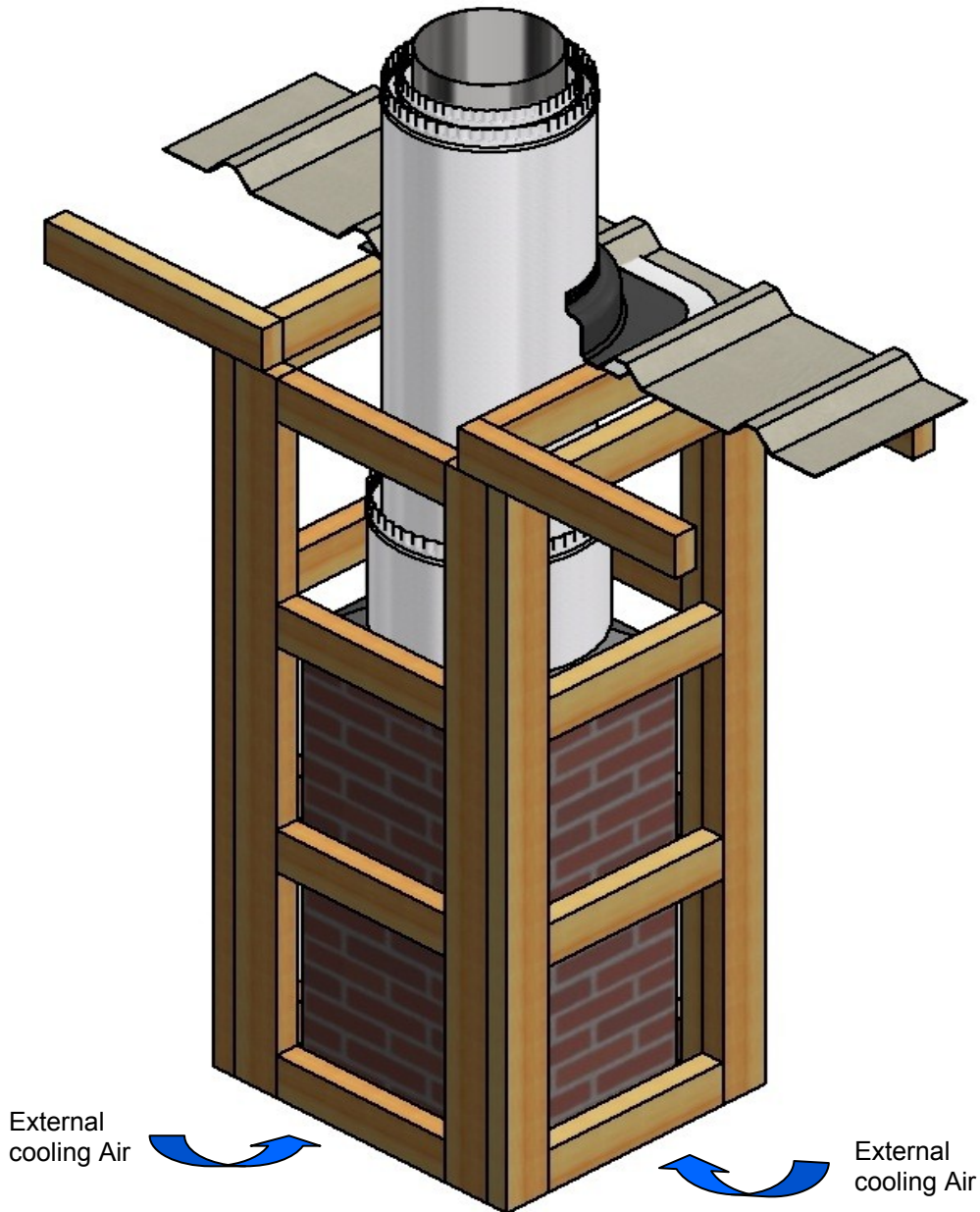


# *Existing Open Fire to a Flue System Concept*

Conceptual Method of Connecting a “Stainless Steel Flue System” to an “Existing Brick Chimney”



**Visit [www.warmington.co.nz](http://www.warmington.co.nz) for Spec's, DWG's and PDF uploads of fires**

**Flue system and instructions to comply with ASNZS 2918:2001**

Keep these Instructions for further reference.....Ensure that you have the correct and current installation details for the Warmington Fire

**Installation**

The Warmington unit is to be installed by a certified Warmington installer or an Approved NZHHA Installation Technician.

**IMPORTANT**

Read all the instructions carefully before commencing the Installation. Failure to follow these instructions may result in a fire hazard and void the warranty

## POINTS TO CONSIDER PRIOR TO INSTALLATION

Location of the Fire. Open fires are better located at one end of a room or area, as they project the heat away from their opening.

### The Topography of the land .

The slope and position of the land in relation to the home has a bearing on how the wind will interact with the fire and flue system. Care needs to be taken to ensure that the flue termination is in the correct position to maximise performance.

