TFS650 MK2 NZ

FREESTANDING ULEB AND CLEAN AIR INDOOR WOOD FIREPLACE

Installation and Operation Manual

FIRE BY escea.

Contents

A IMPORTANT INFORMATION

DO NOT DISCARD THIS MANUAL AS IMPORTANT OPERATING AND MAINTENANCE INSTRUCTIONS ARE INCLUDED.

UNDER NO CIRCUMSTANCES IS THIS APPLIANCE TO BE MODIFIED, DOING SO WILL VOID THE WARRANTY.

READ, UNDERSTAND AND FOLLOW THESE INSTRUCTIONS FOR THE SAFE INSTALLATION AND OPERATION.

LEAVE THIS INSTALLATION MANUAL WITH FIREPLACE OWNER.

A1. SAFETY NOTICES

1. This fireplace and flue system must be installed in accordance with these instructions and *AS/NZS 2918:2001* and the appropriate requirements of any relevant local/national building codes. Escea recommends the use of a NZHHA Installer.
2. Any modification of the appliance that has not been approved in writing by the testing authority is considered to be in breach of any approval granted for compliance with *AS/NZS 4012:2014* & *AS/NZS 4013:2014.*
3. This appliance is not intended for use by persons (including children) with physical sensory, or mental capabilities or lack of experience and knowledge unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety. Never leave children, infants, elderly or infirm persons unattended around the appliance as surfaces and radiant heat can cause injuries.
4. 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, Escea Ltd should be consulted at the first instance.
5. The use of accelerants i.e. petrol, lighter fluid to light the appliance is not permitted, the use of fire-lighters or paper are. Be careful to keep all flammable items i.e. liquids, clothing, furniture, fuel at a safe distance from the appliance.
6. This appliance uses a direct vent air intake system via the flue casings and requires the door to be shut while in use. DO NOT leave the door open during the light up phase, only open the door during refuelling and minimise the time the door is open.
7. Never attempt to clean the appliance nor empty ash whilst it is hot. Dispose of ash only into a non-combustible bucket. It is recommended to leave approximately 25mm of ash in the base of the fireplace during use.
8. This appliance is designed to burn only dry seasoned softwood with a moisture content of 16-20%. Do not burn wood that has been treated with preservatives laminated wood or wood that has been contaminated with oils or painted.
9. Do not operate the appliance if the glass is cracked or if there is a constant smell of fumes, as these issues can be harmful. Contact Escea for a list of recommended service technicians.
10. Do not overload (firebox filled more than 50%) this fireplace. This may result in property damage or personal injury.

A2. WARRANTY INFORMATION

Escea warranties this solid fuel fireplace in accordance with the Escea Fireplace Warranty Terms and Conditions, which can be found on the Escea website: www.escea.com
A warranty will be voided where defects, malfunctions or failures are caused by, but not limited to, incorrect installation, normal wear and tear, misuse, neglect, lack of proper and regular maintenance, accidental damage any other alteration, or failure to follow operating instructions in the installation manual. To make a warranty claim, please contact the retailer from whom the appliance was purchased from, or refer to the Escea Fireplace Warranty Terms and Conditions, which can be found on the Escea website: www.escea.com
Due to ongoing product development, Escea reserves the right to change any specifications listed in these instructions or warranty without notice. This solid fuel fireplace is manufactured by:

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B FIREPLACE INFORMATION

B1. FIREPLACE SPECIFICATIONS

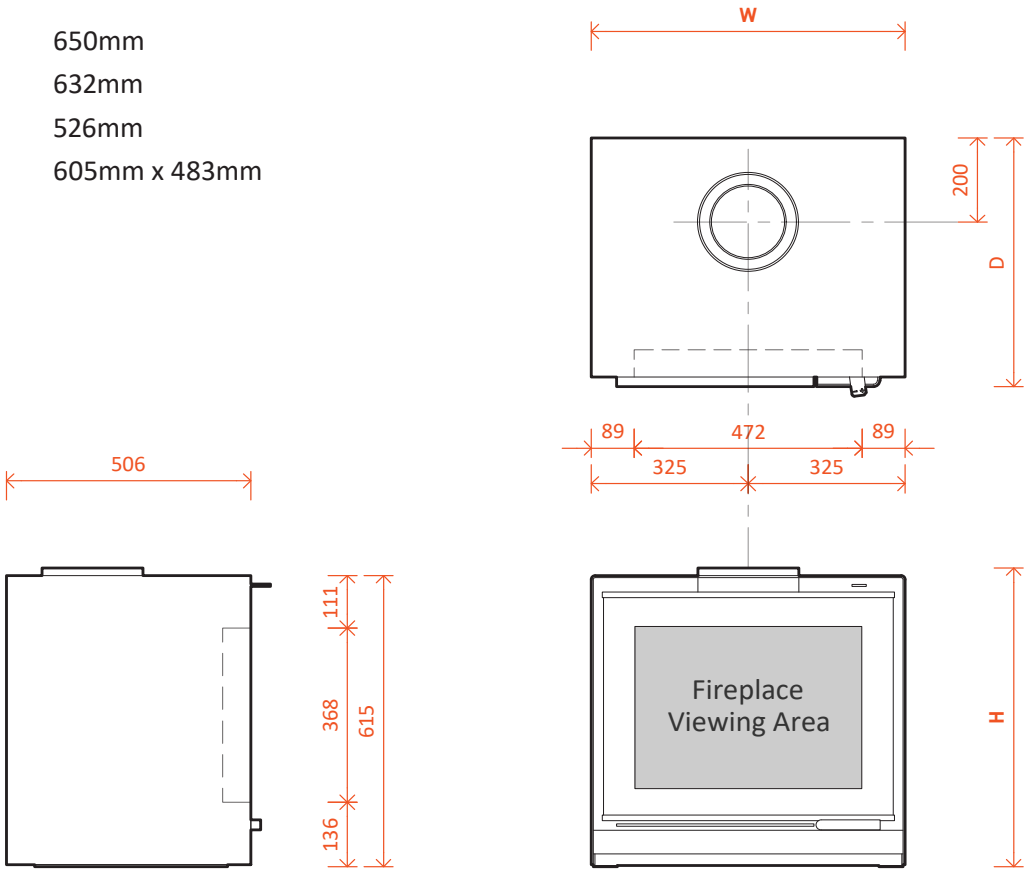
The TFS650 MK2 is a freestanding wood fireplace, constructed from 4mm painted mild steel panels with a 5mm glass door and utilises a direct vent co-axial flue system, negating the need for room air for combustion.

SPECIFICATIONS	TFS650 MK2
Fuel Type	Softwood Only
Emissions - NES	0.65 g/kg
Efficiency - NES	66%
Emission Factor - CM 1.6	30.8 Mg/MJ
Tested Output - Average (kW)	11 kW
Tested Output - Peak (kW)	12.5 kW
ECAN Authorisation Number	260578
CM 1.6 Authorisation Number	260579
Firebox Volume	54L
Weight	160Kg
Damper Control	Top right
Wet-back	Prohibited
Flue Type	Natural Draught Direct Vent
Flue Length	4.6m from Floor Protector

B2. FIREPLACE DIMENSIONS

TFS650 MK2

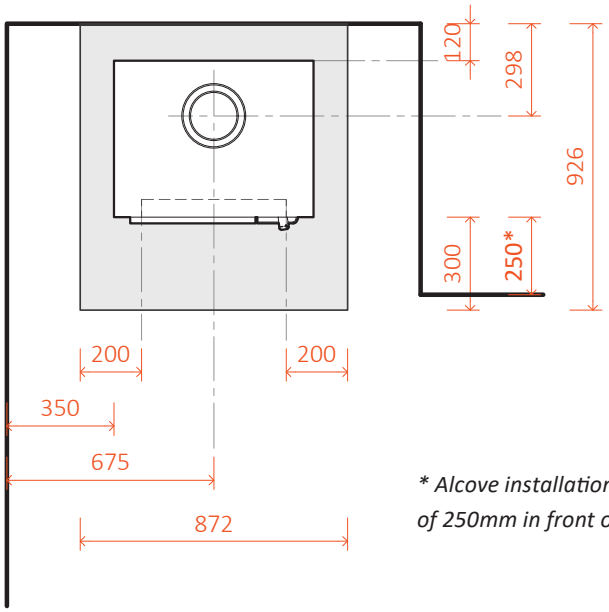
Fireplace Width (W)	650mm
Fireplace Height (H)	632mm
Fireplace Depth (D)	526mm
Fireplace Viewing Area	605mm x 483mm



B3. SAFETY CLEARANCES

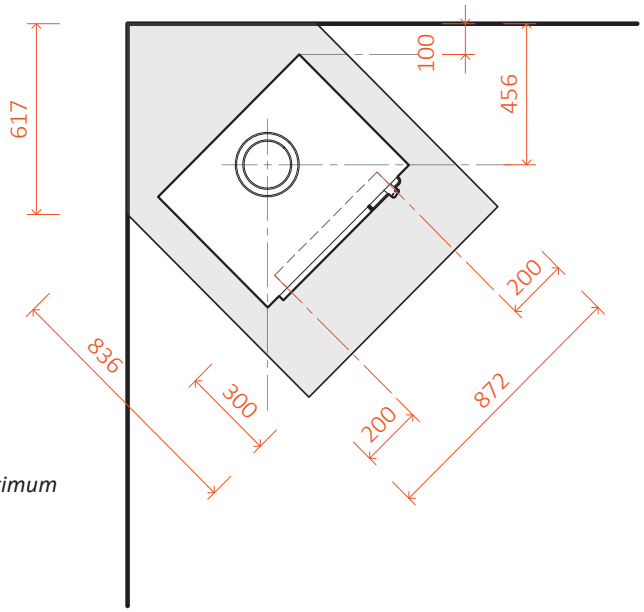
Clearances to combustibles are defined in accordance with *AS/NZS 2918*. Objects in front of the fireplace must maintain a 1.2m safety distance.

Parallel Installation



** Alcove installations can be a maximum of 250mm in front of the fireplace.*

Corner Installation



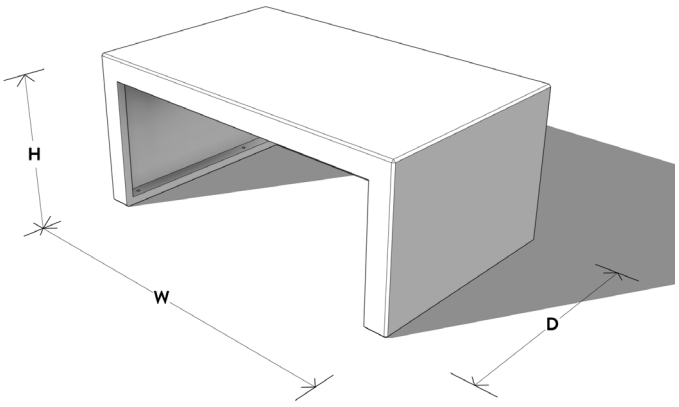
B4. HEARTH REQUIREMENTS

In all instances an insulated hearth or floor protector is required underneath a TFS650 MK2 Freestanding Wood Fireplace, when installed onto a combustible floor. Whether a floor protector or an insulating hearth is required, will depend on the installation height of the fireplace. *See over page for base options.*
For a fireplace base elevated 375mm or more above a combustible floor, a continuous non-combustible floor protector only, is required with the minimum dimensions: **872mm W x 926mm D**. This can be any non-combustible and heat resistant material, with a minimum thickness of 1.5mm.

B5. BASE REQUIREMENTS

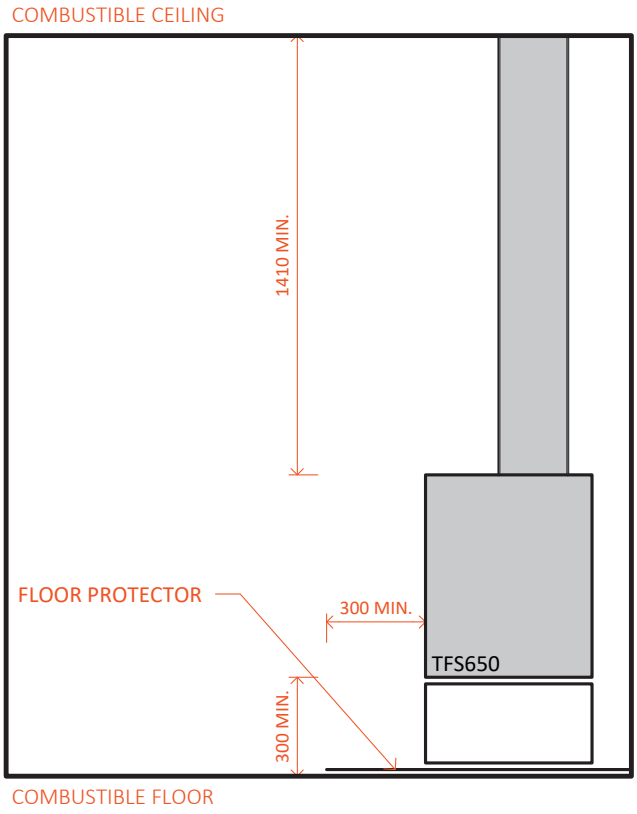
A continuous, non-combustible base is essential to take the weight of the appliance and flue system above. Escea offers both glass reinforced concrete and painted sheet-metal plinth options, crafted to enhance the TFS650 MK2 Freestanding Wood Fireplace. A custom base can be manufactured to your design, provided it is suitably engineered to support the weight of the fire and flue, and complies with all hearth and clearance specifications. *See over page for base options.*

BASE	WIDTH	HEIGHT	DEPTH
650 Slim Plinth - Steel	650mm	375mm	506mm
850 Designer Plinth*	850mm	375mm	530mm
1000 Universal (Concrete)	1016mm	375mm	530mm
1150 Designer Plinth*	1150mm	375mm	530mm
1500 Plinth (Concrete)	1500mm	375mm	506mm
1550 Designer Plinth*	1550mm	375mm	530mm

