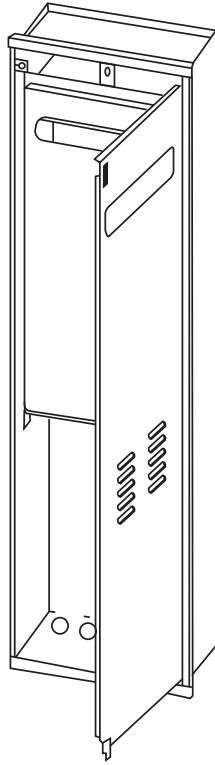


Installation Manual



Suitable for:

- New construction; installation needs to commence during framing, and before internal linings, claddings or building wrap is applied

- The following Rinnai recess boxes and **external** continuous flow gas water heaters:

R1405 Rinnai Infinity VT16-VT26
 Rinnai Infinity XR16-XR26
 Rinnai Infinity V-Series 16-24

R1407 Rinnai Infinity XR32, HD200 and HD250
 Rinnai Infinity EF24

These instructions are a guide only, designed to be used in conjunction with the 'NZ Building Code Approved Document - External Moisture E2'. The recess box installation can be compared to the detail required to install windows correctly.

Territorial authorities may have their own additional requirements regarding this type of installation. If in any doubt over compliance with building codes, it is advisable they are consulted prior to installation.

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Installation instructions

These instructions are intended for the tradesperson(s) installing the recess box and continuous flow water heater. If you are not installing the continuous flow water heater, please make sure you leave these instructions inside the recess box. It is important the gasfitter installing the water heater has access to the information about fitting the unit into the recess box.

All dimensions throughout these instructions are in millimetres.

Before installation:

- Check for damage—DO NOT install any damaged items
- Check all components have been supplied
- Read these instructions to get an overview of the steps required before starting the installation

WARNING

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life.

For assistance or additional information contact Rinnai on 0800 RINNAI (0800 746 624).

About the metal recess box

The Rinnai Metal Recess Box enables a continuous flow gas water heater to be recessed into an external wall, behind a door and out of sight.

The recess box is supplied in white and can be easily customised to complement the house exterior.

Dimensions

- R1405 H-944 mm, W-417 mm, D-205 mm
- R1407 H-944 mm, W-514 mm, D-270 mm

Recess box positioning

Some considerations when installing a metal recess box with an external continuous flow water heater.

Hot water outlets	In most cases it is better to site closer to the kitchen where there is an expectation for instant hot water.
Ensure no obstructions	Ensure no plumbing, electrical wires, timber or other objects are blocking the box inside, or outside the wall cavity.
Accessibility	Make sure the unit is accessible for servicing and maintenance.
Clearance requirements	Ensure the flue outlet will meet the clearance requirements of NZS 5261:2003, 2.6.13. If you do not have access to this document, an extract has been reproduced at the back of these instructions. <ul style="list-style-type: none">• Rinnai Infinity 16-18 (all models) = <150 MJ/h• Rinnai Infinity EF24 = 162 MJ/h• Rinnai Infinity 20-26 (all models) = 150-200 MJ/h• Rinnai Infinity HD200 = 199 MJ/h• Rinnai Infinity XR32 and HD250 = 250 MJ/h