### The Prevailing Wind.

Care needs to be taken to ensure that the flue termination is in the correct position as wind and gusts that hits the flue and cowl system may overcome the cowl and draft back down the flue into the home. This can be a combination of down draft and high pressure.

### Hearth and Plinth:

The Height of the Hearth off the Floor. The Finishing that is to be used on the Hearth is to be allowed for at the design stage.

Note : Ensure Air Intake at Base of Firebox is not blocked or restricted .

### Positioning of the Flue System:

There is a maximum distance that an offset flue can be Installed . Reference to AS/NZS 2918:2001 .

### Flue And Fire Clearance:

To be maintained to the Manufactures Instructions &/or Comply with appropriate Standards & Building Codes .

### Pressure Differential, Venting & External Air into the Building :

All fires need air to burn and draw correctly, Kitchen Fans, Air Conditioning units, High Wind Zones, Naturally forming Draft spaces, can all have an effect on the pressure difference from inside the building to the outside. A lower pressure in the building may induce a draft down the flue system and back into the building causing the fire to smoke or spill into the building. **Care needs to be taken at the design and installation stage to adequately vent the building, or some mechanical system to ensure that there is always a neutral or positive pressure at the fireplace and a negative pressure at the flue outlet.** This will ensure that the draft in the flue system is always to the outside.

“CAITEC AIR” the limits and requirements. See details in these Spec's

### Wind Noise:

You may encounter wind noise in some installations. It is recommended to use an enclosed chase with a chimney pot to help reduce noise. There will always be some noise from the flue systems of all fireplaces.

## Using the Existing Chimney as the Flue System.

Ensure that the Existing Chimney Comply to the Appropriate Standards & Building Codes.

If the Chimney is not sound or needs repair then a Flue System may be required through the Existing Masonry Chimney.

The Integrity of the Chimney needs to be confirmed by the Installer at the time of Installation.

## INSTALLATION ORDER OF OPERATIONS (Suggested Method only)

### Prior to Construction and Installation Important Notes:

Install to AS/NZS 2918:2001 by Certified NZHHA SFAIT Installer . See [www.homeheat.co.nz](http://www.homeheat.co.nz) .

The Flue system must be Installed to Manufacture's Specifications and Comply with AS/NZS:2918:2001.

All New Installations require an Application for Local Council Permit/Consent No (Repairs on Fire NOT Included but contact local Council to confirm.)

For Special Requirements concerning materials (Timber Mantles and Surrounds) within close proximity of Warmington products, please contact your local Warmington Technical Consultant .

### Install Procedure by Certified “Warmington Installer” only , or see [www.homeheat.co.nz](http://www.homeheat.co.nz) go to “members & follow Instructions to Get a Certified NZHHA SFAIT Installer .

#### Stage 1: Removing Existing Fire if Required (Brick Fire , Register Fire or Inbuilt .)

Important Note : Before Fire Removal , Check Outside & Inside of Chimney Chase for Structural Cracks etc. These will need to be Repaired .

Remove Old Flue System if Required & then remove Existing Fire from Chimney Chase.

Sweep Chimney & Clean entire chase out thoroughly . If a Ash Pit Exists at base of Fire , this will need to be inspected to ensure it is sound.

A new Plinth & Hearth may need to be Installed if necessary.

#### Stage 2: Installing Warmington Flue System. (This is a suggested method and will vary for each installation)

Repair top of brick chimney to leave a Flat Clean Surface.

Fit sized Square to round transition to top of brick chimney. Mortar in place and ensure a good strong seal.

Fit Flue system as per AS/NZS2918:2001. ensure that the additional Thermo syphon Liner is installed to allow cooling air to enter the flue system. (see detail)

Install Liner (cut to length) , Spider , Cone & Cowl . Also Bird Protection by Installer if required . . .

## FLUE MAINTENANCE—CLEANING

Ensure that the Warmington flue system is swept annually or more frequently if required.

### To Sweep Flue System

Cover Front of Fire with sheets or some type of cover.

Remove Cowl from Top of Chimney.

Sweep from the Top, Down the Flue.

Remove all Soot and Ash from Ash pan and fire box.

Ensure Cowl and Bird Protection is clean and replaced .

Visually Inspect Fireplace and Flue / Flashing System.

**SELECTION OF THE SIZE OF FLUE SYSTEM TO FIT THE EXISTING CHIMNEY**

The size of the Flue System and the size opening of the Brick Chimney needs to be balanced for the fire to operate correctly.

The size of the Warmington flue system that is to be fitted to an existing masonry fire place, is generally set by the opening of the masonry flue system measured on the diagonal. (see box below).

Select the Warmington Flue Diameter larger than the measured diagonal from the chart below.

