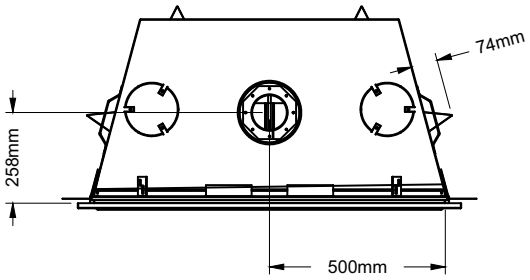
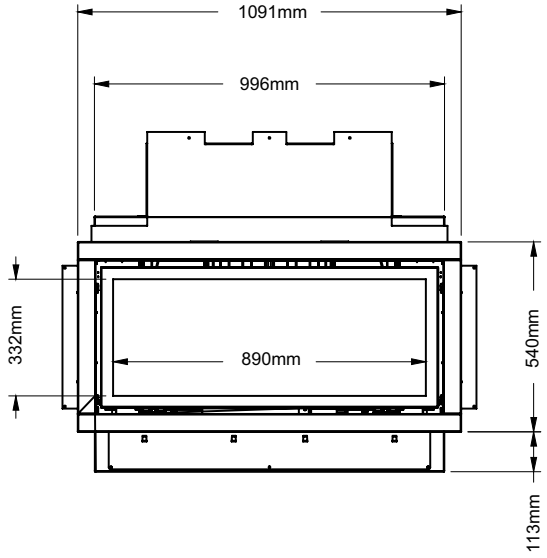
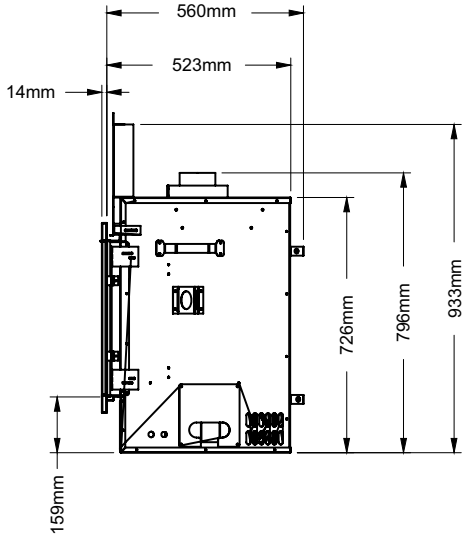
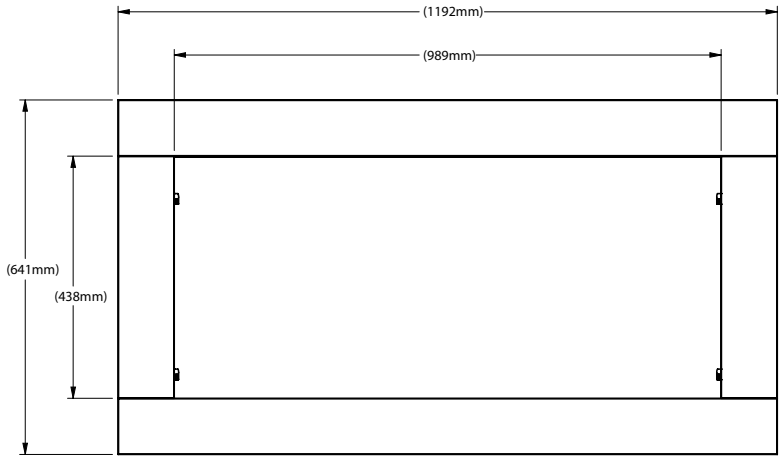
Greenfire® GF900C Gas Fireplace

Model	GF900C-NG-2	GF900C-LP-2	GF900C-ULPG-2
Fuel Type	Natural Gas	Propane	Propane
Gas Consumption	32 MJ/h	28 MJ/h	28 MJ/h
Manifold Pressure	0.87 kPa	2.49 kPa	2.49 kPa
Injector Size	#37	#53	#53









Verona Surround Faceplate Dimensions

Clearances

The clearances listed below are Minimum distances unless otherwise stated:

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 this fireplace and vent system be installed only in accordance with these instructions.

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.

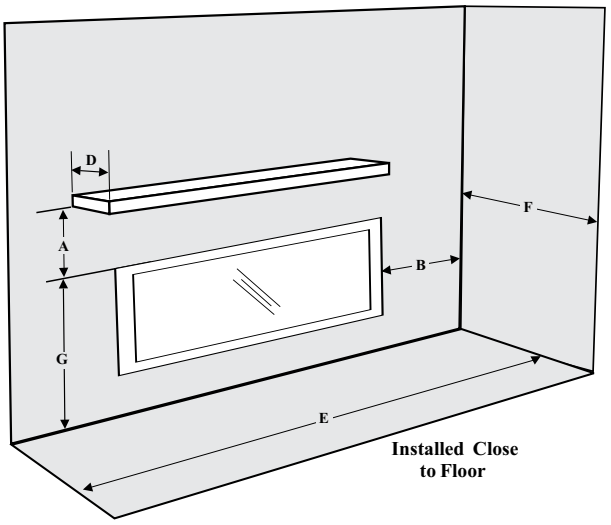
WARNING
Fire hazard is an extreme risk
if these clearances (air space) to combustible materials are not adhered to. It is of greatest importance that this fireplace and vent system be installed only in accordance with these instructions.

Clearance:	Dimension	Measured From:
A: Mantel Height (min.)	191mm	Top of Fireplace Opening (Hot Air Outlet)
B: Sidewall (on one side)	146mm	Side of Fireplace Opening
C: Ceiling (room and/or alcove)	1003mm	Top of Fireplace Opening
D: Mantel Depth (max.)	305mm	420mm Above Fireplace Opening
E: Alcove Width	1480mm	Sidewall to Sidewall (Minimum)
F: Alcove Depth	787mm	Front to Back Wall (Maximum)
G: From Floor	605mm	Top of Fireplace Opening (Hot Air Outlet)
Note:	0	No hearth required

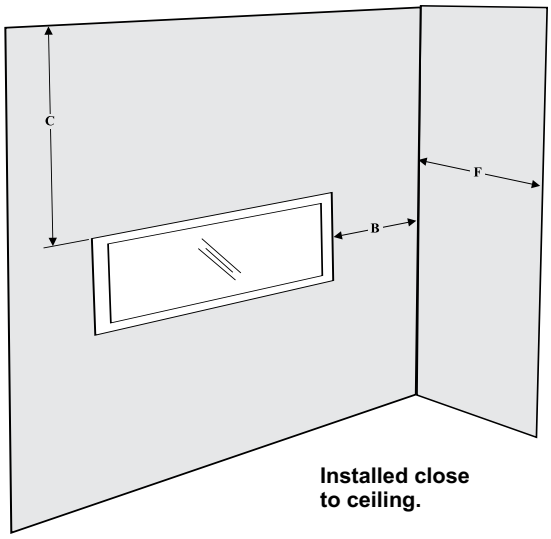
Flue Clearances to Combustibles	
Horizontal - Top	76mm
Horizontal - Side	51mm
Horizontal - Bottom	51mm
Vertical	51mm

IMPORTANT: If installing a television above this appliance, the television must be either fully recessed into the wall above the fireplace and or have a mantle below the television. If the television is left unprotected, the extreme heat being emitted from this appliance will result in damage to the television. See clearance requirements for both mantle and or enclosing the top of the appliance in this manual.

