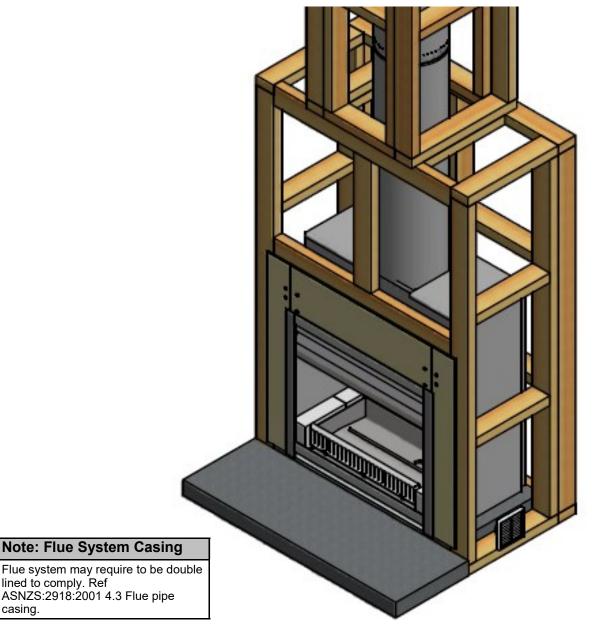


# SI 440 - 600 - 700 - 700T- 780 - 780T- 900 - 1100 Open Fire

Solid Fuel Burner - Open Wood Fire

## Installation Instructions



## Visit www.warmington.co.nz for specs, DWGs and PDF uploads of fires

#### Fires and flue system have been tested to comply with ASNZS 2918:2001 & Building Code C/AS1 7.5 Open Fires

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.





**COMPONENTS REQUIRED FOR CONSTRUCTION** 

## Supplied No: **NOT Supplied (optional extras)** No: Log Lighter & Control Box 1 Warmington SI Firebox 1 Autoclaved Aerated Concrete (AAC) 1 Heat cell Warmington SI Adaptor 1 NOT Supplied (sold separately) No: Warmington Fluekit 1 Warmington SI Ashpan 1 Warmington SI Heat Shield Kit 1 Flashing System 1 **Exhaust Sealant** Gas fitting (for log lighters) Fire / Flue kit / Flashing Installation Warmington SI Fascia Kit 1 **Council Permit Check List** Firebox Adaptor (Fastenings) Ash pan Bricks Louvers Badge Damper Handle Packed By



## **GENERAL INFORMATION**

#### HEAT OUTPUT

Description	SI 440	SI 60	SI 700	SI 700T	SI 780	SI 780T	SI 900	SI 1100
Peak output (kW)	10	12	15	15	17	19	23	25
Expected range (kW)	5-8	8-10	10-12	10-12	11-12	12-14	13-15	14-16

\*Estimated outputs for all sizes, apart from 780T size which has been tested.

#### 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 gusts that hit the flue and cowl system may overcome the cowl and draught back down the flue into the home. This can be a combination of down draught and high pressure.

#### 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, and naturally forming draught spaces can all have an effect on the pressure differential from inside the building to the outside. A lower pressure in the building may induce a draught 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 to ensure that there is always a neutral or positive pressure at the fireplace and a negative pressure at the flue outlet (a mechanical system can be added to aid this if necessary). This will ensure that the draught in the flue system is always to the outside.

#### Wind Noise:

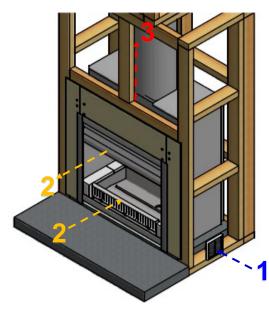
You may encounter wind noise in some installations. It is recommended to use an enclosed chase with a chimney pot to help reduce noise. There will always be some noise from the flue systems of all fireplaces.

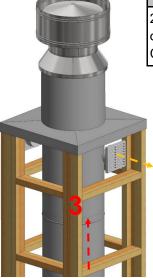
#### "CAITEC" ROOM AIR REPLACEMENT TECHNOLOGY

Fitted in every Warmington open fireplace is Warmington's own "Caitec" technology. The Caitec system draws air from an external air source (outside the room) to ensure that the open fire has a steady supply of pre-heated combustion air. This maximises efficiency while maintaining a pressure equilibrium in the home, reducing the risk of back drafting.

