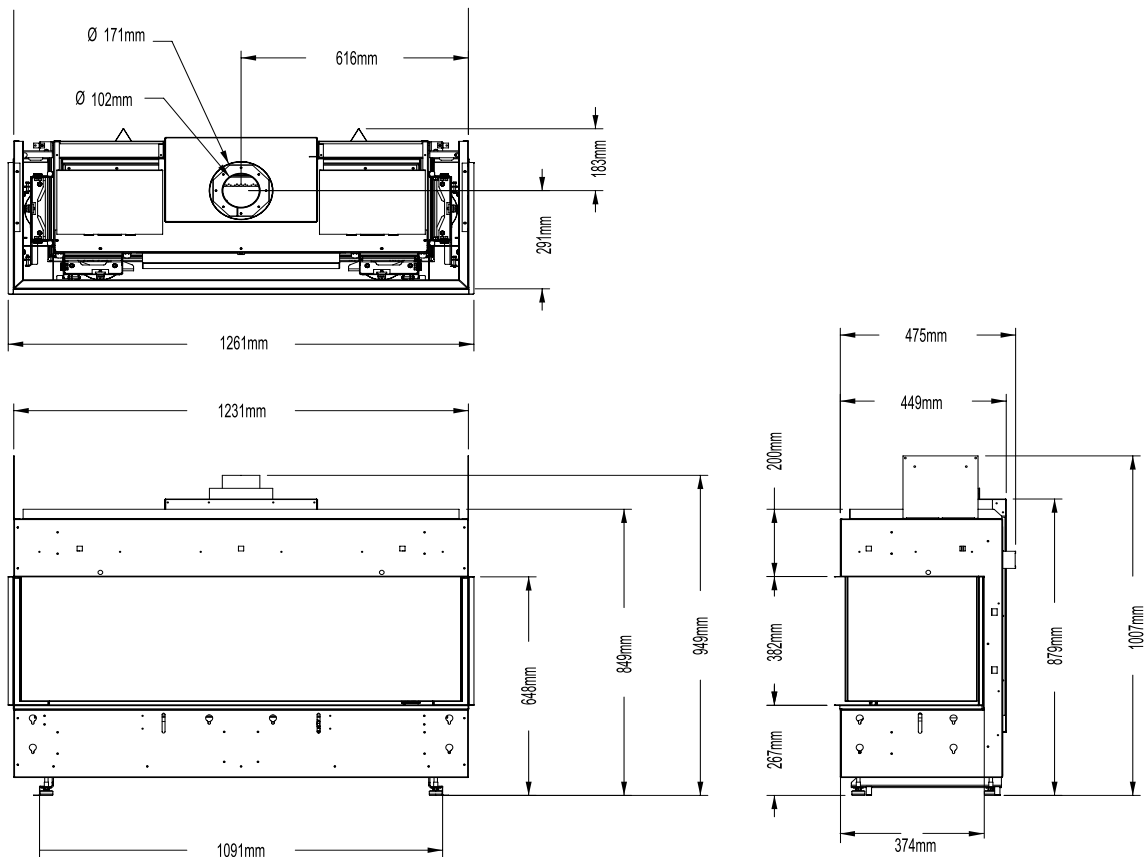


## City Series ACB40E Gas Fireplace

| Model                  | ACB40E-NG   | ACB40E-LP         | ACB40E-ULP        |
|------------------------|-------------|-------------------|-------------------|
| Fuel                   | Natural Gas | Propane           | Propane           |
| Gas Consumption-High   | 30 MJ/h     | 30 MJ/h           | 24 MJ/h           |
| Gas Consumption-Low    | 17.1 MJ/h   | 16.0 MJ/h         | 11.7 MJ/h         |
| Min. Supply Pressure   | 1.13 kPa    | 2.75 kPa          | 2.75 kPa          |
| Manifold Pressure High | 0.96 kPa    | 2.60 kPa          | 2.60 kPa          |
| Manifold Pressure Low  | 0.30 kPa    | 0.70 kPa          | 0.63 kPa          |
| Injector Size          | 2.40 mm     | # 53<br>(1.51 mm) | # 54<br>(1.39 mm) |



### DIMENSIONS



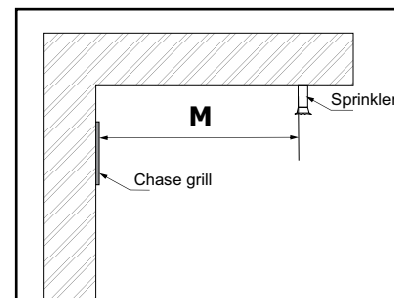
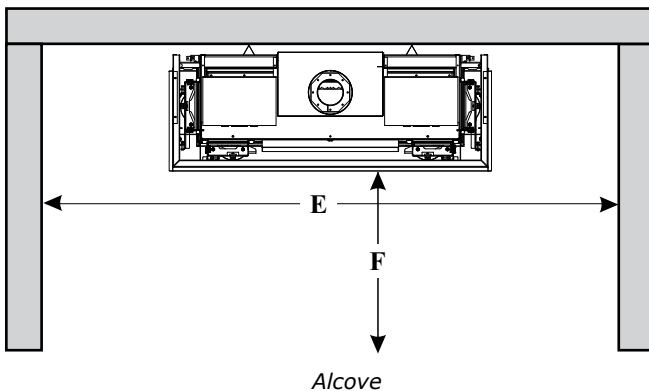
## CLEARANCES

| Clearance: 3 sided                    | Dimension      | Measured From:                   |
|---------------------------------------|----------------|----------------------------------|
| A: From Floor                         | Min. 0mm       | Bottom of Fireplace Opening      |
| A1 : Mantel Height (min.)             | **             | Top of Fireplace Opening         |
| B: Sidewall (on one side)             | 216mm          | Side of Fireplace Opening        |
| C: Enclosure Width (min.)             | 1230mm         | Minimum inside dimensions        |
| D: Mantel Depth (max.)                | **             |                                  |
| E: Alcove Width                       | 2134mm         | Side wall to side wall (min.)    |
| F: Alcove Depth                       | 914mm          | Front of Unit                    |
| G: To Enclosure Ceiling (min/max)     | 76mm           | From top of enclosure            |
| H: Convection Air outlet              | 306sq cm (min) | * Top/front or side of enclosure |
| I: Enclosure Depth (min.)             | 483mm          | Minimum inside dimensions        |
| J: Opening Height                     | 383mm          | Bottom/Top of Fireplace Opening  |
| K: To Ceiling (min) All 3 sides       | 38mm           | To Top of Ceiling                |
| L: Chase Enclosure (min.)             | 1600mm         | From base of unit/floor          |
| M: Clearance to sprinkler head (Min.) | 914mm          | Perpendicular from chase grill   |
| Hearth                                | 0mm            | No hearth required               |

| Flue Clearances to Combustibles                             |      |
|-------------------------------------------------------------|------|
| Horizontal - Top                                            | 76mm |
| Horizontal - Side                                           | 51mm |
| Horizontal - Bottom                                         | 51mm |
| Vertical                                                    | 51mm |
| Passing through wall/floor/ceiling - when firestop is used. | 38mm |

\*\* See mantel clearances chart in this manual

\* A minimum of 774 square centimetres of open area, not lower than 76mm 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.