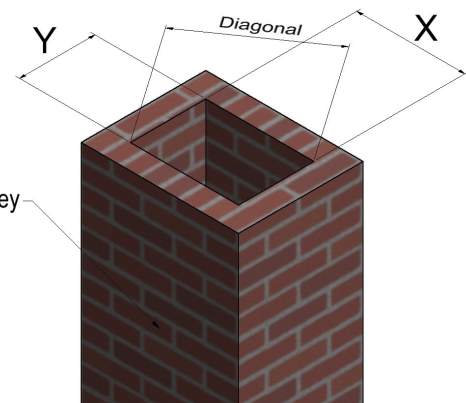
Ensure that the correct clearance from the flue system can be maintained.

Flue Diameter		200	250	300	350
Flue	K	200	250	300	350
Flue Baffle	L	250	300	350	400
Flue Liner	M	300	350	400	450
Thermo Syphon Liner	N	350	400	450	500

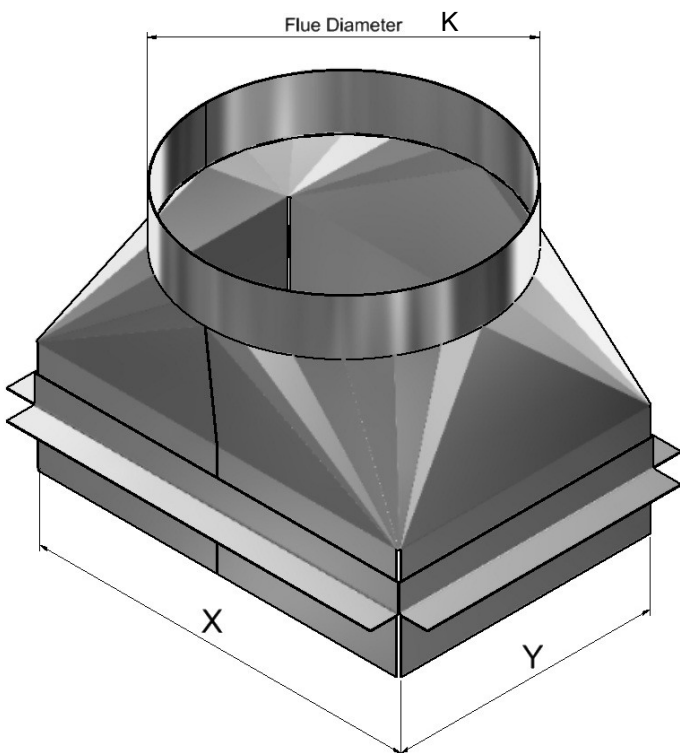
**FLUE DIAMETER SELECTION**

The Flue diameter 'K' will determine the size of the Flue System.

Always consult your Technical Representative for advice.



**SQUARE TO ROUND TRANSITION ELEMENT—General Fitment**

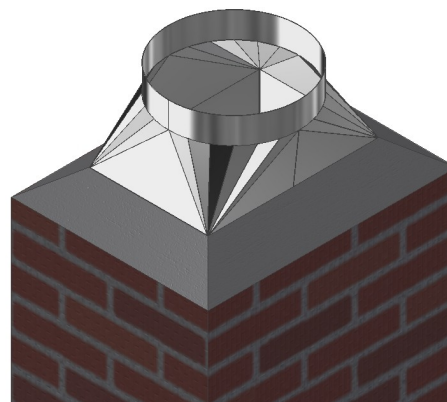


Make X and Y of the transition to fit inside the X and Y of the existing Chimney.

