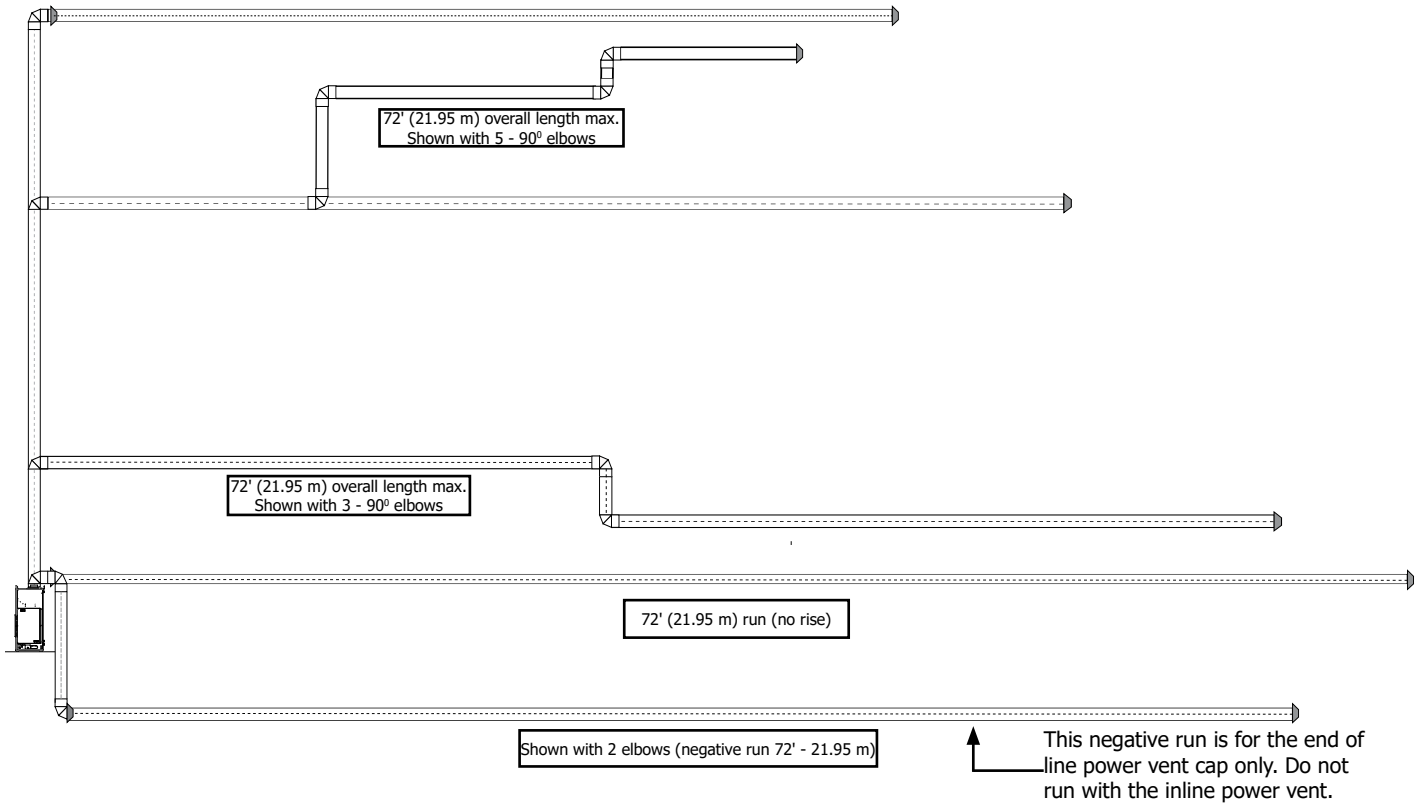
When the inline blower is installed after a negative run, for every foot of negative run the inline blower must be an equal distance or greater from the 90-degree elbow. See example above.

## Horizontal Terminations - End of Line Horizontal Vent Chart end of line power vent kit # 946-535

**NOTES**

- Rigid pipe is approved for up to 72 feet (21.95 m).
- Flex pipe is approved for up to 40 feet (12.19 m) using 2 X 946-756-- 20 foot (6.10 m) flex kits.

The gas power vent system is designed to allow the installation of a gas appliance when typical vent configurations (Non-Power Vent Direct Vent Systems With no Fan Assist) are not possible.