Side view



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

### Caution Requirements

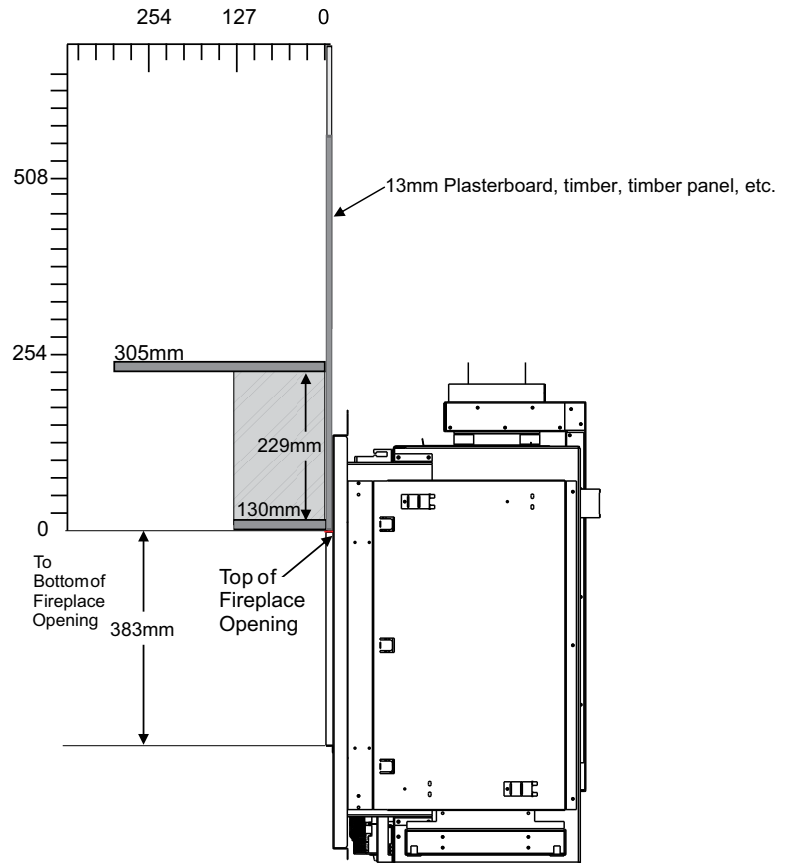
The top, back and sides of the fireplace are defined by standoffs. The metal ends of the standoff may **NOT** be recessed into combustible construction.

### 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 flue system be installed only in accordance with these instructions.

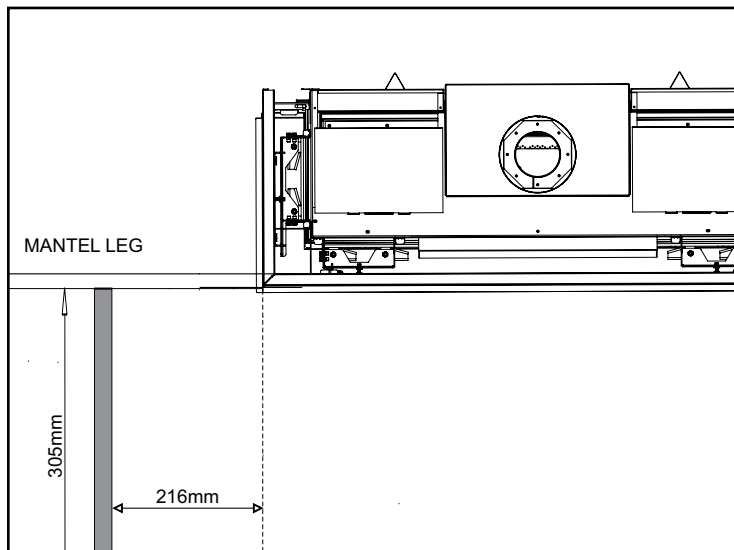
## MANTEL CLEARANCES

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

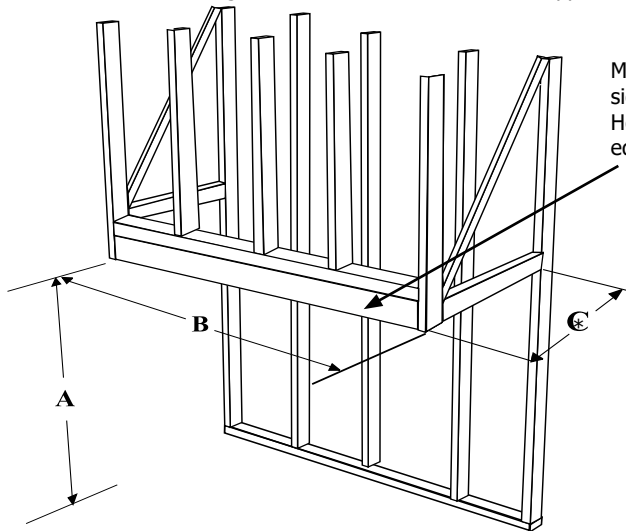
**NOTE:** Framing may be constructed of combustible material (ie. 51x102mm) and does not require steel studs. Two (2) optional steel stud kits may also be purchased. These kits may be used in place of the conventional wood framing as shown below. It comes as a compact kit (flush to the appliance on all 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                    | ACB40E |
|--------------------|--------------------------------|--------|
| A                  | Framing Height                 | 949mm  |
| B                  | Framing Width                  | 1232mm |
| C*                 | Framing Depth                  | 483mm  |
| D                  | Minimum Height to Combustibles | 1600mm |
| G                  | Flue Centerline Height         | 1429mm |
| I                  | Gas Connection Opening Height  | 51mm   |
| J                  | Gas Connection Height          | 106mm  |
| K                  | Gas Connection Inset           | 330mm  |
| L                  | Gas Connection Opening Width   | 89mm   |

