



# Studio 2 NZ Clean Air

## Freestanding Zero Clearance Box



## Installation Instructions

For use in NZ (New Zealand)

### **IMPORTANT**

THE OUTER CASING, FRONT AND GLASS PANEL BECOME EXTREMELY HOT DURING OPERATION AND WILL RESULT IN SERIOUS INJURY AND BURNS IF TOUCHED. IT IS THEREFORE RECOMMENDED THAT AN APPROVED FIREGUARD IS USED IN THE PRESENCE OF YOUNG CHILDREN, THE ELDERLY OR INFIRM.

CAUTION: THIS APPLIANCE SHOULD BE MAINTAINED AND OPERATED AT ALL TIMES IN ACCORDANCE WITH THESE INSTRUCTIONS.

Keep them in a safe place for future reference and when servicing the fire.

These products are tested in accordance with AS/NZS 4012:1999, AS/NZS 4013:1999 and AS/NZS 2918:2001 and comply with the NZ NES and ECAN emission requirements when using softwood

All installations must be carried out by an S.F.A.I.T (Solid Fuel Authorised Technician).

In New Zealand, the Studio must be bolted to the base to comply with the seismic restraint provisions of AS/NZ 2918:2001

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### Studio 2 NZ Freestanding with ZCB (Clean Air) - Instructions

Covering the following models:

**RVFS-2ZCNZ for use with RVST-2HTNZ**

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#### Warranty

For purchases outside of the United Kingdom, Republic of Ireland, France, Belgium and the Netherlands, please consult your Stovax retailer for the warranty available in your region. The Fireplace [www.thefireplace.co.nz](http://www.thefireplace.co.nz)

## APPLIANCE COMMISSIONING SHEET

This checklist **MUST** be filled out completely and signed in order to qualify for the full Dealer Warranty. Failing to complete this commissioning checklist will mean the warranty will only be valid for 12 months from the date of purchase.

### Dealer appliance was purchased from:

Name: \_\_\_\_\_

Address: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Telephone number: \_\_\_\_\_

### Essential information - MUST be completed:

Date Installed: \_\_\_\_\_

Model Description: \_\_\_\_\_

Serial Number: \_\_\_\_\_

### Installation Technician:

Company Name: \_\_\_\_\_

SFAIT License No \_\_\_\_\_

Address: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Telephone number: \_\_\_\_\_

### Commissioning Checks - to be completed and signed:

Is flue system correct for the appliance:	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Flue swept and soundness test complete*:	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Smoke test completed on installed appliance	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Spillage test completed	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Use of appliance and operation of controls explained	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Clearance to combustible materials checked**	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Instruction book handed to customer	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Smoke Alarm Fitted (Mandatory)	YES <input type="checkbox"/>	NO <input type="checkbox"/>
CO Alarm Fitted (Recommended)	YES <input type="checkbox"/>	NO <input type="checkbox"/>

\*If using an existing flue system - not applicable for a new flue assembly  
 \*\* Record with photographs if possible.

Signature: ..... Print Name: .....

## COMMISSIONING

To commission:

- Ensure all internal components (log guard, baffle(s), bricks) are correctly fitted.
- Check the door alignment and catch operation, adjust if required (see Maintenance and Servicing Instructions, Section 5).
- Check the soundness of door seals, castings and flue connections.
- Check the operation of the air control.

Now carry out a final smoke draw test:

- First warm the flue with a blowlamp, or similar, for about 10 minutes.
- Place a smoke pellet on the centre of the base bricks, with the air controls open.
- Close the door. Smoke should now be drawn up the flue and be seen to exit from the flue terminal.
- Complete test with all doors and windows closed in the room where the appliance is fitted.
- If there are any extractor fans in adjacent rooms, the test must be repeated with the fans running on maximum and interconnecting doors open.
- Check the effect of ceiling fans during the test.

If the test fails, re-check the suitability of the flue system and ventilation. **An inadequate air supply to the room is potentially dangerous.**

- Light the appliance and slowly increase the temperature to normal operating levels.
- Ensure no combustion products enter the room.
- Open the main fire door when the appliance reaches normal operating levels and carry out a spillage test with a smoke match or pellet around the door opening.

If excessive spillage occurs:

- Allow the appliance to cool and re-check the flue system and ventilation, see troubleshooting guide pages in User Instructions

Finally:

- **Explain the safe operation of the appliance and the use of the controls to the user and the importance of only using suitable fuels.**
- **Explain the cleaning and routine maintenance requirements.**
- **Explain the requirement to use a suitable fireguard when children, elderly or infirm persons are near the appliance.**

### IMPORTANT

- **Record dealer/supplier details and installer details on page 3 of this manual.**
- **Record serial number in page 3 of this manual.** This number is required when ordering spare parts and making warranty claims.
- **Give this instruction manual to the customer.**

**All open flued appliances can be affected by temporary atmospheric conditions which may allow fumes to enter the house. It is recommended that whenever a new or replacement fixed solid fuel or wood/biomass appliance is installed in a dwelling a carbon monoxide alarm be fitted in the same room as the appliance.**

**Provision of an alarm must not be considered a substitute for either installing the appliance correctly or ensuring regular servicing and maintenance of the appliance and chimney system.**



**These steps MUST be completed in order to qualify for the full dealer warranty.**

**Failing to complete the commissioning checklist on page 3 will mean the warranty will only be valid for 12 months from the date of purchase.**

# Installation Instructions - Appliance Description

## PLEASE NOTE

This section is intended to give an overview of the product performance and essential information required for installing the appliance. It is intended for qualified technicians who are already familiar with Stovax products.

For full details and expanded information please see the **Technical Appendix** at the back of this manual.

## ESSENTIAL INFORMATION

### AUTHORISATION NUMBER: 133649

The Studio 2 NZ has been authorised by Environment Canterbury as meeting the emissions and efficiency criteria.

<b>GENERAL</b>	<b>Model:</b>			
	<b>Studio 2 NZ Freestanding with ZCB (Clean Air)</b>			
	Nominal Heat Output	Wood	kW	12.0
	Room Heating Capacity	Wood	m <sup>3</sup>	210
	Particulate Emissions	Wood	g/kg	1.0
	Efficiency	Wood	%	66
	Weight		Kg	160
Recommended Fuels	Soft Wood	Seasoned Soft Wood (less than 20% moisture content)		

As tested to the requirements of AS/NZ 4012:1999 & AS/NZ 4013:1999.

<b>FLUES</b>	Flue/Chimney Size	Factory made system (diameter) installed in accordance with manufacturers instructions	mm	150/ 200/ 250
	Flue/Chimney minimum height from hearth level**	All products  **must be 4.5m from the appliance to the top of the flue, with no horizontal sections and a maximum of 4 bends. Bends must have angles of less than 45 degrees off the vertical.	m	4.6
			feet	15
	Flue Draught	Min	mm Wg	1.0
		Nominal		1.5
		Max		2.0
Flue Outlet Size (Top Option)		mm	153	
		inch	6	

<b>VENTILATION</b>	Cavity Ventilation - Page 30	∅	100mm x 2
	Room Air Replacement - <b>SUGGESTED MINIMUM</b> (vents x 2) - See Page 26	mm	175 x 175

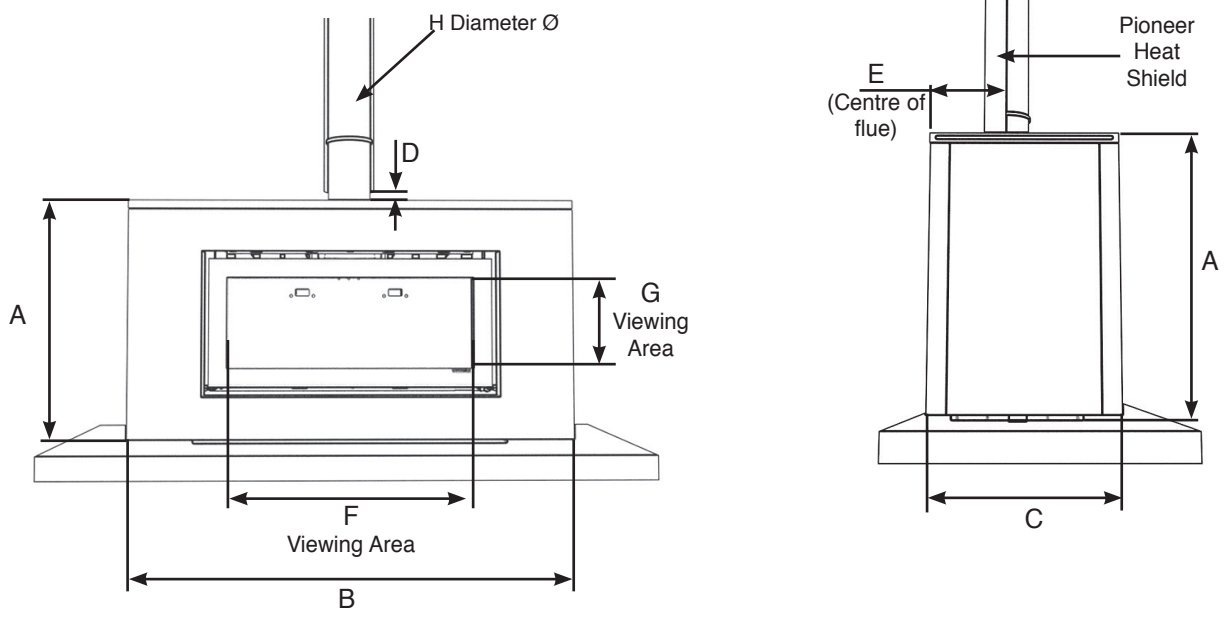
\*When measured from the top of the appliance to the top of the flue, with no horizontal sections and a maximum of 4 bends with angles of less than 45°. Bends should be installed as high as possible in the flue run and only after the first flue run of 1.2M.

\*\* DO NOT PLACE ANY OFFSET BENDS DIRECTLY INTO THE FLUE SPIGOT ON THE FIREBOX UNLESS THE DEFLECTION OFF THE VERTICAL IS 10 DEGREES OR LESS. NO BENDS OFF THE TOP OF THE APPLIANCE.

# Appliance Dimensions

Covering the following model - **RVFS-2ZCNZ** for use with **RVST-2HTNZ**

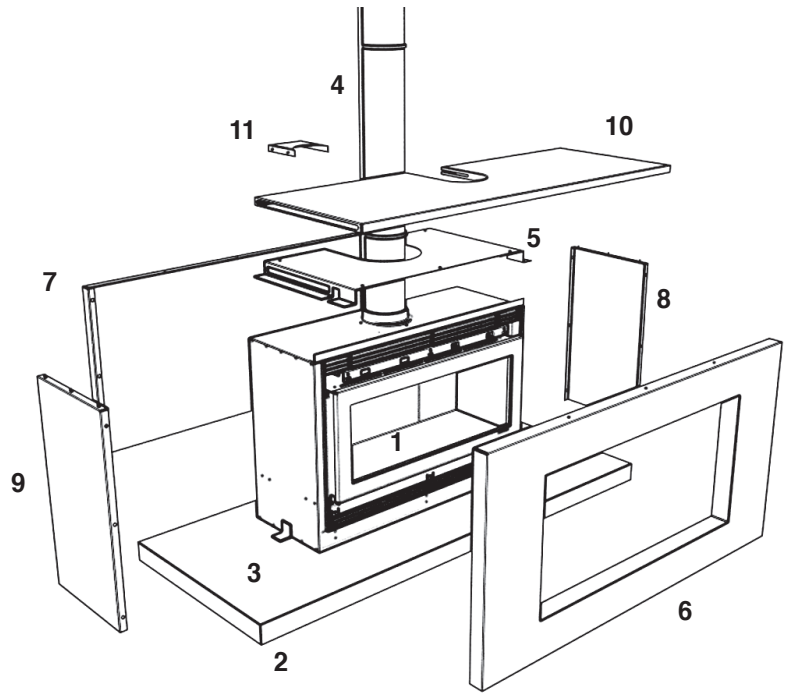
## STUDIO FREESTANDING ZERO CLEARANCE BOX DIMENSIONS - INCLUDING CABINET AND HEAT SHIELD



DESCRIPTION	MODEL	A	B	C	D	E	F	G	H
<b>Studio 2</b>	RVFS-2ZCN	780	1410	515	5	200	790	290	150

All dimensions in mm. (25.4 mm = 1")

## EXPLODED CABINET



Ref. No.	Description
1	FIREBOX
2	FLOOR PROTECTOR/HEARTH
3	EARTHQUAKE RESTRAINT
4	FLUE HEAT SHIELD
5	TOP SADDLE
6	FRONT PANEL
7	REAR PANEL
8	SIDE PANEL
9	SIDE PANEL
10	TOP PANEL
11	REAR SLIDER PANEL

# Site Preparation - Clearances to Combustibles

## GENERAL POINTS

To install the Studio as a freestanding model it will be necessary to install a Zero Clearance Box around the appliance.