**IMPORTANT**

- **Maximum total vent length (based on overall length of combined chimney components) = 72' (21.95 m)**
- **Maximum total negative vent length = 7' (2.1 m).**
- **Do not run positive venting after a negative run.**
- **Maximum of six - 90° elbows permitted.**
- **One 90° elbow = two 45° elbows.**
- **Minimum 4' (1.2 m) from the unit prior to terminating.**

## Venting Arrangement for Vertical Terminations Inline Power Vent

Vertical venting with straight vertical venting and or with a max. of six (6) 90° Elbows (1 - 90° = 2 - 45°)

- NOTES**
- Rigid pipe is approved for up to 72 feet (22 m).
  - Flex pipe is approved for up to 40 feet (12.2 m) using two 20 foot (6.1 m) flex kits (part # 946-756).

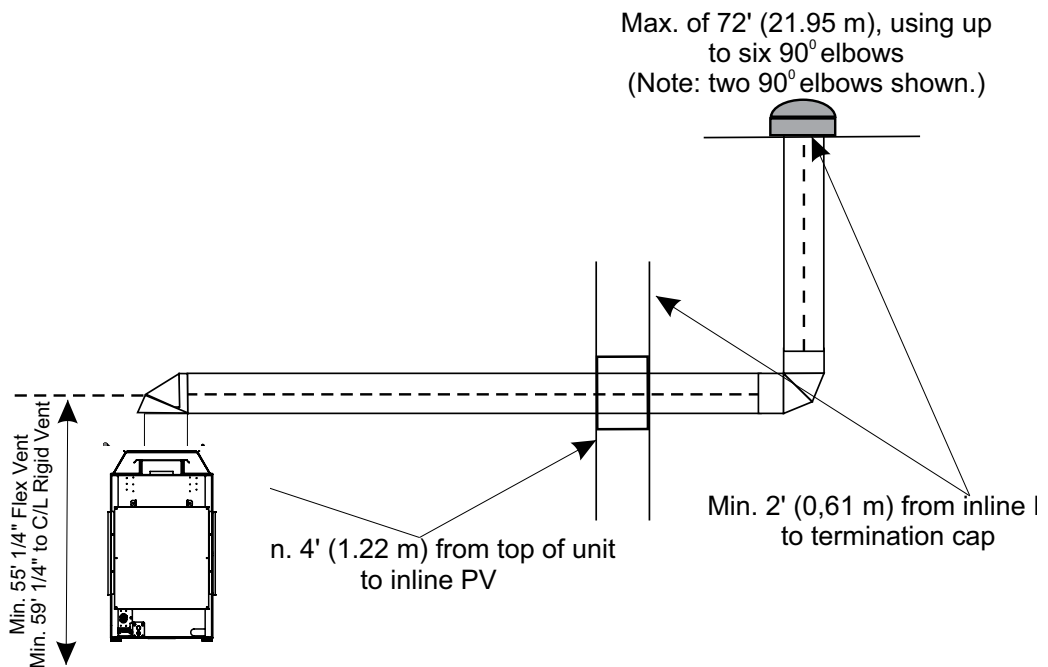
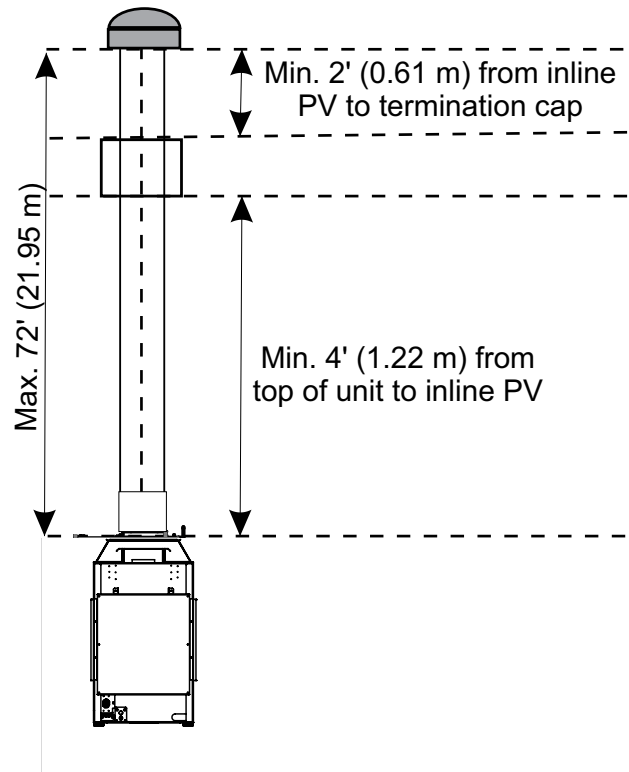
- Two 45° elbows equal to one 90° elbow.
- Vent must be supported at offsets.
- Minimum distance between elbows is 1 ft. (0.3 m).
- Maintain clearances to combustibles as listed in the "Clearances" section.
- Horizontal vent must be supported every 3 feet (0.91 m).
- Firestops are required at each floor level and whenever passing through a wall.