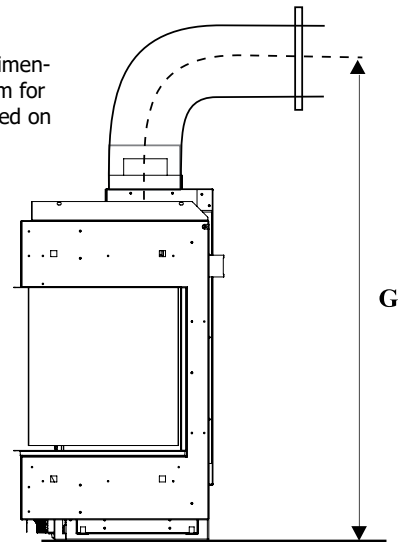
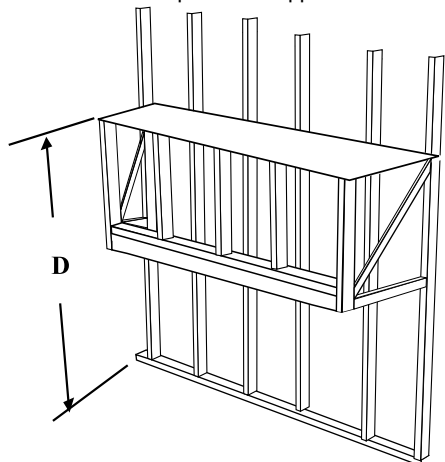
**Note:** A combined minimum of 774 square centimetres of open area is required for the convection air outlet to cool the enclosure. Ensure clearances for Convection Air Outlets are met. See clearances ACB40E (3 sided) in this manual as there are different methods as to how this can be achieved.

**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.

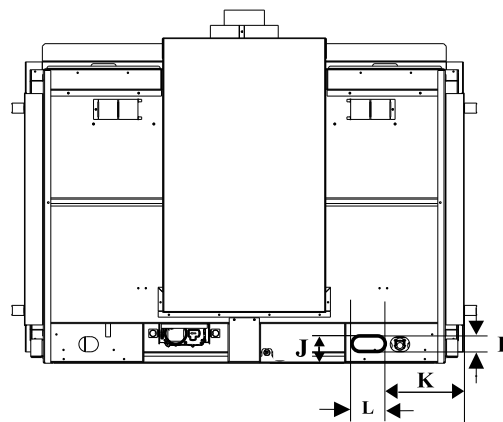
**Note:** Unit is not load bearing. All finished materials must be supported by framing.



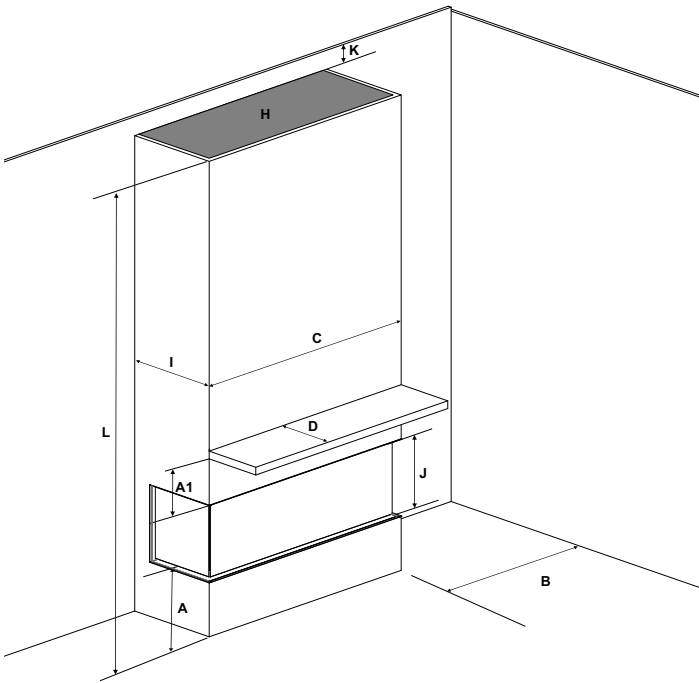
**Note:** This appliance must be installed on a solid surface such as a plywood floor which must be the full width and depth of the appliance.



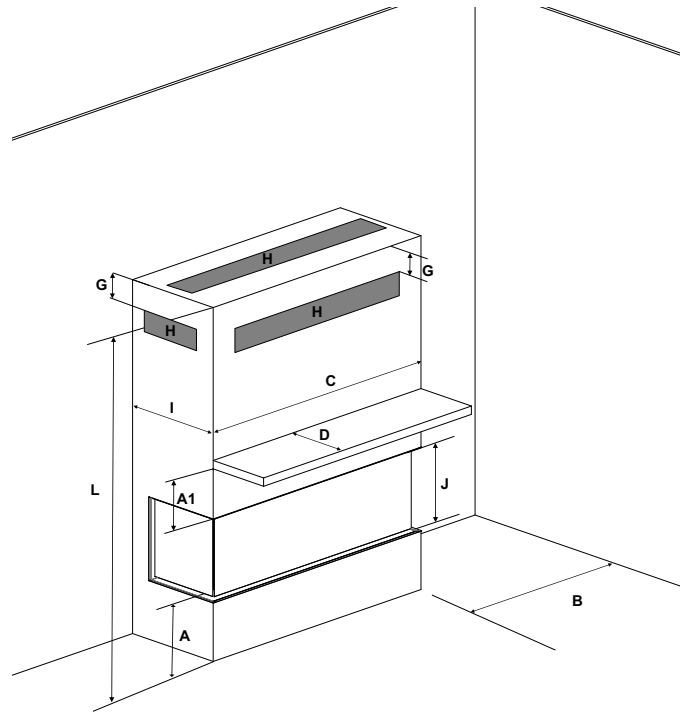
\* The framing depth does not take into account plasterboard/timber or similar materials against the back wall. The framing depth will need to change based on the thickness of the materials (example: C - 483 mm framing depth + 13 mm plasterboard = 496 mm).