Kit components

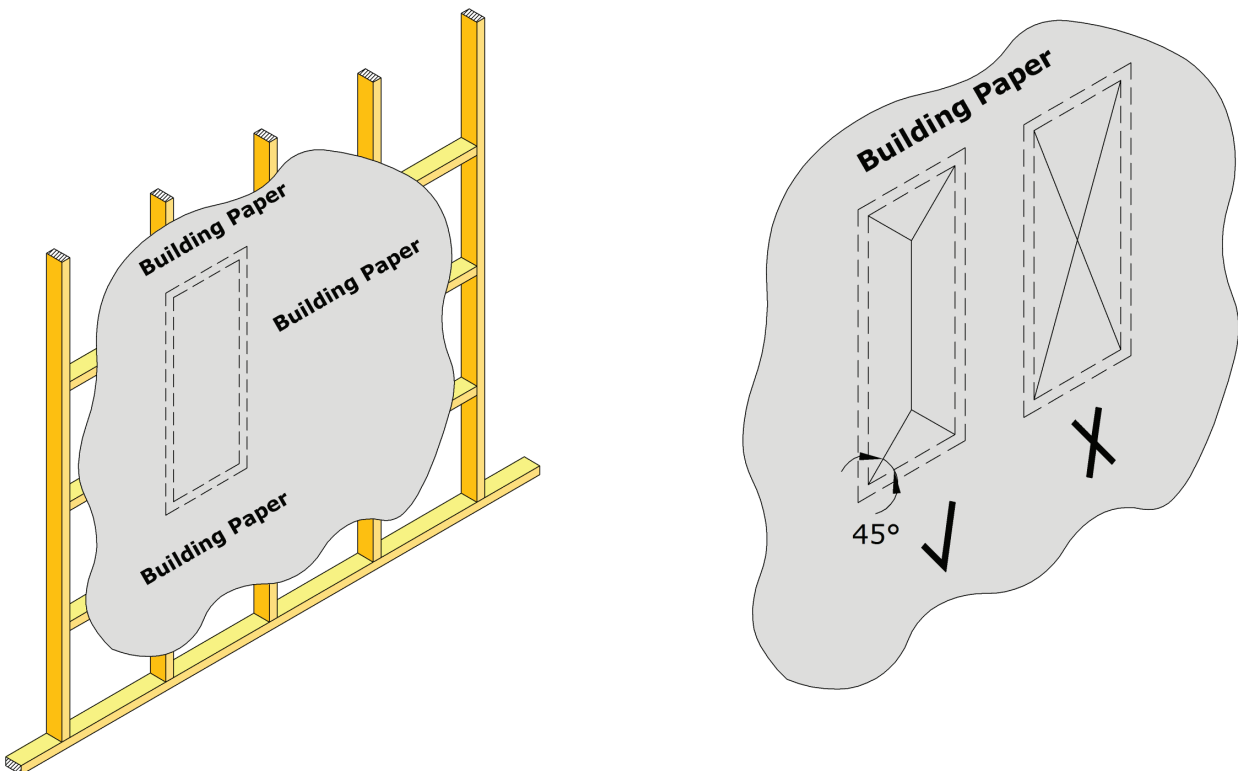
Check that you have the correct recess box components for the unit you are installing. Refer front cover for recess box part numbers and corresponding Rinnai continuous flow gas water heaters.

The Rinnai recess box is for EXTERNAL Rinnai continuous flow gas water heaters only.

A check sheet is supplied with each recess box. Ensure you have all the components before starting the installation.

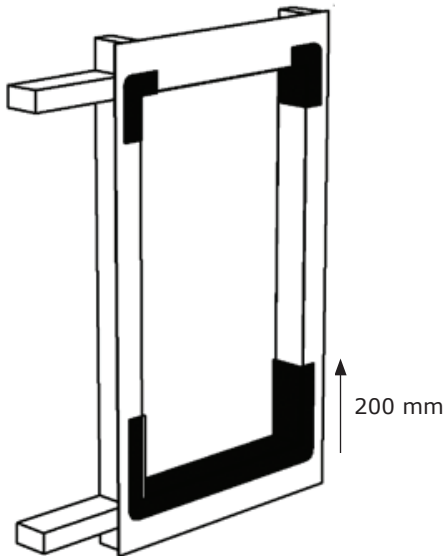
Framing protection

Wrap building paper around framing and staple into place. Noggin height will be the same for both recess box models—955 mm.



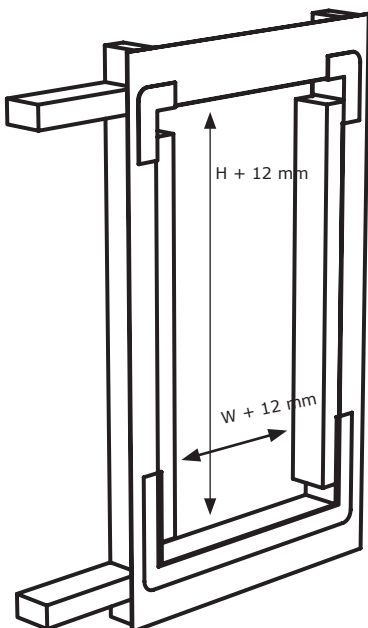
Flashing tape

Apply suitable sill flashing tape at base and top corners of framing. Allow tape to extend 200 mm up and along the sides to eliminate exposed framing.