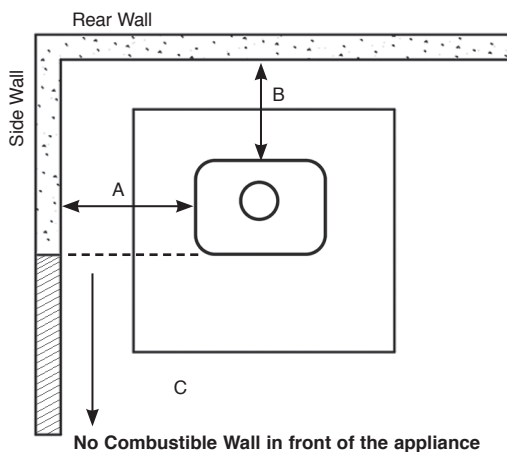
## CLEARANCES



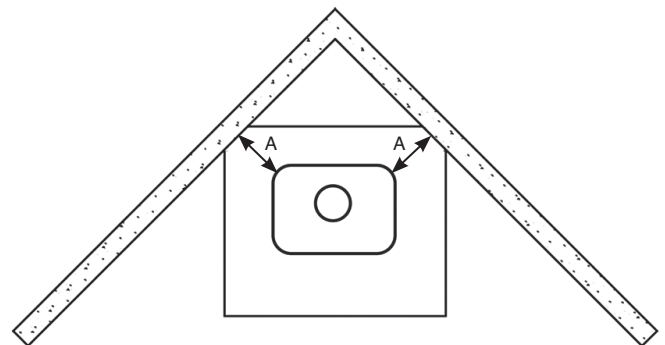
**IMPORTANT: INSTALLATION MUST COMPLY WITH THE REQUIREMENTS AS/NZS2918: 2001 ENSURE THAT SUFFICIENT CLEARANCES ARE PROVIDED BETWEEN THE FLUE PIPE AND ANY HEAT SENSITIVE MATERIALS IN THE FIREPLACE IN ACCORDANCE WITH THE RULES IN FORCE.**

When installing a Studio stove it is important to observe the following clearances to both heat sensitive and heat resistant materials. Also ensure that a clearance of 1 meter is maintained in front of the appliance when operating. The appliance must be installed a minimum distance from any surrounding walls to meet the requirements of AS/NZS 2918:2001.

### PARALLEL POSITION CLEARANCES



### CORNER POSITION CLEARANCES



### HEAT RESISTANT MATERIALS

MODEL	DIMENSION A*	DIMENSION B*
Studio 2	100	100

### HEAT SENSITIVE MATERIALS

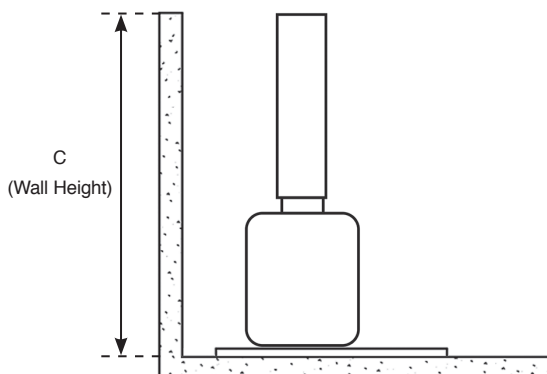
It is essential for safety to ensure the following clearances to heat sensitive materials are maintained.

MODEL	DIMENSION A*	DIMENSION B*	DIMENSION C*
Studio 2	450	100	1500

\*\* I - Default clearance AS/NZS 2918:2001 3.2.2 Safety Clearance.

\* E/F - Default clearance AS/ NZS 2918:2001 3.2.1 Access Clearances.

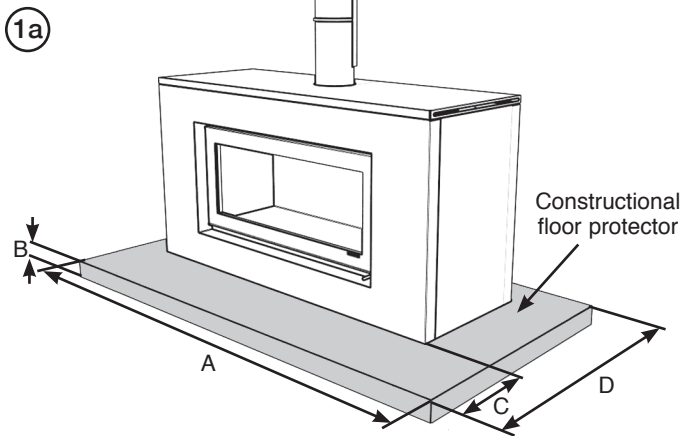
### Height above appliance



# Site Preparation - Floor Protector

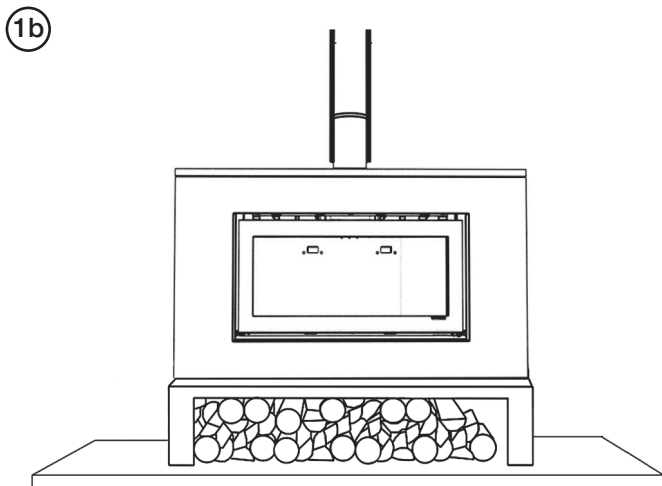
## MINIMUM DIMENSIONS - FLOOR PROTECTOR

When appliance is installed directly onto the floor it must stand on a heat resistant constructional floor protector of the minimum dimensions shown and meet the requirements of AS/NZS 2918:2001, section 3.3.3.



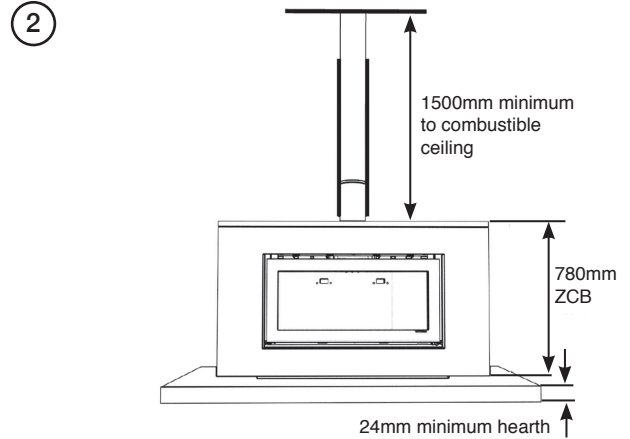
DIMENSION	STUDIO 2
<b>A</b> (Hearth width including clearance to sides)	1600mm
<b>B</b> (Thickness)	24mm
<b>C</b> (Distance in front of appliance)	300mm
<b>D</b> (Hearth depth including front and rear clearance)	920mm

The building must have a suitable load-bearing capacity for the floor protector and appliance. Consult a structural engineer for advice before proceeding. When fitting onto an existing floor protector check that the appliance complies with current construction regulations and is at least the minimum sizes shown. The Stovax Studio 2 Freestanding ZCB can be installed on the optional Stovax Studio Bench (ZCB-002), raised non combustible hearth or directly onto a hearth floor mounted Bench (1410w x 300h x 515d).

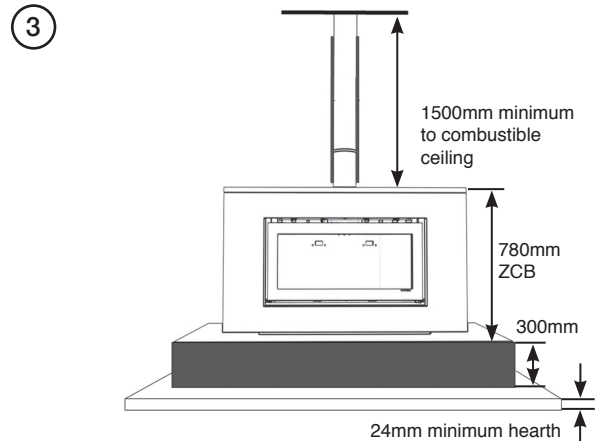


## FLOOR TO CEILING HEIGHT

Key dimensions to consider when installing the freestanding appliance is the height from top of the appliance to ceiling.



**OPTION 1:**  
For a 2.4m stud height (floor to ceiling) the above installation is recommended.



**NOTE: The bench must sit on a hearth**

**OPTION 2:**  
If the appliance is raised on a bench or plinth, the floor to ceiling height must be over 2.6m to avoid a non-combustible ceiling.



# Pre-Installation Preparation

## GENERAL

To make the installation of the appliance easier it is best to remove all internal components before fitting into the builders opening/studwork.

For the best results removing the following components as set out below.

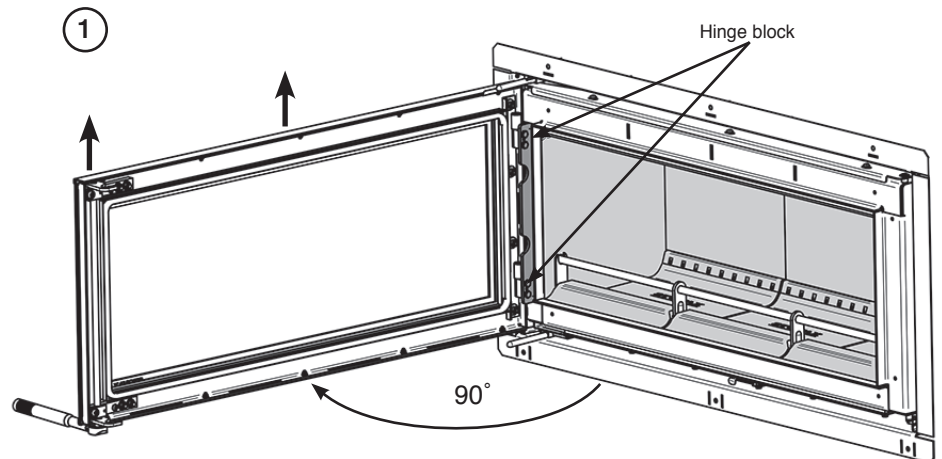
## REMOVAL OF THE DOOR

Before removing the door it is recommended to protect the left edge from damage using masking tape.

Open the door approximately  $90^\circ$ , see Diagram 1.

Move the Air Control to the far right, see Diagram 2.

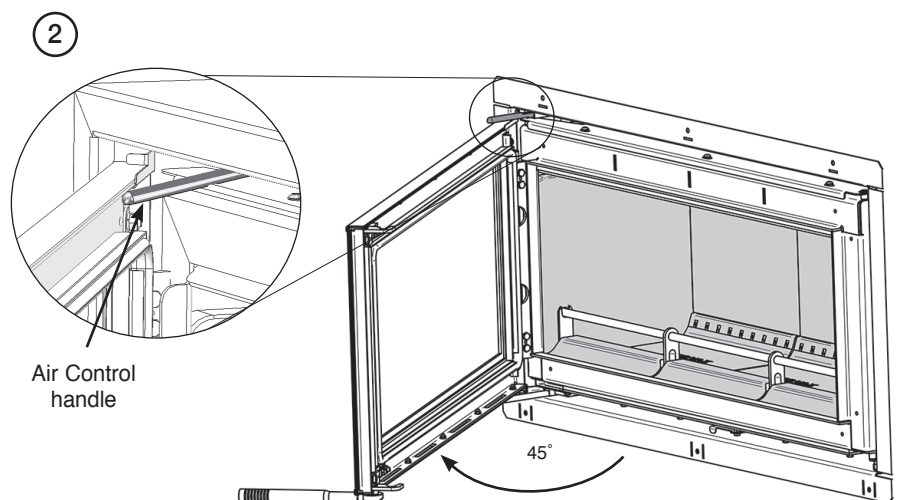
Lift the door vertically to remove from the hinge block, see Diagram 1.