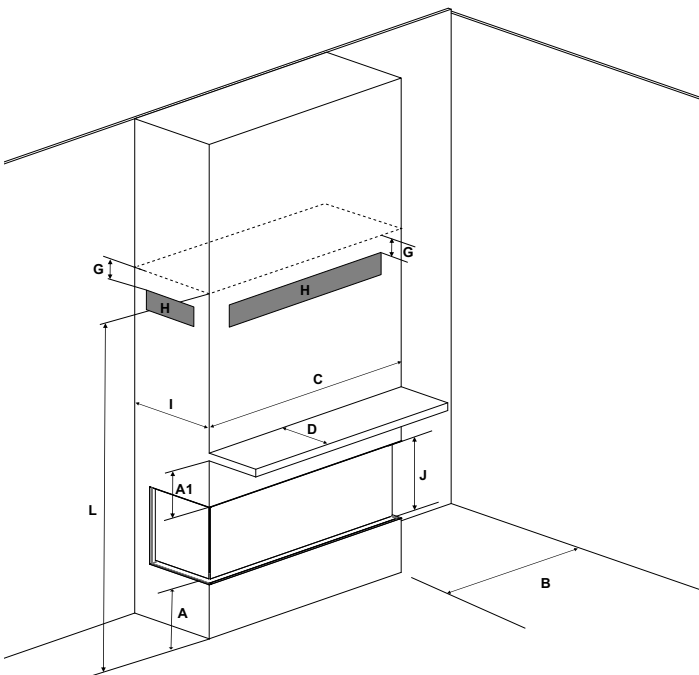
## CHASE VENTING



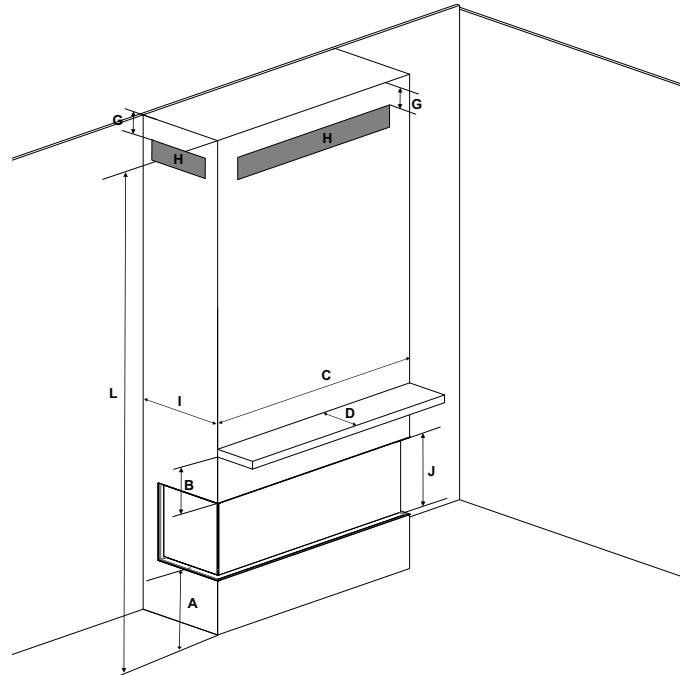
Floor to ceiling with top opening



Low framing with flues in front/sides or top



Full framing with low flues in front or sides



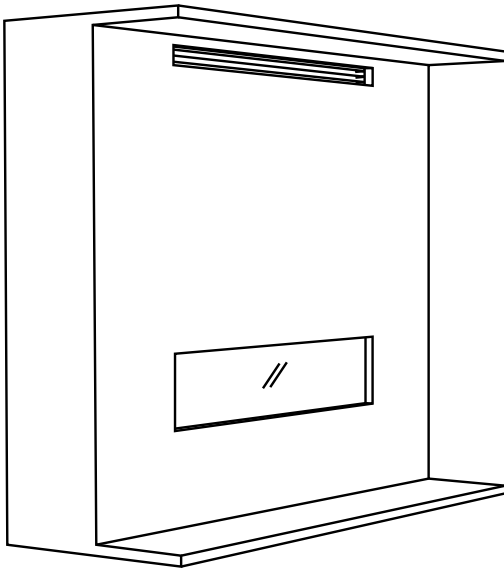
Full framing with flues in front or sides

## CHASE

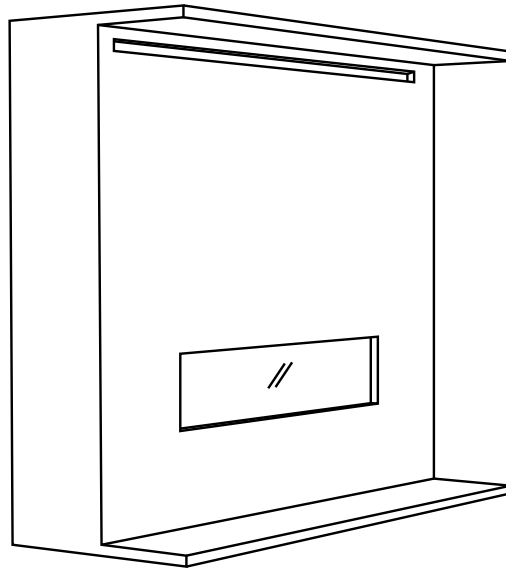
Note: The enclosure opening cannot be any lower than 0-76mm from the top of the enclosure for all installations. Minimum height of enclosure from base of appliance is 1600mm.

A minimum 774cm<sup>2</sup> opening in the enclosure is required to maintain safe operating temperatures. This can be achieved in a number of ways including the examples shown below.

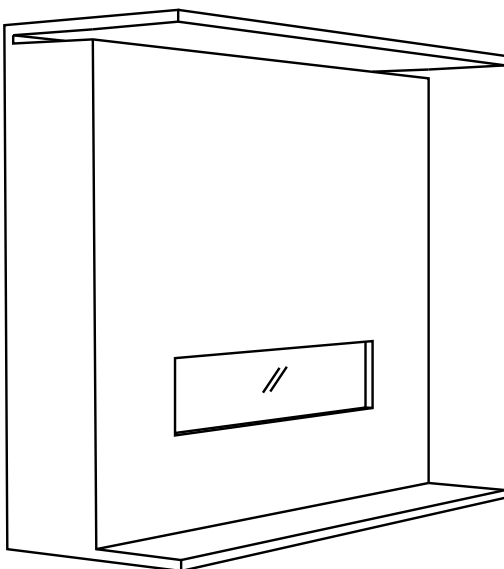
Warning: DO NOT cover or place objects in front of the air outlet(s).