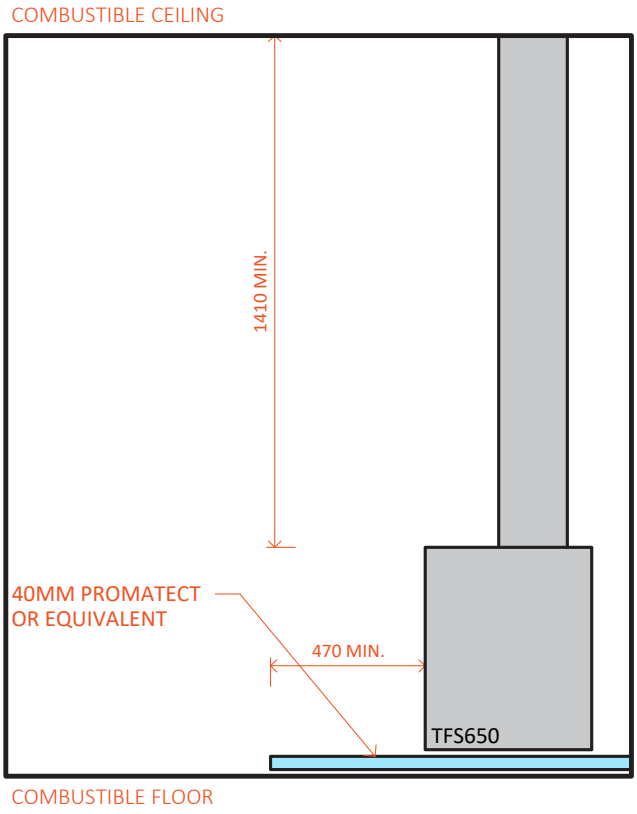


**Designer Plinth is available in Concrete or Black Painted Steel.*
Slim Plinth is available in Black Painted Steel.

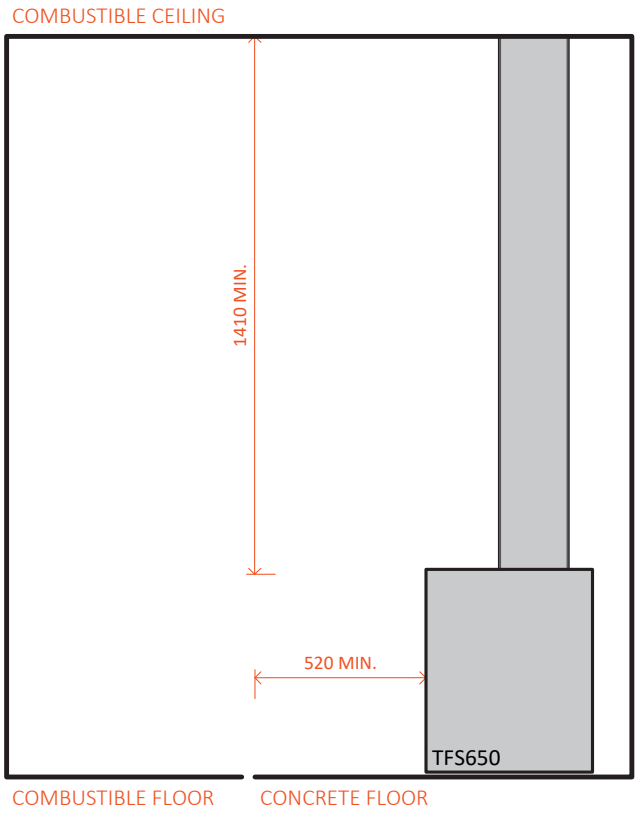
Standard Installation



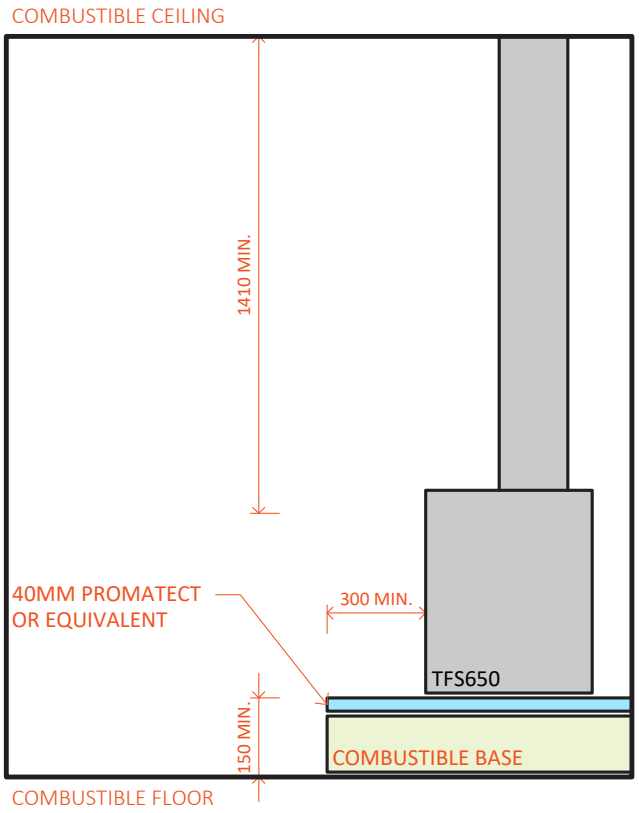
Combustible Floor Installation



Floor Installation



Raised Hearth Installation



Please Note: Promatect is used for its insulation and non-combustible properties. Choose equivalent boards that are:

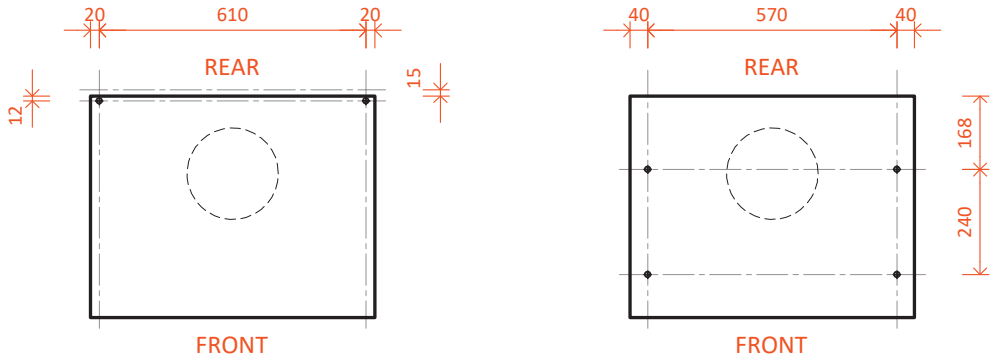
- Calcium silica or calcium mineral based.
- Have a thermal conductivity of less than **0.164 W/m²K.**

B6. FIREPLACE RESTRAINT

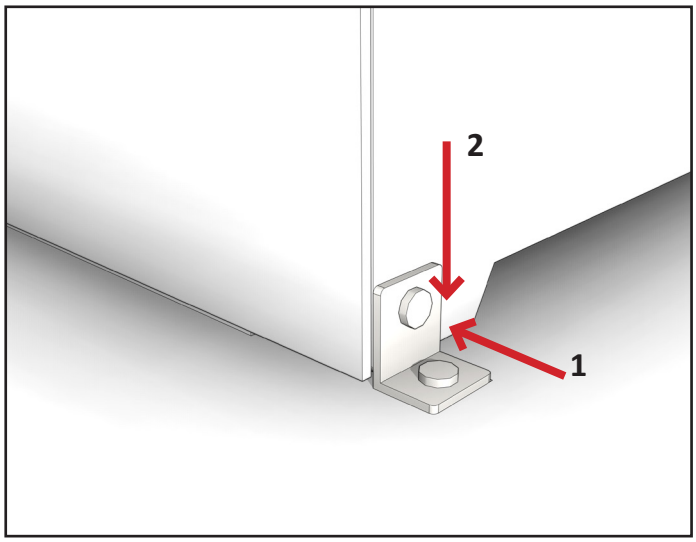
The TFS650 MK2 has two restraint options.
Option A (left) - Using the supplied L brackets fixed to the back panel, fix the L bracket to the floor or base. The brackets can be concealed underneath the appliance or exposed behind the appliance. See diagrams below.
Option B (right) - Locate the corresponding holes on the appliance base onto your GRC, Steel or Custom base.

Fasten the fireplace to the plinth or base using the supplied 4x (M8 x 50) Hex Bolts and washers. Secure the plinth or base to the floor using suitable, appropriately sized fasteners anchored into structural components:

Timber Construction:	M6 Tek Screws or Coach Screws *(length will vary with floor construction)*
Concrete Construction:	M6 Concrete Anchors *(length will vary with floor construction)*

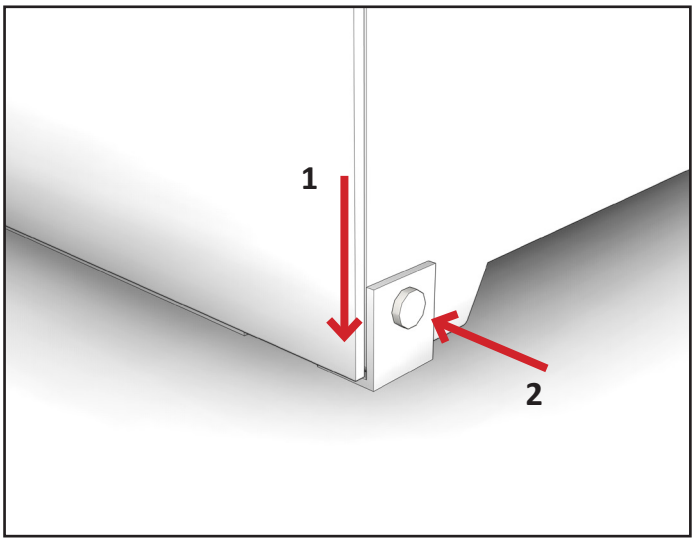


Exposed Fixing



Fix the L-Bracket to the fireplace rear panel. Slide the fireplace into its final location and anchor to the base.

Concealed Fixing



Fix the L-Bracket to the base, following the fixing pattern in Sec B6. Slide the fireplace into its final location and connect the bracket into the fireplace back panel.

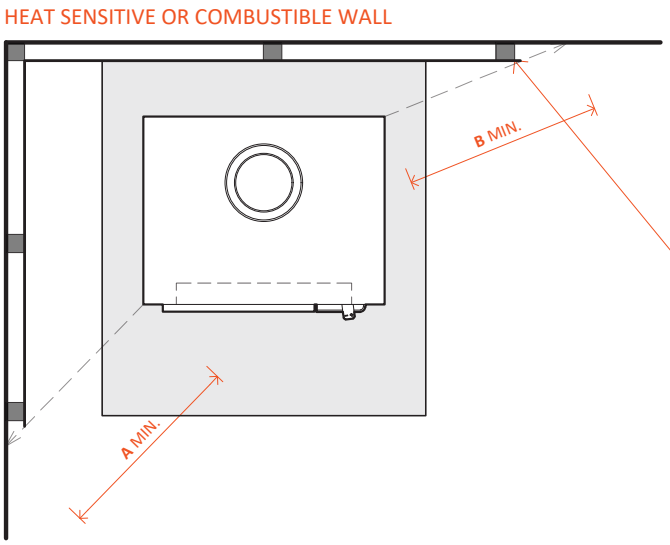
B7. HEAT SHIELDING

Clearances to combustibles can be reduced by way of heat shielding (*AS/NZS 2918:2001, Section 3*). A heat shield made from a heat-resistant material can reduce the required safety clearance between an appliance and a heat-sensitive material. The heat shield must extend in all directions to maintain at least the tested safety clearance, unless restricted by walls, floors, or other shields.
The minimum clearance between the appliance and heat-sensitive material is determined by multiplying the tested clearance by a clearance factor based on the heat shield's construction. When the shield has multiple layers, the top and bottom of the air gap must be ventilated. If the shield is horizontal, the opposite edges must be vented. The total ventilation opening must be at least half the cross-sectional area of the air gap. Masonry can be used as a heat shield material.

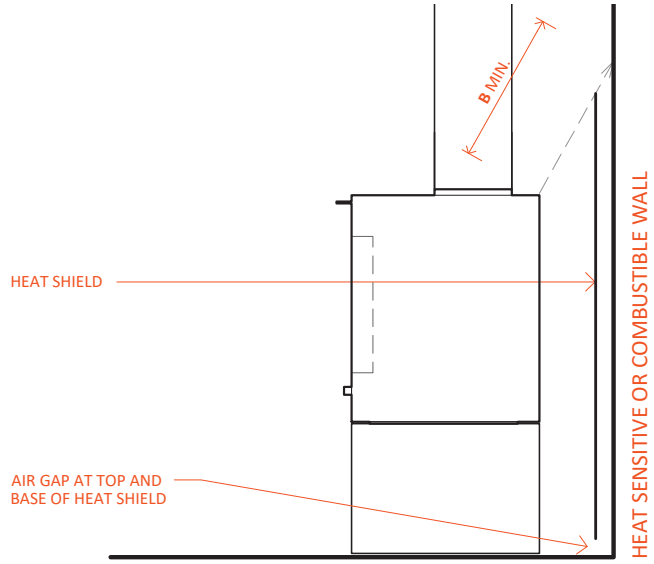
**Where heat shields are used to reduce the appliance clearance dimensions, additional flue shielding may be required.*

HEAT SHIELD CONSTRUCTION	AIR GAP DIMENSION	CLEARANCE FACTOR
Single Layer of Continuous Material	12mm	0.40
Single Layer of Continuous Material	25mm	0.30
Two Spaced layers of Continuous Material	12mm + 12mm	0.20

Plan View

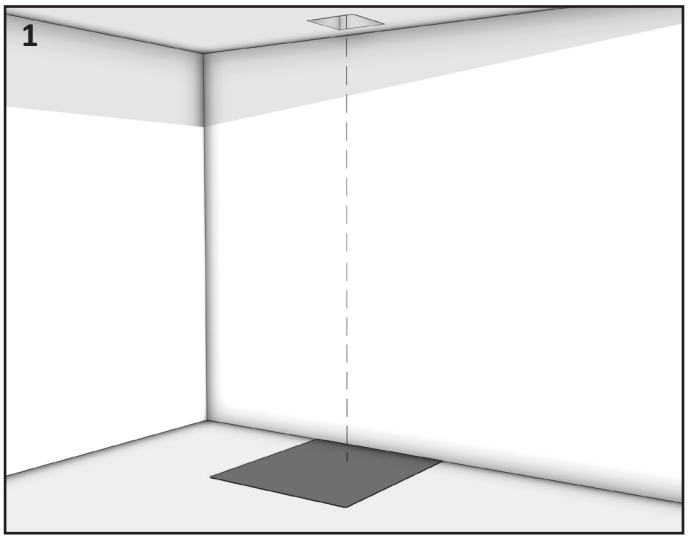


Side View

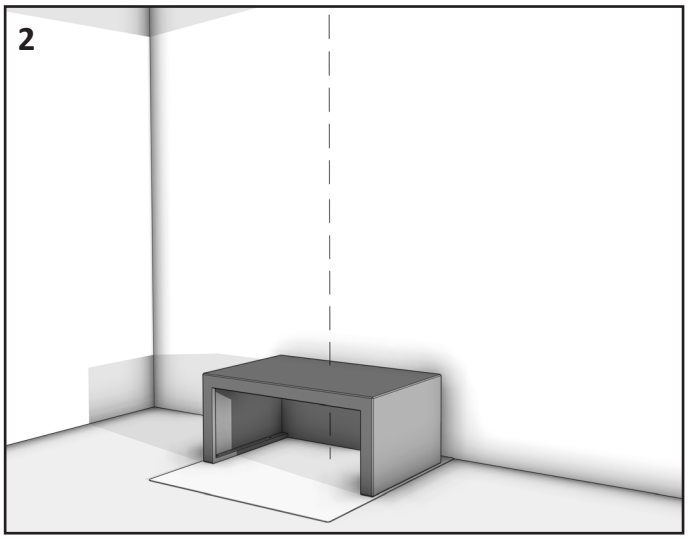


FIREPLACE MODEL	A	B
TFS650 MK2	350mm	120mm
TFS650 MK2	350mm	120mm
TFS1000 MK2	360mm	120mm

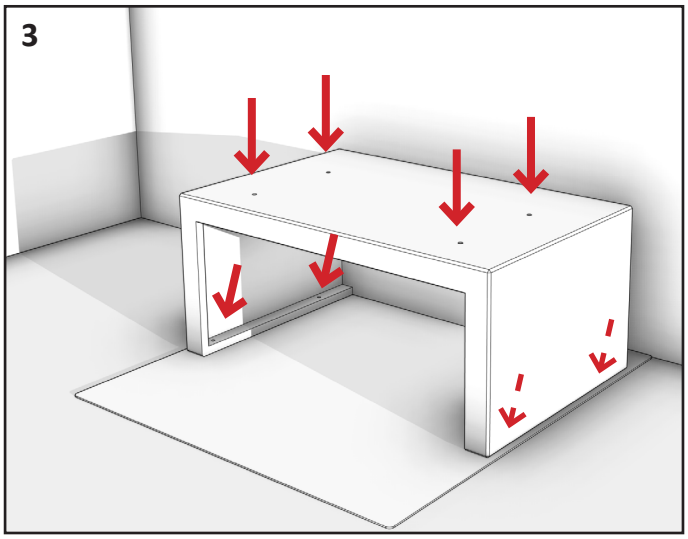
B8. INSTALLATION PROCESS



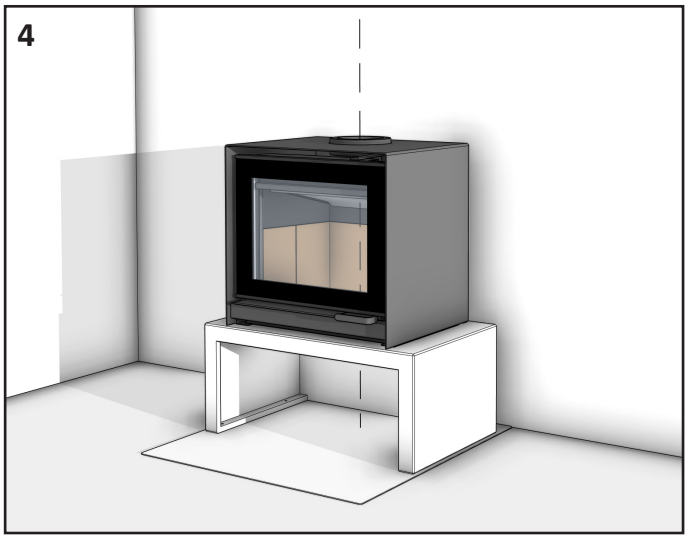
Locate the flue centreline from inside the building. Ensure the centreline is clear of any structural elements. Install the floor protector to the required minimum dimensions of: **872mm W x 926mm D**.