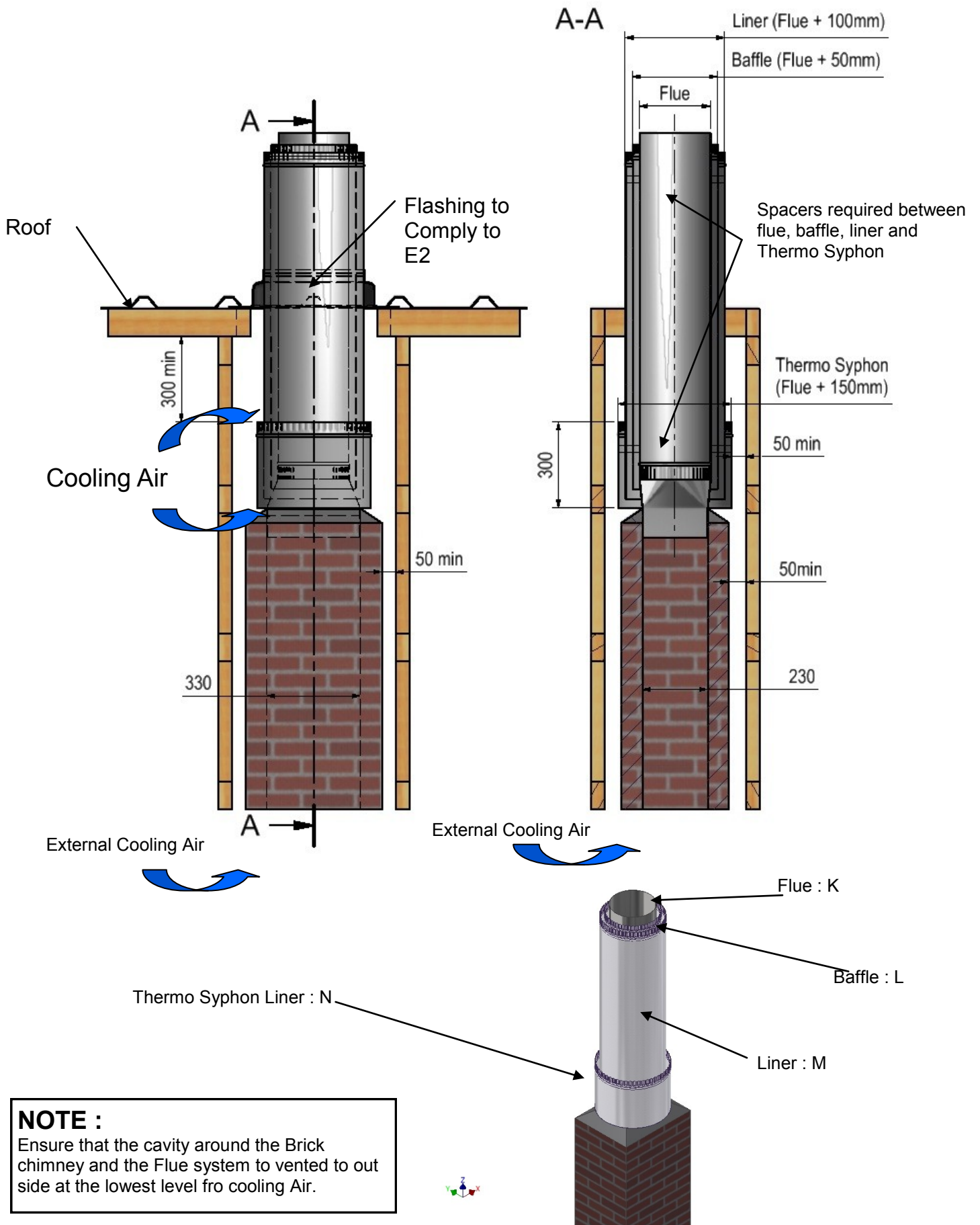
Fit the Square base into the brick chimney and secure with 4 plus 6mm Dyna Bolts or larger if required.

Mortar at 45 Degrees on to the chimney and seal to the square to round transition.

Ensure that the Mortor is dry and holds the transition secure.



**Existing Open Fire to a Flue System—Cross section**



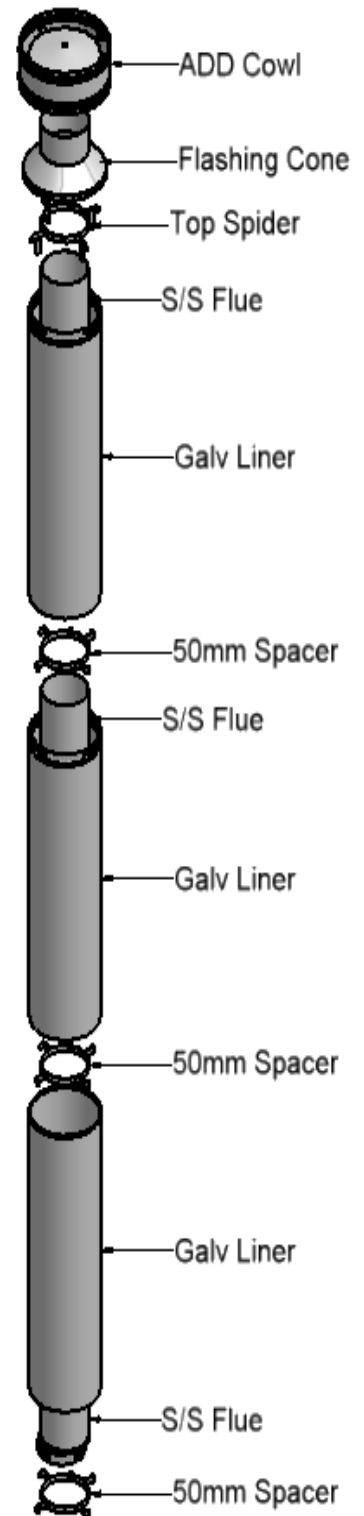
**FLUE DETAILS DIMENSIONS**

**Note: FLUE SYSTEMS Casing....**

Flue system may require to be Doubled lined to comply.  
Ref AS/NZS:2918:2001 4.3 Flue pipe casing

Taken from the outlet of the Gather	
Brick Chimney & Flue Height—Minimum	3600
Flue Height and design to comply with AS/NZS 2918:2001	

Flue Diameter		200	250	300	350
Flue	K	200	250	300	350
Flue Baffle	L	250	300	350	400
Flue Liner	M	300	350	400	450
Thermo Syphon Liner	N	350	400	450	500



**NOTE:**  
Ensure that a Standard Tested Warmington Flue system is used on the Warmington fires.

**FLUE SYSTEM INSTALLATION GUIDE ONLY**

This is a general installation guide only – Contact a “NZHHA Installer” for Installation Advice. See : [www.homeheat.co.nz](http://www.homeheat.co.nz) , choose “members” & pick your Area & Fire type (wood / Gas etc) this will provide you with a NZHHA Certified Installer (use the SFAIT Installers Only .)