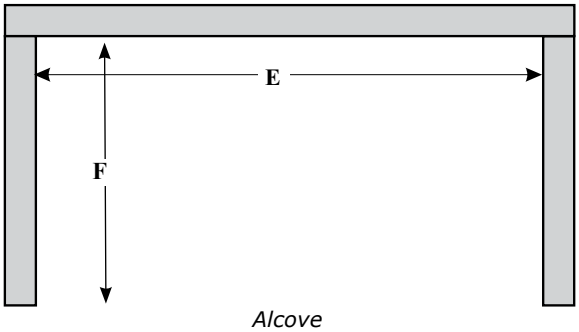
NOTE: The unit can be installed onto a combustible base.



Installed Close to Floor



Installed close to ceiling.



Alcove

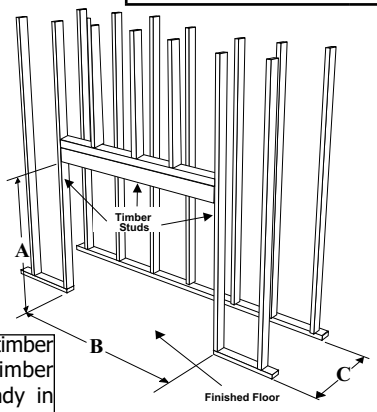
Framing Dimensions

IMPORTANT NOTE:

This unit can be finished with combustible facing material of thickness range 10-19mm OR non-combustible facing material of a minimum thickness 12mm.

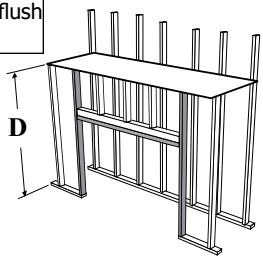
Framing Dimensions	Description	GF900C
A	Framing Height	940mm combustible finish
A[1]	Framing Height -Steel Stud	756mm non combustible steel stud
B	Framing Width	1127mm
C	Framing Depth	552mm
D	Minimum Height to Combustibles	1156mm
E	Corner Wall Depth	1273mm
F	Corner Facing Wall Width	1800mm
G	Vent Centerline Height	991mm
H*	Non-combustible facing height	*see non-combustible facing height in this manual
I	Gas Connection Opening Height	38mm
J	Gas Connection Height	67mm
K	Gas Connection Inset	44mm
L	Gas Connection Opening Width	89mm

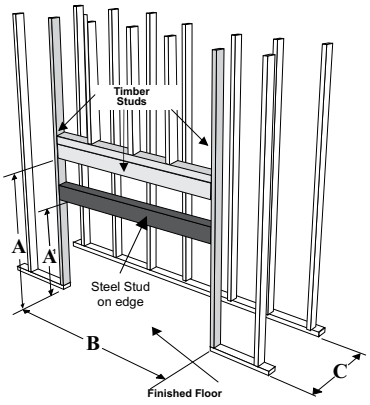
NOTE: A minimum thickness of 12mm non-combustible facing board compliant with AS1530-1 and AS1530-3 is required when using the non combustible flush finishing option.
A minimum thickness of 10mm-19mm combustible facing board is required when choosing the combustible flush finishing option.
Note: must maintain 13mm air gap all around the perimeter of the appliance when choosing this option.

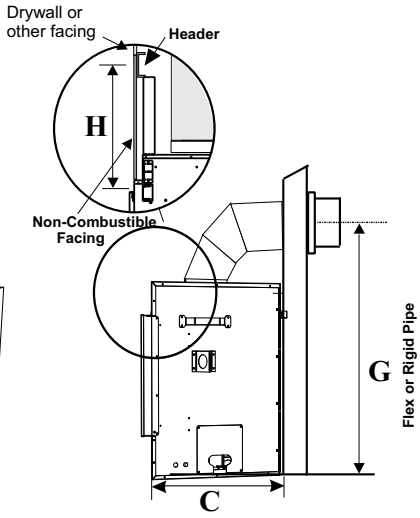


Combustible flush finishing Framing

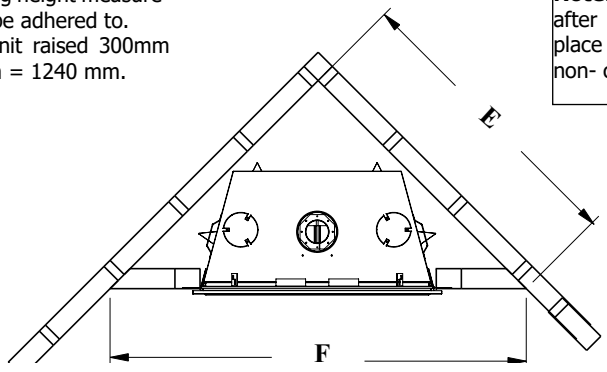
NOTE: Do not place timber studs below the timber framing studs already in place. Additional steel studs must be added as shown when choosing the non combustible flush finishing option.



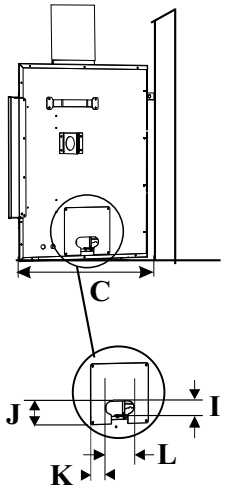




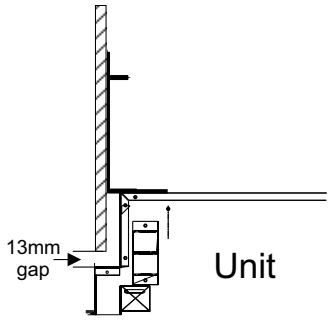
Note: If raising the unit, then the minimum framing height measurement (A) must be adhered to.
For example: Unit raised 300mm then A+ 300mm = 1240 mm.



Note: Steel stud must be installed after unit has been positioned in place and prior to installation of non- combustible finishing.



Framing & Finishing (Combustible)

Finished Material		
10mm-19mm thickness using combustible finishing Note: must maintain 13mm air gap all around (see diagrams below and on next page)	1st slot	

Note:
***Finishing Trim or one of the fascias must be used with combustible finishing.**

10mm to 19mm combustible finishing can be used if the 13mm air gap around the front facing of the unit is maintained. Finishing material cannot be thicker than 19mm and must be flush with the front edge of the flange.

Note:

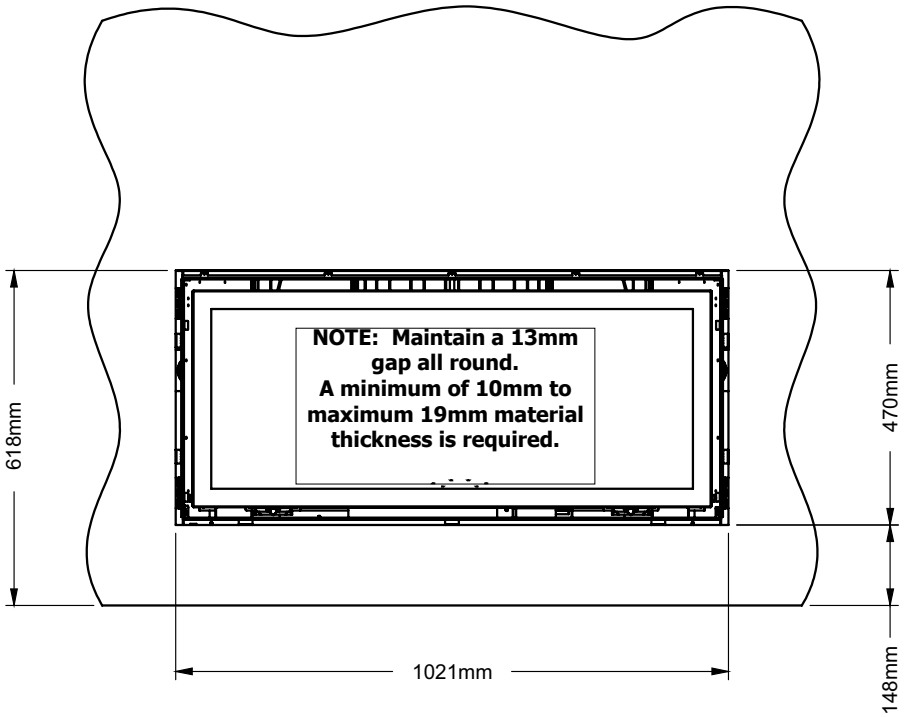
- The siding nailing strips are factory set at 10mm. The top nailing strip is fixed during transit to the rear of the appliance.
- Do not place any reinforcement in front of header and behind finishing material.
- The nailing strip must be used. It is fixed during transit to the rear of the unit.