The following references are used in this document for the Caitec system and venting requirements:

- Air enters the cavity through external vents (see Note) in the surrounding structure. Excess air drawn in will cool the cavity structure.
  The external air travels through the Caitec system within the firebox, is pre-heated and is circulated back into the room. The excess supply of air to the room will be ample to feed the fire without inducing negative room air pressure.
- 3. Combusted gases and particulates are exhausted through the flue system.
- 4. The excess air supply that entered the cavity (in 1), that has warmed and risen due to natural convection, exits through the vents at the top of the cavity (or through the liner and out of a venting cone in the case of venting through the flashing).





#### Note:

2 x 100mm diameter vents to outside air are required for the Caitec system.



## **INSTALLATION INSTRUCTIONS**

#### Important Notes:

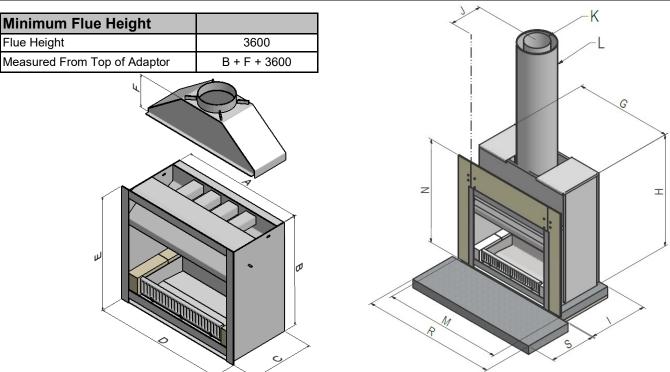
- This is a general installation guide only. Contact a "NZHHA Installer" for installation advice or go to <u>www.homeheat.co.nz</u>, then select <u>Members</u> & follow instructions to find a certified NZHHA SFAIT installer.
- Install to AS/NZS 2918:2001 and to manufacturer's specifications.

## **STAGE 1: CAVITY CONSTRUCTION PROCEDURE FOR BUILDER**

- Mark out flue centre on floor.
- Mark out relevant clearance requirements.
- Construct plinth to required height (see page 8 for details).
- Construct framing or block surround according to relevant minimum dimensions as referenced on pages 5 to 7.

#### **1.1 WARMINGTON SI FIREBOX AND HEAT SHIELD DIMENSIONS**

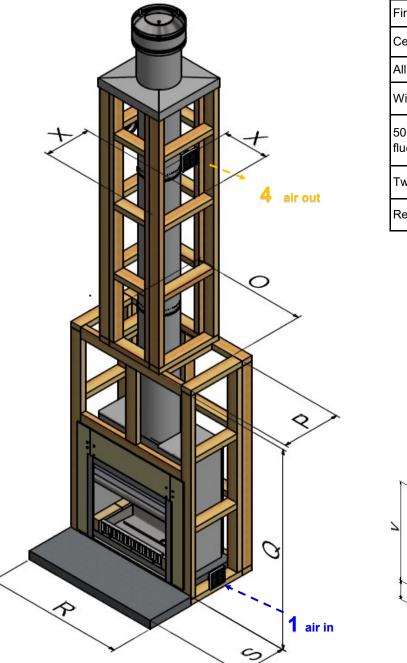
Firebox		SI 440	SI 600	SI 700	SI 700T	SI 780	SI 780T	SI 900	SI 1100
Firebox width	Α	440	600	700	700	780	780	900	1100
Firebox height	В	600	600	600	650	600	680	750	800
Firebox depth	С	400	400	400	400	400	400	450	500
Flange width	D	490	650	750	750	830	830	950	1150
Flange height	Е	625	625	625	675	625	705	775	825
Adaptor height	F	210	210	210	210	210	210	270	270
Heat shield width	G	690	690	790	790	870	870	990	1170
Heat shield height	Н	1000	1000	1000	1000	1000	1000	1200	1200
Heat shield depth	I	480	480	480	480	480	480	530	580
To flue centre	J	290	290	290	290	290	290	310	340
Flue diameter	Κ	200	200	200	200	200	200	250	300
Liner diameter	L	300	300	300	300	300	300	350	400
Fascia width	М	865	865	1060	1060	1060	1060	1170	1380
Fascia height	Ν	850	850	850	895	850	925	995	1045





## **1.2 TIMBER FRAMING DETAILS - MINIMUM CLEARANCES**

Description		SI 440	SI 600	SI 700	SI 700T	SI 780	SI 780T	SI 900	SI 1100
Timber clearance width	0	820	820	1000	1000	1000	1000	1100	1350
Timber clearance depth	Р	510	510	510	510	510	510	560	610
Timber clearance height	Q	1700	1700	1700	1700	1700	1700	1900	1900
Hearth width	R	890	1050	1200	1200	1200	1200	1350	1550
Hearth projection	S	410	410	410	410	410	410	500	650
Window height	V	825	825	825	825	875	905	975	1000
Window width	W	820	820	1000	1000	1000	1000	1100	1350
Chimney chase clearance	Х	400	400	400	400	400	400	450	500



## Notes:

Firebox is centred side to side in cavity.