Close the door  $45^\circ$ , ensuring the Air Control handle sits inside the channel in the top of the door, see Diagram 2 and carefully manoeuvre the door clear of the hinge mechanism.

Lie the door face down on a soft flat surface to protect the paint work and glass.

Reverse the procedure to re-fit the door.



# Pre-Installation Preparation

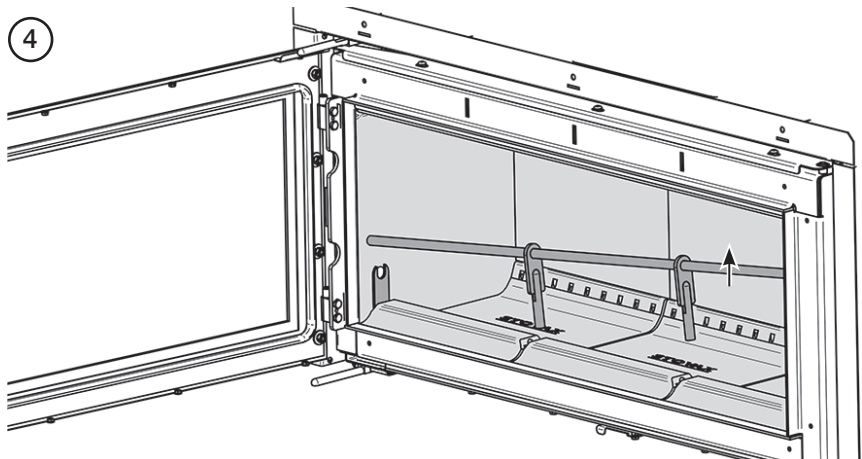
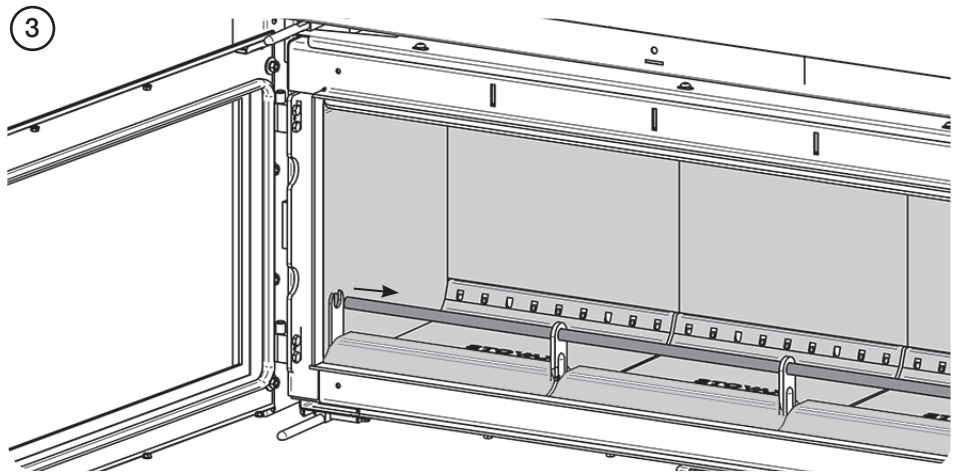
## REMOVAL OF THE LOG GUARD

To remove the Log guard:

— Slide the Log Guard across to free from the holes in the side bricks, See Diagram 3.

— Raise one end and with draw at an angle through the front of the firebox, see Diagram 4.

**Do not use appliance without the log guard in position.**



**IMPORTANT: ALWAYS LIFT AND HANDLE THE BRICKS WITH TWO HANDS AT ALL TIMES. FAILURE TO DO SO MAY DAMAGE OR CAUSE BREAKAGES DUE TO UNEVEN PRESSURE WHILE HANDLING THE BRICKS.**

## REMOVAL OF INTERNAL COMPONENTS

In the firebox of the Studio are several loose items including:

- A box containing:
  - Baffle Bricks
  - Firebricks
  - Bag containing Instruction Manual, Warranty & Door Tool, Log Guard End Supports
- Log Guard
- Front Baffle Support

Remove these carefully and put them safely to one side. They can be fitted after the appliance has been installed, see Installation Section.

## REMOVAL OF THE FIRE BRICKS

Remove the fire bricks as part of the routine maintenance. This can be carried out without the use of tools.

Allow the appliance to cool fully before removing firebricks.

Take care when handling, as bricks can become fragile after use. Life span depends on the type of fuels burnt and the level of use.

**Important: Do not attempt to remove the base bricks before removing the side and rear bricks. Bricks should only be removed in the order described below.**

Replace damaged bricks as soon as possible.

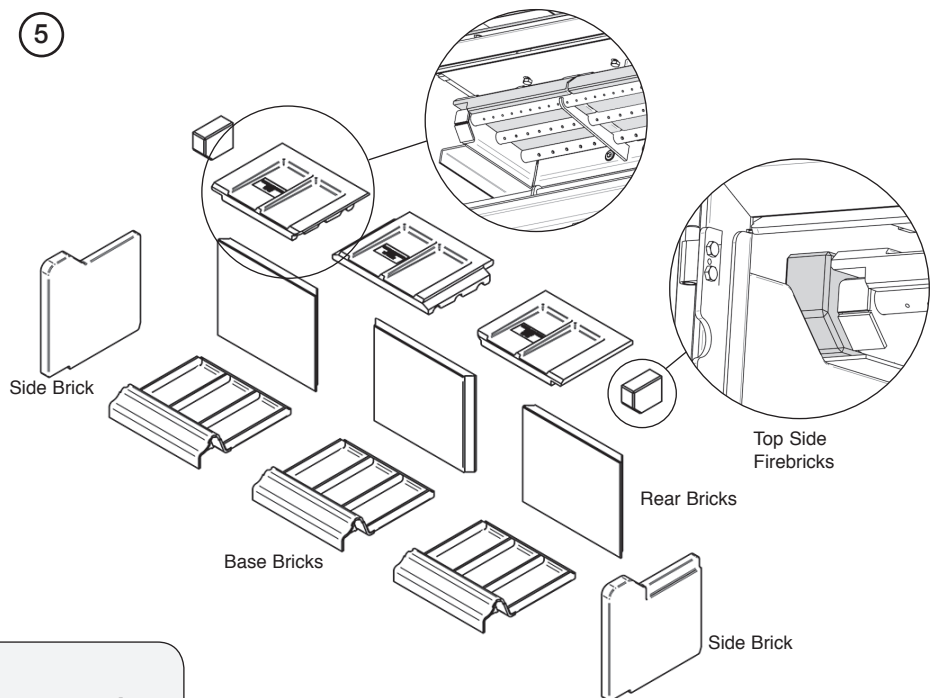
# Pre-Installation Preparation

Remove the firebricks in the following order:

1. Tilt the side bricks into the middle of the appliance and remove.
2. The rear bricks can now be tipped forward starting from either end and removing the middle brick last.
3. The base bricks can now easily be lifted clear.

Replace in reverse order.

Once the bricks have been removed from the appliance ensure they are stored in an area where they will not be damaged.



**i** Do not modify baffle bricks.  
Do not operate with baffle bricks removed.

## REMOVAL OF THE BAFFLE BRICKS (VERMICULITE)

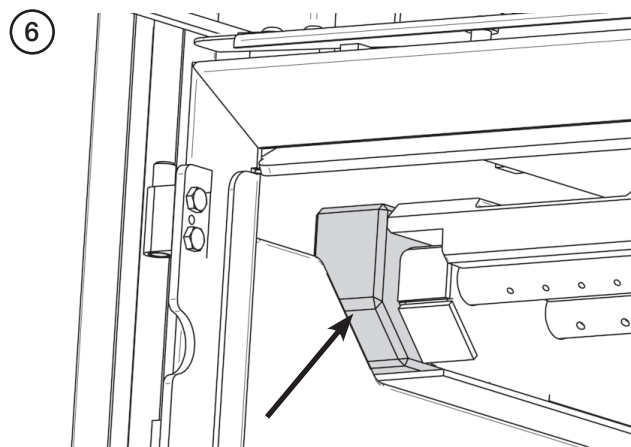
The appliance is fitted with 3 baffle bricks at the top of the firebox and two side bricks to maintain efficient combustion.

Allow the appliance to cool fully before removing baffle system.

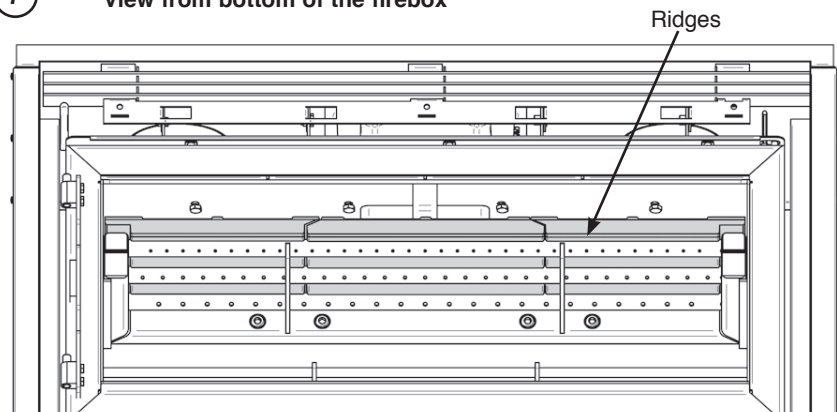
Remove the Log Guard from the appliance to give access to the firebox, see Removal of the Log Guard Section.

Carefully pull out the side Firebricks forward from their position at either end of the metal baffle rail.

You can now access the main baffle bricks. These have grooves on the underside which fit over the metal baffle rail.



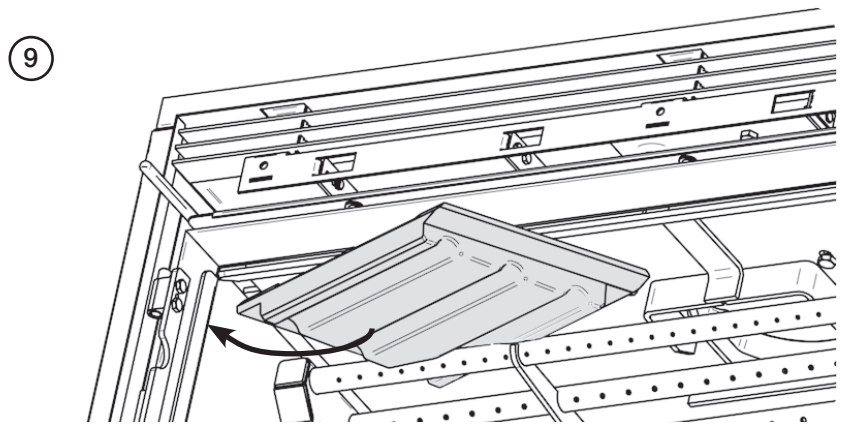
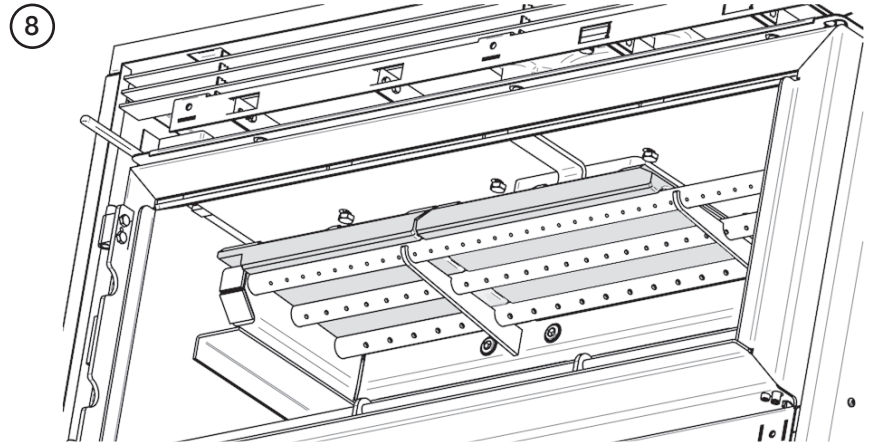
**7** View from bottom of the firebox



# Pre-Installation Preparation

Starting from the right carefully lift the baffle bricks out from their position on the baffle rail, see Diagrams 8 & 9.