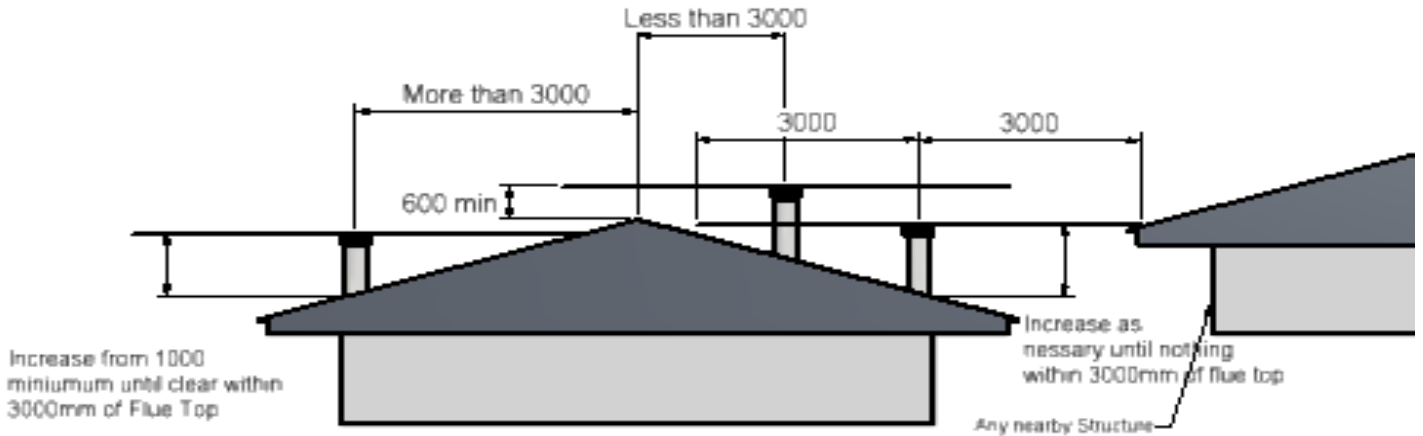
1. Install the first length of flue pipe with the crimped end down, inside the Adaptor collar, ensure that the flue pipe is sealed into the collar with exhaust sealant. Rivet the flue in 3 places around the Adaptor collar. Place a spacer around the flue pipe approximatly150mm above the adaptor collar. Secure in position by tightening the screw and nut.
  2. Install the second length of flue pipe with the crimped end down and fit by riveting in at least 3 places around the flue pipe joint. Ensure that the flue is sealed into position with sealant.
  3. Install the first section of flue pipe liner with the Crimped end up, over the flue pipe and over the spacer that is fixed to the flue pipe. This spacer will keep the liner concentric about the flue pipe.
  4. Position flue spacer at the flue pipe joint for every length of “Flue pipe” and “Liner”.
- Repeat the Steps from 1 – 4 to the installed required height of the flue system. The flue system is to comply with AS/NZS 2918:2001 4.9.1

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

1. **NOTE:** The last length of flue pipe needs to extend past the liner so that when the “top spider” and the “Flashing cone” are fitted, that the “flashing cone” and the “flue pipe” are **flush**, or that the “flue pipe” is **5mm lower** than the “Flashing cone”.
2. Fit the “Top Spider” into position, ensure that the legs of the spider are fitted inside the liner and that the spider is positioned hard down onto the liner and tighten with the screw and nut.
3. Place the “Flashing cone” over the “flue pipe” and press hard down onto the “Top Spider”. (Note that the “Flue pipe” and the “Flashing Cone” are either flush or the “Flue pipe” is 5mm Lower than the “Flashing cone”.) Ensure that the “Flashing cone” is clear for the venting from the “Liner” and the “flue pipe”.
4. Fit the “Cowl” to the top of the flue pipe. The “Cowl”, “Flashing cone”, and the “Flue pipe” can be secured to each other with the uses of a stainless steel self tapping screw. This will allow the “Cowl” to be removed for cleaning.
5. Flue system may require Bird Proofing due to the installation and locations, discuss this with your installer for the best advice.
6. If the Flue system is installed into a “Chimney Chase”, allow for air vent as close to the top of the chase as practical, or allow venting through the “Chimney Chase Flashing”. A “Venting Flashing cone” and a 25mm gap around the Liner with a “Venting Flashing Cone-Spider” can be used. Ref : to Figures .....