Use suitable packing each side of the hole depending on size of recess box.

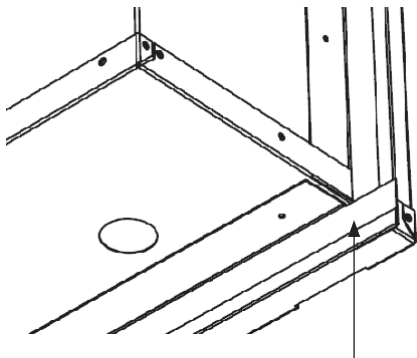
Recess Box	W (mm)	H (mm)	D (mm)
R1405	417	944	205
R1407	514	944	270



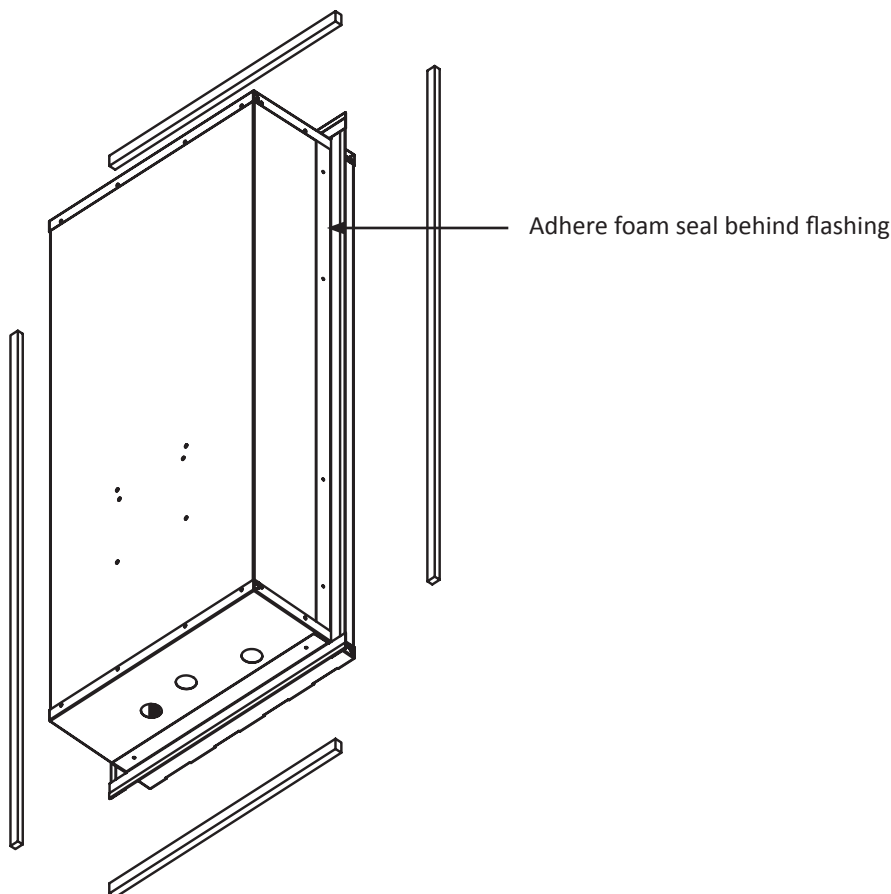
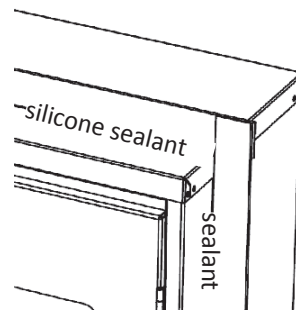
Weather seal fixing

Position, drill and rivet flashings around perimeter of box depending on recess depth. Recessed depth of cavity from cladding to drywall will be reduced by backing material that must be installed behind the rear wall of the recess box.

Follow the fixation of the flashing, apply a suitable silicon seal from the front and between the flashing and the box.



