



Nectre MK3

Installation Instructions



THE INSTALLATION INSTRUCTIONS IN THIS MANUAL APPLY TO THE NECTRE MK3.

IT HAS BEEN TESTED FOR EMISSIONS AND EFFICIENCY AND COMPLIES ACCORDING TO AS/NZS 4012:2014 & AS/NZS 4013:2014.

1. IMPORTANT INFORMATION

Most building regulatory Authorities in Australia require any wood heater installation to comply with Installation Standard AS/NZS 2918:2001. Different states and councils may have varying regulations. Check local building regulations before installing the appliance.

All Nectre wood heaters have been tested to ensure that they will meet the appropriate safety Standard requirements if the instructions in this manual are followed. As the safety and emissions performance can be affected by altering the appliance, no modifications are allowed without written permission from the manufacturer.

WE RECOMMEND THAT THE INSTALLATION OF YOUR NECTRE WOOD HEATER BE CARRIED OUT BY A QUALIFIED INSTALLER.

WARNING: THE APPLIANCE AND FLUE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH AS/NZS 2918:2001 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 4012 & 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 4012 & 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 4012 & 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, EG. GLASS PANELS OR CERAMIC TILES, MAY RENDER THE INSTALLATION UNSAFE.

2. INSTALLING THE HEATER

2.1 Positioning the Heater

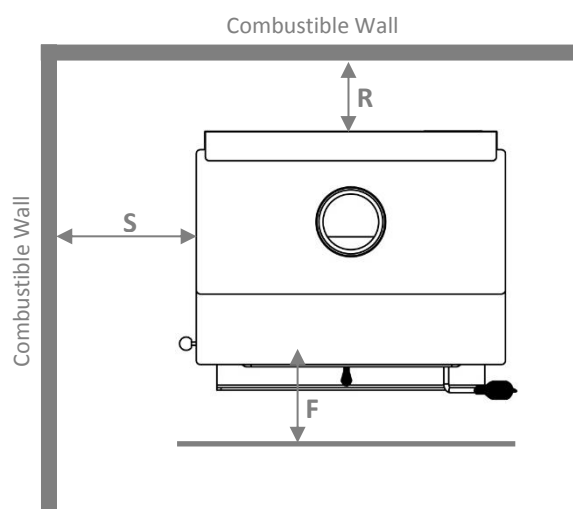
First review the necessary clearances specified below before considering where to position the heater.

Also check the practicability of installing the flue system in relation to any obstructing roof beams before positioning the heater.

These clearance distances can only be reduced if the surrounding walls are made of non-combustible material, eg. Stone, brick, or concrete. If non-combustible material, distance can be reduced to 100 mm. Alternatively, shielding of the wall(s) can reduce clearances (refer to next section for more detail).

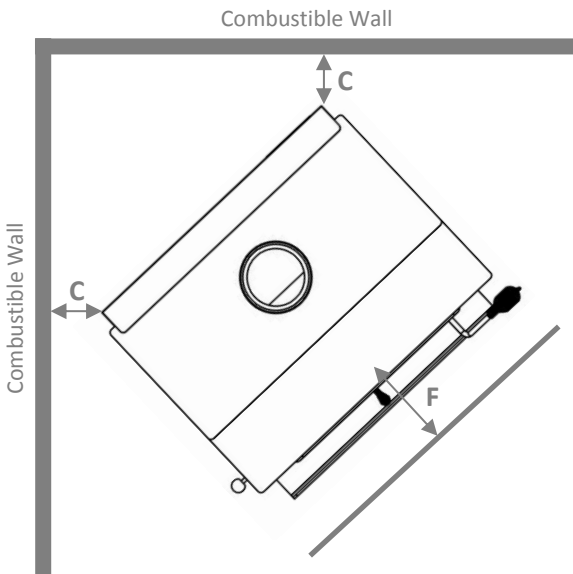
Depending on the type of flue shielding used, the clearances to combustible surfaces varies.