Regency Chase Vent Dimensions:  
(839cm<sup>2</sup>) 81mm x 1016mm



Custom chase vent  
Example dimensions: (774cm<sup>2</sup>) 64mm x 1219mm



Reveal at the chase top  
Example dimensions:  
(774cm<sup>2</sup>) 851mm x 1524mm

## HORIZONTAL TERMINATIONS

### Flex Vent 102mm x 173mm

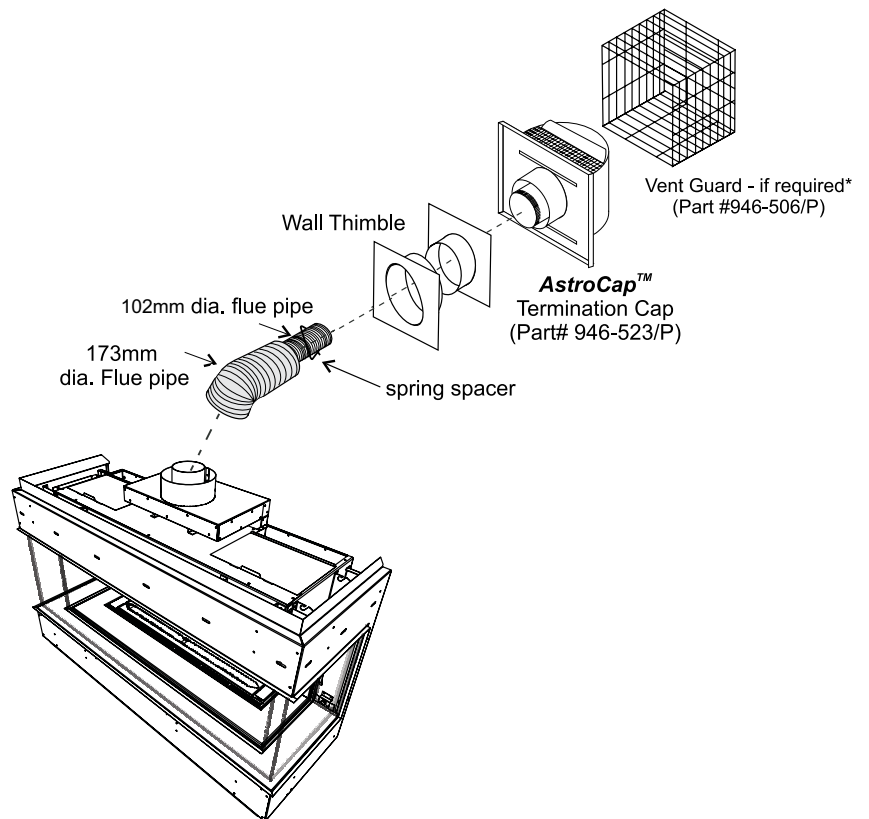
These flueing systems, in combination with the ACV40E Direct Vent Gas Fireplace, have been tested and listed as a direct vent heater system. The location of the termination cap must conform to the requirements in the Vent Terminal Locations diagram in "Exterior Vent Termination Locations" section.

**Regency® Direct Vent (Flex) System Termination Kits includes all the parts needed to install the ACV40E using a flexible vent.**

| FPI Kit # | Length | Contains:                                                                                                                                                                                                                             |
|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| #946-515  | 1.2m   | <ol style="list-style-type: none"> <li>175mm flexible outer liner (Kit length)</li> <li>102mm flexible inner liner (Kit length)</li> <li>spring spacers</li> <li>thimble</li> <li>AstroCap termination cap</li> <li>screws</li> </ol> |
| #946-516  | 3m     | <ol style="list-style-type: none"> <li>tube of Mill Pac</li> <li>plated screws</li> <li>S.S. screws #8 x 38mm drill point</li> </ol>                                                                                                  |

#### Notes:

- Liner sections should be continuous without any joints or seams.
- Only Flex pipe purchased from Regency® may be used for Flex installations
- Horizontal vent must be supported every 0.9m.
- Regency® Direct Vent System (Flex) is only approved for horizontal terminations.
- Flex system can only be used up to a maximum continuous vent length of up to 3m. If longer runs are required, rigid pipe must be used.



## VENTING ARRANGEMENTS FOR HORIZONTAL TERMINATIONS

The ACB40E uses the "balanced flue" technology Co-Axial system. The inner liner flues 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.

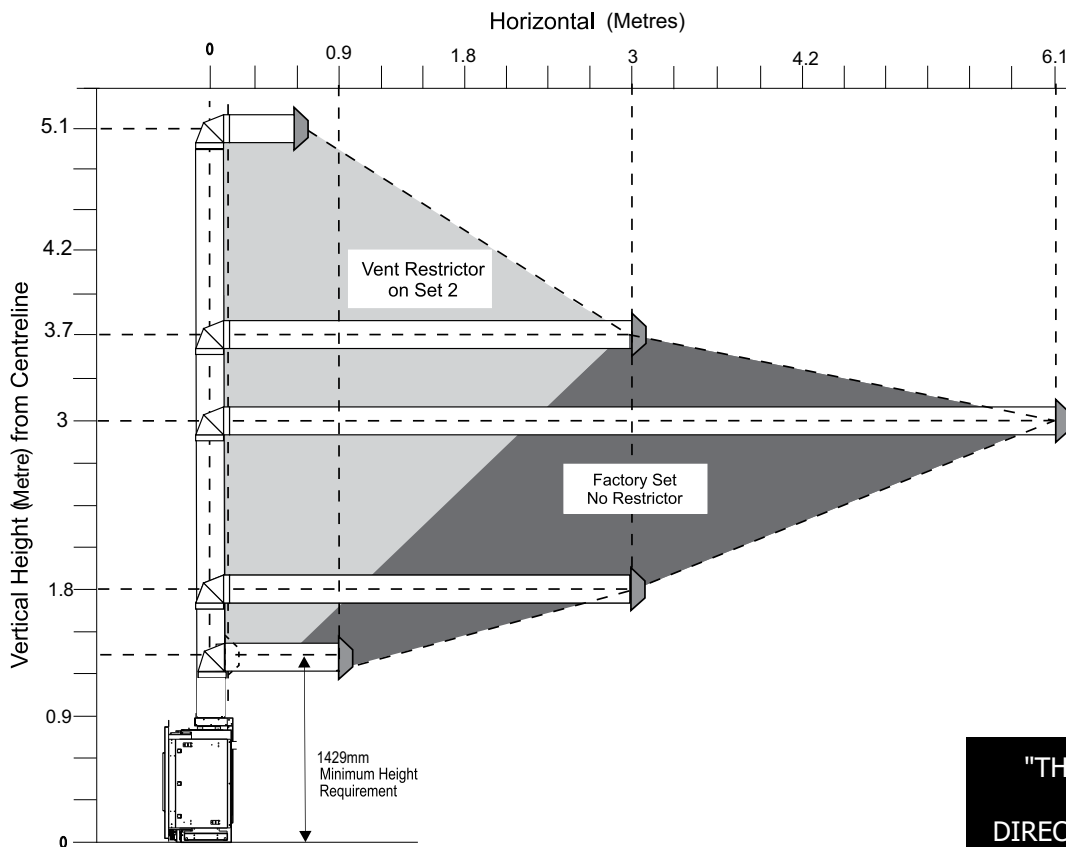
**Note:** These flue pipes must not be connected to any other appliance.