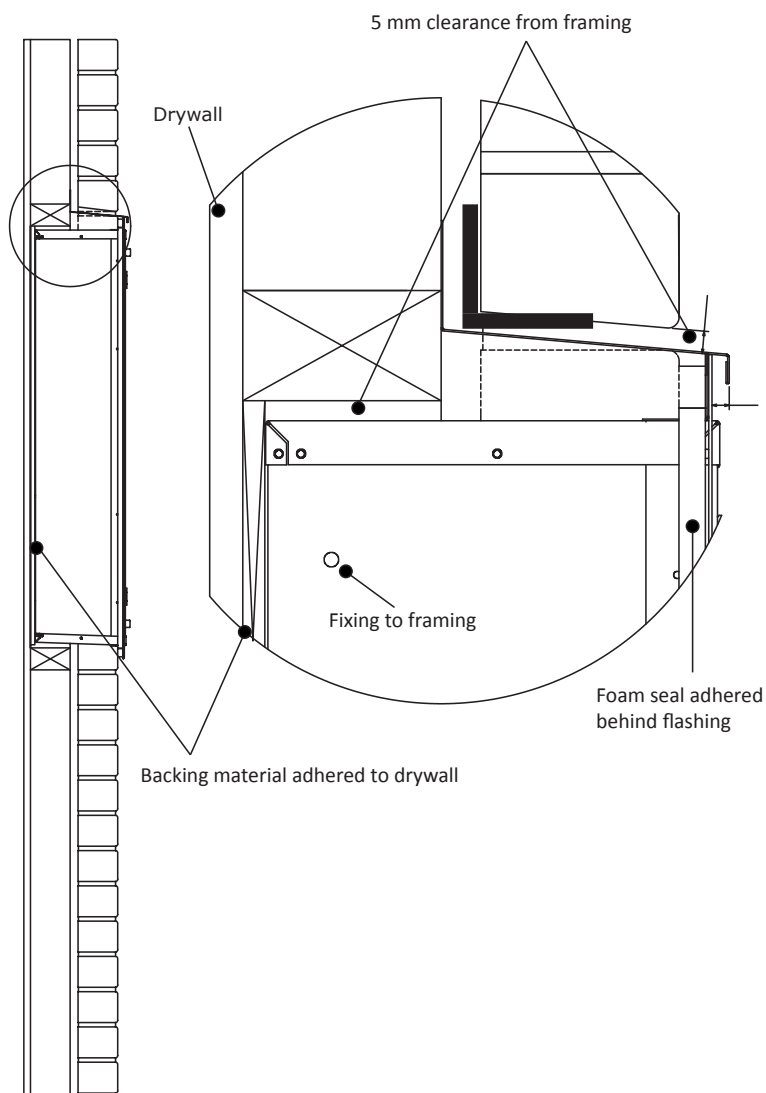
Bottom and top flashing is positioned
BEHIND the side flashing