2.1.1 Standard Installation:



Clearances – Standard Installation		
Side - S (mm)	Rear - R (mm)	Floor - F (mm)
400	150	300

2.1.2 Corner Installation:



Clearances – Corner Installation	
Floor - F (mm)	Corner - C (mm)
300	150

2.2 Floor Protector (Hearth)

Unless the heater will be standing on a heat resistant floor such as concrete slab with slate or tiles, it will be necessary to provide a floor protector (hearth).

The dimensions given in above (Section 2.1) are the minimum required for the floor protector. It must extend no less than 300 mm in front of the door opening, no less than 200mm either side of the door opening, and extend under the heater. Minimum dimensions for floor protector are 900mm wide by 900mm deep. It may be desirable, for example aesthetic reasons, for the floor protector to be larger than these minimum dimensions.

The floor protector shall be constructed of either: -

- a) 10mm thick toughened glass, OR
- b) Non-combustible material no less than 15mm thick and with a thermal conductivity not greater than 0.33W/m °K, eg. compressed cement sheet.

The floor protector may be laid directly on the combustible floor.

For more details and variations on floor protectors refer to AS/NZS 2918:2001 Clause 2.2, 3.3.1, & 3.3.2.

3. REDUCING CLEARANCES TO COMBUSTIBLES

If it is necessary to install a heater closer to a combustible surface than the stated requirements in Section 2 of this Installation Guide, it must be done in accordance with Australian Standard AS/NZS 2918:2001 Section 3, Tables 3.1 & 3.2.

Shield Construction:- The shield shall be constructed from a heat resistant material. The shield must be fixed to the surface that requires protection and NOT the heater.

The Standard allows three options to reduce stated clearances.

Single layer of continuous material with Minimum Air Gap of 12mm—Clearance Factor = 0.40

Single layer of continuous material with Minimum Air Gap of 25mm—Clearance Factor = 0.30

Two spaced layers of continuous material with Minimum Air Gaps of 12mm + 12mm—Clearance Factor = 0.20

The shielding must be open at the top and bottom (vented) to allow a continuous air flow. It is this air flow that keeps the surface requiring protection cool. Fixings should not impede this air flow.

The shielding needs to go far enough along and up the wall so that the original side and rear required clearances are not compromised. As the flue is now closer to the wall the shielding should also protect the wall from the flue pipe.

For example:

Side wall clearance for the MK3 is 400 mm.

A 12mm gapped shield on the wall with a factor of 0.40.

Calculate:- $400 \text{ mm} \times 0.40 = 160 \text{ mm}$. This is the new side wall minimum clearance.

The shielding needs to be large enough so that none of the original clearances of 400 mm are compromised.

4. INSTALLING THE FLUE

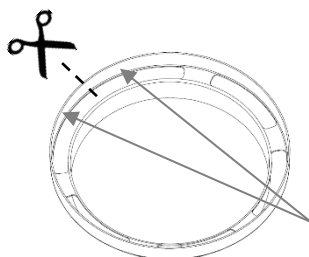
The flue system used when installing the heater MUST comply with the current installation standard AS/NZS 2918.

Full instructions on the installation of the flue will be supplied with the flue kit. These MUST be adhered to, including the minimum exit height from the top of the floor protector being not less than 4.6m, and the minimum exit height above the roof line of roof ridge as detailed in the instructions.

The flue must be fitted with either of the following:

- 1) **Rear Flue Shield** – 900mm long, minimum 160° arc, stainless steel rear flue shield painted black, OR
- 2) **Solid Flue Shield** – a full length, solid outer flue shield (7.75" – 8" diameter) extending from the heater through into the drop box penetrating the ceiling. The base of the solid outer shield must be fitted with the Decromesh Locating Ring supplied with in the heater. A 900mm high external rear heat shield (130mm wide, needs to be ordered separately) shall be fitted to the rear of the solid outer shield, positioned 25mm above the top of the heater and 15mm off the rear of the solid outer shield, OR
- 3) **Decro-mesh** – a full length, half radius perforated decro-mesh flue shield (7.75" – 8" diameter) extending from the heater through into the drop box penetrating the ceiling. A 900mm half round inner reflector must be fitted inside the decro-mesh. Using tin-snips, cut 10mm tabs into the top and bottom of the inner reflector and bend out to create an air gap between it and the outer decro-mesh. The base of the decro-mesh outer shield must be fitted with the Decromesh Locating Ring supplied within the heater.