Note:

Depending on the material used for finishing, the nailing strips must be set accordingly so that the finished material is always be flush with the edge of the flange.

If finishing with material with a combined thickness greater than 19mm, non-combustible material must be used.

Combustible Requirements



NOTE:
The appliance must be installed on a flat, solid, continuous surface For example a wood, metal or concrete floor. In a raised (on the wall) application the appliance must be installed on a metal or wood panel extending the full width and depth of the appliance.

NOTE:
Do not remove the standoffs which are located around the perimeter off this unit These are in place and act as a guide for the combustible material to be placed.

Clearances for Combustible Finishing with Mantel

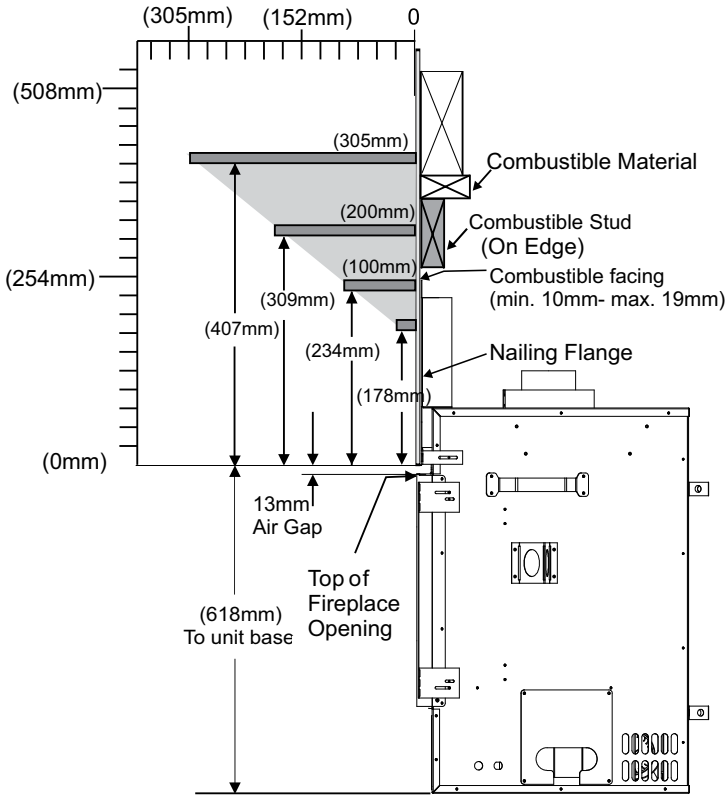
Due to the extreme heat this fireplace emits, the mantel clearances are critical.

Combustible finishing and mantel clearances are shown in the diagram on the right. Finishing Trim must be used with combustible finishing.

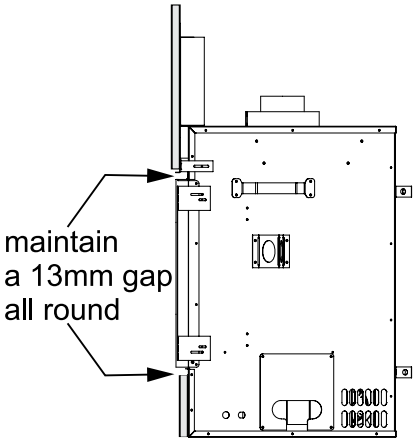
Note: Maximum combustible finishing material thickness is 19mm measured from the front of the fireplace opening. If total finishing material is greater than 19mm, non-combustible must be used.

Note: Ensure the paint that is used on the mantel and the facing is "high quality" or the paint may discolour.

Note: Combustible mantel starts at 796mm (618mm + 178mm) from unit base.

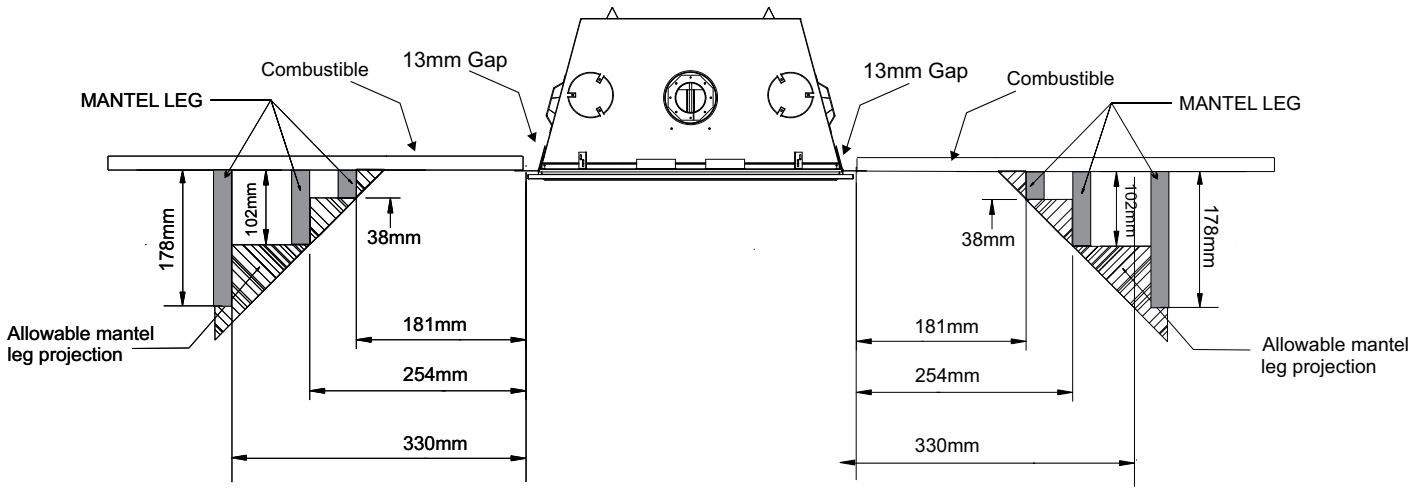


Important:



Combustible Mantel Leg Clearances

Mantel leg & combustible finishing clearances as per diagram:



Clearances for Non-Combustible Flushed Finishing with Mantel

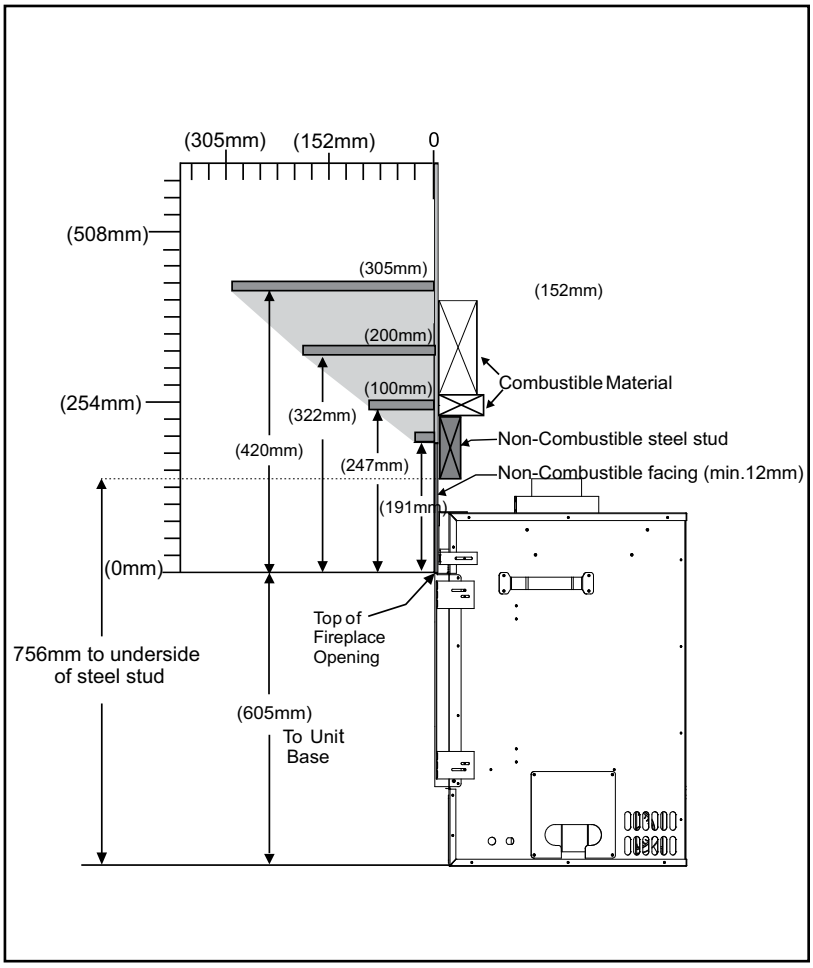
Due to the extreme heat this fireplace emits, the mantel clearances are critical.

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

Note: For a flushed finish using non-combustible finishing, seven 13mm stand-off tabs around the fireplace opening must be broken off. The top nailing flange cannot be used and a non-combustible steel stud must be installed to support the non-combustible facing.

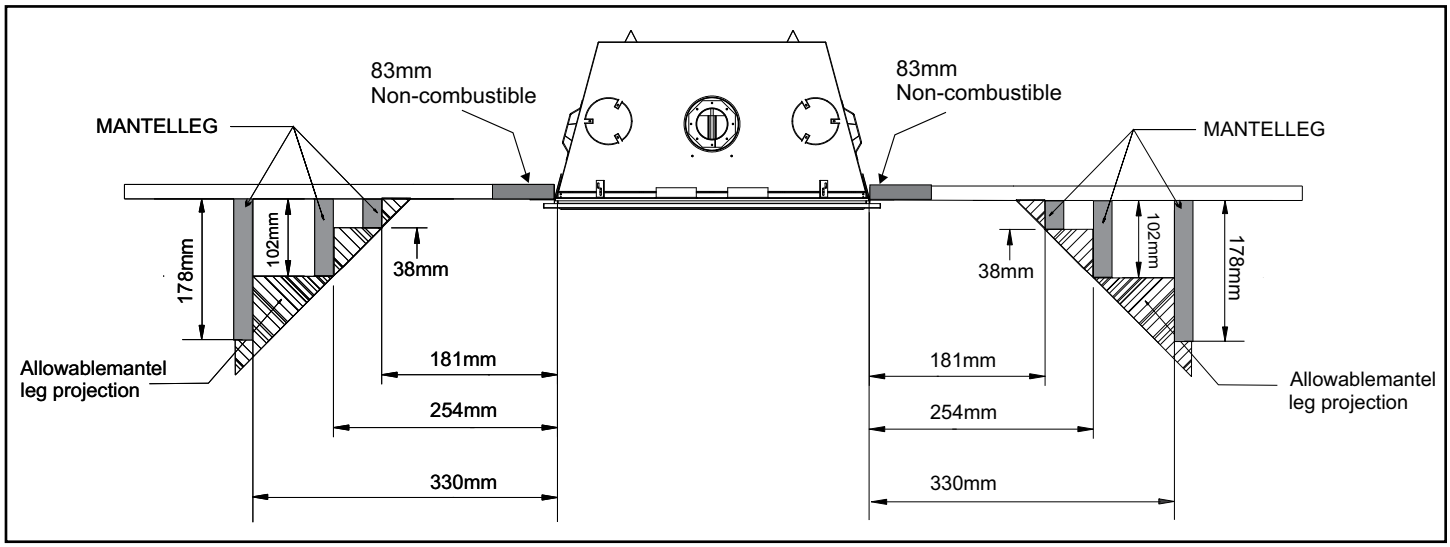
Note: Ensure the paint that is used on the mantel and the facing is "high quality" or the paint may discolour.

Note: Combustible mantel starts at 796mm (605mm + 191mm) from unit base.

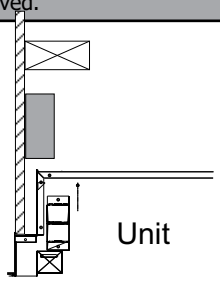
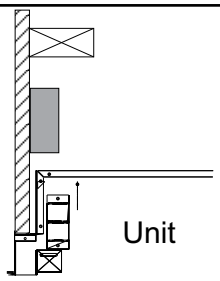
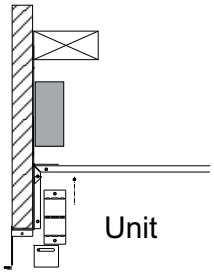


Non-Combustible Mantel Leg Clearances

Mantel leg & Non-combustible finishing clearances as per diagram: (Flushed Finish)



Flushed Finishing & Framing with Non-Combustible Material

Finished Material	* diagrams shown below are with top nailing strip removed.
12mm	
25mm	
38mm	

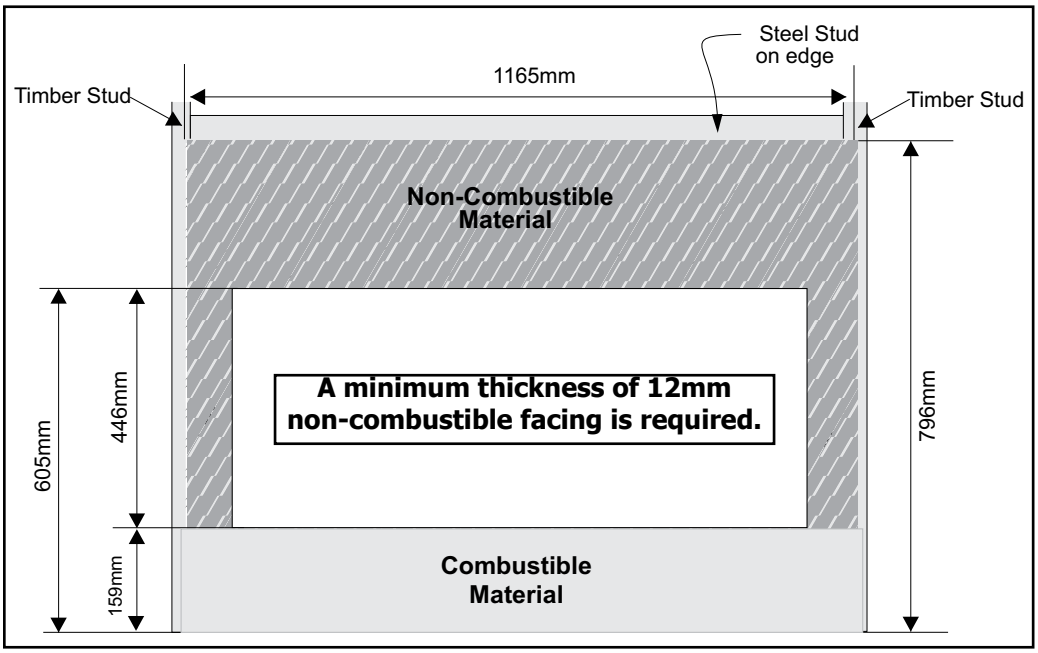
Note: For flush finishing, the top nailing strip must be removed and a non-combustible steel stud support added.