Follow these instructions in reverse order to fit the baffle bricks.  
Replace damaged baffles immediately.



## REMOVAL OF THE BAFFLE PLATES (STEEL)

There is an additional baffle consisting of two steel plates at the top of the firebox.

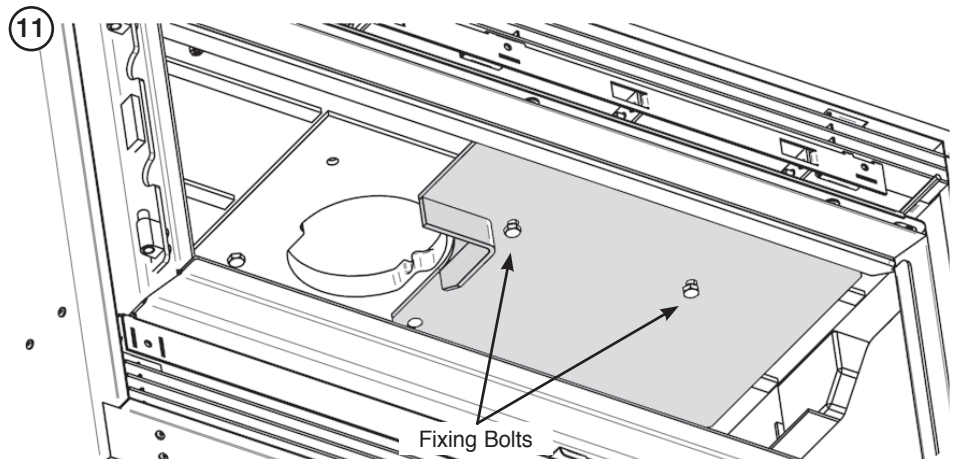
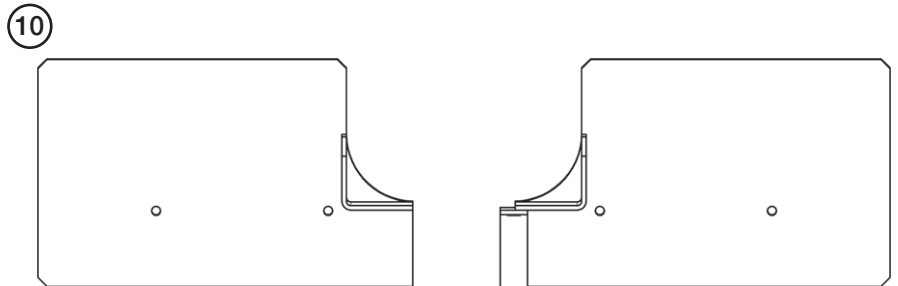
To release the baffle start with the Left Hand Side plate and ensure that it is supported. Remove the bolts and carefully lower the baffle out of the firebox.

Repeat with the Right Hand Side plate.

Replace in reverse order

The baffle system is designed to give safe and efficient operation of the stove. Replace damaged baffles immediately.

**Do not modify the baffle system.**  
**Do not operate with the baffle plates removed.**

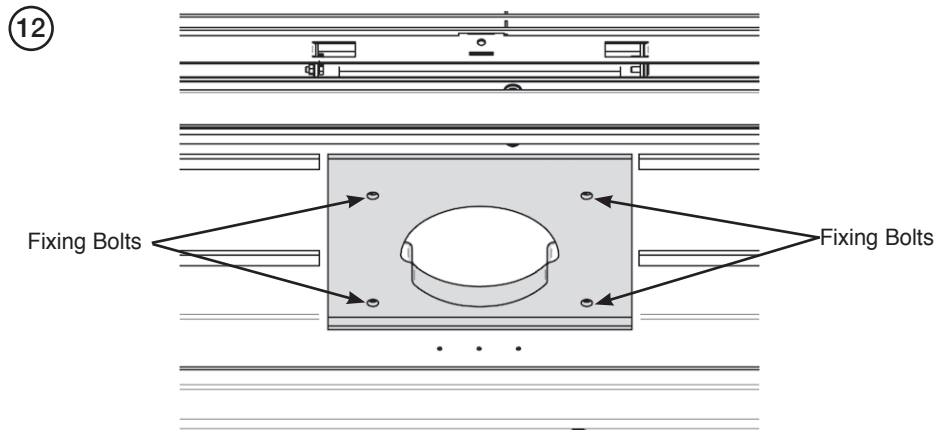


# Pre-Installation Preparation

## REMOVAL OF THE FLUE COLLAR

Remove the 4 fixing bolts.

Remove the inner flue collar.



## REMOVAL OF THE AIRBAR

First remove the side and top baffle bricks, see Removal of the Baffle Bricks (Vermiculite) Section.

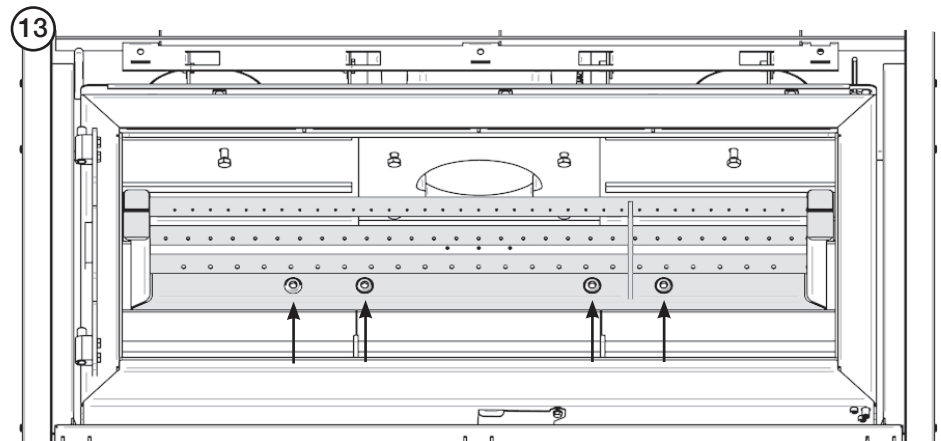
The Airbar is secured to the inner box by four screws.

Lift one end carefully and manoeuvre the airbar out through the front of the firebox.

Replace in reverse order

The airbar is designed to give safe and efficient operation of the stove. Replace damaged parts immediately.

**Do not modify the airbar system.**



## LOUVRES

The appliance has detachable louvres to help direct convected air into the room where it is installed. The louvres sit in channels above and below the inner box.

To remove, pull the metal slats from the channels and place carefully to one side.

To refit the slats slide into the channels ensuring they are fitted so the sides are equal distance from the edges of the box.

# Pre-Installation Preparation

## SEPARATE THE INNER & OUTER BOX

**This will require two people.**

To protect the delicate parts of the appliance the product has been designed so that the inner box can be removed from the outer box.

Keep the inner box in a safe place whilst the outer box is installed into the fabric of the house, the main flue connections made and the walls finished.

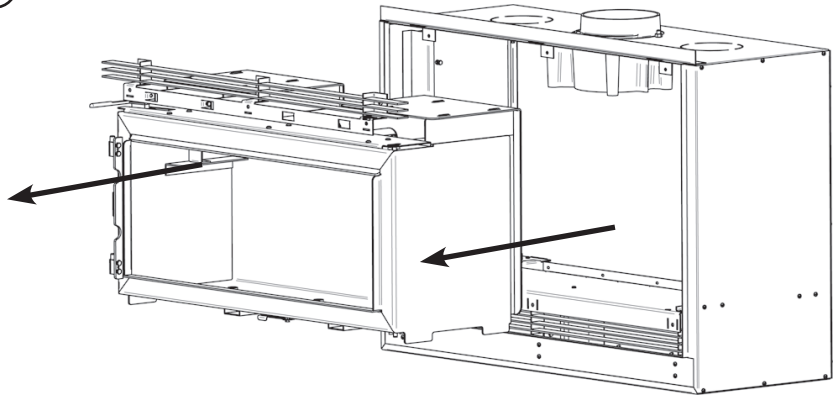
When all the heavy work is complete the inner box can be re-installed into the outer box and the final connection made.

**Take care when installing the appliance. Careless handling and use of tools can damage the finish of the appliance and/or area it is being installed into.**

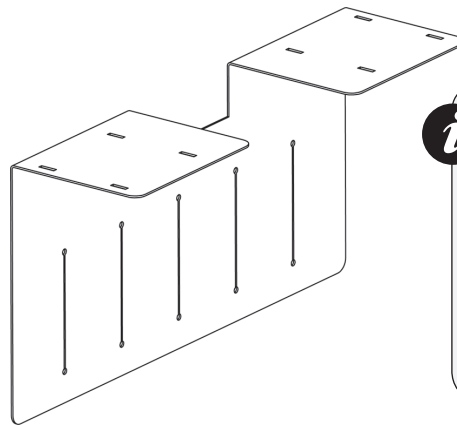
The internal components, bricks, baffles and the door etc should be removed to make the installation process easier and prevent damage.

The inner box can now be slid out of the outer box.

14



15



The Studio also has a heat shield that fits between the inner and outer case. This sits on the top of the inner box and is held in place by it's own weight.  
**CAUTION: THIS IS EXTREMELY HEAVY.**

# Installation Instructions - ZCB Freestanding Installation

## GENERAL POINTS

Each installation is unique to the property so it is not possible to give details to suit every setting. The installation must comply with Building Regulations and be made using "best practice" construction methods.

Stovax Studio appliances can reach high temperatures so it is important to maintain the clearance to combustible materials. Ensure the housing for the appliance is built from heat resistant material.

Take care when installing the appliance. Careless handling and use of tools can damage the finish and/or area.

**THIS APPLIANCE MUST BE SECURELY BOLTED IN POSITION TO SUPPORT THE DOOR WHEN IT IS OPENED.**

## BOLTING THE APPLIANCE TO THE HEARTH

**The appliance must be fixed to the hearth.** Use the 2 x L shaped earthquake restraints at the sides of the cabinet mount holes shown in Diagram 1.

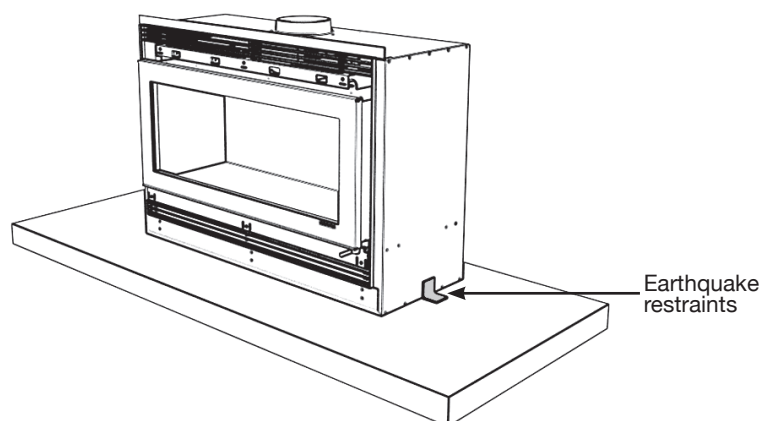
**Take care not to damage the hearth.**

Position the appliance where required on the hearth and mark the location of the 2 x L shaped earthquake restraints.

Drill the right sized holes into the hearth.

Use suitable M6 bolts to fix into place.

①



**The fixing above must also comply with AS/NZS 2918:2001 section 3.8 for seismic restraint. Earthquake restraints may be positioned by attaching the supplied brackets with D4/5 rivets. Anchor to the hearth using a central M6 bolt**

## FLUE SYSTEM INSTALLATION PART 1

Use a 150mm flue with a heat shield below ceiling level before reverting to a 150/200/250mm flue system above ceiling level (Ceiling Plate). Terminate above roof level as per AS/NZS 2918:2001. The flue must be installed in accordance with the manufacturers instructions.