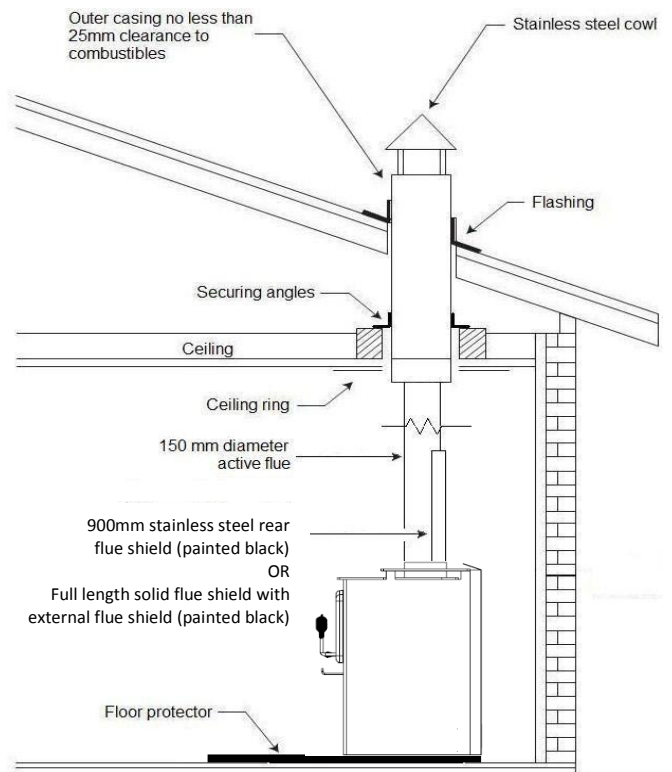
Depending on the supplier, decro-mesh can be one of three sizes – 200 mm, 7 ¾ inch, or 8 inch diameter. The Decromesh Locating Ring will fit the two smaller diameters but not the 8 inch. In this scenario, snip through the outer ring with tin-snips, as shown in the diagram below. Bend the two "arms" in a little so they ends don't project out when fitted to the decro-mesh. Ensure that the snipped section is at the rear of the flue, out of sight.



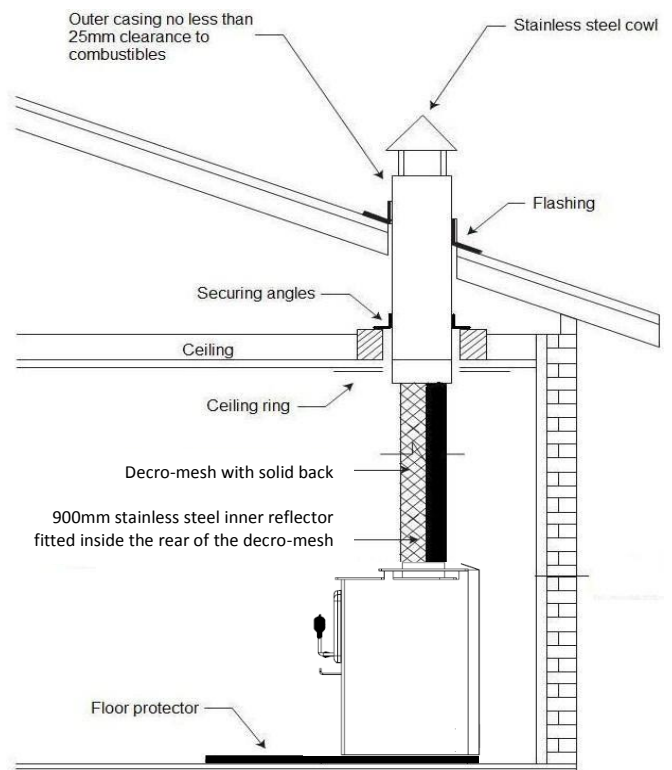
Gently bend these in a little after snipping in the centre

If the draft is insufficient or periodic down drafting occurs and the heater smokes or only burns slowly, extending the flue or fitting a specialized cowl will usually resolve the issue.