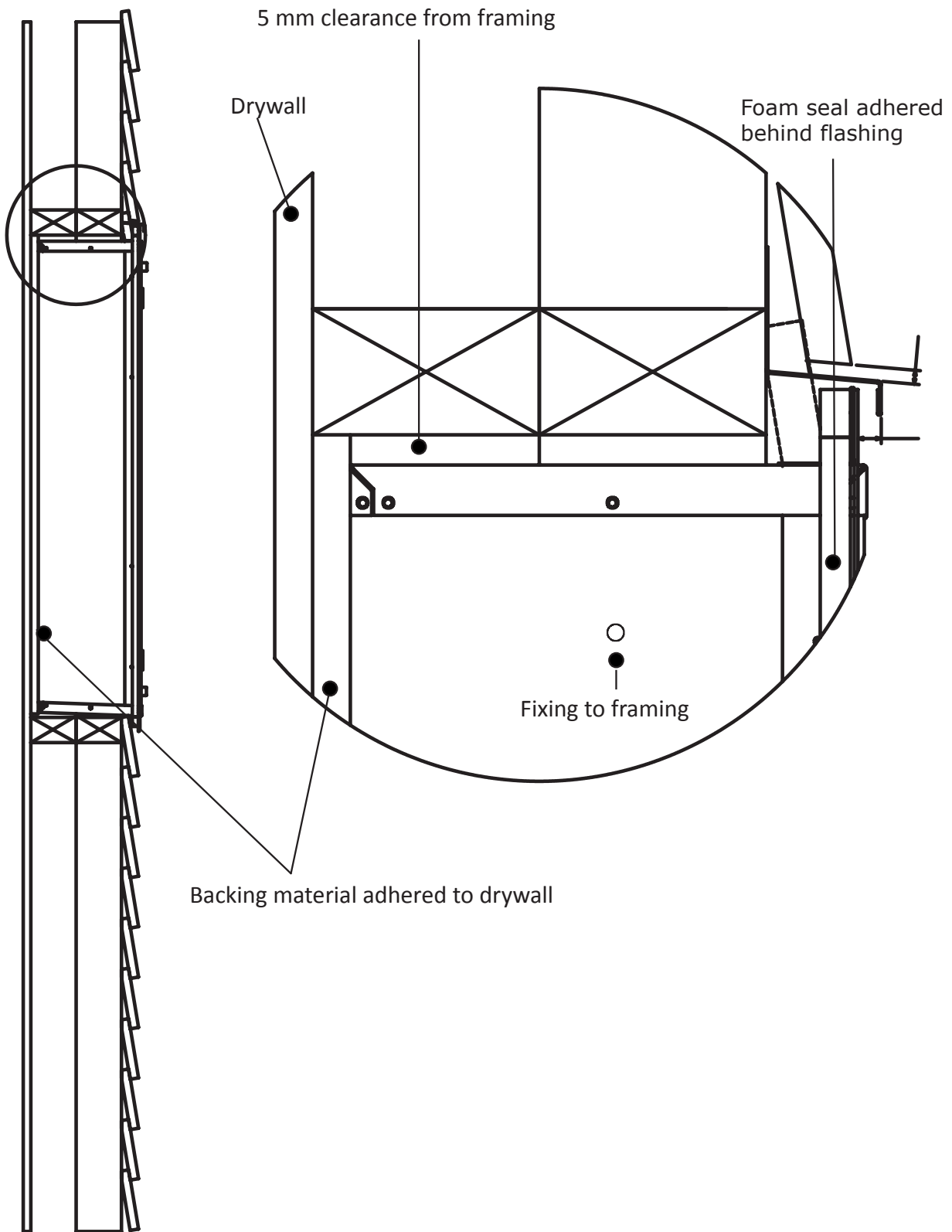
Fully recessed: Brick cladding

For all installations regardless of cladding, ensure:

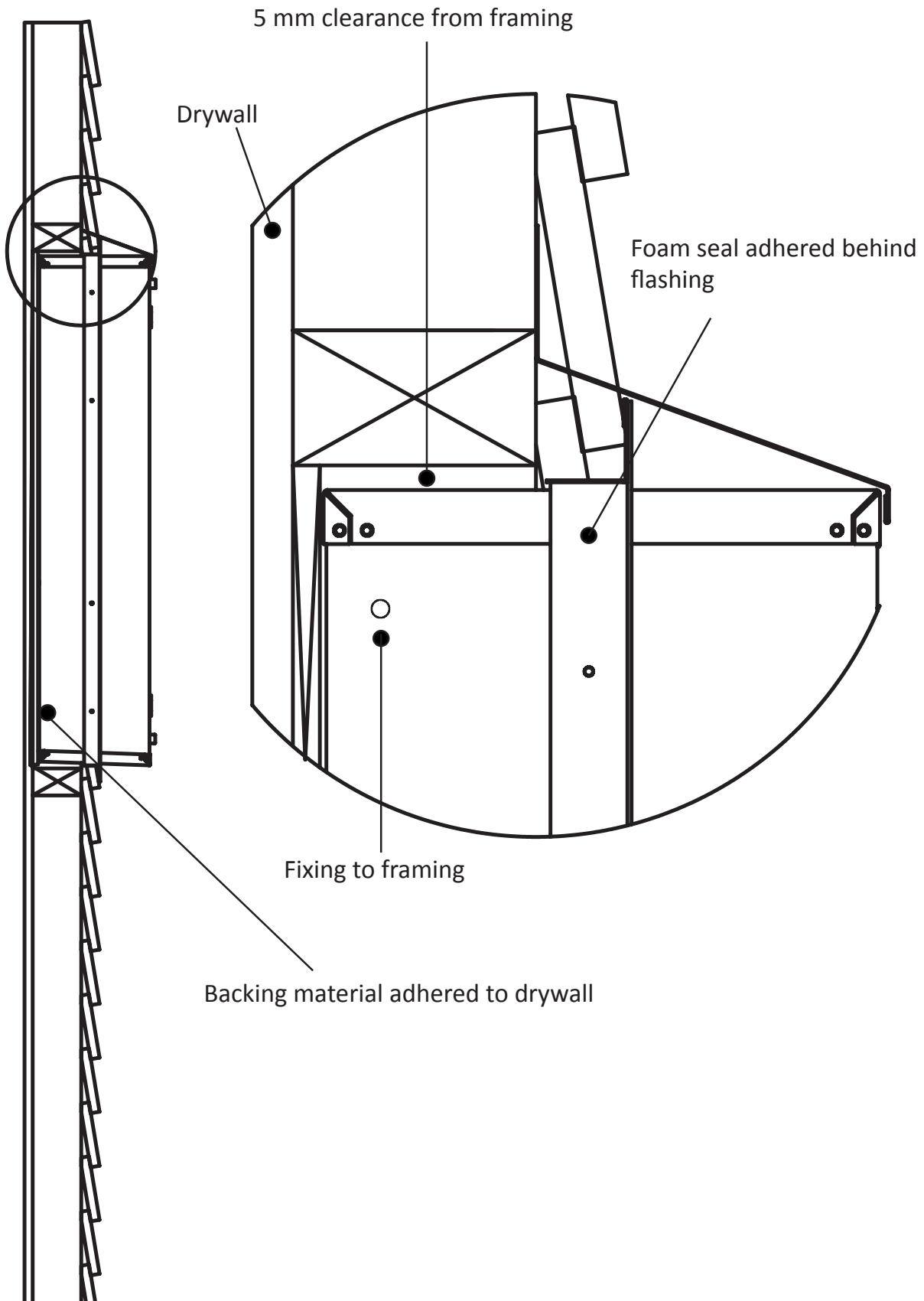
- A 5 mm clearance from all framing and cladding
- All framing is protected with building wrap/paper and sill flashing tape
- Large head flashing is used with brick cladding
- Small head flashing is used with weatherboard cladding
- Backing material is positioned between the rear of the recess box and drywall (often building inspectors need to view this prior to fixing the box into the cavity)
- Flashing is firmly pushed against the cladding compressing the foam seal
- Recess box is fixed by screwing the sides to the framing