The seven fireplace opening standoffs which are located on this unit can be removed when non combustible material is installed flush with the unit. (see P. 13).

Non-combustible finishing material on the top and sides must also be used.

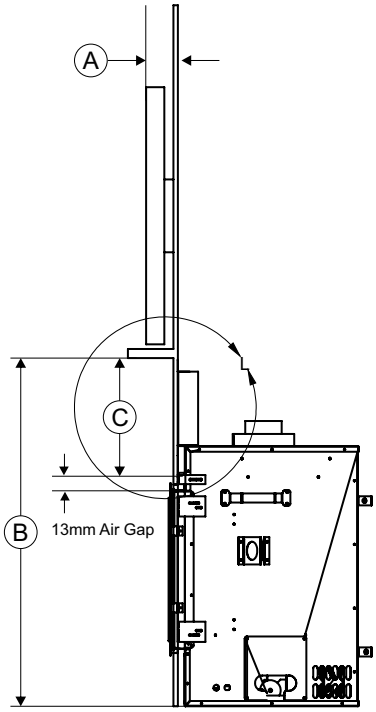
MINIMUM THICKNESS OF THE FINISH MATERIAL: 12MM

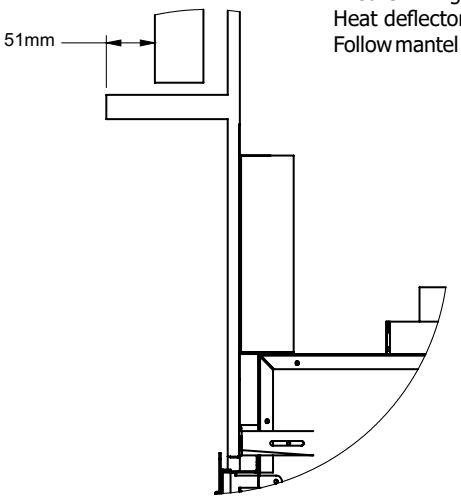
Non Combustible Requirements



NOTE:
The appliance must be installed on a flat, solid, continuous surface For example a wood, metal or concrete floor. In a raised (on the wall) application the appliance must be installed on a metal or wood panel extending the full width and depth of the appliance.

Installing a TV / Artwork Flush with the Unit



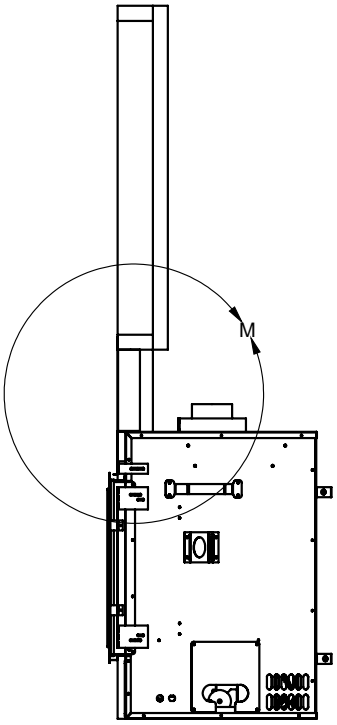


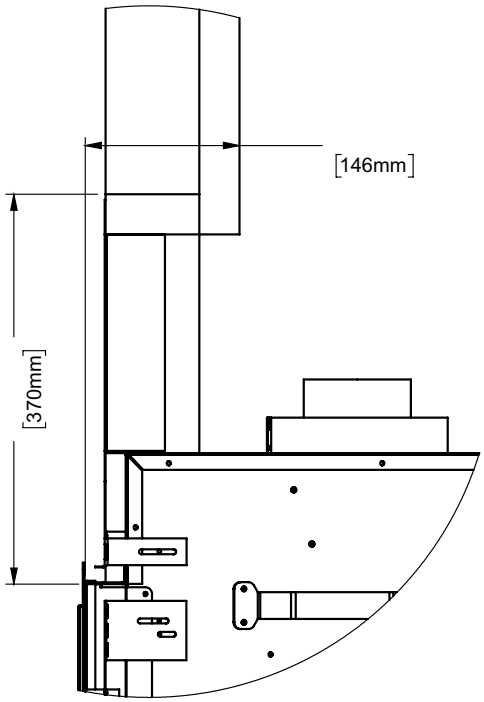
Note: All wiring should stay free and clear of the vent system to avoid damage due to heat, if located directly in front of the vent system.
Ensure wiring is secured without any sag.
Heat deflector must overhang front of TV by 51mm.
Follow mantel clearance chart for install height and heat deflector depth.

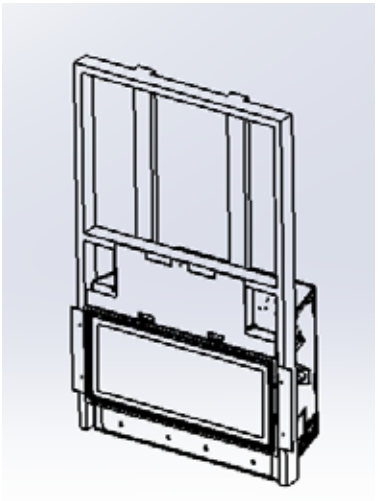
Installing a TV / Artwork Enclosed Above the Unit

Maximum recess is 146mm."
Minimum height is 370mm from top lip.

Note: The TV mounting bracket can not be secured directly to the appliance. It must be secured to framing. The TV depicted in the picture may need to be higher depending on the style of TV mounting bracket used. The mounting bracket shown is a simple single strip TV secured to framing.



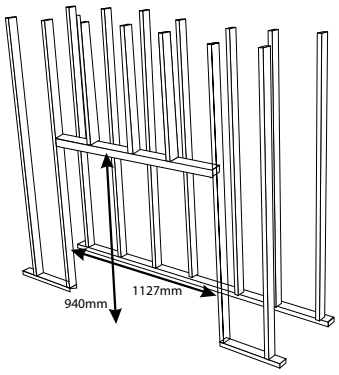




Ensure framing does not interfere with venting

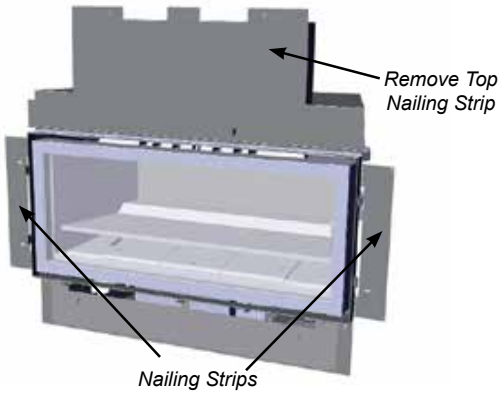
Optional Framing Kit

1. Construct the timber framing, ensure inside dimensions are 940mm H x 1127mm W as shown below.



2. Bend both sides of the nailing strips from the side of the appliance until positioned as shown below. Determine the overall combined thickness of the non-combustible board and finished material used. The nailing strips can be adjusted up to 38mm.