Centreline of flue is not in centre of alcove (depth wise).

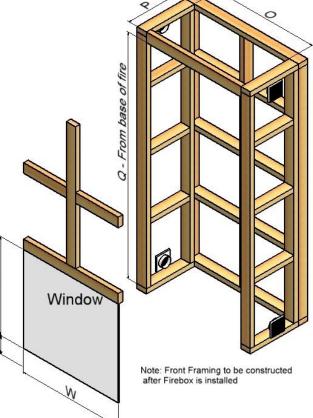
All framing dimensions are internal only.

Window height V should be measured from top of hearth.

50mm clearance required from liner to timber framing when flue is single lined. See page 15 for more details.

Two 100mm dia vents required for Caitec air.

Recommended framing laying on the 45mm side



# Warmington

## **1.3 TIMBER FRAMING DETAILS - AAC HEAT CELL REDUCED CLEARANCES**

Description		SI 440	SI 600	SI 700	SI 700T	SI 780	SI 780T	SI 900	SI 1100
Heat cell width	GG	860	860	960	960	1040	1040	1160	1340
Heat cell height	HH	1085	1085	1085	1085	1085	1085	1285	1285
Heat cell depth	II	585	585	585	585	585	585	635	685
Heat cell clearance width	O <sub>H</sub>	910	910	1023	1023	1090	1090	1210	1394
Heat cell clearance depth	P <sub>H</sub>	610	610	610	610	610	610	660	660
Heat cell clearance height	Q <sub>H</sub>	1110	1110	1110	1145	1110	1185	1310	1320
Hearth width	R	890	1050	1200	1200	1200	1200	1350	1550
Hearth projection	S	410	410	410	410	410	410	500	650
Chimney chase clearance	Х	400	400	400	400	400	400	450	500

## Notes:

Firebox is centred side to side in cavity.

Centreline of flue is NOT in centre of alcove.

All framing dimensions are internal only.

The heat cell should be constructed out of 75mm thick autoclaved aerated concrete (AAC) panels.

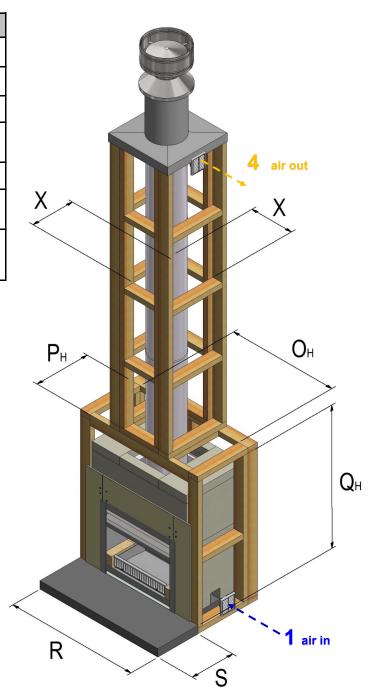
Dimension  $Q_H$  is measured from the top of the hearth.

When purchasing the AAC heat cell kit, the assembly guide will come with the kit.

Two 100 x 100mm holes in the bottom of side panels of AAC provide venting for Caitec air system (alternatively they can be cut in the bottom of the back panel).

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### **1.4 BLOCK ENCLOSURE - MINIMUM CLEARANCES**

Description		SI 440	SI 600	SI 700	SI 700T	SI 780	SI 780T	SI 900	SI 1100
Block clearance width	00	810	810	810	810	1210	1210	1210	1210
Block clearance depth	PP	500	500	500	500	500	500	700	700
Block clearance height	QQ	1700	1700	1700	1700	1700	1700	1900	1900
Hearth width	RR	890	1050	1200	1200	1200	1200	1350	1550
Hearth projection	SS	410	410	410	410	410	410	500	650
Window height	vv	610	610	610	660	610	690	760	810
Window width	ww	460	620	720	720	810	810	920	1120
Chimney chase clearance	XX	400	400	400	400	400	400	450	500

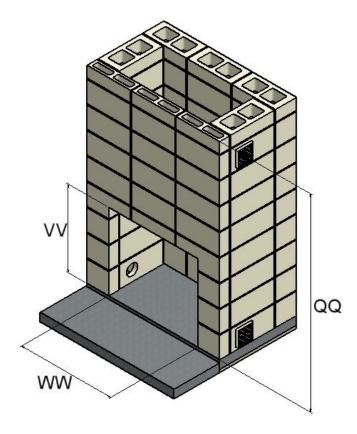
#### Notes:

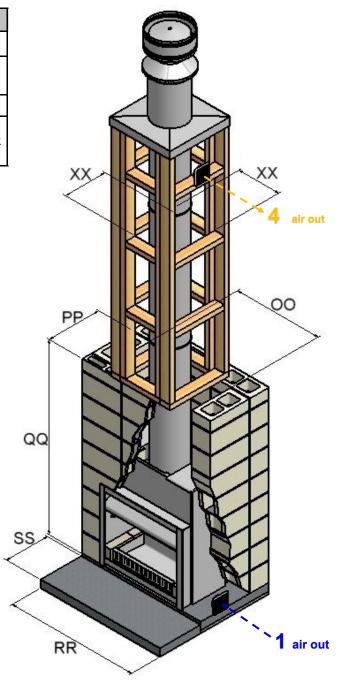
#### All block materials must be non-combustible up to clearance height QQ.

Ensure that the fire and flue system is installed before the alcove access is blocked off. Block modules may vary to the drawing.

Centreline of flue is NOT in centre of alcove.

Two x 100mm diameter vents (minimum) required at base of block for Caitec system and cavity venting. Venting to external air required. Cut holes in block structure as necessary.







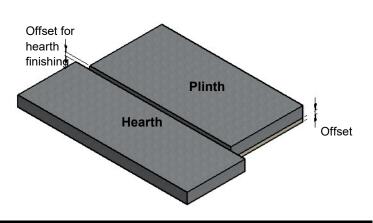
## 1.5 HEARTH & PLINTH CONSTRUCTION DETAILS

## Notes:

For combustible flooring an insulating hearth and plinth of 75mm Autoclaved Aerated Concrete (AAC) is required.

To keep finishing on hearth flush with the plinth, the plinth should be offset from the ground by the thickness of the finishing material.

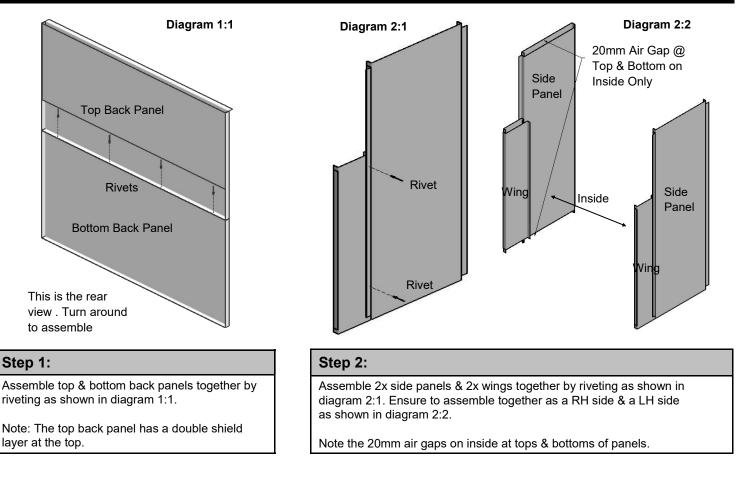
See page 11 for details on raised hearths.



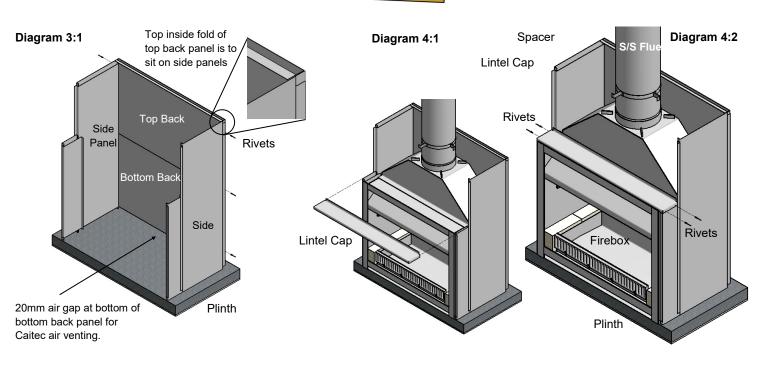
## STAGE 2: INSTALL PROCEDURE FOR NZHHA CERTIFIED INSTALLER