Fully recessed: Weatherboard cladding



Semi recessed: Weatherboard cladding



Water heater installation



The Rinnai water heater model and serial numbers must be copied legibly from the data plate (left hand side of the appliance) to the sticker on the inside of the recess box cover before fitting the water heater. These numbers are required for servicing, troubleshooting (warranty claims), and parts supply.

Recess Box R1405

1. Attach the top mounting bracket to the water heater using the screws provided.
2. Lift the water heater into the box, align the screw on the internal bracket with the keyhole on the top mounting bracket and tighten.
3. After the water heater is positioned, level and screw bottom bracket to the back of the box using the screws provided.

Recess Box R1407: Rinnai Infinity XR32, HD200 and HD250

1. Fit the keyhole hanger bracket to the top of the water heater.



2. Mount the unit as shown and fit fasteners supplied to the lower bracket.



Water heater installation

Recess Box R1407: Rinnai Infinity EF24

1. Remove the lower top hat bracket and discard.



2. Bend the XR32/HD200/HD250 mounting bracket out of the way.



3. Slide the Rinnai Infinity EF24 top mounting bracket under the recess box top retainer.



4. Lower the Rinnai Infinity EF24 lower mounting bracket keyhole over the centre screw. Fit additional retaining screws as shown.



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Appendix: Flue Terminals

The following 'Flue Terminals' information has been reproduced from NZS 5261:2003. It has been provided for ease of reference for those that do not have access to this document.