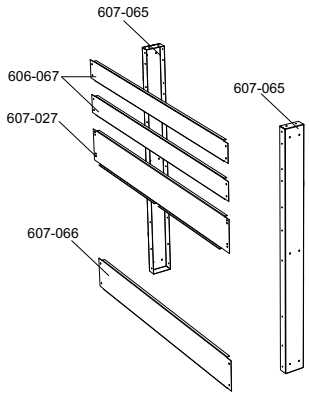
3. Remove the top nailing strip and recycle it.

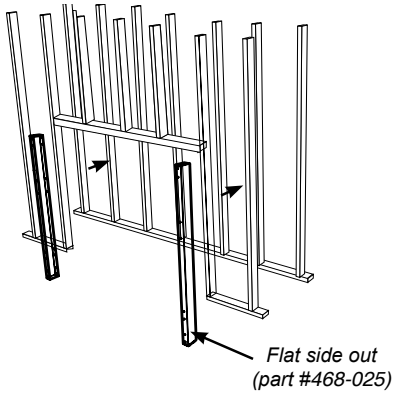


4. Adjust the nailing strips by loosening 2 screws on each nailing strip - adjust and retighten screws (depending on the finishing material used.)

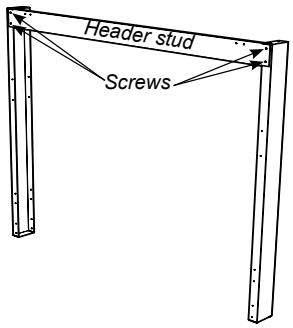
5. Attach both vertical studs (468-025) to the vertical timber studs and secure using 6 screws (2 at bottom, 2 at top and 2 on sides) as shown.

NOTE
- Ensure the flat side of the steel stud is facing the timber framing.





6. Secure horizontal steel header stud *(part # 468-039)* with two screws per side as per diagram.

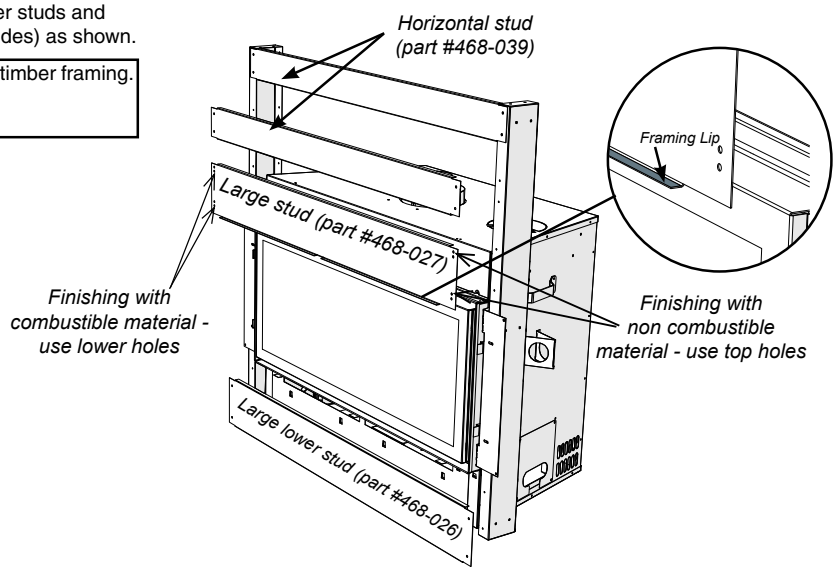


7. Slide the unit into position. Hook up gas, flueing, electrical and conversion kit (if purchased) prior to installing the remaining steel studs.

8. Secure the upper horizontal steel stud as shown with 2 screws per side.

9. Secure the top large horizontal stud *(468-027)* with 2 screws per side as shown. Bring finishing material to the edge of the top framing lip on large stud *(468-027).*

10. Install the large lower stud *(468-026)* with 2 screws on each side.



Framing & Finishing (Clean Finish Installations Only)

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

   IMPORTANT: The framed opening must be of non-combustible material.

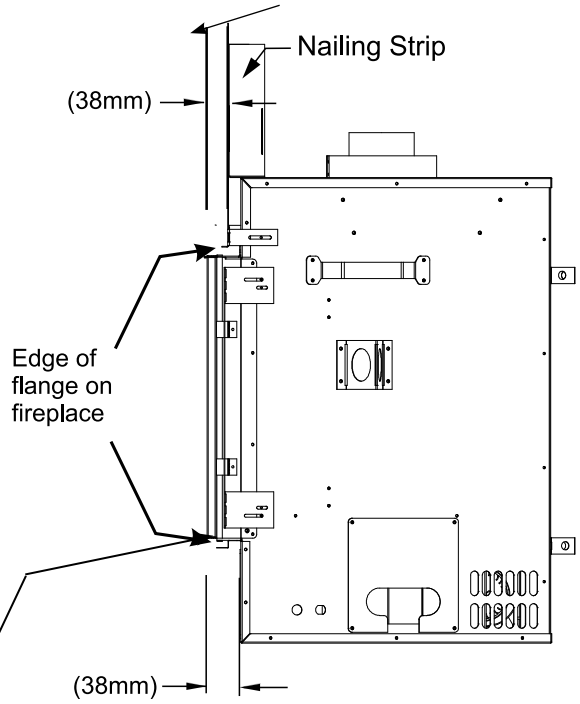
Note: When constructing the framed opening, please ensure there is access to install the gas lines when the unit is installed.

2. For exterior walls, insulate the enclosure to the same degree as the rest of the house, apply vapour barrier and drywall, as per local installation codes. **(Do not insulate the fireplace itself and/or the flueing. Clearances must be maintained as per this manual.)**

   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. The unit does not have to be completely enclosed in a chase. You must maintain clearances from the flue to combustible materials: See "Clearances" section. Combustible materials can be laid against the side and back standoffs and the appliance base.

4. Non-combustible material (ie. tile, slate, etc) may be brought up to and overlap the unit (top and bottom) ensuring that the maximum thickness does not go beyond the 38mm as shown in the diagram below. The faceplate will not be able to be mounted if finished material is beyond 38mm.



Ensure front of facing material is flush with the edge of the flange on the fireplace.

Flueing Introduction

The GF900 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.