Restrictor set on 0 (fully open) regardless of vent run.

**Inline power vent location restrictions:**

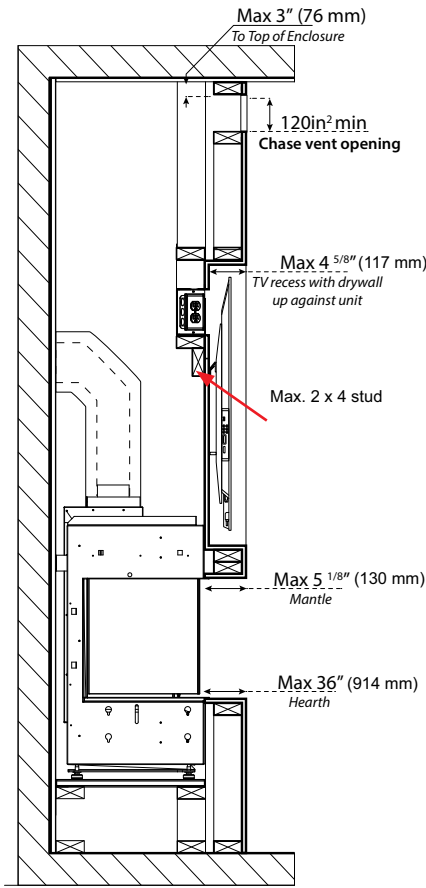
- Minimum 4 ft (1.2 m) from the unit.
- Minimum 1 ft (0.3 m) prior to an elbow.
- Minimum 1 ft (0.3 m) following an elbow.
- Minimum 2 ft (0.6 m) prior to a termination cap.
- Minimum 2 ft. from inline PV to termination cap.
- Minimum 4' from top of unit to inline PV.
- Max. of 72' (22 m), using up to six 90° elbows
- (Example shows two 90° elbows).
- No negative runs.

- NOTE**
- The inline power vent must be installed within the confines of the home/structure.



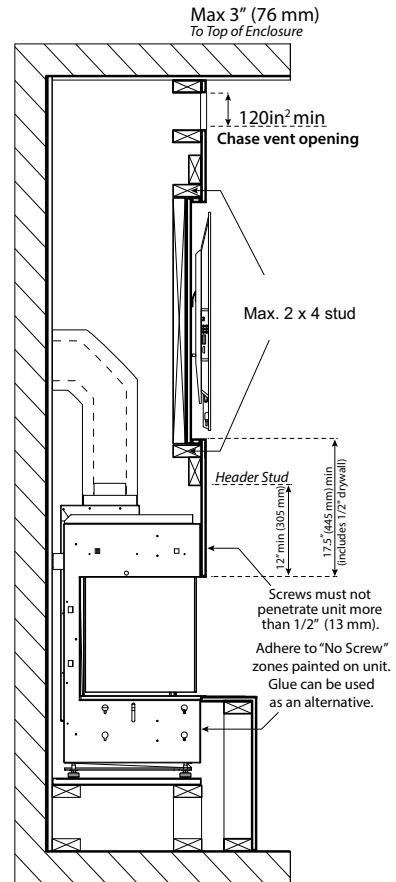
## TV Recessed into Wall - Typical Installs

### Maximum TV Recess



4 5/8" (117 mm) maximum TV recess using 1/2" (13 mm) drywall

### TV Flush with Hearth



Flush wall TV recess using 1/2" (13 mm) drywall