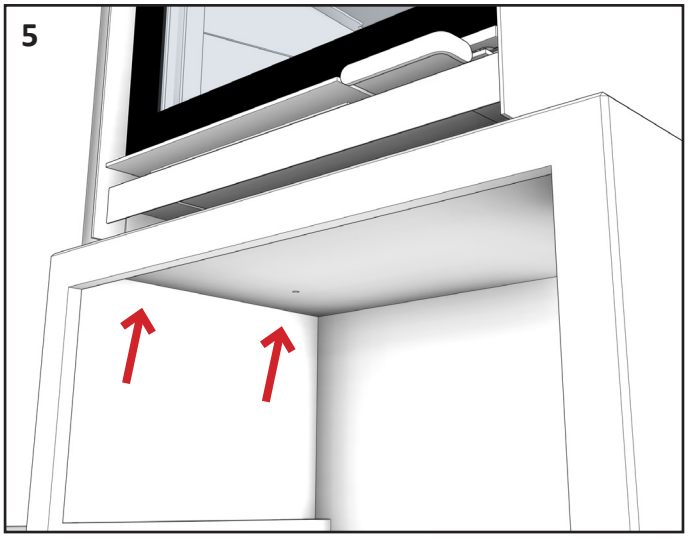
Place the plinth onto the floor protector accommodating for the required flue clearances and flue centreline. **This install process applies to a plinth, steel base, or a custom base of your design.**



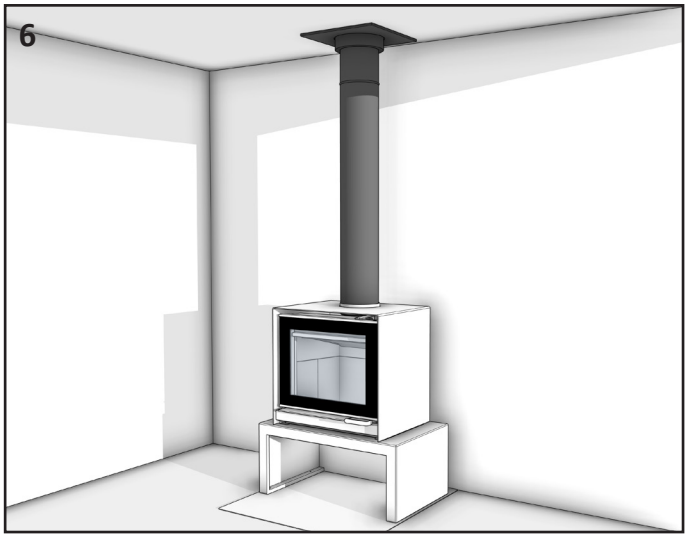
Mark and drill through the floor protector, into the floor structure below. Fix the plinth to the floor using fixings appropriate to the floor type (see section B5). Mark and drill holes within the plinth for restraining the fireplace to the base.



Fit the fireplace onto the plinth, aligning the M8 holes on the fireplace base to the newly drilled holes in the plinth.



Using the supplied 4x M8 Hex Bolts and washers, fix the fireplace to the plinth or base.



At this point the flue system can be installed. Follow the information in the supplied User Instructions to install the fireplace components.

C FLUE INFORMATION

C1. FLUE SPECIFICATIONS

The Escea TFS Series MK2 Freestanding wood fire flue kit comprises a twin-skin flue system from the fireplace to the flue cone. An additional 250mm Ø liner extends from the ceiling to the flue cone. The visible 200mm Ø flue is finished in black. A proprietary cowl is used to finish the flue system above the roof.

SPECIFICATIONS	TFS650 MK2, TFS850, TFS1000 MK2
Flue Size	150mm Exhaust/200mm Intake/250mm Outer
Compliance	Tested to *AS/NZS 2918 Appendix F*
Flue Type	Natural Draught Direct Vent
Flue Minimum Length	4.6m from Floor Protector
Flue Heat Shield	Not Required

C2. FLUE COMPONENTS

The TFS Series MK2 Freestanding Flue system comprises:

- 150mm Ø Stainless Steel flue (3x 1.2m)
- 150mm Ø Stainless Steel flue (1x 150mm)
- 200mm Ø Stainless Steel Black Liner (2x 1.2m)
- 200mm Ø Stainless Steel Liner (1x 1.2m)
- 250mm Ø Galvanised Flue Liner (2x 1.2m)
- Use a double skin flue configuration when visible off the fireplace and within the room.
- Use a triple skin flue configuration where the flue is passing through a chimney cavity, roof space, wall or floor.
- Double Skin Extension Kits 1200mm (150/200mm Ø) and Triple Skin Extension Kits 1200mm (150/200/250mm Ø) are available. *These may not be required on all installations.*
- Start the installation with flue components from the **Escea Freestanding Flue Kit,** add any **Double Skin Offset Kit** or **Triple Skin Offset Kit** (where required) and finish with a **Triple Skin Flue Extension Kit** (where required).

C3. SAFETY CLEARANCES

A minimum of 25mm must be maintained from the 250mm outer flue liner to any adjacent combustible material or surface.

C4. FLUE FLASHING

All roof or wall penetrations are to be made weather-tight by way of a flashing plate, or proprietary EPDM boot flashing, for compliance with *NZ Building Code E2*. The specification and installation of the flue flashing is the responsibility of the Specifier and/or Installer.

C5. FLUE RESTRAINT

The flue pipe is to have a close fitting connection to the fireplace by way of:

- The spigot and 150mm Ø flue joint to be sealed with a high temperature fire cement, and
- Mechanically connect the flue to the flue spigot by drilling a 5mm pilot hole through the 200mm flue liner using the hole in the spigot. Using an Extension Bit, screw through the 200mm Ø flue into the 150mm Ø flue, using the 12G x 40 SS Tek Screw (supplied with the fireplace), between the outer wrap and the firebox. *Refer to Sec. B13 Step 6.*

All joints between sections of the flue pipes, shall be secured by at least 3 fasteners spaced approximately equally around the joint, as to avoid flue pipe separation.

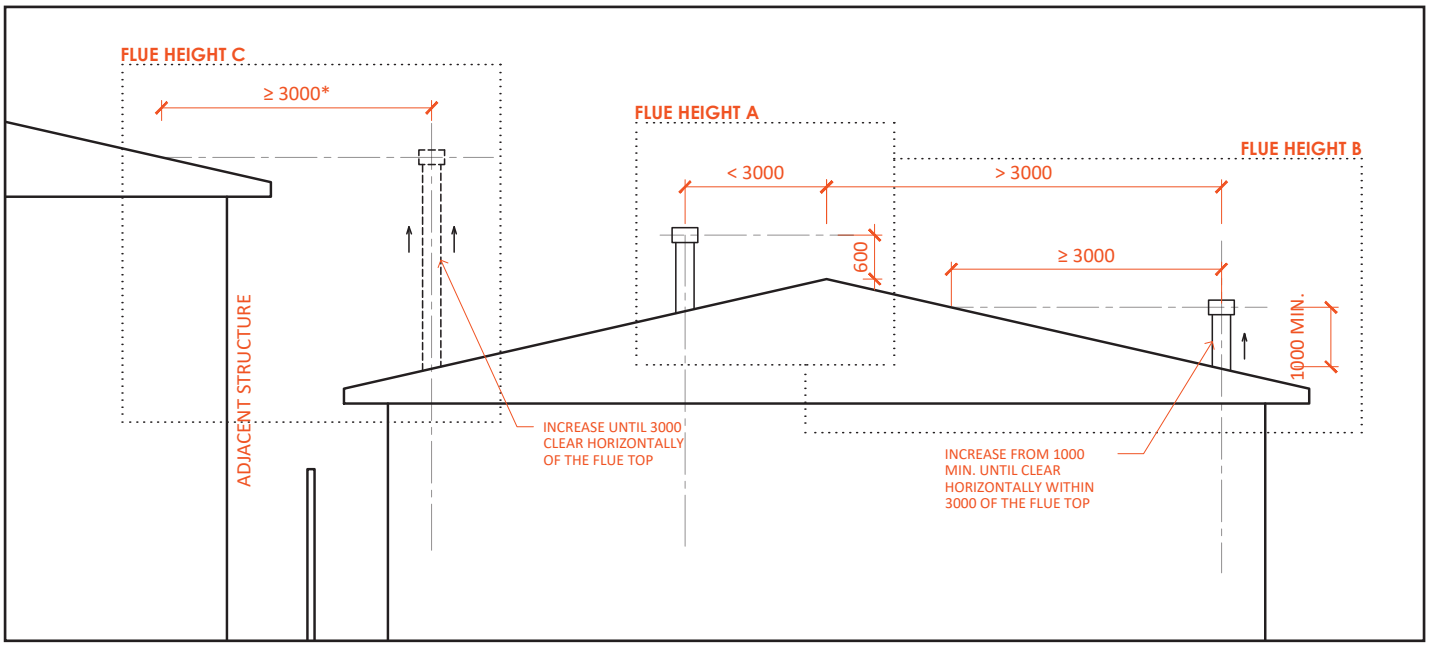
Where the flue above the roof must be restrained in accordance with *AS/NZS 2918:2001* and local regulations. Where a flue is not contained within a chimney, restrain the flue at intervals of not greater than 3m with compatible telescopic or fixed stays. Allow for thermal expansion when fitting brackets or stays.

C6. EXTERNAL CLEARANCES

Flue height should be the greater of the minimum flue length and the requirements of *AS/NZS 2918:2001 External Clearances. AS/NZS 2918:2001 External Clearances* are to ensure that the flue cowl is not obstructed from any adjacent buildings or structures. *Please note: a decrease in flue length will increase the chance of smoke spillage, while an increase in length can reduce the burn time.*

See diagram below for external clearance requirements:

- Select **Flue Height A** where the flue cowl is within 3m (horizontally) of the highest point of the roof.
- Select **Flue Height B** where the flue cowl is more 3m (horizontally) of the highest point of the roof. The cowl height must be raised until a 3m horizontal line no longer intersects with the roof.
- **Flue Height C** may also be required where the flue cowl is less than 3m (horizontally) away from an adjacent building or wall. The cowl height must be raised until a 3m horizontal line no longer intersects with the roof.
  * In Australia this dimension is 6000mm, for compliance with *AS/NZS 2918:2018.*

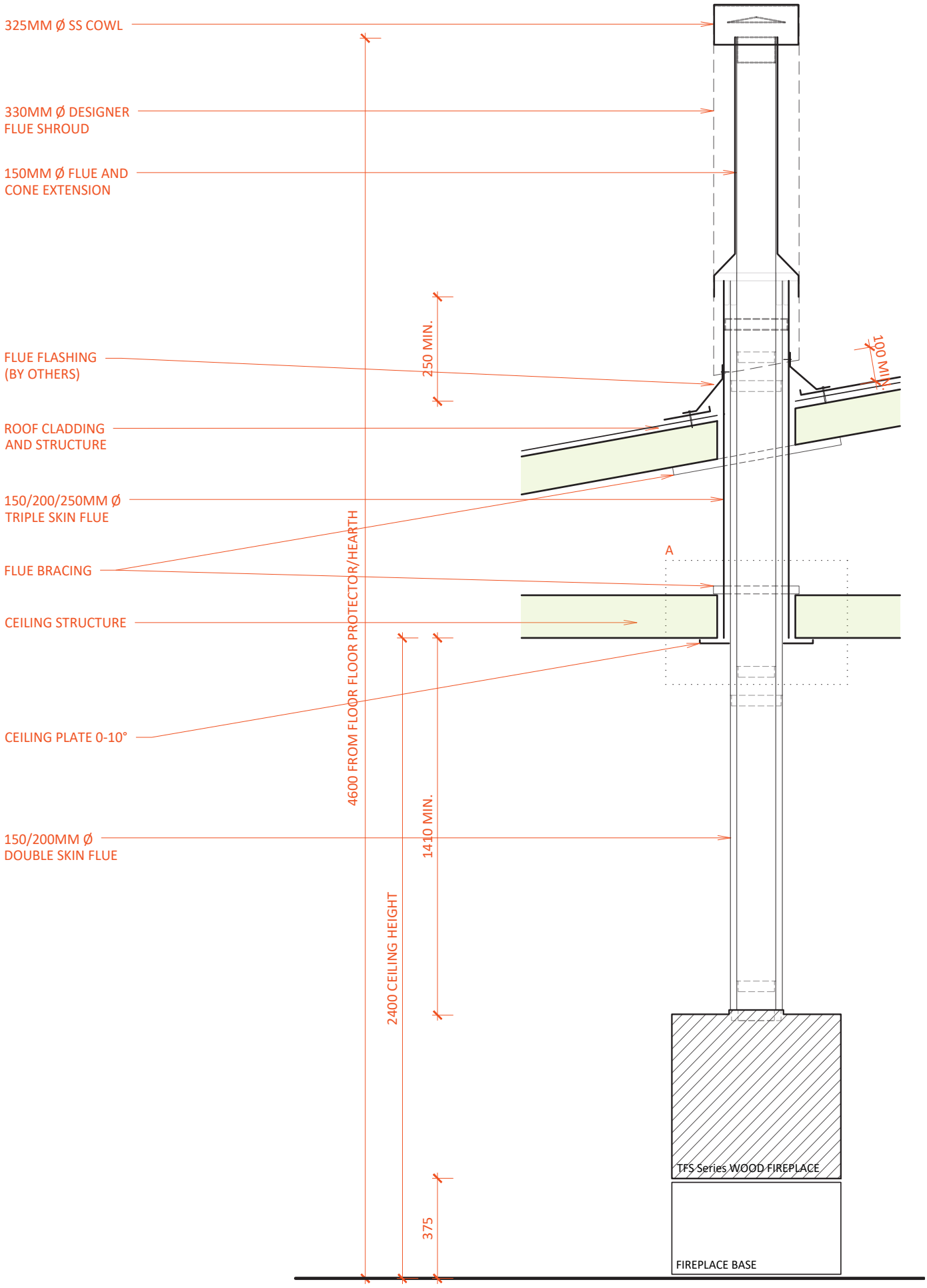


C7. CEILING PLATES

All Escea TFS Series Freestanding wood fires are to be finished with a ceiling plate. This plate overlays the hole made within the ceiling for the flue installation. Each ceiling plate is designed to provide a minimal 3mm gap between the black flue and the inner ring of the ceiling plate. The Freestanding Flue Kit is supplied with a ceiling plate for a flat ceiling.
Escea provides various ceiling plates, designed for multiple ceiling pitches. See the table below to select a ceiling plate appropriate for your ceiling pitch.