The gas appliance and flue system must be flued 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 flue gas appliance must use its own separate flue system. Common flue systems are prohibited.

### Flueing Arrangement for Horizontal Terminations

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 Flueing Systems.



#### Flue RESTRICTOR SETTING:

##### Flue restrictor factory set at Set 0.

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

**Note:** For horizontal terminations the Regency Direct Flue Flex System may be used for installations with a maximum continuous flue length of up to 3m. If longer runs are required, rigid pipe must be used.

- Maintain clearances to combustibles as listed in "Clearances" section
- Horizontal flue must be supported every 0.9m.
- Firestops are required at each floor level and whenever passing through a wall.
- A flue 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 3m - otherwise rigid flueing must be used.

## Rigid Pipe 102mm x 175mm

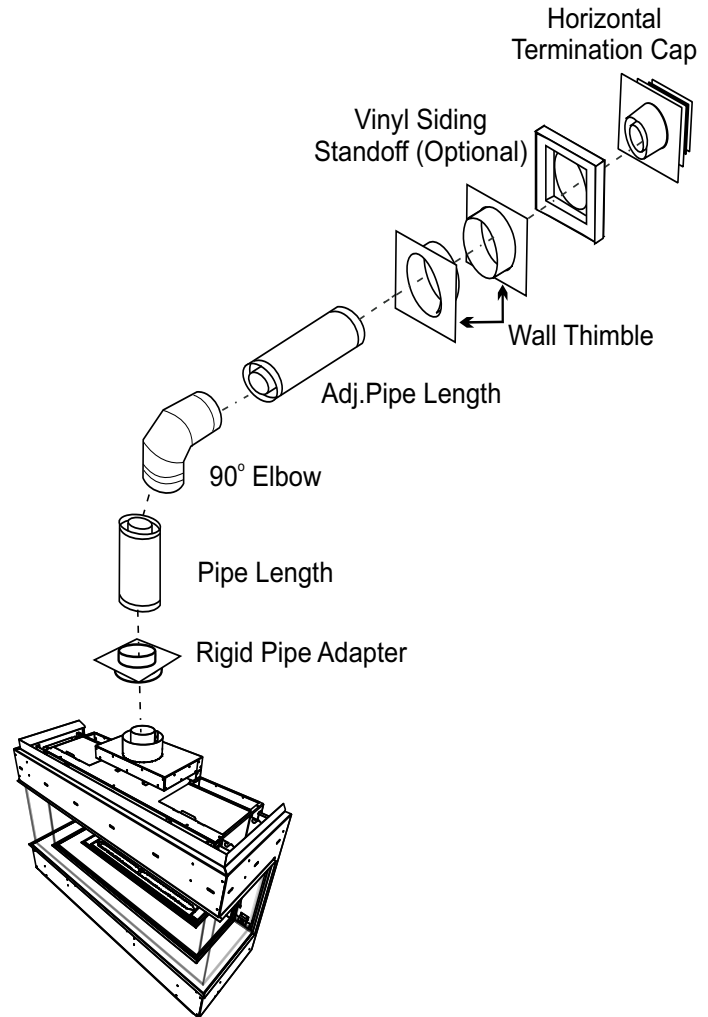
The minimum components required for a basic horizontal termination are:

- 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 flue 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 51mm.

| Flat Wall Installation |                           |
|------------------------|---------------------------|
| Wall Thickness (mm)    | Vent Length Required (mm) |
| 102mm-140mm            | 152mm                     |
| 178mm-216mm            | 229mm                     |
| 254mm-292mm            | 305mm                     |
| 229mm-368mm            | 279mm-371mm Adj. Pipe     |
| 381mm-597mm            | 432mm-610mm Adj. Pipe     |



### **WARNING:**

Do not combine flueing components from different flueing systems.

Use of 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 Flue 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 Flue other than Simpson Dura-vent, 3 screws must be used to secure rigid pipe to adaptor.**

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

## HORIZONTAL TERMINATIONS

### Rigid Pipe 102mm x 175mm

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

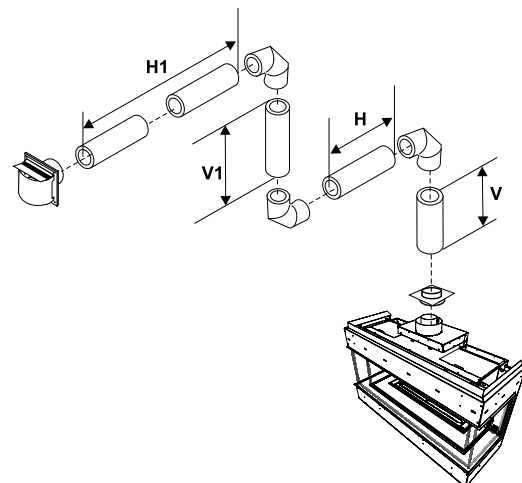
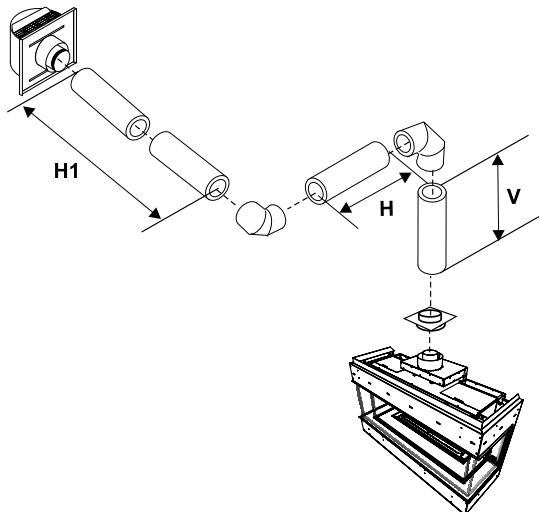
1. A maximum of three 90° elbows are permitted.
  2. Minimum distance between elbows is 305mm.
- Maintain clearances to combustibles as listed in the "Clearances" section.
  - Horizontal flue must be supported every 0.9m.
  - Firestops are required at each floor level and whenever passing through a wall.
  - Must use optional rigid pipe adaptor (Part# 510-994) when using rigid pipe flue systems.
  - A flue 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 3m - otherwise rigid flueing must be used.