- Assemble top and bottom back panel and side of the heat shield, and position into the cavity. See below and page 9 for details.
- Fit the firebox into the cavity, allow (approximately 10mm) for the fascia to fit behind the flange. Bolt the firebox to the plinth using the internal seismic restraint brackets (which are under the removable bricks on the left and right sides of the firebox).
- Fit the adaptor to the firebox. The adaptor bolts to the firebox with two M8 bolts/ nuts/ washers on each side. Seal the adaptor to the firebox using hi temperature sealant around all joining edges.
- Install flue system (see pages 12 to 15 for details).
- Fit the front of the heat shield and rivet into position. The liner should press against the front panel of the heat shield (towards the front of the fire). This is to ensure the fascia is pressed hard against the back of the firebox flange during operation. The front panel of the heat shield may appear more challenging to install however. The front panel can be taped in place while riveting (remove the tape when finished).
- Fit the lintel cap and top caps to the heat shield.
- Fit the fascia kit (if using) between the heat shield and behind the firebox flange. This fitment will be firm and will complete the shielding around the fire.

## 2.1 HEAT SHIELD ASSEMBLY - FOR WITH INSTALLING WITH FASCIA KIT





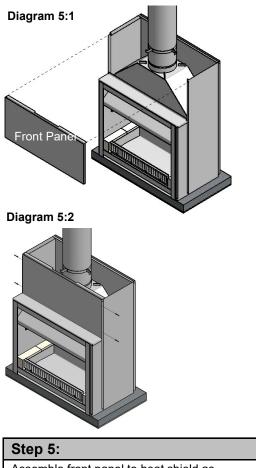


#### Step 3:

Assemble 2x assemble side panels and assembled back panels together as shown in diagram 3:1 onto plinth.

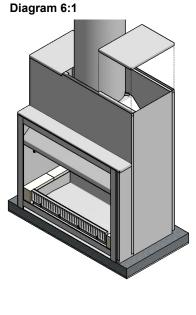
#### Step 4:

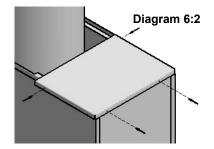
Install firebox etc. into position and secure in place using seismic restraints. Run first length of S/S flue ensuring to add spacer at bottom. Assemble lintel cap in place and rivet together as shown in diagrams 4.1 and 4.2.



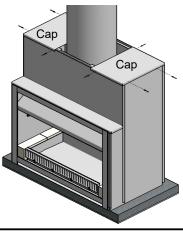
Assemble front panel to heat shield as shown in diagram 5:1 and rivet in place as shown in diagram 5:2.

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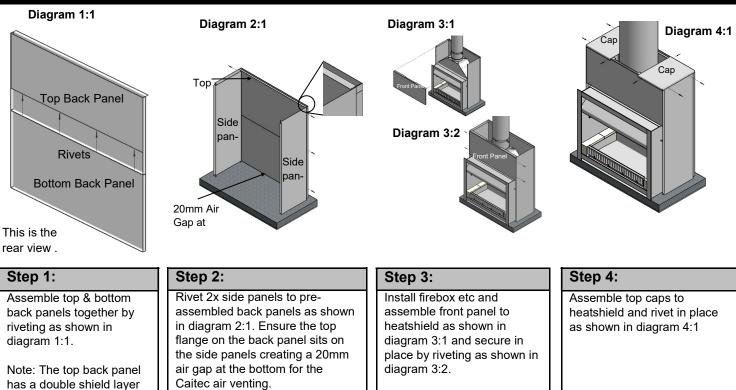


#### Step 6:

Assemble top caps to tops of heatshield as shown in diagram 6:1. Rivet in place to secure the top caps as shown in diagrams 6:2 and 6:3.



#### 2.2 HEAT SHIELD ASSEMBLY - FOR INSTALLING INTO BLOCK ENCLOSURE (NO FASCIA KIT)



## **STAGE 3: FINISHING PROCEDURE FOR BUILDER**

- Construct hearth to required thickness
- Remember to install required 2 x 100mm diameter vents for Caitec external air supply system.
- Complete finishing around fascia (eg. GIB board, plaster, paint, tiles etc).
- Construct mantle if required

at the top.