CEILING PITCH	CEILING PLATE RANGE	CEILING PLATE DIMENSIONS	PART NUMBER
Flat	0 - 20°	436 x 436	803099
25°	20 - 30°	435 x 395	903645
35°	30 - 40°	419 x 435	903646
45°	40 - 50°	481 x 434	903650

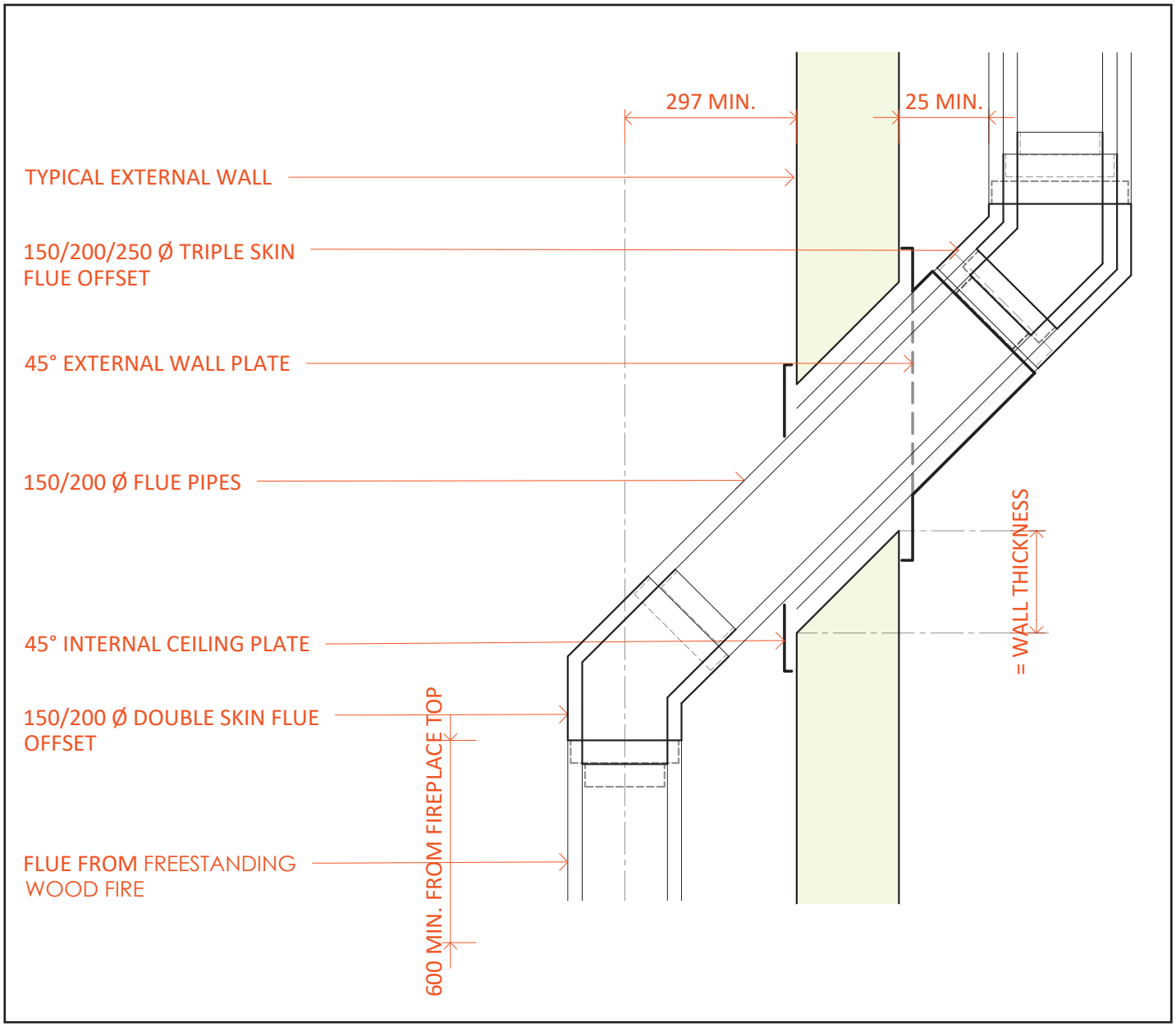
C8. FLUE DETAIL



C9. EXTERNAL WALL PENETRATIONS

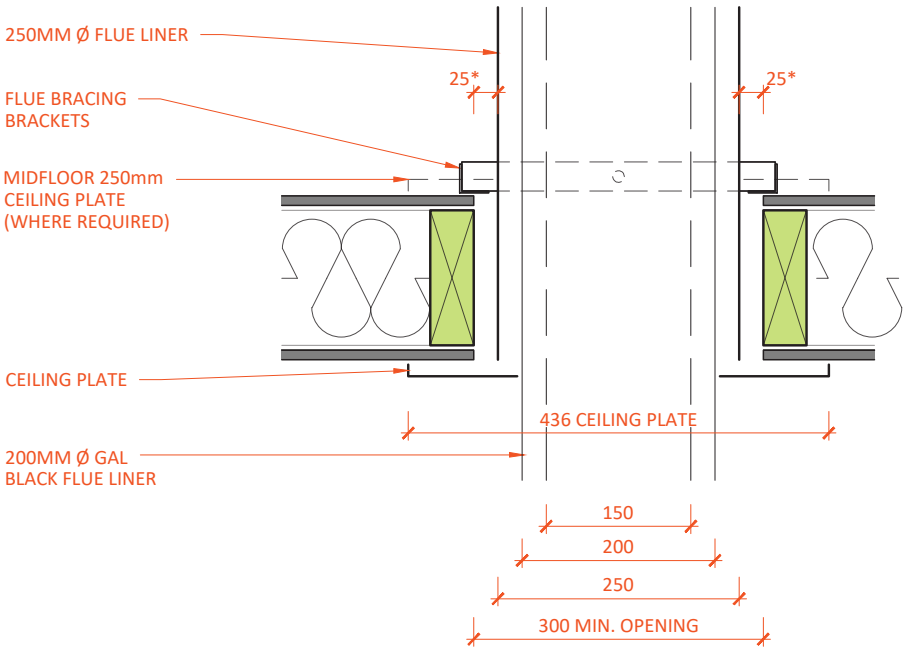
Where the flue penetrates a wall, this must be configured with a triple skin wall penetration kit. This kit constitutes:

- 1x 45° Double Skin Offset,
- 1x 45° Triple Skin Offset,
- 45° External Wall Plate,
- 45° Ceiling Plate (for internal wall)
- Straight flue/liner sections used are supplied with the Escea Freestanding Flue Kit.



C10. CEILING AND MID-FLOOR DETAIL

Detail A



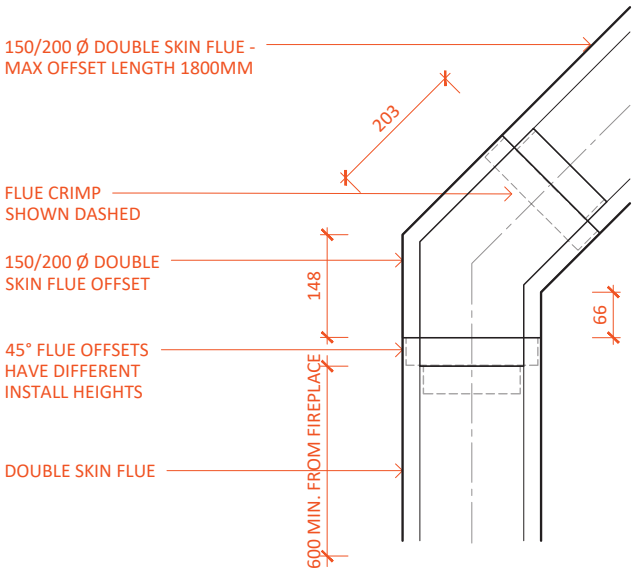
* MAINTAIN A 25MM CLEARANCE FROM THE 250MM Ø OUTER LINER TO ANY COMBUSTIBLE MATERIAL.

C11. FLUE OFFSETS

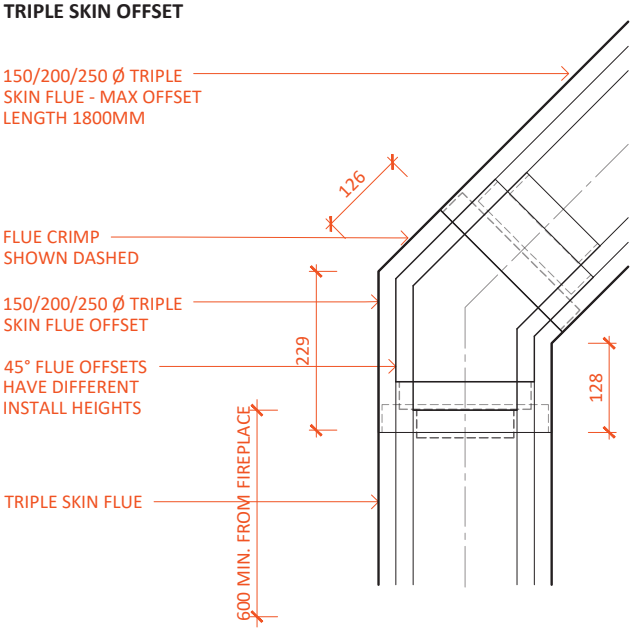
45° flue offsets and bends are available in double skin or triple skin variants. Double skin are to be used when offsetting above the fire and within the room (visible offset). A triple skin offset is used where the flue is passing through a chimney cavity, roof space, wall or mid-floor.

Flue offsets can reduce draughts within the flue pathway; it is recommended to avoid where possible or allow for an extension of the flue length to overcome the draught restriction, that an offset can make. Allow 600mm above the fireplace before an offset

DOUBLE SKIN OFFSET



TRIPLE SKIN OFFSET



C12. INSPECTION, HANDLING AND STORAGE

- Check components for visible damage and verify parts supplied are correct for the installation. Photograph and damage and retain packaging until installation.
- Do not discard installation manuals or any included hardware.
- Disconnect power before handling any electrical components.
- Do not stack other items on top of the fireplace or other components.
- Store in a dry, covered, and well-ventilated area. Keep away from moisture, dust, and corrosive materials.
- Use two or more people or lifting equipment and never lift by the fascia or glass.
- Wear protective gloves to avoid injury and protect finishes.
- Don't tilt, drop, or use sharp tools near visible surfaces.
- Handle glass, liners, and firebricks with care to prevent damage.
- Keep the unit free from dust and debris prior to installation.

C13. TOOLS AND FIXINGS REQUIRED

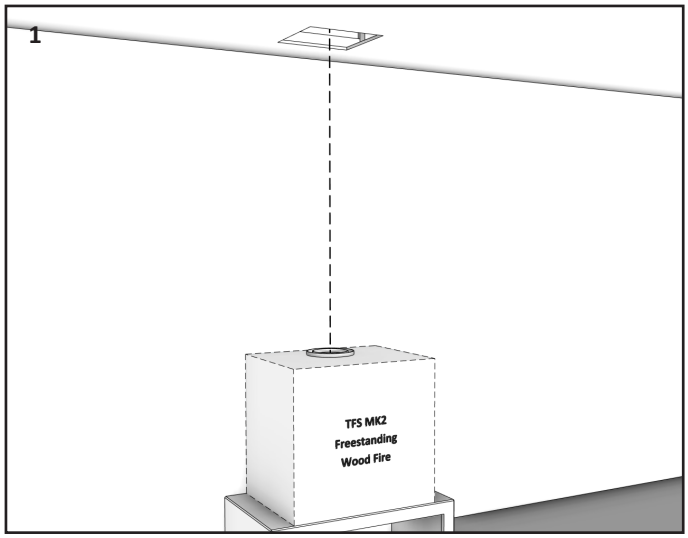
Installers need to supply:

- SS Blind Rivets (for securing flue sections)
- High Temperature Fire Cement (for sealing flue sections)
- Metal Straps or Brackets (for additional flue bracing inside the roof)
- 6G x 30 Tek Screws for fixing roof bracing
- External flue stays or wires (where required)
- Roof Flashings
- Senotherm Touch-up Paint

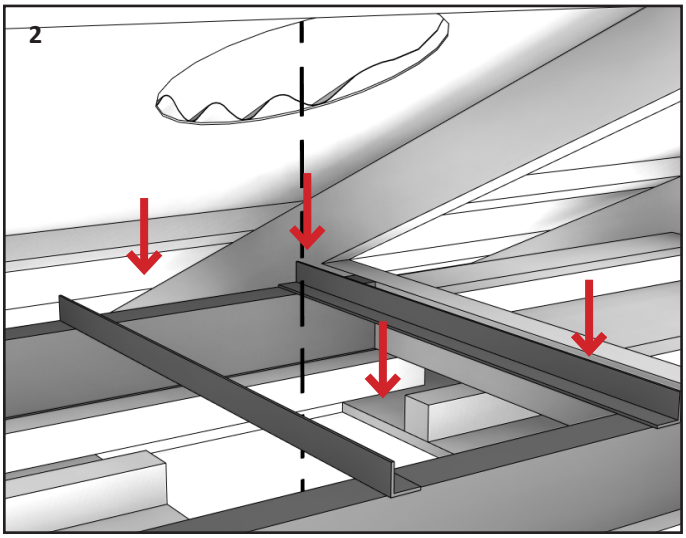
Tools Required:

- Tape Measure
- Level/Plumb Line or Laser
- Reciprocating Saw
- Snips or Grinder with Metal Cutting Disc
- Drill/Driver with Tek Screw Extension Bit (250mm)
- Rivet Gun
- Hammer
- Scaffolding/Ladder

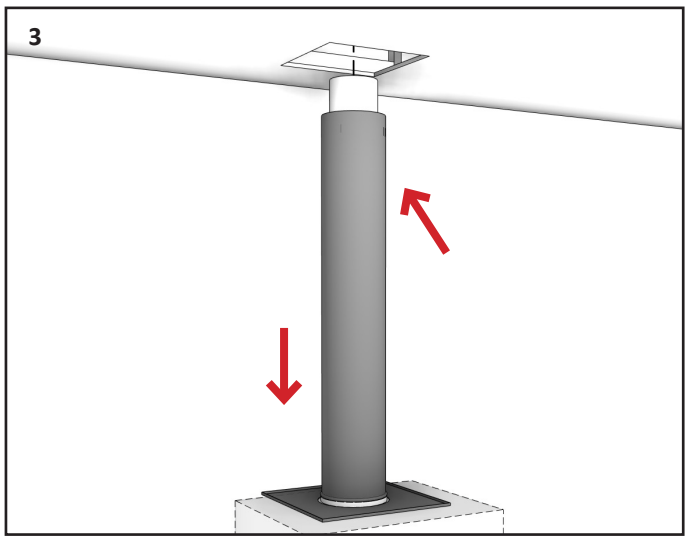
C14. FLUE INSTALLATION



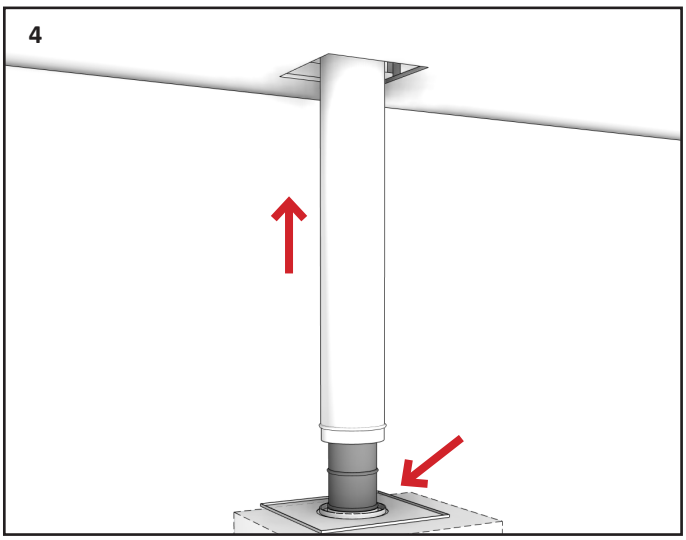
Locate the flue centreline from inside the building. Ensure the centreline is clear of any structural elements.



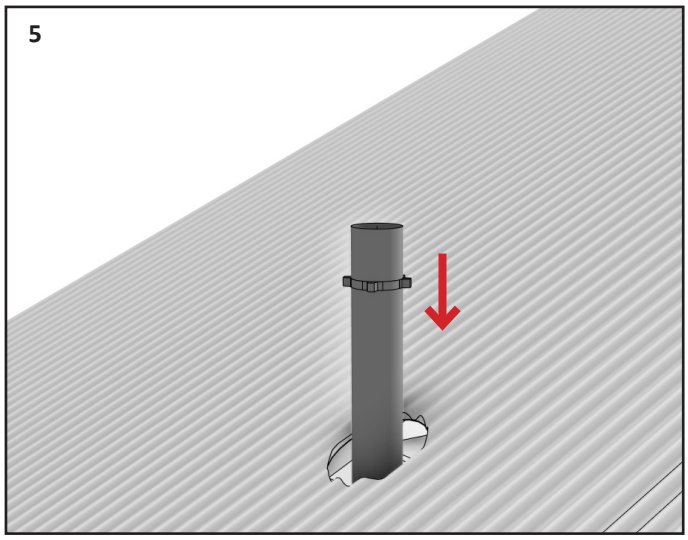
Create a 300mm x 300mm hole in the ceiling and roof. Where the roof space is inaccessible or for a retrofit, removal of roofing and underlay may be required.



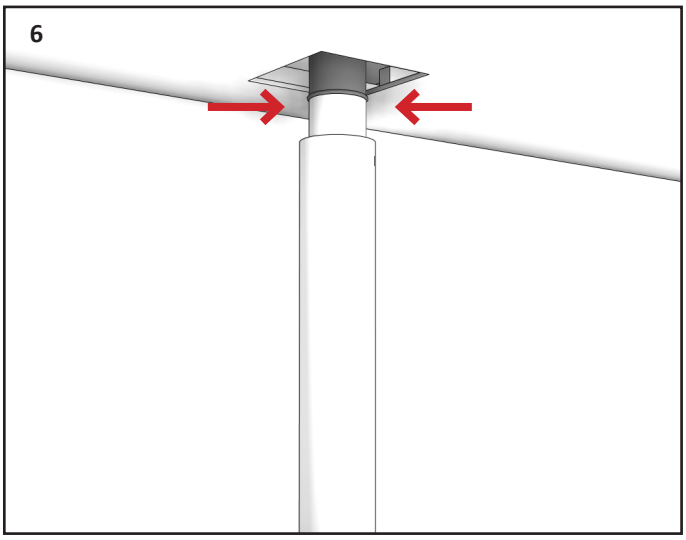
Place the ceiling plate over the flue spigots carefully. Fit the 150mm and 1200mm lengths of 150mm Ø flue together and fit inside the first 200mm Ø black liner. Place both onto the flue spigots crimp down, but don't fix in place.



Lift the first 200mm Ø black liner, and seal the 150mm Ø flue onto the flue spigot.