Rear Flue Shield / Solid Flue Shield Installation



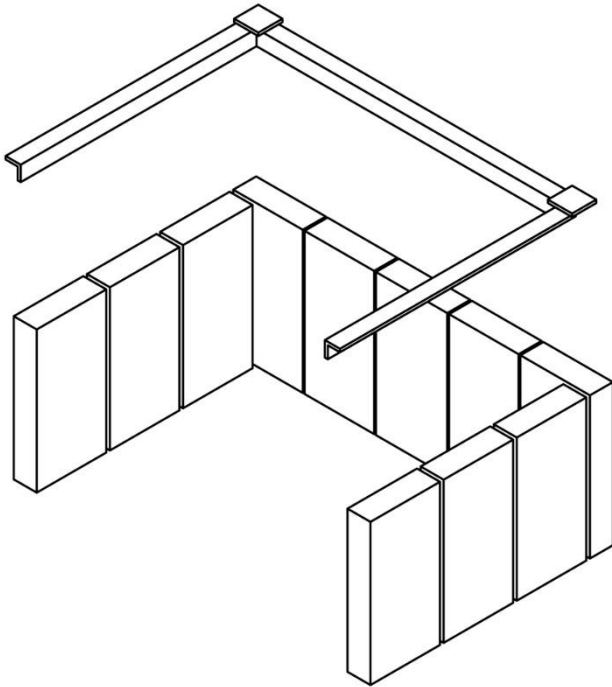
Decro-mesh Installation



5. INSTALLING FIRE BRICKS

The Nectre MK3 comes with 11 full size bricks (230(h) x 115(w) x 38(d)mm).

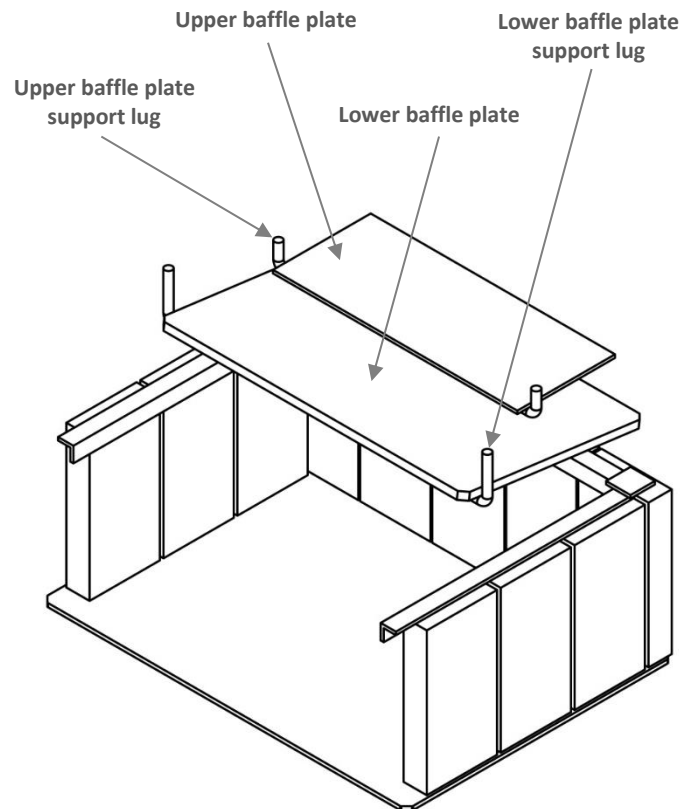
Raise the brick retainer (supplied inside the firebox) and start standing the bricks up against the rear and sides of