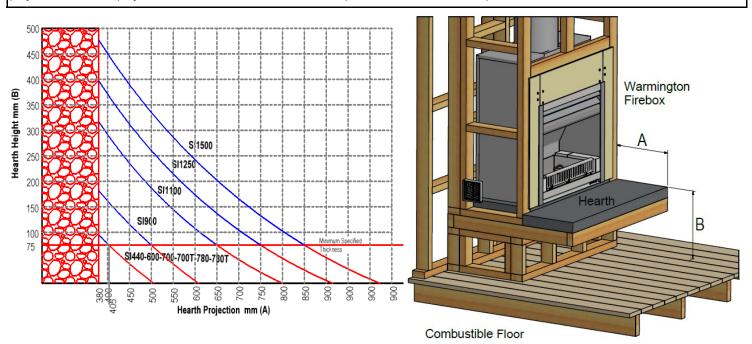
## **3.1 FASCIA KIT ASSEMBLY** Diagram 2:1 Diagram 1:1 Diagram 3:1 Top panel Gib Joining plate Side panels Step 1: Step 2: Step 3: Assemble Promina fascia as shown Fit Promina fascia to firebox in dia-Frameout and Gib as per specification. Screw Proin diagram 1:1 using joining plate. gram 1:2, by sliding down behind mina board to framing to secure in place. Butt Gib Nuts & bolts provided. up to Promina fascia and plaster/ paint as normal. front flange. Due to continued product improvement, Warmington Ind LTD reserves the right to change product specifications without prior notification.



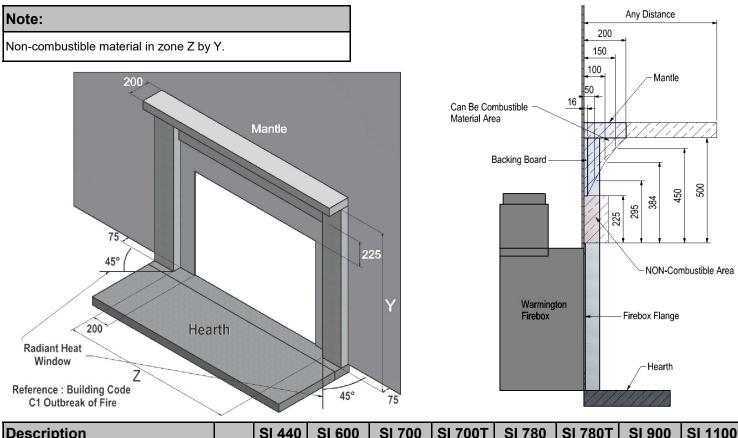
## **3.2 HEARTH CLEARANCES**

#### Important Note:

A hearth projection ABOVE the curved minimum requirement line on the graph for a selected model of fire is an acceptable hearth projection. A hearth projection BELOW the curved minimum requirement line is NOT acceptable.



#### 3.3 COMBUSTIBLE MANTLE CLEARANCES : REF BUILDING CODE



Description		SI 440	SI 600	SI 700	SI 700T	SI 780	SI 780T	SI 900	SI 1100
Combustible mantle - clearance height	Y	1125	1125	1125	1175	1125	1205	1275	1325
Combustible mantle - clearance width	Z	890	1050	1150	1150	1230	1230	1350	1550