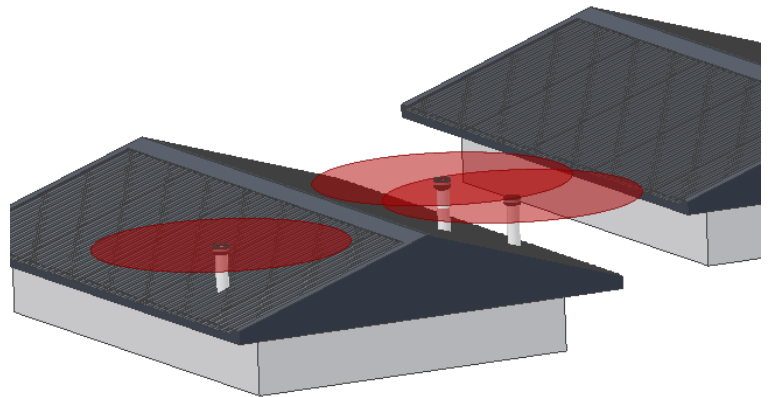
**FLUE HEIGHT MINIMUM DETAILS**

The Height of the masonry flue or flue pipe may need to be increased to obtain correct operation.



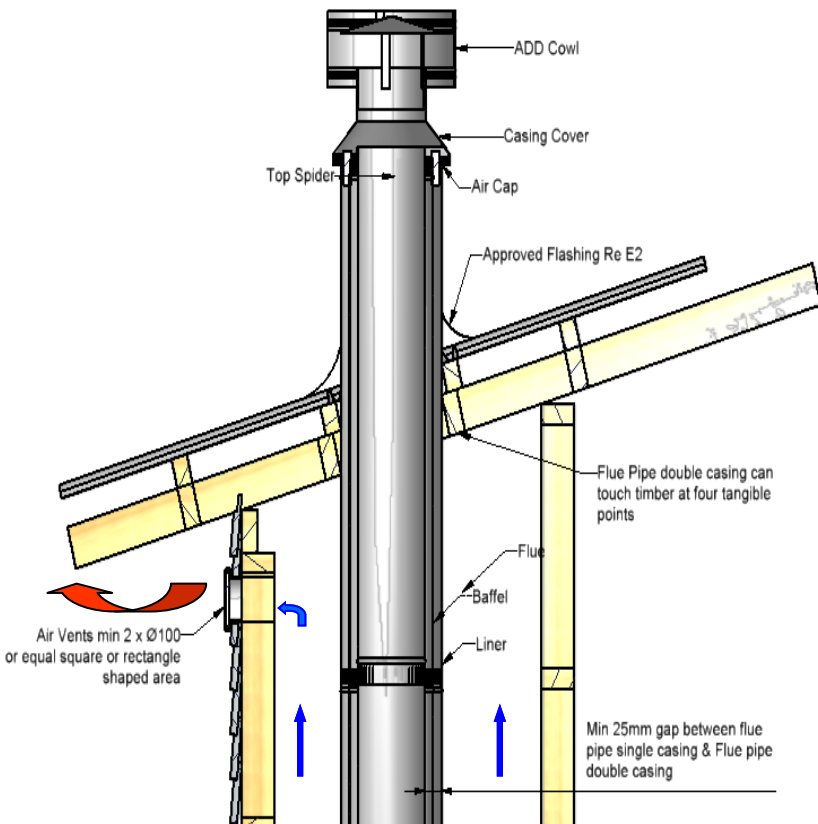
The Flue Penetration is to Comply to AS/NZS 2918 : 2001

**3D View**



**FLUE PENETRATION Vented through Alcove (Double lined Flue System)**

**Note: FLUE SYSTEMS Casing....**  
 Flue system may require to be Doubled lined to comply.  
 Ref AS/NZS:2918:2001 4.3 Flue pipe casing



**Note :**

External Requirements  
 Refer to AS/NZS2918:2001 4.9.1

Install Flue system to AS/NZS2918:2001

When using a rubber or Bitumen flashing (Butynol, Dectite) an Additional Flue pipe Baffle is required.

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

All flashing to comply with E2.

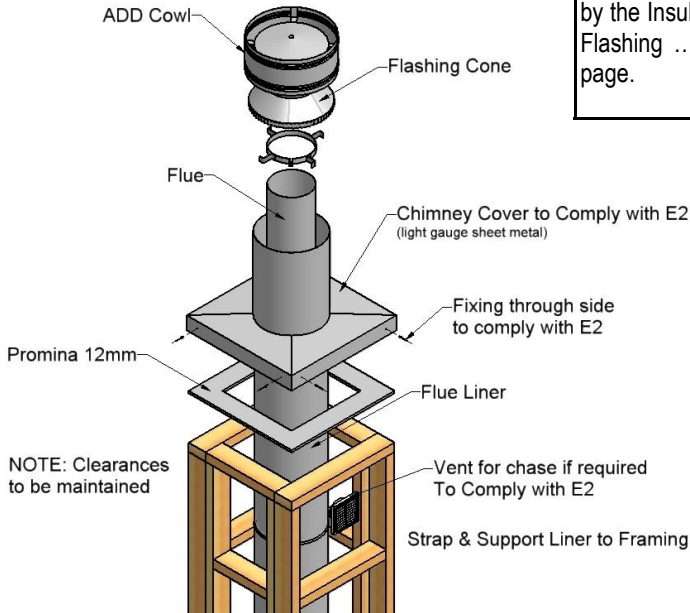
All external air vents and ceiling penetrations are to be Vermin and Rodent proof.