6. INSTALLING BAFFLE PLATES

The Nectre MK3 is supplied with two baffle plates:-

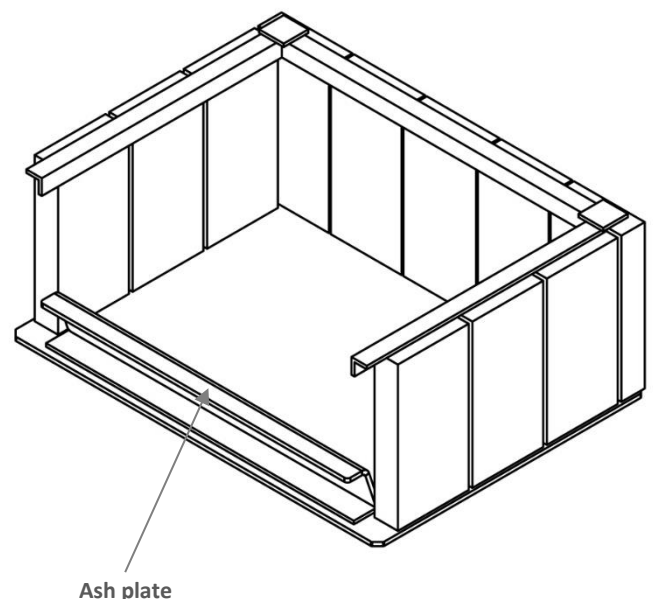
- 1) **Upper baffle plate** – 400(w) x 160(d) x 5(h) mm.
 - Fit the upper baffle plate first.
 - With the plate in a horizontal position, slide it up and over the shorter of the two sets of support hooks welded to the top of the firebox.
 - Slide the plate back so that it rests on the upper support rod on rear wall of the firebox.
 - The upper baffle plate should be in a horizontal orientation.
- 2) **Lower baffle plate** – 500(w) x 300(d) x 12(h) mm
 - Slide the lower baffle plate up and over the lower set of support hooks welded to the top of the firebox.
 - Slide the plate back so that it rests on the lower support rod on the rear wall of the firebox.
 - Unlike the upper baffle plate, the lower baffle plate rests on a slight angle sloping down and back to the rear of the firebox.



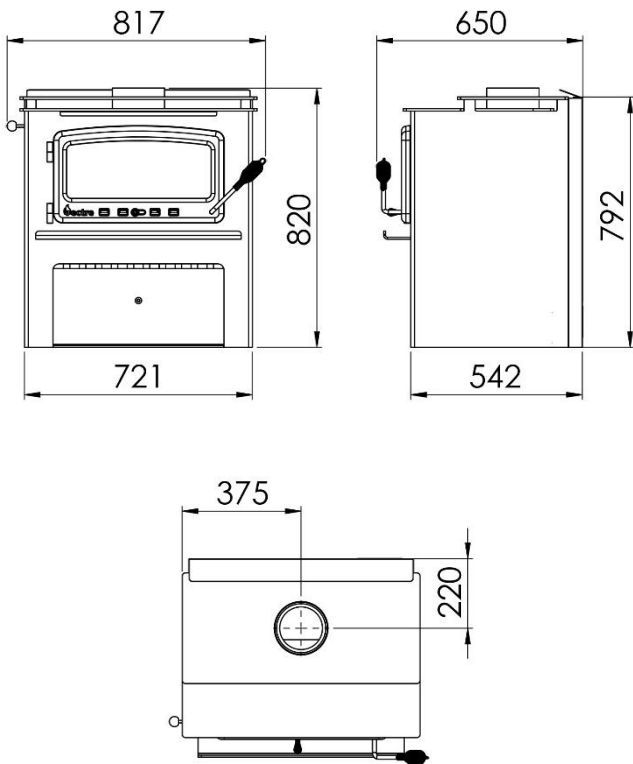
7. INSTALLING ASH PLATE

The ash plate acts to protect the front of the firebox below the door opening from the hot coal bed and fire.

When positioning the ash plate, ensure that the front top edge is flush against the inside edge of the firebox beneath the door opening.



8. TECHNICAL DRAWINGS



Pecan Engineering Pty Limited

13 Acorn Road, Dry Creek South Australia 5094

T: (08) 8349 8332 | F: (08) 8260 6643

Email info@pecan-eng.com.au