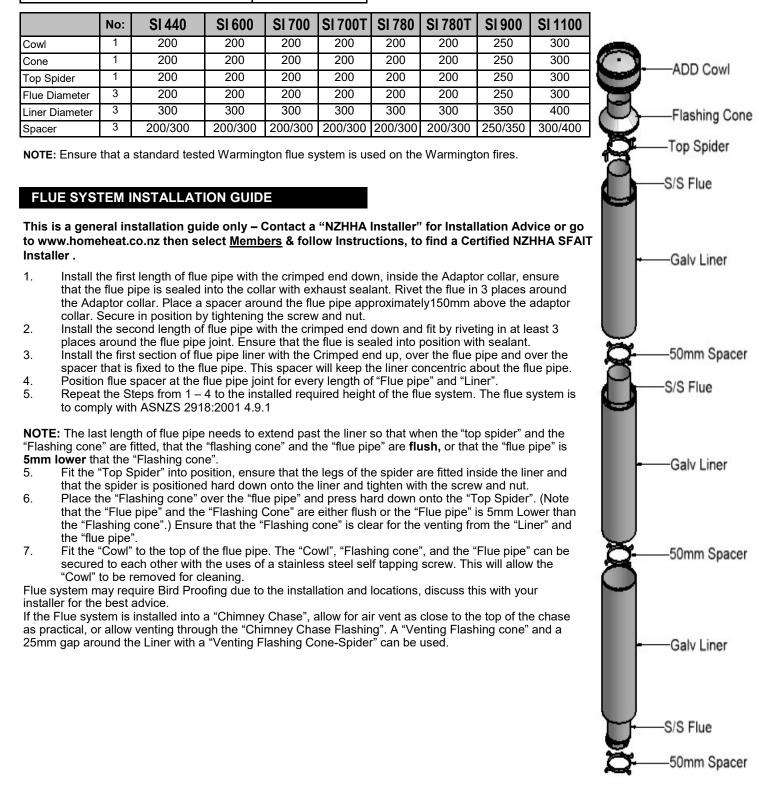
## FLUE SYSTEM INSTALLATION

## FLUE DETAILS DIMENSIONS

Minimum Flue Height	
Flue Height	3600
Measured From Top of Adaptor	B + F + 3600

#### Note: FLUE SYSTEMS Casing

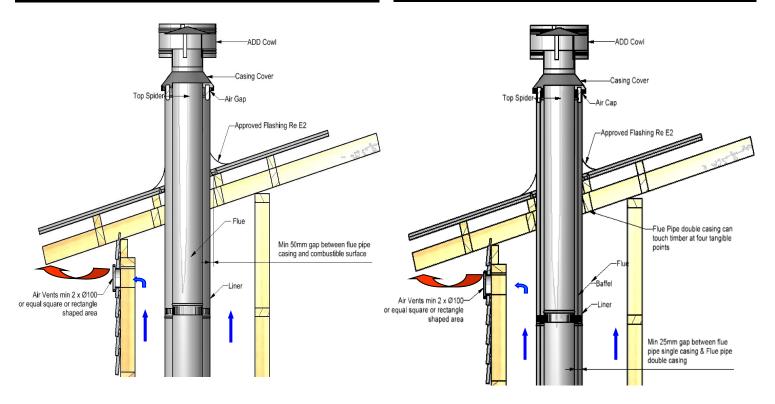
Flue system may require to be Doubled lined to comply. Ref ASNZS:2918:2001 4.3 Flue pipe casing



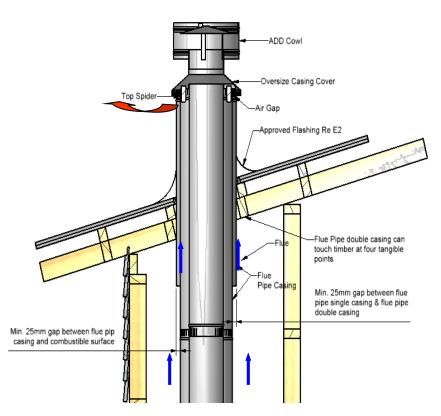


# FLUE PENETRATION VENTED THROUGH ALCOVE (SINGLE LINED FLUE SYSTEM)

# FLUE PENETRATION VENTED THROUGH ALCOVE (DOUBLE LINED FLUE SYSTEM)



### FLUE PENETRATION VENTED THROUGH TOP FLASHING



## Note: Flue system casing

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

#### Notes:

External requirements: refer to AS/NZS2918:2001 4.9.1 All flashing to comply with E2.

Install Flue system to AS/NZS2918:2001

When using a rubber or bitumen flashing (Butynol, Dectite) an additional flue pipe baffle is required.

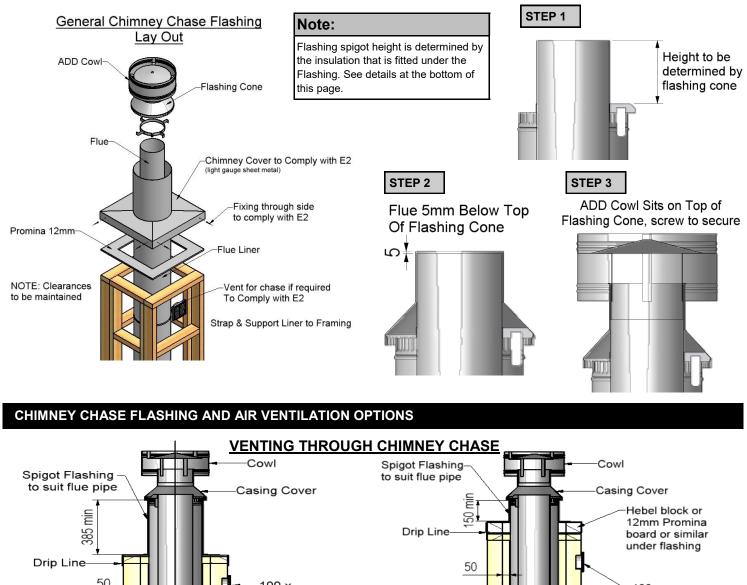
All external air vents & ceiling penetrations must be bird proofed with permanently fixed screens. Additionally, all external air vents and ceiling penetrations are to be vermin and rodent proof.