Test Report Number	Date of Report
04/1039	20 <sup>th</sup> July 2004
04/1040	20 <sup>th</sup> July 2004
04/1041	20 <sup>th</sup> July 2004

**CHIMNEY CHASE FLASHING DETAILS –General**

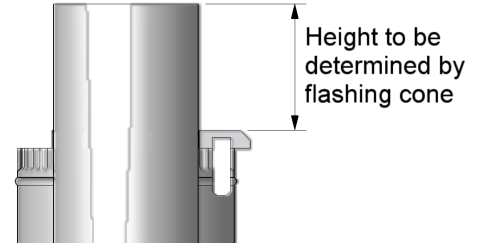
**SETTING ADD COWL AND FLASHING CONE HEIGHT**

**General Chimney Chase Flashing Lay Out**



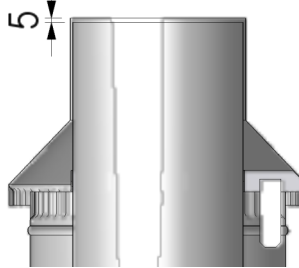
**Note:**  
Flashing Spigot height is determined by the Insulation that is fitted under the Flashing ... See Details at bottom of page.

**STEP 1**



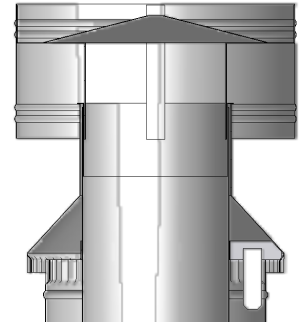
**STEP 2**

Flue 5mm Below Top Of Flashing Cone

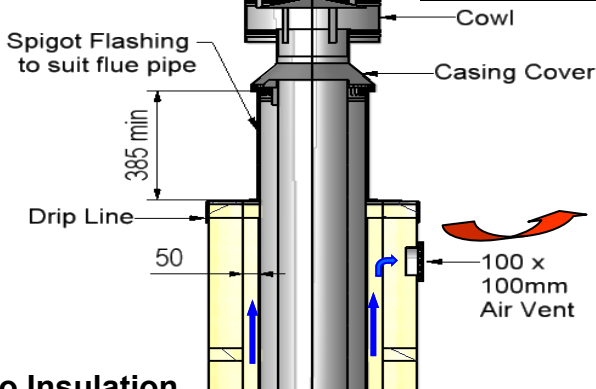


**STEP 3**

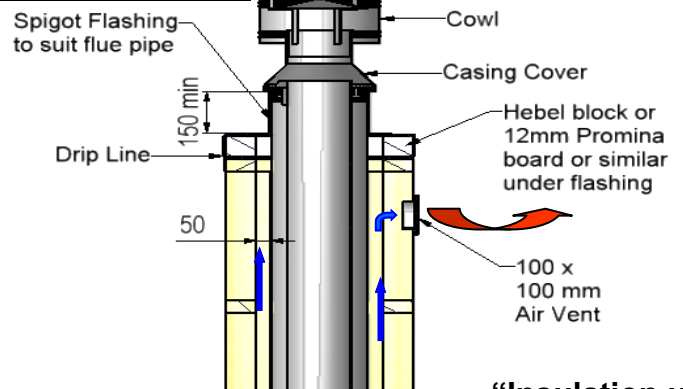
ADD Cowl Sits on Top of Flashing Cone, screw to secure



**VENTING THROUGH CHIMNEY CHASE**

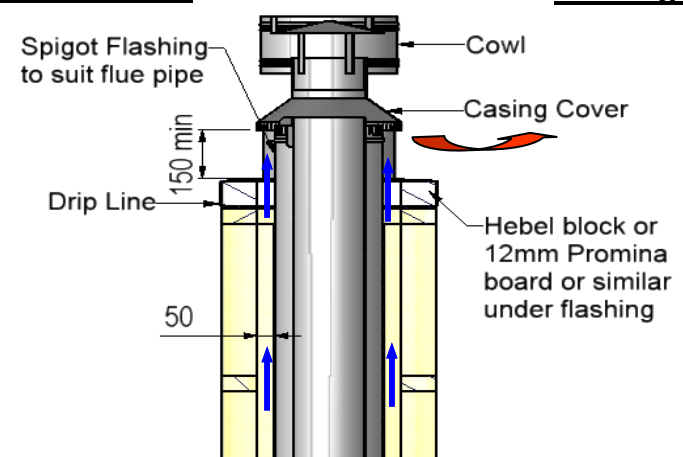
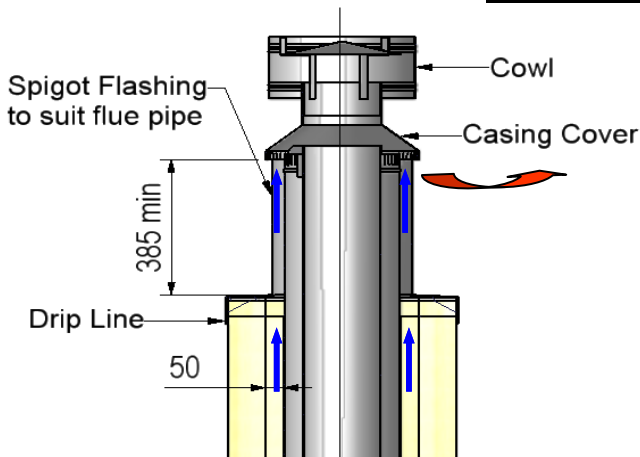