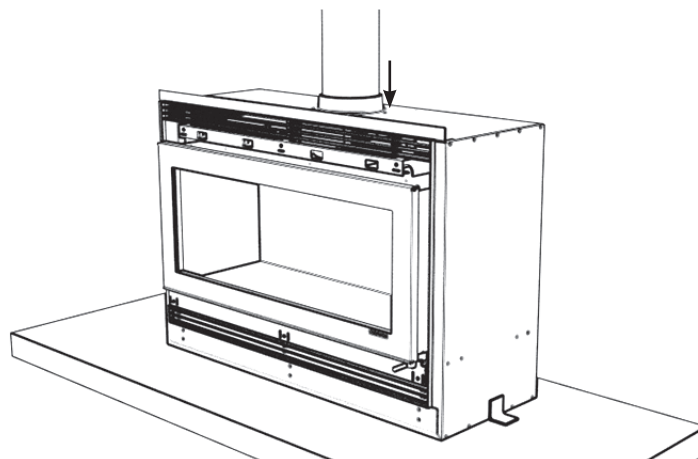
A bottom flue adapter (Starter ring) must be inserted into the flue spigot, this is supplied with the flue kit.

Seal the adapter in place with flue sealant.  
Remove any excess.

②

Place sealant evenly around the crimped end of the first 150mm flue length.  
Insert into the appliance flue spigot adapter with crimped end facing down.

Install all further 150mm flue sections located below ceiling level, ensuring all crimped ends are facing down and the crimped ends are all coated with an even spread of sealant.



# Installing the Appliance - Refitting the Inner Box

## REFITTING THE INNER BOX & COMPONENTS

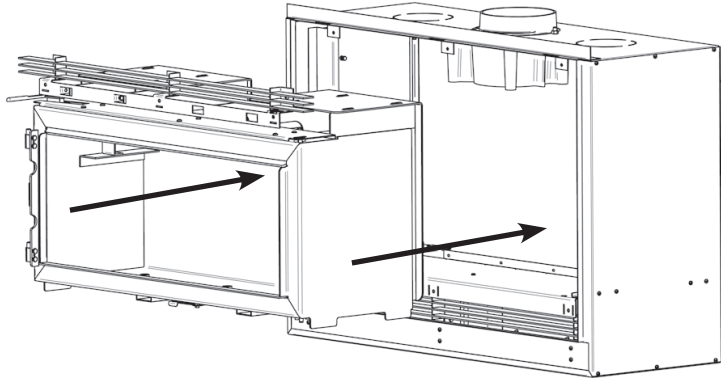
Once the flue is installed the inner box can now be refitted.  
This will require two people.

The inner box can now be slid into the outer box.

When refitting the cast iron flue collar ensure that it is sealed with fire cement.

Take care when installing the appliance.  
Careless handling and use of tools can damage the finish and/or area.

3



The internal components, bricks, baffles and the door etc can now be fitted into the appliance, see Pre-installation section Pg 13-17.

Commission the appliance, refer to Pg 3 & 4.



# Installation Instructions - ZCB Freestanding Installation

## FLUE SYSTEM INSTALLATION PART 2

Secure all 150mm flue pipes to one another by riveting each joint with 3 evenly spaced rivets around the circumference. Use Monel or SS rivets only.

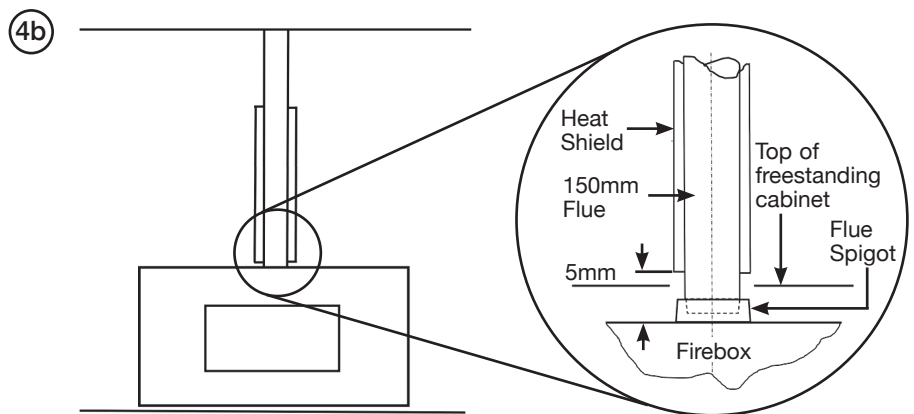
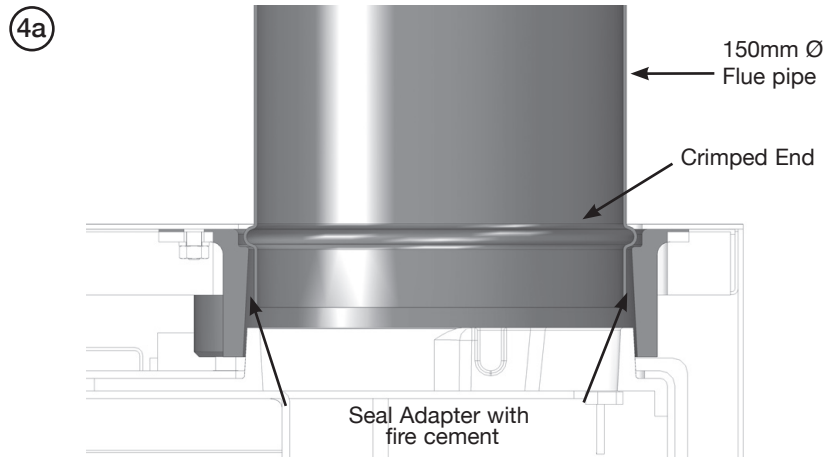
Install the ceiling plate to the ceiling using the standard ceramic spacers and screws supplied. The 150mm flues must penetrate the aperture in the ceiling plate to be located above the ceiling level.

Refer to the Pioneer heat shield installation instructions and attach to the 150mm flue.

The bottom should be located no more than 5mm above the appliance cabinet, see Diagram 4b.

**Now fit the Zero Clearance Box.**  
See PM1269NZ, Cabinet Assembly, for method.

**Distance from the centre of flue to front of the freestanding ZCB = 190mm.**



Correct position for the Pioneer Heat Shield

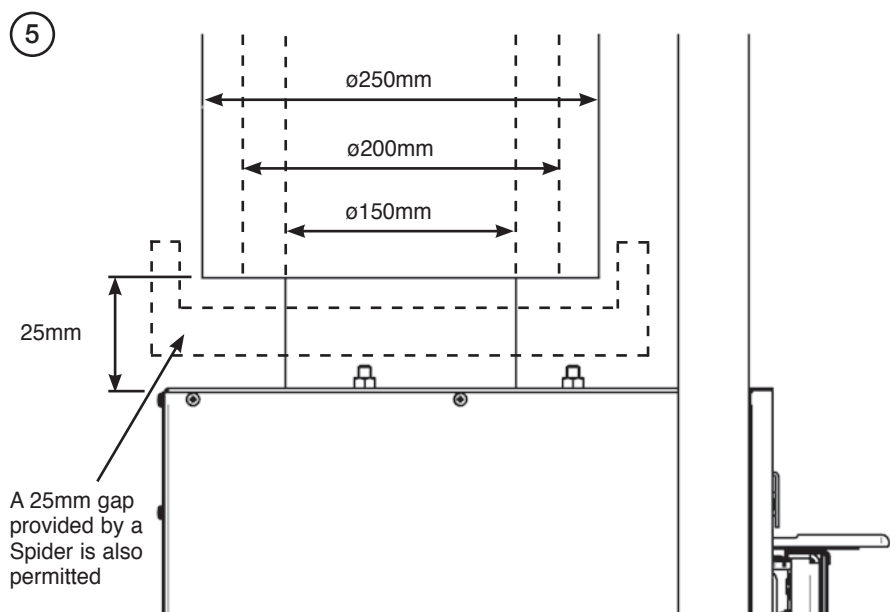
## OPTIONAL TRIPLE FLUE SYSTEM

Fit the triple wall flue system in accordance with the manufacturers instructions and AS/NZS 2918:2001 ensuring the centre and outer skins are supported in the box brackets to maintain the required clearances, see Diagram 5.

Ensure a gap of 25mm is maintained between the firebox and the 200 diameter intermediate and 250 diameter outer flue pipes. A bottom spider is usually adopted for this purpose.

NOTE: Flue system must be installed as per 2918:2001 Section 4.1.

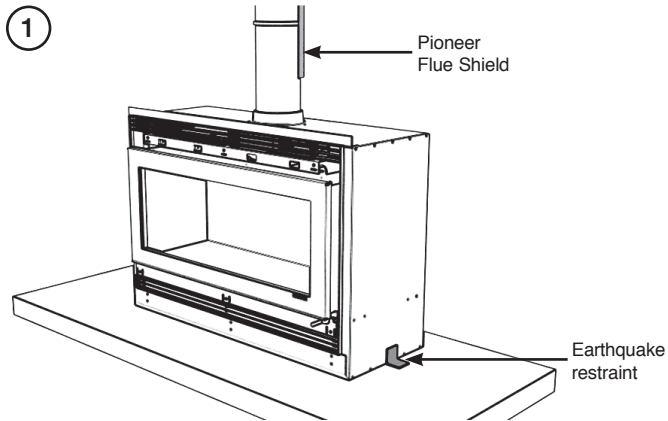
**NO 45 DEGREE BENDS OFF THE TOP OF THE FLUE AND WITHIN THE FIRST 1200MM FLUE RUN., MAXIMUM OFFSET 10 DEGREES. AXIS OF THE FLUE SYSTEM SHOULD BE AS VERTICAL AS POSSIBLE**



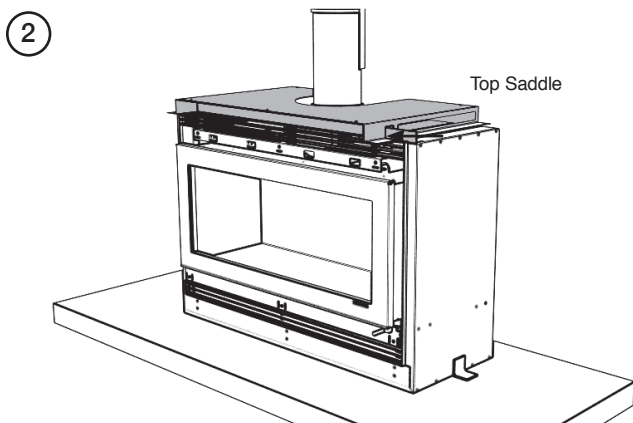
# Installation Instructions - ZCB

## CABINET ASSEMBLY

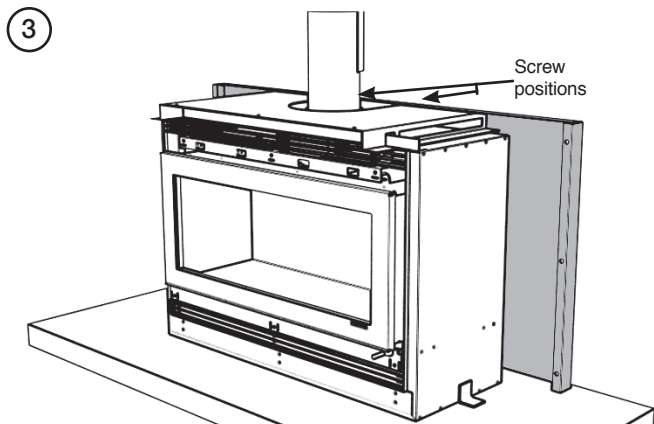
Once the appliance has been bolted to the hearth and the flue system connected and the Pioneer Heat Shield has been fitted as detailed, it is possible to assemble the Freestanding Cabinet, see Diagram 1.



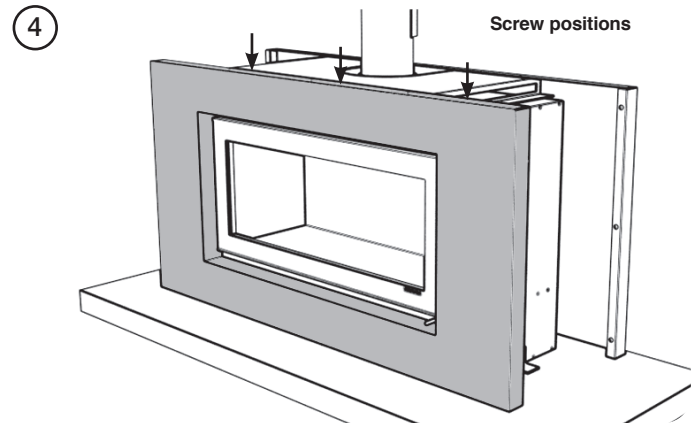
Place the Top Saddle on the top of the Firebox and position centrally, see Diagram 2.