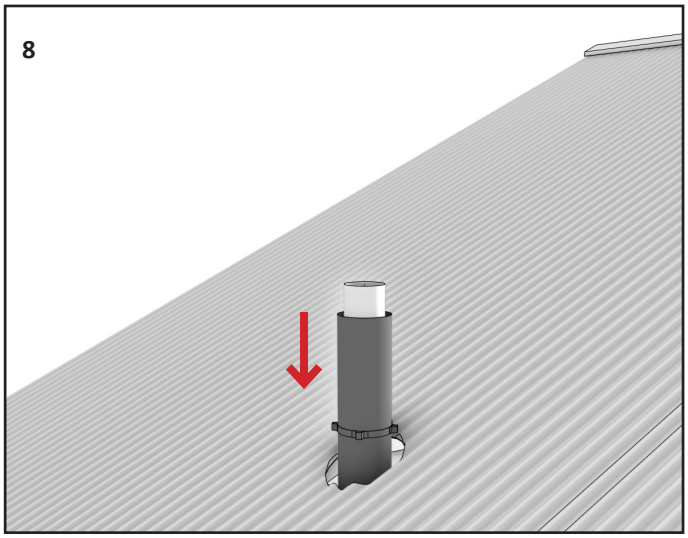


Drop the second 1200mm length of 150mm Ø flue through the roof and onto the first length.

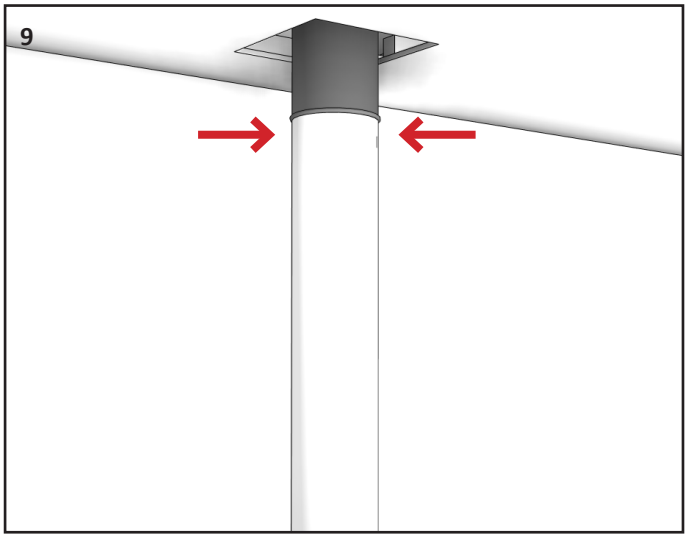


Rivet the 150mm Ø flue lengths together.

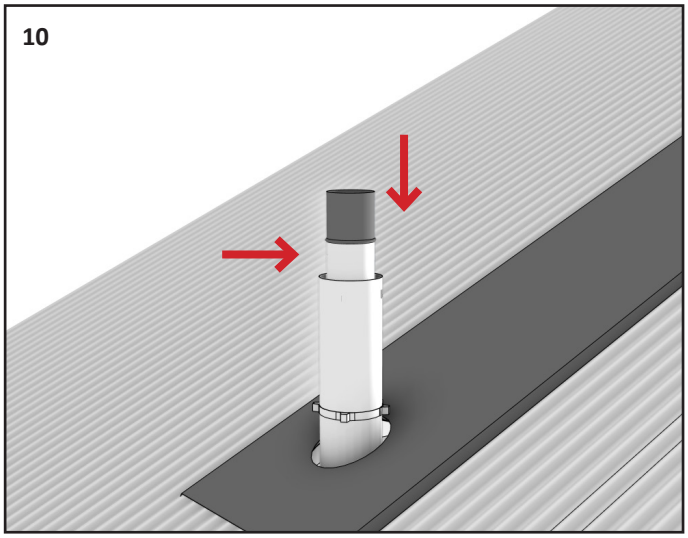
Connect the flues to the flue spigot by drilling a 5mm pilot hole through the 200mm flue liner using the hole in the spigot. Using an Extension Bit, screw through the 200mm Ø flue into the 150mm Ø flue, using the 12G x 40 SS Tek Screw (supplied with the fireplace), between the wrap and the firebox.



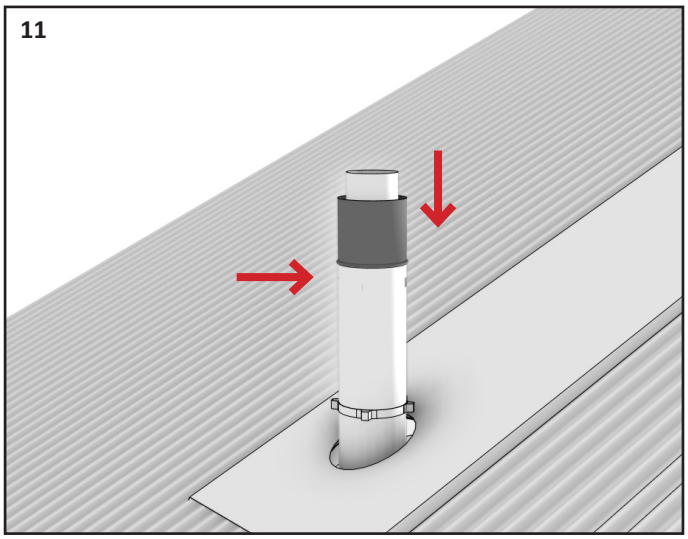
Fit 200-250mm spacer bracket onto 200mm Ø liner, 400mm down from the upper end. Drop the last painted 200mm Ø liner onto the lower section.



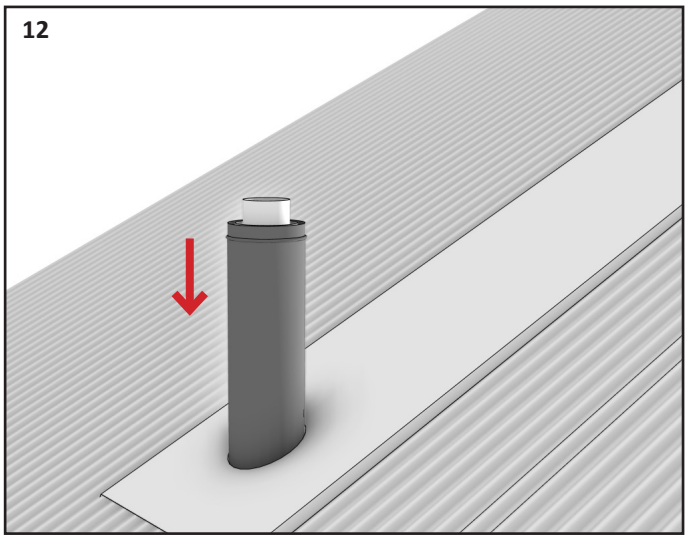
Rivet the 200mm Ø liner in place.



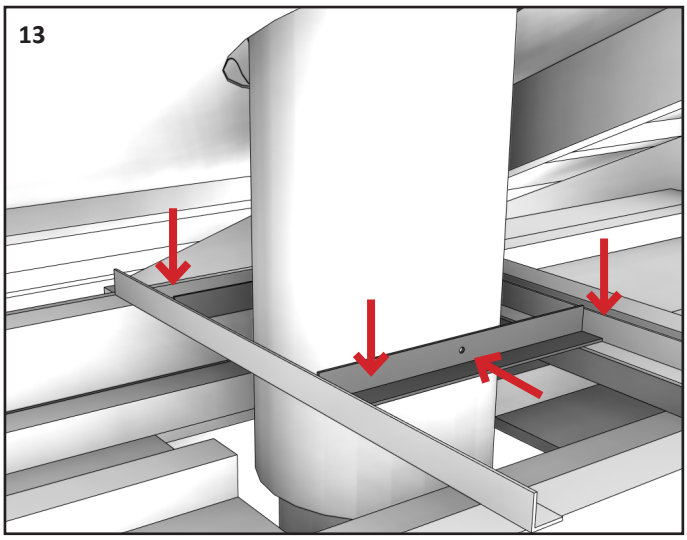
Lower the last 150mm Ø flue trimmed to the desired height, sealing and riveting in place. The 150mm Ø flue should be at least 75mm above the 200/250mm Ø flue liners.



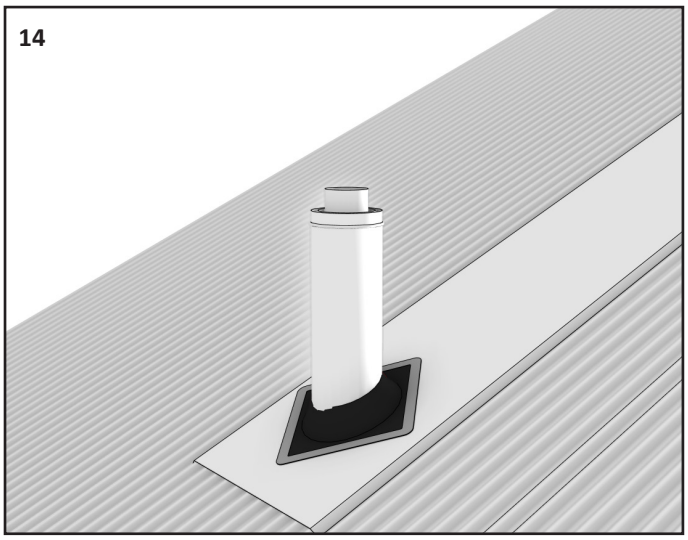
Fit the unpainted 200mm Ø liner, trimmed to height, onto the lower painted liner and rivet in place.



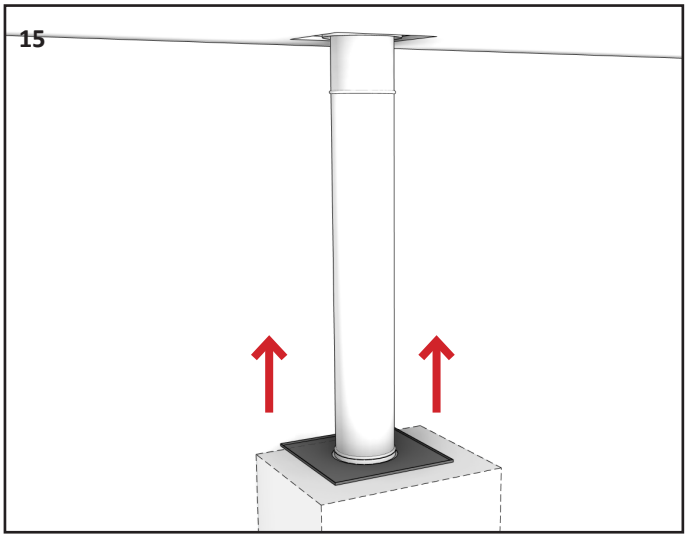
Drop the lower 250mm Ø liner, into the ceiling space.



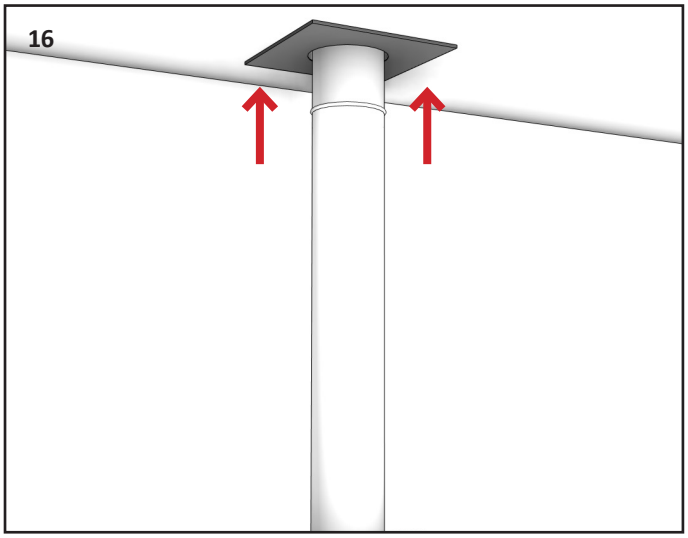
Having formed a cross braced support onto the roof framework, spacing them min. 250mm apart, line up the 250mm Ø liner with the ceiling and fix to the cross braces. Fix the L-brackets together and cross braces to the 250mm Ø liner, with 6G x 30 Tek Screws.



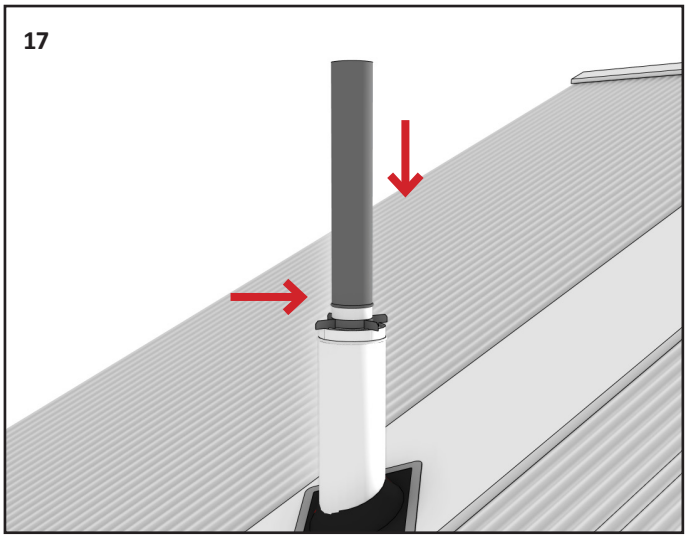
Fit any additional flue extensions where required and fix in place following the preceding steps. Roof flashings can be added as this point.



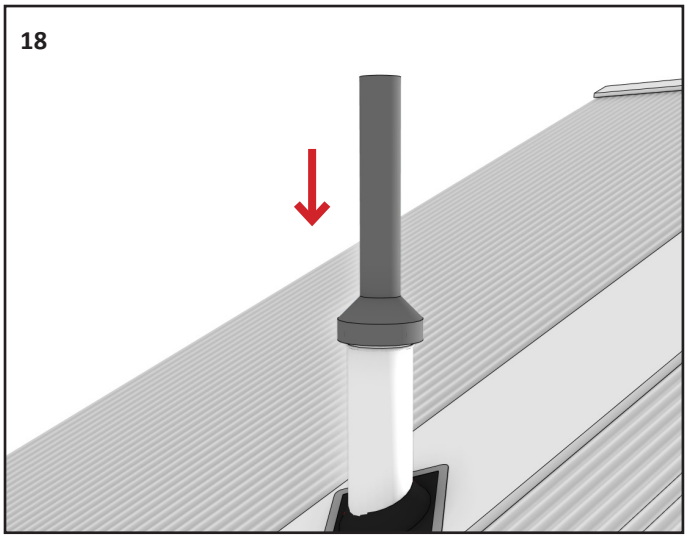
Lift the ceiling plate upwards without scratching the flue pipes and align with the wall behind.



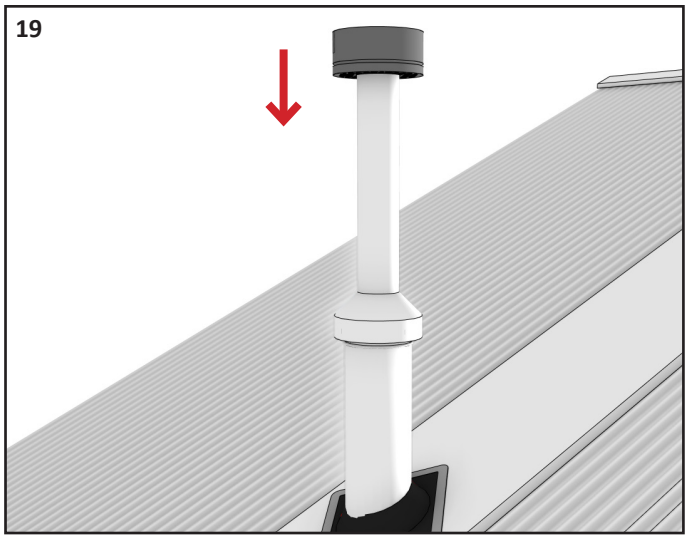
Fix the outer ceiling plate at the 4 corners, using the screws and spacers provided.