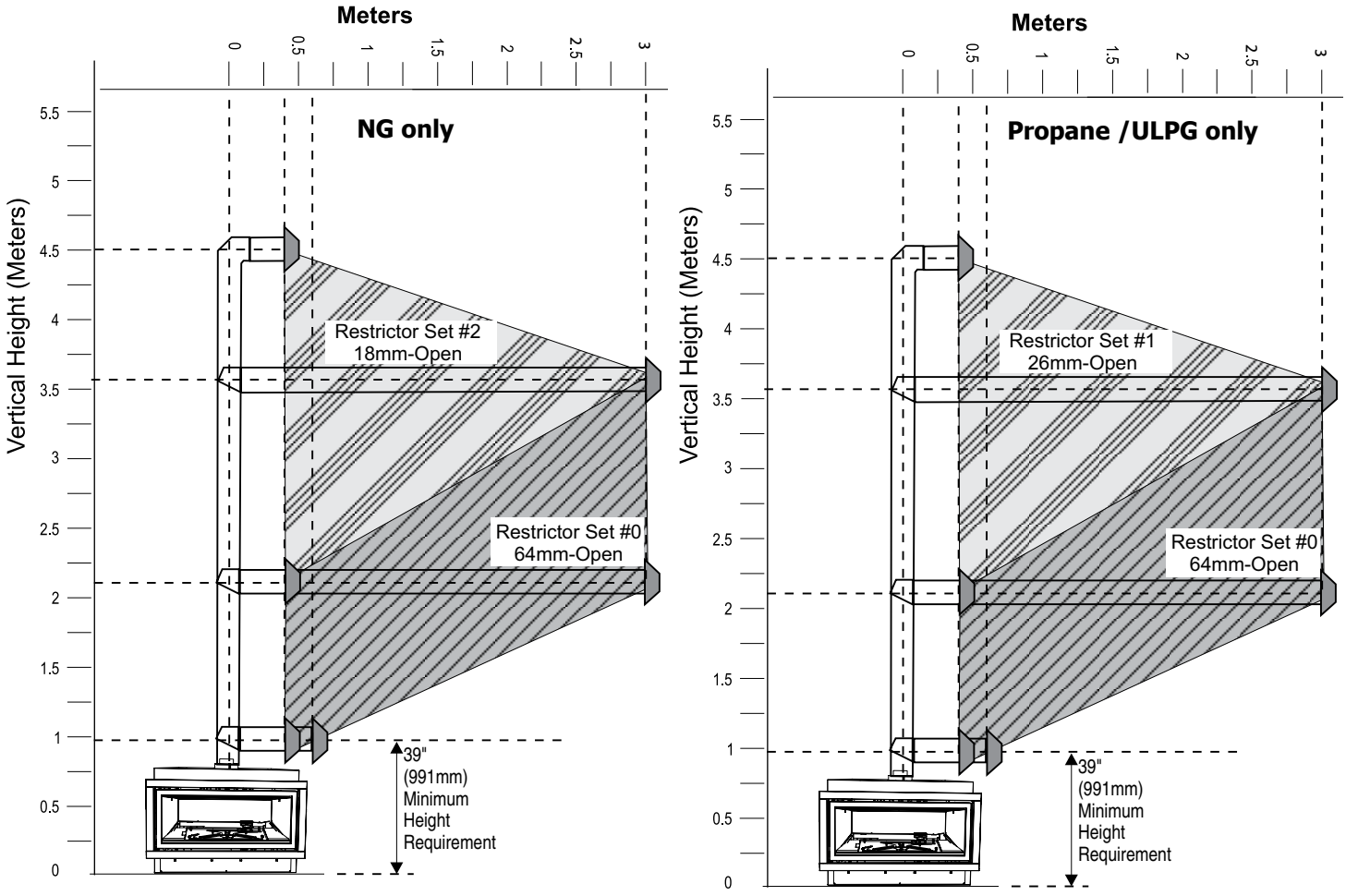
Note: These flue pipes must not be connected to any other appliance.

The gas appliance and flue system must be flueed 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 it's 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 1 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.**

Flueing Arrangements
Horizontal Termination (Flex)
Regency® Direct Vent System

These flueing systems, in combination with GF900C, have been tested and listed as a Direct Vent system by AGA. The location of the termination cap must conform to the requirements in the Flue Terminal Locations diagram from the "Exterior Flue Termination Locations" section.

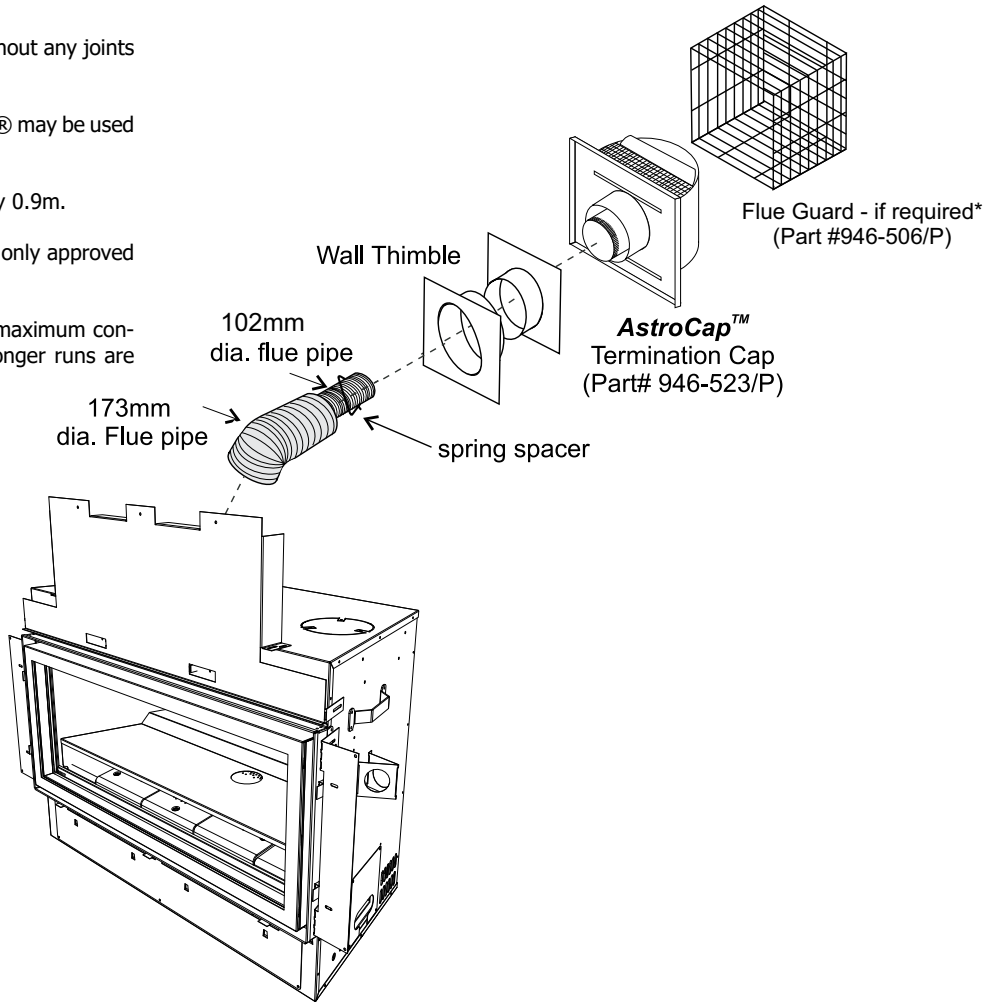
Regency® Direct Vent (Flex) System Termination Kits includes all the parts needed to install the GF900C using a flexible vent.

FPI Kit #	Length	Contains:
#946-515	1.2 m	1) 175mm flexible outer liner (Kit length) 2) 102mm flexible inner liner (Kit length) 3) spring spacers 4) thimble 5) ***AstroCap*** termination cap 6) screws 7) tube of Mill Pac 8) plated screws 9) S.S. screws #8 x 1-1/2" drill point
#946-516	3 m	

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 flue must be supported every 0.9m.
4. Regency® Direct Vent System (Flex) is only approved for horizontal terminations.
5. 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.