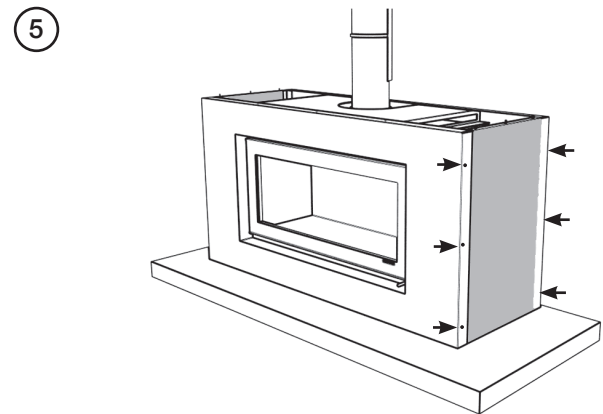
Secure the Rear Panel to the Top Saddle, see Diagram 3.



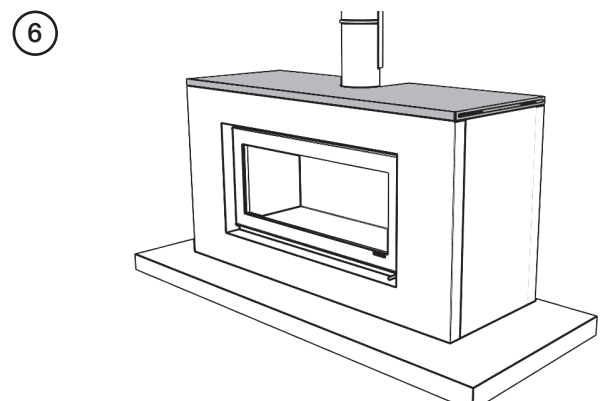
Secure the Front Panel to the top of the Saddle with 3 screws, see Diagram 4.



Attach the side panels internally between the front and rear using 3 screws in each side, see Diagram 5.

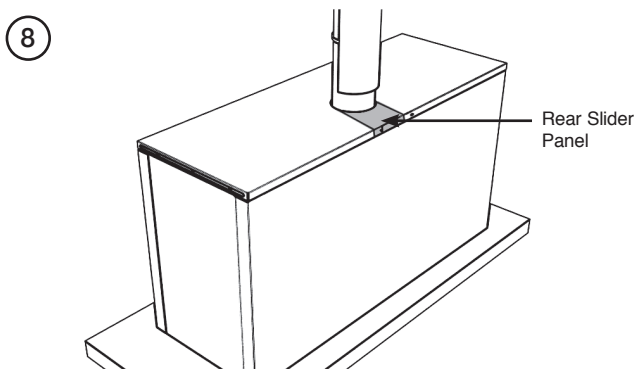
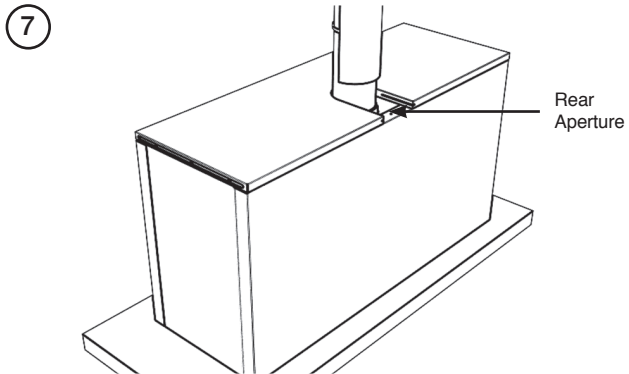


Position the Top Panel carefully without the Rear Slider Panel and press into place see Diagram 6.

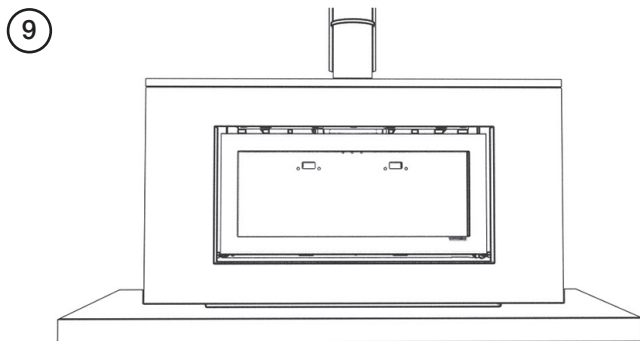


# Installation Instructions - ZCB

Slide the Rear Slider Plate into position in the rear aperture, see Diagrams 7 and 8.



The installation is now complete.



# Technical Appendix

## LEGAL REQUIREMENTS

Before installation and/or use of this appliance please read these instructions carefully to ensure that all requirements are fully understood.

The appliance must be fitted by a registered installer\*, or approved by your local building control officer.

It is very important to understand the requirements of the national Building Regulations and standards, along with any local regulations and working practices that may apply. Should any conflict occur between these instructions and these regulations then the regulations must apply.

Your local Building Control Office can advise regarding the requirements of the regulations.

Works must be carried out with care to meet the requirements of Health and Safety and comply with the Health and Safety rules, and any new regulations introduced during the lifetime of these instructions. Particular attention should be drawn to:

—Handling: The appliance is heavy. Adequate facilities must be available for loading, unloading and on site handling.

—Fire Cement: Some fire cement is caustic and must not come into contact with the skin. Protective gloves must be worn. Wash hands thoroughly with plenty of water after contact with skin.

—Asbestos: This appliance contains no asbestos. If there is the possibility of disturbing any asbestos in the course of installation seek specialist guidance and use appropriate equipment.

—Metal Parts: Take care when installing or servicing the stove to avoid personal injury.

A faulty installation can cause danger to the inhabitants and structure of the building.

For users of this appliance:

Your building insurance company may require you to inform them that a new heating appliance has been installed on your property. Check that your cover is still valid after installing the appliance.

# Technical Appendix - Flues

## MINIMUM DIMENSIONS - FLOOR PROTECTOR

Also see Page 8 for dimensions.

The appliance must stand on a non-combustible constructional floor protector which is at least 24mm thick with the minimum dimensions as shown in the diagram on page 8.

A non combustibile constructional floor protector which is at least 24mm thick and positioned as shown on Page 8. Any elevated or cantilevered floor protector must extend the minimum of 300mm from the door opening and a minimum of 200mm each side of the fireplace opening.

The building must have a suitable load-bearing capacity for the floor protector and appliance. Consult a structural technician for advice before proceeding.

When fitting into an existing floor protector check that the floor protector complies with current construction regulations and is at least the minimum sizes shown.

## FLUES AND CHIMNEYS

**WARNING: THE APPLIANCE AND FLUE-SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH AS/NZS 2918 AND THE APPROPRIATE REQUIREMENTS OF THE RELEVANT BUILDING CODE OR CODES.**

**WARNING: APPLIANCES INSTALLED IN ACCORDANCE WITH THIS STANDARD SHALL COMPLY WITH THE REQUIREMENTS OF AS/NZS 4013 WHERE REQUIRED BY THE REGULATORY AUTHORITY, I.E. THE APPLIANCE SHALL BE IDENTIFIABLE BY A COMPLIANCE PLATE WITH THE MARKING 'TESTED TO AS/NZS 4013'.**

**ANY MODIFICATION OF THE APPLIANCE THAT HAS NOT BEEN APPROVED IN WRITING BY THE TESTING AUTHORITY IS CONSIDERED TO BE IN BREACH OF THE APPROVAL GRANTED FOR COMPLIANCE WITH AS/NZS 4013.**

**CAUTION: MIXING OF APPLIANCE OR FLUE-SYSTEM COMPONENTS FROM DIFFERENT SOURCES OR MODIFYING THE DIMENSIONAL SPECIFICATION OF COMPONENTS MAY RESULT IN HAZARDOUS CONDITIONS. WHERE SUCH ACTION IS CONSIDERED, THE MANUFACTURER SHOULD BE CONSULTED IN THE FIRST INSTANCE.**

The flue or chimney system must be in good condition.  
It must be inspected by a competent person and passed for use with the appliance before installation.

Products of combustion entering the room can cause serious health risks.

The following must be adhered to:

AS/NZ 2918:2001:4.9.1

- a) The flue pipe shall extend not less than 4.6m above the top floor protector.
- b) The minimum height of the flue system within 3m distance from the highest point of the roof shall be 600mm above that point.
- c) The minimum height of a flue system further than 3m from the highest point of the roof shall be "a minimum" 1000mm above roof penetration.
- d) No part of any building lies in or above a circular area described by a horizontal radius of 3m about the flue system exit.



**A HANDY RULE OF THUMB :**  
Terminate all flues a minimum of 600mm above the highest ridgeline of the donor building.

**N.B. in extreme wind areas it may be necessary to consult your local agent for further technical assistance.**

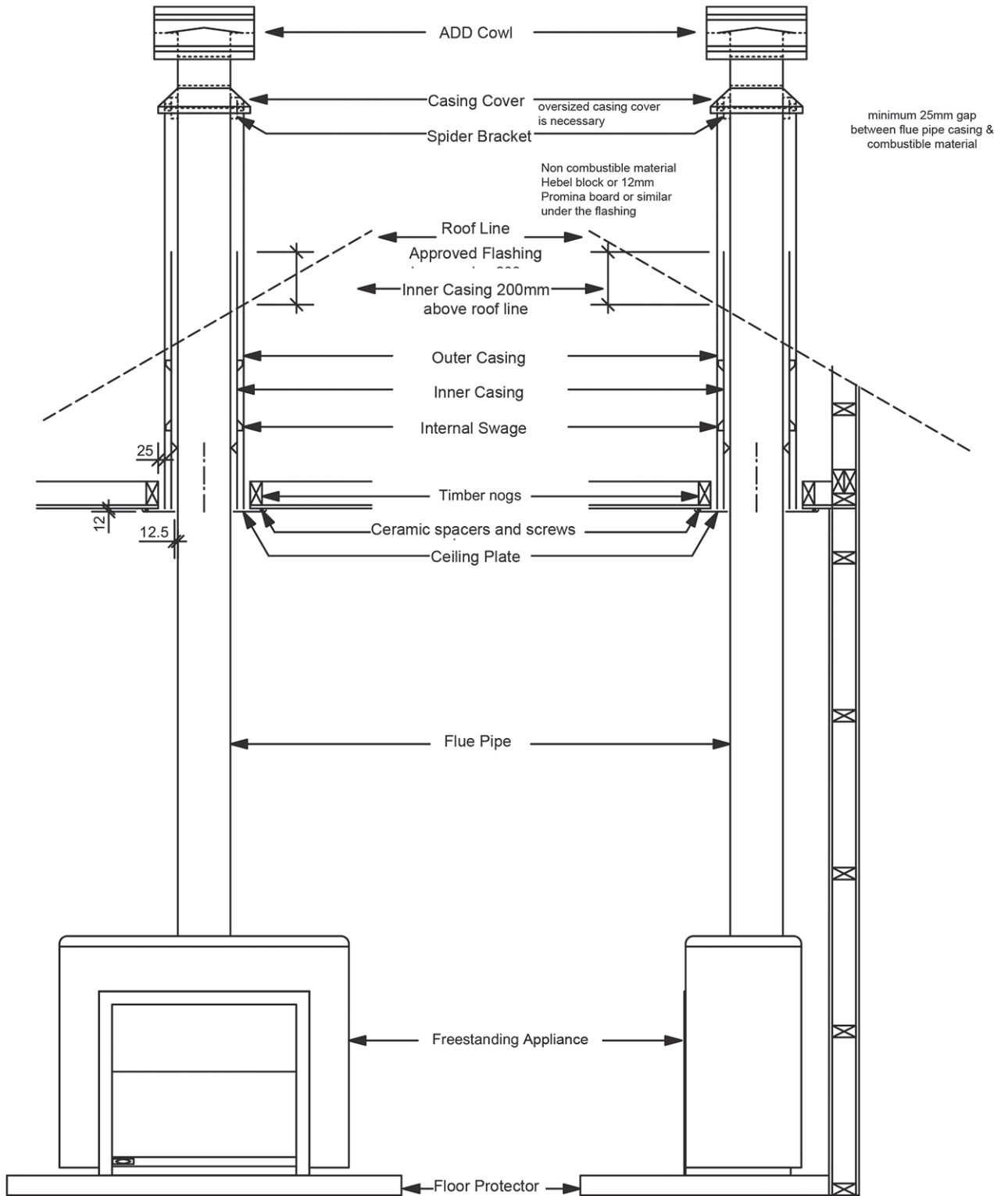
— If flue is concealed in a chase, allow for air vents (2 x 80mm diam. or equivalent) at the highest possible point on the chimney chase or alternatively, allow a min 25mm air space between the casing cover spigot and the outer casing, see Figures 1.1, 1.2 and 1.3.