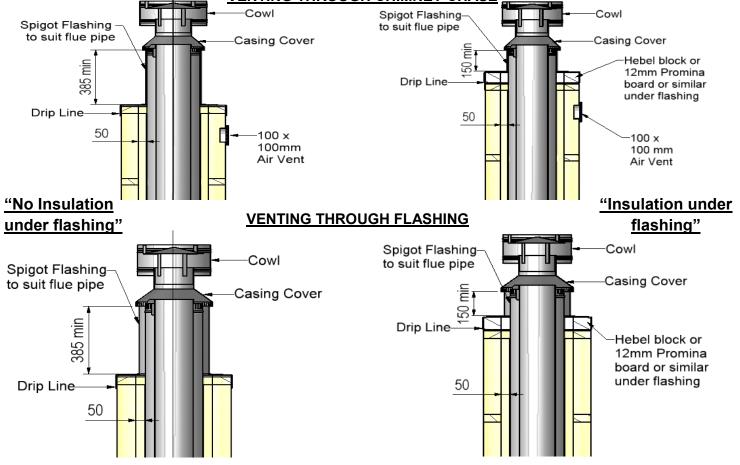
Test Report Number	Date of Report
04/1039	20 <sup>th</sup> July 2004
04/1040	20 <sup>th</sup> July 2004
04/1041	20 <sup>th</sup> July 2004



## CHIMNEY CHASE FLASHING DETAILS SETTING ADD COWL A

#### SETTING ADD COWL AND FLASHING CONE HEIGHT

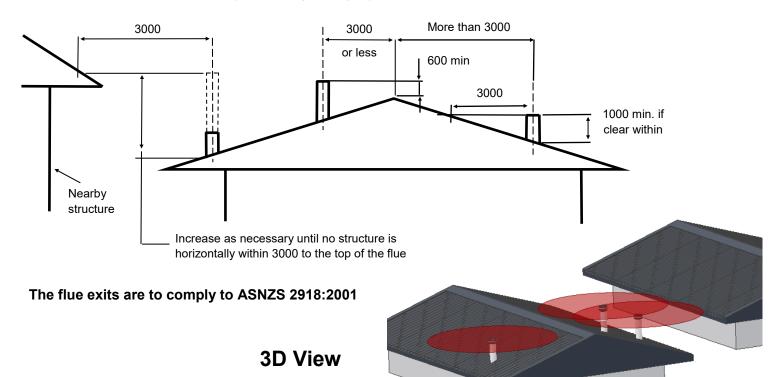




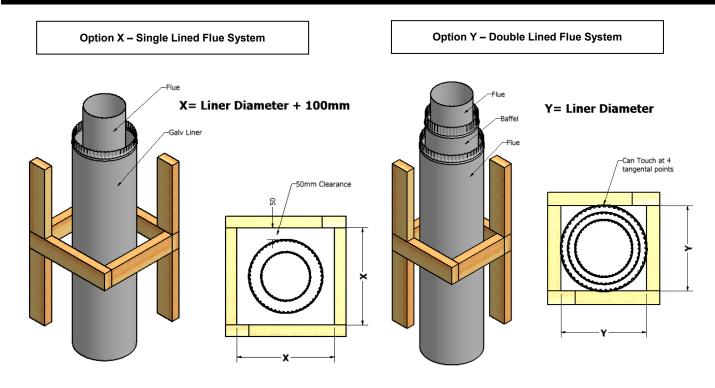


#### FLUE SYSTEM EXTERNAL REQUIREMENTS

- The minimum height of the flue system within 3m distance from the highest point of the roof shall be minimum 600mm above that point
- The minimum height of the flue system further than 3m from the highest point of the roof shall be 1000mm or more above the roof penetration
- The flue exit must be clear of any surrounding buildings by a horizontal radius of at least 3m



### FLUE SYSTEM REQUIREMENTS FOR CHIMNEY CHASE





#### **GENERAL NOTES:**

- Fire operational and maintenance instructions can be downloaded from <u>www.warmington.co.nz</u>
- Warranty for full details on product warranties, contact your local authorised Warmington Retailer.
- Correct installation, operation and maintenance must be maintained to comply with Warmington warranty.
- 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: 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.
- CAUTION: CRACKED AND BROKEN COMPONENTS MAY RENDER THE INSTALLATION UNSAFE.

#### FOR SI FIRES INSALLED WITH WETBACKS:

• WARNING: DO NOT CONNECT TO AN UNVENTED HOT WATER SYSTEM. INSTALL IN ACCORDANCE WITH AS 3500.4.1 OR NZS 4603 AND THE APPROPRIATE REQUIREMENTS OF THE RELEVANT BUILDING CODE OR CODES

> NOTE: For operating instructions download from the website www.warmington.co.nz



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