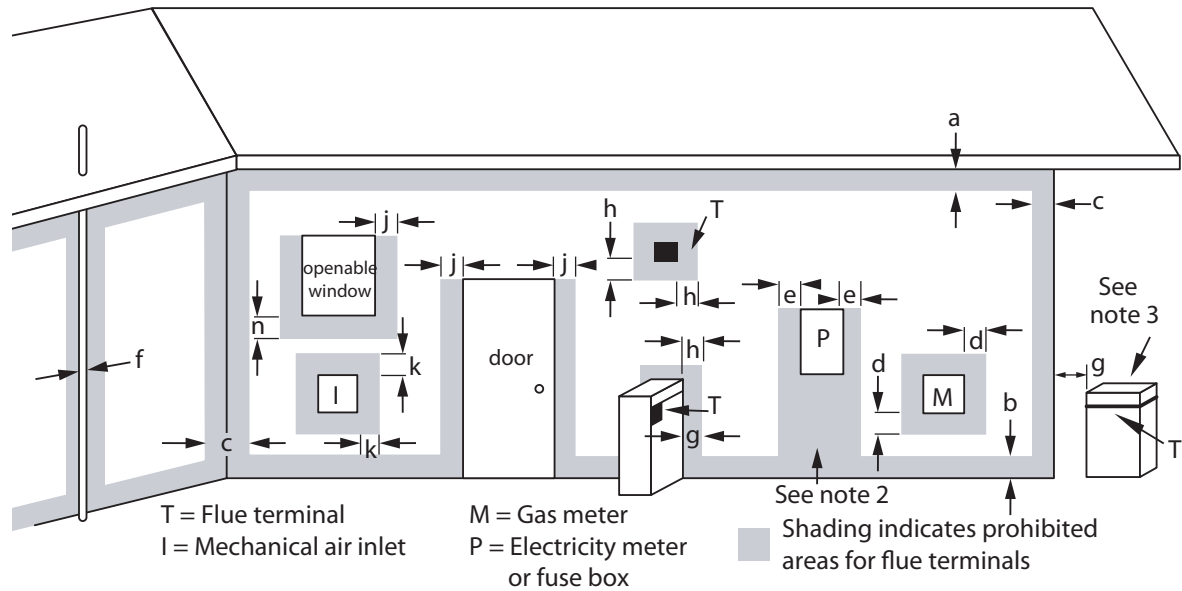


Figure 3 - Minimum clearances required for balanced flue terminals, fan-assisted flue terminals, room-sealed gas appliance terminals or the terminals of outdoor gas appliances

Appendix: Flue Terminals

Table 16 - Minimum clearances required for flue terminals shown in figure 3

Ref.	Item	Minimum clearances (mm)	
		Natural draught	Fan assisted
a	Below eaves, balconies and other projections: Gas appliances up to 50 MJ/h Gas appliances over 50 MJ/h	300 500	200 300
b	From the ground, above a balcony or other surface (see Note 6)	300	300
c	From a return wall or external corner	500	300
d	From a gas meter (M) see 2.5.4.9 for vent terminal location of regulator)	1000	1000
e	From an electricity meter or fuse box (P)	500	500
f	From a drain pipe or soil pipe	150	75
g	Horizontally from any building structure (see Note 6) or obstruction facing a terminal	500	500
h	From any other flue terminal, cowl, or combustion air intake (see Note 6)	500	300
j	Horizontally from an openable window, door, non-mechanical air inlet, or any other opening into a building with the exception of sub-floor ventilation: Gas appliances up to 150 MJ/h input Gas appliances over 150 MJ/h input up to 200 MJ/h Gas appliances over 200 MJ/h All fan-assisted flue gas appliances, in the direction of the discharge	500 1500 1500	300 300 500 1500
k	From a mechanical air inlet, including a spa blower	1500	1000
n	Vertically below an openable window, non-mechanical air inlet, or any other opening into a building with the exception of sub-floor ventilation: Space heaters up to 50 MJ/h Other gas appliances up to 50 MJ/h Gas appliances over 50 MJ/h input and up to 150 MJ/h Gas appliances over 150 MJ/h	150 500 1000 1500	150 500 1000 1500
<p>NOTE -</p> <p>(1) All distances are measured to the nearest part of the flue terminal.</p> <p>(2) Prohibited area below electricity meter or fuse box extends to ground level.</p> <p>(3) See 2.6.13.3 for restrictions on a flue terminal under a covered area.</p> <p>(4) See Appendix G LPG Cylinder Locations, figure G2 and figure G3, for clearances required for a flue terminal to an LPG cylinder. A flue terminal is considered to be a source of ignition.</p> <p>(5) For gas appliances not addressed above, the design shall be certified by a suitably qualified engineer.</p> <p>(6) Some gas appliances may be suitable for closer installation; refer to the manufacturer's instructions.</p>			

The above table has been updated following NZS 5261:2003 Amendment No.1 issued in May 2005 for reduced clearances for fan assisted appliances - Ref. j.

Rinnai

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All Rinnai appliances meet or exceed the safety standards required by New Zealand gas and electrical regulations.

Rinnai is constantly improving its products and as such information and specifications are subject to change or variation without notice.