NOTE: Maximum horizontal run: 3M



Horizontal Terminations
Rigid Pipe 102mm x 175mm

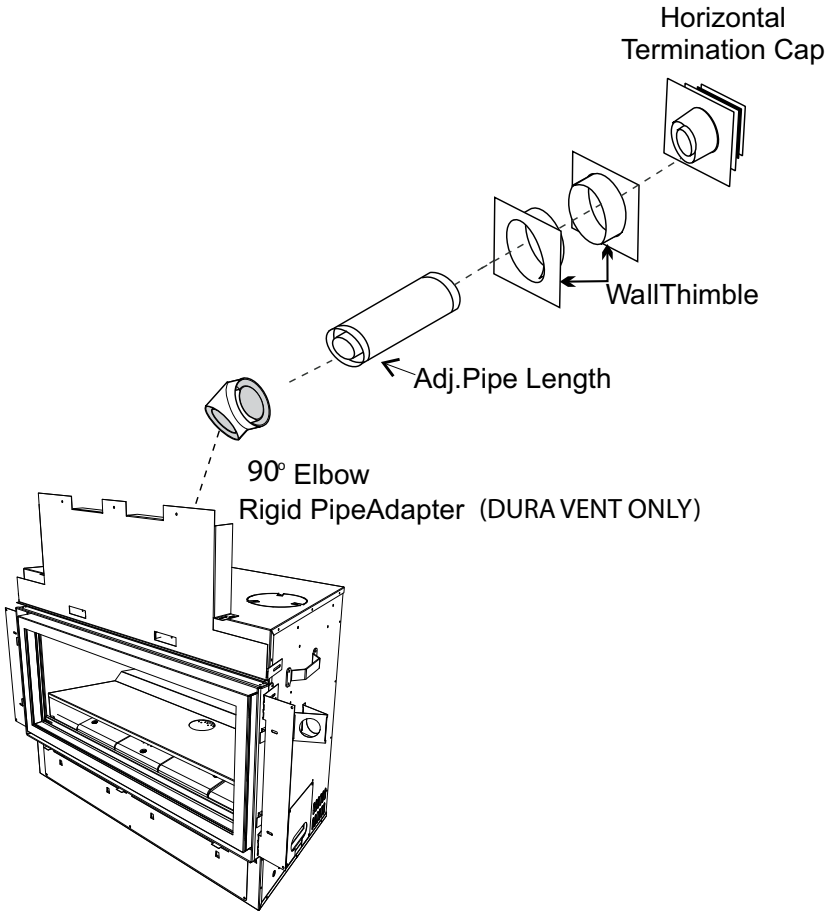
The minimum components required for a basic horizontal termination are:

1 Horizontal Termination Cap
1 90° Elbow
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 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.

However 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.

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

The FPI AstroCap™ and Regency vertical cowls are certified for installations using FPI venting systems as well as Simpson Dura-Vent® Direct Vent. 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 Pipe 4" x 6-5/8" (102mm x 175mm)

The diagrams below shows examples of horizontal termination arrangements using one 90° elbow.

1) A maximum of one 90° or two 45° elbows is permitted.

2) Minimum distance between elbows is 305mm.

- **Maintain clearances to combustibles as listed in the "Clearances" section.**
- **Horizontal vent must be supported every 0.9m.**
- **Must use optional rigid pipe adaptor (Part# 510-994) when using Duravent 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 3m - otherwise rigid flueing must be used.**

Straight Out Horizontal Venting

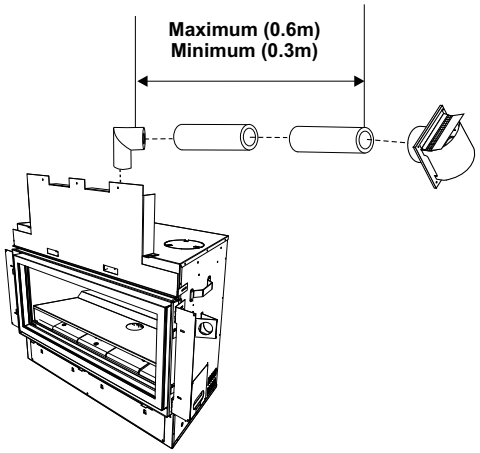
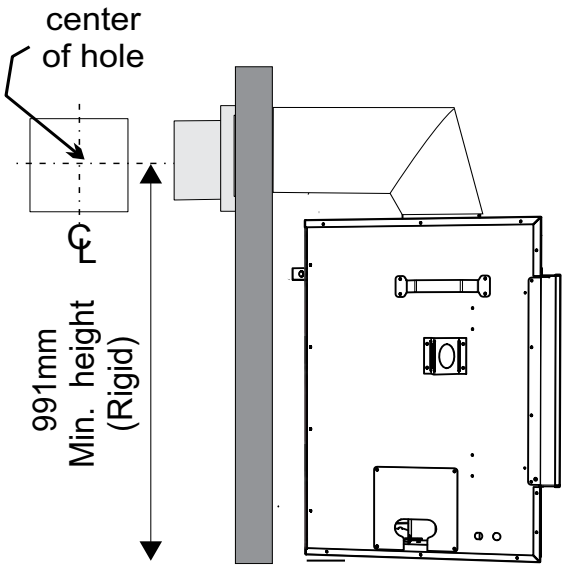


Diagram 1



Please note the minimum center-line for basic install shown above.

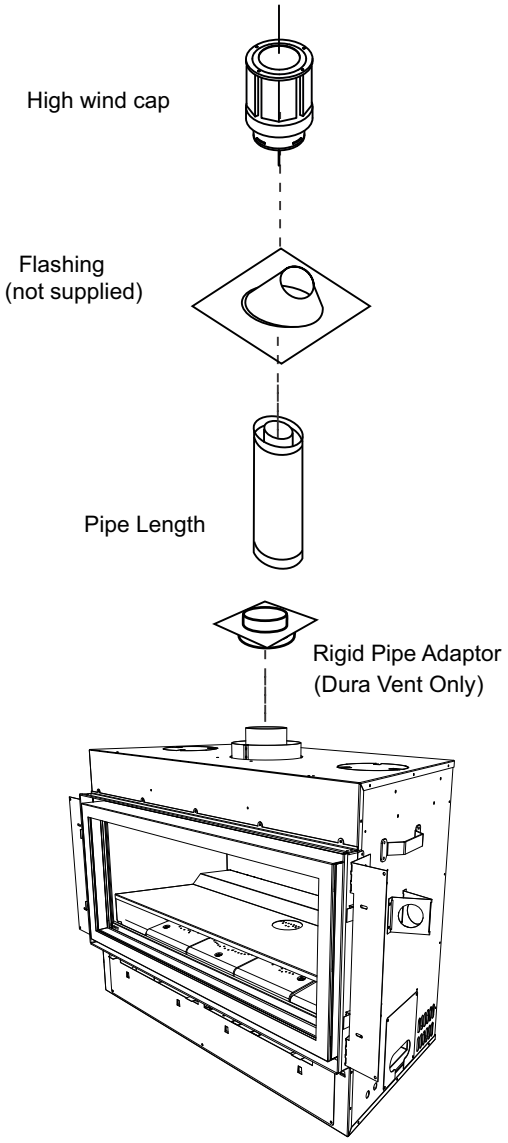
Vertical Terminations
Rigid Pipe 102mm x 175mm

The minimum components required for a basic vertical termination using Simpson Duravent Rigid Flue System are:

1 Vertical Termination Cap
1 Rigid Pipe Adaptor (510-994)
1 Flashing
1 Storm Collar
1 Length of pipe to suit height requirement (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 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 Flue Height
	Meters
flat to 30.26°	0.61
over 30.26° to 33.69°	0.61
over 33.69° to 36.37°	0.61
over 36.37° to 39.81°	0.76
over 39.81° to 42.51°	0.99
over 42.51° to 45.00°	1.22
over 45.00° to 49.40°	1.52
over 49.40° to 53.13°	1.83
over 53.13° to 56.31°	2.13
over 56.31° to 59.04°	2.29
over 59.04° to 60.26°	2.44



WARNING:

Do not combine venting components from different flueing systems.

However 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. 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.

Flueing Arrangement for Vertical Terminations

Vertical Flueing with One(1) 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 45° elbow, with Rigid Pipe Flueing Systems.

- Flue must be supported at offsets.
- Maintain clearances to combustibles as listed in the "Clearances" section.
- Horizontal flue 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 flue systems.
- 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 1 or Set 2 if required.

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