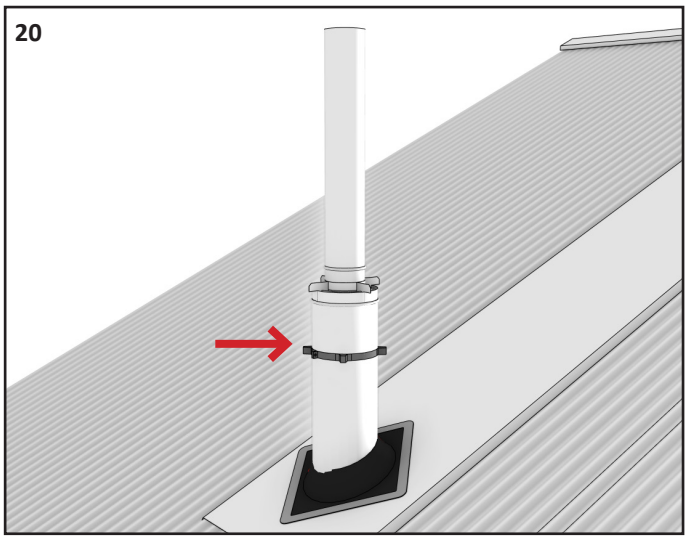
Fit the 915mm long x 150mm Ø flue and lower to the swage. Seal and fix in 3 locations using SS rivets. Fix the spider bracket to 150mm Ø flue.



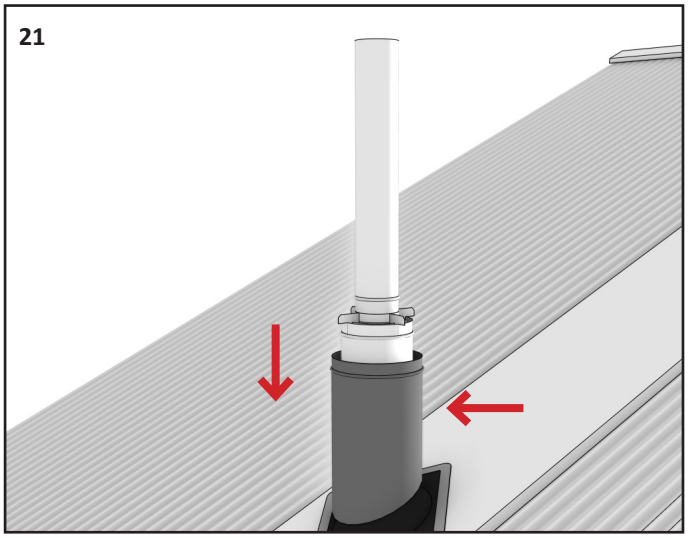
Slide the cone/casing cover over the 150mm Ø flue until it stops at the spider bracket.



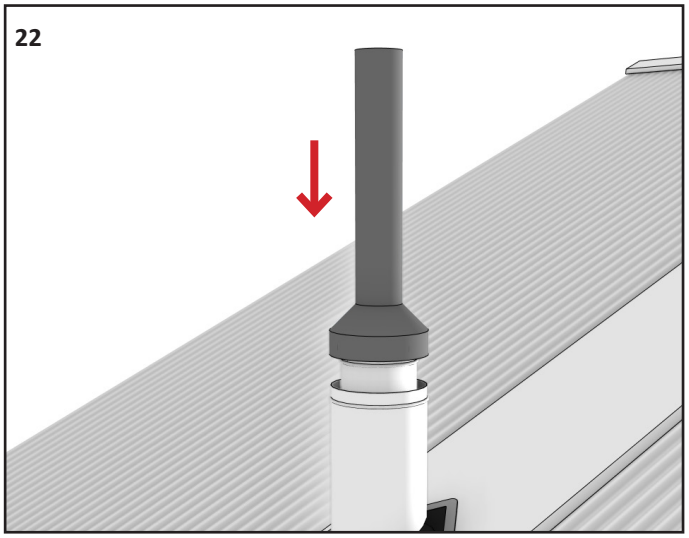
Fit the flue cowl onto the 150mm Ø flue and slide down until it cannot go any further. Flue installation is complete.



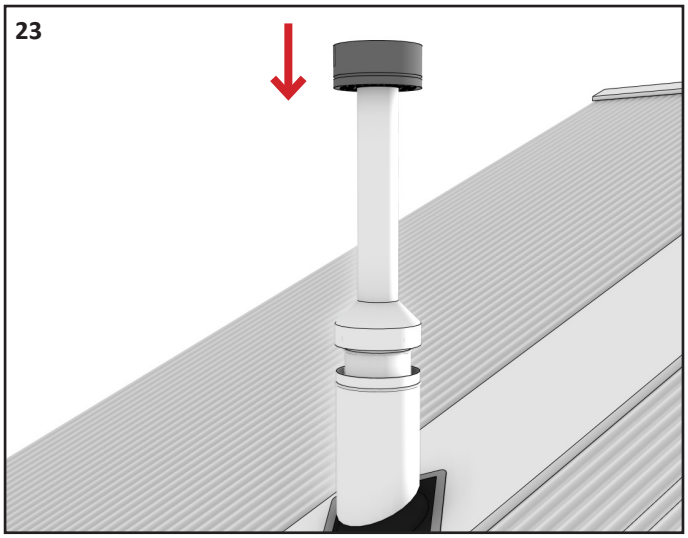
Installing the Designer Flue Shroud involves a few extra steps. Before fitting the cone and cowl, Fit the 250-320mm spider bracket onto the onto the lower 250mm Ø liner.



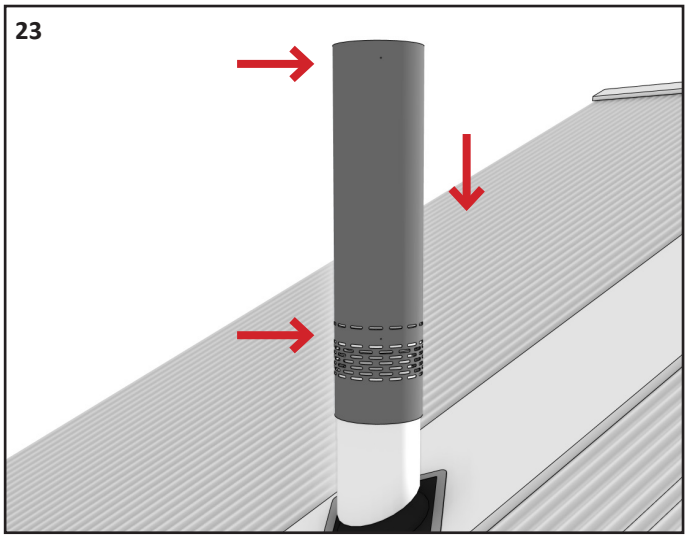
Trim the lower Designer Shroud following the roof pitch. The bottom of the shroud should be 100mm up from the roof surface. Fit the lower Designer Shroud over the flue pipes and rivet to the spider bracket. The top of the Lower Designer Shroud should be 160mm below the triple skin flue.



Slide the cone/casing cover over the 150mm Ø flue until it stops at the spider bracket.



Fit the flue cowl onto the 150mm Ø flue and slide down until it cannot go any further.



Lower the Upper Designer Shroud over the flue cowl and cone. The top of the Designer Shroud MUST line up with the top of the cowl. Screw fix to the cowl and cone.

D OPERATION INFORMATION

D1. FIRST LIGHTING

To ensure the best performance and long-term care of your wood fireplace, always use dry, well-seasoned softwood with a moisture content below 20%. Using damp wood can lead to poor combustion, excess smoke, and potential damage to the fireplace.
Your first few fires are an important part of the conditioning process. Start with a small fire using kindling and a couple of small logs. Gradually increase the size of the fire over two to three burns, moving from small logs to medium and then full-sized logs. This gradual approach allows internal moisture to evaporate, helps the high-temperature paint cure correctly, and prevents sudden temperature changes that could stress the firebox.
During these initial burns, you may notice condensation inside the firebox and a slight odour from the curing paint—both are normal and temporary. For comfort and safety, keep the room well-ventilated during this period to disperse any fumes.

D2. RECOMMENDED LIGHTING METHOD

Once the initial conditioning burns are complete, the fireplace is ready for regular use. Escea recommends the top-down lighting method, as it provides a slower, more controlled ignition and results in a cleaner, more environmentally responsible burn. Fuel loading should be done front to back. The fireplace is designed to light and operate without the door open.

Warning: Never use accelerants such as petrol or methylated spirits to light the appliance.

D3. FIREWOOD LOAD DETAILS (TFS650 MK2 AND TFS850 ONLY)

Seasoned firewood consisting of pieces 275mm to 325mm in length should be used.

Kindling with Intermediate Load 1

Load Start

TFS650 *(example above)*
Kindling: 20 pieces - 1.5kg in total.
Inter. Load 1: 4 pieces - 1.5kg in total.
TFS850
Kindling: 20 pieces - 1.5kg in total.
Inter. Load 1: 7 pieces - 2.0kg in total.

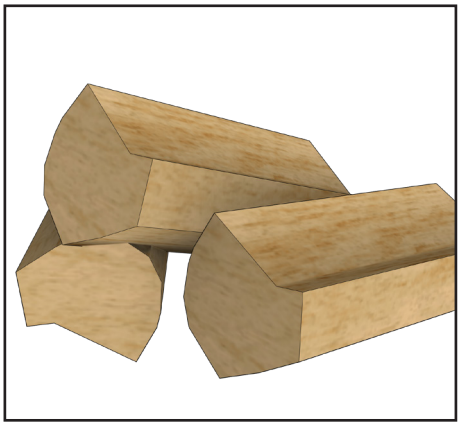
Intermediate Load 2

Ember base evident with minimal flame, approx. 50 mins.

TFS650 *(example above)*
Inter. Load 2: 4 pieces - 3.0kg in total.
TFS850
Inter. Load 2: 5 pieces - 3.5kg in total.

Main Load 2

Ember base evident with minimal flame, approx. every 65 mins.



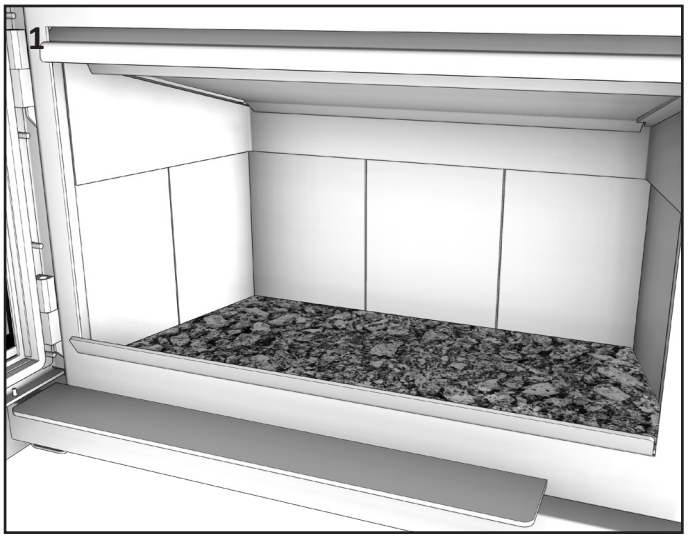
TFS650 *(example above)*
Main Load: 3 pieces - 4.0kg in total.
TFS850
Main Load: 6 pieces - 6.9kg in total.

D4. RE-LOADING PROCEDURE

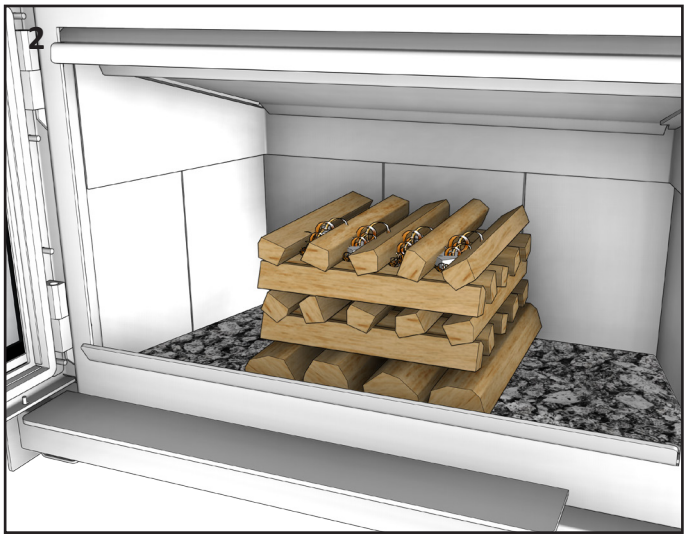
Let the fire burn down to a solid ember base with minimal flame. Before reloading, return the air control to high (far right), wait a moment and then open the door slowly. Reload immediately and close the door promptly. Once the new fuel is burning well, adjust the air control for your preferred heat level. *Note: This method ensures efficient combustion.*

Load firewood front to back to encourage a cleaner, more stable burn. Do not force the door closed—ensure logs are not obstructing the door or touching the glass. This process reduces the risk of smoke spillage due to pressure changes or external environmental effects.

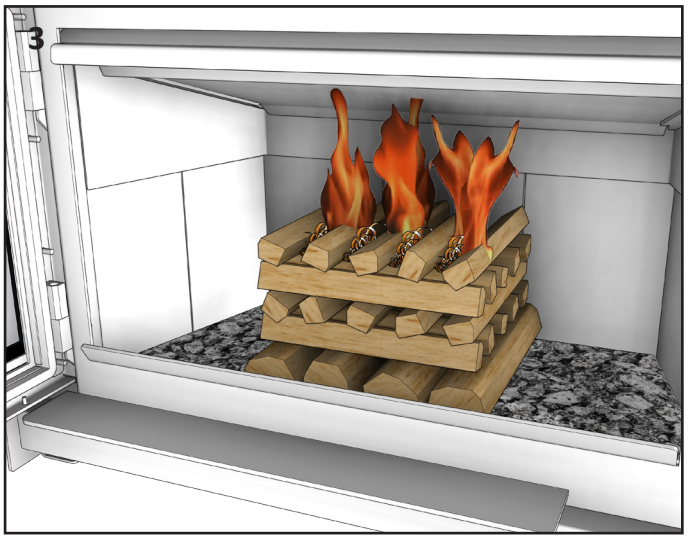
D5. TOP-DOWN LIGHTING METHOD *(APPLICABLE FOR ALL ESCEA INDOOR WOOD FIRES)*



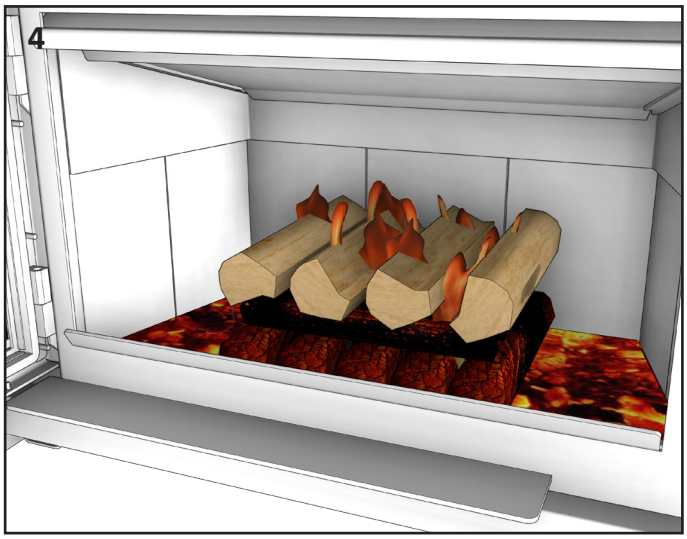
Ash Bed Preparation: *Ensure a layer of ash is present at the base of the firebox—approximately 25mm. When cleaning, always retain a residual ash bed to assist with ignition and thermal stability.*



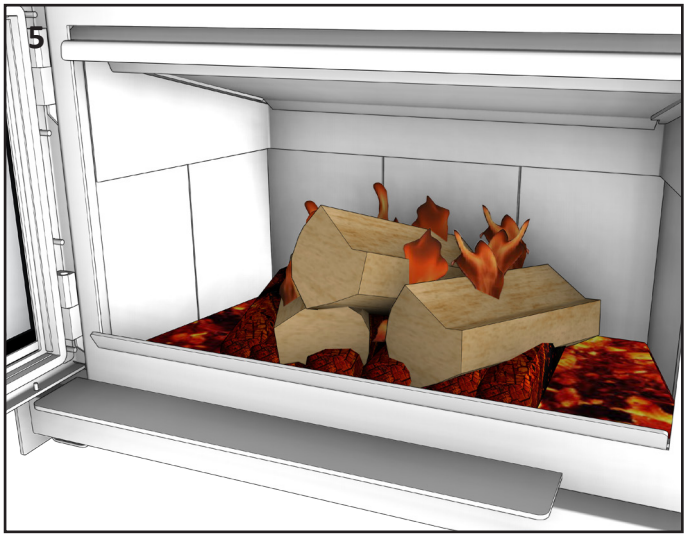
Log and Kindling Placement: *Place four medium-sized logs directly onto the ash bed. On top of these, lay a generous amount of kindling in a criss-cross pattern, with 25mm air gaps between to aid airflow.*



Fire-Lighters and Ignition: *Insert approximately four fire-lighters between the top layer of kindling. Ensure the air control is fully open (lever hard right). Ignite the fire-lighters and close the door immediately.*



Establish Ember Bed: *Allow the kindling and base logs to fully ignite and burn down to a hot ember bed with a small visible flame. Avoid opening the door and reloading while smoke is present and/or the fire is burning rapidly.*



Select three large logs as your main fuel load. With the air control set to high, open the door briefly, load the logs, and close the door promptly.