#### Horizontal Flueing with Two (2) 90° Elbows *One 90° elbow = Two 45° elbows.*

| Option                             | V    | H + H1 | <p>With these options, maximum total pipe length is 9.1m with minimum of 1.8m feet total vertical and maximum 2.4m total horizontal.</p> <p><b><i>Please note minimum 0.3m between 90° elbows is required.</i></b></p> |
|------------------------------------|------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                    | Min. | Max.   |                                                                                                                                                                                                                        |
| A)                                 | 0.3m | 0.6m   |                                                                                                                                                                                                                        |
| B)                                 | 0.6m | 1.2m   |                                                                                                                                                                                                                        |
| C)                                 | 0.9m | 1.5m   |                                                                                                                                                                                                                        |
| D)                                 | 1.2m | 1.8m   |                                                                                                                                                                                                                        |
| E)                                 | 1.5m | 2.1m   |                                                                                                                                                                                                                        |
| F)                                 | 1.8m | 2.4m   |                                                                                                                                                                                                                        |
| Restrictor Set 0 - Factory Setting |      |        |                                                                                                                                                                                                                        |

#### Horizontal Flueing with Three (3) 90° Elbows *One 90° elbow = Two 45° elbows.*

| Op-<br>tion                        | V    | H    | V + V1 | H +<br>H1 | With these op-<br>tions, max. total<br>pipe length is 9.1m<br>with min. of 3.6m<br>total vertical and<br>max. 2.7m total<br>horizontal.<br><br><b><i>Please note min.<br/>0.3m between<br/>90° elbows is<br/>required.</i></b> |
|------------------------------------|------|------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                    | Min. | Max. | Min.   | Max.      |                                                                                                                                                                                                                                |
| A)                                 | 0.3m | 0.3m | 0.6m   | 0.6m      |                                                                                                                                                                                                                                |
| B)                                 | 0.3m | 0.6m | 0.9m   | 0.9m      |                                                                                                                                                                                                                                |
| C)                                 | 0.6m | 0.6m | 1.5m   | 1.2m      |                                                                                                                                                                                                                                |
| D)                                 | 0.9m | 0.6m | 2.1m   | 1.5m      |                                                                                                                                                                                                                                |
| E)                                 | 1.2m | 0.9m | 2.7m   | 1.8m      |                                                                                                                                                                                                                                |
| F)                                 | 1.5m | 1.2m | 3m     | 2.1m      |                                                                                                                                                                                                                                |
| G)                                 | 1.8m | 1.5m | 3.3m   | 2.4m      |                                                                                                                                                                                                                                |
| H)                                 | 2.1m | 1.8m | 3.6m   | 2.7m      |                                                                                                                                                                                                                                |
| Restrictor Set 0 - Factory Setting |      |      |        |           |                                                                                                                                                                                                                                |



## VERTICAL TERMINATIONS

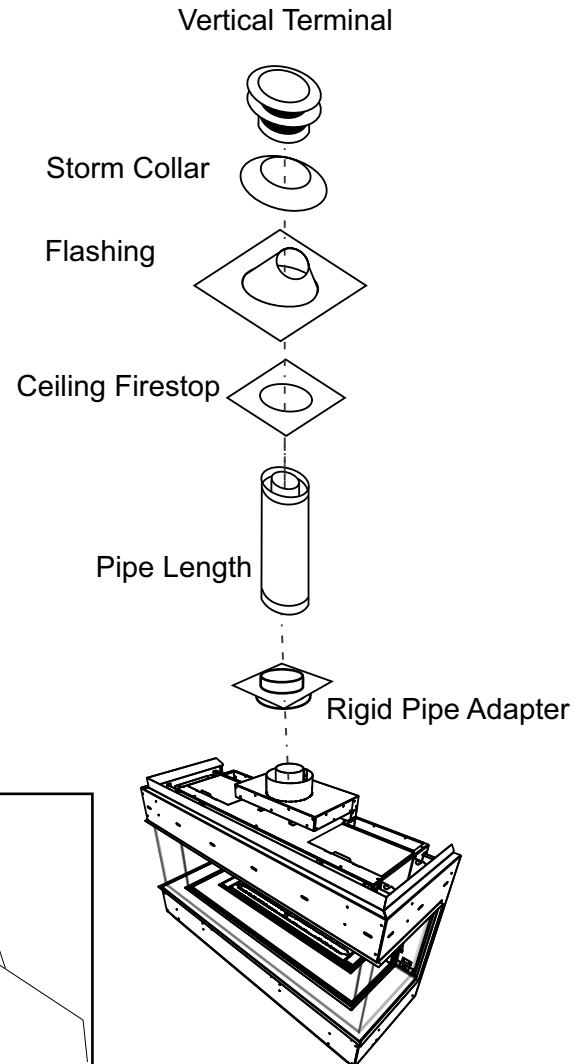
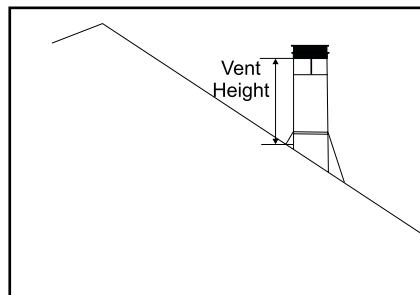
### Rigid Pipe 102mm x 175mm

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 flue 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 flue height may solve the problem.

| Roof Pitch          | Minimum Flue Height |
|---------------------|---------------------|
|                     | Meters              |
| flat to 7/12        | 0.61                |
| over 7/12 to 8/12   | 0.61                |
| over 8/12 to 9/12   | 0.61                |
| over 9/12 to 10/12  | 0.76                |
| over 10/12 to 11/12 | 0.99                |
| over 11/12 to 12/12 | 1.22                |
| over 12/12 to 14/12 | 1.52                |
| over 14/12 to 16/12 | 1.83                |
| over 16/12 to 18/12 | 2.13                |
| over 18/12 to 20/12 | 2.29                |
| over 20/12 to 21/12 | 2.44                |



#### **WARNING:**

Do not combine flueing components from different flueing 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 Flue 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.