# Technical Appendix - Flues

## FLUE PENETRATION - WOOD

Tested flue systems, as per AS/NZS 2918:2001

Drawing not to scale



# Technical Appendix - Flues

## FLUE PENETRATION - WOOD

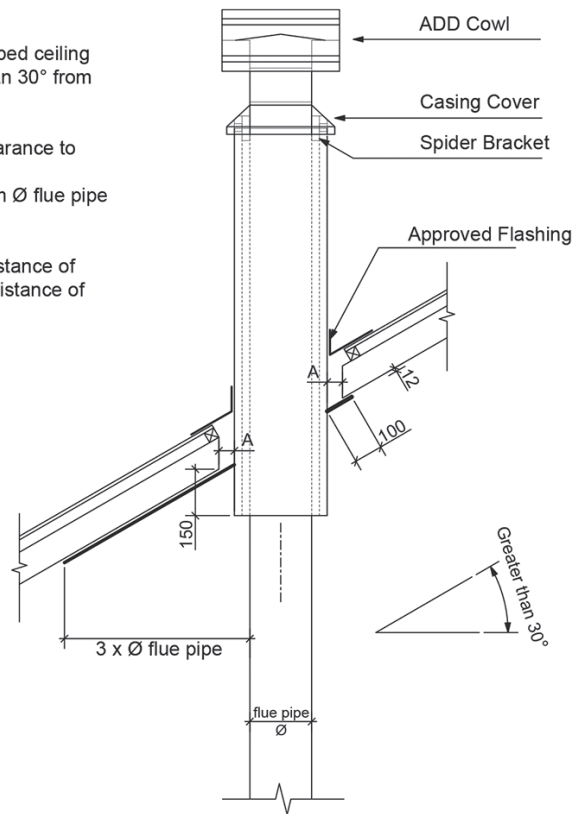
Untested flue systems, as per AS/NZS 2918:2001, 4.6.3(b)

AS/NZS2918:2001

Un-tested flue with sloped ceiling penetration greater than 30° from horizontal

4.5.1.2(b) = 50mm clearance to combustible material  
 A = 62.5mm for 225mm Ø flue pipe

4.6.3(b)  
 Fig 4.6 = downward distance of casing and 3 x Ø flue distance of the ceiling plate

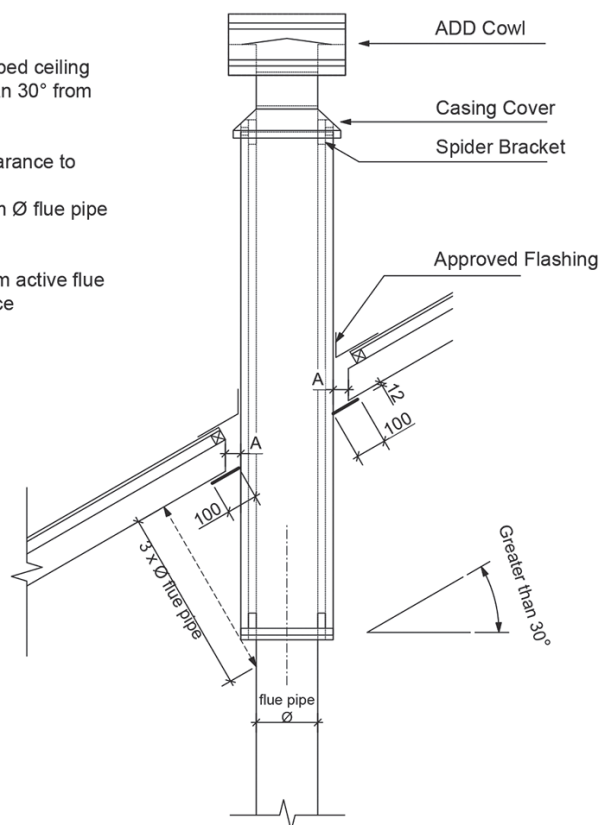


AS/NZS2918:2001

Un-tested flue with sloped ceiling penetration greater than 30° from horizontal

4.5.1.2(b) = 50mm clearance to combustible material  
 A = 62.5mm for 225mm Ø flue pipe

4.6.3(b)  
 Fig 4.6 = 3 x Ø flue from active flue to heat sensitive surface



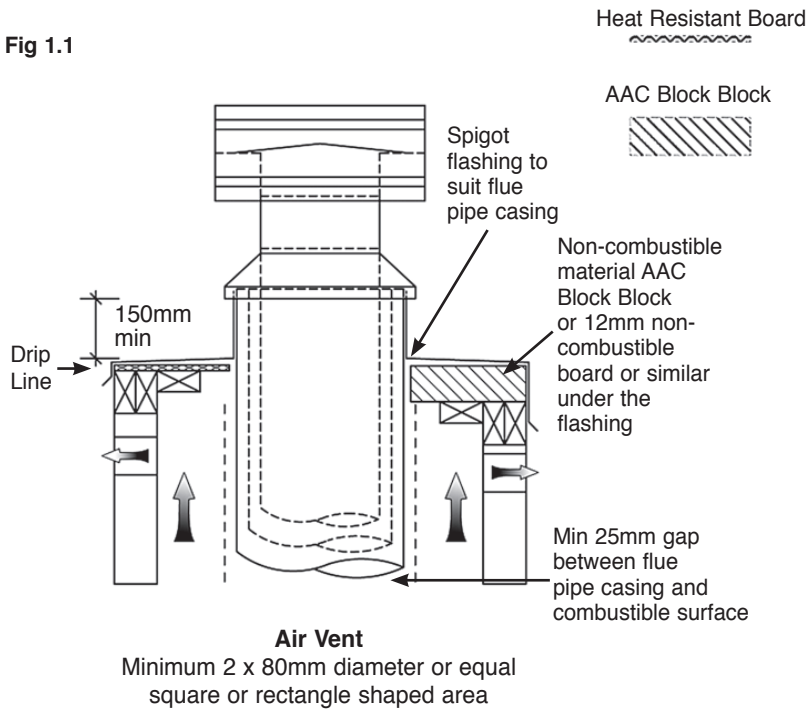
# Technical Appendix - Flues

**External Requirements**

Refer to AS/NZ 2918:2001;4.9.1

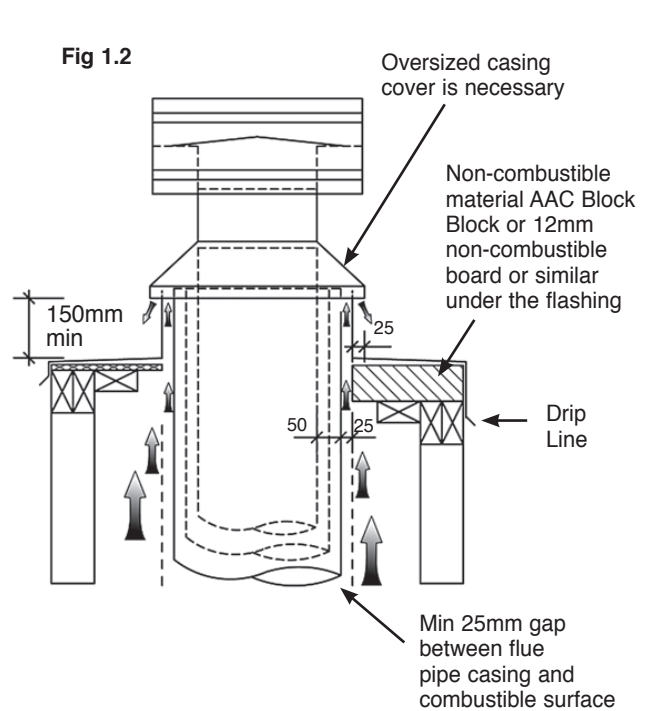
**Air Ventilation Through Chimney Chase**

**Fig 1.1**



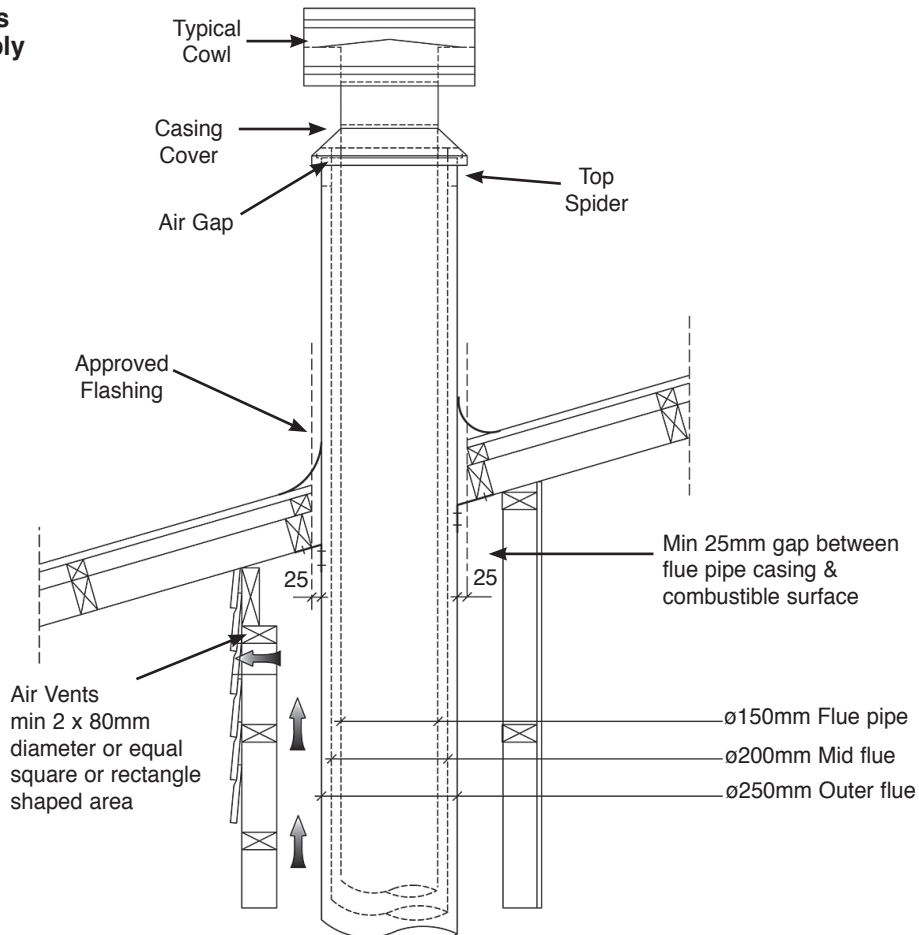
**Air Ventilation Through Top Flashing**