Temperature Management: *Once the fire is well-established and operating at optimal temperature, adjust the air control slider to suit your desired heat output.*

D6. FIREPLACE OPERATION

Over-firing occurs when the appliance is run excessively hot, resulting in elevated flue temperatures. This can cause premature wear or damage to internal components, increased emissions, and inefficient fuel consumption. To avoid over-firing:

- Do not burn excessive amounts of small, dry timber offcuts or framing timber.
- Avoid overloading the firebox—do not exceed 50% of its height with fuel.
- Use only well-seasoned firewood within the recommended moisture range.
- Do not operate the appliance with the door open or ajar. Doing so introduces excess air, which may lead to overheating and interfere with flue draft characteristics.

Operating with the door open can also compromise the Direct Vent system performance and increase the risk of flue gases entering the living space.

D7. PERFORMANCE ISSUES

Performance issues such as insufficient heat, excess smoke, or incomplete combustion can result from:

- Poor fuel quality (e.g., wet, unseasoned, or incorrect wood type).
- Improper operation or not following recommended burn procedures.
- Suboptimal installation or flue design.
- Unsealed flue spigot joint or joint leaks.
- Environmental factors such as down-drafts or negative pressure zones.

Smoke spillage can occur due to:

- Ventilation conflicts from extraction fans, rangehoods, or mechanical ventilation systems.
- Opening the door while the fire is vigorously burning—this can cause flames to surge forward, pushing smoke into the room.
- Negative pressure in the room drawing air down the flue.
- Environmental issues and site location, such as trees and hills.

These issues may lead to creosote build-up, blackened door glass, and a loss of heating efficiency. Operating a poorly performing fireplace may lead to excessive creosote accumulation and increase the risk of flue fires. If performance problems persist, refer to **Section E Service and Maintenance Information,** in this manual.

E SERVICE AND MAINTENANCE INFORMATION

E1. TROUBLESHOOTING

FAULT	CAUSE	SOLUTION
Black Glass	Inadequate or green/wet fuel.	Clean using damp newspaper dabbed in cold ash. This gently removes blackening or light residue from the inside surface. Addressing these factors will also significantly improve burn quality and reduce maintenance needs.
	Operating on low setting too early.	
	Overloading the fire with fuel on low settings.	
	Incorrect fuel orientation (e.g., side-to-side loading).	
	Worn door rope.	Contact escea.com for assistance.
	Leaking glass sealing tape.	Contact escea.com for assistance.
Black Glass at Start-up	Some blackening during start-up is normal when the fireplace and components are cold.	Once operating temperature is reached, this should clear. If not, it could indicate incomplete combustion/Low Heat (see below).
White Glass	Frosting or permanent stains can result from repeated very hot burns.	Regularly clean glass to avoid frosting.
		If visibility is severely impacted, glass replacement may be required. Contact escea.com for assistance.
Cracked Bricks	Repeated throwing of bricks into the firebox which hit the bricks.	Avoid throwing logs into the firebox to prevent cracking or dislodging.
	Hairline cracks are cosmetic and normal. If bricks maintain position and structure, performance is not affected.	
Noise	General ticking is a normal part of the wood fire heating and cooling process.	Nothing requires attention.
	Loud bangs are not normal.	Contact escea.com for assistance.
	In high wind zones, external wind noise around the flue system may occur.	While generally unavoidable, correct installation and flue termination height can help mitigate this.
Smell	First few burns assist in paint curing, which can cause a smell.	Open windows to release smell. Refer to Section D1 for further information.
	Persistent smells can be caused by using treated wood or chemicals used on the fireplace.	Use dry, untreated, seasoned wood that has a moisture content between 16-20%.
Smoke Spillage	Environmental effects.	High winds and internal/external pressure differentials between indoor and outdoor can increase smoke spillage when the door is opened.
	Over-fuelling.	Too much fuel when the fire is very low will cause a smouldering fire to develop. Close the door.
	Opening the door at incorrect times.	Only reload the fireplace when the ember bed has died down with no visible smoke.

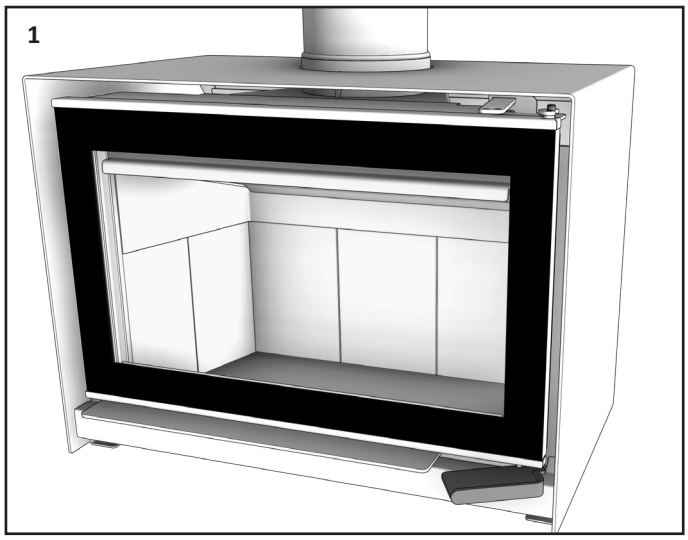
FAULT	CAUSE	SOLUTION
Incomplete Combustion/Low Heat	Inadequate or green/wet fuel.	Use dry, untreated, seasoned wood that has a moisture content between 16-20%.
	Possible blocked Direct Vent flue.	Have the flue cleaned and checked by a wood fire service technician or chimney sweep.
	Low fuel supply.	Ensure an adequate load to keep a hot fire sustained. If the firebox temperature drops the fire will burn poorly.
	Door and glass seals may wear out causing excess air supply and an increased combustion rate.	Contact escea.com for assistance.
Poor Seal	Maintaining a tight door seal is essential for proper combustion.	Ensure consistent, even contact around the door frame when closed. Replace door rope if required. Contact escea.com for assistance.
	Door may move from high heat.	Realign door by following the adjustment process in Section E6.
Door Catching	Door handle can drop over time due to the high levels of heat generated from the fireplace.	See Section E8 for adjustment.
Door Not Latching	Doors can move over time due to the high levels of heat generated from the fireplace.	See Section E7 for adjustment.
Damaged Paint	Persistent knocks to surfaces	Damaged paintwork can be touched up using Senotherm Black spray paint, available through Escea retailers.
	Green, treated or wet fuel.	Use dry, untreated, seasoned wood that has a moisture content between 16-20%.
	Chemical cleaning agents used to clean surfaces.	Use only a dry lint-free cloth or a lightly damp cloth to clean surfaces. Damaged paintwork can be touched up using Senotherm Black spray paint, available through Escea retailers.

E2. GENERAL SERVICING

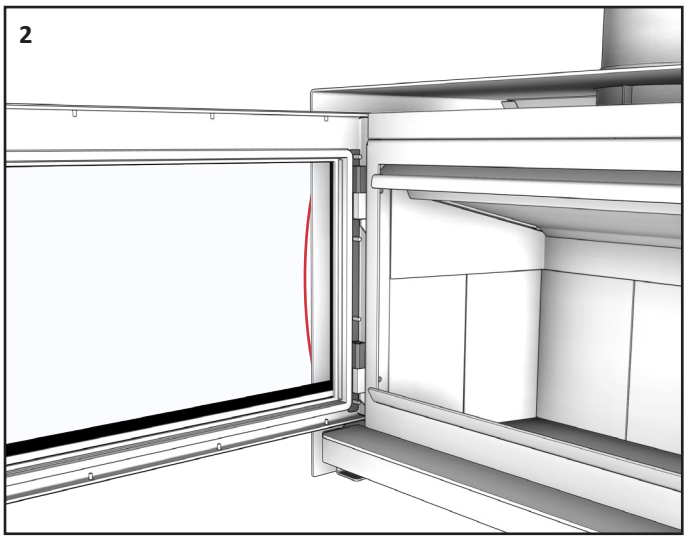
To ensure optimal performance and longevity of your Escea Wood Fireplace, maintenance is essential. This includes an annual service, ideally conducted by an Escea Authorised Agent, and more frequent checks depending on how heavily the appliance is used. Regular and annual inspections should cover:

- **Care of Painted Surfaces:** Wipe down regularly with a dry lint-free cloth. Avoid cleaning the appliance while it's hot.
- **Check and Clean the Glass:** Regular maintenance of the glass improves viewing and prolongs the glass life. Never clean the glass while it is hot, as this may lead to cracking or permanent damage.
- **Ash Build-Up:** Remove accumulated ash regularly, but leave at least 20mm of ash bed at all times.
- **Bricks:** Inspect the condition of refractory bricks, annually.
- **Baffle System:** Confirming the integrity and placement of the baffle system. Inspect the baffle position and condition periodically. Ensure it is seated correctly on the side supports and positioned flat against the rear air inlet at the back of the firebox. Any misalignment may affect airflow and efficiency.
- **Check Door Rope and Door Seal:** Check the door seal annually, by visual inspection or by placing a piece of paper between the front of the firebox and door seal, then close the door as normal. The paper should stay in place but be removed with light pulling.
- **Flue Cleaning:** Have the flue cleaned and checked annually by a wood fire service technician or chimney sweep, or more regular if the fireplace is used often.

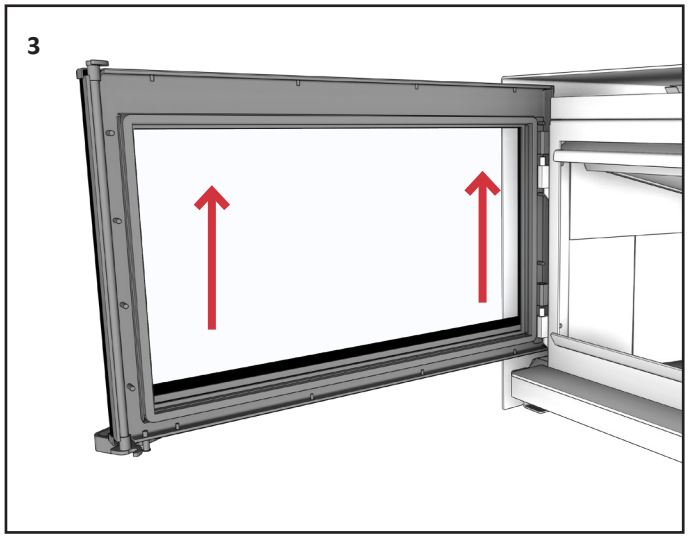
E3. DOOR REMOVAL



Rotate handle away from the centre of the fireplace.



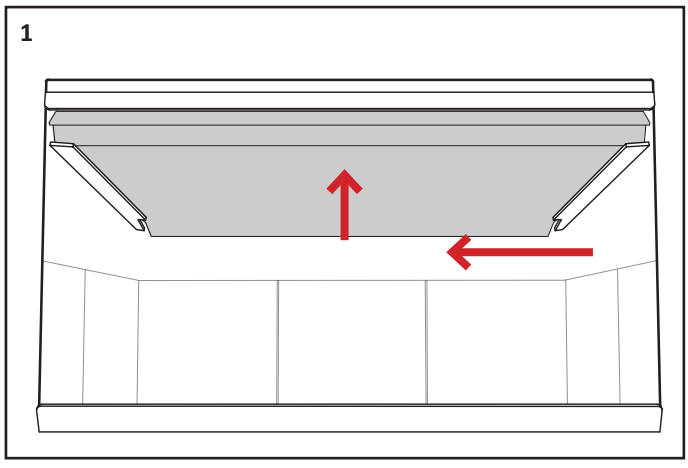
Swing door open to approx. 90°.



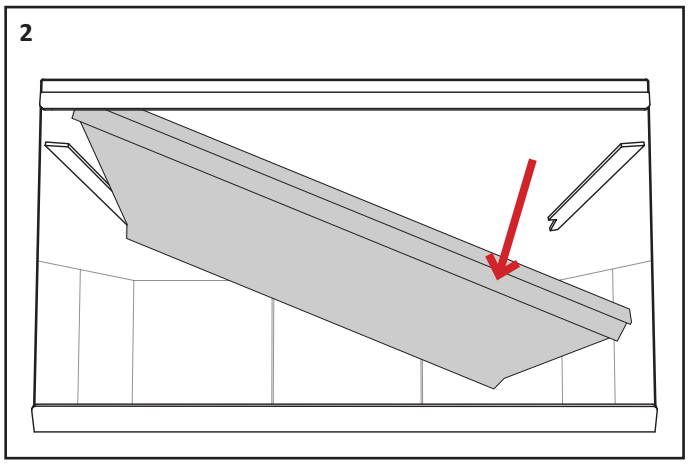
With two hands, lift door up off the hinge pins and set carefully aside.

E4. BAFFLE REMOVAL

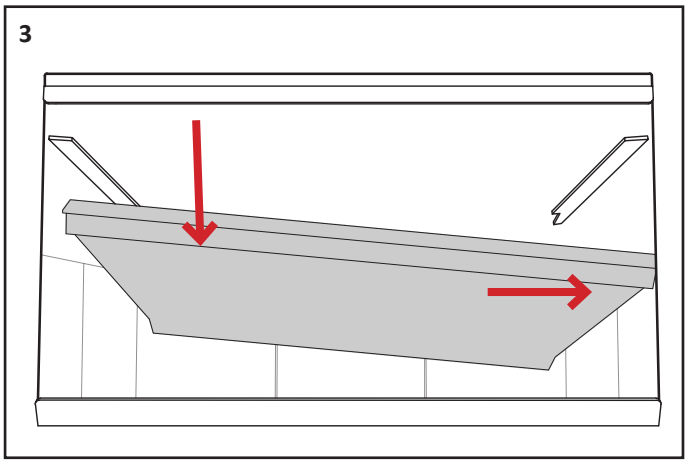
To remove the baffle:



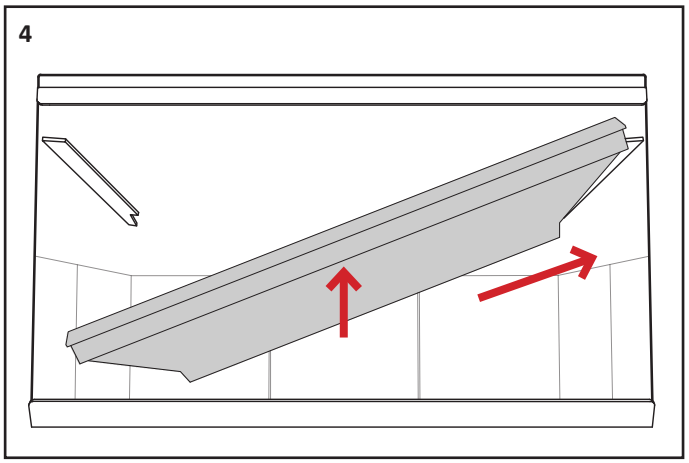
Pull the baffle forward and then slide left.



Lower the right side down.



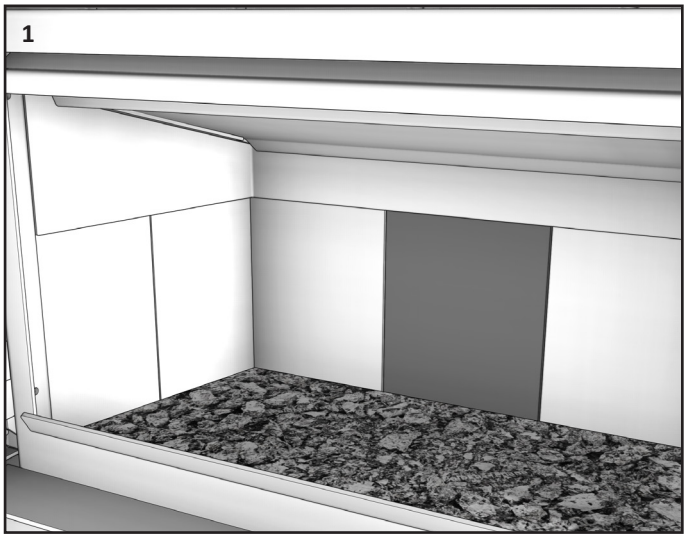
Shift right, lower the left side.