## VERTICAL TERMINATIONS

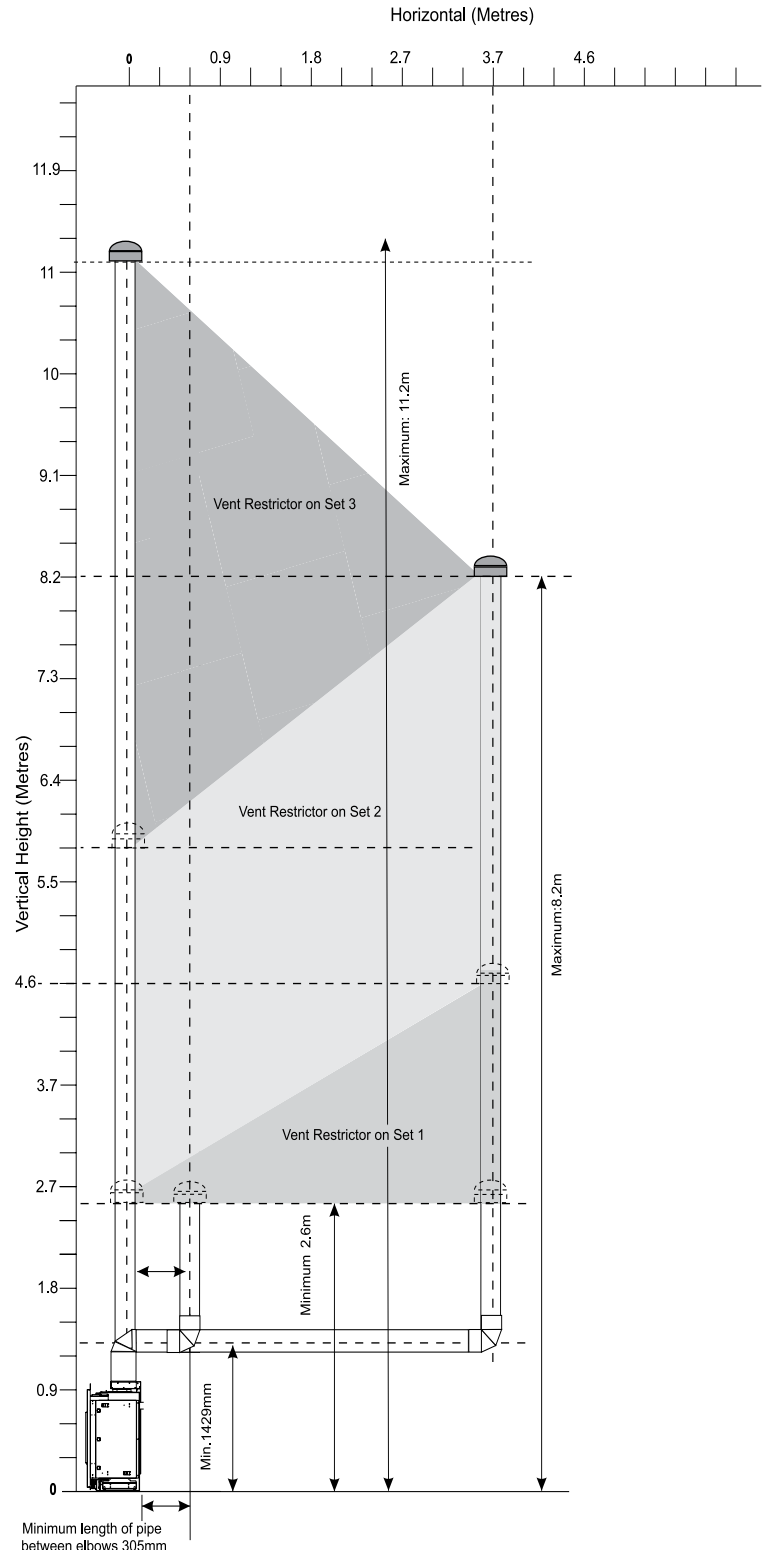
Vertical Flueing with Straight Vertical Flueing and or with a max. of two (2) 90° Elbows (1 - 90° = 2 - 45°)

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 Flueing Systems**.

Two 45° elbows equal to one 90° elbow.

- Vent must be supported at offsets.
- Minimum distance between elbows is 305mm.
- Maintain clearances to combustibles as listed in the "Clearances" section.
- Horizontal vent must be supported every 0.9m.
- 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.

**"THIS UNIT MUST ALWAYS  
TERMINATE / FLUE  
DIRECTLY TO THE OUTDOORS."**



## VERTICAL TERMINATIONS

### Rigid Pipe 102 mm x 175 mm

- Two 45° elbows equal to one 90° elbow. Maximum of six 45° elbows allowed.
- Flue must be supported at offsets.
- Minimum distance between elbows is 305mm.
- Maintain clearances to combustibles as listed in the "Clearances" section.
- Horizontal flue must be supported every 0.9m.
- 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 flue systems)

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

**One 90° elbow = Two 45° elbows.**

| Option                                 | V    | H + H1 | V + V1 | With these options, max. total pipe length is 9.1m with min. of 3m total vertical and max. 2.4m total horizontal.<br><br><b>Please note min. 0.3m between 90° elbows is required.</b> |
|----------------------------------------|------|--------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                        | Min. | Max.   | Min.   |                                                                                                                                                                                       |
| A)                                     | 0.3m | 0.6m   | 0.9m   |                                                                                                                                                                                       |
| B)                                     | 0.6m | 0.9m   | 1.2m   |                                                                                                                                                                                       |
| C)                                     | 0.9m | 1.2m   | 1.8m   |                                                                                                                                                                                       |
| D)                                     | 1.2m | 1.5m   | 2.1m   |                                                                                                                                                                                       |
| E)                                     | 1.5m | 1.8m   | 2.4m   |                                                                                                                                                                                       |
| F)                                     | 1.8m | 2.1m   | 2.7m   |                                                                                                                                                                                       |
| G)                                     | 2.1m | 2.4m   | 3.0m   |                                                                                                                                                                                       |
| Lengths do not include elbow indicated |      |        |        |                                                                                                                                                                                       |