**“No Insulation under flashing”**



**“Insulation under flashing”**

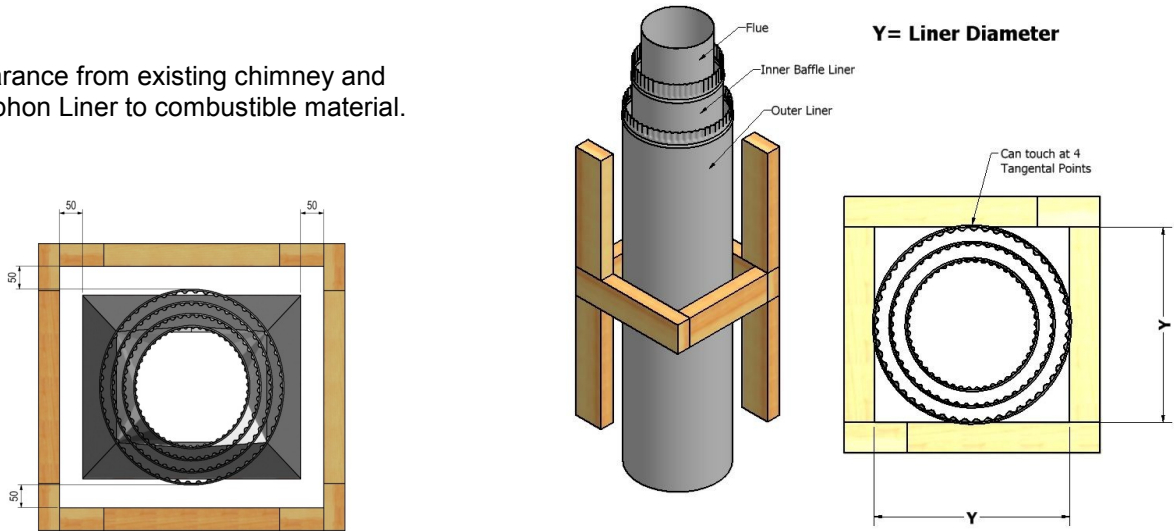
**VENTING THROUGH FLASHING**



**FRAME OUT AND TRIM OUT DETAILS FOR CHIMNEY CHASE**

**Double Lined Flue System**

**NOTE :**  
50mm Clearance from existing chimney and Thermo syphon Liner to combustible material.



**NOTES:**

- For Fire Maintenance and Operating Instructions , upload PDF from [www.warmington.co.nz](http://www.warmington.co.nz)
- Correct Installation must be maintained to comply with Warmington Warranty's of Warmington Products.
- The Appliance and Flue System must be Installed in Accordance with ASNZS2918:2001 and the Appropriate Building codes .
- The Flue System and Fireplace is to be Swept Annually or more frequently if required .

**WARNINGS:**

- **WARNING; ANY MODIFICATION OF THE APPLIANCE THAT HAS NOT BEEN APPROVED IN WRITING BY THE TESTING AUTHORITY IS CONSIDERED AS BREACHING AS/NZS 4013 .**
- **WARNING; DO NOT USE FLAMMABLE LIQUIDS OR AEROSOLS TO START OR REKINDLE THE FIRE .**
- **WARNING; DO NOT USE FLAMMABLE LIQUIDS OR AEROSOLS IN THE VICINITY OF THIS APPLIANCE WHEN IT IS OPERATING .**
- **WARNING; DO NOT STORE FUEL WITHIN HEATER INSTALLATION CLEARANCES .**
- **WARNING; WHEN OPERATION THIS APPLIANCE AS AN OPEN FIRE USE A SPARK SCREEN .**
- **CAUTION:** THIS APPLIANCE SHOULD BE MAINTAINED AND OPERATED AT ALL TIMES IN ACCORDANCE WITH THESE INSTRUCTIONS
- **CAUTION:** THE USE OF SOME TYPES OF PRESERVATIVE-TREATED WOOD AS A FUEL CAN BE HAZARDOUS.