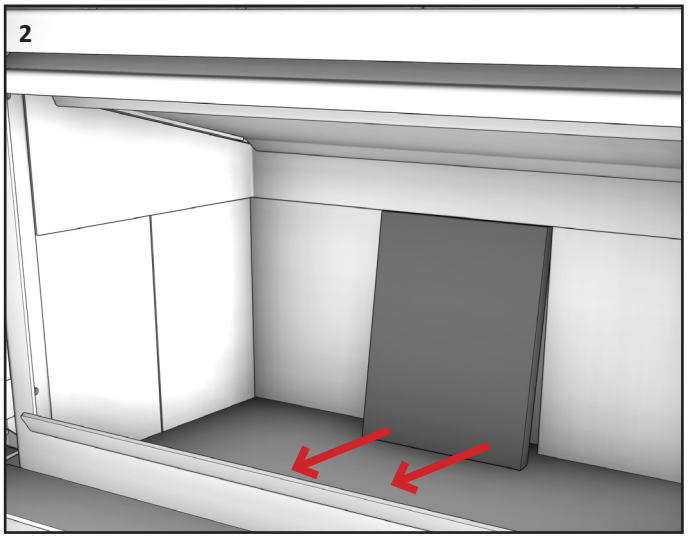
While lowering the left side, raise the right side and pull towards you to remove. Reverse this process to reinstall, confirming the baffle is seated flat against the rear wall and on the side supports.

E5. BRICK REMOVAL

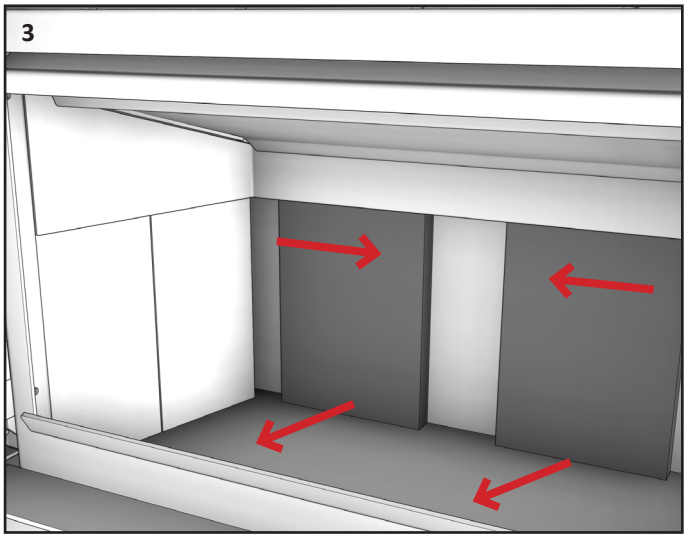
To remove the refractory bricks:



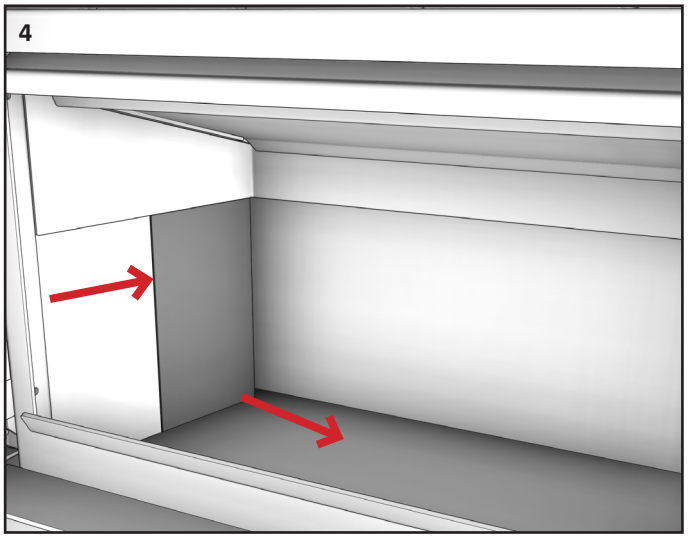
Remove all ashes from the firebox.



Start with the centre rear brick, lifting slightly and pull forward.



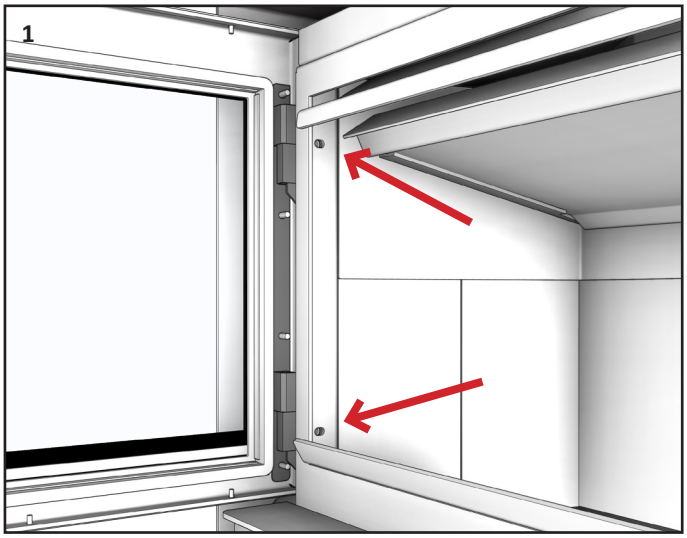
Remove the remaining rear bricks, followed by the rear side bricks.



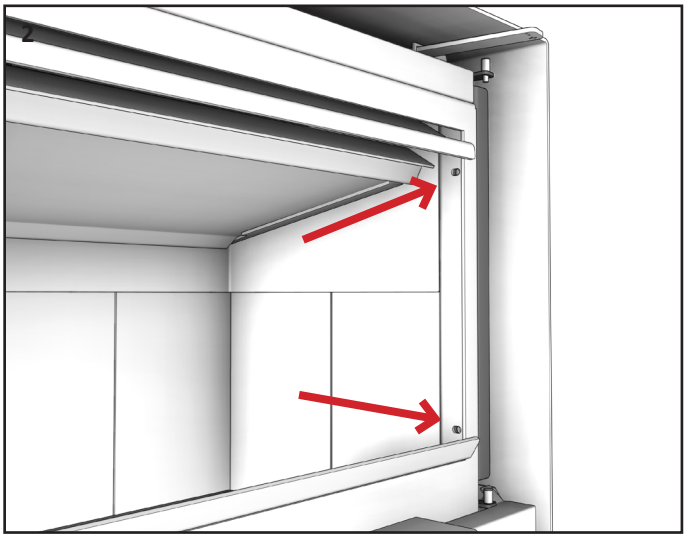
Slide the remaining front side bricks to the rear, and remove. Reverse the process to reinstall.

E6. ADJUSTING THE DOOR COMPRESSION

By loosening the Allen head screws inside the firebox, the hinge mounting plate (left side) or latch plate (right side) can be moved in and out to increase or decrease the door rope compression. Ensure even contact around the door frame when closed.



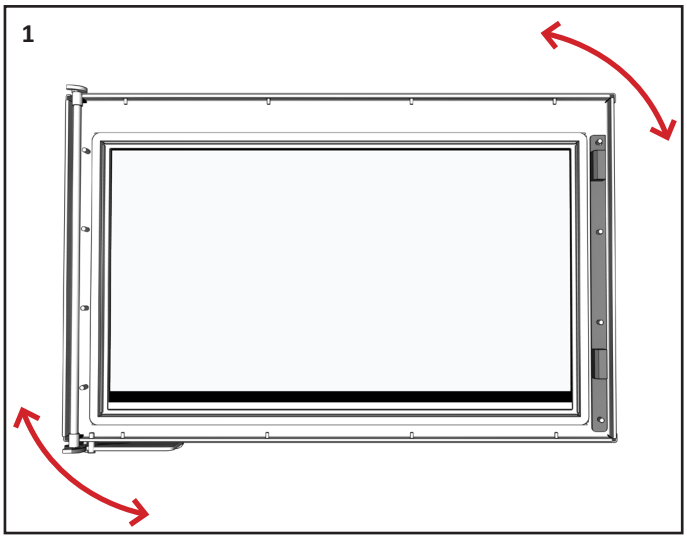
Locate the hinge mounting plate on the left side of the firebox.



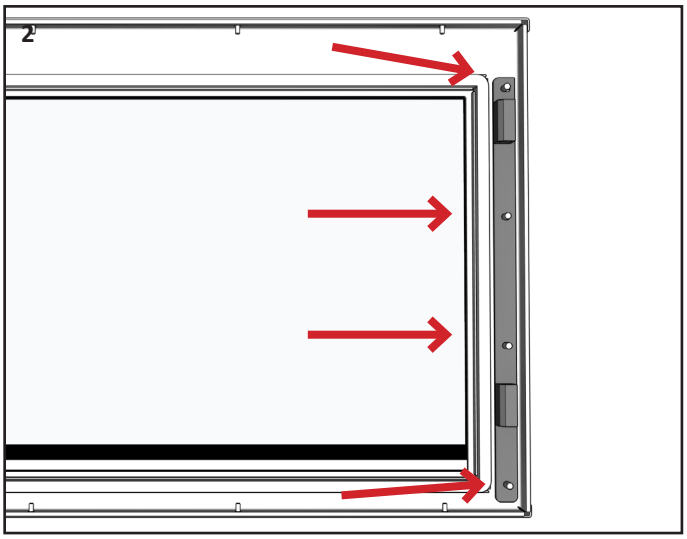
Locate the latch plate on the right side of the firebox.

E7. ADJUSTING FOR DOOR RACKING

Over time the door may move out of square/rack to the firebox. The door hinge plate allows movement to the lift either side of the door up or down.



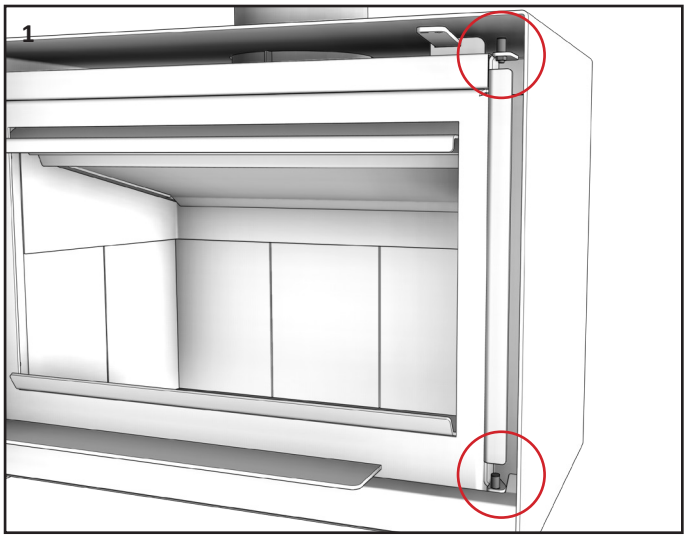
This process will lift the door up or down at each end of the door to stop any racking.



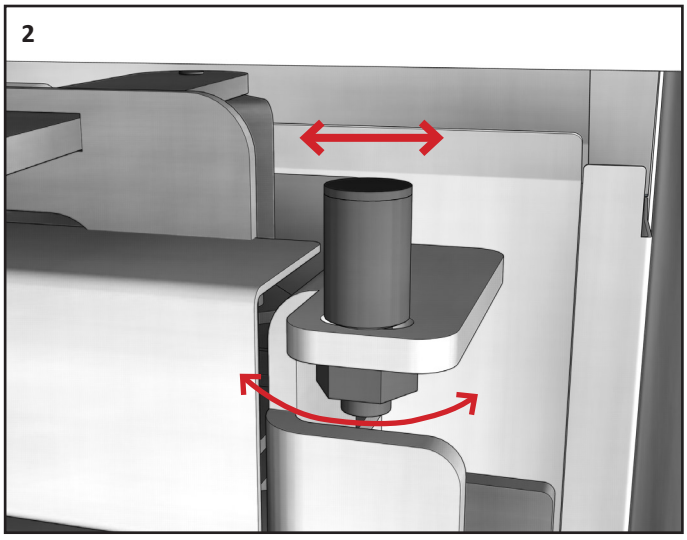
Adjusting the door hinge plate by loosening the 4x M6 nuts, on the inside of the door.

E8. ADJUSTING THE DOOR CATCH ROLLERS

Over time the door handle and latch system may not fully engage. To adjust the upper and lower door latch rollers:



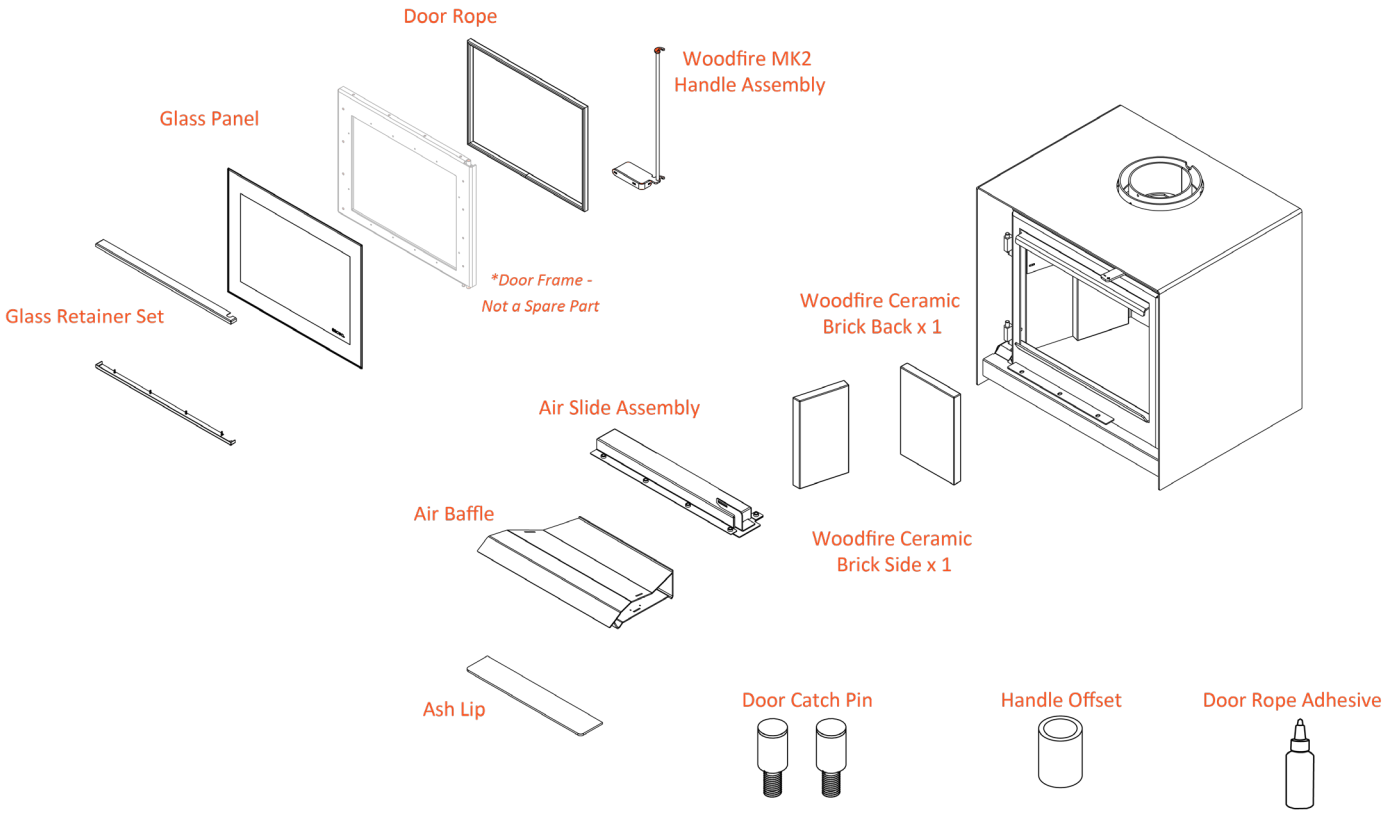
Locate the door latch rollers circled above.



Loosen the nuts under the rollers. Move the roller side to side to achieve correct latch engagement. Re-tighten nuts to secure.

E9. PARTS DIAGRAM

The parts diagram below indicates replaceable parts for the TFS650 MK2, TFS850, TFS1000 MK2, and TC970.



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