**Fig 1.2**



**The flue system and its installation must comply with AS/NZS2918:2001**

**Fig 1.3**



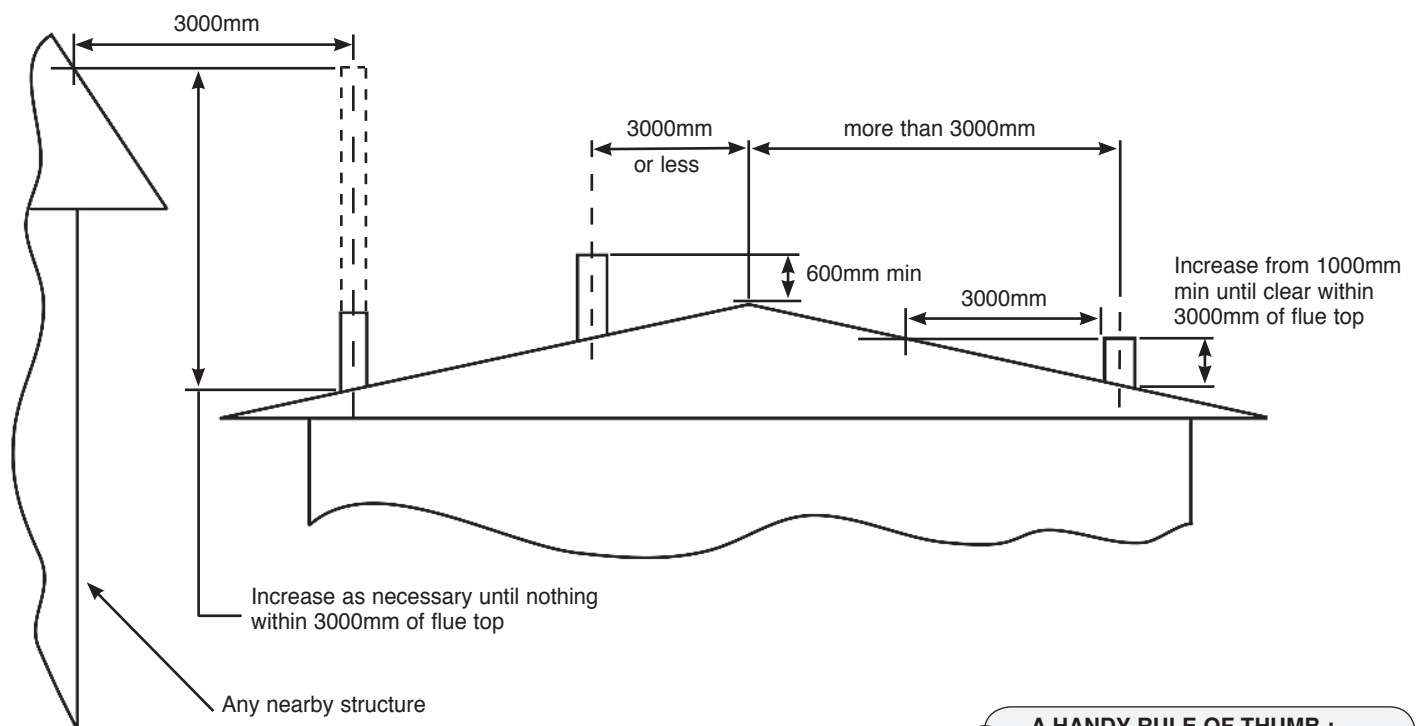
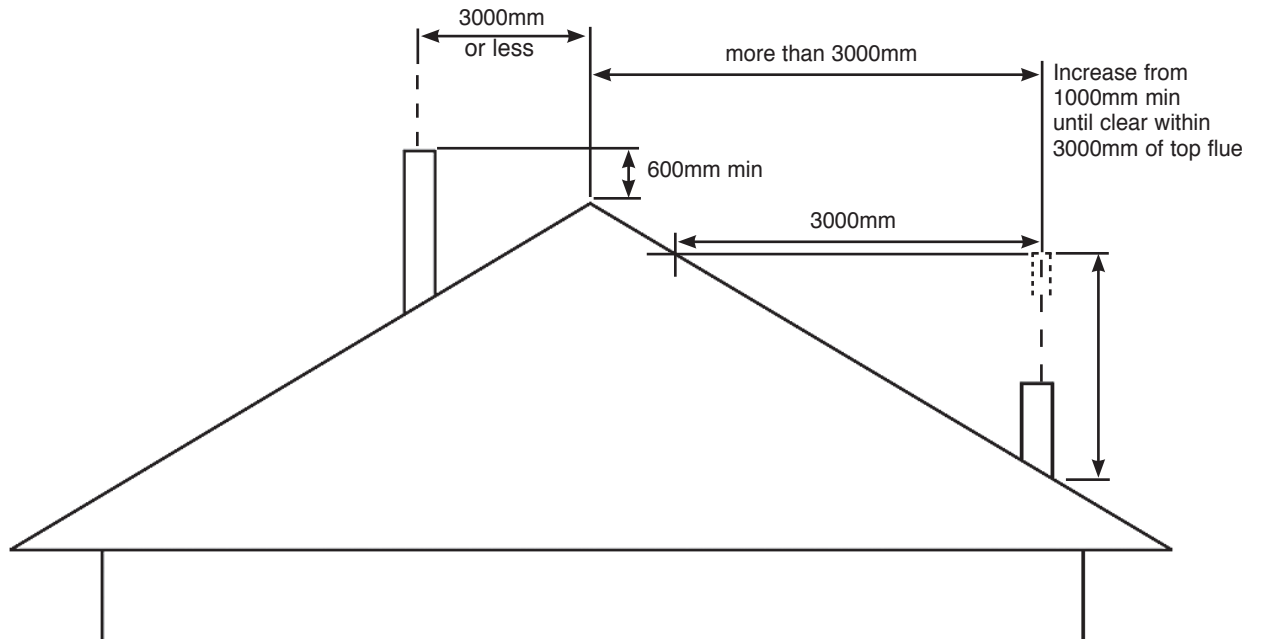
**Note: All external air vents & ceiling penetrations must be bird & rodent proofed with permanently fixed screens.**



# Technical Appendix - Flues

## FLUE OUTLET POSITIONS

THE FLUE TERMINATION POSITIONS ARE THE MINIMUM REQUIRED AS PER NZS 2918:2001. IT IS POSSIBLE THAT FLUE HEIGHTS MAY NEED TO BE INCREASED AS A RESULT OF CONFLICTING AIR PRESSURE ENVELOPES THAT MAY DEVELOP OVER SOME ROOFLINE SHAPES AND SURROUNDING OBSTRUCTIONS. RESTRICTION INTO CLEAR AIR MOVEMENT OVER ANY ROOF MAY ALSO REQUIRE DIFFERENT COWL DESIGNS, PARTICULARLY FOR HIGH WIND ZONES OR VARYING LOCAL ENVIRONMENT CONDITIONS.



**i** **A HANDY RULE OF THUMB :**  
 Terminate all flues a minimum of 600mm above the highest ridgeline of the donor building.

# Technical Appendix - Ventilation

## AIR VENTILATION FOR FREESTANDING ZERO CLEARANCE BOX

**i** Allowances **MUST** be made for air replacement vents to be located near the fireplace to aid combustion. A minimum of one pair of air vents is recommended or one large vent. Allowance is to be made for a minimum of 2 inlet ducts from outside to internal vent location. **Note: DO NOT USE FIREPLACE CAVITY VENTILATION AS A METHOD OF AIR REPLACEMENT.**

Increase air supply provisions where a room contains multiple appliances. Internal air pressure balance can be critical

If vents open into adjoining rooms or spaces there must be an air vent of at least the same size direct to the outside.

For REPLACEMENT AIR site the vents where cold draughts is unlikely to cause discomfort. This can be avoided by placing the vents near or close to the appliance and located as close to floor level as possible.

Additional ventilation is required. This must be provided using a permanently open air vent, of the size listed, which is positioned so that it is not liable to be blocked both inside and outside the building.

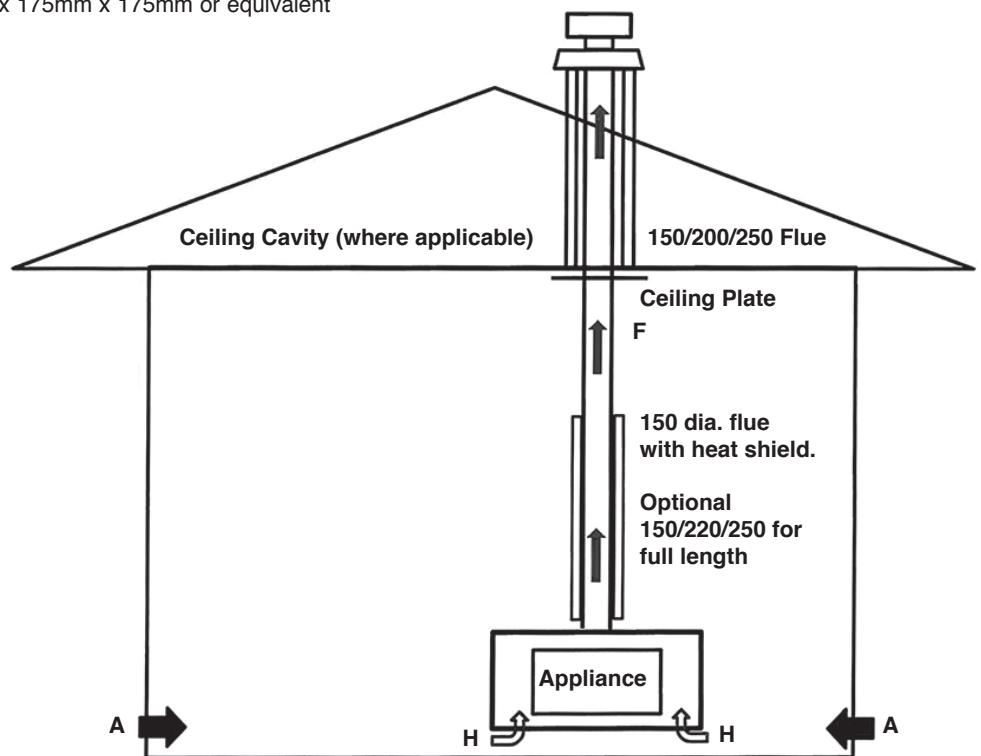
Minimum recommended air replacement is 2 x 175mm x 175mm or equivalent

### Key

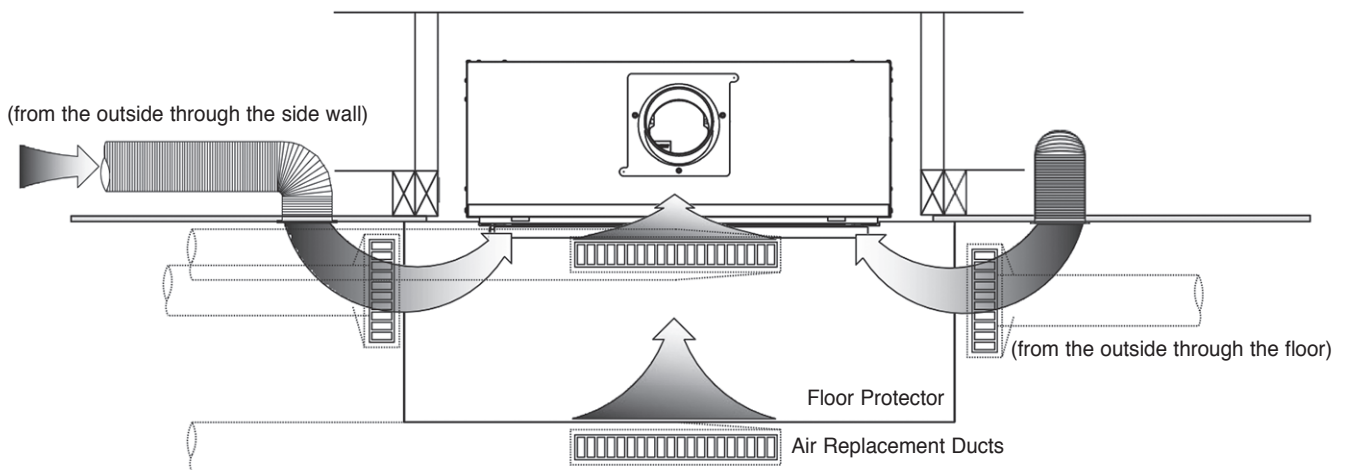
**A** = Inlet air ducts from outside (Replacement air for combustion - 2 x 175mm x 175mm). Should be positioned as close as possible to the fire.

**F** = Flue termination cowl

**H** = **Combustion air** to fire drawn from the room air



Example of different vent locations.







Head Office & Showroom  
12 Tawari Street  
Mt Eden, Auckland, New Zealand  
+649 623 6990  
thefireplace.co.nz



Manufactured by:

**Stovax Ltd, Falcon Road, Sowton Industrial Estate, Exeter, Devon, England EX2 7LF**  
Tel: (01392) 474011 Fax: (01392) 219932 E-mail: [info@stovax.com](mailto:info@stovax.com) [www.stovax.com](http://www.stovax.com)

**E & O E**

Adapted from English Issue 7

